Tractors 6090M, 6100M, 6110M, and 6120M (WB2400) (MY20-)

(Serial No. 4-cylinder engines 4045U -)

JOHN DEERE

OPERATOR'S MANUAL

Tractors 6090M, 6100M, 6110M, and 6120M (WB2400) (MY20-)

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Introduction

Foreword

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. See www.techpubs.deere.com (Ag&Turf/JDPS), www.johndeeretechinfo.com (C&F), or your John Deere dealer to order.

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction of forward travel.

WRITE PRODUCT IDENTIFICATION NUMBERS (PIN) in the Specification or Machine Numbers section. Accurately record all the numbers to help in tracing the machine should it be stolen. PIN information is helpful when ordering parts. File the identification numbers in a secure place off the machine.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received at time of purchase.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

If you are not the original owner of this machine, it is in your interest to contact your local John Deere dealer to inform them of this unit's serial number. This will help John Deere notify you of any issues or product improvements.

DX,IFC1-19-03APR09

Required Emission-Related Information

Service Provider

A repair shop or person of the owner's choosing may maintain, replace, or repair emission control devices and systems with original or equivalent replacement parts. However, warranty, recall, and all other services paid for by John Deere must be performed at an authorized John Deere service center.

DX,EMISSIONS,REQINFO-19-08DEC23

Emissions Performance and Tampering

Operation and Maintenance

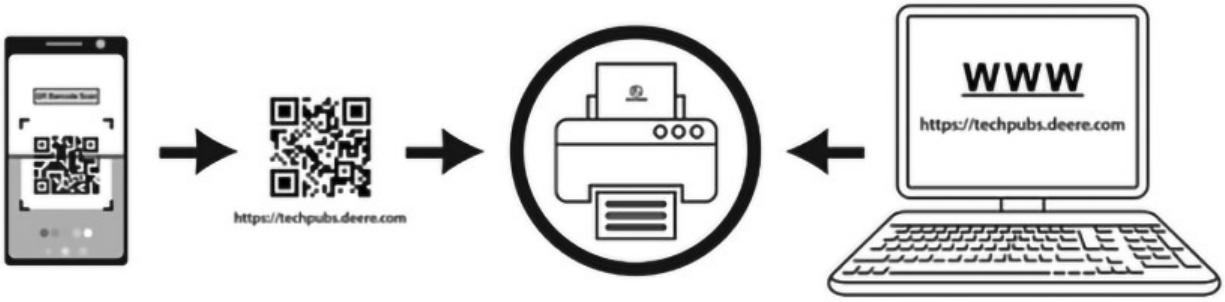
The engine, including the emissions control system, shall be operated, used, and maintained in accordance with the instructions provided in this manual to maintain the emissions performance of the engine within the requirements applicable to the engine's category/certification.

Tampering

No deliberate tampering with or misuse of the engine emissions control system shall take place; in particular with regard to deactivating or not maintaining an exhaust gas recirculation (EGR) or a DEF dosing system. Tampering with an engine’s emissions control system will void the European Union (EU) type approval and applicable emissions-related warranties.

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Glossary

	O	Medium speed
	++	Fastest speed
Revolutions per Minute	rpm	Abbreviation
Air-Conditioning System	A/C	System used for conditioning the air in the operator's cab
Alternating Current	AC	Electrical current that reverses its direction at regularly recurring intervals
Accessories	ACC	Secondary electrical system
Armrest Control Unit	ACU	Armrest control for operating the tractor functions
AutoQuad Plus Transmission	AQ+	Partial power-shiftable transmission
Air Quality System	AQS	System used to control conditioned air in the operator's cab
Automatic Temperature Control	ATC	Abbreviation
Category 4	CAT 4	Cab classification according to EN 15695-1 , for application of crop protection chemicals and liquid fertilizer
Cold Cranking Amperes	CCA	Amperage of a battery at low temperatures
CommandCenter™	CC	Computerized system for tractor monitoring
Component Technical Manual	CTM	Technical manual for component maintenance
Diesel Exhaust Fluid	DEF	**D**iesel **E**xhaust **F**luid
Direct Current	DC	Electrical current flowing in one direction only
Diesel particulate filter	DPF	Abbreviation
Dynamic Weighing System	DWS	System for recording weights and quantities (front loader)
Engine Control Unit	ECU	Computerized system used to govern engine speed
Electric-Hydraulic:	EH	Electrically controlled hydraulic valve functions
Electro-Hydraulic Depth Control	EHDC	Abbreviation
Electro-Hydraulic Selective Control Valve	EH-SCV	Selective control valve driven with electrical magnetic switches
Electronics	ELX	Abbreviation
Electronic Self-Leveling	ESL	Electronic self-leveling of the loader tool (front loader)
Forward Set Speed	FSS	Speed control for Infinitely Variable Transmission
Gallons per Minute	gpm	Volume flow, measured for the period of one minute
Hitch Control Unit	HCU	Computerized system used to control hitch functions
Heavy-Duty Type	HD	Abbreviation
High Intensity Discharge	HID	A specific type of Xenon worklights that are used for front lighting
Hitch Slip Command	HSC	Computer supported system for supporting the draft response control of the hitch
Instrument Control Unit	ICU	Computerized system controlling tractor warning functions
Ignition	IGN	Control for starting and stopping the engine
Implement Management System	IMS	System used to control functions when turning at end of a field
International Standards Organization	ISO	Abbreviation
Electronic Operator Support	iTEC	Abbreviation for **I**ntelligent **T**otal **E**quipment **C**ontrol
Liters per Minute	l/min	Volume flow, measured for the period of one minute
Leveling to Horizon	LTH	Automatic alignment of the loader tool when changing the driving conditions (tilt/inclination), (front loader)
Mechanical front-wheel drive	MFWD	Mechanically powered front axle
PowrQuad-Plus Transmission	PQ+	Partial power-shiftable transmission
Pressure Control Valve	PCV	Device to regulate pressure in a system
Product identification number	PIN	Serial number for product identification
Power Take-Off	PTO	Abbreviation
Return-to-Position	RTP	Bring loader boom and loader tool automatically to preselected position (front loader)
Control Unit for SCV Valve	SCU	Computerized system used to control selective control valve functions
Selective Control Valve	SCV	Device used to control remote hydraulic functions
Slow Moving Vehicle	SMV	Warning sign on the rear of the tractor
Tractor-Implement Automation	TIA	Abbreviation for **T**ractor **I**mplement **A**utomation Included in TIM.
Tractor Implement Management	TIM	Abbreviation for **T**ractor **I**mplement **M**anagement ISOBUS application
Front axle suspension	TLS	Abbreviation for **T**riple **L**ink **S**uspension

LX25458,MY20,000096F-19-26JUN24

Trademarks

Trademarks	
AutoPowr™	Trademark of Deere and Company
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Trademarks	
iTEC™ Basic	Trademark of Deere and Company
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LX25458,MY20,0000970-19-05MAY23

Recognize Safety Information



T81389—UN—28JUN13

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

DX,ALERT-19-03OCT22

Understand Signal Words



TS187—19—30SEP88

DANGER; The signal word DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

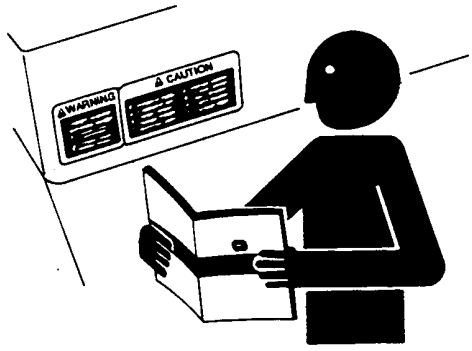
WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

CAUTION; The signal word CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury. CAUTION may also be used to alert against unsafe practices associated with events which could lead to personal injury.

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards. DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

DX,SIGNAL-19-05OCT16

Follow Safety Instructions



TS201—UN—15APR13

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available through John Deere.

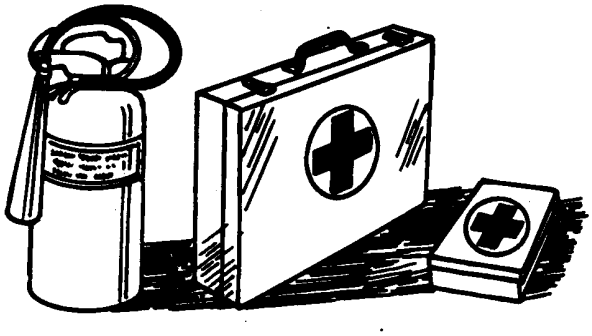
There can be additional safety information contained on parts and components sourced from suppliers that is not reproduced in this operator's manual.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

DX,READ-19-01AUG22

Prepare for Emergencies



TS291—UN—15APR13

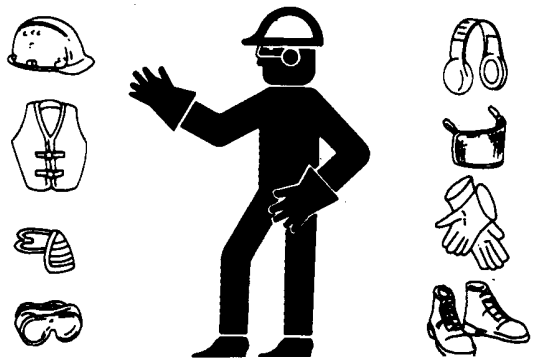
Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.

DX,FIRE2-19-03MAR93

Wear Protective Clothing



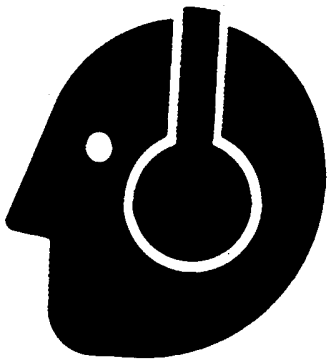
TS206—UN—15APR13

Wear close fitting clothing and safety equipment appropriate to the job.

Operating equipment safely requires the full attention of the operator. Do not wear radio or music headphones while operating machine.

DX,WEAR2-19-03MAR93

Protect Against Noise



TS207—UN—23AUG88

There are many variables that affect the sound level range, including machine configuration, condition and maintenance level of the machine, ground surface, operating environmental, duty cycles, ambient noise, and attachments.

Exposure to loud noise can cause impairment or loss of hearing.

Always wear hearing protection. Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.

DX,NOISE-19-03OCT17

Handle Fuel Safely—Avoid Fires



TS202—UN—23AUG88

Handle fuel with care: it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

Use only an approved fuel container for transporting flammable liquids.

Never fill fuel container in pickup truck with plastic bed liner. Always place fuel container on ground before refueling. Touch fuel container with fuel dispenser nozzle before removing can lid. Keep fuel dispenser nozzle in contact with fuel container inlet when filling.

Do not store fuel container where there is an open flame, spark, or pilot light such as within a water heater or other appliance.

DX,FIRE1-19-12OCT11

Handle Starting Fluid Safely



TS1356—UN—18MAR92

Starting fluid is highly flammable.

Keep all sparks and flame away when using it. Keep starting fluid away from batteries and cables.

To prevent accidental discharge when storing the pressurized can, keep the cap on the container, and store in a cool, protected location.

Do not incinerate or puncture a starting fluid container.

Do not use starting fluid on an engine equipped with glow plugs or an air intake heater.

DX,FIRE3-19-14MAR14

Fire Prevention

To reduce the risk of fire, your tractor should be regularly inspected and cleaned.

- Birds and other animals may build nests or bring other flammable materials into the engine compartment or onto the exhaust system. The tractor should be inspected and cleaned prior to the first use each day.
- A build up of grass, crop material and other debris may occur during normal operation. This is especially true when operating in very dry conditions or conditions where airborne crop material or crop dust is present. Any such build up must be removed to ensure proper machine function and to reduce the risk of fire. The tractor must be inspected and cleaned periodically throughout the day.
- Regular and thorough cleaning of the tractor combined with other routine maintenance procedures listed in the Operator's Manual greatly reduce the risk of fire and the chance of costly downtime.
- Do not store fuel container where there is an open flame, spark, or pilot light such as within a water heater or other appliance.
- Check fuel lines, tank, cap, and fittings frequently for damage, cracks or leaks. Replace if necessary.

Follow all operational and safety procedures posted on the machine and the Operator's Manual. Be careful of hot engine and exhaust components during inspection and cleaning. Before carrying out any inspection or cleaning, always shut OFF the engine, place the transmission in PARK or set parking brake, and remove the key. Removal of the key will prevent others from starting the tractor during inspection and cleaning.

DX,WW,TRACTOR,FIRE,PREVENTION-19-12OCT11

In Case of Fire



TS227—UN—15APR13

CAUTION: Avoid personal injury.

Stop machine immediately at the first sign of fire. Fire may be identified by the smell of smoke or sight of flames. Because fire grows and spreads rapidly, get off the machine immediately and move safely away from the fire. Do not return to the machine! The number one priority is safety.

Call the fire department. A portable fire extinguisher can put out a small fire or contain it until the fire department arrives; but portable extinguishers have limitations. Always put the safety of the operator and bystanders first. If attempting to extinguish a fire, keep your back to the wind with an unobstructed escape path so you can move away quickly if the fire cannot be extinguished.

Read the fire extinguisher instructions and become familiar with their location, parts, and operation before a fire starts. Local fire departments or fire equipment distributors may offer fire extinguisher training and recommendations.

If your extinguisher does not have instructions, follow these general guidelines:

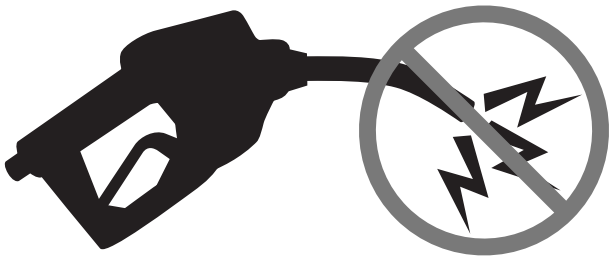
1. Pull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
2. Aim low. Point the extinguisher at the base of the fire.
3. Squeeze the lever slowly and evenly.
4. Sweep the nozzle from side-to-side.

DX,FIRE4-19-22AUG13

Avoid Static Electricity Risk When Refueling



RG22142—UN—17MAR14



RG21992—UN—21AUG13

The removal of sulfur and other compounds in Ultra-Low Sulfur Diesel (ULSD) fuel decreases its conductivity and increases its ability to store a static charge.

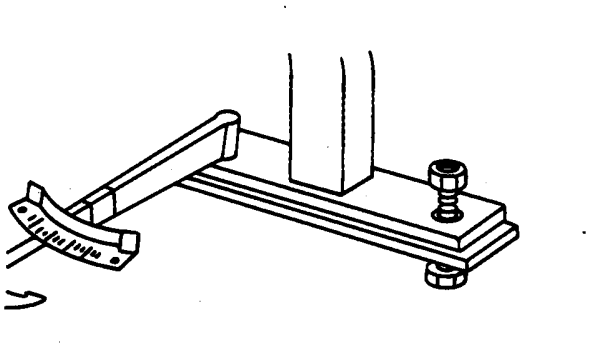
Refineries may have treated the fuel with a static dissipating additive. However, there are many factors that can reduce the effectiveness of the additive over time.

Static charges can build up in ULSD fuel while it is flowing through fuel delivery systems. Static electricity discharge when combustible vapors are present could result in a fire or explosion.

Therefore, it is important to ensure that the entire system used to refuel your machine (fuel supply tank, transfer pump, transfer hose, nozzle, and others) is properly grounded and bonded. Consult with your fuel or fuel system supplier to ensure that the delivery system is in compliance with fueling standards for proper grounding and bonding practices.

DX,FUEL,STATIC,ELEC-19-12JUL13

Keep ROPS Installed Properly



TS212—UN—23AUG88

Make certain all parts are reinstalled correctly if the roll-over protective structure (ROPS) is loosened or removed for any reason. Tighten mounting bolts to proper torque.

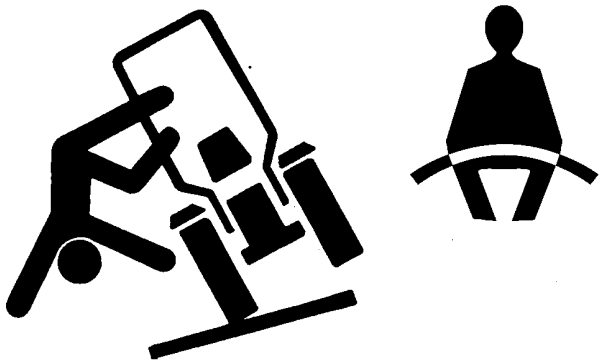
The protection offered by ROPS will be impaired if ROPS is subjected to structural damage, is involved in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged ROPS should be replaced, not reused.

The seat is part of the ROPS safety zone. Replace only with John Deere seat approved for your tractor.

Any alteration of the ROPS must be approved by the manufacturer.

DX,ROPS3-19-12OCT11

Use Foldable ROPS and Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

- If this machine is equipped with a foldable rollover protective structure (ROPS), keep the ROPS in the fully extended and locked position. USE a seat belt when you operate with a ROPS in the fully extended position.
  - Hold the latch and pull the seat belt across the body.
  - Insert the latch into the buckle. Listen for a click.
  - Tug on the seat belt to make sure that the belt is securely fastened.

- Snug the seat belt across the hips.

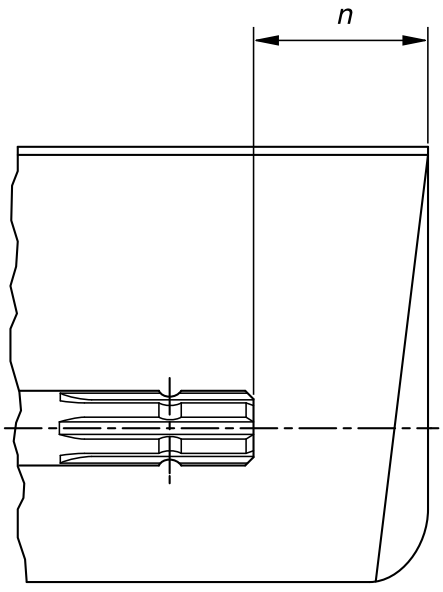
- If this machine is operated with the ROPS folded (for example, to enter a low building), drive with extreme caution. DO NOT USE a seat belt with the ROPS folded.
- Return the ROPS to the raised, fully extended position as soon as the machine is operated under normal conditions.

DX,FOLDROPS-19-22AUG13

Stay Clear of Rotating Drivelines



TS1644—UN—22AUG95



H96219—UN—29APR10

Entanglement in rotating driveline can cause serious injury or death.

Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

Only use power take-off driveshafts with adequate guards and shields.

Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making adjustments, connections, or cleaning out PTO driven equipment.

Do not install any adapter device between the tractor and the primary implement PTO driveshaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adaptor device as outlined in the table.

The angle at which the primary implement PTO driveshaft can be inclined may be reduced depending on the shape and size of the tractor master shield and the shape and size of the guard of the primary implement PTO driveshaft.

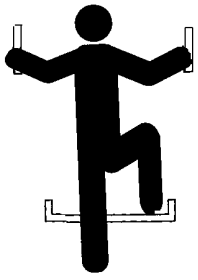
Do not raise implements high enough to damage the tractor master shield or guard of primary implement PTO driveshaft. Detach the PTO driveline shaft if it is necessary to increase implement height. (See Attching/ Detaching PTO Driveline)

When using Type 3/4 PTO, inclination and turning angles may be reduced depending on type of PTO master shield and coupling rails.

PTO Type	Diameter	Splines	n ± 5 mm (0.20 in.)
1	35 mm (1.378 in.)	6	85 mm (3.35 in.)
2	35 mm (1.378 in.)	21	85 mm (3.35 in.)
3	45 mm (1.772 in.)	20	100 mm (4.00 in.)
4	57.5 mm (2.264 in.)	22	100 mm (4.00 in.)

DX,PTO-19-28FEB17

Use Steps and Handholds Correctly



T133468—UN—15APR13

Prevent falls by facing the machine when getting on and off. Maintain 3-point contact with steps, handholds, and handrails.

Use extra care when mud, snow, or moisture present slippery conditions. Keep steps clean and free of grease

or oil. Never jump when exiting machine. Never mount or dismount a moving machine.

DX,WW,MOUNT-19-12OCT11

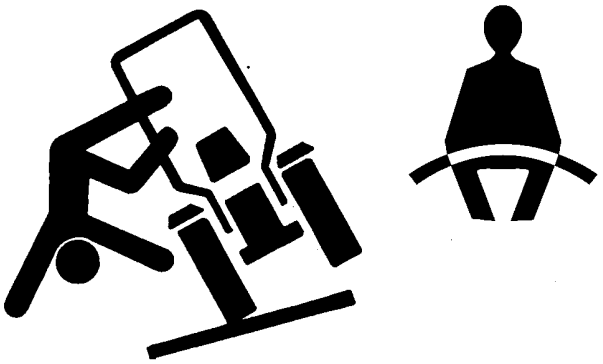
Read Operator's Manuals for ISOBUS Controllers

In addition to GreenStar™ Applications, this display can be used as a display device for any ISOBUS Controller that meets ISO 11783 standard. This includes capability to control ISOBUS implements. When used in this manner, information and control functions placed on the display are provided by the ISOBUS Controller and are the responsibility of the ISOBUS Controller manufacturer. Some of these functions could pose a hazard to either the operator or a bystander. Read the Operator's Manual provided by the ISOBUS Controller manufacturer and observe all safety messages in manual and on ISOBUS Controller product prior to use.

NOTE: ISOBUS refers to the ISO Standard 11783

DX,WW,ISOBUS-19-15JUL15

Use Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

This machine is equipped with a rollover protective structure (ROPS). USE a seat belt when you operate with a ROPS.

- Hold the latch and pull the seat belt across the body.
- Insert the latch into the buckle. Listen for a click.
- Tug on the seat belt latch to make sure that the belt is securely fastened.
- Snug the seat belt across the hips.

Replace entire seat belt if mounting hardware, buckle, belt, or retractor show signs of damage.

Inspect seat belt and mounting hardware at least once a year. Look for signs of loose hardware or belt damage, such as cuts, fraying, extreme or unusual wear, discoloration, or abrasion. Replace only with replacement parts that meet specifications for your machine.

DX,ROPS1-19-22AUG13

Operating the Tractor Safely

You can reduce the risk of accidents by following these simple precautions:

- Use your tractor only for jobs it was designed to perform, for example, pushing, pulling, towing, actuating, and carrying a variety of interchangeable equipment designed to conduct agricultural work.
- Operators must be mentally and physically capable of accessing the operator's station and/or controls, and operating the machine properly and safely.
- Never operate machine when distracted, fatigued, or impaired. Proper machine operation requires the operator's full attention and awareness.
- This tractor is not intended to be used as a recreational vehicle.
- Read this operator's manual before operating the tractor and follow operating and safety instructions in the manual and on the tractor.
- Follow operation and ballasting instructions found in the operator's manual for your implements/ attachments, such as front loaders.
- Follow the instructions outlined in the operator's manual of any mounted or trailed machinery or trailer. Do not operate a combination of tractor-machine or tractor-trailer unless all instructions have been followed.
- Make sure that everyone is clear of machine, attached equipment, and work area before starting engine or operation.
- Stay clear of the three-point linkage and pickup hitch (if equipped) when controlling them.
- Keep hands, feet, and clothing away from power-driven parts.

Driving Concerns

- Never get on or off a moving tractor.
- Complete any required training prior to operating vehicle.
- Keep all children and nonessential personnel off tractors and all equipment.
- Never ride on a tractor unless seated on a John Deere approved seat with a seat belt.
- Keep all shields/guards in place.
- Use appropriate visual and audible signals when operating on public roads.
- Move to side of road before stopping.
- Reduce speed when turning, applying individual

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brakes, or operating around hazards on rough ground or steep slopes.

- Stability degrades when attached implements are at high position.
- Couple brake pedals together for road travel.
- Pump brakes when stopping on slippery surfaces.
- Regularly clean fenders and fender valances (mud flaps) if installed. Remove dirt before driving on public roadways.

Heated and Ventilated Operator's Seat

- An overheated seat heater can cause a burn injury or damage to the seat. To reduce the risk of burns, use caution when using the seat heater for extended periods of time, especially if the operator cannot feel temperature change or pain to the skin. Do not place objects on the seat, such as a blanket, cushion, cover, or similar item, which can cause the seat heater to overheat.

Towing Loads

- Be careful when towing and stopping heavy loads. Stopping distance increases with speed and weight of towed loads, and on slopes. Towed loads with or without brakes that are too heavy for the tractor or are towed too fast can cause loss of control.
- Consider the total weight of the equipment and its load.
- Hitch towed loads only to approved couplings to avoid rearward upset.

Parking and Leaving the Tractor

- Before dismounting, shut off SCVs, disengage PTO, stop engine, lower implements/attachments to ground, place implement/attachment control devices in neutral, and securely engage park mechanism, including the park pawl and park brake. In addition, if the tractor is left unattended, remove key.
- Leaving transmission in gear with engine off will NOT prevent the tractor from moving.
- Never go near an operating PTO or an operating implement.
- Wait for all movement to stop before servicing machinery.

Common Accidents

Unsafe operation or misuse of the tractor can result in accidents. Be alert to hazards of tractor operation.

The most common accidents involving tractors are:

- Tractor rollover
- Collisions with motor vehicles
- Improper starting procedures
- Entanglement in PTO shafts
- Falling from tractor
- Crushing and pinching during hitching

DX,WW,TRACTOR-19-08MAY19

Avoid Backover Accidents



PC10857XW—UN—15APR13

Before moving machine, be sure that all persons are clear of machine path. Turn around and look directly for best visibility. Use a signal person when backing if view is obstructed or when in close quarters.

Do not rely on a camera to determine if personnel or obstacles are behind the machine. The system can be limited by many factors including maintenance practices, environmental conditions, and operating range.

DX,AVOID,BACKOVER,ACCIDENTS-19-30AUG10

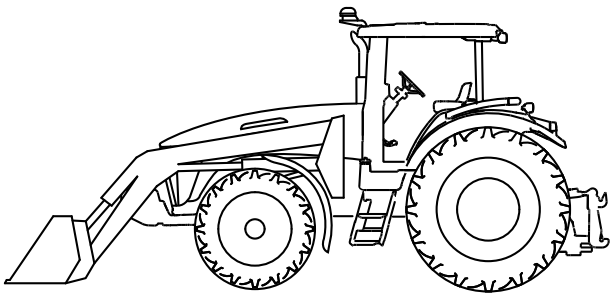
Limited Use in Forestry Operation

The intended use of John Deere tractors when used in forestry operations is limited to tractor-specific applications like transport, stationary work such as log splitting, propulsion, or operating implements with PTO, hydraulic, or electrical systems.

These are applications where normal operation does not present a risk of falling or penetrating objects. Any forestry applications beyond those specified, such as forwarding and loading, requires fitment of application-specific components including Falling Object Protective Structure (FOPS) and/or Operative Protective Structures (OPS).

DX,WW,FORESTRY-19-12OCT11

Operating the Loader Tractor Safely



TS1692—UN—09NOV09

When operating a machine with a loader application, reduce speed as required to ensure good tractor and loader stability.

To avoid tractor rollover and damage to front tires and tractor, do not carry load with your loader at a speed over 10 km/h (6 mph).

To avoid tractor damage do not use a front loader or a sprayer tank if the tractor is equipped with a 3 Meter Front Axle.

Never allow anyone to walk or work under a raised loader.

Do not use loader as a work platform.

Do not lift or carry anyone on loader, in bucket, or on implement or attachment.

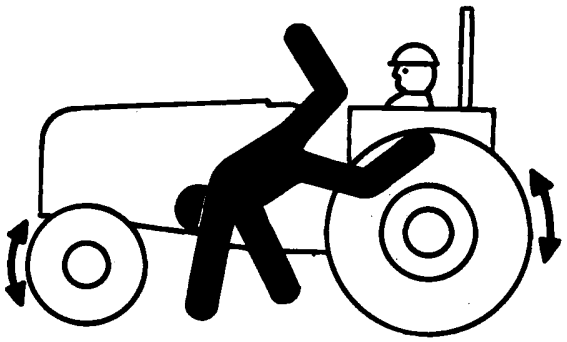
Lower loader to ground before leaving operators station.

The Rollover Protective Structure (ROPS) or cab roof, if equipped, may not provide sufficient protection from load falling onto the operators station. To prevent loads from falling onto the operators station, always use appropriate implements for specific applications (that is, manure forks, round bale forks, round bale grippers, and clampers).

Ballast tractor in accordance to Ballast Recommendations in PREPARE TRACTOR section.

DX,WW,LOADER-19-18SEP12

Keep Riders Off Machine



TS290—UN—23AUG88

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

DX,RIDER-19-03MAR93

Instructional Seat

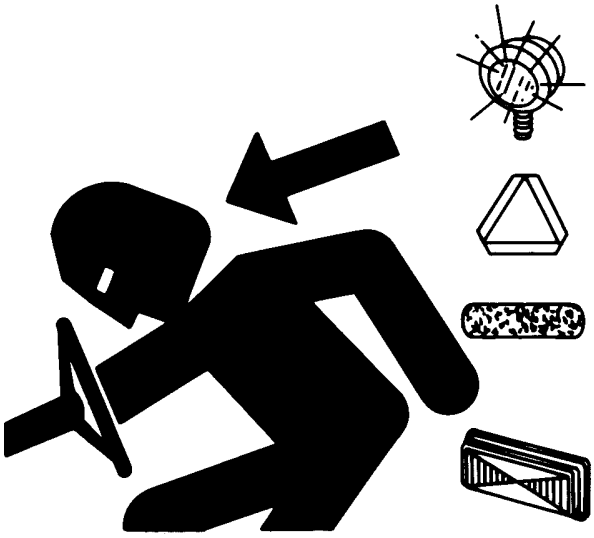


TS1730—UN—24MAY13

The instructional seat, if so equipped, has been provided only for training operators or diagnosing machine problems.

DX,SEAT,NA-19-22AUG13

Use Safety Lights and Devices



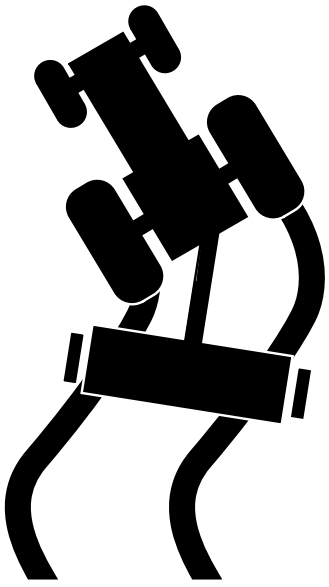
TS951—UN—12APR90

Prevent collisions between other road users, slow moving tractors with attachments or towed equipment, and self-propelled machines on public roads. Frequently check for traffic from the rear, especially in turns, and use turn signal lights.

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost.

DX,FLASH-19-07JUL99

Transport Towed Equipment at Safe Speeds



TS1686—UN—27SEP06

Do not exceed the maximum transport speed. This towing unit may be capable of operating at transport speeds that exceed the maximum allowable transport speed for towed implements.

Before transporting a towed implement, determine from signs on the implement or information provided in the implement's operator manual the maximum transport speed. Never transport at speeds that exceed the implement's maximum transport speed. Exceeding the implement's maximum transport speed can result in:

- Loss of control of the towing unit/implement combination
- Reduced or no ability to stop during braking
- Implement tire failure
- Damage to the implement structure or its components

Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

Example: Implement mass is 1600 kg (3527 lbs) and towing unit mass is 1600 kg (3527 lbs), example implement is not required to have brakes.

Implements without brakes: Do not transport at speeds greater than 32 km/h (20 mph).

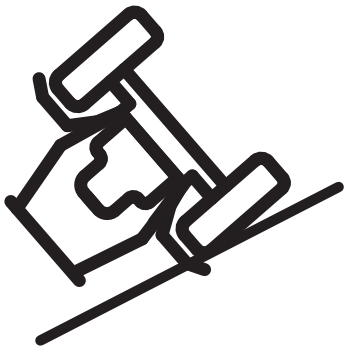
Implements with brakes:

- If the manufacturer does not specify a maximum transport speed, do not tow at speeds greater than 40 km/h (25 mph).
- When transporting at speeds up to 40 km/h (25 mph) the fully loaded implement must weigh less than 4.5 times the towing unit weight.
- When transporting at speeds between 40—50 km/h (25—31 mph) the fully loaded implement must weigh less than 3.0 times the towing unit weight.

When towing a trailer, become familiar with the braking characteristics and ensure the compatibility of the tractor/trailer combination in regard to the deceleration rate.

DX,TOW1-19-28FEB17

Use Caution on Slopes, Uneven Terrain, and Rough Ground



RXA0103437—UN—01JUL09

Avoid holes, ditches, and obstructions which cause the tractor to tip, especially on slopes. Avoid sharp uphill turns.

Driving forward out of a ditch, mired condition, or up a steep slope could cause the tractor to tip over rearward. Back out of these situations if possible.

Danger of overturn increases greatly with narrow tread setting, at high speed.

Not all conditions that can cause a tractor to overturn are listed. Be alert for any situation in which stability may be compromised.

Slopes are a major factor related to loss-of-control and tip-over accidents, which can result in severe injury or death. Operation on all slopes requires extra caution.

Uneven terrain or rough ground can cause loss-of-control and tip-over accidents, which can result in severe injury or death. Operation on uneven terrain or rough ground requires extra caution.

Never drive near the edge of a gully, drop-off, ditch, steep embankment, or a body of water. The machine could suddenly roll over if a wheel goes over the edge or the ground caves in

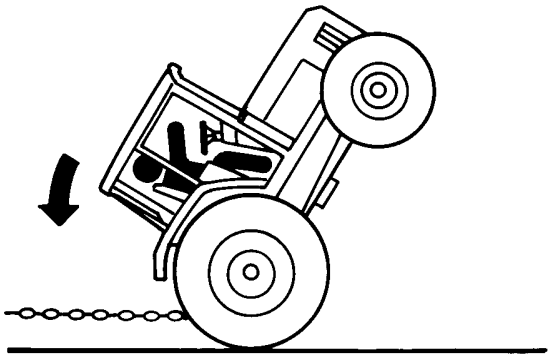
Choose a low ground speed so you will not have to stop or shift while on a slope.

Avoid starting, stopping, or turning on a slope. If the tires lose traction, disengage the PTO and proceed slowly, straight down the slope.

Keep all movement on slopes slow and gradual. Do not make sudden changes in speed or direction, which could cause the machine to roll over.

DX,WW,SLOPE-19-28FEB17

Freeing a Mired Machine



TS1645—UN—15SEP95



TS263—UN—23AUG88

Attempting to free a mired machine can involve safety hazards such as the mired tractor tipping rearward, the towing tractor overturning, and the tow chain or tow bar (a cable is not recommended) failing and recoiling from its stretched condition.

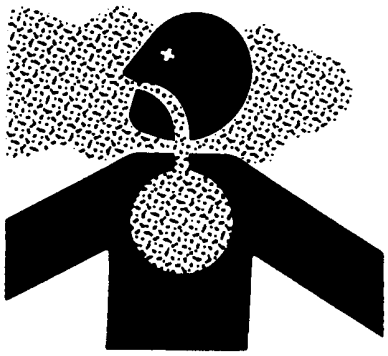
Back your tractor out if it gets mired down in mud. Unhitch any towed implements. Dig mud from behind the rear wheels. Place boards behind the wheels to provide a solid base and try to back out slowly. If necessary, dig mud from the front of all wheels and drive slowly ahead.

If necessary to tow with another unit, use a tow bar or a long chain (a cable is not recommended). Inspect the chain for flaws. Make sure all parts of towing devices are of adequate size and strong enough to handle the load.

Always hitch to the drawbar of the towing unit. Do not hitch to the front pushbar attachment point. Before moving, clear the area of people. Apply power smoothly to take up the slack: a sudden pull could snap any towing device causing it to whip or recoil dangerously.

DX,MIRED-19-07JUL99

Avoid Contact with Agricultural Chemicals



TS220—UN—15APR13



TS272—UN—23AUG88

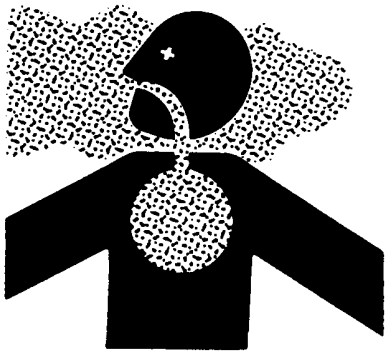
This enclosed cab does not protect against inhaling vapor, aerosol or dust. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

Before leaving the cab, wear personal protective equipment as required by the pesticide use instructions. When re-entering the cab, remove protective equipment and store either outside the cab in a closed box or some other type of sealable container or inside the cab in a pesticide resistant container, such as a plastic bag.

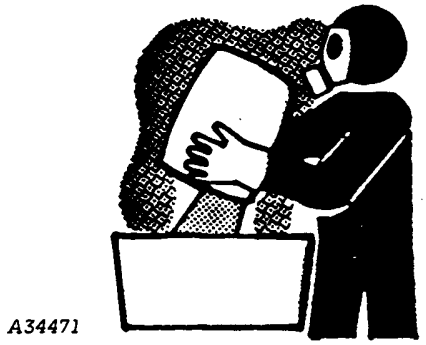
Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS-19-25MAR09

Handle Agricultural Chemicals Safely



TS220—UN—15APR13



A34471—UN—11OCT88

Chemicals used in agricultural applications such as fungicides, herbicides, insecticides, pesticides, rodenticides, and fertilizers can be harmful to your health or the environment if not used carefully.

Always follow all label directions for effective, safe, and legal use of agricultural chemicals.

Reduce risk of exposure and injury:

- Wear appropriate personal protective equipment as recommended by the manufacturer. In the absence of manufacturer's instructions, follow these general guidelines:
  - Chemicals labeled **'Danger'**: Most toxic. Generally require use of goggles, respirator, gloves, and skin protection.
  - Chemicals labeled **'Warning'**: Less toxic. Generally require use of goggles, gloves, and skin protections.
  - Chemicals labeled **'Caution'**: Least toxic. Generally require use of gloves and skin protection.
- Avoid inhaling vapor, aerosol or dust.
- Always have soap, water, and towel available when working with chemicals. If chemical contacts skin, hands, or face, wash immediately with soap and water. If chemical gets into eyes, flush immediately with water.
- Wash hands and face after using chemicals and before eating, drinking, smoking, or urination.
- Do not smoke or eat while applying chemicals.
- After handling chemicals, always bathe or shower and change clothes. Wash clothing before wearing again.
- Seek medical attention immediately if illness occurs during or shortly after use of chemicals.
- Keep chemicals in original containers. Do not transfer chemicals to unmarked containers or to containers used for food or drink.
- Store chemicals in a secure, locked area away from human or livestock food. Keep children away.
- Always dispose of containers properly. Triple rinse

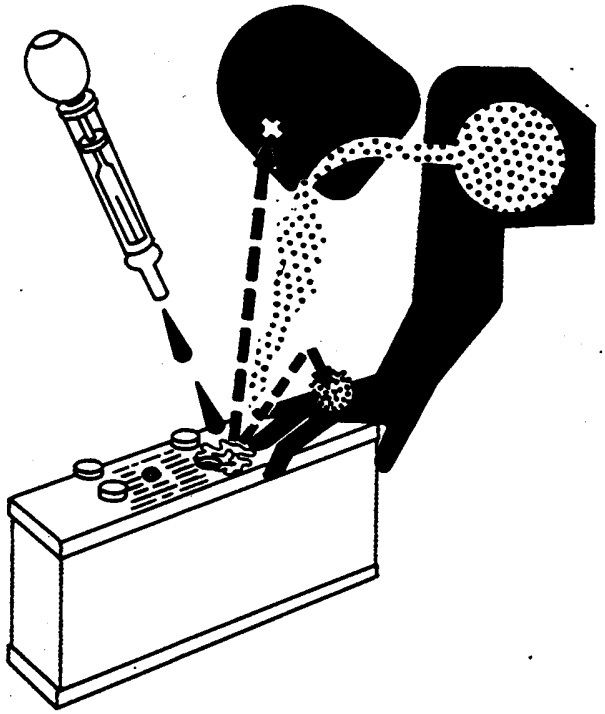
empty containers and puncture or crush containers and dispose of properly.

DX,WW,CHEM01-19-24AUG10

Handling Batteries Safely



TS204—UN—15APR13



TS203—UN—23AUG88

Battery gas can explode. Keep sparks and flames away from batteries. Use a flashlight to check battery electrolyte level.

Never check battery charge by placing a metal object across the posts. Use a voltmeter or hydrometer.

Always remove grounded (-) battery clamp first and replace grounded clamp last.

Sulfuric acid in battery electrolyte is poisonous and strong enough to burn skin, eat holes in clothing, and cause blindness if splashed into eyes.

Avoid hazards by:

- Filling batteries in a well-ventilated area
- Wearing eye protection and rubber gloves
- Avoiding use of air pressure to clean batteries
- Avoiding breathing fumes when electrolyte is added
- Avoiding spilling or dripping electrolyte
- Using correct battery booster or charger procedure.

If acid is spilled on skin or in eyes:

1. Flush skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush eyes with water for 15—30 minutes. Get medical attention immediately.

If acid is swallowed:

1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 qt.).
3. Get medical attention immediately.

WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

DX,WW,BATTERIES-19-02DEC10

Avoid Heating Near Pressurized Fluid Lines

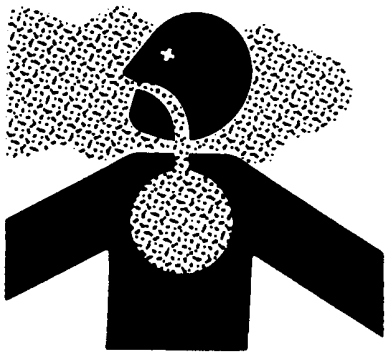


TS953—UN—15MAY90

Flammable spray can be generated by heating near pressurized fluid lines, resulting in severe burns to yourself and bystanders. Do not heat by welding, soldering, or using a torch near pressurized fluid lines or other flammable materials. Pressurized lines can accidentally burst when heat goes beyond the immediate flame area.

DX,TORCH-19-10DEC04

Remove Paint Before Welding or Heating



TS220—UN—15APR13

Avoid potentially toxic fumes and dust.

Hazardous fumes can be generated when paint is heated by welding, soldering, or using a torch.

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

Do not use a chlorinated solvent in areas where welding will take place.

Do all work in an area that is well ventilated to carry toxic fumes and dust away.

Dispose of paint and solvent properly.

DX,PAINT-19-24JUL02

Handle Electronic Components and Brackets Safely



TS249—UN—23AUG88

Falling while installing or removing electronic components mounted on equipment can cause serious injury. Use a ladder or platform to easily reach each mounting location. Use sturdy and secure footholds and handholds. Do not install or remove components in wet or icy conditions.

If installing or servicing a RTK base station on a tower or other tall structure, use a certified climber.

If installing or servicing a global positioning receiver mast used on an implement, use proper lifting techniques and wear proper protective equipment. The mast is heavy and can be awkward to handle. Two people are required when mounting locations are not accessible from the ground or from a service platform.

DX,WW,RECEIVER-19-24AUG10

Practice Safe Maintenance



TS218—UN—23AUG88

Understand service procedure before doing work. Keep area clean and dry.

Never lubricate, service, or adjust machine while it is moving. Keep hands, feet, and clothing away from power-driven parts. Disengage all power and operate controls to relieve pressure. Lower equipment to the ground. Stop the engine. Remove the key. Allow machine to cool.

Securely support any machine elements that must be raised for service work.

Keep all parts in good condition and properly installed.

Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

On towed implements, disconnect wiring harnesses from tractor before servicing electrical system components or welding on machine.

Falling while cleaning or working at height can cause serious injury. Use a ladder or platform to easily reach each location. Use sturdy and secure footholds and handholds.

DX,SERV-19-28FEB17

Avoid Hot Exhaust



RG17488—UN—21AUG09

Servicing machine or attachments with engine running can result in serious personal injury. Avoid exposure and skin contact with hot exhaust gases and components.

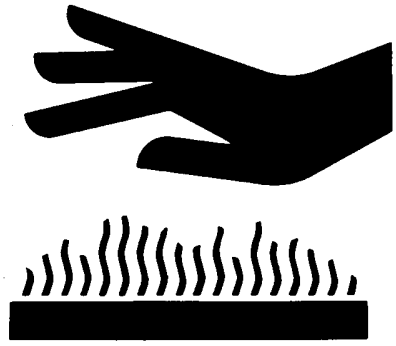
Exhaust parts and streams become very hot during operation. Exhaust gases and components reach temperatures hot enough to burn people, ignite, or melt common materials.

DX,EXHAUST-19-20AUG09

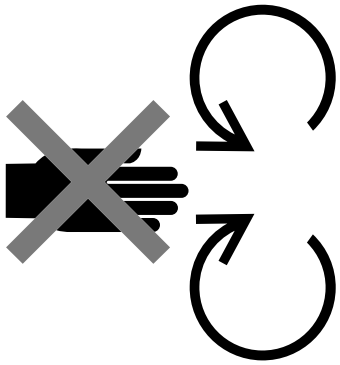
Clean Exhaust Filter Safely



TS227—UN—15APR13



TS271—UN—23AUG88



TS1693—UN—09DEC09



TS1695—UN—07DEC09

During exhaust filter cleaning operations, the engine may run at elevated idle and hot temperatures for an extended period of time. Exhaust gases and exhaust filter components reach temperatures hot enough to burn people, or ignite or melt common materials.

Keep machine away from people, animals, or structures which may be susceptible to harm or damage from hot exhaust gases or components. Avoid potential fire or explosion hazards from flammable materials and vapors near the exhaust. Keep exhaust outlet away from people and anything that can melt, burn, or explode.

Closely monitor machine and surrounding area for smoldering debris during and after exhaust filter cleaning.

Adding fuel while an engine is running can create a fire or explosion hazard. Always stop engine before refueling machine and clean up any spilled fuel.

Always make sure that engine is stopped while hauling machine on a truck or trailer.

Contact with exhaust components while still hot can result in serious personal injury.

Avoid contact with these components until cooled to safe temperatures.

If service procedure requires engine to be running:

- Only engage power-driven parts required by service procedure
- Ensure that other people are clear of operator station and machine

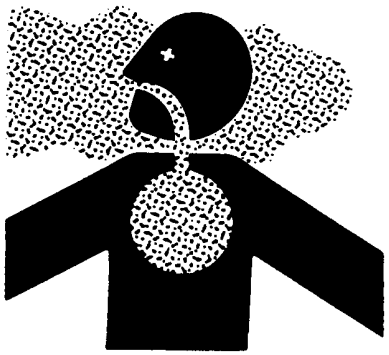
Keep hands, feet, and clothing away from power-driven parts.

Always disable movement (neutral), set the parking brake or mechanism and disconnect power to attachments or tools before leaving the operator's station.

Shut off engine and remove key (if equipped) before leaving the machine unattended.

DX,EXHAUST,FILTER-19-12JAN11

Work In Ventilated Area



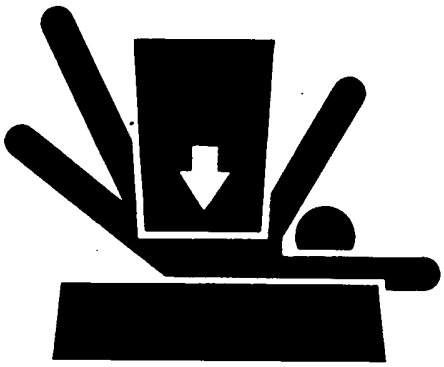
TS220—UN—15APR13

Engine exhaust fumes can cause sickness or death. If it is necessary to run an engine in an enclosed area, remove the exhaust fumes from the area with an exhaust pipe extension.

If you do not have an exhaust pipe extension, open the doors and get outside air into the area.

DX,AIR-19-17FEB99

Support Machine Properly



TS229—UN—23AUG88

Always lower the attachment or implement to the ground before you work on the machine. If the work requires that the machine or attachment be lifted, provide secure support for them. If left in a raised position, hydraulically supported devices can settle or leak down.

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load. Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

When implements or attachments are used with a machine, always follow safety precautions listed in the implement or attachment operator's manual.

DX,LOWER-19-24FEB00

Prevent Machine Runaway



TS177—UN—11JAN89

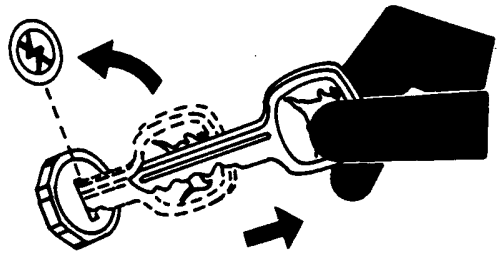
Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.

DX,BYPAS1-19-29SEP98

Park Machine Safely



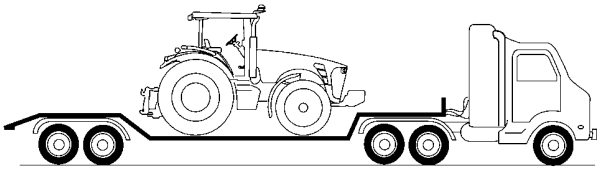
TS230—UN—24MAY89

Before working on the machine:

- Lower all equipment to the ground.
- Stop the engine and remove the key.
- Disconnect the battery ground strap.
- Hang a "DO NOT OPERATE" tag in operator station.

DX,PARK-19-04JUN90

Transport Tractor Safely



RXA0103709—UN—01JUL09

A disabled tractor is best transported on a flatbed carrier. Use chains to secure the tractor to the carrier. The axles and tractor frame are suitable attachment points.

Before transporting the tractor on a low-loader truck or flatbed rail wagon, make sure that the hood is secured over the tractor engine and that doors, roof hatch (if equipped) and windows are properly closed.

Never tow a tractor at a speed greater than 10 km/h (6 mph). An operator must steer and brake the tractor under tow.

DX,WW,TRANSPORT-19-19AUG09

Service Cooling System Safely



TS281—UN—15APR13

Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

DX,WW,COOLING-19-19AUG09

Service Accumulator Systems Safely



TS281—UN—15APR13

Escaping fluid or gas from systems with pressurized accumulators that are used in air conditioning, hydraulic, and air brake systems can cause serious injury. Extreme heat can cause the accumulator to burst, and pressurized lines can be accidentally cut. Do not weld or use a torch near a pressurized accumulator or pressurized line.

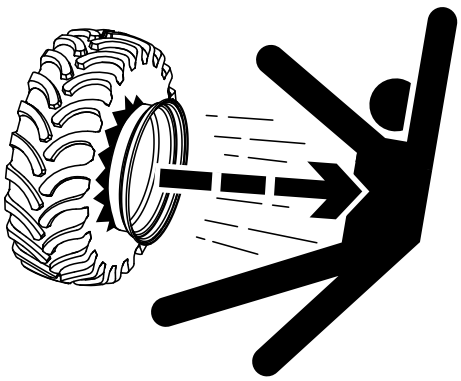
Relieve pressure from the pressurized system before removing accumulator.

Relieve pressure from the hydraulic system before removing accumulator. Never attempt to relieve hydraulic system or accumulator pressure by loosening a fitting.

Accumulators cannot be repaired.

DX,WW,ACCLA2-19-22AUG03

Service Tires Safely



RXA0103438—UN—11JUN09

Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

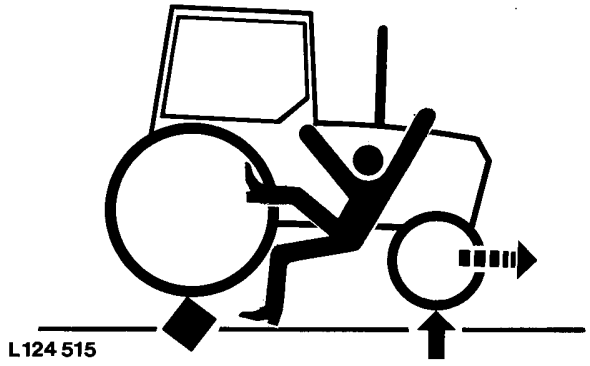
When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

Wheels and tires are heavy. When handling wheels and tires use a safe lifting device or get an assistant to help lift, install, or remove.

DX,WW,RIMS-19-28FEB17

Service Front-Wheel Drive Tractor Safely

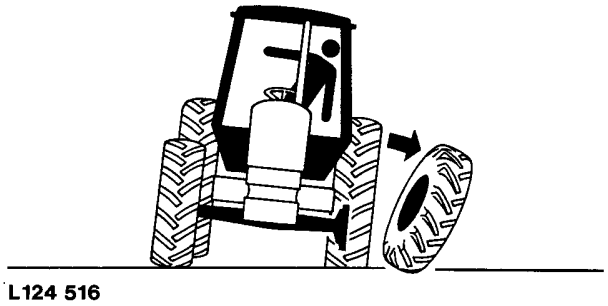


L124515—UN—06AUG94

When servicing front-wheel drive tractor with the rear wheels supported off the ground and rotating wheels by engine power, always support front wheels in a similar manner. Loss of electrical power or transmission hydraulic system pressure will engage the front driving wheels, pulling the rear wheels off the support if front wheels are not raised. Under these conditions, front drive wheels can engage even with switch in disengaged position.

DX,WW,MFWD-19-19AUG09

Tightening Wheel Retaining Bolts/Nuts

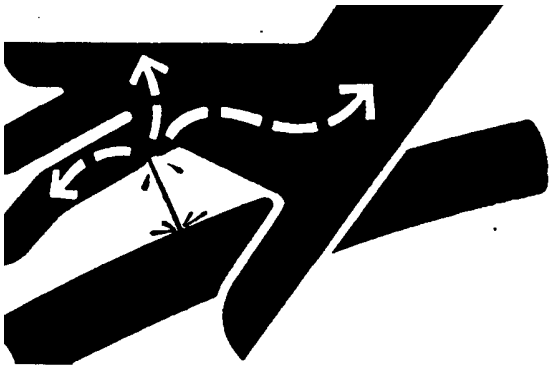


L124516—UN—03JAN95

Torque wheel retaining bolts/nuts at the intervals specified in section Break-In Period and Service.

DX,WW,WHEEL-19-12OCT11

Avoid High-Pressure Fluids



X9811—UN—23AUG88

Inspect hydraulic hoses periodically – at least once per year – for leakage, kinking, cuts, cracks, abrasion, blisters, corrosion, exposed wire braid or any other signs of wear or damage.

Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

Escaping fluid under pressure can penetrate the skin causing serious injury.

Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

If an accident occurs, see a doctor immediately. Any

fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available in English from Deere & Company Medical Department in Moline, Illinois, U.S.A., by calling 1-800-822-8262 or +1 309-748-5636.

DX,FLUID-19-12OCT11

Do Not Open High-Pressure Fuel System



TS1343—UN—18MAR92

High-pressure fluid remaining in fuel lines can cause serious injury. Only technicians familiar with this type of system should perform repairs. Do not disconnect or attempt repair of fuel lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High Pressure Common Rail (HPCR) fuel system.

DX,WW,HPCR1-19-07JAN03

Store Attachments Safely



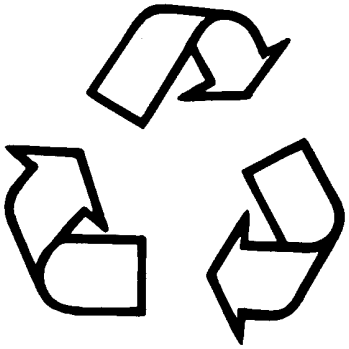
TS219—UN—23AUG88

Stored attachments such as dual wheels, cage wheels, and loaders can fall and cause serious injury or death.

Securely store attachments and implements to prevent falling. Keep playing children and bystanders away from storage area.

DX,STORE-19-03MAR93

Decommissioning — Proper Recycling and Disposal of Fluids and Components



TS1133—UN—15APR13

Safety and environmental stewardship measures must be taken into account when decommissioning a machine and/or component. These measures include the following:

- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.
- Minimize exposure to components which may have residue from agricultural chemicals, such as fertilizers and pesticides. Handle and dispose of these components appropriately.
- Carefully drain engines, fuel tanks, radiators, hydraulic cylinders, reservoirs, and lines before recycling components. Use leak-proof containers when draining fluids. Do not use food or beverage containers.
- Do not pour waste fluids onto the ground, down a drain, or into any water source.
- Observe all national, state, and local laws, regulations, or ordinances governing the handling or disposal of waste fluids (example: oil, fuel, coolant, brake fluid); filters; batteries; and, other substances or parts. Burning of flammable fluids or components in other than specially designed incinerators may be prohibited by law and could result in exposure to harmful fumes or ashes.
- Service and dispose of air conditioning systems appropriately. Government regulations may require a certified service center to recover and recycle air conditioning refrigerants which could damage the atmosphere if allowed to escape.
- Evaluate recycling options for tires, metal, plastic, glass, rubber, and electronic components which may be recyclable, in part or completely.

- Contact your local environmental or recycling center, or your John Deere dealer for information on the proper way to recycle or dispose of waste.

DX,DRAIN-19-01JUN15

Safety Signs

Pictorial Safety Signs



TS231—19—07OCT88

At several important places of this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury. These safety signs, their placement on the machine and a brief explanatory text are shown below.

OULXA64,EU01,LABEL,0005317-19-22SEP23

Operator's Manual



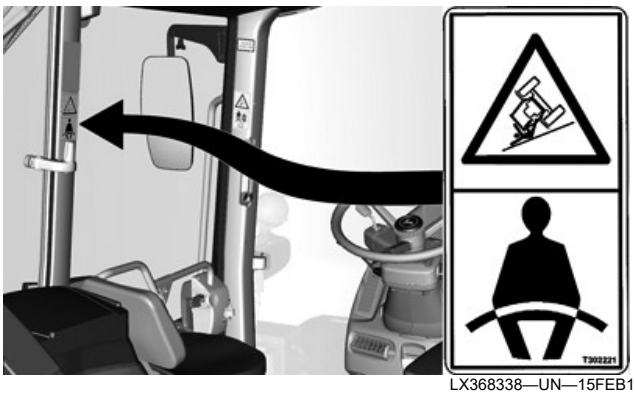
LX368339—UN—15FEB19

CAUTION: Avoid the risk of injury.

This Operator's Manual contains important information necessary for safe machine operation and explanation of safety signs. Carefully observe all safety instructions to avoid accidents.

OULXA64,EU02,CAB,6M,000556B-19-22SEP23

Use Seat Belt Properly



LX368338—UN—15FEB19

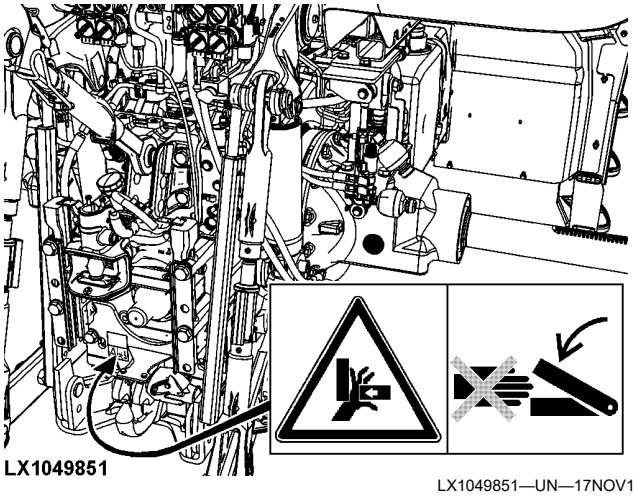
CAUTION: Avoid serious crush injuries or death resulting from the machine rolling over.

This machine is equipped with a roll-over protective structure (ROPS). ALWAYS use a seat belt when you use the roll-over protective structure.

- Hold the latch and pull the seat belt across the body.
- Insert the latch into the belt buckle.
- Listen for a click.
- Tug on the seat belt latch to make sure that the belt is securely fastened.
- Fit the seat belt snugly across the hips.

OULXA64,EU04,CAB,6M,000556C-19-22SEP23

Pickup Hitch



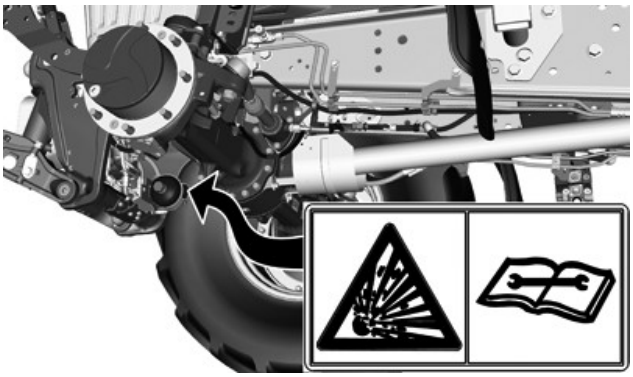
LX1049851—UN—17NOV10

CAUTION: Avoid crush and pinch injuries.

When attaching or detaching an implement, there is a risk of crushing in the area between the tractor and implement. Keep clear of pickup hitch components while operating the pickup hitch.

OULXA64,EU07,000556D-19-22SEP23

Pressure Accumulator of the Front Hitch (Tractors without Triple-Link Suspension)



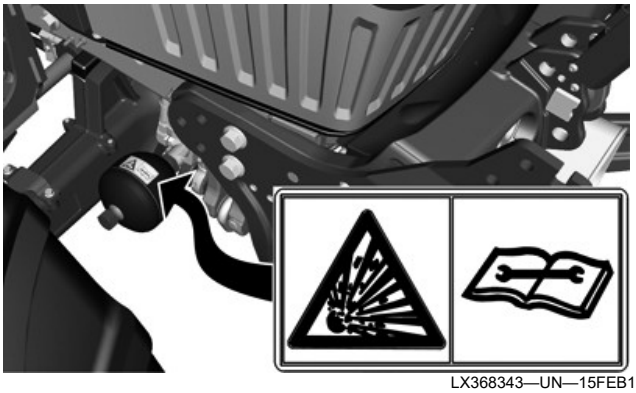
LX374428—UN—23MAY19

CAUTION: Avoid injury from crushing; avoid injury from spraying fluid.

Releasing pressure may cause machine movement and exposure to fluid under pressure. Contact a John Deere dealer or other service provider for instructions on relieving pressure before servicing system.

OULXA64,EU09,000556E-19-16JUL25

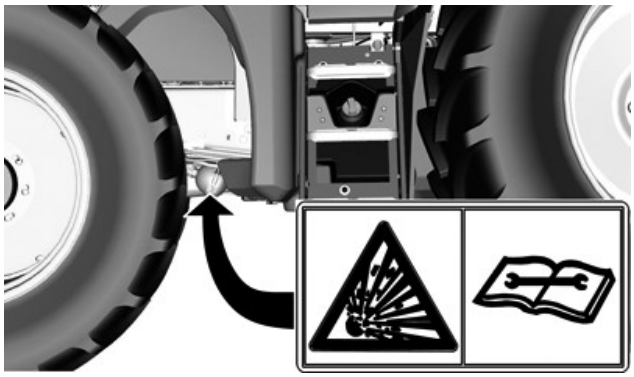
Pressure Accumulator of the Front Axle Suspension



LX368343—UN—15FEB19



LX368345—UN—15FEB19



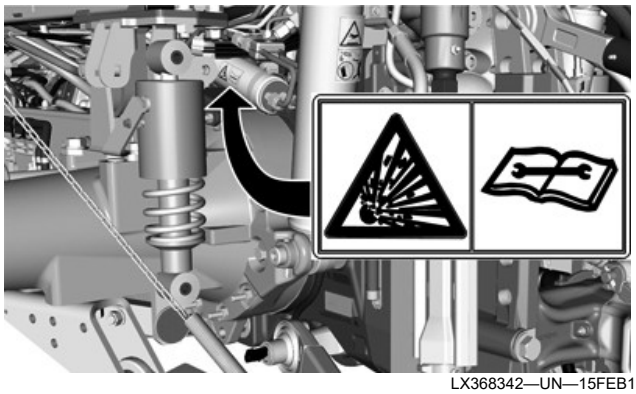
LX368340—UN—15FEB19

CAUTION: Avoid injury from crushing; avoid injury from spraying fluid.

Releasing pressure may cause machine movement and exposure to fluid under pressure. Contact a John Deere dealer or other service provider for instructions on relieving pressure before servicing system.

OULXA64,EU10,MCtoMX,00057AE-19-16JUL25

Pressure Accumulator of the Brake System



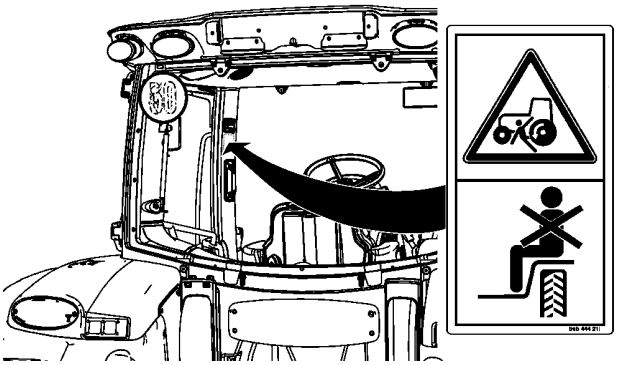
LX368342—UN—15FEB19

CAUTION: Avoid injury from crushing; avoid injury from spraying fluid.

Releasing pressure may cause machine movement and exposure to fluid under pressure. Contact a John Deere dealer or other service provider for instructions on relieving pressure before servicing system.

OULXA64,EU12,6M,MC,00058A7-19-17JUL25

Never Carry Riders (China Only)



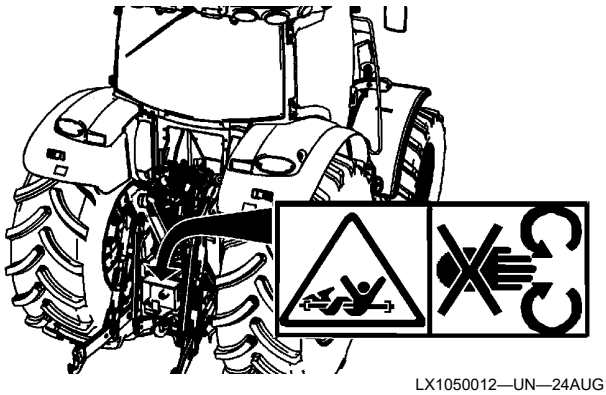
LX1050015—UN—26AUG11

CAUTION: Avoid falling and being struck.

Keep riders off. Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

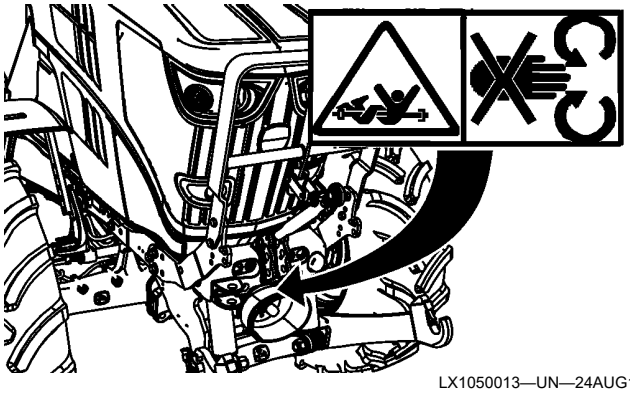
OULXA64,EX01,China,0005570-19-22SEP23

PTOs and Rotating Parts of Implements (China Only)



LX1050012—UN—24AUG11

Rear PTO



LX1050013—UN—24AUG11

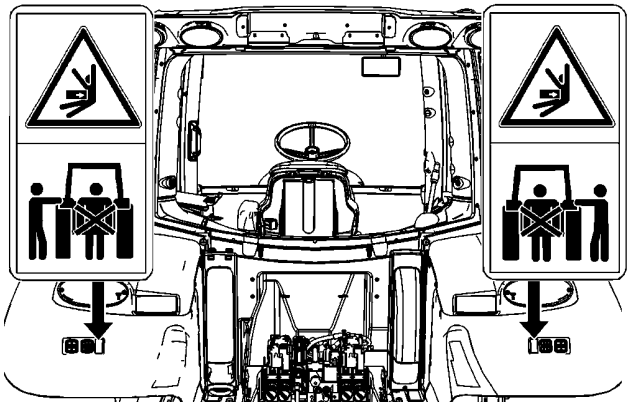
Front PTO (If Equipped)

CAUTION: Avoid entanglement.

Stay away from rotating components. Shut off the engine and wait until all components have stopped turning.

OULXA64,EX02,China,000531E-19-22SEP23

Hitch Remote Control (China Only)



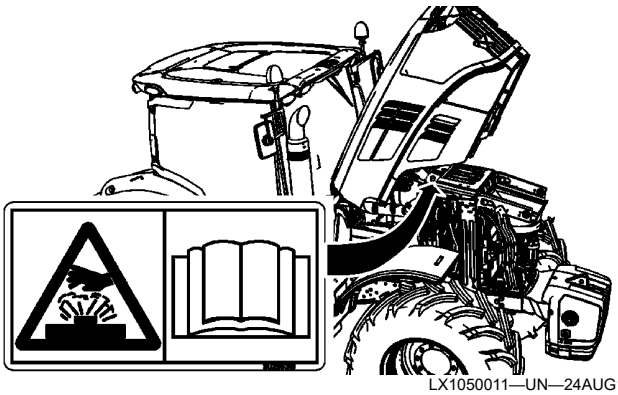
LX1057495—UN—10DEC14

CAUTION: Avoid crush injury.

When attaching or detaching an implement, there is a risk of crushing in the area between the tractor and implement. When attaching to the hitch, stay clear of the area where the three-point hitch is raised and do not permit anyone to be in the area.

OULXA64,EX04,China,000531F-19-22SEP23

Engine Cooling System (China Only)



LX1050011—UN—24AUG11

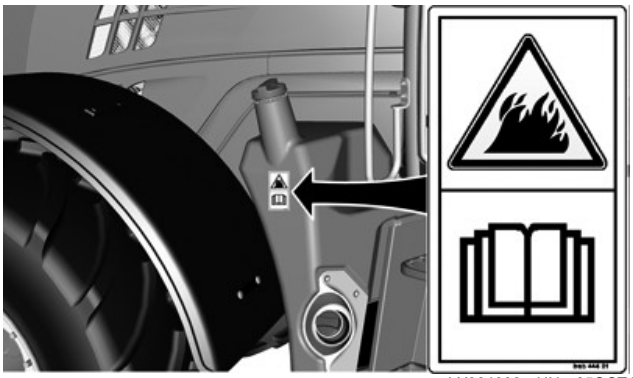
CAUTION: Avoid scalding.

Coolant is under high pressure. Before removing the cap, allow sufficient time for the cooling system to cool down and for pressure to drop.

Shut off the engine, open the hood, and wait until the cooling system has cooled down. Do not open the cap unless the hoses of the cooling system are cool enough to be touched with your bare hand. First open the cap only far enough to allow the pressure to drop, then unscrew it completely.

OULXA64,EX05,China,0005320-19-22SEP23

Fuel Tank (China Only)



LX364066—UN—25OCT18

CAUTION: Handle fuel with care. It is highly flammable.

Do not refuel while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Refuel only outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

OULXA64,EX06,China,0005321-19-22SEP23

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LX25458,00009AE-19-05JUN20

Identification Views



LX364421—UN—23AUG19

Tractor Shown with Operator's Cab and Additional Equipment

OULXA64,SP1,4WD,EU,00058A8-19-17NOV20

Identification Views



LX364395—UN—15MAY19

Tractor Shown with Operator's Cab and Additional Equipment

OULXA64,SP1,2WD,EX,00058A9-19-17NOV20

Operator's Manual—General Information

General Information and Scope of Manual

This manual is not a detailed service manual. It contains information meant primarily for machine operation and routine maintenance. For more detailed service information, order a Technical Manual. See www.techpubs.deere.com (Ag&Turf/JDPS).

IMPORTANT: Depending on the regional peculiarities and individual vehicle configuration, the specifications are only applicable if the corresponding equipment is available.

The configuration can be found in the order information of the vehicle.

Subsequent additions and conversions must also be taken into account.

- The technical information in this Operator's Manual corresponds to the current information at the time of printing.
- Country and model-specific deviations are possible. Consider that your tractor is not equipped with all the options described here.
- Depending on the country, not all models and equipment variants mentioned are available.
- Contact a John Deere dealer or other service provider if you have any questions about optional equipment and the relevant specifications.

LX25458,00009B0-19-11JUL25

How to Use This Manual

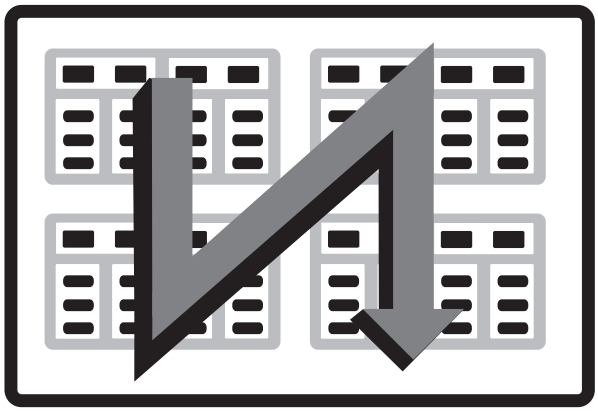
The information in this Operator's Manual is divided into sections. The sections are organized with the typical machine features or functional systems together (Engine, Electrical, Hydraulic, Transmission, and so forth). These sections are identified at the top of each page. Specific information within each section is organized into blocks. These blocks are enclosed in boxes and the main blocks are identified with a heading at the top left. Page numbers identify the section as well as the number of the page in the section.

By reviewing this manual frequently you learn which section to turn to for specific information. For example:

- Safety information is covered at the beginning.
- Operation of all features and systems is covered in the first half of the manual.
- Maintenance intervals are in the middle of the manual.
- Maintenance of all the features and systems is covered in the second half of the manual.
- Specifications are covered at the end.

A detailed table of contents appears before the Glossary. An alphabetical index is at the very end of the manual.

The contents of the Operator's Manual are displayed column by column from left to right.

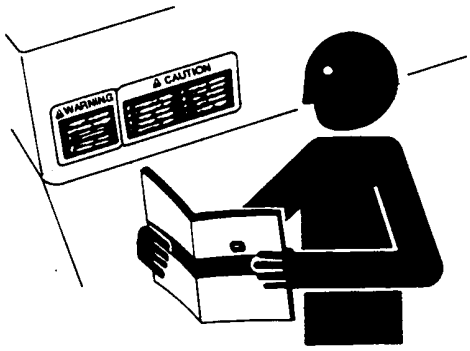


W28329—UN—18OCT17

The texts and graphs are displayed in the columns as shown sequentially from top to bottom.

LX25458,MY20,00009B1-19-28MAR23

Comply with Operator's Manuals of Implement Manufacturers



TS201—UN—15APR13

CAUTION: Disregarding the manufacturer's specifications on implements and trailers, as well as the relevant Operator's Manuals, poses the risk of severe or fatal injury.

Before operating the tractor in conjunction with a mounted implement or trailer, it is the responsibility of the operator to become familiar with the relevant Operator's Manuals. Operator errors may have serious consequences.

Operator's Manuals and the safety decals on mounted implements and trailers provide important information on how to operate them safely. For this reason, it is important to make yourself familiar with them before

starting work. Operator's Manuals must be provided to all operators of the tractor.

LX25458,MY20,00009B2-19-27MAR23

EU Qualified Emergency Use — SCR Derate Override Option

NOTE: This is an EU only option.

IMPORTANT: Operating the engine without emissions related derates could damage the aftertreatment system.

Description: EU Qualified Emergency Use – SCR Derate Override Option

Under the EU regulations, this engine may be fitted with a means to disable the operator inducement (SCR Derate Override) during a qualified emergency. Using this option is only permitted during an emergency declared by a national or regional government, their emergency services, or their armed services. Any activation will be recorded in the on-board computer log and national inspection authorities will be able to read these records with a scan tool.

Emergency SCR Derate Override enables a Selective Catalyst Reduction (SCR) equipped application to operate without emissions-related derates for a specified period of time during qualified emergency situations. A qualified emergency situation is one in which the condition of an engine's emission controls poses a significant direct or indirect risk to human life. An example of a direct risk is an emission control condition that inhibits the performance of an engine being used to rescue a person from a life-threatening situation. An example of an indirect risk is an emission control condition that inhibits the performance of an engine being used to provide electrical power to a data center that routes ‘‘911’’ emergency response telecommunications.

Emergency SCR Derate Override Activation / Reporting

The operator can activate the Emergency SCR Derate Override through the operator interface. Once activated, the engine can operate free of emissions-related derates for 120 hours. If the derate condition is corrected during the 120 hours, the Emergency SCR Derate Override can be paused in order to preserve the remainder of time for future use. The option expires along with any remaining time 240 hours after the Emergency SCR Derate Override is activated.

When the Emergency SCR Derate Override has expired, the engine informational Diagnostic Trouble Code (DTC) is displayed to the operator upon every engine start and every hour until acknowledged by the operator. To clear the DTC and reset the Emergency SCR Derate Override timer for future use, the operator (or other person responsible for the engine/equipment) must submit a report to the John Deere Dealer Technical Assistance Center, which must include the following:

- Contact name, mail and email addresses, and telephone number for responsible company or entity
- Description of the emergency situation, the location of the engine during the emergency, and the contact information for an official who can verify the emergency situation (such as a county sheriff, fire marshal, or hospital administrator)
- Reason for the Emergency SCR Derate Override activation during the emergency situation, such as the lack of diesel exhaust fluid, or the failure of an emission-related sensor when the engine was needed to respond to an emergency situation
- Engine's serial number
- Description of the extent and duration of the engine operation while the Emergency SCR Derate Override was active, including a statement describing whether or not the Override was manually deactivated after the emergency situation ended

In no event may this report be submitted to John Deere or other qualified service provide later than 60 calendar days after the Emergency SCR Derate Override is activated.

LEGAL Notification

Any activation will be recorded in the on-board computer log and national inspection authorities will be able to read these records with a scan tool.

DX,SCR,EMRGNCY,OVERIDE,EU-19-19JAN18

Important Engine Information

The guarantee does not apply to engine and drivetrain damage caused by impermissible engine settings.

Manipulations violate the emission regulations that apply to this engine and may be subject to prosecution.

020,001,ALL,LX25458,00009B4-19-10APR24

Engines with Turbocharger

Most damage to the turbocharger is caused by not following the correct procedure when starting and shutting off the engine. After starting and before shutting off, idle the engine without load for at least 30 seconds.

IMPORTANT: If the engine stalls when in operation, restart it IMMEDIATELY. This will prevent the turbocharger from overheating.

020,002,ALL,LX25458,00009B5-19-21JUL25

Engine Protection

Malfunctions in the fuel system and engine are indicated by the STOP light, ATTENTION light and INFO light

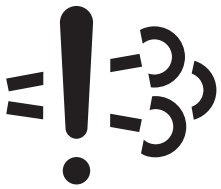
coming on. In addition, a message appears on the Corner Post Display.

NOTE: For more information on possible errors and diagnostic trouble codes, see the component manual for the fuel system.

020,003,ALL,MY20,LX25458,0009B6-19-16JUL25

Required Machine Stop Warning

Machine Stop Mandate Occurs



RG22491—UN—21AUG13

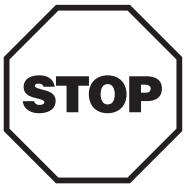
IMPORTANT: In some situations, machine engine power may be reduced as described. On notification, immediately place the machine in a safe state and or move it to a safe location. A mandated machine stop can only be removed by a service technician.

Engine Emissions System Malfunction Indicator illuminates when an emission-related fault occurs.



RG22492—UN—21AUG13

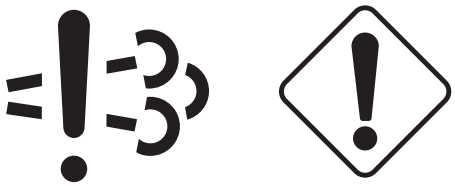
Warning Indicator illuminates when a condition exists which requires operator action.



RG22493—UN—21AUG13

Engine Stop Indicator illuminates when a condition exists which requires immediate operator action and service.

Emission System Fault Has Occurred



RG26361—UN—04SEP14

30 minutes remaining, Engine Emissions System Malfunction and Warning Indicators are illuminated and alarm sounds to warn operator of emissions-related fault. “Less than 30 minutes to Power Restriction” displayed on machines with display.

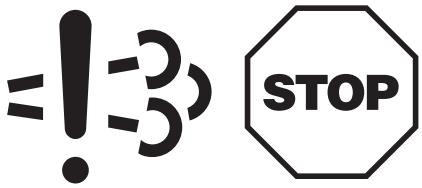
- Engine power is normal.
- Machine operation is normal.
- Place machine in a safe state.
- Contact service provider.



RG26972—UN—26MAR15

20 minutes remaining, Engine Emissions System Malfunction and Engine Stop Indicators are illuminated and alarm sounds to warn operator of emissions-related fault. “Less than 20 minutes to Power Restriction” displayed on machines with displays.

- Engine power and torque are reduced.
- Key Off - Key On will temporarily provide full power.
- Place machine in a safe state.
- Contact service provider.



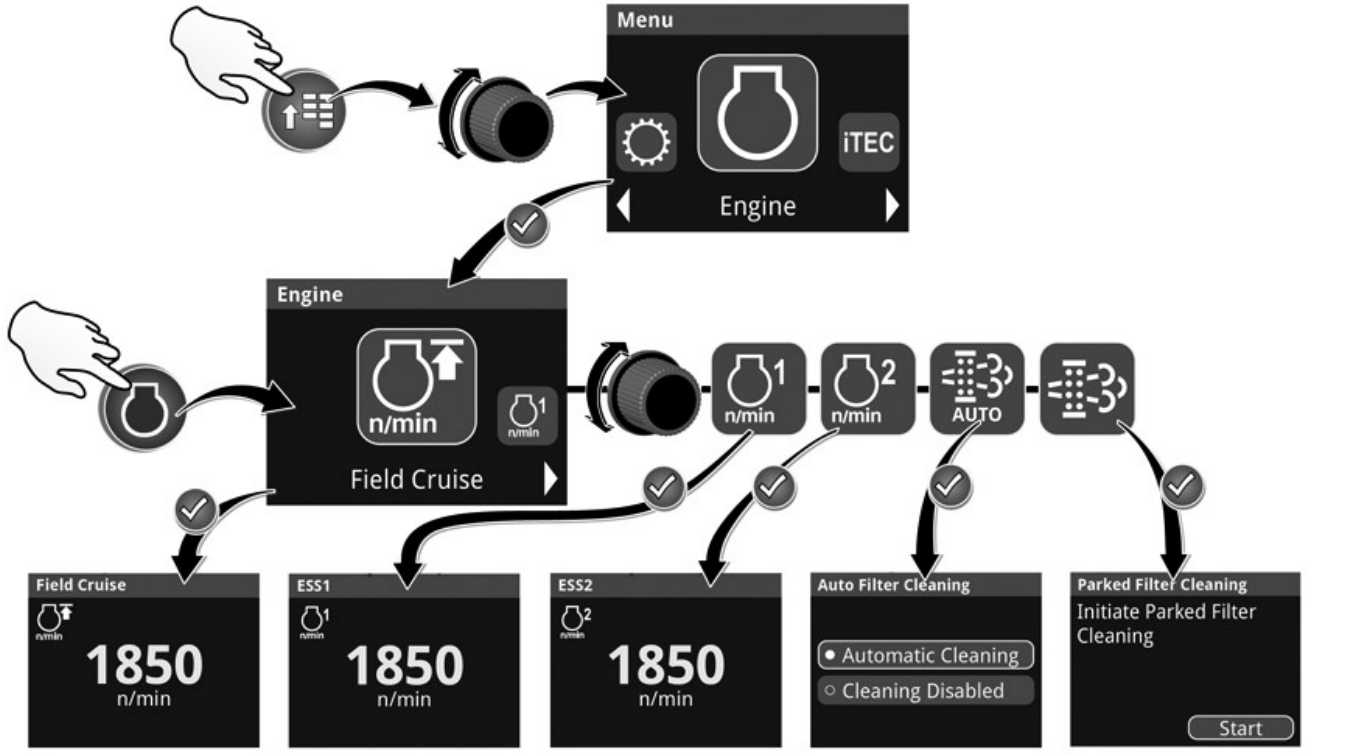
RG26972—UN—26MAR15

2 minutes or less remaining, Engine Emissions System Malfunction and Engine Stop Indicators are illuminated and alarm sounds to warn operator of emissions-related fault which has not been corrected. “Power Restriction” displayed on machines with displays.

- Engine power is idle only.
- Place machine in a safe state.
- Contact service provider.

DX,MACHSTOPWARN,AG-19-02OCT15

Engine Menu

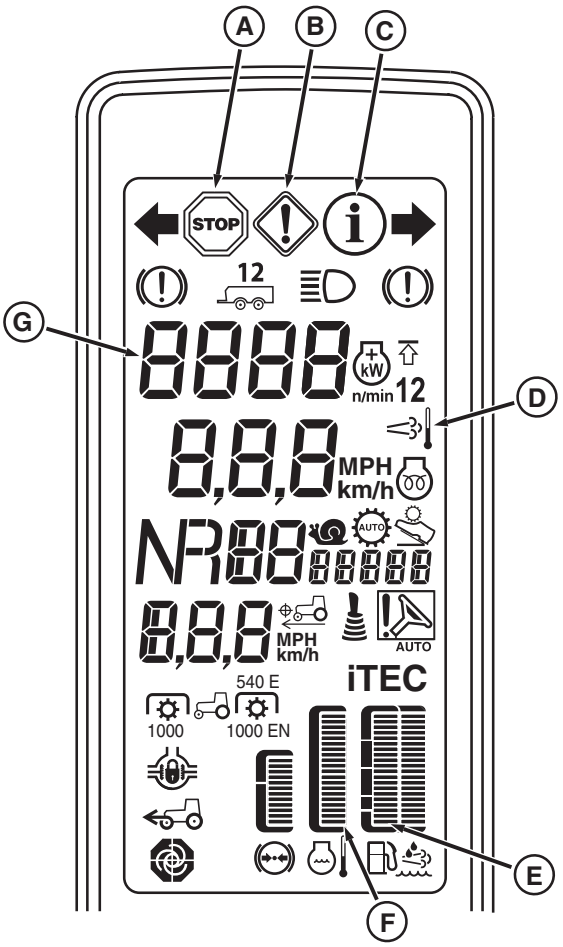


LX368269—UN—15FEB19

Engine Menu

OULXA64,6M,0005573-19-04SEP20

Check Engine Indicator Lights and Displays



RXA0155018—UN—26OCT16

A—STOP Indicator
B—ATTENTION Indicator
C—INFO Indicator
D—High Exhaust Temperature Indicator
E—Fuel Gauge
F—Coolant Temperature Gauge
G—Engine Speed

A - STOP Indicator: Flashes and an audible alarm sounds continuously if a serious malfunction occurs. Diagnostic trouble codes are present that require a machine shutdown. Stop immediately, reduce engine speed, then SHUT OFF engine, or engine damage occurs.

B - ATTENTION Indicator: Flashes and an audible alarm sounds five times if a malfunction occurs. Diagnostic trouble codes are present, although an immediate machine shutdown is not required. Access the diagnostic menu to determine if diagnostic trouble codes are present. See Section 300B.

C - INFO Indicator: Illuminates continuously to indicate a possible problem. Diagnostic trouble codes can be present. Access the diagnostic menu to determine if diagnostic trouble codes are present. See Section 300B.

D - High Exhaust Temperature Indicator: Illuminates during the automatic exhaust filter cleaning.

E - Fuel Gauge: Indicates the volume of fuel left in the tank. As volume is reduced, bars disappear from the display. Avoid running out of fuel to prevent damage to engine components.

F - Coolant Temperature Gauge: Indicates the engine coolant temperature. If indicator bars reach the red zone on the display, shut down the engine. Clean debris from grilles, radiator, and coolers. Allow the engine to cool completely, then check coolant level and fan belt tension.

G - Engine Speed: Engine revolutions per minute (rpm) are represented in hundreds.

OULXA64,6M,0005574-19-16JUL25

Intelligent Power Management (Power Boost)

Intelligent Power Management provides additional engine power for work with the rear PTO in driving mode and during transport work when the rear PTO is switched off. If power boost is active, the following symbol appears on the corner post display.



LX364493—UN—15OCT19

Symbol for Power Boost

Power boost is activated automatically when starting the engine.

During transport work with switched-off rear PTO, the power boost is provided automatically when ground speed exceeds 15 km/h (9.3 mph). Maximum power boost becomes available from a speed of 20 km/h (12.4 mph). This power boost persists until the ground speed drops below 10 km/h (6.2 mph).

When work is performed with PTO-powered devices, the power boost is provided steplessly starting from a travel speed of 1 km/h (0.6 mph). The power boost is provided only if the electronics of the tractor detect a significant power need at the rear PTO. A maximum power boost first becomes available from a speed of 2.5 km/h (1.5 mph). Here too, the condition is that the load on the rear PTO has to be correspondingly high.

NOTE: When working with the PTO, the power boost is done basically only if there is a significant power need at the rear PTO.

The power boost is not available for working with the front PTO.

OULXA64,6M,0005575-19-19APR23

Starting the Engine

CAUTION: Never operate the engine in a closed building. Danger of poisoning!

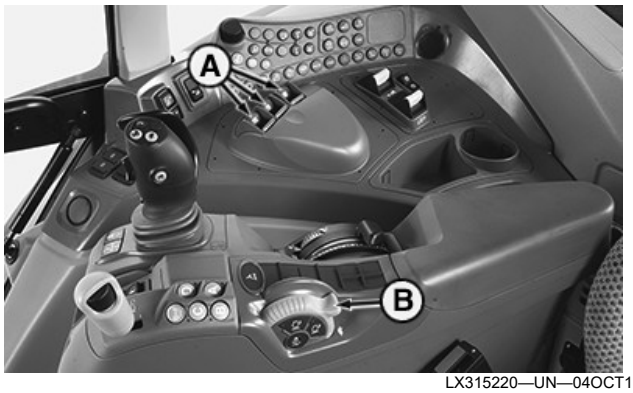
Close hood before starting engine.

1. Shift lever (A) to neutral position.



LX315219—UN—04OCT18

PowrQuad™ PLUS / AutoQuad™ PLUS



LX315220—UN—04OCT18

CommandQuad™ PLUS

A—SCV Control Levers
B—Hand Throttle

2. Set hand throttle (B) to medium speed (first third).
3. Activate "Neutral" with the reverse drive lever (C) and engage the park lock.



LX315221—UN—04OCT18

C—Reverse Drive Lever
D—Key Switch

4. Turn key in key switch (D) one position to the right.
5. Wait until the glow-plug indicator light (E) goes out.



LX315222—UN—04OCT18

E—Glow-Plug Indicator Light

6. Turn key in key switch (D) clockwise to end position. As soon as engine starts, release key.

NOTE: In cold ambient temperatures, an engine preheater countdown will appear in the corner post display. To allow best engine cold start performance, an engine starting event should happen only once timer reaches 0. The countdown duration depends on the fuel, coolant and intake air temperatures.

Do not operate starting motor for more than 30 seconds at a time. Turn key in key switch to “zero”. Wait at least one minute before attempting to start again.

After starting the engine, wait 2 seconds before operating switches or controls, while the tractor completes its self-check.

IMPORTANT: During the warm-up phase, operate the tractor at moderate load only. Once operating temperature has been reached (see temperature indicator), full power becomes available.

NOTE: Until a coolant temperature of 20°C (68°F) is reached, the engine will rotate at an increased lower idle speed (at least 1050 rpm). Engine speed depends on the transmission type.

Please note:

When the engine is stopped and restarted, various functions are reset to their default settings.

Functions that are reset to the default when restarted. Some functions depend on the equipment of the tractor.	
Feature	Setting at restart
Loader suspension system	OFF
Power take-off	OFF
PTO, Remote Control	OFF
Differential lock	OFF
Direction of travel	NEUTRAL
Joystick, electric	Locked
E-SCVs	Locked
iTEC™	OFF

OULXA64,6M,0005576-19-12DEC23

Engine Start with an Auxiliary Battery

CAUTION: It is permissible to start a tractor with an auxiliary battery only if that tractor is equipped for jump-starting connections authorized by John Deere. If a tractor is not equipped with connections for jump-starting with an auxiliary battery, then the discharged or defective battery must be replaced with a battery that is sufficiently charged.

CAUTION: Danger of injury, danger of explosion! Comply with safety instructions. See Handling Batteries Safely in Section 05 and Battery – Disconnect the Electrical Circuit in Section 220B.

CAUTION: Be sure polarity is correct before making connections.

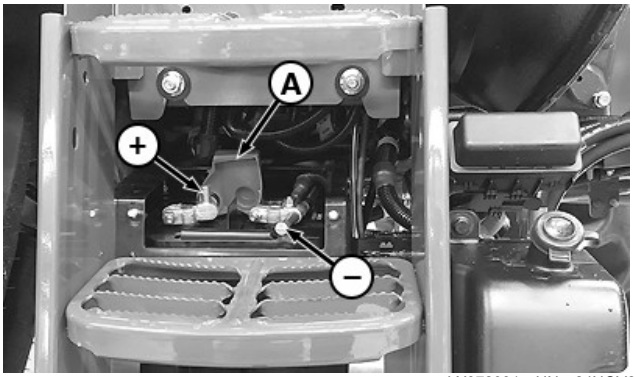
- **CONNECTING: Connect positive terminal (+) first and then negative terminal (-)!**
- **DISCONNECTING: Disconnect the negative terminal (-) first and then the positive terminal (+)!**
- **Reversed polarity will damage the electrical system.**

IMPORTANT: Cables used for jump-starting must be connected only to the (+) and (-) terminals provided for this purpose.

- **For jump-starting, use certified jump-start cables designed for the tractor application with cross-section 70 mm² only.**
- **Use only jump-start cables with insulated terminals.**
- **DO NOT USE jump-start cable with damaged isolation.**

IMPORTANT: If the engine is to be started using an auxiliary battery or run for a short time without battery, do not raise engine speed above 1000 rpm. Furthermore, use additional current (lights) while engine is running.

IMPORTANT: With battery disconnected, insulate the positive battery cable (+) properly to protect the alternator from damage. See also Important Instructions Regarding Alternator in Section 210.



LX372931—UN—24NOV20

Most tractors are equipped with connections for jump-starting.[1]

To jump-start, lift up cover (A) and connect positive terminals (+) before connecting negative terminals (-).

Once work is finished, first disconnect negative terminal (-) and then positive terminal (+). Close cover (A) again.

OULXA64,SP1,00058AA-19-17JUL25

Shutting Off the Engine

IMPORTANT: Do NOT shut off the engine while the tractor is moving (not even when it is rolling to a stop). To do so could damage the electronics as well as the transmission.

IMPORTANT: After heavy-duty work or driving at high engine speeds, do not shut off the engine immediately; wait for a few minutes with the engine running at low idle speed. This prevents the engine compartment from becoming too hot.

IMPORTANT: Lower mounted implement(s) or equipment to the ground before leaving the tractor. Pull the key out of the main switch.

IMPORTANT: Before leaving the tractor, confirm that the key switch is in the STOP position (A). If the key switch is *not* in the STOP position, the battery might discharge.

[1] *If there are no jumper connections, the discharged battery needs to be replaced with a charged battery.*



LX315197—UN—06NOV18

1. Stop the tractor.
2. Engage park lock.
3. Then turn the key switch counterclockwise into STOP position (A) to shut off the engine.

OULXA64,6M,0005578-19-22MAR21

Battery Disconnect System (If Equipped)

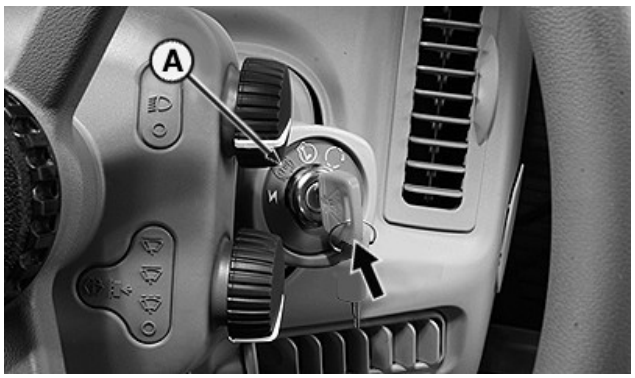
The battery disconnect system switches the on-board voltage on or off automatically.

On-board voltage can be switched on by:

- opening the door,
- switching on the lighting system, or
- switching on the hazard warning lights, or
- switching on the ignition with the key switch.

NOTE: If the on-board voltage has been switched on and no other electrical consumers have been switched on, the on-board voltage will be disconnected automatically after 5 minutes.

After the ignition is switched off (key switch in position (A), the on-board voltage is switched off automatically after 4 minutes at the latest when the door is closed.



LX315197—UN—06NOV18

IMPORTANT: When shutting off the engine (key switch in position (A), wait 4 minutes until disconnecting or removing the battery.

Switching off may be delayed by the following:

- The door has not been closed
  ► switched off automatically after 5 minutes
- Egress light is active
  ► switched off automatically after the duration of lighting has elapsed, 5 minutes maximum
- Vehicle lights have not been switched off
  ► automatically switched off after 5 minutes
- Hazard warning lights are on
  ► automatically switched off when battery protection voltage is reached

OULXA64,6M,0005579-19-08SEP20

Park the Tractor with PowrQuad™/ AutoQuad™ PLUS

IMPORTANT: Engage park lock only when the tractor is stationary.

IMPORTANT: When engaging the park lock, the following trailer brakes are activated:

- **Air Trailer Brake (If Equipped)**
- **Dual-Line Hydraulic Trailer Brake (If Equipped)**

Engage park lock when parked or when operating the tractor in stationary position.



LX315213—UN—05NOV18

Park Lock Engaged on PowrQuad™/AutoQuad™

NOTE: When engaging park lock on slopes, remember to actuate the service brake as well.

OULXA64,SP,EU,00057B0-19-26OCT20

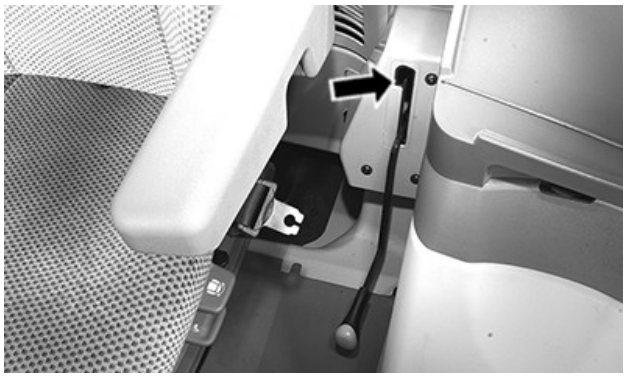
Park the Tractor with CommandQuad™ PLUS

IMPORTANT: Engage park lock only when the tractor is stationary.

IMPORTANT: When engaging the park lock, the following trailer brakes are activated:

- **Air Trailer Brake (If Equipped)**
- **Dual-Line Hydraulic Trailer Brake (If Equipped)**

Engage park lock when parked or when operating the tractor in stationary position.



LX315214—UN—05NOV18

Park Lock Engaged on CommandQuad™ PLUS

NOTE: When engaging park lock on slopes, remember to actuate the service brake as well.

OULXA64,SP,EU,00057B1-19-17NOV20

Park the Tractor with AutoPowr™/IVT™

IMPORTANT: Engage park lock only when the tractor is stationary.

IMPORTANT: When engaging the park lock, the following trailer brakes are activated:

- **Air Trailer Brake (If Equipped)**
- **Dual-Line Hydraulic Trailer Brake (If Equipped)**

Engage park lock when parked or when operating the tractor in stationary position.



LX372924—UN—27OCT20

Park Lock Engaged on AutoPowr™/IVT™

NOTE: In extremely cold temperatures, it may take up to 20 seconds for park to engage.

When engaging park lock on slopes, remember to actuate the service brake as well.

OULXA64,SP,EU,00057B2-19-26OCT20

Tow-Starting

IMPORTANT: Do not try to start the engine by tow-start.

In case of start problems, see Starting the Engine With an Auxiliary Battery" in this Section.

If the engine cannot be started, transport the tractor on a flatbed carrier.

IMPORTANT: Observe information given in Section 110.

LX25458,ALL,00009BF-19-23NOV20

Fill the Fuel Tank



TS202—UN—23AUG88

CAUTION: Handle fuel with care: It is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Refuel only outdoors.

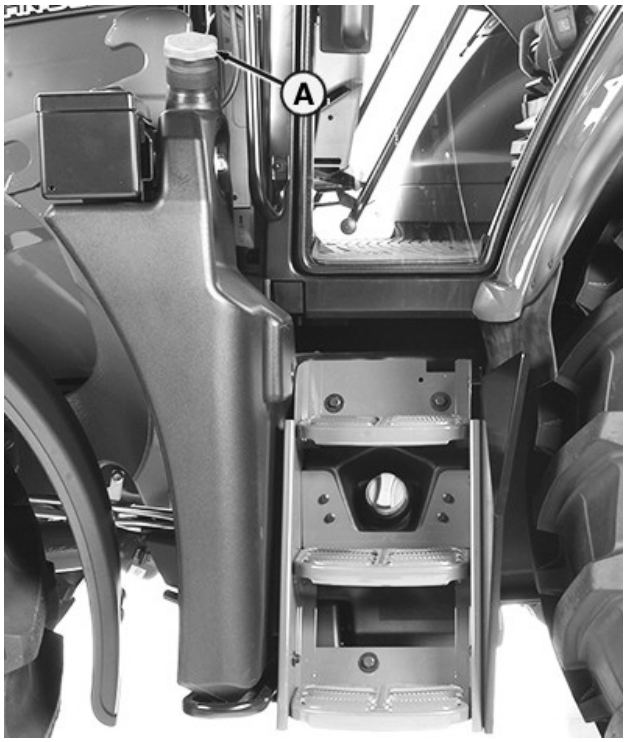
Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

IMPORTANT: To prevent damage to tractor fuel injection system and other components, never put diesel exhaust fluid (DEF) into fuel tank or fuel system.

NOTE: If the fuel level indicator begins to FLASH, then the level of the fuel is in the reserve range.

Fill fuel tank!

NOTE: Never run the tank completely dry, otherwise the system must be bled.



LX364420—UN—28AUG19

Example: Fuel Tank

A—Fuel Tank

Fill fuel tank (A) at the end of each day using only ultra-low sulfur fuel. This prevents condensation in tank as moist air cools.

Each time the fuel tank is filled, screw the cap back onto the filler neck.

OULXA64,SP1,00058AB-19-20APR23

Fill the DEF Tank

CAUTION: DEF contains urea. Do not get the substance in eyes. In case of contact, immediately rinse eyes with large amounts of water for a minimum of 15 minutes. Do not take internally. If any DEF was ingested, contact a physician immediately. Reference Material Safety Data Sheet (MSDS) for additional information.

IMPORTANT: Never put DEF in diesel fuel tank, or diesel fuel in DEF tank.

If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.



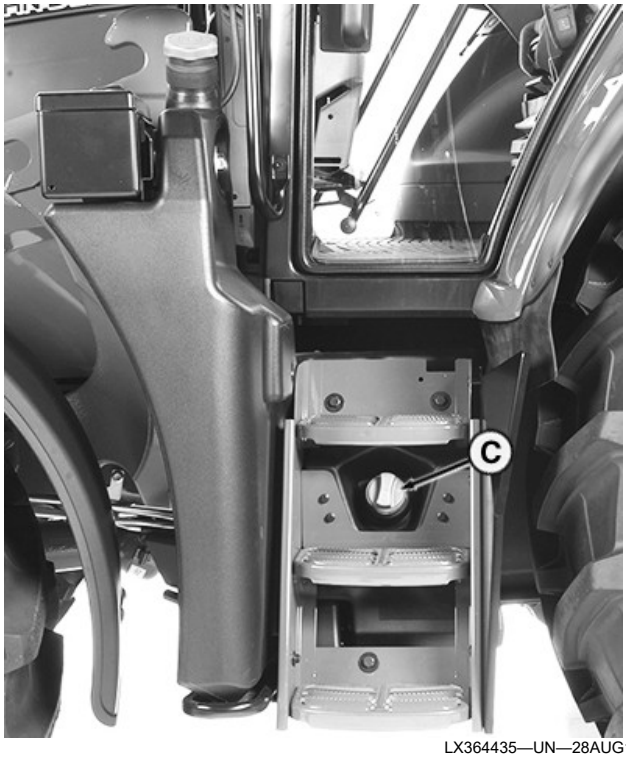
LX315217—UN—04OCT18

A—DEF Tank Fluid Level Indicator
B—Topmost Red Mark

Fill DEF tank every time tractor is refueled. If this is not possible, monitor DEF level and top up as needed. To avoid significant changes in tractor performance, always keep the DEF level above the topmost red mark (B).

NOTE: Spilled diesel exhaust fluid, if left to dry or if only wiped away with a cloth, leaves white residues. Aside from cosmetic issues, an improperly cleaned DEF spill may interfere with diagnosis of selective catalytic reduction (SCR) system leakage problems.

Fill DEF tank:



LX364435—UN—28AUG19

Example: DEF Tank Cap

C—DEF Tank Cap

1. Before using containers, funnels, etc. to dispense DEF, wash and rinse items thoroughly with distilled water to remove contaminants.
2. Wipe DEF tank cap (C) and area around cap and filler neck to reduce chance of contaminating DEF.
3. Remove DEF tank cap (C).
4. Using funnel, carefully pour DEF into tank, watching level through filler neck.
5. Securely tighten DEF tank cap (C).
6. Remove spilled DEF thoroughly and clean only with distilled water.

If an unapproved fluid, such as diesel fuel, or engine coolant is added to vehicle DEF tank, drain tank and rinse with distilled water, then refill tank.

OULXA64,SP1,00058AC-19-20APR23

Cold-Weather Operation

Cold Start Aids



LX374427—UN—05JUN19

Depending on equipment, various cold start aids are available at temperatures below 0°C (32°F).

These include e. g. coolant heater, transmission oil preheater, or charge pump preheater.

OULXA64,6M,000557D-19-08SEP20

Coolant Heater

CAUTION: Avoid tripping hazard resulting in serious personal injury.

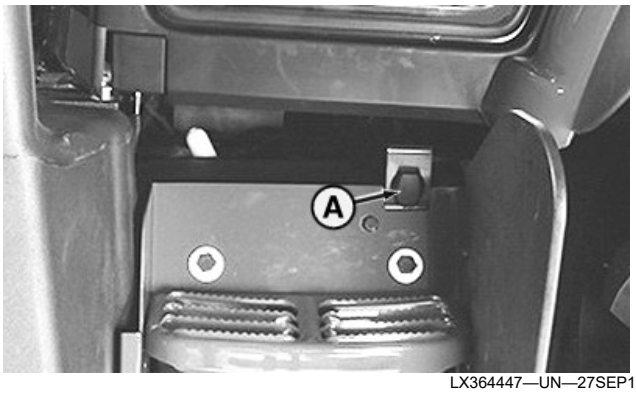
Obstacles in the area of the access step lead to tripping and thus to falling off the machine.

Remove all obstacles before getting on or off the machine.

These include in particular compressed-air hoses, electrical lines of coolant heater, and ground fault circuit interrupter (GFCI).

IMPORTANT: Observe the electrical voltage of the regional power grid.

The coolant heater must be suitable for the regional power grid. Depending on the coolant heater, an operating voltage of either 230 V or 120 V is permissible; never for both. Connector (A) allows only the connection to the appropriate power grid



LX364447—UN—27SEP19

NOTE: If equipped, the transmission oil preheater and charge pump preheater are also operated by means of connector (A).

At an ambient temperature of -15°C (5°F), the heating process takes about 2 hours. Extend the heating period if ambient temperature is lower.

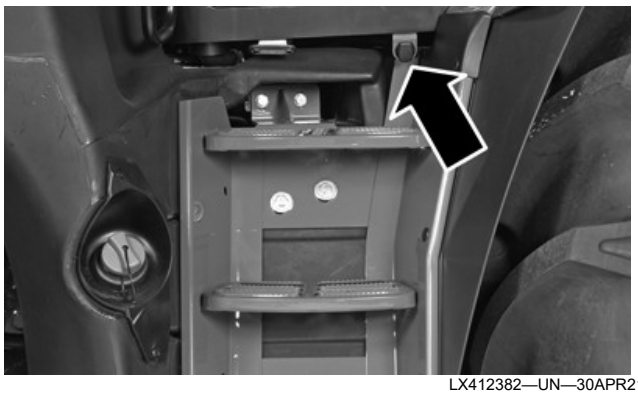
OULXA64,6M,000557E-19-19APR23

Connecting the Coolant Heater to a 230 V Power Grid

The following description applies to tractors intended for use in European countries with a 230 V power supply.

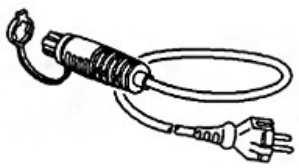


LX514238—UN—01FEB22



LX412382—UN—30APR21

Preheating System Socket



LX514240—UN—01FEB22

Adapter Cord, EU 230 V, AL159497

CAUTION: Danger to life from electric shock and fire.

A short circuit to ground can lead to fatal electric shock. Damaged, energized cables and electric components can cause tractor components to carry live voltage without this being noticed, and it can also cause circuits to short. This can cause fires, and touching these components can lead to fatal electric shock.

For this reason, the preheating system must always be connected to a socket with a maximum current of 15 A and a fault current monitoring. If an extension cable is used, it must meet the general requirements for outdoor operation, and it must be suitable for a current load of at least 15 A.

The Adapter Cord AL159497 (used in Europe) is allowed only if the 230 V power grid connected to is protected by an integrated GFCI (Ground Fault Circuit Interrupter). This Adapter Cord does NOT provide any protection in the case of a ground fault or other malfunctions.

CAUTION: Avoid tripping hazard resulting in serious personal injury.

Obstacles in the area of the access step lead to tripping and thus to falling off the machine.

Remove all obstacles before getting on or off.

230 V Preheating System Adapter Cord		
Country/Region	Power Grid Complies with the Standard	Adapter Cord
Europe	230 V AC supply per EN 50160	AL159497

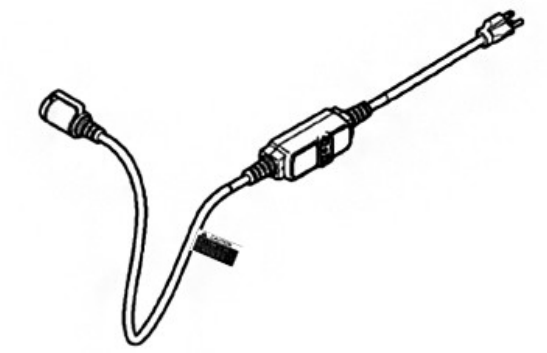
OULXBER,0003157-19-27MAR23

Ground Fault Circuit Interrupter (GFCI), 120 V

The following description applies to tractors intended for use in countries with a 120 V power supply.

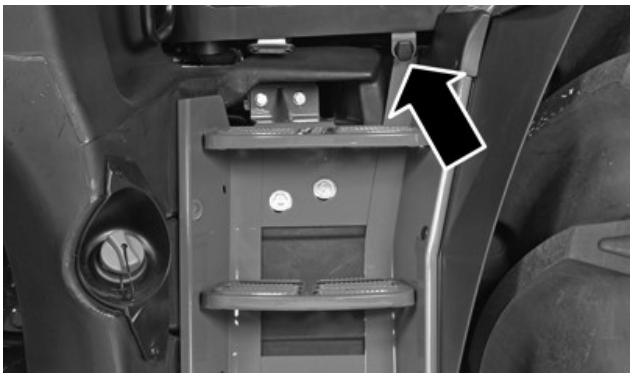


LX514238—UN—01FEB22



LX514239—UN—10FEB22

Example: GFCI AL214182



LX412382—UN—30APR21

Preheating System Socket

CAUTION: Danger to life from electric shock and fire.

A short circuit to ground can lead to fatal electric shock. Damaged, energized cables and electric components can cause tractor components to carry live voltage without this being noticed, and it can also cause circuits to short. This can cause fires, and touching these components can lead to fatal electric shock.

For this reason, the preheating system must always be connected to a socket with a maximum current of 15 A and a fault current monitoring. If an extension cable is used, it must meet the general requirements for outdoor operation, and it must be suitable for a current load of at least 15 A.

When the electrical preheating system is connected to the power grid, a ground fault circuit interrupter (GFCI) must be used. Test the functionality before using the GFCI. Testing is only possible if the GFCI provides a test function (versions II and III).

The GFCI protects the user only if he touches the vehicle's preheating system components. The GFCI does not protect against electric shock due to possible defects or failures in an extension cord or other wiring supplying the GFCI, as well as in the event of a short circuit between hot and neutral conductor.

In addition to the descriptions in this Operator's Manual, the information attached to the GFCI must also be observed.

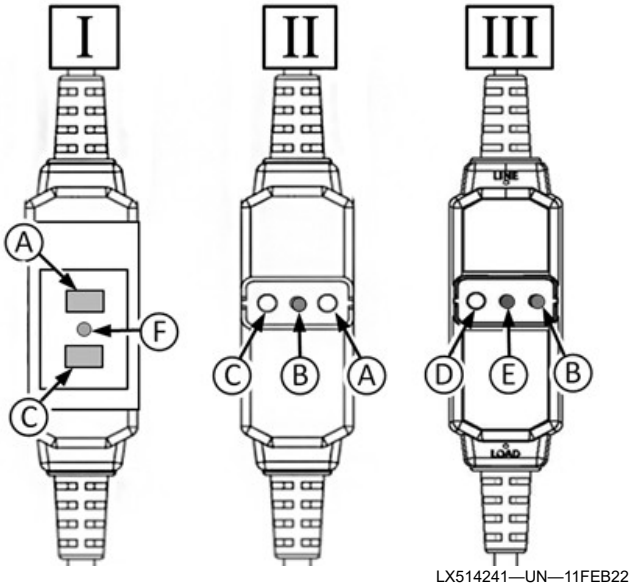
CAUTION: Avoid tripping hazard resulting in serious personal injury.

Obstacles in the area of the access step lead to tripping and thus to falling off the machine.

Remove all obstacles before getting on or off.

NOTE: Locate the socket to connect the electric preheating system to the vehicle, see the arrow.

Ground Fault Circuit Interrupters (GFCI), Identify the Different Versions



LX514241—UN—11FEB22

GFCI Versions

A—Reset Button
B—Operation Indicator Light (green)
C—Test Button
D—Reset/Test Button (2 in 1)
E—Fault Indicator Light (red)
F—Operation Indicator Light

Functions Included	Version I	Version II	Version III
Auto Self-Test	no	no	yes
Manually Self-Test	yes	yes	yes
Auto-Reset	no	yes	yes
Manually Reset	yes	yes	yes
Part Number	AL214182	AL221662	AL237293

120 V Ground Fault Circuit Interrupter (GFCI)		
Country/Region	Power Grid Complies with the Standard	GFCI
North America	120 V AC supply per ANSI C84.1 range B	Version I: AL214182 Version II: AL221662 Version III: AL237293
Other Countries		

Operating Instructions

Operating Instruction, Version I:

NOTE: For Version I only, every time the electrical preheating system is switched on (regardless of timer), the reset button (A) at the ground fault circuit interrupter (GFCI) must be pressed before it is used.

1. Connect the GFCI to the socket of the electrical preheating system.
2. Connect the GFCI to the electric power grid.
3. Press and release the reset button (A). The operation indicator light (F) must light on.
4. Test the GFCI before each use: Press test button (C) and make sure the light (F) turns off. This indicates that the test was successful. DO NOT OPERATE THE PREHEATING SYSTEM IF THE GFCI TEST FAILS.
5. Press and release the reset button (A) to reactivate the device. The GFCI is ready for use when the light (F) is on.

If the reset fails, there is a fault in the electrical system. Never use a GFCI if the functionality is not

guaranteed. Check and repair the preheating system as necessary.

Operating Instruction, Version II:

1. Connect the GFCI to the socket of the electrical preheating system.
2. Connect the GFCI to the electric power grid.
3. The green light (C) must light on. If the green light is not on, press and release the reset button (B).
4. Test the GFCI before each use: Press test button (D) and make sure the green light (C) turns off. This indicates that the test was successful. DO NOT OPERATE THE PREHEATING SYSTEM IF THE GFCI TEST FAILS!
5. Press and release the reset button (B) to reactivate the device. The GFCI is ready for use when the green light (C) is on. If the reset fails, there is a fault in the electrical system.

Operating Instruction, Version III:

1. Connect the GFCI to the socket of the electrical preheating system.
2. Connect the GFCI to the electric power grid.
3. The green light (G) must light on. If the green light is not on, press and release the reset/test button (E).
4. Test the GFCI before each use: Press reset/test button (E). The red fault indicator light (F) begins flashing while the green operation indicator light (G) remains steady on. After the test sequence, the red light (F) will turn off and the green light (G) will remain on to indicate that the test was successful. DO NOT OPERATE THE PREHEATING SYSTEM IF THE GFCI TEST FAILS!
5. The GFCI is ready for use when the green light (C) is on, and the red light is off.

If the reset or the test fails, there is a fault in the electrical system. Never use a GFCI if the functionality is not guaranteed. Check and repair the preheating system as necessary.

NOTE: Version II and III only, the AUTOMATIC RESET function automatically restores power to connect the devices after they are disconnected or after power interruptions.

For all GFCIs, use only with mating or larger (smaller numerical value) extension cord for 15 rated devices and 12 AWG, or larger for 20 A rated devices, plugged into the load (receptacle/ connector) side of the GFCI device.

OULXA64,ALL,0005785-19-27MAR23

Exhaust Filter Cleaning, General Information

The tractor is equipped with an efficient exhaust filter system. Sensors monitor the condition of the exhaust system and initiate the cleaning process when load on exhaust filter becomes excessive.

1. Passive exhaust filter cleaning always takes place in phases when the engine is at medium or high load.
2. The automatic exhaust filter cleaning is started as soon as the soot in the exhaust filter reaches a certain level.
3. Manually initiated exhaust filter cleaning with tractor parked enables the operator to start the cleaning process manually when a corresponding message appears on the digital display.
4. For the service cleaning, it is necessary to contact a John Deere dealer or other service provider.

More information on exhaust filter cleaning can be found on the following pages.

IMPORTANT: Recommended practice is to keep automatic exhaust filter cleaning activated. See relevant text in this section.

Comply with safety instructions; see Clean Exhaust Filter Safely in Section 05.



LX364317—UN—22FEB19

An indicator light comes on to show that the exhaust filter is currently being cleaned (see arrow).

Tips for avoiding the service cleaning or filter cleaning with tractor parked:

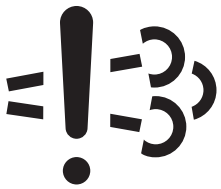
- Activate automatic exhaust filter cleaning.
- Avoid unnecessary idling.
- Do not interrupt cleaning processes unless it is absolutely necessary.
- If possible, do not shut off the engine while the exhaust filter cleaning indicator light is still on.
- Only use fuels with very low sulfur content.
- Take note of the information displayed for the operator, and act accordingly.

NOTE: It is important to use high-quality consumables. Use only consumables that are specified in Sections 200A to 200E.

OULXA64,6M,000557F-19-15JUL25

Required Machine Stop Warning

Machine Stop Mandate Occurs



RG22491—UN—21AUG13

IMPORTANT: In some situations, machine engine power may be reduced as described. On notification, immediately place the machine in a safe state and or move it to a safe location. A mandated machine stop can only be removed by a service technician.

Engine Emissions System Malfunction Indicator illuminates when an emission-related fault occurs.



RG22492—UN—21AUG13

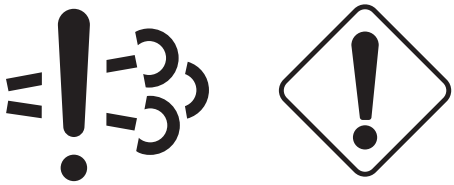
Warning Indicator illuminates when a condition exists which requires operator action.



RG22493—UN—21AUG13

Engine Stop Indicator illuminates when a condition exists which requires immediate operator action and service.

Emission System Fault Has Occurred



RG26361—UN—04SEP14

30 minutes remaining, Engine Emissions System Malfunction and Warning Indicators are illuminated and alarm sounds to warn operator of emissions-related

fault. “Less than 30 minutes to Power Restriction” displayed on machines with display.

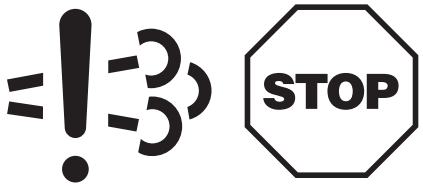
- Engine power is normal.
- Machine operation is normal.
- Place machine in a safe state.
- Contact service provider.



RG26972—UN—26MAR15

20 minutes remaining, Engine Emissions System Malfunction and Engine Stop Indicators are illuminated and alarm sounds to warn operator of emissions-related fault. “Less than 20 minutes to Power Restriction” displayed on machines with displays.

- Engine power and torque are reduced.
- Key Off - Key On will temporarily provide full power.
- Place machine in a safe state.
- Contact service provider.



RG26972—UN—26MAR15

2 minutes or less remaining, Engine Emissions System Malfunction and Engine Stop Indicators are illuminated and alarm sounds to warn operator of emissions-related fault which has not been corrected. “Power Restriction” displayed on machines with displays.

- Engine power is idle only.
- Place machine in a safe state.
- Contact service provider.

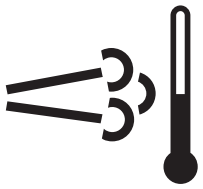
DX,MACHSTOPWARN,AG-19-02OCT15

Aftertreatment Indicators Overview



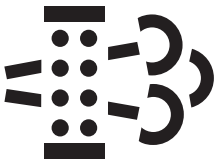
RG22487—UN—21AUG13

Diesel Exhaust Fluid Indicator



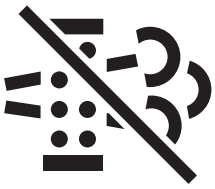
RG22488—UN—21AUG13

Engine Emissions Temperature Indicator



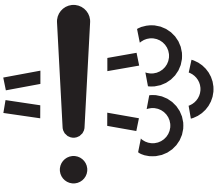
RG22489—UN—21AUG13

Exhaust Filter Indicator



RG22490—UN—21AUG13

Auto Cleaning Disabled Indicator



RG22491—UN—21AUG13

Engine Emissions System Malfunction Indicator



RG22492—UN—21AUG13

Warning Indicator



RG22493—UN—21AUG13

Engine Stop Indicator

IMPORTANT: The operator will be informed by the operator warning system when the emission control system does not function correctly and/or an engine malfunction is detected by the engine control unit. Ignoring the operator warning signals will lead to an emission related derate, resulting in an effective disablement of non-road mobile machinery operation.

It is essential to take prompt action to rectify any incorrect operation, use or maintenance of the emissions control system in accordance with the rectification measures indicated by the warnings referenced below.

The Diesel Exhaust Fluid (DEF) indicator illuminates when the DEF is low. Fill DEF tank.

When the DEF indicator is combined with the warning indicator or engine stop indicator engine performance is reduced by the Engine Control Unit (ECU) because the DEF is below a measurable level. Fill DEF tank.

When engine emissions temperature indicator illuminates exhaust gas temperature is high, elevated idle is active, or exhaust filter cleaning is in process. The machine can be operated as normal unless the operator determines the machine is not in a safe location for high exhaust temperatures and disables auto cleaning.

When engine emissions temperature indicator is combined with the warning indicator or engine stop indicator engine performance is reduced by the ECU because the exhaust gas temperature is higher than expected. Follow Diagnostic Trouble Code (DTC) procedure or see your authorized servicing dealer.

When the exhaust filter indicator illuminates the exhaust filter cleaning is in process, aftertreatment system has a fault, or the exhaust filter is in need of cleaning and the operator has disabled auto exhaust filter cleaning. If conditions are safe, the operator should enable the auto exhaust filter clean setting or perform manual service regeneration or follow DTC procedure.

When the exhaust filter indicator is combined with the warning indicator engine performance is reduced by the ECU because there is an aftertreatment system fault or the soot level of the exhaust filter is moderately high. If conditions are safe, the operator should enable the auto exhaust filter clean function. If conditions are not safe, the operator should move the machine to a safe location and engage the auto exhaust filter cleaning mode. Perform manual service regeneration or follow DTC procedure.

When the exhaust filter indicator is combined with the engine stop indicator engine performance is further reduced by the ECU because there is an aftertreatment system fault or the soot level of the exhaust filter is extremely high. If this combination is present, see your authorized servicing dealer.

The auto cleaning disabled indicator illuminates when the operator has engaged the request to disable the auto exhaust filter cleaning function. This icon remains illuminated until the operator re-engages automatic exhaust filter cleaning from the diagnostic gauge. Disabling auto mode is not recommended for any situation unless it is safety-related or if the fuel tank lacks the required fuel to complete the cleaning process.

The engine emissions system malfunction indicator illuminates when engine emissions are outside of normal operating range or engine emissions system fault. Follow DTC procedure or see your authorized servicing dealer.

When the engine emissions system malfunction indicator is combined with the warning indicator engine performance is reduced by the ECU because the engine emissions are outside of normal operating range or engine emissions system fault. Follow DTC procedure or see your authorized servicing dealer.

DX,AFTRTREAT,INDCATRS-19-12FEB18

Access the Engine Menu

See Engine Menu in section 20.

OULXA64,6M,0005580-19-08OCT20

Exhaust Filter Cleaning Overview

Overview:

IMPORTANT: The area over and surrounding the engine during a manual exhaust filter cleaning must be free of any flammable objects. Exhaust reaches temperatures as high as 550°C (1022° F).

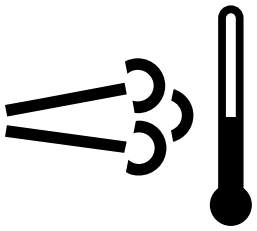
The exhaust filter requires periodical maintenance. Some of the maintenance is transparent to the operator. During continuous heavy loads and other conditions, the engine creates enough heat to remove accumulated soot in the exhaust filter naturally.

When the exhaust filter has accumulated higher levels of soot, the corner post display requests an exhaust filter cleaning. During this request, the equipment must be located or moved to a suitable location with adequate ventilation. Engine speed must be kept above 1200 rpm and filter cleaning allowed to finish uninterrupted. If using the machine to perform work, most of the time the filter cleaning occurs with little to no noticeable impact on the application.

The symbols which appear on the operator interface are shown. These symbols appear within the corner post display.

In addition to the symbols, there are notifications, alarms, and diagnostic trouble codes associated with exhaust filter cleaning. These messages appear on the information display to make the operator aware.

Emission System Temperature/Filter Cleaning Indicator:



H94829—UN—13OCT09

Emission System Temperature/Filter Cleaning Symbol

This indicator appears on the corner post display as a lighted icon. When this icon is illuminated, the emission system temperature is high enough to allow an automatic filter cleaning to occur or a filter cleaning is occurring.

Automatic exhaust filter cleaning is started when sulfur or urea deposits in the exhaust filter reach a certain level and the engine speed is above 1200 rpm. Engine system temperature/filter cleaning symbol remains illuminated during the exhaust filter cleaning. Automatic exhaust filter cleaning is initiated and performed without any intervention on the part of the operator.

Auto Filter Cleaning Icon:



RXA0152960—UN—21JUL16

Auto Filter Cleaning Selection

This icon is found in the engine menu on the information display. Changes to this setting will reduce machine performance over time. Selecting this option in the engine menu allows the operator to choose between Automatic Cleaning and Cleaning Disabled.

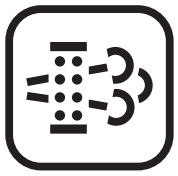
Leave the setting at Automatic Cleaning" at all times unless a condition exists where high exhaust temperatures are unacceptable. Each time the key is cycled off, the setting reverts to automatic cleaning.

CAUTION: Under certain circumstances, high exhaust temperatures associated with exhaust filter cleaning could pose a risk of fire. Changing the setting to Cleaning Disabled may be desirable for certain applications. Operations involving exhaust ducts in combined space and close to combustible materials, etc. should considered in this connection.

IMPORTANT: Disabling the filter cleaning process frequently leads to reduced engine performance and requires a parked exhaust filter cleaning more frequently.

NOTE: For additional display navigation information, see Basic Menu Navigation in section 30AA.

Filter Cleaning Icon:



RXA0152961—UN—21JUL16

Filter Cleaning Selection

IMPORTANT: If operator disregards indicators and continues to operate machine without allowing an automatic cleaning, engine performance is reduced. A parked exhaust filter cleaning procedure must be performed. Continued disregard requires a John Deere dealer or other service provider to perform a service exhaust cleaning procedure.

This icon is found in the engine menu on the information display. When allowed, a parked filter cleaning can be performed through this menu. If the exhaust filter has not been allowed to perform automatic cleaning on a regular basis or becomes plugged, a parked cleaning is required. If the system does not require a parked cleaning, the filter cleaning icon is unavailable to select.

Parked Filter Cleaning:

CAUTION: Parked exhaust filter cleaning creates high exhaust temperatures and takes 30—45 minutes to complete. Park machine in an area with adequate ventilation away from combustible materials.

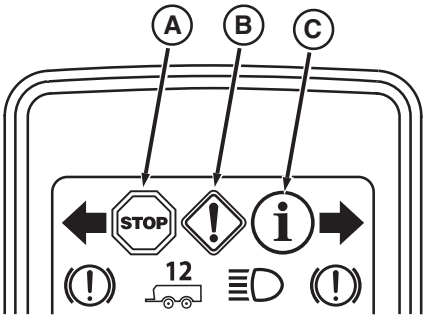
IMPORTANT: Once the parked cleaning process is initiated, allow it to finish uninterrupted.

1. Check the fuel level. Fill if needed.
2. Park the machine in a suitable space, disengage PTO and any auxiliary functions, and lower any implements all the way to the ground.
3. Set engine speed to low idle.
4. Use NO other machine functions while exhaust filter cleaning is taking place. Excluded are functions that are required for an emergency shutdown of the machine.
5. Select the Filter Cleaning Icon in the information display.

6. The message Initiate Parked Filter Cleaning appears on the display. Press Start.
7. A list of conditions to be met appears next. If all of the boxes are checked, depress the Enter/Accept button on the navigation pad to begin.
8. Select Next and press the Enter/Accept key again to initiate the process.
9. Allow the process to run without interruption. Engine speed increases without any input from the operator. A progress bar is shown on the information display during the process.
10. A message Exhaust Filter Cleaning Complete appears if the process has been completed successfully. Select OK to leave the menu.
11. If the process does not complete, an error message appears related to one of the following conditions:
    a. Throttle was not set to low idle.
    b. Machine not in park and wheel speed detected.
    c. PTO speed detected.
    d. Filter cleaning could not be completed. If this error occurs, it is recommended to take the machine to a John Deere dealer or other service provider for service.
12. Continue machine operations as normal.

NOTE: If not returning machine to operation, allow engine time to return to normal operating temperature before stopping engine.

Service Exhaust Filter Cleaning



RXA0153450—UN—19AUG16

Warning Indicators

A—STOP Indicator
B—Warning Indicator
C—INFO Display

IMPORTANT: Repeated cancelation or ignoring STOP indicator (A), warning indicator (B), or information indicator (C) to perform a parked exhaust filter cleaning procedure causes additional engine power limitations which eventually lead to a John Deere dealer or other service provider required service.

When STOP indicator (A) is illuminated and a corresponding emissions diagnostic trouble code occur at the same time, contact a John Deere dealer or other service provider.

Tips for avoiding service cleaning:

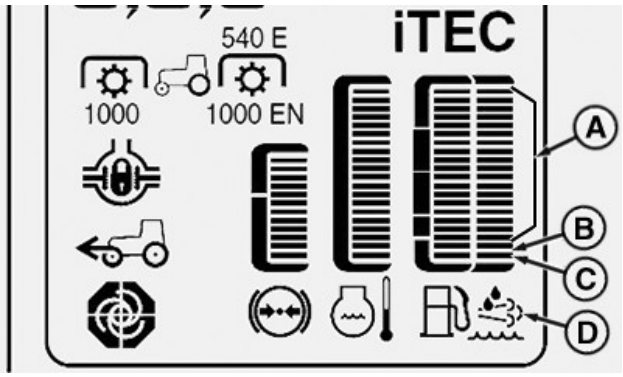
- Use ultra low sulfur fuel.
- Avoid unnecessary idling.
- Avoid disabling exhaust filter cleaning unless it is necessary.
- Avoid interrupting cleaning process unless it is necessary.
- If possible, do not shut off the engine while the exhaust filter cleaning indicator light is still on.
- Take note of information displayed for the operator and act accordingly.

OULXA64,6M,0005581-19-17JUL25

DEF (Diesel Exhaust Fluid) Level Gauge

IMPORTANT: It is unlawful to tamper with or remove any component of the aftertreatment system. It is also unlawful to use Diesel Exhaust Fluid (DEF) that does not meet the specifications provided.

IMPORTANT: Using incorrect or unapproved replacement parts can cause damage to vehicle's aftertreatment system and impair its proper functioning. When repairing the exhaust system, never interchange aftertreatment components between Interim Tier 4/Stage III B and Final Tier 4/Stage IV equipped vehicles.



LX364318—UN—11MAR19

A—Normal DEF Level
B—Low DEF Level 1
C—Low DEF Level 2

D—DEF Symbol

SCR system monitors the quality of the DEF. If an incorrect urea concentration is detected in the DEF, system will display a diagnostic trouble code.

The SCR exhaust aftertreatment process is a system that uses DEF and other components in the exhaust cleaning system to reduce exhaust emissions.

Tractor electronic systems monitor DEF level to ensure proper performance. The operator is informed by indicator lights and diagnostic trouble codes when the DEF level becomes critical. To maintain unrestricted tractor performance, it is recommended practice to fill up the DEF tank every time the tractor is refueled. See Fill the DEF Tank in section 20.

For more information, see section 200B.

Normal DEF Level:

When DEF level is within range (A), the DEF symbol (D) is on and the tractor operates normally. Always try to keep the level within this range.

Low DEF Level 1:

When DEF level drops below 10% (B), the lowest bar of the DEF level gauge flashes and a diagnostic trouble code is displayed. This has no effect on tractor operation, but it is urgently recommended that the DEF tank be refilled.

Low DEF Level 2:

When DEF level approaches zero (C), DEF symbol (D) flashes also. Engine power is reduced and a diagnostic trouble code is displayed. The DEF tank must be refilled to make the tractor operate normally again.

DEF at Low Temperatures:

The freeze point of DEF is approx. -11°C (12°F). At this temperature or colder, DEF cannot be used in the aftertreatment system. The tractor systems detect that the temperature is too cold and permit the engine to be operated despite the shortage of DEF. This operational state is flagged up by a diagnostic trouble code.

To thaw the DEF, heat is fed into DEF tank from the engine cooling system. Once the DEF has thawed, the SCR system functions as normal. However, if the DEF does not thaw within 40 minutes, another diagnostic trouble code is displayed and engine power is reduced.

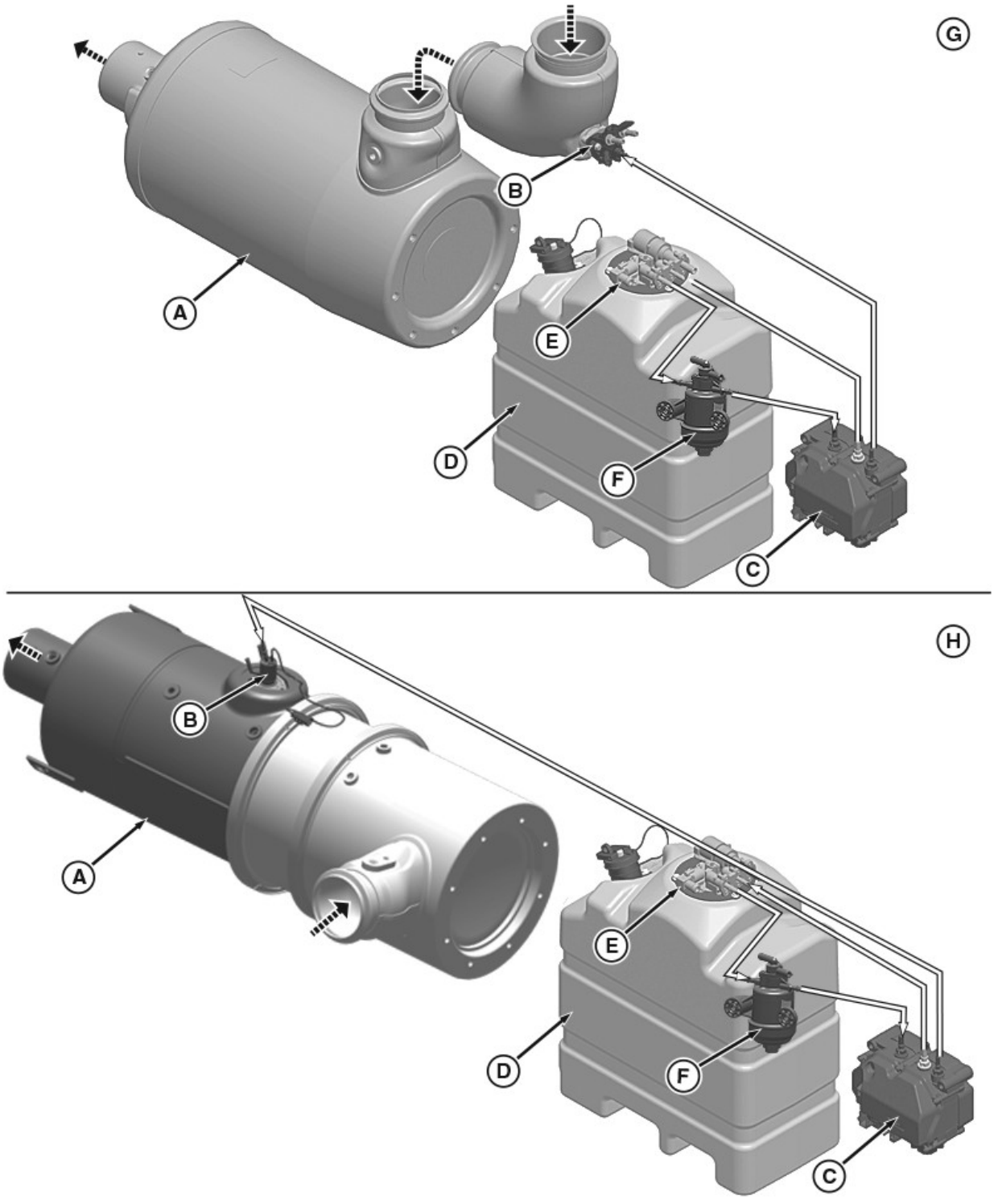
NOTE: The quality of the DEF is not degraded by freezing and thawing.

If desired, a lockable cap can be ordered for the DEF tank as a John Deere accessory.

* DEF (Diesel Exhaust Fluid) = A urea-based fluid used in exhaust aftertreatment systems.

OULXA64,6M,0005582-19-19APR23

Selective Catalytic Reduction (SCR) System Overview



RG22427A—UN—07JAN20

SCR System

A—SCR Catalyst
B—DEF Dosing Injector
C—DEF Dosing Unit
D—DEF Tank
E—DEF Tank Header Assembly
F—Inline DEF Filter (If Equipped)
G—Modular Canning Configuration
H—Inline Canning Configuration

IMPORTANT: Do not remove battery leads for at least 4 minutes after engine stops. The SCR system automatically purges itself of Diesel Exhaust Fluid (DEF) immediately after the engine is stopped. If adequate time is not allowed for lines to be purged, residual DEF can freeze and possibly damage components of the SCR system during cold-weather exposure.

In order to comply with national and local emission requirements, this engine series contains a Selective Catalytic Reduction (SCR) system. The main components of the SCR system include the SCR catalyst (A), DEF dosing injector (B), DEF dosing unit (C), DEF tank (D), and DEF tank header assembly (E). The SCR system is effective at reducing the nitrogen oxides (NOx) emissions. NOx is a major component of smog and acid rain.

During combustion, NOx molecules are formed in the exhaust. DEF is injected into the exhaust stream before the SCR catalyst. Through a chemical reaction in the SCR, NOx is converted into nitrogen and water.

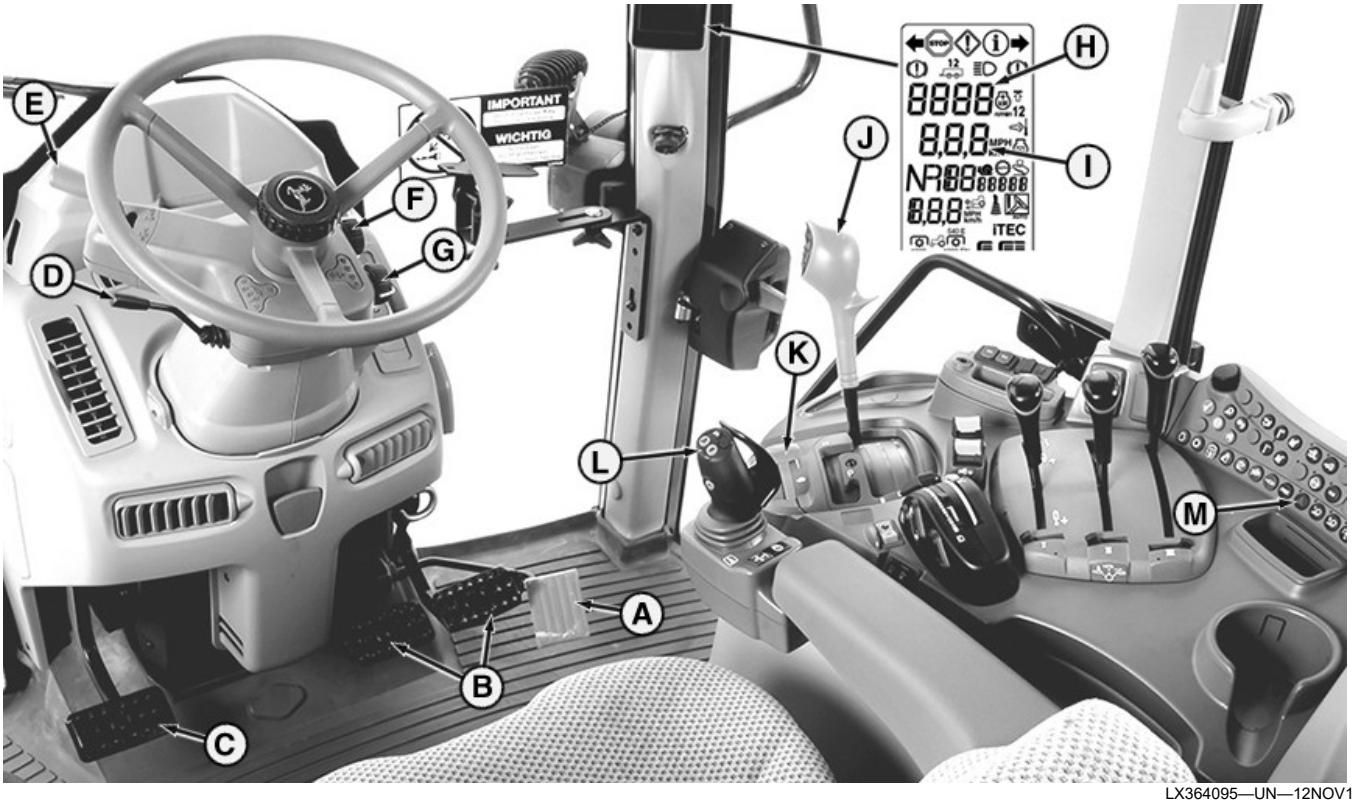
Water vapor is a normal by-product of combustion. During cold-weather operation at low exhaust temperatures, this water vapor can condense and resemble white smoke from the exhaust. This will dissipate as operating temperature increases and the water is further vaporized. This situation is considered normal.

A DEF solution begins to crystallize and freeze at -11 °C (12 °F). With climate temperatures that can range much colder than this, DEF is expected to freeze in the DEF tank. For this reason, the DEF tank contains a heating element that provides rapid thawing of DEF upon start-up. The heating element cycles to maintain fluidity during operation as needed. DEF is not dosed upon initial start-up, therefore it is not necessary to have liquid DEF at cold start-up.

If DEF quality deteriorates and it is no longer within specifications, the engine can derate. DEF should be crystal clear with a light ammonia smell. If DEF appears cloudy, has a colored tint, or has a profound ammonia smell, it is likely not within specification.

DX,SCR,OVERVIEW-19-30MAR20

Vehicle Controls with PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions



LX364095—UN—12NOV18

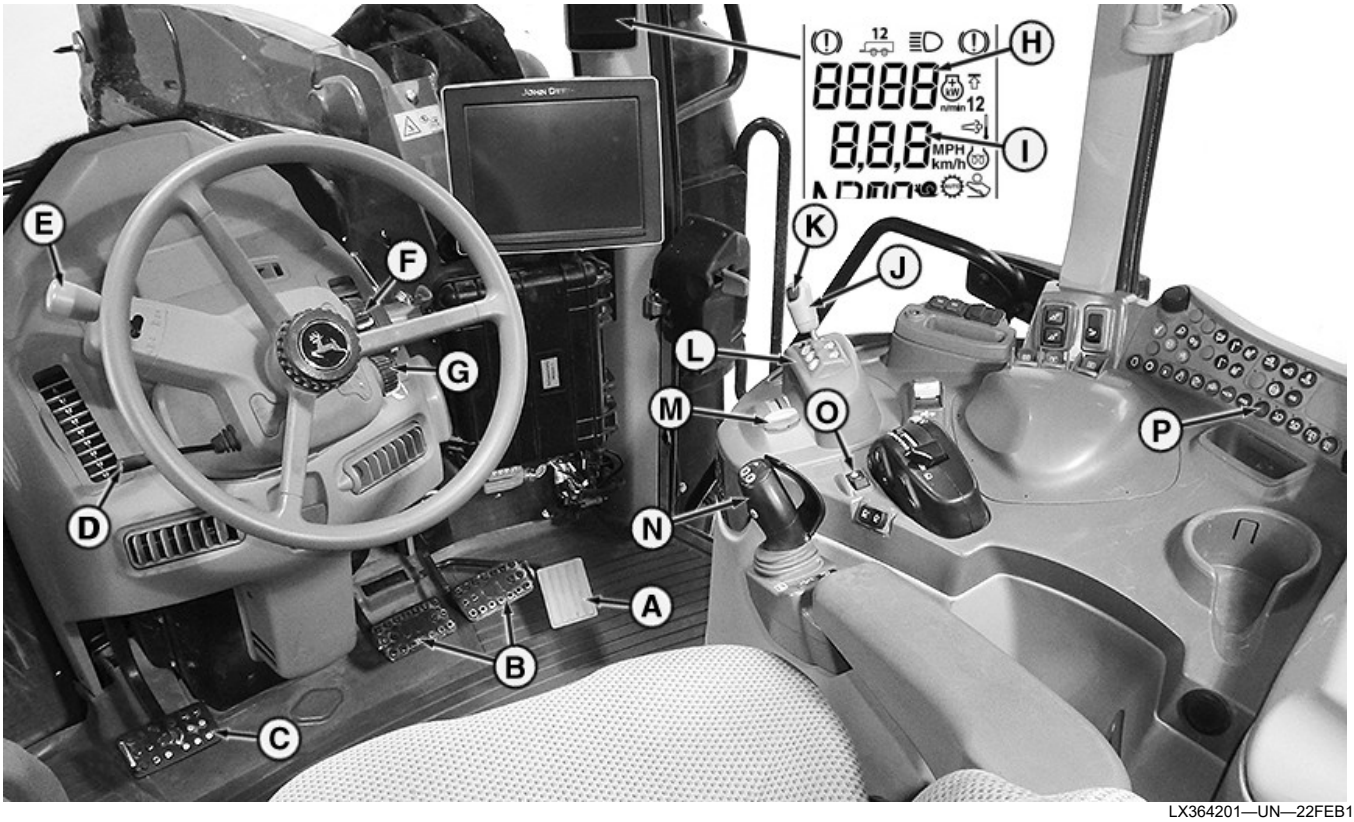
Vehicle Controls with PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions

A—Speed Control Pedal
B—Left and Right Brake Pedals
C—Clutch Pedal
D—Turn-Signal Lever
E—Reverse Drive Lever
F—Light Switch
G—Wiper ON/OFF
H—Engine Speed
I—Ground Speed
J—Range-Shift Lever with Gearshift Buttons, Clutch Button, and Automatic Shift Button[1]
K—Hand Throttle
L—Joystick with Gearshift Buttons and Button for Changing the Direction of Travel
M—Hazard Flashers ON/OFF

OULXA64,6M,0005367-19-24AUG23

[1] *Only on AutoQuad™ PLUS transmissions*

Vehicle Controls with CommandQuad™ PLUS Transmission without CommandARM™



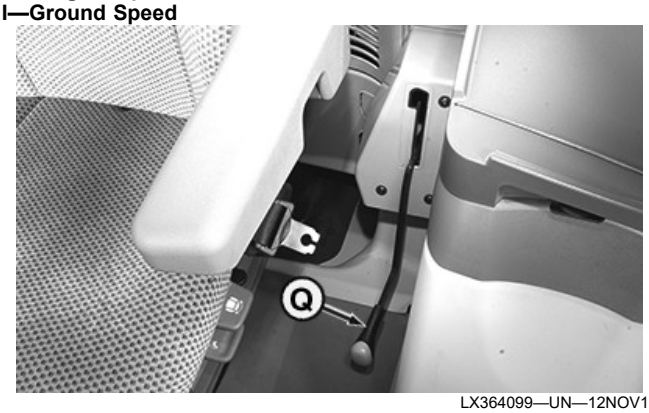
LX364201—UN—22FEB19

Vehicle Controls – CommandQuad™ PLUS Transmission without CommandARM™

A—Speed Control Pedal
B—Left and Right Brake Pedals
C—Clutch Pedal
D—Turn-Signal Lever
E—Reverse Drive Lever
F—Light Switch
G—Wiper ON/OFF
H—Engine Speed
I—Ground Speed
J—Shift Lever
K—Speed Wheel for Maximum Speed
L—Range Shift Unit
M—Hand Throttle
N—Joystick with Gearshift Buttons and Button for Changing the Direction of Travel
O—Select Start Gear
P—Hazard Flashers ON/OFF

Q—Control Lever of the Park Lock

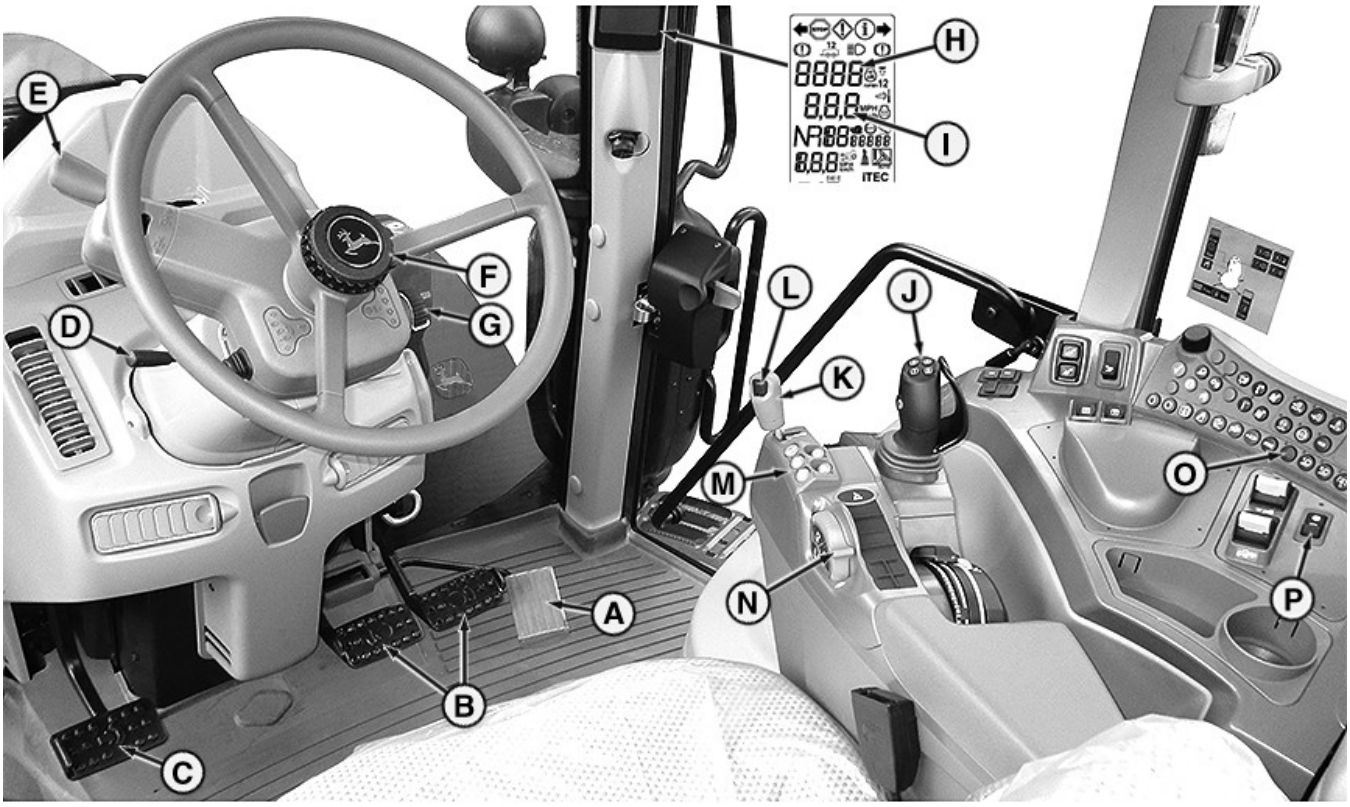
OULXA64,6M,0005368-19-21DEC20



LX364099—UN—12NOV18

Control Lever of the Park Lock

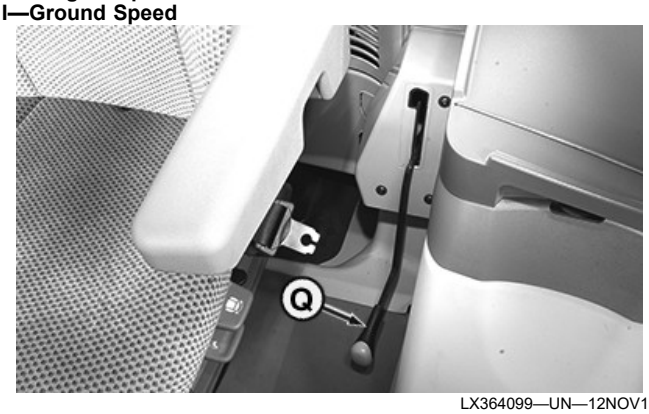
Vehicle Controls with CommandQuad™ PLUS Transmission with CommandARM™



LX364096—UN—13NOV18

Vehicle Controls – CommandQuad™ PLUS Transmission with CommandARM™

A—Speed Control Pedal
B—Left and Right Brake Pedals
C—Clutch Pedal
D—Turn-Signal Lever
E—Reverse Drive Lever
F—Light Switch
G—Wiper ON/OFF
H—Engine Speed
I—Ground Speed



LX364099—UN—12NOV18

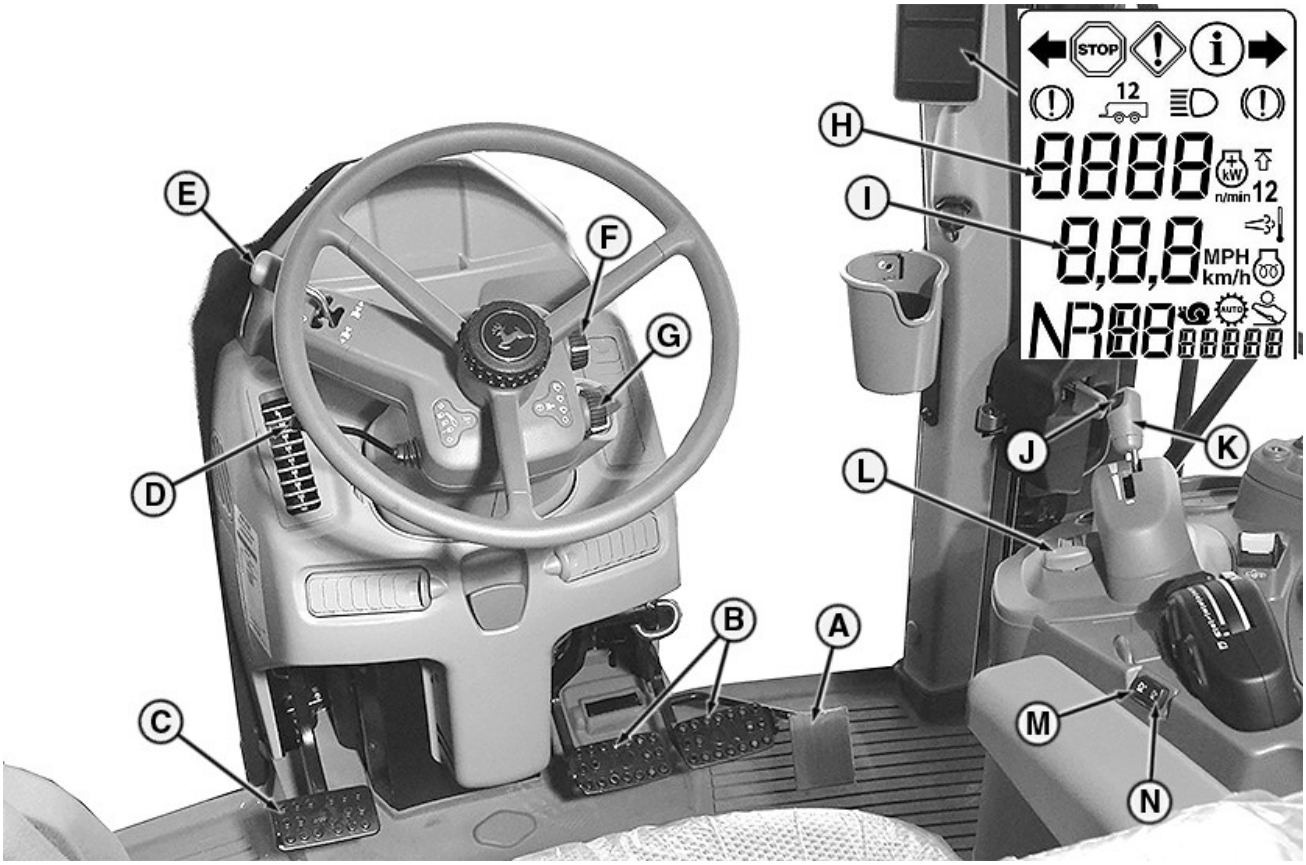
Park Lock Lever

J—Joystick with Gearshift Buttons and Button for Changing the Direction of Travel
K—Shift Lever
L—Speed Wheel for Maximum Speed
M—Range Shift Unit
N—Hand Throttle
O—Hazard Flashers ON/OFF
P—Select Start Gear

Q—Control Lever of the Park Lock

OULXA64,6M,0005369-19-21DEC20

Vehicle Controls with AutoPowr™ Transmission without CommandARM™



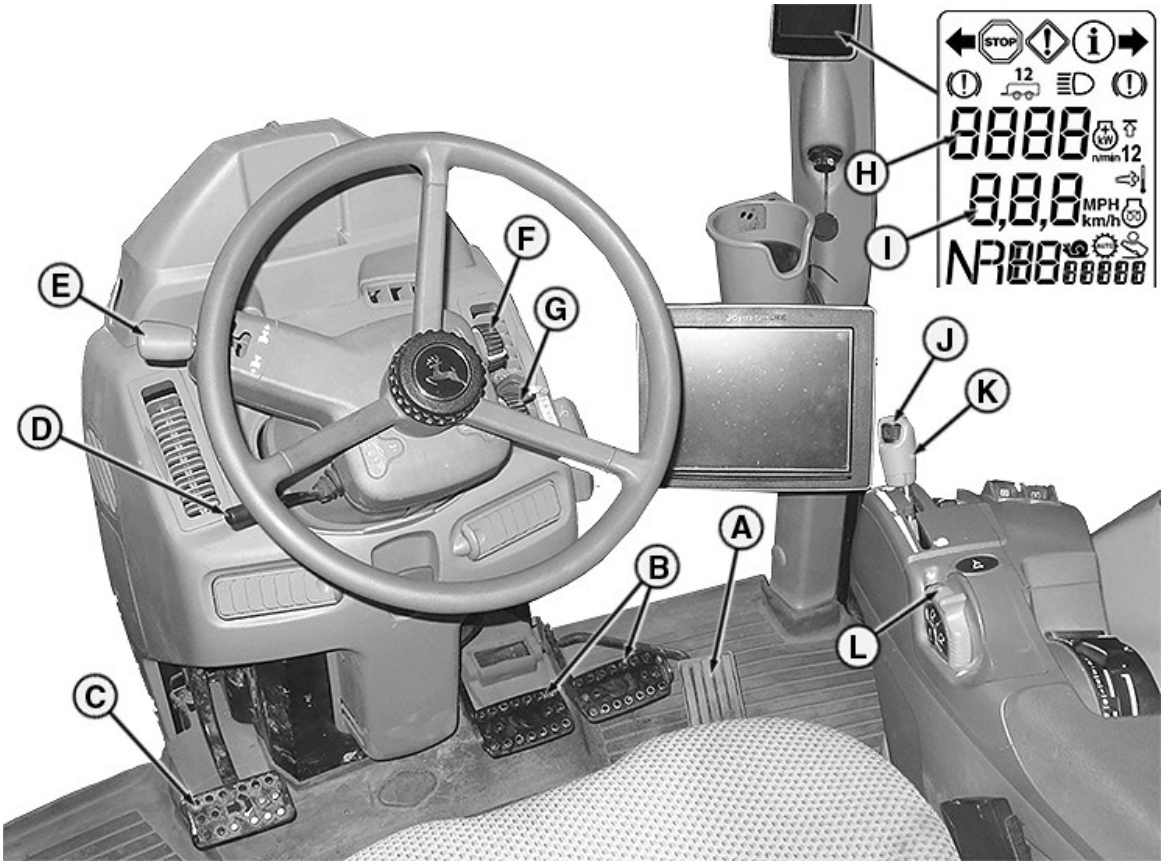
LX364630—UN—24FEB20

Vehicle Controls with AutoPowr™ Transmission

A—Speed Control Pedal
B—Left and Right Brake Pedals
C—Clutch Pedal
D—Turn-Signal Lever
E—Reverse Drive Lever
F—Light Switch
G—Wiper ON/OFF
H—Engine Speed
I—Ground Speed
J—Speed Wheel for Maximum Speed
K—Speed Control Lever
L—Hand Throttle
M—Engine Set Speed 1, ON/OFF
N—Engine Set Speed 2, ON/OFF

OULXA64,SP,00057B3-19-23NOV20

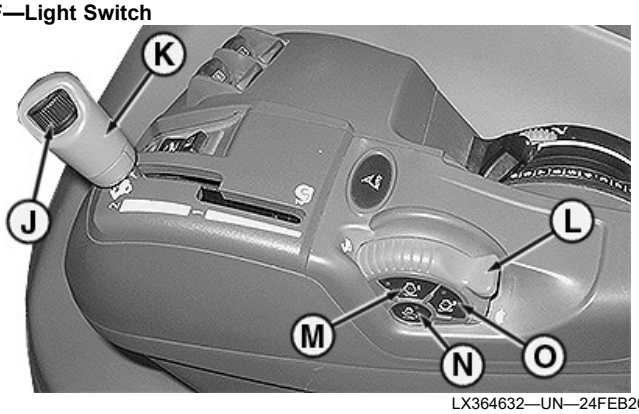
Vehicle Controls with AutoPowr™ Transmission with CommandARM™



LX364631—UN—24FEB20

Vehicle Controls with AutoPowr™ Transmission

A—Speed Control Pedal
B—Left and Right Brake Pedals
C—Clutch Pedal
D—Turn-Signal Lever
E—Reverse Drive Lever
F—Light Switch



LX364632—UN—24FEB20

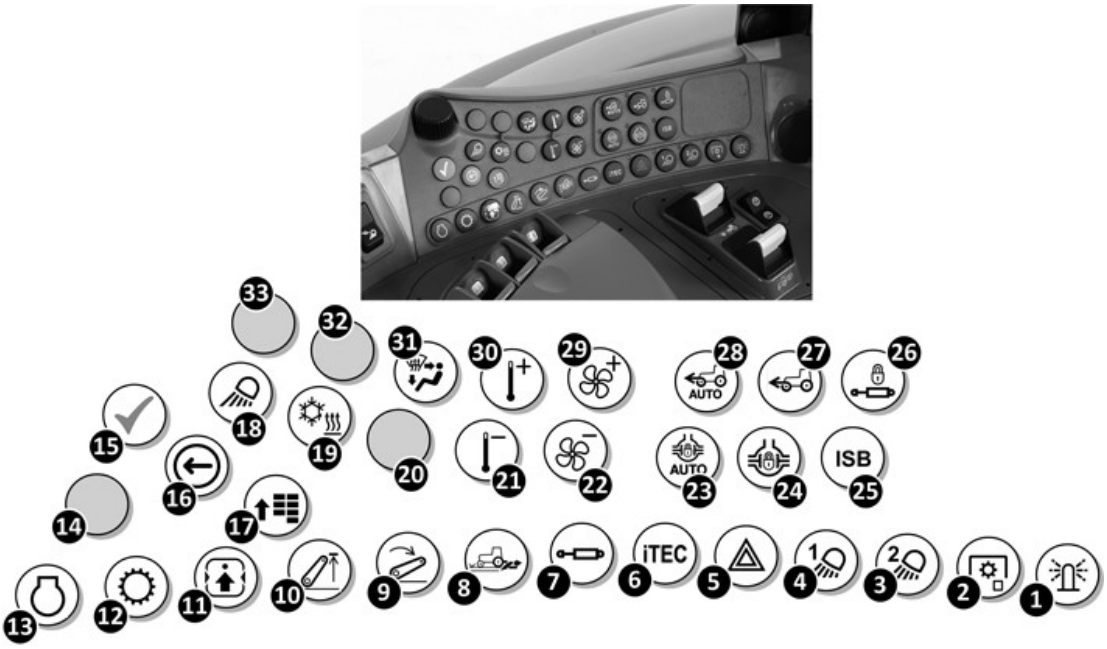
Vehicle Controls on Hand Throttle

G—Wiper ON/OFF
H—Engine Speed
I—Ground Speed
J—Speed Wheel for Maximum Speed
K—Speed Control Lever
L—Hand Throttle

J—Speed Wheel for Maximum Speed
K—Speed Control Lever
L—Hand Throttle
M—Engine Set Speed 1, ON/OFF
N—Speed Control Pedal, Save/Delete Speed
O—Engine Set Speed 2, ON/OFF

OULXA64,SP,00057B4-19-23NOV20

Controls in the Side Console, Overview



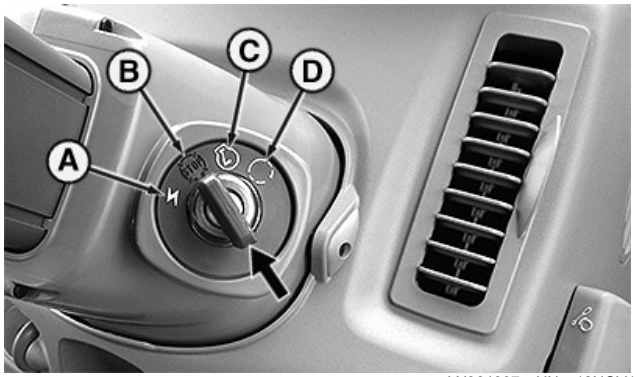
LX315198—UN—26FEB19

1—Beacon Light ON/OFF
2—Rear PTO, Activate Remote Control
3—Worklights, User Settings 2
4—Worklights, User Settings 1
5—Hazard Flashers ON/OFF
6—iTEC™ Basic, Settings
7—Selective Control Valves, Settings
8—Hitch Control, Settings
9—Rear Hitch, Rate of Drop
10—Rear Hitch, Raise Limit
11—Advanced Settings
12—Transmission Settings
13—Engine Settings
14—No Function
15—Confirm Button
16—Back Button
17—Access Main Menu
18—Front Worklights
19—Automatic Adjustment for De-Icing/Anti-Fogging
20—No Function
21—Lower Temperature
22—Decrease Blower Speed
23—Switch Differential Lock Automatically
24—Switch Differential Lock Manually
25—Activate ISB
26—Activate Transport Lock (for mid-mount SCVs)
27—Front-Wheel Drive Manually ON/OFF
28—Front-Wheel Drive Automatically ON/OFF
29—Increase Blower Speed
30—Raise Temperature
31—Select Air Distribution
32—No Function
33—No Function

OULXA64,6M,0005366-19-08DEC20

Key Switch

IMPORTANT: Before leaving the tractor, confirm that the key switch is in the STOP position (B). If the key switch is *not* in the STOP position, the battery might discharge.



LX364097—UN—12NOV18

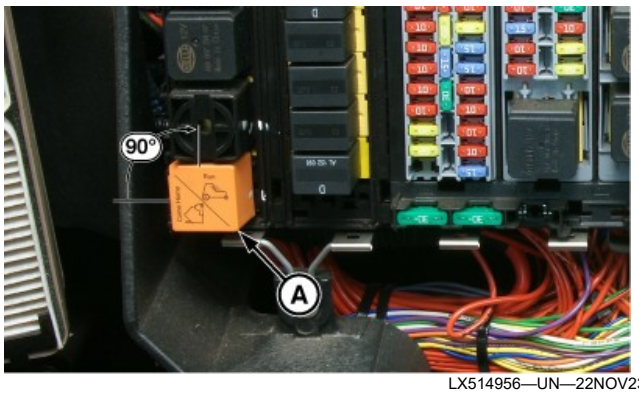
Key Switch, Positions

Position		Consumer	Supplier
A	ACC	Operator's seat 12 V power outlet socket / cigarette lighter Radio[a]	Battery
B	STOP	On-board circuit OFF Engine OFF	—
C	IGN	On-board circuit ON Engine OFF	Battery
	RUN	On-board circuit ON Engine is running Battery is charging	Alternator
D	START	On-board circuit ON Consumers of ACC position OFF Starting motor is activated and engine is started	Battery

[a] *If equipped*

OULXA64,6M,000536A-19-09SEP20

Come-Home Mode



LX514956—UN—22NOV23

Connector Rotated 90° Clockwise

A—Connector

If there is an electrical fault in the transmission, the tractor can possibly still be driven in come-home mode.

To do this, stop the engine, pull out connector (A), turn it 90° clockwise, and reinsert it as shown. Then restart the engine.

Refer also to fuses and relays (LCS) and (FRM) in section 220B.

In come-home mode, the tractor is operated differently depending on the transmission. See the following descriptions:

- PowrQuad™ PLUS Transmission, Come-Home Mode — Section 50F
- AutoQuad™ PLUS Transmission, Come-Home Mode — Section 50G
- CommandQuad™ PLUS Transmission, Come-Home Mode — Section 50H
- AutoPowr™/IVT™ Transmission, Come-Home Mode — Section 50J

OULXA64,SP,IVT,000586B-19-22SEP23

Immobilizer



RXA0108294—UN—24JUN10

A—Key with Chip and Transponder for Communication with the Immobilizer
B—Customary Key without Additional Function

A tractor with immobilizer can only be operated with a special key (A) that has an integrated chip with valid activation code. Customary keys (B) or keys that have a code unknown to the immobilizer cannot be used. The engine will start, but will be automatically shut off again after a short period. Additional attempts will cause the tractor engine to turn, but not to start.

After accidental start attempt with incorrect key: Insert a valid key into the key switch and turn on the ignition. **DO NOT START**. Wait at least 3 seconds and then start the engine.

NOTE: Immobilizer keys (A) can be identified because they are slightly thicker than a normal customary key (B). Immobilizer keys only work on the tractors for which they have been programmed.

Ex works, two keys are provided for tractors with immobilizer. Up to three additional keys can be obtained via regular spare part channels.

IMPORTANT: In the event of losing a key, immediately contact a John Deere dealer or other service provider. They can deactivate the lost key by programming the immobilizer accordingly. This prevents the tractor from unauthorized operation by the potential finder of the key.

NOTE: To ensure uninterrupted tractor productivity, it is recommended to replace lost keys as quickly as possible.

OULXA64,000536C-19-16JUL25

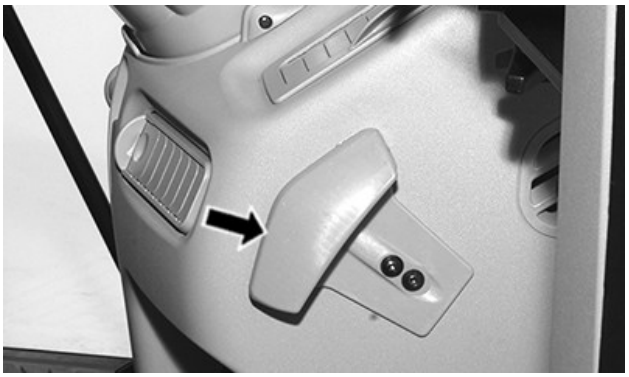
Secondary Brake System

CAUTION: The secondary brake system cannot and must NOT be used as park brake.

When braking with the secondary brake system, the following trailer brakes are activated:

- **Air trailer brake[2]**
- **Dual-line hydraulic trailer brake[2]**

The braking effect of the trailer brakes may be less than when actuated by the service brake.



LX364098—UN—14NOV18

In the event of service brake failure, the secondary brake system can be used to brake the tractor. Pull lever upward to obtain a braking effect.

CAUTION: The park lock needs to be engaged to park the tractor. The following trailer brakes are activated:

- **Air trailer brake[2]**
- **Dual-line hydraulic trailer brake[2]**

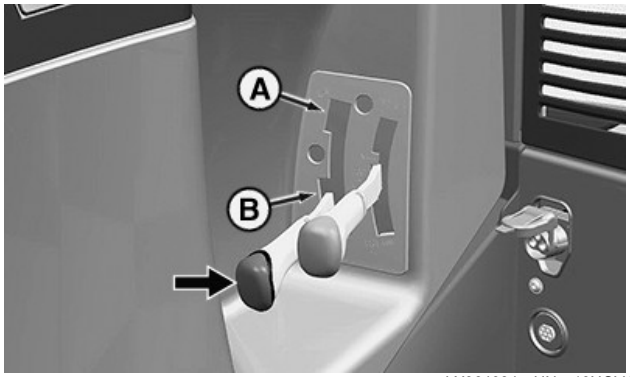
OULXA64,6M,000536D-19-09SEP20

Creeper - Controls

IMPORTANT: Do not use creeper transmission when working with implements that penetrate the soil and require high tractive force.

Never use the creeper transmission in range D or higher. Using the creeper transmission under any of these circumstances may lead to mechanical failure.

[2] *If equipped*



LX364084—UN—13NOV18

Creeper only on PowrQuad™ and AutoQuad™ PLUS Transmissions

A—Creeper Speed
B—High Speed

For more information, see section 50D.

OULXA64,6M,000536E-19-09SEP20

PTO - Controls



LX364100—UN—12NOV18

Cab without CommandARM™

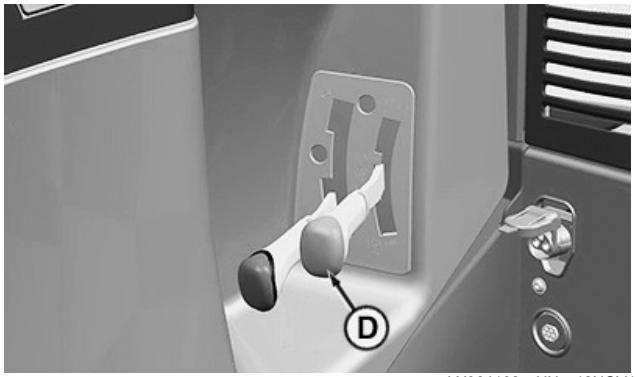


LX364101—UN—12NOV18

Cab with CommandARM™

A—Front PTO Switch
B—Rear PTO Switch
C—Remote Control Mode Button[3]

[3] *If equipped*



LX364102—UN—12NOV18

Cab without CommandARM™

D—PTO Speed Lever



LX364448—UN—27SEP19

Remote Control Button, Version 1



LX364103—UN—13NOV18

Remote Control Button, Version 2

E—Remote Control Button[3]

For more information, see:

- Front PTO in section 60B
- Rear PTO in section 60C

OULXA64,6M,000536F-19-08MAY23

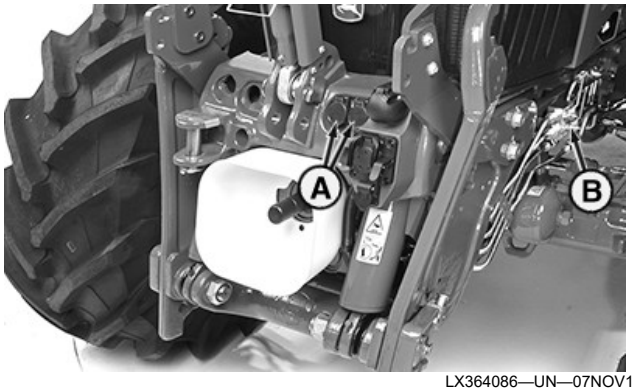
Economy Front Hitch - Controls

CAUTION: Avoid crushing hazard with possibly fatal consequences.

When working in the area of the front hitch, unexpected movements can be triggered, which can lead to severe crushing.

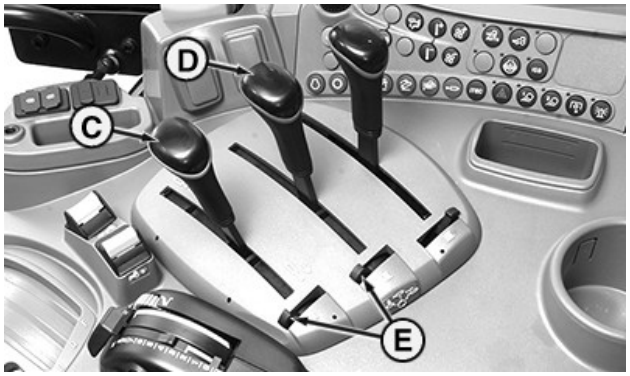
Always lower implements first and depressurize the hydraulic system before any repair or maintenance work. Switch off the engine and secure the machine against unintentional restart.

Always lock unneeded control elements so that they cannot be actuated unintentionally!



LX364086—UN—07NOV18

A—Couplers - Selective Control Valve II
B—Front Hitch - Shutoff Valve



LX364087—UN—07NOV18

For Cabs without CommandARM™, Mechanical SCV



LX364088—UN—14NOV18

For Cabs with CommandARM™, Electronic SCV

C—Front Hitch (raise/lower) - Control Through SCV I
D—Front Hitch Couplers - Control Through SCV II
E—Transport Lock/Lock Button, SCVs ON/OFF

CAUTION: When driving on roads, and whenever the control levers are in neutral position and not needed, use transport lock (E) to lock the control levers.

For more information, see section 60D.

OULXA64,6M,0005370-19-21DEC20

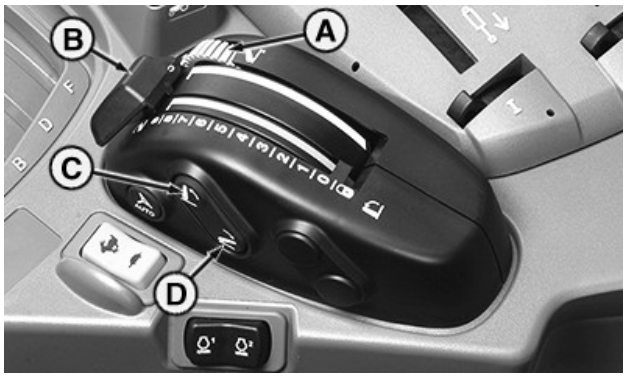
Rear Hitch - Controls

CAUTION: Avoid crushing hazard with possibly fatal consequences.

When working in the area of the rear hitch, unexpected movements can be triggered, which can lead to severe crushing.

Before repair or maintenance work, always lower implements first and depressurize the hydraulic system. Switch off the engine and secure the machine against unintentional restart.

Always lock unneeded control elements so that they cannot be actuated unintentionally!



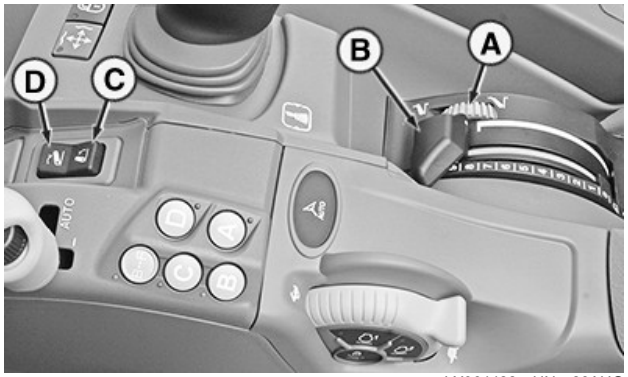
LX364253—UN—14FEB19

Cab without CommandARM™

A—Control Knob, Adjusting Operating Depth
B—Control Knob, Adjusting Depth Control (raise/lower)
C—Button, Raise Hitch
D—Button, Lower Hitch

CAUTION: Always engage the hitch lock/hitch dampening function before driving the tractor!

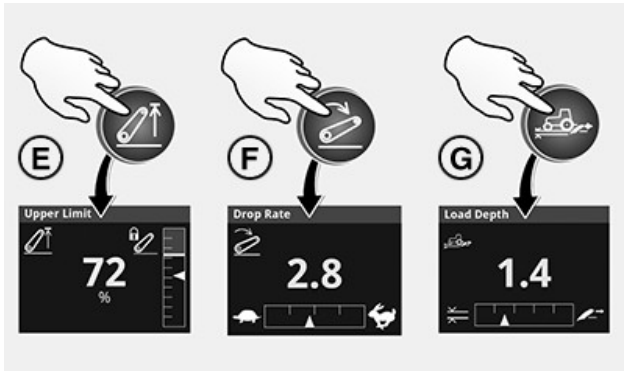
To do so, move control knob (B) beyond *0* until it stops in the transport setting (lock symbol). The hitch is now locked.



LX364422—UN—28AUG19

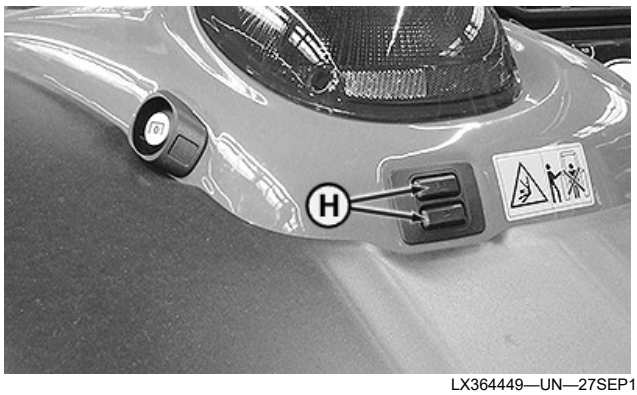
Cab with CommandARM™

A—Control Knob, Adjusting Operating Depth
B—Control Knob, Adjusting Depth Control (raise/lower)
C—Button, Raise Hitch
D—Button, Lower Hitch



LX364254—UN—14FEB19

E—Button, Set Raise Limit
F—Button, Set Rate of Drop
G—Button, Set Draft/Depth Control



LX364449—UN—27SEP19



LX364107—UN—25FEB19

H—Remote Control, Hitch (raise/lower)

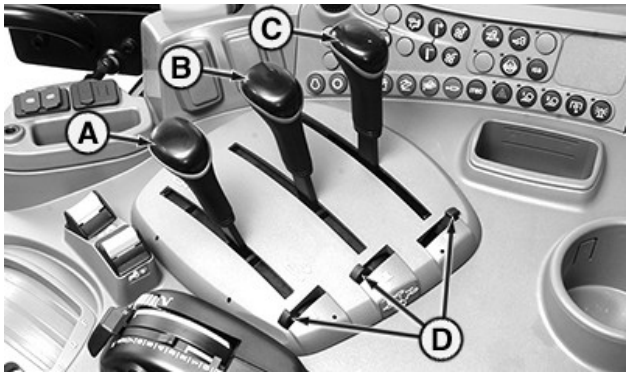
For more information, see section 60E.

OULXA64,6M,0005371-19-02DEC20

Mechanical Selective Control Valves - Controls

CAUTION: Always lock unneeded control elements so that they cannot be actuated unintentionally!

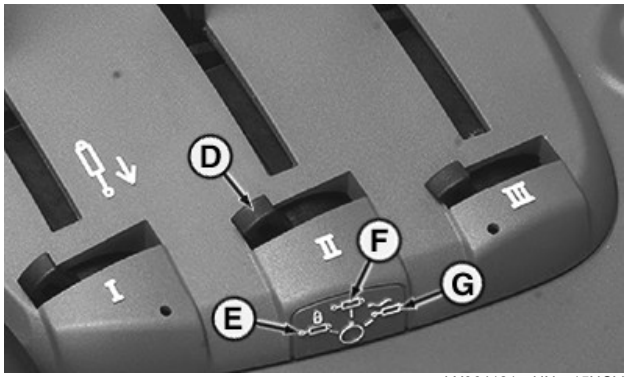
Control Lever for SCV I to III



LX364120—UN—14NOV18

Cab without CommandARM™ Shown

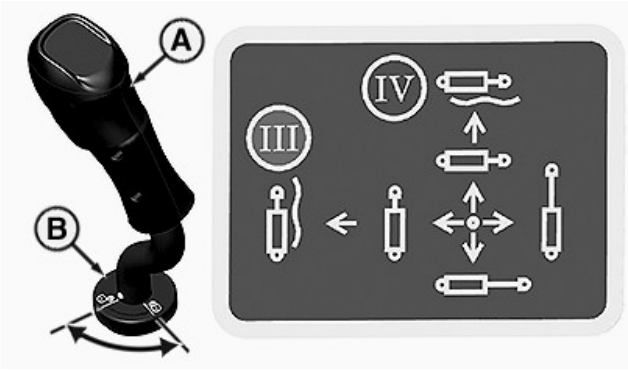
A—SCV I Control Lever
B—SCV II Control Lever
C—SCV III Control Lever
D—Lever for Locking the Control Levers



LX364121—UN—15NOV18

E—Lock Control Lever in Neutral Position (transport lock)
F—Control Lever Can Be Brought into the Extended and Retracted Position
G—Control Lever Can Be Brought into the Extended and Retracted Position and Locked in Float Position

Joystick for SCV III and IV (If Equipped)



LX364344—UN—26MAR19

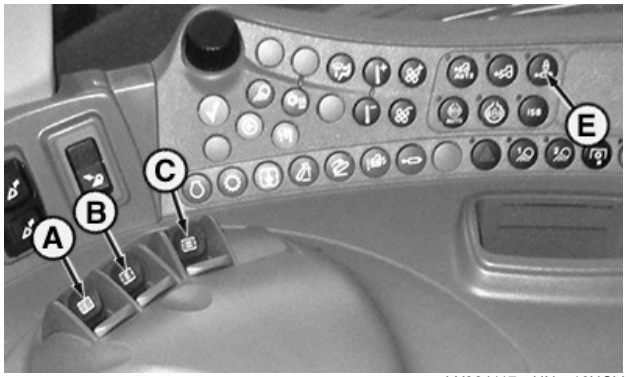
A—Joystick
B—Locking Ring (transport lock)

For more information, see section 70A and 70B.

OULXA64,6M,0005372-19-28JUN22

Electronic Selective Control Valves - Controls

CAUTION: Always lock unneeded control elements so that they cannot be actuated unintentionally!



LX364117—UN—16NOV18

Cab without CommandARM™



LX364118—UN—16NOV18

Cab with CommandARM™

A—SCV I Control Lever
B—SCV II Control Lever
C—SCV III Control Lever
D—SCV IV Control Lever[4]
E—Lock Button of SCV Control Lever



LX364119—UN—14NOV18

Remote Control for SCV III Only

F—Remote Control for SCV III Only (retract/extend)[4]

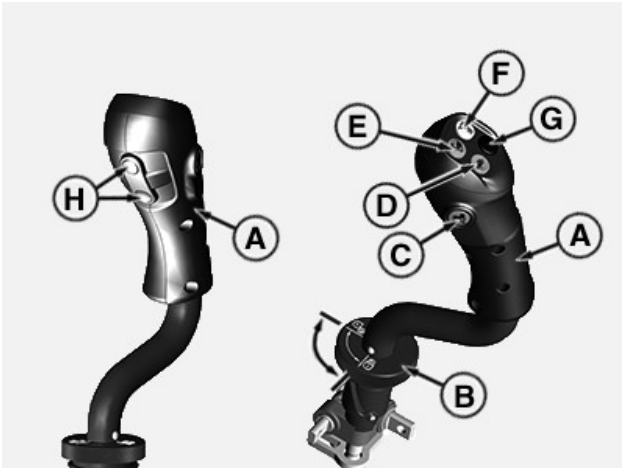
For more information, see section 70A and 70B.

OULXA64,6M,0005373-19-21DEC20

[4] *If equipped*

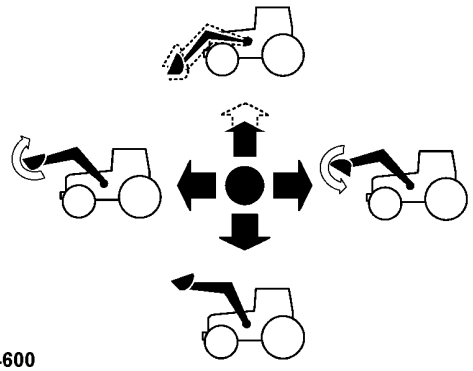
Mechanical Joystick (Factory Installed)

CAUTION: Always lock unneeded control elements so that they cannot be actuated unintentionally!



LX364495—UN—16OCT19

A—Joystick
B—Locking Ring (transport lock)
C—Button, Change Direction of Travel
D—Gearshift Button, Downshift
E—Gearshift Button, Upshift
F—Button for Activating Loader Suspension System[5]
G—Button for Activate Diverter Valve of Implement (if equipped)
H—Rocker Switch, Retract/Extend Additional Control Valve[5]



LX1054600

LX1054600—UN—10OCT11

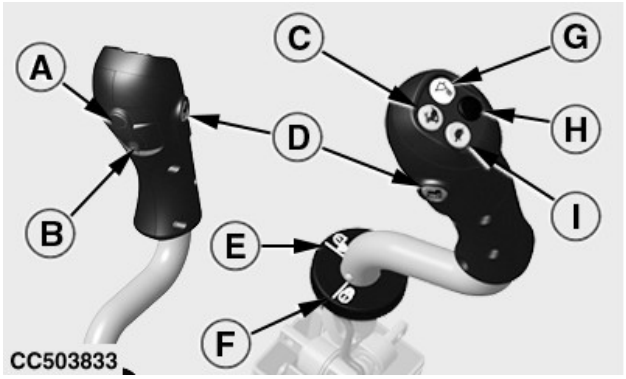
For more information, see Section 70D.

CAUTION: Always lock unneeded control elements against being actuated unintentionally!

NOTE: The displayed joystick is equipped with optional controls.

OULXA64,6M,0005374-19-16AUG23

Mechanical Joystick (Retrofitted), R Series Loader for 6M Series Tractors (MY20-)



CC503833—UN—16MAR21

A—3rd Function
B—No Function
C—Gear Shift UP
D—Reverse
E—Unlock Position
F—Lock Function
G—Loader Suspension System
H—4th Function
I—Gear Shift Down

For more information, see Section 70D.

CAUTION: Always lock unneeded control elements against being actuated unintentionally!

oulxa64,1656419083539-19-29JUN22

Electrical Joystick (Version 1)

CAUTION: Danger of fatal accidents.

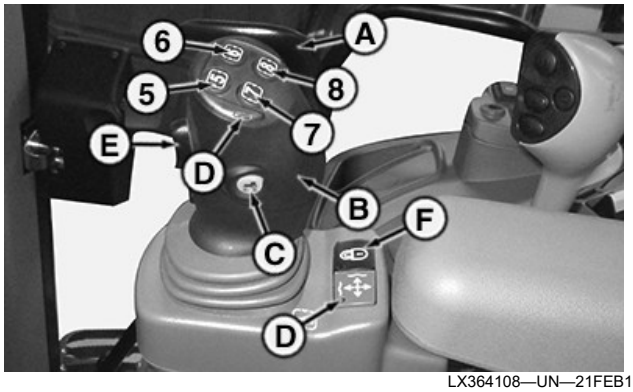
Operating errors can trigger unforeseen movements of implements and the front loader.

- **Always work carefully and concentrated.**
- **Note the status of the diverter valves.**
- **Do not operate front loader together with iTEC™.**
- **For working with the front loader, always activate "loader mode".**
- **Do not use a timed detent position during front loader work.**
- **When driving on the road and if the joystick is not required, lock the joystick with lock button (F). Button (F) lights up when the joystick is locked.**

IMPORTANT: If a default setting other than the factory setting is active, a message is displayed after the display is turned on (IGN position). The message prompts the driver to get familiarized with the current settings. The functions are available only after the massage has been confirmed. See Controls Setup in section 30A.

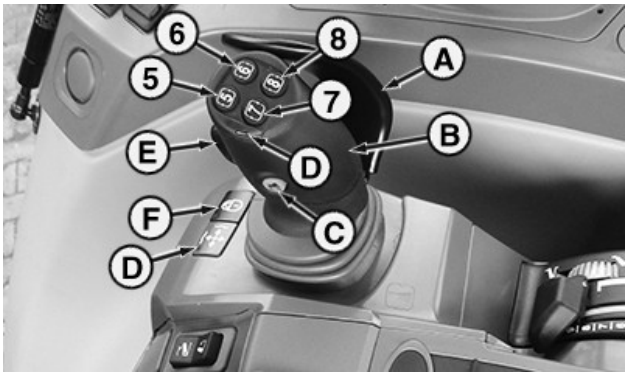
[5] *If equipped*

For a presetting that takes ISOBUS implements into account, be sure to observe the Operator's Manual of the implement.



LX364108—UN—21FEB19

Joystick on Right Armrest



LX364109—UN—14NOV18

Joystick on the CommandARM™

5—Gearshift Button, Change Up (default assignment)
6—Button for Activating Loader Suspension System (default assignment)[6]
7—Gearshift Button, Change Down (default assignment)
8—Button for Diverter Valve 2 (default assignment)[6]
A—Hand Flap, Activate Joystick
B—Joystick
C—Button for Changing Direction of Travel
D—Indicator Light, Joystick Active
E—Rocker Switch, Raise/Lower (default assignment)
F—Lock Button, Joystick ON/OFF

On tractors with electrically actuated joystick, buttons (5) to (8), (C), and rocker switch (E) can be activated or disabled.

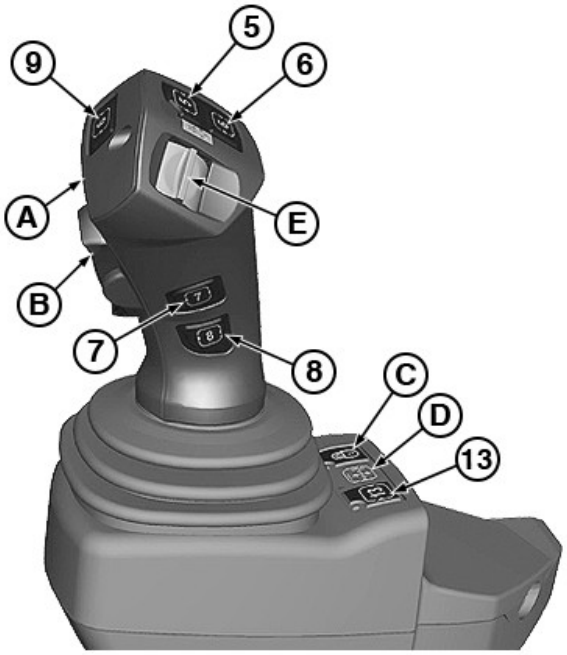
For more information, see Section 70D.

CAUTION: Always lock unneeded control elements against being actuated unintentionally!

OULXA64,6M,0005375-19-21APR23

Electrical Joystick (Version 2)

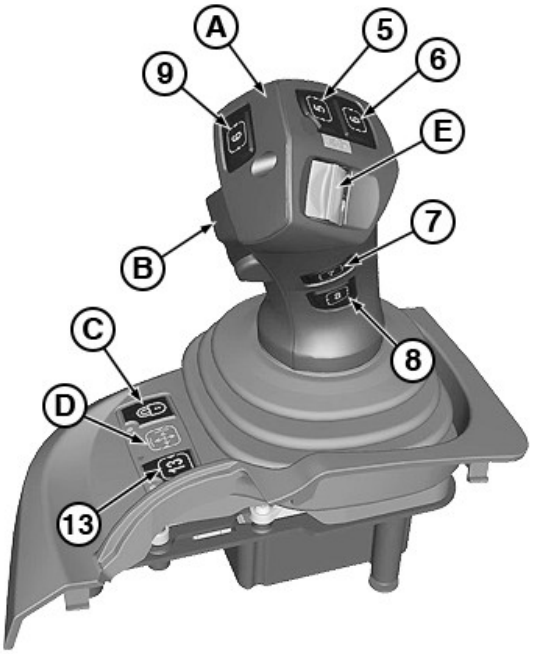
CAUTION: Risk of injury due to sudden movements and accidents if using the front loader with iTEC™ at the same time. Unforeseeable movements can cause fatal accidents.



LX373058—UN—28APR21

Electrical Joystick on Right Armrest

[6] *European version only*



LX373059—UN—28APR21

Electrical Joystick on CommandARM™

5—Gearshift Button, Changing Up
6—Gearshift Button, Changing Down
7—Button for Diverter Valve 1
8—Button for Diverter Valve 2
9—Only used for the enabling mode after an error message was displayed
13—Button for Activating Loader Suspension System
A—Joystick
B—Raise/Lower Rocker Switch
C—Lock Button, Joystick ON/OFF
D—Indicator Light, Joystick Enabled
E—Rocker Switch for Change Direction of Travel

On tractors with electrically actuated joystick, buttons (5) to (9), (13), and rocker switch (B) can be activated or disabled.

Toggle the set point range with button (8).

For more information, see Section 70D.

CAUTION: Always lock unneeded control elements against being actuated unintentionally!

oulxa64,1656074883674-19-27JUL22

Front-Wheel Drive - Controls



LX364111—UN—14NOV18

A—Button with Indicator Light for Automatic Activation or Deactivation of the Front-Wheel Drive
B—Button with Indicator Light for Manual Activation or Deactivation of the Front-Wheel Drive

For more information, see section 50A.

OULXA64,6M,0005376-19-09SEP20

Differential Lock - Controls



LX364112—UN—14NOV18

A—Button with Indicator Light for Automatic Engaging or Disengaging the Differential Lock
B—Button with Indicator Light for Manually Engaging or Disengaging the Differential Lock

For more information, see section 50B.

OULXA64,6M,0005377-19-09SEP20

iTEC™ Basic — Intelligent Total Equipment Control - Controls

CAUTION: To avoid sudden movements and possible accidents, never operate iTEC™ in combination with the front loader.



LX364113—UN—14NOV18

A—iTEC™ Button

For more information, see Section 40A.

OULXA64,6M,0005378-19-21APR23

AutoTrac™ - Controls



LX364114—UN—14NOV18

AutoTrac™ - without CommandARM™



LX364423—UN—28AUG19

AutoTrac™ - with CommandARM™

A—AutoTrac™ Resume Button

The resume button (A) activates the AutoTrac™ steering system.

NOTE: To use the AutoTrac™ steering system, the following additional equipment is required:

- *StarFire™*
- *GreenStar™ activation*

Refer to the Operator's Manual of the AutoTrac™ steering system for more information.

OULXA64,6M,0005379-19-02MAY23

ISOBUS Button (ISB)

IMPORTANT: Before using ISOBUS implements, check whether the signal from the ISOBUS button can be used by the implement.

Press button (A) to put an ISOBUS implement into a safe operating condition specified by the manufacturer.

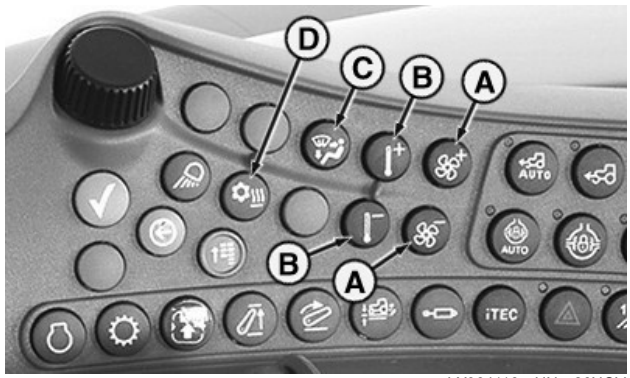


LX372934—UN—08DEC20

A—ISOBUS Button (ISB)

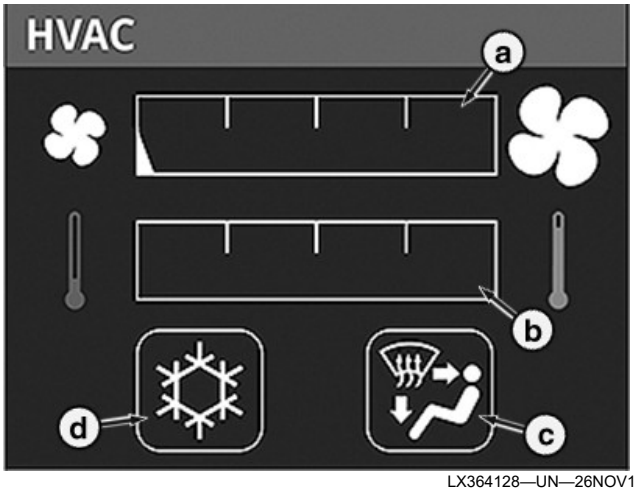
OULXA64,SP,000596E-19-07DEC20

Heating, Ventilation and Air-Conditioning System - Controls



LX364116—UN—26NOV18

A—Blower Control Buttons +/-
B—Temperature Control Buttons +/-
C—Air Flow Distribution Button
D—Air Conditioning Button ON/OFF



LX364128—UN—26NOV18

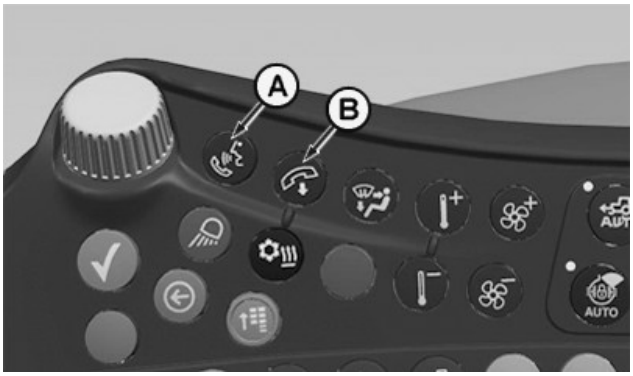
Display

a—Blower Control Indicator
b—Temperature Control Indicator
c—Air Flow Distribution Indicator
d—Air Conditioning Indicator

For more information, see section 90F.

OULXA64,6M,000537A-19-21DEC20

Radio A—Additional Phone Controls



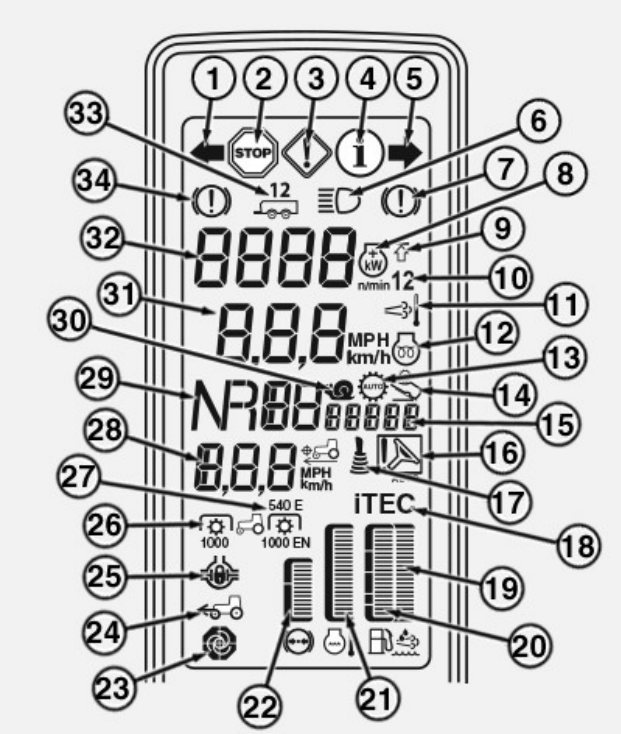
LX514735—UN—29JUN21

A—Push to Talk/Accept Call Button
B—End Call Button

For more information, see relevant Operator's Manual of the radio.

OULXA64,SP,0005DFE-19-21APR23

Corner Post Display



LX364229—UN—25JAN19

1 - Left turn signal indicator

2 - STOP Indicator - Flashes when a serious fault occurs. Shut off the engine IMMEDIATELY. Observe the error message on the information display and eliminate the cause.

3 - ATTENTION Indicator - Flashes if a malfunction occurs. Observe the error message on the information display and eliminate the cause.

4 - INFO Indicator - Lights up, for example when there is a fault in an electrical component associated with the hydraulic system, transmission or other. Review the error message in the display and eliminate the cause. If necessary, contact a John Deere dealer or other service provider.

5 - Right turn signal indicator

6 - High-beam headlight

7 - Warning light, brake system:

- Lights up yellow if a malfunction occurs in the brake system. Note the following:

- Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.
- Follow the instructions of the information display.
- If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.

8 - Intelligent Power Management (IPM) - Lights up when active.[1]

9 - Maximum engine speed (restriction of maximum engine speed) - Lights up when active.

10 - Engine set speed **1** or **2** - Corresponding digit lights up when active.

11 - Exhaust filter cleaning - Lights up when active.

12 - Preheater indicator light - Lights up when the key switch is set to the first position to the right IGN. Do not start the engine before the light goes out.

13 - Automatic shift - Lights up when active.

14 - Speed control pedal mode[2] - Lights up when active.

15 - Range and gear indicator[3]

16 - Steering failure indicator - Shows when AutoTrac™ is active. Lights up red whenever a serious fault occurs in the steering system. Note the following:

- Bring the vehicle to a standstill immediately.
- Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.
- Follow the instructions of the information display.
- If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.

17 - ISO Aux function - Lights up when the ISOBUS control is activated.

18 - iTEC™ indicator light - Lights up when active.

19 - Level gauge, DEF

20 - Level gauge, fuel

21 - Coolant temperature

22 - Level gauge, air pressure of the pneumatic trailer brake

23 - Not used

24 - Front-wheel drive - Lights up when active.

25 - Differential lock - Lights up when active.

26 - Front PTO - Indicates Front PTO activation and the PTO mode.

27 - Rear PTO - Indicates the Rear PTO activation and the PTO mode.

28 - Maximum forward speed in mph or km/h - Lights up when active.

29 - Direction of travel, range, and gear - Lights up when the direction of travel (N/F/R), range, and gear have been activated.

[1] Not for all models
[2] Only with transmission: AutoPower™/IVT™
[3] Not with transmission: AutoPower™/IVT™

30 - Creeper mode[4] - Lights up when active.

31 - Speedometer - Ground speed in mph or km/h

32 - Revolution counter, engine speed

33 - Trailer warning light - Flashes when one or two trailers are hitched and the turn signals or hazard warning lights are switched on.

34 - Warning light, brake system:

- Shines red, until the trailer air brake has reached operating pressure.

- Lights up red if a serious fault occurs in the brake system. Note the following:

- Bring the vehicle to a standstill immediately.
- Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.
- Follow the instructions of the information display.
- If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.

- Lights up red when park lock cannot be engaged. Note the following:

- Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.
- Follow the instructions of the information display.
- If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.

Test the control lights:

- As the engine is started, all the lights (icons) should light up for about 1 second. If not, a defective LED or blown fuse may be the cause. Replace part.
- Turn key switch into first position to the right IGN and all lights (icons) light up for about 1 second. If not, a defective LED or blown fuse may be the cause. Replace part.

NOTE: Only those icons lights up that have available functions.

OULXA64,6M,0005583-19-16JUL25

Warning Indicators



RXA0109847—UN—20AUG10

[4] *Not with transmissions: PowrQuad PLUS™, AutoQuad PLUS™, and CommandQuad PLUS™*

A—STOP Light
B—ATTENTION Light
C—INFO Light

NOTE: All warning lights for STOP, ATTENTION, and INFO are accompanied by a message, a diagnostic trouble code, and/or a fault description on the information display.

Audible alarms (beeps or sounds continuously) support the warning lights and/or messages on the information display.

See also Warning Indicators for Stop, Attention, and Information and Safety Warnings in section 300B.

Warning Indicators:

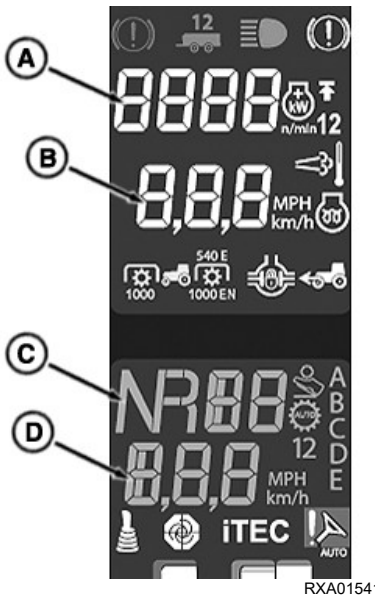
A - STOP: The light flashes and an uninterrupted alarm signal sounds. A serious malfunction has occurred, requiring immediate attention or the tractor will be damaged.

B - ATTENTION:
The light flashes and the alarm signal sounds five times, which indicates a performance problem or malfunction that has to be rectified as soon as possible.

C - INFO:
Light comes on continuously and alarm sounds for 2 seconds, indicating a fault condition.

OULXA64,6M,0005584-19-16JUL25

Digital Indicators – Revolution Counter, Ground Speed, Transmission, and Set Speed



RXA0154166—UN—06OCT16

A – Revolution counter: Displays engine speed. If "- - - " is displayed, no speed signal is being received.

B – Speedometer: Displays ground speed in either miles per hour or kilometers per hour, depending on operator selected units (U.S. or metric).

If "- - - -" is displayed, no speed signal is being received.

C – Transmission information: Shows if transmission is in Neutral – N, Forward – F, Reverse – R, or Park – P.

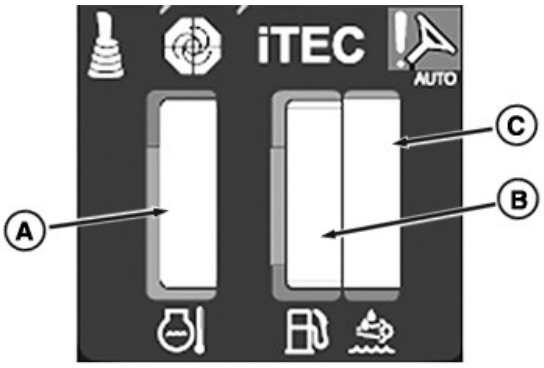
If there is no gear signal, nothing is displayed.

Shows speed bands 1 or 2 and speed settings (not with the following transmissions: PowrQuad PLUS™, AutoQuad PLUS™, and CommandQuad PLUS™).

D – Set speed indicator: Shows what speed is set using the set speed adjuster.

OULXA64,6M,0005585-19-24NOV20

Gauges - Coolant Temperature, DEF Level, and Fuel Level



RXA0154167—UN—28SEP16

A – Coolant Temperature Gauge: The display range represents temperatures between 40°C (104°F) and 120°C (248°F). All segments are off when coolant temperature is below 40°C (104°F). All segments are lit when temperature is above 120°C (248°F).

B – Fuel Level Monitor: Each displayed segment stands for 5% of the capacity. When fuel tank is full, all segments are lit. If only the lowest segment is lit, only approx. 5% fuel is left. If fewer than two segments are displayed, a signal sounds and the red zone starts to flash.

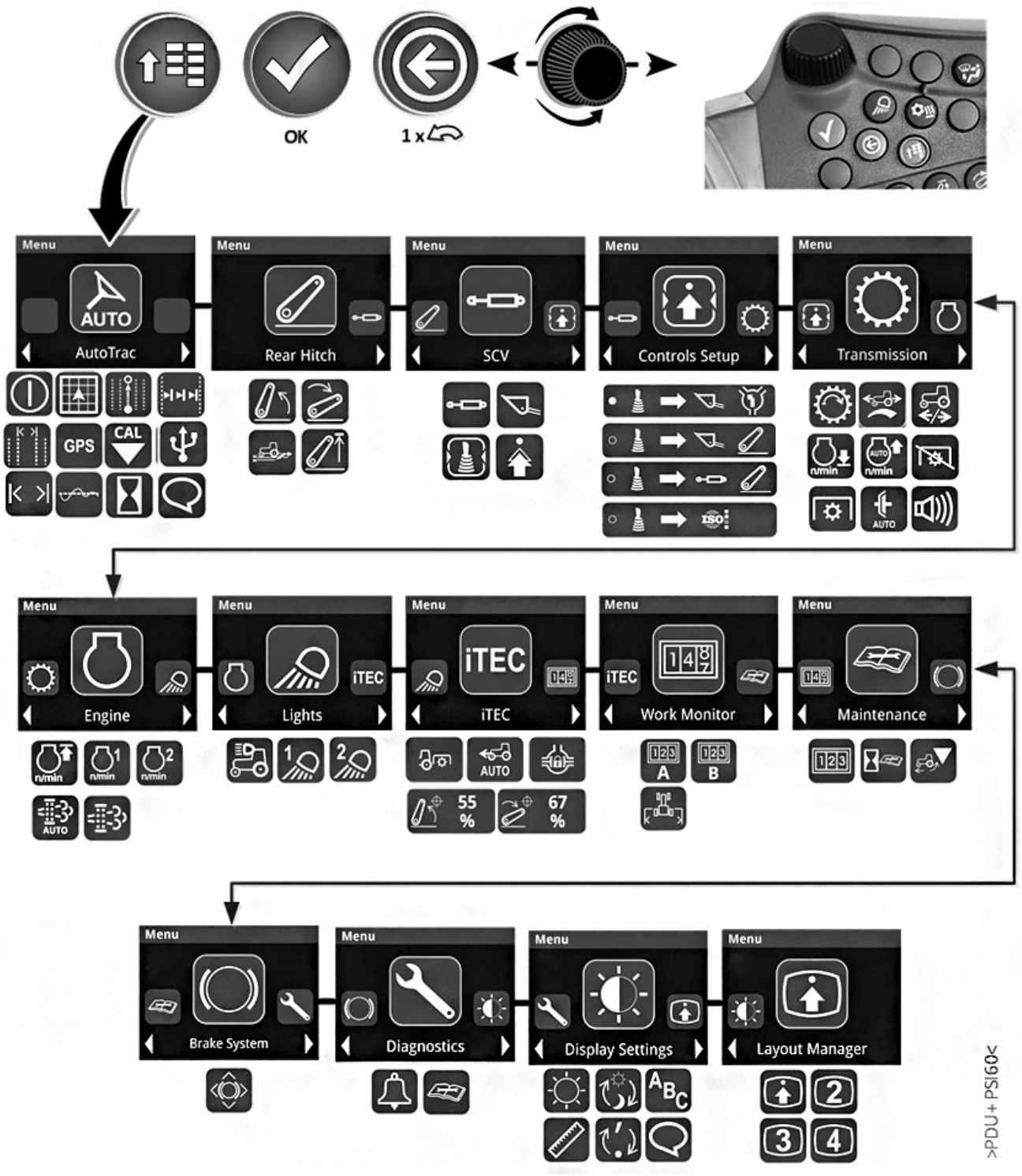
C – Display for DEF Fluid Level (if Equipped): Each displayed segment stands for 5% of the capacity. When DEF tank is full, all segments are lit. If two segments are displayed, a signal sounds and the red zone starts to flash.

NOTE: The DEF tank fluid level indicator is only installed on tractors with Final Tier 4/Stage V engines.

Urgent recommendation: Top up the DEF tank whenever fuel is filled in.

OULXA64,6M,0005586-19-21DEC20

Overview of All Menus



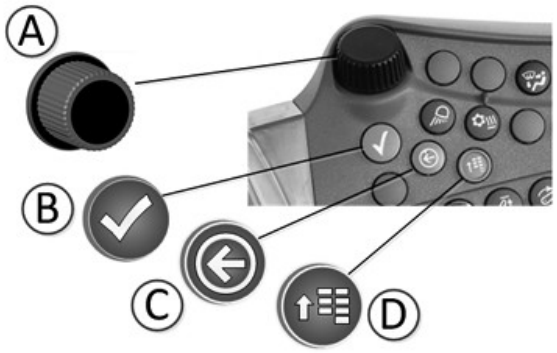
LX412355—UN—21DEC20

Functions Depend on Tractor Equipment

OULXA64,6M,0005587-19-21DEC20

Basic Menu Navigation

Basic controls for navigating and setting:



LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back
D—Access Main Menu

OULXA64,6M,0005588-19-09SEP20

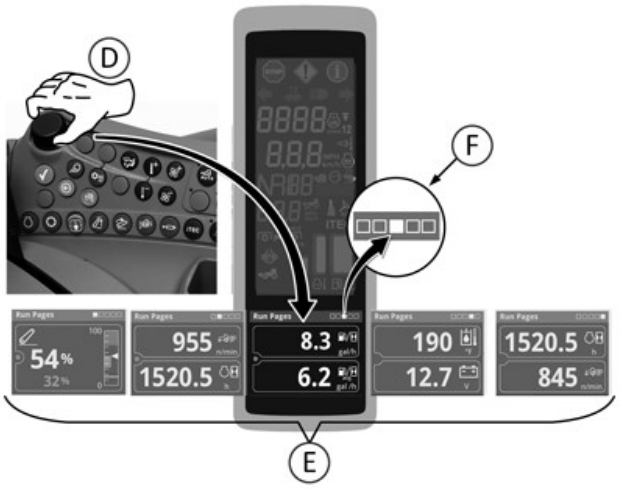
Information Display, Run Pages



LX412357—UN—24NOV20

Composition

A—Run Page
B—Run Page Modules
C—Information Display



LX412356—UN—25NOV20

Select Run Pages (example)

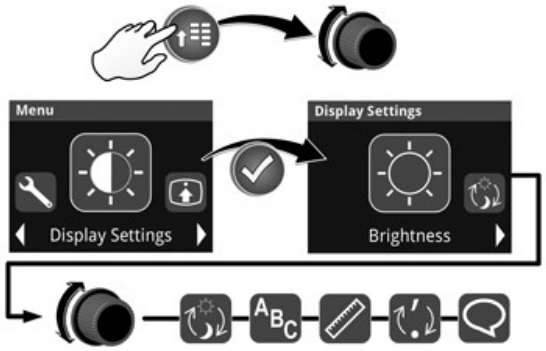
D—Select Run Page
E—Run Pages
F—Sequence of Run Pages

Run pages provide information about the data of various functions. See also Layout Manager, Settings in this section. Five run pages are predefined ex factory.

- Turning the wheel (D) alternates between the run pages (E) in the information display.
- Display area (F) shows which run page is open and serves as an orientation.

OULXA64,6M,0005589-19-25NOV20

Display Settings, Menu



LX412358—UN—25NOV20

NOTE: For additional navigation information, see Basic Menu Navigation in this section.

Select and change the desired settings as needed. For more information about settings, see the relevant topic in this section.

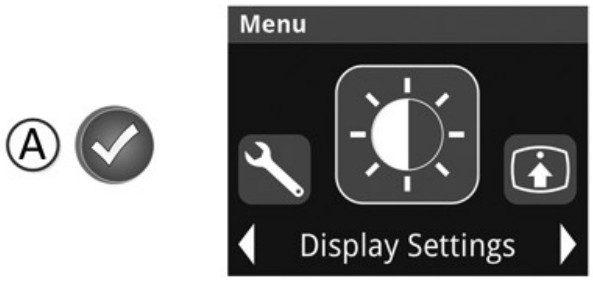
Selection	Setting	Effect
Brightness	1–100%	The higher the value, the brighter the display.
Display Mode	Auto, Day, or Night	Auto picks the display mode based on the time of day. Day and night are for the respective time of day.
Language	Select language	The desired language is displayed.
Units	Imperial (British), Metric, or U.S.	The desired units are displayed.

OULXA64,6M,000558A-19-26NOV20

Display Settings, Brightness

Adjust the brightness of the display.

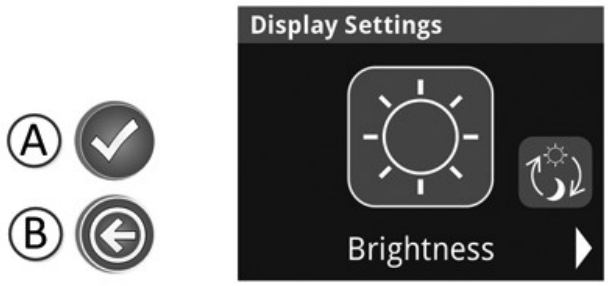
1. Press the menu button, navigate to Display Settings, and confirm with (A).



LX368320—UN—22JAN19

A—Confirm

2. Select Brightness and confirm with (A).

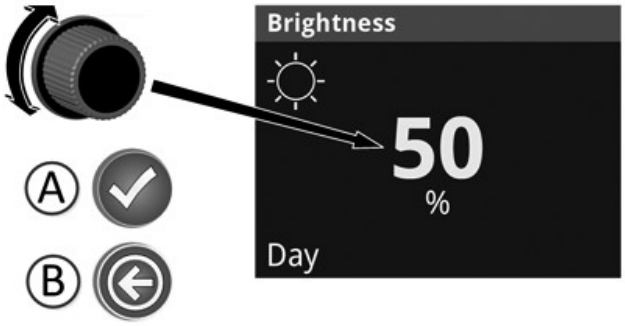


LX368321—UN—22JAN19

A—Confirm
B—Back

3. Set the percentage value for the brightness and confirm with (A).

NOTE: In the lower left corner of the display, the currently active mode (day or night) is displayed. See Display Settings, Display Modes (Day/Night) in this section. In the automatic display mode, the brightness changes between day and night mode as the low-beam headlights are switched on and off.



LX368322—UN—22JAN19

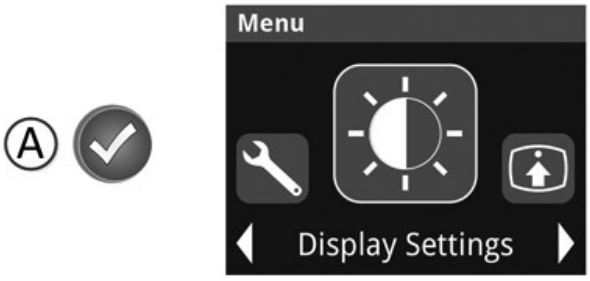
A—Confirm
B—Back

OULXA64,6M,000558B-19-09SEP20

Display Settings, Display Modes (Day/Night)

Adjust the brightness of the display.

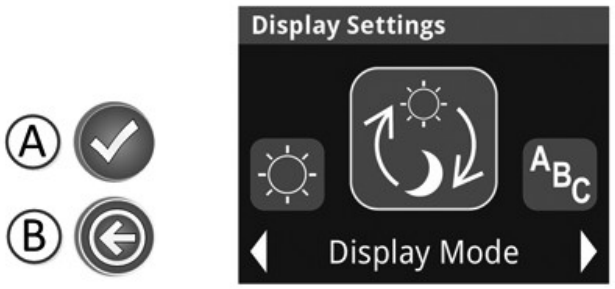
1. Press the menu button, navigate to Display Settings, and confirm with (A).



LX368320—UN—22JAN19

A—Confirm

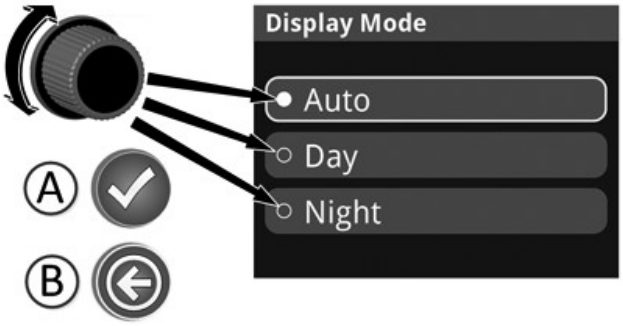
2. Select Display Mode and confirm with (A).



LX368323—UN—22JAN19

A—Confirm
B—Back

3. Select setting and confirm with (A).
   - **Auto** - The brightness changes between day and night mode as the low-beam headlights are switched on and off.
   - **Day** - The brightness intended for daytime is used.
   - **Night** - The brightness intended for nighttime is used.



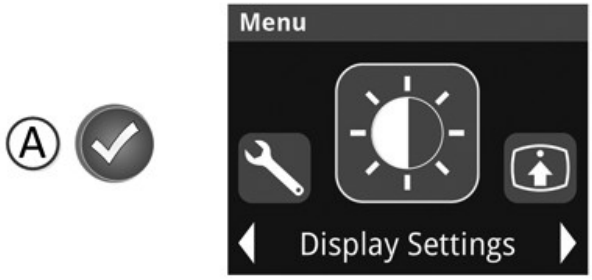
LX368324—UN—22JAN19

A—Confirm
B—Back

OULXA64,6M,000558C-19-09SEP20

Display Settings, Language

1. Press the menu button, navigate to Display Settings, and confirm with (A).



LX368320—UN—22JAN19

A—Confirm

2. Select Language and confirm with (A).



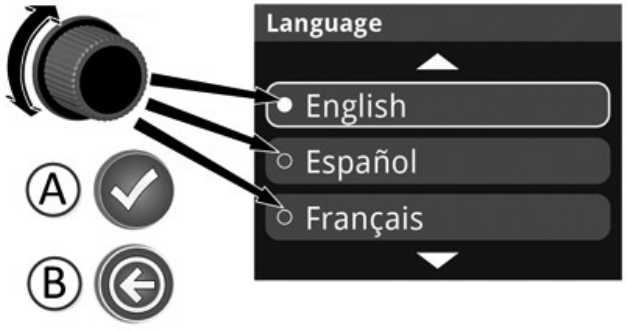
LX368325—UN—22JAN19

A—Confirm
B—Back

3. Select preferred language.

NOTE: If you mistakenly chose a language that you do not understand:

1. Press back button (B).
2. Confirm.
3. Select first entry and confirm.
4. This process activates English.



LX368326—UN—22JAN19

A—Confirm
B—Back

Other languages are available but not shown.

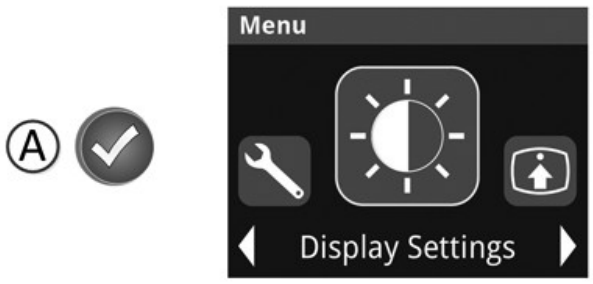
4. Confirm desired language with button (A).

5. Press menu button or back button (B).
6. Restart the system. Turn key switch to STOP position and then to IGN position. Refer to Key Switch in section 30.

OULXA64,6M,000558D-19-12JAN22

Display Settings, Units

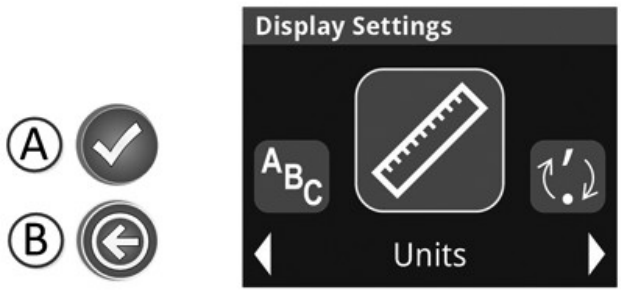
1. Press the menu button, navigate to Display Settings, and confirm with (A).



LX368320—UN—22JAN19

A—Confirm

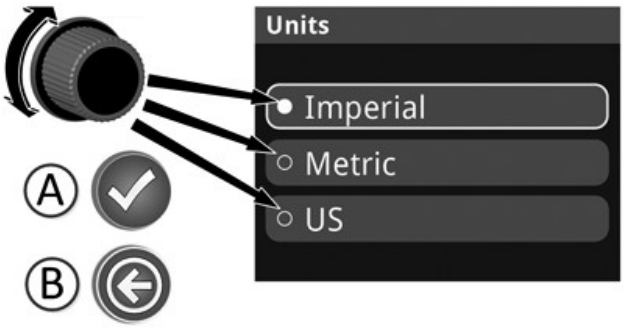
2. Select Units and confirm with (A).



LX368327—UN—22JAN19

A—Confirm
B—Back

3. Select units system and confirm with (A).



LX368328—UN—22JAN19

A—Confirm

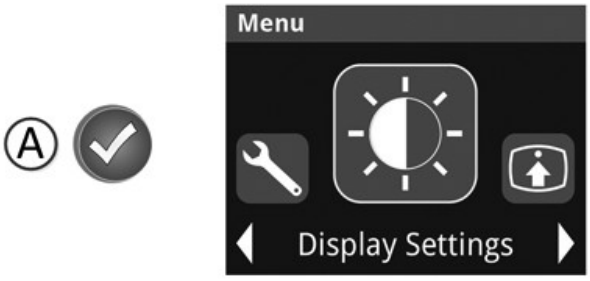
B—Back

NOTE: The choice of a units system has an impact on the calculations of the fieldwork data in the work monitor. Differences between the conversion factors between Imperial and US can lead to misjudgments of fieldwork data in the work monitor.

OULXA64,6M,000558E-19-09SEP20

Display Settings, Numeric Format

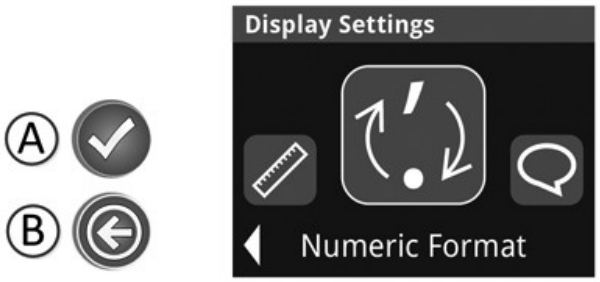
1. Press the menu button, navigate to Display Settings, and confirm with (A).



LX368320—UN—22JAN19

A—Confirm

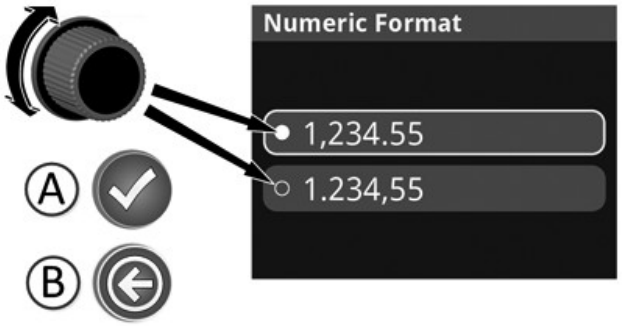
2. Select Numeric Format and confirm with (A).



LX368329—UN—22JAN19

A—Confirm
B—Back

3. Select numeric format and confirm with (A).



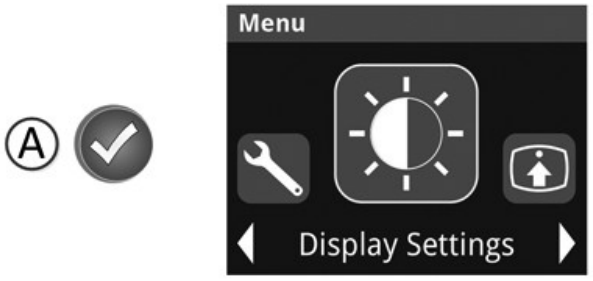
LX368330—UN—22JAN19

A—Confirm
B—Back

OULXA64,6M,000558F-19-09SEP20

Display Settings, Information on the Corner Post Display

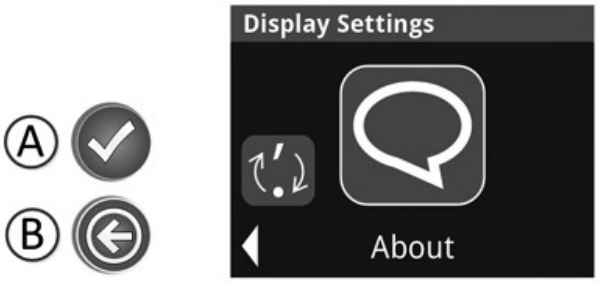
1. Press the menu button, navigate to Display Settings, and confirm with (A).



LX368320—UN—22JAN19

A—Confirm

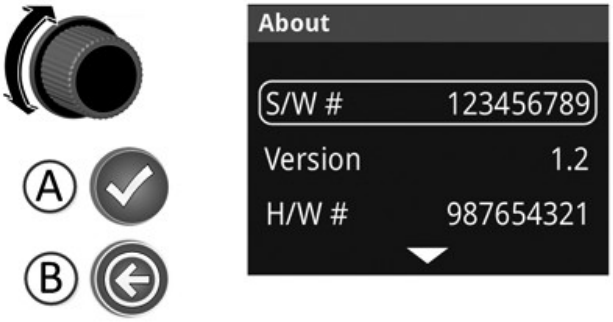
2. Select page with the information on the corner post display and confirm with (A).



LX368331—UN—22JAN19

A—Confirm
B—Back

3. Show available information.
   - S/W# - Software Part Number
   - Version
   - H/W# - Hardware Part Number
   - Hardware Serial Number

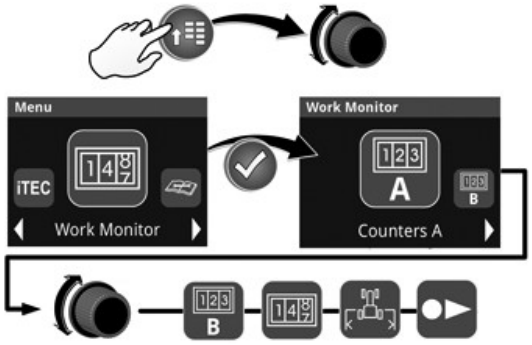


LX368332—UN—22JAN19

A—Confirm
B—Back

OULXA64,6M,0005590-19-09SEP20

Work Monitor, Menu



LX412359—UN—25NOV20

Selection	Range	Display Response
Counters A	All values are read only. A reset counters feature is listed.	Reset clears all counters listed.
Counters B	All values are read only. A reset counters feature is listed.	Reset clears all counters listed.
Readings	All values are real time and read only.	Values change during machine operation.
Implement Width	0.5—64 m (1.5—210 ft)	Used to calculate area worked and other values.
Recording Trigger	Auto: Rear Hitch, Rear- or Front PTO, Implement Switch. Recording starts also by manual selection.	Is used for setting the desired recording trigger. Event in which the recording starts.

Access the Work Monitor menu via the main menu.

Select and change the desired settings as needed. See the corresponding topic in this section.

NOTE: For additional navigation information, see Basic Menu Navigation in this section.

OULXA64,6M,0005591-19-26NOV20

Work Monitor, Counters A and B

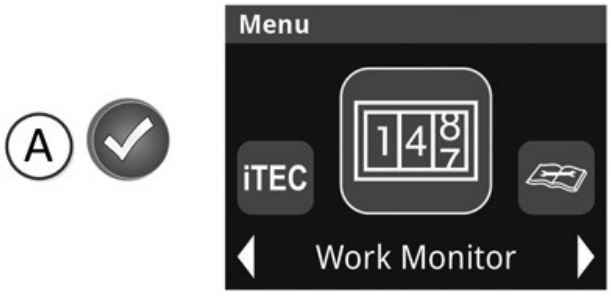
The following shows the handling of the A counter as an example.

Two counters are available for saving the work monitor's fieldwork data. The collected data can be used for statistics and for calculations. If only the data for the upcoming work needs to be documented, reset the counter to ZERO first.

NOTE: The data displayed in counters A and B are based on calculations that depend on the recording trigger. See Work Monitor, Recording Trigger in this section.

The selection of the correct units system is crucial. Differences between Imperial and US can lead to misjudgment of fieldwork data in the work monitor. See Display Settings, Units in this section.

1. Press the menu button, navigate to Work Monitor, and confirm with (A).



LX368318—UN—22JAN19

A—Confirm

2. Select Counter A and confirm with (A).

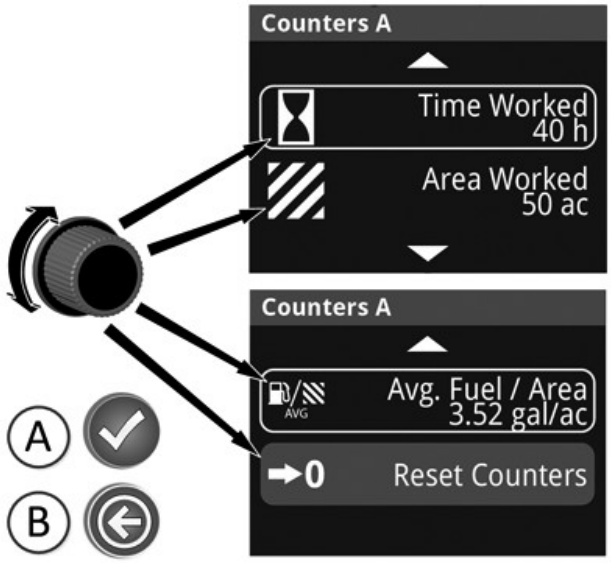


LX368304—UN—06JAN19

A—Confirm

3. Display the saved work monitor's fieldwork data. See the illustration of the available work monitor's fieldwork data in this description.

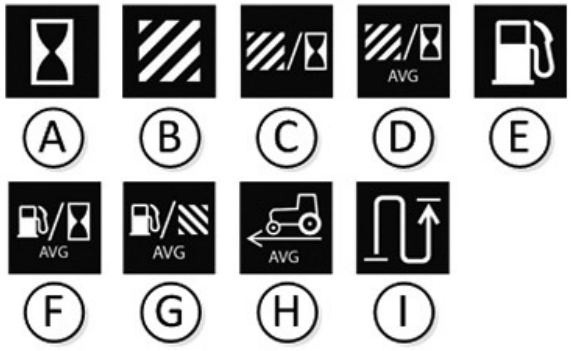
   To reset the data to ZERO, select the corresponding entry and confirm with (A).



LX368305—UN—22JAN19

A—Confirm
B—Back

:



LX368302—UN—06JAN19

A—Time Spent Since the Start of the Recording
B—Area Worked

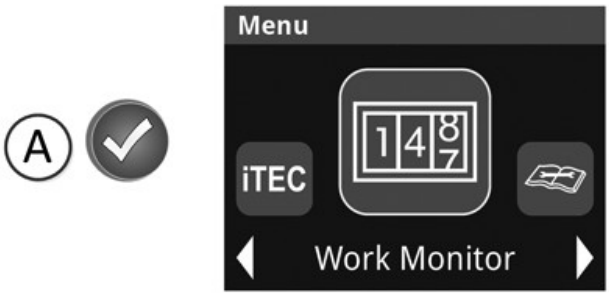
C—Area Worked (area per hour)
D—Average Area Worked
E—Amount of Fuel Used
F—Fuel Usage per Hour
G—Fuel Usage per Area Worked
H—Average Ground Speed
I—Distance Traveled

OULXA64,6M,0005592-19-09SEP20

Work Monitor, Readings

All currently read machine data is displayed in this readings menu. Settings are not possible.

1. Press the menu button, navigate to Work Monitor, and confirm with (A).



LX368318—UN—22JAN19

A—Confirm

2. Select menu item for reading the machine data and confirm with (A).

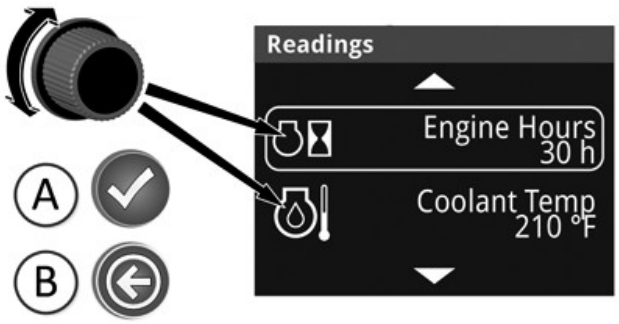


LX368310—UN—06JAN19

A—Confirm

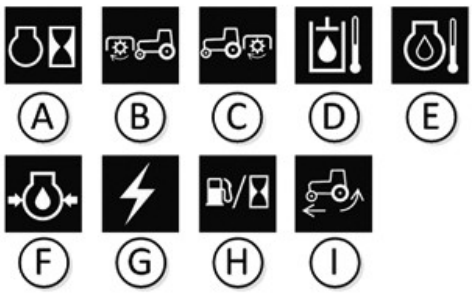
3. Display of the current machine data. See the illustration of the available readings in this description.

   To reset to ZERO, select the corresponding entry and confirm with (A).



LX368311—UN—06JAN19

A—Confirm
B—Back



LX386852—UN—19AUG19

Available Readings

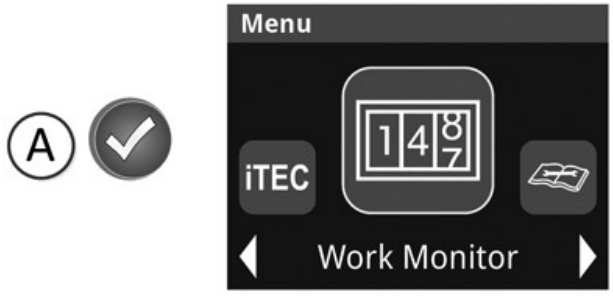
A—Operating Hours
B—Front PTO Speed (if equipped)
C—Rear PTO Speed
D—Hydraulic Oil Temperature
E—Coolant Temperature of the Engine
F—Engine Oil Pressure
G—System Voltage in Volts
H—Fuel Usage per Hour
I—Wheel Slip

OULXA64,6M,0005593-19-25NOV20

Work Monitor, Implement Width

The Implement Width menu item defines the working width of the implement. Among other things, the value for the working width is important for the calculation of the area worked.

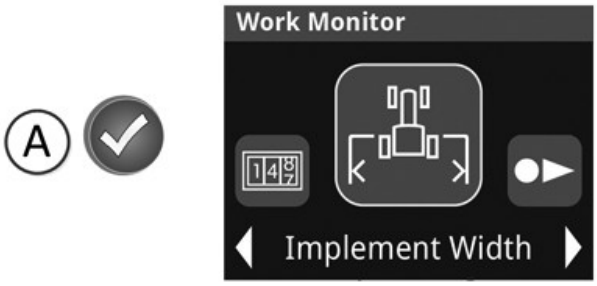
1. Press the menu button, navigate to Work Monitor, and confirm with (A).



LX368318—UN—22JAN19

A—Confirm

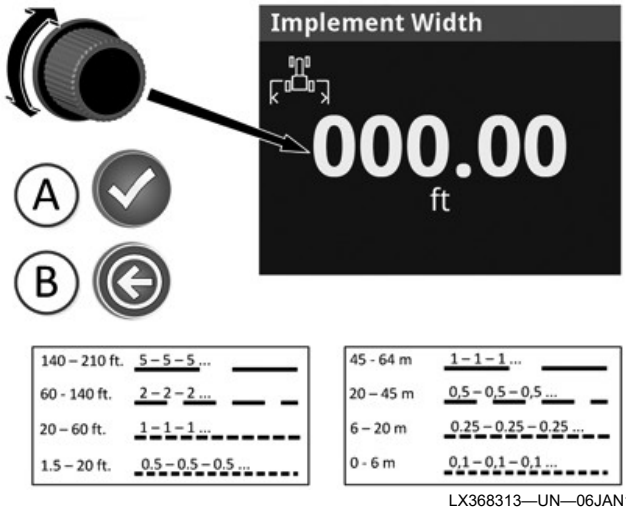
2. Select menu item Implement Width for the working width and confirm with (A).



LX368312—UN—06JAN19

A—Confirm

3. Enter the working width and confirm with (A). The accuracy of the setting depends on the working width. Example: With a working width of 6 - 20 meters, the input accuracy is 0.25 meters (25 cm), see illustration for further setting ranges.



LX368313—UN—06JAN19

A—Confirm
B—Back

OULXA64,6M,0005594-19-09SEP20

Work Monitor, Recording Trigger

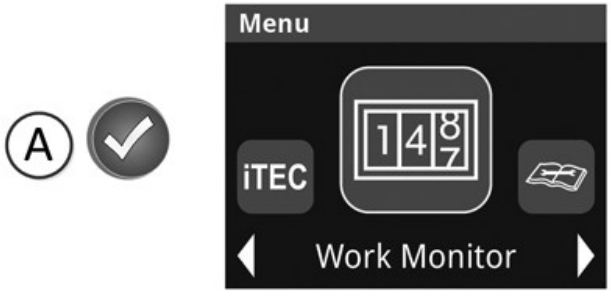


RXA0152972—UN—21JUL16

Recording Trigger Icon

The recording trigger determines the start event for recording fieldwork data for the work monitor, allowing collected fieldwork data to be calculated only during productive times. The data displayed in counters A and B are based on calculations that depend on the recording trigger. See Work Monitor, Counters A and B in this section.

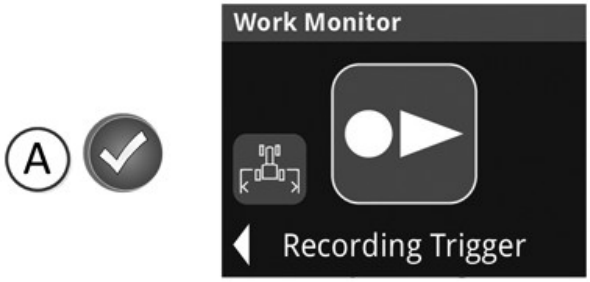
1. Press the menu button, navigate to Work Monitor, and confirm with (A).



LX368318—UN—22JAN19

A—Confirm

2. Select menu item Recording Trigger and confirm with (A).

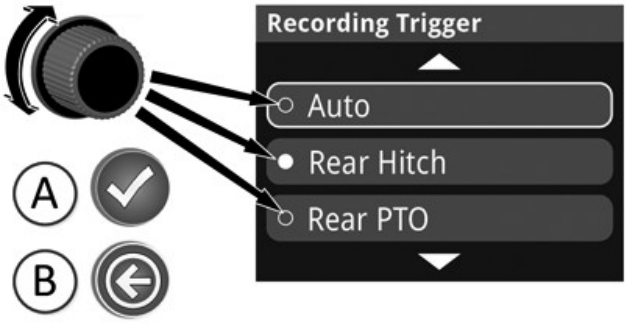


LX368314—UN—06JAN19

A—Confirm

3. Select an event at which the collection of fieldwork data should start and confirm with (A).
   - **Auto** - Data collection starts when the rear PTO is switched on or when the rear hitch lowers to less than 85% of the set lift limit.

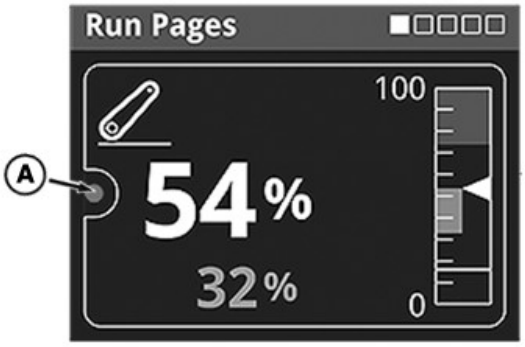
- **Rear Hitch** - Data collection starts when the rear hitch lowers to less than 85% of the set limit level.
- **Rear PTO** - Data collection starts when the rear PTO is switched on.
- **Front PTO** - Data collection starts when the front PTO is switched on.
- **Implement Switch** - Data collection starts when the Implement Switch is switched on.
- **Manual** - Data collection starts when the driver holds down the button (A) for 1.5 seconds. *This works only if no menu is currently active.*



LX368315—UN—06JAN19

A—Confirm
B—Back

An indicator for active data collection is a lit up dot (A) on the left side of the information display.



RXA0162585—UN—23MAR18

OULXA64,6M,0005595-19-25NOV20

Layout Manager, Settings

Run pages are displayed in the information display after the ignition is turned on. Each Run page consists of a maximum of two run page modules. The factory default setting is five different run pages.

The information shown on the run pages can be customized in the Layout Manager.



RXA0152983—UN—25JUL16

Icon for the Layout Manager



RXA0152993—UN—25JUL16

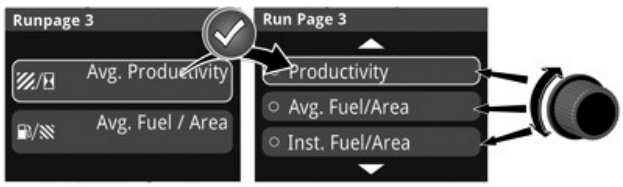
Icon for a Run Page (example)

Access Layout Manager



LX412360—UN—25NOV20

Accessing the Layout Manager



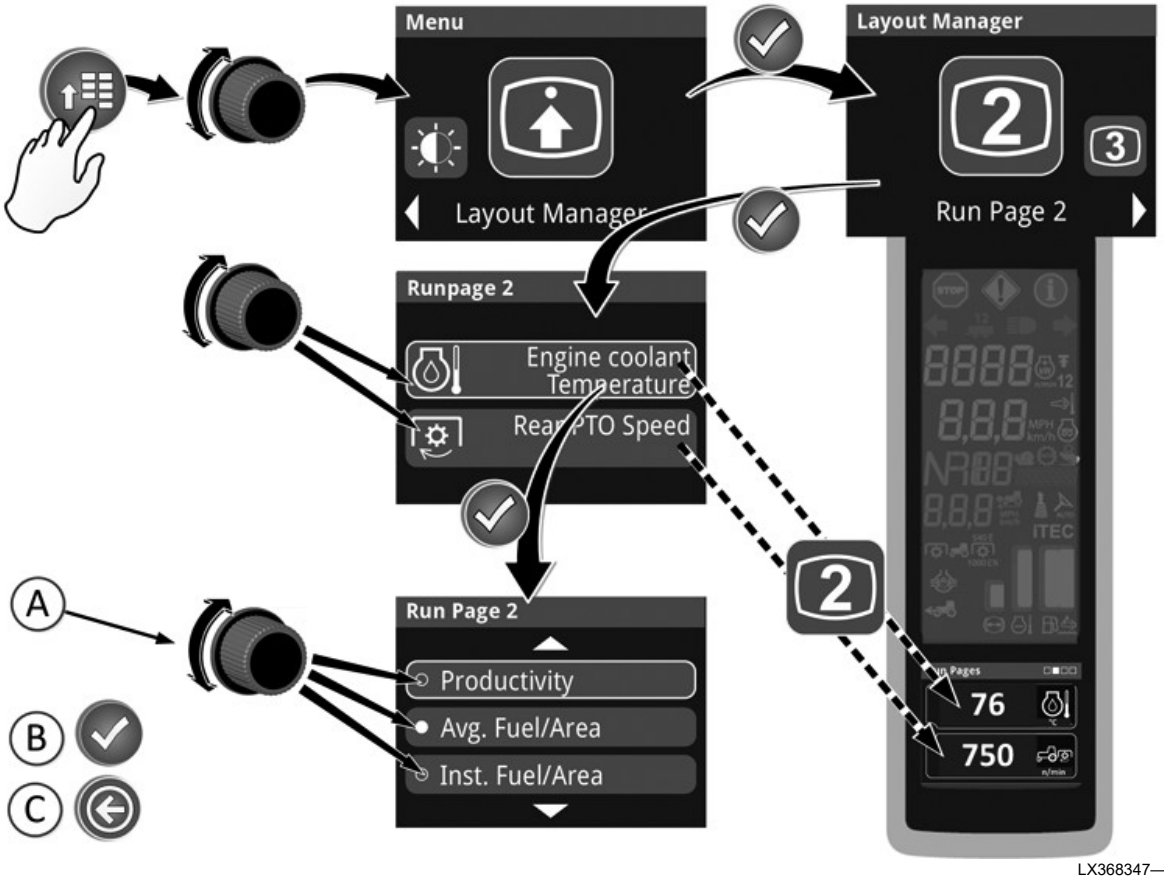
LX412361—UN—30DEC20

Run Page Module Exchange

1. The currently displayed run page can be configured by pressing the confirmation key.
2. Example: The first page of run page 3 represents the current setting for the information display.
3. Select a new function from the group of all available entries and confirm, see Available Run Page Modules.

   This will replace the previous run page module.

Access Layout Manager from the Main Menu



LX368347—UN—01FEB19

A—Scroll Wheel for Navigation through the Menus and Run Pages

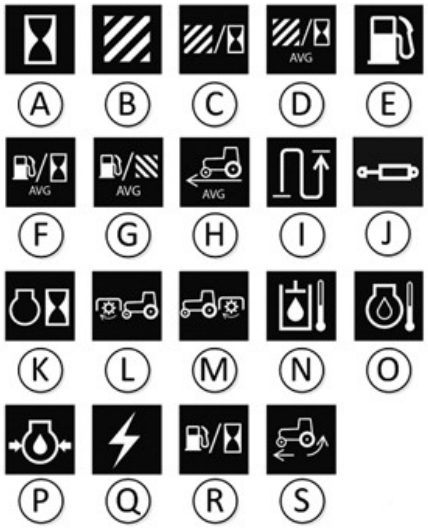
B—Confirm
C—Back

1. Press the menu button, select Layout Manager and confirm with (B).
2. Select a run page and confirm with (B).
3. The first page of run page 2 represents the current setting for the information display. See dashed lines. Select the entry that should be changed here and confirm with (B).
4. Select a new function from the group of all available entries and confirm with (B).

   This will replace the previous run page module.
5. Go back with button (C) or the menu button.

Available Run Page Modules

Each Run page consists of a maximum of two run page modules. A run page module is the display area in which data of a tractor function are displayed. A maximum of two run page modules can be displayed in the information display. As factory setting, five different run pages are predefined.



LX368350—UN—02JUL20

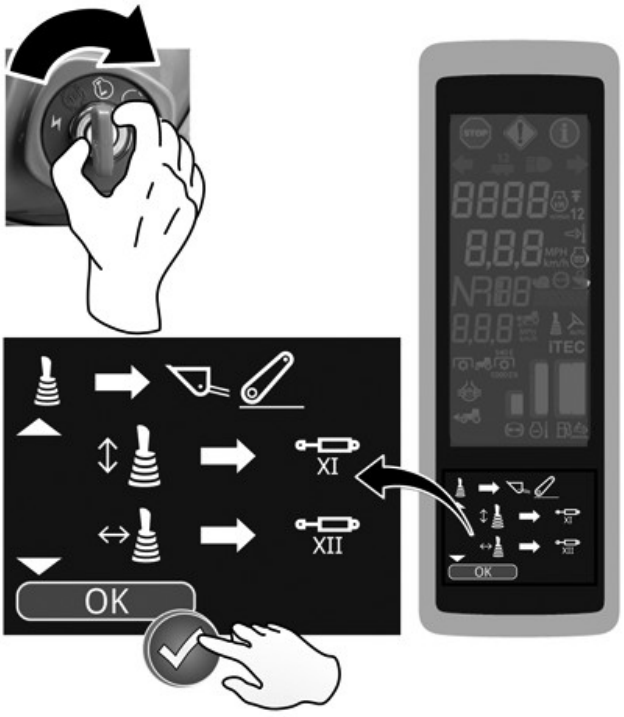
A—Time Spent Since the Start of the Recording
B—Area Worked
C—Area Worked (area per hour)
D—Average Area Worked
E—Amount of Fuel Used
F—Average Fuel Usage per Hour
G—Average Fuel Usage per Area Worked
H—Average Ground Speed
I—Distance Traveled

J—SCV Status
K—Operating Hours
L—Front PTO Speed
M—Rear PTO Speed
N—Hydraulic Oil Temperature
O—Coolant Temperature of the Engine
P—Engine Oil Pressure
Q—System Voltage in Volts
R—Fuel Usage per Hour
S—Wheel Slip

OULXA64,6M,0005596-19-15JAN21

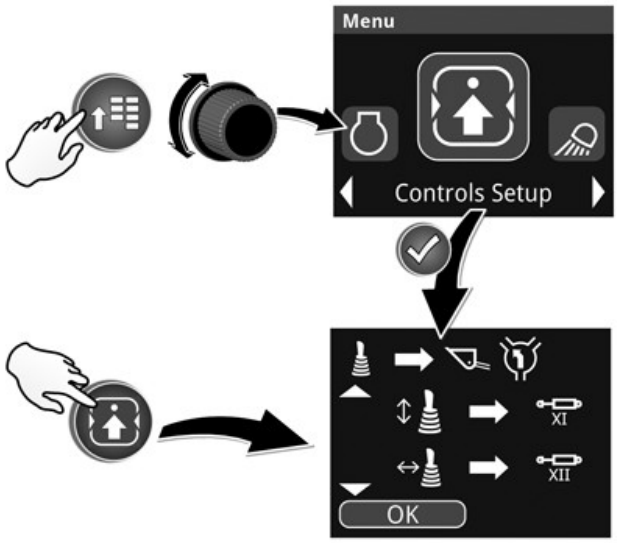
Set up Controls

IMPORTANT: If a default setting other than the factory setting is active, a message is displayed after the ignition is turned on. The message prompts the driver to get familiarized with the current settings. The functions are available only after the message has been confirmed. For ISOBUS settings, always observe the Operator's Manual of the implement.



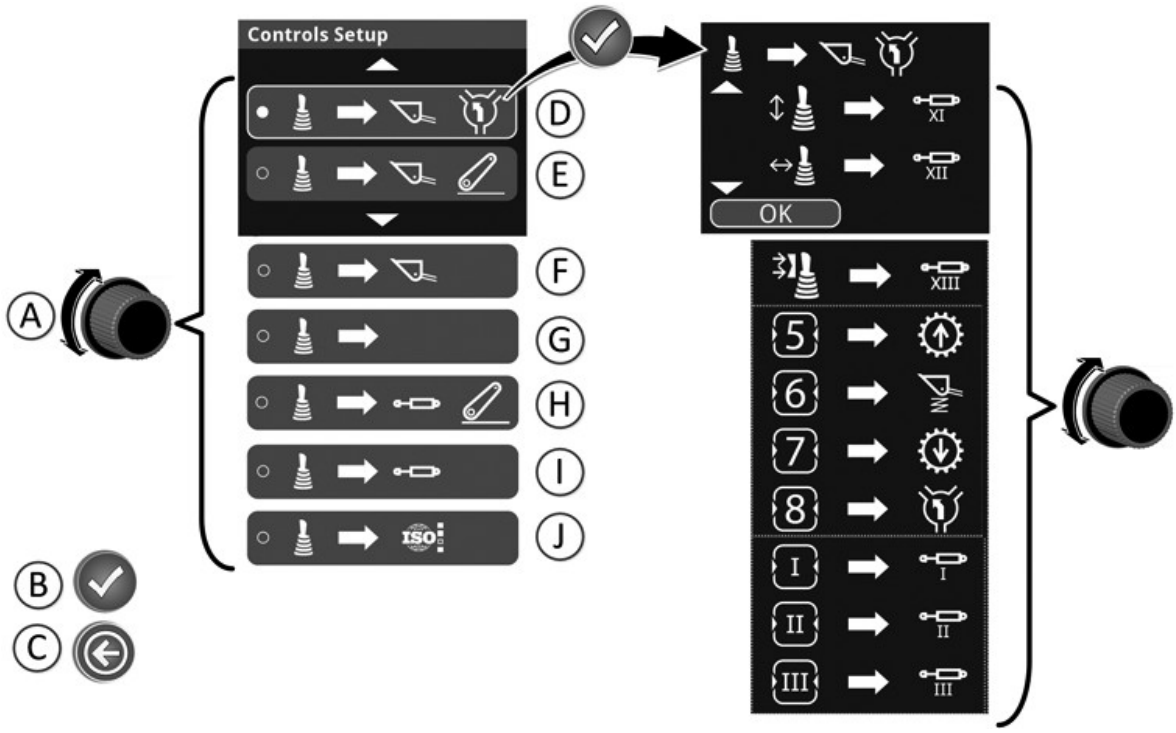
LX368352—UN—12FEB19

Controls can be set up for specific applications. Up to four different presets are possible. The presetting is used to assign functions to controls and motion axes of the joystick. Customized assignments that differ from the default presets are **not** possible.



LX412371—UN—15JAN21

Call Up Settings



LX368354—UN—12FEB19

Select Preset

A—Select Preset
B—Confirm
C—Back
D—Mid-Mount E-SCVs and Diverter Valve
E—Mid-Mount E-SCVs and Rear Hitch
F—Mid-Mount E-SCVs
G—No Functions Assigned
H—Rear E-SCVs and Rear Hitch
I—Rear Selective Control Valves
J—Operating ISOBUS Implements

Set up Controls:

- Press the shortcut for the *Controls Setup*.
- Optionally open the main menu to navigate to the selection.

1. After confirming the menu for the *Controls Setup*, the selection window opens with the available presets. Depending on the equipment of the tractor, a maximum of four presets are listed. These can be exchanged for other existing presets. To explain the meaning, all possible presets are shown in this description. The illustration therefore does not correspond to a practical example.
2. To replace an active preset select the desired presets with (A) and confirm with (B) (left illustration).
3. Right illustration: After confirmation with (B), a window opens where the corresponding assignments are listed. Use (A) to scroll through the list.
4. [OK] returns to the previous window.

NOTE: A selected preset remains active until another preset is selected. Even with a restart, the currently selected preset is retained. See also section 70D where the electrical joystick is explained.

Symbols:



LX514280—UN—28JUL22

K—Rear Hitch
L—Rear Selective Control Valves
M—Diverter Valve
N—Front Loader (mid-mount E-SCVs)
O—ISOBUS Implement

IMPORTANT: For ISOBUS settings, always observe the Operator's Manual of the implement.

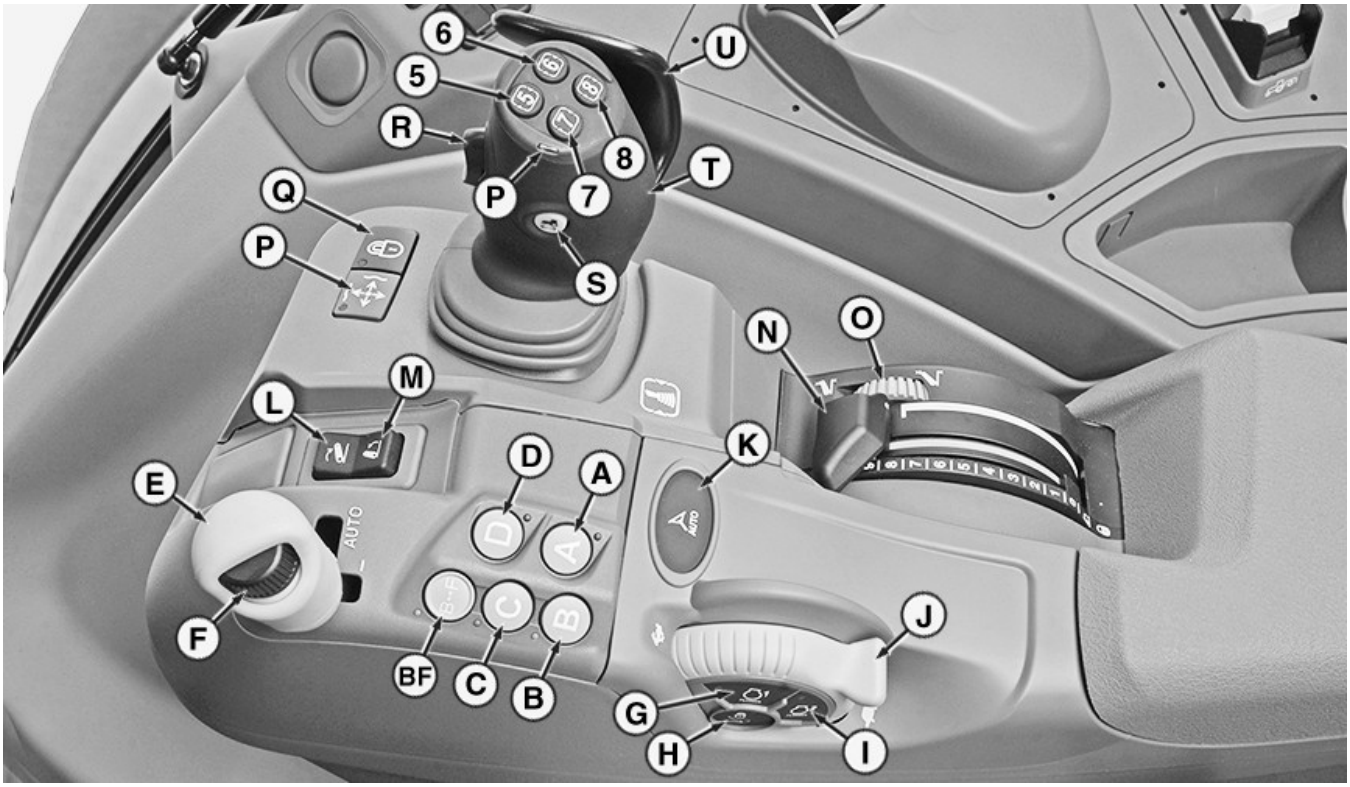


LX514279—UN—28JUL22

1—E-SCV I Control Lever
2—E-SCV II Control Lever
3—E-SCV III Control Lever
4—Joystick Fore/Aft
5—Joystick Right/Left
6—Toggle Switch on Front of Joystick (third axle)
7—Button 5
8—Button 6
9—Button 7
10—Button 8
11—Not Available
12—Rear E-SCV I
13—Rear E-SCV II
14—Rear E-SCV III
15—Mid-Mount E-SCV XI
16—Mid-Mount E-SCV XII
17—Mid-Mount E-SCV XIII
18—Gear Upshift
19—Gear Downshift
20—First Diverter Valve
21—Second Diverter Valve
22—Lower Rear Hitch
23—Raise Rear Hitch

OULXA64,6M,0005597-19-21APR23

CommandARM™, Controls (with CommandQuad™ Plus)



LX364424—UN—29AUG19

A—Indicator Light and Button for Range A
B—Indicator Light and Button for Range B
BF—Indicator Light and Button for example, for Ranges B to F*
C—Indicator Light and Button for Range C
D—Indicator Light and Button for Range D
E—Shift Lever
F—Speed Wheel, Maximum Speed
G—Engine Set Speed 1 (n/min)
H—Speed Control Pedal, Save/Delete Pedal Position
I—Engine Set Speed 2 (n/min)
J—Hand Throttle
K—AutoTrac™ Button
L—Button, Lower Hitch
M—Button, Raise Hitch
N—Control Knob, Adjusting Depth Control (raise/lower)
O—Control Knob, Adjusting Operating Depth
P—Indicator Light, Joystick Active
Q—Lock Button, Joystick ON/OFF
R—Rocker Switch, Raise/Lower (default assignment)
S—Button, Change Direction of Travel
T—Joystick
U—Hand Flap, Activate Joystick
5—Gearshift Button, Upshift (default assignment)
6—Button, Activate Loader Suspension System (default assignment)[1]
7—Gearshift Button, Downshift (default assignment)
8—Button, Diverter Valve (default assignment)[1]

* Possible groups (caption B-F)
Button B-E (with transmission with 5 groups)
Button B-F (with transmission with 6 groups)

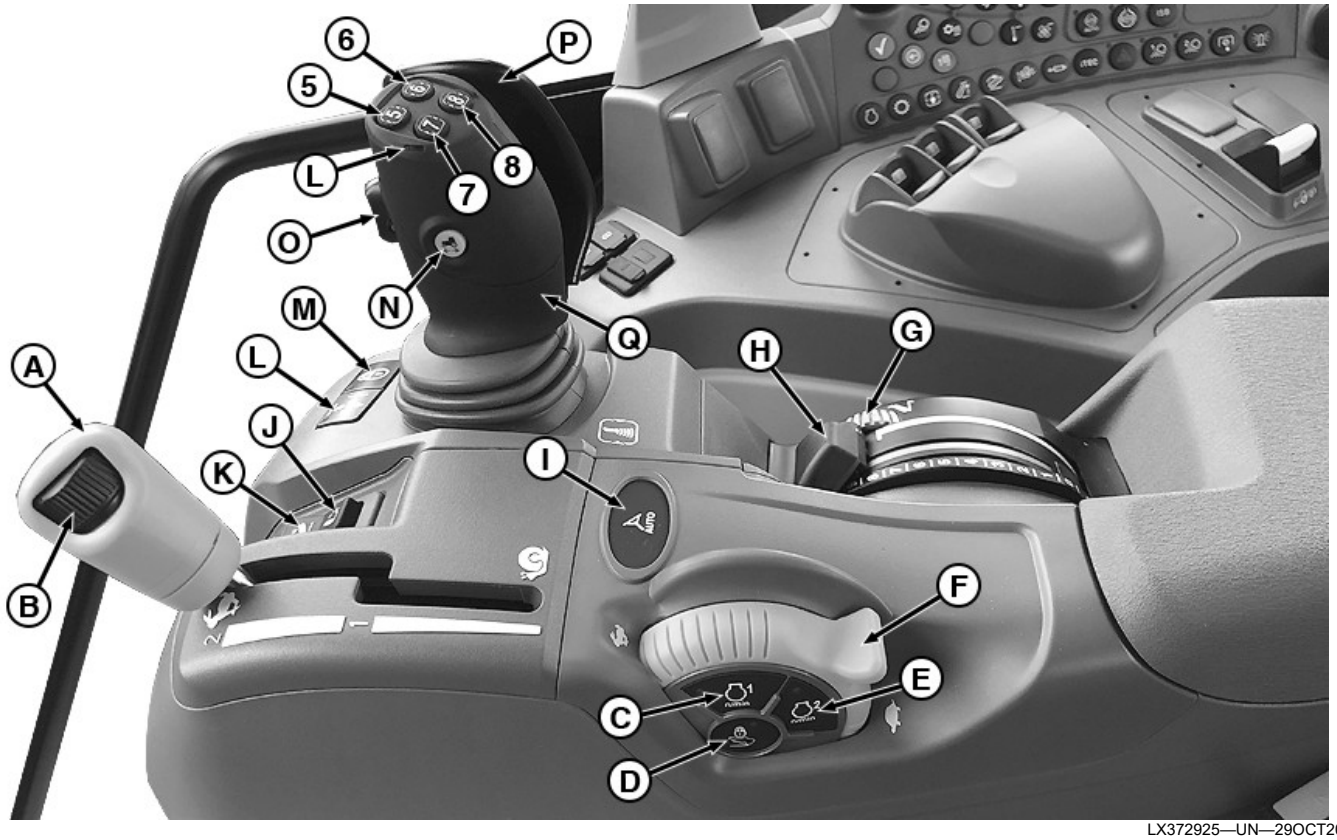
For further information, see:

- Setting Up Controls in section 30A
- CommandQuad™ Plus Transmission in section 50H
- AutoTrac™ Guidance System (If Equipped) in section 40
- Rear Hitch - Operation with CommandARM™ in section 60E
- Joystick, Electric - Controls in section 70D

OULXA64,SP,0005598-19-27OCT20

[1] *European version only*

CommandARM™, Controls (with AutoPowr™/IVT™)



LX372925—UN—29OCT20

A—Speed Control Lever
B—Speed Wheel, Maximum Speed
C—Minimum Engine Speed 1, ON/OFF
D—Speed Control Pedal, Save/Delete Speed
E—Minimum Engine Speed 2, ON/OFF
F—Hand Throttle
G—Control Knob, Adjusting Operating Depth
H—Control Knob, Adjusting Depth Control (raise/lower)
I—AutoTrac™ Button
J—Button, Raise Hitch
K—Button, Lower Hitch
L—Lock Button, Joystick ON/OFF
M—Indicator Light, Joystick Active
N—Button, Change Direction of Travel
O—Rocker Switch, Raise/Lower (default assignment)
P—Hand Flap, Activate Joystick
Q—Joystick
5—Gearshift Button, Upshift (default assignment)
6—Button, Activate Loader Suspension System (default assignment)[2]
7—Gearshift Button, Downshift (default assignment)
8—Button, Diverter Valve (default assignment)[2]

For further information, see:

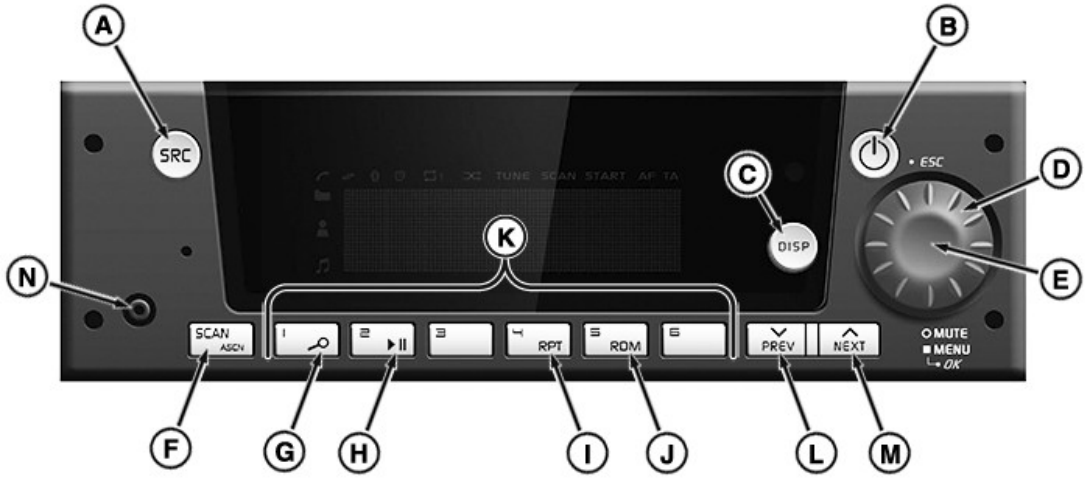
- Setting Up Controls in section 30AA
- AutoPowr™/IVT™ Transmission in section 50J
- AutoTrac™ Guidance System (If Equipped) in section 40
- Rear Hitch - Operation with CommandARM™ in section 60E
- Joystick, Electric - Controls in section 70D

OULXA64,SP,00057B5-19-17DEC20

[2] *European version only*

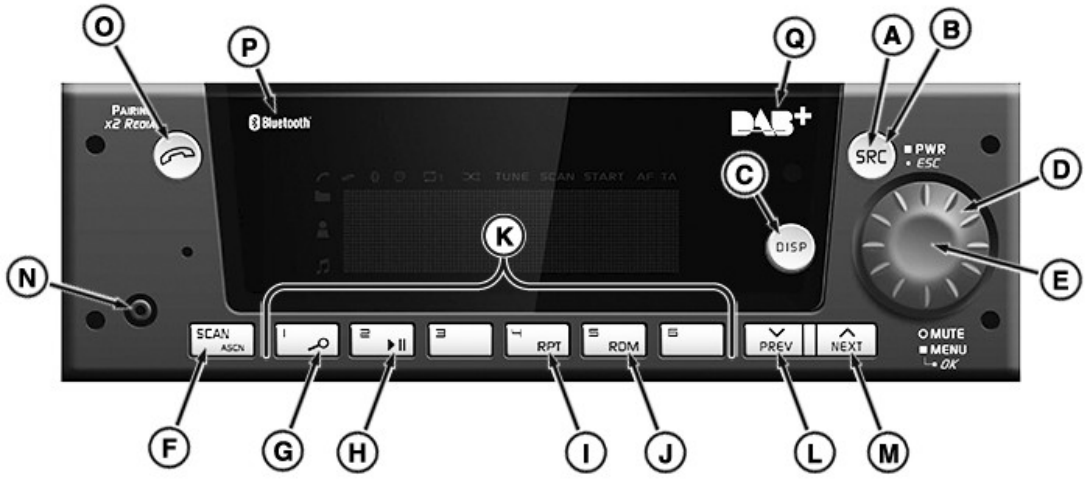
Radio A—Operation

Radio A—Controls and Instruments



RXA0169547—UN—09JUL19

Option 1



RXA0169555—UN—09JUL19

Option 2

Option	AM/FM Radio	Auxiliary	USB	Bluetooth®	DAB+
1	X	X	—	—	—
2	X	X	X	X[a]	X[b]

[a] *Bluetooth® may not be available in all locations.*
[b] *Not available in North America.*

A—SRC - press to change radio source (FM, AM, WX/LW, DAB, USB/iPod®, Front AUX, or Rear AUX). Available sources depend on radio option and location.

B—PWR/ESC:

- **Power** - press to turn on radio. Press and hold to turn off radio.
- **Escape** - in menu, press to exit one level. In Bluetooth®, press to reject or cancel call.

C—DISP:

- **Display Source** - with ignition on, select to change source display.
- **Display Clock** - with ignition off, press to display clock for a few seconds.

D—Volume - turn clockwise to increase volume or counterclockwise to decrease volume.

E—MUTE/MENU/OK:

- **Mute** - short press (less than 2 seconds) to silence volume. Press again to unmute.

- **Menu** - long press (4 seconds or more) to enter menu.
- **OK** - press to make a selection while in menu.

F—SCAN/ASCN:

- **Scan** - short press (less than 2 seconds) to scan stations/tracks. Press again to stop scanning.
- **AutoScan** - long press (4 seconds or more) to store strongest six stations of current band. See Scan and AutoScan in Radio Operation - AM/FM Radios A Section of this Operator's Manual.

G—Browse - press to initiate a search for a track on a USB drive.

H—Play/Pause - press to play or pause media.

I—RPT - press to repeat current track. Press again to repeat track list. Press a third time to disable repeat.

J—RDM - press to play tracks in random order. Press again to disable random play.

K—Presets:

- **Select Preset** - press a button with a number (1 through 6) to go to stored station.
- **Store Preset** - press and hold to store a station on selected numbered button (1 through 6). See Presets in Radio Operation - AM/FM Radios A Section of this Operator's Manual.

L—PREV:

NOTE: Button configuration for tuner can be changed. See Tuner Configuration in Radio Operation - AM/FM Radios A Section of this Operator's Manual.

- **Previous Track/Station** - press to go to previous track/station.
- **Rewind** - press and hold to rewind track.

M—NEXT:

NOTE: Button configuration for tuner can be changed. See Tuner Configuration in Radio Operation - AM/FM Radios A Section of this Operator's Manual.

- **Next Track/Station** - press to go to next track/station.
- **Fast-Forward** - press and hold to fast-forward track.

N—Front AUX Input - insert connector for auxiliary (AUX) device. Displays as F AUX in sources only when connected.

O—Phone (Bluetooth® required):

- **Bluetooth® Menu** - without device connected, press to display Bluetooth® menu.
- **Incoming Call** - with device connected, short press (less than 2 seconds) to answer call.
- **Dial Menu** - with device connected, long press (4 seconds or more) to display the dial menu.

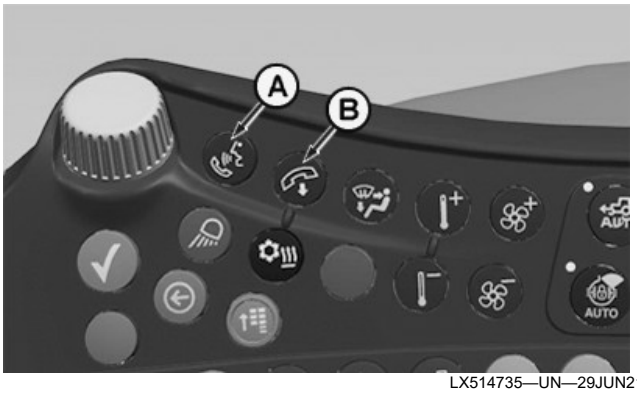
P—Bluetooth® - indicates that radio is Bluetooth® ready.

Q—DAB+ - indicates that radio is Digital Audio Broadcasting (DAB+) ready.

For more information, see relevant Operator's Manual of the radio.

OULXA64,0005DFC-19-28MAR23

Radio A—Additional Phone Controls



LX514735—UN—29JUN21

A—Push to Talk/Accept Call Button
B—End Call Button

For more information, see relevant Operator's Manual of the radio.

OULXA64,SP,0005DFE-19-21APR23

Radio A—Microphone for Bluetooth Applications



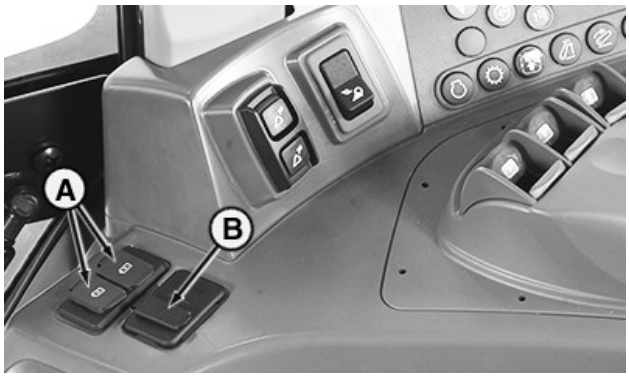
LX514736—UN—29JUN21

For more information, see Operator's Manual of relevant radio.

OULXA64,SP,0005E01-19-02MAY23

Radio A—Connection of Memory Storage and Multimedia Appliances

IMPORTANT: This USB port is only suitable for the transmission of audio data. Do not connect any other equipment.



LX364172—UN—03DEC18

A — USB Interface for Transmission of Audio Data.

B — AUX port (3.5 mm Stereo Jack) for external audio sources

For more information, see the radio manual.

OULXA64,SP,0005E22-19-15JAN24

FM, MW, LW and DAB/DAB+-Compliant Radio Antenna (Europe Only)

The tractor is equipped with an antenna that supports the frequency ranges FM, MW, LW, and DAB/DAB+.

When connecting a radio, make sure that the radio provides a 12-volt connection for the antenna (ISO 10487).

OULXA64,SP,EU,0005762-19-14OCT20

Radio B—Identification Views and Features



LX299208—UN—26APR17

Option 1



LX299207—UN—13JUN17

Option 2

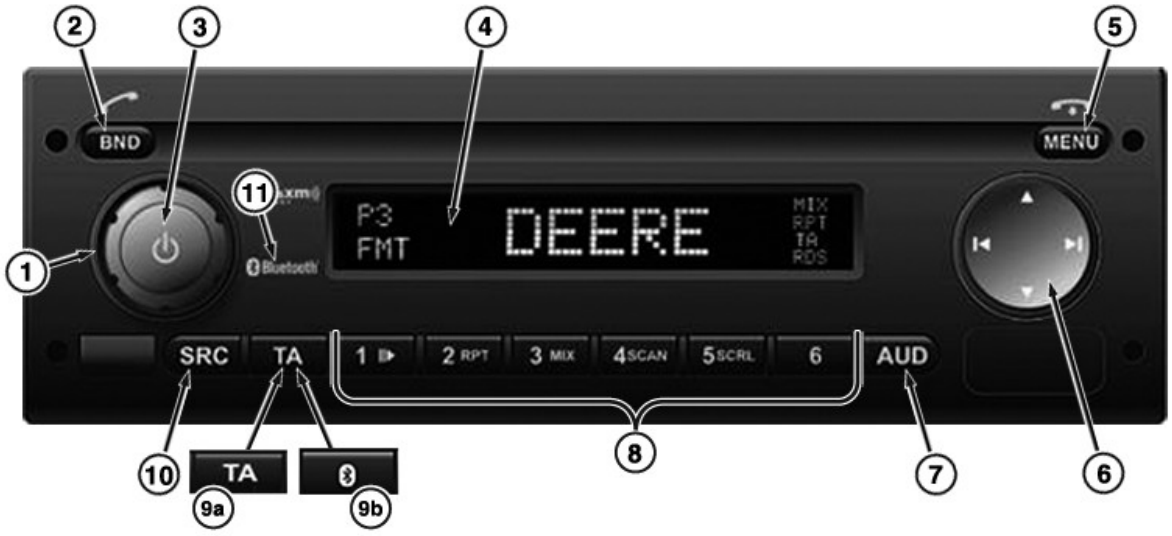
Main features:	Radio	Connection of external devices	USB	Bluetooth®	SiriusXM® Ready
Option 1	X	X	—	—	—
Option 2	X	X	X	X[a]	X[b]

[a]Bluetooth® may not be available in all locations.
[b]Only available for regions where SAT radio is provided. XM radio kit must be installed and service activated to start using SiriusXM® radio. Kit can be obtained via regular spare part channels. Kit is not available for all machines.

For more information, see relevant Operator's Manual of the radio.

OULXA64,0005E02-19-15JUL25

Radio B—Controls and Instruments



RXA0170332—UN—05SEP19

Location	Designation	Function
1	Volume Control	
2	BND	Press briefly to select memory level or wave band
		Press and hold to start the “Travelstore” function
	With Bluetooth®, if a phone is currently paired	Answer a call
3	On-off key	Press briefly to switch the radio on
		Press briefly during operation to mute the radio
		Press and hold to switch the radio off
4	Display	Change the display
5	Menu	Calling up the menus for the basic settings
	With Bluetooth®, if a phone is currently paired	Reject or end a call
6	Multi-function rocker switch	Navigate within the display and switch functions
7	AUD key	Press briefly to open the audio menu to set bass, mid-range, and treble tone controls, balance, fade* and loudness
		Press and hold to restore factory sound settings (treble and bass for the currently used audio source only)
8	Radio mode, 1 - 6 key block. . . Playback mode, key 1 . . . . . . Playback mode, key 2 . . . . . . Playback mode, key 3 . . . . . . Playback mode, key 4 . . . . . . Playback mode, key 5	preset station keys pause/play repeat track random (mix tracks) scan tracks turn scrolling track information on display on or off
9a	TA key	Switch back from user and audio menus to current source. Exit the radio scan functions. Switch the priority for traffic announcements on-off. Cancel a traffic announcement while in process (Europe only).
9b	Bluetooth® key	Turn Bluetooth® function on or off
10	SRC Key	Source selection between radio and AUX (depending on model also USB, BT audio, and XM) provided that a device is connected and turned on.
11	Bluetooth® and SiriusXM® Ready (SAT receiver)	branding on the face plate of radio option 2

*Fade is only possible if front as well as rear loudspeakers are connected.

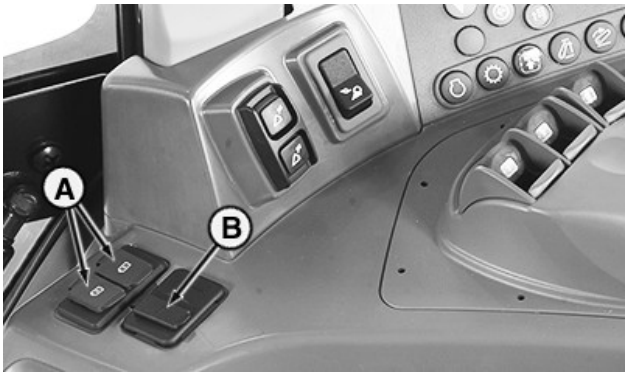
Bluetooth is a trademark of Bluetooth SIG

For more information, see relevant Operator's Manual of the radio.

OULXA64,0005E03-19-21APR23

Radio B—Connection of Memory Storage and Multimedia Appliances

IMPORTANT: This USB port is only suitable for charging, for example, a smartphone. Do not connect any other equipment.



LX364172—UN—03DEC18

A — USB Charging Sockets, Each Charging Socket 2.4 A / 12 W Active when Ignition ON

B — 3.5 mm Stereo Jack for Transmitting Audio Signals

For more information, see the radio manual.

OULXA64,SP,000569B-19-15JAN24

FM, MW, LW and DAB/DAB+-Compliant Radio Antenna (Europe Only)

The tractor is equipped with an antenna that supports the frequency ranges FM, MW, LW, and DAB/DAB+.

When connecting a radio, make sure that the radio provides a 12-volt connection for the antenna (ISO 10487).

OULXA64,SP,EU,0005762-19-14OCT20

AutoTrac™ Guidance System (If Equipped)

NOTE: Electrohydraulic steering is required for AutoTrac™ to function. For detailed instructions, refer to the AutoTrac™ Operator's Manual.

- The AutoTrac™ guidance system uses the StarFire™ position receiver and the GreenStar™ display to assist the driver in steering the tractor.
- The operator has to enter the width of the implement minus the desired track overlap into the GreenStar™ display.

  The operator has to drive the track in a straight line in the first pass to enter the start and end points of the desired stretch. For further variations of the track guidance of the steering system, refer to the AutoTrac™ Operator's Manual.
- To enable AutoTrac™, press AutoTrac™ button (A) on the side console after the GreenStar™ display has been activated. Using the information on the display, the driver can compare the current position of the tractor with the set track.



LX364315—UN—22FEB19

Tractor without CommandARM™



LX364316—UN—22FEB19

Tractor with CommandARM™

- AutoTrac™ is a straight-line guidance system. The operator can take control of the tractor at any time by actively turning the steering wheel. Ground speed is controlled exclusively by the operator through braking or by actuating the speed control pedal or hand throttle. The operator has to turn the vehicle around at the end of each pass and drive around any obstacles in the field.

NOTE: When using AutoTrac™, achievable ground speeds are 0.5 to 30 km/h (0.3 to 16 mph) (forward) and 0.5 to 10 km/h (0.3 to 5 mph) (reverse).

NOTE: If required, minimum speed may be reduced to 0.1 km/h (0.05 mph).

Requirements:

- *StarFire 3000, StarFire 6000, or StarFire 7000 receiver*
- *SF2, SF3, SF-RTK, or RTK corrections and AutoTrac™ (straight-line guidance system)*
- *Equipped with AutoPowr™, IVT™ transmission*
- *Or AutoQuad™ Plus transmission with creeper*

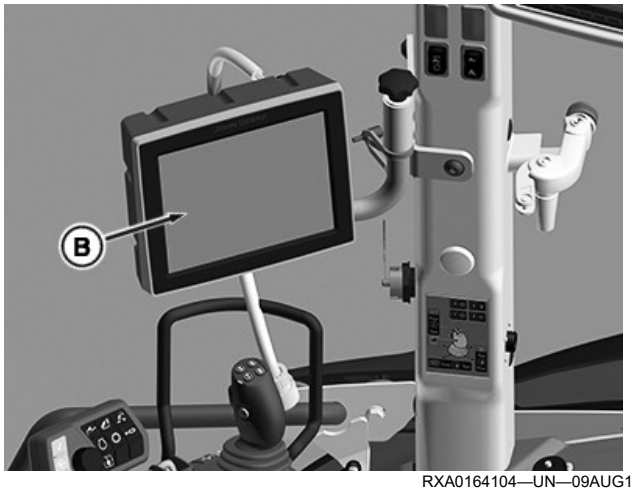
OULXA64,6M,000559A-19-16JUL25

AutoTrac™ Guidance with GreenStar™ Display



LX386915—UN—14APR20

A—StarFire™ Position Receiver



RXA0164104—UN—09AUG18

B—GreenStar™ Display



LX386915—UN—14APR20

C—AutoTrac™ Resume Button

NOTE: See the relevant AutoTrac™ Operator's Manual for more information on installation, operation, and maintenance.

NOTE: If the GreenStar™ Display is disconnected, AutoTrac™ Basic will be available at the next key cycle.

AutoTrac™ guidance uses the StarFire™ position receiver (A) and the GreenStar™ display (B) to support the operator during steering of the machine.

AutoTrac™ is a guidance system. The operator can take control of the machine at any time by actively turning the steering wheel. Ground speed is controlled exclusively by the operator, who uses the brake or actuates the speed control pedal or hand throttle. Operator must turn machine to avoid any field obstacles and when at the end of each pass. The operator must press the AutoTrac™ resume button (C) to engage AutoTrac™.

NOTE: See GPS Receiver Offset Values in this section for GPS receiver offset values.

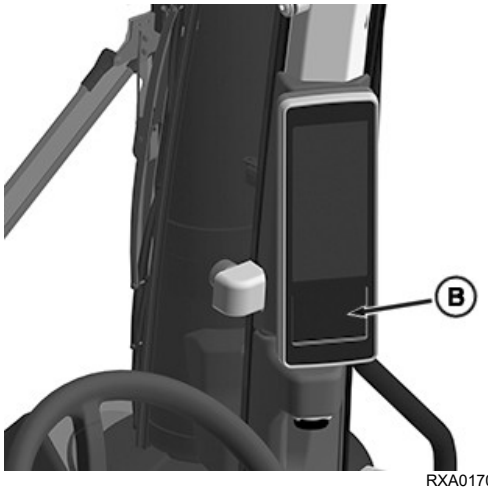
OULXA64,6M,000559B-19-17DEC20

AutoTrac™ Basic Guidance with Corner Post Display



RXA0164103—UN—09AUG18

A—StarFire™ Position Receiver



RXA0170095—UN—11SEP19

B—Corner Post Display



LX386915—UN—14APR20

C—AutoTrac™ Resume Button

NOTE: If the GreenStar™ display is connected, AutoTrac™ Basic will not be available at the next key cycle.

The AutoTrac™ Basic guidance system uses the StarFire™ position receiver (A) and the bottom screen

on the corner post display (B) to support the operator during steering of the machine.

AutoTrac™ Basic is a straight track guidance system. The operator can take control of the machine at any time by actively turning the steering wheel. Ground speed is controlled exclusively by the operator, who uses the brake or actuates the speed control pedal or hand throttle. Operator must turn machine to avoid any field obstacles and when at the end of each pass. The operator must press the AutoTrac™ resume button (C) to engage AutoTrac™ Basic.

OULXA64,6M,000559C-19-17DEC20

Operate Guidance Systems Safely

Do not use guidance systems on roadways. Always turn off (disable) guidance systems before entering a roadway. Do not attempt to turn on (activate) a guidance system while transporting on a roadway.

Guidance systems are intended to aid the operator in performing field operations more efficiently. The operator is always responsible for the machine path. Guidance systems do not automatically detect or prevent collisions with obstacles or other machines.

Guidance systems include any application that automates machine steering. This includes, but may not be limited to, AutoTrac™, iTEC™, AutoTrac™ Turn Automation, AutoTrac™ Implement Guidance (passive), AutoTrac™ Basic, AutoTrac™ Universal, RowSense™, and Machine Sync.

To prevent injury to the operator and bystanders:

- Never get on or off a moving machine.
- Verify that the machine, implement, and guidance system are set up correctly.
  - If using iTEC™, AutoTrac™ Turn Automation, or AutoTrac™ Implement Guidance (passive), verify that accurate boundaries have been defined.
  - If using Machine Sync, verify that the follower's home point is calibrated with sufficient space between the machines.
- Remain alert and pay attention to the surrounding environment.
- Take control of the steering wheel, when necessary, to avoid field hazards, bystanders, equipment, or other obstacles.
- Stop operation if poor visibility conditions impair your ability to operate the machine or identify people or obstacles in the machine path.
- Consider field conditions, visibility, and machine configuration when selecting machine speed.

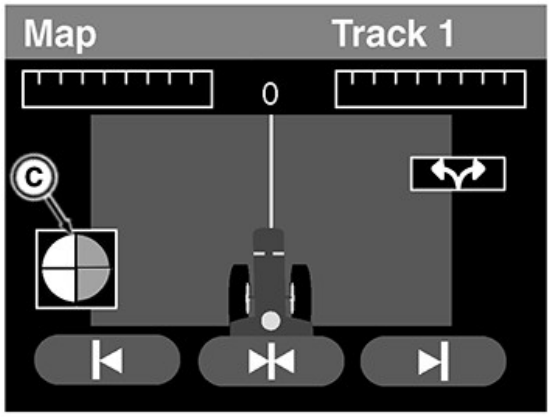
OULXA64,6M,000559D-19-09SEP20

Enable AutoTrac™ Basic



LX386914—UN—14APR20

A—Navigation Dial
B—Enter/Accept Button



RXA0170762—UN—09OCT19

C—AutoTrac™ Status Pie

1. Scroll with the navigation dial (A) on the navigation pad to the AutoTrac™ status pie (C) on the AutoTrac™ Basic map screen.
2. Press the enter/accept button (B) on the navigation pad to enable "Steer ON."
3. Press the enter/accept button (B) again on the navigation pad to disengage AutoTrac™ Basic.

OULXA64,6M,000559E-19-09SEP20

Disable AutoTrac™ Basic

CAUTION: Always turn off (deactivate and disable) AutoTrac™ Basic system before entering a roadway.

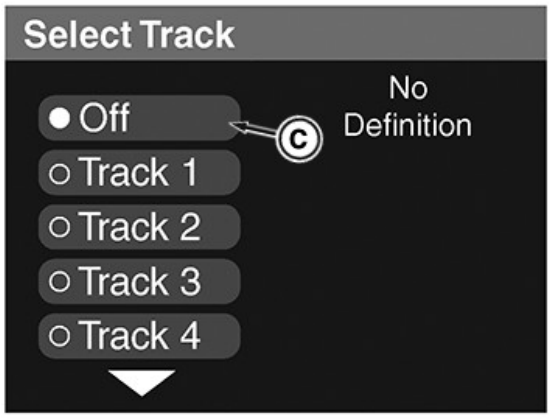
1. Scroll with the navigation dial (A) on the navigation pad to the AutoTrac™ Basic track set up selection.



LX386914—UN—14APR20

A—Navigation Dial
B—Enter/Accept Button

2. Press the enter/accept button (B) on the navigation pad to enter AutoTrac™ Basic track setup.
3. Select “Off” (C) on the track selection screen to disable AutoTrac™ Basic.

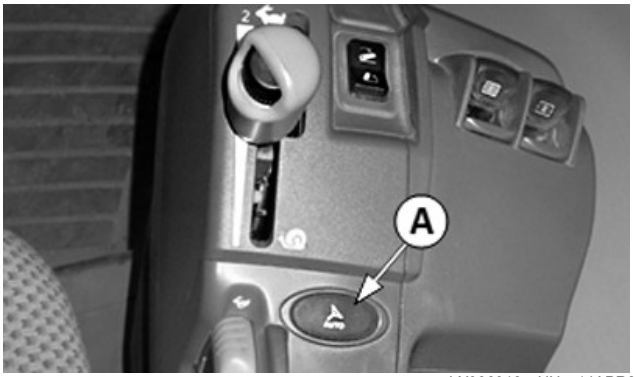


RXA0170767—UN—08OCT19

C—Off Selected Track

OULXA64,6M,000559F-19-08OCT20

AutoTrac™ Resume Switch



LX386916—UN—14APR20

Version with CommandARM™

A—AutoTrac™ Resume Switch

Press the AutoTrac™ resume switch (A) on the armrest or right-hand console key pad to move AutoTrac™ Basic from the enabled stage to the activated stage.

OULXA64,6M,00055A0-19-09SEP20

Activate AutoTrac™ Basic

CAUTION: While AutoTrac™ Basic is activated, operator is responsible for steering at the end of path and collision avoidance.

CAUTION: Do not attempt to turn on (activate) AutoTrac™ Basic system while transporting on a roadway.

1. Select the Steer ON/OFF button to turn “Steer On.”
2. Drive the machine onto a guidance track. A highlighted navigation line appears in front of the machine icon.
3. When steering assistance is desired, manually activate AutoTrac™ Basic by pressing the AutoTrac™ resume switch. This initiates power steering.

OULXA64,6M,00055A1-19-09SEP20

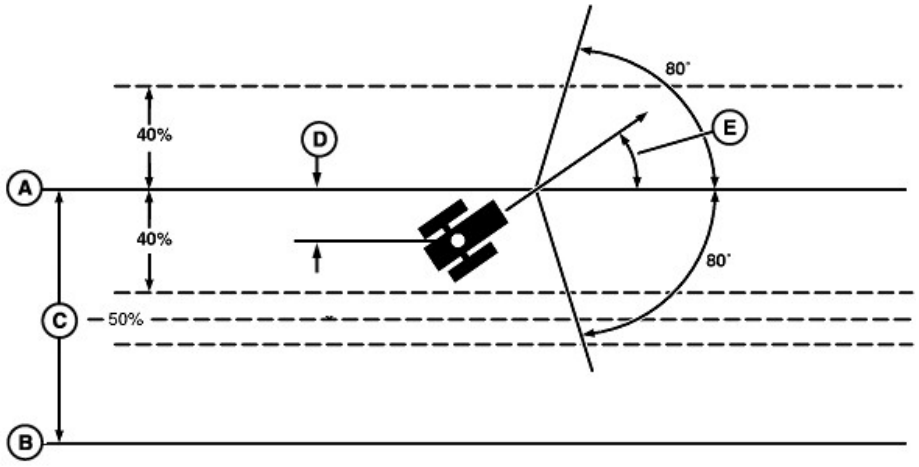
Disengage AutoTrac™ Basic

AutoTrac™ system is disengaged by:

- Turning steering wheel.
- Slowing to speeds less than 0.5 km/h (0.3 mph).
- Selecting Steer ON/OFF to disengage AutoTrac™ Basic.
- Operator remaining out of seat for more than 7 seconds if using seat switch, or no activity is detected by operator presence monitor for 7 minutes.

OULXA64,6M,00055A2-19-09SEP20

Reactivate AutoTrac™ Basic on Next Pass



PC8866—UN—02NOV05

Tracking

A—Track 0
B—Track 1 South
C—Track Spacing
D—Off-Track Lateral Error
E—Track Heading Error

Once the end of the row is reached, the operator must turn system to next pass. By turning steering wheel, AutoTrac™ Basic is deactivated.

AutoTrac™ Basic can be activated again by pressing the AutoTrac™ resume switch only after following conditions are met:

- Steering controller determines highest speed while using AutoTrac™ Basic.
- Forward machine speed is less than 30 km/h (18.6 mph).
- Reverse speed is less than 10 km/h (6 mph).
- In reverse gear, AutoTrac™ Basic remains activated for 45 seconds. After 45 seconds, the machine must be put in a forward gear before reverse will activate again.
- Machine heading is within 80° of desired track.
- Machine is within 40% of track spacing.
- The operator has to sit.
- TCM is on.

OULXA64,6M,00055A3-19-09SEP20

AutoTrac™ Basic Menu

NOTE: For additional navigation information, see Basic Menu Navigation in Section 30AA.

1. Locate the AutoTrac™ Basic menu.



RXA0170082—UN—10SEP19

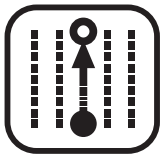
AutoTrac™ Basic menu

2. Select and change the desired setting as needed. See the relevant topic in this section for additional details on settings.



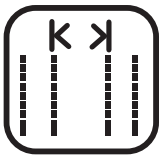
RXA0170083—UN—10SEP19

Map Selection



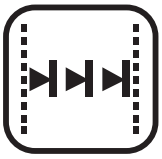
RXA0170084—UN—10SEP19

Track Setup Selection



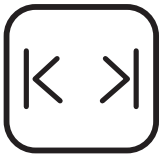
RXA0170085—UN—10SEP19

Tread Width Selection



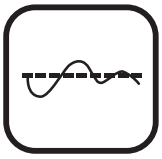
RXA0170086—UN—10SEP19

Shift Size Selection



RXA0170087—UN—10SEP19

Vehicle Selection



RXA0170088—UN—10SEP19

Tuning Selection



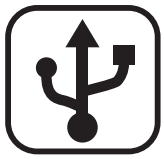
RXA0170089—UN—10SEP19

Correction Mode Selection



RXA0170090—UN—10SEP19

TCM Calibration Selection



RXA0170091—UN—10SEP19

USB Drive Selection



RXA0170092—UN—10SEP19

GPS Status Selection

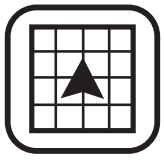


RXA0170093—UN—10SEP19

About Selection

OULXA64,6M,00055A4-19-09SEP20

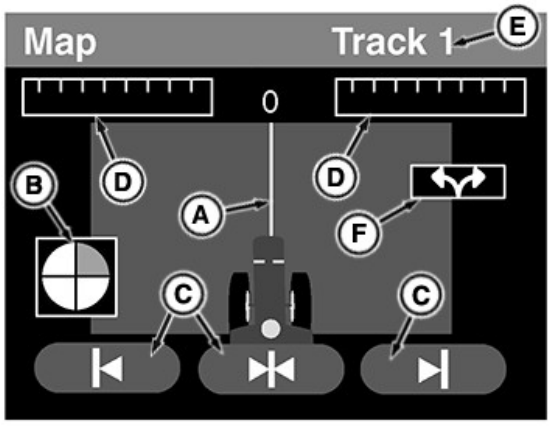
AutoTrac™ Basic Map



RXA0170083—UN—10SEP19

Map Icon

The map screen displays the machine location relative to the guidance line (A).



RXA0170096—UN—17SEP19

A—Guidance Line
B—AutoTrac™ Status Pie
C—Shift Track Buttons (3 used)
D—Lightbar
E—Guidance Off/Selected Track
F—Turn Predictor

It also shows the AutoTrac™ status pie (B), shift track buttons (C), lightbar (D), guidance off/selected track (E), turn predictor (F), and exit code text.

Lightbar

The lightbar provides off-track error feedback to the operator. The feedback is shown on the lightbar located above the main run screen.

The minimum error step increment is 1 inch or 1 cm, depending on the unit type selected (English or metric).

The step size setting is not configurable.

The lightbar indicates error in the steer towards direction, meaning that the AutoTrac™ Basic system must steer towards the line to reduce the error shown by the lightbar.

Turn Predictor



RXA0170097—UN—17SEP19
Turn Predictor Icon

Turn predictor alerts the operator by predicting the end of pass and displays the distance to the end of pass in the map view.

Turn predictor is intended to predict only the turn point of a machine. It is NOT a turn predictor warning. Turn predictions are based solely on previous turn behavior of machine. Turn predictions will not coincide with field boundary if field boundary is not linear and continuous, or if the operator turns before or after field boundary.

Distance counts down to predicted turn, and tones sound when machine is 10 seconds from intersecting turn point. This happens again when predicted turn point has been reached.

Visual indicator will change to yellow within 10 seconds of predicted turn, then red after passing the predicted turn location.

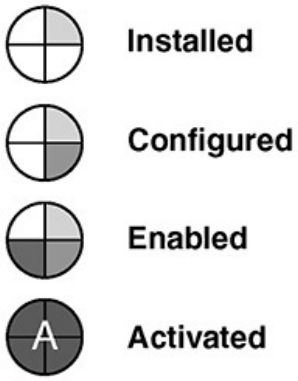
Scroll with the navigation dial on the navigation pad to the turn predictor icon. Press the enter/accept button on the navigation pad to disable the turn predictor. Press the enter/accept button on the navigation pad again to enable the turn predictor.

Once disabled, it remains off until it is manually turned back on by the operator. The turn predictor icon becomes gray with a diagonal line through the image when disabled.

Whenever the turn predictor is enabled, the turn predictor icon is a non-gray image without a diagonal line through the image.

OULXA64,6M,00055A5-19-21DEC20

AutoTrac™ Status Pie



RXA0170098—UN—30SEP19
AutoTrac™ Status Pie Icon

Installed

Steering control unit and all other hardware necessary for use are installed. System is disabled.

- AutoTrac™ Basic controller is installed.
- Steering control unite is detected.

Configured

A valid track has been established. Correct StarFire™ signal level is selected. System is ready to be enabled.

The following machine conditions are met:

- Guidance system is turned ON.
- Guidance track is defined.
- StarFire™ signal is present.
- Steering control unite has no active faults.
- Speed is within valid range.
- TCM message is available and valid.
- Machine is in proper operating gear.
- Variable rate of steer switch is enabled.

Enabled

AutoTrac™ ON/OFF button has been pressed. All

conditions are met for AutoTrac™ to operate and system is ready to be activated.

- Select Steer ON/OFF to enable “Steer ON”.

Activated

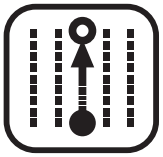
AutoTrac™ resume button pressed and AutoTrac™ steering the machine.

The following machine conditions are met:

- AutoTrac™ resume button has been pressed and AutoTrac™ Basic is steering the machine.
- Speed is within valid range.
- Heading/angle is within valid range.
- Machine is within 40% of track spacing.

OULXA64,6M,00055A6-19-09SEP20

AutoTrac™ Basic Track Setup

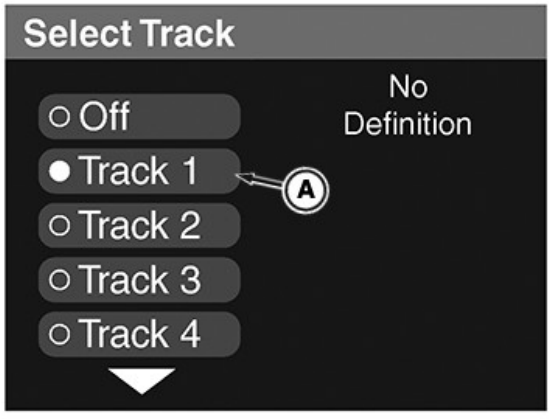


RXA0170084—UN—10SEP19

Track Setup Icon

AutoTrac™ Basic is a straight track guidance system only.

A maximum of ten pre-named guidance tracks (A) are available. Operators cannot modify track names or delete tracks from the set.

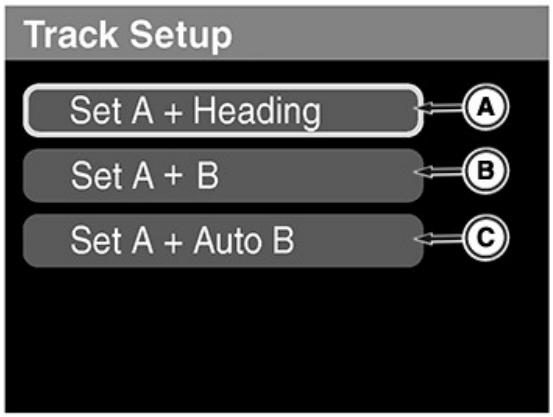


RXA0170099—UN—08OCT19

Track Selection Screen

A—Pre-Named Guidance Tracks (10 used)

Straight track setup options include:



RXA0170100—UN—14OCT19

Track Setup Screen

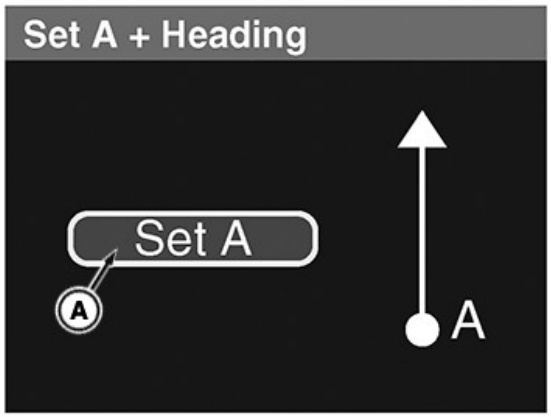
A - Set A + Heading

B - Set A + B

C - Set A + Auto B

Set A + Heading

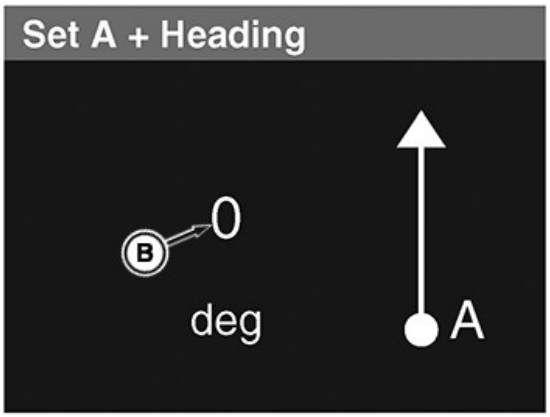
Operator sets desired A point (A).



RXA0170432—UN—08OCT19

A—Set Desired A Point

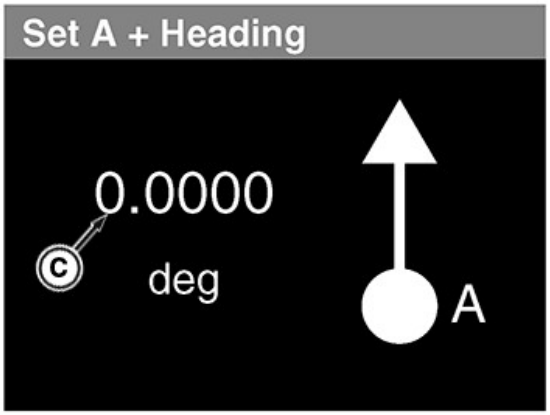
The operator drives the machine and the heading automatically populates to the nearest whole degree (B) from the current GPS course.



RXA0170433—UN—08OCT19

B—Heading to the Nearest Whole Degree

Operator can either accept the automatically populated heading value or modify the heading degree with decimal (C) as needed.

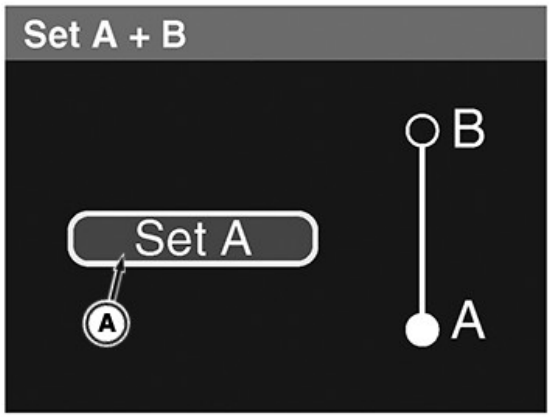


RXA0170434—UN—08OCT19

C—Heading Degree with Decimal

Set A + B

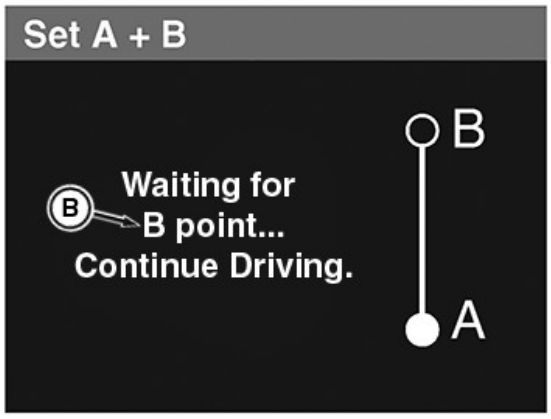
Operator sets desired A point (A).



RXA0170435—UN—08OCT19

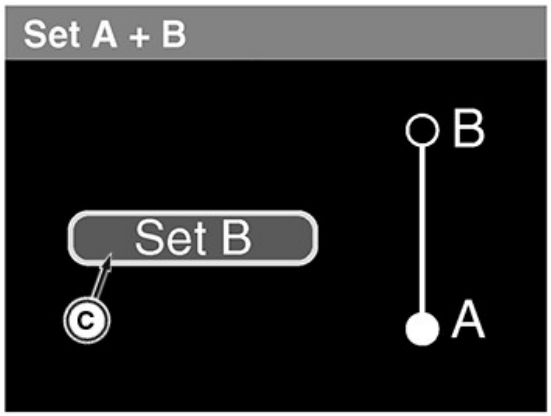
A—Set Desired A Point

The operator drives the machine and screen (B) appears until operator is allowed to set B point (C).



RXA0170436—UN—08OCT19

B—"Waiting for B Point... Continue Driving." Screen

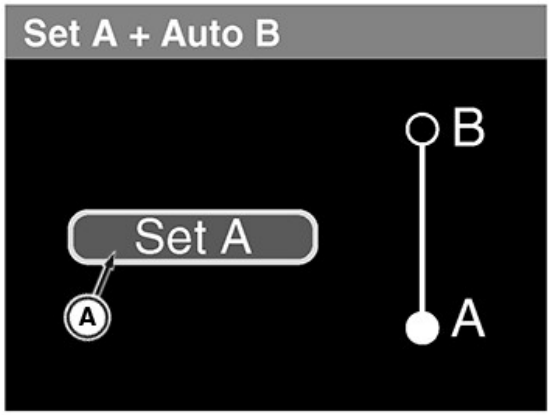


RXA0170437—UN—08OCT19

C—Set Desired B Point

Set A + Auto B

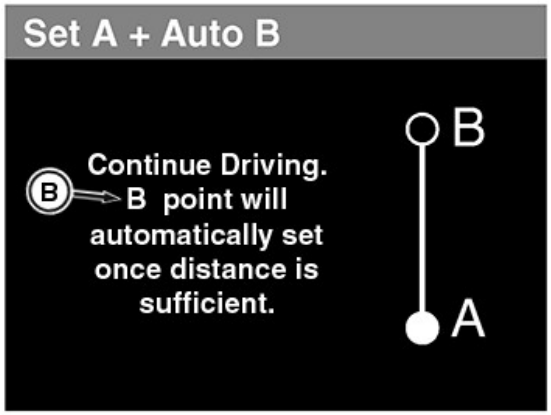
Operator sets desired A point (A).



RXA0170438—UN—08OCT19

A—Set Desired A Point

The operator drives the machine and screen (B) appears until B point is automatically set.

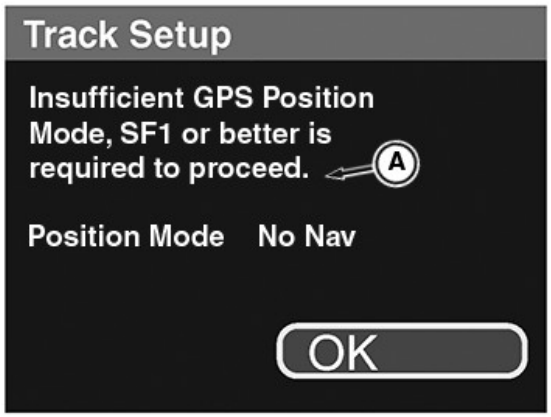


RXA0170439—UN—08OCT19

B—"Continue Driving. B point will automatically set once distance is sufficient." Screen

After each line creation, the AutoTrac™ status pie jumps to "Enable". The operator can press the AutoTrac™ resume button on the key pad to transition the AutoTrac™ status pie to "Activate".

When the StarFire™ receiver does not have an appropriate signal in order to set up a guidance line, screen (A) appears.



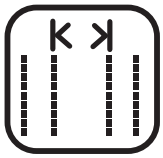
RXA0170440—UN—08OCT19

A—"Insufficient GPS Position Mode, SF1 or better is require to proceed. Position Mode No Nav" Screen

OULXA64,6M,00055A7-19-09SEP20

AutoTrac™ Basic Tread Width

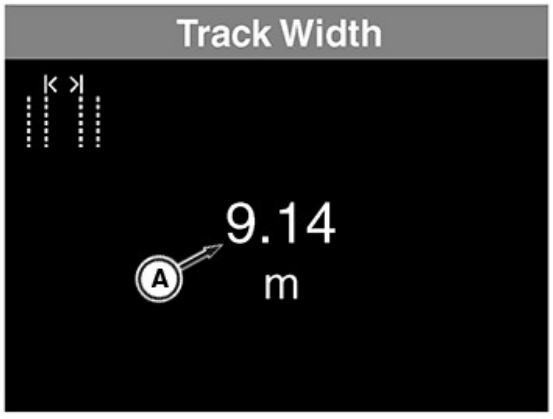
NOTE: Operators can configure the display to show metric or standard units.



RXA0170085—UN—10SEP19

Tread Width Icon

Operators can enter changes to tread width (A) manually in measurements of meters or feet and inches.



RXA0170442—UN—08OCT19

A—Tread Width (metric units shown)

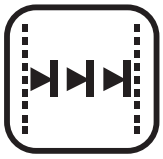
Tread width is not linked to implement profiles and does

not automatically update. Implement profiles do not exist with AutoTrac™ Basic.

OULXA64,6M,00055A8-19-09SEP20

AutoTrac™ Basic Shift Size

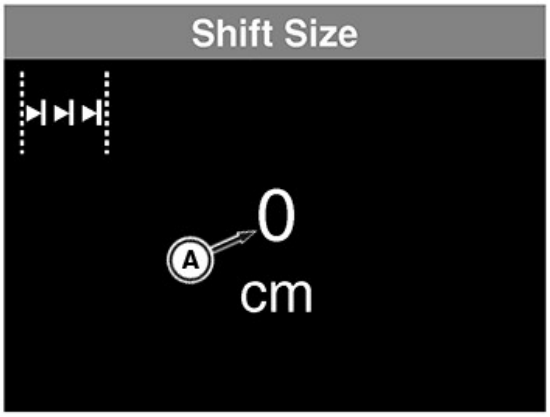
NOTE: Operators can configure the display to show metric or standard units.



RXA0170086—UN—10SEP19

Shift Size Icon

Shift increment (A) defaults to 0 cm or 0 in. Only active shifts of 30.48 cm (12 in) or less are valid.



RXA0170444—UN—08OCT19

A—Shift Increment (metric units shown)

The left shift, center shift, and right shift buttons are available on the bottom of the main map screen.

Selecting the left and right shift buttons moves the currently selected guidance line by the step increment amount.

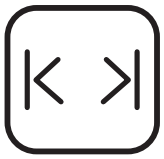
Selecting the center shift button moves the currently selected guidance line to the current machine position.

Total shift magnitude is stored with each track. This allows the operator to come back to a previously shifted track and maintain the shifted location.

OULXA64,6M,00055A9-19-27NOV20

AutoTrac™ Basic Vehicle

NOTE: Operators can configure the display to show metric or standard units.



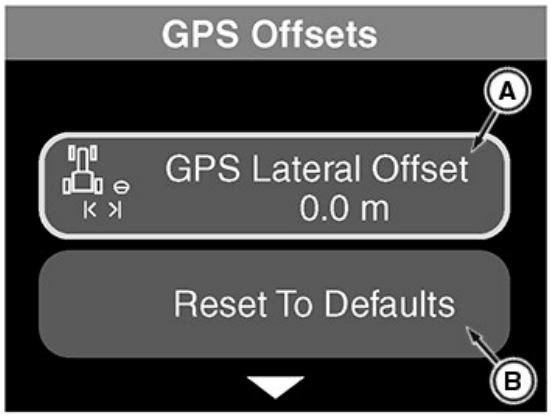
RXA0170087—UN—10SEP19

Vehicle Icon

NOTE: See GPS Receiver Offset Values in this section for GPS receiver offset values.

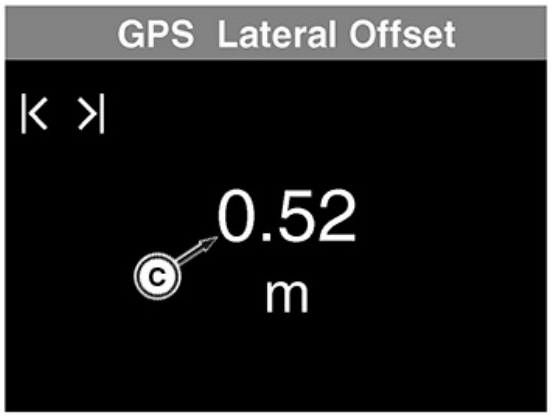
GPS lateral offset can be adjusted only to the right of the machine center.

AutoTrac™ Basic has GPS fore/aft (D), GPS height (E), and GPS lateral offset (A) dimensions and a reset to defaults (B) selection.



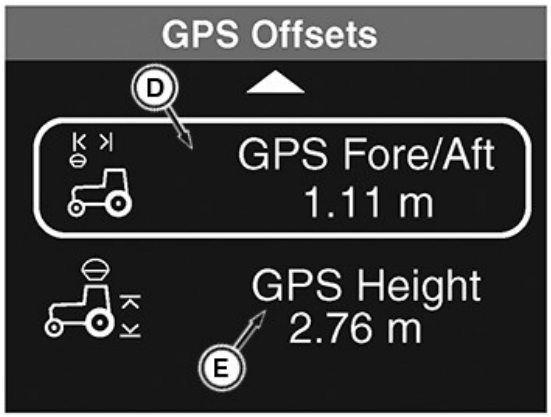
RXA0170446—UN—08OCT19

A—GPS Lateral Offset
B—Reset To Defaults



RXA0170448—UN—08OCT19

C—GPS Lateral Offset Measurement (metric units shown)



RXA0170450—UN—08OCT19

D—GPS Fore/Aft Adjustment
E—GPS Height

GPS fore/aft (D) and GPS height (E) are detected automatically and populated from the machine steering control unit. GPS fore/aft and GPS height are not editable.

GPS lateral offset (A) defaults to the appropriate machine offset using VIN detection that is based on receiver mounting location.

GPS lateral offset measurement (C) is editable by the operator after the initial detection.

OULXA64,6M,00055AA-19-09SEP20

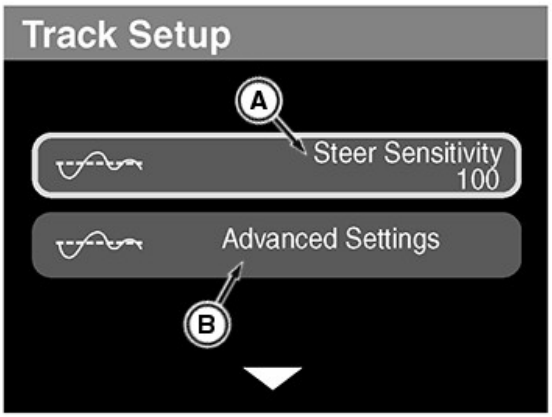
AutoTrac™ Basic Tuning



RXA0170088—UN—10SEP19

Tuning Icon

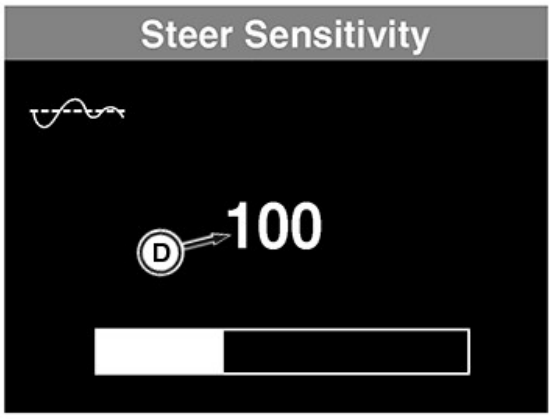
AutoTrac™ Basic is equipped with steer sensitivity (A) and advanced settings (B).



RXA0170451—UN—08OCT19

A—Manual Steering Sensitivity
B—Advanced Settings

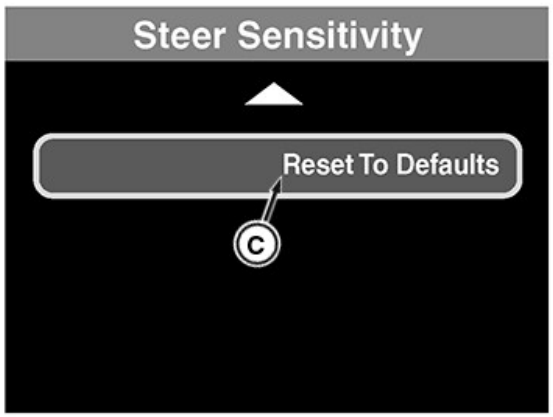
Steer sensitivity (A) is editable and range is from 50—200 (D). Advanced settings (B) guide the operator to the full list of AutoTrac™ Basic advanced settings.



RXA0170453—UN—08OCT19

D—Steer Sensitivity Range

A reset to defaults (C) is also available.



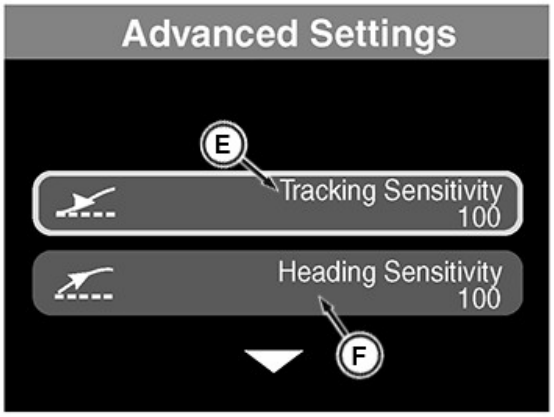
RXA0170452—UN—08OCT19

C—Reset To Defaults

Advanced Settings are defaulted by the steering control unit. The range for advanced settings is 50—200.

Advanced settings include:

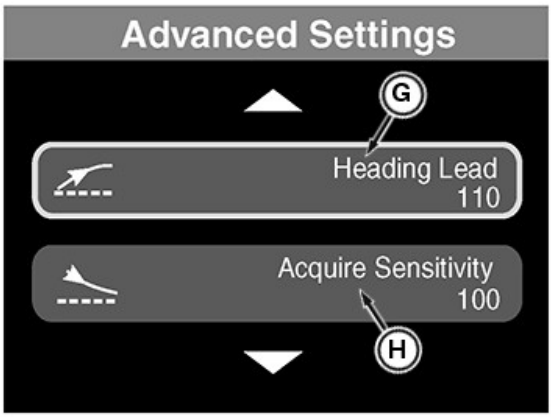
E - Tracking Sensitivity



RXA0170454—UN—08OCT19

F - Heading Sensitivity

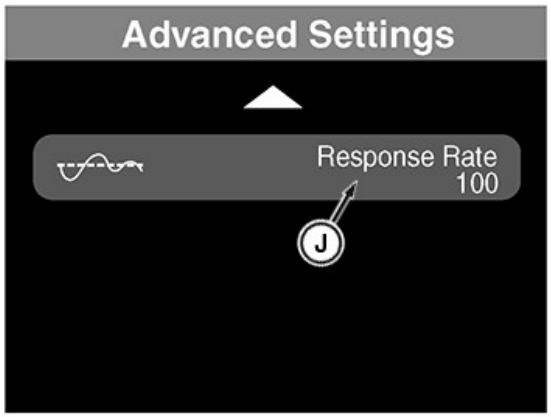
G - Heading Lead



RXA0170455—UN—08OCT19

H - Acquisition Sensitivity

J - Response Rate



RXA0170456—UN—08OCT19

OULXA64,6M,00055AB-19-09SEP20

StarFire™ Correction Mode

NOTE: For more information, see the relevant StarFire™ Receiver Operator's Manual.



RXA0170089—UN—10SEP19

Correction Mode Icon



RXA0170457—UN—08OCT19

A—StarFire™ Status

The correction mode shows the status (A) of the StarFire™ signal:

- **SF1**
- **SF3**
- **RTK** (Real Time Kinematic) (only shown if RTK was enabled previously via universal display.)

NOTE: Operator cannot enter RTK through corner post display. Universal display is required to enter RTK. If SF1 or SF3 is selected, RTK text and selected dot disappear.

OULXA64,6M,00055AC-19-09SEP20

AutoTrac™ Basic TCM Calibration



RXA0170090—UN—10SEP19

TCM Calibration Icon

NOTE: Before calibrating, ensure that the machine and implement are in proper working condition and ready for field work.

Machine must be ballasted and tires properly inflated.

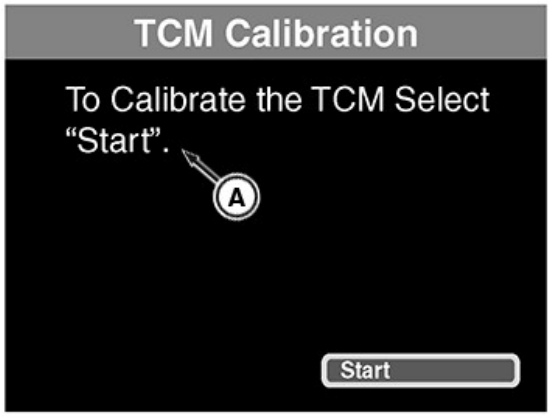
Lower implement as close as possible to the working position when calibrating.

NOTE: Calibrate TCM every time receiver is removed from machine and reattached or if TCM angle in relation to machine has changed.

The operator calibrates the terrain compensation module (TCM) so the StarFire™ Receiver can determine 0° roll angle and pitch angle.

The operator performs the on-screen calibration procedure.

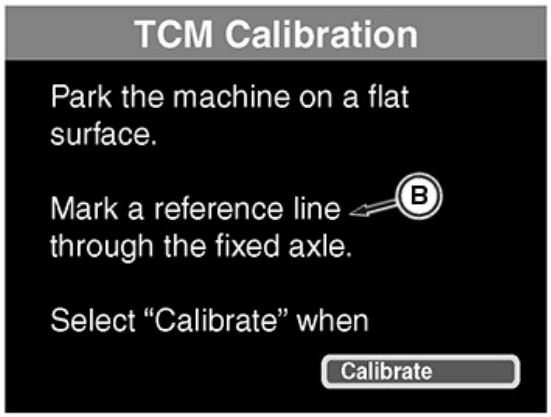
1. The operator selects “Start” on the start calibrate screen (A).



RXA0170458—UN—08OCT19

A—“To Calibrate the TCM, Select “Start”.”

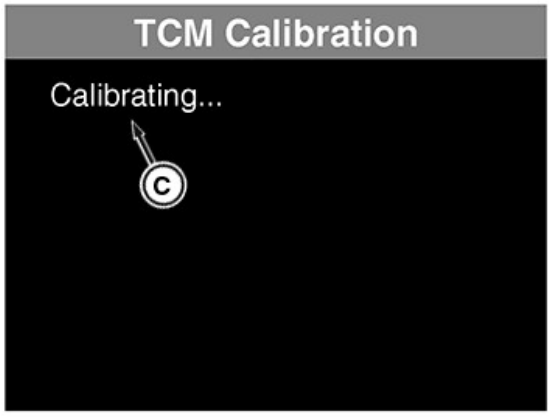
2. Instruction screen (B) appears.



RXA0170459—UN—08OCT19

B—“Park the machine on a flat surface. Mark a reference line through the fixed axle. Select “Calibrate” when“

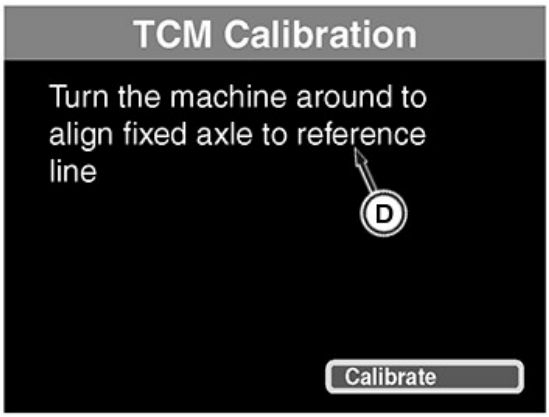
3. The operator positions the machine and selects “Calibrate.”
4. The operator leaves the machine in park position.
5. The "Calibrating" screen (C) appears.



RXA0170460—UN—08OCT19

C—“Calibrating...”

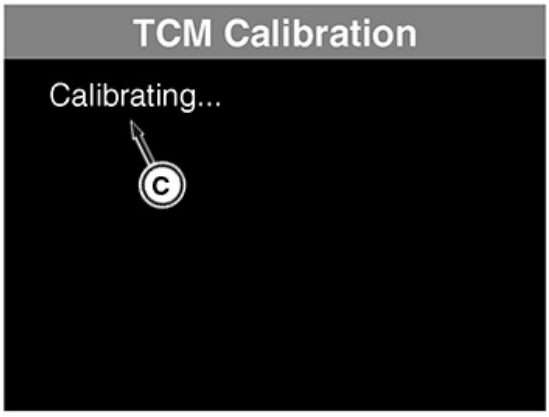
6. Instruction screen (D) appears.



RXA0170461—UN—08OCT19

D—“Turn the machine around to align fixed axle to reference line”

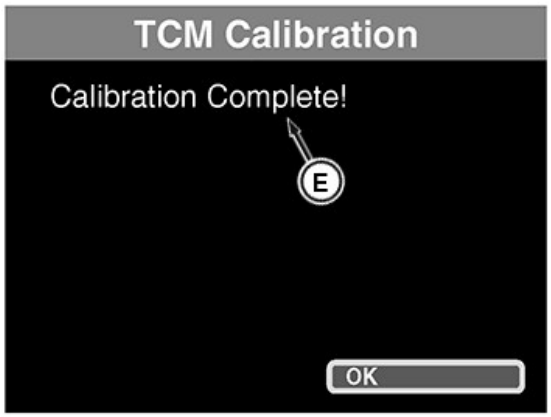
7. The operator positions the machine and selects “Calibrate.”
8. The operator leaves the machine in park position.
9. The "Calibrating" screen (C) appears again.



RXA0170460—UN—08OCT19

C—“Calibrating...”

10. The "Calibration Complete" screen (E) appears.

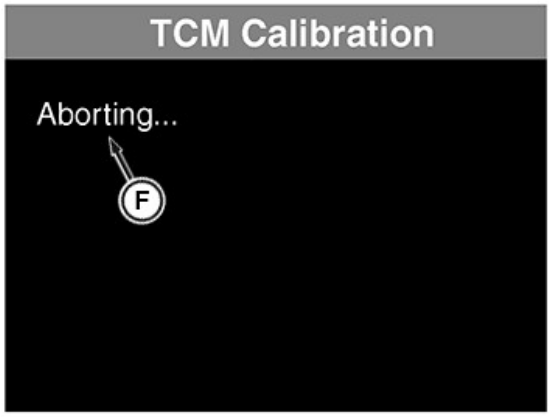


RXA0170462—UN—08OCT19

E—“Calibration Complete!”

11. The operator selects "OK" to complete the calibration.

The operator can press the back button on the navigation pad to abort the TCM calibration. The “Aborting“ screen (F) appears.

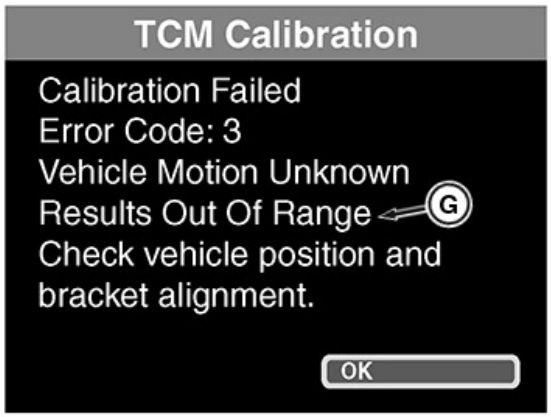


RXA0170568—UN—08OCT19

F—“Aborting“ Screen

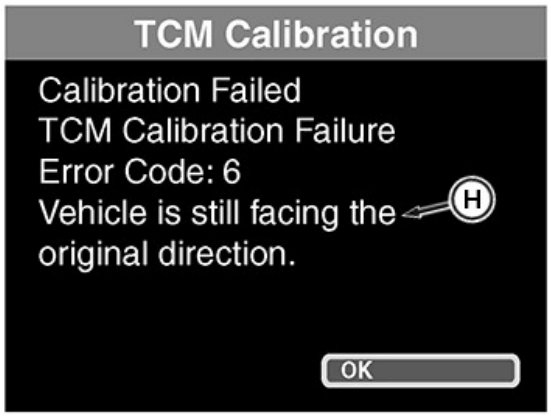
TCM Calibration Failed

Messages (G, H, or J) appear when TCM calibration fails. Repeat the TCM calibration process. If calibration fails again, contact a John Deere dealer or other service provider.



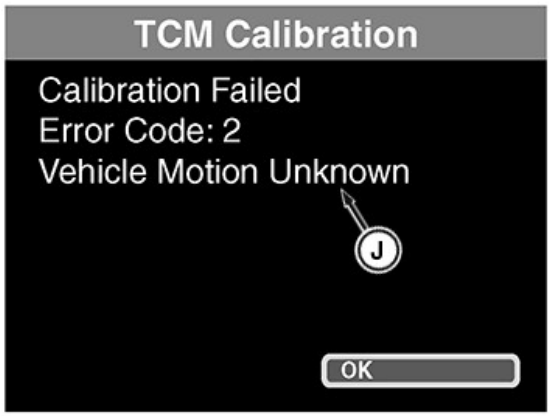
RXA0170569—UN—08OCT19

G—"Calibration Failed. Error Code: 3 Vehicle Motion Unknown. Results Out of Range. Check vehicle position and bracket alignment."



RXA0170570—UN—08OCT19

H—"Calibration Failed. TCM Calibration Failure. Error Code: 6 Vehicle is still facing the original direction."



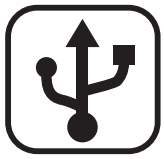
RXA0170571—UN—08OCT19

J—"Calibration Failed. Error Code: 2 Vehicle Motion Unknown"

OULXA64,6M,00055AD-19-16JUL25

StarFire™ USB Drive

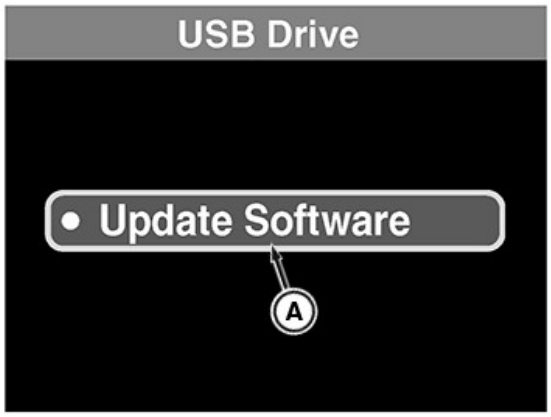
NOTE: For more information, see the relevant StarFire™ Receiver Operator's Manual.



RXA0170091—UN—10SEP19

USB Drive Icon

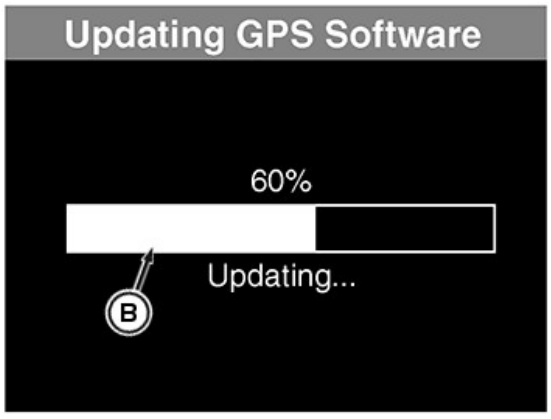
When there is a StarFire™ USB drive inserted into the StarFire™ Receiver, an update software screen (A) appears.



RXA0170463—UN—08OCT19

A—"Update Software"

The StarFire™ USB drive updates the GPS software and a progress screen (B) appears.



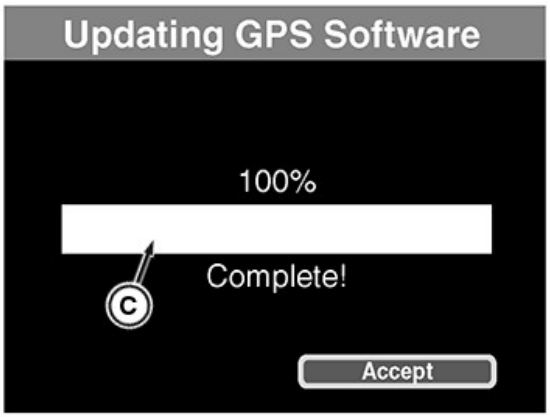
RXA0170464—UN—08OCT19

B—Update Progress

The status bar displays status of update in increments of 10%.

An update complete screen (C) appears when the

StarFire™ USB drive is finished updating the GPS software.

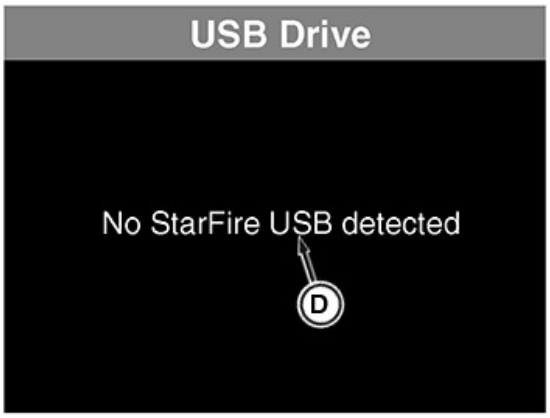


RXA0170465—UN—08OCT19

C—Update Complete

NOTE: StarFire™ Receiver reboots after a programming event.

When there is no StarFire™ USB drive inserted into the StarFire™ Receiver, a “No StarFire™ USB detected” screen (D) appears.



RXA0170466—UN—08OCT19

D—“No StarFire USB Detected”

NOTE: If a USB drive is inserted and a “No StarFire™ USB detected” screen appears, unplug USB and insert a different one. Some USB drives are not compatible. If the error message continues to appear, contact a John Deere dealer or other service provider.

OULXA64,6M,00055AE-19-16JUL25

StarFire™ GPS Status

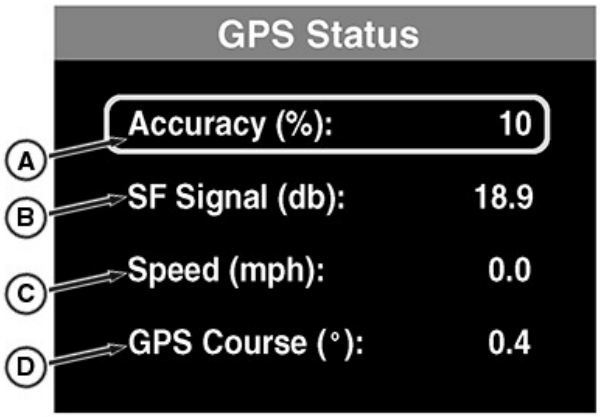
NOTE: For more information, see the relevant StarFire™ Receiver Operator’s Manual.

GPS status is displayed:



RXA0170092—UN—10SEP19

GPS Status Icon



RXA0170467—UN—08OCT19

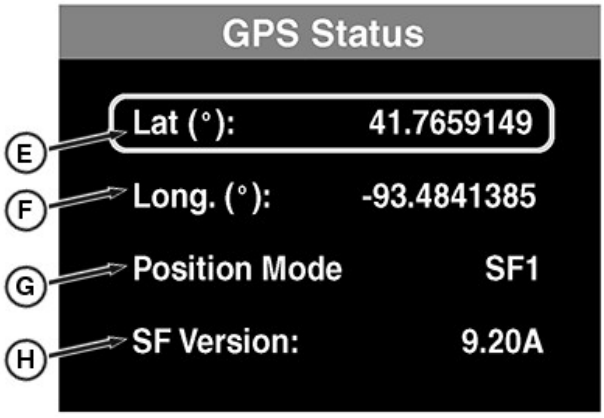
GPS Screen 1

A - Accuracy

B - StarFire™ Receiver Signal

C - Machine Speed

D - GPS Course



RXA0170468—UN—08OCT19

GPS Screen 2

E - Latitude

F - Longitude

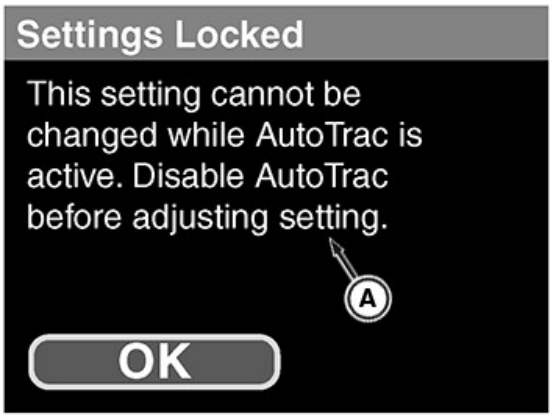
G - Position Mode

H - StarFire™ Version

NOTE: The values are not editable.

OULXA64,6M,00055AF-19-17DEC20

AutoTrac™ Basic Settings Locked



RXA0170470—UN—08OCT19

A—This setting cannot be changed while AutoTrac™ is active. Disable AutoTrac™ before adjusting setting.

The settings locked screen (A) is shown when trying to access the following menus while AutoTrac™ Basic is active:

- **Tread Width**
- **Vehicle**
- **TCM Calibration**
- **USB FLASH Drive**

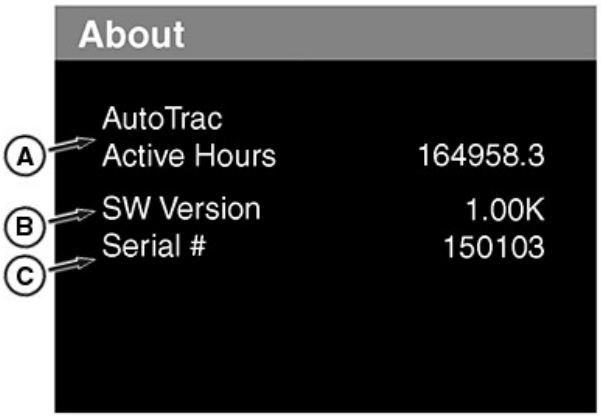
OULXA64,6M,00055B0-19-09SEP20

AutoTrac™ Basic About



RXA0170093—UN—10SEP19

About Icon



RXA0170469—UN—08OCT19

About displays:

A - AutoTrac™ Basic Active Hours

B - Software Version

C - Serial Number

NOTE: The values are not editable.

OULXA64,6M,00055B1-19-09SEP20

GPS Receiver Offset Values

GPS Offset Values	
GPS Height	2043 mm (80.4 in) + Measurement from ground to center of rear axle
GPS Lateral Offset (right of the machine center)	523 mm (20.6 in)
GPS In-line (fore/aft) Offset	1112.5 mm (43.8 in)

OULXA64,6M,00055B2-19-09SEP20

AutoTrac™ Universal Information

CAUTION: Refer the AutoTrac™ Universal manual for safe and proper operation of the guidance system and ATU.

The AutoTrac™ Universal (ATU) system uses the Global Positioning System (GPS) for guided steering of the machine. When AutoTrac™ Universal system is NOT active, the operator steers the machine manually.

See ATU reference manuals for more information on the installation, operation, and maintenance.

OULXA64,6M,00055B3-19-09SEP20

iTEC™ Basic, General Information

The Intelligent Implement Control (iTEC™) allows feature to be automatically switched on or off when the hitch is operated using the fast raise/lower switch.

This offers the advantage that, on the headland, only the hitch needs to be operated without having to manually switch on or off the rear PTO, the differential lock, or the front-wheel drive. If iTEC™ Basic is configured accordingly, these functions are controlled automatically.

If a PTO function is included in sequence, PTO must be engaged manually, using PTO switch, for initial engagement.

iTEC™ Basic settings are stored in the memory and remain until the operator chooses to change them through the iTEC™ Basic menu.

To activate or deactivate iTEC™ Basic, press the iTEC™ button on the keypad or select the ON or OFF icon in the iTEC™ menu on the Settings page. iTEC™ display and the icons of each function (differential lock, rear PTO, front-wheel drive) will light up on the corner pot display when iTEC™ Basic has been activated.

CAUTION: Operating the front loader with the iTEC™ switched on can be dangerous, resulting in person injury or machine damage.

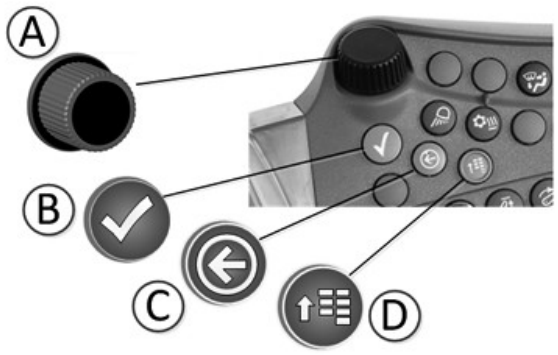
When operating the front loader and iTEC™ at the same time, unexpected movements of the front loader may occur.

Only operate the front loader when iTEC™ is switched off.

OULXA64,6M,00055B4-19-24OCT22

Basic Menu Navigation

Basic controls for navigating and setting:

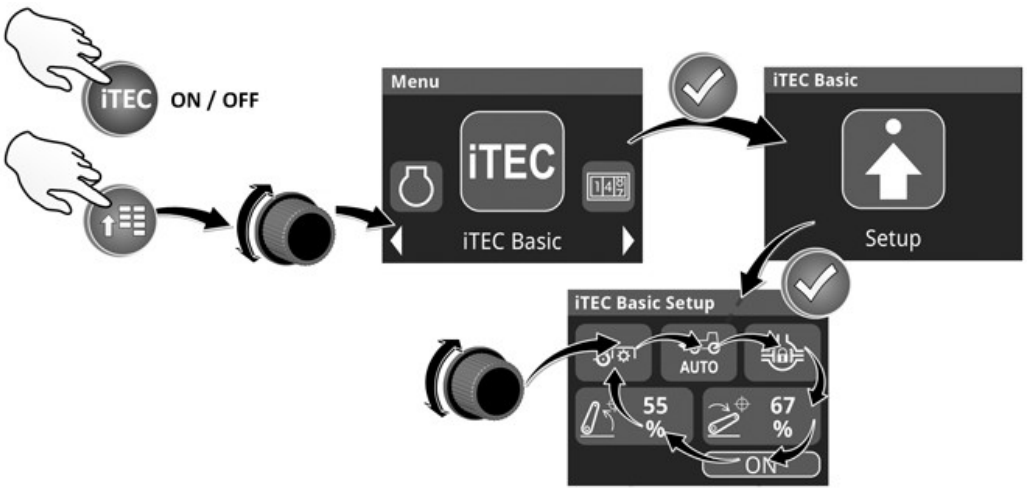


LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back
D—Access Main Menu

OULXA64,6M,00055B5-19-09SEP20

iTEC™ Basic, Menu

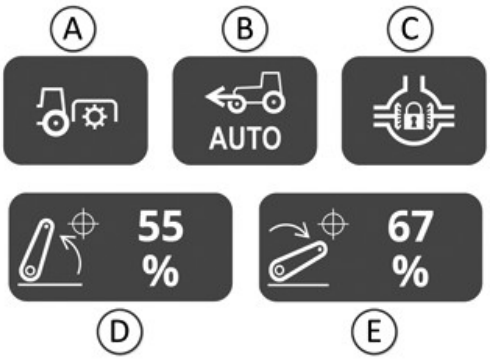


LX386850—UN—19AUG19

- **Open the iTEC™ Basic menu:** Press menu button and navigate to iTEC™ Basic
- **Turn iTEC™ Basic on and off:** Press iTEC™ button to switch between ON and OFF.

OULXA64,6M,00055B6-19-09SEP20

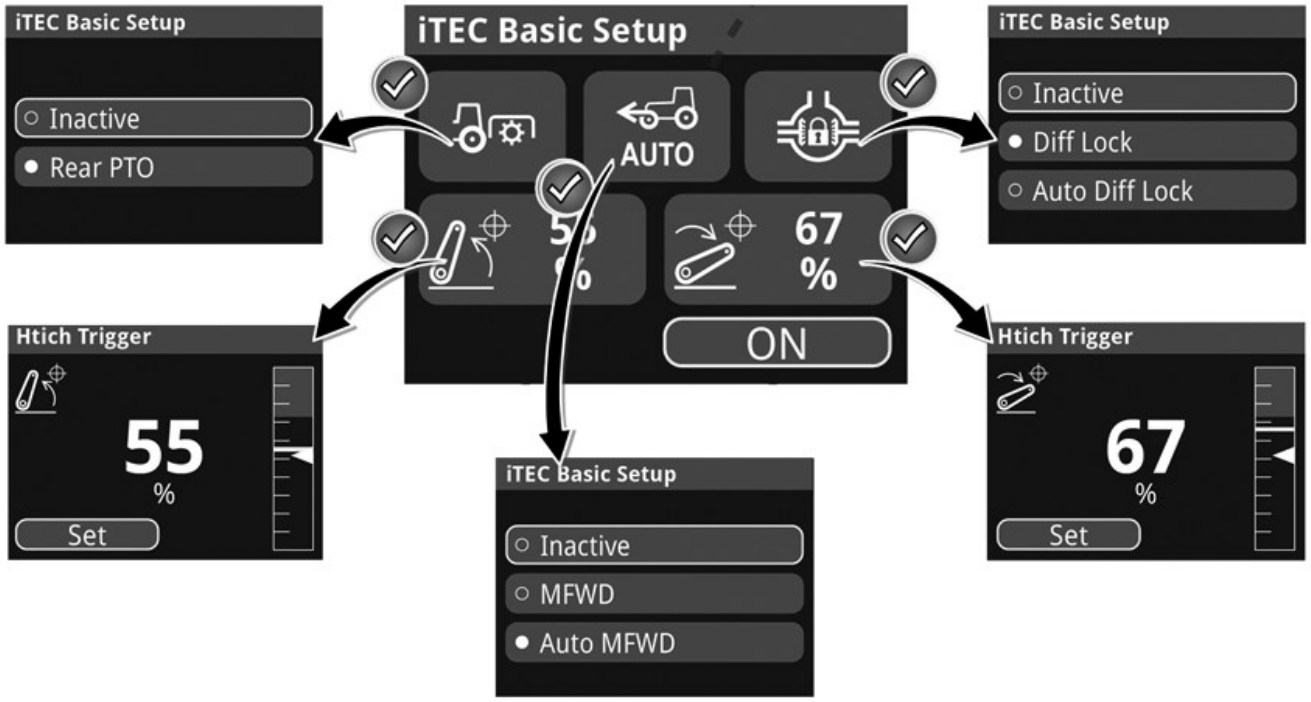
iTEC™ Basic, Access Functions



LX368333—UN—25JAN19

Available Functions

A—Engage or Disengage Rear PTO
B—Engage or Disengage Front-Wheel Drive
C—Engage or Disengage Differential Lock
D—Release Position when Raising the Rear Hitch
E—Release Position when Lowering the Rear Hitch



LX368254—UN—25JAN19
OULXA64,6M,00055B7-19-20APR23

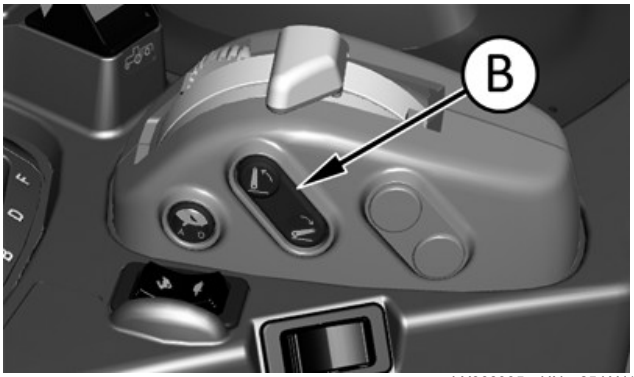
iTEC™ Basic, Operation

Operating:

Operate the hitch with the quick raise/lower switch. When iTEC™ Basic is activated, functions are automatically switched on or off when a release position is reached.



LX368334—UN—25JAN19



LX368335—UN—25JAN19

A—Quick Raise/Lower Switch (with CommandARM™)
B—Quick Raise/Lower Switch (without CommandARM™)

Depending on the tractor configuration, version (A) or (B) is available.

Press the iTEC™ button (C) to switch iTEC™ Basic on and off.

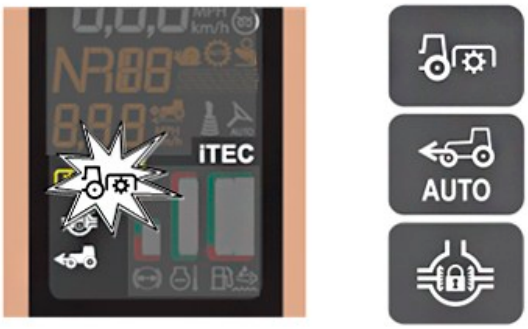


LX368336—UN—25JAN19

C—iTEC™ Button for Turning iTEC™ Basic ON/OFF

The iTEC™ indicator will illuminate in the corner post display when active.

Flashing Sequence of Active Functions



LX514306—UN—21APR23

Examples Shown

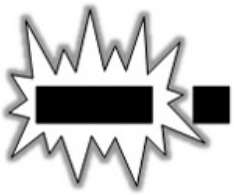
Whether an iTEC™ function is actively controlled by iTEC™ or not, can be identified by the flashing sequence of the relevant symbol in the corner post display.



LX514307—UN—21APR23

Flashing Sequence - Function Disabled

- Function selected and controlled by iTEC™, but function is currently disabled. Flashing sequence: short ON, long OFF



LX514308—UN—21APR23

Flashing Sequence - Function Enabled

- Function selected and controlled by iTEC™, and function is currently enabled. Flashing sequence: long ON, short OFF

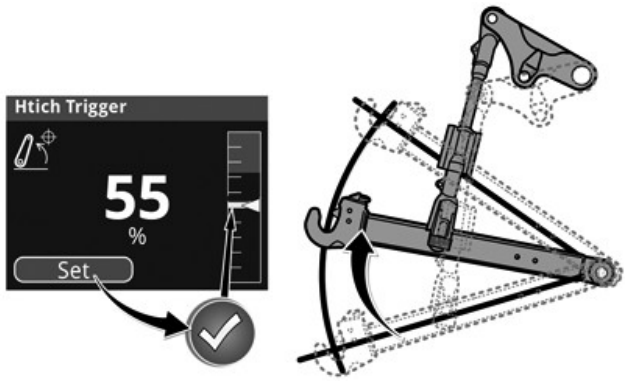
oulxa64,6M,1681978631015-19-26APR23

iTEC™ Basic, Settings

Release Position when Raising the Rear Hitch

When the rear hitch reaches the release position during upward movement, selected functions are automatically **deactivated**.

1. To set the release position, open the iTEC™ Basic menu and select Raise Hitch icon.
2. Move the rear hitch to the position at which the selected functions are to be switched off automatically.
3. Confirm setting and save.

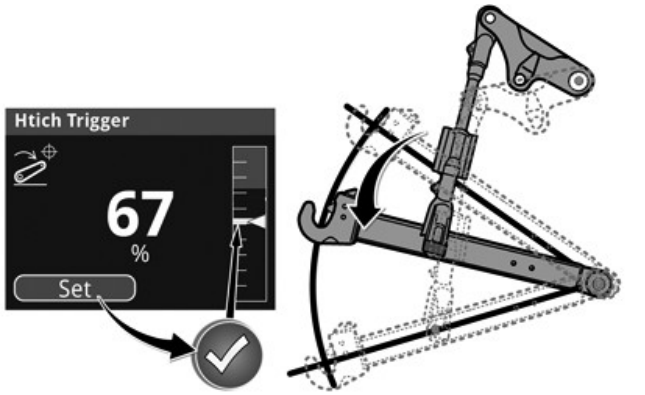


LX368259—UN—25JAN19

Release Position when Lowering the Rear Hitch

When the rear hitch reaches the release position during downward movement, selected functions are automatically **activated**.

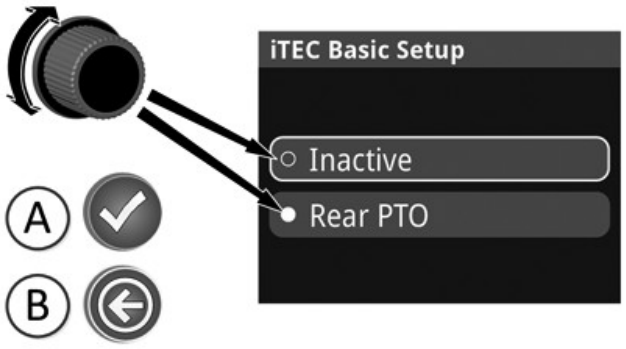
1. To set the release position, open the iTEC™ Basic menu and select Lower Hitch icon.
2. Move the rear hitch to the position at which the selected functions are to be switched on automatically.
3. Confirm setting and save.



LX368258—UN—25JAN19

Engage and Disengage Rear PTO

1. Open the iTEC™ Basic menu and select the rear PTO symbol.
2. Select whether the rear PTO should be switched on and off automatically when a release position[1] is reached and confirm with (A).

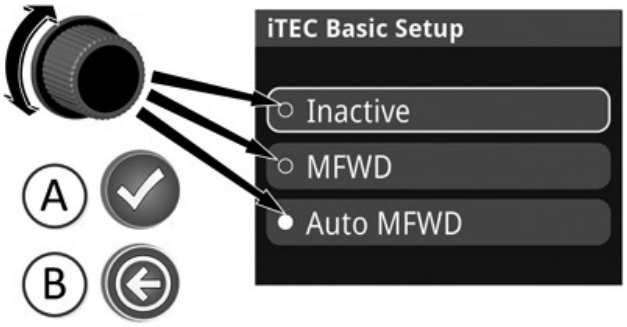


LX368256—UN—25JAN19

A—Confirm
B—Back

Engage and Disengage Front-Wheel Drive

1. Open the iTEC™ Basic menu and select the front-wheel drive icon.
2. Select whether the front-wheel drive is to be automatically switched on and off when the quick raise/lower switch is actuated, and confirm with (A). Depending on the equipment, the setting Auto is also possible. For this setting, refer to Front-Wheel Drive in section 50A.

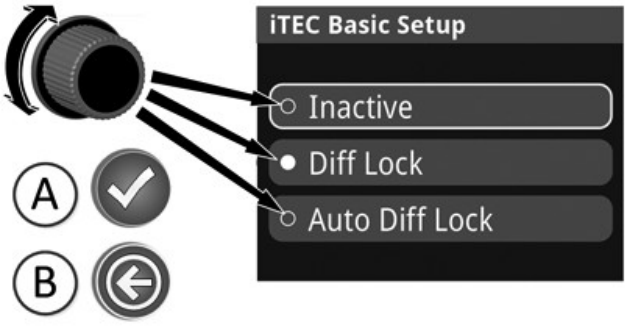


LX368257—UN—25JAN19

A—Confirm
B—Back

Engage and Disengage Differential Lock

1. Open the iTEC™ Basic menu and select the differential lock icon.
2. Select whether the differential lock is to be automatically switched on and off when the quick raise/lower switch is pressed, and confirm with (A). Depending on the equipment, the setting Auto is also possible. For this setting, refer to Differential lock in section 50B.



LX368255—UN—25JAN19

A—Confirm
B—Back

Reaction of Functions when iTEC™ is Activated

	Differential lock[a]	Rear PTO[a]	Front-wheel drive[a]
Quick Lower pressed:	Engages immediately.	Engages when implement reaches the release position and ground	Engages immediately.

[1] The release position marks a rear hitch position that starts the automatic activation and deactivation of functions.

		speed is above 0.5 km/h (0.3 mph).	
Quick Raise pressed:	Disengages immediately.	Switches off when the implement reaches or exceeds the release position.	Switches off when the rear hitch leaves the working position or changes to the transport position.

[a] *If programmed in the iTEC Basic Setup menu.*

OULXA64,6M,00055B8-19-09SEP20

Drive Systems—Overview

- Front-Wheel Drive
- Differential Lock
- Brakes
- Transmission—General Information
- PowrQuad™ PLUS Transmission
- AutoQuad™ PLUS Transmission
- CommandQuad™ PLUS Transmission

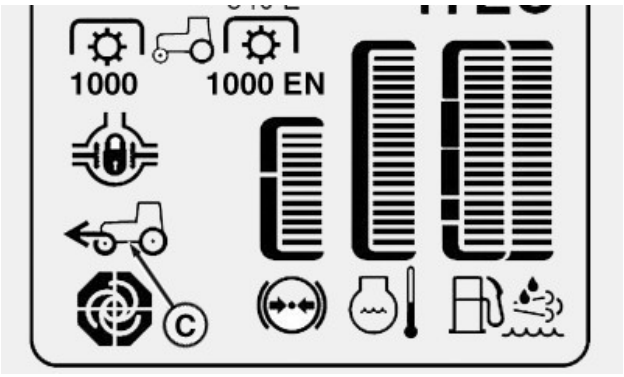
OULXA64,6M,00055B9-19-29AUG23

Front-Wheel Drive, Control Elements and Indicator Lights



LX364111—UN—14NOV18

A—Autolock Button
B—Manual Lock Button



LX364183—UN—04DEC18

C—Indicator Light Comes On when Front-Wheel Drive is Engaged

OULXA64,6M,00055BA-19-21DEC20

Front-Wheel Drive, Manual Engagement and Disengagement

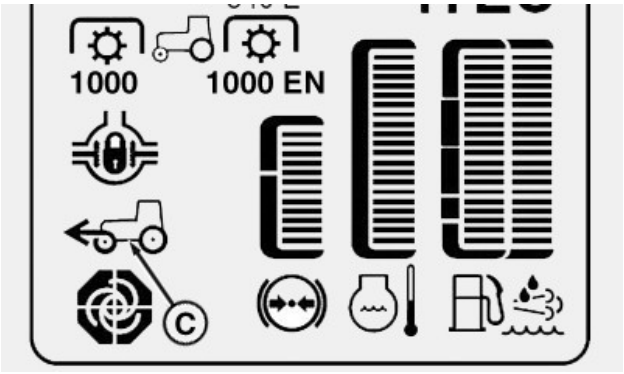
Switch on front-wheel drive with button (B).



LX364111—UN—14NOV18

A—Autolock Button
B—Manual Lock Button

The front-wheel drive can be engaged and disengaged in all gears (forward and reverse), even on-the-go and under load. If the front-wheel drive is switched on manually, the indicator lights (B) and (C) lights up.



LX364183—UN—04DEC18

C—Indicator Light Comes On when Front-Wheel Drive is Engaged

Information on engaging the front-wheel drive during braking:

- When braking, the front-wheel drive is always engaged when the brake pedals are locked together. For the duration of the automatic activation of the front-wheel drive, the indicator lights on buttons (A) and (C) will light up.
- After the braking process, the front-wheel drive returns to the last operating condition (remains ON or switches OFF).
- Disengage front-wheel drive for driving on public roads at speeds above 23 km/h (14.3 mph).

A John Deere dealer or other service provider can activate or deactivate the "Automatic Selection of Front-Wheel Drive at 5 km/h (3.1 mph)" feature via diagnostic address CCU046.

Feature	
Checked	*The front-wheel drive will be engaged only if braking starts at travel speeds above 5 km/h (3.1 mph).*
Deactivated	*Front-wheel drive is always engaged during braking.*

OULXA64,6M,00055BB-19-15JUL25

Front-Wheel Drive, Automatic Engagement and Disengagement

Automatically Enable Engagement/Disengagement of Front-Wheel Drive

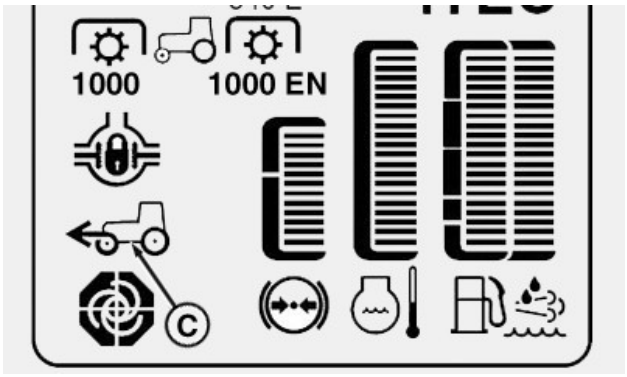
Switch on front-wheel drive with button (A).



LX364111—UN—14NOV18

A—Autolock Button
B—Manual Lock Button

NOTE: Indicator light (A) lights up as long as automatic mode is active. In the meantime, indicator light (C) signals the current status of the front-wheel drive (ON or OFF).



LX364183—UN—04DEC18

C—Indicator Light Comes On when Front-Wheel Drive is Engaged

Driving situations that cause the front-wheel drive to switch on or off in automatic mode:	Front-wheel drive automatically ON or OFF
• Ground speed below 19 km/h (11.8 mph) + Steering angle less than custom shutoff angle[a]	ON
• Steering angle less than custom shutoff angle[a]	ON
• Ground speed is greater than 23 km/h (14.3 mph)	OFF
• Pressing button (A) disables auto mode	OFF
• Pressing button (B) switches to manual mode	OFF
• Steering angle greater than custom shutoff angle[a]	OFF

[a] *See custom shutoff angle (if equipped)*

Front-Wheel Drive, Automatic Engaging/ Disengaging via Custom Shutoff Angle (If Equipped)

IMPORTANT: The maximum shutoff angle for automatic engaging/disengaging of the front-wheel drive depends on the following factors:

- **Type of tire**
- **Tread width**
- **Steering stop**

The steering stop may be less than that selectable in diagnostic address CCU 000173. See CCU - Control Software in Operation and Entering Diagnostic Addresses (Customer Level), section 300B.

Due to tolerances in the set steering angle stop, it is possible that the set steering angle for disengaging the front-wheel drive is not reached on one or both steering sides. To ensure disengaging on both sides, the next smaller steering angle has to be selected.

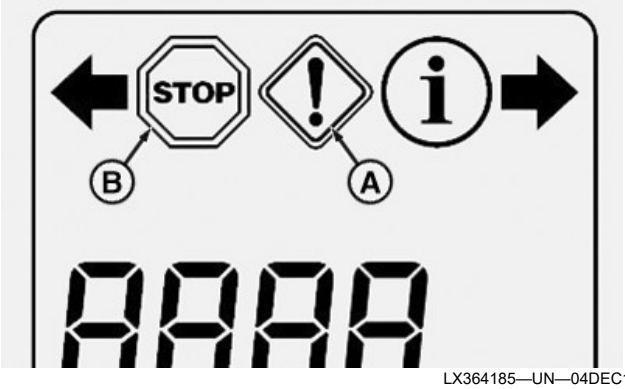
To change the custom shutoff angle, access diagnostic address CCU 000173 and enter the relevant input value.

The following automatic custom shutoff angles are available:

Input value	Shutoff angle
1	15°
2	20°
3	25°
4	30°
5	OFF

OULXA64,6M,00055BC-19-21DEC20

Tractor Equipped With Front Suspension Option



LX364185—UN—04DEC18

A—Amber Service Alert Light
B—Red STOP Light

The level control of the axle works fully automatically as soon as the ground speed exceeds 1.5 km/h (0.9 mph).

The level control responds to load changes (for example, by attaching or removing a device) as soon as the tractor starts moving.

In the event of a fault in the control system, an amber Service Alert light (A) or a red STOP light (B) and a corresponding message is displayed on the information

display. Observe the error message and eliminate the cause.

If the amber Service Alert light (A) is lit, the tractor is still able to drive. However, drive carefully at high ground speeds.

If the red STOP light (B) lights up, stop immediately and switch off the engine. Observe the error message on the information display and eliminate the cause.

OULXA64,6M,00055BD-19-19APR23

Differential Lock

Differential Lock, Controls and Indicator Lights

IMPORTANT: Do not attempt to turn with differential lock engaged!

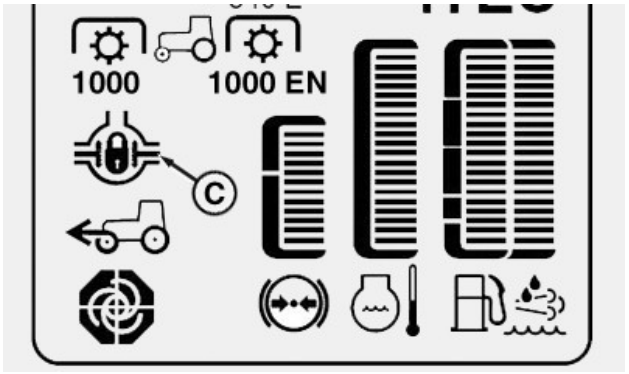
Do not switch on the differential lock in the event of very large speed differences or while turning.

The differential lock levels out any speed differences between wheels on the same axle. Differential lock latches the wheels together to provide the best traction possible for slippery field conditions.



LX364112—UN—14NOV18

A—Autolock Button
B—Manual Lock Button



LX364184—UN—04DEC18

C—Differential Lock Indicator Light

NOTE: When the differential lock is engaged, the indicator light (C) lights up.

OULXA64,6M,00055BE-19-09SEP20

Differential Lock, Manual Engaging/ Disengaging

IMPORTANT: Do not attempt to turn with differential lock engaged!

Do not switch on the differential lock in the event of very large speed differences or while turning.

The differential lock levels out any speed differences between wheels on the same axle. Differential lock latches the wheels together to provide the best traction possible for slippery field conditions

To engage differential lock:

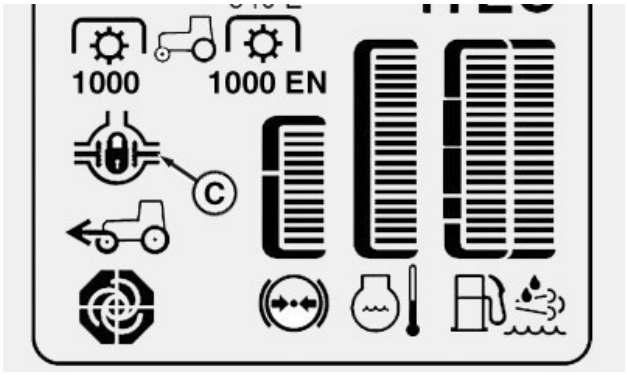
- Press button (B).



LX364112—UN—14NOV18

A—Autolock Button
B—Manual Lock Button

NOTE: If the differential lock is switched on manually, indicator lights (B) and (C) will light up.



LX364184—UN—04DEC18

C—Differential Lock Indicator Light

To disengage differential lock:

- Press button (B) again.
- Press one or both brake pedals.

To re-engage the differential lock, operator must press button again.

OULXA64,6M,00055BF-19-09SEP20

Differential Lock, Automatic Engaging/ Disengaging

IMPORTANT: Do not attempt to turn with differential lock engaged!

Do not switch on the differential lock in the event of very large speed differences or while turning.

NOTE: Automatic engaging/disengaging of the differential lock is only available on tractors with front-wheel drive axles.

The differential lock levels out any speed differences between wheels on the same axle. In case of unequal slippage, the traction can be improved.

Differential Lock, Automatic Engaging/Disengaging

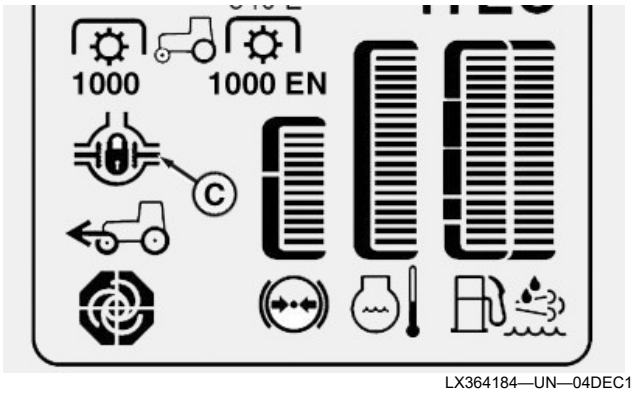
Press button (A).



LX364112—UN—14NOV18

A—Autolock Button
B—Manual Lock Button

NOTE: Indicator light (A) is lit as long as the differential lock is in auto mode. In the meantime, indicator light (C) signals the current status of the differential lock (ON or OFF).



LX364184—UN—04DEC18

C—Differential Lock Indicator Light

Driving situations that cause the differential lock to switch on or off in automatic mode:	Differential lock, auto ON or OFF
• Ground speed below 19 km/h (11.8 mph) + Steering angle less than custom shutoff angle [a] . . . + Neither brake pedal depressed	ON
• Ground speed is greater than 23 km/h (14.3 mph) .	OFF
• One or both brake pedals pressed	OFF
• Pressing button (B) switches to manual mode	OFF
• Steering angle greater than custom shutoff angle[a] .	OFF

[a] *See custom shutoff angle (if equipped)*

Differential Lock, Automatic Engaging/Disengaging via Custom Shutoff Angle (If Equipped)

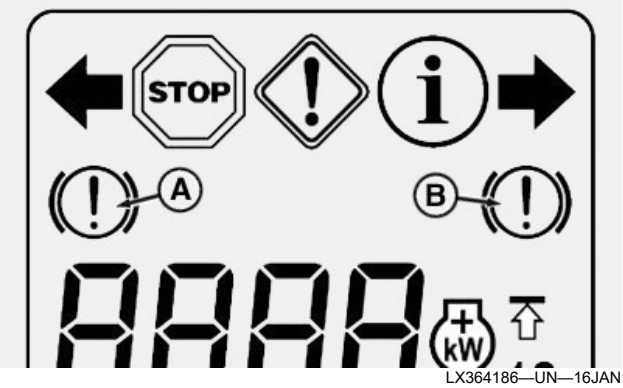
To change the shutoff angle, access diagnostic address CCU 000157 and select the relevant input value. See CCU - Control Software in Operation and Entering Diagnostic Addresses (Customer Level), Section 300B.

The following automatic custom shutoff angles are available:

Input value	Shutoff angle
1	6°
2	9°
3	12°
4	15°

OULXA64,6M,00055C0-19-09SEP20

Hydraulic Service Brakes



LX364186—UN—16JAN19

IMPORTANT: Warning lights (A) or (B) of the brake system will light up or flash if one of the following situations occurs:

(A) - Lights up red until the air pressure of the pneumatic trailer brake has reached operating pressure.

- **Do not drive the vehicle until operating pressure has been reached.**

(A) - Lights up red as soon as a serious fault occurs in the brake system. Note the following:

- **Bring the vehicle to a standstill immediately.**
- **Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.**
- **Follow the instructions of the information display.**
- **If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.**

(A) - Light flashes red if park lock cannot be engaged. Note the following:

- **Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.**
- **Follow the instructions of the information display.**
- **If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.**

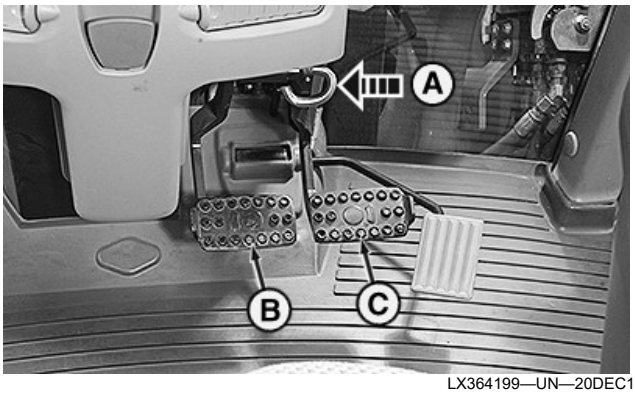
(B) - Lights up yellow as soon as a fault occurs in the brake system. Note the following:

- **Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.**
- **Follow the instructions of the information display.**
- **If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.**

CAUTION: The pedal travel is extended when the engine is not running (no hydraulic assistance).

The tractor's service brake is hydraulically boosted and delivers high braking force for relatively low pressure on the brake pedals. To actuate, depress both pedals, using whatever force is required. If necessary, the service brake can be applied separately to the left or right side of the tractor (single-wheel braking). Depending on driving conditions, certain special conditions affect usage.

Driving on Roads



LX364199—UN—20DEC18

Driving on Public Roads - Brake Pedals Locked Together

A—Brake Pedal Lock
B—Left Brake Pedal
C—Right Brake Pedal

When driving on public roads and other hardened back roads, always keep the two pedals coupled together. Basically, do not uncouple the brake pedals as long as this is not absolutely necessary. If only one of the two brake pedals is depressed unintentionally, there is a danger of the vehicle skidding.

Field Operation



LX364200—UN—20DEC18

Field Operation - Brake Pedals Uncoupled

When operating in the field, the pedals may be uncoupled if necessary. Directional corrections can be achieved by pressing one of the pedals as follows:

- Press left brake pedal - tractor moves to the left.
- Press right brake pedal - tractor moves to the right.

Single-wheel braking can also be employed as a steering aid when maneuvering. This application is only permitted during very slow travel and on loose ground.

After field use, the brake pedals must be coupled together again.

AutoClutch Function:

On tractors with AutoClutch function, the clutch automatically separates when the brakes are actuated and engages when the brakes are released. AutoClutch is deactivated if the single-wheel brake is actuated and the motor speed simultaneously is higher than approx. 900 rpm. When one brake pedal is depressed for steering, the clutch is not activated as long as the engine speed is above 900 rpm.

Attention: Independently of the engine speed, the AutoClutch is NOT activated for tractors with CommandPRO™ joystick, when only one brake pedal is applied. Both brake pedals must be coupled together to enable AutoClutch.

CAUTION: When the engine is running, make sure that the pedals cannot be pushed all the way, even when maximum force is applied. If, when braking, the pedals ever reach the stops, contact a John Deere dealer or other service provider.

NOTE: If both brake pedals are pressed simultaneously during braking, front-wheel drive is automatically engaged and the indicator light for the front-wheel-drive brake lights up. This creates an additional braking effect by the front wheels.

The single-wheel brake can cause automatic declutching or an engine stall, depending on the transmission and transmission mode. During turning maneuvers with the single-wheel brake, an adequately high engine speed is required. Changes to the transmission settings might be necessary when automatic functions are active.

OULXA64,6M,00055C9-19-14JUL25

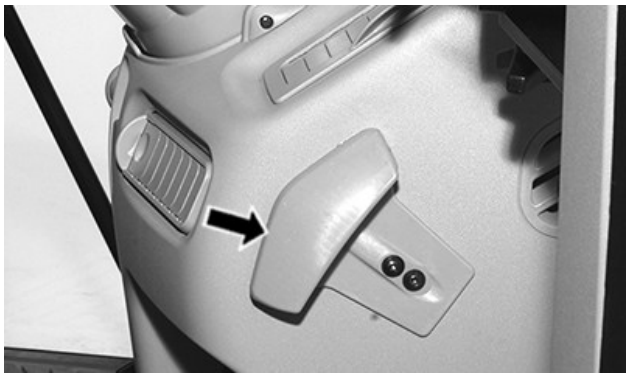
Secondary Brake System

CAUTION: The secondary brake system cannot and must NOT be used as a park brake.

When braking with the secondary brake system, the following trailer brakes are activated:

- **Air trailer brake[1]**
- **Dual-line hydraulic trailer brake[1]**

The braking effect of the trailer brakes may be less than when actuated by the service brake.



LX364098—UN—14NOV18

In the event of service brake failure, the secondary brake system can be used to brake the tractor. Pull lever upward to obtain a braking effect.

CAUTION: The park lock needs to be engaged to park the tractor. The following trailer brakes are activated:

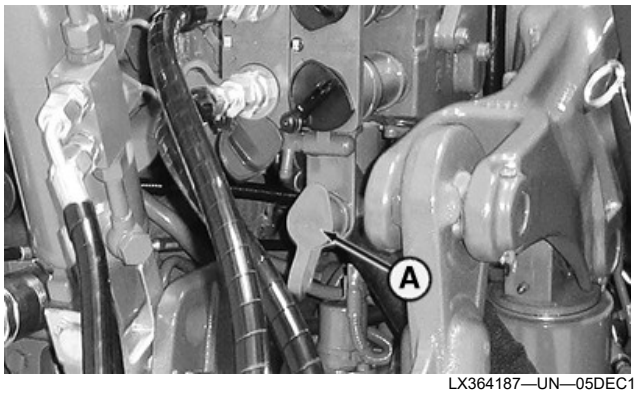
- **Air trailer brake[1]**
- **Dual-line hydraulic trailer brake[1]**

OULXA64,6M,00055CA-19-10SEP20

Single-Line Hydraulic Trailer Brake (If Equipped)

CAUTION: Never exceed a speed of 25 km/h (15 mph) when traveling with hydraulically braked trailers.

1. Pull dust cover off coupler (A).



LX364187—UN—05DEC18

Hydraulic Trailer Brakes

2. Make sure the connections are absolutely clean.
3. Connect hydraulic hose.
4. After uncoupling, seal coupler (A) with a dust cap.

[1] *If equipped*

Press down on service brake to operate hydraulic trailer brake. The braking effect depends on the force with which the brake pedal is pressed.

IMPORTANT: To prevent undue wear on the brakes, observe the following:

- **Make sure that the hydraulic hose is connected.**
- **When driving downhill, select the same gear used for driving uphill.**
- **Make sure that the hydraulic trailer brake has been checked and is operating properly.**
- **Before uncoupling and when parking the tractor, always engage the park lock.**
- **The single-line hydraulic trailer brake is *NOT* activated when the park lock is engaged.**

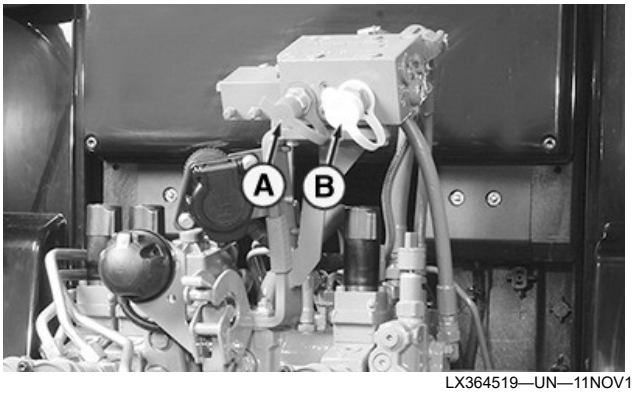
IMPORTANT: Operate the trailer in accordance with the manufacturer's instructions. This is particularly important when operating the park brake of the trailer.

OULXA64,6M,00055CB-19-10SEP20

Dual-Line Hydraulic Trailer Brake* (If Equipped)

***with autodetect**

IMPORTANT: Do not connect trailer with CUNA brake system to single-line trailer brake.



LX364519—UN—11NOV19

A—Pressure Line for Dual-Line or Single-Line Trailer Brake
B—Pilot Oil for Dual-Line Trailer Brake

Trailers with dual-line or single-line trailer brakes[a] can be attached to the hydraulic trailer brake.

[a]*Not for trailer with CUNA brake system*

The switching between dual-line and single-line brake operation takes place automatically.

Press down on service brake to operate hydraulic trailer brake.

The braking effect depends on the force with which the brake pedal is pressed.

When braking with the secondary brake system, the braking effect of the trailer brake may be less than when pressing the service brake.

Connect Trailer

1. Remove caps from the connections.
2. Make sure the connections are absolutely clean.
3. Connect hydraulic hoses as follows, depending on the trailer type:

Trailer type with:	Hydraulic connection		Maximum ground speed
- Dual-line trailer brake	A	B	Without restriction
- Single-line trailer brake[a]	A	—	25 km/h (16 mph)

[a]*Not for trailer with CUNA brake system*

Seal the connections with the protector caps whenever the hoses are disconnected.

IMPORTANT: To prevent undue wear on the brakes, observe the following:

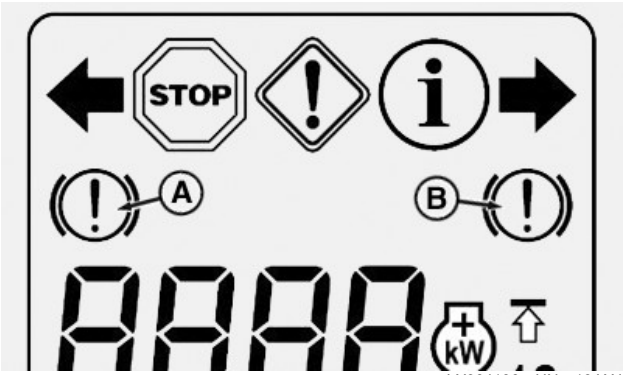
- **Make sure that hydraulic hoses are connected.**
- **When driving downhill, select the same gear used for driving uphill.**
- **Make sure that the hydraulic trailer brake has been checked and is operating properly.**
- **Before uncoupling and when parking the tractor, always engage the park lock to make the connection lines pressure-free.**
- **Engaging the park lock activates the spring-loaded accumulators of the trailer (dual-line hydraulic trailer brake).**

IMPORTANT: Operate the trailer in accordance with manufacturer's instructions. This is particularly important when operating the park brake of the trailer.

OULXA64,6M,00055CC-19-12FEB21

Air Trailer Brake (If Equipped)

CAUTION: When driving the tractor, keep within the legal speed limit.



LX364186—UN—16JAN19

IMPORTANT: Warning lights (A) or (B) of the brake system will light up or flash if one of the following situations occur:

(A) - Lights up red until the air pressure of the pneumatic trailer brake has reached operating pressure.

- **Do not drive the vehicle until operating pressure has been reached.**

(A) - Lights up red as soon as a serious fault occurs in the brake system. Note the following:

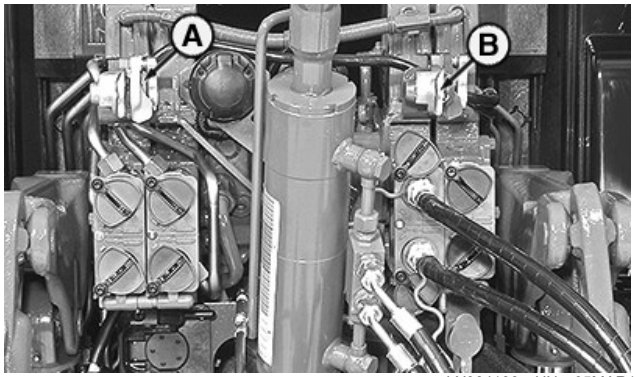
- **Bring the vehicle to a standstill immediately.**
- **Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.**
- **Follow the instructions on the information display.**
- **If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.**

(A) - Lights up red when park lock cannot be engaged. Note the following:

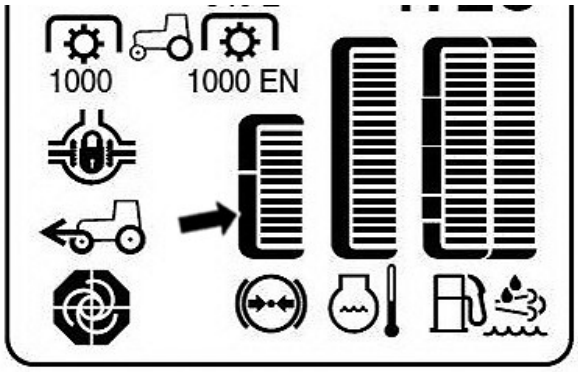
- **Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.**
- **Follow the instructions on the information display.**
- **If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.**

(B) - Lights up yellow as soon as a fault occurs in the brake system. Note the following:

- **Park the vehicle on level ground and take precautions to prevent it from rolling away by applying chock blocks.**
- **Follow the instructions on the information display.**
- **If possible, rectify the cause. Otherwise, contact a John Deere dealer or other service provider.**



LX364188—UN—05MAR19



LX364189—UN—05MAR19

A—Yellow Connection (Dual-Line Brake)
B—Red Connection (Dual-Line Brake, Supply)

IMPORTANT: Only start driving with a trailer once the pressure gauge has reached approx. 800 kPa (8 bar) (116 psi)!

Avoid unnecessary wear on brakes:

- Make sure pressure hoses are connected.
- When driving downhill, use the same gear as when driving uphill on the same route.
- Make sure that the trailer brake has been checked and is operating flawlessly.

Trailers with dual-line brakes may be connected at connections (A) and (B).

Make sure that the connections are clean before joining the compressed air hoses. Seal the connections with the dust protector caps whenever the hoses are disconnected.

When operating with a trailer:

1. Remember to set the manually-operated brake valve on the trailer's air brake system (if equipped) in accordance with the weight of the trailer's load!
2. Check the compressed-air tank daily for condensed water (see section 220D). If condensed water is detected, replace the air-dryer cartridge.
3. When parking the tractor, always engage the park lock.

4. Engaging the park lock also activates the service brake of the trailer.

NOTE: If there is a pressure decrease in the compressed air brake system, the braking effect of the trailer is reduced. When operating a trailer, the Operator's Manual of the respective manufacturer has to be observed.

OULXA64,6M,00055CD-19-15JUL25

Trailer Brake Test

CAUTION: Danger of accidents! Keep area of potential danger clear of bystanders or foreign objects.

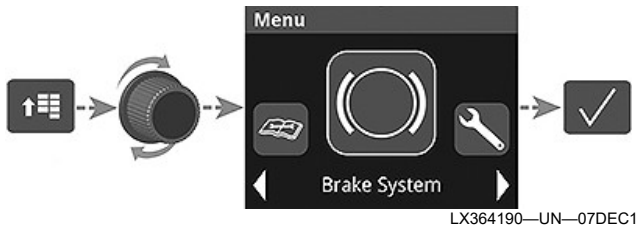
CAUTION: When parking a tractor with a trailer on a slope, make sure that it remains stationary. Use chock blocks as appropriate.

If weather conditions change (e.g. rain, snow, or ice), move the vehicle and trailer to a level area capable of bearing their weight.

IMPORTANT: Perform the trailer brake test only for trailers with the following types of trailer brakes:

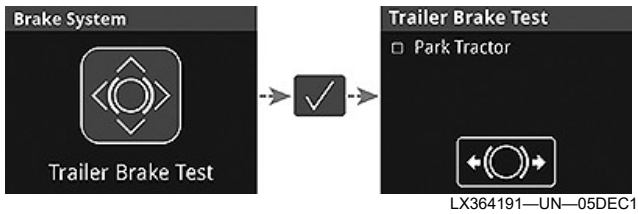
- **Air trailer brake**
- **Dual-line hydraulic trailer brake**

1. Bring tractor and trailer to a standstill on a slope.
2. Press both brake pedals.
3. Run the engine.
4. Press the menu button, select page shown, and press the confirm button.



LX364190—UN—07DEC18

5. Press the confirm button and follow the instructions.



LX364191—UN—05DEC18

6. Engage park lock and press the confirm button for at least 3 seconds.



LX364195—UN—05DEC18

7. Do not apply brakes.

The trailer brake is released and a test is performed to make sure that the tractor remains stationary.

IMPORTANT: The tractor must not move.

If the tractor moves, press the brake pedals immediately and release the confirm button.

The tractor and trailer have failed the test to make sure that they remain stationary.

Relocate tractor and trailer to a safe area.

OULXA64,6M,00055CE-19-08OCT20

Park the Tractor with PowrQuad™/ AutoQuad™ PLUS

IMPORTANT: Engage park lock only when the tractor is stationary.

IMPORTANT: When engaging the park lock, the following trailer brakes are activated:

- **Air Trailer Brake (If Equipped)**
- **Dual-Line Hydraulic Trailer Brake (If Equipped)**

Engage park lock when parked or when operating the tractor in stationary position.



LX315213—UN—05NOV18

Park Lock Engaged on PowrQuad™/AutoQuad™

NOTE: When engaging park lock on slopes, remember to actuate the service brake as well.

OULXA64,SP,EU,00057B0-19-26OCT20

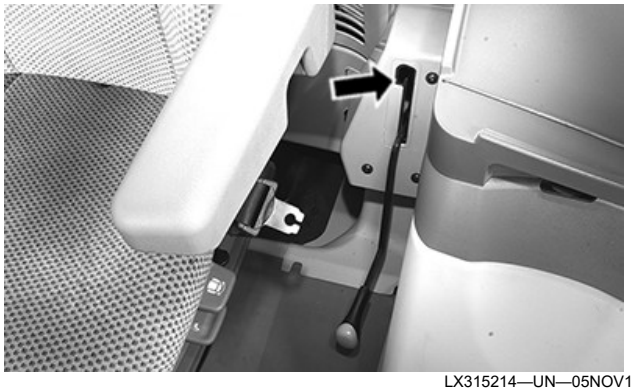
Park the Tractor with CommandQuad™ PLUS

IMPORTANT: Engage park lock only when the tractor is stationary.

IMPORTANT: When engaging the park lock, the following trailer brakes are activated:

- **Air Trailer Brake (If Equipped)**
- **Dual-Line Hydraulic Trailer Brake (If Equipped)**

Engage park lock when parked or when operating the tractor in stationary position.



LX315214—UN—05NOV18

Park Lock Engaged on CommandQuad™ PLUS

NOTE: When engaging park lock on slopes, remember to actuate the service brake as well.

OULXA64,SP,EU,00057B1-19-17NOV20

Park the Tractor with AutoPowr™/IVT™

IMPORTANT: Engage park lock only when the tractor is stationary.

IMPORTANT: When engaging the park lock, the following trailer brakes are activated:

- **Air Trailer Brake (If Equipped)**
- **Dual-Line Hydraulic Trailer Brake (If Equipped)**

Engage park lock when parked or when operating the tractor in stationary position.



LX372924—UN—27OCT20

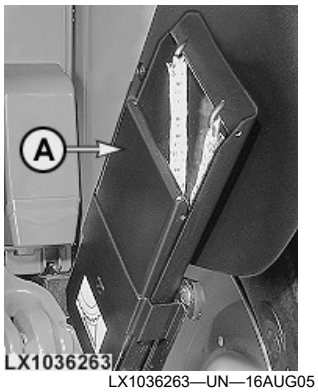
Park Lock Engaged on AutoPowr™/IVT™

NOTE: In extremely cold temperatures, it may take up to 20 seconds for park to engage.

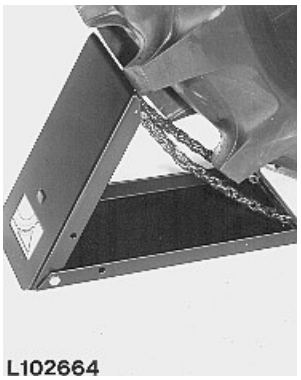
When engaging park lock on slopes, remember to actuate the service brake as well.

OULXA64,SP,EU,00057B2-19-26OCT20

Chock Block



LX1036263—UN—16AUG05



L102664—UN—03JAN95

When parking the tractor on sloping ground, proceed as follows:

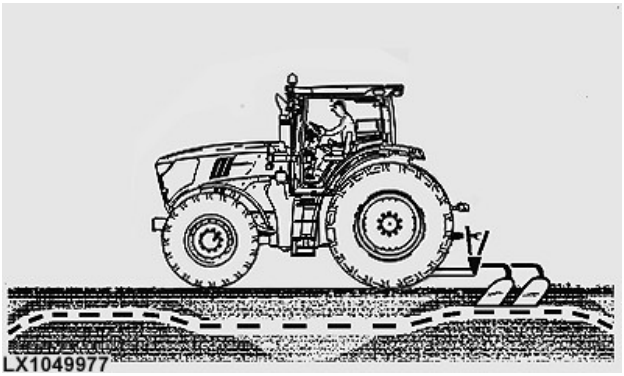
1. Press chock block (A) together.
2. Remove chock block from bracket.
3. Place chock block in front of or behind rear wheel.

OULXA64,EU,000532E-19-17MAR25

Reduce Fuel Consumption

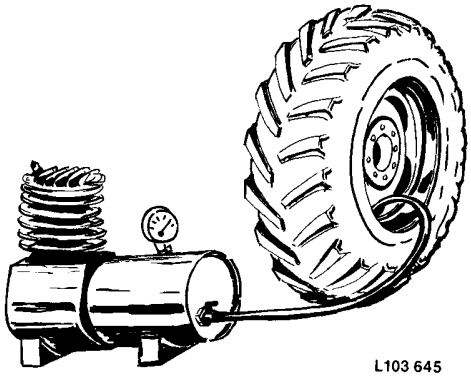
Service Tractor Properly

- Replace air cleaner element, fuel, engine oil, and transmission and hydraulic oil filters on time. See section 210A to 210C.
- Use only John Deere filters.
- Use only the recommended oils and lubricants. See section 200 to 200E.
- Have the fuel system checked regularly.
- Have the hitch control checked regularly.



LX1049977—UN—18MAY11

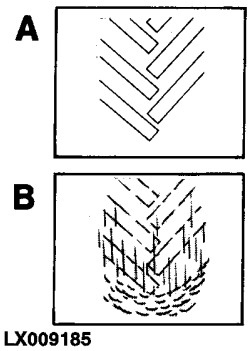
Drive with Correct Tire Pressure



L103 645
L103645—UN—15AUG94

Adjust tire pressure to the workload (refer to a John Deere dealer or other service provider or tire manufacturer).

Choose Correct Ballast



LX009185—UN—01SEP94



LX009186—UN—22MAR24

A—Too Much Ballast
B—Too Little Ballast
C—Correct Ballast

Select ballast so that there is 10-15 % slippage. Reduce ballast if the workload is light.

Select Correct Gear



LX364194—UN—05DEC18

Always drive in highest possible gear with reduced engine speed.

Select the gear so that the speed (A) of the unloaded motor is reduced by 150-250 rpm during operation.

NOTE: Reduce the speed to less than 2000 rpm for light workloads. Select the gear so that the speed is reduced by 200-300 rpm.

OULXA64,6M,00055D1-19-16JUL25

Select Correct Ground Speed

Number of gears on tractors with:

PowrQuad™ PLUS transmission (30 km/h; 18.5 mph):

- 16 forward gears, 16 reverse gears

PowrQuad™ PLUS transmission (40 km/h; 25 mph):

- 16 forward gears, 16 reverse gears
- 24 forward gears, 24 reverse gears

AutoQuad™ PLUS transmission (40 km/h; 25 mph): *

- 24 forward gears, 24 reverse gears

AutoQuad™ PLUS transmission with Eco Shift™ (40 km/h; 25 mph):

- 24 forward gears, 24 reverse gears

CommandQuad™ PLUS transmission (40 km/h; 25 mph): *

- 24 forward gears, 24 reverse gears

CommandQuad™ PLUS transmission with Eco Shift™ (40 km/h, 25 mph):

- 24 forward gears, 24 reverse gears

* Depending on legal requirements, maximum speed may be limited to 35 km/h (21 mph).

Optionally, the tractor can be equipped with a creeper transmission[1] that provides additional 12 gears on PowrQuad™ PLUS, AutoQuad™ PLUS, and AutoQuad™ PLUS transmissions with Eco Shift™.

Gears should be selected in such a way that prolonged overloading of the engine is avoided. Ground speeds with engine running at rated speed are shown on the following tables.

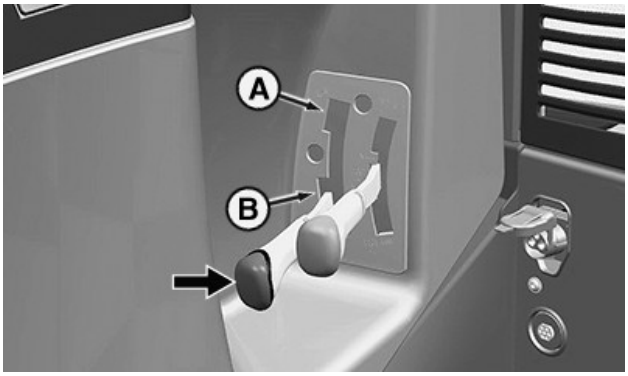
OULXA64,SP,4CYLEU,00057DF-19-14DEC20

Notes on Changing to a Different Size of Tire

IMPORTANT: Before changing to a different size of tire, see the notes in Section 80.

LX25458,00009ED-19-05JUN20

Engage Creeper Transmission



LX364084—UN—13NOV18

A—Creeper Speed
B—High Speed

To Operate Creeper Transmission:

1. Stop tractor by depressing clutch pedal.
2. Reduce engine speed below 1000 RPM.
3. Move Left-Hand Reverser Lever to Neutral.
4. Select range A, B or C.
5. Move creeper lever to engage or disengage creeper transmission.

Never engage creeper transmission with engine speed higher than 1000 rpm.

IMPORTANT: Do not use creeper transmission when working with implements that penetrate the soil and require high tractive force.

Never use the creeper transmission in range D or higher. Using the creeper transmission under any of these circumstances may lead to mechanical failure.

OULXA64,6M,00055D3-19-12OCT23

Travel Speed Tables and SRI Values

NOTE: The travel speeds shown in the following tables are theoretical. The exact speeds depend on the rolling circumference, load, tire pressure, tire brand, slippage, etc. If the exact travel speed is needed for specific applications, it must be determined by measurement.

NOTE: Refer to the table in Tire Combinations in Section 80 to see which tire sizes correspond to the SRI values.

SRI is a standardized value for labeling the dynamic tire radius. This value is important for calculating the travel speed.

LX25458,MY20,00009EF-19-10SEP20

Travel Speeds—PowrQuad™ PLUS Transmission for 30 km/h (16/16) (Tires with SRI 700 and 725)

30 km/h (18.6 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		700		725		SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	2.4	1.5	2.5	1.5	A	1	0.24	0.15	0.25	0.15

[1] *IVT-transmissins are inherently providing a creeper function.*

30 km/h (18.6 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		700		725		SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	2	2.9	1.8	3.0	1.9		2	0.29	0.18	0.30	0.19
	3	3.5	2.1	3.6	2.2		3	0.35	0.22	0.36	0.22
	4	4.2	2.6	4.4	2.7		4	0.43	0.26	0.44	0.27
B	1	4.8	3.0	5.0	3.1	B	1	0.48	0.30	0.50	0.31
	2	5.8	3.6	6.0	3.7		2	0.58	0.36	0.60	0.37
	3	6.9	4.3	7.2	4.5		3	0.70	0.43	0.72	0.45
	4	8.5	5.3	8.8	5.5		4	0.85	0.53	0.88	0.55
C	1	7.9	4.9	8.2	5.1	C	1	0.79	0.49	0.82	0.51
	2	9.5	5.9	9.9	6.1		2	0.96	0.59	0.99	0.62
	3	11.4	7.1	11.8	7.3		3	1.14	0.71	1.19	0.74
	4	14.0	8.7	14.5	9.0		4	1.40	0.87	1.45	0.90
D	1	16.3	10.1	16.9	10.5						
	2	19.6	12.2	20.3	12.6						
	3	23.5	14.6	24.3	15.1						
	4	28.7	17.9	29.8	18.5						
A	R1	2.5	1.6	2.6	1.6	A	R1	0.25	0.16	0.26	0.16
	R2	3.0	1.9	3.1	1.9		R2	0.30	0.19	0.31	0.19
	R3	3.6	2.2	3.7	2.3		R3	0.36	0.23	0.38	0.23
	R4	4.4	2.7	4.6	2.8		R4	0.44	0.28	0.46	0.29
B	R1	5.0	3.1	5.2	3.2	B	R1	0.50	0.31	0.52	0.32
	R2	6.0	3.8	6.3	3.9		R2	0.61	0.38	0.63	0.39
	R3	7.2	4.5	7.5	4.7		R3	0.73	0.45	0.75	0.47
	R4	8.9	5.5	9.2	5.7		R4	0.89	0.55	0.92	0.57
C	R1	8.2	5.1	-8.5	-5.3	C	R1	0.83	0.51	0.86	0.53
	R2	9.9	6.2	10.3	6.4		R2	1.00	0.62	1.03	0.64
	R3	11.9	7.4	12.3	7.7		R3	1.19	0.74	1.24	0.77
	R4	14.6	9.1	15.1	9.4		R4	1.46	0.91	1.52	0.94
D	R1	17.0	10.6	17.6	10.9						
	R2	20.4	12.7	21.2	13.2						
	R3	24.5	15.2	25.4	15.8						
	R4	30*	18.6*	30*	18.6*						

* Ground speed limited to maximum design speed of 30 km/h (18.6 mph)

OULXA64,SP,4CYL,00057CE-19-28AUG23

Travel Speeds—PowrQuad™ PLUS Transmission for 30 km/h (16/16) (Tires with SRI 750 and 800)

30 km/h (18.6 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		750		800		SRI in mm		750		800	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	2.3	1.4	2.4	1.5	A	1	0.23	0.14	0.24	0.15
	2	2.7	1.7	2.9	1.8		2	0.28	0.17	0.29	0.18
	3	3.3	2.0	3.5	2.2		3	0.33	0.21	0.35	0.22
	4	4.0	2.5	4.3	2.7		4	0.40	0.25	0.43	0.27
B	1	4.6	2.8	4.9	3.0	B	1	0.46	0.28	0.49	0.30
	2	5.5	3.4	5.9	3.6		2	0.55	0.34	0.59	0.37

30 km/h (18.6 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		750		800		SRI in mm		750		800	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	3	6.6	4.1	7.0	4.4		3	0.66	0.41	0.71	0.44
	4	8.1	5.0	8.6	5.3		4	0.81	0.50	0.86	0.54
C	1	7.5	4.7	8.0	5.0	C	1	0.75	0.47	0.80	0.50
	2	9.0	5.6	9.6	6.0		2	0.91	0.56	0.97	0.60
	3	10.8	6.7	11.5	7.2		3	1.09	0.68	1.16	0.72
	4	13.3	8.2	14.1	8.8		4	1.33	0.83	1.42	0.88
D	1	15.5	9.6	16.5	10.2						
	2	18.6	11.6	19.9	12.3						
	3	22.3	13.9	23.8	14.8						
	4	27.3	17.0	29.1	18.1						
A	R1	2.4	1.5	2.5	1.6	A	R1	0.24	0.15	0.25	0.16
	R2	2.9	1.8	3.1	1.9		R2	0.29	0.18	0.31	0.19
	R3	3.4	2.1	3.7	2.3		R3	0.34	0.21	0.37	0.23
	R4	4.2	2.6	4.5	2.8		R4	0.42	0.26	0.45	0.28
B	R1	4.8	3.0	5.1	3.2	B	R1	0.48	0.30	0.51	0.32
	R2	5.7	3.6	6.1	3.8		R2	0.58	0.36	0.61	0.38
	R3	6.9	4.3	7.3	4.6		R3	0.69	0.43	0.74	0.46
	R4	8.4	5.2	9.0	5.6		R4	0.85	0.53	0.90	0.56
C	R1	7.8	4.9	8.4	5.2	C	R1	0.79	0.49	0.84	0.52
	R2	9.4	5.9	10.1	6.3		R2	0.95	0.59	1.01	0.63
	R3	11.3	7.0	12.1	7.5		R3	1.14	0.71	1.21	0.75
	R4	13.8	8.6	14.8	9.2		R4	1.39	0.86	1.48	0.92
D	R1	16.1	10.0	17.2	10.7						
	R2	19.4	12.1	20.7	12.9						
	R3	23.3	14.5	24.8	15.4						
	R4	28.5	17.7	30*	18.6*						

* Ground speed limited to maximum design speed of 30 km/h (18.6 mph)

OULXA64,SP,4CYL,00057CF-19-28AUG23

Travel Speeds—PowrQuad™ PLUS Transmission for 30 km/h (16/16) (Tires with SRI 825)

30 km/h (18.6 mph); rated engine speed 2100 rpm							
				Additional gears with creeper transmission			
SRI in mm		825		SRI in mm		825	
Range	Gear	km/h	mph	Range	Gear	km/h	mph
A	1	2.5	1.6	A	1	0.25	0.16
	2	3.0	1.9		2	0.30	0.19
	3	3.6	2.2		3	0.36	0.23
	4	4.4	2.8		4	0.44	0.28
B	1	5.0	3.1	B	1	0.50	0.31
	2	6.0	3.8		2	0.61	0.38
	3	7.2	4.5		3	0.73	0.45
	4	8.9	5.5		4	0.89	0.55
C	1	8.3	5.1	C	1	0.83	0.52
	2	9.9	6.2		2	1.00	0.62
	3	11.9	7.4		3	1.20	0.74
	4	14.6	9.1		4	1.47	0.91

30 km/h (18.6 mph); rated engine speed 2100 rpm							
				Additional gears with creeper transmission			
SRI in mm		825		SRI in mm		825	
Range	Gear	km/h	mph	Range	Gear	km/h	mph
D	1	17.0	10.6				
	2	20.5	12.7				
	3	24.5	15.2				
	4	30*	18.6*				
A	R1	2.6	1.6	A	R1	0.26	0.16
	R2	3.1	2.0		R2	0.32	0.20
	R3	3.8	2.3		R3	0.38	0.24
	R4	4.6	2.9		R4	0.46	0.29
B	R1	5.2	3.3	B	R1	0.53	0.33
	R2	6.3	3.9		R2	0.63	0.39
	R3	7.6	4.7		R3	0.76	0.47
	R4	9.3	5.8		R4	0.93	0.58
C	R1	8.6	5.4	C	R1	0.87	0.54
	R2	10.4	6.4		R2	1.04	0.65
	R3	12.4	7.7		R3	1.25	0.78
	R4	15.2	9.5		R4	1.53	0.95
D	R1	17.7	11.0				
	R2	21.4	13.3				
	R3	25.6	15.9				
	R4	30*	18.6*				

* Ground speed limited to maximum design speed of 30 km/h (18.6 mph)

OULXA64,SP,4CYL,00057D0-19-28AUG23

Travel Speeds—PowrQuad™ PLUS Transmission for 40 km/h (16/16) (Tires with SRI 700 and 725)

40 km/h (25 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		700		725		SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	2.9	1.8	3.0	1.9	A	1	0.29	0.18	0.30	0.19
	2	3.5	2.2	3.6	2.2		2	0.35	0.22	0.36	0.22
	3	4.1	2.6	4.3	2.7		3	0.42	0.26	0.43	0.27
	4	5.1	3.2	5.3	3.3		4	0.51	0.32	0.53	0.33
B	1	5.8	3.6	6.0	3.7	B	1	0.58	0.36	0.60	0.37
	2	6.9	4.3	7.2	4.5		2	0.70	0.43	0.72	0.45
	3	8.3	5.2	8.6	5.4		3	0.84	0.52	0.87	0.54
	4	10.2	6.3	10.6	6.6		4	1.02	0.64	1.06	0.66
C	1	9.5	5.9	9.8	6.1	C	1	0.95	0.59	0.99	0.61
	2	11.4	7.1	11.8	7.3		2	1.15	0.71	1.19	0.74
	3	13.7	8.5	14.2	8.8		3	1.37	0.85	1.42	0.88
	4	16.8	10.4	17.4	10.8		4	1.68	1.05	1.74	1.08
D	1	19.5	12.1	20.2	12.6						
	2	23.5	14.6	24.4	15.1						
	3	28.2	17.5	29.2	18.1						
	4	34.5	21.4	35.7	22.2						
A	R1	3.0	1.9	3.1	1.9	A	R1	0.30	0.19	0.31	0.19

40 km/h (25 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		700		725		SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	R2	3.6	2.2	3.7	2.3		R2	0.36	0.23	0.38	0.23
	R3	4.3	2.7	4.5	2.8		R3	0.43	0.27	0.45	0.28
	R4	5.3	3.3	5.5	3.4		R4	0.53	0.33	0.55	0.34
B	R1	6.0	3.7	6.2	3.9	B	R1	0.60	0.38	0.63	0.39
	R2	7.2	4.5	7.5	4.7		R2	0.73	0.45	0.75	0.47
	R3	8.7	5.4	9.0	5.6		R3	0.87	0.54	0.90	0.56
	R4	10.6	6.6	11.0	6.8		R4	1.07	0.66	1.11	0.69
C	R1	9.9	6.1	10.2	6.4	C	R1	0.99	0.62	1.03	0.64
	R2	11.9	7.4	12.3	7.7		R2	1.20	0.74	1.24	0.77
	R3	14.3	8.9	14.8	9.2		R3	1.43	0.89	1.48	0.92
	R4	17.5	10.9	18.1	11.2		R4	1.76	1.09	1.82	1.13
D	R1	20.4	12.7	21.1	13.1						
	R2	24.5	15.2	25.4	15.8						
	R3	29.4	18.3	30.4	18.9						
	R4	36.0	22.4	37.3	23.2						

OULXA64,SP,4CYL,00057D1-19-28AUG23

Travel Speeds—PowrQuad™ PLUS Transmission for 40 km/h (16/16) (ires with SRI 750 and 800)

40 km/h (25 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		750		800		SRI in mm		750		800	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	3.0	1.9	3.3	2.0	A	1	0.31	0.19	0.33	0.21
	2	3.6	2.2	4.0	2.5		2	0.37	0.23	0.40	0.25
	3	4.3	2.7	4.7	2.9		3	0.45	0.28	0.48	0.30
	4	5.3	3.3	5.8	3.6		4	0.55	0.34	0.58	0.36
B	1	6.0	3.7	6.6	4.1	B	1	0.62	0.39	0.66	0.41
	2	7.2	4.5	7.9	4.9		2	0.75	0.46	0.80	0.50
	3	8.6	5.4	9.5	5.9		3	0.90	0.56	0.95	0.59
	4	10.6	6.6	11.6	7.2		4	1.10	0.68	1.17	0.73
C	1	9.8	6.1	10.8	6.7	C	1	1.02	0.63	1.09	0.68
	2	11.8	7.3	13.0	8.1		2	1.23	0.76	1.31	0.81
	3	14.2	8.8	15.6	9.7		3	1.47	0.91	1.57	0.98
	4	17.4	10.8	19.1	11.9		4	1.80	1.12	1.92	1.20
D	1	20.2	12.6	22.3	13.9						
	2	24.4	15.1	26.9	16.7						
	3	29.2	18.1	32.2	20.0						
	4	35.7	22.2	39.4	24.5						
A	R1	3.2	2.0	3.4	2.1	A	R1	0.32	0.20	0.34	0.21
	R2	3.9	2.4	4.1	2.6		R2	0.39	0.24	0.41	0.26
	R3	4.6	2.9	4.9	3.1		R3	0.47	0.29	0.50	0.31
	R4	5.7	3.5	6.1	3.8		R4	0.57	0.35	0.61	0.38
B	R1	6.4	4.0	6.9	4.3	B	R1	0.65	0.40	0.69	0.43
	R2	7.8	4.8	8.3	5.1		R2	0.78	0.48	0.83	0.52
	R3	9.3	5.8	9.9	6.2		R3	0.93	0.58	1.00	0.62

40 km/h (25 mph); rated engine speed 2100 rpm											
						Additional gears with creeper transmission					
SRI in mm		750		800		SRI in mm		750		800	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	R4	11.4	7.1	12.1	7.5		R4	1.14	0.71	1.22	0.76
C	R1	10.6	6.6	11.3	7.0	C	R1	1.07	0.66	1.14	0.71
	R2	12.8	7.9	13.6	8.5		R2	1.28	0.80	1.37	0.85
	R3	15.3	9.5	16.3	10.1		R3	1.54	0.95	1.64	1.02
	R4	18.7	11.6	20.0	12.4		R4	1.88	1.17	2.01	1.25
D	R1	21.8	13.6	23.3	14.5						
	R2	26.3	16.3	28.0	17.4						
	R3	31.5	19.6	33.6	20.9						
	R4	38.6	24.0	40*	25*						

* Speed limited to maximum design speed of 40 km/h (25 mph)

OULXA64,SP,4CYL,000596C-19-28AUG23

Travel Speeds—PowrQuad™ PLUS Transmission for 40 km/h (16/16) (Tires with SRI 825)

40 km/h (25 mph); rated engine speed 2100 rpm							
				Additional gears with creeper transmission			
SRI in mm		825		SRI in mm		825	
Range	Gear	km/h	mph	Range	Gear	km/h	mph
A	1	3.0	1.9	A	1	0.30	0.19
	2	3.6	2.2		2	0.36	0.22
	3	4.3	2.7		3	0.43	0.27
	4	5.3	3.3		4	0.53	0.33
B	1	6.0	3.7	B	1	0.60	0.37
	2	7.2	4.5		2	0.72	0.45
	3	8.6	5.4		3	0.87	0.54
	4	10.6	6.6		4	1.06	0.66
C	1	9.8	6.1	C	1	0.99	0.61
	2	11.8	7.4		2	1.19	0.74
	3	14.2	8.8		3	1.42	0.88
	4	17.4	10.8		4	1.74	1.08
D	1	20.2	12.6				
	2	24.4	15.1				
	3	29.2	18.1				
	4	35.7	22.2				
A	R1	3.1	1.9	A	R1	0.31	0.19
	R2	3.7	2.3		R2	0.38	0.23
	R3	4.5	2.8		R3	0.45	0.28
	R4	5.5	3.4		R4	0.55	0.34
B	R1	6.2	3.9	B	R1	0.63	0.39
	R2	7.5	4.7		R2	0.75	0.47
	R3	9.0	5.6		R3	0.90	0.56
	R4	11.0	6.8		R4	1.11	0.69
C	R1	10.3	6.4	C	R1	1.03	0.64
	R2	12.3	7.7		R2	1.24	0.77
	R3	14.8	9.2		R3	1.49	0.92
	R4	18.1	11.3		R4	1.82	1.13
D	R1	21.1	13.1				

40 km/h (25 mph); rated engine speed 2100 rpm							
				Additional gears with creeper transmission			
SRI in mm		825		SRI in mm		825	
Range	Gear	km/h	mph	Range	Gear	km/h	mph
	R2	25.4	15.8				
	R3	30.5	18.9				
	R4	37.3	23.2				

OULXA64,SP,4CYL,00057D2-19-28AUG23

Travel Speeds—PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions 40 km/h (24/24) with Creeper Transmission, Ex-Factory (Tires with SRI 700 and 725)

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		700		725		Creeper Transmission					
						SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	1.5	0.9	1.5	1.0	A	1	0.15	0.09	0.15	0.10
	2	1.8	1.1	1.8	1.1		2	0.18	0.11	0.19	0.12
	3	2.1	1.3	2.2	1.4		3	0.21	0.13	0.22	0.14
	4	2.6	1.6	2.7	1.7		4	0.26	0.16	0.27	0.17
B	1	3.6	2.2	3.7	2.3	B	1	0.36	0.23	0.38	0.23
	2	4.4	2.7	4.5	2.8		2	0.44	0.27	0.45	0.28
	3	5.2	3.2	5.4	3.4		3	0.52	0.33	0.54	0.34
	4	6.4	4.0	6.6	4.1		4	0.64	0.40	0.67	0.41
C	1	5.9	3.7	6.1	3.8	C	1	0.59	0.37	0.61	0.38
	2	7.1	4.4	7.4	4.6		2	0.71	0.44	0.74	0.46
	3	8.5	5.3	8.8	5.5		3	0.85	0.53	0.89	0.55
	4	10.4	6.5	10.8	6.7		4	1.05	0.65	1.08	0.67
D	1	9.7	6.0	10.0	6.2						
	2	11.7	7.2	12.1	7.5						
	3	14.0	8.7	14.5	9.0						
	4	17.1	10.6	17.7	11.0						
E	1	15.7	9.8	16.3	10.1						
	2	18.9	11.8	19.6	12.2						
	3	22.7	14.1	23.5	14.6						
	4	27.8	17.3	28.8	17.9						
F	1	21.2	13.2	22.0	13.7						
	2	25.6	15.9	26.5	16.5						
	3	30.6	19.0	31.7	19.7						
	4	37.5**	23.3**	38.9**	24.1**						
A	R1	1.5	1.0	1.6	1.0	A	R1	0.16	0.10	0.16	0.10
	R2	1.9	1.2	1.9	1.2		R2	0.19	0.12	0.19	0.12
	R3	2.2	1.4	2.3	1.4		R3	0.22	0.14	0.23	0.14
	R4	2.7	1.7	2.8	1.8		R4	0.27	0.17	0.28	0.18
B	R1	3.8	2.3	3.9	2.4	B	R1	0.38	0.24	0.39	0.24
	R2	4.5	2.8	4.7	2.9		R2	0.46	0.28	0.47	0.29
	R3	5.4	3.4	5.6	3.5		R3	0.55	0.34	0.57	0.35
	R4	6.7	4.1	6.9	4.3		R4	0.67	0.42	0.69	0.43
C	R1	6.2	3.8	6.4	4.0	C	R1	0.62	0.38	0.64	0.40
	R2	7.4	4.6	7.7	4.8		R2	0.74	0.46	0.77	0.48
	R3	8.9	5.5	9.2	5.7		R3	0.89	0.55	0.92	0.57

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		700		725		Creeper Transmission					
						SRI in mm		700		725	
	R4	10.9	6.8	11.3	7.0		R4	1.09	0.68	1.13	0.70
D	R1	10.1	6.3	10.5	6.5						
	R2	12.2	7.6	12.6	7.8						
	R3	14.6	9.1	15.1	9.4						
	R4	17.8	11.1	18.5	11.5						
E	R1	16.4	10.2	17.0	10.6						
	R2	19.8	12.3	20.5	12.7						
	R3	23.7	14.7	24.5	15.2						
	R4	29.0	18.0	30.0	18.7						
F	R1	22.2	13.8	23.0	14.3						
	R2	26.7	16.6	27.6	17.2						
	R3	32.0	19.9	33.1	20.6						
	R4	39.1**	24.3**	40*.**	25*.**						

* Speed limited to maximum design speed of 40 km/h (25 mph)

** For Japan only: Maximum speed limited to 35 km/h (22 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057D3-19-28AUG23

Travel Speeds—PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions 40 km/h (24/24) with Creeper Transmission, Ex-Factory (Tires with SRI 750 and 775)

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		750		775		Creeper Transmission					
						SRI in mm		750		775	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	1.4	0.9	1.5	0.9	A	1	0.14	0.09	0.15	0.09
	2	1.7	1.1	1.8	1.1		2	0.17	0.11	0.18	0.11
	3	2.0	1.3	2.1	1.3		3	0.20	0.13	0.21	0.13
	4	2.5	1.5	2.6	1.6		4	0.25	0.16	0.26	0.16
B	1	3.4	2.1	3.6	2.2	B	1	0.35	0.21	0.36	0.22
	2	4.1	2.6	4.3	2.7		2	0.42	0.26	0.43	0.27
	3	5.0	3.1	5.1	3.2		3	0.50	0.31	0.51	0.32
	4	6.1	3.8	6.3	3.9		4	0.61	0.38	0.63	0.39
C	1	5.6	3.5	5.8	3.6	C	1	0.56	0.35	0.58	0.36
	2	6.7	4.2	7.0	4.3		2	0.68	0.42	0.70	0.44
	3	8.1	5.0	8.4	5.2		3	0.81	0.50	0.84	0.52
	4	9.9	6.2	10.2	6.4		4	0.99	0.62	1.03	0.64
D	1	9.2	5.7	9.5	5.9						
	2	11.1	6.9	11.4	7.1						
	3	13.3	8.2	13.7	8.5						
	4	16.2	10.1	16.8	10.4						
E	1	14.9	9.3	15.4	9.6						
	2	18.0	11.2	18.6	11.6						
	3	21.6	13.4	22.3	13.8						
	4	26.4	16.4	27.3	17.0						
F	1	21.4	13.3	22.2	13.8						
	2	25.8	16.0	26.7	16.6						
	3	30.9	19.2	32.0	19.9						
	4	37.9**	23.5**	39.1**	24.3**						

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		750		775		Creeper Transmission					
						SRI in mm		750		775	
A	R1	1.5	0.9	1.5	0.9	A	R1	0.15	0.09	0.15	0.09
	R2	1.8	1.1	1.8	1.1		R2	0.18	0.11	0.18	0.11
	R3	2.1	1.3	2.2	1.4		R3	0.21	0.13	0.22	0.14
	R4	2.6	1.6	2.7	1.7		R4	0.26	0.16	0.27	0.17
B	R1	3.6	2.2	3.7	2.3	B	R1	0.36	0.22	0.37	0.23
	R2	4.3	2.7	4.5	2.8		R2	0.43	0.27	0.45	0.28
	R3	5.2	3.2	5.3	3.3		R3	0.52	0.32	0.54	0.33
	R4	6.3	3.9	6.5	4.1		R4	0.64	0.40	0.66	0.41
C	R1	5.8	3.6	6.0	3.8	C	R1	0.59	0.37	0.61	0.38
	R2	7.0	4.4	7.3	4.5		R2	0.71	0.44	0.73	0.45
	R3	8.4	5.2	8.7	5.4		R3	0.85	0.53	0.88	0.54
	R4	10.3	6.4	10.7	6.6		R4	1.04	0.64	1.07	0.67
D	R1	9.6	6.0	9.9	6.2						
	R2	11.6	7.2	11.9	7.4						
	R3	13.8	8.6	14.3	8.9						
	R4	17.0	10.5	17.5	10.9						
E	R1	15.6	9.7	16.1	10.0						
	R2	18.8	11.7	19.4	12.1						
	R3	22.5	14.0	23.2	14.4						
	R4	27.6	17.1	28.5	17.7						
F	R1	22.4	13.9	23.1	14.4						
	R2	26.9	16.7	27.8	17.3						
	R3	32.3	20.1	33.3	20.7						
	R4	39.5**	24.6**	40*,**	25*,**						

* Speed limited to maximum design speed of 40 km/h (25 mph)

** For Japan only: Maximum speed limited to 35 km/h (22 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,000596F-19-28AUG23

Travel Speeds—PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions 40 km/h (24/24) with Creeper Transmission, Ex-Factory (Tires with SRI 800 and 825)

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		800		825		Creeper Transmission					
						SRI in mm		800		825	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	1.5	0.9	1.5	1.0	A	1	0.15	0.09	0.16	0.10
	2	1.8	1.1	1.9	1.2		2	0.18	0.11	0.19	0.12
	3	2.2	1.3	2.2	1.4		3	0.22	0.14	0.22	0.14
	4	2.7	1.6	2.7	1.7		4	0.27	0.17	0.27	0.17
B	1	3.7	2.3	3.8	2.3	B	1	0.37	0.23	0.38	0.24
	2	4.4	2.7	4.6	2.8		2	0.44	0.28	0.46	0.28
	3	5.3	3.3	5.5	3.4		3	0.53	0.33	0.55	0.34
	4	6.5	4.0	6.7	4.2		4	0.65	0.40	0.67	0.42
C	1	6.0	3.7	6.2	3.8	C	1	0.60	0.37	0.62	0.38
	2	7.2	4.5	7.4	4.6		2	0.72	0.45	0.75	0.46
	3	8.6	5.4	8.9	5.5		3	0.87	0.54	0.89	0.56
	4	10.6	6.6	10.9	6.8		4	1.06	0.66	1.09	0.68
D	1	9.8	6.1	10.1	6.3						

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		800		825		Creeper Transmission					
						SRI in mm		800		825	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	2	11.8	7.3	12.2	7.6						
	3	14.1	8.8	14.6	9.1						
	4	17.3	10.8	17.9	11.1						
E	1	15.9	9.9	16.4	10.2						
	2	19.2	11.9	19.8	12.3						
	3	23.0	14.3	23.7	14.7						
	4	28.2	17.5	29.0	18.0						
F	1	21.5	13.4	22.2	13.8						
	2	25.9	16.1	26.7	16.6						
	3	31.0	19.3	32.0	19.9						
	4	38.0**	23.6**	39.2**	24.4**						
A	R1	1.6	1.0	1.6	1.0	A	R1	0.16	0.10	0.16	0.10
	R2	1.9	1.2	1.9	1.2		R2	0.19	0.12	0.20	0.12
	R3	2.3	1.4	2.3	1.4		R3	0.23	0.14	0.23	0.15
	R4	2.8	1.7	2.9	1.8		R4	0.28	0.17	0.29	0.18
B	R1	3.8	2.4	3.9	2.5	B	R1	0.38	0.24	0.40	0.25
	R2	4.6	2.9	4.8	3.0		R2	0.46	0.29	0.48	0.30
	R3	5.5	3.4	5.7	3.5		R3	0.55	0.34	0.57	0.36
	R4	6.8	4.2	7.0	4.3		R4	0.68	0.42	0.70	0.44
C	R1	6.2	3.9	6.4	4.0	C	R1	0.63	0.39	0.65	0.40
	R2	7.5	4.7	7.7	4.8		R2	0.75	0.47	0.78	0.48
	R3	9.0	5.6	9.3	5.8		R3	0.90	0.56	0.93	0.58
	R4	11.0	6.8	11.4	7.1		R4	1.11	0.69	1.14	0.71
D	R1	10.2	6.4	10.6	6.6						
	R2	12.3	7.7	12.7	7.9						
	R3	14.8	9.2	15.2	9.5						
	R4	18.1	11.2	18.7	11.6						
E	R1	16.6	10.3	17.2	10.7						
	R2	20.0	12.4	20.7	12.8						
	R3	24.0	14.9	24.7	15.4						
	R4	29.4	18.3	30.3	18.8						
F	R1	22.5	14.0	23.2	14.4						
	R2	27.0	16.8	27.9	17.3						
	R3	32.4	20.1	33.4	20.8						
	R4	39.7**	24.7**	40*, **	25*, **						

* Speed limited to maximum design speed of 40 km/h (25 mph)

** For Japan only: Maximum speed limited to 35 km/h (22 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057D5-19-28AUG23

Travel Speeds—PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions 40 km/h (24/24) without Creeper Transmission, Ex-Factory (Tires with SRI 700, 725, 750 and 775)

40 km/h (25 mph); rated engine speed 2100 rpm									
SRI in mm		700		725		750		775	
Range	Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph
A	1	1.6	1.0	1.6	1.0	1.6	1.0	1.6	1.0
	2	1.9	1.2	2.0	1.2	1.9	1.2	2.0	1.2

40 km/h (25 mph); rated engine speed 2100 rpm									
SRI in mm		**700**		**725**		**750**		**775**	
	3	2.3	1.4	2.3	1.5	2.3	1.4	2.4	1.5
	4	2.8	1.7	2.9	1.8	2.8	1.7	2.9	1.8
B	1	3.8	2.4	4.0	2.5	3.9	2.4	4.0	2.5
	2	4.6	2.9	4.8	3.0	4.7	2.9	4.8	3.0
	3	5.5	3.4	5.7	3.5	5.6	3.5	5.8	3.6
	4	6.7	4.2	7.0	4.3	6.8	4.3	7.1	4.4
C	1	6.2	3.9	6.4	4.0	6.3	3.9	6.5	4.1
	2	7.5	4.7	7.8	4.8	7.6	4.7	7.9	4.9
	3	9.0	5.6	9.3	5.8	9.1	5.7	9.4	5.9
	4	11.0	6.8	11.4	7.1	11.2	6.9	11.5	7.2
D	1	10.2	6.3	10.6	6.6	10.4	6.4	10.7	6.7
	2	12.3	7.6	12.7	7.9	12.5	7.8	12.9	8.0
	3	14.7	9.2	15.3	9.5	15.0	9.3	15.5	9.6
	4	18.0	11.2	18.7	11.6	18.3	11.4	18.9	11.8
E	1	16.6	10.3	17.2	10.7	16.9	10.5	17.4	10.8
	2	20.0	12.4	20.7	12.9	20.3	12.6	21.0	13.0
	3	23.9	14.9	24.8	15.4	24.3	15.1	25.1	15.6
	4	29.3	18.2	30.4	18.9	29.8	18.5	30.8	19.1
F	1	23.8	14.8	24.7	15.3	24.2	15.0	25.0	15.5
	2	28.7	17.8	29.7	18.5	29.1	18.1	30.1	18.7
	3	34.3	21.3	35.6**	22.1**	34.9	21.7	36.0**	22.4**
	4	40*, **	25*, **	40*, **	25*, **	40*, **	25*, **	40*, **	25*, **
A	R1	1.6	1.0	1.7	1.1	1.7	1.0	1.7	1.1
	R2	2.0	1.2	2.0	1.3	2.0	1.2	2.1	1.3
	R3	2.4	1.5	2.4	1.5	2.4	1.5	2.5	1.5
	R4	2.9	1.8	3.0	1.9	2.9	1.8	3.0	1.9
B	R1	4.0	2.5	4.1	2.6	4.0	2.5	4.2	2.6
	R2	4.8	3.0	5.0	3.1	4.9	3.0	5.0	3.1
	R3	5.7	3.6	5.9	3.7	5.8	3.6	6.0	3.7
	R4	7.0	4.4	7.3	4.5	7.1	4.4	7.4	4.6
C	R1	6.5	4.0	6.7	4.2	6.6	4.1	6.8	4.2
	R2	7.8	4.9	8.1	5.0	7.9	4.9	8.2	5.1
	R3	9.4	5.8	9.7	6.0	9.5	5.9	9.8	6.1
	R4	11.5	7.1	11.9	7.4	11.7	7.2	12.0	7.5
D	R1	10.7	6.6	11.0	6.9	10.8	6.7	11.2	6.9
	R2	12.8	8.0	13.3	8.3	13.0	8.1	13.5	8.4
	R3	15.4	9.6	15.9	9.9	15.6	9.7	16.1	10.0
	R4	18.8	11.7	19.5	12.1	19.1	11.9	19.8	12.3
E	R1	17.3	10.8	17.9	11.1	17.6	10.9	18.2	11.3
	R2	20.9	13.0	21.6	13.4	21.2	13.2	21.9	13.6
	R3	25.0	15.5	25.9	16.1	25.4	15.8	26.2	16.3
	R4	30.6	19.0	31.7	19.7	31.1	19.3	32.1	19.9
F	R1	24.8	15.4	25.7	16.0	25.2	15.7	26.1	16.2
	R2	29.9	18.6	31.0	19.3	30.4	18.9	31.4	19.5
	R3	35.8**	22.3**	37.1**	23.1**	36.4**	22.6**	37.6**	23.4*
	R4	40*, **	25*, **	40*, **	25*, **	40*, **	25*, **	40*, **	25*, **

* Speed limited to maximum design speed of 40 km/h (25 mph)

** For Japan only: Maximum speed limited to 35 km/h (22 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057D6-19-28AUG23

Travel Speeds—PowrQuad™ PLUS and AutoQuad™ PLUS Transmissions 40 km/h (24/24) without Creeper Transmission, Ex-Factory (SRI 800 and 825)

40 km/h (25 mph); rated engine speed 2100 rpm					
SRI in mm		**800**		**825**	
Range	Gear	km/h	mph	km/h	mph
A	1	1.7	1.1	1.7	1.1
	2	2.0	1.3	2.1	1.3
	3	2.4	1.5	2.5	1.6
	4	3.0	1.9	3.1	1.9
B	1	4.1	2.6	4.3	2.6
	2	5.0	3.1	5.1	3.2
	3	6.0	3.7	6.1	3.8
	4	7.3	4.5	7.5	4.7
C	1	6.7	4.2	7.0	4.3
	2	8.1	5.0	8.4	5.2
	3	9.7	6.0	10.0	6.2
	4	11.9	7.4	12.3	7.6
D	1	11.1	6.9	11.4	7.1
	2	13.3	8.3	13.7	8.5
	3	16.0	9.9	16.5	10.2
	4	19.5	12.1	20.2	12.5
E	1	18.0	11.2	18.5	11.5
	2	21.6	13.5	22.3	13.9
	3	25.9	16.1	26.7	16.6
	4	31.8	19.7	32.8	20.4
F	1	25.8	16.0	25.0	15.6
	2	31.1	19.3	30.1	18.7
	3	37.2**	23.1**	36.1**	22.4**
	4	40*, **	25*, **	40*, **	25*, **
A	R1	1.8	1.1	1.8	1.1
	R2	2.1	1.3	2.2	1.4
	R3	2.5	1.6	2.6	1.6
	R4	3.1	1.9	3.2	2.0
B	R1	4.3	2.7	4.4	2.8
	R2	5.2	3.2	5.4	3.3
	R3	6.2	3.9	6.4	4.0
	R4	7.6	4.7	7.9	4.9
C	R1	7.0	4.4	7.3	4.5
	R2	8.5	5.3	8.7	5.4
	R3	10.1	6.3	10.5	6.5
	R4	12.4	7.7	12.8	8.0
D	R1	11.5	7.2	11.9	7.4
	R2	13.9	8.6	14.3	8.9
	R3	16.6	10.3	17.2	10.7
	R4	20.4	12.7	21.0	13.1
E	R1	18.8	11.7	19.3	12.0
	R2	22.6	14.0	23.3	14.5
	R3	27.1	16.8	27.9	17.3
	R4	33.1	20.6	34.2	21.2
F	R1	26.9	16.7	26.1	16.2
	R2	32.4	20.1	31.4	19.5
	R3	38.8**	24.1**	37.7**	23.4**
	R4	40*, **	25*, **	40*, **	25*, **

* Speed limited to maximum design speed of 40 km/h (25 mph)

** For Japan only: Maximum speed limited to 35 km/h (22 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057D7-19-28AUG23

Travel Speeds—AutoQuad™ PLUS Transmission with Eco Shift™ for 40 km/h (24/24) (Tires with SRI 700 and 725)

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		700		725		Additional gears with creeper transmission					
						SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	1.8	1.1	1.8	1.1	A	1	0.18	0.11	0.19	0.11
	2	2.1	1.3	2.2	1.4		2	0.22	0.13	0.22	0.14
	3	2.6	1.6	2.7	1.7		3	0.26	0.16	0.27	0.17
	4	3.1	2.0	3.3	2.0		4	0.32	0.20	0.33	0.20
B	1	4.3	2.7	4.5	2.8	B	1	0.44	0.27	0.45	0.28
	2	5.2	3.2	5.4	3.4		2	0.53	0.33	0.54	0.34
	3	6.3	3.9	6.5	4.0		3	0.63	0.39	0.65	0.40
	4	7.7	4.8	7.9	4.9		4	0.77	0.48	0.80	0.50
C	1	7.1	4.4	7.3	4.6	C	1	0.71	0.44	0.74	0.46
	2	8.5	5.3	8.8	5.5		2	0.86	0.53	0.89	0.55
	3	10.2	6.3	10.6	6.6		3	1.03	0.64	1.06	0.66
	4	12.5	7.8	13.0	8.0		4	1.26	0.78	1.30	0.81
D	1	11.6	7.2	12.0	7.5						
	2	14.0	8.7	14.5	9.0						
	3	16.8	10.4	17.4	10.8						
	4	20.5	12.8	21.3	13.2						
E	1	18.9	11.7	19.6	12.1						
	2	22.7	14.1	23.5	14.6						
	3	27.2	16.9	28.2	17.5						
	4	33.3	20.7	34.5	21.5						
F	1	27.1	16.8	28.1	17.4						
	2	32.6	20.3	33.8	21.0						
	3	39.1	24.3	40*	25*						
	4	40*	25*	40*	25*						
A	R1	1.9	1.2	1.9	1.2	A	R1	0.19	0.12	0.19	0.12
	R2	2.2	1.4	2.3	1.4		R2	0.22	0.14	0.23	0.14
	R3	2.7	1.7	2.8	1.7		R3	0.27	0.17	0.28	0.17
	R4	3.3	2.0	3.4	2.1		R4	0.33	0.20	0.34	0.21
B	R1	4.5	2.8	4.7	2.9	B	R1	0.46	0.28	0.47	0.29
	R2	5.5	3.4	5.6	3.5		R2	0.55	0.34	0.57	0.35
	R3	6.5	4.1	6.8	4.2		R3	0.66	0.41	0.68	0.42
	R4	8.0	5.0	8.3	5.2		R4	0.80	0.50	0.83	0.52
C	R1	7.4	4.6	7.7	4.8	C	R1	0.74	0.46	0.77	0.48
	R2	8.9	5.5	9.2	5.7		R2	0.89	0.56	0.93	0.58
	R3	10.7	6.6	11.0	6.9		R3	1.07	0.66	1.11	0.69
	R4	13.0	8.1	13.5	8.4		R4	1.31	0.81	1.36	0.84
D	R1	12.1	7.5	12.6	7.8						
	R2	14.6	9.1	15.1	9.4						
	R3	17.5	10.9	18.1	11.3						
	R4	21.4	13.3	22.2	13.8						
E	R1	19.7	12.2	20.4	12.7						

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		700		725		Additional gears with creeper transmission					
						SRI in mm		700		725	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	R2	23.7	14.7	24.6	15.3						
	R3	28.4	17.7	29.4	18.3						
	R4	34.8	21.6	36.0	22.4						
F	R1	28.3	17.6	29.3	18.2						
	R2	34.0	21.1	35.2	21.9						
	R3	40*	25*	40*	25*						
	R4	40*	25*	40*	25*						

* Travel speed limited to maximum design speed of 40 km/h (25 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057D8-19-25AUG23

Travel Speeds—AutoQuad™ PLUS Transmission with Eco Shift™ for 40 km/h (24/24) (Tires with SRI 750 and 775)

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		750		775		Additional gears with creeper transmission					
						SRI in mm		750		775	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	1.9	1.2	2.0	1.2	A	1	0.19	0.12	0.20	0.12
	2	2.3	1.4	2.4	1.5		2	0.23	0.14	0.24	0.15
	3	2.7	1.7	2.8	1.8		3	0.28	0.17	0.29	0.18
	4	3.4	2.1	3.5	2.2		4	0.34	0.21	0.35	0.22
B	1	4.7	2.9	4.8	3.0	B	1	0.47	0.29	0.48	0.30
	2	5.6	3.5	5.8	3.6		2	0.56	0.35	0.58	0.36
	3	6.7	4.2	6.9	4.3		3	0.67	0.42	0.70	0.43
	4	8.2	5.1	8.5	5.3		4	0.83	0.51	0.85	0.53
C	1	7.6	4.7	7.8	4.9	C	1	0.76	0.47	0.79	0.49
	2	9.1	5.7	9.4	5.9		2	0.92	0.57	0.95	0.59
	3	10.9	6.8	11.3	7.0		3	1.10	0.68	1.14	0.71
	4	13.4	8.3	13.8	8.6		4	1.35	0.84	1.39	0.86
D	1	12.4	7.7	12.9	8.0						
	2	15.0	9.3	15.5	9.6						
	3	17.9	11.2	18.5	11.5						
	4	22.0	13.7	22.7	14.1						
E	1	20.2	12.6	20.9	13.0						
	2	24.4	15.1	25.2	15.6						
	3	29.2	18.1	30.1	18.7						
	4	35.7	22.2	36.9	22.9						
F	1	27.3	17.0	28.2	17.5						
	2	32.9	20.4	34.0	21.1						
	3	39.4	24.5	40*	25*						
	4	40*	25*	40*	25*						
A	R1	2.0	1.2	2.1	1.3	A	R1	0.20	0.12	0.21	0.13
	R2	2.4	1.5	2.5	1.5		R2	0.24	0.15	0.25	0.15
	R3	2.9	1.8	3.0	1.8		R3	0.29	0.18	0.30	0.18
	R4	3.5	2.2	3.6	2.3		R4	0.35	0.22	0.36	0.23
B	R1	4.9	3.0	5.0	3.1	B	R1	0.49	0.30	0.50	0.31
	R2	5.8	3.6	6.0	3.8		R2	0.59	0.36	0.61	0.38

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		750		775		Additional gears with creeper transmission					
						SRI in mm		750		775	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	R3	7.0	4.3	7.2	4.5		R3	0.70	0.44	0.73	0.45
	R4	8.6	5.3	8.9	5.5		R4	0.86	0.54	0.89	0.55
C	R1	7.9	4.9	8.2	5.1	C	R1	0.80	0.49	0.82	0.51
	R2	9.5	5.9	9.8	6.1		R2	0.96	0.59	0.99	0.61
	R3	11.4	7.1	11.8	7.3		R3	1.15	0.71	1.18	0.74
	R4	14.0	8.7	14.4	9.0		R4	1.40	0.87	1.45	0.90
D	R1	13.0	8.1	13.4	8.3						
	R2	15.6	9.7	16.2	10.0						
	R3	18.7	11.6	19.4	12.0						
	R4	22.9	14.3	23.7	14.7						
E	R1	21.1	13.1	21.8	13.6						
	R2	25.4	15.8	26.3	16.3						
	R3	30.4	18.9	31.5	19.5						
	R4	37.3	23.2	38.5	23.9						
F	R1	28.5	17.7	29.4	18.3						
	R2	34.3	21.3	35.4	22.0						
	R3	40	25	40*	25*						
	R4	40*	25*	40*	25*						

* Speed limited to maximum design speed of 40 km/h (25 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057D9-19-25AUG23

Travel Speeds—AutoQuad™ PLUS Transmission with Eco Shift™ for 40 km/h (24/24) (Tires with SRI 800 and 825)

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		800		825		Additional gears with creeper transmission					
						SRI in mm		800		825	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
A	1	1.8	1.1	1.8	1.1	A	1	0.18	0.11	0.19	0.12
	2	2.2	1.3	2.2	1.4		2	0.22	0.13	0.22	0.14
	3	2.6	1.6	2.7	1.7		3	0.26	0.16	0.27	0.17
	4	3.2	2.0	3.3	2.0		4	0.32	0.20	0.33	0.20
B	1	4.4	2.7	4.5	2.8	B	1	0.44	0.27	0.45	0.28
	2	5.3	3.3	5.4	3.4		2	0.53	0.33	0.54	0.34
	3	6.3	3.9	6.5	4.0		3	0.63	0.39	0.65	0.41
	4	7.7	4.8	7.9	4.9		4	0.77	0.48	0.80	0.50
C	1	7.1	4.4	7.3	4.6	C	1	0.71	0.44	0.74	0.46
	2	8.6	5.3	8.8	5.5		2	0.86	0.53	0.89	0.55
	3	10.3	6.4	10.6	6.6		3	1.03	0.64	1.06	0.66
	4	12.6	7.8	13.0	8.1		4	1.26	0.78	1.30	0.81
D	1	11.7	7.3	12.0	7.5						
	2	14.1	8.7	14.5	9.0						
	3	16.8	10.5	17.4	10.8						
	4	20.6	12.8	21.3	13.2						
E	1	19.0	11.8	19.6	12.2						
	2	22.8	14.2	23.6	14.6						
	3	27.4	17.0	28.2	17.5						

40 km/h (25 mph); rated engine speed 2100 rpm											
SRI in mm		800		825		Additional gears with creeper transmission					
						SRI in mm		800		825	
Range	Gear	km/h	mph	km/h	mph	Range	Gear	km/h	mph	km/h	mph
	4	33.5	20.8	34.6	21.5						
F	1	27.2	16.9	28.1	17.4						
	2	32.8	20.4	33.8	21.0						
	3	39.2	24.4	40*	25*						
	4	40*	25*	40*	25*						
A	R1	1.9	1.2	1.9	1.2	A	R1	0.19	0.12	0.19	0.12
	R2	2.2	1.4	2.3	1.4		R2	0.23	0.14	0.23	0.14
	R3	2.7	1.7	2.8	1.7		R3	0.27	0.17	0.28	0.17
	R4	3.3	2.0	3.4	2.1		R4	0.33	0.21	0.34	0.21
B	R1	4.6	2.8	4.7	2.9	B	R1	0.46	0.28	0.47	0.29
	R2	5.5	3.4	5.7	3.5		R2	0.55	0.34	0.57	0.35
	R3	6.6	4.1	6.8	4.2		R3	0.66	0.41	0.68	0.42
	R4	8.0	5.0	8.3	5.2		R4	0.81	0.50	0.83	0.52
C	R1	7.4	4.6	7.7	4.8	C	R1	0.75	0.46	0.77	0.48
	R2	8.9	5.6	9.2	5.7		R2	0.90	0.56	0.93	0.58
	R3	10.7	6.7	11.0	6.9		R3	1.08	0.67	1.11	0.69
	R4	13.1	8.1	13.5	8.4		R4	1.32	0.82	1.36	0.84
D	R1	12.2	7.6	12.6	7.8						
	R2	14.7	9.1	15.1	9.4						
	R3	17.6	10.9	18.1	11.3						
	R4	21.5	13.4	22.2	13.8						
E	R1	19.8	12.3	20.4	12.7						
	R2	23.8	14.8	24.6	15.3						
	R3	28.5	17.7	29.4	18.3						
	R4	35.0	21.7	36.1	22.4						
F	R1	28.4	17.6	29.3	18.2						
	R2	34.2	21.2	35.3	21.9						
	R3	40*	25*	40*	25*						
	R4	40*	25*	40*	25*						

* Speed limited to maximum design speed of 40 km/h (25 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057DA-19-25AUG23

Travel Speeds—CommandQuad™ PLUS Transmission for 40 km/h (24/24) (Tires with SRI 700, 725, 750 and 775)

40 km/h (25 mph); rated engine speed 2100 rpm									
SRI in mm		700		725		750		775	
Range	Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph
A	1	1.5	0.9	1.5	1.0	1.4	0.9	1.5	0.9
	2	1.8	1.1	1.8	1.1	1.7	1.1	1.8	1.1
	3	2.1	1.3	2.2	1.4	2.0	1.3	2.1	1.3
	4	2.6	1.6	2.7	1.7	2.5	1.5	2.6	1.6
B	1	3.6	2.2	3.7	2.3	3.4	2.1	3.6	2.2
	2	4.4	2.7	4.5	2.8	4.1	2.6	4.3	2.7
	3	5.2	3.2	5.4	3.4	5.0	3.1	5.1	3.2
	4	6.4	4.0	6.6	4.1	6.1	3.8	6.3	3.9
C	1	5.9	3.7	6.1	3.8	5.6	3.5	5.8	3.6

40 km/h (25 mph); rated engine speed 2100 rpm									
SRI in mm		**700**		**725**		**750**		**775**	
	2	7.1	4.4	7.4	4.6	6.7	4.2	7.0	4.3
	3	8.5	5.3	8.8	5.5	8.1	5.0	8.4	5.2
	4	10.4	6.5	10.8	6.7	9.9	6.2	10.2	6.4
D	1	9.7	6.0	10.0	6.2	9.2	5.7	9.5	5.9
	2	11.7	7.2	12.1	7.5	11.1	6.9	11.4	7.1
	3	14.0	8.7	14.5	9.0	13.3	8.2	13.7	8.5
	4	17.1	10.6	17.7	11.0	16.2	10.1	16.8	10.4
E	1	15.7	9.8	16.3	10.1	14.9	9.3	15.4	9.6
	2	18.9	11.8	19.6	12.2	18.0	11.2	18.6	11.6
	3	22.7	14.1	23.5	14.6	21.6	13.4	22.3	13.8
	4	27.8	17.3	28.8	17.9	26.4	16.4	27.3	17.0
F	1	21.2	13.2	22.0	13.7	21.4	13.3	22.2	13.8
	2	25.6	15.9	26.5	16.5	25.8	16.0	26.7	16.6
	3	30.6	19.0	31.7	19.7	30.9	19.2	32.0	19.9
	4	37.5	23.3	38.9	24.1	37.9	23.5	39.1	24.3
A	R1	1.5	1.0	1.6	1.0	1.5	0.9	1.5	0.9
	R2	1.9	1.2	1.9	1.2	1.8	1.1	1.8	1.1
	R3	2.2	1.4	2.3	1.4	2.1	1.3	2.2	1.4
	R4	2.7	1.7	2.8	1.8	2.6	1.6	2.7	1.7
B	R1	3.8	2.3	3.9	2.4	3.6	2.2	3.7	2.3
	R2	4.5	2.8	4.7	2.9	4.3	2.7	4.5	2.8
	R3	5.4	3.4	5.6	3.5	5.2	3.2	5.3	3.3
	R4	6.7	4.1	6.9	4.3	6.3	3.9	6.5	4.1
C	R1	6.2	3.8	6.4	4.0	5.8	3.6	6.0	3.8
	R2	7.4	4.6	7.7	4.8	7.0	4.4	7.3	4.5
	R3	8.9	5.5	9.2	5.7	8.4	5.2	8.7	5.4
	R4	10.9	6.8	11.3	7.0	10.3	6.4	10.7	6.6
D	R1	10.1	6.3	10.5	6.5	9.6	6.0	9.9	6.2
	R2	12.2	7.6	12.6	7.8	11.6	7.2	11.9	7.4
	R3	14.6	9.1	15.1	9.4	13.8	8.6	14.3	8.9
	R4	17.8	11.1	18.5	11.5	17.0	10.5	17.5	10.9
E	R1	16.4	10.2	17.0	10.6	15.6	9.7	16.1	10.0
	R2	19.8	12.3	20.5	12.7	18.8	11.7	19.4	12.1
	R3	23.7	14.7	24.5	15.2	22.5	14.0	23.2	14.4
	R4	29.0	18.0	30.0	18.7	27.6	17.1	28.5	17.7
F	R1	22.2	13.8	23.0	14.3	22.4	13.9	23.1	14.4
	R2	26.7	16.6	27.6	17.2	26.9	16.7	27.8	17.3
	R3	30**	18.6**	30**	18.6**	30**	18.6**	30**	18.6**
	R4	30**	18.6**	30**	18.6**	30**	18.6**	30**	18.6**

* Speed limited to maximum design speed of 40 km/h (25 mph)

** Speed limited to maximum design speed of 30 km/h (18.6 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057DB-19-28AUG23

Travel Speeds—CommandQuad™ PLUS Transmission for 40 km/h (24/24) (Tires with SRI 800 and 825)

40 km/h (25 mph); rated engine speed 2100 rpm					
SRI in mm		**800**		**825**	
Range	Gear	km/h	mph	km/h	mph
A	1	1.7	1.1	1.7	1.1
	2	2.0	1.3	2.1	1.3
	3	2.4	1.5	2.5	1.6
	4	3.0	1.9	3.1	1.9
B	1	4.1	2.6	4.3	2.6
	2	5.0	3.1	5.1	3.2
	3	6.0	3.7	6.1	3.8
	4	7.3	4.5	7.5	4.7
C	1	6.7	4.2	7.0	4.3
	2	8.1	5.0	8.4	5.2
	3	9.7	6.0	10.0	6.2
	4	11.9	7.4	12.3	7.6
D	1	11.1	6.9	11.4	7.1
	2	13.3	8.3	13.7	8.5
	3	16.0	9.9	16.5	10.2
	4	19.5	12.1	20.2	12.5
E	1	18.0	11.2	18.5	11.5
	2	21.6	13.5	22.3	13.9
	3	25.9	16.1	26.7	16.6
	4	31.8	19.7	32.8	20.4
F	1	25.8	16.0	25.0	15.6
	2	31.1	19.3	30.1	18.7
	3	37.2	23.1	36.1	22.4
	4	40*	25*	40*	25*
A	R1	1.8	1.1	1.8	1.1
	R2	2.1	1.3	2.2	1.4
	R3	2.5	1.6	2.6	1.6
	R4	3.1	1.9	3.2	2.0
B	R1	4.3	2.7	4.4	2.8
	R2	5.2	3.2	5.4	3.3
	R3	6.2	3.9	6.4	4.0
	R4	7.6	4.7	7.9	4.9
C	R1	7.0	4.4	7.3	4.5
	R2	8.5	5.3	8.7	5.4
	R3	10.1	6.3	10.5	6.5
	R4	12.4	7.7	12.8	8.0
D	R1	11.5	7.2	11.9	7.4
	R2	13.9	8.6	14.3	8.9
	R3	16.6	10.3	17.2	10.7
	R4	20.4	12.7	21.0	13.1
E	R1	18.8	11.7	19.3	12.0
	R2	22.6	14.0	23.3	14.5
	R3	27.1	16.8	27.9	17.3
	R4	30**	18.6**	30**	18.6**
F	R1	26.9	16.7	26.1	16.2
	R2	32.4	20.1	31.4	19.5
	R3	30**	18.6**	30**	18.6**
	R4	30**	18.6**	30**	18.6**

* Speed limited to maximum design speed of 40 km/h (25 mph)

** Speed limited to maximum design speed of 30 km/h (18.6 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057DC-19-29AUG23

Travel Speeds—CommandQuad™ PLUS Transmission with Eco Shift™ for 40 km/h (24/24) (Tires with SRI 700, 725, 750, and 775)

40 km/h (25 mph); rated engine speed 2100 rpm									
SRI in mm		**7800**		**725**		**750**		**775**	
Range	Gear	km/h	mph	km/h	mph	km/h	mph	km/h	mph
A	1	1.8	1.1	1.8	1.1	1.9	1.2	2.0	1.2
	2	2.1	1.3	2.2	1.4	2.3	1.4	2.4	1.5
	3	2.6	1.6	2.7	1.7	2.7	1.7	2.8	1.8
	4	3.1	2.0	3.3	2.0	3.4	2.1	3.5	2.2
B	1	4.3	2.7	4.5	2.8	4.7	2.9	4.8	3.0
	2	5.2	3.2	5.4	3.4	5.6	3.5	5.8	3.6
	3	6.3	3.9	6.5	4.0	6.7	4.2	6.9	4.3
	4	7.7	4.8	7.9	4.9	8.2	5.1	8.5	5.3
C	1	7.1	4.4	7.3	4.6	7.6	4.7	7.8	4.9
	2	8.5	5.3	8.8	5.5	9.1	5.7	9.4	5.9
	3	10.2	6.3	10.6	6.6	10.9	6.8	11.3	7.0
	4	12.5	7.8	13.0	8.0	13.4	8.3	13.8	8.6
D	1	11.6	7.2	12.0	7.5	12.4	7.7	12.9	8.0
	2	14.0	8.7	14.5	9.0	15.0	9.3	15.5	9.6
	3	16.8	10.4	17.4	10.8	17.9	11.2	18.5	11.5
	4	20.5	12.8	21.3	13.2	22.0	13.7	22.7	14.1
E	1	18.9	11.7	19.6	12.1	20.2	12.6	20.9	13.0
	2	22.7	14.1	23.5	14.6	24.4	15.1	25.2	15.6
	3	27.2	16.9	28.2	17.5	29.2	18.1	30.1	18.7
	4	33.3	20.7	34.5	21.5	35.7	22.2	36.9	22.9
F	1	27.1	16.8	28.1	17.4	27.3	17.0	28.2	17.5
	2	32.6	20.3	33.8	21.0	32.9	20.4	34.0	21.1
	3	39.1	24.3	40*	25*	39.4	24.5	40*	25*
	4	40*	25*	40*	25*	40*	25*	40*	25*
A	R1	1.9	1.2	1.9	1.2	2.0	1.2	2.1	1.3
	R2	2.2	1.4	2.3	1.4	2.4	1.5	2.5	1.5
	R3	2.7	1.7	2.8	1.7	2.9	1.8	3.0	1.8
	R4	3.3	2.0	3.4	2.1	3.5	2.2	3.6	2.3
B	R1	4.5	2.8	4.7	2.9	4.9	3.0	5.0	3.1
	R2	5.5	3.4	5.6	3.5	5.8	3.6	6.0	3.8
	R3	6.5	4.1	6.8	4.2	7.0	4.3	7.2	4.5
	R4	8.0	5.0	8.3	5.2	8.6	5.3	8.9	5.5
C	R1	7.4	4.6	7.7	4.8	7.9	4.9	8.2	5.1
	R2	8.9	5.5	9.2	5.7	9.5	5.9	9.8	6.1
	R3	10.7	6.6	11.0	6.9	11.4	7.1	11.8	7.3
	R4	13.0	8.1	13.5	8.4	14.0	8.7	14.4	9.0
D	R1	12.1	7.5	12.6	7.8	13.0	8.1	13.4	8.3
	R2	14.6	9.1	15.1	9.4	15.6	9.7	16.2	10.0
	R3	17.5	10.9	18.1	11.3	18.7	11.6	19.4	12.0
	R4	21.4	13.3	22.2	13.8	22.9	14.3	23.7	14.7
E	R1	19.7	12.2	20.4	12.7	21.1	13.1	21.8	13.6
	R2	23.7	14.7	24.6	15.3	25.4	15.8	26.3	16.3

40 km/h (25 mph); rated engine speed 2100 rpm									
SRI in mm		7800		725		750		775	
	R3	28.4	17.7	29.4	18.3	30**	18.6**	30**	18.6**
	R4	30**	18.6**	30**	18.6**	30**	18.6**	30**	18.6**
F	R1	28.3	17.6	29.3	18.2	28.5	17.7	29.4	18.3
	R2	34.0	21.1	35.2	21.9	30**	18.6**	30**	18.6**
	R3	30**	18.6**	30**	18.6**	30**	18.6**	30**	18.6**
	R4	30**	18.6**	30**	18.6**	30**	18.6**	30**	18.6**

* Speed limited to maximum design speed of 40 km/h (25 mph)

** Speed limited to maximum design speed of 30 km/h (18.6 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057DD-19-28AUG23

Travel Speeds—CommandQuad™ PLUS Transmission with Eco Shift™ for 40 km/h (24/24) (Tires with SRI 800 and 825)

40 km/h (25 mph); rated engine speed 2100 rpm					
SRI in mm		800		825	
Range	Gear	km/h	mph	km/h	mph
A	1	1.8	1.1	1.8	1.1
	2	2.2	1.3	2.2	1.4
	3	2.6	1.6	2.7	1.7
	4	3.2	2.0	3.3	2.0
B	1	4.4	2.7	4.5	2.8
	2	5.3	3.3	5.4	3.4
	3	6.3	3.9	6.5	4.0
	4	7.7	4.8	7.9	4.9
C	1	7.1	4.4	7.3	4.6
	2	8.6	5.3	8.8	5.5
	3	10.3	6.4	10.6	6.6
	4	12.6	7.8	13.0	8.1
D	1	11.7	7.3	12.0	7.5
	2	14.1	8.7	14.5	9.0
	3	16.8	10.5	17.4	10.8
	4	20.6	12.8	21.3	13.2
E	1	19.0	11.8	19.6	12.2
	2	22.8	14.2	23.6	14.6
	3	27.4	17.0	28.2	17.5
	4	33.5	20.8	34.6	21.5
F	1	27.2	16.9	28.1	17.4
	2	32.8	20.4	33.8	21.0
	3	39.2	24.4	40*	25*
	4	40*	25*	40*	25*
A	R1	1.9	1.2	1.9	1.2
	R2	2.2	1.4	2.3	1.4
	R3	2.7	1.7	2.8	1.7
	R4	3.3	2.0	3.4	2.1
B	R1	4.6	2.8	4.7	2.9
	R2	5.5	3.4	5.7	3.5
	R3	6.6	4.1	6.8	4.2
	R4	8.0	5.0	8.3	5.2

40 km/h (25 mph); rated engine speed 2100 rpm					
SRI in mm		**800**		**825**	
Range	**Gear**	**km/h**	**mph**	**km/h**	**mph**
C	R1	7.4	4.6	7.7	4.8
	R2	8.9	5.6	9.2	5.7
	R3	10.7	6.7	11.0	6.9
	R4	13.1	8.1	13.5	8.4
D	R1	12.2	7.6	12.6	7.8
	R2	14.7	9.1	15.1	9.4
	R3	17.6	10.9	18.1	11.3
	R4	21.5	13.4	22.2	13.8
E	R1	19.8	12.3	20.4	12.7
	R2	23.8	14.8	24.6	15.3
	R3	28.5	17.7	29.4	18.3
	R4	35.0	21.7	36.1	22.4
F	R1	28.4	17.6	29.3	18.2
	R2	34.2	21.2	35.3	21.9
	R3	40*	25*	40*	25*
	R4	40*	25*	40*	25*

40 km/h (25 mph); rated engine speed 2100 rpm					
SRI in mm		**800**		**825**	
Range	**Gear**	**km/h**	**mph**	**km/h**	**mph**
A	1	1.8	1.1	1.9	1.2
	2	2.2	1.4	2.2	1.4
	3	2.7	1.7	2.7	1.7
	4	3.3	2.0	3.3	2.0
B	1	4.5	2.8	4.5	2.8
	2	5.4	3.4	5.4	3.4
	3	6.5	4.0	6.5	4.1
	4	7.9	4.9	8.0	5.0
C	1	7.3	4.6	7.4	4.6
	2	8.8	5.5	8.9	5.5
	3	10.6	6.6	10.6	6.6
	4	13.0	8.1	13.0	8.1
D	1	12.0	7.5	12.1	7.5
	2	14.5	9.0	14.6	9.1
	3	17.4	10.8	17.5	10.8
	4	21.3	13.2	21.4	13.3
E	1	19.6	12.2	19.7	12.2
	2	23.6	14.6	23.7	14.7
	3	28.2	17.5	28.4	17.6
	4	34.6	21.5	34.7	21.6
F	1	28.1	17.4	28.2	17.5
	2	33.8	21.0	34.0	21.1
	3	40*	25*	40*	25*
	4	40*	25*	40*	25*
A	R1	1.9	1.2	1.9	1.2
	R2	2.3	1.4	2.3	1.4
	R3	2.8	1.7	2.8	1.7
	R4	3.4	2.1	3.4	2.1

40 km/h (25 mph); rated engine speed 2100 rpm					
SRI in mm		**800**		**825**	
Range	**Gear**	**km/h**	**mph**	**km/h**	**mph**
B	R1	4.7	2.9	4.7	2.9
	R2	5.7	3.5	5.7	3.5
	R3	6.8	4.2	6.8	4.2
	R4	8.3	5.2	8.3	5.2
C	R1	7.7	4.8	7.7	4.8
	R2	9.2	5.7	9.3	5.8
	R3	11.0	6.9	11.1	6.9
	R4	13.5	8.4	13.6	8.4
D	R1	12.6	7.8	12.6	7.8
	R2	15.1	9.4	15.2	9.4
	R3	18.1	11.3	18.2	11.3
	R4	22.2	13.8	22.3	13.9
E	R1	20.4	12.7	20.5	12.7
	R2	24.6	15.3	24.7	15.4
	R3	29.4	18.3	29.6	18.4
	R4	30**	18.6**	30**	18.6**
F	R1	29.3	18.2	29.4	18.3
	R2	30**	18.6**	30**	18.6**
	R3	30**	18.6**	30**	18.6**
	R4	30**	18.6**	30**	18.6**

* Speed limited to maximum design speed of 40 km/h (25 mph)

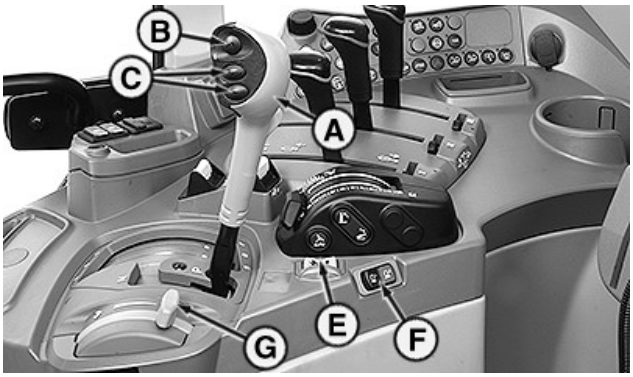
** Speed limited to maximum design speed of 30 km/h (18.6 mph)

Limited speeds are reached at engine speeds lower than 2100 rpm.

OULXA64,SP,4CYL,00057DE-19-29AUG23

PowrQuad™ PLUS Transmission—Controls

CAUTION: If the engine is running and a range has been selected, actuating the reverse drive lever will cause the tractor to start moving.



LX364210—UN—18JAN19

Range-Shift Lever and Gearshift

A—Range-Shift Lever
B—Clutch Button
C—Gearshift Buttons
E—Gearshift (additional)
F—Engine Set Speed 1/2
G—Hand Throttle



LX364211—UN—18JAN19

H—Reverse Drive Lever

For additional settings, see section 50F:

- PowrQuad™ PLUS Transmission, Menu
- Symbols in the Transmission Menu
- PowrQuad™ PLUS Transmission, PowrReverser™
- PowrQuad™ PLUS Transmission, Reverse/Forward Ratio
- PowrQuad™ PLUS Transmission, Backup Alarm

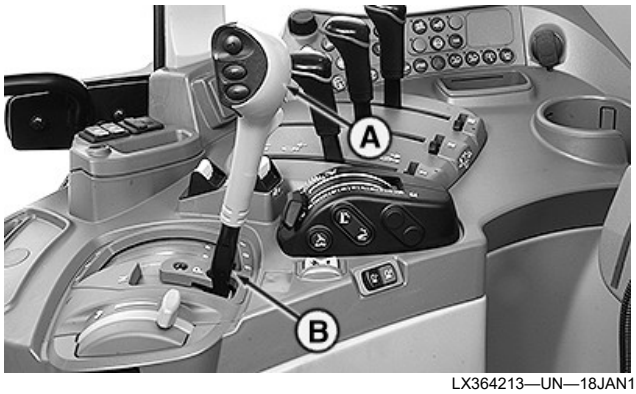
OULXA64,6M,00055E1-19-28AUG23

PowrQuad™ PLUS Transmission—Park Lock

IMPORTANT: Avoid damage to the transmission.

Incorrect operation can result in high loads on the transmission, which can lead to material damage.

Engage park lock only when the tractor is stationary.



LX364213—UN—18JAN19

Lever position (B) - park lock engaged

- Prevents the tractor from rolling away.
- Used for work with standing (stationary) tractor.

To park the tractor, proceed as follows:

1. Bring the tractor to a standstill.
2. Switch the direction of travel to Neutral.
3. Move the range-shift lever (A) to the lever position (B) shown and hold it there until the park lock is engaged.

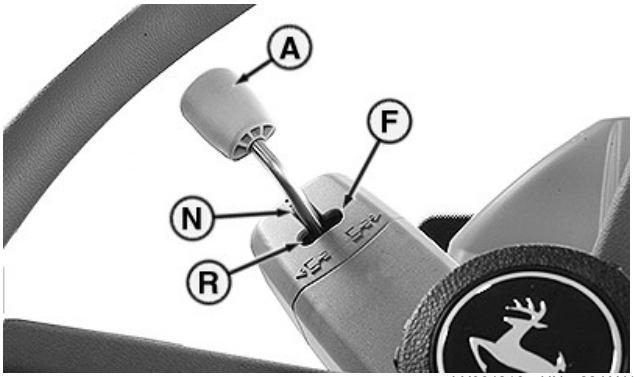
When the park lock is engaged, no direction of travel (N/F/R) is indicated on the corner post display.

OULXA64,6M,00055E2-19-28AUG23

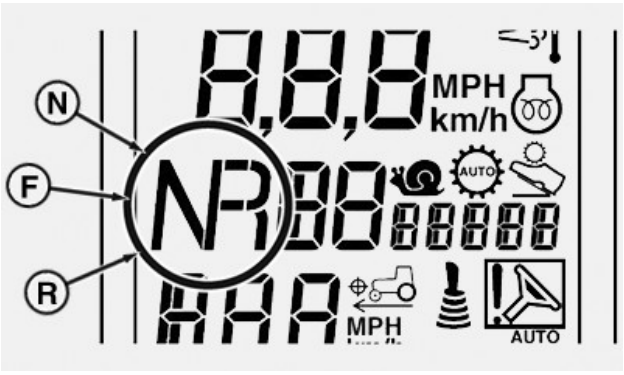
PowrQuad™ PLUS Transmission—Reverse Drive Lever

IMPORTANT: Only the shown shifting positions are permitted. Manually forced intermediate positions may result in malfunctions.

To change the direction of travel, the clutch does not need to be operated.



LX364216—UN—22JAN19



LX364217—UN—23JAN19

Direction Of Travel Display

When the reverse drive lever (A) is brought to a shift position and released, it automatically returns to the center position shown. The selected direction of travel is activated and the tractor starts moving promptly when a range is engaged.

The direction of travel remains active until one of the following situations occurs:

- Another direction of travel is selected.
- The shift position (N) is selected.
- The park lock is engaged.
- The engine is switched OFF.

When starting the engine, no travel direction is commanded. The transmission is automatically set to neutral and the wheels are not driven.

Operating positions:

(N) - Neutral

The direction of travel is set to neutral and the drive wheels are not driven. ***N*** appears on the corner post display.

(F) - Forward drive

Driving forward is activated and the drive wheels are driven. ***F*** appears on the corner post display.

(R) - Reverse drive

Driving reverse is activated and the drive wheels are driven. ***R*** appears on the corner post display.

Proceed as follows to drive the tractor:

1. Actuate clutch.
2. Use range-shift lever to select a range.
3. Command the desired direction of travel with the reverse drive lever.

   The electrical joystick of the front loader can also be used to change the direction of travel. See Electrical Joystick—Controls in section 70D.
4. Start driving by releasing the clutch.

If the neutral shift position is activated, the tractor will coast down.



LX364209—UN—22JAN19

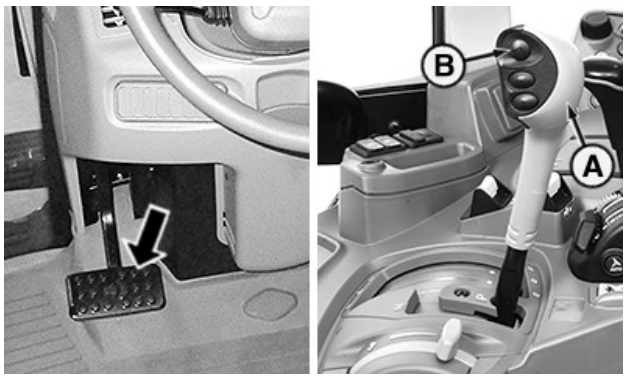
If, when stopping the tractor, the range-shift lever is placed in the shift gate (A) for Neutral, note the following:

1. The selected direction of travel remains active.
2. The tractor coasts down.
3. When a range is engaged, the tractor immediately moves in the selected direction of travel.

OULXA64,6M,00055E3-19-29AUG23

PowrQuad™ PLUS Transmission—Range-Shift Lever

To shift gears, do not use the clutch pedal or the clutch button (B).



LX364222—UN—23JAN19

A—Range-Shift Lever
B—Clutch Button

To shift the ranges, the clutch pedal or the clutch button needs to be pressed. Each range comprises four gears.

Depending on the transmission, the following ranges are available:

- 16/16 transmission, 4 ranges from A to D
- 20/20 transmission, 5 ranges from A to E
- 24/24 transmission, 6 ranges from A to F

Each range covers a certain speed range and is designed for certain work:

- **Range A:** For primary tillage.
- **Range B:** For secondary tillage with rear PTO, loader, and spraying work.
- **Range C:** For loader and spraying work, seeding, mowing, fertilizing, and transport work in the field.
- **Ranges D, E, and F:** For transport work.

NOTE: For ground speeds, see section 50D.

To start, proceed as follows:

1. Actuate clutch.
2. Use range-shift lever (A) to select a range.
3. Activate the direction of travel with the reverse drive lever.
4. Start driving by releasing the clutch.



LX364209—UN—22JAN19

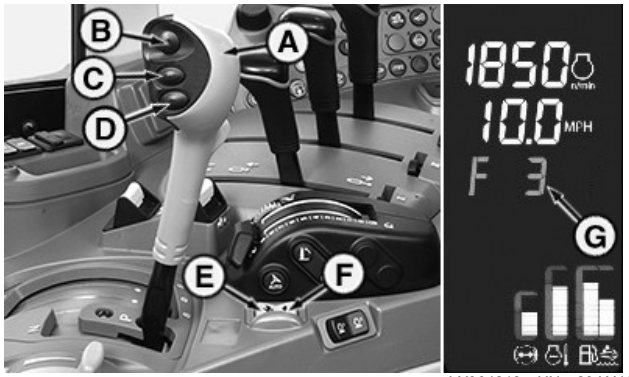
If, when stopping the tractor, the range-shift lever is placed in shift gate (A) for Neutral, note the following:

1. The selected direction of travel remains active.
2. The tractor coasts down.
3. When a range is engaged, the tractor immediately moves in the activated direction of travel.

OULXA64,6M,00055E4-19-28AUG23

PowrQuad™ PLUS Transmission—Gearshift Buttons

To shift gears, do not use the clutch pedal or the clutch button (B).



LX364218—UN—29JAN19

A—Range-Shift Lever
B—Clutch Button
C—Gearshift Button, Upshift
D—Gearshift Button, Downshift
E—Gearshift, Upshift
F—Gearshift, Downshift
G—Selected Gear

The gears can be shifted up or down by the gearshift button (C) or (D) or by the shift position (E) or (F). *The selected gear (G) is displayed on the corner post display*.

On tractors with joystick, the gears can be shifted up and down using gearshift buttons UP ▲ and DOWN ▼.



LX514878—UN—26JUL22

Mechanical Joystick /Electrical Joystick Version 1 and Version 2

Optimal shifting for low-load transportation:

1. Select a range suitable for driving under load.
2. Engage the first gear.
3. Drive and shift up through the ranges until the top range is reached.
4. Shift up through the gears.

Optimal shifting for high-load transport:

1. Select a range suitable for driving under load.
2. Engage the first gear.
3. Drive and shift up through the gears until the top gear is reached.
4. Select the next range; speed matching automatically selects the gear that corresponds to ground speed.

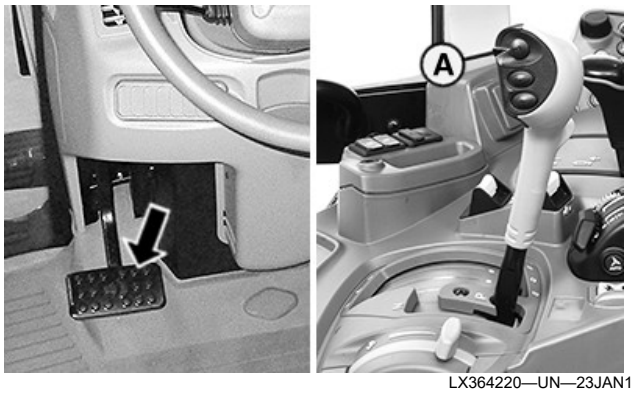
5. Shift up through the gears and change ranges until desired ground speed is obtained.

Restriction in the event of a missing speed signal

If the control unit notices that the speed signal is missing, then only the first three gears in each range are available.

OULXA64,6M,00055E5-19-28AUG23

PowrQuad™ PLUS Transmission—Clutch Pedal and Clutch Button



LX364220—UN—23JAN19

Press the clutch pedal or press clutch button (A).

► The clutch disengages and the ranges can be shifted or the tractor can be stopped.

Release the clutch pedal or clutch button (A).

► The clutch is engaged with modulation and power is transmitted to the rear wheels.

On tractors equipped with a seat switch (operator presence switch), the following applies:

The tractor does not start moving if within the last 3 seconds before releasing the clutch button:

- If there was no load on the operator's seat.
- If the clutch or brake pedal has not been actuated.

Observe the message on the information display.

To set the tractor in motion:

1. Activate Neutral with the reverse drive lever.
2. Activate desired direction of travel.

NOTE: The clutch button is not suitable for creeping the tractor up to an implement or similar.

With the address TIQ167, the clutch button can be activated or deactivated. See Entering Diagnostic Addresses (Customer Level) in section 300B.

OULXA64,6M,00055E6-19-28AUG23

PowrQuad™ PLUS Transmission—Speed Control Pedal and Hand Throttle



LX364248—UN—29JAN19

A—Speed Control Pedal
B—Hand Throttle

Speed is controlled by speed control pedal and hand throttle. The signal used for control is always the signal that commands the higher engine speed.

The engine speed can be set with the hand throttle to a certain value.

If the speed control pedal or hand throttle is moved to command a higher engine speed, engine speed increases.

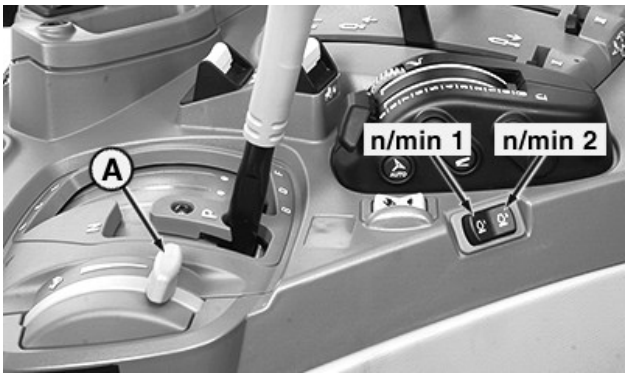
If forward or reverse travel is active, the ground speed can be regulated with the speed control pedal or hand throttle. The current ground speed of the vehicle depends directly on the position of the speed control pedal or hand throttle.

OULXA64,6M,00055E7-19-28AUG23

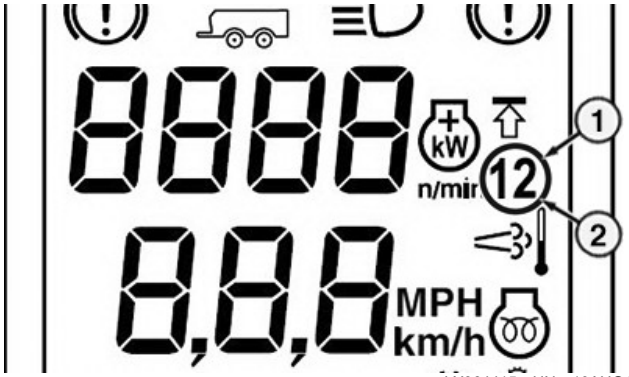
PowrQuad™ PLUS Transmission—Engine Set Speed

The engine set speed provides constant minimum engine speed. With the engine set speed activated, the engine speed can be increased by operating the hand throttle or the speed control pedal.

Adjust the engine speed using hand throttle (A) or the speed control pedal.



LX364224—UN—23JAN19



LX364415—UN—19AUG19

- **n/min 1**, engine set speed 1
  Used to activate, deactivate, or store an engine speed, which is set automatically after activation.
- **n/min 2**, engine set speed 2
  Used to activate, deactivate, or store an engine speed, which is set automatically after activation.

Indicator lights:
The activated engine speed memory is displayed as shown.

Set and save engine speeds:
To save, set the engine speed with the hand throttle or speed control pedal and press **n/min 1** or **n/min 2** until a beep is heard.

Engine set speed 1 or 2 can also be set via the engine menu. See Engine Menu in section 20.

Enable or disable engine set speed n/min 1 or n/min 2:
After pressing one of the set speed buttons, the engine speed will change automatically to the related setting. The engine control unit ensures that engine speed remains constant. The corner post display shows the selected engine set speed.

Pressing the button again deactivates the engine set speed. The engine speed adjusts to the engine speed given by the speed control pedal or the hand throttle.

NOTE: Activating the engine set speed switches the transmission to manual mode. The engine set speed is only available when the transmission is in manual mode or when the direction of travel is set to neutral. When switching to automatic mode, the engine set speed is deactivated.

OULXA64,6M,00055E8-19-28AUG23

PowrQuad™ PLUS Transmission—Cold-Weather Operation



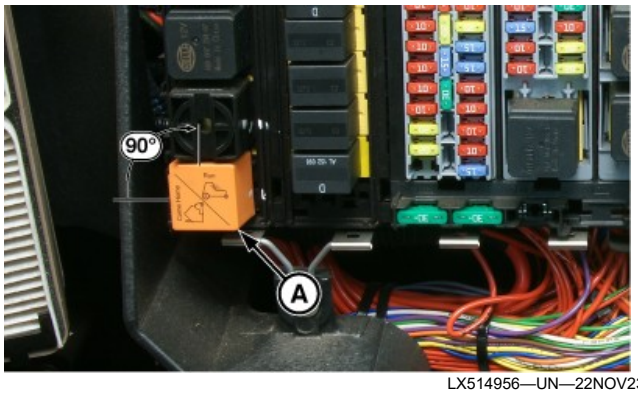
LX374427—UN—05JUN19

Cold oil with a temperature below 0°C (32°F) can influence the switching with the reverse drive lever. At temperatures below -10°C (14°F), it may take longer to change the direction of travel. Below +5°C (41°F), the automatic adjustment of the engine speed is deactivated.

In certain circumstances, the reverse drive lever may have to be actuated several times before the tractor starts to move. When the oil has had time to warm up, operation becomes normal again.

OULXA64,6M,00055E9-19-28AUG23

PowrQuad™ PLUS Transmission—Come-Home Mode



LX514956—UN—22NOV23

Connector Rotated 90° Clockwise

A—Connector

If there is an electrical fault in the transmission, the tractor can possibly still be driven in come-home mode.

To do this, stop the engine, remove connector (A) (fuse/relay box), rotate it 90° to the right and reinsert it.

The wording *Come Home* must be at the top. Then restart the engine.

Refer also to fuses and relays (LCS) and (FRM) in section 220B.

NOTE: In come-home mode:

1. *Engine speed is limited to 1500 rpm.*
2. *Depending on the software version, only the first or the third gear is available in each range.*
3. *The clutch button is disabled.*
4. *Changing direction is possible only when the machine is stopped and the clutch pedal is pressed.*

To start, proceed as follows:

1. Follow the instructions on the information display.
2. Press the clutch pedal and hold it down.
3. Select the desired range.
4. Select the direction of travel with the driving direction lever.
5. Start by releasing the clutch pedal.

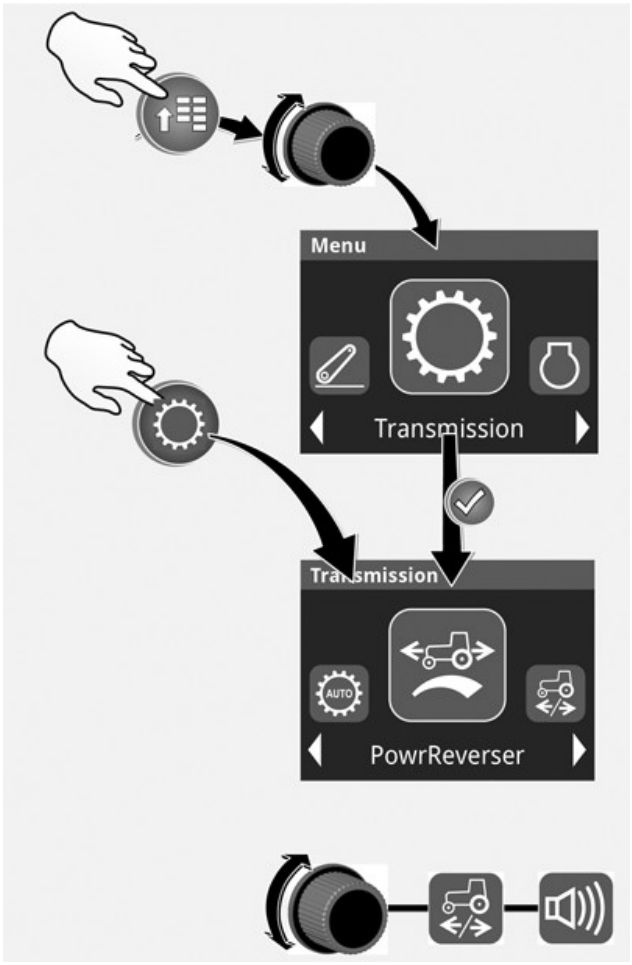
OULXA64,6M,00055EA-19-22SEP23

PowrQuad™ PLUS Transmission—Towing the Tractor

If the tractor needs to be towed, see Towing the Tractor in section 110.

oulxa64,6M,1690953288607-19-28AUG23

PowrQuad™ PLUS Transmission—Menu

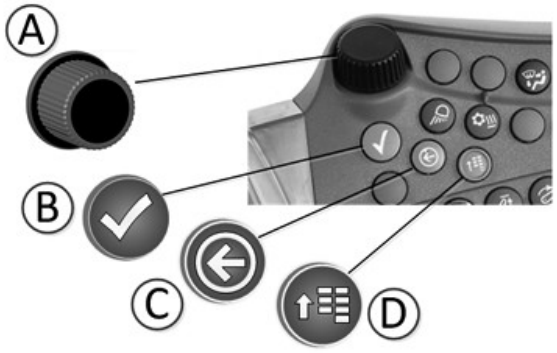


LX386851—UN—19AUG19

There are two ways to access the Transmission menu:

- Call up Transmission menu with the Transmission button.
- Navigate to the Transmission menu via the main menu.

Basic controls for navigating and setting:



LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back

D—Access Main Menu

OULXA64,6M,00055EB-19-28AUG23

Symbols in the Transmission Menu



RXA0152950—UN—21JUL16

PowrReverser™ Selection



RXA0152953—UN—21JUL16

Rev/Fwd Ratio Selection

OULXA64,6M,00055EC-19-11SEP20

PowrQuad™ PLUS Transmission—PowrReverser™



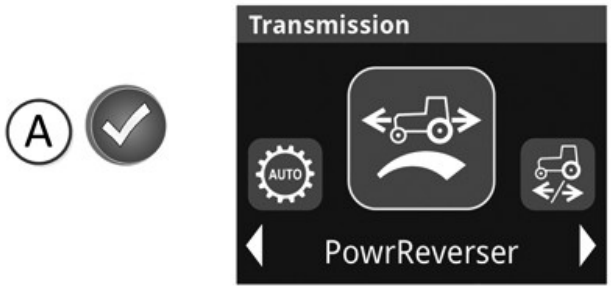
RXA0152950—UN—21JUL16

PowrReverser™ Icon

PowrReverser™ modulation sets aggressiveness of change in direction. Modulation can be set 1—10.

The 1 setting is the least aggressive and is used in applications where a smooth change of direction is required. Setting “10” is the most aggressive and is used in high productivity applications where quick direction changes are required.

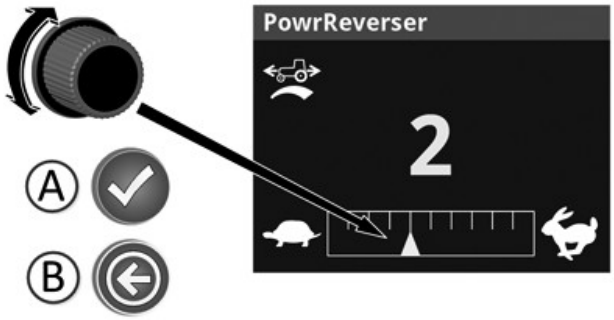
1. Access PowrReverser™ in the Transmission menu, see PowrQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361251—UN—19DEC18

A—Confirm

3. Set the aggressiveness of the direction change and confirm with (A). 1 is less aggressive; 10 is aggressive.



LX361252—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,00055ED-19-28AUG23

PowrQuad™ PLUS Transmission—Reverse/Forward Ratio

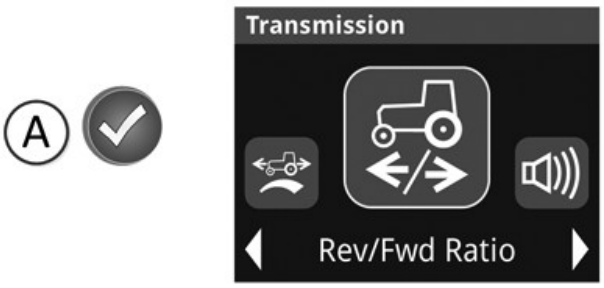


RXA0152953—UN—21JUL16

Rev/Fwd Ratio Icon

When changing direction from forward to reverse, an automatic gear change to a higher or lower gear can be selected. An automatic gear change favors driving maneuvers, such as those occurring during front loader work.

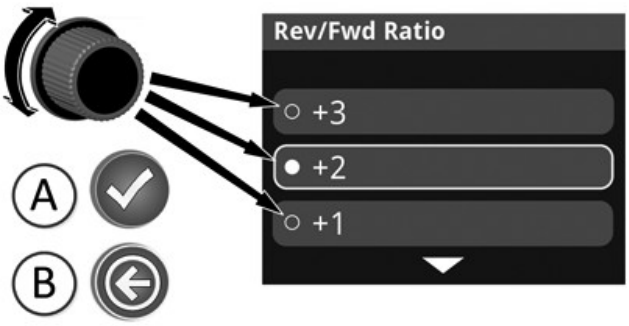
1. Access forward/reverse ratio in the Transmission menu, see PowrQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361270—UN—19DEC18

A—Confirm

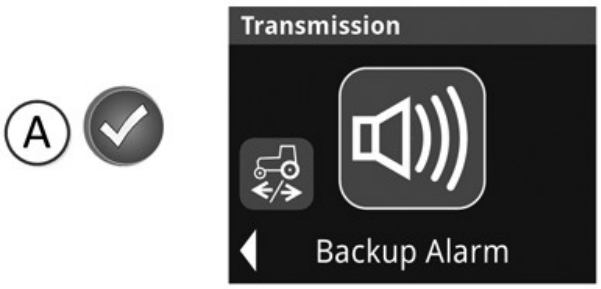
3. Select the number of gears to be shifted automatically and confirm with (A). *The selections +1, +2, and so on mean the number of gears that are shifted up or down during a change of direction to reverse.*



LX361271—UN—19DEC18

A—Confirm
B—Back

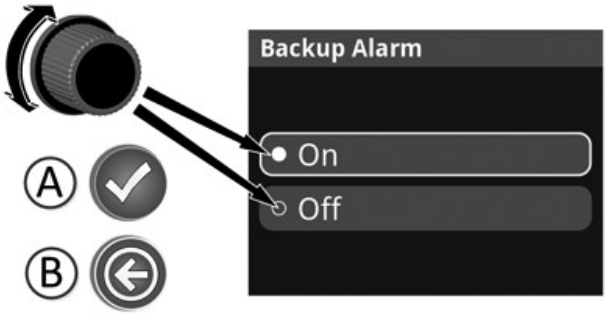
OULXA64,6M,00055EE-19-28AUG23



LX361272—UN—19DEC18

A—Confirm

3. Switch the backup alarm ON or OFF and confirm with (A).



LX361269—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,00055EF-19-28AUG23

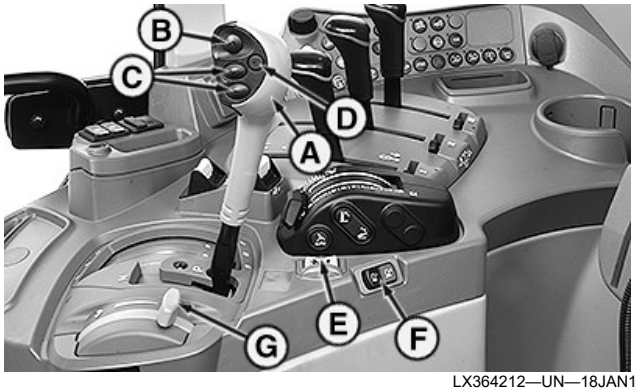
PowrQuad™ PLUS Transmission—Backup Alarm

Use of the backup alarm serves to prevent accidents and may be required by regional legislation. When the backup alarm is activated, an audible warning signal sounds when the direction of travel is commanded to reverse. The warning signal alerts people in the area to the face that the tractor is driving in reverse.

1. Access Backup Alarm in the Transmission menu, see PowrQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).

AutoQuad™ PLUS Transmission—Controls

CAUTION: If the engine is running and a range has been selected, actuating the reverse drive lever will cause the tractor to start moving.



LX364212—UN—18JAN19

Range-Shift Lever and Gear Switch

A—Range-Shift Lever
B—Clutch Button
C—Gearshift Buttons
D—Automatic Gear Shifting Button
E—Gear Switch (additional)
F—Engine Set Speed 1/2
G—Hand Throttle



LX364211—UN—18JAN19

H—Reverse Drive Lever

For additional settings, see section 50G:

- AutoQuad™ PLUS Transmission, Menu
- Symbols in the Transmission Menu
- AutoQuad™ PLUS Transmission, Transmission Mode
- AutoQuad™ PLUS Transmission, PowrReverser™
- AutoQuad™ PLUS Transmission, Reverse/Forward Ratio
- AutoQuad™ PLUS Transmission, Backup Alarm

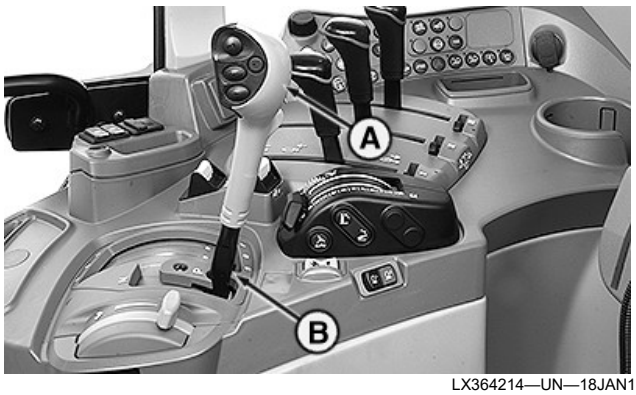
OULXA64,6M,00055F0-19-28AUG23

AutoQuad™ PLUS Transmission—Park Lock

IMPORTANT: Avoid damage to the transmission.

Incorrect operation can result in high loads on the transmission, which can lead to material damage.

Engage park lock only when the tractor is stationary.



LX364214—UN—18JAN19

Lever position (B) - park lock engaged

- Prevents the tractor from rolling away.
- Used for work with standing (stationary) tractor.

To park the tractor, proceed as follows:

1. Bring the tractor to a standstill.
2. Switch the direction of travel to Neutral.
3. Move the range-shift lever (A) to the lever position (B) shown and hold it there until the park lock is engaged.

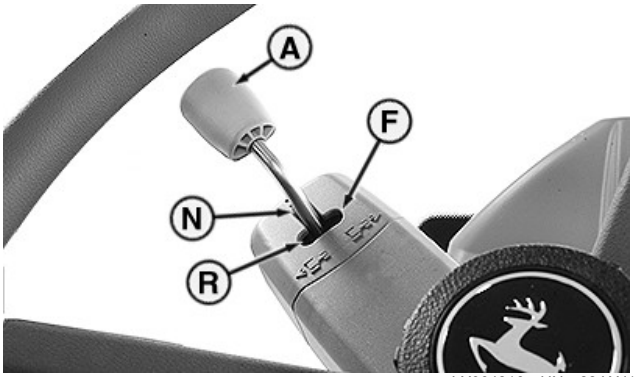
When the park lock is engaged, no direction of travel (N/F/R) is indicated on the corner post display.

OULXA64,6M,00055F1-19-28AUG23

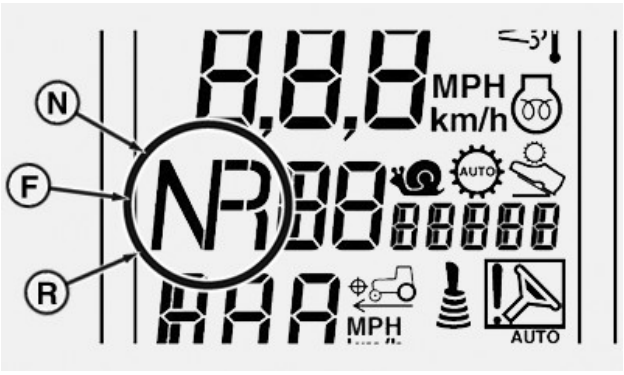
AutoQuad™ PLUS Transmission—Reverse Drive Lever

IMPORTANT: Only the shown switching positions are permitted. Manually forced intermediate positions may result in malfunctions.

To change the direction of travel, the clutch does not need to be operated.



LX364216—UN—22JAN19



LX364217—UN—23JAN19

Direction Of Travel Display

When the reverse drive lever (A) is brought to a shift position and released, it automatically returns to the center position shown. The selected direction of travel is activated and the tractor starts moving promptly when a range is engaged.

The direction of travel remains active until one of the following situations occurs:

- Another direction of travel is selected.
- The switch position (N) is selected.
- The park lock is engaged.
- The engine is switched OFF.

When starting the engine, no travel direction is commanded. The transmission is automatically set to neutral and the wheels are not driven.

Operating positions:

(N) - Neutral

The direction of travel is set to neutral and the wheels are not driven. ***N*** appears on the corner post display.

(F) - Forward drive

Driving forward is activated and the wheels are driven. ***F*** appears on the corner post display.

(R) - Reverse drive

Driving reverse is activated and the wheels are driven. ***R*** appears on the corner post display.

Proceed as follows to drive the tractor:

1. Actuate clutch.
2. Use range-shift lever to select a range.
3. Command the desired direction of travel with the reverse drive lever.

   The electrical joystick of the front loader can also be used (if equipped). See Electrical Joystick—Controls in section 70D.
4. Start driving by releasing the clutch.

If the neutral shift position is activated, the tractor will coast down.



LX364209—UN—22JAN19

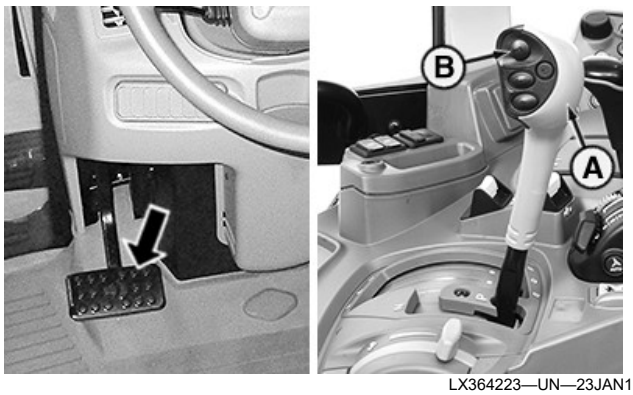
If, when stopping the tractor, the range-shift lever is placed in the shift gate (A) for Neutral, note the following:

1. The selected direction of travel remains active.
2. The tractor coasts down.
3. When a range is engaged, the tractor immediately moves in the selected direction.

OULXA64,6M,00055F2-19-29AUG23

AutoQuad™ PLUS Transmission—Range-Shift Lever

To shift gears, do not use the clutch pedal or the clutch button (B).



LX364223—UN—23JAN19

A—Range-Shift Lever
B—Clutch Button

To shift the ranges, the clutch pedal or the clutch button needs to be pressed. Each range comprises four gears.

Depending on the transmission, the following ranges are available:

- 16/16 transmission, 4 ranges from A to D
- 20/20 transmission, 5 ranges from A to E
- 24/24 transmission, 6 ranges from A to F

Each range covers a certain speed range and is designed for certain work:

- **Range A:** For primary tillage.
- **Range B:** For secondary tillage with rear PTO, loader, and spraying work.
- **Range C:** For loader and spraying work, seeding, mowing, fertilizing, and transport work in the field.
- **Ranges D, E, and F:** For transport work.

NOTE: For ground speeds, see section 50D.

To start, proceed as follows:

1. Actuate clutch.
2. Use range-shift lever (A) to select a range.
3. Activate the direction of travel with the reverse drive lever.
4. Start driving by releasing the clutch.



LX364209—UN—22JAN19

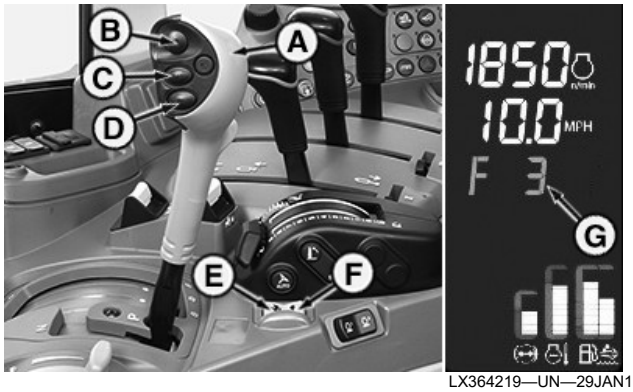
If, when stopping the tractor, the range-shift lever is placed in the shift gate (A) for Neutral, note the following:

1. The selected direction of travel remains active.
2. The tractor coasts down.
3. When a range is engaged, the tractor immediately moves in the selected direction.

OULXA64,6M,00055F3-19-28AUG23

AutoQuad™ PLUS Transmission—Gearshift Buttons

To shift gears, do not use the clutch pedal or the clutch button (B).



LX364219—UN—29JAN19

A—Range-Shift Lever
B—Clutch Button
C—Gearshift Button, Upshift
D—Gearshift Button, Downshift
E—Gear Shift, Upshift
F—Gear Shift, Downshift
G—Selected Gear

The gears can be shifted up or down by gearshift button (C) or (D) or by shift position (E) or (F). *The selected gear (G) is displayed on the corner post display.*

On tractors with joystick, the gears can be shifted up and down using gearshift buttons UP ▲ and DOWN ▼.



LX514878—UN—26JUL22

Mechanical Joystick/Electrical Joystick Version 1 and Version 2

Optimal shifting for low-load transportation:

1. Select a range suitable for driving under load.
2. Engage the first gear.
3. Drive and shift up through the ranges until the top range is reached.
4. Shift up through the gears.

Optimal shifting for high-load transport:

1. Select a range suitable for driving under load.
2. Engage the first gear.

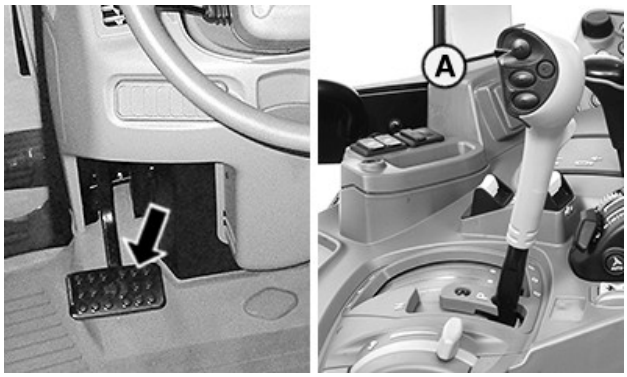
3. Drive and shift up through the gears until the top gear is reached.
4. Select the next range; speed matching automatically selects the gear that corresponds to ground speed.
5. Shift up through the gears and change ranges until desired ground speed is obtained.

Restriction in the event of a missing speed signal

If the control unit notices that the speed signal is missing, then only the first three gears in each range are available.

OULXA64,6M,00055F4-19-28AUG23

AutoQuad™ PLUS Transmission—Clutch Pedal and Clutch Button



LX364221—UN—23JAN19

Press the clutch pedal or press clutch button (A).

► The clutch disengages and the ranges can be shifted or the tractor can be stopped.

Release the clutch pedal or clutch button (A).

► The clutch is engaged with modulation and power is transmitted to the rear wheels.

On tractors equipped with a seat switch (operator presence switch), the following applies:

The tractor does not start moving if within the last 3 seconds before releasing the clutch button:

- No load on the operator's seat.
- The clutch or brake pedal has not been actuated.

Observe the message on the information display.

To set the tractor in motion:

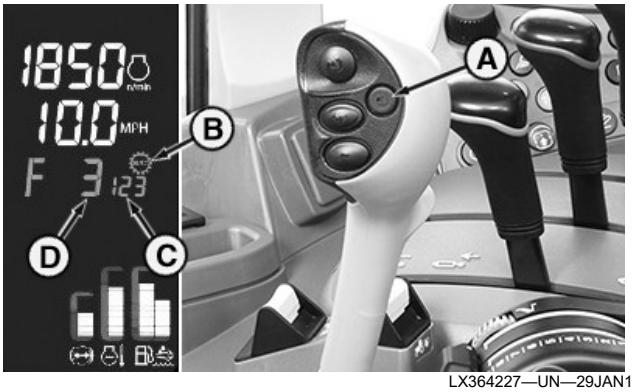
1. Activate Neutral with the reverse drive lever.
2. Activate desired direction of travel.

NOTE: The clutch button is not suitable for creeping the tractor up to an implement or similar.

With the address TIQ167, the clutch button can be activated or deactivated. See Entering Diagnostic Addresses (Customer Level) in section 300B.

OULXA64,6M,00055F5-19-28AUG23

AutoQuad™ PLUS Transmission—Automatic Gear Shifting



LX364227—UN—29JAN19

A—Automatic Button
B—Symbol, Automatic Gear Shifting
C—Available Gears
D—Selected Gear

Automatic shifting is activated by pressing button (A) once. The corner post display shows the Symbol (B), the available gears (C), and the currently selected gear (D).

When the engine speed reaches an upper or lower threshold, the available gears (C) are automatically upshifted or downshifted. The timing of the shift depends on the selected operating mode.

The following operating modes can be set:

- **Economy mode**
- **Power mode**
- **Intermediate settings**

See AutoQuad™ PLUS Transmission, Transmission Mode in this section.

IMPORTANT: Economy mode is suitable ONLY for light work in the field and for driving on roads when the load being pulled is not heavy.

The automatic shifting function can be disabled by pressing button (A) once again or by selecting a gear manually.

OULXA64,6M,00055F6-19-28AUG23

AutoQuad™ PLUS Transmission—Speed Control Pedal and Hand Throttle



LX364248—UN—29JAN19

A—Speed Control Pedal
B—Hand Throttle

Speed is controlled by speed control pedal and hand throttle. The signal used for control is always the signal that commands the higher engine speed.

The engine speed can be set with the hand throttle to a certain value.

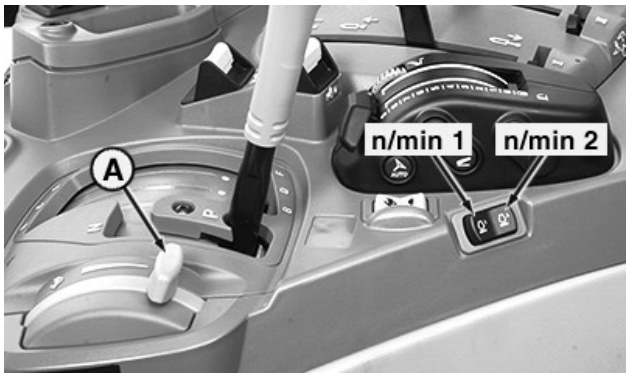
If the speed control pedal or hand throttle is moved to command a higher engine speed, engine speed increases.

If forward or reverse travel is active, the ground speed can be regulated with the speed control pedal or hand throttle. The current ground speed of the vehicle depends directly on the position of the speed control pedal or hand throttle.

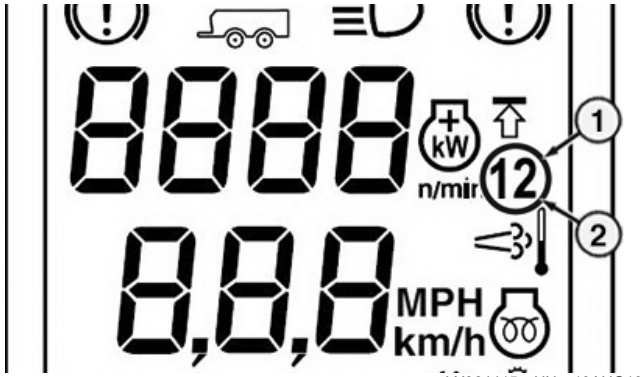
OULXA64,6M,00055F7-19-28AUG23

AutoQuad™ PLUS Transmission—Engine Set Speed

Adjust the engine speed using hand throttle (A) or the speed control pedal.



LX364224—UN—23JAN19



LX364415—UN—19AUG19

- **n/min 1**, engine set speed 1
  Used to activate, deactivate, or store an engine speed, which is set automatically after activation.
- **n/min 2**, engine set speed 2
  Used to activate, deactivate, or store an engine speed, which is set automatically after activation.

Indicator lights:
The activated engine speed memory is displayed as shown.

Set and save engine speeds:
To store, set the engine speed with the hand throttle or speed control pedal and press **n/min 1** or **n/min 2** until a beep is heard.

Engine set speed 1 or 2 can also be set via the engine menu. See Engine Menu in section 20.

Enable or disable engine set speed n/min 1 or n/min 2:
After pressing one of the buttons, engine speed will be set to the stored value automatically. Engine control ensures that engine speed remains constant. The corner post display shows the selected engine set speed.

Pressing the button again deactivates the engine set speed. The engine speed adjusts to the engine speed given by the speed control pedal or the hand throttle.

NOTE: While an engine set speed is active, hand throttle and speed control pedal can temporarily increase the engine speed above the engine set speed value.

NOTE: Activating the engine set speed switches the transmission to manual mode. The engine set speed is only available when the transmission is in manual mode or if the transmission is set to neutral. When switching to automatic mode, the set speed is deactivated.

OULXA64,6M,00055F8-19-28AUG23

AutoQuad™ PLUS Transmission—Cold-Weather Operation



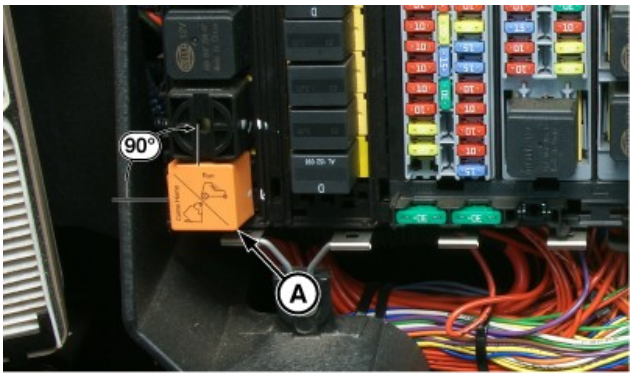
LX374427—UN—05JUN19

Cold oil with a temperature below 0°C (32°F) can influence the switching with the reverse drive lever. At temperatures below -10°C (14°F), it may take longer to change the direction of travel. Below +5°C (41°F), the automatic adjustment of the engine speed is deactivated.

In certain circumstances, the reverse drive lever may have to be actuated several times before the tractor starts to move. When the oil has had time to warm up, operation becomes normal again.

OULXA64,6M,00055F9-19-28AUG23

AutoQuad™ PLUS Transmission—Come-Home Mode



LX514956—UN—22NOV23

Connector Rotated 90° Clockwise

A—Connector

If there is an electrical fault in the transmission, the tractor can possibly still be driven in come-home mode.

To do this, stop the engine, remove connector (A) (fuse/relay box), rotate it 90° to the right and reinsert it.

The wording *Come Home* must be at the top. Then restart the engine.

Refer also to fuses and relays (LCS) and (FRM) in section 220B.

NOTE: In come-home mode:

1. *Engine speed is limited to 1500 rpm.*
2. *Depending on the software version, only the first or the third gear is available in each range.*
3. *The clutch button is disabled.*
4. *Changing direction is possible only when the machine is stopped and the clutch pedal is pressed.*

To start, proceed as follows:

1. Follow the instructions on the information display.
2. Press the clutch pedal and hold it down.
3. Select the desired range.
4. Use the reverse drive lever to select direction of travel.
5. Start by releasing the clutch pedal.

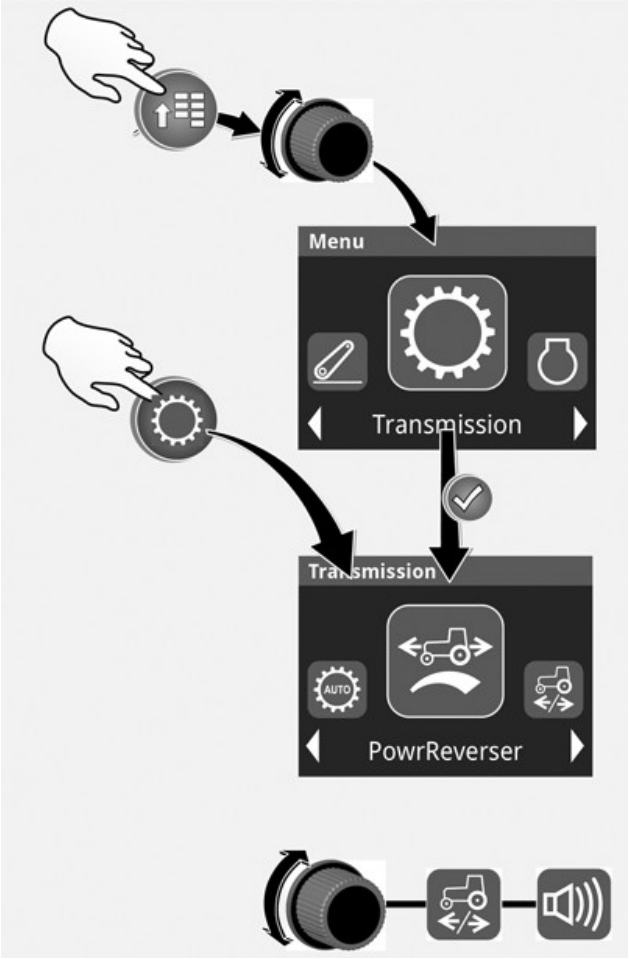
OULXA64,6M,00055FA-19-22SEP23

AutoQuad™ PLUS Transmission—Towing the Tractor

If the tractor needs to be towed, see Towing the Tractor in Section 110.

oulxa64,6M,1690952772371-19-28AUG23

AutoQuad™ PLUS Transmission—Menu

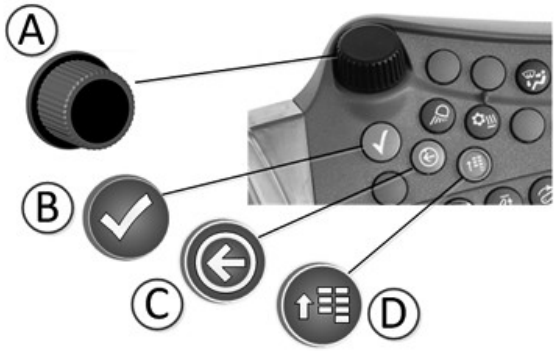


LX368297—UN—15AUG19

There are two ways to access the Transmission menu:

- Call up Transmission menu with the Transmission button.
- Navigate to the Transmission menu via the main menu.

Basic controls for navigating and setting:



LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back
D—Access Main Menu

OULXA64,6M,00055FB-19-28AUG23

Symbols in the Transmission Menu



RXA0152950—UN—21JUL16

PowrReverser™ Selection



RXA0152953—UN—21JUL16

Rev/Fwd Ratio Selection

OULXA64,6M,00055FC-19-11SEP20

AutoQuad™ PLUS Transmission—Transmission Mode

The setting of the transmission mode allows an adjustment of the automatic shift points depending on the engine speed.

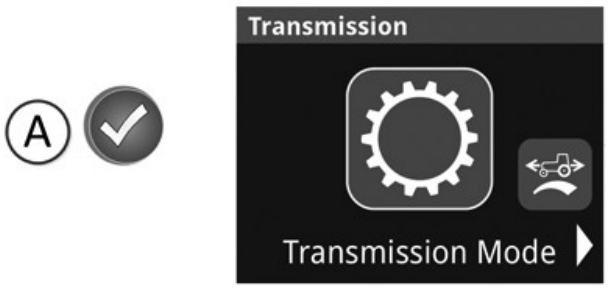
An earlier upshift and a later downshift will result in less fuel usage during light work.

A later upshift and an earlier downshift prevent performance drop in medium to heavy work.

IMPORTANT: When driving with a heavy load, it is recommended to select the PWR setting to generate higher motor power after the shift.

The ECO setting is only suitable for light work in the field and for driving on roads when the load being pulled is not heavy.

1. Access transmission mode in the Transmission menu, see AutoQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX368298—UN—19DEC18

A—Confirm

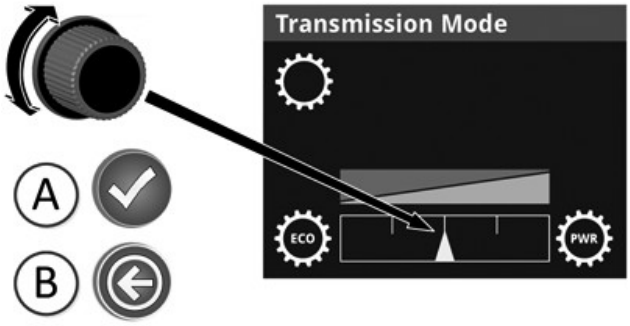
3. Select setting and confirm with (A).

   ECO mode: Hand throttle/speed control pedal more than 85% towards top speed and engine speed above 1870 rpm: Transmission shifts up.
   Hand throttle/speed control pedal more than 55 % towards top speed, and engine speed below 1300 rpm: Transmission shifts down.
   Hand throttle/speed control pedal less than 55% towards top speed, and engine speed below 1100 rpm: Transmission shifts down.

   Power mode: Hand throttle/speed control pedal more than 85% towards top speed and engine speed above 2100 rpm: Transmission shifts up.
   Hand throttle/speed control pedal more than 55% towards top speed and engine speed below 1720 rpm: Transmission shifts down.
   Hand throttle/speed control pedal less than 55% towards top speed, and engine speed below 1100 rpm: Transmission shifts down.

   Intermediate settings:

   - Setting further to the left (towards ECO) causes the transmission to shift to the next higher gear already at lower engine speeds. If the engine speed drops as the load increases, the transmission shifts to the next lower gear later.
   - Setting further to the right (towards PWR) causes the transmission to shift to the next higher gear not until higher engine speeds are reached. If the engine speed drops as the load increases, the transmission shifts to the next lower gear sooner.



LX368299—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,00055FD-19-28AUG23

AutoQuad™ PLUS Transmission—PowrReverser™



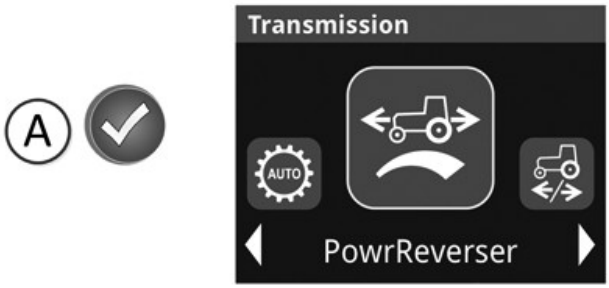
RXA0152950—UN—21JUL16

PowrReverser™ Icon

PowrReverser™ modulation sets aggressiveness of change in direction. Modulation can be set 1—10.

The 1 setting is the least aggressive and is used in applications where a smooth change of direction is required. Setting “10” is the most aggressive and is used in high productivity applications where quick direction changes are required.

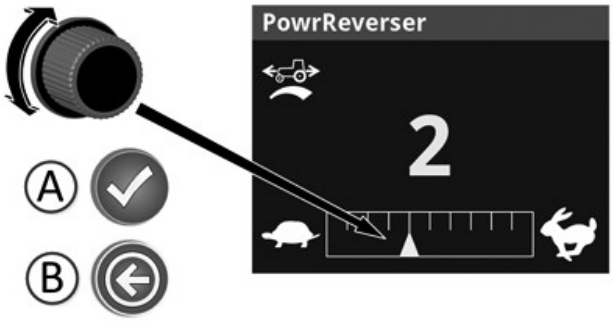
1. Access PowrReverser™ in the Transmission menu, see AutoQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361251—UN—19DEC18

A—Confirm

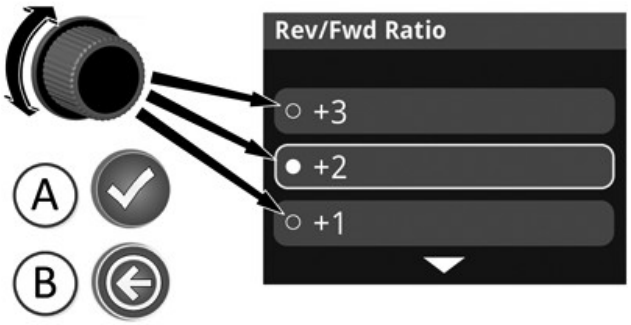
3. Set the aggressiveness of the direction change and confirm with (A). 1 is less aggressive; 10 is aggressive.



LX361252—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,00055FE-19-28AUG23



LX361271—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,00055FF-19-28AUG23

AutoQuad™ PLUS Transmission—Reverse/Forward Ratio

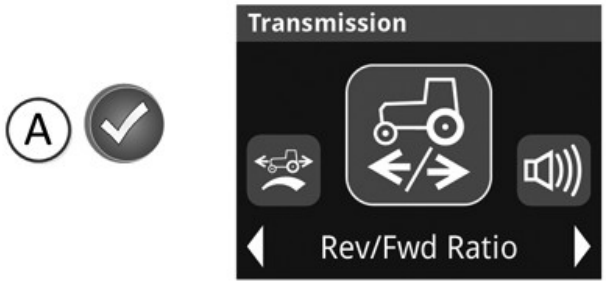


RXA0152953—UN—21JUL16

Rev/Fwd Ratio Icon

When changing direction from forward to reverse, an automatic gear change to a higher or lower gear can be selected. An automatic gear change favors driving maneuvers, such as those occurring during front loader work.

1. Access forward/reverse ratio in the Transmission menu, see AutoQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361270—UN—19DEC18

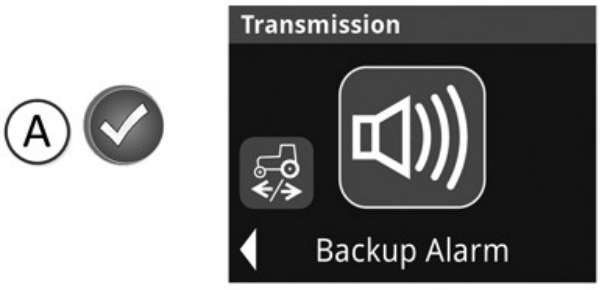
A—Confirm

3. Select the number of gears to be shifted automatically and confirm with (A). *The selectable parameters +1, +2, and so on mean the number of gears that are shifted up or down during a change of direction to reverse.*

AutoQuad™ PLUS Transmission—Backup Alarm

Use of the backup alarm serves to prevent accidents and may be required by regional legislation. When the backup alarm is activated, an audible warning signal sounds when the direction of travel is commanded to reverse. The warning signal alerts people in the area to the face that the tractor is driving in reverse.

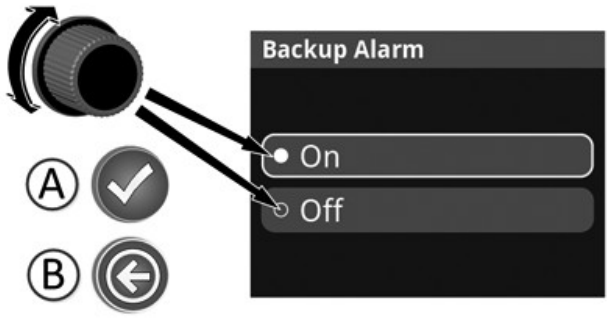
1. Access Backup Alarm in the Transmission menu, see AutoQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361272—UN—19DEC18

A—Confirm

3. Switch the backup alarm ON or OFF and confirm with (A).

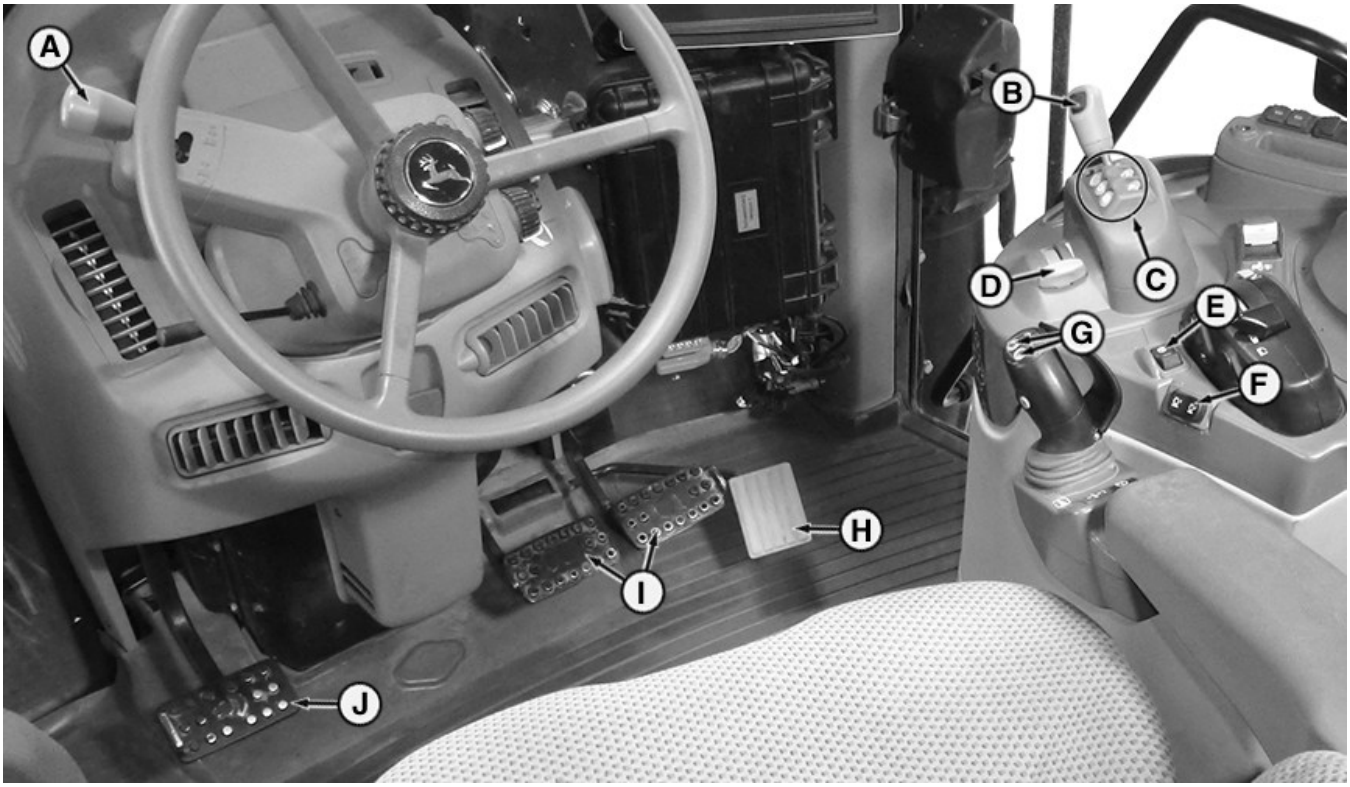


LX361269—UN—19DEC18

A—Confirm
B—Back

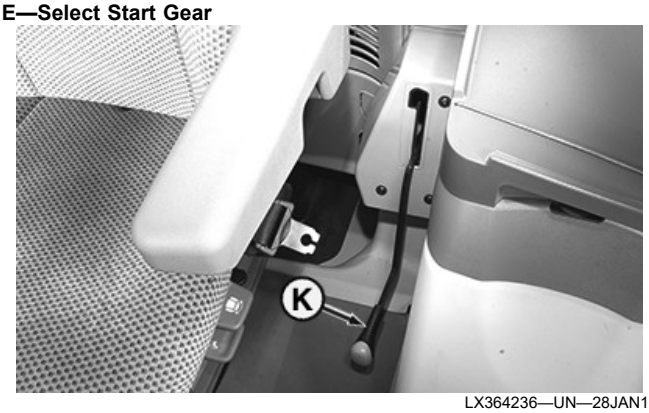
OULXA64,6M,0005600-19-28AUG23

CommandQuad™ PLUS Transmission—Controls without CommandARM™



LX364234—UN—28JAN19

A—Reverse Drive Lever
B—Shift Lever
C—Range Shift Unit
D—Hand Throttle
E—Select Start Gear



LX364236—UN—28JAN19

K—Control Lever of the Park Lock

For additional settings, see in section 50H:

- CommandQuad™ PLUS Transmission, Menu
- Symbols in the Transmission Menu

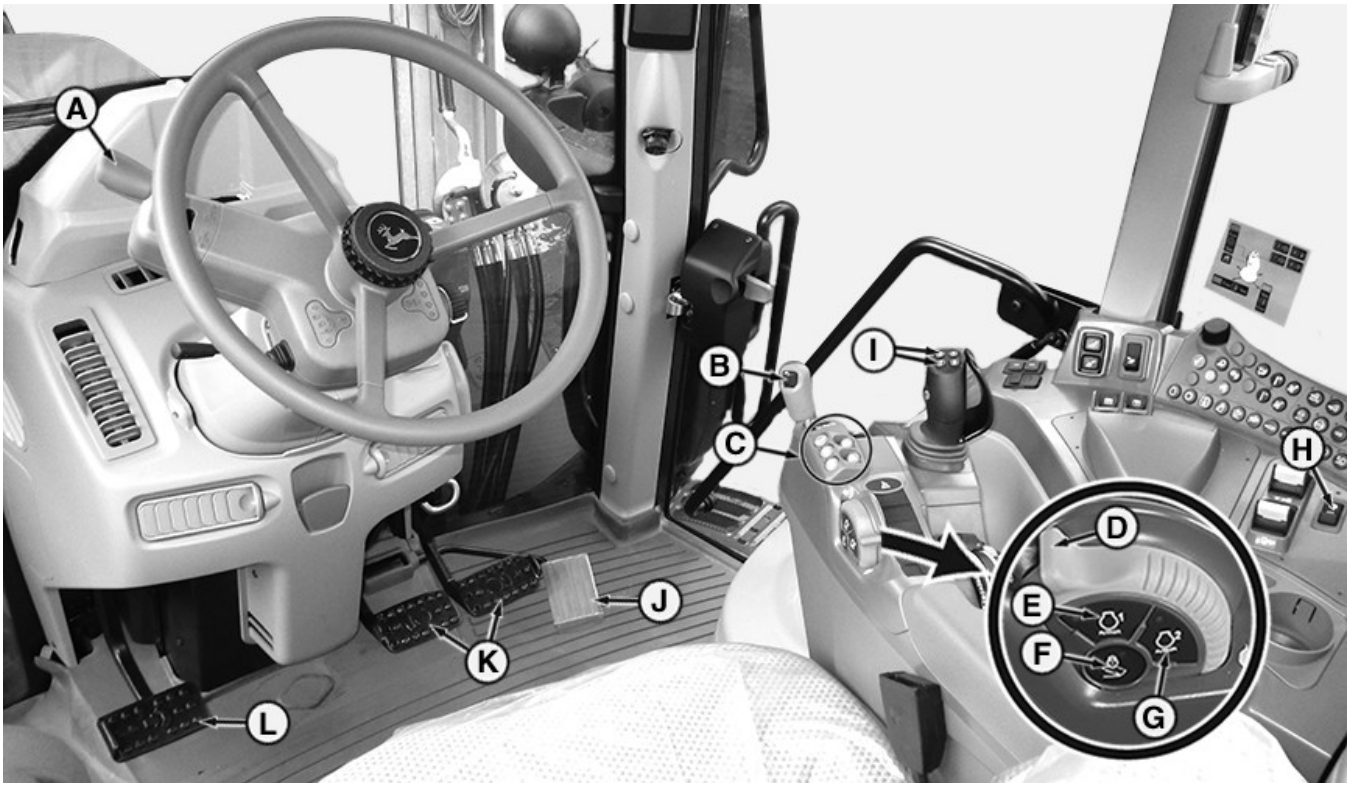
F—Engine Set Speed 1/2
G—Gearshift Buttons on the Joystick for Upshift/Downshift[1]
H—Speed Control Pedal
I—Brake Pedals
J—Clutch Pedal

- CommandQuad™ PLUS Transmission, Start Gears
- CommandQuad™ PLUS Transmission, PowrReverser™
- CommandQuad™ PLUS Transmission, Reverse/ Forward Ratio
- CommandQuad™ PLUS Transmission, Minimum Speed
- CommandQuad™ PLUS Transmission, Load Anticipation
- CommandQuad™ PLUS Transmission, Droop-PTO OFF/ON
- CommandQuad™ PLUS Transmission, AutoClutch
- CommandQuad™ PLUS Transmission, Backup Alarm

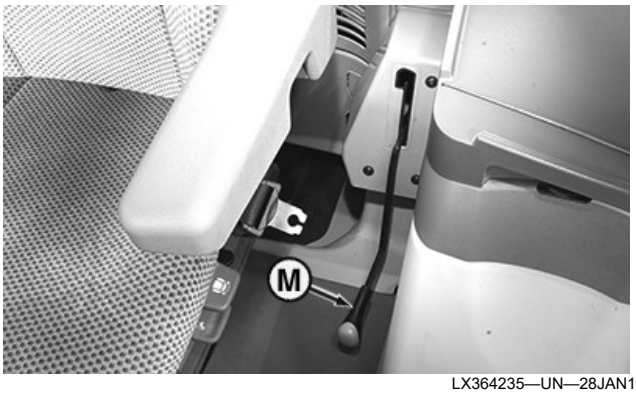
OULXA64,6M,0005601-19-28AUG23

[1] *If equipped*

CommandQuad™ PLUS Transmission—Controls with CommandARM™



LX364233—UN—28JAN19



LX364235—UN—28JAN19

A—Reverse Drive Lever
B—Shift Lever
C—Range Shift Unit
D—Hand Throttle
E—Engine Set Speed 1
F—Speed Control Pedal, Save/Delete Pedal Position
G—Engine Set Speed 2
H—Select Start Gear
I—Gearshift Buttons for Upshift/Downshift[2]
J—Speed Control Pedal
K—Brake Pedals
L—Clutch Pedal
M—Control Lever of the Park Lock

For additional settings, see in section 50H:

- CommandQuad™ PLUS Transmission, Menu
- Symbols in the Transmission Menu
- CommandQuad™ PLUS Transmission, Start Gears
- CommandQuad™ PLUS Transmission, PowrReverser™
- CommandQuad™ PLUS Transmission, Reverse/Forward Ratio
- CommandQuad™ PLUS Transmission, Minimum Speed
- CommandQuad™ PLUS Transmission, Load Anticipation
- CommandQuad™ PLUS Transmission, Droop-PTO OFF/ON
- CommandQuad™ PLUS Transmission, AutoClutch
- CommandQuad™ PLUS Transmission, Backup Alarm

OULXA64,6M,0005602-19-28AUG23

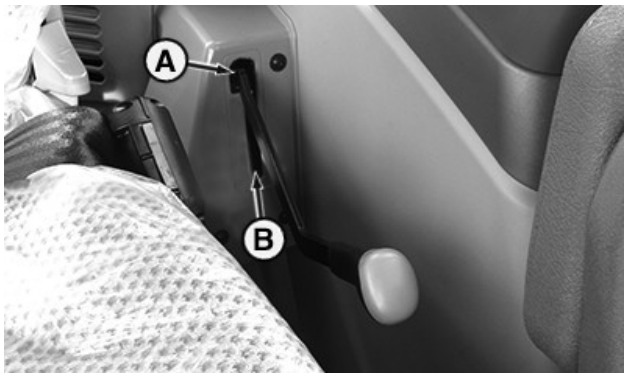
CommandQuad™ PLUS Transmission—Control Lever of the Park Lock

IMPORTANT: Avoid damage to the transmission.

[2] *If equipped*

Incorrect operation can result in high loads on the transmission, which can lead to material damage.

Engage park lock only when the tractor is stationary.



LX364237—UN—28JAN19

Lever position (A) - park lock engaged

- Prevents the tractor from rolling away.
- Used for work with standing (stationary) tractor.

Lever position (B) - Tractor ready to drive

- *N* appears on the corner post display.

NOTE: The control lever of the park lock can only be moved from lever position (B) when the tractor is stationary.

To park the tractor, proceed as follows:

1. Bring the tractor to a standstill.
2. Switch the direction of travel to Neutral.
3. Move the control lever of the park lock to lever position (A) and hold it there until the park lock is engaged.

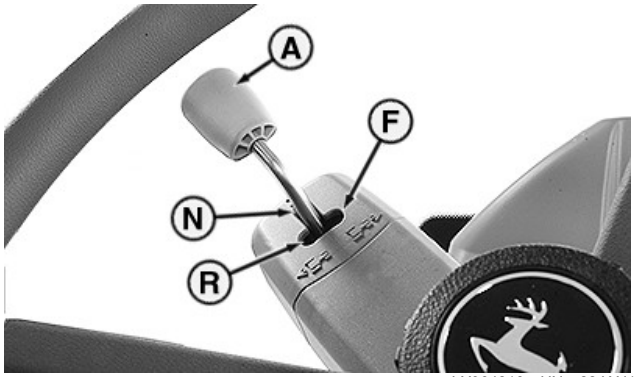
When the park lock is engaged, no direction of travel (N/F/R) is indicated on the corner post display.

OULXA64,6M,0005603-19-28AUG23

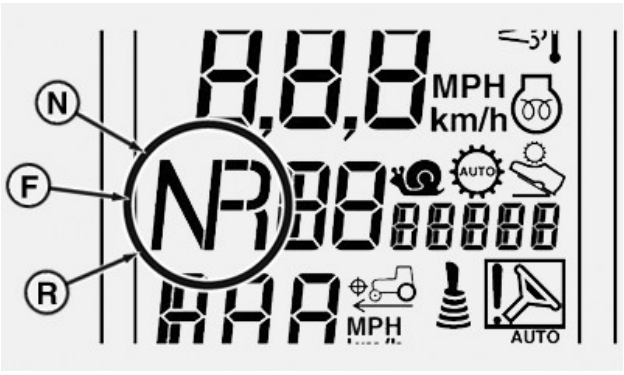
CommandQuad™ PLUS Transmission—Reverse Drive Lever

IMPORTANT: Only the shown switching positions are permitted. Manually forced intermediate positions may result in malfunctions.

To change the direction of travel, the clutch does not need to be operated.



LX364216—UN—22JAN19



LX364217—UN—23JAN19

Direction Of Travel Display

When the reverse drive lever (A) is brought to a shift position and released, it automatically returns to the center position shown. The selected direction of travel is activated and the tractor starts moving promptly.

The direction of travel remains active until one of the following situations occurs:

- Another direction of travel is selected.
- The switch position (N) is selected.
- The park lock is engaged.
- The engine is switched off.

When starting the engine, no travel direction is commanded. The transmission is automatically set to neutral and the wheels are not driven.

Operating positions:

(N) - Neutral

The direction of travel is set to neutral and the wheels are not driven. ***N*** appears on the corner post display.

(F) - Forward drive

Driving forward is activated and the wheels are driven. ***F*** appears on the corner post display.

(R) - Reverse drive

Driving reverse is activated and the wheels are driven. ***R*** appears on the corner post display.

Proceed as follows to drive the tractor:

1. Press the brake and unlock the park brake.
2. Activate the desired direction of travel with the reverse drive lever.
3. Start driving the brake.

If the neutral shift position is activated, the tractor will coast down.

NOTE: On tractors with an electrical joystick, forward and reverse drive can be commanded with joystick buttons.

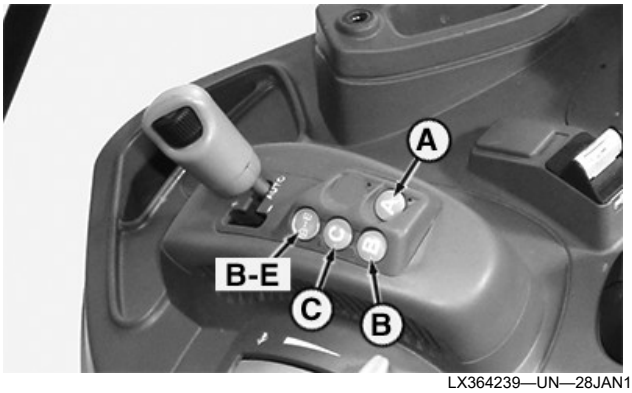
OULXA64,6M,0005604-19-28AUG23

CommandQuad™ PLUS Transmission—Range Shift Unit

The transmission can be shifted in all gears and ranges under load, without using the clutch.

The ranges of the transmission are shifted electrically. Operating the clutch is not necessary here. Each range comprises four gears.

For 20/20 transmissions, the desired range is engaged by pressing one of the buttons (A, B, C, or BCDE). The button of the engaged range lights up.

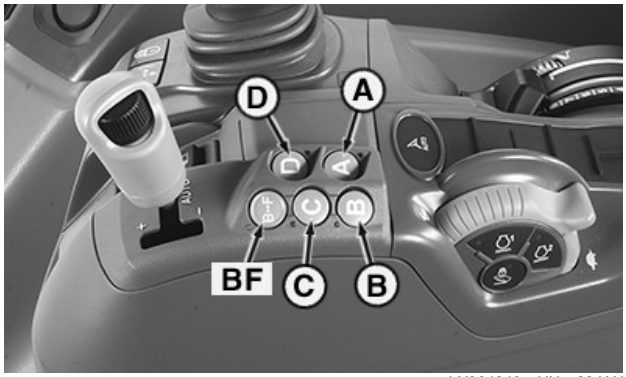


LX364239—UN—28JAN19

Range Shift Unit without CommandARM™

A—Indicator Light and Button for Range A
B—Indicator Light and Button for Range B
C—Indicator Light and Button for Range C
BE—Indicator Light and Button for Ranges B to E

For 24/24 transmissions, the desired range is engaged by pressing one of the buttons (A, B, C, D, or BF). The button of the engaged range lights up.



LX364240—UN—28JAN19

Range Shift Unit with CommandARM™

A—Indicator Light and Button for Range A
B—Indicator Light and Button for Range B
C—Indicator Light and Button for Range C
D—Indicator Light and Button for Range D
BF—Indicator Light and Button for Ranges B to F

Each range covers a certain speed range and is designed for certain work:

- **Range A:** For primary tillage.
- **Range B:** For secondary tillage with rear PTO, loader, and spraying work.
- **Range C:** For loader and spraying work, seeding, mowing, fertilizing, and transport work in the field.
- **Range D:**[3] For transport work.
- **Range BCDE:**[4] Combines the ground speeds of ranges B, C, D, and E. This range is recommended for transport work.
- **Range BF:**[3] Combines the ground speeds of ranges B, C, D, E, and F. This range is recommended for transport work.

NOTE: For ground speeds, see section 50D.

When driving with a 20/20 transmission in range BCDE, the transmission automatically shifts between ranges B to E in automatic mode.

When driving with a 24/24 transmission in range BF, the transmission automatically shifts between ranges B to F in automatic mode.

In automatic mode, the transmission shifts automatically to the next higher range when the highest gear of a range is reached. The transmission automatically regulates engine speed to achieve the most efficient power/consumption ratio. In this case, both gear and ranges are selected by the transmission automatically.

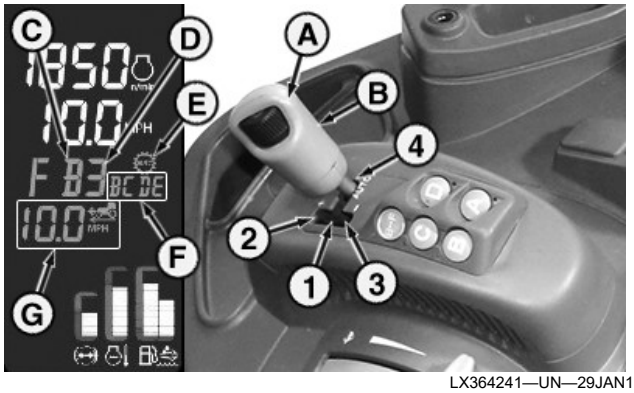
OULXA64,6M,0005605-19-28AUG23

[3] *Only with 24/24 transmissions*
[4] *Only with 20/20 transmissions*

CommandQuad™ PLUS Transmission—Shift Lever

The transmission can be shifted in all gears and ranges under load, without using the clutch.

Automatic or manual shift mode can be selected with shift lever (B).



LX364241—UN—29JAN19

Shift Lever without CommandARM™ Shown

A—Speed Wheel
B—Shift Lever
C—Selected Range
D—Selected Gear
E—Automatic Mode Symbol
F—Available Ranges
G—Set Maximum Speed
1—Lever Position for Manual Mode
2—Lever Position for Shifting Up
3—Lever Position for Shifting Down
4—Lever Position for Automatic Mode

Automatic mode:

1. Move shift lever (B) to lever position ***4***. The symbol (E) is displayed on the corner post display.

   In range BE (20/20 transmission) or BF (24/24 transmission), the engine speed, range, and gear are automatically set to reach the set speed.

2. Set maximum speed with speed wheel (A) that is to be held automatically at full throttle by speed control pedal or hand throttle. The currently selected maximum speed (G) is displayed on the corner post display.

   - For 20/20 transmissions, a separate maximum speed can be set for each range A, B, C, and BE.
   - For 24/24 transmissions, a separate maximum speed can be set for each range A, B, C, D, and BF.

   Speed wheel (A) has no stop and can be turned infinitely. This speed is maintained automatically with engine at full throttle by using speed control pedal or hand throttle. Changes from the last setting are recognized and stored by the electronics of the tractor. If the setting of the maximum speed is changed with speed wheel (A) while driving, the last setting is always assumed.

Manual mode:

In manual mode, four gears can be selected per range.

1. Move shift lever (B) to lever position ***1***.
2. To shift up, push shift lever (B) from lever position ***1*** to the front into lever position ***2***.

   When released, shift lever (B) returns automatically to lever position ***1***.

3. To shift down, pull the shift lever from lever position ***1*** back to lever position ***3***.

Shifting up or down two times in quick succession with the shift lever causes a shift to the next higher or lower range (only BE or BF).

The selected range (C) and selected gear (D) are displayed on the corner post display.

- In 20/20 transmissions, the transmission automatically shifts into range D (for example in range BE) when the highest gear of range C has been reached.
- In 24/24 transmissions, the transmission automatically shifts into range E (for example in range BF) when the highest gear of range D has been reached.

On tractors with joystick, the gears can be shifted up and down using gearshift buttons UP ▲ and DOWN ▼.

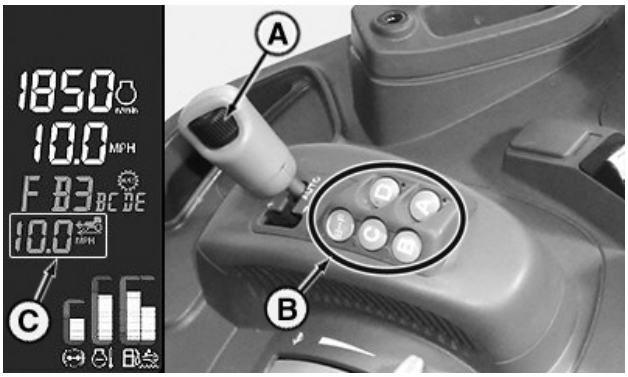


LX514878—UN—26JUL22

Mechanical Joystick/Electrical Joystick Version 1 and Version 2

OULXA64,6M,0005606-19-28AUG23

CommandQuad™ PLUS Transmission—Set Maximum Ground Speed



LX364244—UN—29JAN19

A—Speed Wheel for Maximum Speed
B—Range Selection Buttons
C—Set Maximum Ground Speed

Use buttons (B) to select the desired range and set the desired maximum speed (C) using speed wheel (A).

NOTE: The maximum ground speed (C) only has an effect in automatic mode.

In manual mode, the tractor can be driven faster than maximum speed setting.

NOTE: In range BCDE (with 20/20 transmission) or BF (with 24/24 transmission), the maximum speed possible in reverse is 30 km/h (18.6 mph).

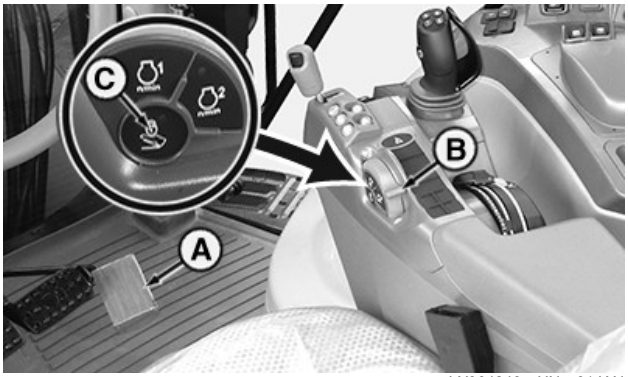
NOTE: When the PTO is switched on, priority is given to PTO speed. To increase or reduce ground speed, the tractor's transmission shifts automatically.

OULXA64,6M,0005607-19-28AUG23

CommandQuad™ PLUS Transmission—Speed Control Pedal and Hand Throttle

NOTE: In manual mode, automatic engine speed reduction at low loads is not active.

Speed is controlled by speed control pedal and hand throttle. The signal used for control is always the signal that commands the higher engine speed.



LX364246—UN—31JAN19

A—Speed Control Pedal
B—Hand Throttle
C—Button for Store/Delete Pedal Position (CommandARM™ only)

If the speed control pedal or hand throttle is moved to command a higher engine speed, the engine speed increases.

Button (C) allows the speed control pedal position to be stored. To store, proceed as follows:

1. Set desired pedal position.
2. Press button (C), then release.
3. Release the pedal within two seconds. If a pedal position is stored, the indicator light in button (C) lights up.

NOTE: The pedal position cannot be stored if:

- *Park lock is engaged.*
- *Direction of travel is in Neutral.*
- *Clutch pedal is pressed.*
- *Brake pedals are pressed.*

To delete the stored pedal position, do one of the following:

- Press button (C) again.
- Engage the brake.
- Press the clutch pedal.
- Set the speed control pedal to the stored pedal position again.

Once the saved pedal position has been deleted, indicator light in button (C) goes out.

If the tractor is driven in automatic mode, the load-dependent lowering of the engine speed is active. Once the set ground speed has been reached, engine speed is adjusted automatically as required.

- In manual mode, the speed directly depends on the setting of the hand throttle or speed control pedal. The engine speed changes depending on the pedal position.
- In automatic mode, the engine speed is controlled

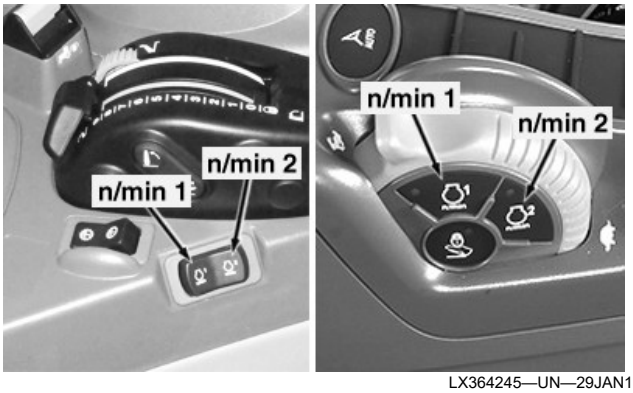
depending on the load. The position of the hand throttle or speed control pedal plays no role.

- While an engine set speed is active, the engine speed can be temporarily increased by the speed pedal or the hand throttle.

OULXA64,6M,0005608-19-28AUG23

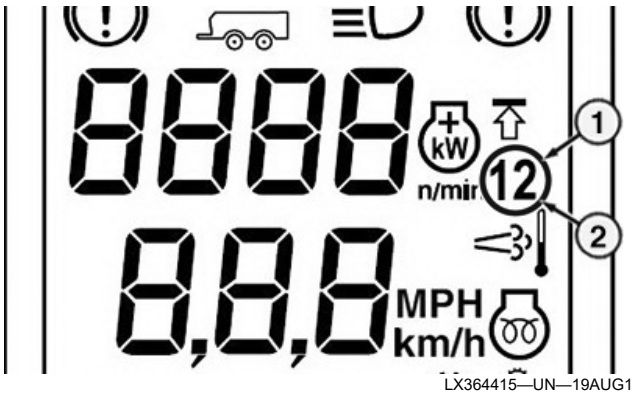
CommandQuad™ PLUS Transmission—Engine Set Speed

Adjust the engine speed by the hand throttle or the speed control pedal.



LX364245—UN—29JAN19

Without CommandARM™ / With CommandARM™



LX364415—UN—19AUG19

- **n/min 1**, engine set speed 1
  Used to activate, deactivate, or store an engine speed, which is set automatically after activation.
- **n/min 2**, engine set speed 2
  Used to activate, deactivate, or store an engine speed, which is set automatically after activation.

Indicator lights:
The activated engine speed memory is displayed as shown.

Set and store the engine speeds:
To save, set the engine speed with the hand throttle or speed control pedal and press **n/min 1** or **n/min 2** until a beep is heard.

Engine set speed 1 or 2 can also be set via the engine menu. See Engine Menu in section 20.

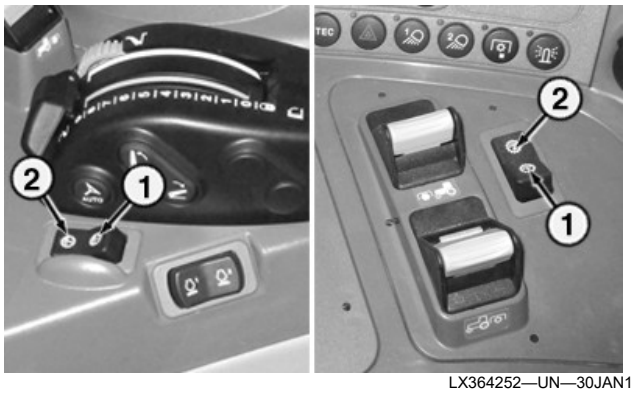
Enable or disable engine set speed n/min 1 or n/min 2:
After pressing one of the buttons, engine speed will be set to the stored value automatically. Engine control ensures that engine speed remains constant. The corner post display shows the selected engine set speed.

Pressing the button again deactivates the engine set speed. The engine speed adjusts to the engine speed given by the speed control pedal or the hand throttle.

NOTE: The engine set speed is only available when the transmission is set to manual mode or the neutral direction of travel is active. When switching to automatic mode, the set speed is deactivated.

OULXA64,6M,0005609-19-28AUG23

CommandQuad™ PLUS Transmission—Select Start Gear



LX364252—UN—30JAN19

Without CommandARM™ / With CommandARM™

1—Select Start Gear 1
2—Select Start Gear 2

The start gear determines how far the transmission automatically shifts down the gears when the tractor stops.

When a start gear has been activated, the transmission automatically shifts to the selected gear after a stop.

NOTE: When stopping, the transmission only shifts to the start gear if the gear currently engaged is higher than the selected start gear.

These settings are stored and automatically reactivated when the tractor starts again.

Valid for 20/20 transmissions:

- For the ranges A to C, one common start gear can be set.
- Two start gears can be set for the BCDE ranges.

For 24/24 transmissions:

- For the ranges A to D, one common start gear can be set.
- Two start gears can be set for the BF ranges.

It is possible to toggle between the start gears 1 and 2 by using the switch. While driving, shifting to the displayed start gear can thus occur - this can cause the ground speed to increase.

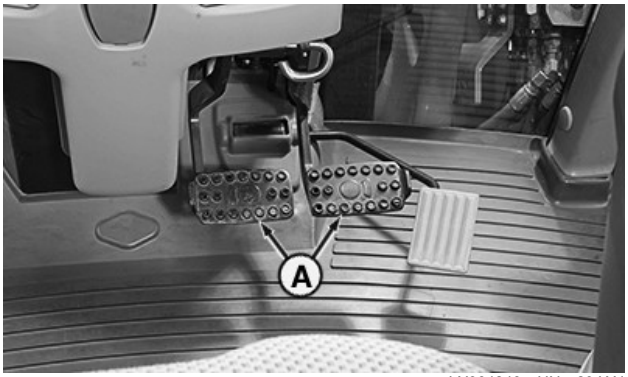
To set the start gear, see CommandQuad™ PLUS Transmission, Start Gears.

OULXA64,6M,000560A-19-28AUG23

CommandQuad™ PLUS Transmission—Brake Pedals and Clutch Pedal (AutoClutch Function)

IMPORTANT: The AutoClutch function operates only when the brake pedals are coupled together. Actuating only a single pedal (e.g. as a steering brake) will NOT activate the AutoClutch function.

NOTE: For driving maneuvers using the steering brake (only one brake pedal is depressed), engine speed must not drop below 900 rpm, otherwise the AutoClutch function becomes active again.



LX364243—UN—29JAN19

A—Brake Pedals

Braking and using the clutch with AutoClutch switched on

- If **both** brake pedals are pressed, the speed will be reduced or the tractor will stop.
- The clutch pedal does not need to be pressed when braking or stopping.
- When the brakes are released again, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or speed control pedal.

Braking and using the clutch with AutoClutch switched off

- If **both** brake pedals are pressed, the speed will be reduced but the tractor will ***not*** stop.
- To stop the tractor, the **clutch pedal must also be pressed** during braking.

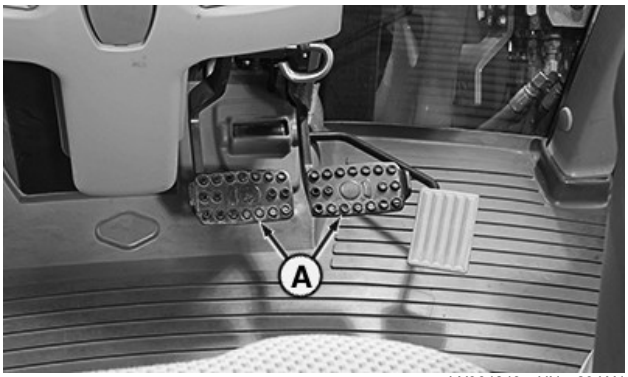
See also Hydraulic Service Brakes and Secondary Brake System* in section 50C.

**Not for North America*

OULXA64,6M,000560B-19-28AUG23

CommandQuad™ PLUS Transmission—Special Features when Maneuvering the Tractor

IMPORTANT: This description applies only if AutoClutch (the automatic clutch function) is switched on.



LX364243—UN—29JAN19

A—Brake Pedals

The automatic clutch function is activated by depressing the service brake. Partially depressing **both** brake pedals allows the tractor to *creep* - this makes it easier to back up to an implement, for example. Fully depressing the two brake pedals stops the tractor. There is no need to depress the clutch pedal. This results in the following safety-relevant points:

- Full torque remains available even at very slow speeds. In certain conditions, even obstacles will not bring the tractor to a standstill.
- After the brakes are released, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or speed control pedal.
- If a tractor with a conventional manual transmission (without automatic clutch function) or with the AutoClutch switched off is used, note that the power flow between the engine and the transmission is **not** disconnected when the brake pedals are fully depressed.

NOTE: When engaging park lock on slopes, remember to actuate both brake pedals.

Depress both brake pedals when turning on a downhill slope, as this will make the tractor change direction faster.

OULXA64,6M,000560C-19-28AUG23

CommandQuad™ PLUS Transmission—Adjust Driving Characteristics

The CommandQuad™ PLUS transmission offers a wide variety of custom settings. As a rule, these settings can have a positive effect on vehicle behavior. However, an incorrect setting may result in the tractor reacting in undesirable ways.

Problem/Solution
Tractor shifts up and down too frequently.
Correct sensitivity for speed reduction → Set Droop Adapt the operating mode to the driving situation → Shift lever Select start gear in range BC or BF according to the anticipated load → Start gears
Tractor shifts too early or too late.
Correct sensitivity for speed reduction → Set Droop Switch off engine set speed or change setting → Engine set speed Adapt the operating mode to the driving situation → Shift lever
Tractor shifts are rough.
Activate SoftShift → Activate SoftShift when Changing Gears See address TIH29 in Entering Diagnostic Addresses (Customer Level), section 300B.
Irregular ground speed.
Adapt the operating mode to the driving situation → Shift lever
Tractor is too slow or too fast.
Change setting for maximum ground speed → Adjust Maximum Ground Speed Remember that speed setting in auto mode always relates to 100% of the hand throttle or speed control pedal settings. Therefore, check the speed setting → Adjust the speed control pedal and/or the hand throttle
Engine speed is inconstant (when operating the rear PTO).
Correct sensitivity for speed reduction → Droop-PTO OFF/ON Adapt the operating mode to the driving situation → Shift lever
An inappropriate gear is selected at start-up.
Within the transmission settings, select the desired start gear → Start gears
Difference in speed between forward travel and reverse travel is too great or too small.
Set the desired ratio between reverse/forward speed within the transmission settings → Reverse/Forward Ratio
For possible corrections, see CommandQuad™ → in this section

OULXA64,6M,000560D-19-28AUG23

CommandQuad™ PLUS Transmission—Operating with Trailer on Hillsides in Slippery Conditions

CAUTION: Avoid injury from losing control of tractor while operating on a downhill slope. Tractor wheels may lock and skid on slippery downhill slopes. Observe the following precautions:

- **Move shift lever (A) left to position 1 to select Manual mode.**
- **Select an appropriate gear to reduce skidding.**



LX364247—UN—30JAN19

Shift Lever without CommandARM™ Shown

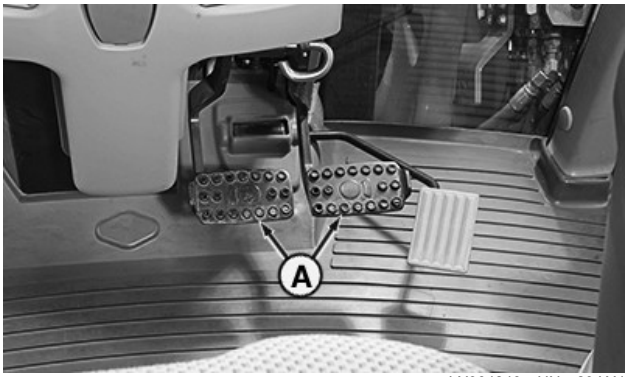
A—Shift Lever
1—Manual Mode Position

OULXA64,6M,000560E-19-28AUG23

CommandQuad™ PLUS Transmission—Stopping and Parking the Tractor

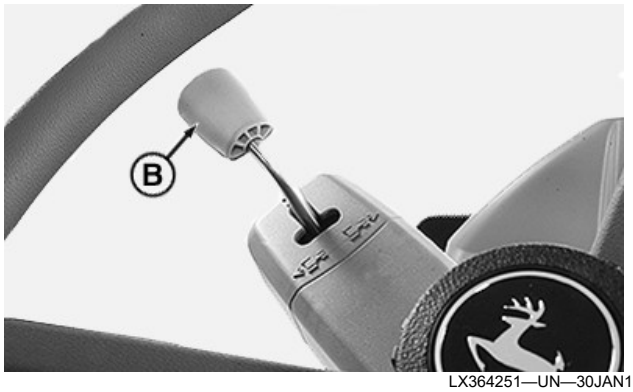
CAUTION: Avoid injury due to losing control of tractor. Couple brake pedals (A) together when driving on roads.

NOTE: AutoClutch is an automatic clutch function that interrupts the flow of power between the engine and transmission when the two brake pedals are depressed.



LX364243—UN—29JAN19

1. Set speed control pedal and hand throttle to low engine speed.
   a. When AutoClutch is off, apply both brake pedals (A) and the clutch pedal.
   b. When AutoClutch is on, press both brake pedals (A). There is **no** need to depress the clutch pedal. The brakes will enable AutoClutch (automatic clutch function).
2. Bring the tractor to a stop.
3. Move the reverse drive lever (B) to the Neutral shift position.



LX364251—UN—30JAN19

4. Put the control lever of the park lock in position (C) (engage the park lock).



LX364249—UN—30JAN19

5. Lower implements and shutoff the rear PTO.
6. Shut off engine and remove key switch.

Stopping the Tractor with AutoClutch

NOTE: AutoClutch is deactivated if the single-wheel brake is actuated and engine speed simultaneously is higher than approx. 900 rpm. This means: When one brake pedal is depressed for steering, the clutch is not activated as long as the engine speed is above 900 rpm.

Press both brake pedals. Brakes will activate AutoClutch. When brakes are released, tractor accelerates to preset speed again.

CAUTION: Avoid injury. Braking the tractor at high engine speed will require higher pedal force than braking the tractor at low engine speed.

Avoid injury due to sudden or unexpected acceleration. When service brake is released, the tractor will automatically accelerate to the preselected speed.

Using NEUTRAL Position

Transmission neutral position is obtained (with engine running) by shifting reverse drive lever (B) to neutral position. In neutral position, the tractor can roll away.

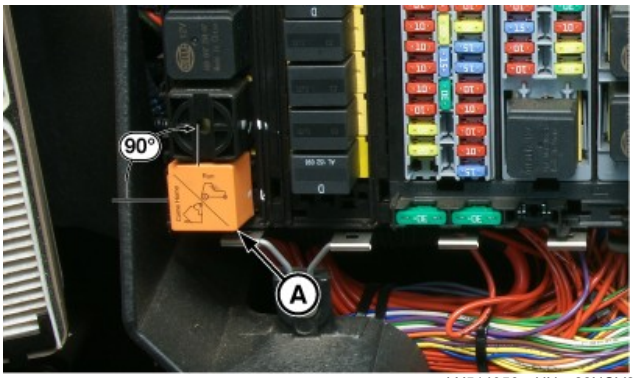
Using the Park Lock

CAUTION: Before leaving the tractor, always engage park lock.

To hold the tractor stationary and prevent it from rolling away, use the lever (C) to engage the park lock. Park lock must not be engaged until the tractor has come to a standstill. This keeps load on the transmission to a minimum.

OULXA64,6M,000560F-19-28AUG23

CommandQuad™ PLUS Transmission—Come-Home Mode



LX514956—UN—22NOV23

Connector Rotated 90° Clockwise

A—Connector

If there is an electrical fault in the transmission, the tractor can possibly still be driven in come-home mode.

To do this, stop the engine, pull out connector (A), turn it 90° clockwise, and reinsert it as shown. Then restart the engine.

Refer also to fuses and relays (LCS) and (FRM) in section 220B.

NOTE: In come-home mode:

1. *Engine speed is limited to 1500 rpm.*
2. *Only the third gear is available in speed ranges B to D. Speed range A is not available.*
3. *The AutoClutch function is disabled.*
4. *Stop the tractor to shift speed ranges.*
5. *Changing direction is possible only when the machine is stopped and the clutch pedal is pressed.*

To start, proceed as follows:

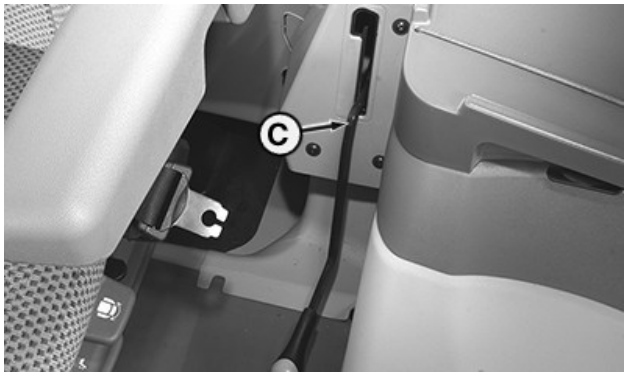
1. Follow the instructions on the information display.
2. Press the clutch pedal and hold it down.
3. Select the desired range.
4. Use the reverse drive lever to select direction of travel.
5. Start by releasing the clutch pedal.

OULXA64,6M,0005610-19-22SEP23

CommandQuad™ PLUS Transmission—Towing the Tractor

First situation: Power transmission problems, but engine is running.

1. Attach tractor to towing vehicle.
2. Start the engine.
3. Move the park brake lever to position (C).



LX364250—UN—30JAN19

C—Control Lever of the Park Lock

4. For 20/20 transmissions, select range BCDE. For 24/24 transmissions, select range BF.

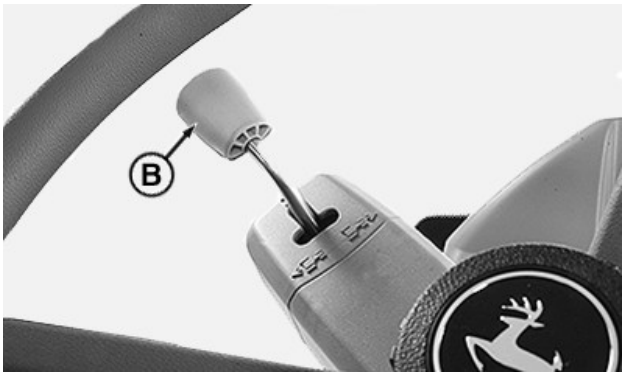


LX364247—UN—30JAN19

Shift Lever without CommandARM™ Shown

A—Shift Lever
1—Manual Mode Position

5. Move shift lever (A) to manual mode (1) and engage gear C4.
6. Move the reverse drive lever (B) to the Neutral shift position.



LX364251—UN—30JAN19

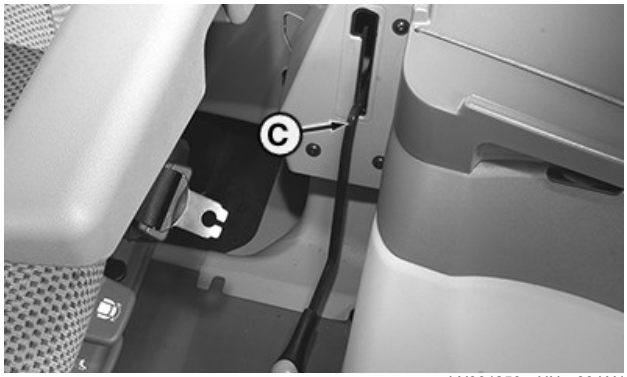
B—Reverse Drive Lever

7. Switch front-wheel drive OFF.
8. Tow tractor at a maximum speed of 10 km/h (6 mph).

Second situation: Engine is defective or cannot be started.

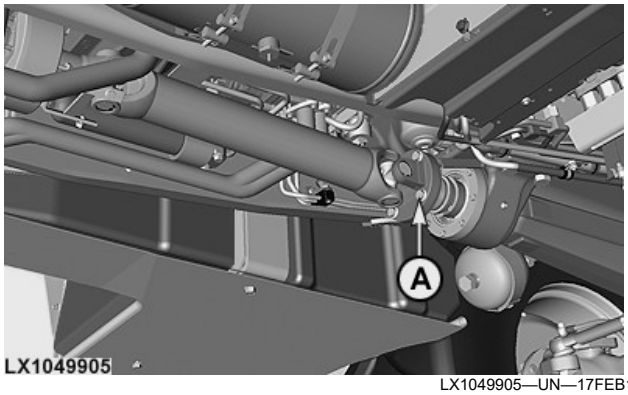
CAUTION: Without hydraulic pressure, the steering system can only operate in emergency mode. Steering is stiff and slow. The driver of the towing vehicle must bear this in mind and remember to slow down drastically before changing direction.

1. Attach tractor to towing vehicle.
2. Switch off the ignition, and place come-home connector in come-home position (see Come-Home Mode in this section).
3. Turn the key switch ON.
4. Move the park brake lever to position (C).



LX364250—UN—30JAN19

5. If the tractor is towed more than one kilometer (0.6 miles), the universal-jointed shaft has to be removed. To do this, remove screws (A).



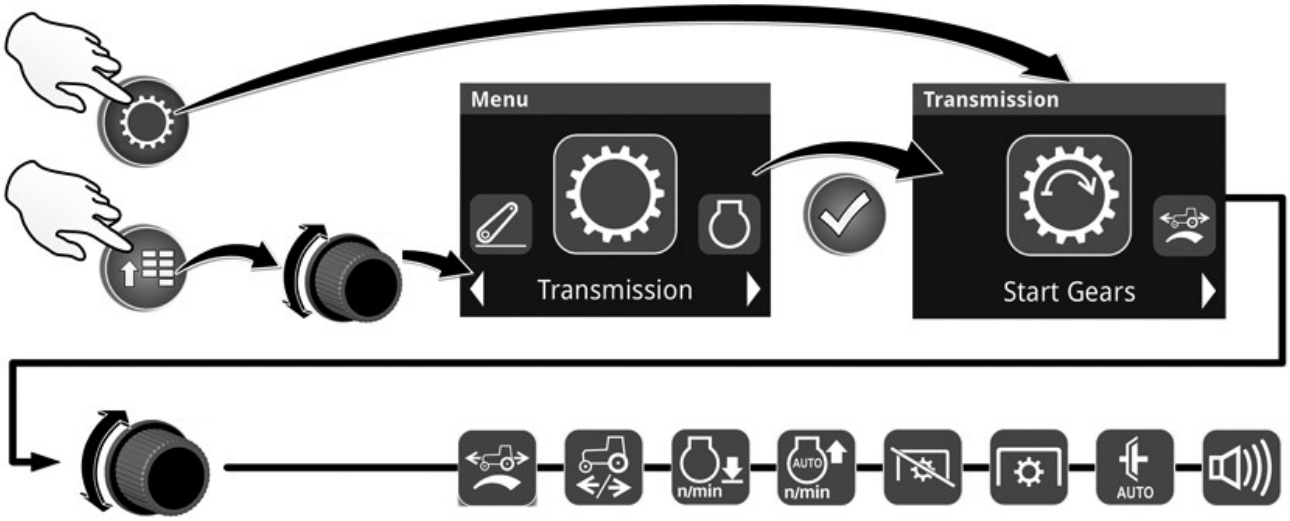
LX1049905—UN—17FEB11

IMPORTANT: If the universal-jointed shaft is not removed, the tires will wear out faster and there will be an adverse effect on steering characteristics.

6. When towing, select a speed that allows the tractor to be steered safely. NEVER tow faster than 10 km/h (6 mph).

OULXA64,SP,0005611-19-28AUG23

CommandQuad™ PLUS Transmission—Menu

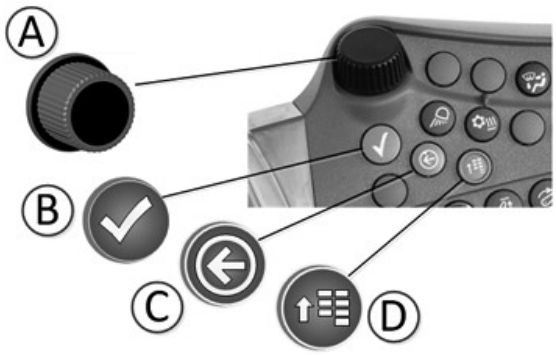


LX368293—UN—06JAN19

There are two ways to access the Transmission menu:

- Call up Transmission menu with the Transmission button.
- Navigate to the Transmission menu via the main menu.

Basic controls for navigating and setting:



LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back
D—Access Main Menu

OULXA64,6M,0005612-19-28AUG23

Symbols in the Transmission Menu



RXA0152950—UN—21JUL16

PowrReverser™ Selection



RXA0152951—UN—21JUL16

Min rpm Selection



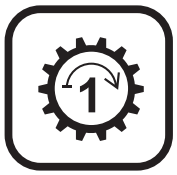
RXA0152953—UN—21JUL16

Rev/Fwd Ratio Selection



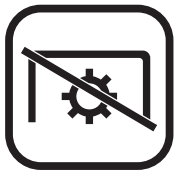
RXA0152954—UN—21JUL16

Load Anticipation Selection



RXA0152955—UN—21JUL16

Start Gears Selection



RXA0152956—UN—21JUL16

Droop-PTO Off Selection



RXA0152957—UN—21JUL16

Droop-PTO On Selection



RXA0153891—UN—19SEP16

AutoClutch Selection

OULXA64,6M,0005613-19-11SEP20

CommandQuad™ PLUS Transmission—Start Gears

Ranges	Possible start gears
A, B, C, D	1 to 4
BCDE (for transmissions with 5 ranges)	B1 to E1
B-F (for transmissions with 6 ranges)	B1 to E1

Example: if B3 is selected as the start gear for BCDE range, anytime the BCDE button is selected, the transmission defaults to gear B3. The operator can shift to any range and gear between B1 and E1 from there, but the launch point is what the operator has programmed.

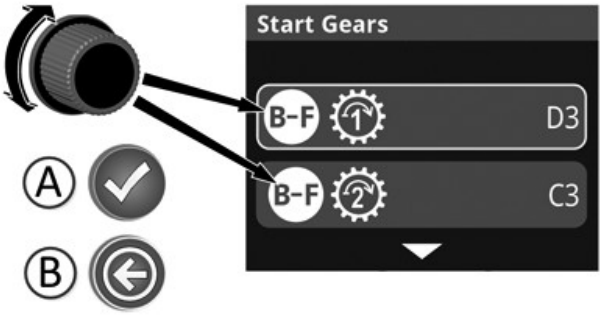
1. Access start gears in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361273—UN—19DEC18

A—Confirm

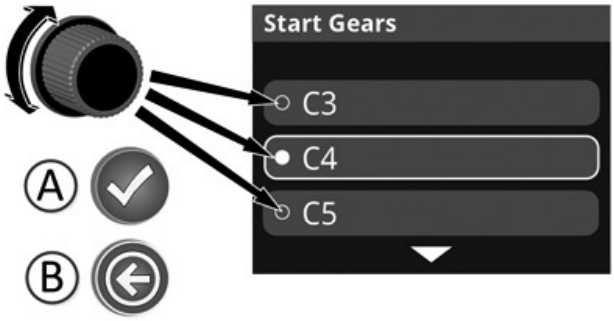
3. Select start gear and confirm with button (A).



LX361274—UN—19DEC18

A—Confirm
B—Back

4. Define assignment and confirm with button (A).



LX361275—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,0005614-19-28AUG23

CommandQuad™ PLUS Transmission—PowrReverser™



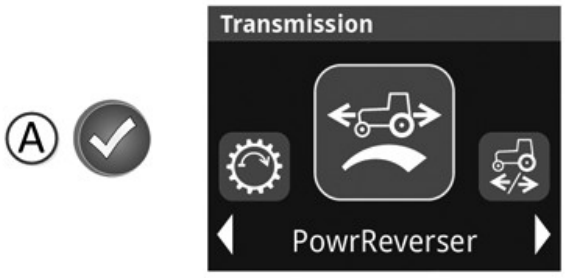
RXA0152950—UN—21JUL16

PowrReverser™ Icon

PowrReverser™ modulation sets aggressiveness of change in direction. Modulation can be set 1—10.

The 1 setting is the least aggressive and is used in applications where a smooth change of direction is required. Setting 10 is the most aggressive and is used in high productivity applications where quick direction changes are required.

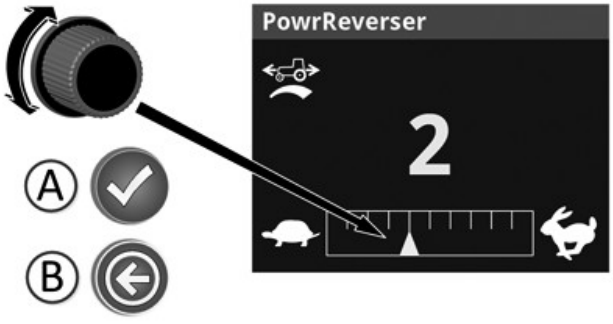
1. Access PowrReverser™ in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361239—UN—19DEC18

A—Confirm

3. Set the aggressiveness of the direction change and confirm with (A). 1 is less aggressive; 10 is aggressive.



LX361252—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,0005615-19-28AUG23

CommandQuad™ PLUS Transmission—Reverse/Forward Ratio

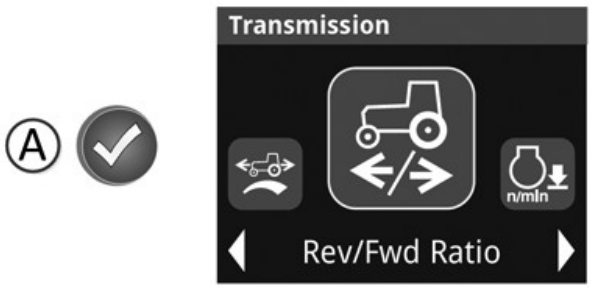


RXA0152953—UN—21JUL16

Rev/Fwd Ratio Icon

When changing direction from forward to reverse, an automatic gear change to a higher or lower gear can be selected. An automatic gear change favors driving maneuvers such as those occurring during front loader work.

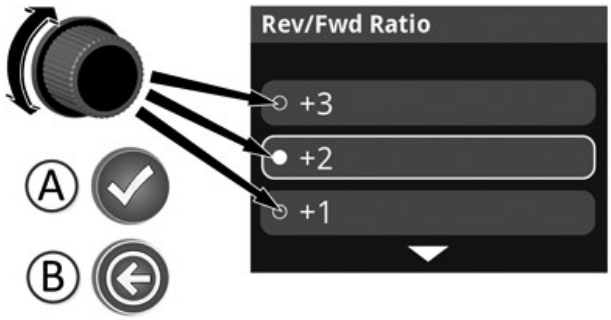
1. Access forward/reverse ratio in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361257—UN—19DEC18

A—Confirm

3. Select the number of gears to be shifted automatically and confirm with (A). *The parameters +1, +2, and so on mean the number of gears that are shifted up or down during a change of direction to reverse.*



LX361241—UN—19DEC18

OULXA64,6M,0005616-19-28AUG23

CommandQuad™ PLUS Transmission—Minimum Speed



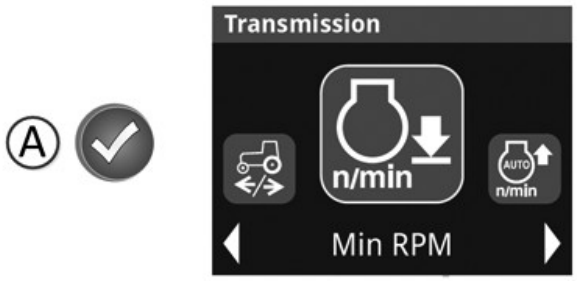
RXA0152951—UN—21JUL16

Min rpm Icon

For the engine speed, a minimum value can be specified. The transmission control automatically shifts into a suitable gear, in order not to fall below the specified minimum engine speed even at low load. This results in advantages in work requiring a minimum engine speed.

This setting is effective only when the shift lever is in the AUTO position.

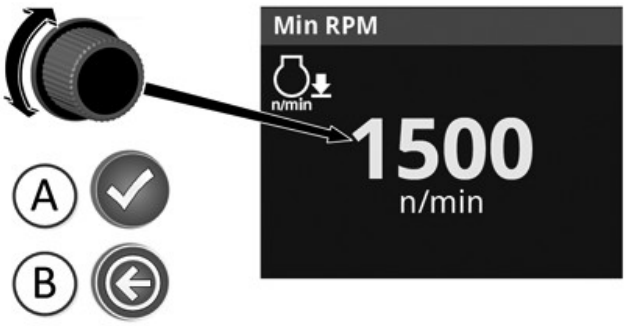
1. Access Minimum rpm in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361259—UN—19DEC18

A—Confirm

3. Set minimum rpm of the engine and confirm with (A). The minimum speed can be set to AUTO or a value between 900 and 2100 rpm. The AUTO setting can be used universally and is suitable for most tasks.



LX368296—UN—19DEC18

A—Confirm

B—Back

OULXA64,6M,0005617-19-28AUG23

CommandQuad™ PLUS Transmission—Load Anticipation



RXA0152954—UN—21JUL16

Load Anticipation Icon

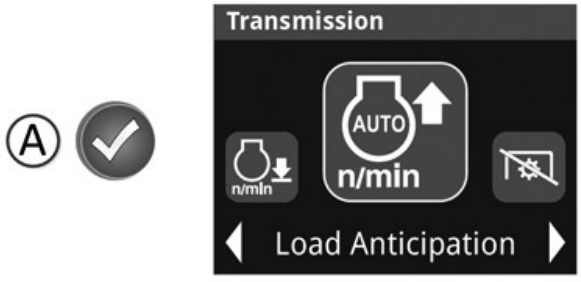
When load anticipation is enabled, the engine speed automatically adjusts to the expected load as soon as the application starts. The load anticipation can be selected for individual applications. The Auto setting enables the load anticipation for all applications shown in the display.

- PTO switched on ⇒ The engine speed automatically rises to maximum speed.
- Hitch movement ⇒ When a hitch movement is detected, the engine speed automatically rises to 1500 rpm.
- EH SCV operation ⇒ Engine speed automatically rises to 1500 rpm when EH SCV operation is detected.

NOTE: The load anticipation function only increases the engine speed as far as the current position of the hand throttle or speed control pedal allows. To enable a speed change to a value higher than the idle speed, the hand throttle or speed control pedal has to be pressed.

This setting is effective only when the shift lever is in the AUTO position.

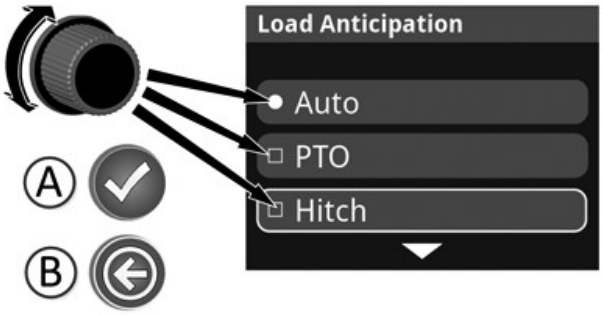
1. Access Load Anticipation in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361261—UN—19DEC18

A—Confirm

3. Select application and confirm with (A). *The factory default setting is Auto, with the engine speed adjustment being active in all applications.*

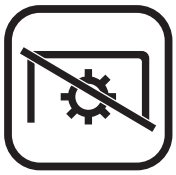


LX361262—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,0005618-19-28AUG23

CommandQuad™ PLUS Transmission—Droop with PTO OFF/ON



RXA0152956—UN—21JUL16

Droop with PTO OFF Icon



RXA0152957—UN—21JUL16

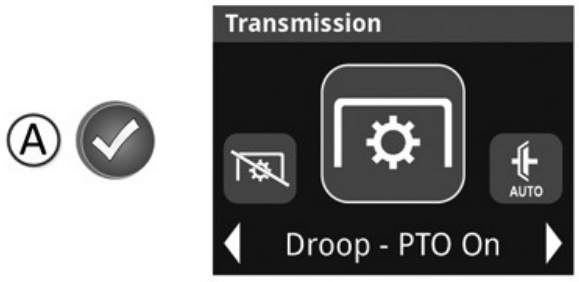
Droop with PTO ON Icon

PTO OFF . . Droop when PTO is off
PTO ON . . . Droop when the PTO is switched on

The speed reduction (droop) allows an adjustment of the automatic shifting operations. The transmission control prevents the engine speed from dropping below a minimum value for the selected application by automatically downshifting. The shifts ensure that the engine always operates in a suitable speed range and provides sufficient torque for the work to be done.

This setting is effective only when the shift lever is in the AUTO position.

1. Access Droop in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
   - PTO OFF - Droop OFF
   - PTO ON - Droop ON
2. Confirm with button (A).

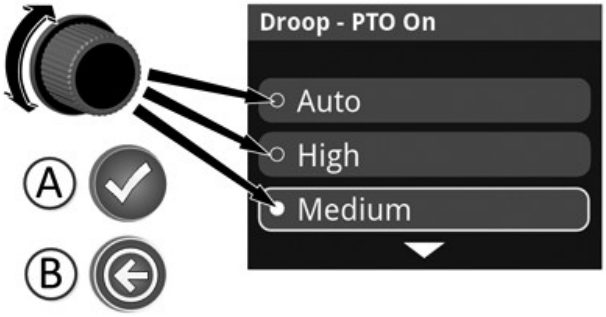


LX361265—UN—19DEC18

Droop with PTO ON Shown

A—Confirm

3. Select the droop and confirm with (A). *The factory default is Auto, which sets the shift points by a universal setting. This setting usually performs satisfactorily.*



LX368292—UN—19DEC18

A—Confirm
B—Back

- Automatic Droop
- High Droop (less sensitive, less automatic shifting)
- Medium Droop (more sensitive)
- Low Droop (very sensitive, more automatic shifting)

OULXA64,6M,0005619-19-28AUG23

CommandQuad™ PLUS Transmission—AutoClutch



RXA0153891—UN—19SEP16

Symbol for AutoClutch

AutoClutch is an automatic clutch function. When AutoClutch is switched on, the clutch pedal does not need to be pressed to stop the tractor.

If both brake pedals are pressed while braking the tractor, the speed is reduced or the tractor stops. When the brake pedals are released again, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or speed control pedal.

The AutoClutch sensitivity can be adapted to different driving situations.

CAUTION: Serious personal injury and property damage due to loss of control of the vehicle.

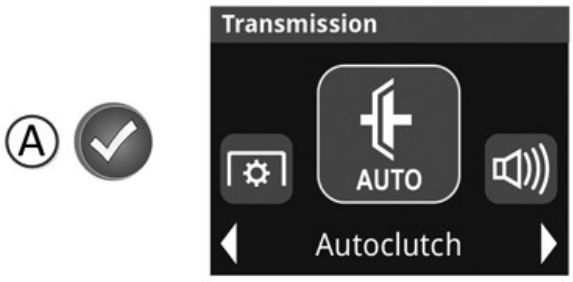
Incorrect setting of the AutoClutch function and unadapted driving may result in uncontrollable driving situations.

- **Note that when braking with the AutoClutch function activated, the braking effect of the motor may be reduced.**
- **When using a trailer, set a low sensitivity, especially on steep, slippery roads.**
- **If the braking effect of the trailer it too slight, the stretching of the tractor/trailer combination will be insufficient.**
- **When AutoClutch is switched off, the clutch pedal needs to be pressed to stop the tractor.**
- **AutoClutch only functions if both brake pedals are coupled together. Actuating a pedal individually (e.g. to steer) does NOT actuate the automatic clutch function.**

NOTE: For driving maneuvers using the steering brake (only one brake pedal is depressed), engine speed must not drop below 900 rpm, otherwise the AutoClutch function becomes active again.

AutoClutch remains switched on after start-up. If AutoClutch is switched off by the operator, it switches on again automatically the next time the tractor is started.

1. Access AutoClutch in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).

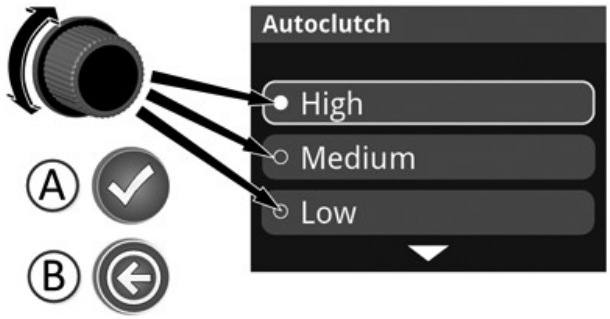


LX361266—UN—19DEC18

A—Confirm

3. Select the sensitivity of the AutoClutch function and confirm with (A). *The factory setting is High. This setting is satisfactory for most applications. If another setting is selected, the selection will remain active even after the tractor is restarted.*

Settings of the AutoClutch sensitivity	
OFF	Automatic clutch function is off. OFF can only be selected if the brake pedals are NOT actuated. AutoClutch does not remain OFF if tractor is restarted. After a restart AutoClutch is automatically ON.
Low	Recommended for trips with trailers on steep slopes, especially on slippery ground conditions. In steep slopes and slippery conditions, selecting the OFF setting increases the controllability.
Medi-um	When driving with trailer in slightly hilly terrain.
High	Mostly for trips without trailers and trips with trailers on level terrain.



LX361267—UN—19DEC18

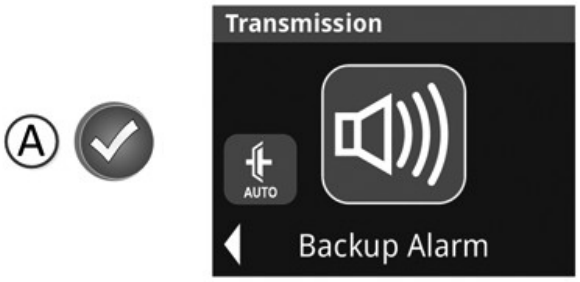
A—Confirm
B—Back

OULXA64,6M,000561A-19-28AUG23

CommandQuad™ PLUS Transmission—Backup Alarm

Use of the backup alarm serves to prevent accidents and may be required by regional legislation. When the backup alarm is activated, an audible warning signal sounds when the direction of travel is commanded to reverse. The warning signal alerts people in the area to the face that the tractor driving in reverse.

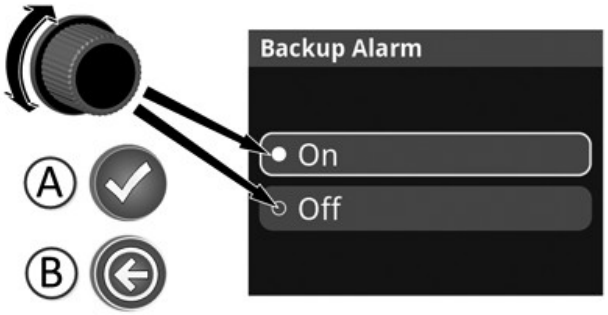
1. Access Backup Alarm in the Transmission menu, see CommandQuad™ PLUS Transmission, Menu.
2. Confirm with button (A).



LX361268—UN—19DEC18

A—Confirm

3. Switch the backup alarm on or off and confirm with (A).



LX361269—UN—19DEC18

A—Confirm
B—Back

OULXA64,6M,000561B-19-28AUG23

AutoPowr™/IVT™—Reverse Drive Lever



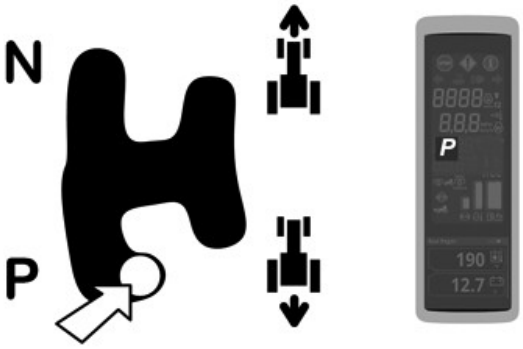
LX386924—UN—31AUG21

Reverse Drive Lever

NOTE: Engaging the park lock also activates the trailer brake.

To change the direction of travel, the clutch does not need to be operated.

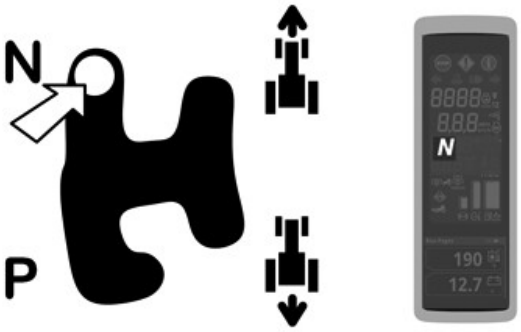
Park Position:



LX386917—UN—15APR20

In this position, park lock is applied to hold the tractor stationary. It prevents the tractor from rolling away. The corner post display shows **P**. When the tractor is stopped, select the park position. The reverse drive lever is locked in park position. Engaging the park lock also activates the trailer brake. **Before leaving the tractor, always move reverse drive lever to park position.**

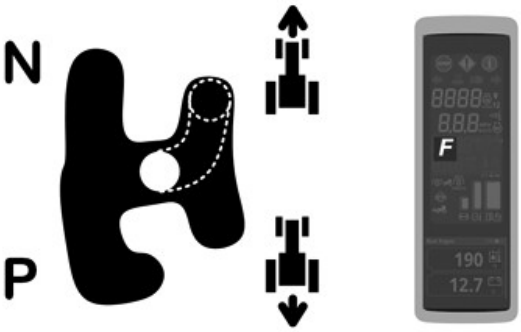
Neutral Position:



LX386918—UN—15APR20

The park lock is not active and the drivetrain from the transmission to the wheels is interrupted. The tractor can roll freely. The instrument panel shows **N**. The reverse drive lever is locked in neutral position.

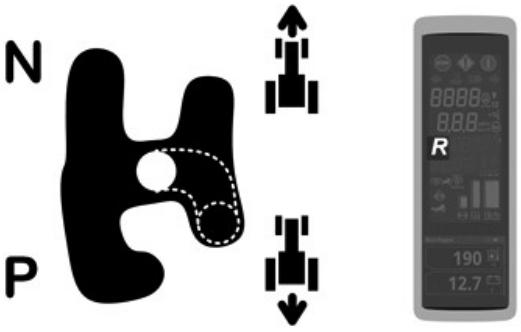
Forward Travel:



LX386919—UN—16APR20

The drivetrain for forward travel is active. The reverse drive lever is not held in the forward position, but returns to the middle position. Thecorner post display shows **F**.

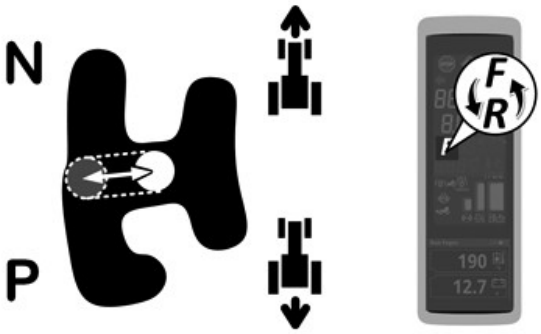
Reverse Travel:



LX386920—UN—16APR20

The drivetrain for reverse travel is active. The reverse drive lever is not held in the reverse position, but returns to the middle position. The corner post display shows **R**.

Power Zero™:



LX386921—UN—17APR20

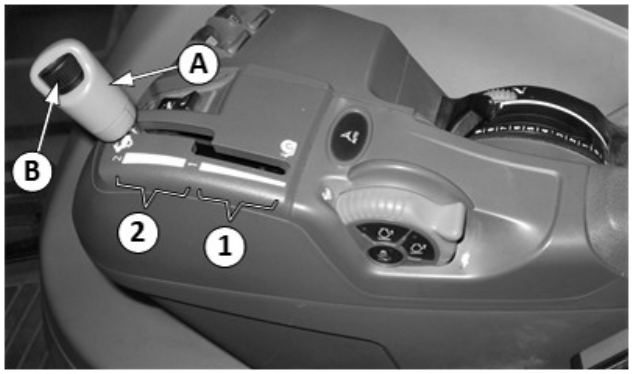
Power Zero™

The reverse drive lever must be moved to the left side of the shift gate. Power Zero™ is used to briefly hold the tractor stationary on a relatively flat surface after forward or backward travel. The display on the corner post display changes between **F** and **R**. *If the lever is moved from Forward or Reverse to the Power Zero™ position (C), the transmission decelerates the tractor until it is stationary. When the tractor is stationary, power remains at the transmission. Depending on speed and load, Power Zero™ cannot reliably bring tractor to a stop if already in motion.* After the reverse drive lever has been released, it moves back to the middle position and Power Zero™ remains active. To command a direction of travel from Power Zero™, the reverse drive lever must be actively moved to the forward or reverse position.

Switching from One Direction of Travel to the Park position:
If the lever is moved from Forward or Reverse directly to Park position, the tractor decelerates to a stop. Remember to actuate the brake pedals as well when driving downhill. When the tractor comes to a standstill, the park lock is activated automatically.

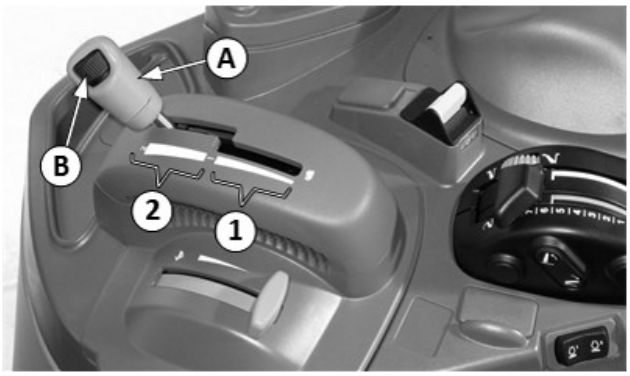
OULXA64,SP,00057B6-19-28AUG23

AutoPowr™/IVT™—Speed Control Lever



LX386893—UN—31MAR20

With CommandARM™



LX386892—UN—31MAR20

Speed Control Lever in the Console

A—Speed Control Lever
B—Speed Wheel for Maximum Speed
1—Speed Band 1
2—Speed Band 2

Ground speed is regulated using the speed control lever. There are two speed bands, (1) and (2):

Speed band	Travel set speed	
	Forward Min.	Forward Max.
(1)	2 km/h (1 mph)	20 km/h (12 mph)
(2)	10 km/h (6 mph)	40 km/h (25 mph)
	Creeper min.	Creeper max.
(1)	30 m/h (100 ft/h)	2 km/h (1 mph)
(2)	40 m/h (130 ft/h)	10 km/h (6 mph)
Note: Slight deviations due to the fitted tires are possible.		

The highest speed of speed band (1) determines the lowest speed of speed band (2). The transition from speed band (1) to (2) is smooth.

The maximum achievable speeds (travel set speed) of the speed bands are set with adjustable wheel (B). See description in this section.

Creeper mode:

- Active when (1) is set to a value lower than 2 km/h or 1 mph.
- Not active when (1) is set to a value higher than 2 km/h or 1 mph or (2) is set to a value higher than 10 km/h or 6 mph.

The default ratio between speed bands 1 and 2 in creeper mode is **1:2.5**. This is done to eliminate rapid acceleration when speed control lever is moved from speed band 1 to 2.

The standard ratio can be overridden for a short time (e. g. when turning on the headlands) by moving the speed control lever in speed band (2) to a maximum of 10 km/h (6 mph). Moving the speed control lever back to speed band 1 resets the values to the last setting.

Reverse speeds depend on the setting for the ratio to the forward speeds. See description in this section.

Retrieving stored speed limits:

- Move the speed control pedal or hand throttle to the end position.
- Move the speed control lever to the end position of speed band 1 or 2.
- Stored speeds are only achieved if the tire size has been correctly set.

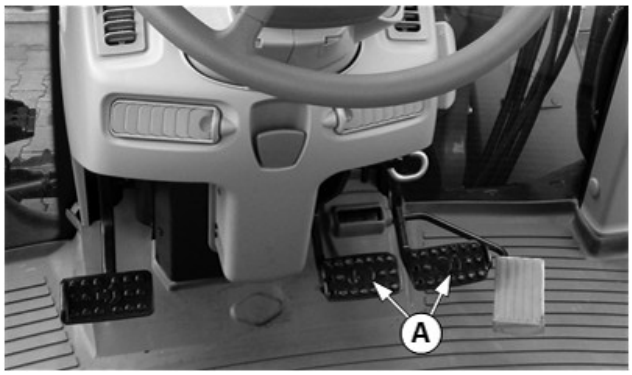
Intermediate positions of the speed control pedal, hand throttle, and speed control lever generate ground speeds that correspond with the ratio to the lever position.

The adjustable wheel (B) does not have a stop and can be *infinitely* adjusted. Turning the adjustable wheel changes the currently stored setting for the maximum achievable speed.

OULXA64,SP,00057B7-19-28AUG23

AutoPowr™/IVT™—Stop and Park the Tractor

For the general theory of operation of the service brake and brake pedals, see Hydraulic Service Brakes in section 50C.



LX386895—UN—31MAR20

A—Brake Pedals

Park the Tractor

1. Reduce throttle to low engine speed.
2. Actuate both brake pedals. *When AutoClutch is engaged, there is no need to press the clutch pedal.*

NOTE: After the engine has started, the AutoClutch function is switched on. See AutoPowr™/IVT™—AutoClutch in this section.

3. Wait until the tractor comes to a standstill and switch the reverse drive lever to the park position.
4. Lower implements and shut off PTO.
5. Shut off engine and withdraw key switch.

Stop tractor with AutoClutch

To reduce the speed or to stop, press both brake pedals (A). When the AutoClutch function is activated, the clutch pedal does not have to be operated.

If the brake pedals are released while the AutoClutch function is active, the tractor automatically accelerates to the last set speed.

IMPORTANT: When AutoClutch is off, the clutch pedal needs to be pressed to stop the tractor. The auto clutch function is only triggered when the brake pedals are locked together.

CAUTION: Avoid severe personal injury and property damage.

Braking at high engine speed requires greater brake pedal force.

After the brakes have been released, the tractor accelerates automatically. Unexpected acceleration forces can lead to loss of control.

Drive with foresight and always adapt the travel speed to the driving situation.

Unilateral braking leads to loss of control over the vehicle.

Avoid danger by locking both brake pedals together when driving on the road.

Using Power Zero™ - See AutoPowr™/IVT™—Reverse Drive Lever in this section.

Using Neutral - See AutoPowr™/IVT™—Reverse Drive Lever in this section.

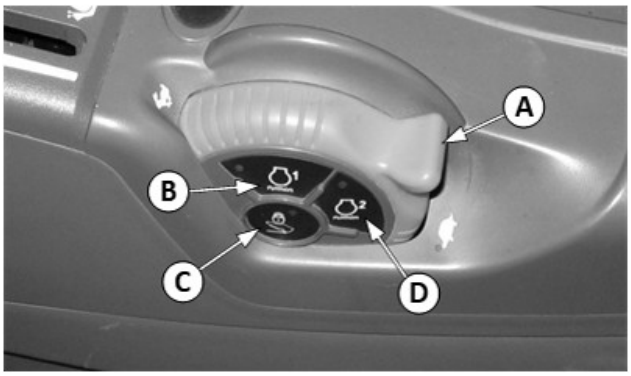
Using Park - See AutoPowr™/IVT™— everse Drive Lever in this section.

OULXA64,SP,00057B8-19-29AUG23

AutoPowr™/IVT™—Speed Control Pedal and Hand Throttle

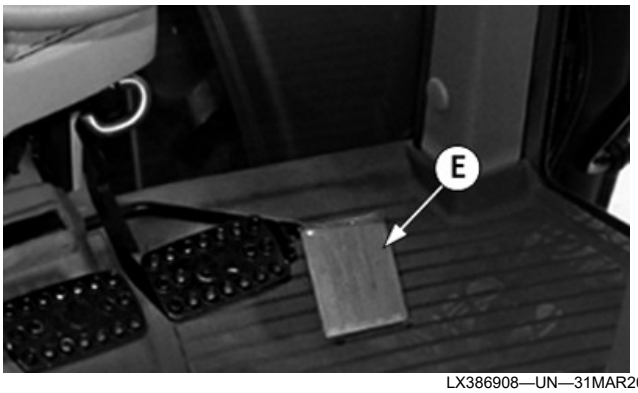
NOTE: In manual mode, automatic engine speed reduction at low loads is not active.

The engine speed is commanded either with the hand throttle or the speed control pedal. The engine speed always depends on the signal that specifies the larger value. The travel speed or engine speed commanded by the speed control pedal (depending on the position of the speed control pedal) can be stored.



LX386894—UN—31MAR20

Hand Throttle



LX386908—UN—31MAR20

Speed Control Pedal

A—Hand Throttle, Forward = Engine Speed Increasing
B—Engine Set Speed 1, Store/ON/OFF
C—Store/Delete Position of Speed Control Pedal
D—Engine Set Speed 2, Store/ON/OFF
E—Speed Control Pedal

Store position of speed control pedal:

1. Bring pedal into desired position.
2. Press button (C), then release.
3. Release the pedal within two seconds. The indicator light in button (C) lights up when a pedal position has been stored.

NOTE: It is not possible to store the speed control pedal position if one of the following operating states has been set:

- *Park position selected*
- *Neutral position selected*
- *Power Zero™ active*
- *Clutch pedal pressed*

To delete the stored speed control pedal position, set one of the following operating states:

- Press button (C) again.
- Apply brake.
- Move the reverse drive lever to park position.
- Set the speed control pedal position to the stored position once again.

After the speed control pedal position has been deleted, the indicator light in button (C) turns off.

If the speed control pedal or the hand throttle is pressed in the direction for increasing the engine speed, the engine speed increases. When load-dependent engine speed reduction is active, the engine speed is automatically adjusted after the specified ground speed has been reached.

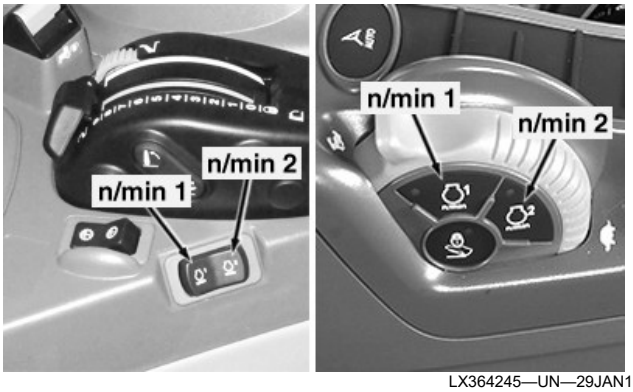
If forward or reverse travel is selected, the speed control pedal or hand throttle can be used to accelerate to the set ground speed. The current ground speed directly depends on the position of the speed control pedal or hand throttle. *Engine speed is directly affected by the position of the speed control pedal only in Manual mode.*

Whenever the speed control pedal or the hand throttle is actuated, the values set for automatic control and maximum engine speed are taken into account (see menu for transmission settings). The set value for the maximum engine speed will not be exceeded, not even at full throttle. In AUTO mode, the engine turns only as fast as needed, even at full throttle. If the speed control pedal and the hand throttle are actuated at full throttle at the same time, the load-dependent cruise control is not active.

OULXA64,SP,00057B9-19-28AUG23

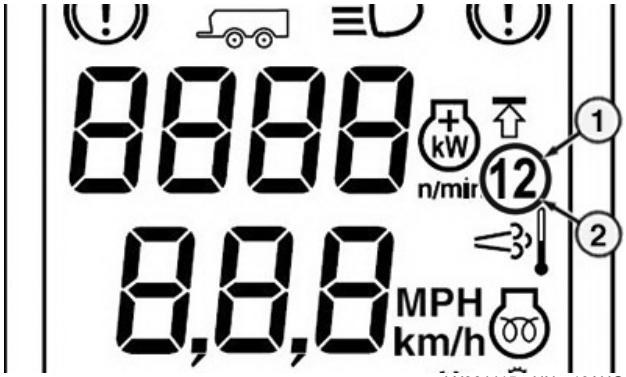
AutoPowr™/IVT™—Engine Set Speed

NOTE: Engine set speeds can also be called up and edited in the engine menu.



LX364245—UN—29JAN19

Without CommandARM™/With CommandARM™



LX364415—UN—19AUG19

- **n/min 1**, engine set speed 1
- **n/min 2**, engine set speed 2

Indicator lights:
An activated engine set speed is shown on the corner post display at (1) or (2).

Set and store engine speeds: Set the engine speed with hand throttle or speed control pedal and hold down **n/min 1** or **n/min 2** until a beep is heard. The current engine speed has been stored; release the button.

Enable or disable engine set speed n/min 1 or n/min 2:
After one of the buttons has been pressed and released, the engine speed is automatically adjusted to the stored value. Engine control ensures that engine speed remains constant.

Pressing the button again deactivates the engine set speed. The engine speed then depends on the current position of the speed control pedal or hand throttle.

If an engine set speed is active, the hand throttle and speed control pedal command the ground speed.

OULXA64,SP,00057BA-19-28AUG23

AutoPowr™/IVT™—Travel Set Speed

For each direction of travel, a maximum speed can be stored for speed bands (1) and (2).

Set the travel set speed:

1. Tractor at a standstill, turn on ignition or engine ON.



LX386899—UN—31MAR20

2. Reverse drive lever in park position **P**, neutral position **N** or in Power Zero™ (arrow).



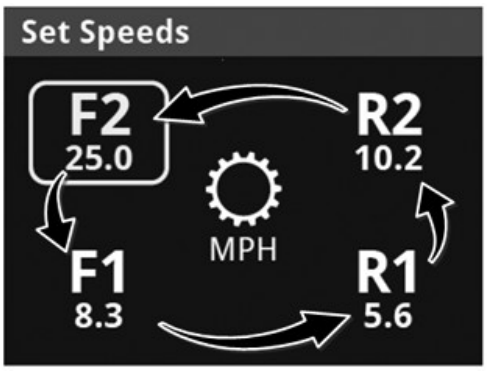
LX386922—UN—16APR20
Position of Reverse Drive Lever

3. Turn the adjustment wheel. The window with the current travel set speeds appears on the corner post display.



LX386901—UN—31MAR20

4. The travel set speeds are highlighted one after the other for a period of two seconds each.



LX386902—UN—31MAR20
Settings Display

F1—Forward, Speed Band 1
F2—Forward, Speed Band 2
R1—Reverse, Speed Band 1
R2—Reverse, Speed Band 2

5. Wait until the desired travel set speed is highlighted and then turn the adjustment wheel to change the setting.



LX386903—UN—31MAR20

Change Setting

6. The set speeds disappear if no input is made for a few seconds. The settings are stored.

Activate travel set speed:

- Move the speed control pedal or hand throttle to the end position.
- Move the speed control lever to the end position of speed band 1 or 2.



LX386905—UN—15APR20

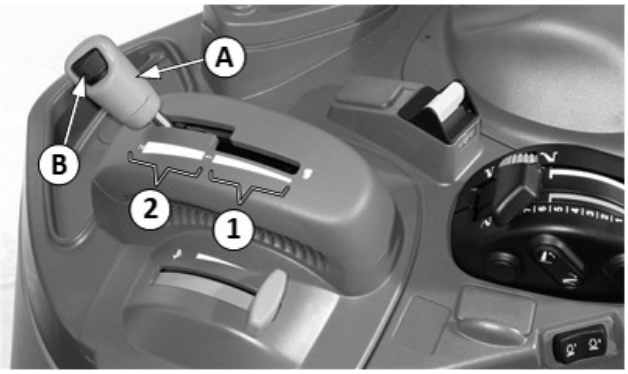
Example: Activate Travel Set Speed F2

OULXA64,SP,00057BB-19-28AUG23

AutoPowr™/IVT™—Travel Set Speed, Guidelines

See also AutoPowr™/IVT™—Travel Set Speed in this section.

- 1 = Ground speeds from 0 to the maximum speed of F1 (forward 1).
- 2 = Ground speeds from the maximum speed of F1 (forward 1) to the maximum speed of F2 (forward 2).
- Travel set speed F1 = Speed that can be selected and saved by the operator. Highest speed of speed band 1 or initial speed of speed band 2.
- Travel set speed F2 = Speed that can be selected and saved by the operator. Highest speed of speed band 2.



LX386892—UN—31MAR20

A—Speed Control Lever
B—Speed Wheel for Maximum Speed
1—Speed Band 1
2—Speed Band 2

The highest speed of speed band 1 determines the lowest speed of speed band 2.

The transition to band 2 is smooth.

NOTE: The difference between the start and end speed of a speed band is at least 12.5%. If a setting drops below this value, F1 or F2 is adapted automatically.

NOTE: F1 stands for travel set speed for forward travel in speed band 1.

F2 stands for travel set speed for forward travel in speed band 2.

OULXA64,SP,00057BC-19-29AUG23

AutoPowr™/IVT™—Clutch Pedal

The clutch pedal (A) can be used at any time to interrupt the drivetrain between the engine and transmission. *Pedaling the clutch has no effect on the PTO shaft.*



LX386911—UN—06APR20

A—Clutch Pedal

The AutoPowr™/IVT™ transmission has an automatic clutch function (AutoClutch). When AutoClutch is engaged, there is no need to press the clutch pedal to stop the tractor. The transmission automatically adjusts and modulates the clutch when braking.

IMPORTANT: When AutoClutch is off, the clutch pedal needs to be pressed to stop the tractor.

See also AutoPowr™/IVT™—Stop and Park the Tractor in this section.

OULXA64,SP,00057BD-19-29AUG23

AutoPowr™/IVT™—Special Features when Maneuvering the Tractor



LX386896—UN—31MAR20

With AutoPowr™/IVT™ transmission, the automatic clutch function (AutoClutch) is active after the tractor has started. See also the AutoClutch description in this section.

Partially pressing **both** of the brake pedals allows the tractor to *creep* - this makes it easier to back up to an implement, for example. Fully pressing the two brake pedals stops the tractor with power still at the transmission. The clutch pedal does not have to be pressed when AutoClutch is active. However, be aware that:

- Full torque remains available even at very slow speeds. In certain conditions, even obstacles will not bring the tractor to a standstill.
- After the brakes are released, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or accelerator pedal.
- If you go back to a tractor without AutoClutch again, remember that the transmission is **not** disconnected when the brake pedals are depressed.

When driving downhill:

- Before engaging the parking lock, bring the tractor to a standstill using the service brake.
- To make the change from forward travel to reverse travel easier,for example, simultaneously apply the service brake.

IMPORTANT: With the speed control lever, a strong reduction in speed can be commanded in a very short time. To promote tracton stability, the control unit of the transmission mitigates the aggressiveness of the speed reduction.

For example, to ensure the stability of trailers, it is strongly recommended to support a strong reduction in speed with the service brake.

OULXA64,SP,00057BE-19-28AUG23

AutoPowr™/IVT™—Downhill Braking of Tractors with Trailer

This description is valid for tractors with AutoPowr™/IVT™ transmission and pneumatic or hydraulic trailer brake system.

CAUTION: Risk of accidents with severe or fatal injury.

On slopes with slippery ground, the tractor wheels can lose traction. A vehicle with wheels that are blocked or sliding sideways is uncontrollable.

Prevent any risk by following the precautions in this description.

- Always pay attention to the ground conditions and inclines and drive in a cautious, anticipatory way. Reduce the speed before reaching a hazardous area.
- Always reduce speed gradually, never abruptly. This applies to both, reducing the engine speed and to speed reduction by means of the transmission.
- Couple the brake pedals together and gently operate them.
- Avoid strong steering movements.

Downhill Braking of Tractors with Trailer:

To brake a hitched-up unit (tractor plus trailer) under

control, a stretching of the hitch-up is necessary for the stable driving characteristics.

Travel speed reductions are creating a strong braking effect. This strong braking effect is caused by the gear ratio from transmission and engine, and occurs intensive if travel speed is low.

To keep the hitched-up unit stretched in this situation, be sure that braking is primarily done by the service brake of tractor. As an alternative, the clutch pedal can be pressed at the same time as the service brake is pressed. In both cases, the trailer brake is actuated sufficiently to stretch the hitched unit. This method provides the best possible driving stability during stopping or when slowing down for changing directions.

For field applications but not on public roads: While commanding the desired travel speed with the speed control pedal, slightly push both brake pedals to initiate braking and stretch the trailer. Do not use this feature for travel speeds above 15 km/h (9 mph) and for short distance only.

NOTE: This Feature can be deactivated through TIN DA 72.

OULXBER,SP,00030AC-19-28AUG23

AutoPowr™/IVT™—Using Individual Brake Pedals

CAUTION: Avoid severe personal injury and property damage.

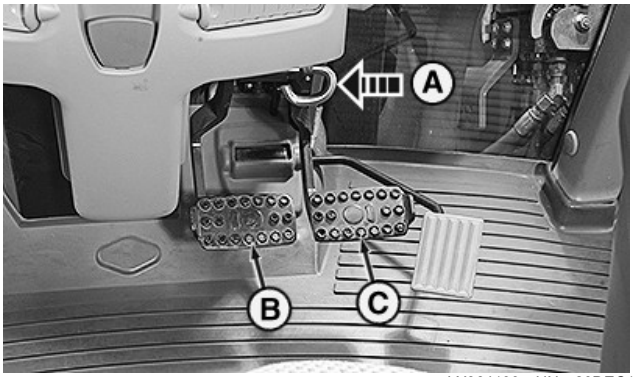
Braking at high engine speed requires greater brake pedal force.

After the brakes have been released, the tractor accelerates automatically. Unexpected acceleration forces can lead to loss of control.

Drive with foresight and always adapt the travel speed to the driving situation.

Unilateral braking leads to loss of control over the vehicle.

Avoid danger by locking both brake pedals together when driving on the road.



LX364199—UN—20DEC18

Brake Pedals

A—Pedal Lock for Both Brake Pedals
B—Left Brake Pedal
C—Right Brake Pedal

Directional corrections for field work:

Unlock brake pedals and use them individually to make directional corrections. When AutoClutch is on, the clutch is automatically disengaged low idle speed if only one brake pedal is pressed. To avoid drive train interruptions, switch off AutoClutch or increase engine speed and ground speed.

IMPORTANT: When AutoClutch is switched off, the clutch pedal needs to be pressed to stop the tractor.

Directional corrections when attaching implements or trailers:

Unlock brake pedals and use them individually to make directional corrections when approaching an implement. Press the brake pedal while slowly increasing the engine speed until the steering process is complete. If AutoClutch is on, avoid lower idle speed. If the engine speed is reset to low idle while a brake pedal is being pressed, the tractor will decelerate to a stop.

OULXA64,SP,00057C0-19-28AUG23

AutoPowr™/IVT™—Cold-Weather Starting



LX374427—UN—05JUN19



LX386897—UN—31MAR20

Oil temperatures below freeze point can cause inadequate lubrication and problems with hydraulic valves.

If the tractor is started in such climatic conditions, an automatic function prevents the drive system from engaging too soon. The diagnostic trouble code TIN 524193.14 (INFORMATION FOR OPERATOR: Transmission Warm-up Routine is Active) is displayed.

Start warm-up routine:

1. Start the engine.
2. Move reverse drive lever to park position.

   If the reverse drive lever is not in park position, code TIN 524193.31 (INFORMATION FOR OPERATOR: Transmission Warm-up Routine cannot be Activated, Park Lock must be Engaged is displayed.
3. The warm-up routine starts automatically. Refer to the table.
4. The tractor can only be driven after the specified duration has passed.

Duration of the warm-up routine, depending on the temperature:

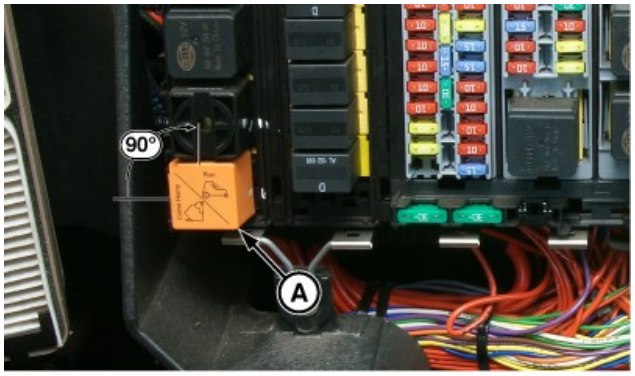
Temperature Range	Warm-up time
Above -7°C (19.4°F)	None
Between -8°C (17.6°F) and -15°C (5°F)	approx. 95 seconds
Between -16°C (3.2°F) and -20°C (-4°F)	approx. 155 seconds
Between -21°C (-5.8°F) and -30°C (-22°F)	approx. 245 seconds

NOTE: At temperatures below -30°C (-22°F), only the transmission input shaft is turned. The warm-up phase starts as soon as the transmission oil temperature has reached -30°C (-22°F). During the warm-up routine, engine speed may rise to 1200 rpm.

OULXA64,SP,00057C1-19-28AUG23

AutoPowr™/IVT™—Come-Home Mode

If there is an electrical fault in the transmission, the tractor can possibly still be driven in come-home mode.



LX514956—UN—22NOV23

Connector Rotated 90° Clockwise

A—Connector

To do this, stop the engine, pull out connector (A), turn it 90° in clockwise direction, and reinsert it as shown. Then restart the engine.

See also Fuses and Relays (LCS) with AutoPowr™/IVT™ Transmission in section 220B.

In Come-Home Mode:

1. Maximum speed is 9 km/h (5.6 mph).
2. The AutoClutch function is disabled.
3. The Power-Zero is disabled.
4. Changing direction is possible only when the machine is stopped and the clutch pedal is pressed.

To start, proceed as follows:

1. Press the clutch pedal and hold it down.
2. Use the reverse drive lever to select direction of travel.
3. Start by releasing the clutch pedal.

OULXA64,SP,00057C2-19-22SEP23

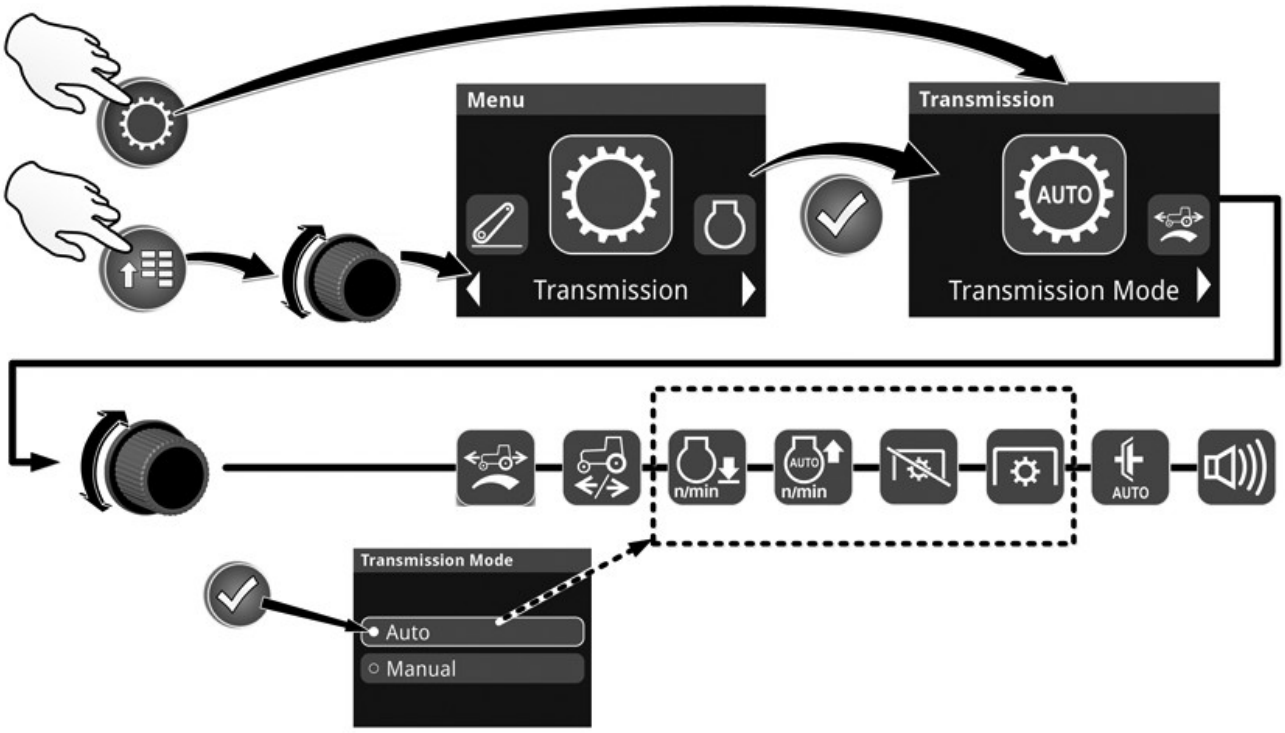
AutoPowr™/IVT™—Towing the Tractor

If the tractor needs to be towed and park lock cannot be released, follow the instructions in section 110:

- Towing the Tractor
- Release the Park Lock Manually

OULXA64,SP,00057C3-19-29AUG23

AutoPowr™/IVT™—Menu

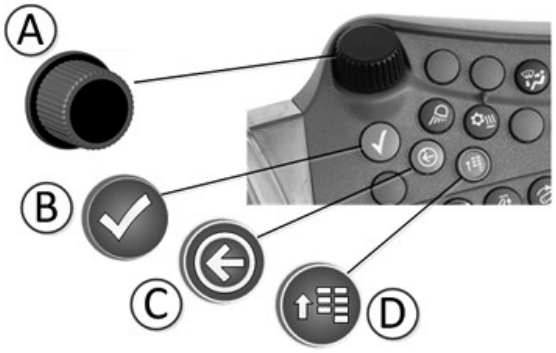


LX368294—UN—19DEC18

There are two ways to access the Transmission menu:

- Call up Transmission menu with the Transmission button.
- Navigate to the Transmission menu via the main menu.

Basic controls for navigating and setting:



LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back
D—Access Main Menu

OULXA64,SP,00057C4-19-28AUG23

AutoPowr™/IVT™—Symbols in the Transmission Menu



RXA0152950—UN—21JUL16

PowrReverser™ Selection



RXA0152951—UN—21JUL16

Min rpm Selection



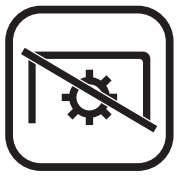
RXA0152953—UN—21JUL16

Rev/Fwd Ratio Selection



RXA0152954—UN—21JUL16

Load Anticipation Selection



RXA0152956—UN—21JUL16

Droop with PTO OFF Selection



RXA0152957—UN—21JUL16

Droop with PTO ON Selection



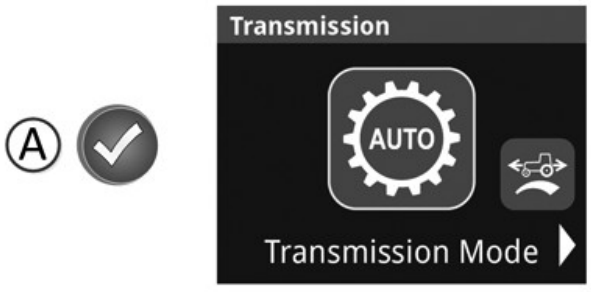
RXA0153891—UN—19SEP16

AutoClutch Selection

OULXA64,SP,00057C5-19-28AUG23

AutoPowr™/IVT™—Transmission Mode

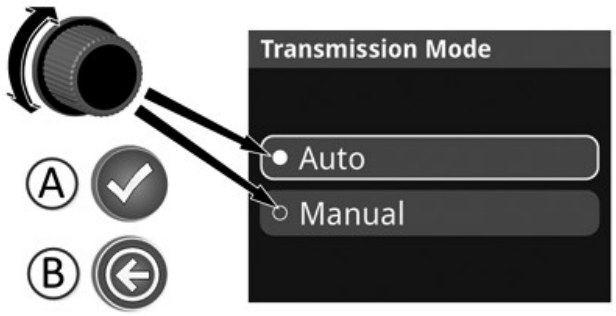
1. Access transmission mode in the Transmission menu, see AutoPowr™/IVT™—Menu.
2. Confirm with button (A).



LX368316—UN—22JAN19

A—Confirm

3. Select Auto" or "Manual" and confirm with (A).



LX368317—UN—22JAN19

A—Confirm
B—Back

NOTE: The following settings are only available if the Auto transmission mode has been selected: Minimum Speed, Load Anticipation, Droop with PTO OFF/ON.

OULXA64,SP,00057C6-19-23OCT23

AutoPowr™/IVT™—PowrReverser™



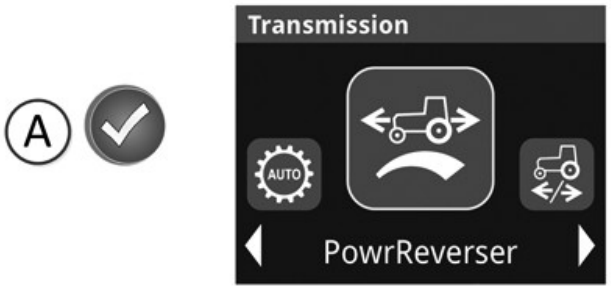
RXA0152950—UN—21JUL16

PowrReverser™ Icon

The PowrReverser™ modulation sets the aggressiveness of the change in direction. The modulation can be adjusted in three stages, 1-3.

The "1" setting is the least aggressive and is used in applications where a smooth change of direction is required. The "3" setting is the most aggressive. It is used in high productivity applications where quick direction changes are required.

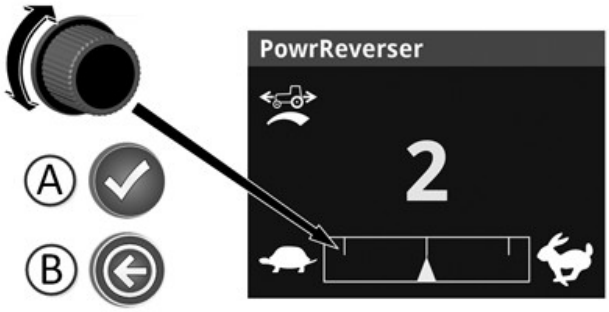
1. Access PowrReverser™ in the Transmission menu, see AutoPowr™/IVT™—Menu.
2. Confirm with button (A).



LX361251—UN—19DEC18

A—Confirm

3. Set the aggressiveness of the direction change and confirm with (A). 1 is less aggressive; 3 is aggressive.



LX386923—UN—16APR20

Adjust Aggressiveness of Change in Direction

A—Confirm
B—Back

OULXA64,SP,00057C7-19-29AUG23

AutoPowr™/IVT™—Reverse/Forward Ratio

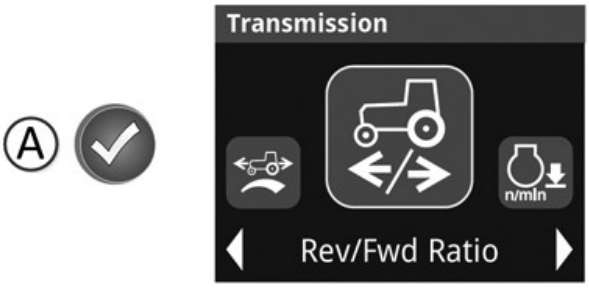


RXA0152953—UN—21JUL16

Rev/Fwd Ratio Icon

When the direction is changed from forward to reverse and vice versa, an automatic speed change can be selected. The choice of different forward and reverse speeds makes it possible to optimally adapt the driving maneuvers to the application.

1. Access forward/reverse ratio in the Transmission menu, see AutoPowr™/IVT™—Menu.
2. Confirm with button (A).



LX361257—UN—19DEC18

A—Confirm

3. Select the size of the speed increase and confirm with (A). The value shown is the multiplication factor that is applied to the forward speed to calculate the reverse speed. **Example:** If a speed of **10 km/h** is stored for the forward drive and **Fx0.2** is selected as the ratio for the reverse speed, then the reverse speed **10 km/h x 0.2 = 2 km/h** applies for direction changes.



LX361258—UN—19DEC18

A—Confirm
B—Back

OULXA64,SP,00057C8-19-29AUG23

AutoPowr™/IVT™—Min RPM



RXA0152951—UN—21JUL16

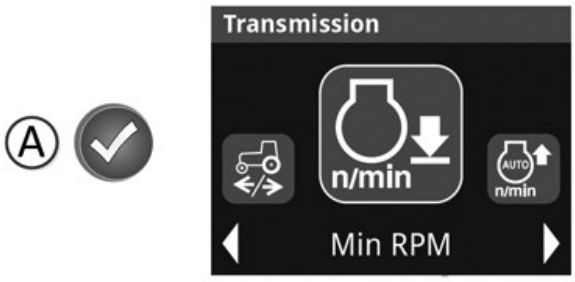
Min rpm Icon

The setting is only effective if the AUTO transmission mode is active.

For the engine speed, a minimum value can be specified. The transmission control automatically shifts into an appropriate ratio, in order not to fall below the specified minimum speed of the engine even at low

load. This results in advantages in work requiring a minimum speed of the engine.

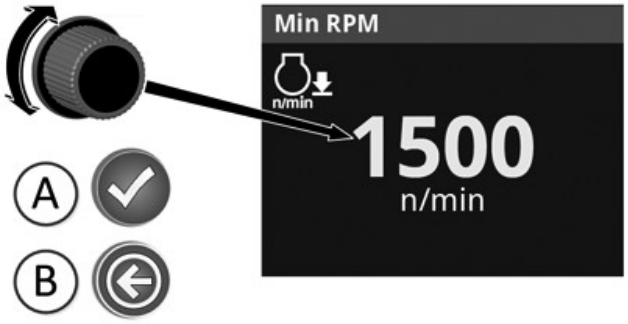
1. Access Min RPM in the Transmission menu, see AutoPowr™/IVT™—Menu.
2. Confirm with button (A).



LX361259—UN—19DEC18

A—Confirm

3. Set minimum rpm of the engine and confirm with (A). *The minimum rpm can be set to a value between 900 and 2100 rpm. Alternatively, the AUTO setting can be selected, which corresponds to a minimum rpm of 1200 rpm.*



LX368296—UN—19DEC18

A—Confirm
B—Back

OULXA64,SP,00057C9-19-29AUG23

AutoPowr™/IVT™—Transmission, Load Anticipation



RXA0152954—UN—21JUL16

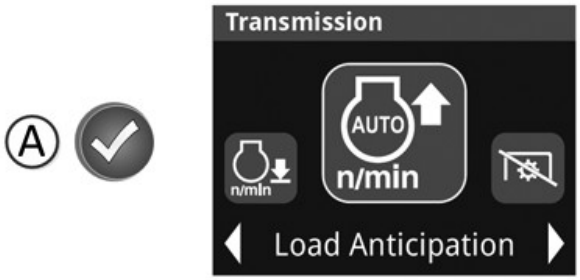
Load Anticipation Icon

This function is only effective if the AUTO transmission mode is selected.

When load anticipation is enabled, the engine speed automatically adjusts to the expected load as soon as the application starts. The load anticipation can be selected for individual applications. The Auto setting enables the load anticipation for all applications shown in the display.

- PTO switched on ⇒ The engine speed automatically rises to maximum speed.
- Hitch movement ⇒ When a hitch movement is detected, the engine speed automatically rises to 1500 rpm.
- EH (electro-hydraulic) SCV operation ⇒ Engine speed automatically rises to 1500 rpm when EH SCV operation is detected.

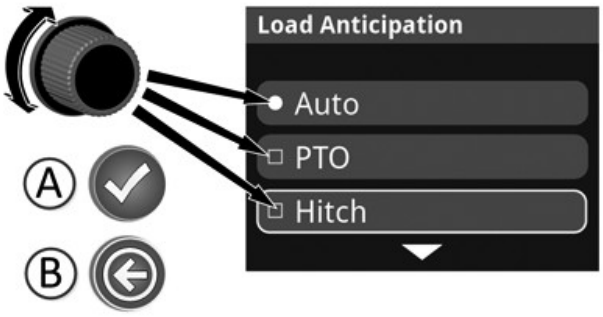
1. Access Load Anticipation in the Transmission menu, see AutoPowr™/IVT™—Transmission, Menu
2. Confirm with button (A).



LX361261—UN—19DEC18

A—Confirm

3. Select application and confirm with (A). *The factory default setting is Auto, with the engine speed adjustment being active in all applications.*

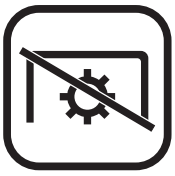


LX361262—UN—19DEC18

A—Confirm
B—Back

OULXA64,SP,00057CA-19-29AUG23

AutoPowr™/IVT™—Droop with PTO OFF/ ON



RXA0152956—UN—21JUL16

Droop with PTO OFF Icon



RXA0152957—UN—21JUL16

Droop with PTO ON Icon

PTO OFF—Droop Independent of PTO Shaft
PTO ON—Droop Only when PTO Shaft is On

PTO OFF . . Droop when PTO is off
PTO ON . . . Droop when the PTO is switched on

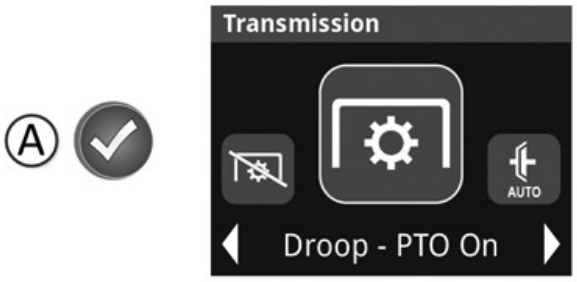
This function is only effective if the AUTO transmission mode is selected.

The droop enables the automatically controlled transmission ratio to be adjusted. By automatically reducing the ratio, the transmission control prevents the engine speed from dropping below a minimum value. The automatic adaptation ensures that the engine always operates in a suitable speed band and provides sufficient torque for the work to be done.

Selecting a high droop causes a late response to the load. Selecting a low droop causes an early response to the load.

- High droop - The gear ratio is only adjusted when the engine speed is low.
- Low droop - The gear ratio is already adjusted when the engine speed is high.

1. Access Droop in the Transmission menu, see AutoPowr™/IVT™—Menu.
   - PTO OFF - Droop OFF
   - PTO ON - Droop ON
2. Confirm with button (A).

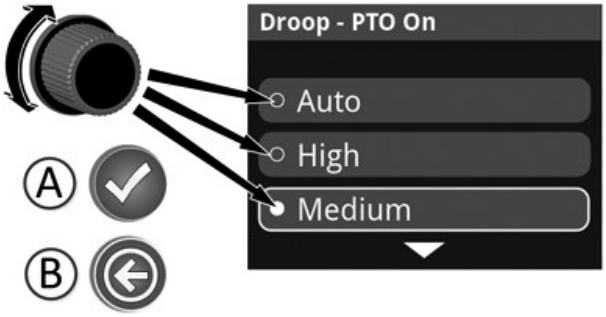


LX361265—UN—19DEC18

Droop at PTO on Shown

A—Confirm

3. Select the speed reduction sensitivity and confirm with (A). ***The factory setting is Auto, which means that the ratio is adjusted using a universal setting. This setting usually performs satisfactorily.***



LX368292—UN—19DEC18

A—Confirm
B—Back

- Automatic droop (recommended)
- High droop (has an unfavorable effect on acceleration)
- Medium droop
- Low droop

OULXA64,SP,00057CB-19-29AUG23

AutoPowr™/IVT™—AutoClutch



RXA0153891—UN—19SEP16

AutoClutch Symbol

AutoClutch is an automatic clutch function. When

AutoClutch is switched on, the clutch pedal does not need to be pressed to stop the tractor.

If both brake pedals are pressed while braking the tractor, the speed is reduced or the tractor stops. When the brake pedals are released again, the tractor automatically accelerates up to the speed currently commanded by the hand throttle or speed control pedal.

The AutoClutch sensitivity can be adapted to different driving situations.

CAUTION: There is a risk of fatal personal injuries and high property damage due to loss of control over the vehicle.

Incorrect setting of the AutoClutch function and unadapted driving may result in uncontrollable driving situations.

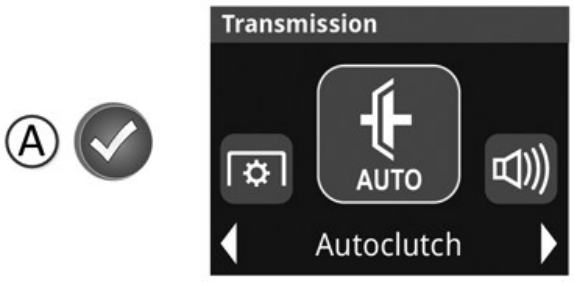
For transmission settings and driving style, observe the points listed below.

- Note that when braking with the AutoClutch function activated, the braking effect of the engine may be reduced.
- When using a trailer, set a low sensitivity, especially on steep, slippery roads.
- Too little braking effect of a trailer can lead to insufficient stretching of the train.
- When AutoClutch is switched off, the clutch pedal needs to be pressed to stop the tractor.
- AutoClutch only functions if both brake pedals are coupled together. Actuating a pedal individually (e.g. to steer) does NOT actuate the automatic clutch function.

NOTE: For driving maneuvers using the steering brake (only one brake pedal is depressed), engine speed must not drop below 900 rpm, otherwise the AutoClutch function becomes active again.

AutoClutch remains switched on after start-up. If AutoClutch is switched off by the operator, it switches on again automatically the next time the tractor is started.

1. Access AutoClutch in the Transmission menu, see AutoPowr Transmission—Menu.
2. Confirm with button (A).

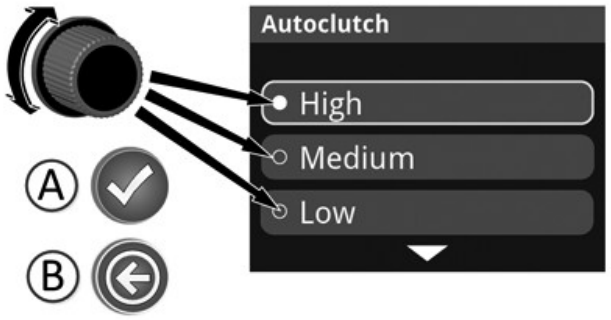


LX361266—UN—19DEC18

A—Confirm

3. Select the sensitivity of the AutoClutch function and confirm with (A). *The factory setting is High. This setting is satisfactory for most applications. If another setting is selected, the selection will remain active even after the tractor is restarted.*

Settings of the AutoClutch sensitivity	
OFF	Automatic Clutch function is off. OFF can only be selected if the brake pedals are NOT actuated. The OFF setting is not saved when the tractor is restarted.
Low	Recommended for trips with trailers on steep slopes, especially on slippery ground conditions.
Medi-um	When driving with trailer in slightly hilly terrain.
High	Mainly for trips without a trailer and trips with a trailer on level ground (factory setting).



LX361267—UN—19DEC18

A—Confirm
B—Back

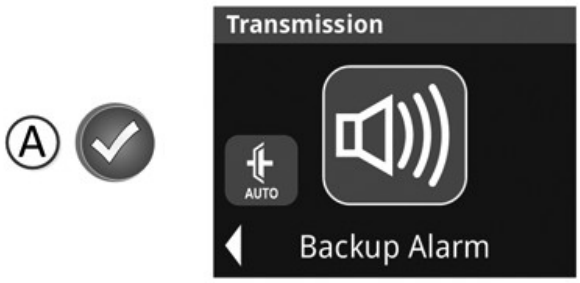
OULXA64,SP,00057CC-19-29AUG23

AutoPowr™/IVT™—Backup Alarm

Use of the backup alarm serves to prevent accidents and may be required by regional legislation. When the backup alarm is activated, an audible warning signal sounds when the direction of travel is commanded to reverse. The warning signal alerts people in the area to the tractor driving in reverse.

1. Access the backup alarm in the Transmission menu, see AutoPowr™/IVT™ — Menu.

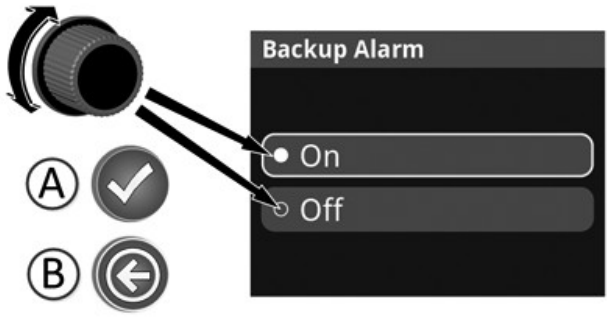
2. Confirm with button (A).



LX361268—UN—19DEC18

A—Confirm

3. Switch the backup alarm on or off and confirm with (A).



LX361269—UN—19DEC18

A—Confirm
B—Back

OULXA64,SP,00057CD-19-28AUG23

Hitch—Maximum Lifting Force

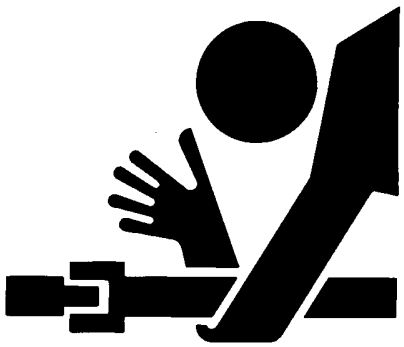
Information on maximum lifting force can be found in the Specifications section.

NOTE: When driving on public roads, observe legal restriction with regard to axle loads and tire load capacity. Due to these legal restrictions, maximum permitted lifting force may be less than the stated value.

LX25458,MY20,00009FE-19-19JUN23

PTO Shaft—General Information

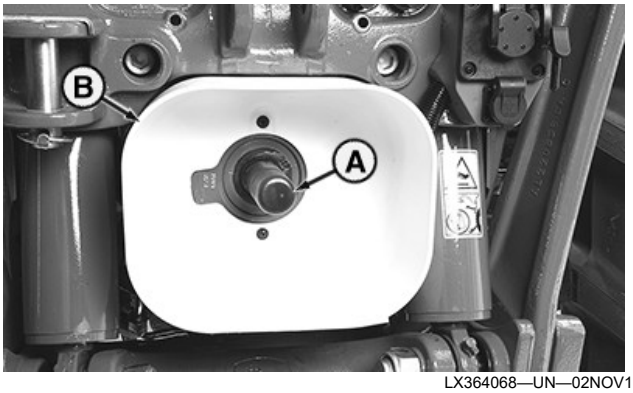
Front PTO—PTO Shield



TS276—UN—23AUG88

CAUTION: Remove protective cap (A) only when a PTO-driven implement is to be attached.

As soon as the implement is removed, reinstall protective cap!



LX364068—UN—02NOV18

Protective Cap and PTO Shield

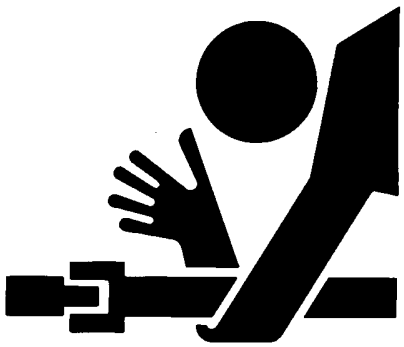
CAUTION: Operate the PTO shaft only if there is a PTO shield (B). Switch off the PTO before raising the implement.

CAUTION: Before using the PTO, the maximum permissible angle of articulation on the universal-jointed shaft needs to be determined. During operation, there must be no contact between the PTO guard and the universal-jointed shaft.

When connecting the PTO shaft, wear gloves.

OULXA64,6M,000561C-19-15JUN23

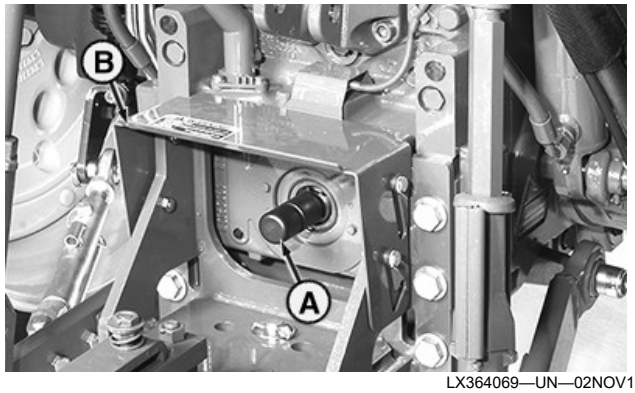
Rear PTO—PTO Shield



TS276—UN—23AUG88

CAUTION: Remove protective cap (A) only when a PTO-driven implement is to be attached.

As soon as the implement is removed, reinstall protective cap!



LX364069—UN—02NOV18

The master shield (B) can be folded up to allow an implement to be connected, but it must be folded down again afterwards. *There are various versions of PTO guard that are not shown here.*

CAUTION: Never operate PTO unless the master shield is in the position shown. Switch off the PTO before raising the implement.

CAUTION: Before using the PTO, the maximum permissible angle of articulation on the universal-jointed shaft needs to be determined. During operation, there must be no contact between the PTO guard and the universal-jointed shaft. This is important when turning corners.

With type 3 PTOs using a 45 mm (1.77 in) diameter shaft with 20 splines, clearance in the area of the PTO shield may be restricted. Bear this in mind when operating to avoid unnecessary damage.

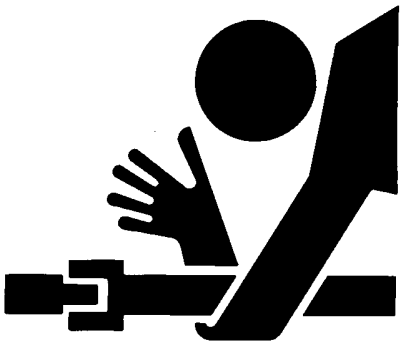
When connecting the PTO, wear gloves.

CAUTION: Always put a guard (C) on the universal-jointed shaft and take action to prevent it from turning with the shaft. Do not operate the universal-jointed shaft unless a guard is installed that covers the PTO shaft completely and does not turn with the shaft.



LX1049906—UN—18FEB11
OULXA64,6M,000561D-19-15JUN23

None-Rotating PTO Guard



TS276—UN—23AUG88

CAUTION: Danger to life from rotating parts.

Clothing or body parts can be caught in rotating parts. This leads to life-threatening injuries.

If no attachment is connected, the PTO shaft must be covered with the non-rotating PTO guard.



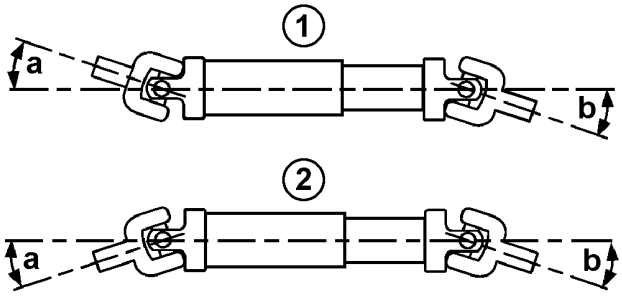
LX514250—UN—12MAY22

When the rear PTO is not in use, cover the PTO drive shaft with the non-rotating PTO guard.

Align the PTO guard with the two pins and turn clockwise until it clicks into place.

oulxa64,1652677773998-19-23MAY22

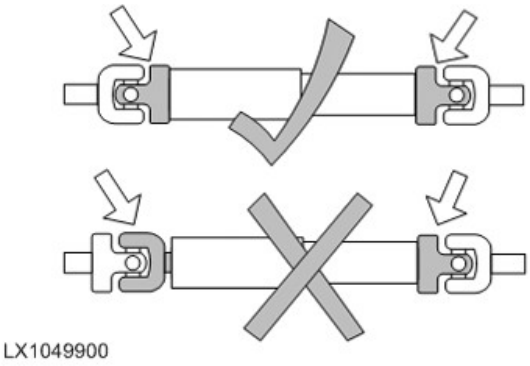
Operating Instructions



LX1049749

LX1049749—UN—21MAY10

Observe angle of articulation of universal-jointed shaft.



LX1049900—UN—22FEB11

Correctly align the yokes of the joints to each other.

1—Z-Shaped Layout
2—W-Shaped Layout

As far as possible, angles (a) and (b) at the universal joints should be the same at both ends of the universal-jointed shaft.

In applications where this is not the case (for example, sharp turns with PTO engaged), it is recommended to use a continuous-velocity driveshaft.

NOTE: The two schematic drawings do not show any shields on the universal-jointed shaft. A shield is mandatory when using universal-jointed shafts.

IMPORTANT: Only operating conditions described in the Operator's Manuals of the various implements are permitted. This applies particularly to maximum permissible angle of articulation, to the use of overrunning couplers, freewheel clutches and overload clutches, and to the prescribed amount of overlap when shaped pipes are pushed together.

IMPORTANT: Before using a PTO-driven implement, ensure that the universal-jointed shaft is lubricated regularly. Comply with instructions in the Operator's Manual provided by the manufacturer.

IMPORTANT: On multi-component telescoping universal-jointed shafts, the yokes at each end must be aligned as shown. The yokes at each end must NOT be at 90° to one another (see arrows in illustration on the right).

LX25458,MY20,0000A00-19-30MAR23

PTO Speeds

The engine speeds at which standard PTO speeds are achieved are listed under Engine in the Specifications Section.

LX25458,0000A01-19-16MAY22

PTO Options

IMPORTANT: With the 540 series rear PTO, implements may only be operated if their power input never exceeds 70 kW (94 PS, 95 hp).

The tractor may be equipped with one of the following PTO versions:

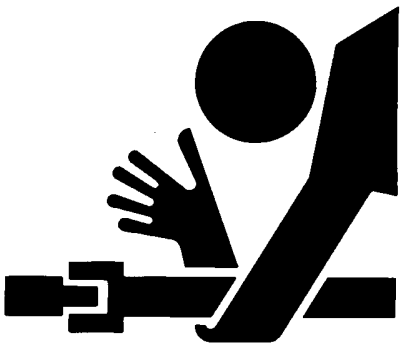
Rear PTO	Application
• Clockwise-rotating and reversible	540/1000
• Clockwise-rotating and shiftable	540/540E/1000

Front PTO	Application
• Clockwise-rotating (viewed in direction of travel)	1000

IMPORTANT: The front PTO may drive implements only if their power input does not exceed 80 kW (109 PS, 107 hp).

OULXA64,6M,000561E-19-08MAR21

Front PTO



TS276—UN—23AUG88

CAUTION: Danger to life from rotating components.

Unsuitable components, missing protective equipment, or improper handling of the PTO shaft can lead to serious accidents.

- **Only connect and disconnect the PTO shaft, and carry out other work when the engine is at standstill.**
- **Switch off the engine and remove the ignition key to prevent unauthorized starting of engine.**
- **Use only suitable PTO shafts recommended by the manufacturer.**
- **Use only undamaged components.**
- **Install all guards properly before operating the PTO shaft.**
- **Only operate PTO shafts at permissible speeds; see also the specifications from the implement manufacturer.**
- **Switch on the PTO only after danger zone is clear of people. See also Safety Instructions in Section 05 and Operating Instructions in 60A of this Operator's Manual.**

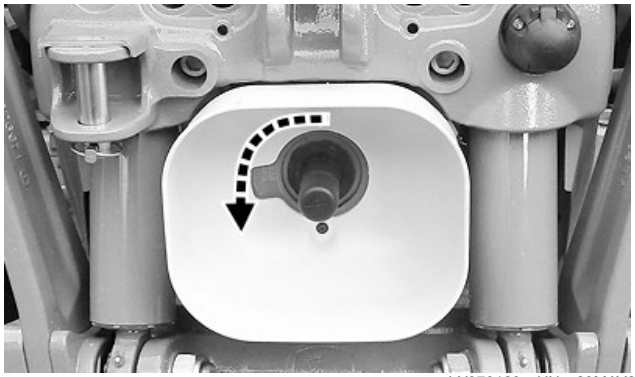
CAUTION: Remove protective cover only when a PTO-driven implement is to be attached.

As soon as the implement is removed, reinstall protective cap.

IMPORTANT: The clockwise-rotating front PTO (viewed in direction of travel) operates at a rated speed of 1000 rpm (engine speed 1969 rpm). The front PTO has one of the following PTO stub shafts:

- **6 teeth for Europe**
- **21 teeth for North America**

IMPORTANT: The front PTO may drive implements only if their power input never exceeds 80 kW (109 PS; 107 hp).



LX373123—UN—23MAY21

Clockwise-Rotating front PTO (Viewed in Direction of Travel)

NOTE: If the PTO switches off automatically and cannot be restarted immediately, comply with the relevant diagnostic trouble codes. If there is high resistance to starting or if the oil is very cold, this is registered by the control software and the PTO is switched off. The PTO cannot be restarted until 30 seconds have elapsed.

OULXA64,MXtoMR,000561F-19-23SEP21

Engage and Disengage the Front PTO

CAUTION: Always disengage the PTO when not in use.

CAUTION: High-inertia implements do not come to a standstill the moment a PTO is shifted to the disengaged position. Do NOT approach the implement while it is coasting down. Do not work on the attached implement until it has stopped.

IMPORTANT: To ensure safe and proper operation, it is recommended that the driver fully understands how components interact and follows proper procedures when using the PTO.

When the rear PTO remote control is activated in the cab, the system no longer monitors whether the operator is in the seat, as long as the status LED next to the remote control button is solid or flashing. Once activated, the front and rear PTOs will continue to operate even when the operator is not in the seat.

Before exiting the cab while the engine and PTO are running, regularly check the status LED next to the remote control button. If the LED is steady or flashing, it indicates that the PTO auto shutoff feature is turned off. Ensure that bystanders are not within the danger area of the PTO and implement. Be aware that the front and rear PTOs remain running when the operator leaves the seat.

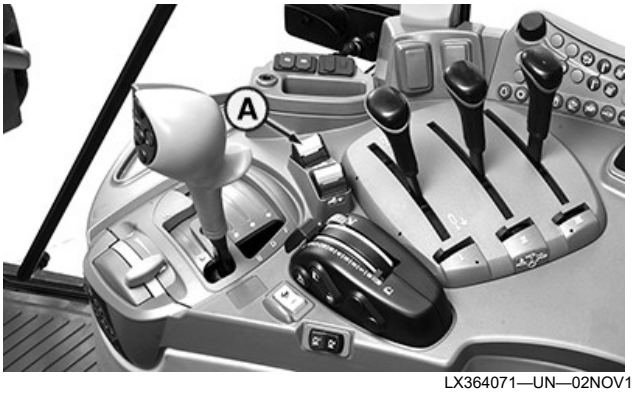


LX609912—UN—29JUL24

Status LED: Remote Control Button

Engage the PTO

1. Press switch (A) down and then push forward.



LX364071—UN—02NOV18

Cab without CommandARM

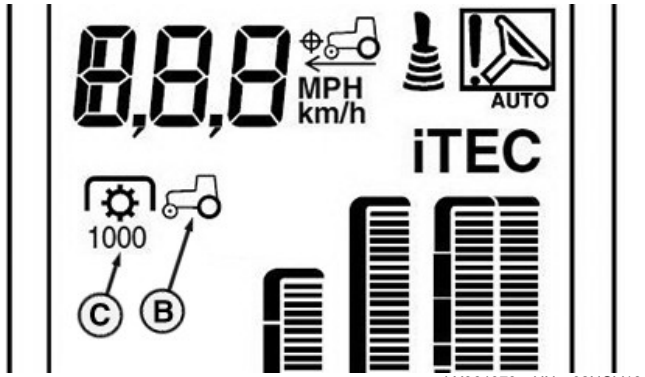


LX364072—UN—02NOV18

Cab with CommandARM

A—Front PTO Switch

2. The PTO starts to rotate and indicator lights (B) and (C) light up.



LX364073—UN—02NOV18

B—PTO Indicator Light
C—Front PTO Indicator Light

NOTE: If the engine is shut off and then restarted while the PTO is running, the PTO will not operate.

To continue working, disengage the PTO and engage it again.

Disengage the PTO

1. Pull switch (A) back and release.
2. Indicator lights (B) and (C) go out.

OULXA64,6M,0005620-19-05AUG24

Front PTO—PTO Automatic Shutoff Function

CAUTION: Accidents can cause severe or fatal injuries.

Clothing and body parts can get caught in rotating parts.

Do not perform any service work with the engine running. Avoid danger area and only turn on the PTO when there are no people in the danger area.

IMPORTANT: To ensure safe and proper operation, it is recommended that the driver fully understands how components interact and follows proper procedures when using the PTO.

When the rear PTO remote control is activated in the cab, the system no longer monitors whether the operator is in the seat, as long as the status LED next to the remote control button is solid or flashing. Once activated, the front and rear PTOs will continue to operate even when the operator is not in the seat.

Before exiting the cab while the engine and PTO are running, regularly check the status LED next to the remote control button. If the LED is steady or flashing, it indicates that the PTO auto shutoff feature is turned off. Ensure that bystanders are not within the danger area of the PTO and implement. Be aware that the front and rear PTOs remain running when the operator leaves the seat.



LX609912—UN—29JUL24

Status LED: Remote Control Button

NOTE: An automatic shutoff function may be active under certain conditions when the PTO is in operation. In some situations, the PTO is shut off automatically.

Various scenarios are presented in the following.

Scenarios

The automatic PTO shutoff function is enabled in the following cases (scenario 1):

1. Tractor is standing still, PTO is ON (PTO running).
2. The operator gets off the seat.
3. Within the next 7 seconds, the PTO stays ON and an acoustic alarm sounds.
4. Different options:
   a. The operator sits down again within 7 seconds:
      - The PTO stays ON, acoustic alarm turns OFF.
   b. The operator remains standing:
      - The PTO turns OFF automatically after 7 seconds, acoustic alarm turns OFF.
   c. The operator remains standing and enables remote control mode by pressing button (A):
      - The PTO remains ON, the acoustic alarm turns OFF.



LX515201—UN—21SEP23

Cab with CommandARM™

A—Button to Enable Remote Control Mode

PTO operation without operator on the operator's seat (scenario 2):

With the software update as of 6M MY21, Scenario 2 is no longer available.

1. Tractor is standing still.
2. The operator turns ON the PTO without being seated on the operator's seat.
3. The PTO activates and stays ON.

PTO operation without operator on the operator's seat (scenario 3):

1. Tractor is standing still.
2. The operator is on the seat and turns ON the PTO (PTO running).
3. The operator enables PTO Remote Control Mode by pressing button (A).
   - The indicator light of button (A) lights up and signals that the remote control mode is enabled.

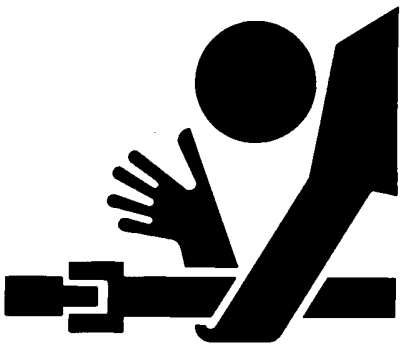
4. When the operator leaves the seat, the PTO stays ON.
   - The acoustic alarm turns ON.

PTO operation without operator on the operator's seat (scenario 4):

1. Tractor is standing still.
2. The operator is on the seat and turns ON the PTO (PTO running).
3. When the operator leaves the seat:
   - The PTO stays ON.
   - The acoustic alarm turns ON.
4. Different options:
   a. The operator sits down again within 7 seconds:
      - The PTO stays ON, acoustic alarm turns OFF.
   b. The operator remains standing and enables remote control mode by pressing button (A):
      - The PTO remains ON, acoustic alarm turns OFF.
   c. The operator remains standing and does NOT enable remote control mode:
      - The PTO turns OFF automatically after 7 seconds, acoustic alarm turns OFF.

OULXA64,6M,0005621-19-05AUG24

Rear PTO



TS276—UN—23AUG88

CAUTION: Danger to life from rotating components.

Unsuitable components, missing protective equipment, or improper handling of the PTO shaft can lead to serious accidents.

- **Only connect and disconnect the PTO shaft, and carry out other work when the engine is at standstill.**
- **Switch off the engine and remove the ignition key to prevent unauthorized starting of engine.**
- **Use only suitable PTO shafts recommended by the manufacturer.**
- **Use only undamaged components.**
- **Install all guards properly before operating the PTO shaft.**
- **Only operate PTO shafts at permissible speeds; see also the specifications from the implement manufacturer.**
- **Switch on the PTO only after danger zone is clear of people. See also Safety Instructions in Section 05 and Operating Instructions in 60A of this Operator's Manual.**

CAUTION: Remove protective cover only when a PTO-driven implement is to be attached.

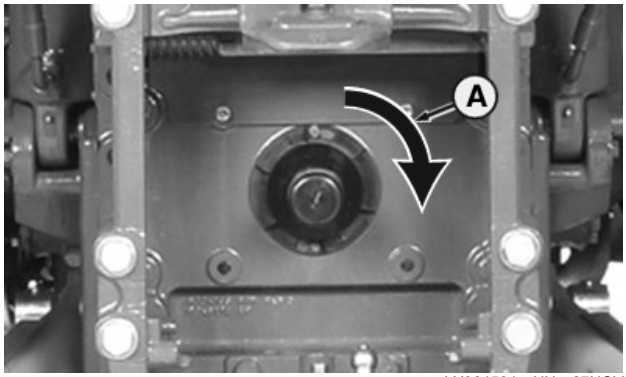
As soon as the implement is removed, re-install the protective cover!

IMPORTANT: The rear PTO can be equipped with different PTO stub shafts and PTO power output depending on the equipment.

• See Rear PTO—Change the PTO Stub Shaft in this Section.

• For the corresponding standard speeds, see Engine in Section 500A.

IMPORTANT: Only operate implements with the rear PTO if their power requirement corresponds to that of the PTO power output.



LX364534—UN—27NOV19

A—Direction of Rotation

NOTE: If the PTO switches off automatically and cannot be restarted immediately, comply with the relevant diagnostic trouble codes. If the oil is very cold, this is registered by the control software and the PTO is switched off. The PTO cannot be restarted until 30 seconds have elapsed.

OULXA64,6R,0005B8F-19-23SEP21

Engage and Disengage the Rear PTO

CAUTION: Always disengage the PTO when not in use.

CAUTION: High-inertia implements do not come to a standstill the moment a PTO is shifted to the disengaged position. Do NOT approach the implement while it is coasting down. Do not work on the attached implement until it has stopped.

IMPORTANT: To ensure safe and proper operation, it is recommended for the driver to fully understand how components interact and to follow proper procedures when using the PTO.

When rear PTO remote control is active it is no longer monitored if the operator is on the seat or not, until the engine was restarted or the remote-control button was pressed again to deactivate the remote control feature. Once activated the front and rear PTO remain running when the operator is not on the seat and rear PTO remote control is enabled.

Before exiting the cab while the engine is running, make sure to regularly check the LED next to the remote control button. If the LED is steady or flashing, it indicates that the PTO auto shutoff feature is turned off. Ensure that bystanders are not within the danger area of the PTO and implement. Be aware that front and rear PTO remains running and/or the rear PTO starts to run when the remote control switch on the fender is activated.



LX609912—UN—29JUL24

Status LED: Remote Control Button

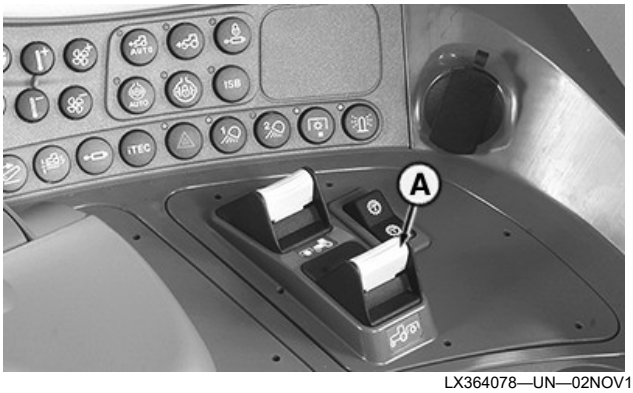
Engage the PTO

1. Press switch (A) down and then push forward.



LX364077—UN—02NOV18

Cab without CommandARM™

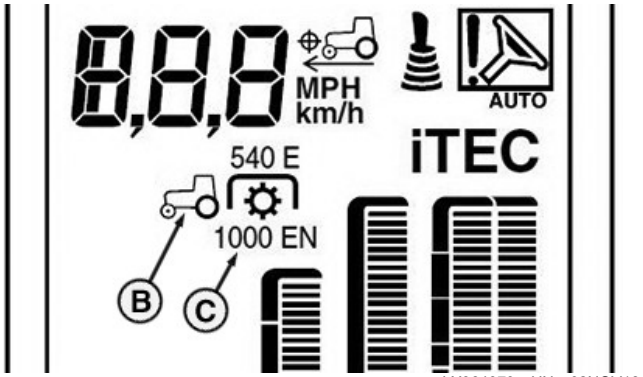


LX364078—UN—02NOV18

Cab with CommandARM™

A—Rear PTO Switch

2. The PTO shaft starts to rotate and indicator lights (B) and (C) light up with the selected standard speed.



LX364079—UN—02NOV18

B—PTO Indicator Light
C—Rear PTO Indicator Light

3. The current PTO speed can be displayed as shown.



LX364085—UN—07NOV18

NOTE: If the engine is shut off and then restarted while the PTO is running, the PTO will not operate.

To continue working, disengage the PTO and engage it again.

Disengage the PTO

1. Pull switch (A) back and release.
2. Indicator lights (B) and (C) go out.

OULXA64,6M,0005622-19-02AUG24

Rear PTO—Select Standard Speed (Shiftable PTO)

CAUTION: Engine must be shut off when an implement is being connected.

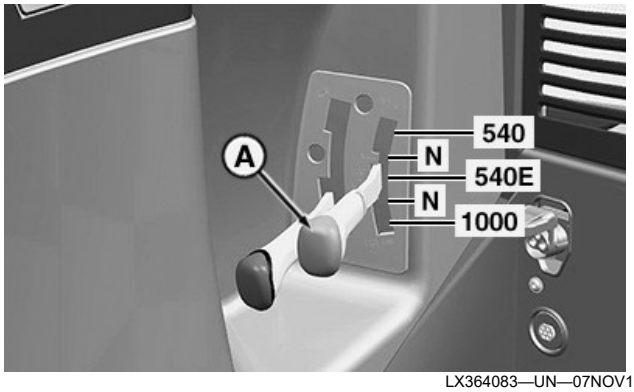
CAUTION: Before engaging the PTO, make sure that selected PTO speed is correct for the implement attached. Incorrect speed could result in severe damage to the implement.

Danger of accidents!

The PTO is engaged and disengaged as described under Engage Rear PTO. The PTO has to be

disengaged in order to select the standard speed. See Rear PTO—Connect an Implement in section 60C.

1. Use lever (A) to select the desired PTO speed.

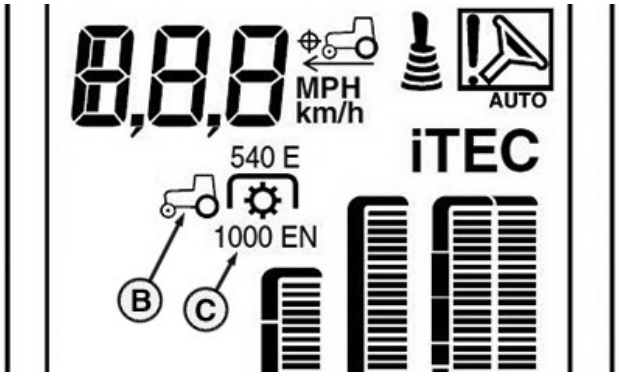


LX364083—UN—07NOV18

Cab without CommandARM™

A—PTO Speed Lever

2. When the PTO is switched on, indicator lights (B) and (C) will light up with the selected standard speed.



LX364079—UN—02NOV18

OULXA64,6M,0005623-19-29AUG23

Rear PTO—Remote Control and Function

CAUTION: Danger to life due to rotating components.

Clothing and body parts can get caught in rotating parts, which can lead to serious accidents.

Do not perform any service work with the engine running. Avoid danger area and only turn on the PTO when there are no people in the danger area.

IMPORTANT: To ensure safe and proper operation, it is recommended for the driver to fully understand how components interact and to follow proper procedures when using the PTO.

When rear PTO remote control is active it is no longer monitored if the operator is on the seat or not, until the engine was restarted or the remote-control button was pressed again to deactivate the remote control feature. Once activated the front and rear PTO remain running when the operator is not on the seat and rear PTO remote control is enabled.

Before exiting the cab while the engine is running, make sure to regularly check the LED next to the remote control button. If the LED is steady or flashing, it indicates that the PTO auto shutoff feature is turned off. Ensure that bystanders are not within the danger area of the PTO and implement. Be aware that front and rear PTO remains running and/or the rear PTO starts to run when the remote control switch on the fender is activated.



LX609912—UN—29JUL24

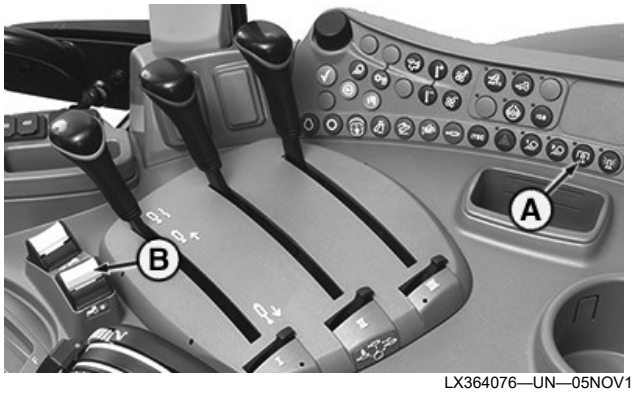
Status LED: Remote Control Button

NOTE: In some situations, the PTO is shut off automatically.

The PTO is engaged and disengaged as described under Engage Rear PTO. If the rear PTO is to be operated from the outside of the cab, the remote control for the rear PTO has to be activated **first**.

NOTE: Tractors from MY25 only. When the remote control is engaged, the PTO out-of-seat function is automatically activated. This feature remains active until the next engine start and does not require reactivation. See Rear PTO—PTO Automatic Shutoff Function (From MY25) in this section.

1. Engage park lock and press button (A).



LX364076—UN—05NOV18

Cab without CommandARM™



LX364080—UN—05NOV18

Cab with CommandARM™

2. Engage the rear PTO with switch (B).
   - PTO has not started yet.
   - The hazard warning lights flash.
   - A warning signal sounds.
   - The indicator light of button (A) lights up.

   Button (C) at the fender is activated for switching on the rear PTO.



LX364451—UN—27SEP19



LX364081—UN—08NOV18

3. The rear PTO can be switched on for test operation or continuous operation as follows, using button (C):

   a. **Test operation**

      Press button (C) and release it after less than 4 seconds (the hazard warning lights flash and there are audible warning signals).

      The rear PTO starts up for a short while and comes to a standstill again.

   b. **Run continuous**

      Press button (C) (about 4 seconds) until the hazard warning lights go out and there are no longer any audible warning signals.

      The rear PTO constantly runs at the set PTO speed.

4. To switch off the rear PTO, actuate button (C) (the hazard warning lights flash and there are audible warning signals) or actuate switch (B) in the operator's cab.

NOTE: If the rear PTO is switched on in the operator's cab only at switch (B), the rear PTO may be switched off by button (C), but it cannot be switched on again.

OULXA64,6M,0005624-19-02AUG24

Rear PTO—PTO Automatic Shutoff Function (From MY25)

Beginning with software from model year 2025, a new out-of-seat feature has been introduced, which affects the PTO automatic shutoff function. The following descriptions explain how to permanently activate the PTO remote control.

CAUTION: Accidents can cause severe or fatal injuries.

Clothing and body parts can get caught in rotating parts. Do not perform any service work with the engine running.

Avoid danger area and only turn on the PTO when there are no people in the danger area. In some situations, the PTO is shut off automatically.

IMPORTANT: To ensure safe and proper operation, it is recommended for the driver to fully understand how components interact and to follow proper procedures when using the PTO.

When rear PTO remote control is active it is no longer monitored if the operator is on the seat or not, until the engine was restarted or the remote-control button was pressed again to deactivate the remote control feature. Once activated the front and rear PTO remain running when the operator is not on the seat and rear PTO remote control is enabled.

Before exiting the cab while the engine is running, make sure to regularly check the LED next to the remote-control button. If the LED is steady or flashing, it indicates that the PTO auto shutoff feature is turned off. Ensure that bystanders are not within the danger area of the PTO and implement. Be aware that front and rear PTO remains running and/or the rear PTO starts to run when the remote control switch on the fender is activated.

NOTE: When the remote control is activated, the PTO out-of-seat feature is enabled. This feature remains active until the next engine start and does not require reactivation.

The hazard warning and acoustic signal will activate if the PTO is turned OFF using the fender switch while the remote control is enabled.

The two modes of the remote control button LED:



LX609912—UN—29JUL24

LED Continuous ON: This signifies that the remote control is enabled, allowing the driver to stand up from the seat without triggering the PTO auto shutoff feature.

LED Flashing: Once the remote control has been activated, the LED will begin flashing once the PTO is turned off using the remote switch located at the fender. This serves as a reminder to the driver that the remote control is still active and and that the auto shutoff feature is turned off. **This status remains valid until the next engine restart.**

Scenarios to Enable the PTO Remote Control



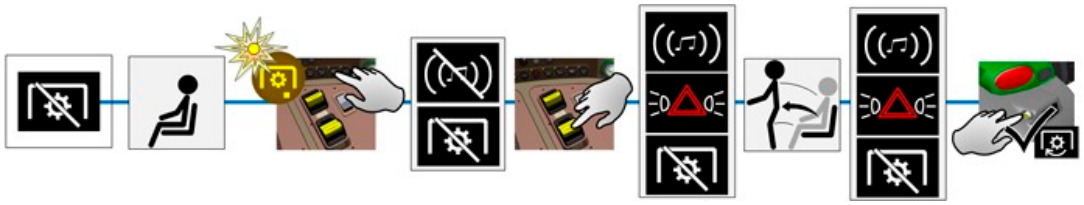
LX609908—UN—29JUL24

Scenario I

Scenario I
Initial Situation: Driver on seat, park lock engaged, PTO is running.

1. Engage park lock.
2. PTO is ON and driver stands up.
3. The acoustic signal sounds and PTO remains running (for at least seven seconds).

4. Within 7 seconds of standing up press the remote control button.
5. The yellow LED lights on to indicate that remote control is enabled. The acoustic signal turns OFF and PTO remains running. Operate PTO using the remote switch at fender.

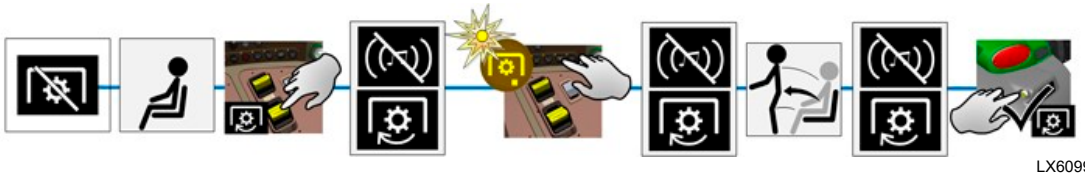


LX609909—UN—29JUL24

Scenario II

Scenario II
Initial Situation: Driver on seat, park lock engaged, PTO is NOT running.

1. Engage park lock.
2. The PTO is OFF and driver presses the remote control button while sitting on seat.
3. The yellow LED lights ON to indicate that remote control is active.
4. Set the PTO switch to ON position.
5. The acoustic signal comes on, PTO is at standby but not running. Hazard warning and acoustic signal are ON.
6. When leaving the seat, the hazard warning and acoustic signal remains ON until PTO is switched on with the remote switch at fender.

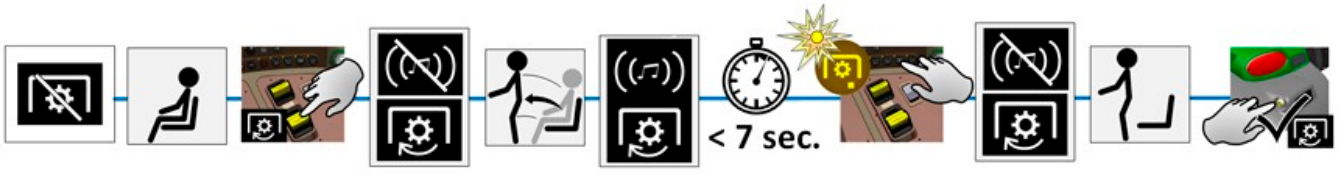


LX609910—UN—29JUL24

Scenario III

Scenario III
Initial Situation: Driver on seat, park lock engaged, PTO is NOT running.

1. Engage park lock.
2. The PTO is OFF and driver sets the PTO switch to ON position while sitting on the seat.
3. The PTO starts to run and the acoustic signal is off.
4. Press the remote control button while sitting on seat.
5. The PTO remains running and the yellow LED comes ON to indicate that remote control is active.
6. Stand up from seat and operate PTO using the remote switch at fender.



LX609911—UN—29JUL24

Scenario IV

Scenario IV
Initial Situation: Driver on seat, park lock engaged, PTO is NOT running.

1. Engage park lock.
2. The PTO is OFF and driver sets the PTO switch to ON position while sitting on the seat.
3. The PTO starts to run and the acoustic signal is off.
4. When leaving the seat the PTO remains running and the acoustic signal sounds.
5. Within seven seconds press the remote control button.
6. The acoustic signal turns off. The PTO remains

running and the yellow LED comes ON to indicate that remote control is active. Operate PTO using the remote switch at fender.

oulxa64,6M,1718719099640-19-02AUG24

Rear PTO—PTO Automatic Shutoff Function (Until MY25)

CAUTION: Accidents can cause severe or fatal injuries.

Clothing and body parts can get caught in rotating parts. Do not perform any service work with the engine running.

Avoid danger area and only turn on the PTO when there are no people in the danger area.

IMPORTANT: To ensure safe and proper operation, it is recommended for the driver to fully understand how components interact and to follow proper procedures when using the PTO.

When rear PTO remote control is active it is no longer monitored if the operator is on the seat or not, until the engine was restarted or the remote-control button was pressed again to deactivate the remote control feature. Once activated the front and rear PTO remain running when the operator is not on the seat and rear PTO remote control is enabled.

Before exiting the cab while the engine is running, make sure to regularly check the LED next to the remote control button. If the LED is steady or flashing, it indicates that the PTO auto shutoff feature is turned off. Ensure that bystanders are not within the danger area of the PTO and implement. Be aware that front and rear PTO remains running and/or the rear PTO starts to run when the remote control switch on the fender is activated.



LX609912—UN—29JUL24

Status LED: Remote Control Button

NOTE: An automatic shutoff function may be active under certain conditions when the rear PTO is in operation. In some situations, the PTO is shut off automatically.

Various scenarios are presented in the following.

Scenarios

The automatic PTO shutoff function is enabled in the following cases (scenario 1):

1. The tractor is standing still, PTO is ON (PTO running).
2. The operator gets off the seat.
3. Within the next 7 seconds, the PTO stays ON and an acoustic alarm sounds.
4. Different options:
   a. The operator sits down again within 7 seconds:
      - The PTO stays ON, acoustic alarm turns OFF.
   b. The operator remains standing:
      - The PTO turns OFF automatically after 7 seconds, acoustic alarm turns OFF.
   c. The operator remains standing and enables remote control mode by pressing button (A):
      - The PTO remains ON, the acoustic alarm turns OFF.
      - The PTO can be controlled with the remote control switch on the fender.



LX515201—UN—21SEP23

Cab with CommandARM™

A—Button to Enable Remote Control Mode

PTO operation without operator on the operator's seat (scenario 2):

With the software update as of 6M MY21, Scenario 2 is no longer available.

1. Tractor is standing still.
2. The operator turns ON the PTO without being seated on the operator's seat.
3. The PTO activates and stays ON.

PTO operation without operator on the operator's seat (scenario 3):

1. Tractor is standing still.

2. The operator is on the operator's seat and enables remote control mode by pressing button (A).
   - The indicator light of button (A) lights up and signals that the remote control mode is enabled.
3. The operator turns ON the PTO (PTO does not run).
   - The acoustic alarm turns ON.
4. The operator can leave the seat and switch the PTO ON/OFF by means of the remote control switch on the fender.

PTO operation without operator on the operator's seat (scenario 4):

1. Tractor is standing still.
2. The operator is on the seat and turns ON the PTO (PTO running).
3. The operator enables remote control mode by pressing button (A).
   - The indicator light of button (A) lights up and signals that the remote control mode is enabled.
4. If the operator leaves the seat, the PTO stays ON and can be controlled with the remote control switch on the fender.
   - The acoustic alarm turns ON and the hazard warning light turns ON.

PTO operation without operator on the operator's seat (scenario 5):

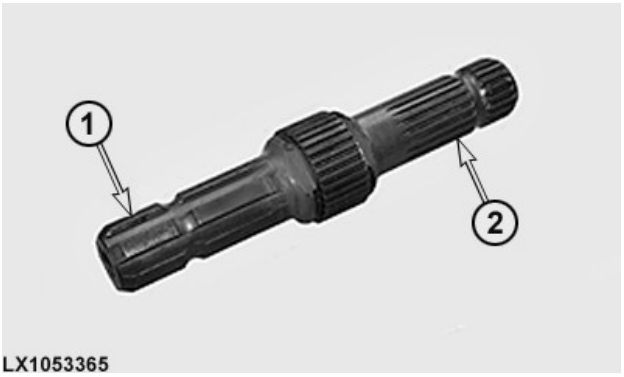
1. Tractor is standing still.
2. The operator is on the seat and turns ON the PTO (PTO running).
3. When the operator leaves the seat:
   - The PTO stays ON.
   - The acoustic alarm turns ON.
4. Different options:
   a. The operator sits down again within 7 seconds:
      - The PTO stays ON, acoustic alarm turns OFF.
   b. The operator remains standing and enables remote control mode by pressing button (A):
      - The PTO remains ON, acoustic alarm turns OFF.
      - The PTO can be controlled with the remote control switch on the fender.
   c. The operator remains standing and does NOT enable remote control mode:
      - The PTO turns OFF automatically after 7 seconds, acoustic alarm turns OFF.

OULXA64,6M,0005625-19-02AUG24

Rear PTO—Change the PTO Stub Shaft

CAUTION: Engage park lock and shut off engine. Remove the key switch to prevent unauthorized operation.

The rear PTO may be operated using different rear PTO stub shafts.



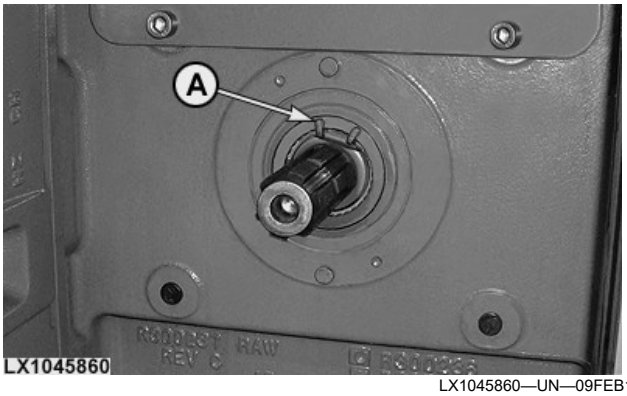
LX1053365—UN—16JAN12

1—Type 1 / 6 Splines
2—Type 2 / 21 Splines

PTO Stub Shaft	Rated Output of Implement
Type 1 / 6 splines at 540 rpm	up to 70 kW
Type 1 / 6 splines at 1000 rpm*	up to 110 kW
Type 2 / 21 splines at 1000 rpm . . .	up to 130 kW

* Not fpor North America

To change the PTO stub shaft, switch off the engine and remove any impurities from the stub shaft.



LX1045860—UN—09FEB11

A—Retaining Ring

Use pliers to compress snap ring (A), and remove the PTO stub shaft together with the snap ring.

Before installing the PTO stub shaft, clean it and apply John Deere HD Moly Grease.

To install, place snap ring (A) in the groove of PTO stub shaft and compress it with pliers, then install the stub shaft in the PTO housing. Make sure snap ring (A) is seated correctly.

With the engine switched off, it must be possible to turn the PTO stub shaft by hand.

OULXA64,CAT2,0005342-19-28AUG23

Rear PTO—Connect an Implement

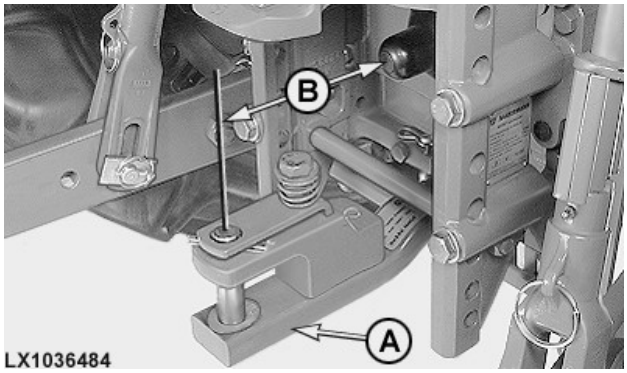
CAUTION: Shut off engine and disengage PTO before attaching PTO-driven implement.

CAUTION: High-inertia implements do not come to a standstill the moment the PTO is shifted to the disengaged position. Do NOT approach the implement while it is coasting down. Do not work on the implement until it has stopped.

CAUTION: Before attempting to clean, adjust, or lubricate a PTO-driven machine, the three-point hitch or the universal-jointed shaft, always make sure the PTO is switched off, the tractor engine is shut OFF, and the key switch is removed.

IMPORTANT: See relevant operating instructions in this section.

1. Align drawbar (A) parallel to PTO shaft and lock it in position.



LX1036484—UN—23JAN06

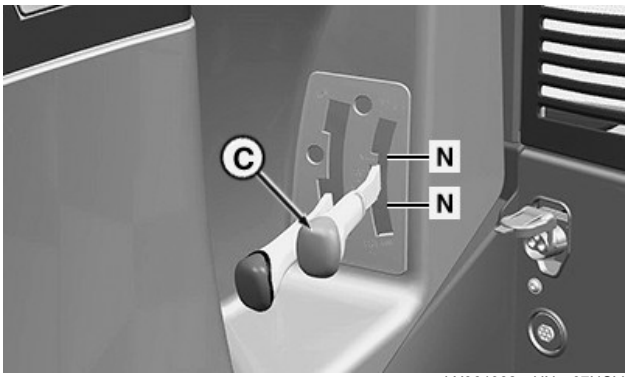
A—Drawbar
B—Distance

2. Distance (B) between the end of the PTO shaft and the hole in the drawbar end varies depending on which type of PTO stub shaft is used.

   The distance must be correct.

PTO Stub Shaft	Distance to Drawbar Category 2
Type 1 / 6 Splines	350 mm (13.8 in)
Type 2 / 21 Splines	400 mm (15.7 in)

If the teeth of the PTO shaft are not aligned with the grooves of the universal-jointed shaft when connecting, proceed as follows:



LX364082—UN—07NOV18

Cab without CommandARM™

C—Lever

1. Shut off engine.
2. Move lever (C) to **N**.
3. Turn the PTO shaft by hand to the correct position.

OULXA64,6M,EU,0005627-19-28AUG23

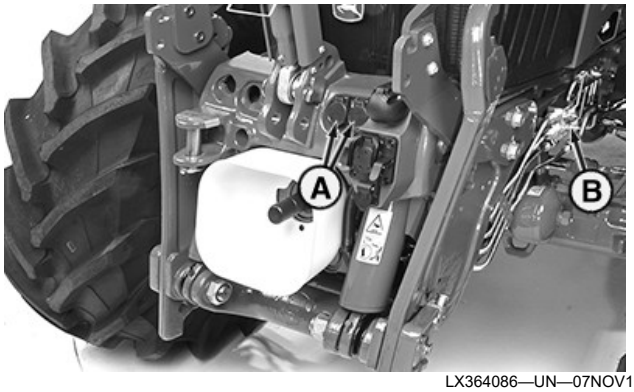
Economy Front Hitch Controls

CAUTION: Avoid crushing hazard with possibly fatal consequences.

When working in the area of the hitch, unexpected movements can be triggered, which can lead to severe crushing.

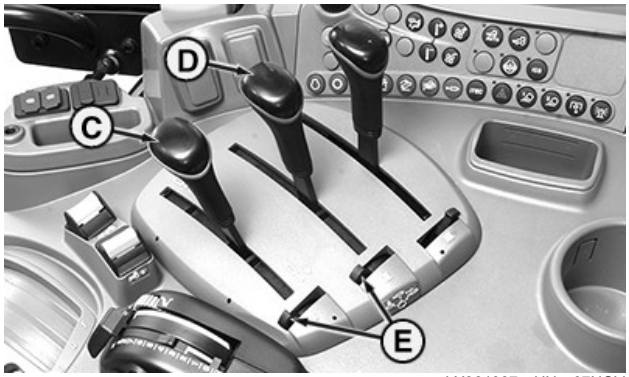
Always lower implements first and depressurize the hydraulic system before any repair or maintenance work. Switch off the engine and secure the machine against unintentional restart.

Always lock unneeded control elements so that they cannot be actuated unintentionally!



LX364086—UN—07NOV18

A—Couplers - Selective Control Valve II
B—Front Hitch - Shutoff Valve



LX364087—UN—07NOV18

Cab without CommandARM™

C—Front Hitch (raise/lower) - Control Through SCV I
D—Front Hitch Couplers - Control Through SCV II



LX364088—UN—14NOV18

Cab with CommandARM™

E—Transport Lock / Lock Button, SCV ON/OFF

CAUTION: When driving on roads, and whenever the control levers are in neutral position and not needed, use transport lock (E) to lock the control levers.

For more information on controls in the cab, see Mechanical Selective Control Valves - Controls or Selective Control Valves, Electronic - Controls in Section 70B.

OULXA64,6M,0005628-19-23MAR23

Economy Front Hitch

Safety

CAUTION: It is important to observe the maximum permissible axle loads and the load capacity of the tires when using the front hitch.

CAUTION: A front-mounted implement adversely affects the driving characteristics of the tractor. Adjust vehicle handling to the change in driving dynamics of the tractor.

CAUTION: Always lower front-mounted implements to the ground when the tractor is left unattended.

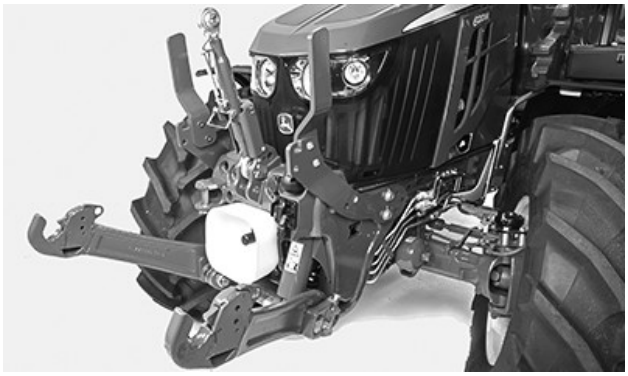
CAUTION: Lower front-mounted implement to the ground and stop the engine before connecting the implement to one of the front quick-couplers.

CAUTION: Always bear in mind that the dimensions of the tractor front have changed, especially when leaving the farm or the fields and on roads and junctions. If in doubt, ask for a second person to assist.

CAUTION: Comply with lighting requirements. Headlights and turn signals may be concealed by the front-mounted implement. In this case, use additional lighting.

CAUTION: When the front hitch is not in use, always fold up the draft links (transport position) and lock them.

The front hitch can be operated using selective control valve **I**.

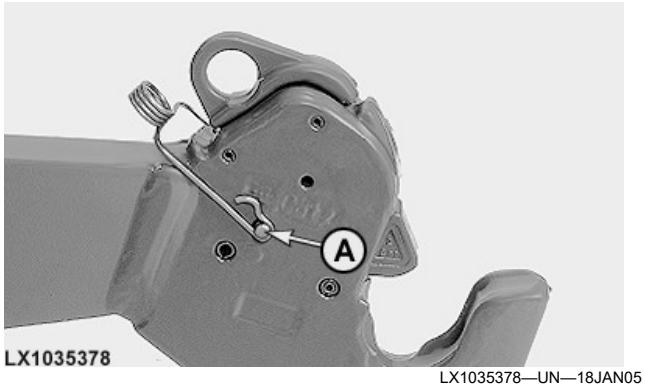


LX364089—UN—07NOV18

Lock for Draft Link Hooks

CAUTION: When implements with asymmetrical load (e.g. side-mounted mowing units) are attached, or when driving through high-growing bushes and trees (e.g. when working in the forest), the draft link coupler hooks must be prevented from opening accidentally.

A — Lock Parts Kit AL165485



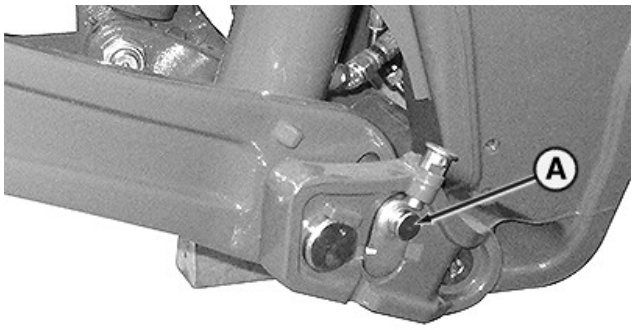
LX1035378—UN—18JAN05

Draft link, hook latch

Use John Deere AL165485 lock parts kit at both of the coupler hooks.

Draft Link Positions

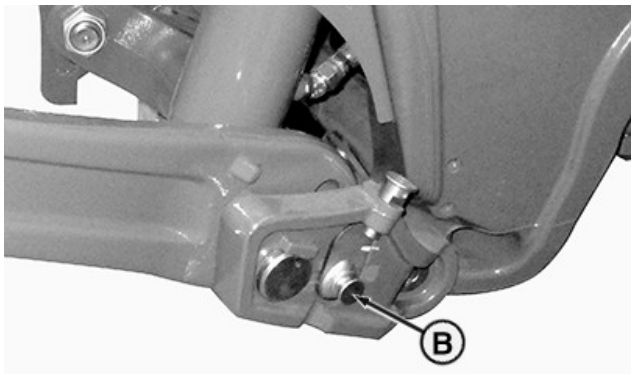
A — Draft links with vertical float



LX364166—UN—29NOV18

Vertical Float

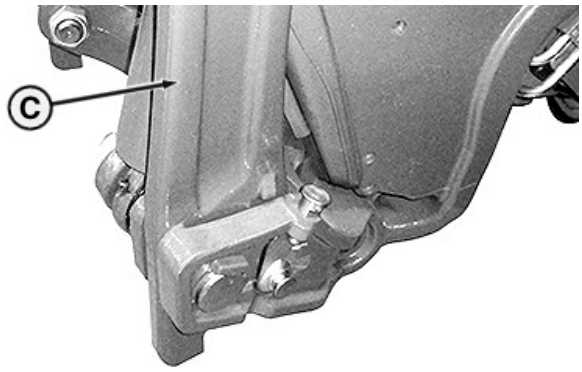
B — Draft links are locked



LX364167—UN—28NOV18

Draft Links Locked

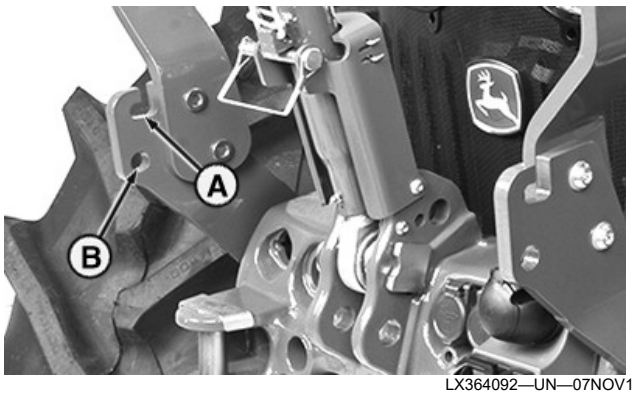
C — Draft links in transport position



LX364168—UN—28NOV18

Draft Links in Transport Position

Brackets for Mower Deck Springs (If Equipped)



LX364092—UN—07NOV18

A - Opening for attaching a chain for the cutting height limit

NOTE: To avoid damage to the mower deck when the chains are attached, select the following mode:

1. *Select single-acting mode: Raising with oil pressure and lowering without oil pressure.*
2. *Raise mower deck with control lever for SCV I.*
3. *Move control lever for SCV I to neutral position to lower the mower deck.*

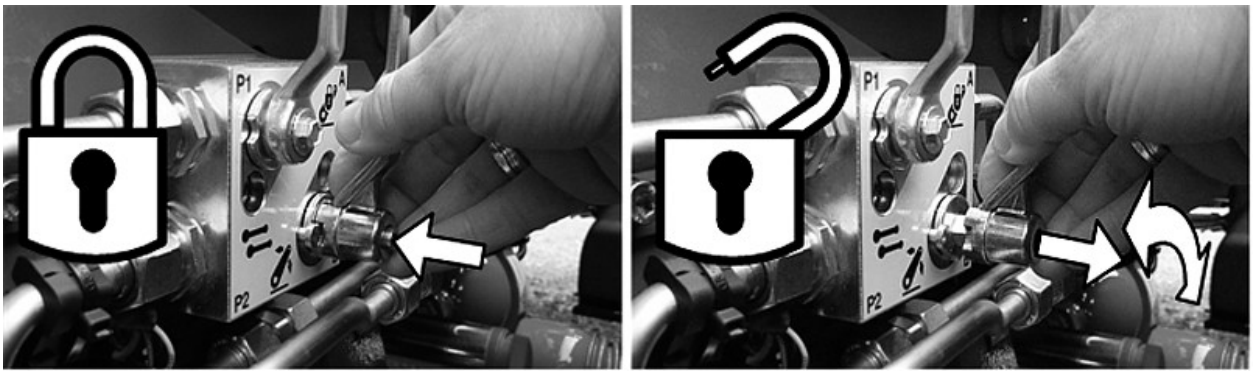
See also the following pages.

B - Hole for attaching a spring (dampening the up and down movements)

The spring for dampening can be hooked into hole (B).

Shutoff valve

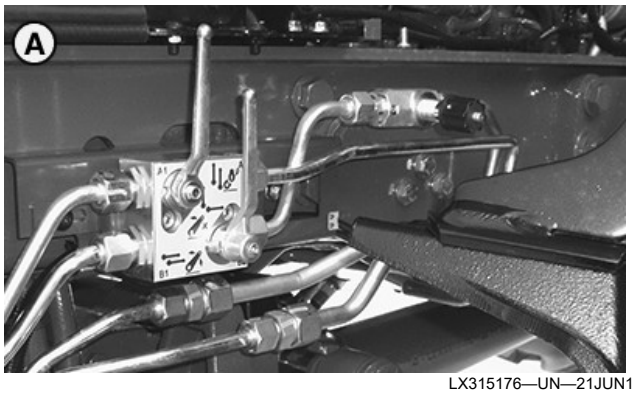
The additional shutoff valve allows the following settings:



LX1054666—UN—10APR12

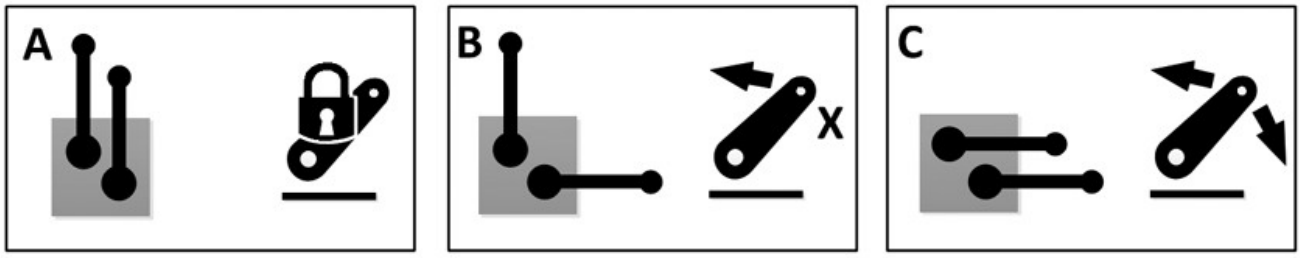
Operating the Levers

CAUTION: If SCV I is equipped with additional couplers towards the rear (for operation of rear implements), then shutoff valve (A) has to be blocked before rear implements are operated using SCV I.



LX315176—UN—21JUN18

Transport Position - Oil Flow Blocked



LX364400—UN—06JUN19

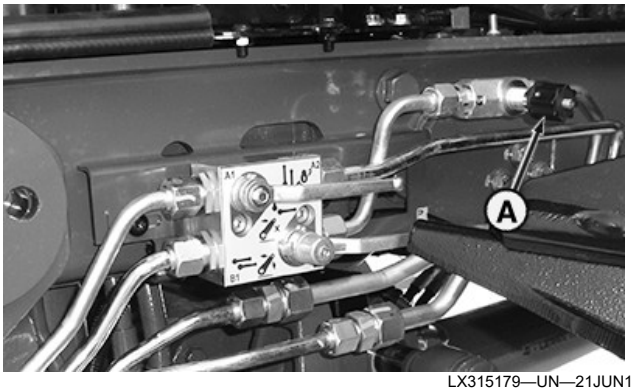
Lever Positions

Lever positions / Theory of operation		
A	**B**	**C**
Transport position Oil flow blocked / No raising and lowering possible	Lever position for single-acting mode - Raising with oil pressure / lowering without oil pressure	Lever position for dual-acting mode - Raising and lowering with oil pressure

NOTE: To avoid damage to the mower deck when the chains are attached, select the following mode:

1. *Select single-acting mode: Raising with oil pressure and lowering without oil pressure.*
2. *Raise mower deck with control lever for SCV I.*
3. *Move control lever for SCV I to neutral position to lower the mower deck.*

Drop Restrictor



LX315179—UN—21JUN18

Drop restrictor (A) allows controlled lowering of the front hitch.

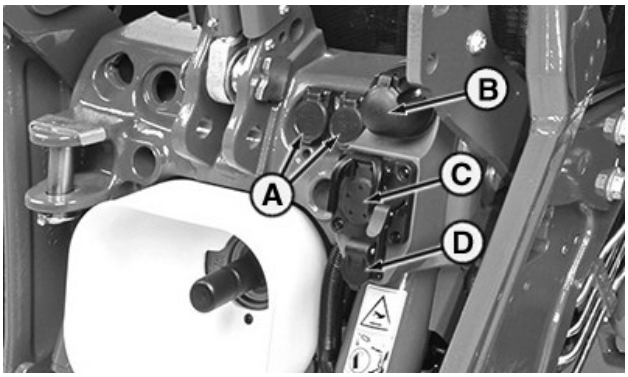
The drop restrictor can be infinitely adjusted by turning from open to fully closed (10 turns maximum).

- Drop restrictor open - turn counterclockwise until it stops.
- Drop restrictor completely closed - turn clockwise until it stops.

Rate of drop has been set to about 5-6 seconds at the factory (four turns counterclockwise).

Couplers and Power Sockets for Front Implements

CAUTION: The hydraulic system has a maximum pressure of 20000 kPa (200 bar) (2900 psi). For your own protection and to ensure proper functioning of the system, use only genuine John Deere parts.



LX364093—UN—07NOV18

A — Couplers, oil supply via SCV II

CAUTION: When a front-mounted implement is connected, do not connect any other user/ implement to selective control valve II.

Couplers (A) allow the hydraulic hose to be connected and disconnected only if no pressure is present.

To connect the hose union, press it firmly into the coupler.

To disconnect the hose, give it a firm pull.

B — Seven-terminal trailer socket

Socket (B) is used to connect lights, flashers, and electrical devices installed on the implement. Always use auxiliary light on towed implement when tractor signals and other lights are obscured.

NOTE: Suitable connectors can be obtained via regular spare part channels.

C — ISOBUS socket (ISB)

An implement meeting ISO Standard 11783 may be connected at socket (C).

D — 3-terminal power outlet socket (ECE)

Terminal 15/30 of the 3-terminal power outlet socket provides a maximum permanent direct current of 25 A. Terminal 82 provides a maximum permanent direct current of 5 A. Terminal 31 is ground.
Turn key in key switch to the right to supply power to terminal 82. Terminal 15/30 is supplied with power even when the ignition is switched off.

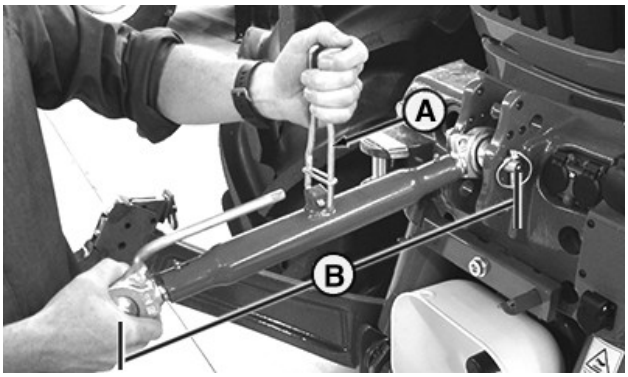
IMPORTANT: During operation of electrical consumers with high current consumption, the maximum permitted current load of the supply circuit (25 A) must not be exceeded.

OULXA64,6M,EU,0005629-19-14JUL25

Front Hitch—Center Link

IMPORTANT: Before starting up, make sure that a raised implement cannot make contact with the tractor. In this case, pay attention to the settings for center link length and maximum raising height.

Length of center link can be adjusted using adjusting handle (A). Hold the center link as shown and adjust to the required length by turning adjusting handle.



LX315021—UN—23OCT17

A—Adjusting Handle
B—Length

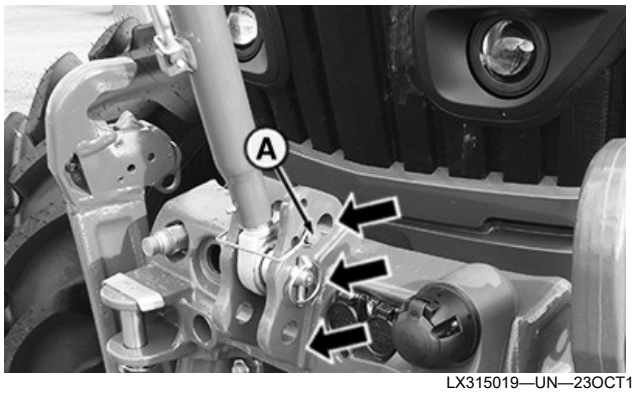
Center Link Length	Minimum Length	Maximum Length
CAT2	500 mm (19.7 in)	760 mm (29.9 in)
CAT3	530 mm (20.9 in)	730 mm (28.7 in)
Hydraulic Center Link Length		
CAT2	565 mm (22.2 in)	710 mm (28.0 in)
CAT3	565 mm (22.2 in)	710 mm (28.0 in)

DO NOT deviate from the specified dimensions. Grooves in the thread indicate the maximum permitted setting. The threads must not be unscrewed any further out of the receiver. After adjusting, push handle down again over center link. Insert attaching pin through implement mast and center link, and secure.

OULXA64,ALL,000562A-19-15JUN23

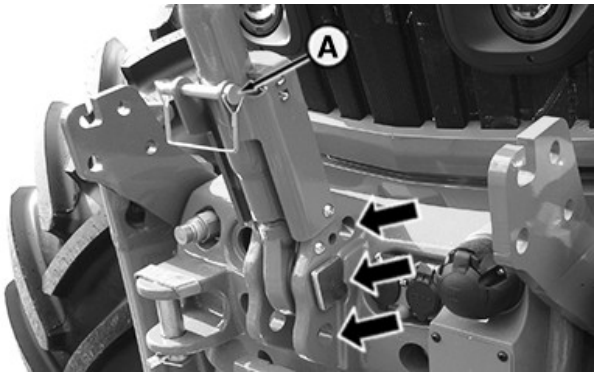
Front Hitch—Center Link Positions

The center link can be attached to the tractor in any one of three positions.



LX315019—UN—23OCT17

Center Link Shown without Coupler Hook



LX315020—UN—23OCT17

Center Link Shown with Coupler Hook

Use the uppermost position for work that requires a smaller implement tilt angle and a higher lifting force.

Use the lowest position for work that requires a larger implement tilt angle and a lower lifting force.

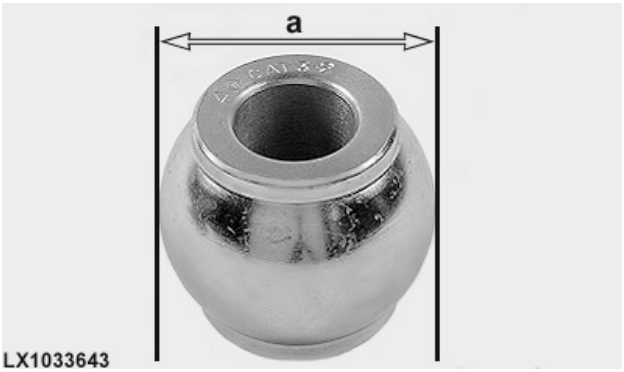
IMPORTANT: When the center link is not being used, position the center link as shown and secure with locking pin (A). Make sure that the safety clip of the locking pin (A) is positioned correctly.

OULXA64,ALL,000562B-19-15JUN23

Front Hitch—Hook-Type Center Link

IMPORTANT: The matching ball has to be used.

This center link is intended for category III balls.

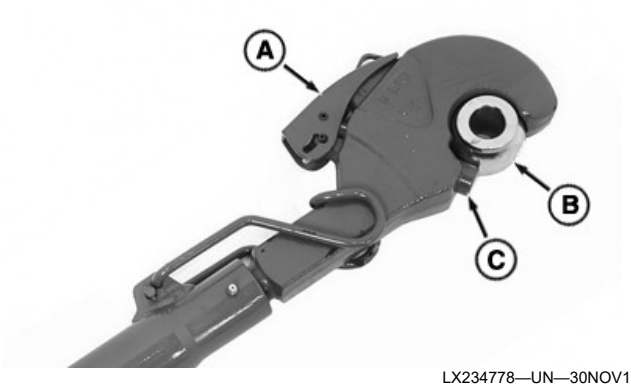


LX1033643—UN—17MAY04

Category	Ball Diameter (a)
III	60 mm (2.4 in)

Hook Operation

With control element (A), the hook can be operated manually.



LX234778—UN—30NOV15

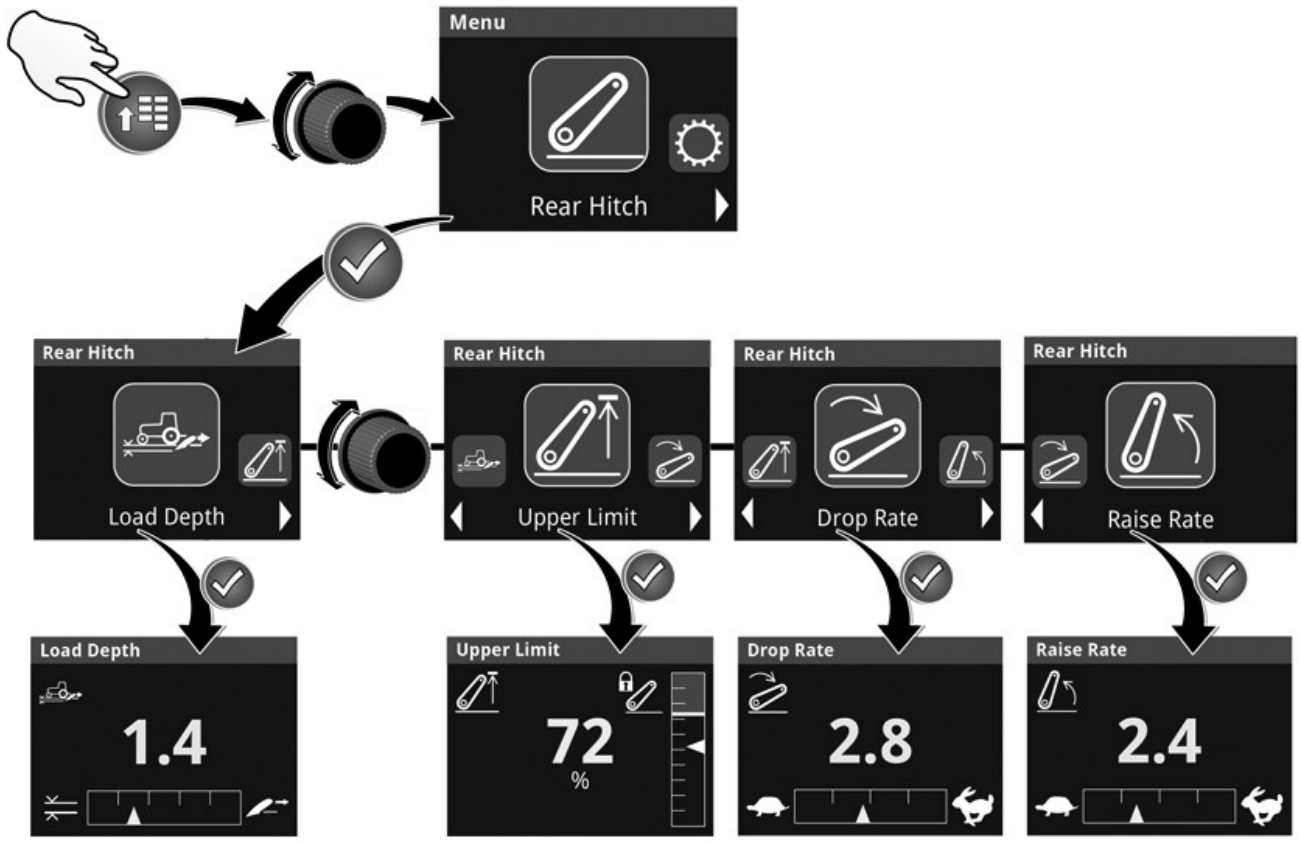
A—Control Element
B—Ball
C—Pin

IMPORTANT: Make sure that the coupler hooks are correctly latched:

- **Control element (A) has to be flush against coupler hook.**
- **Ball (B) should have no noticeable play.**
- **Pin (C) should cover the ball.**

OULXA64,ALL,000562C-19-15JUN23

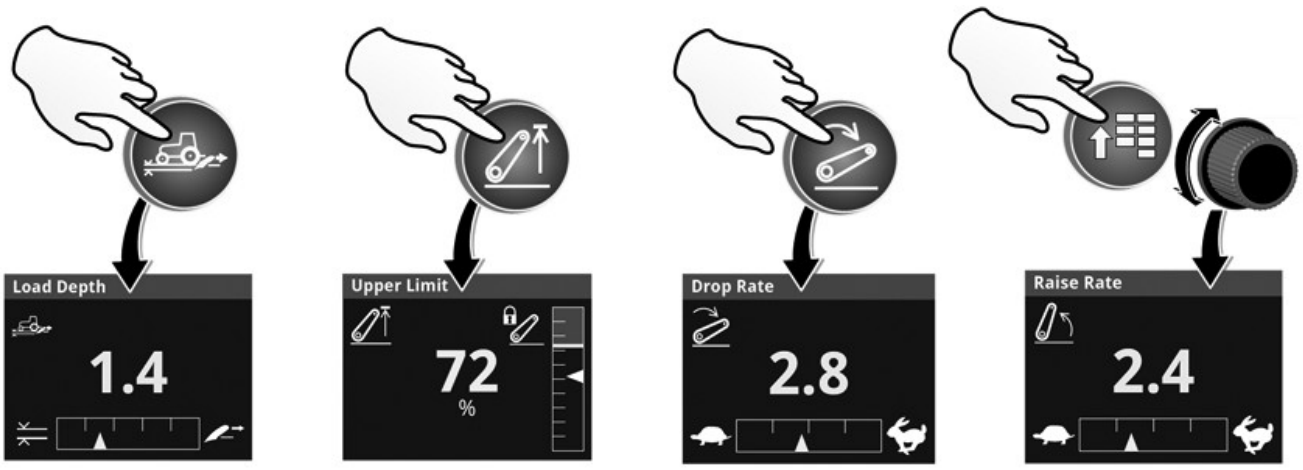
Rear Hitch—Menu



LX368267—UN—13FEB19

Rear Hitch, Menu

Shortcut Keys for Rear Hitch Settings



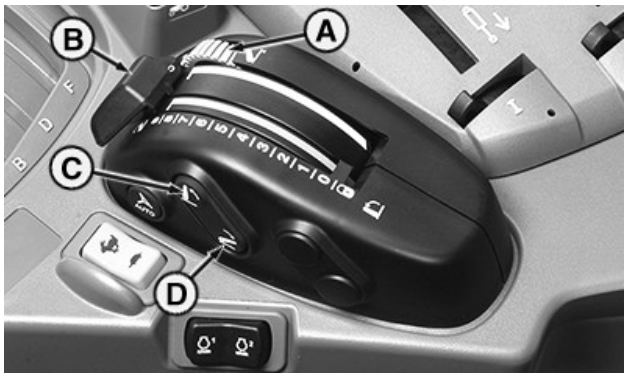
LX368268—UN—13FEB19

Shortcut Keys for Rear Hitch Settings

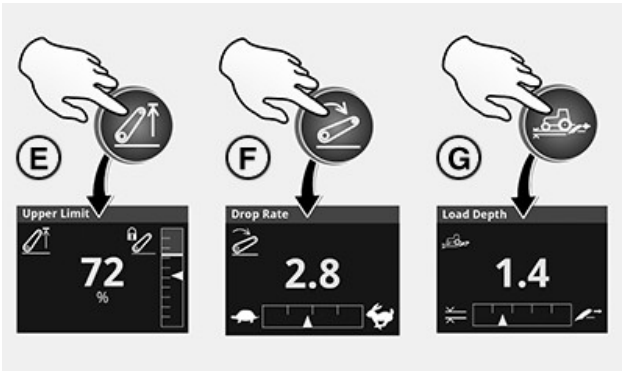
OULXA64,6M,00053AC-19-28AUG23

Rear Hitch—Operation without CommandARM™

IMPORTANT: Changes to hitch position are immediate.



LX364253—UN—14FEB19



LX364254—UN—14FEB19

Controls used to control hitch functions:

A	Control Knob, Adjusting Operating Depth
B	Control Knob, Adjusting Depth Control (Raise/Lower)
C	Button, Raise Hitch
D	Button, Lower Hitch
E	Button, Set Raise Limit
F	Button, Set Rate of Drop
G	Button, Set Draft/Depth Control

Activate Hitch

Start the engine and carry out one of the following operating modes:

- Move control knob (B) to the position that corresponds to the position of draft links.
- Move control knob (B) to one of the end positions.
- Press button (C) or (D).

Set Operating Depth

- Lower implement to desired operating depth using control knob (B) or button (D).
- Use control knob (A) to fix the set operating depth.

Turn Around at End of Field

- At the end of the field, pull control knob (B) backwards for raising or press and release the button (C). The rear hitch is raised up to the set raise limit (E).
- After turning, lower the rear hitch by pushing control knob (B) all the way forward or by pressing and releasing button (D). The rear hitch is lowered automatically to the set operating depth (A) at the set rate of drop (F).

  To reach the operating depth quicker in the compacted soil at the headland (quick raise/lower), press and hold button (D). As long as the button (D) is pressed, the set draft force (G) is ignored. After releasing button (D), the device will adjust to the previously set values.

  The quick raise/lower function only works as long as the vehicle is in motion.

CAUTION: Danger of accidents resulting in severe injury and property damage.

When the transport lock is NOT activated, implements might be lowered accidentally.

Load-change reactions might lead to critical driving situations.

When driving with raised implement and when not using the hitch, ALWAYS activate the transport lock/dampening.

Engage Transport Lock of the Hitch



LX364255—UN—14FEB19

Hitch - Transport Lock Activated

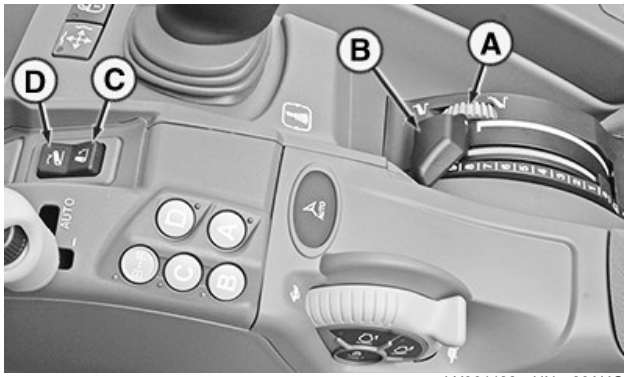
Move the control knob for the depth control beyond ***0*** to the stop (lock symbol) into the transport position (A).

Lock the hitch during transport or work that does not use the rear hitch.

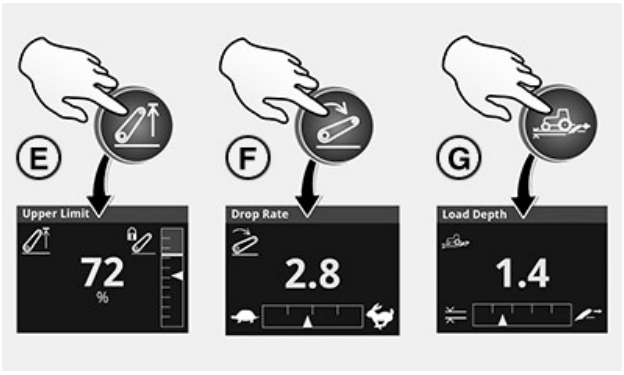
OULXA64,6M,00053AD-19-28AUG23

Rear Hitch—Operation with CommandARM™

IMPORTANT: Changes to hitch position are immediate.



LX364422—UN—28AUG19



LX364254—UN—14FEB19

Controls used to control hitch functions:

A	Control Knob, Adjusting Operating Depth
B	Control Knob, Adjusting Depth Control (Raise/ Lower)
C	Button, Raise Hitch
D	Button, Lower Hitch
E	Button, Set Raise Limit
F	Button, Set Rate of Drop
G	Button, Set Draft/Depth Control

Activate Hitch

Start the engine and carry out one of the following operating modes:

- Move control knob (B) to the position that corresponds to the position of draft links.
- Move control knob (B) to one of the end positions.
- Press button (C) or (D).

Set Operating Depth

- Lower implement to desired operating depth using control knob (B) or button (D).
- Use control knob (A) to fix the set operating depth.

Turn Around at End of Field

- At the end of the field, pull control knob (B) backwards for raising or press and release the button (C). The rear hitch is raised up to the set raise limit (E).
- After turning, lower the rear hitch by pushing control knob (B) all the way forward or by pressing and releasing button (D). The rear hitch is lowered automatically to the set operating depth (A).

  To reach the operating depth quicker in the compacted soil at the headland (quick raise/lower), press and hold button (D). As long as the button (D) is pressed, the set draft force (G) is ignored. After releasing button (D), the device will adjust to the previously set values.

  The quick raise/lower function only works as long as the vehicle is in motion.

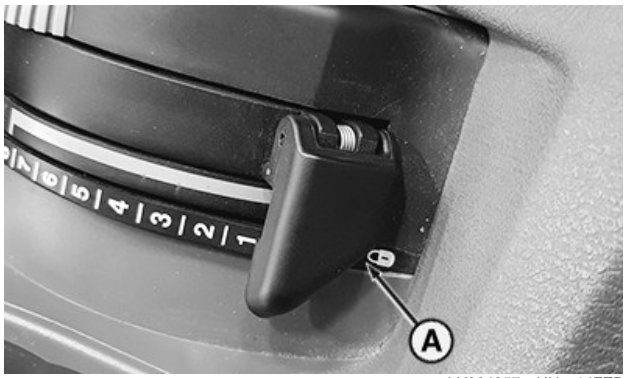
CAUTION: Danger of accidents resulting in severe injury and property damage.

When the transport lock is NOT activated, implements might be lowered accidentally.

Load-change reactions might lead to critical driving situations.

When driving with raised implement and when not using the hitch, ALWAYS activate the transport lock/dampening.

Engage Transport Lock of the Hitch



LX364257—UN—14FEB19

Move the control knob for the depth control beyond ***0*** to the stop (lock symbol) into the transport position (A).

Lock the hitch during transport or work that does not use the rear hitch.

OULXA64,6M,00053AE-19-28AUG23

Rear Hitch—Set the Depth Control Stop

Press stop (A) downwards and set the desired operating depth.



LX364272—UN—14FEB19

Cab without CommandARM™

After raising the device, the hitch can only be lowered with the control knob (B) to the set operating depth (noticeable resistance).

OULXA64,6M,00053AF-19-28AUG23

Rear Hitch—Driving under Load with Mounted Implement

IMPORTANT: The mass of the implement may be such that the implement moves up and down slightly even when the transport lock is on and hitch dampening is active.

Always raise the implement high enough to provide sufficient clearance between the implement and the road surface.

Transport with implement without own chassis:



LX364273—UN—14FEB19

Cab without CommandARM™

IMPORTANT: Always engage the hitch lock/hitch dampening function before driving the tractor!

Raise implement completely. To do so, move the depth control beyond ***0*** to the stop (lock symbol) into the transport position (A). The hitch is locked.

Transport with implement with own chassis:



LX364273—UN—14FEB19

Cab without CommandARM™

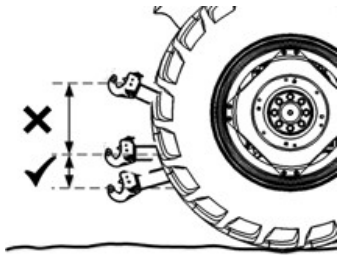
Move the control slider (A) completely forward, until it reaches the stop (float position).

NOTE: NOTE: Using the remote control, the height of the rear hitch can be changed with activated transport lock.

If the transport lock was activated before switching off the tractor, the transport lock remains enabled when the tractor is restarted.

Be sure to consider other points:

- Do not exceed the maximum trailer load (see table).
- Secure coupler hooks against unintentional opening (see description in this section).
- Use anti-twist trailer hitches and observe manufacturer's instructions.
- Raise draft links only so high until they are aligned horizontally.



LX341502—UN—11JUN18

Permissible towable load when transporting an implement with its own chassis
Rear hitch with CAT II Maximum towable load 10000 kg (22046 lb)*
Rear hitch with CAT III Maximum towable load 12000 kg (26455 lb)*
* Observe the maximum permissible towable loads in Section 500A. If lower values are given there, those specifications are binding.

OULXA64,6M,00053B0-19-19FEB24

Rear Hitch—Hitch Dampening

IMPORTANT: The mass of the implement may be such that the implement moves up and down slightly even when the transport lock is on and hitch dampening is active.

Always raise the implement high enough to provide sufficient clearance between the implement and the road surface.

The tractor is equipped with a hitch dampening function that prevents the tractor from pitching when traveling with a raised implement.



LX364271—UN—14FEB19

Cab without CommandARM™

Activate dampening

1. With engine running, first move the depth control lever to position ***0*** (A).
2. Then move the depth control lever all the way to the stop (beyond ***0***) into transport position (B) (padlock icon).

Deactivate dampening

Move the depth control lever out of transport position (B) beyond ***0*** in the direction for lowering (1 - 9).

NOTE: Using the remote control and shutting off the engine both have the effect of switching off the hitch dampening function.

To re-activate the dampening, move the control knob of the depth control out of transport position while the engine is running and move it back to transport position again.

OULXA64,6M,00053B1-19-28AUG23

Rear Hitch—Raise Height Limit

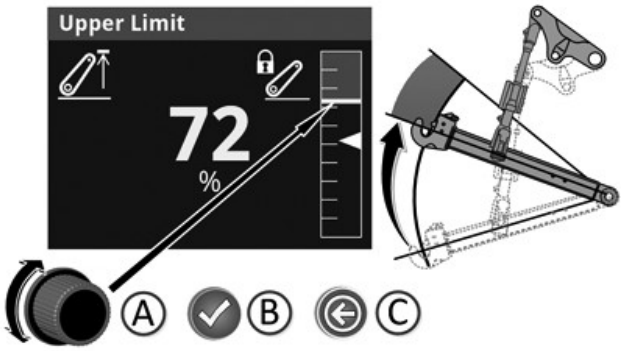
IMPORTANT: Changes take effect immediately.

1. Access raise limit.



LX368358—UN—13FEB19

2. Set raise limit with (A) to 30%.



LX368273—UN—13FEB19

3. Raise hitch fully.
4. Adjust the raise limit with (A) **carefully** until the desired raising height for the device is reached.
5. Confirm entry with (B).
6. Exit page with (C).

OULXA64,6M,00053B2-19-28AUG23

Rear Hitch—Adjust the Rate of Drop

CAUTION: Risk of injury due to implements being lowered too quickly.

If implements are being lowered too quickly, there is a risk of injury due to abrasion and crushing.

• Before lowering, make sure that there are no persons near or under the implement. Send anyone there away if necessary.

• Set the rate of drop so that a complete lowering takes at least 2 seconds.

IMPORTANT: Changes to rate of drop are effective immediately.

1. Access rate of drop.



LX368359—UN—13FEB19

2. Adjust the rate of drop with (A).



LX368274—UN—13FEB19

The rate of drop is dependent on:

- Setting of control knob (A).
- Weight of attached implement.

The heavier the implement, the faster the rate of drop and the lighter the implement, the slower the rate of drop.

3. Confirm entry with (B).
4. Exit page with (C).

OULXA64,6M,00053B3-19-28AUG23

Rear Hitch—Adjust the Raise Rate

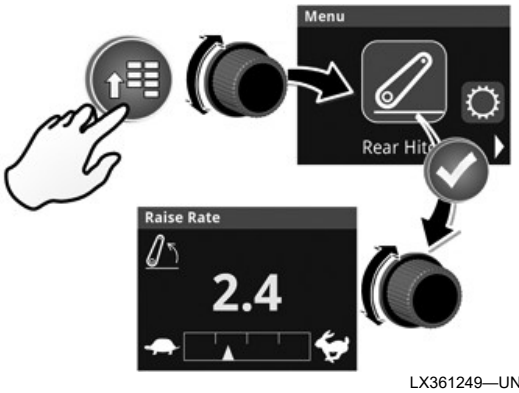
CAUTION: Risk of injury due to implements being raised too quickly.

If implements are being raised too quickly, there is a risk of injury due to abrasion and crushing.

• Before raising, make sure that there are no persons near or under the implement. Send anyone there away if necessary.

• Set the raise rate so that a complete raising takes at least 5 seconds.

IMPORTANT: Changes to raise rate are immediate.



LX361249—UN—13FEB19

Access, set, and save the raise rate as shown.

OULXA64,6M,00053B4-19-28AUG23

Rear Hitch—Draft/Depth Control Adjustment

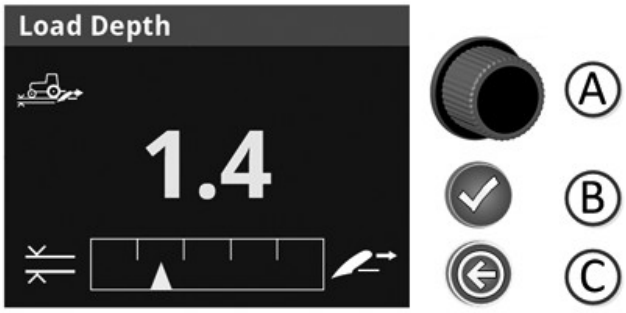
CAUTION: Before attaching devices to the three-point hitch, the depth control has to be set to "0.0". This avoids unintentional raising or lowering of the hitch.

1. Access draft/depth control.



LX368357—UN—13FEB19

2. Set the draft/depth control with (A).

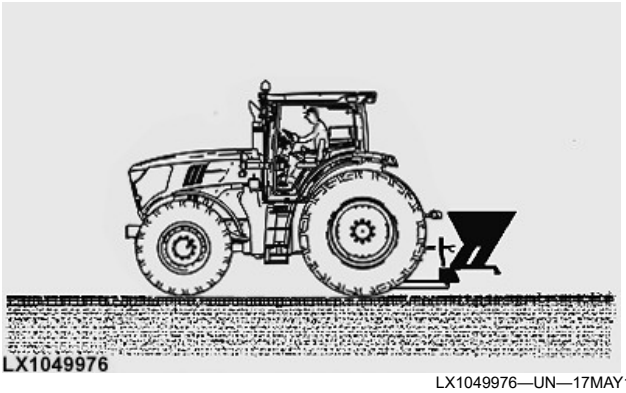


LX368272—UN—13FEB19

- 0 = Depth control
- Greater than 0 to less than 5 = Mixed control
- 5 = Maximum draft control

3. Confirm entry with (B).
4. Exit page with (C).

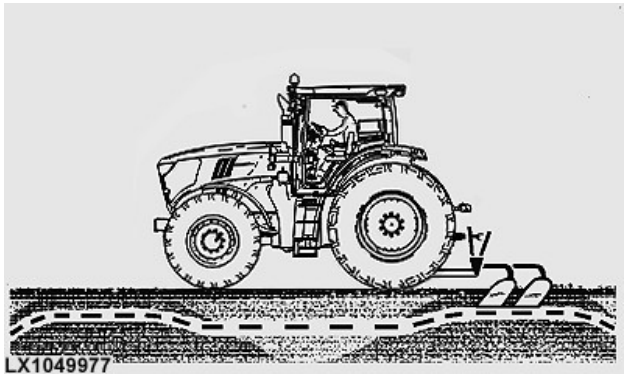
0 - Depth Control



LX1049976—UN—17MAY11

With draft/depth control in this position, the implement is held at the selected height.

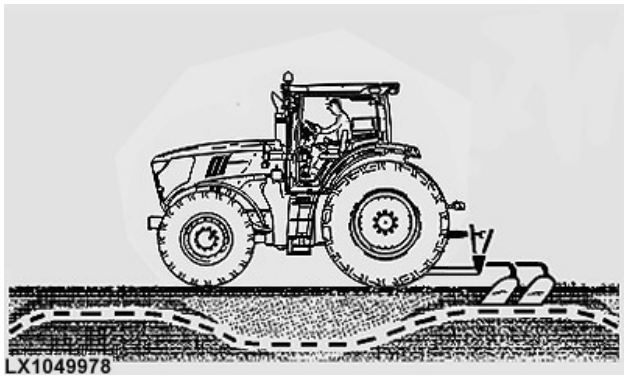
Greater than 0 to less than 5 - Mixed Control



LX1049977—UN—18MAY11

The intermediate positions of the load/depth control allow the effects of depth control and/or draft response to be infinitely varied as the ground conditions require.

5 - Maximum Draft Control

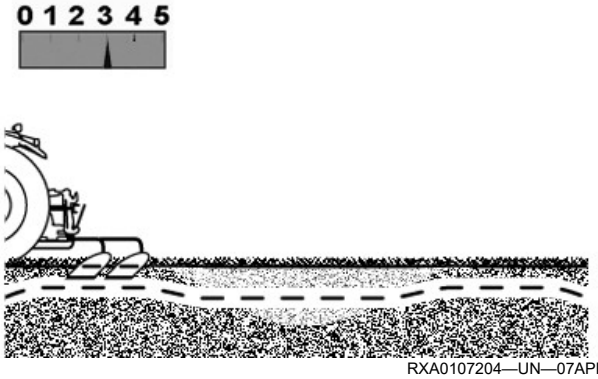


LX1049978—UN—17MAY11

With load/depth control in this position, the implement is raised as resistance (soil density) increases and lowered as resistance decreases.

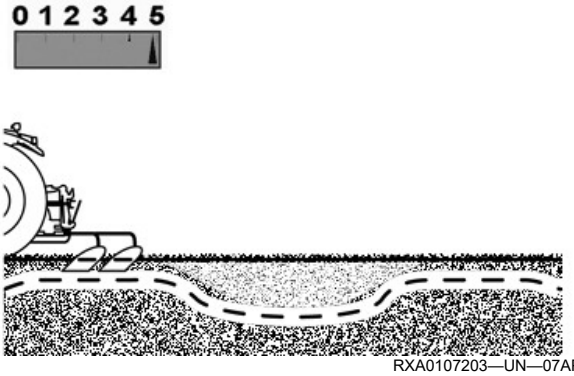
OULXA64,6M,00053B5-19-28AUG23

Rear Hitch—Use Draft Control



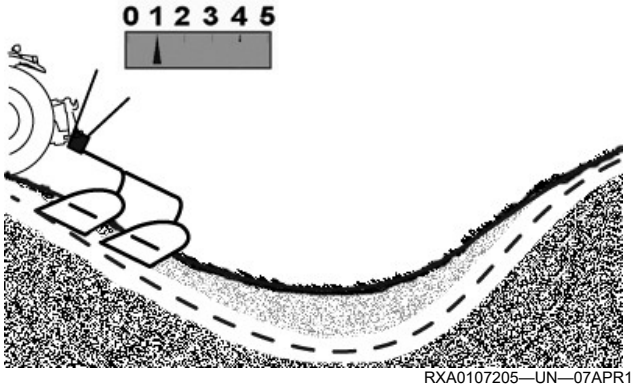
RXA0107204—UN—07APR10

Middle Response Controls Depth Better if Soil Varies



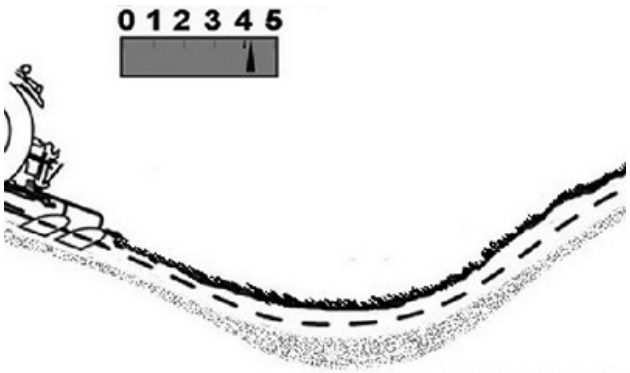
RXA0107203—UN—07APR10

High Response Causes More Depth Variation if Soil Varies



RXA0107205—UN—07APR10

Low Response Causes More Depth Variation in Rolling Terrain



LX314969—UN—11JUL17

Higher Response Controls Depth Better in Rolling Terrain

The draft control is used to maintain the operating depth of tillage equipment without float function in rolling terrain.

The draft control prevents the height and tilt of the tractor, as well as sinking rear wheels, from causing the implement to penetrate the soil too far.

If the soil density/resistance varies, higher responsiveness settings cause greater fluctuations when the operating depth is regulated. Best setting depends on implement type and field conditions.

- Higher values provide more/faster draft response.
- Lower values provide less/slower draft response.

Recommended setting values for the draft/depth control, depending on the implement type:

Integral Field Cultivator	4—5
Integral Moldboard Plow	3—5
Semi-Integral Moldboard Plow	2—4
Integral Chisel Plow	2—4
Integral Ripper/Subsoiler	1—3

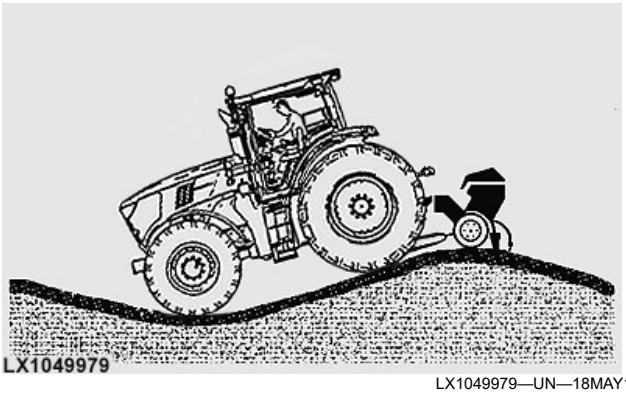
The setting for the draft/depth control changes the draft responsiveness only. Use depth control lever of the hitch to control/change operating depth.

NOTE: Low draft response settings may slow drop rate of some implements. To make the implement penetrate the soil faster, hold the depth control lever in the front click position. Hitch lowers at the drop rate selected.

LX25458,6M,0000A0F-19-28AUG23

Rear Hitch—Float Position

In float position (for implements with gauge wheel), implement can move freely up and down to follow ground contours independently of the tractor.



LX1049979—UN—18MAY11

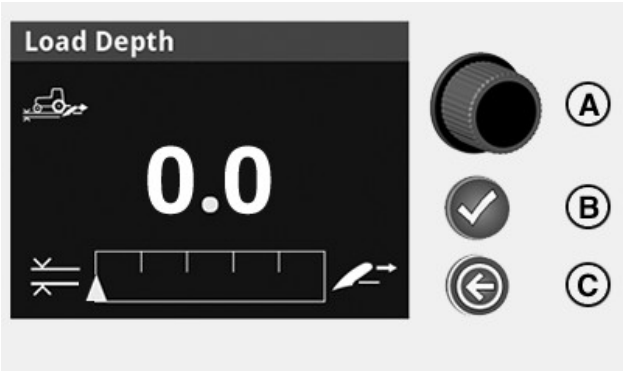
To activate the float position, configure the settings as follows:

1. Access draft/depth control.



LX368357—UN—13FEB19

2. Set the draft/depth control to 0.0 with (A).



LX364320—UN—05MAR19

3. Confirm entry with (B).
4. Exit page with (C).
5. Move the control knob of the depth control (A) completely forward, until it reaches the stop.



LX364273—UN—14FEB19

Cab without CommandARM™

OULXA64,00053B7-19-28AUG23

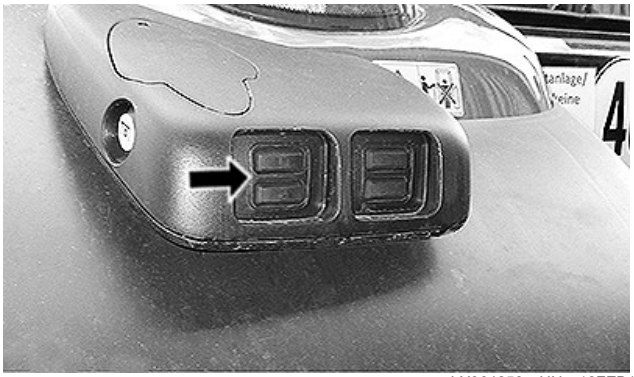
Rear Hitch—Remote Control

With the switches of the remote control, the hitch can be operated from outside the cab. For safety reasons, the hitch rises and drops at a slower rate. In addition, the settings for raising height and operating depth are not taken into account.



LX364452—UN—15OCT19

Remote Control Switch, Version 1



LX364258—UN—12FEB19

Remote Control Switch, Version 2

▲ Push upper switch - Raise implement

▼ Push lower switch - Lower implement

NOTE: Once the remote control has been activated, the hitch is prevented from moving accidentally. The hitch can be reactivated by one of the following operating modes:



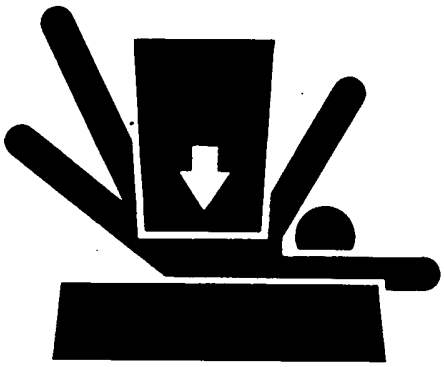
LX364259—UN—12FEB19

Cab without CommandARM™

- *Move control knob (A) to the position that corresponds to the position of draft links.*
- *Move control knob (A) to one of the end positions.*
- *Press switch (B) or (C).*

OULXA64,6M,00053B8-19-28AUG23

Rear Hitch—Direct Actuation



TS229—UN—23AUG88

CAUTION: Danger of injury resulting from direct operation of the rear hitch and implements!

If implements are being lowered or raised too quickly, there is a risk of injury due to abrasion and crushing.

Before lowering or raising, make sure that there are no persons in the vicinity of the rear hitch or implement. Send anyone there away if necessary.

Direct actuation of rear hitch must be performed only while sitting on the operator's seat.

In the event of electrical failure of the rear hitch's electrical control system, the rear hitch can be actuated as follows:



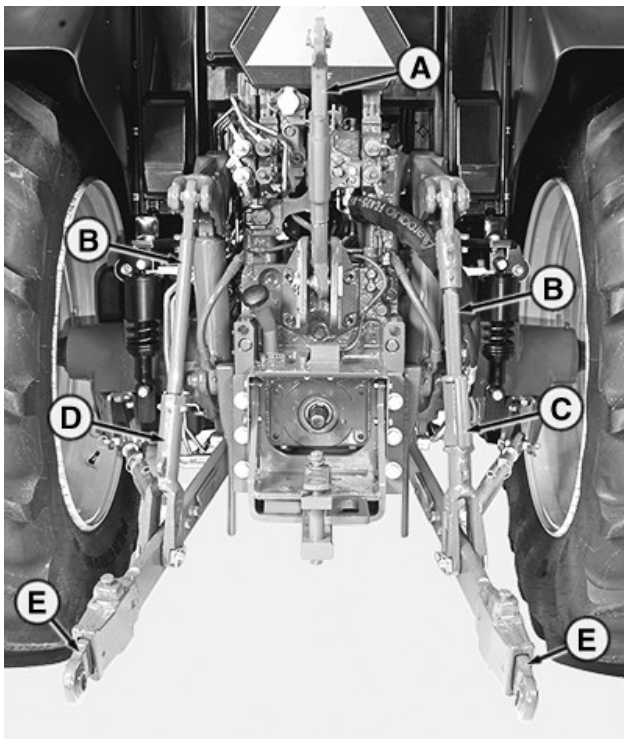
LX364261—UN—12FEB19

1. Keep engine running.
2. Take off the protective cap.
3. **From the operator's seat**, use a flat tip screwdriver or suitable coin to turn the screw until the rear hitch is raised or lowered to the desired position.

NOTE: It is possible to lower the hitch by direct actuation even when the engine is not running.

OULXA64,SP,00053B9-19-16JUL25

Three-Point Hitch



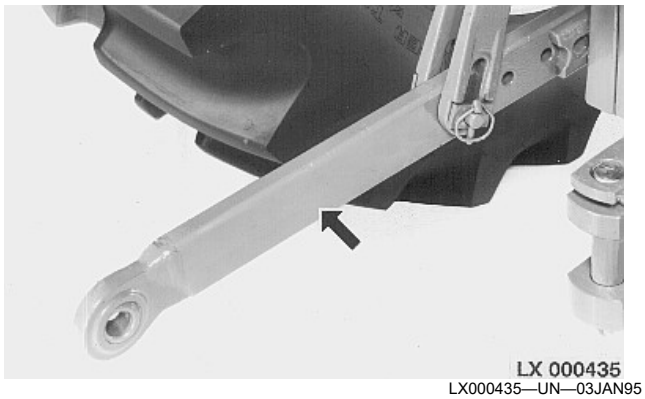
LX364319—UN—11MAR19

A—Center Link
B—Lift Links
C—Crank for Adjusting Lift Links
D—Draft Links

Tractors may be equipped with flat steel draft links, telescopic draft links, or quick-coupling (hook-type) draft links.

OULXA64,SP1,00058AD-19-27NOV20

Flat Steel Draft Links

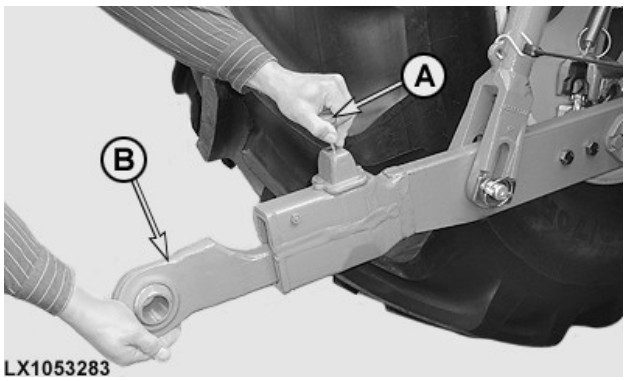


LX000435—UN—03JAN95

These draft links can be used for Category II implements.

LX25458,0000A14-19-05JUN20

Telescopic Draft Links



LX1053283—UN—19SEP11

These draft links are intended for Category II and Category IIIN implements.

To facilitate hitching of implements, extend the draft links to the rear.

1. Lift lock pin (A).
2. Pull telescopic draft links (B) to the rear.

After attaching and securing implements to draft links, reverse the tractor until the lock pins snap into place. Make sure that the draft links are locked by driving a short distance in forward direction.

LX25458,0000A15-19-05JUN20

Quick-Coupling (Hook-Type) Draft Links

IMPORTANT: Use only correct balls!

These draft links are intended for category III balls.

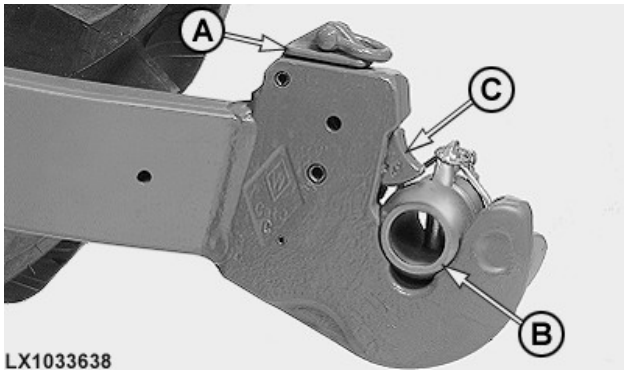


LX1033644—UN—17MAY04

Category	Ball Diameter (a)
III	64 mm (2.5 in)

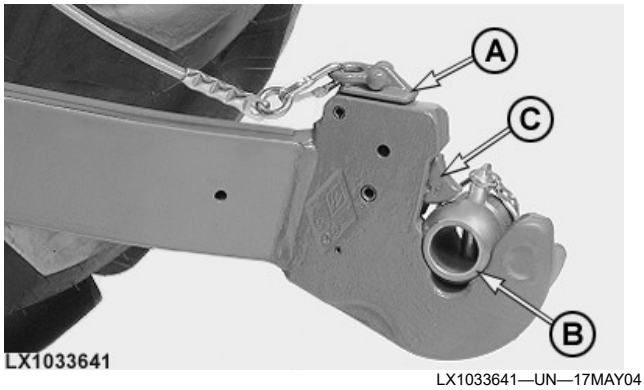
Operate the Coupler Hook

Coupler hooks can be operated manually or by cable using control element (A).



LX1033638—UN—17MAY04

Coupler Hook, Manual Operation



LX1033641—UN—17MAY04

Coupler Hook, Cable Operation

A—Control Element
B—Ball
C—Pin

IMPORTANT: Make sure that the coupler hooks are correctly latched:

- **Control element (A) has to be flush against coupler hook.**
- **Ball (B) should have no noticeable play.**
- **Pin (C) should cover the ball.**

For coupler hook with cable operation:

After hitching up, check the routing of the cable so that an accidental opening by excessive slack or catching by high vegetation or branches can be avoided.

Lock for Draft Link Hooks

CAUTION: There is a risk of injury due to unintentional opening of the draft link coupler hooks.

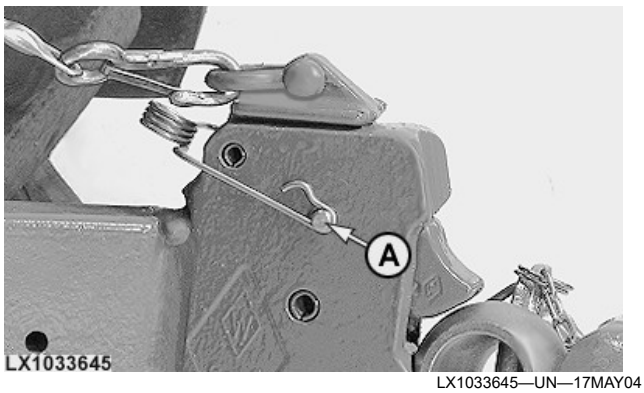
Unintentional opening of the lower link catch hooks can lead to crushing.

Secure draft link coupler hook against unintentional opening as shown.

Avoid the following situations:

- **Attaching devices with asymmetric load (e.g. side boom mower decks)**
- **Driving through high vegetation**
- **Forest operation**
- **Pulling implements with their own undercarriage**

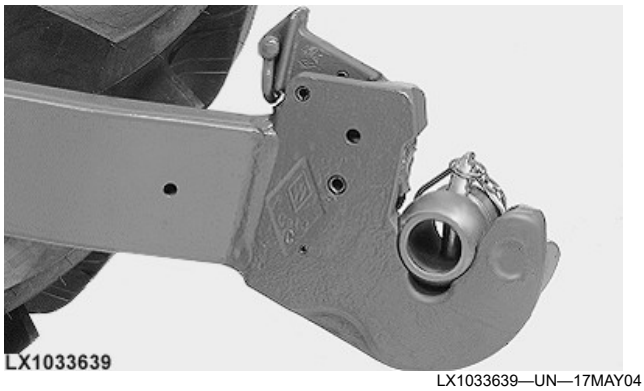
Use John Deere AL165485 lock parts kit at both of the coupler hooks.



LX1033645—UN—17MAY04

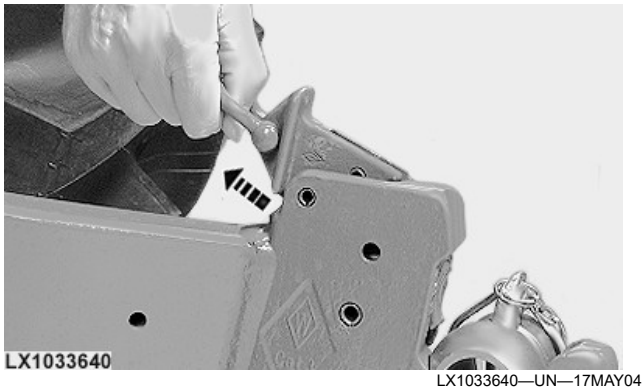
A—Lock Parts Kit

The coupler hooks can be locked in opened position.

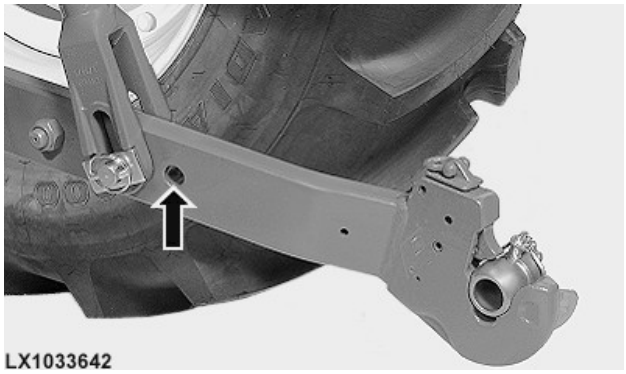


LX1033639—UN—17MAY04

To close the coupler hooks again, first pull the control part at an upward angle.



LX1033640—UN—17MAY04



LX1033642—UN—17MAY04

NOTE: For very heavy, short devices, the lift links can be attached in the rear hole of the draft links. This reduces the lifting height, but the lifting force is increased.

LX25458,MY20,0000A16-19-17SEP20

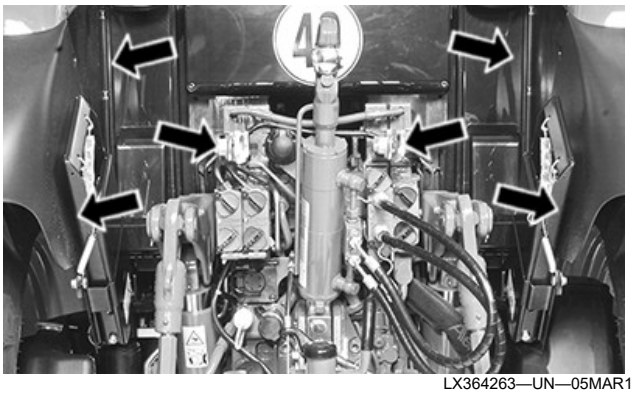
Attach Three-Point Hitch Mounted and Drawn Implements

CAUTION: Crushing hazard with possibly fatal consequences!

Body parts can be caught between tractor and implement and get trapped.

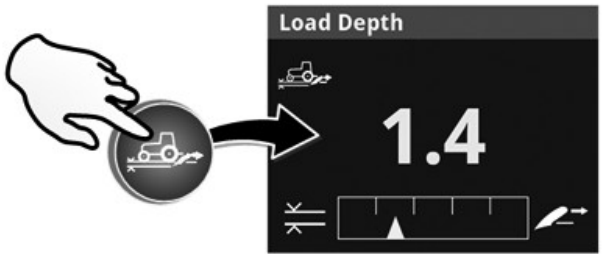
Do not stand in the danger area between the tractor and implement. Do not stand under suspended loads. Operate the remote control of the rear hitch from a safe position. Apply the park lock when hitching or unhitching implements and proceed with caution.

Be sure not to damage exposed parts of cab and tractor components (see arrows) when attaching three-point hitch mounted or drawn implements.



LX364263—UN—05MAR19

When attaching a device, make sure the draft/depth control is set to ***0.0***.



LX361247—UN—13FEB19

IMPORTANT: Avoid damage due to insufficient clearances.

When the hitch is raised, the device may come into contact with the cab tractor components.

Carry out a trial attachment and check clearances.

Check clearances and stops:

- Carefully raise the implement through the complete lifting range. Stop the process immediately in case there is a risk of contact with the tractor. If necessary, adjust the center link.
- Observe whether there is any contact between the tractor and the implement when turning. If necessary, adjust the draft link stops.
- To widen the clearance between lift links and the tires, mount the lift links in the front hole of the draft links.
- Comply with instructions under Hydraulic Center Link (if Equipped).
- Adjust the draft link stops so that no lateral movement is possible after lifting the implement.
- Even if no implement is available, the draft link stops need to be set so that contact by the draft links with the tires can be prevented.

When the drawbar is attached, move the drawbar into one of the following positions and lock it:

- Front, short position
- Swiveled to the left
- Swiveled to the right

OULXA64,SP1,00058AE-19-04DEC20

Level the Implement

To level implement from side-to-side, adjust one of the lift links. Adjust center link to level fore-and-aft.

LX25458,MY20,0000A18-19-16SEP20

Center Link

IMPORTANT: Avoid any damage due to too little clearance between installed and hitched devices.

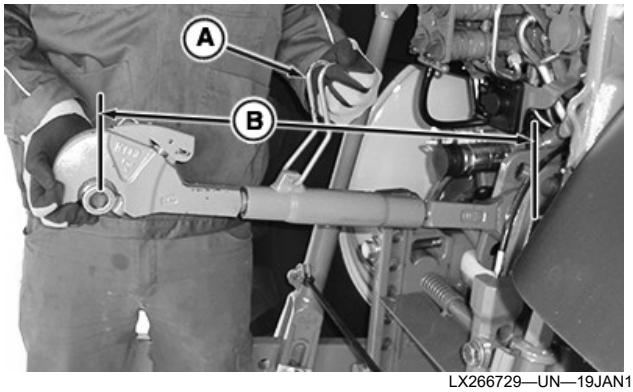
When the hitch is raised, the device may come into contact with the cab tractor components.

Carry out a trial attachment and check clearances with attached or hitched device in every position.

Observe following settings for this:

- **Center link length**
- **Maximum lift height**

1. Adjust center link length to the required length (B) by turning adjusting handle (A).



LX266729—UN—19JAN16

A—Adjusting Handle
B—Length

Center Link Lengths	CAT II	CAT III
Minimum length	640 mm (25.2 in)	660 mm (26.0 in)
Maximum length	820 mm (32.3 in)	845 mm (33.3 in)

IMPORTANT: Avoid any damage due to wrong adjustment length.

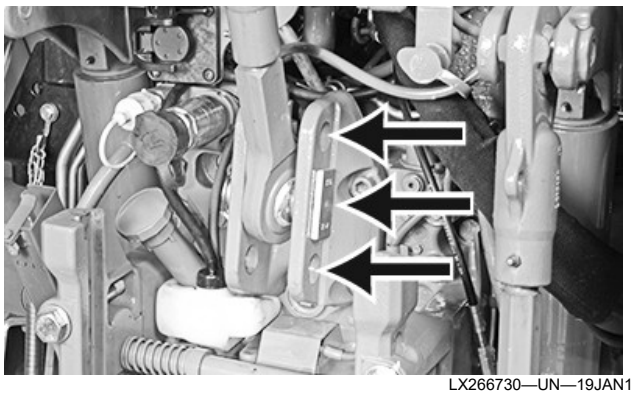
When setting the center link lengths, faulty settings and incorrect operation may occur.

- **Do not deviate from specified upwards or downwards dimensions.**
- **Grooves in the threads indicate the maximum permitted setting.**
- **The threads must not be unscrewed out of the receiver.**

2. After adjusting, push handle down again over center link.
3. Insert attaching pin through implement mast and center link, and secure.

OULXA64,SP,4CYL,00057E1-19-17NOV20

Center Link Positions



LX266730—UN—19JAN16

The center link can be attached to the tractor in any one of three different positions.

The lowest position provides maximum tilt angle but less lifting force and should be used when working with a plow.

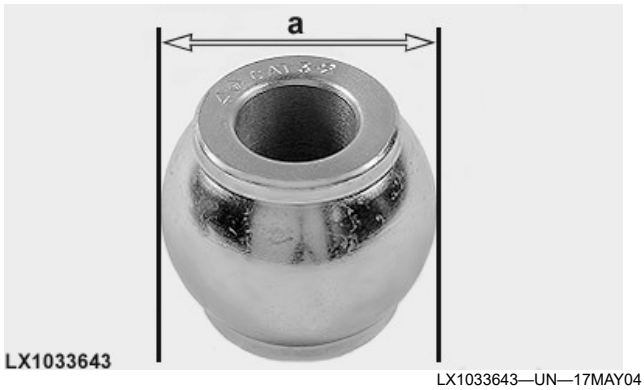
The highest position provides greater lifting force and minimum tilt angle, and can be used when working with machines such as direct drills.

OULXA64,SO,4CYL,00057E2-19-17NOV20

Hook-Type Center Link

IMPORTANT: Use only correct balls!

This center link is intended for category III balls.

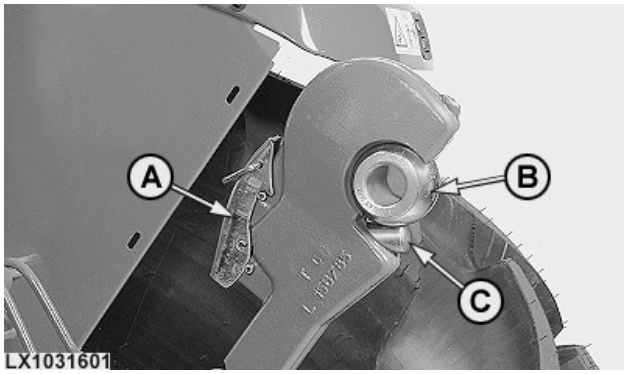


LX1033643—UN—17MAY04

Category	Ball Diameter (a)
III	60 mm (2.4 in)

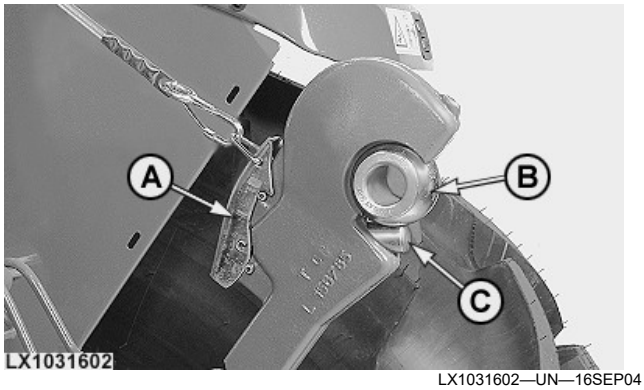
Hook Operation

Coupler hooks can be operated manually or by cable using control element (A).



LX1031601—UN—16SEP04

Coupler Hook, Manual Operation



LX1031602—UN—16SEP04

Coupler Hook, Cable Operation

A—Control Element
B—Ball
C—Pin

IMPORTANT: Make sure that the coupler hook is correctly latched:

- **Control element (A) has to be flush against coupler hook.**
- **Ball (B) should have no noticeable play.**
- **Pin (C) should cover the ball.**

For coupler hook with cable operation:

After hitching up, check the routing of the cable so that an accidental opening by excessive slack or catching by high vegetation or branches can be avoided.

LX25458,ALL,CAT2,0000A1B-19-09OCT20

Hydraulic Center Link (If Equipped)

IMPORTANT: Exercise caution, center link is heavy and can damage hydraulic hoses and other components if it tilts down during installation or removal.

IMPORTANT: Check the following before putting into operation:

- **When raising the implement, make sure that it does not contact the tractor.**
- **Pay attention to the length of the center link and maximum raising height.**

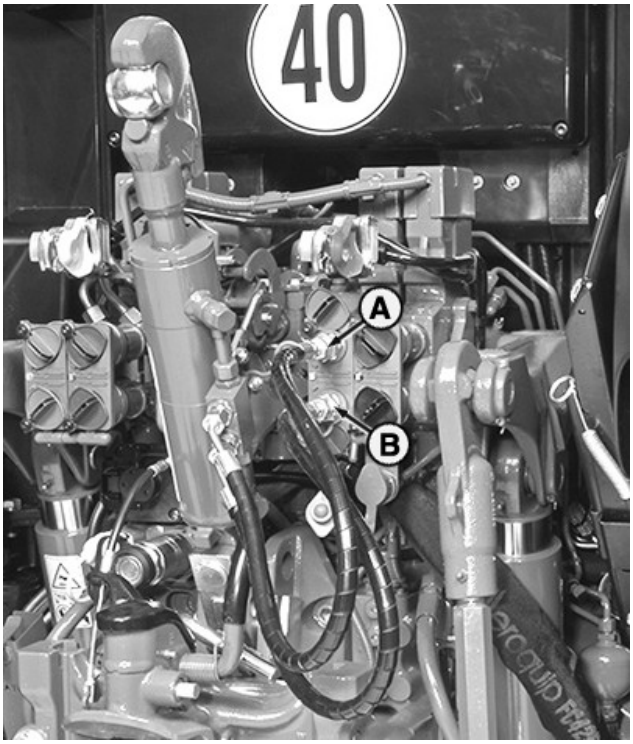
The length of the center link can be adjusted when seated in the operator's seat using the SCV III. If equipped, the center link can also be actuated from the remote control switches on the fender. (see arrow)



LX364265—UN—12FEB19

Attached to the hydraulic center link is a measuring rod that is intended to facilitate adjustment of the center link when in operation. For this purpose, the rod has marks on it to assist in positioning. The rod is not suitable for use as a handhold when in transport or during installation and removal.

Route the hydraulic hoses so that the loops face away from coupling area of the center link. Connect supply line (A) with the upper port on SCV III and supply line (B) with the lower port on SCV III.



LX364266—UN—12FEB19

Hydraulic Line Connections

A—SCV III Top, Connection of the Upper Lead of the Center Link
B—SCV III Bottom, Connection of the Lower Line of the Center Link

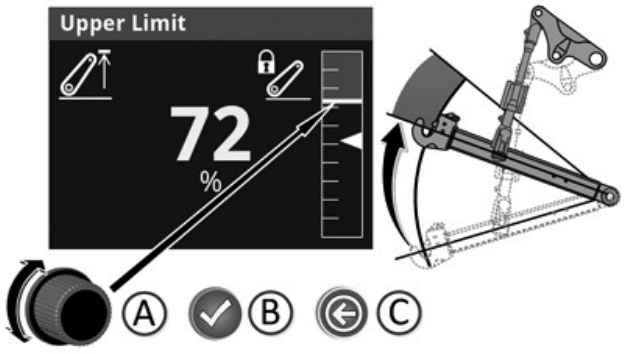
IMPORTANT: Take extreme care when setting the MAX lift limit and make sure there is adequate clearance at all tractor components. Remember that retracting the hydraulic center link brings the implement closer to the tractor.

1. Access raise limit.



LX368358—UN—13FEB19

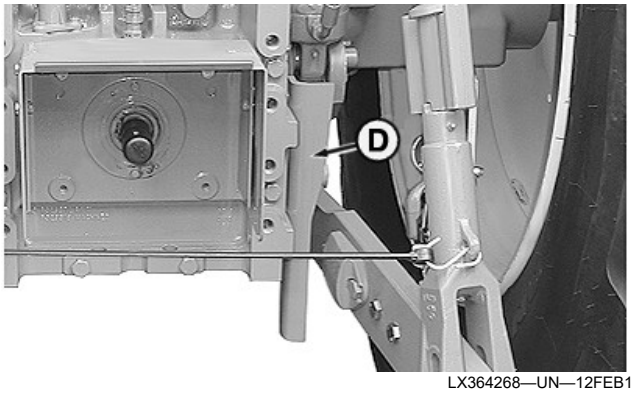
2. Set raise limit with (A) to 30%.



LX368273—UN—13FEB19

3. Raise hitch fully.
4. Adjust the raise limit with (A) **carefully** until the maximum possible raising height for the device is reached.
5. Confirm entry with (B).
6. Exit page with (C).

If severe wear occurs at guide rails (D) on the PTO housing, the guide rails need to be replaced with new ones in order to prevent the center link from coming into contact with the hydraulic block.



LX364268—UN—12FEB19

Guide Rails

If the hydraulic center link is not used, ensure the following:

1. Center link is fully retracted.
2. The center link is installed in one of the top two positions.
3. The center link is fully engaged in latch of the tractor.

Pay attention to the heavy weight when mounting and dismounting the center link.

OULXA64,SP1,00058AF-19-14MAR23

Adjust Lift Links

IMPORTANT: Avoid damage due to insufficient clearances.

When the hitch is raised, the lift link and the draft link may come into contact with the tires or other tractor components.

Check clearances and stops:

- To widen the clearance to the tires, mount the lift links in the front hole of the draft links.
- When draft link is raised, always lock the stabilizer bars (hydraulic or mechanical).

The raising height and the operating depth can be increased with the lift links.

Increase raising height ==> shorten lift link

Increase operating depth ==> extend lift link

NOTE: Short lift link means:

Short raising path ==> greatest lifting force.

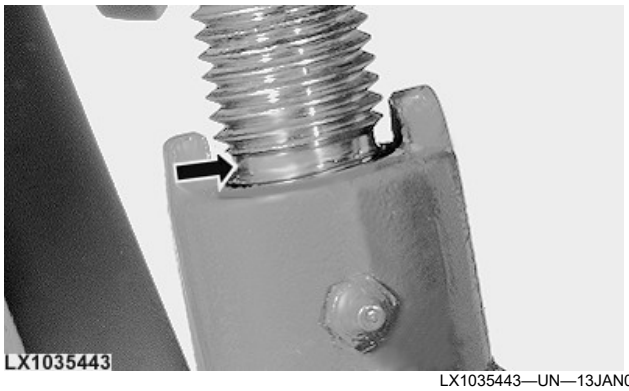
Long lift link means:

Long raising path ==> lesser lifting force.

IMPORTANT: Avoid damage due to wrong adjustment length.

When setting the lift links, faulty settings and incorrect operation may occur.

Observe the following when setting the lift link:



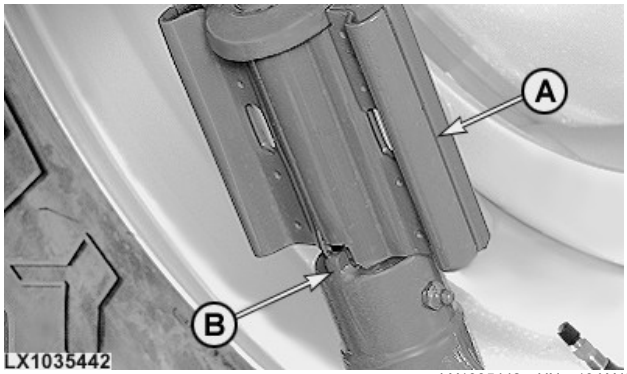
LX1035443—UN—13JAN05

Groove in thread

- Do not deviate from specified upwards or downwards dimensions.
- Grooves in the thread indicate the maximum permitted setting.
- The threads must not be unscrewed out of the receiver.

Align Implement

1. Push adjusting handle (A) out of lock (B) and set the desired length.

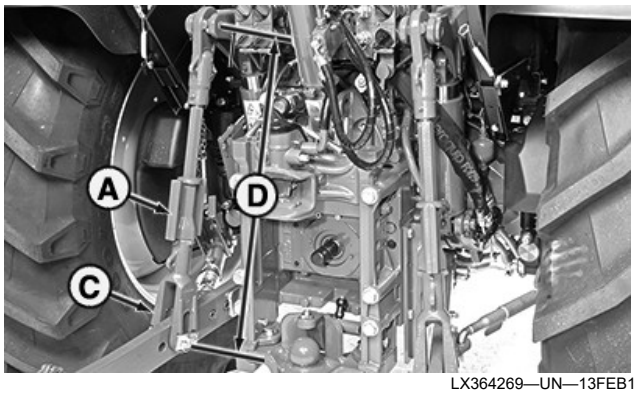


LX1035442—UN—13JAN05

A—Adjusting Handle
B—Lock

2. To retain, push adjusting handle (A) down and into lock (B).

   For lift links without adjusting handle, remove the lift link from the draft link and screw yoke end (C) in or out.



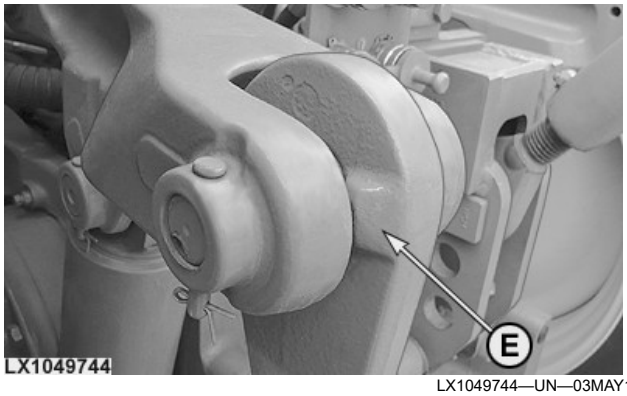
LX364269—UN—13FEB19

A—Adjusting Handle
C—Yoke End
D—Length

Adjustment Length	CAT2 and CAT3
Minimum length	830 mm (32.7 in)
Maximum length	990 mm (39.0 in)

NOTE: The lift link dimensions quoted above are with lift links locked in draft links (no vertical float).

3. When engaging the lift links in the lift arms, make sure that stops (E) are always at the rear as shown.



LX1049744—UN—03MAY10

E—Stops (2 on each lift link)

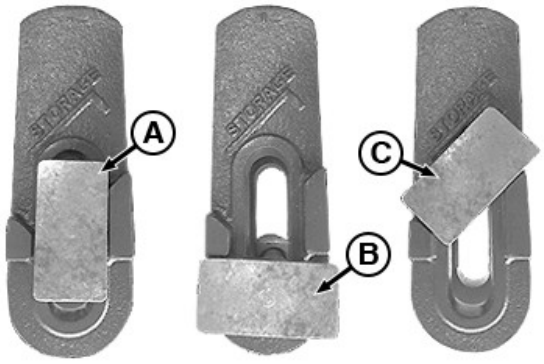
OULXA64,SP1,00058B0-19-30NOV20

Lift Links—Adapt for Different Use Cases

IMPORTANT: Possible material damage due to incorrect setting of the lift links.

Towing implements and trailers in the trailer hitch or drawbar can result in collisions with the rear hitch.

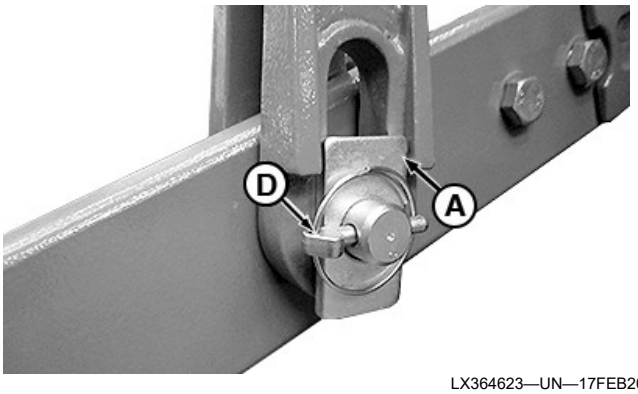
Make sure that the lift links are in the Storage Position (C) before towing equipment in the trailer hitch or drawbar.



LX364625—UN—17FEB20

A—Torsional Free Float Position
B—Transport Position
C—Storage Position (If Equipped)

A - Torsional Free Float Position	• With this setting, the implement can compensate for uneven ground. The draft links can free move in the oblong holes of lift links, allowing the implement to respond with a rolling motion when the ground forces one side to rise.
B - Transport Position	• Use this setting for field applications when the implement doesn't require torsional free float. • Use this setting when transporting implements attached to the rear hitch (three point hitch). The rear hitch control slider must be set to the transport lock position.
C - Storage Position	This position must be set before towing operations are carried out in the trailer hitch or drawbar. 1. Remove any equipment from the rear hitch. 2. Set the lift link pins to the storage position (C). 3. Raise the rear hitch and set the rear hitch control slider to the transport lock position. 4. As last step adjust the lift links to the shortest length.

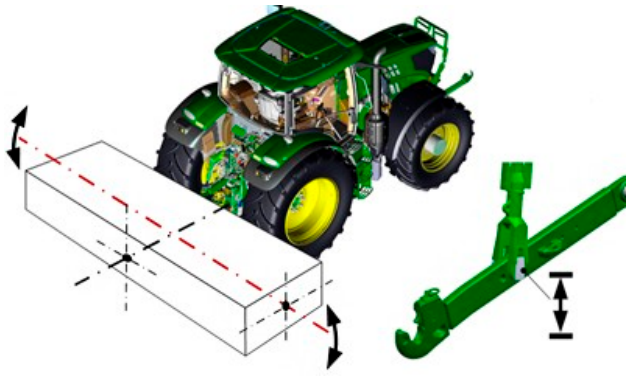


LX364623—UN—17FEB20

Torsional Free Float Position

A—Torsional Free Float Position
D—Quick-Lock Pin

Torsional Free Float Position: The draft links can free move in the oblong holes of lift links, allowing the implement to respond with a rolling motion when the ground forces one side to rise.



LX590945—UN—30OCT23

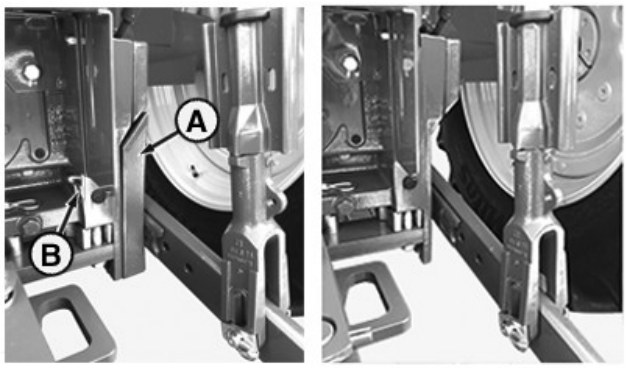
Torsional Free Float Position

LX25458,ALL,0000A1D-19-06NOV23

Sway Blocks, Category II (If Equipped)

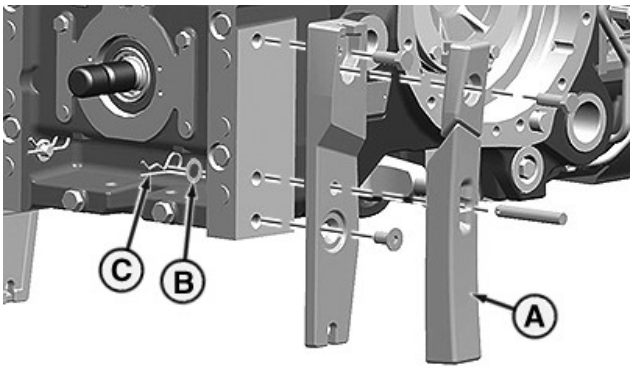
IMPORTANT: The draft links must NOT come into contact with the tires at any point in their operating range (from lowest position to highest).

The sway blocks (A) limit the side sway of the draft link during work and transport.



LX364393—UN—15MAY19

Sway Blocks, Installed/Removed



LX364394—UN—21MAY19

A—Sway Block
B—Washer
C—Cotter Pin

Sway blocks must be fitted when working with attachments which exactly follow the line of the tractor.

If the implement (plow, disk harrow, etc.) should have side sway in the working position, remove the cotter pins (C) and take off the blocks.

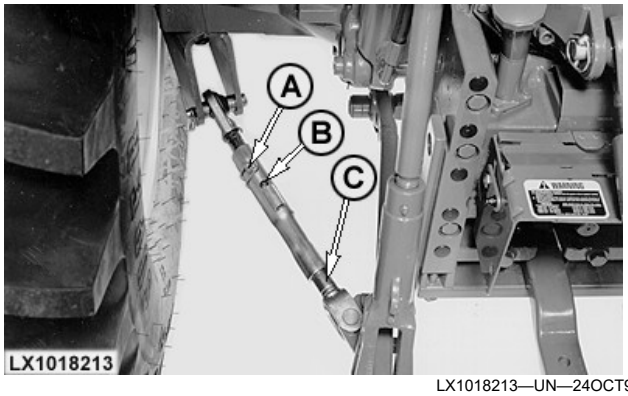
In this case, the draft links have side sway in working position; in transport position they are locked.

If necessary, compensate for existing sway with washers (B) during replacement.

LX25458,0000A1E-19-18JAN23

Stabilizer Bar (If Equipped)

The stabilizer bar can be adjusted for any category by using pin (A) and/or the threaded rod (B), as well as the other pin positions (C).



LX1018213—UN—24OCT97

In the thread of the threaded rod, the categories are marked with grooves.

If the pin (A) is not needed (side sway of draft links), store the pin in the transport bracket (see arrow).



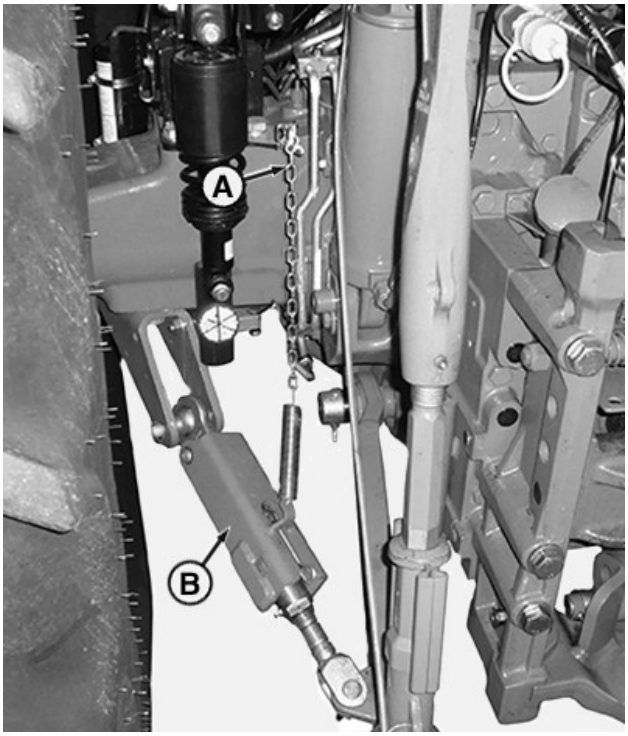
LX1018214—UN—24OCT97

LX25458,ALL,0000A20-19-09OCT20

Stabilizing System (If Equipped)

IMPORTANT: To prevent malfunctions, always attach the loose end of the chain at position (A).

The stabilizing system is operated via chain (A) and flap cover (B). If flap cover (B) is raised, the draft links have lateral play, otherwise they are locked.



LX314970—UN—11JUL17

Short Chain (A):

Draft links are locked in raised position (rigid setting); in lowered position they have lateral play.

Long Chain (A):

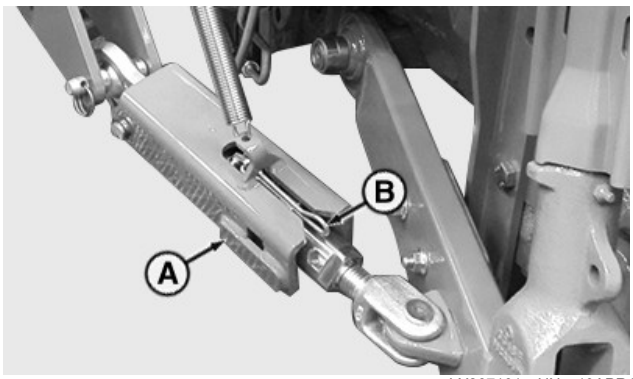
Draft links are locked in all positions.

IMPORTANT: Do NOT let the draft links or lift links come into contact with the tires or other tractor components. When draft links are raised (even if no implement is attached), the hydraulic or mechanical stabilizer bars must be locked.

LX25458,6M,0000A21-19-09OCT20

Draft Links—Adjust Spreading Dimension

1. Drive tractor to the center of the implement.
2. Lift flap (A) and lever (B).

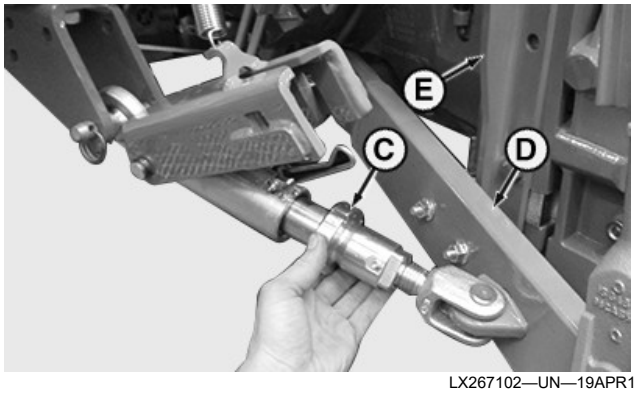


LX267101—UN—19APR17

A—Flap
B—Lever

Flap (A) does not necessarily need to be lifted for the setting.

3. Use spindle (C) to set the spreading dimension of the draft links correspondingly to the implement.



LX267102—UN—19APR17

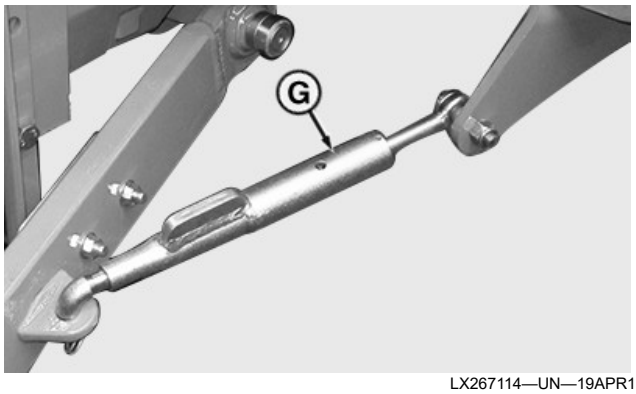
C—Spindle
D—Draft Link
E—Sway Block

IMPORTANT: The spreading dimension must be large enough to prevent the draft links (D) from getting caught on sway blocks (E). If not, mechanical damage may occur.

Spreading Dimension Measured between Center of Balls	
Category II/IIIN	870 mm (34.5 in)
Category III (not available for all models)	1010 mm (39.8 in)

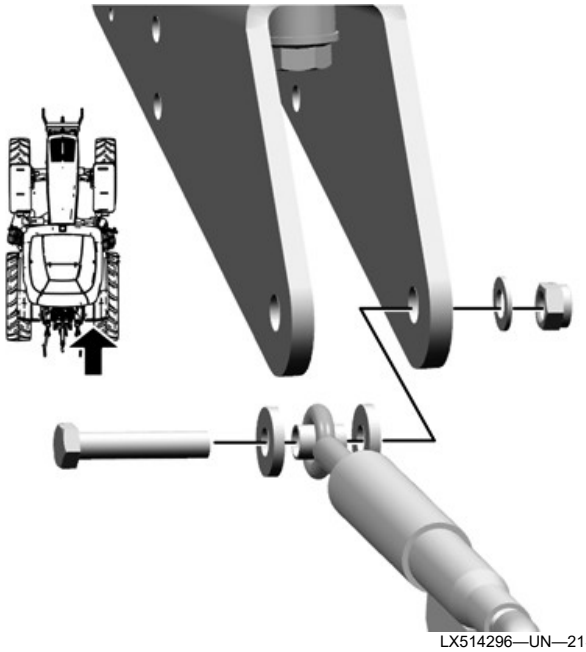
The realizable dimension depends on the configuration of the tractor. Check the availability for your tractor model. Find the hitch specifications in section 500A of this manual.

4. To secure, position lever (B) in the groove of the spindle (C).
5. Lower flap (A).
6. Adjust spacer (G).



LX267114—UN—19APR17

G—Spacer



LX514296—UN—21SEP22

Optional Available

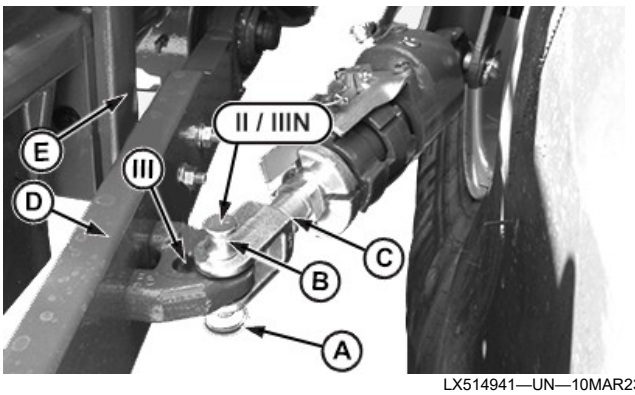
IMPORTANT: If telescopic draft links are equipped and conversion from category IIIN to category III is being performed, the position of the wear plates must be changed from inside to outside. See Telescopic Draft Links - Convert Category III and IIIN (If Equipped) on the following pages.

LX25458,ALL,0000A22-19-21SEP23

Adjust Draft Links for Category II/IIIN or III (If Equipped)

IMPORTANT: The spreading dimension must be large enough to prevent the draft links (D) from getting caught on sway blocks (E). If not, mechanical damage may occur.

IMPORTANT: Always adjust and fasten draft links on the same holes for category II/IIIN or III.



LX514941—UN—10MAR23

Example: Set Category II/IIIN or III

A—Snap Ring
B—Pin
C—Stabilizer Bar
D—Draft Link
E—Sway Block

1. Take off snap ring (A).
2. Remove pin (B).
3. Align stabilizer bar (C) to the desired spreading dimension (category II/IIIN or III).
4. Position pin (B) and attach snap ring (A).

LX25458,ALL,0000A23-19-15MAR23

Trailer Hitches

Trailer Hitches—Foreword

The trailer hitches as listed in this Operator's Manual can be fitted.

In some regions, not all trailer hitches are available.

The current edition of the sales brochure is authoritative.

IMPORTANT: Possible material damage due to incorrect setting of the lift links.

Towing implements and trailers in the trailer hitch or drawbar can result in collisions with the rear hitch.

Make sure that the lift links are in the storage position before towing equipment in the trailer hitch or the draw bar.

See section 60E, Lift Links—Adapt for Different Use Cases.

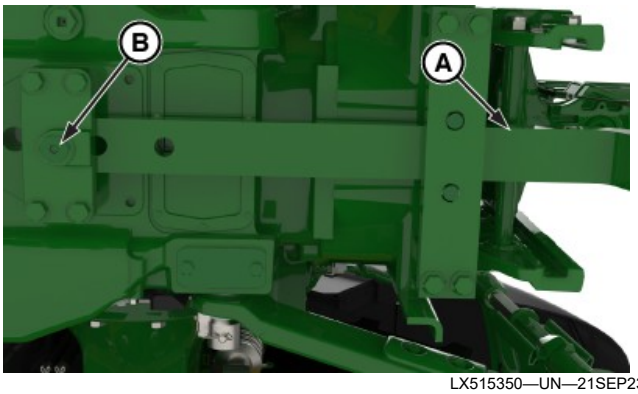
60F01,LX25458,0000A25-19-18JUN24

CAT II Drawbar

IMPORTANT: Towing on public roads with the drawbar set to one side is not permitted!

The drawbar is used to pull drawn equipment of all types, particularly PTO-driven implements. Positioning the drawbar increases rear axle load and slightly reduces front axle load.

Besides having a variable swinging range, the drawbar can also be adjusted lengthwise. Maximum permissible static vertical loads and towed loads are stated in Loads and Weights in section 500A.



LX515350—UN—21SEP23

CAT II Drawbar

A—Drawbar
B—Hex Stopper (1 used), 310 N·m (230 lb·ft)

Drawbar (A) can be set to the following lengths:

CAT II	250 mm	350 mm	400 mm
	9.8 in	13.8 in	15.7 in

These lengths determine the distance from the end of the PTO shaft to the attachment point of the drawbar.

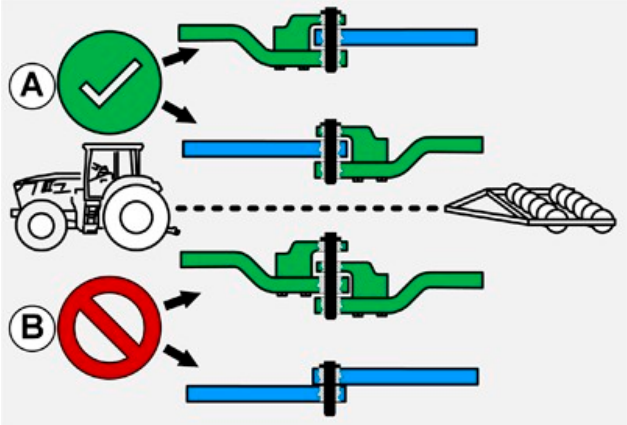
To adjust drawbar length, remove hex stopper (B) and pull out pin. Shift drawbar (A) and align the holes so that they line up with each other. Then insert the pin, screw on hex stopper (B) again, and tighten to the prescribed torque.

NOTE: Drawbar components that are subject to wear can be checked in the course of maintenance work. See section 220D. Replace, if necessary.

60F02,LX25458,CAT2,0000A26-19-20NOV24

Proper Use of Drawbar

IMPORTANT: Comply with the national traffic regulations when using the drawbar. Use suitable, approved hitch pins only. Combine drawbars as shown only.



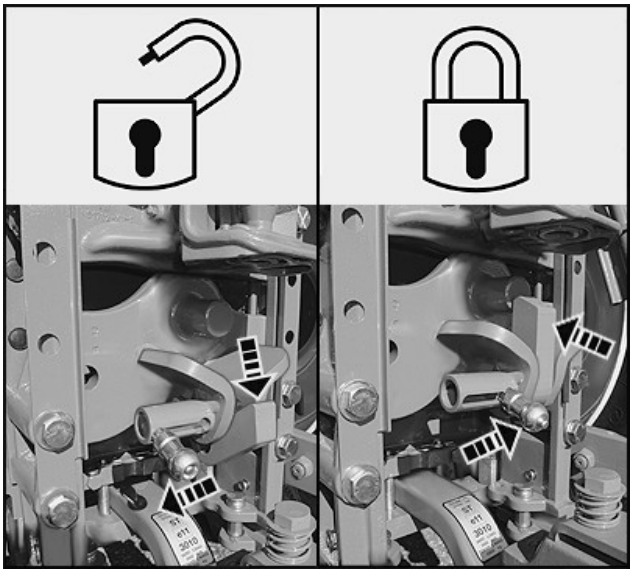
LX514944—UN—06MAR23

A—Allowed
B—Not Allowed

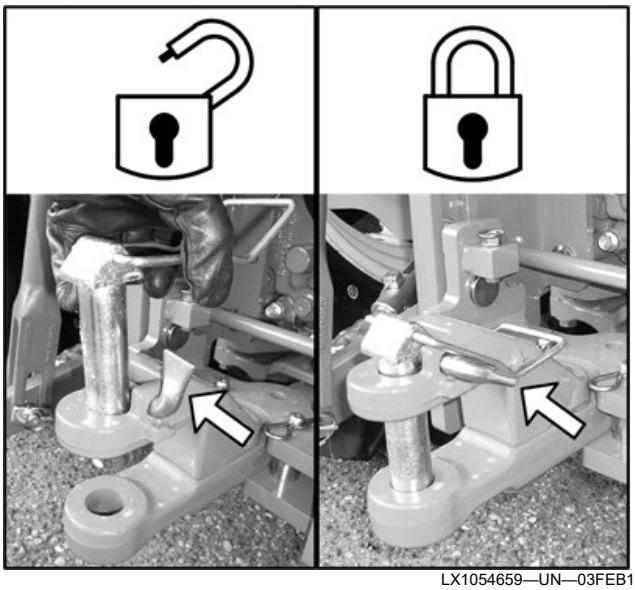
60F04,LX25458,ALL,0000A27-19-27SEP23

Lock the Hitch Pins

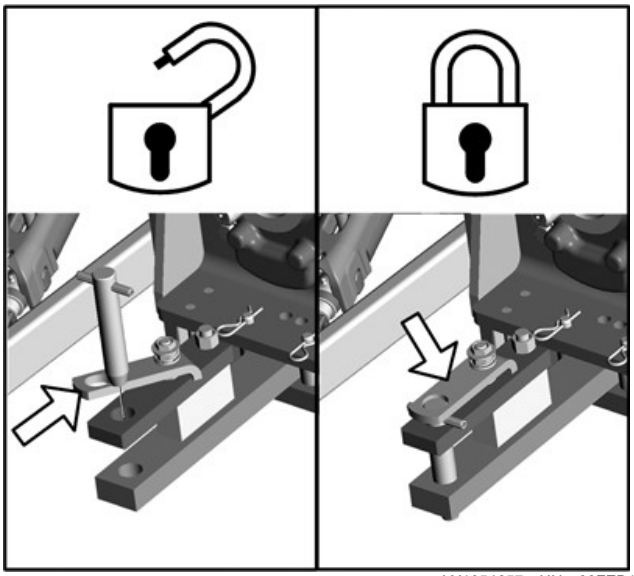
CAUTION: Once the implement is attached, it is essential to make sure that hitch pin is locked. If the pin is not locked, it may be lost while driving, which could cause serious accidents.



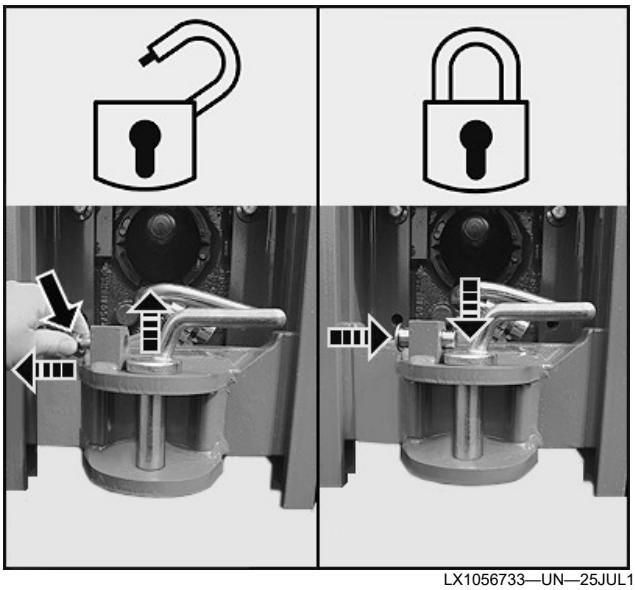
LX1056734—UN—25JUL12



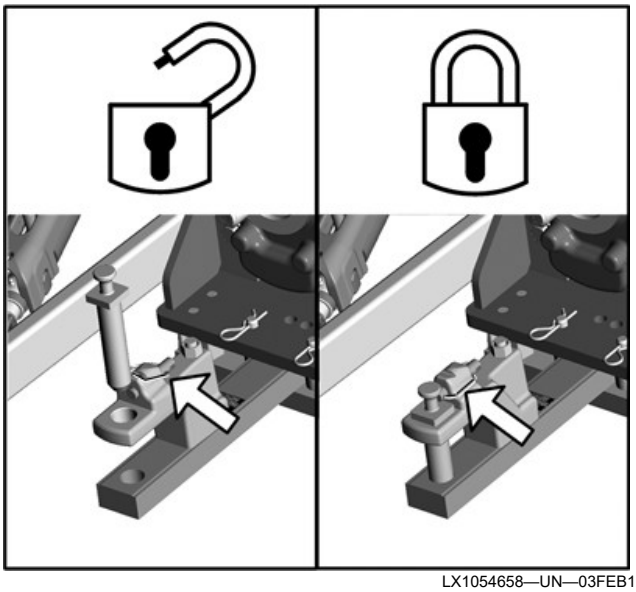
LX1054659—UN—03FEB12



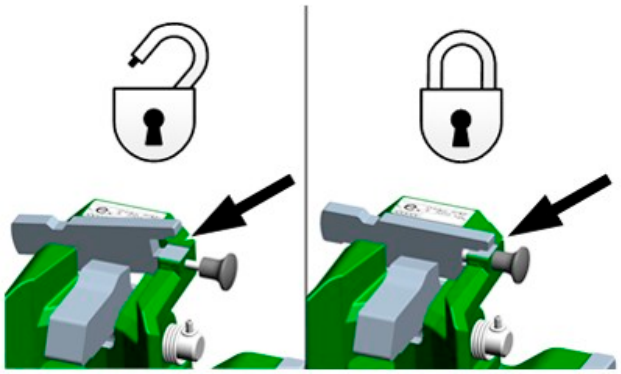
LX1054657—UN—03FEB12



LX1056733—UN—25JUL12



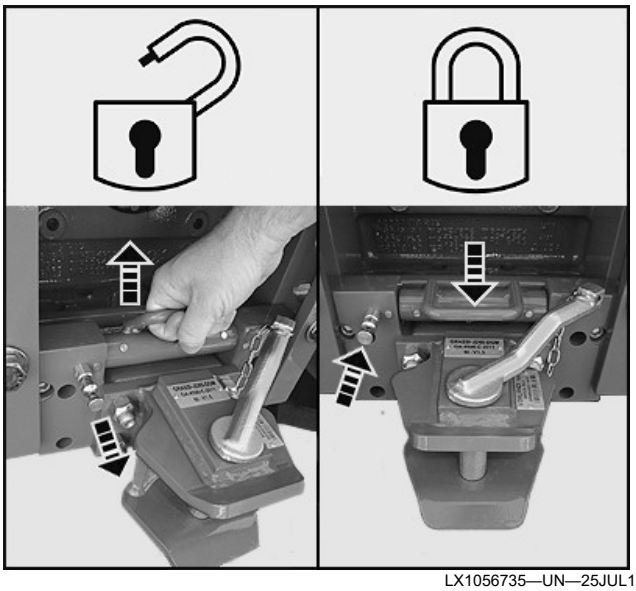
LX1054658—UN—03FEB12



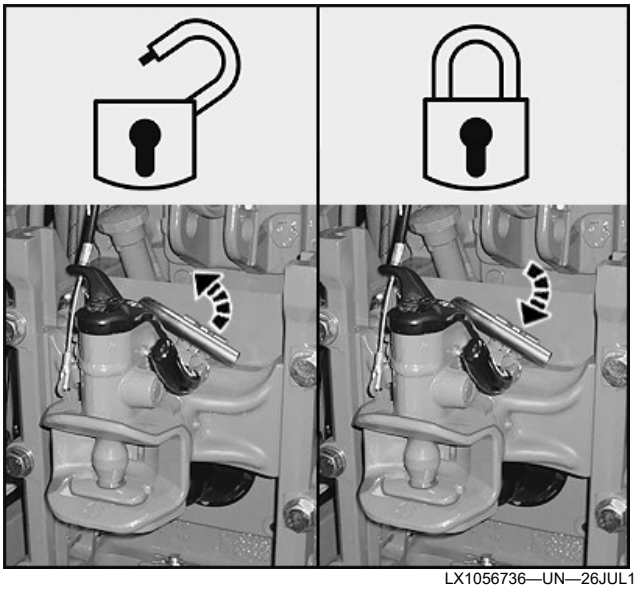
LX609871—UN—20JUN24
60F05,LX25458,ALL,0000A28-19-20JUN24

Lock the Height-Adjustable Trailer Hitch

CAUTION: Make sure that the height-adjustable trailer hitch is locked before attaching the implement. If the trailer hitch is not locked, serious accidents may result when attaching the implement or driving.



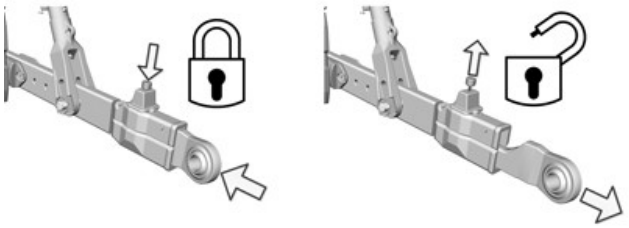
LX1056735—UN—25JUL12



LX1056736—UN—26JUL12

60F06,LX25458,ALL,0000A29-19-27SEP23

Latch for Telescopic Draft Links



LX211141—UN—19AUG14

Draft Links Locked, Draft Links Unlocked

CAUTION: Once the implement is attached, it is essential to make sure that the telescopic draft links are locked in the working/transport position. If the telescopic draft links are not locked, they may slip out of the working/ transport position while driving, which could cause serious accidents.

60F07,LX25458,ALL,0000A2A-19-27SEP23

Hitch Jaw

CAUTION: The methods of hitching shown here may be used for maneuvering and towing on firm ground surfaces only. Before the tractor is towed by the hitch jaws, always remove any trailers or mounted implements.

Never use a tow rope; always use an approved towbar.

Hitch jaws are integrated into the front end of the tractor to allow the tractor to be maneuvered and towed on metaled road surfaces.

The hitch jaws are located on the following components:

- Basic weight (A)



LX515358—UN—21SEP23

Basic Weight

• Additional weights (B)



LX515359—UN—21SEP23

Front Weights

• Pickup weight (C)



LX515360—UN—23NOV23

Pickup Weight

• Front hitch (D)



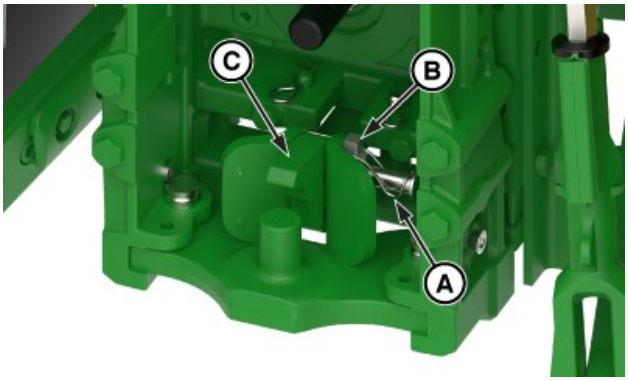
LX515361—UN—21SEP23

Front Hitch

60F08,OULXA64,CAB,000562D-19-27SEP23

Trailer Hitch with Piton-Fix or Ball-Type (Rigid) (Until MY25)

Trailer Hitch with Piton-Fix



LX515362—UN—23NOV23

A—Spring
B—Pin
C—Bracket

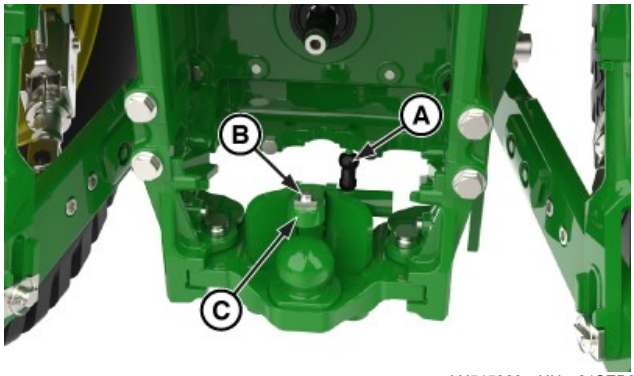
1. To attach a device, fold spring (A) upwards.
2. Slide pin (B) to the right.
3. Bracket (C) is pushed up by a spring.
4. Attach the device and press down bracket (C).
5. Slide pin (B) completely to the left.
6. Move spring (A) back down to its locked position (as shown in the illustration).

Ball-Type Hitch

IMPORTANT: For trailer hitch with attached arms for forced steering, observe the following:

- **Remove trailer hitch before attaching implements.**
- **Remove draft links before attaching trailers with forced steering.**

1. To attach an implement, pull the locking pin (A) up and slide it to the right.



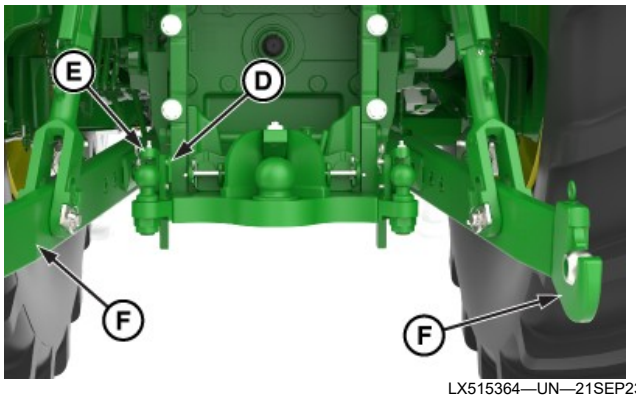
LX515363—UN—21SEP23

A—Locking Pin
B—Set Screw
C—Bracket

2. Move bracket (C) upwards and attach implement.
3. Press bracket (C) downwards and push locking pin (A) all the way to the left and engage it.

   Locking pin (A) only locks properly when the pin is pushed all the way to the left.

   If necessary, use an 8 mm (0.3 in) hex socket wrench to adjust set screw (B) on the hold-down bar to make space for the eyelet of the trailed implement. Then tighten the lock nut to 300 N·m (220 lb·ft) using a 30 mm (1.2 in) wrench.
4. To attach the forced steering, proceed as follows:



LX515364—UN—21SEP23

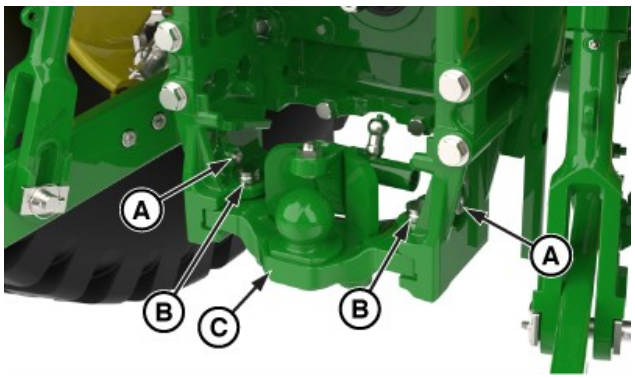
D—Locking Pin
E—Bracket
F—Draft Link

IMPORTANT: Before hitching trailers with forced steering, it is essential to remove the draft links (F).

   a. Pull locking pin (D).
   b. Raise bracket (E) and engage the forced steering system linkage.
   c. Bring bracket (E) and then the locking pin to their initial positions.

NOTE: Trailer hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace them if necessary.

Replace Piton-Fix or Ball-Type Hitch by Drawbar



LX515365—UN—23NOV23

Ball-Type Hitch Shown

A—Locking Pin
B—Retaining Pin
C—Trailer Hitch

1. Pull the locking pin (A) outwards.
2. Remove the retaining pin (B) and pull out the trailer hitch (C) to the rear.
3. Position and secure drawbar. See drawbar in this section.

60F09,LX25458,ALL,0000A2C-19-26JUN24

Trailer Hitch with Piton-Fix or Ball-Type (Rigid) (From MY25)

CAUTION: A lost trailer poses a threat to life.

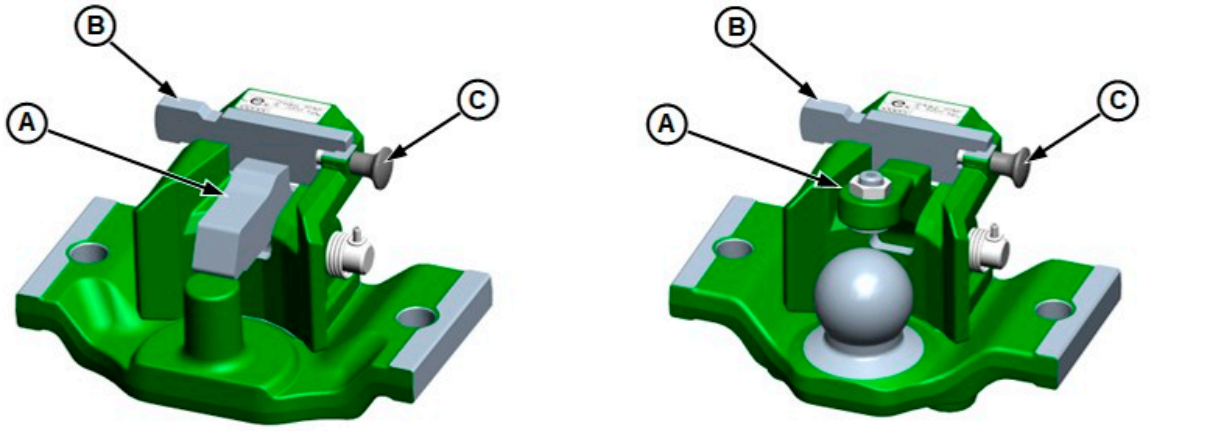
When towing trailers or any other equipment with an improperly locked trailer hitch, the drawbar may disengage, resulting in the loss of the trailer or implement.

When coupling the trailer, make sure that the pawl and latch are in good condition and properly locked. Check the latch setting at regular intervals.

CAUTION: There is a risk of injury due to crushing.

When the pawl is unlocked, the latch automatically shoots up, driven by a spring.

When unlocking the pawl, press the latch down firmly and then slowly release the latch until it aligns with the stop.

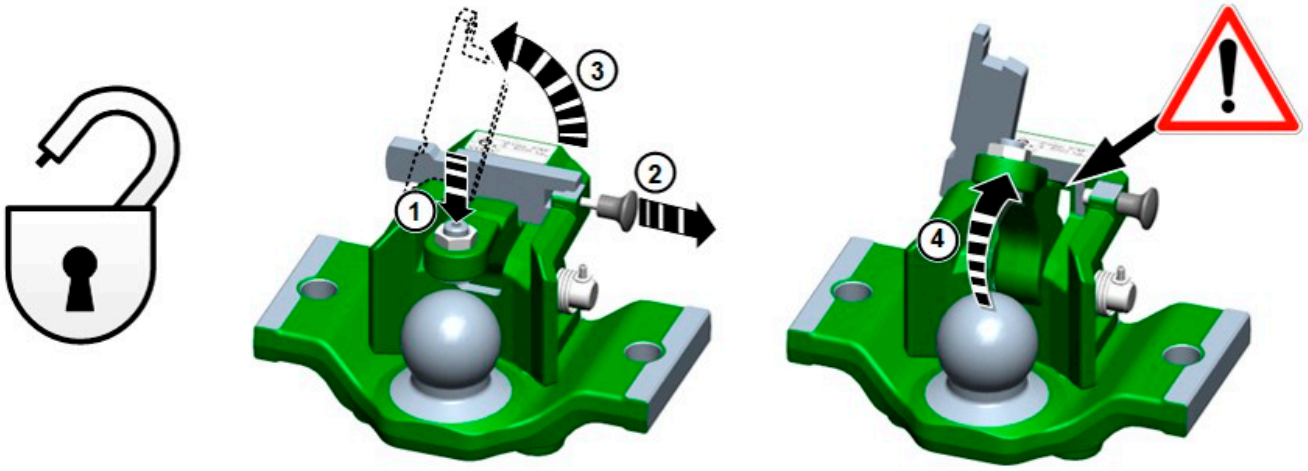


LX609881—UN—24JUN24

Piton-Fix/Ball-Type Trailer Hitch

A—Latch
B—Pawl
C—Locking Pin

Unlock Tailer Hitch



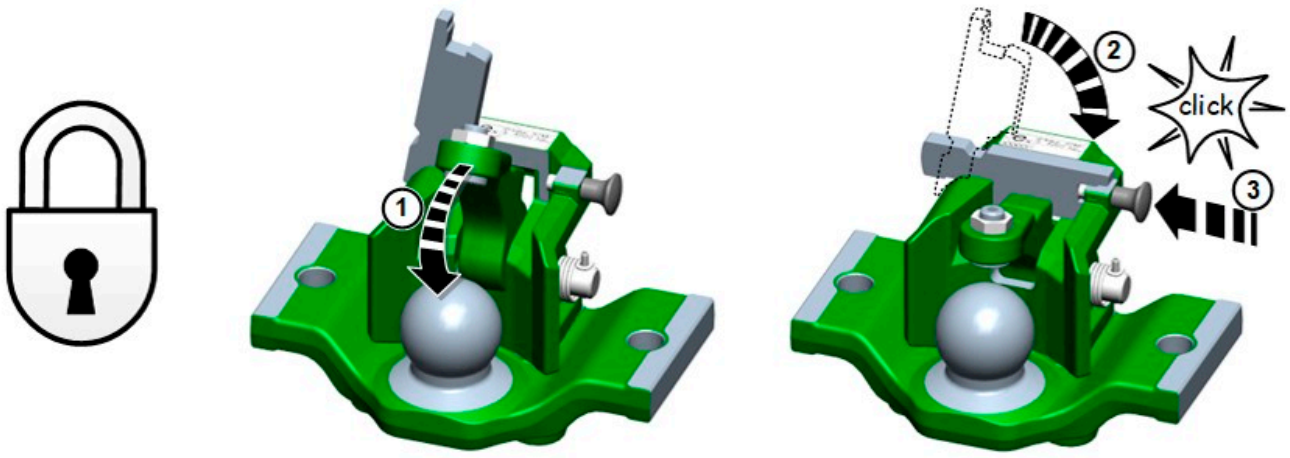
LX622476—UN—19JUN24

Example: Ball-Type Trailer Hitch, Unlocked

To unlock the trailer hitch, perform the following steps:

1. Press the latch down.
2. Pull locking pin to release the lock.
3. Tilt the pawl upward.
4. Slowly release the latch until it aligns with the stop.

Lock Trailer Hitch



LX622477—UN—19JUN24

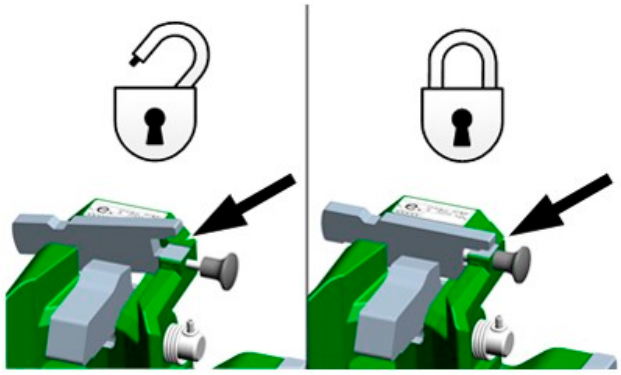
Example: Ball-Type Trailer Hitch, Locked

To lock the trailer hitch, perform the following steps.

1. Press the latch down.
2. Tilt the pawl down to the locking position until you hear a click.
3. Make sure the locking pin is fully inserted and the pawl is firmly locked.

Only for Ball-Type Trailer Hitch: If necessary, use an 8 mm (0.3 in) hex socket wrench to adjust the set screw on the latch to make space for the eyelet of the trailed implement. Then tighten the lock nut to 300 N·m (220 lb·ft) using a 30 mm (1.2 in) wrench.

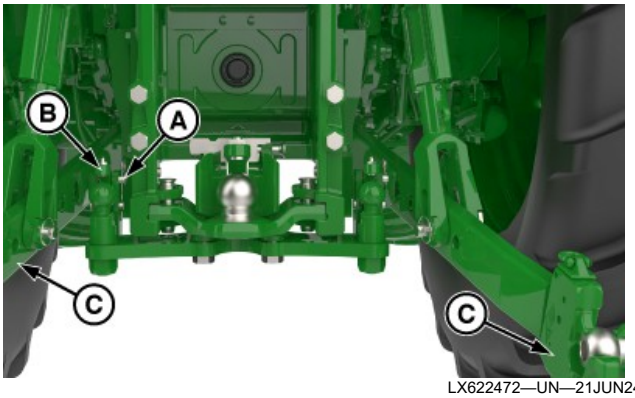
Before driving, always ensure that the pawl is locked.



LX609871—UN—20JUN24

Example: Piton-Fix Type Trailer Hitch

Attaching a Forced Steering System to Ball-Type Trailer Hitch



LX622472—UN—21JUN24

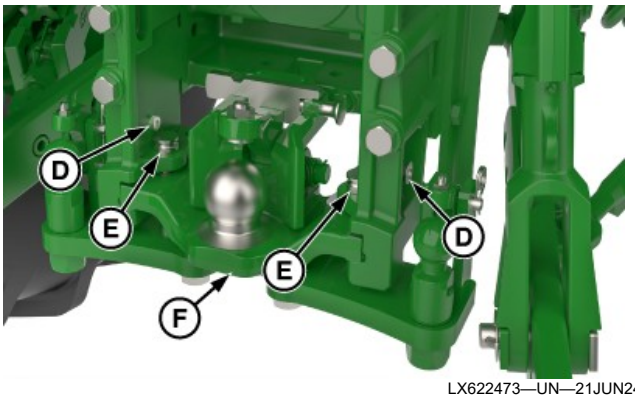
A—Locking Pin
B—Bracket
C—Draft Link

IMPORTANT: Before hitching trailers with forced steering, it is essential to remove the draft links (C).

1. Pull locking pin (A).
2. Raise bracket (B) and engage the forced steering system linkage.
3. Bring bracket (B) and then the locking pin to their initial positions.

NOTE: Trailer hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace them if necessary.

Replace Piton-Fix or Ball-Type Trailer Hitch by Drawbar



LX622473—UN—21JUN24

Ball-Type Hitch Shown

D—Locking Pin
E—Retaining Pin
F—Trailer Hitch

1. Pull the locking pin (D) outwards.
2. Remove the retaining pin (E) and pull out the trailer hitch (F) to the rear.
3. Position and secure drawbar. See drawbar in this section.

60F09A,oulxa64,1718705698577-19-16JAN25

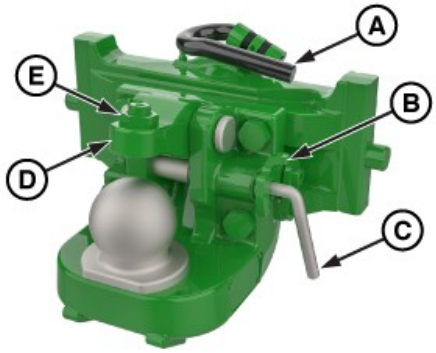
Height-Adjustable Ball-Type Hitch (Version 1)

CAUTION: Before attaching the implement, it is essential to make sure that the height-adjustable trailer hitch is locked. If the trailer hitch is not locked, serious accidents may result when attaching the implement or driving.

IMPORTANT: For ball-type hitch with attached arms for forced steering, observe the following:

- **Before attaching implements, the trailer hitch needs to be removed.**
- **Before hitching trailers with forced steering, it is essential to remove the draft links (F).**

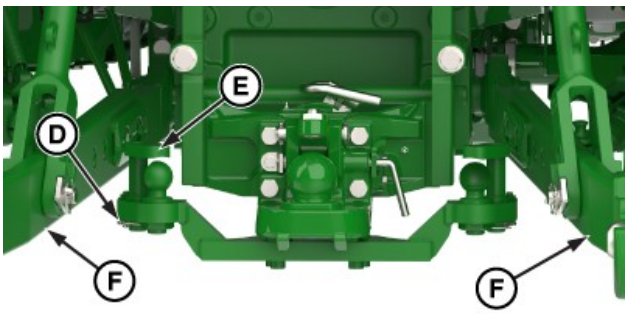
NOTE: For static vertical loads depending on mounting positions and travel speed, see Loads and Weights in Section 500A.



LX515366—UN—17NOV23

A—Lever
B—Lock
C—Locking Pin
D—Bracket
E—Set Screw

1. Position trailer hitch at the desired height with lever (A).
2. To attach a device, fold lock (B) upwards.
3. Slide locking pin (C) to the right.
4. Move bracket (D) upwards and attach implement.
5. Press bracket (D) downwards and push locking pin (C) completely to the left.
6. Secure locking pin (C) with lock (B).
7. If necessary, use an 8 mm (0.3 in) hex socket wrench to adjust set screw (E) on the retainer to make space for the eyelet of the trailed implement. Then tighten the lock nut to 300 N·m (220 lb·ft) using a 30 mm (1.2 in) wrench.
8. To attach the forced steering, proceed as follows:



LX515367—UN—24NOV23

D—Retaining Pin
E—Bracket
F—Draft Link

IMPORTANT: Before hitching trailers with forced steering, it is essential to remove the draft links (F).

a. Pull retaining pin (D) upwards and slide it to the right.

b. Raise bracket (E) and engage the forced steering system linkage.

c. Press bracket (E) downwards and push retaining pin (D) completely to the left and engage it.

NOTE: Trailer hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace them if necessary.

60F10,LX25458,ALL,0000A2D-19-28SEP23

Height-Adjustable Ball-Type Hitch (Version 2)

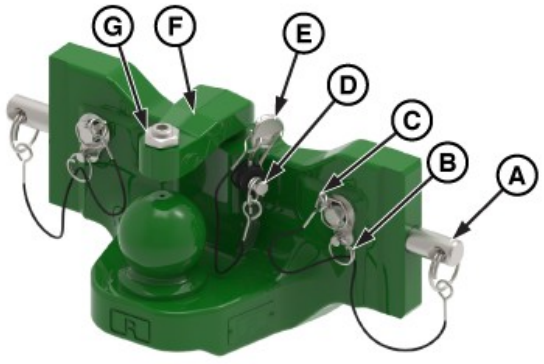
CAUTION: Before attaching the implement, it is essential to make sure that the height-adjustable trailer hitch is locked. If the trailer hitch is not locked, serious accidents may result when attaching the implement or driving.

IMPORTANT: For ball-type hitch with attached arms for forced steering, observe the following:

• Before attaching implements, the trailer hitch needs to be removed.

• Before hitching trailers with forced steering, it is essential to remove the draft links (F).

NOTE: For static vertical loads depending on mounting positions and travel speed, see Loads and Weights in section 500A.



LX515368—UN—24NOV23

A—Locking Pin
B—Retaining Pin
C—Quick-Lock Pin
D—Retaining Pin
E—Locking Pin
F—Bracket
G—Set Screw

1. Position trailer hitch at the desired height.

CAUTION: Avoid physical injury.

The trailer hitch is heavy and improper handling can lead to bruising.

a. Remove quick-lock pins (C) on both sides.

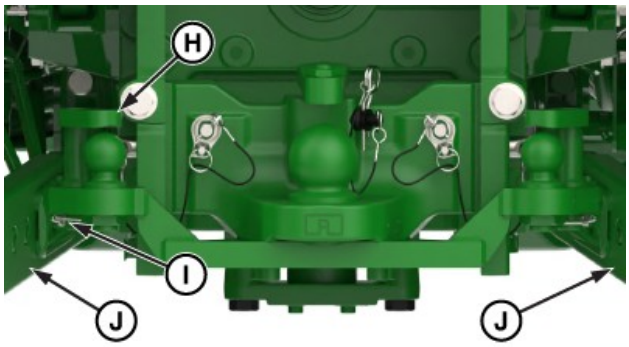
b. Pull out the retaining pins (B) on both sides.

c. Pull out locking pins (A) on both sides and adjust the height of the trailer hitch.

d. Push the locking pins (A) all the way in on both sides and secure with locking pins (B).

e. Install quick-lock pins (C) on both sides.

2. To attach an implement, remove the locking pin (E) and pull the locking pin (D) to the right.
3. Move bracket (F) upwards and attach implement.
4. Press bracket (F) downwards and push retaining pin (D) completely to the left and engage it.
5. Install the locking pin (E).
6. If necessary, use an 8 mm (0.3 in) hex socket wrench to adjust set screw (G) on the retainer to make space for the eyelet of the trailed implement. Then tighten the lock nut to 300 N·m (220 lb·ft) using a 30 mm (1.2 in) wrench.
7. To attach the forced steering, proceed as follows:



LX515369—UN—24NOV23

H—Bracket
I—Quick-Lock Pin
J—Draft Link

IMPORTANT: Before hitching trailers with forced steering, it is essential to remove the draft links (J).

a. Remove quick-lock pin (I) to remove barcket (H).

b. Attach the forced steering system linkage.

c. Install the bracket (H) and install the quick release pin (I).

NOTE: Trailer hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace them if necessary.

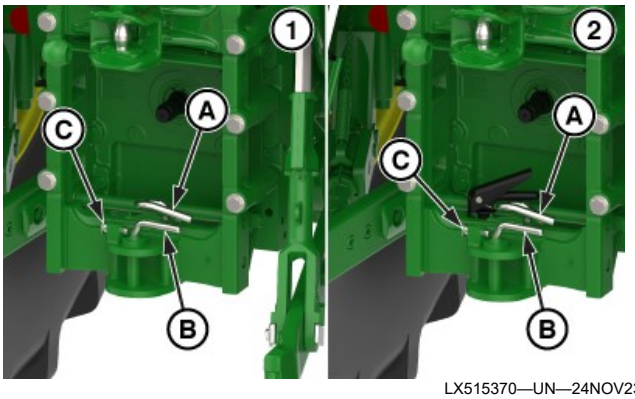
60F11,LX25458,0000A2E-19-24NOV23

Height-Adjustable Trailer Hitch

IMPORTANT: Use only trailers with a towing eye that matches the hitch pin diameter.

It is not permitted to use trailers with rotating towing eyes on rotating trailer hitches.

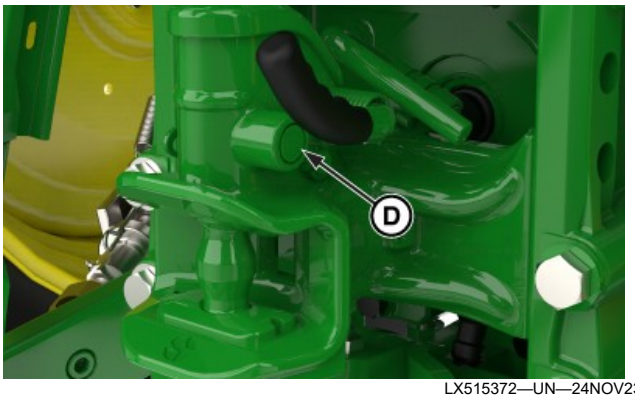
The tractor can be equipped with one of four different trailer hitch versions (1—4), which are operated in different ways.



LX515370—UN—24NOV23



LX515371—UN—23NOV23



LX515372—UN—24NOV23

A—Height Adjustment Lever
B—Control Lever
C—Locking Pin
D—Indicator Pin

All trailer hitches can be adjusted in height with lever (A).

The trailer hitches can be opened and closed using lever (B).

Control levers (1-2) are locked when the locking pin (C) is engaged.

Trailer hitches (3-4) also close by inserting the eyelet of the trailed implement.

Trailer hitches (3-4) can also be operated from the operator's seat by means of a remote control.

Trailer hitches (3-4) are locked when the indicator pin (D) is flush with the housing.

Maximum permissible static vertical loads and towed loads are stated in section 500A.

NOTE: Trailer hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace them if necessary.

60F12,LX25458,ALL,0000A2F-19-30NOV23

Remote Control for Trailer Hitch (If Equipped)

With lever (A), the trailer hitch can be opened from the operator's seat.



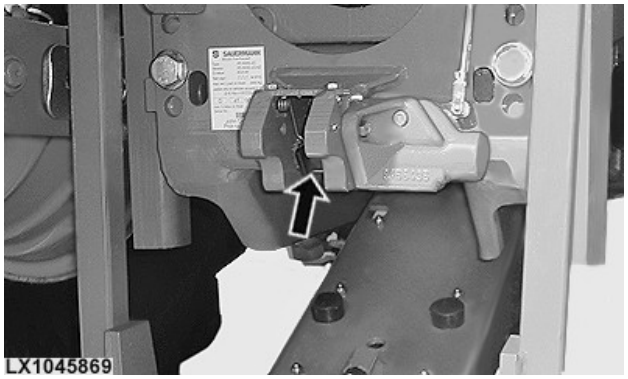
LX364094—UN—08NOV18

60F14,SP,OULXA64,6M,000562E-19-27SEP23

Hydraulic Pickup Hitch (Mechanically Actuated)

CAUTION: Before driving away, make sure the trailer hitch is fully raised and locked in both horizontal and vertical positions.

With the hitch lowered, NEVER reach into the receiver opening (see arrow). Risk of injury!



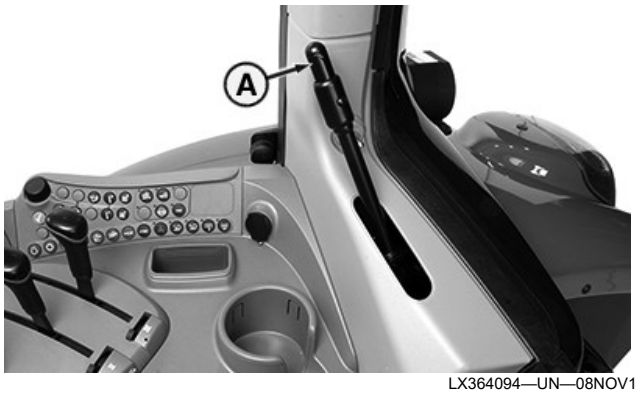
LX1045869—UN—15FEB11

Never put your hand in the opening.

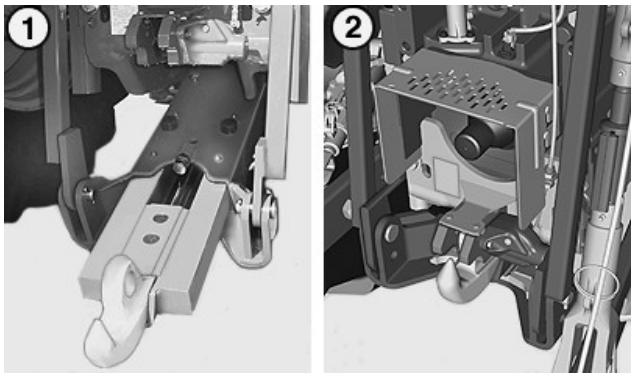
IMPORTANT: If the release lever is hard to operate or locking the hitch hook is not performed automatically (point 2 or 6), then have the setting of the lift links or the hook of the trailer hitch checked.

NOTE: Hydraulic pickup hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace, if necessary.

This trailer hitch can be operated using the hitch and one selective control valve.



LX364094—UN—08NOV18



LX267108—UN—10APR17

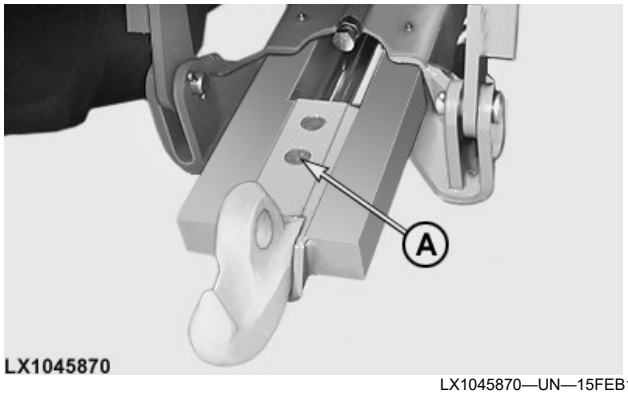
Trailer Hitch in Position for Attaching Trailer – Storage Position

A—Release Lever
1—Trailer Hitch in Position for Attaching Trailer
2—Trailer Hitch in Storage Position

1. Raise draft links to maximum height, and use the SCV to fully retract the hitch hook.
2. Pull release lever (A) and lower the draft links. Hold the release lever until the hitch hook has moved from the storage position (lever remains in open position).
3. Extend the hitch hook fully by actuating the selective control valve.
4. Lower draft links/hitch hook to desired height.
5. Raise the draft link so that the hitch hook engages in the towing eye of the implement, then fully raise the trailer hitch.
6. Retract the hitch hook fully by means of selective control valve until it is **fully locked**. The release lever (A) returns to its home position.
7. Lower the draft link.
8. Check that the hitch is locked correctly. If this is the case, it will **not lower** when the draft links are lowered and **not extend** when the selective control valve is operated.

Maximum permissible static vertical loads and towed loads are stated in section 500A.

The hook of the trailer hitch can be replaced by a drawbar without the use of tools. To do so, lift out pin (A).



LX1045870—UN—15FEB11

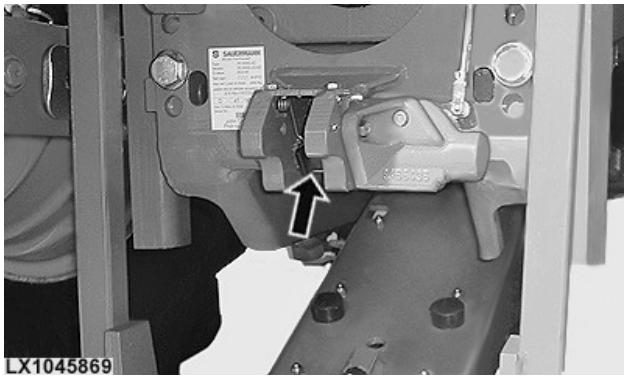
While not needed, the suspension device can be stored in a holder on the side frame (optional accessory).

60F15,SP,OULXA64,6M,000562F-19-16JUL25

Hydraulic Pickup Hitch (Electrically Actuated)

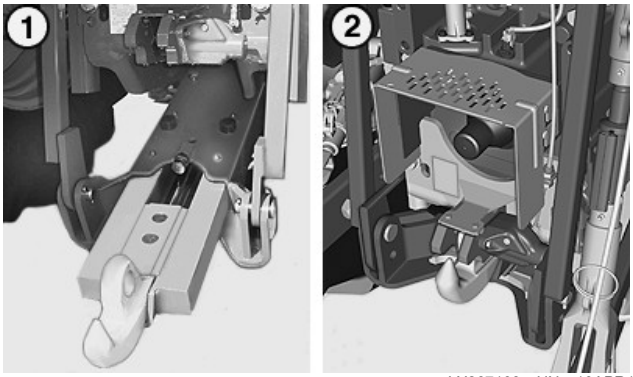
CAUTION: Before driving away, make sure the trailer hitch is fully raised and locked in both horizontal and vertical positions.

With the hitch lowered, NEVER reach into the receiver opening (see arrow). Risk of injury!



LX1045869—UN—15FEB11

NEVER put your hand in the opening!



LX267108—UN—10APR17

Trailer Hitch in Position for Attaching Trailer / Storage Position

A—Release Lever
B—Switch, Retract/Extend
1—Trailer Hitch in Position for Attaching Trailer
2—Trailer Hitch in Storage Position

IMPORTANT: If the release lever is hard to operate or locking the hitch hook is not performed automatically (point 2 or 6), then have the setting of the lift links or the hook of the trailer hitch checked.

NOTE: Hydraulic pickup hitch components that are subject to wear can be checked during regular service work. See section 220D. Replace them if necessary.

This trailer hitch can be operated via the rear hitch and switch (B).



LX364094—UN—08NOV18

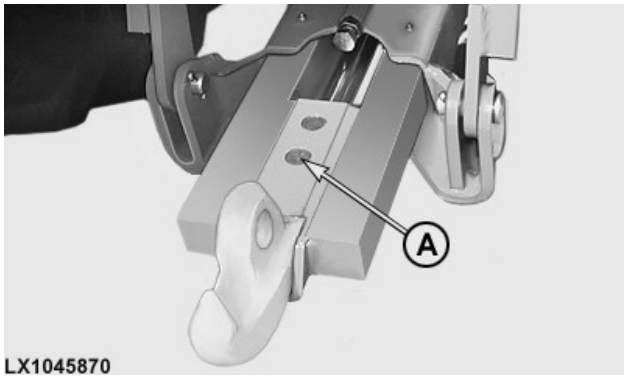


LX364173—UN—03DEC18

1. Raise the draft links as high as they go and use switch (B) to retract the hitch hook fully (press the top part of the switch).
2. Pull release lever (A) and hold it until the hitch hook has moved from the storage position (lever remains in open position).
3. Use switch (B) to extend the hitch hook fully (press the bottom part of the switch).
4. Lower draft links/hitch hook to desired height.
5. Raise the draft link so that the hitch hook engages in the towing eye of the implement, then fully raise the trailer hitch.
6. Retract the hitch hook fully by means of switch (B) until it is **fully locked**. Lever (A) will return to its home position.
7. Lower the draft link.
8. Check that the hitch is locked correctly. If this is the case, it will **not lower** when the draft links are lowered and **not extend** when the switch is operated.

Maximum permissible static vertical loads and towed loads are stated in section 500A.

The hook of the trailer hitch can be replaced by a drawbar without the use of tools. To do so, lift out pin (A).

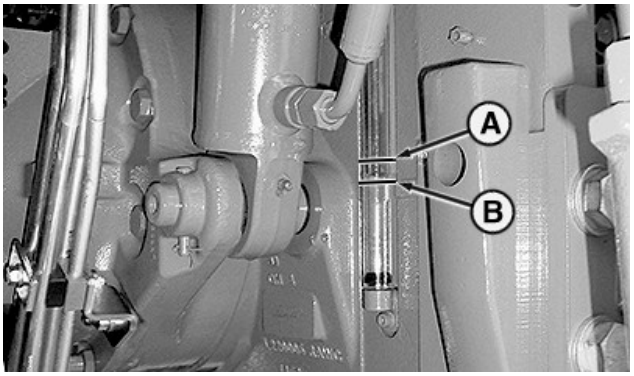


LX1045870—UN—15FEB11

While not needed, the suspension device can be stored in a holder on the side frame (optional accessory).

60F16,SP,OULXA64,6M,0005630-19-16JUL25

Selective Control Valves (SCVs)—Maximum Permissible Oil Withdrawal



LX364279—UN—19FEB19

A—Maximum Mark
B—Minimum Mark

To operate large hydraulic cylinders such as those used on tipping trailers, oil may be drawn from the transmission case through the connecting lines.

IMPORTANT: For maximum oil withdrawal to take place, the following conditions must be met:

- **Maximum transmission oil level (A) when engine is off**
- **Tractor inclined by no more than 3° in any direction**
- **Hydraulic oil at operating temperature**
- **Ground speed less than 3 km/h (1.9 mph)**

Maximum Permissible Oil Withdrawal	
Without Additional Oil Reservoir . .	15 L (4.0 US gal)
With Additional Oil Reservoir	32 L (8.58 US gal)*

During maximum oil withdrawal, the tractor must not be inclined in any direction by more than 3°. If the tractor is inclined by more than 3°, only a correspondingly lower quantity of oil may be withdrawn.

If required, up to 10 liters (2.6 US gal) may be added to the transmission case. This increases the amount that may be withdrawn accordingly. If oil level is above the maximum mark on the sight glass, do NOT perform any transport tasks at speeds above 40 km/h (25 mph).

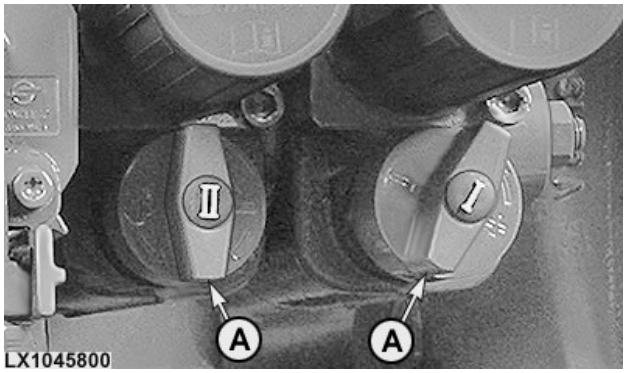
NOTE: Never perform heavy jobs such as towing, operating a PTO, or driving fast when withdrawal results in the transmission oil level dropping below the minimum mark.

When topping up, use only recommended transmission and hydraulic oil. See Transmission and Hydraulic Oil in section 200E.

* Only when tractor is stationary. See also Oil Withdrawal in section 500A.

OULXA64,SP1,00058B2-19-29AUG23

Selective Control Valves (SCV)—Oil Withdrawal with Hydrostatic Drive (with PC Hydraulic System)



LX1045800—UN—22DEC10

IMPORTANT: Never regulate the flow rate by means of an external valve. Always use flow control valves (A).

Maximum obtainable flow of transmission and hydraulic oil is dependent on the size of the hydraulic pump installed on the tractor.

Pump size	Flow
35 cm³ (2.1 in³)	80 l/min (21.1 gpm)

Shut off engine. Connect hydraulic hose of hydrostatic drive. Note the icons on the couplers.

IMPORTANT: Connect implements with hydrostatic drive to Series 450 SCVs only for operation.

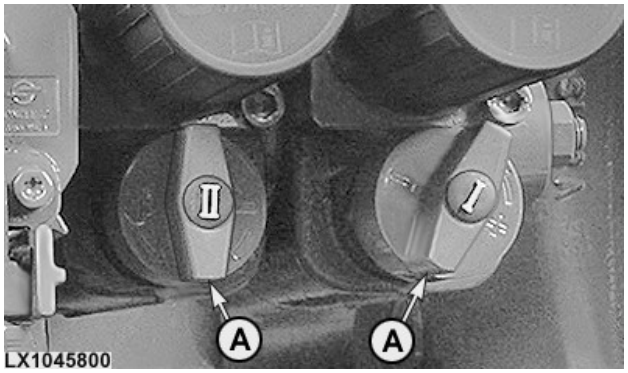
Start the engine. Move the control lever to retract position. To switch off the hydrostatic drive, move the control lever to the float position. Shut off the engine and take out the hydraulic hose.

IMPORTANT: Do not move the control lever to the neutral position, as this may result in backpressure causing damage to the hydrostatic drive and hoses.

IMPORTANT: While driving, oil withdrawal for the hydrostatic drive is restricted. See Oil Withdrawal in section 500A.

OULXA64,6M,4CYL,00057E6-19-29AUG23

Selective Control Valves (SCV)—Oil Withdrawal with Hydrostatic Drive (with PFC Hydraulic System)



LX1045800—UN—22DEC10

IMPORTANT: Never regulate the flow rate by means of an external valve. Always use flow control valves (A).

The maximum rate of hydraulic oil flow that can be achieved at the coupler is 96 L/min (26.4 gal/min).

Shut off engine. Connect hydraulic hose of hydrostatic drive. Note the icons on the couplers.

IMPORTANT: Connect implements with hydrostatic drive to Series 450 SCVs only for operation.

Start the engine. Move the control lever to retract position. To switch off the hydrostatic drive, move the control lever to the float position. Shut off the engine and take out the hydraulic hose.

IMPORTANT: Do not move the control lever to the neutral position, as this may result in backpressure causing damage to the hydrostatic drive and hoses.

IMPORTANT: While driving, oil withdrawal for the hydrostatic drive is restricted. See Oil Withdrawal in section 500A.

OULXA64,6M,6CYL,0005632-19-29AUG23

Using Large-Volume Hydraulic Cylinders

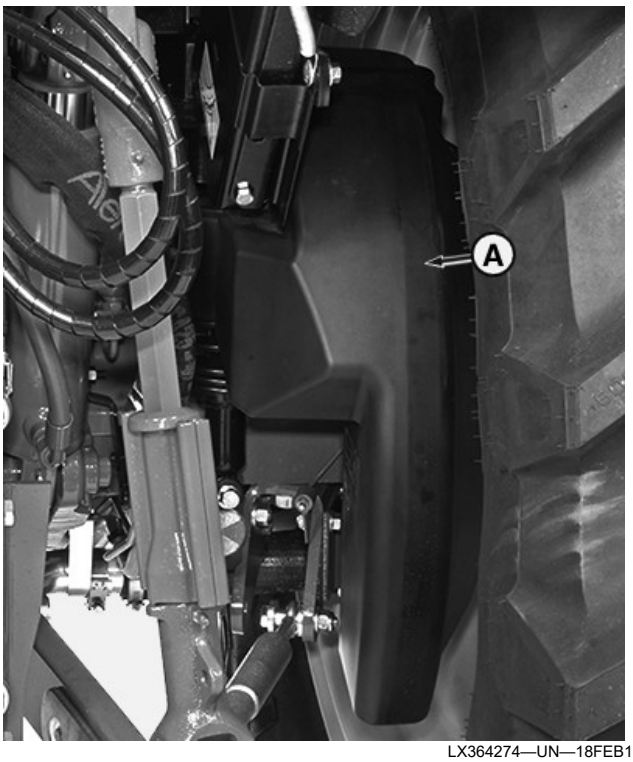
The operation of large-volume hydraulic cylinders or telescopic cylinders requires special attention from the user. Instructions, e.g. when operating a trailer with hydraulic tipping function.

- When tipping a trailer maintain an engine speed of 1800-2100 rpm.
- Before tipping a trailer, check whether the maximum permissible oil withdrawal corresponds to the oil capacity required to fill the hydraulic cylinder. Compare the relevant information given in the trailer manual with the maximum permissible oil withdrawal. See Selective Control Valves – Maximum Permissible Oil Withdrawal in section 70 and Oil Withdrawal in section 500A.

IMPORTANT: If the required amount of oil exceeds the maximum permissible oil withdrawal, or/and the oil is withdrawn too quickly, this can lead to cavitation. Cavitation can be recognized by an unusually loud noise and causes mechanical damage. Pay attention to suddenly occurring loud noises, when operating large-volume hydraulic cylinders, such as telescopic cylinders. Immediately stop the operation of the hydraulic cylinder if cavitation is suspected. A change in the engine speed does not lead to an improvement and should therefore be avoided.

500A,401,OULXBER,00030BD-19-04MAR24

Additional Oil Reservoir



LX364274—UN—18FEB19

An additional oil reservoir (A) allows more oil to be withdrawn.

The maximum amount of oil that may be withdrawn is listed below.

Maximum Permissible Oil Withdrawal

32 L (8.5 US gal)

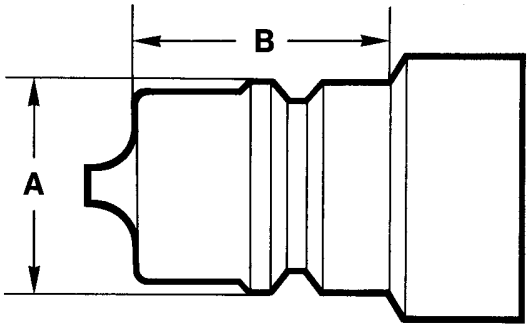
The additional oil may be used with large tipping trailers

and in other applications which require a larger amount of oil.

NOTE: An additional oil reservoir brings advantages compared with overfilling of the transmission. See Oil Withdrawal in Section 500A.

OULXA64,SP1,00058B1-19-17NOV20

Fittings of Selective Control Valves (SCVs)



LX 006613

LX006613—UN—15AUG94

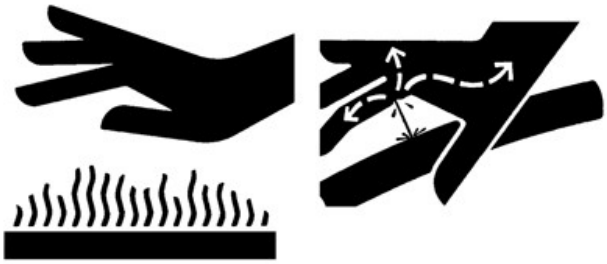
Use only fittings that are ISO-standard compliant.

Dimension (A) must be between 23.66 and 23.74 mm (0.931 and 0.934 in).

Dimension (B) must be at least 24 mm (0.945 in).

OULXA64,6R,0005B53-19-17MAR21

Connect Hydraulic Hoses to SCVs



LX266990—UN—10OCT16

CAUTION: Escaping high-pressure fluid can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting the system lines.

If an accident occurs, consult a doctor immediately. Any fluid that penetrates the skin must be surgically removed within a few hours or gangrene can result.

CAUTION: Avoid personal injury. Before implements are attached, hydraulic hoses are connected, and to avoid unintentional implement movement, observe the following:

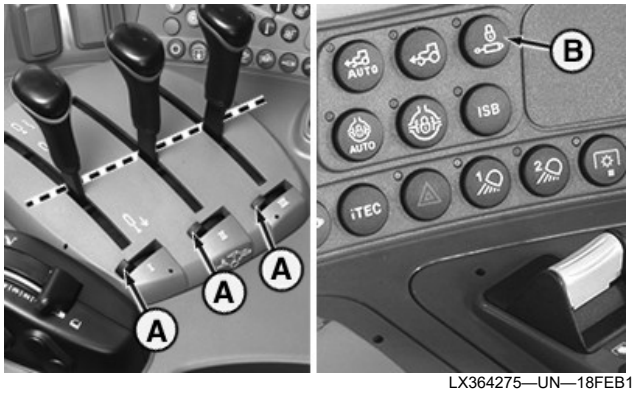
- **Shut off the engine.**
- **Set controls of the SCVs to neutral position and lock them.**

IMPORTANT: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly.

Dirt, dust, or other foreign material can damage hydraulic system. Thoroughly clean hydraulic hoses and SCVs before connecting an implement to the tractor.

IMPORTANT: Steam cleaning or using a high-pressure washer in the area around the SCVs and electronics may damage equipment. In the case of high-pressure washers with a pressure of more than 6900 kPa (69 bar) (1000 psi), a minimum distance of 200 mm (8 in) to the connections must be maintained.

1. **Engage the park lock and switch off the engine.**
2. Lock out controls for SCV:
   - Move control levers for SCVs into neutral position and lock.



LX364275—UN—18FEB19

Mechanically/Electrically-Operated

A—Locking Lever, SCV
B—Locking Button, SCV

- For mechanically-operated joystick[1]:

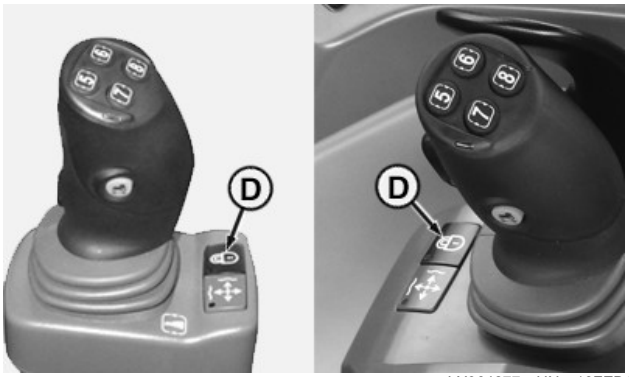


LX364276—UN—18FEB19

Move the joystick into neutral position and turn locking ring (C) to the right.

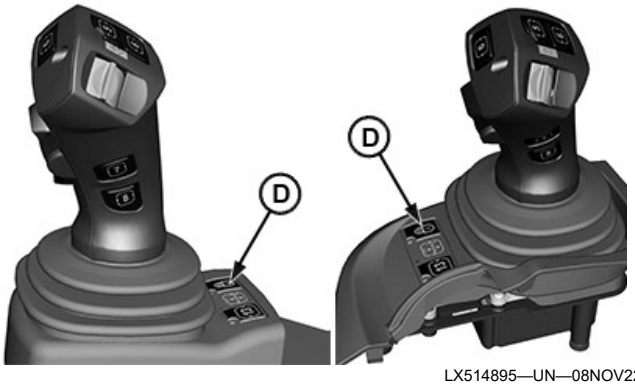
- With electrically-operated joystick[1]:

[1] *If equipped*



LX364277—UN—18FEB19

Electrical Joystick (Version 1) on Right Armrest/ CommandARM™

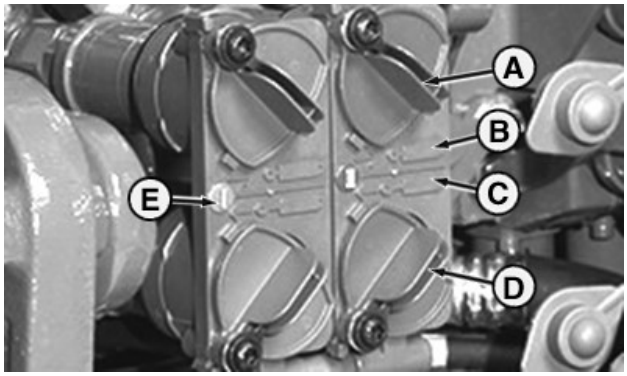


LX514895—UN—08NOV22

Electrical Joystick (Version 2) on Right Armrest/ CommandARM™

Move the joystick into neutral position and press the locking button (D).

3. Clean dust caps and turn aside.



LX364278—UN—18FEB19

A—Retract Coupler
B—Retract Icon
C—Extend Icon
D—Extend Coupler
E—Identification Number

IMPORTANT: Be sure to correctly connect hydraulic hoses to couplers. If hose connections are reversed, machine will not respond to system controls as expected.

Assignment of SCVs at Rear
Retract = Upper Port
Extend = Lower Port

NOTE: The SCVs are marked with I to IV (E).

4. Check the symbols (B) or (C) of the hose to be connected to see whether they correspond to the direction of movement of the cylinder.

For a single-acting cylinder:

- Insert the hose for extension at the bottom into coupler (D).

For a double-acting cylinder:

- Insert the hose for retracting at the top of coupler (A).
- Insert the hose for extension at the bottom into coupler (D).

5. Push hose(s) firmly into the coupler(s).

NOTE: The SCVs are color coded. Hose identification kits are available via regular spare part channels.

SCV Identification	
SCV	**Color**
I	Green
II	Blue
III	Brown
IV	Black

OULXA64,6M,0005634-19-15JUL25

Disconnect Hydraulic Hoses from SCVs



LX266990—UN—10OCT16

⚠ CAUTION: Risk of injury due to unintended movements of hydraulic components.

When working on pressurized hydraulic components, there is a high risk that:

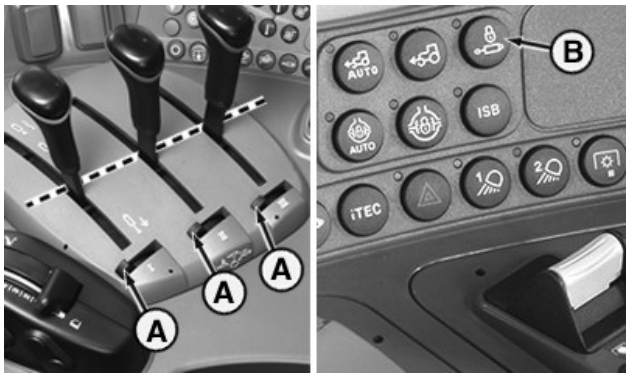
- **Pressurized oil escapes.**
- **Unintentional movements of the implement are triggered.**

To avoid this danger, proceed as follows before disconnecting the hydraulic hoses:

1. **Lower the implement to ground.**
2. **Depressurize hoses and lines.**
3. **Set control valves to neutral position and lock them.**

1. Lower implement to ground.
2. **Engage the park lock and switch off the engine.**
3. With the ignition on*, bring the SCV several times into the Extend and Retract positions.

   ** Only necessary with electrically-operated SCV and electrically-operated joystick.*
4. Lock controls for SCVs or activate transport lock:
   - Move control levers for SCVs into neutral position and lock.



LX364275—UN—18FEB19

Mechanically/Electrically-operated

A—Locking Lever, SCV
B—Locking Button, SCV

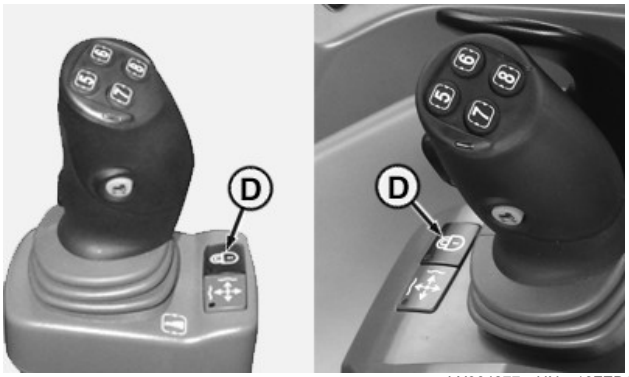
- For mechanically-operated joystick[2]:



LX364276—UN—18FEB19

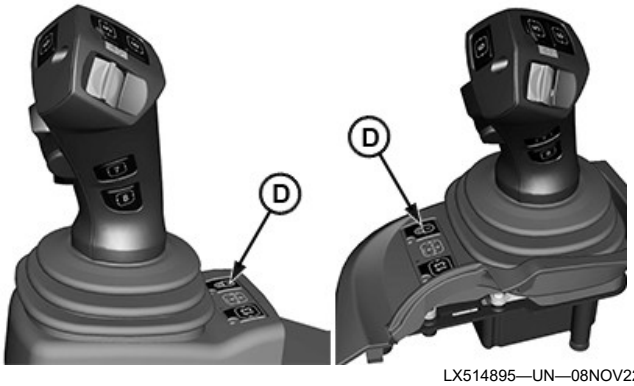
Move the joystick into neutral position and turn locking ring (C) to the right.

- With electrically-operated joystick[2]:



LX364277—UN—18FEB19

Electrical Joystick (Version 1) on Right Armrest/ CommandARM™



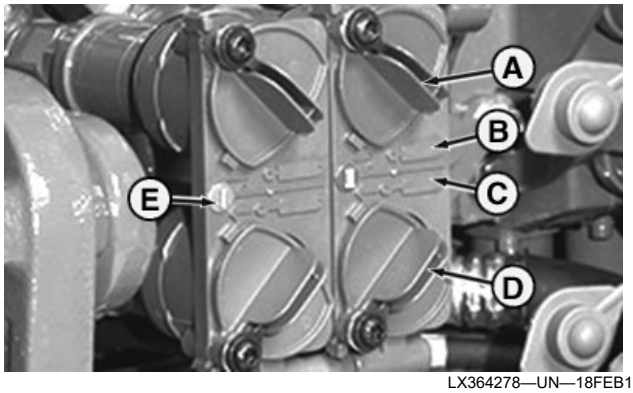
LX514895—UN—08NOV22

Electrical Joystick (Version 2) on Right Armrest/ CommandARM™

Move the joystick into neutral position and press the locking button (D).

IMPORTANT: Do not apply force for disconnecting the hoses. Pull hoses in a straight line out of connections, without jamming. Otherwise, the couplers may be damaged.

5. Pull hoses **straight** out from couplers.



LX364278—UN—18FEB19

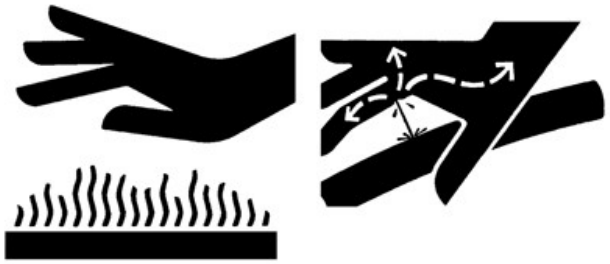
A—Retract Coupler
B—Retract Icon
C—Extend Icon
D—Extend Coupler
E—Identification Number

[2] *If equipped*

6. Install dust caps on couplers and tighten them.

OULXA64,6M,0005635-19-23MAR23

Connect or Disconnect Hydraulic Hoses to or from SCVs at Front Hitch (If Equipped)



LX266990—UN—10OCT16

CAUTION: Escaping high-pressure fluid can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting the system lines.

If an accident occurs, consult a doctor immediately. Any fluid that penetrates the skin must be surgically removed within a few hours or gangrene can result.

CAUTION: Avoid personal injury. Before implements are attached, hydraulic hoses are connected, and to avoid unintentional implement movement, observe the following:

• Shut off the engine.

• Set controls of the SCVs to neutral position and lock them.

IMPORTANT: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly.

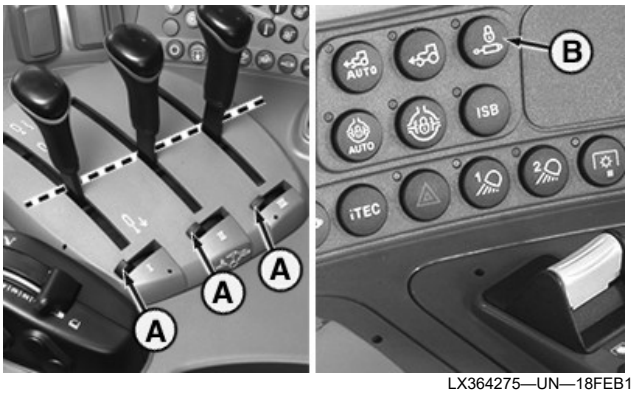
Dirt, dust, or other foreign material can damage hydraulic system. Thoroughly clean hydraulic hoses and SCVs before connecting an implement to the tractor.

IMPORTANT: Steam cleaning or using a high-pressure washer in the area around the SCVs and electronics may damage equipment. In the case of high-pressure washers with a pressure of more than 6900 kPa (69 bar) (1000 psi), a minimum distance of 200 mm (8 in) to the connections must be maintained.

NOTE: Hydraulic connections at front of tractor and/or under the right step[3] are operated by the joystick.

Connect Hydraulic Hoses

1. Engage the park lock and switch off the engine.
2. Lock out controls for SCV:
   - Move control levers for SCVs into neutral position and lock.



LX364275—UN—18FEB19

Mechanically/Electrically-Operated

A—Locking Lever, SCV
B—Locking Button, SCV

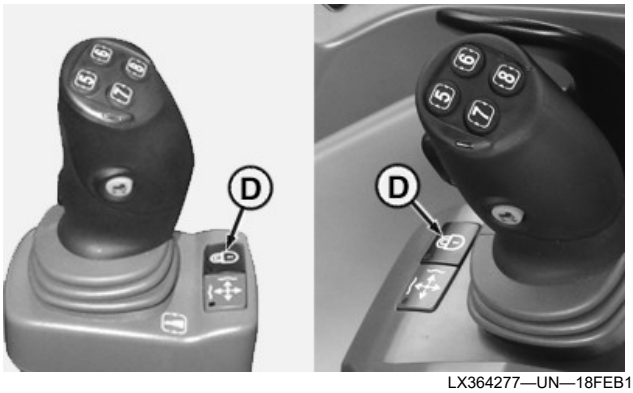
- For mechanically-operated joystick[3]:



LX364276—UN—18FEB19

Move the joystick into neutral position and turn locking ring (C) to the right.

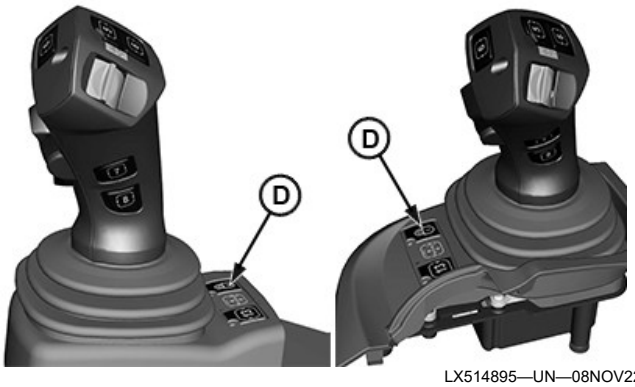
- With electrically-operated joystick[3]:



LX364277—UN—18FEB19

Electrical Joystick (Version 1) on Right Armrest/ CommandARM™

[3] *If equipped*

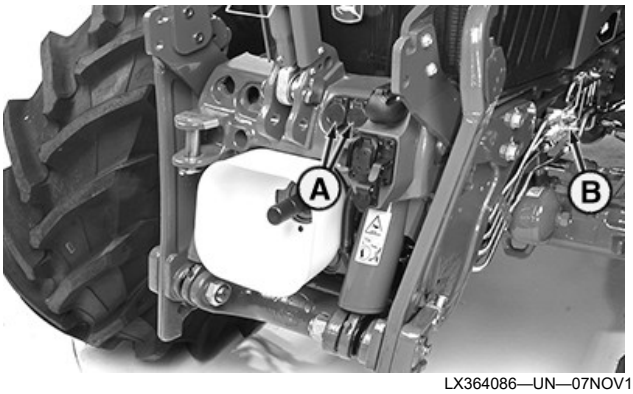


LX514895—UN—08NOV22

Electrical Joystick (Version 2) on Right Armrest/ CommandARM™

Move the joystick into neutral position and press the locking button (D).

3. Lock shutoff valve (B).



LX364086—UN—07NOV18

A—SCV II Couplers on Front Hitch
B—Shutoff Valve of the Front Hitch

4. Clean dust caps and turn aside.

IMPORTANT: Be sure to connect hydraulic hoses of implements to couplers correctly. If hose connections are reversed, machine will not respond to system controls as expected.

Assignment of Couplers on Front Hitch
Extend = Left Port
Retract = Right Port

5. Push hoses firmly into couplers.

Disconnect Hydraulic Hoses

CAUTION: Prevent injury. Before detaching implements, lower the implement to the ground and lock out SCV controls to prevent implement movement.

1. Engage park lock.
2. Lower implement to ground.
3. Move SCVs to float position for a few seconds while engine is running.
4. **Shut off engine.**
5. Lock out controls for SCV:
   - Move the SCV control levers into the neutral position and lock with (A) or (B).
   - For mechanically-operated joystick[4]:

     Move the joystick into neutral position and turn locking ring (C) to the right.
   - With electrically-operated joystick[4]:

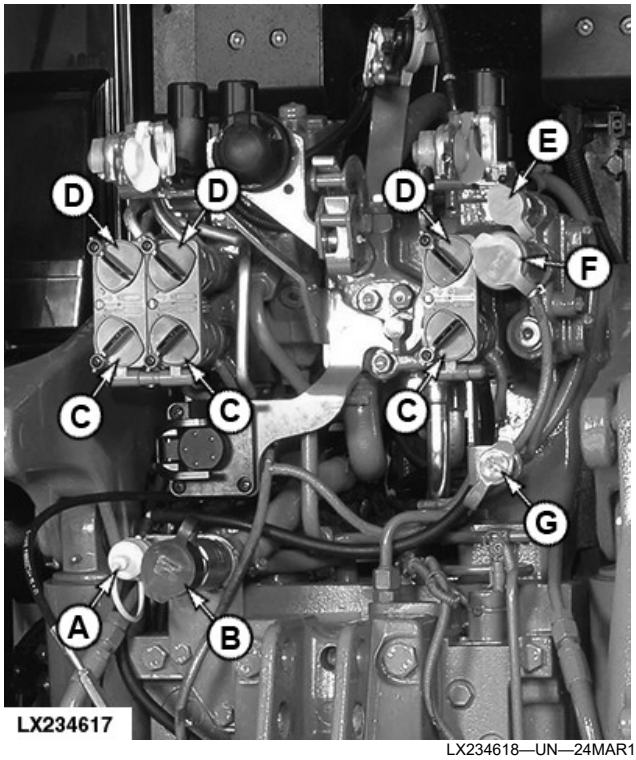
     Move the joystick into neutral position and press the locking button (D).
6. Lock shutoff valve (B) on front hitch.

IMPORTANT: Do not apply force for disconnecting the hoses. Pull hoses in a straight line out of connections, without jamming. Otherwise, the couplers may be damaged.

7. Pull hoses **straight** out from couplers.
8. Install dust caps on couplers and tighten them.

OULXA64,6M,0005636-19-23MAR23

Hydraulic Connections for Implements and Hydraulic Motors



LX234618—UN—24MAR15

A—Pressure-Free Return Port for Power Beyond (leak-off oil)

[4] *If equipped*

B—Pressure-Free Return Port for Power Beyond (large oil Quantities)
C—Couplers of SCVs for Extension (I-III)
D—Couplers of SCVs for Retraction (I-III)
E—LS Port for Power Beyond (pilot oil)
F—Pressure Port for Power Beyond
G—Coupler for Hydraulic Trailer Brake

IMPORTANT: With implements equipped with a Load Sensing hydraulic system, it is necessary to use the corresponding connections of the Power Beyond valve.

NOTE: For further information, see also Connect Implements to the Selective Control Valves on the following pages.

Connect/Operate Hydraulic Motors

Select the smallest hydraulic motor recommended for this function. This practice reduces power loss and heating of hydraulic oil, especially if other functions force pump to operate at high pressure.

Operate Hydraulic Motors

- Ensure that all in-line control valves are wide open.
- Ensure that in-line orifices are removed.
- Close bleed screws (if equipped).

Hydraulic Connections on Tractors without Additional Return Port or Power Beyond Valve:

Connect a hydraulic motor as follows:

- Connect pressure line to connection (D) (retraction).
- Connect return line to connection (C) (extension).
- Use the special return port to prevent checking and a back flow into the return line if the connections are inadvertently reversed.

Connect an implement such as a hydraulic cylinder as follows:

- Connect pressure line to connection (C) (extension).
- Connect return line to connection (D) (retraction).

Hydraulic Connections on Tractors with Pressure-Free Return Port:

- Connect pressure line to connection (D) (retraction).
- Connect return line to return port (B).
- Special return hose tip is not required, but can be used.

Activate hydraulic motor by moving lever forward to click position for retract. Adjust motor speed with SCV flow control. This ensures that pump only operates at pressure required.

Shut off hydraulic motor by moving lever to float. This protects the hydraulic motor from possible damage to the seals due to overpressure from oil returning to the SCV or cavitation when using hydraulic motor return ports.

Hydraulic Connections on Tractors with Power Beyond Valve

Connection via the Power Beyond valve requires a separate flow control valve:

- Connect hydraulic motor pressure line to the pressure port (F).
- Connect hydraulic motor return line to return port (B).
- Connect LS pilot line to the port (E).

Power Beyond functions through the Power Beyond valve require a pilot signal to regulate pump pressure, therefore an LS pilot oil line is used. Certain equipment may require modification. Special hydraulic couplings can be obtained via regular spare part channels.

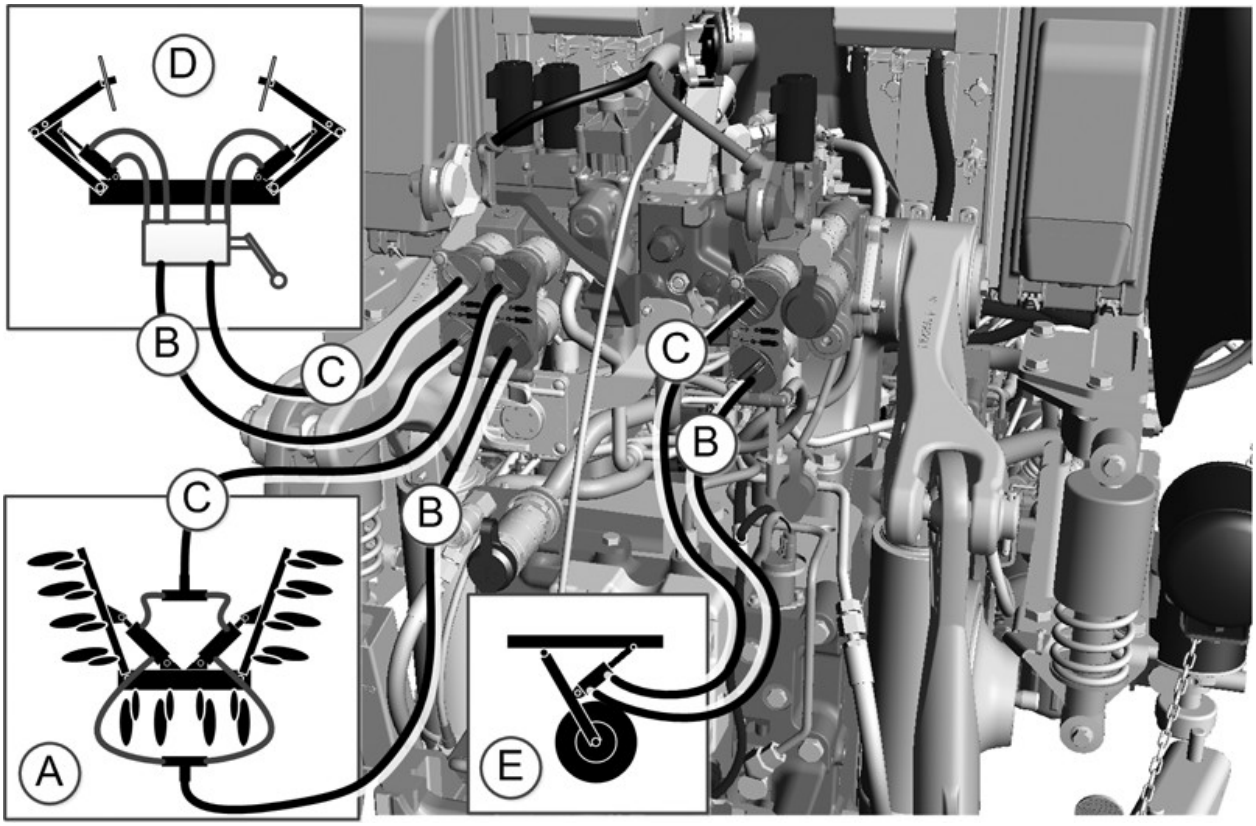
Hydraulic Connections on Hydraulic Motors with Case Drain

Some hydraulic motors have a separate case drain line for internal leakage. Connect it to return port (A) to direct the oil into the sump.

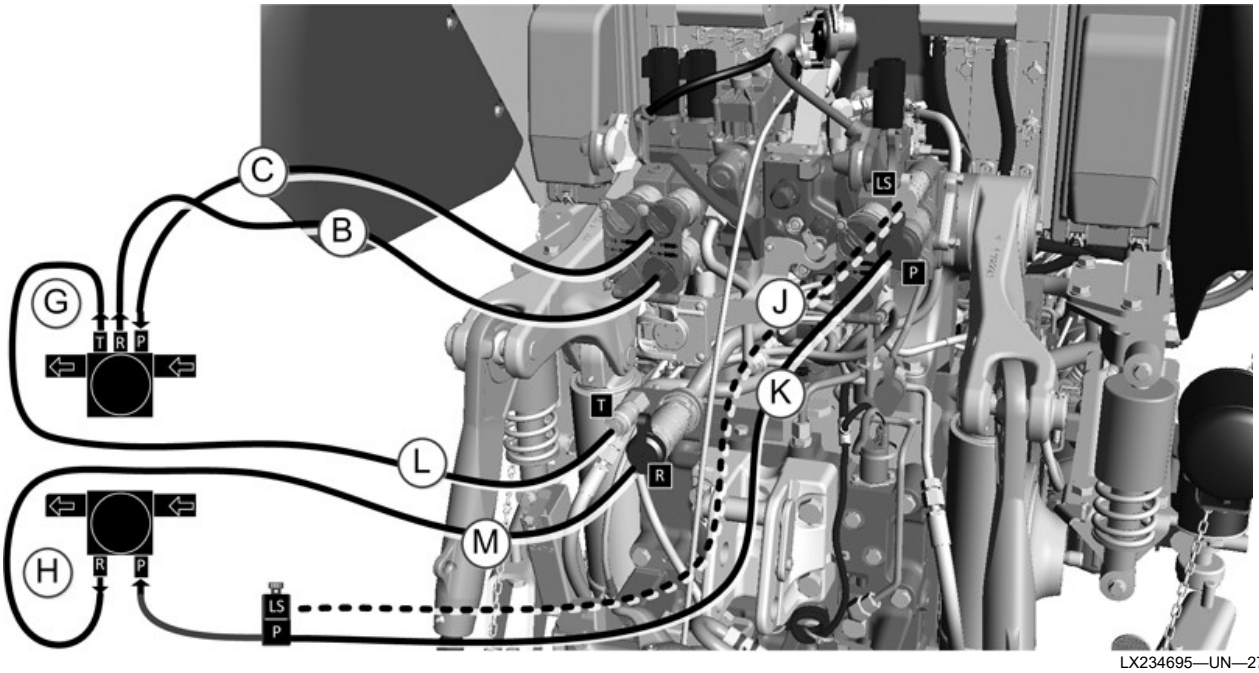
OULXA64,6M,0005637-19-15JUL25

Connect Implements to SCV

Sample Illustration



LX228720—UN—27APR15



LX234695—UN—27APR15

A - Folding mechanism for example (double-acting cylinder connected in parallel)

B - SCV port for extend

C - SCV port for retract

D - With track markers for example two double-acting cylinders are actuated separately by means of a commutation valve

E - Actuate depth gauge wheel via double-acting cylinder for example

G - Drain port of a hydraulic motor used to empty the motor case

H - Hydraulic motor (e.g. for pump) without leak-off port

J - Hose for LS pilot oil, connected to Power Beyond valve

K - Hose for pressure oil, connected to Power Beyond valve

L - Hose for draining the hydraulic motor case (leak-off oil returned, in order to empty the case of the hydraulic motor)

M - Return port for large oil quantity

The illustration shows typical applications and describes how implements have to be connected to the hydraulic system of the tractor. Also comply with the Operator's Manual of the implements.

Implements with folding mechanisms (A) are usually equipped with double-acting cylinders. These are connected to the SCV as for the functions retract (right SCV side) and extend (left SCV side). In the example shown, the two folding mechanisms are actuated simultaneously because the pressure lines of the cylinder are connected to each other by T-fittings.

It is possible to control two applications with just one SCV if a commutation valve is used, as shown in example (D). The commutation valve enables similar functions to be controlled successively, but independently of each other.

Connect applications with double-acting cylinders (e.g. on lowering gauge wheels [E]) to the SCV as for the functions retract (right SCV side) and extend (left SCV side).

If a hydraulic motor has a drain port (G), it is very important to connect it to return port (L). This ensures that oil pressure does not build up inside the hydraulic motor case, which could cause damage. Example (G) shows a hydraulic motor connected through an SCV. Adjust SCV to continuous flow.

A hydraulic motor (H) on implements with independent hydraulic system must be connected as shown. The hydraulic motor return line and the connections of control valve have to be connected to ports (J, K and M) of the Power Beyond valve.

IMPORTANT: If a hydraulic motor with pressure and return lines is connected to an SCV, an additional check valve has to be used at the return port. This prevents damage due to incorrect operation of the SCV. Always switch off the hydraulic motor with the SCV in its float position. This allows the hydraulic motor to coast down gradually. Switching off with the SCV in neutral position halts the rotational movement abruptly and may cause damage to the hydraulic motor or the implement.

LX25458,6M,0000A38-19-23MAR23

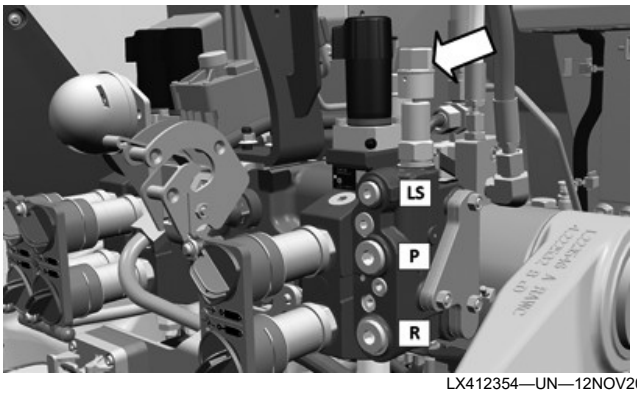
Adjustable Power Beyond Valve

The Power Beyond valve is used to connect independent control valves of implements to the hydraulic system of the tractor. Read the Operator's Manual of the implement to be connected.

NOTE: Only implements with closed center hydraulic system are fully compatible. Several functions will fail, if an open center system is connected.

Load sense pressure (LS) drop, caused by the flow resistance of the implement oil lines and valves, can lead to malfunctions or a poor response time. The adjustable Power Beyond valve allows an enhancement of the hydraulic functionality by boosting the incoming LS signal.

Turn the knob (see arrow) clockwise to the **+** direction to boost the incoming LS signal if it is too low. Turn the knob counterclockwise to the **—** direction to reduce the boost effect.



LX412354—UN—12NOV20

Power Beyond Valve

LS—Load-Sense Port (M14 x 1.5 thread)
P—Pressure Port (M22 x 1.5 thread)
R—Return Port (M22 x 1.5 thread)

IMPORTANT: Economic operation is ensured, if the LS pressure is set as high as necessary but as low as possible. If the Power Beyond LS pressure is set too high, the fuel consumption will unnecessarily increase.

- Adjusting range: 4—24 ±3 bar (400—2400 ± 300 kPa; 58—348 ±44 psi)
- Permissible flow rate through the LS port: 2—4.5 L/min (0.5—1.2 US gpm)
- Required flow rate at the control valves of implements: 3.7 L/min (1.0 US gpm)

OULXBER,00030B9-19-13NOV20

Selective Control Valves (SCVs)—Controls

SCVs—Set Controls

For settings, see section 70C:

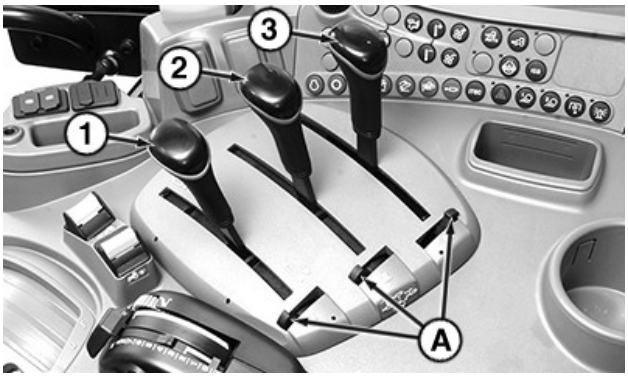
- Mechanical SCVs—Raise Rate
- Mechanical SCVs—Set Feature Mode
- Mechanical SCVs—Pressure Settings for Series 450
- Electronic SCVs—Menu
- Electronic SCVs—Adjust SCV Flow Rate and Flow Time
- Electronic SCVs—Loader Mode
- Electronic SCVs—Joystick Mode
- Electronic SCVs—Advanced Settings

OULXA64,6M,0005638-19-28AUG23

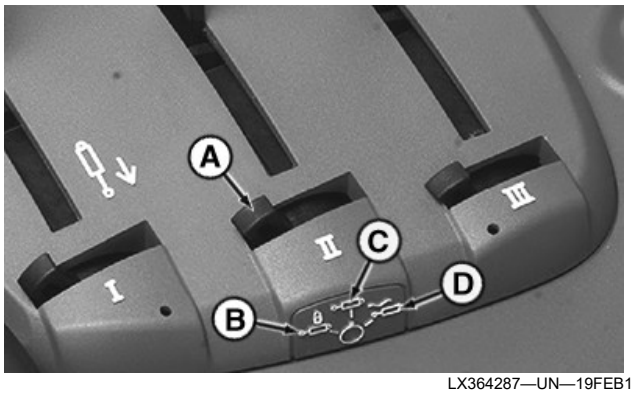
Mechanical SCVs—Controls

CAUTION: Always lock unneeded control elements so that they cannot be actuated unintentionally!

Control Lever for SCV I to III



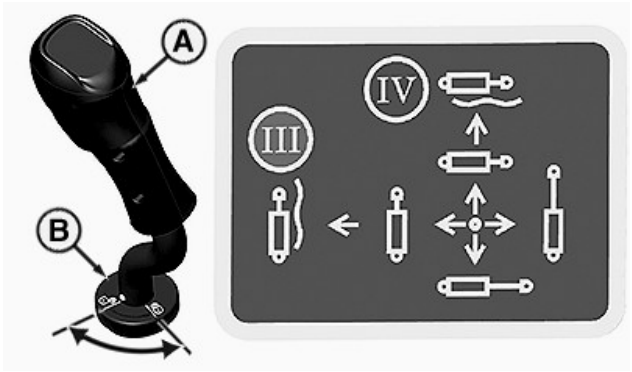
LX364286—UN—19FEB19



LX364287—UN—19FEB19

1—SCV I Control Lever
2—SCV II Control Lever
3—SCV III Control Lever
A—Lever for Locking the Control Levers
B—Lock Control Lever in Neutral Position (transport lock)
C—Control Lever in Extended and Retracted Position
D—Control Lever in Extended and Retracted Position, and Locked in Float Position

Joystick for SCV III and IV (If Equipped)



LX364344—UN—26MAR19

A—Joystick
B—Locking Ring (transport lock)

For settings, see Section 70C.

- Selective Control Valves, Mechanical - Raise Rate
- Selective Control Valves, Mechanical - Set Feature Mode
- Selective Control Valves, Mechanical - Pressure Settings for Series 450

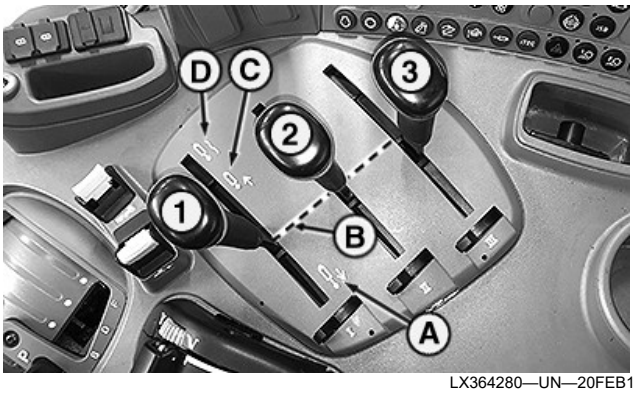
OULXA64,6M,0005639-19-28AUG23

Mechanical SCVs—Control Lever

CAUTION: To avoid personal injury, ensure that hoses are not reversed. If hoses are reversed, cylinder extends when it should retract.

IMPORTANT: Lock the selective control valves against unintended actuation when driving on roads and whenever the SCV control levers are not needed. See also Selective Control Valves, Mechanical - Transport Lock on the following pages.

Control Lever for SCV I to III



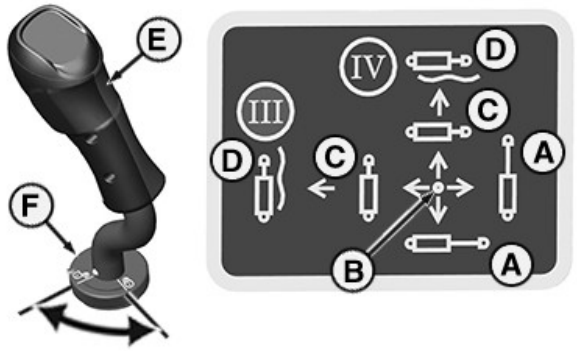
LX364280—UN—20FEB19

SCV Control Lever I to III

1—Control Lever, SCV I
2—Control Lever, SCV II
3—Control Lever, SCV III
A—Extend
B—Neutral Position

C—Retract
D—Float Position

Joystick for SCV III and IV (If Equipped)



LX364345—UN—26MAR19

A—Extend
B—Neutral Position
C—Retract
D—Float Position
E—Joystick
F—Locking Ring (transport lock)

The following description refers to selective control valves with deactivated lock function:

A — Extend (detent position)
If the lever is moved to the extend detent position and released, it returns to neutral position only when the hydraulic cylinder has been extended. The hydraulic cylinder is held in position.

A/B — Position between neutral and extend detent position
If the lever is moved between neutral and extend detent, the cylinder will be extended slowly. The further the lever is moved to the detent position, the faster the hydraulic cylinder is extended. When the lever is released, it returns to neutral position and the hydraulic cylinder is held in position.

B — Neutral position (between retract and extend)
In neutral position, the hydraulic cylinder is held in position.

B/C — Position between neutral and retract detent position
If the lever is moved between neutral and retract detent, the cylinder will be retracted slowly. The further the lever is moved to the detent position, the faster the hydraulic cylinder is retracted. When the lever is released, it returns to neutral position and the hydraulic cylinder is held in position.

C — Retract (detent position)
If the lever is moved to the retract detent position and released, it returns to neutral position only when the hydraulic cylinder has been retracted. The hydraulic cylinder is held in position.

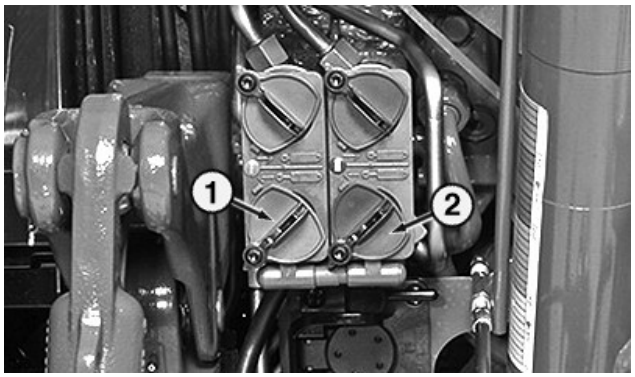
D — Float position (detent position)
If the lever is moved beyond the retract detent position and detented in the float position, the piston of the hydraulic cylinder can move freely and the attached implement can follow the ground contour.

NOTE: If additional external valves are used, move the control lever to neutral position to switch off the respective hydraulic function.

NOTE: To release hydraulic pressure in the implement, move the lever to float position (D) while engine is running.

CAUTION: Danger of accidents when an (Economy) front hitch and front couplers are installed!

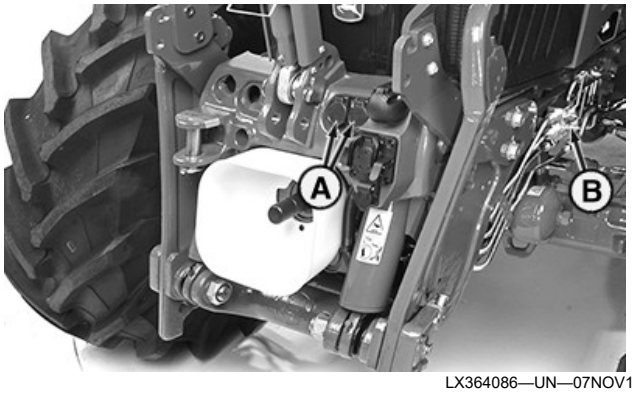
Make sure that SCVs I and II cannot be used for two applications.



LX364281—UN—19FEB19

SCVs I and II

1—SCV I
2—SCV II



LX364086—UN—07NOV18

Economy Front Hitch

A—Front Coupler, SCV II
B—Shutoff Valve

Use of SCV I:

- **When using SCV I, make sure that shutoff valve (B) is closed.**
- **When using the front hitch, make sure that the shutoff valve is open and no other implement is connected to SCV I.**

Use of SCV II:

- **When using SCV II, make sure that no other implement is connected to front couplers (A).**
- **When using front coupler (A), make sure that no other implement is connected to SCV II.**

For settings, see Section 70C.

OULXA64,6M,000563A-19-28AUG23

Mechanical SCVs—Transport Lock

CAUTION: Danger of fatal injury from unexpected actions of implements and tractor components.

Accidentally triggered functions of implements that are connected to the selective control valves might lead to fatal accidents.

The transport lock must be activated when driving on roads, and whenever the selective control valves are not needed. Move control lever to neutral position and lock with levers (A).



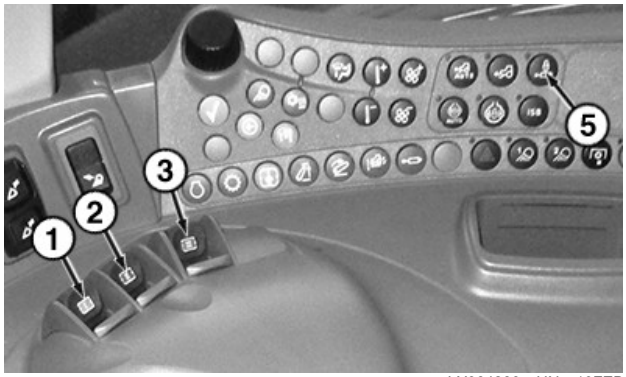
LX364282—UN—19FEB19

With lever (A), each control lever for selective control valves can be locked in neutral position (transport lock). If necessary, the control levers can be locked in float position.

OULXA64,6M,000563B-19-28AUG23

Electronic SCVs—Controls

CAUTION: Always lock unneeded control elements so that they cannot be actuated unintentionally!



LX364283—UN—19FEB19

Cab without CommandARM™



LX364284—UN—19FEB19

Cab with CommandARM™



LX364285—UN—20FEB19

Remote Control for SCV III Only

1—SCV I Control Lever
2—SCV II Control Lever
3—SCV III Control Lever
4—SCV IV Control Lever[1]
5—Lock Button of SCV Control Lever
A—Remote Control for SCV III Only (retract/extend)[1]

For settings, see Section 70C.

- Electronical SCVs — Menu
- Electronical SCVs — Adjust SCV Flow Rate and Flow Time
- Electronical SCVs — Loader Mode
- Electronical SCVs — Joystick Mode

[1] *If equipped*

- For responsiveness, see Electronical SCVs — Advanced Settings

OULXA64,6M,000563C-19-28AUG23

Electronical SCVs—Control Lever

CAUTION: All SCVs can also be operated via the joystick, provided they are assigned to the joystick. Before using, press button (5) to find out what the current assignment is. Misuse may result in fatal accidents. See Joystick, Electric in Section 70D.

CAUTION: To avoid personal injury, ensure that hoses are not reversed. If hoses are reversed, cylinder extends when it should retract.

IMPORTANT: When driving on streets, or when the SCV control lever is not required in neutral position, activate the lock button of the SCV (5).

NOTE: Moving the SCV control lever to its click position activates the selected function in relation to the set flow rate and flow time. The SCV control levers do not remain in the extend and retract click positions unless they are physically held there by the operator.

NOTE: Float can be used to allow hydraulic motors to coast when shutting down implement.



LX364283—UN—19FEB19

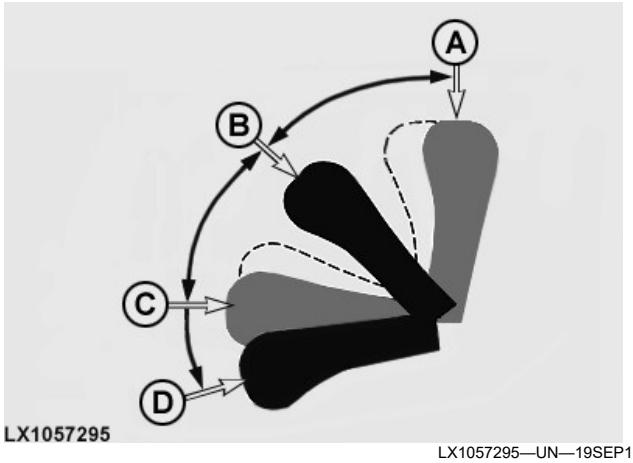
Cab without CommandARM™



LX364284—UN—19FEB19

Cab with CommandARM™

1—SCV I Control Lever
2—SCV II Control Lever
3—SCV III Control Lever
4—SCV IV Control Lever[2]
5—Lock Button of SCV Control Lever



LX1057295—UN—19SEP13

A—Extend (click position)
B—Neutral Position
C—Retract (click position)
D—Float Position (detent)

A — Extend (click position)

If the lever is moved to the extend click position and released, it returns to neutral position and the hydraulic cylinder extends in accordance with its preselected flow rate and preset flow time.

A/B — Position between neutral and extend click position

If the lever is moved between neutral and the extend click position, the cylinder extends slowly. The further the lever is moved towards the click position, the faster the hydraulic cylinder extends. When the lever is released, it returns to neutral position and the hydraulic cylinder is held in position.

B — Neutral position (between retract and extend)

In neutral position, the hydraulic cylinder is held in position.

Lever returns to center position (neutral) when released, unless it is detented in float position (D).

[2] If equipped

B/C — Position between neutral and retract click position
If the lever is moved between neutral position and the retract click position, the cylinder retracts slowly. The further the lever is moved towards the click position, the faster the hydraulic cylinder retracts. When the lever is released, it returns to neutral position and the hydraulic cylinder is held in position.

C — Retract (click position)
If the lever is moved to the retract click position and released, it returns to neutral position and the hydraulic cylinder retracts in accordance with its preselected flow rate and preset flow time.

D — Float position (detent position)
If the lever is moved beyond the retract click position and detented in the float position, the piston of the hydraulic cylinder can move freely and the attached implement can follow the ground contour.

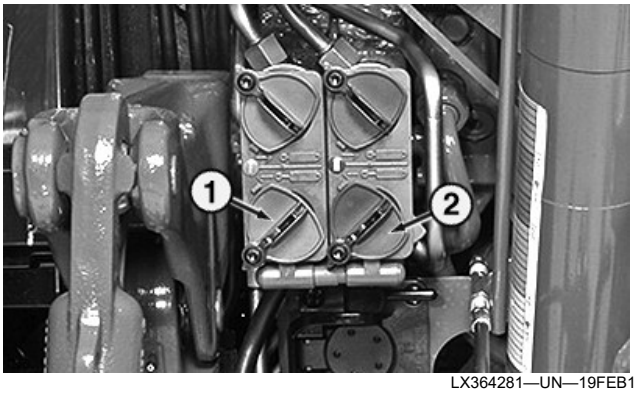
NOTE: If the control lever is released in a click position, it returns automatically to neutral position.

NOTE: If additional external valves are used, move the control lever to neutral position to switch off the respective hydraulic function.

NOTE: To release hydraulic pressure in the implement, move the lever to float position (D) while engine is running.

CAUTION: Danger of accidents when an (Economy) front hitch and front couplers are installed!

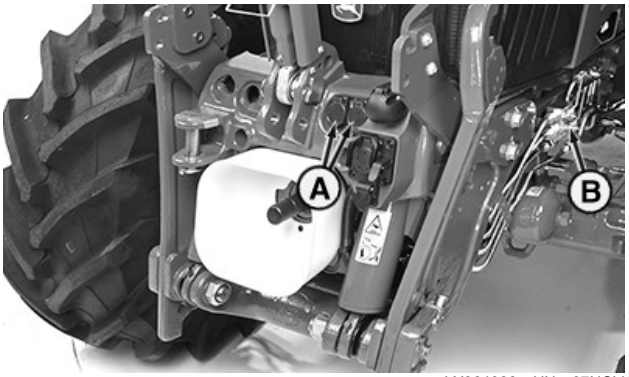
Make sure that SCVs I and II cannot be used for two applications.



LX364281—UN—19FEB19

SCVs I and II

1—SCV I
2—SCV II



LX364086—UN—07NOV18

Economy Front Hitch

A—Front Coupler, SCV II
B—Shutoff Valve

Use of SCV I:

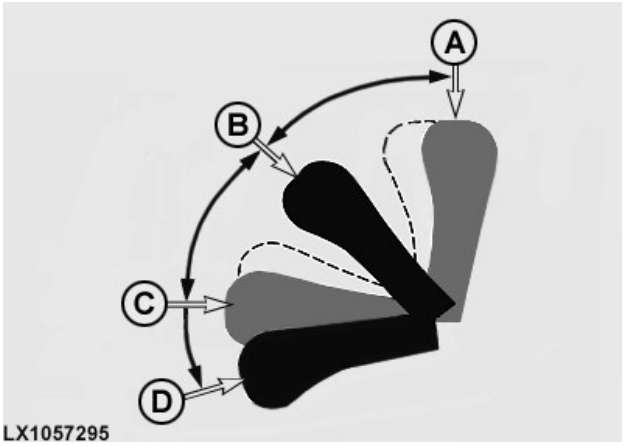
- **When using SCV I, make sure that shutoff valve (B) is closed.**
- **When using the front hitch, make sure that the shutoff valve is open and no other implement is connected to SCV I.**

Use of SCV II:

- **When using SCV II, make sure that no other implement is connected to front couplers (A).**
- **When using front coupler (A), make sure that no other implement is connected to SCV II.**

OULXA64,6M,000563D-19-28AUG23

Electronical SCVs—Neutral Position



LX1057295—UN—19SEP13

A—Extend (click position)
B—Neutral Position
C—Retract (click position)
D—Float Position (detent)

Neutral position (B) allows flow to continue until flow time expires. If no flow time is commanded, then both extend and retract valves turn off.

NOTE: Bring the levers of the SCVs to neutral position before starting the tractor.

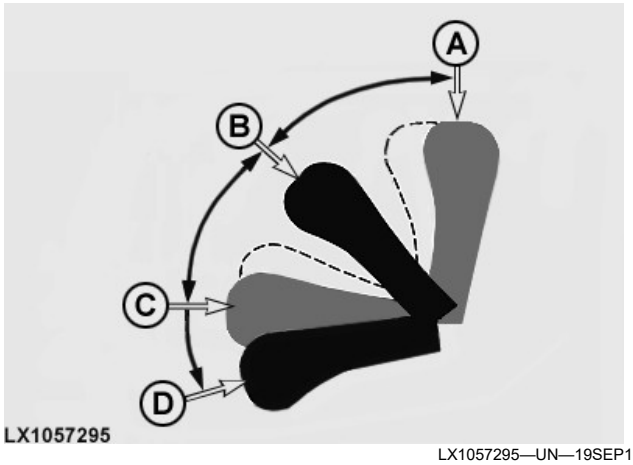
Levers in extend or retract positions return automatically to neutral position when released. Float position remains detented.

Any position other than neutral or float is ignored until lever is cycled to neutral after engine start-up.

OULXA64,6M,000563E-19-28AUG23

Electronical SCVs—Extend and Extend Click Position

Extend



LX1057295—UN—19SEP13

A—Extend (click position)
B—Neutral Position
C—Retract (click position)
D—Float Position (detent)

If the lever is moved between neutral (B) and extend click position (A), the cylinder extends slowly. The further the lever is moved towards click position (A), the faster the hydraulic cylinder extends. When the lever is released, it returns to neutral position and the hydraulic cylinder is held in position.

NOTE: Flow time setting is ignored in extend position.

Extend Click Position

Move the lever to extend position (A) and release. The lever returns to the neutral position and the hydraulic cylinder extends in accordance with its preset detent time and preselected flow rate.

The set flow rate is retained.

Flow time of the flow rate starts when the lever is moved to the click position. Flow time should be adjusted so cylinder is fully extended when time elapses.

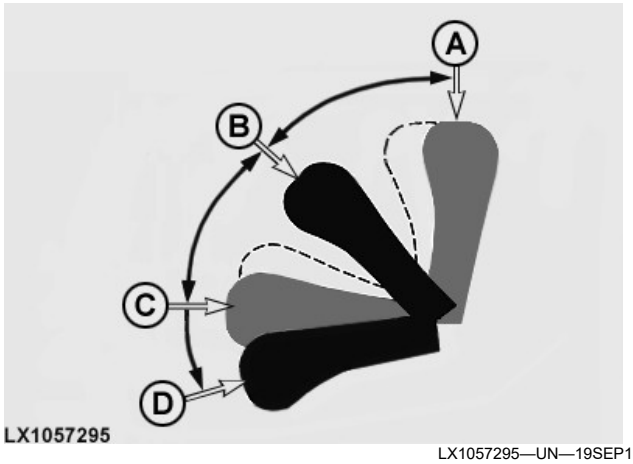
NOTE: If lever is not returned from the click position to neutral in less than 0.8 seconds, the settings associated with the click position are canceled.

The settings associated with the click position can be canceled by moving the lever out of neutral.

OULXA64,6M,000563F-19-28AUG23

Electronical SCVs—Retract and Retract Click Position

Retract



LX1057295—UN—19SEP13

A—Extend (click position)
B—Neutral Position
C—Retract (click position)
D—Float Position (detent)

If the lever is moved between neutral (B) and retract click position (C), the cylinder retracts slowly. The further the lever is moved towards click position (C), the faster the hydraulic cylinder retracts. When the lever is released, it returns to neutral position and the hydraulic cylinder is held in position.

NOTE: Flow time setting is ignored in retract position.

Retract Click Position

Move the lever to retract position (C) and release. The lever returns to the neutral position and the hydraulic cylinder retracts according to the preset flow time and flow rate.

The flow rate is maintained.

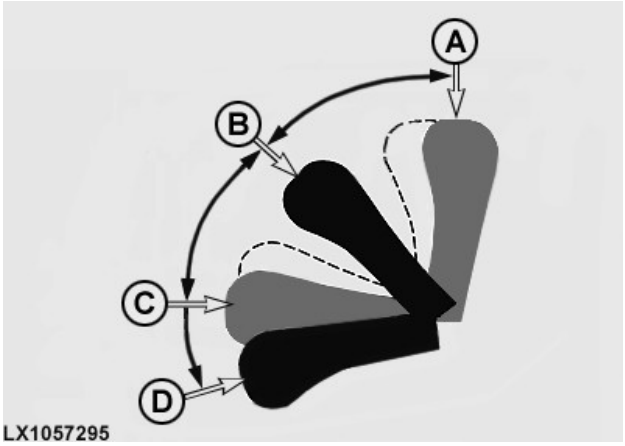
Flow time of the flow rate starts when the lever is moved to the click position. Flow time should be adjusted so cylinder will be fully retracted when time has elapsed.

NOTE: If lever is not returned from the click position to neutral in less than 0.8 seconds, the settings associated with the click position are canceled.

The settings associated with the click position can be canceled by moving the lever out of neutral.

OULXA64,6M,0005640-19-28AUG23

Electronical SCVs—Float Position (Detent)



LX1057295—UN—19SEP13

A—Extend (click position)
B—Neutral Position
C—Retract (click position)
D—Float Position (detent)

Move the lever beyond the retract click position (C) and detent it in the float position. The piston of the hydraulic cylinder can move freely in float position and the attached implement can follow the ground contour.

To deactivate the function, move the lever manually back to neutral.

NOTE: Time setting is ignored in float position.

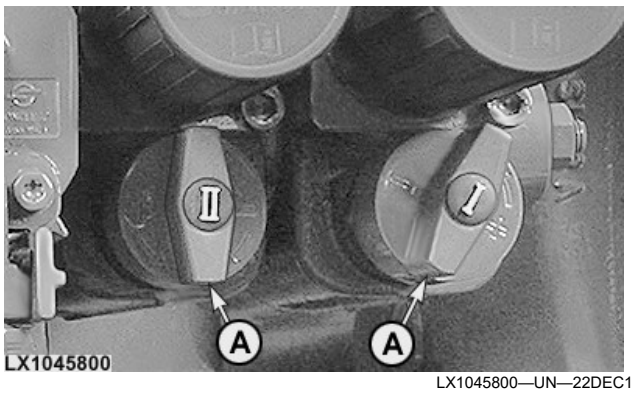
If, before shutting off the engine, the lever is moved to float position (D) and it is still in float position (D) at the subsequent start-up, the float function remains deactivated until the lever is returned to neutral position (B). In the side panel, the lock button remains lit for that.

Move the lever back and forward in both directions after it was used in the float position. This ensures that the hydraulic cylinder is filled with oil.

OULXA64,6M,0005641-19-28AUG23

Selective Control Valves (SCVs)—Settings

Mechanical SCVs—Raise Rate



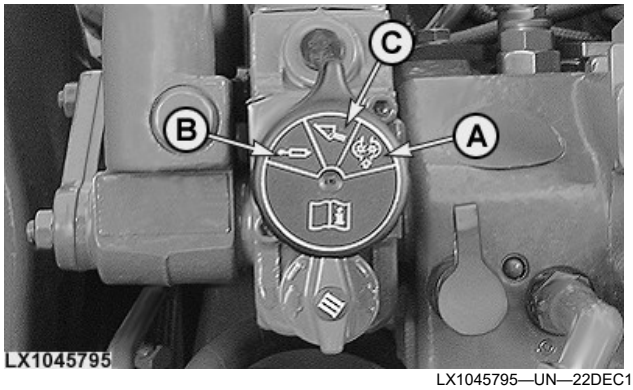
LX1045800—UN—22DEC10

Flow control valves (A) can be used to regulate the rate at which hydraulic cylinders extend and retract (raise and lower). When lowering, make sure that the SCVs control lever is NOT moved into float position.

IMPORTANT: Full extension and retraction of a hydraulic cylinder should require more than 1.5 seconds. Faster retracting or extending may cause damage.

LX25458,6M,0000A3D-19-28AUG23

Mechanical SCVs—Set Feature Mode



LX1045795—UN—22DEC10

SCV Series 450 Shown

A—Lock Function 1
B—Lock Function 2
C—No Lock Function

The tractor can be equipped with 200 Series and/or 450 Series selective control valves.

The 200 and 450 Series selective control valves provide the functions “raise”, “lower”, “float position”, plus a lock function (A).

The lock function (A) holds the control lever in the “raise” or “lower” position until it is moved manually.

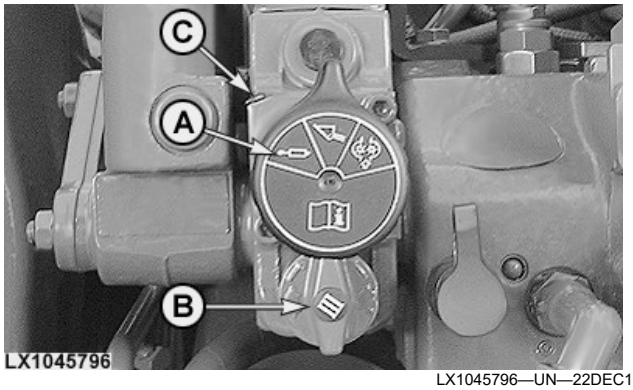
The 450 Series selective control valves also have an additional lock function (B), which holds the control lever in the “raise” or “lower” position until the pressure in the oil circuit has reached a predetermined value (e.g. when the hydraulic cylinder has reached its end position).

No lock function is activated in position (C). The control lever returns to neutral position as soon as it is released.

If an implement (e.g. hydraulic cylinder) is connected, the pressure connection (e.g. extending cylinder) has to be connected to the lower coupler. With 200 Series selective control valves, a valve prevents sudden loss of pressure caused by leakage (e.g. retracting cylinder) when the engine is shut off. On 450 Series selective control valves, the likelihood of leakage is further diminished.

LX25458,6M,0000A3E-19-28AUG23

Mechanical SCVs—Pressure Settings for Series 450



LX1045796—UN—22DEC10

A—Lock Function
B—Flow Control Valve
C—Plug

NOTE: All selective control valves are factory adjusted to switch off at a pressure of 18000 kPa (180 bar; 2610 psi).

If the selective control valve in lock function switches off too early (control lever goes into neutral position too early), or if it switches off too late or not at all (control lever goes into neutral position too late or not at all), proceed as follows:

1. Disconnect hydraulic hoses at the connectors (if equipped).
2. Engage the lock function (A) (as far as it will go to the right) and move flow control valve (B) to the mid-position.
3. Take out plug (C) and insert a 1.5 mm (0.06 in) hex socket wrench.
4. Start the engine and turn the screw clockwise as far as it will go.
5. Move control lever of the SCV to the raise or lower position (the control lever remains in the raise or lower position).

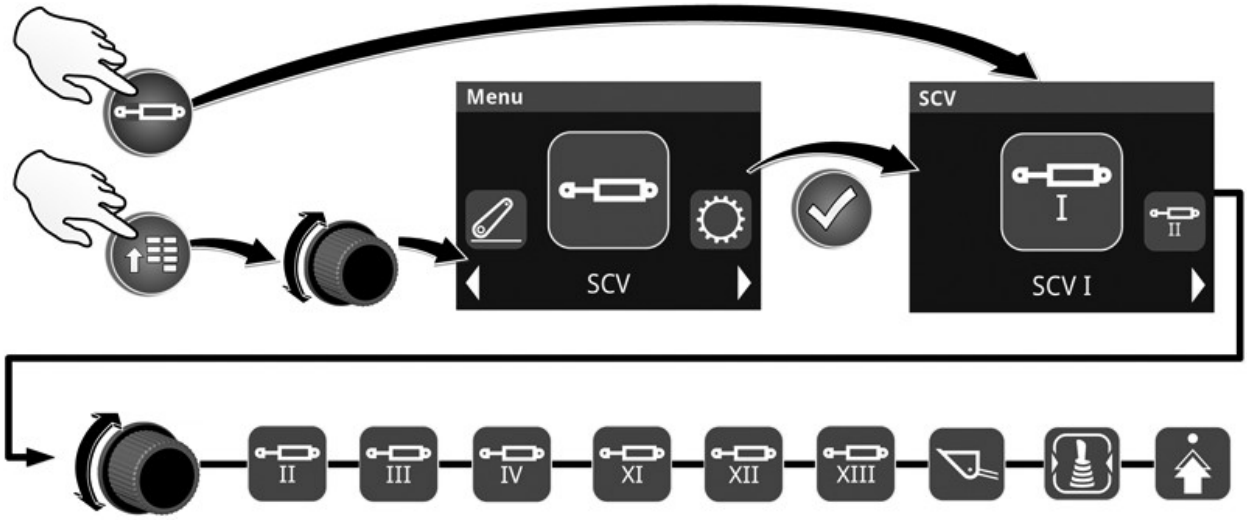
6. Turn the screw counterclockwise until the control lever returns to neutral position.

NOTE: One full turn changes the pressure by approx. 2000 kPa (20 bar) (290 psi).

7. Reinstall the plug.

LX25458,6M,0000A3F-19-28AUG23

Electronical SCVs—Menu

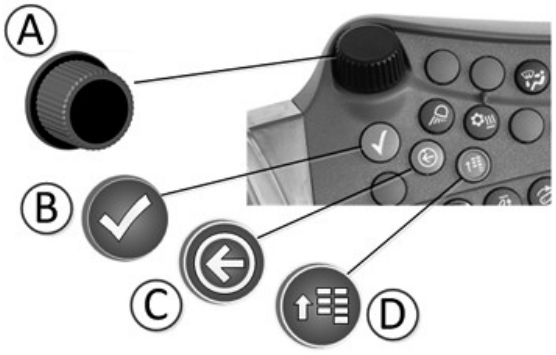


LX368280—UN—17DEC18

Display with Full Equipment

- Access the settings for the control units with the button for SCVs.
- Access the settings for the control units via the main menu.

Essential controls to make settings:



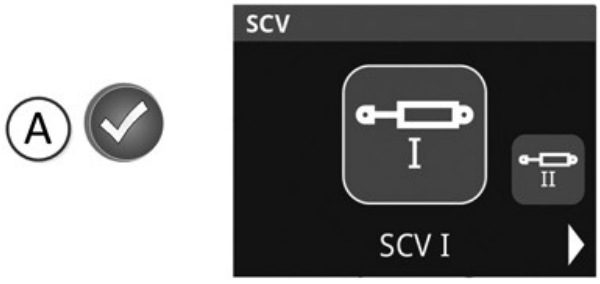
LX361250—UN—17DEC18

A—Select and Set
B—Confirm Selection
C—One Step Back
D—Access Main Menu

OULXA64,6M,0005643-19-28AUG23

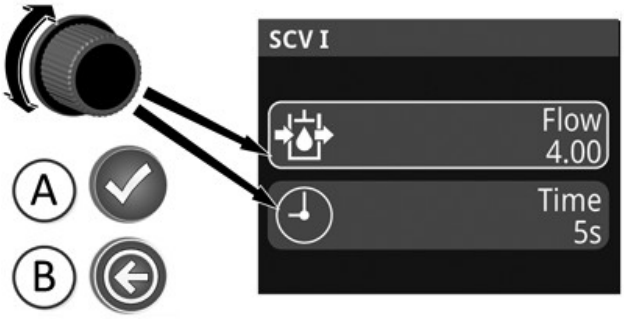
Electronical SCVs—Adjust SCV Flow Rate and Flow Time

1. Access the menu, see Selective Control Valves, Electronic - Menu.
2. Access the desired SCV to make settings, e.g. SCV I. Then confirm with button (A).



LX368285—UN—17DEC18

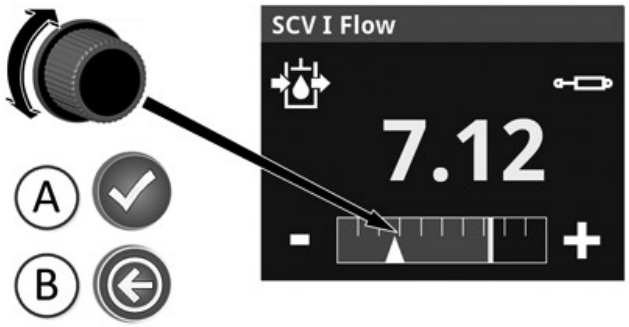
3. Select flow rate or flow time. Confirm selection with button (A).



LX368286—UN—17DEC18

A—Confirm
B—Back

4. Set flow rate and confirm with button (A).

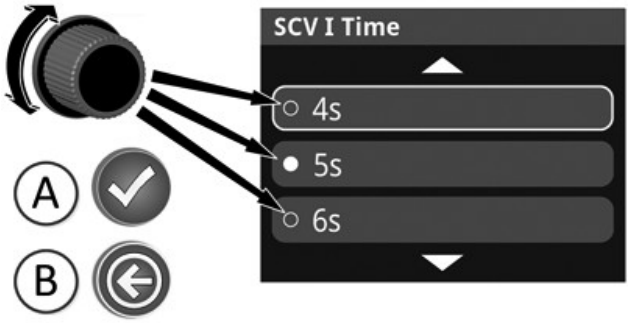


LX368287—UN—17DEC18

Flow Rate, Setting

A—Confirm
B—Back

5. Select flow time and confirm with button (A).



LX368288—UN—17DEC18

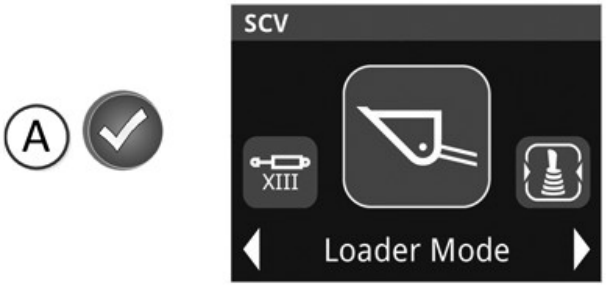
Flow Time, Set

OULXA64,6M,0005644-19-28AUG23

Electronical SCVs—Loader Mode

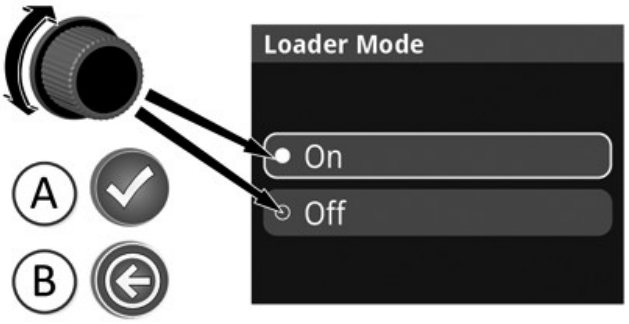
NOTE: The loader mode is only available for operation via the joystick.

1. Access the menu, see Selective Control Valves, Electronic - Menu.
2. Select loader mode and confirm with button (A).



LX368281—UN—17DEC18

3. Select On or Off and confirm with button (A).



LX368282—UN—17DEC18

A—Confirm
B—Back

OULXA64,6M,0005645-19-28AUG23

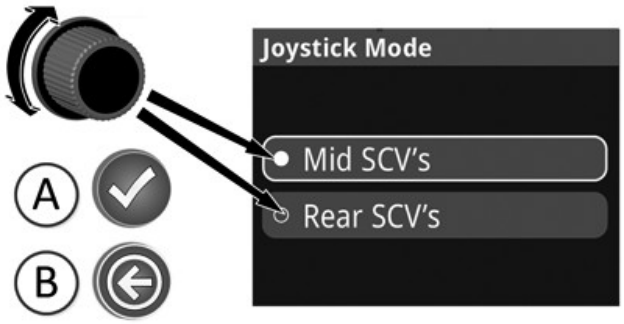
Electronical SCVs—Joystick Mode

1. Access the menu, see Selective Control Valves, Electronic - Menu.
2. Select joystick mode and confirm with button (A).



LX368283—UN—17DEC18

3. Select middle or rear SCVs. Middle = SCVs XI, XII, and XIII.



LX368284—UN—17DEC18

A—Confirm
B—Back

- If the middle SCVs are selected, the set flow times of the SCVs XI, XII, and XIII are ignored.
- Selecting the rear SCVs switches off the loader mode.

OULXA64,6M,0005646-19-28AUG23

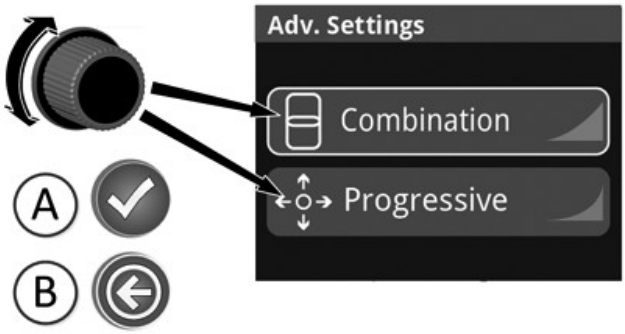
Electronical SCVs—Advanced Settings

1. Access the menu, see Selective Control Valves, Electronic - Menu.
2. Select advanced settings and confirm with button (A).



LX368289—UN—17DEC18

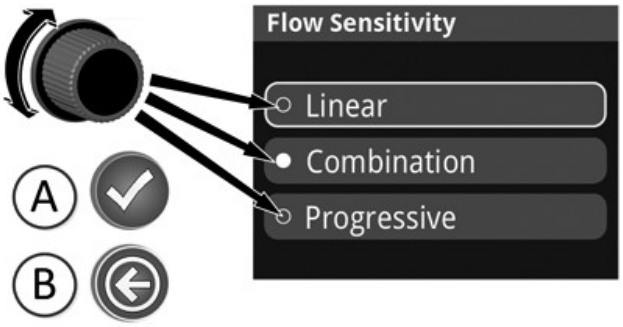
3. Select symbol for control lever or joystick and confirm with button (A).



LX368291—UN—17DEC18

A—Confirm
B—Back

4. Select sensitivity and confirm with button (A).



LX368290—UN—17DEC18

A—Confirm
B—Back

Flow rate behavior when operating the control lever or joystick:

- **Linear:** The flow rate is proportional to the lever position.
- **Combination:** The flow rate is low in the initial range of the lever movement and increases later. The responsiveness is sensitive.
- **Progressive:** The flow rate is very low in the initial range of the lever movement and increases later. The responsiveness is very sensitive.

OULXA64,6M,0005647-19-28AUG23

Operator Presence Sensor (For North America, Australia, and New Zealand Only)

An audible alarm sounds when the operator leaves the operator's seat and the transmission and SCV control are switched as follows:

1. Transmission in park or neutral position
2. SCV control in **Continuous** or **Timed Detent** mode

After five seconds, the audible alarm turns off.

NOTE: SCV does not disengage when operator leaves seat.

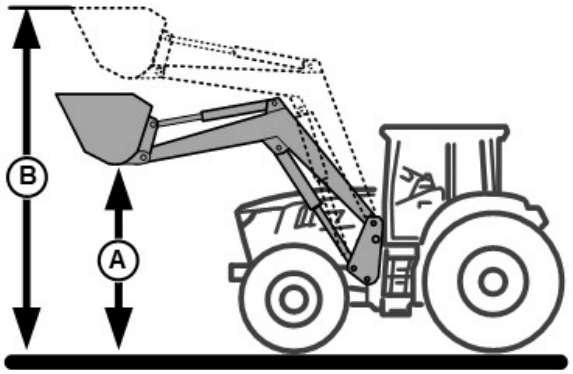
LX25458,6M,0000A40-19-27MAR23

Driving with a Loader on Public Roads

CAUTION: There is a risk of injury and potential damage to equipment and the environment.

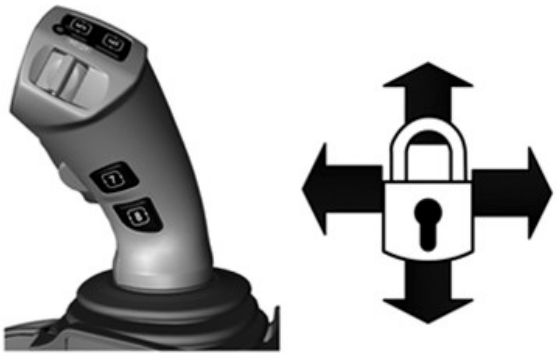
Follow the safety precautions listed below and adhere to the specific requirements outlined by local regulations.

- Ensure the loader is unloaded, and the boom is raised to the height specified by local laws. For example, some countries require a minimum height (A) of 2 meters (6.5 ft) and a maximum height (B) of 4 meters (13 ft) from the ground to the front loader when driving on public roads.
- Avoid contact between the front loader and any overhead structures, such as passages, bridges, traffic lights, or power lines.
- Ensure the driver's forward visibility is not obstructed.
- Make sure the lighting system and the visibility of the vehicle registration plate are not impaired.
- Adapt your driving style to account for the raised center of gravity. This includes cornering slowly and being more cautious as the vehicle tilts.
- Be aware of the increased length of the vehicle, especially when maneuvering or turning at road junctions.
- Lock the front loader joystick to prevent unintended operation of the loader. See in this manual.



LX665247—UN—23JUN25

Example: Minimum and Maximum Height

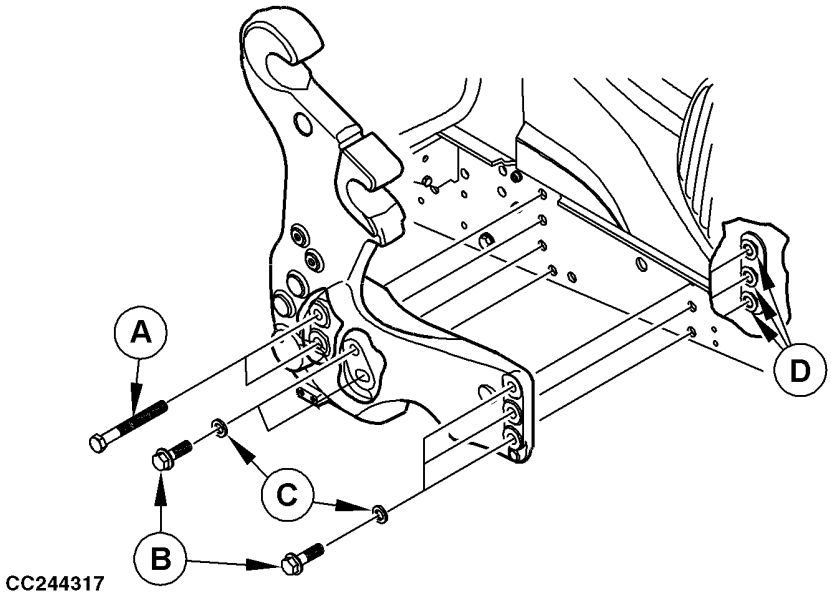


LX665248—UN—23JUN25

Example: Lock Front Loader Joystick

80D,oulxa64,1750679636006-19-24JUN25

Front Loader Mounting Frames for Loaders 620R/623R



CC244317—UN—04JUN15

Hardware used on John Deere Front Loader Mounting Frames					
Item	Designation	Standard	Dimensions	Identification/Grade	Coating
(A)	Cap Screw with Flange	JDS121	M20 x 2.5 x 160	10.9	Zinc
(B)	Cap Screw with Flange	JDS121	M20 x 2.5 x 70	10.9	Zinc
(D)	Hex Nut with Flange	ISO4161	M20 x 2.5	10	Zinc

Hardware used on John Deere Front Loader Mounting Frames							
Item	Designation	Standard	Inner diameter	Outside diameter	Thickness	Material	Coating
(C)	Washer	JDS130	21.4 mm (0.9 in)	42 mm (1.5 in)	5 mm (0.1 in)	300HV	Zinc

IMPORTANT: A front loader checked and approved by John Deere is available for purchase.

When installing the John Deere front loader mounting frames, use only suitable attaching elements as shown in the illustration above.

Check torques of attaching screws at regular intervals. Comply with Operator's Manual and Installation Instructions for servicing the front loader.

Item	Measurement	Specification
Cap Screw with Flange	Torque	620 N·m (457 lb·ft)

LX25458,ALL,0000A41-19-18JUN25

Front Loader—Hydraulic Quick Release (If Equipped)



LX364288—UN—20FEB19

Press the buttons (A) for locking and unlocking when changing the front loader's implement.

NOTE: Refer to the Operator's Manual of the front loader for more information.

OULXA64,6M,0005648-19-28AUG23

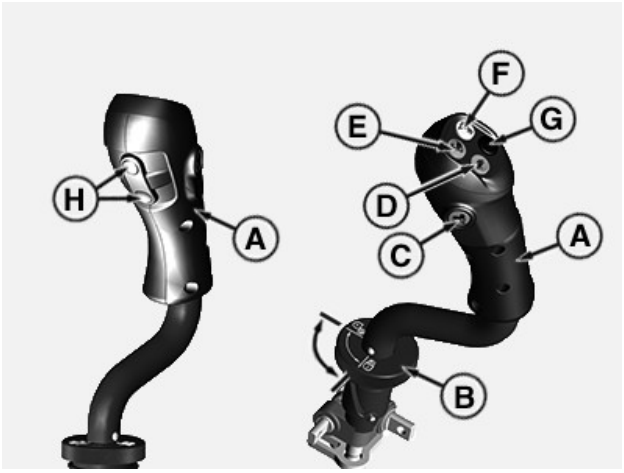
Front Loader—Influence of Engine Speed on Lifting Function

The lifting function of the front loader is improved by increasing the engine speed. Set the desired minimum engine speed with the hand throttle.

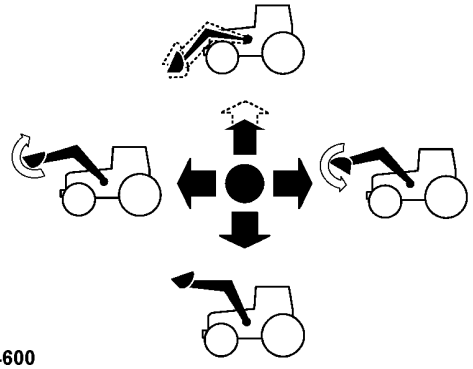
LX25458,0000A43-19-19JUN23

Mechanical Joystick (Factory Installed)—Controls

CAUTION: When the front loader is not in use, the joystick has to be locked. To do this, turn locking ring (B) and check that the joystick cannot be moved. If this is not done, the front loader may be inadvertently actuated while the tractor is in motion, which could lead to serious accidents.



LX364495—UN—16OCT19



LX1054600

LX1054600—UN—10OCT11

A—Joystick
B—Locking Ring (transport lock)
C—Button, Change Direction of Travel
D—Gearshift Button, Downshift
E—Gearshift Button, Upshift
F—Button for Activating Loader Suspension System[1]
G—Button, Activate Diverter Valve of Implement[1]
H—Rocker Switch, Retract/Extend Additional Control Valve[1]

NOTE: The displayed joystick is equipped with optional controls.

Basic Functions:

- Turn locking ring to right = Lock
- Turn locking ring to left = Unlock
- Lever to rear = Raise front loader
- Lever to front as far as perceptible resistance = Lower front loader
- Lever to front beyond perceptible resistance (detent) = Front loader in float position
- Lever to left = Bucket rollback
- Lever to right = Bucket tips down

Advanced Functions and Programming:

Joystick (A) permits two selective control valves to be operated at the same time.

A third control valve is actuated via rocker switch (H), permitting an additional function to be controlled.

By pressing button (C), the direction of travel is changed.

Loader suspension system is switched on and off with button (F). When the loader suspension system is switched on, the LED in button (F) lights up.

Gearshift buttons (D) and (E) allow the gears at the transmission to be shifted. *On tractors with CommandQuad™ PLUS transmission, switching the gears is only possible if the transmission is operated in the range A, B, C, or D.*

Activate and Deactivate Loader Suspension System (If Equipped)

1. Hold button (F) and then switch on the ignition.
2. Hold button (F) for another 5 seconds at least until the LED in the button starts to FLASH.
3. Release the button and press it again within 5 seconds to enter the programming mode.
4. The current programming of the loader suspension system is shown as follows:

   LED off all the time ► Loader Suspension System deactivated

   LED on all the time ► Loader Suspension System activated
5. Activate or deactivate the loader suspension system with button (F).
6. To exit the programming mode and save the setting, press any button on the joystick or switch off the ignition.

NOTE: Every time the engine is started, the loader suspension system remains off.

Activate or Deactivate Diverter Valve of Implement (If Equipped)

Briefly press button (G) to activate the commutation valve of the implement. This allows you to control other functions.

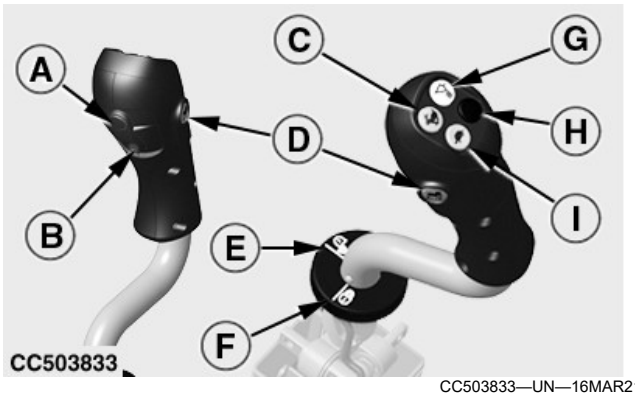
Press button (G) again to deactivate the commutation valve of the implement again.

NOTE: For more information, see Operator's Manual of the implement.

OULXA64,6M,0005345-19-16AUG23

[1] *If equipped*

Mechanical Joystick (Retrofitted), R Series Loader for 6M Series Tractors (MY20-) — Controls



CC503833—UN—16MAR21

A—3rd Function
B—No Function
C—Gear Shift UP
D—Reverse
E—Unlock Position
F—Lock Function
G—Loader Suspension System
H—4th Function
I—Gear Shift Down

Joystick can be locked in neutral to prevent unintentional movement:

- To lock the joystick, rotate lock to position (F) while the joystick is in neutral position.
- To unlock the joystick, rotate lock to position (E).

NOTE: 4th function needs the front-end implement to be fitted with the required diverter valves.

To activate 3rd or 4th function:

- Select 3rd function by continuously pressing the upper rocker switch (A).
- Select 4th function by continuously pressing button (H).

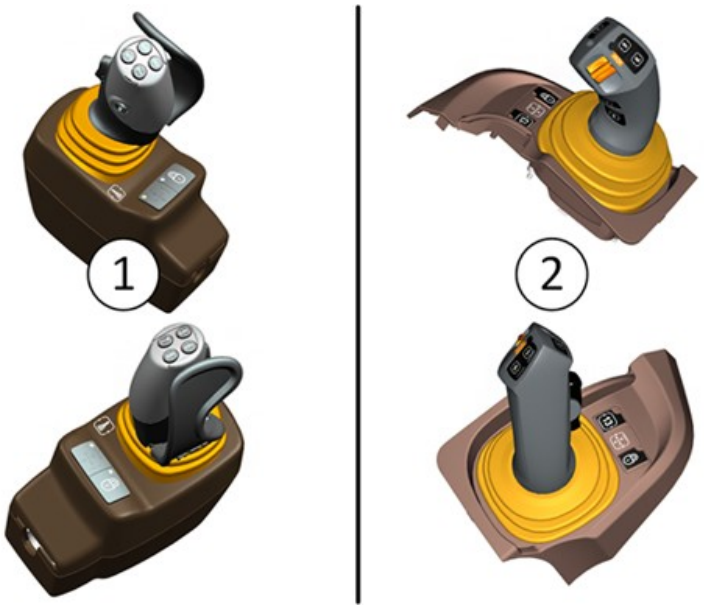
Push the lever to the right side to open the implement or pull it to the left side to close the implement.

The transmission of the tractor can be controlled from the joystick:

- Press button (D) to reverse the travel direction of the tractor.
- Press button (C) to shift up gear.
- Press button (I) to shift down gear.

oulxa64,1656420189013-19-27MAR23

Electrical Joystick—Identify the Version



LX514274—UN—27JUL22

Joystick Versions

The tractor can be equipped with two different versions of Joysticks.

1. Version (1) detects the operator's hand through the movement of a flap.
2. Version (2) detects the operator's hand through sensors.

oulxa64,1655899194890-19-29AUG23

Electrical Joystick (Version 1)—Controls

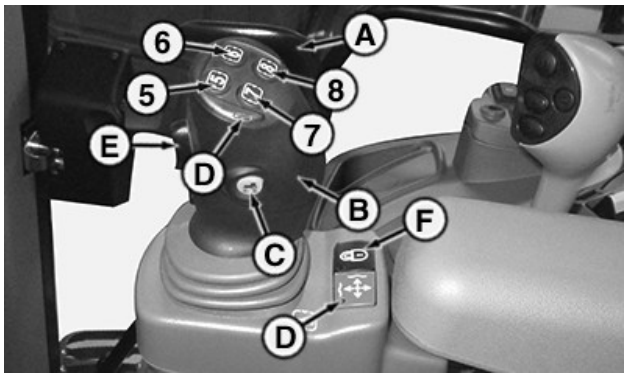
CAUTION: Danger of fatal accidents.

Operating errors can trigger unforeseen movements of implements and the front loader.

- **Always work carefully and concentrated.**
- **Note the status of the diverter valves.**
- **Do not operate front loader together with iTEC™.**
- **For working with the front loader, always activate loader mode.**
- **Do not use a timed detent position during front loader work.**
- **When driving on the road and if the joystick is not required, lock the joystick with lock button (F). Button (F) lights up when the joystick is locked.**

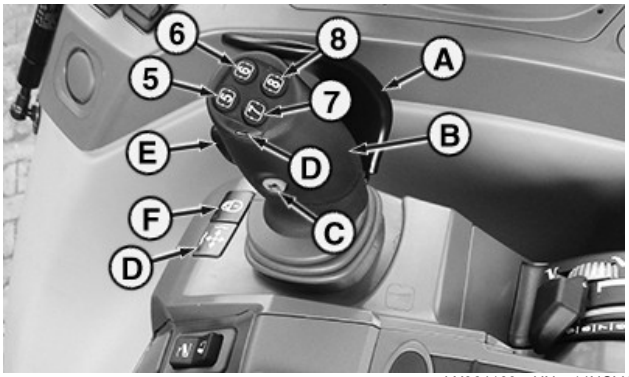
IMPORTANT: If a default setting other than the factory setting is active, a message is displayed after the motor is started. The message prompts the driver to get familiarized with the current settings. The functions are available only after the message has been confirmed. See Set up Controls in Section 30AA.

For a presetting that takes ISOBUS implements into account, be sure to observe the Operator's Manual of the implement.



LX364108—UN—21FEB19

Joystick on Right Armrest



LX364109—UN—14NOV18

Joystick on the CommandARM™

5—Gearshift Button, Change Up
6—Button, Activate Loader Suspension System [2]
7—Gearshift Button, Change Down
8—Button, Diverter Valve [2]
A—Hand Flap, Activate Joystick
B—Joystick
C—Button, Change Direction of Travel
D—Indicator Light, Joystick Active
E—Rocker Switch, Raise/Lower
F—Lock Button, Joystick ON/OFF

IMPORTANT: The joystick on the right armrest can come into contact with the side console when the seat is turned all the way to the right. Check seat swivel, seat height, and seat adjustment (forward/backward) to avoid contact.

The SCVs[3] XI to XIII behind the right access step can be operated with joystick (B).

Joystick (B) permits two SCVs to be operated at the same time. A third control valve is actuated via rocker switch (E), permitting an additional function to be controlled.

If the rocker switch is moved beyond the perceptible point of resistance (click position) and then released, the hydraulic cylinder of the attached implement is retracted or extended in accordance with the preset flow time and flow rate.

Pressing button (8) activates the diverter valve of the implement, permitting additional functions to be controlled.

NOTE: For more information, see Operator's Manual of the implement.

Loader suspension system is switched on and off at button (6). When the loader suspension system is switched on, the LED in button (6) lights up.

NOTE: Loader suspension system remains switched off every time the engine is started.

[2] European version only
[3] Selective Control Valve

Gearshift buttons (5) and (7) allow the gears at the transmission to be shifted.

By pressing button (C), the direction of travel is changed.

To unlock the joystick, press button (F). Indicator lights (D) are green if the joystick is ready for use.

For further information on layout, functions, and lock functions of the joystick, see the following pages.

See also Set up Controls in Section 30A.

OULXA64,6M,000564A-19-28AUG23

Electrical Joystick (Version 1)—Layout and Functions

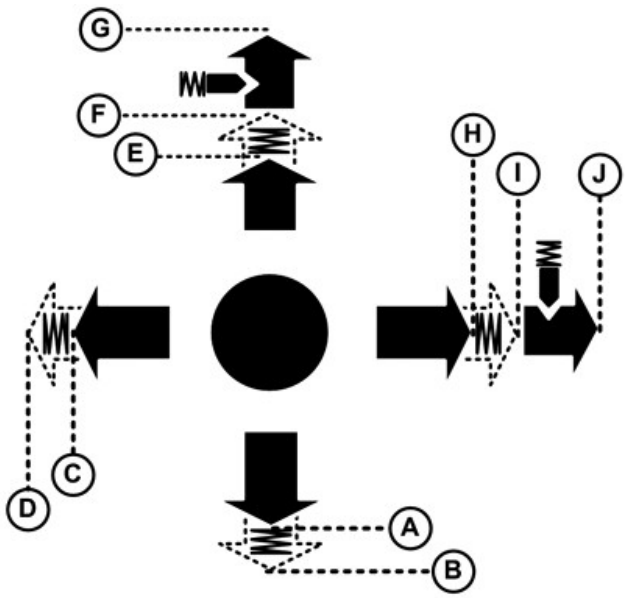
CAUTION: Always activate the loader mode before working with the front loader. If this is not done, unwanted functions may be triggered accidentally. See Selective Control Valves, Electronic - Loader Mode in Section 70C.

IMPORTANT: Variable functions can be assigned to the lever directions fore/aft and left/right and to the rocker switch on the joystick. This assignment can be viewed only on the Set up Controls page. See Section 30AA.

NOTE: At oil temperatures below 20°C (68°F), the front loader reacts sluggishly. Automated functions can be affected by this.

For SCV settings, see Section 70C:

- Selective Control Valves, Electronic – Set Flow Time
- Selective Control Valves, Electronic – Set Flow Rate
- For responsiveness, see Selective Control Valves, Electronic - Advanced Settings



LX341506—UN—31JUL18

A Pull joystick rearward until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

B Pull the joystick back until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is extended in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.

C Pull joystick to the left until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

D Pull the joystick to the left until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is extended in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.
In loader mode, if the joystick is moved to the left twice in brief succession beyond the point of resistance (click position) and held there, the bucket shake function is activated. This function stops when the lever leaves its click position.

E Push joystick forward until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

F Push the joystick forward until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is retracted in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.

G Push joystick all the way forward and engage in detent to activate float position. The lever remains in the detent until it is pulled back by hand.

H Pull joystick to the right until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

I Pull the joystick to the right until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is retracted in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.
In loader mode, if the joystick is moved to the right twice in brief succession beyond the point of resistance (click position) and held there, the bucket shake function is activated. This function stops when the lever leaves its click position.

J Move joystick all the way to the right and engage in detent to activate the float position. The lever remains in the detent until it is pulled back by hand.

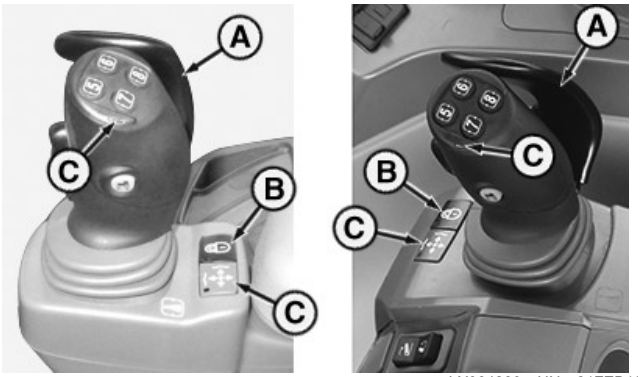
OULXA64,6M,000564B-19-28AUG23

Electrical Joystick (Version 1)—Lock Function (Transport Lock)

CAUTION: Danger of fatal injury from unexpected actions of implements and tractor components.

Incorrect operations and accidentally triggered functions might lead to life-threatening situations.

When driving on roads, and if the joystick is not needed, use lock button (B) to disable the joystick functions. The indicator light of button (B) lights up when the functions are disabled.



LX364289—UN—21FEB19

Without CommandARM™ / With CommandARM™

A—Hand Flap for Activating the Joystick
B—Lock Button, Joystick ON/OFF
C—Indicator Lights, Joystick Unlocked

The lock button (B) locks or unlocks all front loader functions of the joystick. Transmission functions (orange buttons) are excluded from the block.

When indicator light on lock button (B) lights up, the joystick is locked.

When indicator lights (C) light up, the joystick is unlocked.

The joystick remains locked each time the tractor is restarted.

Hand flap (A) prevents an accidental actuation of the joystick. The lever only functions as long as the hand flap is held open (by the hand of the operator). If the front loader does not function after the operator's hand has been placed into the hand flap, it may be because the lever was not in the center detent position when the hand flap was opened. Move the lever back to the center detent position to enable the system.

If the lever is held in neutral position for longer than 10 minutes, the hydraulic functions are locked out. To reset this lock, briefly remove hand from the hand flap. In case of malfunctions (e.g. part of system not working or operating error) the system can also be reactivated completely or partly by the procedure above.

NOTE: In cold weather, there may be brief periods when the loader does not operate. If temperature of the hydraulic oil drops below 0°C (32°F), the stepper motors of the telescopic arm/bucket/grab valves operate more slowly. At temperatures below -25°C (-13°F), they stop working altogether. Operate several front loader functions to warm up the system.

NOTE: The gearshift functions (orange buttons) remain active when the joystick is locked.

OULXA64,6M,000564C-19-28AUG23

Electrical Joystick (Version 2)—Controls

CAUTION: Danger of fatal accidents.

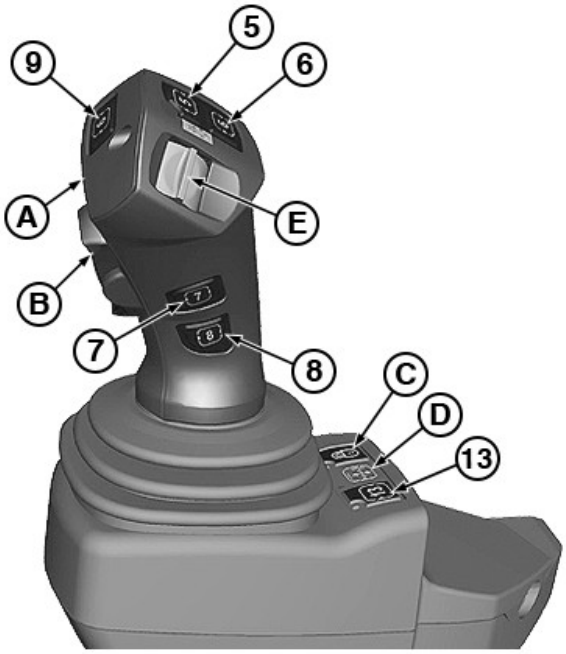
Operating errors can trigger unforeseen movements of implements and the front loader.

- **Always work carefully and concentrated.**
- **When driving on the road and when controls are not in use, always activate the transport lock. This applies for example for the joystick, controls of the hitch and the SCVs[4].**
- **Avoid a simultaneous use of front loader and iTEC™.**

IMPORTANT: The joystick on the right armrest may contact the side console if seat is in full right-hand swivel position. Check seat swivel, seat height, and seat adjustment (forward/backward) to avoid contact.

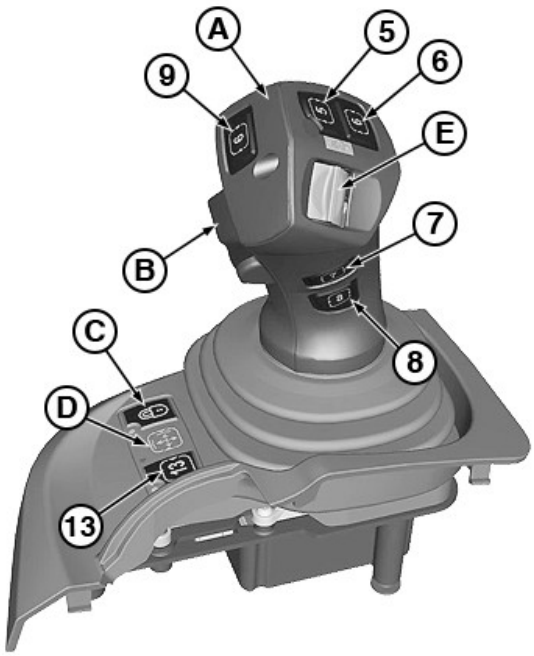
After the joystick is unlocked with button (C), the following functions are activated:

- Buttons (5) to (9)
- Rocker switch (B)
- Axes of movement



LX373058—UN—28APR21

Joystick on Right Armrest



LX373059—UN—28APR21

Electrical Joystick on CommandARM™

5—Gearshift Button, Changing Up
6—Gearshift Button, Changing Down
7—Button for Diverter Valve 1
8—Button for Diverter Valve 2
9—Only used for the enabling mode after an error message was displayed
13—Button for Activating Loader Suspension System
A—Joystick
B—Raise/Lower Rocker Switch
C—Lock Button, Joystick ON/OFF
D—Indicator Light, Joystick Enabled
E—Rocker Switch for Change Direction of Travel

Joystick (A) permits two SCVs[5] to be operated at the same time. By means of rocker switch (B), an additional SCV can be operated. If the rocker switch is moved past the perceptible point of resistance (click position) and then released, the connected hydraulic cylinder is retracted or extended.

The changing-up and changing-down functions are assigned to the gearshift buttons (5) and (6). This only applies for the following transmissions:

- AutoQuad™ PLUS transmission
- CommandQuad™ PLUS transmission
- DirectDrive transmission

NOTE: When the engine is switched off, the Loader Suspension System is deactivated. If necessary, activate the Loader Suspension System after restarting the engine.

[4] *Selective Control Valves*

[5] *Selective Control Valve*

For further information, see "Set up Controls" in section 30A.

oulxa64,1655900941527-19-28AUG23

Electrical Joystick (Version 2)—Hand-Presence Detection System



LX514242—UN—02FEB22

The hand-presence detection system only activates the functions when the joystick detects the operator's hand. Some functions that are assigned to the joystick axes are only available when the hand presence is detected. The green LED lights on when the operator's hand is detected.

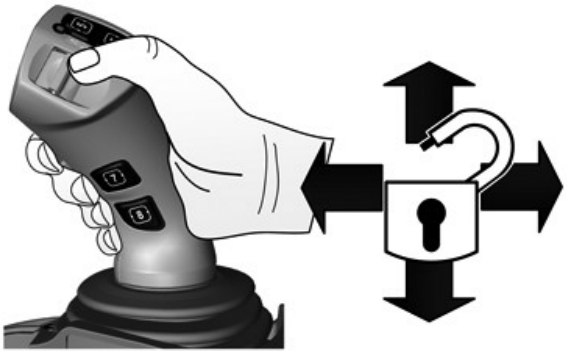
NOTE: The joystick axes remain locked until the operator's hand is detected at the joystick. The hand-presence detection system only enables the operation, if the hand completely grasps the joystick.

The joystick must be in the neutral position to activate the functions. The green LED lights on as soon as the hand has been detected.



LX514066—UN—27AUG21

Functions of Joystick Axes Disabled



LX514067—UN—27AUG21

Functions of Joystick Axes Enabled

Exceptions:

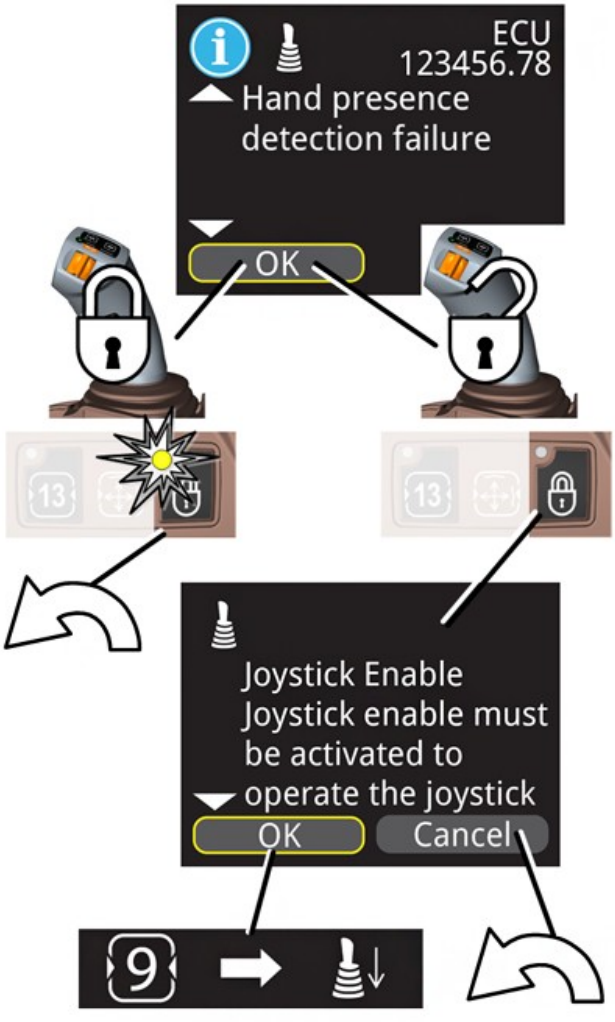
- The operation is disabled when transport lock is active (the LED beside the lock button is ON).
- If an error message appears on the display, see "Electrical Joystick—Hand-Presence Detection System, Error Message" in this Section.

oulxa64,1655900413370-19-28AUG23

Electrical Joystick (Version 2)—Hand-Presence Detection System, Error Message

A system or sensor failure generates an error message. When this message is displayed, the system locks the function of the joystick axes. Restart the tractor and check if the problem still persists. If yes, follow the instructions below.

NOTE: The operator can overrun the lock mode by temporary defining button [9] as joystick enabling button. To enable the function of the joystick axes, it is then necessary to press and hold button [9] while operating the joystick.



LX514275—UN—15JUL22

1. There are two possible reactions after confirming the error message with [OK]:
   - If the joystick is currently locked, the system returns to the previous screen.
   - If the joystick is currently unlocked, the dialog continues with the next message.
2. Confirm with [OK] to activate the joystick enable mode. The system changes the current assignment of button [9]. The functions of the joystick axes can now be enabled with button [9].

   If selecting [Cancel], the system returns to the screen which was displayed before the error message came up. In this case, the functions of the joystick axes remain deactivated.



LX514276—UN—15JUL22

3. Press and hold button [9] while operating the joystick. This is a temporary setting to allow continuing with the current work.

IMPORTANT: Let a John Deere dealer or other service provider inspect the hand-presence detection system.

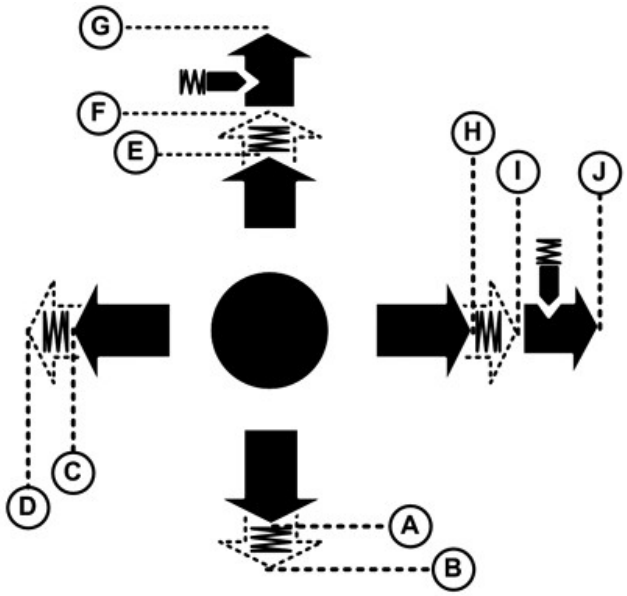
NOTE: With the joystick enabling mode activated, the system displays at each startup a relevant message. Confirm [OK] to close the message.

oulxa64,1655900453394-19-16JUL25

Electrical Joystick (Version 2)—Layout and Functions

CAUTION: Always activate the loader mode before working with the front loader. If this is not done, unwanted functions may be triggered accidentally. See Selective Control Valves, Electronic - Activate/Deactivate Loader Mode in Section 70C:

NOTE: At oil temperatures below 20 °C (68 °F), the front loader reacts sluggishly. Automated functions can be affected by this.



LX341506—UN—31JUL18

A Pull joystick rearward until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

B Pull the joystick back until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is extended in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.

C Move joystick to the left until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

D Move the joystick to the left until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is extended in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.
In loader mode, if the joystick is moved to the left twice in brief succession beyond the point of resistance (click position) and held there, the bucket shake function is activated. This function stops when the lever leaves its click position.

E Push joystick forward until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

F Push the joystick forward until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is retracted in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.

G Push the joystick all the way forward and engage in detent to activate the float position. The lever remains in the detent until it is pulled back by hand.

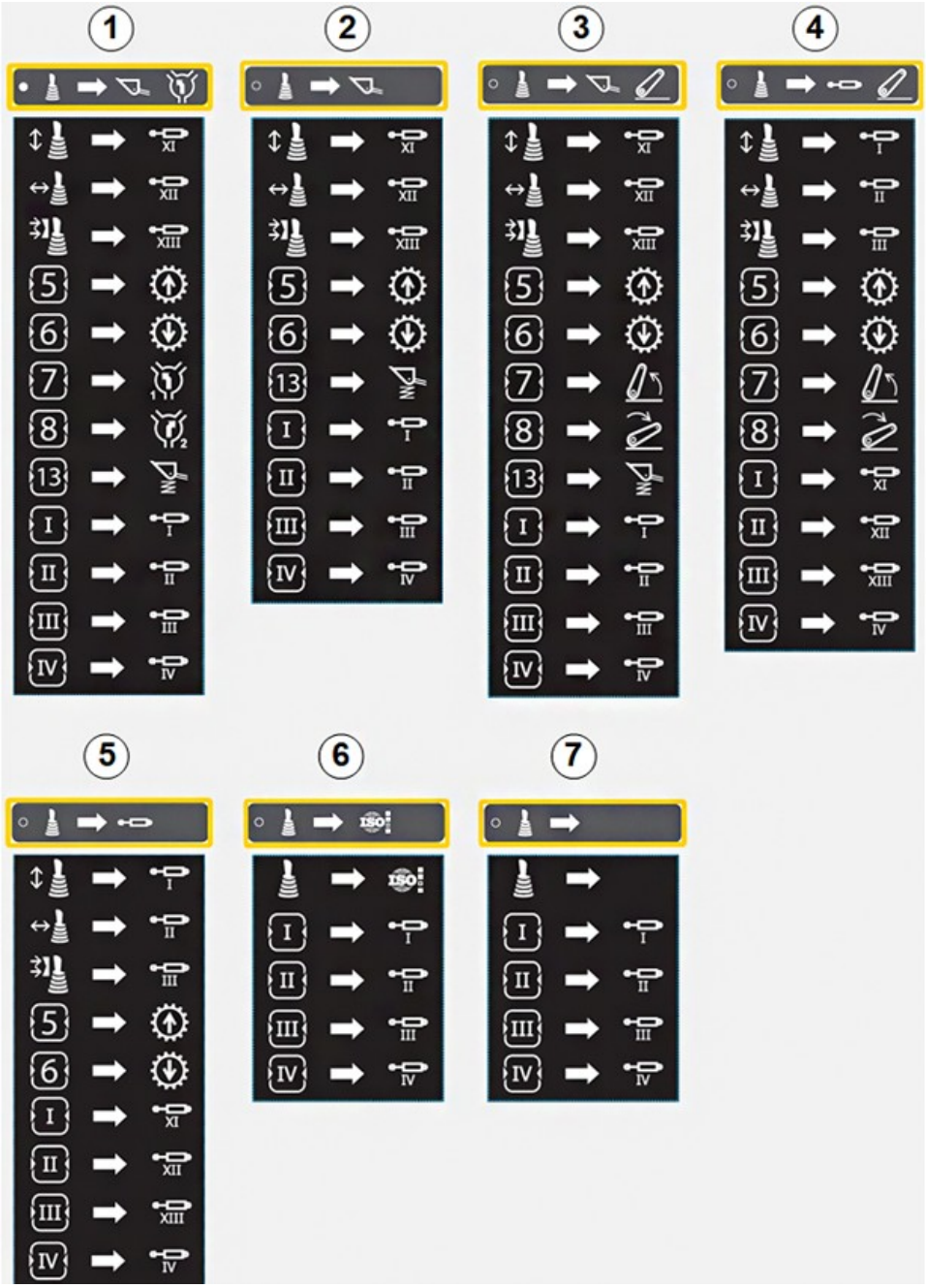
H Move joystick to the right until the functions of the implement are performed at the desired speed. Do not move the lever beyond the point of resistance.

I Move the joystick to the right until it is **beyond** the perceptible point of resistance (click point) and then release it.
• With SCV control:
The hydraulic cylinder of the connected implement is retracted in accordance with the preset flow time and flow rate.
• In loader mode:
Flow time setting is ignored in loader mode.
In loader mode, if the joystick is moved to the right twice in brief succession beyond the point of resistance (click position) and held there, the bucket shake function is activated. This function stops when the lever leaves its click position.

J Move the joystick all the way to the right and engage it to activate the float position. The lever remains in the detent until it is pulled back by hand.

oulxa64,1655900510473-19-28AUG23

Electrical Joystick (Version 2)—Available Presets



LX514277—UN—27JUL22

Available Presets

Available Presets / Electrical Joystick (Version 2)						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Mid E-SCV's	Mid E-SCV's	Mid E-SCV's	Rear E-SCV's	Rear E-SCV's	ISOBUS AUX Control	Nothing Assigned
With Diverter Valve	Without Diverter Valve	Rear Hitch	Rear Hitch	No Rear Hitch Control		
There are seven presets of which only four are available depending on tractor configuration. All available functions are shown in the figures but note, that the display only shows those actually present.						

oulxber,1658847058655-19-28AUG23

Electrical Joystick (Version 2)—Lock Function (Transport Lock)

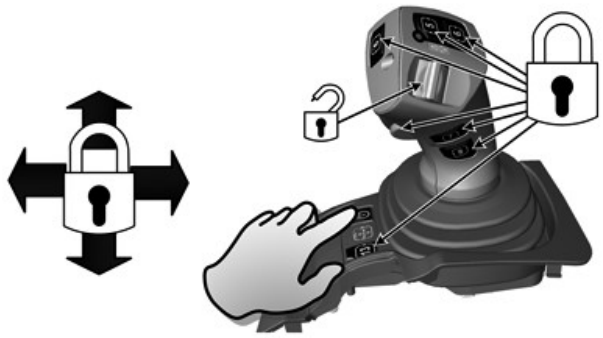
CAUTION: Serious accidents with life-threatening injuries.

Unintended operations of the joystick lead to dangerous reactions of the loader or the front implement.

When the joystick is not in use, always lock the joystick by pressing the transport lock button. The LED of the transport lock button must be ON.

Lock the Joystick:

Push the transport lock button to disable the buttons [5], [6], [7], [8], [9], [13], the rocker switch and the function of the joystick axes.



LX514062—UN—02SEP21

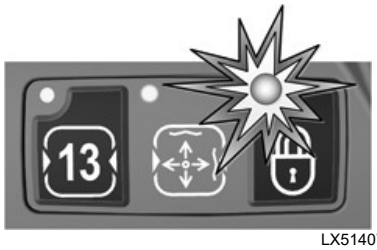


LX514063—UN—27AUG21

Transport Lock ON

NOTE: When the transport lock is active, the button for changing the travel direction remains operational.

With the transport lock ON, the indicator LED of the lock button is ON.

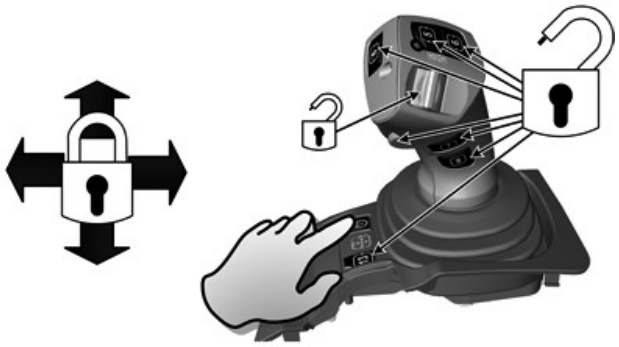


LX514072—UN—02SEP21

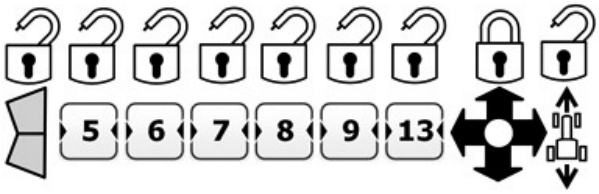
Transport Lock Active

Unlock the Joystick:

Unlock the joystick by pressing the transport lock button once again. The buttons [5], [6], [7], [8], [9], [13], and the rocker switch are enabled. The functions of the joystick axes remain disabled unless the operator's hand was detected by the system.



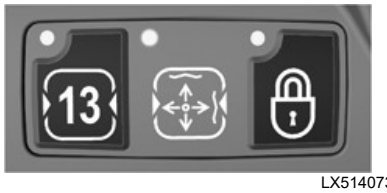
LX514064—UN—02SEP21



LX514065—UN—27AUG21

Transport Lock OFF

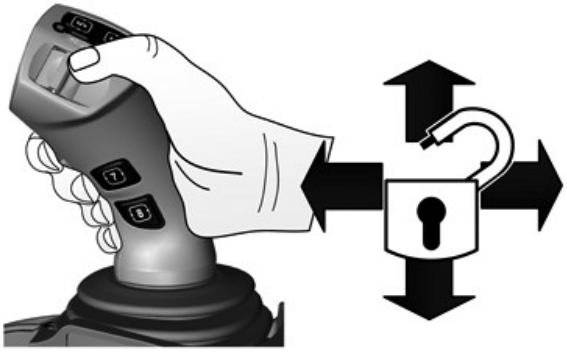
With the transport lock OFF, the indicator LED of the lock button is OFF.



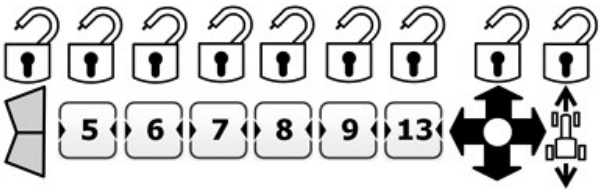
LX514073—UN—02SEP21

All LEDs OFF

Hand Detection:



LX514067—UN—27AUG21



LX514075—UN—02SEP21

Hand Detected

The hand-presence detection system activates the joystick axes when the operator's hand fully grasps the joystick. The joystick must be in neutral for the activation.

When a hand is detected on the joystick, the indicator LED of the hand presence detection system is ON.



LX514074—UN—02SEP21

Hand detected, LED ON

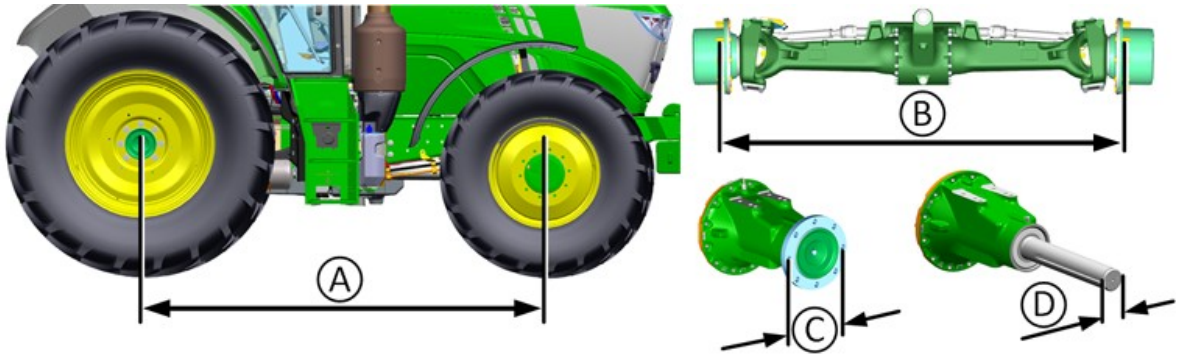
NOTE: System or sensor failures generate an error message. When a message is displayed, the joystick functions are disabled. In this case see Electrical Joystick—Hand-Presence Detection System, Error Message in this Section.

The joystick remains locked each time the tractor is restarted.

In cold weather, there are brief periods when the loader does not operate. If temperature of the hydraulic oil drops below 0°C (32°F), the stepper motors of the telescopic arm/bucket/grab valves operate more slowly. At temperatures below -25°C (-13°F), they stop working altogether. Operate several front loader functions to warm up the system.

oulxa64,1655900559686-19-28AUG23

Tractor Models and Corresponding Axles—Overview, 6M Tractors with Cab (MY20-)



LX521931—UN—08APR22

A—Wheelbase
B—Flange-to-Flange Width
C—Flanged Axle, Bolt Circle Diameter
D—Rack-and-Pinion Axle, Shaft Diameter

Tractor					Front Axle	Rear Axle			
Model	Frame Version	Engine	Units	(A) Wheelbase (WB)	(B) Flange-to-Flange Width	(C) Flanged Axle, Bolt Circle Diameter		(D) Rack-and-Pinion Axle, Shaft Diameter	
6090M	MC	4-Cyl.	mm (in)	2400 (94.5)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86 (3.4)
6100M	MC	4-Cyl.	mm (in)	2400 (94.5)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86 (3.4)
6110M	MC	4-Cyl.	mm (in)	2400 (94.5)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86 (3.4)
6120M	MC	4-Cyl.	mm (in)	2400 (94.5)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86 (3.4)
6110M	MX	4-Cyl.	mm (in)	2580 (101.6)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86, (3.4)
6125M	MX	4-Cyl.	mm (in)	2580 (101.6)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86, (3.4)
6130M	MX	4-Cyl.	mm (in)	2580 (101.6)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86, (3.4)
6140M	MX	4-Cyl.	mm (in)	2580 (101.6)	1680 (66.1)	203 (8.0)	275 (10.8)	79 (3.1)	86, (3.4)
6140M	MM	6-Cyl.	mm (in)	2765 (108.8)	1940 (76.4)	—	275 (10.8)	—	92 (3.6)
6145M	MM	4-Cyl.	mm (in)	2765 (108.8)	1940 (76.4)	—	275 (10.8)	—	92 (3.6)
6155M	MW	6-Cyl.	mm (in)	2765 (108.8)	1940 (76.4)	—	275 (10.8)	—	92 (3.6)
6155MH	MW	6-Cyl.	mm (in)	2765 (108.8)	1940 (76.4)	—	275 (10.8)	—	92 (3.6)
6175M	MR	6-Cyl.	mm (in)	2800 (110.2)	1940 (76.4)	—	275 (10.8)	—	92 (3.6)
6195M	MR	6-Cyl.	mm (in)	2800 (110.2)	1940 (76.4)	—	275 (10.8)	—	92 (3.6)
6210M	MR	6-Cyl.	mm (in)	2800 (110.2)	1940 (76.4)	—	335 (13.2)	—	100 (3.9)

OULXA64,00061D7-19-06MAR25

Tires and Wheels—Foreword

The wheels, tires, and their gauges as listed in these operating instructions can be fitted.

In some regions, not all tires are available.

The tires displayed may not be compatible with your specific tractor model.

The current edition of the sales brochure is authoritative.

80,ALL,LX25458,0000A46-19-17SEP24

General Wheel, Tire, and Tread Guidelines

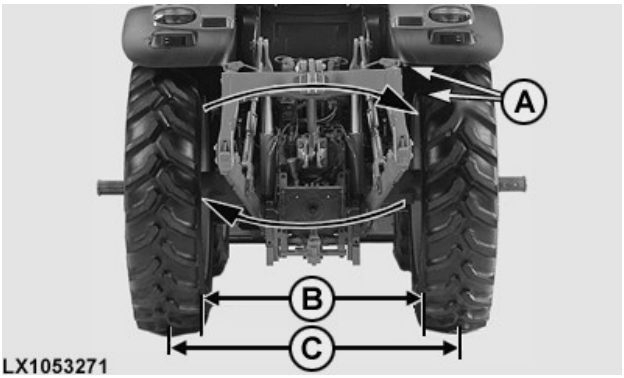
CAUTION: Avoid personal injury and insufficient tractor stability. Never operate the tractor with single tires having tread width less than 1524 mm (60 in).

IMPORTANT: Do not exceed 2800 mm (110 in) between single tires for pulling heavy loads.

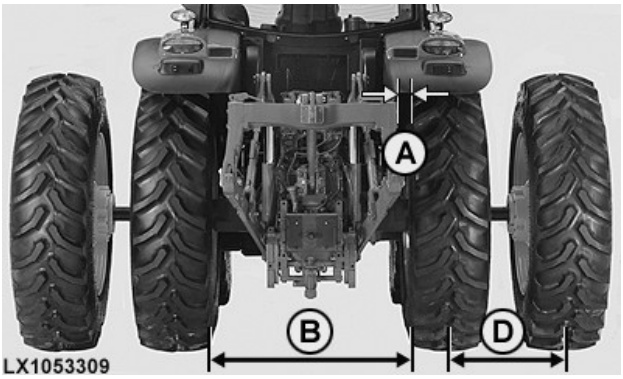
IMPORTANT: Do NOT let tires come into contact with draft links or lift links. The gap between lift links and tires can be increased by installing the lift links in the front holes of the draft links.

When draft links are raised (even if no implement is attached), the stabilizer bars, whether hydraulic or mechanical, must be locked.

If there is still contact with the draft links or lift links despite all these measures, tread width must be increased.



LX1053271—UN—21SEP11



LX1053309—UN—20SEP11

A—Clearance between Inner Wheel and Fender
B—Clearance between Inside of Drive Wheels
C—Minimum Clearance between Tire Centerlines
D—Minimum Clearance between Centerlines of Dual Tires

Wheels can be installed on the other side of the axle to obtain a wider setting range by changing the rim positions. If the tires are moved to the other side of the tractor, make sure that the tire rolling direction is correct.

IMPORTANT: Tires must have at least 25 mm (1 in) clearance (A) to the fenders. If snow chains are installed on the tires, the minimum distance from the tires to the fenders (side wall to fender and running surface to fender) must be 100 mm (3.94 in).

Clearance (B) between tires must be at least 1070 mm (42 in), with tires at equal distances from tractor centerline.

Minimum tread settings are specified to provide sufficient clearance to fuel tank and fenders.

A minimum clearance (C) of 1524 mm (60 in) between tire centerlines must be maintained.

Check for adequate clearance between implement and rear tires.

Do NOT mix radial and bias-ply tires on the same axle.

Dual tires mounted at the same axle shall not exceed the inflation pressure of the inner mounted tire.

On tractors with cast wheels, the dual wheel with a steel disc has to be mounted on the outer position. See also Use of Dual Wheels (Easy-to-Attach) in this Section/ Group.

Over-inflating radial tires reduces machine performance. Using the correct inflation pressures will result in optimum tractive performance.

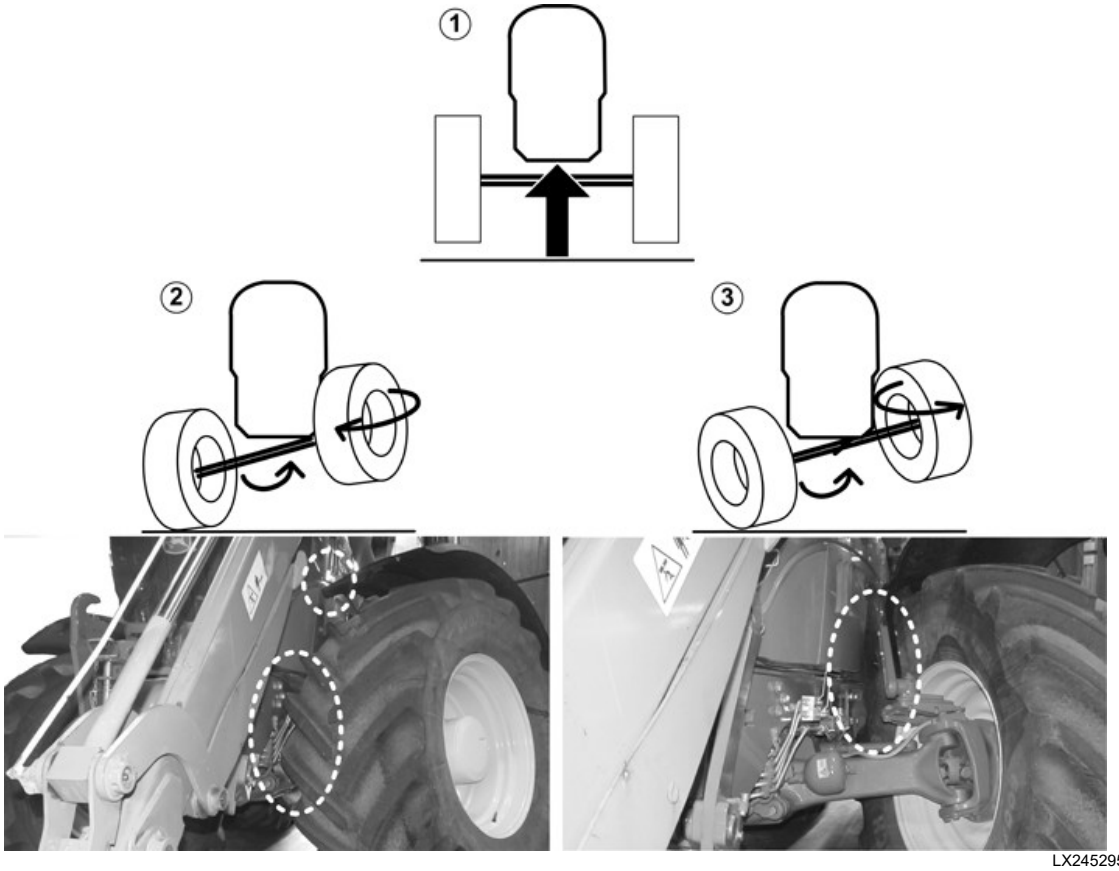
Minimum Dual Wheel Spacing (D) per "Tire and Rim Association".
Tread is measured between center of tires.

Tire Width	Spacing (D)
480 mm (18.4 in)	626 mm (24.6 in)
520 mm (20.8 in)	670 mm (26.4 in)
620 mm (24.5 in)	801 mm (31.5 in)

Minimum Dual Wheel Spacing (D) per "Tire and Rim Association". Tread is measured between center of tires.	
650 mm (25.5 in)	825 mm (32.5 in)
710 mm (28.0 in)	910 mm (35.8 in)

OULXA64,6M,ALL,000564E-19-05MAY22

Prevent Front Wheel or Fender Contact with Tractor Components



LX245295—UN—09JUL15

IMPORTANT: After modifications were made to wheels, tread width, steering stop, etc., it needs to be checked whether wheels or fenders come in contact with tractor components. The same applies when retrofitting additional equipment in the area of the tractor front part.

Perform the following test carefully. Contact may cause damage.

CAUTION: Do not start the engine during the test. Carry out the steering without motor assist.

1. Jack up front of the tractor so that the axle can be swiveled back and forth to stop.
2. Swivel the axle all the way to the left and turn the steering to the right as far as it will go. Check the clearance of wheel and fender to tractor components.
3. Turn the steering wheel all the way to the left. Check the clearance of wheel and fender to tractor components.
4. Swing axle to the right and repeat the process.

IMPORTANT: To avoid contact, adjust the steering stops so that sufficient clearance is maintained. See Notes on Adjusting the Steering Stop and Adjust the Pivoting Fenders and Steering Stop for the relevant front axle in:

- **The relevant Operator's Manual, Section 80B.**
- **The relevant Supplement for Tire Information, Group 40.**

Do not set steering stops too close, as the clearances may decrease under load.

It must be ensured that the steering stops can be screwed in to a depth of at least 10 mm (0.4 in).

NOTE: If operating conditions permit, broaden the tread width to avoid contacts with tractor components.

LX25458,ALL,0000A48-19-29APR22

Change to a Different Tire Size

IMPORTANT: Conversion to a different tire size is only permitted if this is approved for the tractor.

The size ratio of the front wheels to the rear wheels is precisely determined in order to produce a positive front wheel lead of between 1.5 and 4%. Otherwise the tires become deformed or suffer undue wear. Ensure that the correct gear ratio is used.

In some cases, changing to a new tire combination requires extensive changes of the tractor configuration.

Examples:

- Change the gear pair for the front-wheel drive axle output. Check the repair manual for informations about Front-Wheel Drive - Change Transmission Ratio.
- Check if it becomes necessary to exchange the steering valve. Contact a John Deere dealer or other service provider, if required.
- Change the tire size in the software of the control units.
- Replace the oil sight glass accordingly to the new tire combination.

Be sure to take all the information in the following list into account and follow the recommendations in the right column.

Symptom	Problem	Solution
The indicated speed is lower or higher than the actual speed.	Parameters to determine the wheel speed do not fit to the new tires.	An adjustment of the top speed becomes essential. Have to correct parameters by a John Deere dealer or other service provider.
The emergency steering characteristics may get worse.	A change to different tires on the front wheels may cause increased steering forces. This has an effect in particular on the steering characteristics without motor support.	Check whether a different steering valve is required for using the new front tires. If a non-suitable steering valve is used, the operating license becomes void.
Error messages when using a radar.	The calibration of the radar does not comply with the tire size.	Radar calibration required.

Symptom	Problem	Solution
Increased wear of tires and front-wheel drive clutch.	The value for the front wheel lead may get worse.	Check the tire combination. Retrofitting to an adequate transmission ratio may be necessary.
Strains in the drive train may occur.	The transmission ratio between rear and front axle does not fit.	Check the tire combination. Retrofitting to an adequate transmission ratio may be necessary.
Tires may come into contact with tractor components.	Modifications to tread width or tire size make a readjustment of the steering stop and fenders necessary.	Carry out the adjustment of steering stop and fenders.
The load capacity of the front tires may get worse.	If tires with a smaller load index are used, the load capacity decreases.	Accustomed tasks may possibly be carried out no longer.
The oil sight glass shows a wrong oil level.	If you change to a different tire size, the height ratio of rear to front axle may change. This has an effect on the oil level.	Check whether an exchange of the oil sight glass becomes necessary.
The automatic switch-off[1] of the front-wheel drive does not function.	The maximum possible shutoff angle for the automatic engagement and disengagement of the front-wheel drive depends on the tire type, tread width, and steering stop and can be less than the angle that can be selected on the display.	Set the shutoff angle for the automatic engagement and disengagement. See Engage Front-Wheel Drive in Section 50A of the relevant Operator's Manual.

LX25458,ALL,0000A49-19-10JUL25

Changing the Tire Combination

IMPORTANT: The size ratio of the front wheels to the rear wheels is precisely determined in order to produce a positive front wheel lead of between 1.5 and 4%. Otherwise the tires become deformed or suffer undue wear. Ensure that the correct gear ratio is used.

In some cases, changing to a new tire combination require extensive changes of the tractor configuration.

Examples:

- Change the gear pair for the front-wheel drive axle output. Check the repair manual for informations about *Front-Wheel Drive - Change Transmission Ratio*.
- Check if it becomes necessary to exchange the steering valve. Contact a John Deere dealer or other service provider, if required.
- Change the tire size in the software of the control units.
- Replace the oil sight glass accordingly to the new tire combination.

[1] *If equipped*

NOTE: The description of the calculation and the procedure for converting the gear ratio can be found in the Repair Manual. Refer to the Repair Manual, section 50A, group 15 (Change Transmission Ratio). Refer to Repair Manual, section 80A, group 15 (Change to a Different Tire Size).

General information:

The SRI (Speed Rating Index) of the tires affects the speed measurement of the tractor. If the SRI of the tires changes, it is important to check and adjust the SRI settings in the relevant control unit.

***6R Tractors:** See Diagnostic Manual, section 245, group CCU, CCU 085 - Tire Index (SRI) of Mounted Rear Wheel, Status.*

***6M Tractors:** See Diagnostic Manual, section 245, group 10B, DCT 6266—Tire Size*

OULXBER,0003156-19-10JUL25

Use of Dual Wheels (Easy-to-Attach)

IMPORTANT: Do not install dual wheels on the front axle.

Dual wheels may be used on the rear axles of tractors

for the purpose of flotation or soil compaction reduction only.

They are only recommended for use in the field and should be removed prior to driving on public roads.

IMPORTANT: If dual wheels are used, wheel disk reinforcements need to be installed. If no wheels with wheel disk reinforcements are available, wheel disk reinforcements may be ordered as additional equipment for some tractors (does not apply to rack-and-pinion axles if one hub is used per wheel).

When using dual wheels, the maximum permissible trailer load may be limited. See Specifications in Section 500A of the relevant Operator's Manual.

NOTE: Retighten the wheel nuts regularly to the specified torque. See Section 220C of the relevant Operator's Manual.

Advantages of dual wheels:

- In unfavorable load-bearing capacity of the soil, dual wheels improve the ground engagement, driving stability, and handling.
- Dual wheels reduce the ground pressure and, as a result, the respective soil compaction.

Disadvantages of dual wheels:

- The increased traction can overload the transmission and rear axle components. Pay attention to permissible trailer loads and contact a John Deere dealer or other service provider for assistance in clarifying questions regarding the use of dual wheels.
- A tractor with dual wheels is harder to maneuver. Turning on hard, firm ground results in high tire wear.
- Although dual wheels reduce the load on each individual tire, the tire pressure recommended by the tire manufacturer must nevertheless be maintained.
- For installing wheels, refer to Change Wheels Safely in this Section.

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Service Tires Safely



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Explosive separation of a tire and rim parts can cause serious injury or death.

Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

Wheels and tires are heavy. When handling wheels and tires use a safe lifting device or get an assistant to help lift, install, or remove.

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Change Wheels Safely

CAUTION: Do not operate the tractor until the wheel change has been completed.

For rear wheels with wheel weights, the removal and installation must be carried out by a John Deere dealer or other service provider.

When changing wheels, make sure that no-one is standing in the danger zone.

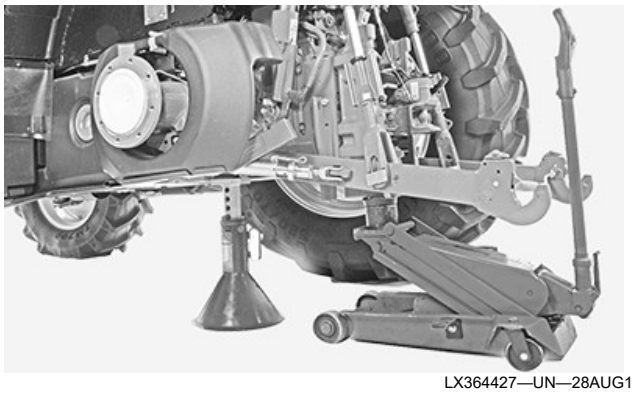
When removing a wheel, make sure that the tractor is supported safely.

When storing removed wheels, make sure that they cannot fall.



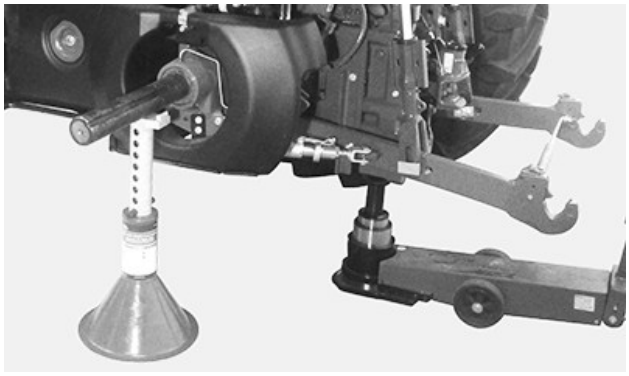
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KJD10581 - Wheel Dolly



LX364427—UN—28AUG19

Example: JT02043 or JT02044



LX364428—UN—03SEP19

Example: JT02043 or JT02044

JT02043—Support Stand, 482 to 736 mm (19 to 29 in)
JT02044—Support Stand, 863 to 1117 mm (34 to 44 in)

Due to the big size and the heavy weight of tractor wheels, pay attention to the following points when changing wheels:

- Before changing wheels, place tractor on firm, level ground.
- Engage park lock and prevent the tractor from rolling away by putting down chock blocks.
- Remove the key switch to prevent unauthorized operation.
- When removing rear wheels, prevent front axle oscillation by using wedges.
- Only jack up the tractor at the recommended lifting points, see Jack Up the Tractor - Lifting Points in:
  - Section 210 of the relevant Operator's Manual.
  - The relevant Supplement for Tire Information, Group 20.
- Use a stable jack with sufficient lifting force. See Loads and Weights in Section 500A of the relevant Operator's Manual.
- Stop jacking up the tractor when the wheel is completely off the ground.
- Use a suitable wheel dolly, especially when removing a rear wheel. It is available via regular special tool order change with the special tool number KJD10581.
- For dual wheels: Special tools may be required and the manufacturer's instructions for installing the dual wheels must be followed.
- Secure the tractor with suitable support stands. Within the scope of the European Union, only hoists with CE certification are permitted. Outside the scope of the EU, the special tools shown can be used. See also Jack Up the Tractor - Lifting Points and Authorized and Approved Lifting Tools in:
  - Section 210 of the relevant Operator's Manual.
  - The relevant Supplement for Tire Information, Group 20.
- When installing a wheel, observe the screw torques, see Tighten Wheel Bolts in Section 220C of the relevant Operator's Manual.

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Wheel Exchange with Wheel Weights

CAUTION: Have the mounting of rear wheels with wheel weights performed by a John Deere dealer or other service provider. Improper handling may result in personal injury.

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Tire Combinations—Adjustable Front Axle, 6M Traktors with Cab (MY20-)

NOTE: Find all specific tire information, for example the SRI and load index, in the official tables of the tire manufacturer.

For the tire combinations applicable in your country, contact a John Deere dealer or other service provider.

Tire Combinations—Adjustable Front Axle, Tractors 6090M to 6155M (MY20-) with Cab							
Rear Wheel		Front Wheel		Model			
				MC	MX	MM	MW
Size	SRI	Size	SRI	6090M 6100M 6110M 6120M	6110M Tier 2 6125M Tier 2 6130M 6140M	6140M Tier 2 6145M	6155M
320/90R42	800	11.00-16 -F2	450	X	X	—	—
340/85R38 13.6R38	750	11.00-16 -F2	450	X	X	—	—
420/85R34 16.9R34	750	11.00-16 -F2	450	X	X	—	—
420/85R38 16.9R38	800	11.00-16 -F2	450	X	X	—	—
460/85R30 18.4R30	725	11.00-16 -F2	450	X	X	—	—
460/85R34 18.4R34	775	11.00-16 -F2	450	X	X	—	—
460/85R38 18.4R38	825	11.00-16 -F2	450	X	X	X	X

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Tire Combinations—Front-Wheel Drive Axle, 6M Traktors with Cab (MY20-)

IMPORTANT: If the tire combination or tire manufacturer is changed, the transmission ratio must be ascertained. See Changing the Tire Combination in this section.

NOTE: Find all specific tire information, for example the SRI and load index, in the official tables of the tire manufacturer.

For the tire combinations applicable in your country, contact a John Deere dealer or other service provider.

Tire Combinations—Front-Wheel Drive Axle, 6M Tractors with Cab (MY25-)

Rear Wheel		Front Wheel		Model (Frame Version)					
				(MC)	(MX)	(MM)	(MW)	(MW)	(MR)
Size	SRI	Size	SRI	6090M 6100M 6110M 6120M	6110M 6125M 6130M 6140M	6140M 6145M	6155M	6155MH	6175M 6195M 6210M
13.6-46 -R2	875	13.6-38 -R2	775	X	X	—	—	—	—
270/95R48	850	270/80R36	650	X	X	X	—	—	—
300/95R46	850	270/95R32	650	X	X	X	—	—	—
320/90R42	800	320/85R28 12.4R28	600	X	X	—	—	—	—
320/90R50	900	320/85R34 -R1	675	—	X	X	X	—	X
320/90R50	900	320/90R50	900	—	—	—	—	X	—
320/90R54	950	320/90R42	800	—	—	—	X	—	—
340/85R38 13.6R38	750	280/85R28 11.2R28	575	X	X	—	—	—	—
		340/85R24 13.6R24	575	X	X	—	—	—	—
380/80R38	750	320/85R28 12.4R28	600	X	X	—	—	—	—
		340/85R24 13.6R24	575	X	X	—	—	—	—
380/90R46	900	320/85R34 -R1	675	—	X	X	X	—	X
		380/85R30	675	—	X	X	X	—	X
		340/85R28	625	—	—	X	—	—	—
380/90R50	950	320/85R38	725	—	—	—	—	—	X
420/80R46 -R1	900	380/85R30	675	—	—	—	X	—	X
		420/85R28	675	—	—	—	X	—	X
420/85R34 16.9R34	750	340/85R24 13.6R24	575	X	X	—	—	—	—
420/85R38 16.9R38	800	340/85R28 13.6R28	625	X	X	X	—	—	—
		320/85R28 12.4R28	600	X	X	X	—	—	—
		380/85R24 14.9R24	600	X	X	X	—	—	—
460/85R30 18.4R30	725	340/85R24 13.6R24	575	X	X	—	—	—	—
460/85R34 18.4R34	775	380/85R24 14.9R24	600	X	X	—	—	—	—
		340/85R24 13.6R24	575	X	X	—	—	—	—
460/85R38 18.4R38	825	380/85R28 14.9R28	650	X	X	X	X	—	X
		420/70R28	650	X	X	X	X	—	—
		340/85R28 13.6R28	625	X	X	X	—	—	—
		420/85R24 16.9R24	625	X	X	X	X	—	—
		380/85R24 14.9R24	600	X	X	X	—	—	—

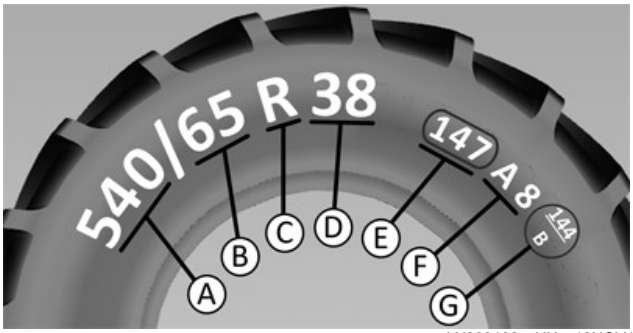
Tire Combinations—Front-Wheel Drive Axle, 6M Tractors with Cab (MY25-)									
Rear Wheel		**Front Wheel**		**Model (Frame Version)**					
				(MC)	**(MX)**	**(MM)**	**(MW)**	**(MW)**	**(MR)**
Size	**SRI**	**Size**	**SRI**	**6090M 6100M 6110M 6120M**	**6110M 6125M 6130M 6140M**	**6140M 6145M**	**6155M**	**6155MH**	**6175M 6195M 6210M**
460/85R42 480/80R42	875	320/85R34 -R1	675	—	—	X	X	—	X
		380/85R30	675	—	—	X	X	—	X
		420/85R28	675	—	—	X	X	—	X
480/70R34	750	380/70R24	575	X	X	—	—	—	—
480/70R38	800	380/70R28	625	X	X	X	—	—	—
		420/70R24	600	X	X	X	—	—	—
480/80R34 -R4	775	400/80R24 -R4	600	X	X	—	—	—	—
480/80R38 -R4	825	400/80R28 -R4	650	X	X	X	X	—	—
		440/80R24 -R4	625	X	X	X	X	—	—
480/80R46 -R1	925	380/85R34 -R1	725	—	—	X	X	—	X
		420/85R30	700	—	—	X	X	—	X
520/70R34	775	420/70R24	600	X	X	—	—	—	—
520/70R38	825	420/70R28	650	X	X	X	X	—	—
		380/70R28	625	X	X	X	—	—	—
		480/70R24	625	X	X	X	X	—	—
		420/70R24	600	X	X	—	—	—	—
520/85R38 20.8R38	875	380/85R30	675	—	—	X	X	—	X
		420/85R30 16.9R30	700	—	—	X	X	—	—
		420/85R28	675	—	—	X	X	—	X
		480/70R28	675	—	—	X	X	—	—
520/85R42	925	380/85R34 -R1	725	—	—	—	—	—	X
		420/85R30 16.9R30	700	—	—	X	X	—	X
		480/70R30	700	—	—	—	—	—	X
		460/85R30 18.4R30	725	—	—	—	—	—	X
540/65R34	750	440/65R24	575	X	X	—	—	—	—
540/65R38	800	480/65R24	600	X	X	X	—	—	—
540/80R38 -R4	875	440/80R28 -R4	675	—	—	X	X	—	—
580/70R38	875	480/70R28	675	—	—	X	X	—	—
		540/65R28	675	—	—	X	X	—	X
580/70R42	900	480/70R30	700	—	—	—	—	—	X
600/65R34	775	480/65R24	600	X	—	—	—	—	—
600/65R38	825	480/65R28	650	X	X	X	X	—	—
620/70R42	925	480/70R30	700	—	—	—	—	—	X
		540/65R30	700	—	—	—	—	—	X
		600/65R28	700	—	—	—	—	—	X
650/65R38	875	540/65R28	675	—	—	X	X	—	X
650/65R42	925	540/65R30	700	—	—	—	—	—	X
		600/65R28	700	—	—	—	—	—	X
650/65R42 -R4	925	540/65R30 -R4	700	—	—	—	—	—	X
VF 650/65R42	925	VF 540/65R30	700	—	—	—	—	—	—
650/75R38	925	600/65R28	700	—	—	—	—	—	X
		540/65R24	625	X	X	X	X	—	—
		480/70R24	625	—	X	—	—	—	—
710/70R38	925	480/70R30	700	—	—	—	—	—	X
		600/65R28	700	—	—	—	—	—	X

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Tire Labeling—Ascertain the Load Capacity of Tires

CAUTION: Load capacity of tires and permissible axle loads must not be exceeded under any circumstances.

Tire load capacities stated in the Operator's Manual apply for a travel speed of 40 km/h (25 mph).



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Example of Manufacturers' Information on Tire Sidewall

Tire load capacity at a specific travel speed:
Specifications of the tire load capacity (E) at maximum permissible travel speed (F) can be found on the sidewall of the tire.

If the tire manufacturer has approved the same tire for another travel speed, additional information (G) is provided. In this case, note especially that tire load capacity may change in relation to the maximum permissible travel speed.

A	Tire Width	Width in millimeters.
B	Tire	Ratio of tire height to tire width.
C	Type	R = radial, — = cross-ply (example: 18.4-38)
D	Rim Diameter	Diameter in inches.
E	Tire Load Index (LI)	Maximum permissible load capacity per tire, in relation to speed index (F).
F	Speed Index	Maximum permissible travel speed at which (E) applies.
G	Tire Load Index (LI) / Speed Index	Tire load capacity at an alternative permitted travel speed.

Contact your tire dealership or directly to the tire manufacturer for more information on tires and tables concerning load index and travel speed.

Speed Index	**A6**	**A8**	**B**	**C**	**D**
km/h	30	40	50	60	65
mph	19	25	31	37	40

Example: Tire 540/65R38 147A8 (144/B)

- Tire Load Index (LI) . . . ***147*** ⇛ 3075 kg (6780 lb) load capacity per tire
- Speed Index . . . ***A8*** ⇛ 40 km/h (25 mph)

+

- Tire Load Index (LI) . . . ***144*** ⇛ 2800 kg (6175 lb) load capacity per tire
- Speed Index . . . ***B*** ⇛ 50 km/h (31 mph)

Permissible deviation in load capacity in relation to speed index, in percent:

Speed Index	**Permissible Travel Speed**		**Permissible deviation in load capacity of tires at:**		
	km/h	**mph**	**30 km/h (19 mph)**	**40 km/h (25 mph)**	**50 km/h (31 mph)**
A6	30	19	± 0%	- 10%	—
A8	40	25	+ 7%	± 0%	- 9%
D	65	40	+ 15%	+ 9.5%	+ 5%

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Tire Load Index

IMPORTANT: Load capacity of tires and permissible axle loads must not be exceeded under any circumstances. See Load and Weights, as well as Maximum Permissible Axle and Tire Load Capacity in Section 500A.

Tire industry uses a term “load index” to define a load rating of a tire. Load index indicates maximum amount of weight that can be supported by each tire at manufacturer’s rated inflation pressure is shown in this chart.

Load capacity per tire is reduced to 88% on tractors with duals.

Load Index	Maximum Load per Tire[a]		Load Index	Maximum Load per Tire[a]		Load Index	Maximum Load per Tire[a]	
	Single kg (lb)	Duals kg (lb)		Single kg (lb)	Duals kg (lb)		Single kg (lb)	Duals kg (lb)
100	800 (1764)	704 (1552)	130	1900 (4189)	1672 (3686)	160	4500 (9921)	3960 (8730)
101	825 (1819)	726 (1601)	131	1950 (4299)	1716 (3783)	161	4625 (10196)	4070 (8973)
102	850 (1874)	748 (1649)	132	2000 (4409)	1760 (3880)	162	4750 (10472)	4180 (9215)
103	875 (1929)	770 (1698)	133	2060 (4542)	1813 (3997)	163	4875 (10748)	4290 (9458)
104	900 (1984)	792 (1746)	134	2120 (4674)	1866 (4113)	164	5000 (11023)	4400 (9700)
105	925 (2039)	814 (1795)	135	2180 (4806)	1918 (4229)	165	5150 (11354)	4532 (9991)
106	950 (2094)	836 (1843)	136	2240 (4938)	1971 (4346)	166	5300 (11684)	4664 (10282)
107	975 (2150)	853 (1892)	137	2300 (5071)	2024 (4462)	167	5450 (12015)	4796 (10573)
108	1000 (2205)	880 (1940)	138	2360 (5203)	2077 (4579)	168	5600 (12346)	4928 (10864)
109	1030 (2271)	906 (1998)	139	2430 (5357)	2138 (4714)	169	5800 (12787)	5104 (11252)
110	1060 (2337)	933 (2056)	140	2500 (5512)	2200 (4850)	170	6000 (13228)	5280 (11640)
111	1090 (2403)	959 (2155)	141	2575 (5677)	2266 (4996)	171	6150 (13558)	5412 (11931)
112	1120 (2469)	986 (2173)	142	2650 (5842)	2332 (5141)	172	6300 (13889)	5544 (12222)
113	1150 (2535)	1012 (2231)	143	2725 (6008)	2398 (5287)	173	6500 (14330)	5720 (12610)
114	1180 (2601)	1038 (2289)	144	2800 (6173)	2464 (5432)	174	6700 (14771)	5896 (12998)
115	1215 (2679)	1069 (2357)	145	2900 (6393)	2552 (5626)	175	6900 (15212)	6072 (13386)
116	1250 (2756)	1100 (2425)	146	3000 (6614)	2640 (5820)	176	7100 (15653)	6248 (13774)
117	1285 (2833)	1131 (2493)	147	3075 (6779)	2706 (5966)	177	7300 (16094)	6424 (14162)
118	1320 (2910)	1162 (2561)	148	3150 (6945)	2772 (6111)	178	7500 (16535)	6600 (14550)
119	1360 (2998)	1197 (2638)	149	3250 (7165)	2860 (6305)	179	7750 (17086)	6820 (15036)
120	1400 (3086)	1232 (2716)	150	3350 (7385)	2948 (6499)	180	8000 (17637)	
121	1450 (3197)	1276 (2813)	151	3450 (7606)	3036 (6693)	181	8250 (18188)	
122	1500 (3307)	1320 (2910)	152	3550 (7826)	3124 (6887)	182	8500 (18739)	
123	1550 (3417)	1364 (3007)	153	3650 (8047)	3212 (7081)	183	8750 (19290)	
124	1600 (3527)	1408 (3104)	154	3750 (8267)	3300 (7275)	184	9000 (19841)	
125	1650 (3638)	1452 (3201)	155	3875 (8543)	3410 (7518)	185	9250 (20393)	
126	1700 (3748)	1496 (3298)	156	4000 (8818)	3520 (7760)	186	9500 (20944)	
127	1750 (3858)	1540 (3395)	157	4125 (9094)	3630 (8003)	187	9750 (21495)	
128	1800 (3968)	1584 (3492)	158	4250 (9370)	3740 (8245)	188	10000 (22046)	
129	1850 (4079)	1628 (3589)	159	4375 (9645)	3850 (8488)	189	10300 (22707)	
						190	10600 (23369)	

[a]At maximum rated pressure.

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Tire Pressures

Long life and good performance of the tires depend on proper tire inflation. Inadequately inflated tires lead to premature wear, over-inflated tires reduce traction and increase the wheel slip.

Since correct tire pressures depend not only on working conditions and load but also on tractor model, tire size and manufacturer, we recommend that you approach a John Deere dealer or other service provider or the tire manufacturer for advice.

LX25458,ALL,0000A57-19-10JUL25

Tire Inflation Pressure Guidelines

Check tire inflation pressure while tires are cool, using an accurate dial or stick-type gauge having 10 kPa (0.1 bar) (1 psi) graduations.

NOTE: If tires contain liquid ballast, use a special air-water gauge. Measure with valve stem at bottom.

Correctly inflated radial tires show a deflection of the sidewall. This is normal and will not harm tire.

Inflation pressures less than 83 kPa (0.8 bar) (12 psi) should be monitored frequently because of increased risk of low-pressure air leaks.

NOTE: Tires run as singles in high traction conditions sometimes experience bead slip. Increasing inflation pressure will help, but will reduce traction.

Maximum tire pressure is specified on tire sidewall.

Determine Correct Tire Pressure

Integral implements transfer significant weight to the rear axle. Always include this weight when determining correct inflation pressures. Weigh the tractor as described below in order to determine the correct tire pressure:

Rear-Mounted Implement - The front axle must be weighed with implement lowered. The rear axle must be weighed with the implement raised.

Front-Mounted Implement - The front axle must be weighed with the implement raised. The rear axle must be weighed with the implement lowered.

Front- and Rear-Mounted Implement - Weigh the tractor with both front and rear implements raised.

Set tire inflation pressures according to the weight measured. *Ballasting and tire inflation pressure may need to be adjusted when operating conditions change.* Use the following tire inflation charts. For tires not found in charts, refer to manufacturer's recommended inflation pressures.

Managing Tire Inflation Pressures

Tractors operating with a loader should increase front tire pressures 30 kPa (0.3 bar) (4 psi) above values listed to compensate for weight transfer.

Tractors operating on steep side slopes or furrow plowing should increase rear tire pressures 30 kPa (0.3 bar) (4 psi) above the values listed for base pressures 80 kPa (0.8 bar) (12 psi) and above to compensate for lateral weight transfer. For base pressures below 80 kPa (0.8 bar) (12 psi), pressure should be increased by 30%.

Reduce pressures to correct pressure for towed implement operation.

Tractors with heavy hitch-mounted implements, requiring additional front cast weights to maintain steering stability, also require increased front and rear tire inflation pressure to carry increased weight.

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Special Requirements for Very High Flexion (VF) Front Tires When Driving on Road

CAUTION: Risk of personal injury and property damage due to loss of control of the tractor.

In the event of failure of the hydraulic steering assistance, a legally defined force required to turn the steering wheel must not be exceeded. This applies when driving on roads and requires for tires (see table) to keep a specific inflation pressure. This tire inflation pressure specification must be applied regardless of any recommendations made by the tire manufacturer.

IMPORTANT: Find the maximum permissible axle loads in section 500A.

NOTE: The table contains tire sizes that are not available for all models. Only consider the tire sizes that are currently installed on the front wheels of the vehicle.

NOTE: Not all attachments, wheels, and other accessories are available for all tractors and markets.

Front Tires Inflation Pressures for Bridgestone VF-Tires VT-TRACTOR

Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor with Frame Version
		bar (psi)	km/h (mph)	
VF 480/65R28	148D/145E	1.6 (23)	50 (31)	MX
VF 480/65R28	148D/145E	1.8 (26)	50 (31)	MM and MW
VF 540/65R28	154D/151E	1.6 (23)	50 (31)	MW
VF 540/65R30	155D/152E	1.5 (22)	50 (31)	MW
VF 540/65R30	155D/152E	1.6 (23)	50 (31)	MR
VF 540/65R30	155D/152E	1.8 (26)	50 (31)	MT
VF 600/65R28	159D/156E	1.6 (23)	50 (31)	MW, MR, and MT
VF 600/70R28	164D/160E	1.6 (23)	50 (31)	MR and MT
VF 600/70R30	165D/161E	1.6 (23)	50 (31)	MT

Front Tires Inflation Pressures for Trelleborg VF-Tires TM1000 PT

Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor Models
		bar (psi)	km/h (mph)	
VF 540/65R30	158D/155E	1.5 (22)	50 (31)	MW
VF 540/65R30	158D/155E	1.6 (23)	50 (31)	MR
VF 540/65R30	158D/155E	1.8 (26)	50 (31)	MT
VF 600/70R28	167D/164E	1.6 (23)	50 (31)	MR and MT
VF 600/70R30	170D	1.6 (23)	50 (31)	MT

Front Tires Inflation Pressures for Trelleborg VF-Tires TM1060

Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor Models
		bar (psi)	km/h (mph)	
VF 520/60R28	149D	1.6 (23)	50 (31)	MX
VF 520/60R28	149D	1.4 (20)	50 (31)	MM and MW
VF 600/60R28	157D	1.4 (20)	50 (31)	MW
VF 600/60R30	158D	1.4 (20)	50 (31)	MW
VF 600/60R30	158D	1.6 (23)	50 (31)	MR

Front Tires Inflation Pressures for Continental VF-Tires VF TractorMaster

Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor Models
		bar (psi)	km/h (mph)	
VF 600/60R30	162D	1.4 (20)	50 (31)	MW

VF 600/60R30	162D	1.6 (23)	50 (31)	MR
VF 600/70R30	168D	1.6 (23)	50 (31)	MT

Front Tires Inflation Pressures for Nokian VF-Tires Soil King VF				
Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor Models
		bar (psi)	km/h (mph)	
VF 600/70R30	168D	1.6 (23)	50 (31)	MT

Front Tires Inflation Pressures for Michelin VF-Tires XeoBib				
Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor Models
		bar (psi)	km/h (mph)	
VF 600/60R28	146D	1.4 (20)	50 (31)	MW

Front Tires Inflation Pressures for Michelin VF-Tires AxioBib 2				
Tire Size	Load Index	Inflation Pressure	Travel Speeds up to:	Tractor Models
		bar (psi)	km/h (mph)	
VF 540/65R30	155D/152E	1.5 (22)	50 (31)	MW
VF 540/65R30	155D/152E	1.6 (23)	50 (31)	MR
VF 540/65R30	155D/152E	1.8 (26)	50 (31)	MT
VF 600/60R30	162D	1.4 (20)	50 (31)	MW
VF 600/60R30	162D	1.6 (23)	50 (31)	MR
VF 600/70R30	168D	1.6 (23)	50 (31)	MT

80,MP,ALL,oulxa64,1725275924510-19-13JUN25

Select Tire Inflation Pressure

Tire inflation pressure plays a vital role in determining vehicle behavior, tractive force, and fuel consumption.

Since the correct tire pressure is dependent on many different factors, it is not possible to make a general recommendation.

When selecting inflation pressure, take the following into account:

- Tire manufacturer
- Tire size
- Axle load of machine
- Ballast on machine
- Whether tire is used on a front or rear wheel
- Nature of the work to be done
- Soil conditions
- Expected travel speed

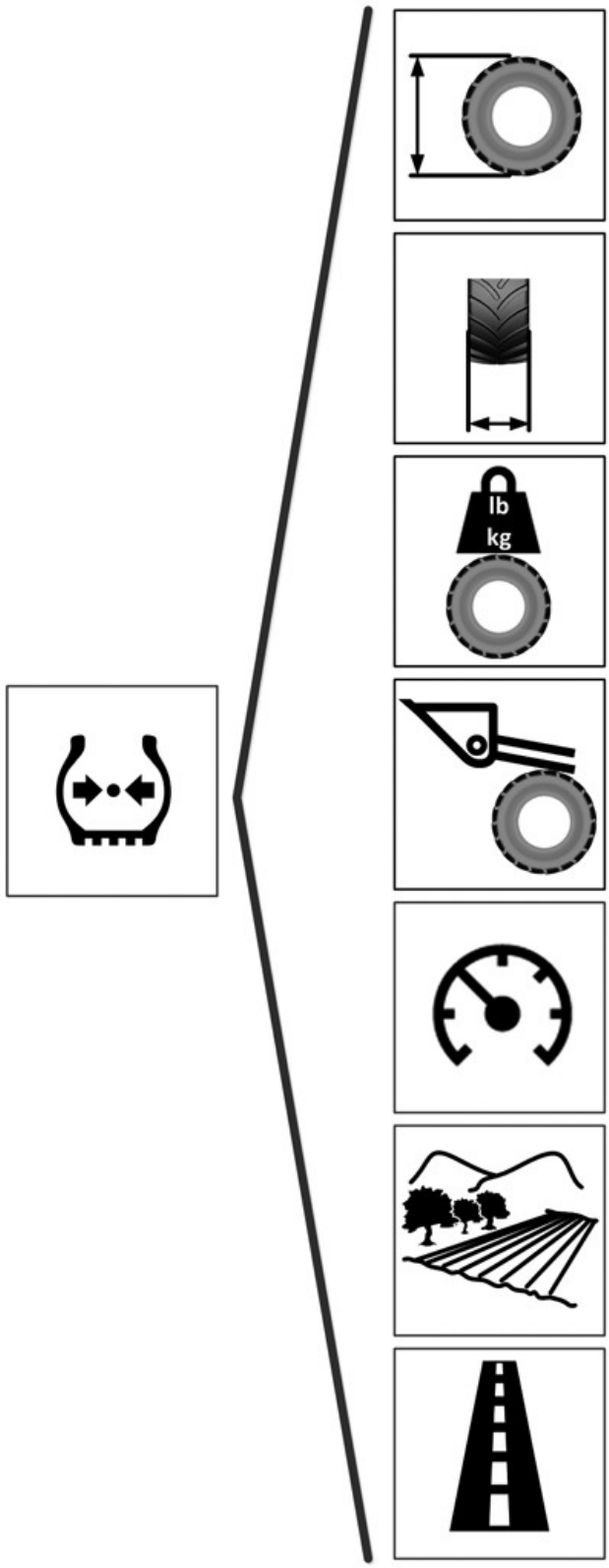
IMPORTANT: Any tire inflation quoted in this Operator's Manual is binding.

Tires must never be inflated to a pressure higher than the maximum value stated on the tire sidewall.

If no other pressure value is available:

To ascertain the pressure for specific applications, refer to the inflation pressure tables provided by the tire manufacturers. Many tire manufacturers provide apps on their Internet portals which allow the recommended tire pressure to be calculated.

Particular attention must be paid to inflation pressures for row-crop tires, special tires, and tires with liquid ballast. If in doubt, obtain the correct inflation pressure from the tire manufacturer.



LX299189—UN—16NOV16
LX25458,ALL,0000A59-19-05NOV21

Front Wheels, Tires, and Tread Widths (MC)

Tires and Wheels—Foreword

The wheels, tires, and their gauges as listed in these operating instructions can be fitted.

In some regions, not all tires are available.

The tires displayed may not be compatible with your specific tractor model.

The current edition of the sales brochure is authoritative.

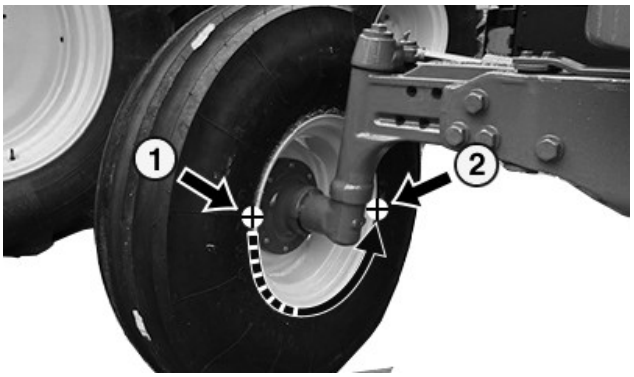
80,ALL,LX25458,0000A46-19-17SEP24

Adjustable Front Axle—Check Toe-In

1. Make sure that wheels are in the straight forward position by driving tractor in a straight line for approx. 15 m (50 ft).

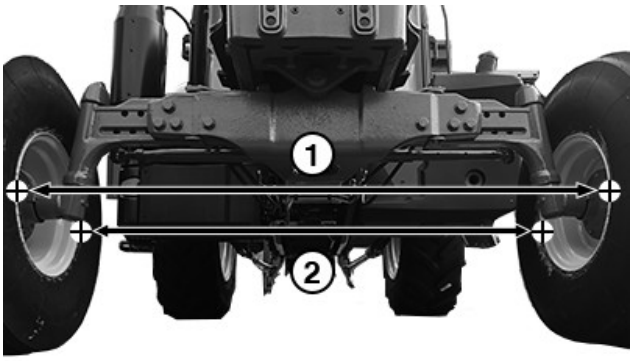
CAUTION: Keep the engine switched off while making the measurements, and secure the tractor so that it cannot roll away.

2. First, put marks (+) at axle height on the front (1) of each of the two front wheels.



LX372927—UN—24NOV20

3. At the front (1), measure distance from the edge of the right rim to the edge of the left rim, and make a note of this measurement.



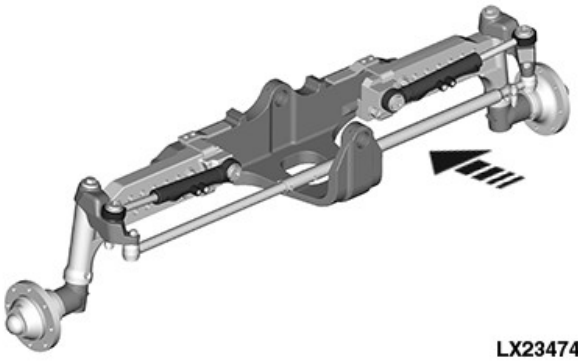
LX372928—UN—24NOV20

4. Roll forward the tractor by half the circumference of the front wheel, bringing the (+) mark to the rear (2).
5. At the rear, measure distance (2) from the right rim flange to the left rim flange, and make a note of the measurement.

Dimension at the front (1) must be 3 to 9 mm (0.12 to 0.35 in) less than dimension at the rear (2).

LX25458,TYPEB,0000A5B-19-15MAR22

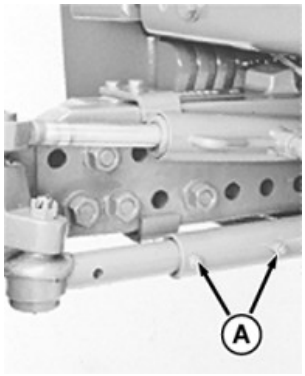
Adjustable Front Axle Type B—Adjust Toe-In



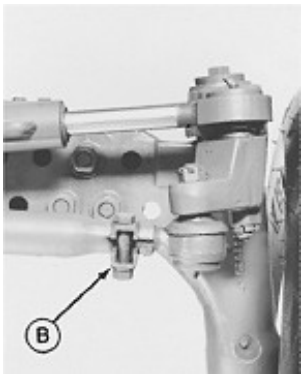
LX234745

LX234745—UN—28AUG15

Adjustable Front Axle Type B



RW55002A—UN—02AUG99



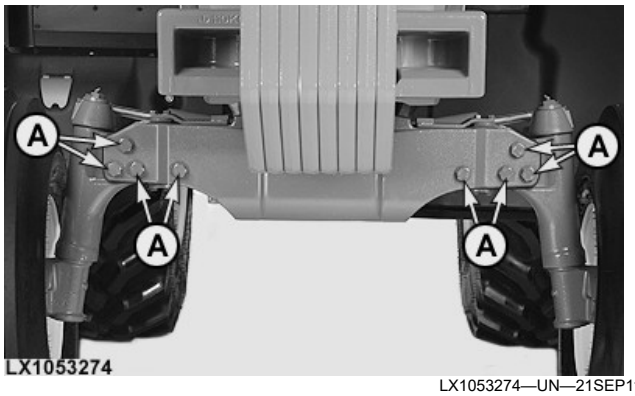
RW55003—UN—25JUN93

A—Tie Rod Screws
B—Clip

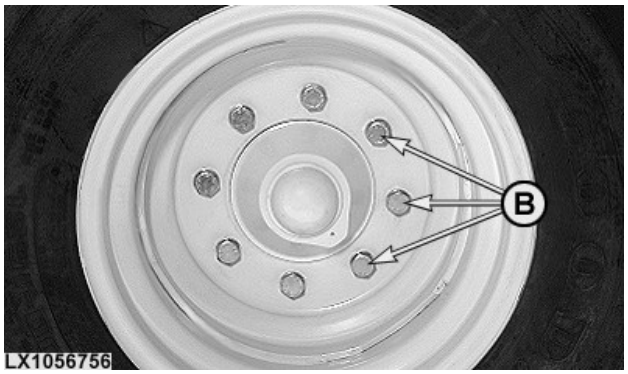
1. Remove bolts (A) from tie rod tube and loosen the clamp (B).
2. Rotate tube to lengthen or shorten tie rod. Adjust toe-in to 3 - 9 mm (0.12 - 0.35 in).
3. Reinstall bolts, tighten nuts to 61 N·m (45 lb·ft) and tighten the clamp to 68 N·m (50 lb·ft).

LX25458,6M,0000A5C-19-15MAR22

Adjustable Front Axle Type B—Tighten Axle Bolts and Wheels Bolts



LX1053274—UN—21SEP11



LX1056756—UN—01OCT12

A—Axle Bolts
B—Wheel Bolts

CAUTION: Prevent injury. Never operate the tractor with loose wheel bolts or axle components. Wheel bolts are critical and require retightening. Install wheels and ballast so periodic checking of the wheel bolts can be done easily.

Tighten to specification.

Axle bolt torques:
Axle bolts (A) of the adjustable front axle: 600 N·m (445 lb·ft)

Torque for wheel bolts on front axles without front-wheel drive:
Standard axle disk-to-hub bolts (B): 310 N·m (230 lb·ft)

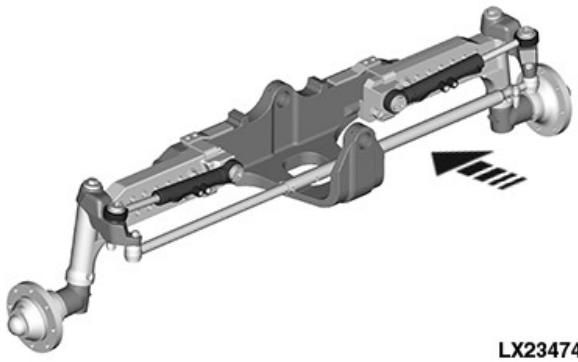
Drive tractor 100 m (100 yd) and retighten bolts to specified torque.

Retighten the bolts after **3 OPERATING HOURS** and again after **10 OPERATING HOURS**.

LX25458,6M,0000A5D-19-12SEP24

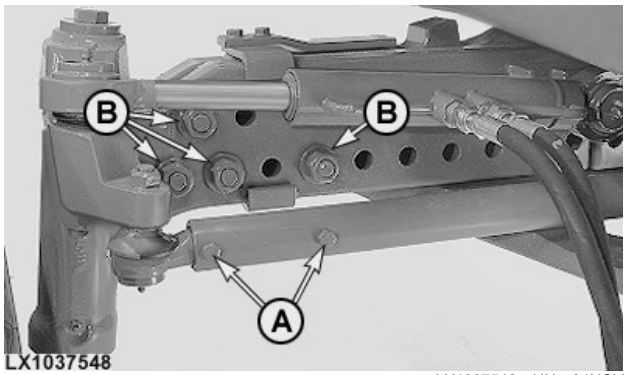
Adjustable Front Axle Type B—Adjust the Wheel Treads

IMPORTANT: Do not place a jack under the engine oil pan.



LX234745—UN—28AUG15

Adjustable Front Axle Type B



LX1037548—UN—04NOV05

A—Tie Rod Bolts
B—Axle Bolts

1. Lift up the front side of the tractor.
2. Remove bolts (A) from tie rod and bolts (B) from one side of axle.
3. Slide axle knee to desired position.
4. Install axle bolts (B). Tighten to specification.

Specification

Axle Bolts—Torque. . . . . 600 N·m (445 lb·ft)

NOTE: Both sides are usually adjusted to same setting.

5. Repeat steps 2-4 on opposite side of tractor.
6. Adjust tie rod same amount as axle.
7. Install bolts (A) in tie rod and tighten to specification.

Specification

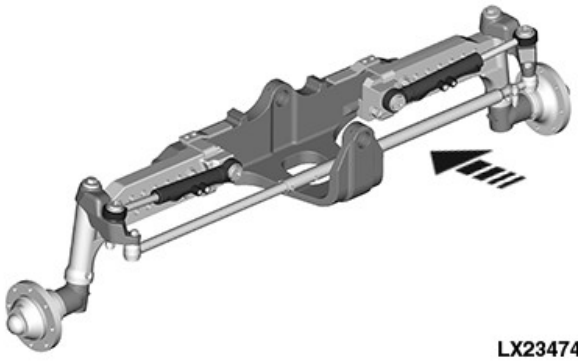
Tie Rod Bolts—Torque. . . . . 61 N·m (45 lb·ft)

8. Check toe-in and adjust as required.

NOTE: Alternate tread settings may require additional hose length to be pulled from frame rails. Excess hose length should be pulled back into frame area when adjusting tread settings inward.

LX25458,6M,0000A5E-19-15MAR22

Adjustable Front Axle Type B—Tread Widths



LX234745—UN—28AUG15

Adjustable Front Axle Type B

The front axle can be set to any of 7 tread widths.

IMPORTANT: For front loader work, select a tread width between 1700 - 1860 mm (66.9 - 73.2 in).

If wheels were removed to adjust the tread, tighten the wheel bolts to 310 N·m (230 lb·ft).

IMPORTANT: After a tread adjustment, check the torque of these bolts after 4 and 8 hours of operation, and frequently during the next 100 hours of operation.

Tires	SRI	Position of Tire Valve		Axle Position						
				1	2	3	4	5	6	7
10.00-16	425	In	mm	1551	1653	1755	1857	1959	2061	2163
			in	61.1	65.1	69.1	73.1	77.1	81.1	85.2
		Outside	mm	1592	1694	1796	1898	2000	2102	2204
			in	62.7	66.7	70.7	74.7	78.7	82.8	86.8
11.00-16	450	In	mm	1548	1650	1752	1854	1956	2058	2160
			in	60.9	65.0	69.0	73.0	77.0	81.0	85.0
		Outside	mm	1589	1691	1793	1895	1997	2099	2201
			in	62.6	66.6	70.6	74.6	78.6	82.6	86.7
11L-15	390	In	mm	1554	1656	1758	1860	1962	2064	2166
			in	61.2	65.2	69.2	73.2	77.2	81.3	85.3
		Outside	mm	1595	1697	1799	1901	2003	2105	2207
			in	62.8	66.8	70.8	74.8	78.9	82.9	86.9

LX25458,6M,0000A5F-19-15MAR22

Front Tires with Front-Wheel Drive

Tire width:

If it is intended to install wider tires than were mounted when delivered, the technical requirements need to be checked first. You may need to adjust the guidance system.

Tire wear notice:

If the right and left tires wear down at different rates, the axle geometry needs to be checked and settings corrected.

LX25458,ALL,0000A60-19-11JUL25

Front-Wheel Drive Axle—Toe-In Check and Adjustment

The ballast of the tractor can influence the set toe-in. If a front ballast larger than 1150 kg (2535 lb) is used

permanently, the toe-in has to be checked, and readjusted if necessary.

Correct toe-in adjustment has a positive effect on driving characteristics and tire wear.

IMPORTANT: If the tractor is driven continuously with high ballast weight, it is necessary to check the toe-in before start-up. When doing so, the toe-in has to be determined with total ballast.

NOTE: Prescribed adjustment lies between -1.5 mm and +1.5 mm (-0.06 in and +0.06 in). Check and adjust toe-in.

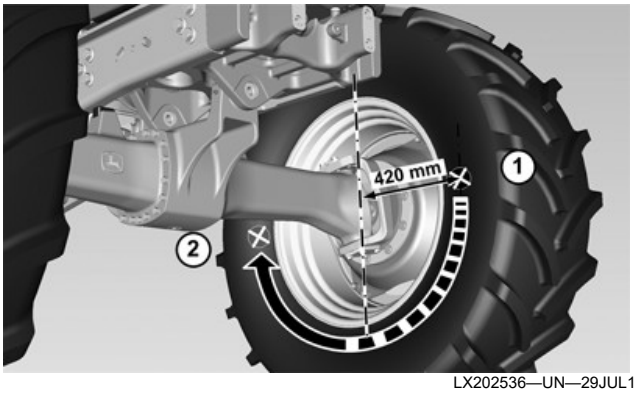
LX25458,ALL,0000A61-19-11JUL25

Front-Wheel Drive Axle—Check Toe-In (Conventional Method)

1. Make sure that wheels are in the straight forward position by driving tractor in a straight line for approx. 15 m (50 ft).

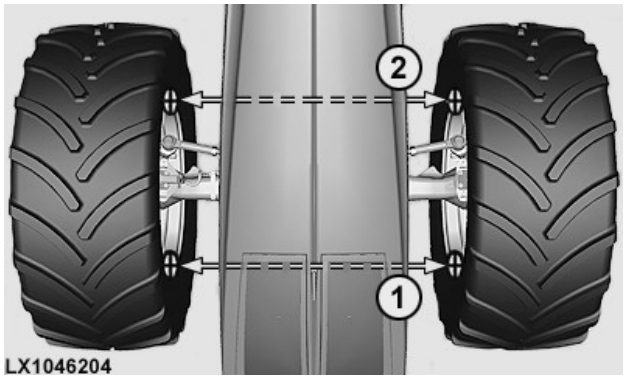
CAUTION: Keep the engine switched off while making the measurements, and secure the tractor so that it cannot roll away.

2. Starting from the center of the wheel, measure 420 mm (16.5 in) and make two X marks (1) and (2) on the inside of both wheels. The two marks must be at axle height (half the wheel diameter).



LX202536—UN—29JUL13

3. Measure distance (1) at the front from the right to left wheel and make a note of the measurement.



LX1046204—UN—16JUN11

4. Roll the tractor forward by half the circumference of the front wheel, bringing the (X) mark to the rear (2).
5. At the rear, measure distance (2) and make a note of the measurement.

Dimension at the front (1) must correspond to dimension at the rear (2). A deviation of ± 1.5 mm (0.06 in) is permissible.

LX25458,ALL,0000A62-19-11MAR25

Front-Wheel Drive Axle—Check Toe-In Using a Laser Wheel-Measuring Tool



LX1054620—UN—25OCT11

Test with Laser Wheel-Measuring Tool

CAUTION: Comply with General Instructions on Safety and Repair, see section 05A and 80 of the relevant Operator's Manual.

Check Toe-In Using a Laser Wheel-Measuring Tool

IMPORTANT: It is preferable to use a laser wheel-measuring tool to check and adjust toe-in. A laser wheel-measuring tool can be used only on a tractor that is in an operational condition. The example outlined below involves a standard, commercially available tool.

General Safety and Repair Information

1. Ballast the tractor so that it is in an operational condition.

2. Park the tractor on level and firm ground and take precautions to prevent the tractor from rolling away.
3. Align the wheels precisely straight ahead and shut off the engine.
4. Read the Operator's Manual of the laser wheel-measuring tool.
5. Install tool kits (A) and (B) on the tractor.
6. Direct the laser beam to scale (C) and adjust the tie rod so that the beam is as close as possible to 0. Details are provided in the Operator's Manual of the tool kit.

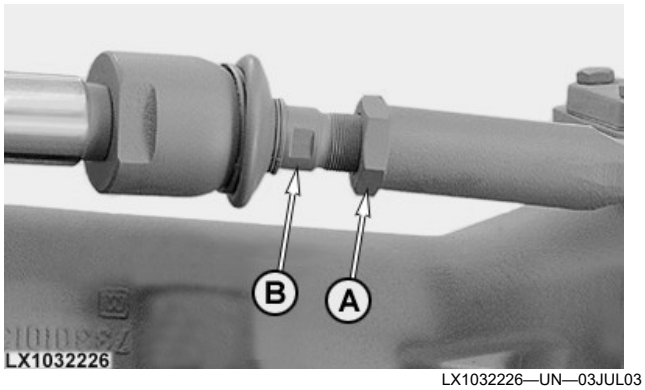
LX25458,ALL,0000A63-19-07SEP23

Front-Wheel Drive Axle—Adjust Toe-In

1. Align front wheels for traveling straight ahead, shut off the engine, move the transmission to park position, and remove the key switch.

IMPORTANT: It is necessary to generate the toe-in settings by adjusting both tie rods in an equal measure.

2. Unfasten lock nut (A).



LX1032226—UN—03JUL03

NOTE: A toe-in of ± 1.5 mm (0.06 in) is permissible. See Check Toe-In in this section.

3. Turn rod (B) to obtain desired toe-in or toe-out.

Specification	
Maximum Toe-in or Toe-out—Distance	1.5 mm 0.06 in

4. Tighten lock nut (A) to specified torque.

Specification	
Lock Nut—Torque	345 N·m 255 lb·ft

LX25458,ALL,0000A64-19-07SEP23

Instructions for Front-Wheel Tread Adjustment with Rims for 2, 8, 16, and 32 Positions

CAUTION: Serious accidents with life-threatening injuries.

Contact of the wheel with tractor components leads to personal injury and property damage.

When setting the track widths or changing the wheel configuration, make sure that a minimum distance of 50 mm (2 in) mm to tractor components is guaranteed. If this minimum distance cannot be maintained, a larger track width must be set or a suitable wheel configuration must be used.

IMPORTANT: Observe the following after a tread adjustment:

- **Tighten all wheel bolts and wheel nuts to the specified torque. Check the torque on the wheel nuts and wheel bolts after 4 and 8 hours of operation and also frequently during the next 100 hours of operation.**
- **Check wheels for free movement and adjust fenders for the new tread width. Turn the steering to full lock in both directions and oscillate the axle to the stops.**
- **Adjust the steering stops to prevent the wheels from coming into contact with tractor components. See also Prevent Front-Wheel or Fender Contact with Tractor Components in section 80.**
- **Set the shutoff angle for the automatic engagement and disengagement of the front-wheel drive[1]. See Engage Front-Wheel Drive in section 50A.**
- **Perform a steering angle sensor calibration after changing tires and/or adjusting tread widths. Contact a John Deere dealer or other service provider for assistance.**

IMPORTANT: The distance between the side wall of the tire and tractor components should not be less than 50 mm (2 in).

The distance between the running surface (edge) of the tire and tractor components must not be less than 60 mm (2.4 in).

If snow chains are installed on the tires, the minimum distance from the tires to the tractor components (side wall to fender and running surface to tractor components) must be 100 mm (4 in).

[1] *If equipped*

For further information, see Fender Settings in section 80B.

IMPORTANT: For hub widening, use the torques of the wheels.

NOTE: For front loader work, set one of the following tread widths:

- *For front wheels with an 8-bolt circle, use a tread width between 1750—1850 mm (68.9—72.8 in).*
- *For front wheels with an 10-bolt circle, use a tread width between 1750—1950 mm (68.9—76.8 in).*

Front Wheels with Rims for 2 Positions

The tread width can be changed by mounting the complete tires on the other tractor side. In doing so, maintain the rolling direction of the tires.

Front Wheels with Rims for 8, 16, and 32 Positions

Wheel tread can be adjusted by repositioning or reversing the wheel rims.

In addition, the complete wheel can be installed on the other side of the tractor. In doing so, maintain the rolling direction of the tires.

NOTE: Before adjusting tread width, pay attention to the position of the wheel dish relative to the rim of the front wheel. See illustrations accompanying the tread width tables in this section.

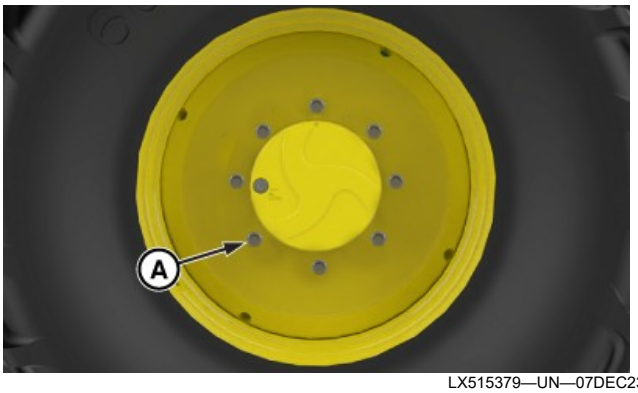
Refer to the following:

- **Tighten Front Wheel Bolts—Front-Wheel Drive Axles** in this section.

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Tighten Front Wheel Bolts—Front-Wheel Drive Axles

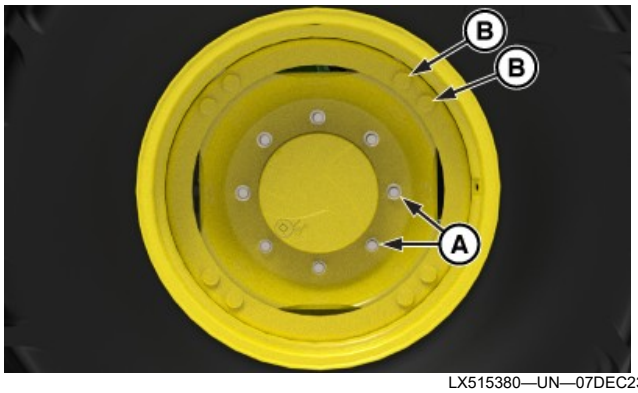
Tighten Wheel Bolts, on Vehicles with Front-Wheel Drive Axles—Front Wheel with 8-Bolt Circle



LX515379—UN—07DEC23

Front Wheel with 8-Bolt Circle and Round Wheel Dish

A—300 N·m (220 lb·ft)

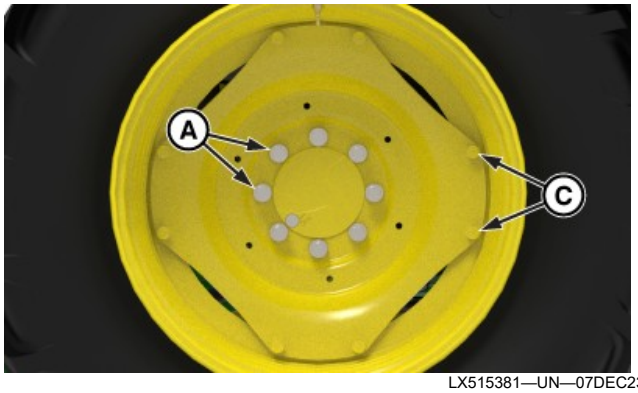


LX515380—UN—07DEC23

Front Wheel with 8-Hole Circle and Square Wheel Dish

A—300 N·m (220 lb·ft)
B—210 N·m (155 lb·ft)

Torque specifications also apply to front wheels with 8-Hole Circle and Round Wheel Dish.

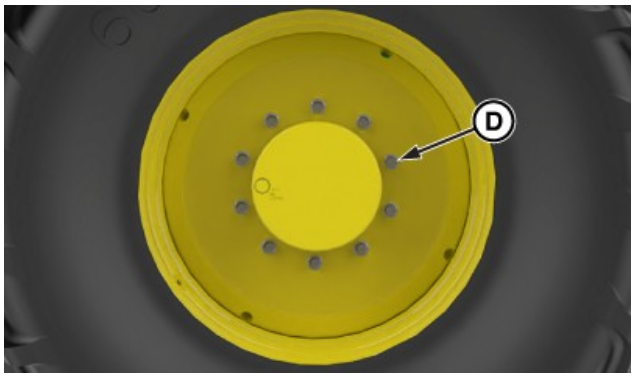


LX515381—UN—07DEC23

Front Wheel with 8-Bolt Circle and Waffle Rim

A—300 N·m (220 lb·ft)
C—Gold Bolt—280 N·m (205 lb·ft)
C—Gray-Blue Bolt—265 N·m (195 lb·ft)

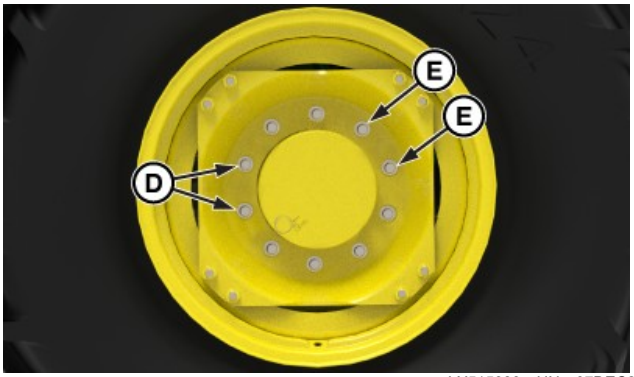
Tighten Wheel Bolts, on Vehicles with Front-Wheel Drive Axles—Front Wheel with 10-Bolt Circle



LX515382—UN—07DEC23

Front Wheel with 10-Bolt Circle and Round Wheel Dish

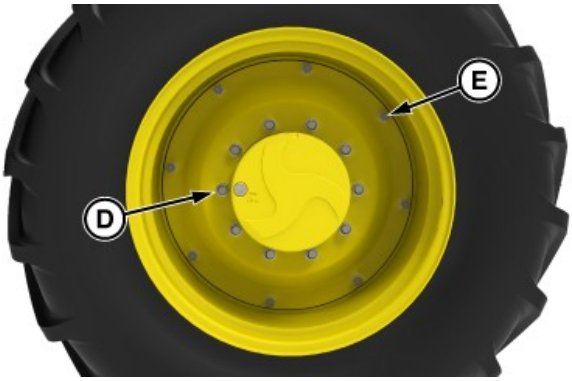
D—480 N·m (355 lb·ft)



LX515383—UN—07DEC23

Front Wheel with 10-Bolt Circle and Square Wheel Dish

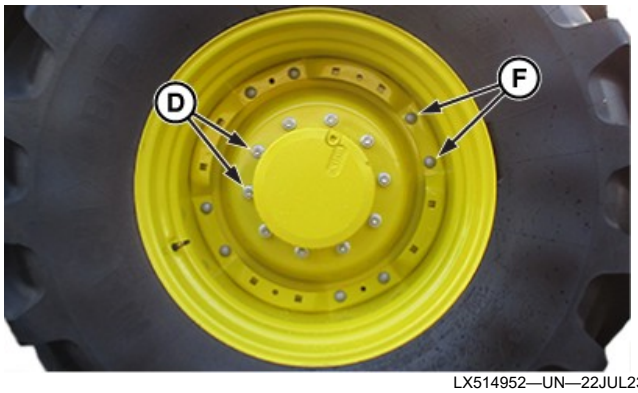
D—480 N·m (355 lb·ft)
E—210 N·m (155 lb·ft)



LX622662—UN—06DEC24

Front Wheel with 10-Bolt Circle and Round Wheel Dish

D—480 N·m (355 lb·ft)
E—210 N·m (155 lb·ft)



LX514952—UN—22JUL23

Front Wheel with 10-Bolt Circle and Waffle Rim

D—480 N·m (355 lb·ft)
F—Gold Bolt—280 N·m (205 lb·ft)
F—Gray-Blue Bolt—265 N·m (195 lb·ft)

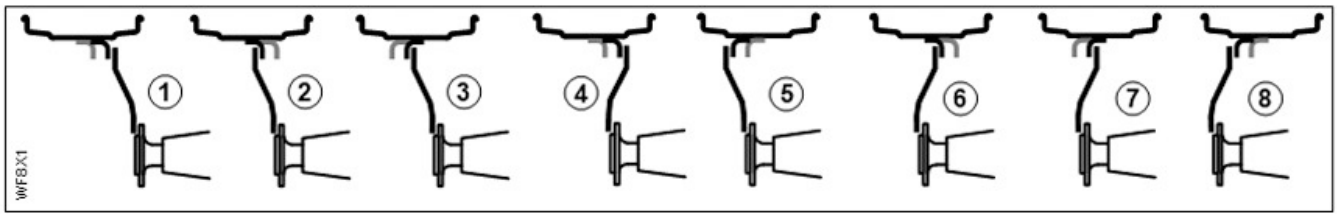
220C,03,oulxa64,1708350054893-19-06DEC24

Rim Assembly Configuration Graphics

NOTE: The rim cluster specifications are valid for front and rear wheels.

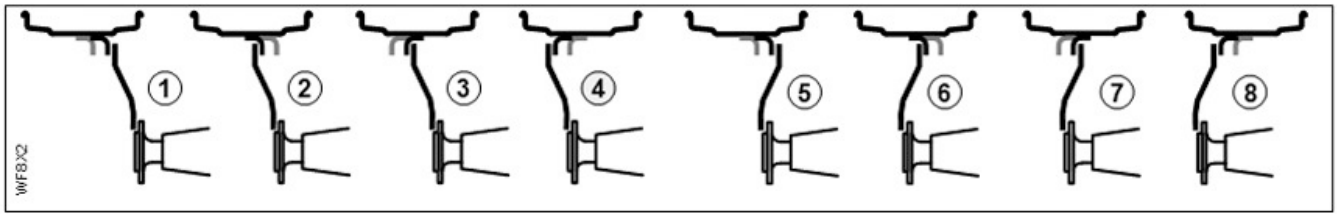
Rim assembly configuration is shown in the grafics. Refer to the relevant rim cluster number as shown in tread setting tables.

8 Position Rim



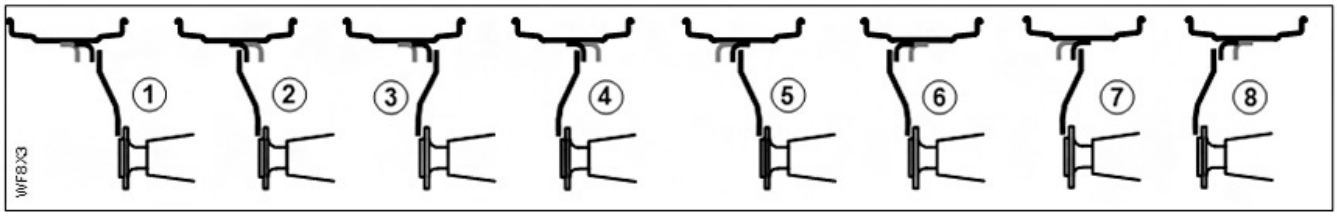
WF8X1—UN—15AUG24

Rim Cluster Type WF8X1



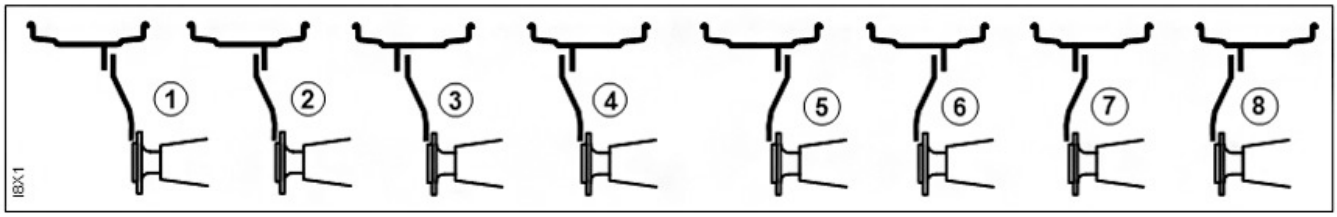
WF8X2—UN—15AUG24

Rim Cluster Type WF8X2



WF8X3—UN—20AUG24

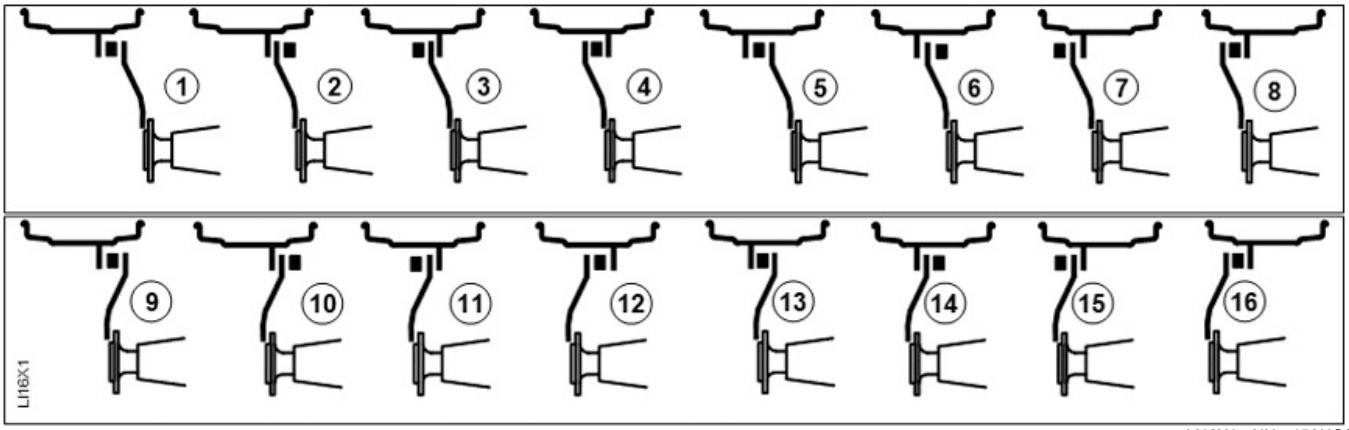
Rim Cluster Type WF8X3



I8X1—UN—20AUG24

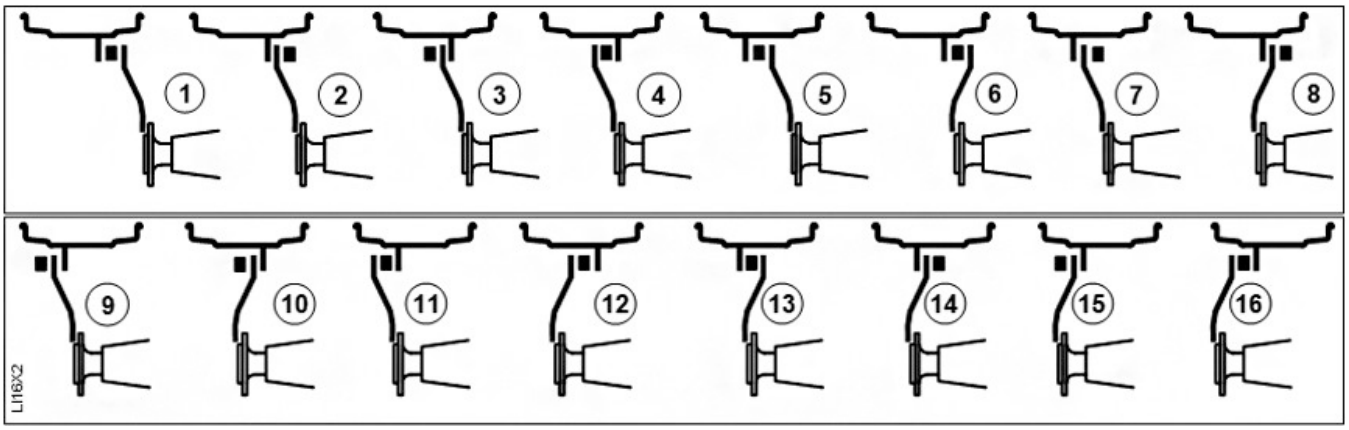
Rim Cluster Type I8X1

16 Position Rim



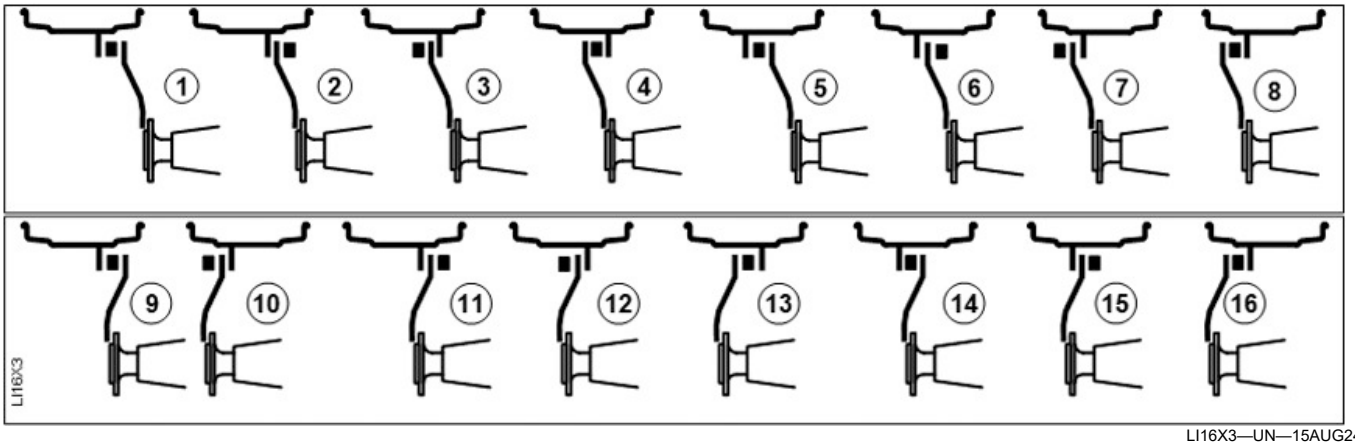
LI16X1—UN—15AUG24

Rim Cluster Type LI16X1



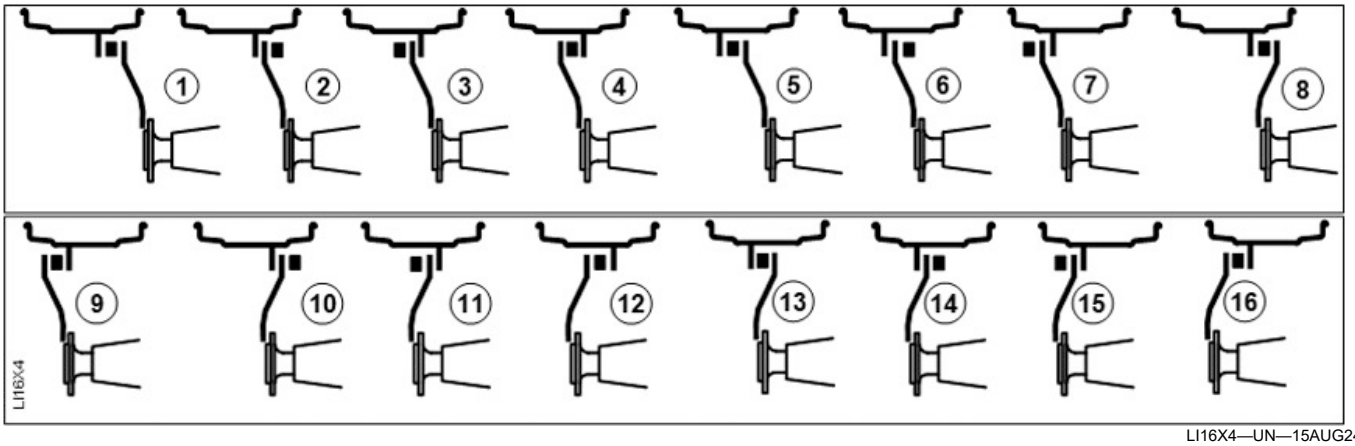
LI16X2—UN—20AUG24

Rim Cluster Type LI16X2



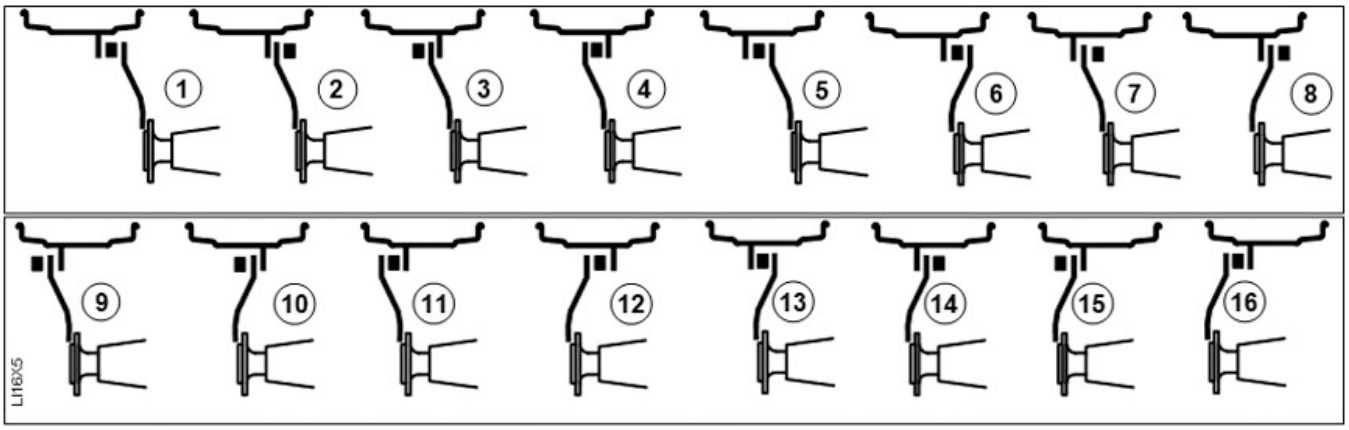
LI16X3—UN—15AUG24

Rim Cluster Type LI16X3



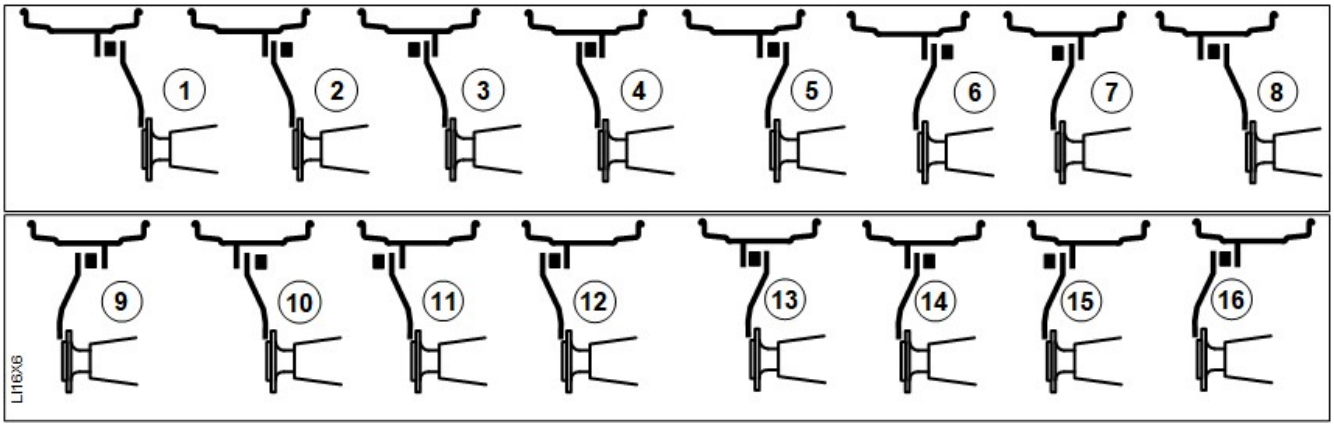
LI16X4—UN—15AUG24

Cluster Type LI16X4



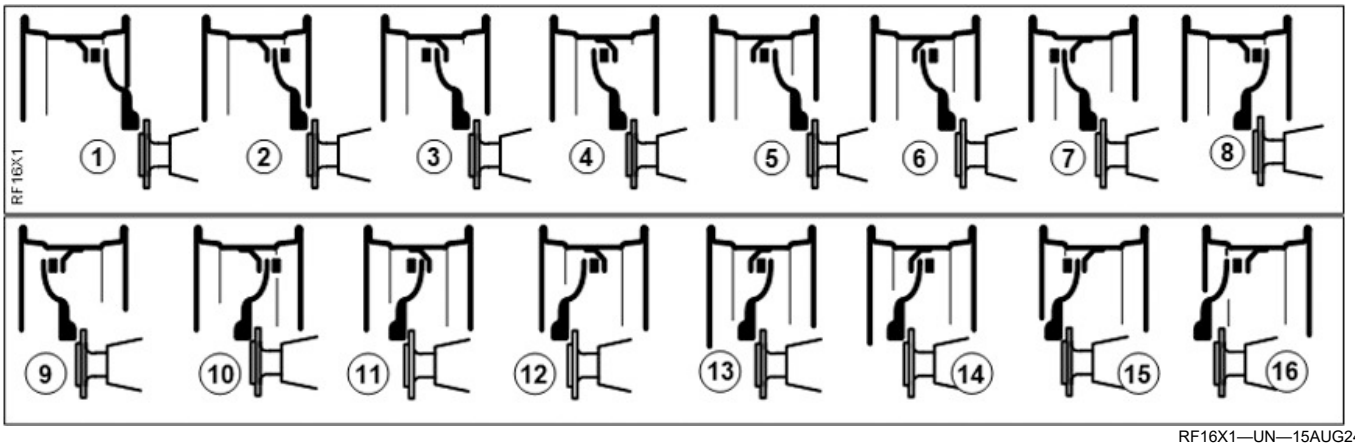
LI16X5—UN—15AUG24

Rim Cluster Type LI16X5



LI16X6—UN—15AUG24

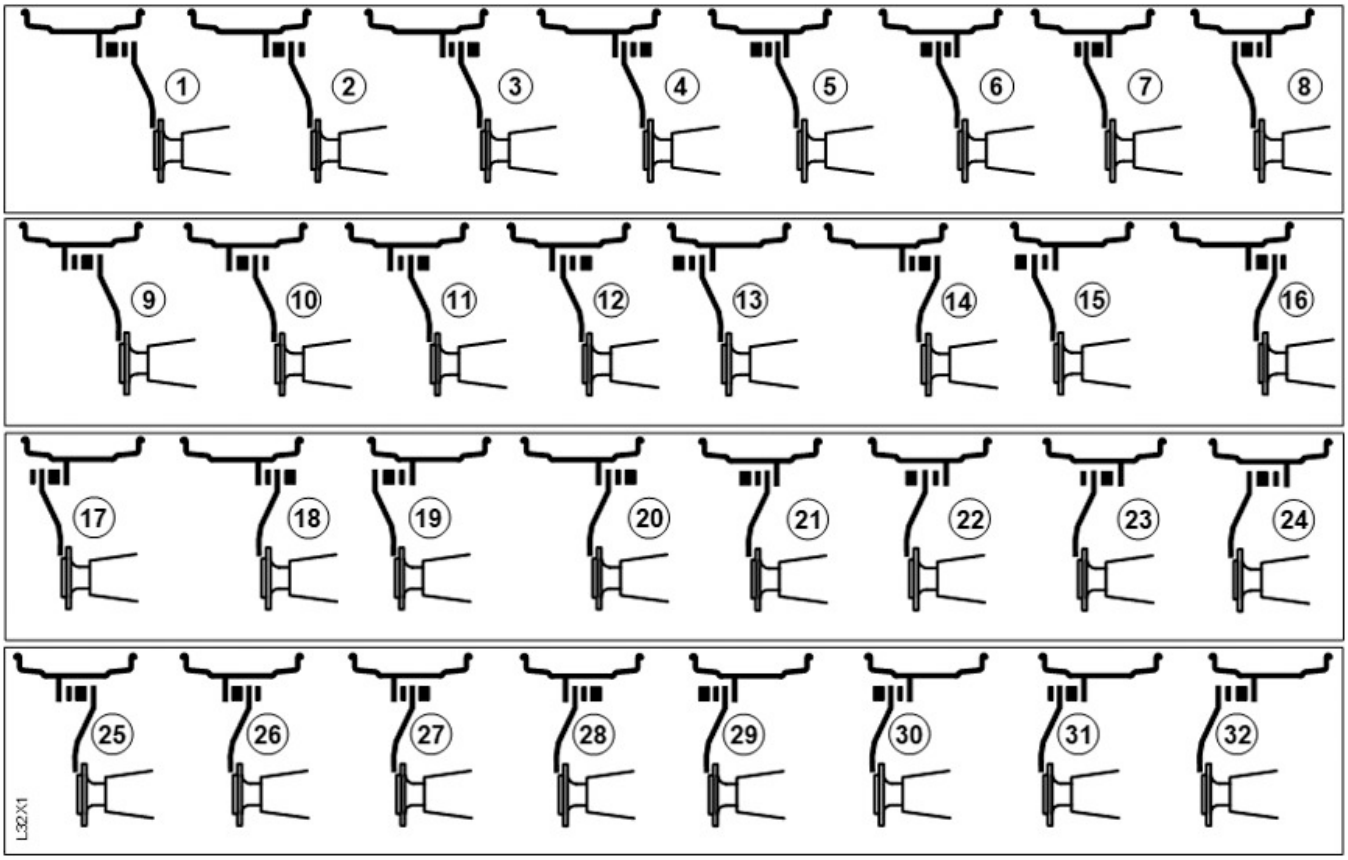
Rim Cluster Type LI16X6



RF16X1—UN—15AUG24

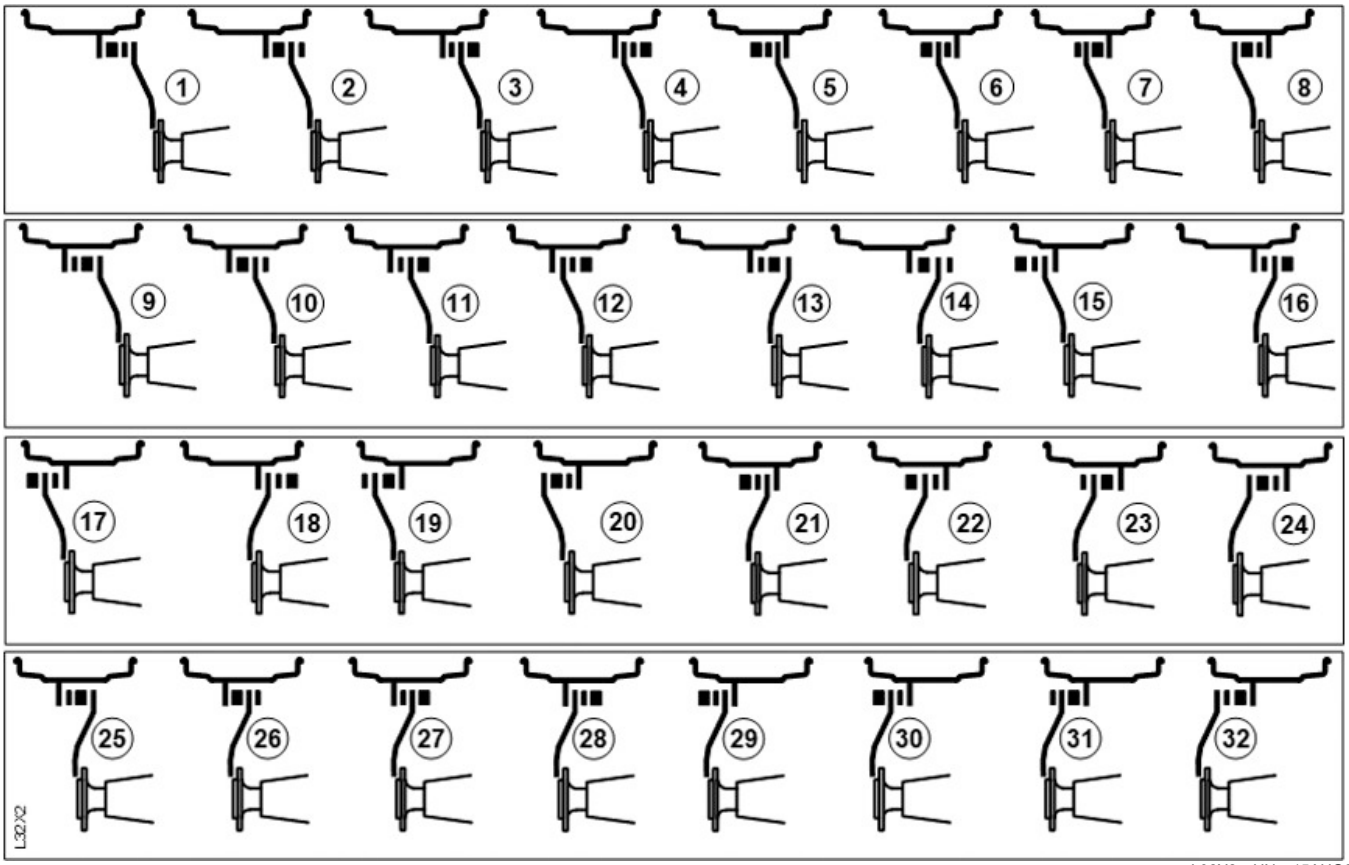
Rim Cluster Type RF16X1

32 Position Rim



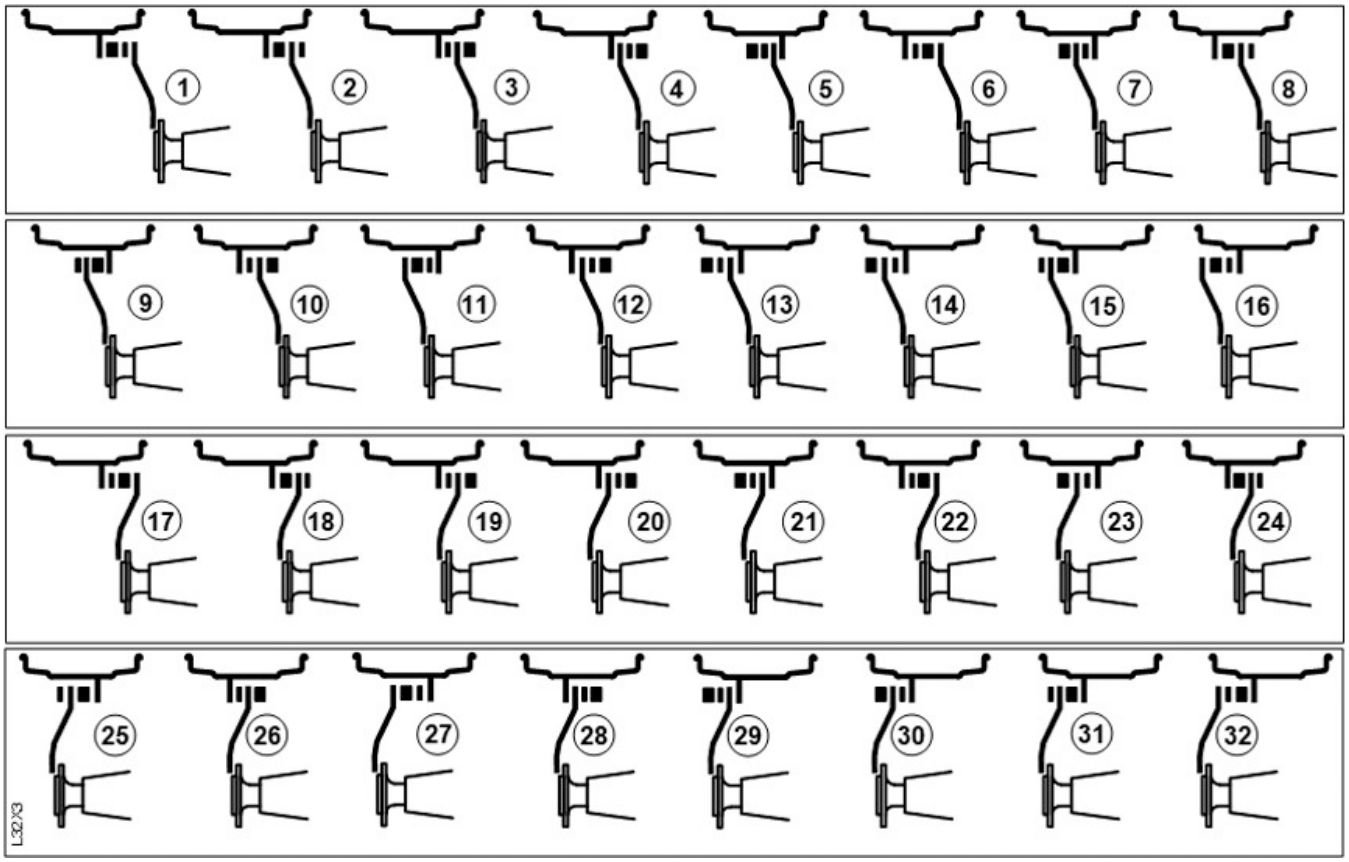
L32X1—UN—15AUG24

Rim Cluster Type L32X1



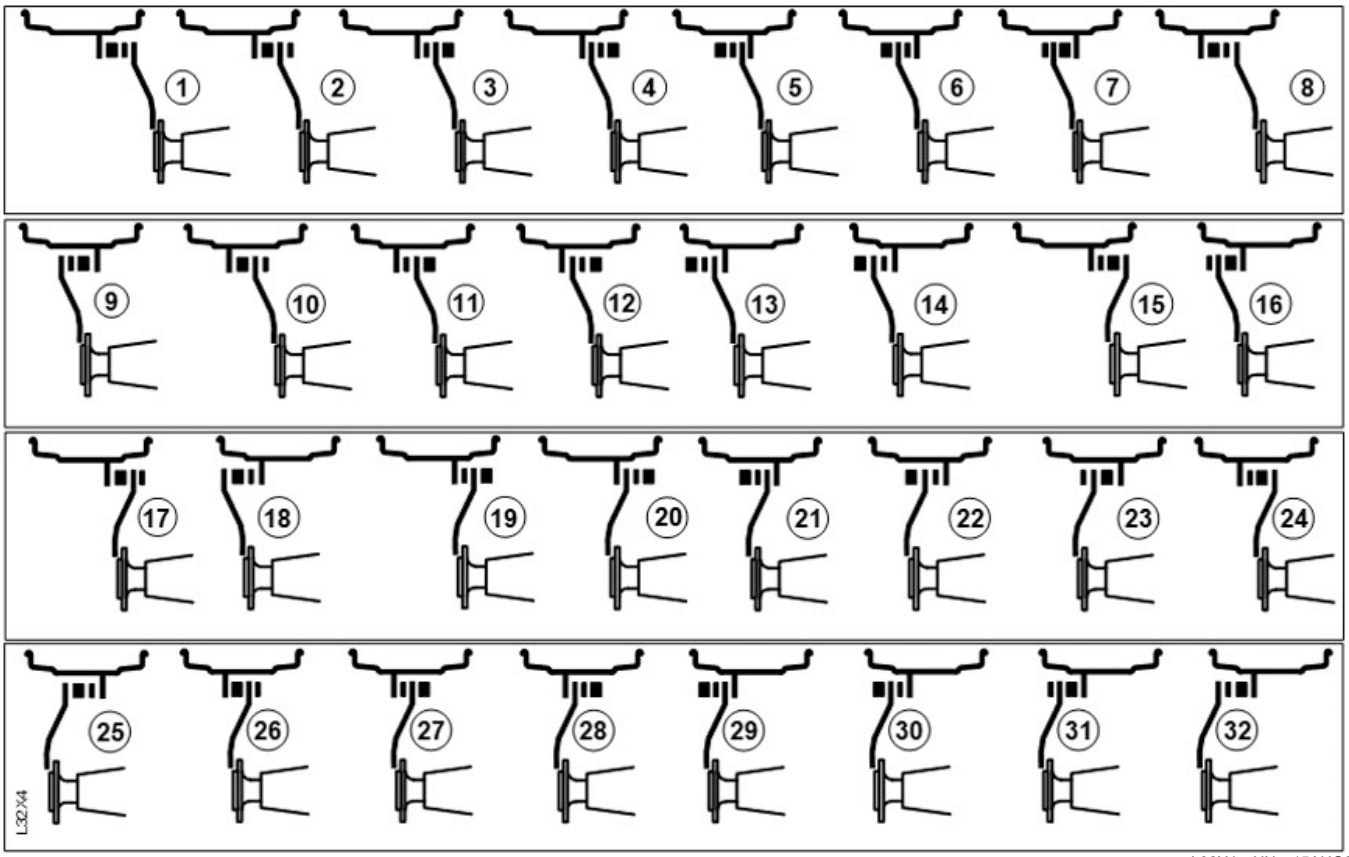
L32X2—UN—15AUG24

Rim Cluster Type L32X2



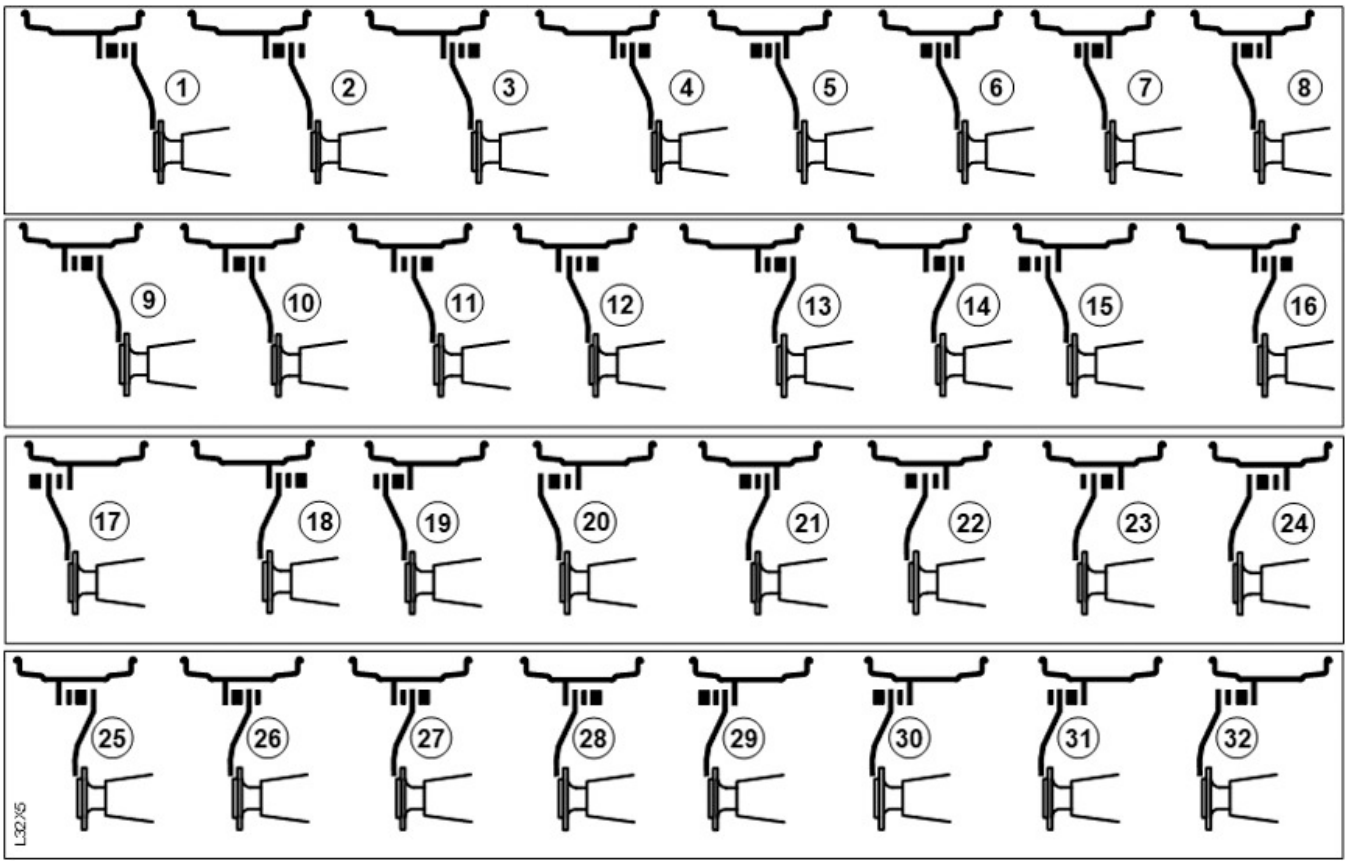
L32X3—UN—15AUG24

Rim Cluster Type L32X3



L32X4—UN—15AUG24

Rim Cluster Type L32X4



L32X5—UN—15AUG24

Rim Cluster Type L32X5

jg60889,1725535450838-19-18SEP24

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 2 Positions (MC Frame Version)

IMPORTANT: Comply with instructions on front-wheel tread adjustment with rims for 2 positions.

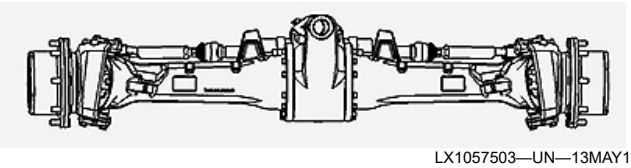
IMPORTANT: The following tables apply only for wheels that have standard rims. Non-standard rims may be pressed in to different depths. In consequence, the values shown in the tables will NOT be valid.

IMPORTANT: After setting the tread, the fender and the steering stop need to be adjusted. Afterwards oscillate the front axle with fully turned steering. If the wheels or fenders contact tractor components, correct the steering stop.

See:

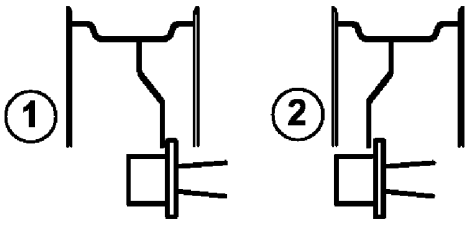
1. **Three-Piece Front Axle (Version 2)—Adjust the Fenders and Steering Stop in Section 80B.**
2. **Prevent Front Wheel or Fender Contact with Tractor Components in Section 80.**

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).



LX1057503—UN—13MAY15

Three-Piece Front Axle



LX1053400—UN—07MAR12

Three-Piece Front Axle (Version 2)—Tread Widhts for Front Wheels with Rims for 2 Position (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
280/85R28	AL242149	mm	1816	1526
		in	71.5	60.1
320/85R28	AL242149	mm	1816	1526
		in	71.5	60.1
340/85R24	AL242144	mm	1816	1524
		in	71.5	60.0
340/85R28	AL242157	mm	1814	1524
		in	71.4	60.0
380/70R24	AL242144	mm	1816	1524
		in	71.5	60.0
380/70R28	AL242157	mm	1814	1524
		in	71.4	60.0
380/85R24	AL242144	mm	1816	1524
		in	71.5	60.0
380/85R28	AL242157	mm	1814	1524
		in	71.4	60.0
400/80R24 -R4	AL242144	mm	1816	1524
		in	71.5	60.0
400/80R28 -R4	AL242157	mm	1814	1524
		in	71.4	60.0
420/70R24	AL242144	mm	1816	1524
		in	71.5	60.0
420/70R28	AL242157	mm	1814	1524
		in	71.4	60.0
420/85R24	AL242140	mm	1814	1522
		in	71.4	59.9
440/65R24	AL242140	mm	1816	1524
		in	71.5	60.0
440/80R24 -R4	AL242140	mm	1814	1522
		in	71.4	59.9
480/65R24	AL242140	mm	1816	1524
		in	71.5	60.0
480/65R28	AL242155	mm	1814	—
		in	71.4	
480/70R24	AL242140	mm	1814	—
		in	71.4	
540/65R24	AL234984	mm	1812	—
		in	71.3	

— Installation in this position is not allowed.

jg60889,1738926659912-19-07FEB25

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 16 Positions (MC Frame Version)

IMPORTANT: Comply with instructions on front-wheel tread adjustment with rims for 16 positions.

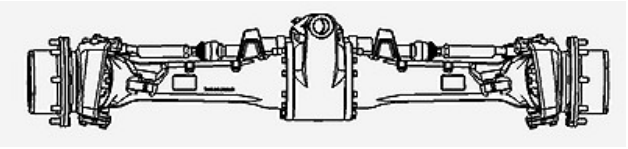
IMPORTANT: The following tables apply only for wheels that have standard rims. Non-standard rims may be pressed in to different depths. In consequence, the values shown in the tables will NOT be valid.

IMPORTANT: After setting the tread, the fender and the steering stop need to be adjusted. Afterwards oscillate the front axle with fully turned steering. If the wheels or fenders contact tractor components, correct the steering stop.

See in this section:

1. **Three-Piece Front Axle (Version 2)—Overview of Axle Category and Axle Type**
2. **Three-Piece Front Axle (Version 2)—Adjust the Fixed Fenders and Steering Stop**
3. **Preventing Front Wheel or Fender Contact with Tractor Components**

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).



LX1057503—UN—13MAY15

Three-Piece Front Axle

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 16 Positions (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8
270/80R36	AL209735	LI16X1	mm	2022	1992	1952	1922	1818	1788	1748	1718
			in	79.6	78.4	76.9	75.7	71.6	70.4	68.8	67.6
270/95R32	AL242260	LI16X1	mm	2006	1986	1934	1914	1830	1810	1758	1738
			in	79.0	78.2	76.1	75.4	72.0	71.3	69.2	68.4
340/85R24	AL162975	LI16X1	mm	2016	1986	1954	1924	1812	1782	1750	1720
			in	79.4	78.2	76.9	75.7	71.3	70.2	68.9	67.7
380/70R24	AL162975	LI16X1	mm	2016	1986	1954	1924	1812	1782	1750	1720
			in	79.4	78.2	76.9	75.7	71.3	70.2	68.9	67.7
380/85R24	AL162975	LI16X1	mm	2016	1986	1954	1924	1812	1782	1750	1720
			in	79.4	78.2	76.9	75.7	71.3	70.2	68.9	67.7
400/80R24 -R4	AL162975	LI16X1	mm	2016	1986	1954	1924	1812	1782	1750	1720
			in	79.4	78.2	76.9	75.7	71.3	70.2	68.9	67.7
420/70R24	AL162975	LI16X1	mm	2016	1986	1954	1924	1812	1782	1750	1720
			in	79.4	78.2	76.9	75.7	71.3	70.2	68.9	67.7
420/85R24	AL162976	LI16X1	mm	2014	1984	1952	1922	1810	1780	1748	1718
			in	79.3	78.1	76.9	75.7	71.3	70.1	68.8	67.6
440/65R24	AL162976	LI16X1	mm	2016	1986	1954	1924	1812	1782	1750	1720
			in	79.4	78.2	76.9	75.7	71.3	70.2	68.9	67.7
440/80R24 -R4	AL162976	LI16X1	mm	2014	1984	1952	1922	1810	1780	1748	1718
			in	79.3	78.1	76.9	75.7	71.3	70.1	68.8	67.6
480/65R24	AL162976	LI16X1	mm	2016*	1986	1954	1924	1812	1782	1750	1720
			in	79.4*	78.2	76.9	75.7	71.3	70.2	68.9	67.7
480/70R24	AL162976	LI16X1	mm	2014*	1984	1952	1922	1810	1780	1748	1718
			in	79.3*	78.1	76.9	75.7	71.3	70.1	68.8	67.6

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 16 Positions (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 1	**Pos. 2**	**Pos. 3**	**Pos. 4**	**Pos. 5**	**Pos. 6**	**Pos. 7**	**Pos. 8**
540/65R24	AL226981	LI16X1	mm	2018*	1988*	1952*	1922	1814	1784	1748	1718
			in	79.4*	78.3*	76.9*	75.7	71.4	70.2	68.8	67.6

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 16 Positions (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 9	**Pos. 10**	**Pos. 11**	**Pos. 12**	**Pos. 13**	**Pos. 14**	**Pos. 15**	**Pos. 16**
270/80R36	AL209735	LI16X1	mm	1622	1592	1552	1522	1418	1388	1348	—
			in	63.9	62.7	61.1	59.9	55.8	54.6	53.1	
270/95R32	AL242260	LI16X1	mm	1606	1586	1534	1514	1430	1410	1358	—
			in	63.2	62.4	60.4	59.6	56.3	55.5	53.5	
340/85R24	AL162975	LI16X1	mm	1616	1586	1554	1524	1412	1382	1350	—
			in	63.6	62.4	61.2	60.0	55.6	54.4	53.1	
380/70R24	AL162975	LI16X1	mm	1616	1586	1554	1524	1412	1382	—	—
			in	63.6	62.4	61.2	60.0	55.6	54.4		
380/85R24	AL162975	LI16X1	mm	1616	1586	1554	1524	—	—	—	—
			in	63.6	62.4	61.2	60.0				
400/80R24 -R4	AL162975	LI16X1	mm	1616	1586	1554	1524	—	—	—	—
			in	63.6	62.4	61.2	60.0				
420/70R24	AL162975	LI16X1	mm	1616	1586	1554	1524	—	—	—	—
			in	63.6	62.4	61.2	60.0				
420/85R24	AL162976	LI16X1	mm	1614	1584	1552	1522	—	—	—	—
			in	63.5	62.4	61.1	59.9				
440/65R24	AL162976	LI16X1	mm	1616	1586	1554	1524	—	—	—	—
			in	63.6	62.4	61.2	60.0				
440/80R24 -R4	AL162976	LI16X1	mm	1614	1584	1552	1522	—	—	—	—
			in	63.5	62.4	61.1	59.9				
480/65R24	AL162976	LI16X1	mm	1616	1586	1554	1524	—	—	—	—
			in	63.6	62.4	61.2	60.0				
480/70R24	AL162976	LI16X1	mm	1614	1584	—	—	—	—	—	—
			in	63.5	62.4						
540/65R24	AL226981	LI16X1	mm	—	—	—	—	—	—	—	—
			in								

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics

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Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)

IMPORTANT: Comply with instructions on front-wheel tread adjustment with rims for 32 positions.

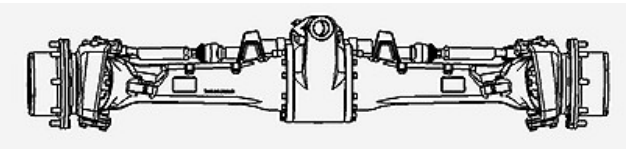
IMPORTANT: The following tables apply only for wheels that have standard rims. Non-standard rims may be pressed in to different depths. In consequence, the values shown in the tables will NOT be valid.

IMPORTANT: After setting the tread, the fender and the steering stop need to be adjusted. Afterwards oscillate the front axle with fully turned steering. If the wheels or fenders contact tractor components, correct the steering stop.

See in this section:

1. **Three-Piece Front Axle (Version 2)—Overview of Axle Category and Axle Type**
2. **Three-Piece Front Axle (Version 2)—Adjust the Fixed Fenders and Steering Stop**
3. **Preventing Front Wheel or Fender Contact with Tractor Components**

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).



LX1057503—UN—13MAY15

Three-Piece Front Axle

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8
280/85R28	AL242102	L32X1	mm	2102	2072	2042	2012	1980	1950	1920	1890
			in	82.8	81.6	80.4	79.2	78.0	76.8	75.6	74.4
320/85R28	AL242102	L32X1	mm	2102	2072	2042	2012	1980	1950	1920	1890
			in	82.8	81.6	80.4	79.2	78.0	76.8	75.6	74.4
340/85R28	AL242101	L32X1	mm	2100	2070	2040	2010	1978	1948	1918	1888
			in	82.7	81.5	80.3	79.1	77.9	76.7	75.5	74.3
380/70R28	AL242101	L32X1	mm	2100	2070	2040	2010	1978	1948	1918	1888
			in	82.7	81.5	80.3	79.1	77.9	76.7	75.5	74.3
380/85R28	AL242101	L32X1	mm	2100	2070	2040	2010	1978	1948	1918	1888
			in	82.7	81.5	80.3	79.1	77.9	76.7	75.5	74.3
400/80R28 -R4	AL242101	L32X1	mm	2100*	2070	2040	2010	1978	1948	1918	1888
			in	82.7*	81.5	80.3	79.1	77.9	76.7	75.5	74.3
420/70R28	AL242101	L32X1	mm	2100*	2070*	2040	2010	1978	1948	1918	1888
			in	82.7*	81.5*	80.3	79.1	77.9	76.7	75.5	74.3
480/65R28	AL242106	L32X1	mm	2100*	2070*	2040*	2010*	1978	1948	1918	1888
			in	82.7*	81.5*	80.3*	79.1*	77.9	76.7	75.5	74.3

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 9	Pos. 10	Pos. 11	Pos. 12	Pos. 13	Pos. 14	Pos. 15	Pos. 16
280/85R28	AL242102	L32X1	mm	1846	1816	1786	1756	1724	1702	1694	1672
			in	72.7	71.5	70.3	69.1	67.9	67.0	66.7	65.8
320/85R28	AL242102	L32X1	mm	1846	1816	1786	1756	1724	1702	1694	1672
			in	72.7	71.5	70.3	69.1	67.9	67.0	66.7	65.8
340/85R28	AL242101	L32X1	mm	1844	1814	1784	1754	1722	1700	1692	1670

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 9	**Pos. 10**	**Pos. 11**	**Pos. 12**	**Pos. 13**	**Pos. 14**	**Pos. 15**	**Pos. 16**
			in	72.6	71.4	70.2	69.1	67.8	66.9	66.6	65.7
380/70R28	AL242101	L32X1	mm	1844	1814	1784	1754	1722	1700	1692	1670
			in	72.6	71.4	70.2	69.1	67.8	66.9	66.6	65.7
380/85R28	AL242101	L32X1	mm	1844	1814	1784	1754	1722	1700	1692	1670
			in	72.6	71.4	70.2	69.1	67.8	66.9	66.6	65.7
400/80R28 -R4	AL242101	L32X1	mm	1844	1814	1784	1754	1722	1700	1692	1670
			in	72.6	71.4	70.2	69.1	67.8	66.9	66.6	65.7
420/70R28	AL242101	L32X1	mm	1844	1814	1784	1754	1722	1700	1692	1670
			in	72.6	71.4	70.2	69.1	67.8	66.9	66.6	65.7
480/65R28	AL242106	L32X1	mm	1844	1814	1784	1754	1722	1700	1692	1670
			in	72.6	71.4	70.2	69.1	67.8	66.9	66.6	65.7

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 17	**Pos. 18**	**Pos. 19**	**Pos. 20**	**Pos. 21**	**Pos. 22**	**Pos. 23**	**Pos. 24**
280/85R28	AL242102	L32X1	mm	1664	1642	1634	1612	1580	1550	1520	1490
			in	65.5	64.6	64.3	63.5	62.2	61.0	59.8	58.7
320/85R28	AL242102	L32X1	mm	1664	1642	1634	1612	1580	1550	1520	1490
			in	65.5	64.6	64.3	63.5	62.2	61.0	59.8	58.7
340/85R28	AL242101	L32X1	mm	1662	1640	1632	1610	1578	1548	1518	1488
			in	65.4	64.6	64.3	63.4	62.1	60.9	59.8	58.6
380/70R28	AL242101	L32X1	mm	1662	1640	1632	1610	1578	1548	1518	1488
			in	65.4	64.6	64.3	63.4	62.1	60.9	59.8	58.6
380/85R28	AL242101	L32X1	mm	1662	1640	1632	1610	1578	1548	1518	1488
			in	65.4	64.6	64.3	63.4	62.1	60.9	59.8	58.6
400/80R28 -R4	AL242101	L32X1	mm	1662	1640	1632	1610	1578	1548	1518	—
			in	65.4	64.6	64.3	63.4	62.1	60.9	59.8	
420/70R28	AL242101	L32X1	mm	1662	1640	1632	1610	1578	1548	1518	—
			in	65.4	64.6	64.3	63.4	62.1	60.9	59.8	
480/65R28	AL242106	L32X1	mm	1662	1640	1632	1610	1578	—	—	—
			in	65.4	64.6	64.3	63.4	62.1			

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics

Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 25	**Pos. 26**	**Pos. 27**	**Pos. 28**	**Pos. 29**	**Pos. 30**	**Pos. 31**	**Pos. 32**
280/85R28	AL242102	L32X1	mm	1446	1416	1386	1356	1324	1294	—	—
			in	56.9	55.7	54.6	53.4	52.1	50.9		
320/85R28	AL242102	L32X1	mm	1446	1416	1386	1356	—	—	—	—
			in	56.9	55.7	54.6	53.4				
340/85R28	AL242101	L32X1	mm	1444	1414	—	—	—	—	—	—
			in	56.9	55.7						

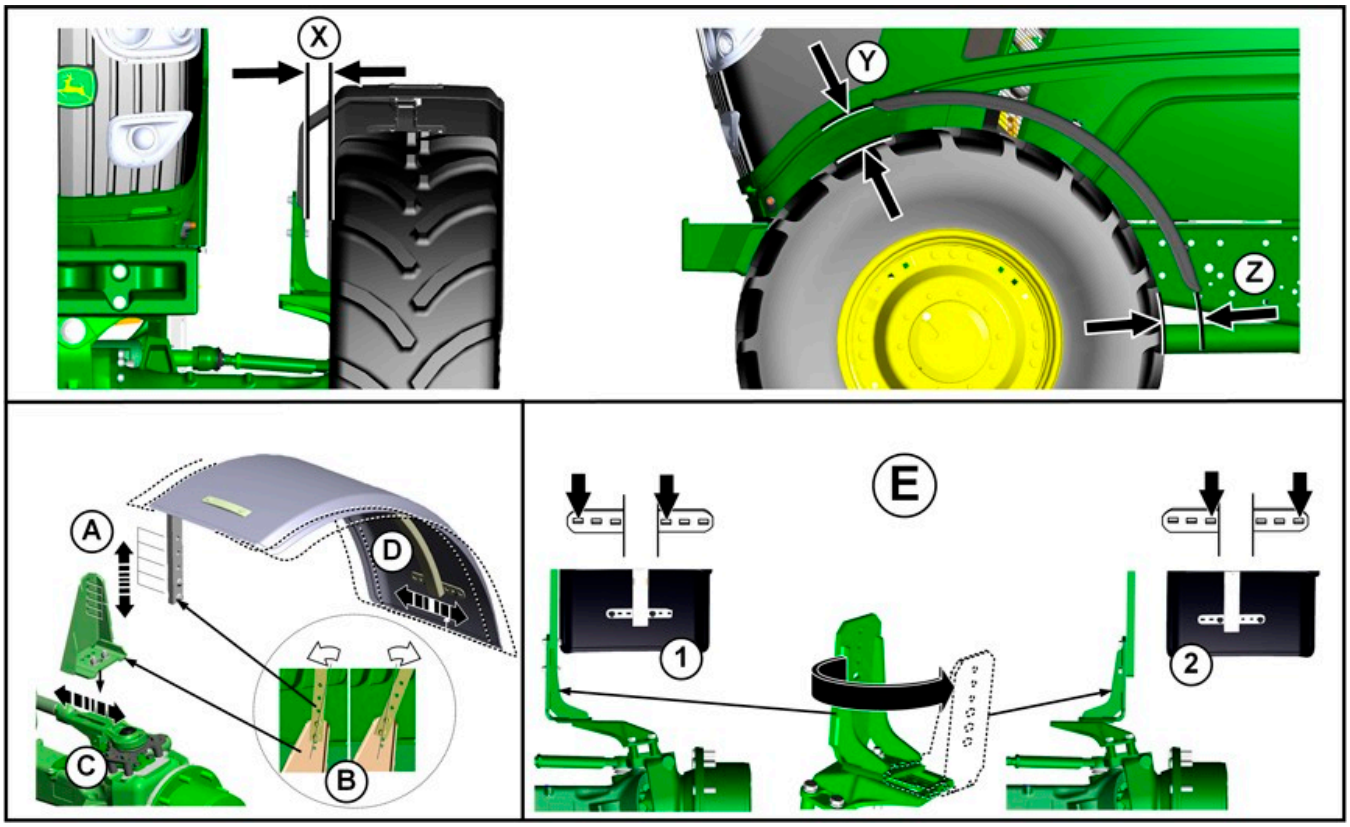
Three-Piece Front Axle (Version 2)—Tread Widths for Front Wheels with Rims for 32 Positions (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 25	**Pos. 26**	**Pos. 27**	**Pos. 28**	**Pos. 29**	**Pos. 30**	**Pos. 31**	**Pos. 32**
380/70R28	AL242101	L32X1	mm	1444	—	—	—	—	—	—	—
			in	56.9							
380/85R28	AL242101	L32X1	mm	—	—	—	—	—	—	—	—
			in								
400/80R28 -R4	AL242101	L32X1	mm	—	—	—	—	—	—	—	—
			in								
420/70R28	AL242101	L32X1	mm	—	—	—	—	—	—	—	—
			in								
480/65R28	AL242106	L32X1	mm	—	—	—	—	—	—	—	—
			in								

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics

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Steering Stop and Fender—Settings

Fender Settings



LX622470—UN—03JUN24

Use the various options shown to adjust the fenders according to the wheel position. When adjusting the fender position, keep the recommended minimum distances:

(X) = 50 mm (2 in) between fender bracket and wheel

(Y) = 60 mm (2.4 in) between fender and wheel at top

(Z) = 60 mm (2.4 in) between rigid fender and wheel at rear

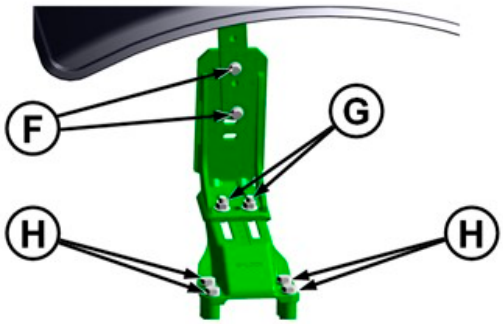
(Z) = 80 mm (3.2 in) between pivot fender and wheel at rear

A—Height Adjustment: Remove the height adjustment bolts, raise the fender to the required height and reinsert the bolts. Before tightening the screws, pivot the fender (B) to achieve the distances (Y) and (Z) depending to the fender

C—Side Adjustment 1: The fender can be moved to the right and left on the console. Loosen the screws, move the fender to the desired position and tighten the screws.

D—Side Adjustment 2: If necessary, the position of the fender overlay can be changed to the right and left in relation to the retaining bracket. This allows for adjustment when width setting 1 has not been sufficient.

E—Side Adjustment 3: In order to adjust the minimum width **(1)** or the maximum width **(2)**, the fender support must be turned 180° on the console (see illustration).



LX514324—UN—09AUG23

F—Bolts, Fender to Console, 90 N·m (65 lb·ft)
G—Bolts, Console to Support, 160 N·m (120 lb·ft)
H—Bolts, Support to Knuckle Housing, 170 N·m (125 lb·ft)

IMPORTANT: The steering stop setting must be checked after each change of tread or fender setting. Failure to do so will result in damage upon wheel and fender contact with other components.

IMPORTANT: If equipped with the asymmetrical fender support, ensure it points backwards after rotating it 180 degrees. To accomplish this, swap the left fender support from the left axle side to the right side, and vice versa.

oulxa64,MP,1691658019098-19-04JUN24

Steering Stop Setting

IMPORTANT: Check the steering stop setting as conditions change in the front area of the vehicle. Below are some examples that require steering stops to be checked:

- **Changing fender or wheel position**
- **Changing the tire size**
- **Adding ballast weight**
- **Installing front implements**
- **Installing additional equipment**

1. Force the axle to fully oscillate to the stop on the left side.



LX514326—UN—09AUG23

CAUTION: There is a risk of accident due to the required steering movement.

Staying near moving parts can cause entrapment, resulting in serious injury.

Do not let anyone approach the tractor during checks while the engine is running.

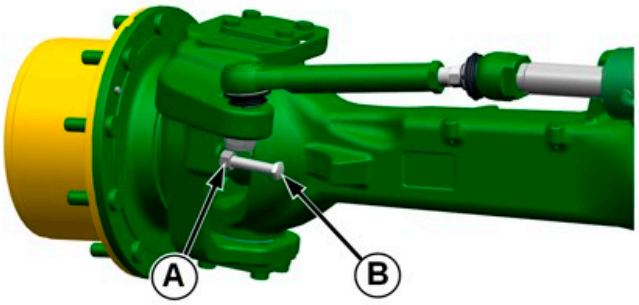
2. Slowly steer to the right and stop steering before the wheel or fender touches tractor components. Set the right steering stop to a clearance of approx. 20 mm (0.8 in).



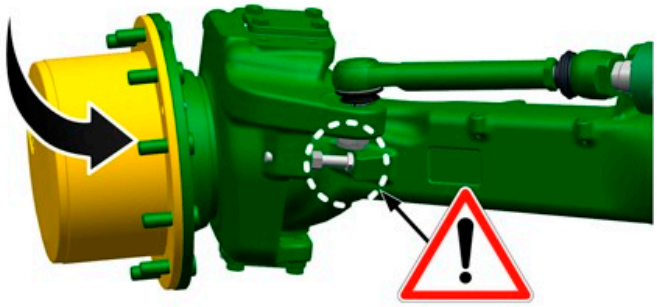
LX514322—UN—09AUG23

3. Slowly steer to the left and stop steering before the wheel or fender touches tractor components. Set the left steering stop to a clearance of approx. 20 mm (0.8 in).

4. Fully oscillate the axle to the stop on the right side.



5. Repeat steps 2 and 3 and correct the steering stop settings if necessary.

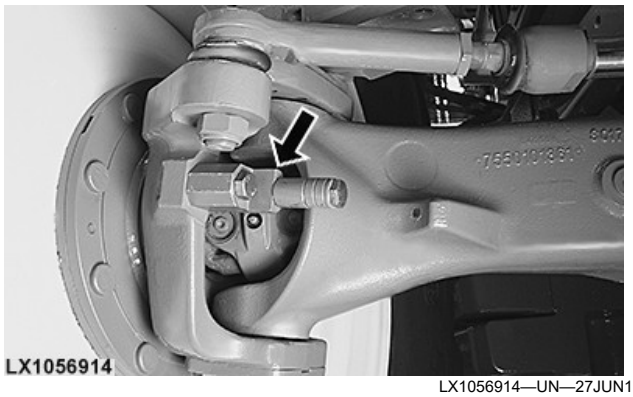


LX514325—UN—09AUG23

IMPORTANT: When setting the steering stop, make sure the screw (B) is properly aligned with the cam on the axle housing. The screw (B) must remain at least 20 mm (0.8 in) in the threaded hole, otherwise it breaks out. Tighten the locknut (A) to 120 N·m (89 lb·ft). Steer to the stop five times and retighten the locknut to the specified torque.

After every setting, observe the following: Set the shutoff angle for the automatic engagement and disengagement of the frontwheel drive. See Engage Front-Wheel Drive in section 50A of the relevant Operator's Manual.

NOTE: If the steering stop screw (B) is not long enough or it doesn't align to the cam on the axle housing, a steering stop kit can be used. Verify if the Steering Stop Kit AL225331 is suitable for your application, if required.



LX1056914—UN—27JUN13

Steering Stop Kit AL225331

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Rear Wheels, Tires, and Tread Widths (MC)

Tires and Wheels—Foreword

The wheels, tires, and their gauges as listed in these operating instructions can be fitted.

In some regions, not all tires are available.

The tires displayed may not be compatible with your specific tractor model.

The current edition of the sales brochure is authoritative.

80,ALL,LX25458,0000A46-19-17SEP24

Instructions for Rear Wheel Tread Adjustment with Rims for 2, 8, 16 and 32 Positions (Flanged Axle)

CAUTION: Serious accidents with life-threatening injuries.

Contact of the wheel with tractor components leads to personal injury and property damage.

When setting the track widths or changing the wheel configuration, make sure that a minimum distance of 25 mm (1 in) mm to tractor components is guaranteed. If this minimum distance cannot be maintained, a larger track width must be set or a suitable wheel configuration must be used.

IMPORTANT: Observe the following after a tread adjustment:

• Tighten all wheel bolts and wheel nuts to the specified torque. Check the torque on the wheel nuts and wheel bolts after 4 and 8 hours of operation and also frequently during the next 100 hours of operation.

• Check that wheels can move freely.

• Do not let tires come into contact with draft links or lift links. If there is contact, note the following:

1. **Increase the distance from the lift link to the tire by mounting the lift links in the front hole of the draft link.**
2. **The stabilizer bars (hydraulic or mechanical) have to be locked when lifting the draft links even if no implement is attached.**
3. **If there is still contact with the draft links or lift links despite all these measures, then the tread width needs to be increased.**

IMPORTANT: The distance between the side wall of the tire and tractor components should not be less than 25 mm (1 in).

The distance between the running surface (edge) of the tire and tractor components must not be less than 25 mm (1 in).

If snow chains are installed on the tires, the minimum distance from the tires to the tractor components (side wall to fender and running surface to tractor components) must be 100 mm (4 in).

IMPORTANT: For hub extension, use the torques of the wheels.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

Rear Wheels with Rims for 2 Positions

The tread width can be changed by mounting the complete tires on the other tractor side. In doing so, maintain the rolling direction of the tires.

Rear Wheels with Rims for 8, 16 and 32 Positions

Wheel tread can be adjusted by repositioning or reversing the wheel rims.

In addition, the complete wheel can be installed on the other side of the tractor. In doing so, maintain the rolling direction of the tires.

IMPORTANT: The following tables apply only for wheels that have standard rims. Non-standard rims may be pressed in to different depths. In consequence, the values shown in the tables will NOT be valid.

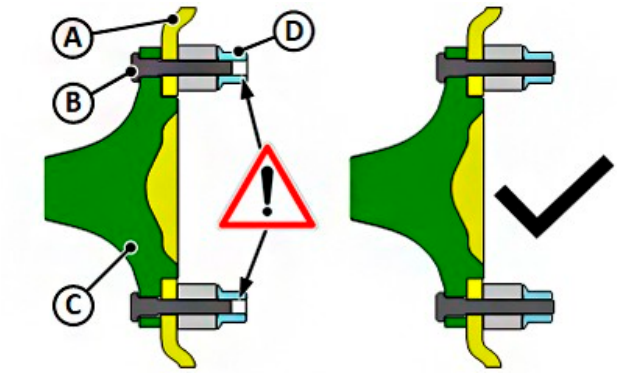
NOTE: Before adjusting tread width, pay attention to the position of the wheel dish relative to the rim of the rear wheel. See illustrations accompanying the tread width tables in Group 30 of the relevant Supplement for Tire Information.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2,55 m (100 in.).

CAUTION: Danger to life and high property damage.

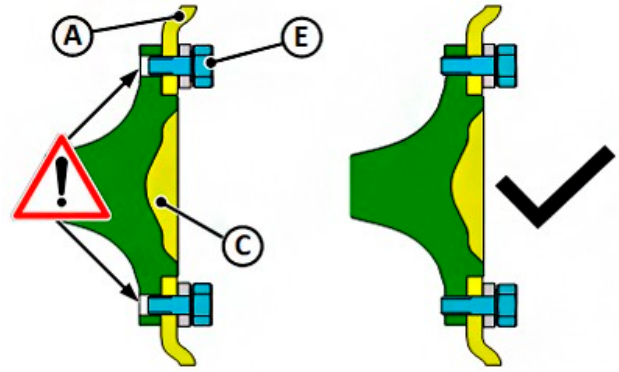
Missing, loose or too short screws and wheel bolts can lead to the loss of the wheel.

When attaching a wheel, it is important to ensure that all screws are tightened and that the screws used provides sufficient screw in depth.



LX601411—UN—19DEC23

Example: Example: Flange Axle Shown, Version with Nuts



LX601412—UN—19DEC23

Example: Example: Flange Axle Shown, Version with Screws

A—Rim
B—Bolt
C—Hub (Flange)
D—Nut
E—Screw

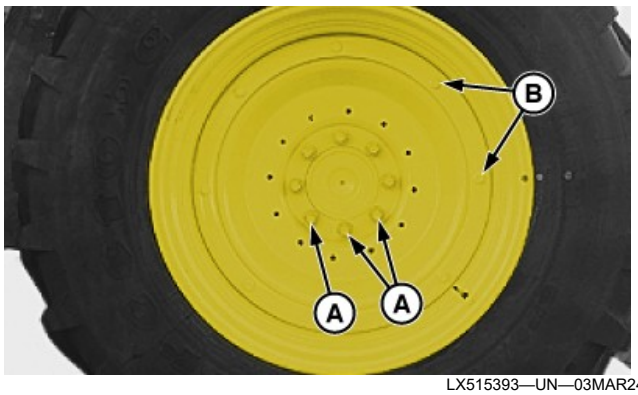
When changing wheels, make sure that fasteners are used according to the requirements of the wheel set being used. Screws, nuts, washers, bushings, and reinforcement rings must match the axle rim combination used. According to the spare parts catalog, only original parts should be used.

Refer to the following:

Tighten Rear Wheel Bolts—Flanged Axles in this section.

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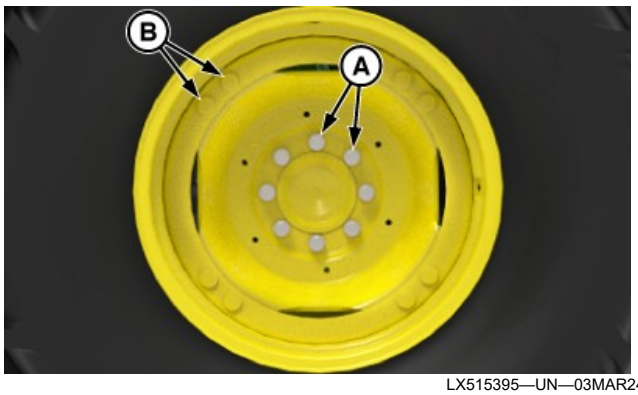
Tighten Rear Wheel Bolts—Flanged Axles



LX515393—UN—03MAR24

Rear Wheel with 8-Hole Circle and Round Wheel Dish

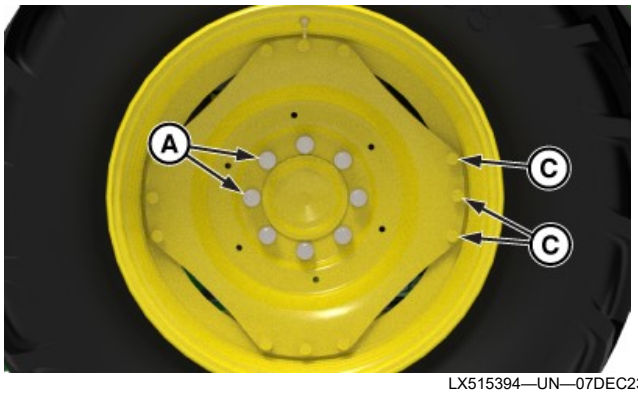
A—500 N·m (370 lb·ft)
B—210 N·m (155 lb·ft)



LX515395—UN—03MAR24

Rear Wheel with 8-Hole Circle and Square Wheel Dish

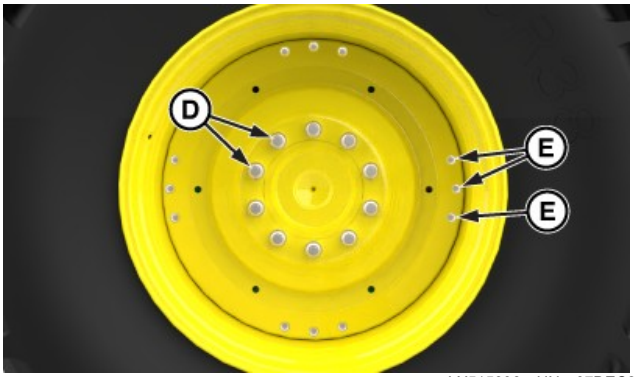
A—500 N·m (370 lb·ft)
B—210 N·m (155 lb·ft)



LX515394—UN—07DEC23

Rear Wheel with 8-Bolt Circle and Waffle Rim

A—500 N·m (370 lb·ft)
C—Gold Bolt—280 N·m (205 lb·ft)
C—Gray-Blue Bolt—265 N·m (195 lb·ft)



LX515396—UN—07DEC23

Rear Wheel with 10-Hole Circle and Waffle Rim

D—600 N·m (445 lb·ft)
E—Gold Bolt—280 N·m (205 lb·ft)
E—Gray-Blue Bolt—265 N·m (195 lb·ft)

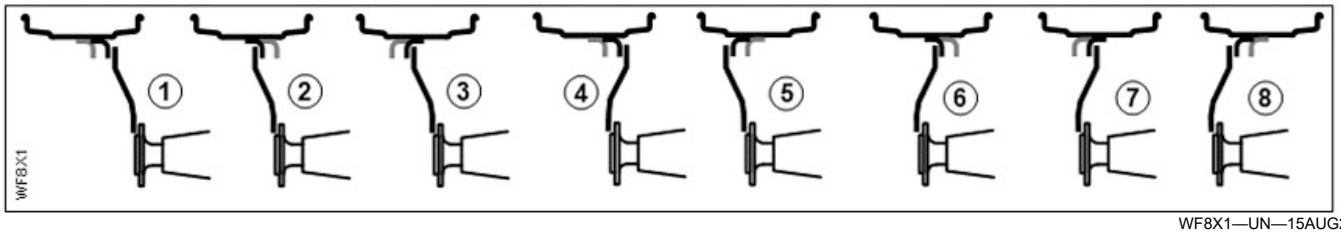
220C,10,oulxa64,1708350054724-19-27FEB24

Rim Assembly Configuration Graphics

NOTE: The rim cluster specifications are valid for front and rear wheels.

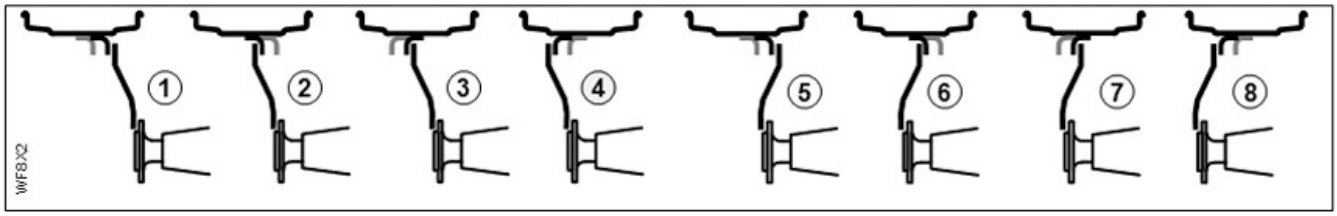
Rim assembly configuration is shown in the grafics. Refer to the relevant rim cluster number as shown in tread setting tables.

8 Position Rim



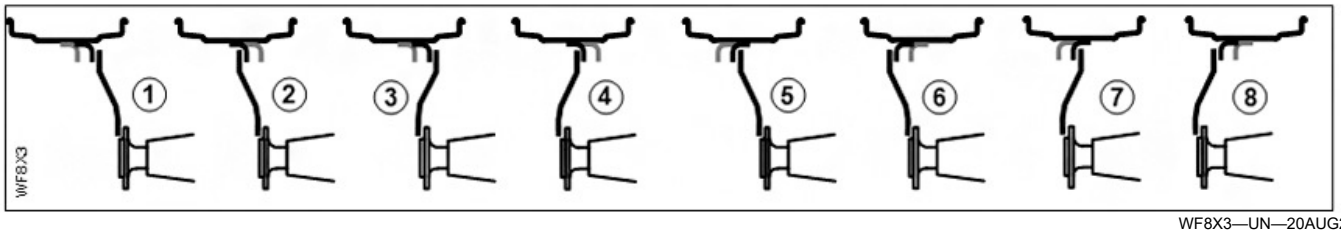
WF8X1—UN—15AUG24

Rim Cluster Type WF8X1



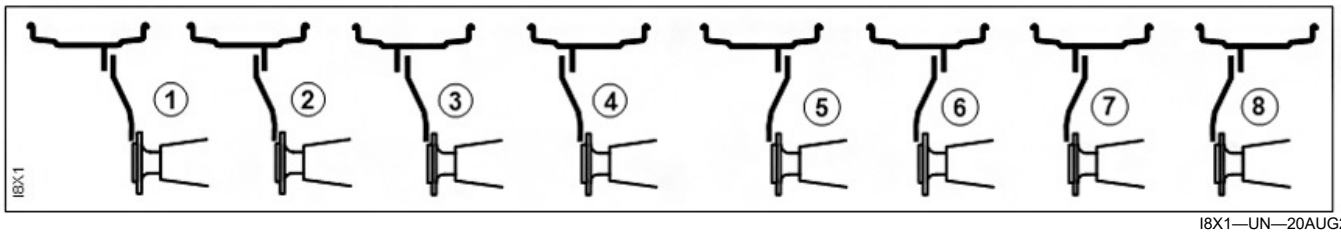
WF8X2—UN—15AUG24

Rim Cluster Type WF8X2



WF8X3—UN—20AUG24

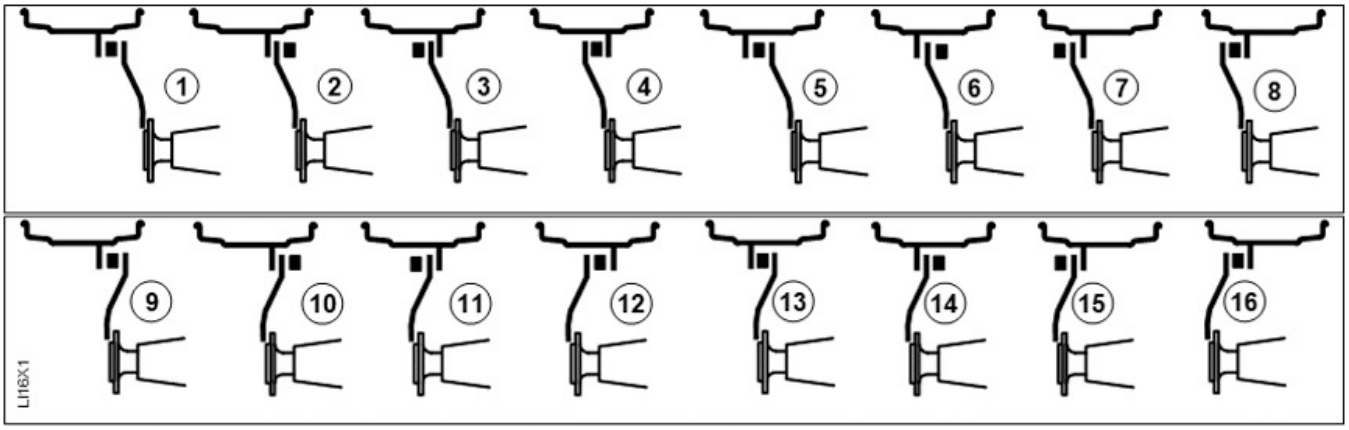
Rim Cluster Type WF8X3



I8X1—UN—20AUG24

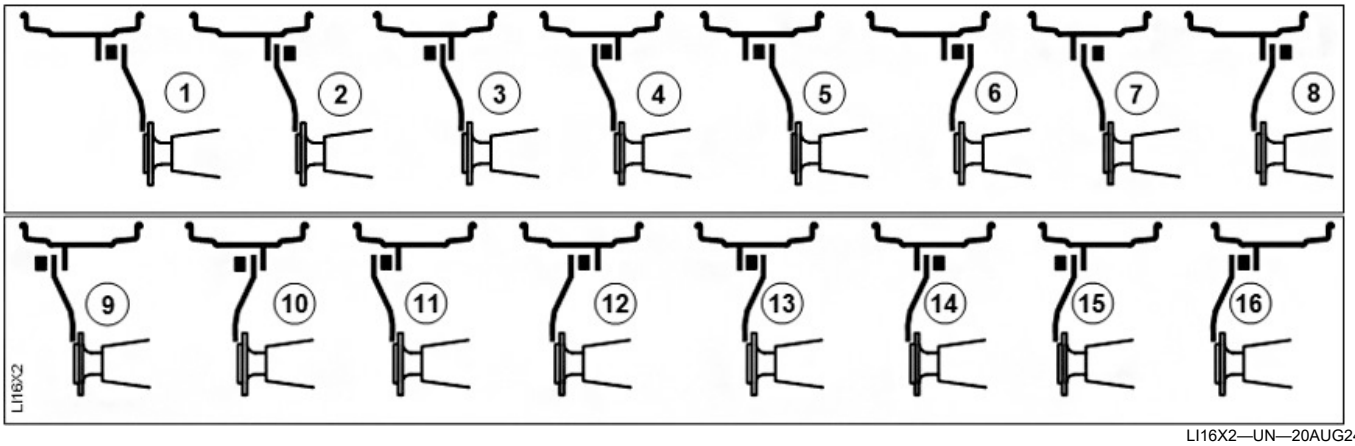
Rim Cluster Type I8X1

16 Position Rim



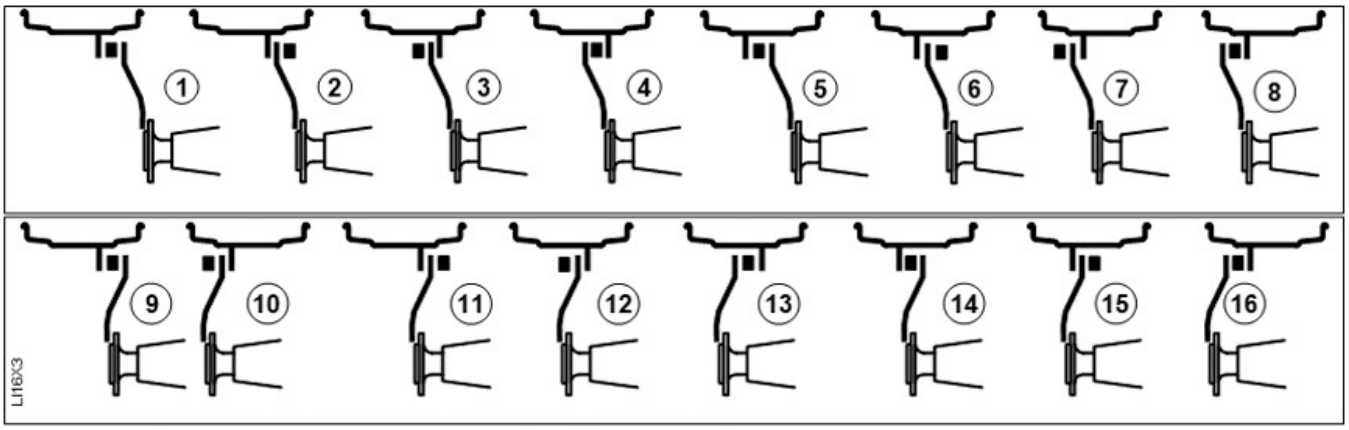
LI16X1—UN—15AUG24

Rim Cluster Type LI16X1



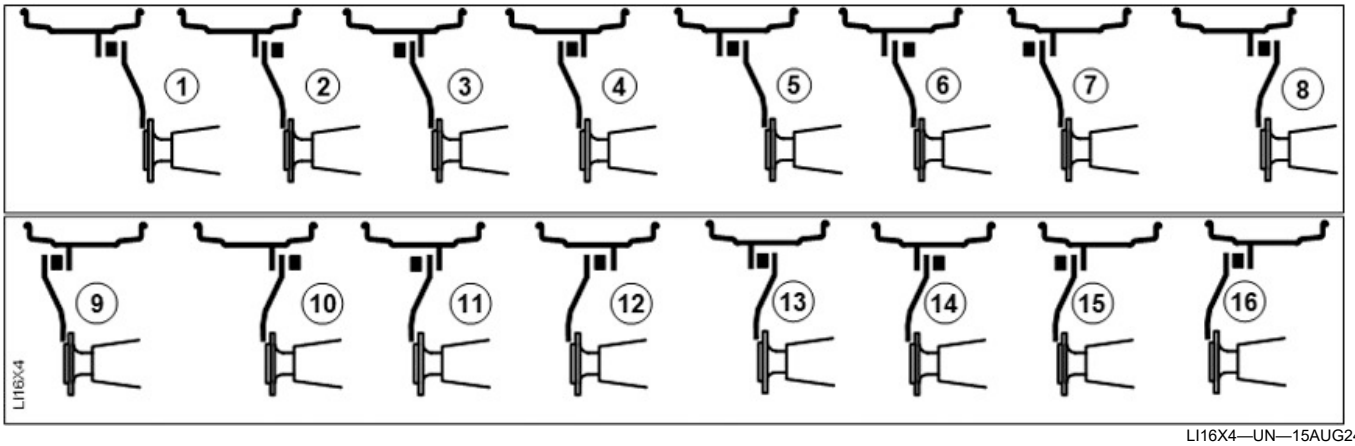
LI16X2—UN—20AUG24

Rim Cluster Type LI16X2



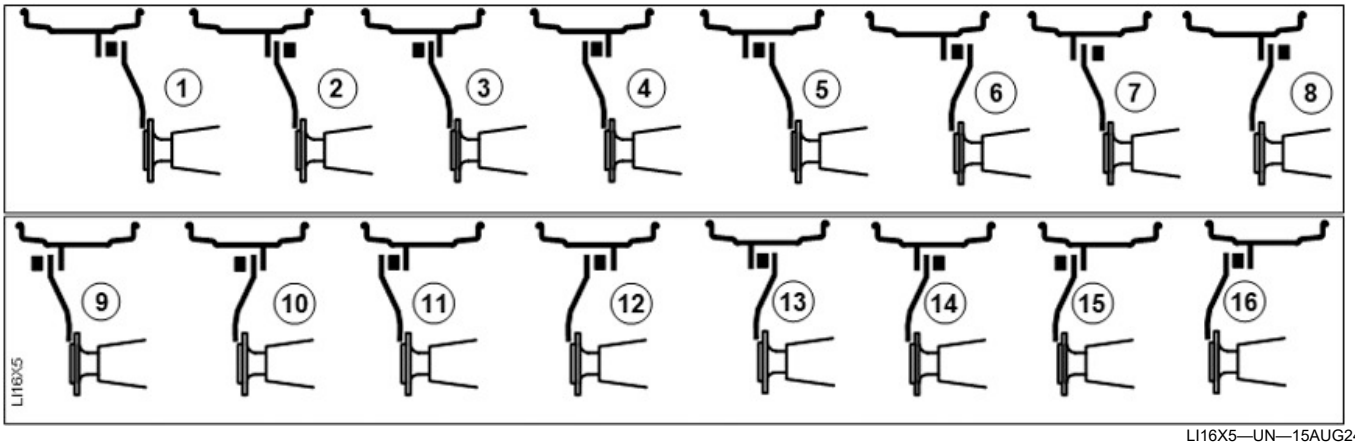
LI16X3—UN—15AUG24

Rim Cluster Type LI16X3



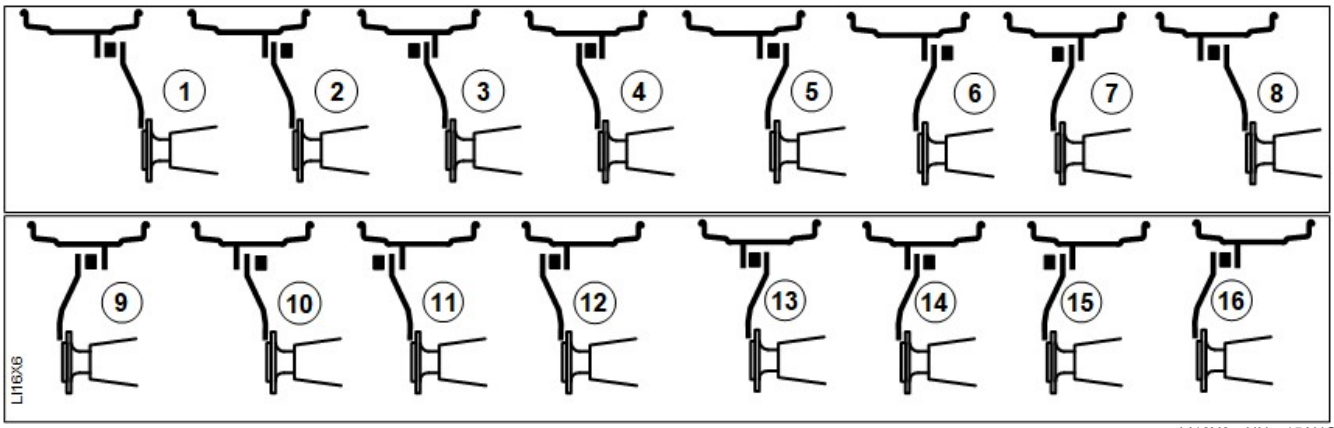
LI16X4—UN—15AUG24

Cluster Type LI16X4



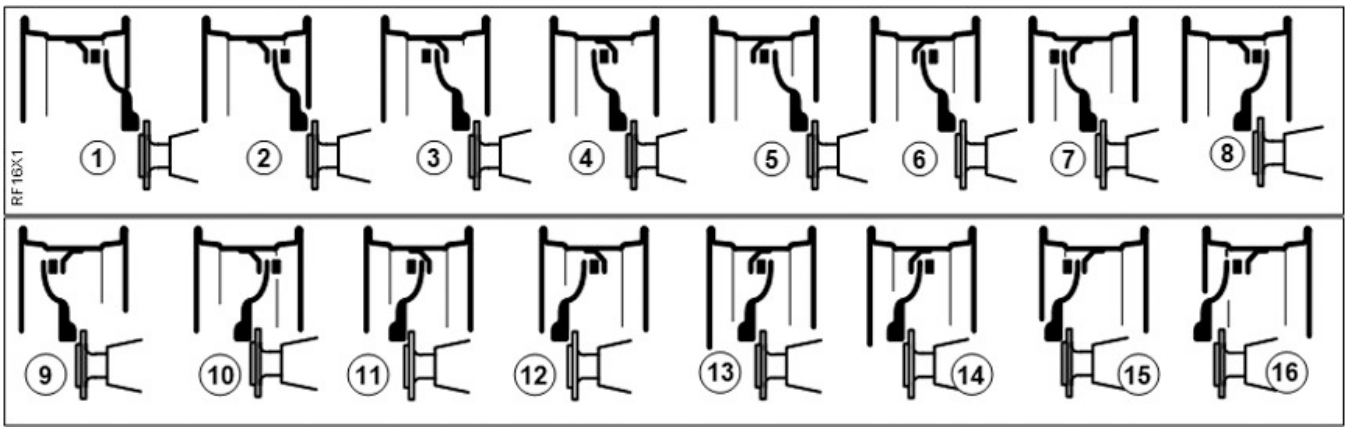
LI16X5—UN—15AUG24

Rim Cluster Type LI16X5



LI16X6—UN—15AUG24

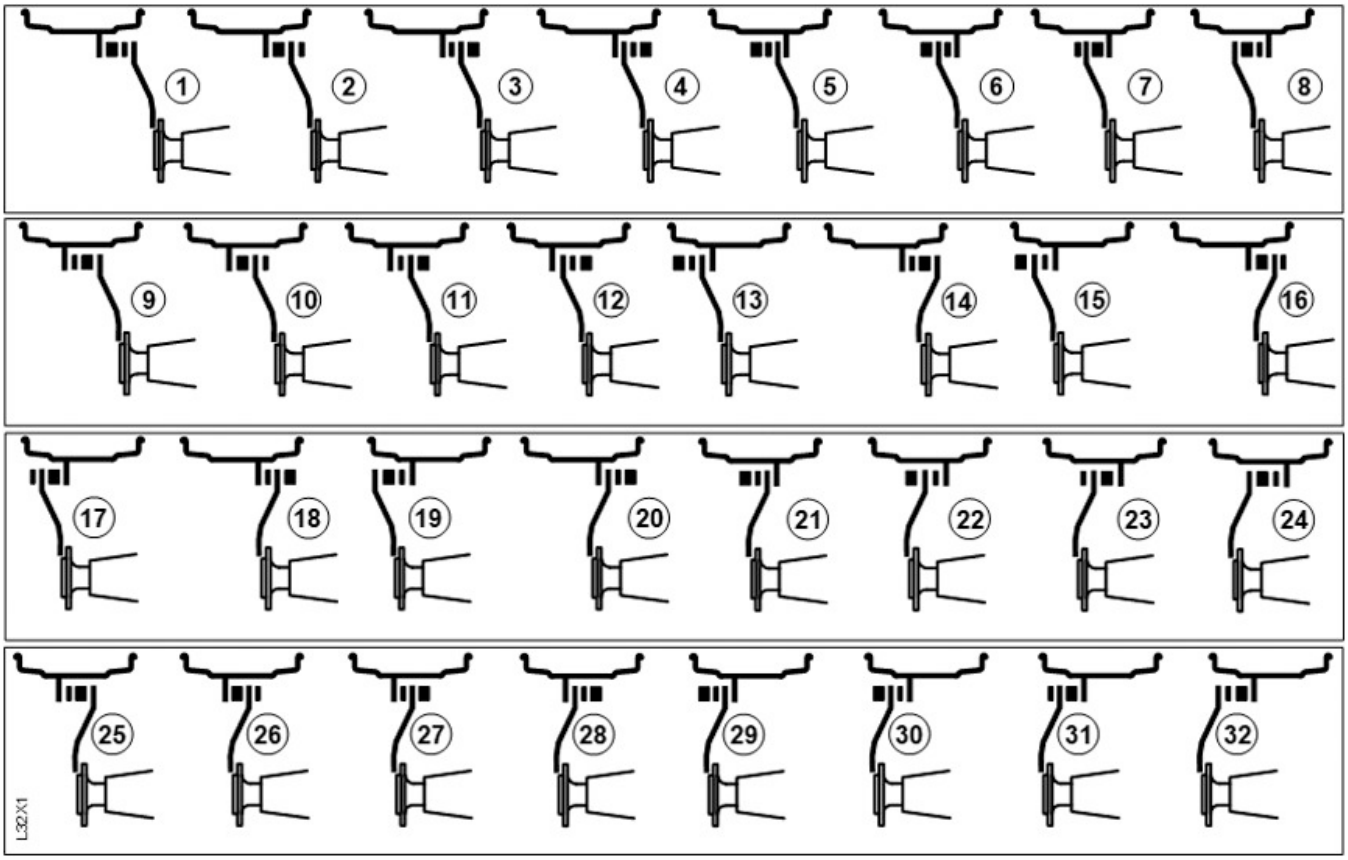
Rim Cluster Type LI16X6



RF16X1—UN—15AUG24

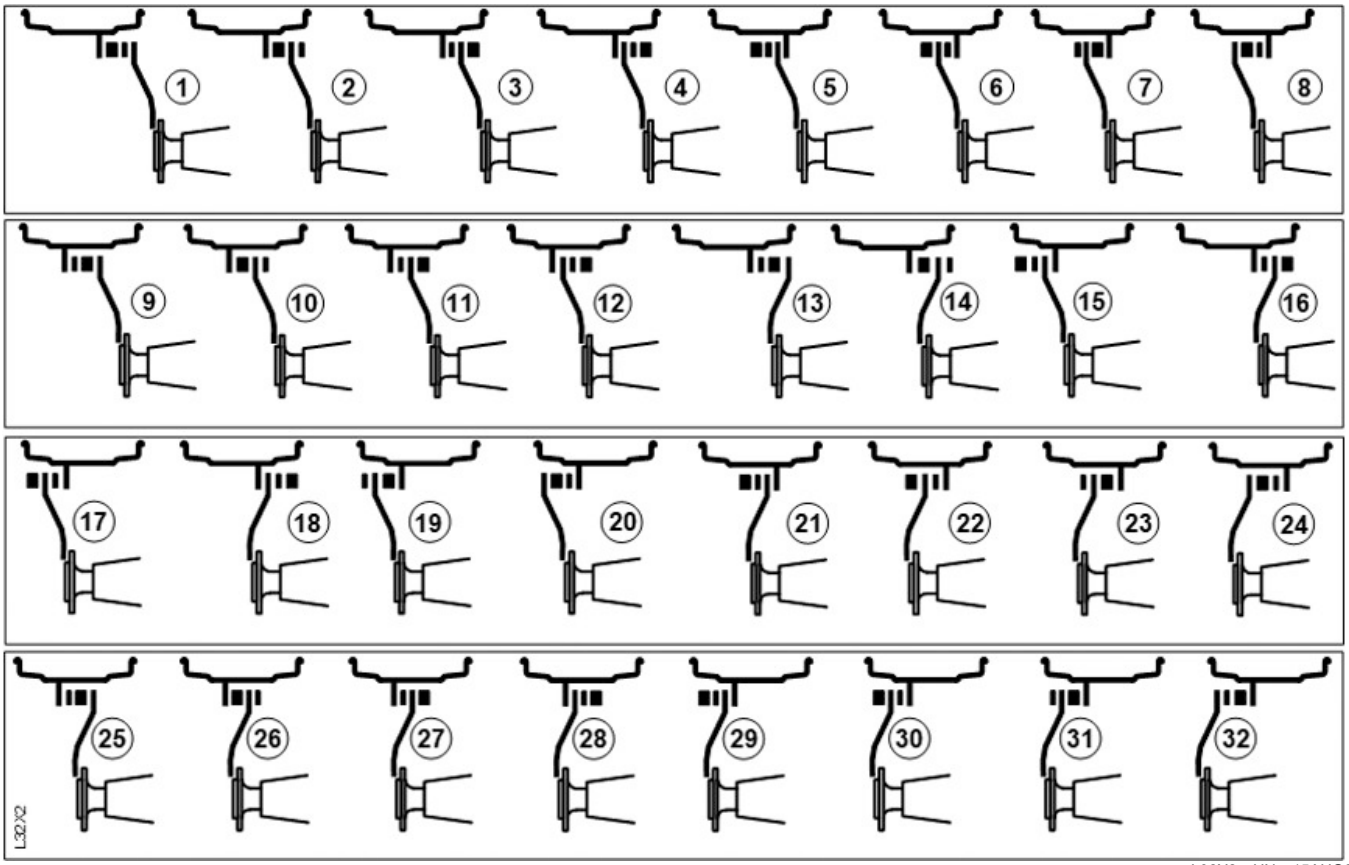
Rim Cluster Type RF16X1

32 Position Rim



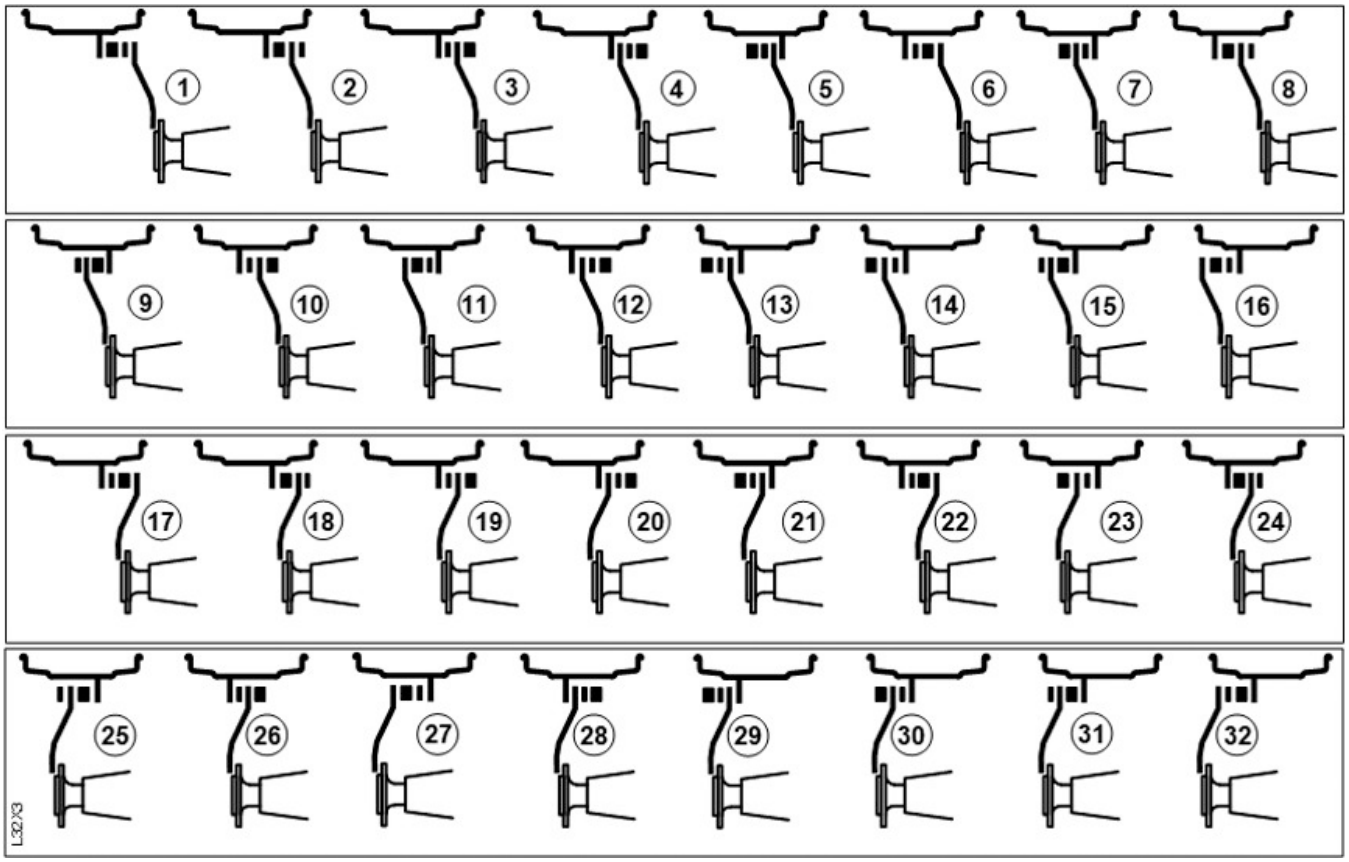
L32X1—UN—15AUG24

Rim Cluster Type L32X1



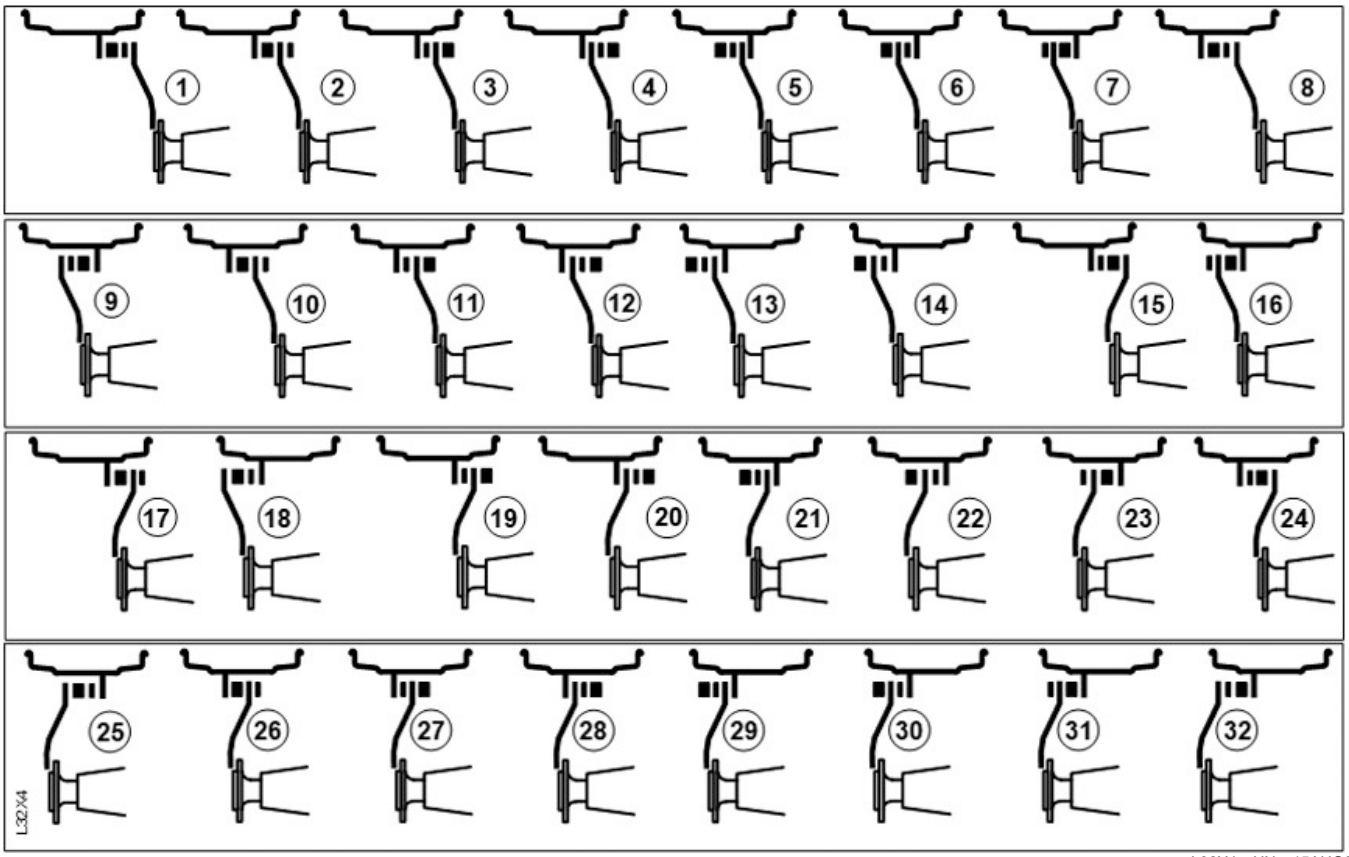
L32X2—UN—15AUG24

Rim Cluster Type L32X2



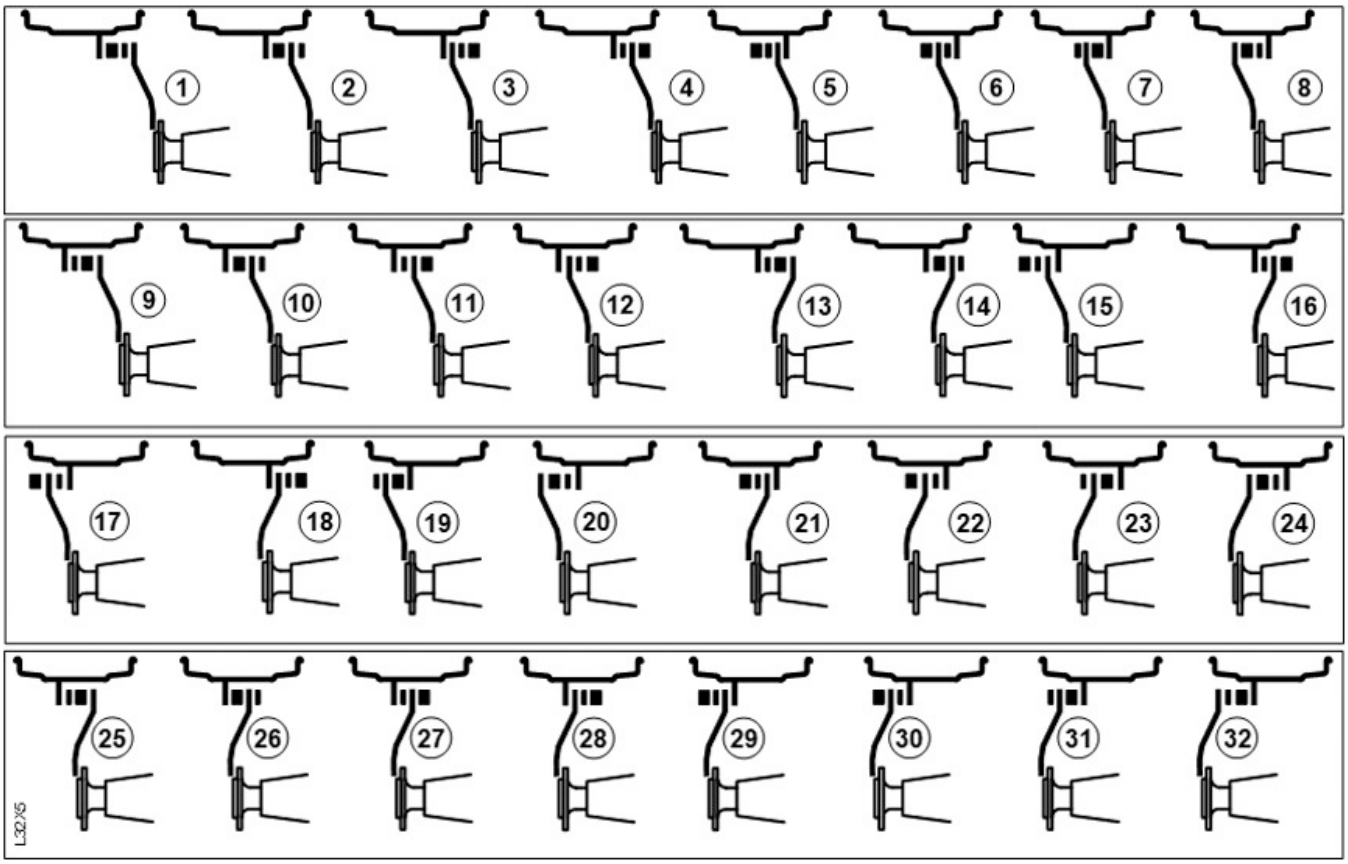
L32X3—UN—15AUG24

Rim Cluster Type L32X3



L32X4—UN—15AUG24

Rim Cluster Type L32X4

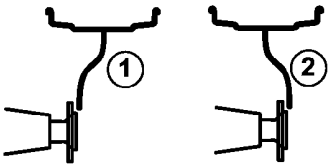


L32X5—UN—15AUG24

Rim Cluster Type L32X5

jg60889,1725535450838-19-18SEP24

Tread Widths for Rear Wheels with Rims for 2 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)



LX1053403—UN—12MAR12

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 2 positions.

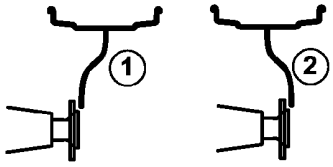
NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

Tread Widths for Rear Wheels with Rims for 2 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
16.9R34	AL242267	mm	1816	—
		in	71.5	
16.9R38	AL242182	mm	1816	—
		in	71.5	
18.4R30	AL242259	mm	1816	—
		in	71.5	
18.4R34	AL242267	mm	1816	—
		in	71.5	
18.4R38	AL242182	mm	1816	—

Tread Widths for Rear Wheels with Rims for 2 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
		in	71.5	
420/85R34	AL242267	mm	1816	—
		in	71.5	
420/85R38	AL242182	mm	1816	—
		in	71.5	
460/85R30	AL242259	mm	1816	—
		in	71.5	
460/85R34	AL242267	mm	1816	—
		in	71.5	
460/85R38	AL242182	mm	1816	—
		in	71.5	
480/70R34	AL242267	mm	1816	—
		in	71.5	
480/70R38	AL242182	mm	1816	—
		in	71.5	
480/80R34 -R4	AL242267	mm	1816	—
		in	71.5	
480/80R38 -R4	AL242182	mm	1816	—
		in	71.5	
520/70R34	AL242171	mm	1816	—
		in	71.5	
520/70R38	AL242168	mm	1812	—
		in	71.3	
540/65R34	AL242171	mm	1816	—
		in	71.5	
540/65R38	AL242168	mm	1812	—
		in	71.3	
600/65R34	AL242171	mm	1816	—
		in	71.5	
— Installation in this position is not allowed.				

jg60889,1738918159383-19-10MAR25

Tread Widths for Rear Wheels with Rims for 2 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)



LX1053403—UN—12MAR12

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 2 positions.

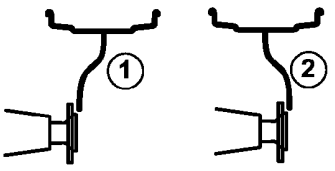
NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

Tread Widths for Rear Wheels with Rims for 2 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
16.9R34	AL242266	mm	1700	—
		in	66.9	

Tread Widths for Rear Wheels with Rims for 2 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
16.9R38	AL242255	mm	1700	—
		in	66.9	
18.4R34	AL242266	mm	1700	—
		in	66.9	
18.4R38	AL242255	mm	1700	—
		in	66.9	
420/85R34	AL242266	mm	1700	—
		in	66.9	
420/85R38	AL242255	mm	1700	—
		in	66.9	
460/85R34	AL242266	mm	1700	—
		in	66.9	
460/85R38	AL242255	mm	1700	—
		in	66.9	
480/70R34	AL242266	mm	1700	—
		in	66.9	
480/70R38	AL242255	mm	1700	—
		in	66.9	
480/80R34 -R4	AL242266	mm	1700	—
		in	66.9	
480/80R38 -R4	AL242255	mm	1700	—
		in	66.9	
520/70R34	AL242257	mm	1700	—
		in	66.9	
520/70R38	AL242178	mm	1700	—
		in	66.9	
540/65R34	AL242257	mm	1700	—
		in	66.9	
540/65R38	AL242178	mm	1700	—
		in	66.9	
600/65R34	AL242257	mm	1700	—
		in	66.9	
600/65R38	AL205108	mm	1700	—
		in	66.9	
— Installation in this position is not allowed.				

jg60889,1738927524021-19-12FEB25

Tread Widths for Rear Wheels with Rims for 2 Positions, Heavy-Duty Type—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)



LX1053403—UN—12MAR12

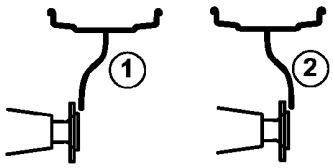
IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 2 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

Tread Widths for Rear Wheels with Rims for 2 Positions, Heavy-Duty Type—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
16.9R38	AL236806	mm	1812	—
		in	71.3	
18.4R38	AL236806	mm	1812	—
		in	71.3	
420/85R38	AL236806	mm	1812	—
		in	71.3	
460/85R38	AL236806	mm	1812	—
		in	71.3	
480/70R38	AL236806	mm	1812	—
		in	71.3	
480/80R38 -R4	AL236806	mm	1812	—
		in	71.3	
520/70R38	AL236805	mm	1812	—
		in	71.3	
540/65R38	AL236805	mm	1812	—
		in	71.3	
— Installation in this position is not allowed.				

jg60889,1739261512906-19-12FEB25

Tread Widths for Rear Wheels with Rims for 2 Positions, Heavy-Duty Type—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)



LX1053403—UN—12MAR12

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 2 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

Tread Widths for Rear Wheels with Rims for 2 Positions, Heavy-Duty Type—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
16.9R38	AL236804	mm	1700	1558
		in	66.9	61.3
18.4R38	AL236804	mm	1700	—
		in	66.9	
420/85R38	AL236804	mm	1700	1558
		in	66.9	61.3
460/85R38	AL236804	mm	1700	1558
		in	66.9	61.3
480/70R38	AL236804	mm	1700	—
		in	66.9	
480/80R38 -R4	AL236804	mm	1700	—
		in	66.9	
520/70R38	AL228769	mm	1700	—

Tread Widths for Rear Wheels with Rims for 2 Positions, Heavy-Duty Type—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)				
Tires	Part Number	Unit	Arrangement of Rim and Wheel Dish	
			Pos. 1	Pos. 2
		in	66.9	
540/65R38	AL228769	mm	1700	—
		in	66.9	
600/65R38	AL228770	mm	1700	—
		in	66.9	
— Installation in this position is not allowed.				

jg60889,1738927574786-19-12FEB25

Tread Widths for Rear Wheels with Rims for 8 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 8 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Tread Widths for Rear Wheels with Rims for 8 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8
16.9R34	AL242194	WF8X2	mm	1928	1816	1716	1604	—	—	—	—
			in	75.9	71.5	67.6	63.1				
18.4R34	AL242194	WF8X2	mm	1928	1816	1716	1604	—	—	—	—
			in	75.9	71.5	67.6	63.1				
420/85R34	AL242194	WF8X2	mm	1928	1816	1716	1604	1528	—	—	—
			in	75.9	71.5	67.6	63.1	60.2			
460/85R34	AL242194	WF8X2	mm	1928	1816	1716	1604	—	—	—	—
			in	75.9	71.5	67.6	63.1				
480/70R34	AL242194	WF8X2	mm	1928	1816	1716	1604	—	—	—	—
			in	75.9	71.5	67.6	63.1				
480/80R34 -R4	AL242194	WF8X2	mm	1928	1816	1716	1604	—	—	—	—
			in	75.9	71.5	67.6	63.1				
— Installation in this position is not allowed. *** Refer to Rim Assembly Configuration Graphics.											

jg60889,1738927621426-19-12FEB25

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 16 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 1	**Pos. 2**	**Pos. 3**	**Pos. 4**	**Pos. 5**	**Pos. 6**	**Pos. 7**	**Pos. 8**
13.6-46 -R2	AL242263	LI16X4	mm	2000	1928	1872	1800	1732	1660	1604	1600
			in	78.7	75.9	73.7	70.9	68.2	65.4	63.1	63.0
16.9R34	AL218728	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
16.9R38	AL218732	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
16.9R38	AL220757	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
18.4R34	AL218728	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
18.4R38	AL218732	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
18.4R38	AL220757	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
270/95R48	AL209743	LI16X1	mm	1918	1888	1846	1816	1714	1684	1642	1612
			in	75.5	74.3	72.7	71.5	67.5	66.3	64.6	63.5
300/95R46	AL209739	LI16X1	mm	1918	1888	1846	1816	1714	1684	1642	1612
			in	75.5	74.3	72.7	71.5	67.5	66.3	64.6	63.5
420/85R34	AL218728	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
420/85R38	AL218732	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
420/85R38	AL220757	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
460/85R34	AL218728	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
460/85R38	AL218732	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
460/85R38	AL220757	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
480/70R34	AL218728	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
480/70R38	AL218732	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
480/70R38	AL220757	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
480/80R34 -R4	AL218728	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
480/80R38 -R4	AL218732	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
480/80R38 -R4	AL220757	LI16X1	mm	1916	1886	1846	1816	1712	1682	1642	1612
			in	75.4	74.3	72.7	71.5	67.4	66.2	64.6	63.5
520/70R34	AL242147	LI16X6	mm	1912	1892	1840	1820	—	—	—	—
			in	75.3	74.5	72.4	71.7				
540/65R34	AL242147	LI16X6	mm	1912	1892	1840	1820	—	—	—	—
			in	75.3	74.5	72.4	71.7				
600/65R34	AL242147	LI16X6	mm	1912	1892	1840	1820	—	—	—	—
			in	75.3	74.5	72.4	71.7				

— Installation in this position is not allowed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*****	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 9	**Pos. 10**	**Pos. 11**	**Pos. 12**	**Pos. 13**	**Pos. 14**	**Pos. 15**	**Pos. 16**
13.6-46 -R2	AL242263	LI16X4	mm	1532	1528	1472	—	—	—	—	—
			in	60.3	60.2	58.0					
16.9R34	AL218728	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
16.9R38	AL218732	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
16.9R38	AL220757	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
18.4R34	AL218728	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
18.4R38	AL218732	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
18.4R38	AL220757	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
270/95R48	AL209743	LI16X1	mm	1518	1488	1446	1416	—	—	—	—
			in	59.8	58.6	56.9	55.7				
300/95R46	AL209739	LI16X1	mm	1518	1488	1446	1416	—	—	—	—
			in	59.8	58.6	56.9	55.7				
420/85R34	AL218728	LI16X1	mm	1516	—	—	—	—	—	—	—
			in	59.7							
420/85R38	AL218732	LI16X1	mm	1516	—	—	—	—	—	—	—
			in	59.7							
420/85R38	AL220757	LI16X1	mm	1516	—	—	—	—	—	—	—
			in	59.7							
460/85R34	AL218728	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
460/85R38	AL218732	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
460/85R38	AL220757	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
480/70R34	AL218728	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
480/70R38	AL218732	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
480/70R38	AL220757	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
480/80R34 -R4	AL218728	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
480/80R38 -R4	AL218732	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
480/80R38 -R4	AL220757	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
520/70R34	AL242147	LI16X6	mm	1652	—	—	—	—	—	—	—
			in	65.0							
540/65R34	AL242147	LI16X6	mm	1652	—	—	—	—	—	—	—
			in	65.0							
600/65R34	AL242147	LI16X6	mm	—	—	—	—	—	—	—	—
			in								

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)											
Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 9	Pos. 10	Pos. 11	Pos. 12	Pos. 13	Pos. 14	Pos. 15	Pos. 16
— Installation in this position is not allowed. *** Refer to Rim Assembly Configuration Graphics.											

jg60889,1738918268266-19-10MAR25

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 16 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8
270/95R48	AL242142	LI16X1	mm	1908	1888	1832	1812	1720	1700	1644	1624
			in	75.1	74.3	72.1	71.3	67.7	66.9	64.7	63.9
300/95R46	AL209740	LI16X1	mm	1918	1888	1846	1816	1714	1684	1642	1612
			in	75.5	74.3	72.7	71.5	67.5	66.3	64.6	63.5
320/90R42	AL242204	LI16X1	mm	1908	1888	1832	1812	1720	1700	1644	1624
			in	75.1	74.3	72.1	71.3	67.7	66.9	64.7	63.9
520/70R34	AL242192	LI16X1	mm	1908	1888	1840	1820	1708	1688	1640	1620
			in	75.1	74.3	72.4	71.7	67.2	66.5	64.6	63.8
540/65R34	AL242192	LI16X1	mm	1908	1888	1840	1820	1708	1688	—	—
			in	75.1	74.3	72.4	71.7	67.2	66.5		
600/65R34	AL242192	LI16X1	mm	1908	1888	1840	1820	1708	1688	—	—
			in	75.1	74.3	72.4	71.7	67.2	66.5		
— Installation in this position is not allowed. *** Refer to Rim Assembly Configuration Graphics.											

Tread Widths for Rear Wheels with Rims for 16 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 9	Pos. 10	Pos. 11	Pos. 12	Pos. 13	Pos. 14	Pos. 15	Pos. 16
270/95R48	AL242142	LI16X1	mm	1508	1488	1432	1412	—	—	—	—
			in	59.4	58.6	56.4	55.6				
300/95R46	AL209740	LI16X1	mm	1518	1488	1446	1416	—	—	—	—
			in	59.8	58.6	56.9	55.7				
320/90R42	AL242204	LI16X1	mm	1508	1488	1432	1412	—	—	—	—
			in	59.4	58.6	56.4	55.6				
520/70R34	AL242192	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
540/65R34	AL242192	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
600/65R34	AL242192	LI16X1	mm	—	—	—	—	—	—	—	—
			in								
— Installation in this position is not allowed. *** Refer to Rim Assembly Configuration Graphics.											

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Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 32 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8
13.6R38	AL242258	L32X1	mm	2002	1972	1942	1912	1872	1842	1812	1782
			in	78.8	77.6	76.5	75.3	73.7	72.5	71.3	70.2
18.4R30	AL242109	L32X1	mm	2000	1970	1940	1910	1872	1842	1812	1782
			in	78.7	77.6	76.4	75.2	73.7	72.5	71.3	70.2
340/85R38	AL242258	L32X1	mm	2002	1972	1942	1912	1872	1842	1812	1782
			in	78.8	77.6	76.5	75.3	73.7	72.5	71.3	70.2
380/80R38	AL242258	L32X1	mm	2002	1972	1942	1912	1872	1842	1812	1782
			in	78.8	77.6	76.5	75.3	73.7	72.5	71.3	70.2
460/85R30	AL242109	L32X1	mm	2000	1970	1940	1910	1872	1842	1812	1782
			in	78.7	77.6	76.4	75.2	73.7	72.5	71.3	70.2
520/70R38	AL242190	L32X1	mm	2002	1972	1942	1912	1872	1842	1812	1782
			in	78.8	77.6	76.5	75.3	73.7	72.5	71.3	70.2
540/65R38	AL242190	L32X1	mm	2002*	1972	1942	1912	1872	1842	1812	1782
			in	78.8*	77.6	76.5	75.3	73.7	72.5	71.3	70.2

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 9	Pos. 10	Pos. 11	Pos. 12	Pos. 13	Pos. 14	Pos. 15	Pos. 16
13.6R38	AL242258	L32X1	mm	1746	1716	1686	1656	1616	1602	1586	1572
			in	68.7	67.6	66.4	65.2	63.6	63.1	62.4	61.9
18.4R30	AL242109	L32X1	mm	1744	1714	1684	1654	1616	1600	1586	—
			in	68.7	67.5	66.3	65.1	63.6	63.0	62.4	
340/85R38	AL242258	L32X1	mm	1746	1716	1686	1656	1616	1602	1586	1572
			in	68.7	67.6	66.4	65.2	63.6	63.1	62.4	61.9
380/80R38	AL242258	L32X1	mm	1746	1716	1686	1656	1616	1602	1586	1572
			in	68.7	67.6	66.4	65.2	63.6	63.1	62.4	61.9
460/85R30	AL242109	L32X1	mm	1744	1714	1684	1654	1616	1600	1586	1570
			in	68.7	67.5	66.3	65.1	63.6	63.0	62.4	61.8
520/70R38	AL242190	L32X1	mm	1746	1716	1686	1656	1616	—	—	—
			in	68.7	67.6	66.4	65.2	63.6			
540/65R38	AL242190	L32X1	mm	1746	1716	1686	1656	—	—	—	—
			in	68.7	67.6	66.4	65.2				

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)												
Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 17	Pos. 18	Pos. 19	Pos. 20	Pos. 21	Pos. 22	Pos. 23	Pos. 24
13.6R38	AL242258	L32X1	mm	1556	1542	1526	1512	1472	—	—	—
			in	61.3	60.7	60.1	59.5	58.0			
18.4R30	AL242109	L32X1	mm	—	—	—	—	—	—	—	—
			in								
340/85R38	AL242258	L32X1	mm	1556	1542	1526	1512	1472	1442	—	—
			in	61.3	60.7	60.1	59.5	58.0	56.8		
380/80R38	AL242258	L32X1	mm	1556	1542	1526	1512	1472	—	—	—
			in	61.3	60.7	60.1	59.5	58.0			
460/85R30	AL242109	L32X1	mm	1556	—	—	—	—	—	—	—
			in	61.3							
520/70R38	AL242190	L32X1	mm	—	—	—	—	—	—	—	—
			in								
540/65R38	AL242190	L32X1	mm	—	—	—	—	—	—	—	—
			in								

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 203 mm (MC Frame Version)												
Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 25	Pos. 26	Pos. 27	Pos. 28	Pos. 29	Pos. 30	Pos. 31	Pos. 32
13.6R38	AL242258	L32X1	mm	—	—	—	—	—	—	—	—
			in								
18.4R30	AL242109	L32X1	mm	—	—	—	—	—	—	—	—
			in								
340/85R38	AL242258	L32X1	mm	—	—	—	—	—	—	—	—
			in								
380/80R38	AL242258	L32X1	mm	—	—	—	—	—	—	—	—
			in								
460/85R30	AL242109	L32X1	mm	—	—	—	—	—	—	—	—
			in								
520/70R38	AL242190	L32X1	mm	—	—	—	—	—	—	—	—
			in								
540/65R38	AL242190	L32X1	mm	—	—	—	—	—	—	—	—
			in								

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

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Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)

IMPORTANT: Comply with instructions on rear-wheel tread adjustment with rims for 32 positions.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

The rim cluster column shows the graphic number that should be used to find the necessary rim assembly information.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 1	Pos. 2	Pos. 3	Pos. 4	Pos. 5	Pos. 6	Pos. 7	Pos. 8
13.6R38	AL242128	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
13.6-46 -R2	AL242117	L32X5	mm	2034	2004	1974	1944	1894	1864	1834	1804
			in	80.1	78.9	77.7	76.5	74.6	73.4	72.2	71.0
16.9R38	AL242126	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
18.4R38	AL242126	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
340/85R38	AL242128	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
380/80R38	AL242128	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
420/85R38	AL242126	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
460/85R38	AL242126	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
480/70R38	AL242126	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
480/80R38 -R4	AL242126	L32X2	mm	2024	1994	1964	1934	1894	1864	1834	1804
			in	79.7	78.5	77.3	76.1	74.6	73.4	72.2	71.0
520/70R38	AL242125	L32X2	mm	2024*	1994	1964	1934	1894	1864	1834	1804
			in	79.7*	78.5	77.3	76.1	74.6	73.4	72.2	71.0
540/65R38	AL242125	L32X2	mm	2024*	1994*	1964	1934	1894	1864	1834	1804
			in	79.7*	78.5*	77.3	76.1	74.6	73.4	72.2	71.0
600/65R38	AL242124	L32X2	mm	2024*	1994*	1964*	1934	1894	1864	1834	1804
			in	79.7*	78.5*	77.3*	76.1	74.6	73.4	72.2	71.0

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)

Tires	Part Number	Rim Cluster***	Unit	Arrangement of Rim and Wheel Dish							
				Pos. 9	Pos. 10	Pos. 11	Pos. 12	Pos. 13	Pos. 14	Pos. 15	Pos. 16
13.6R38	AL242128	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	1564
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	61.6
13.6-46 -R2	AL242117	L32X5	mm	1730	1700	1670	1640	1634	1604	1590	1574
			in	68.1	66.9	65.7	64.6	64.3	63.1	62.6	62.0
16.9R38	AL242126	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	1564
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	61.6
18.4R38	AL242126	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	—
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	
340/85R38	AL242128	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	1564

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 9	**Pos. 10**	**Pos. 11**	**Pos. 12**	**Pos. 13**	**Pos. 14**	**Pos. 15**	**Pos. 16**
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	61.6
380/80R38	AL242128	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	1564
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	61.6
420/85R38	AL242126	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	1564
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	61.6
460/85R38	AL242126	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	1564
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	61.6
480/70R38	AL242126	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	—
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	
480/80R38 -R4	AL242126	L32X2	mm	1724	1694	1664	1634	1624	1594	1594	—
			in	67.9	66.7	65.5	64.3	63.9	62.8	62.8	
520/70R38	AL242125	L32X2	mm	1724	1694	1664	1634	1624	—	—	—
			in	67.9	66.7	65.5	64.3	63.9			
540/65R38	AL242125	L32X2	mm	1724	1694	1664	—	—	—	—	—
			in	67.9	66.7	65.5					
600/65R38	AL242124	L32X2	mm	1724	1694	1664	—	—	—	—	—
			in	67.9	66.7	65.5					

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 17	**Pos. 18**	**Pos. 19**	**Pos. 20**	**Pos. 21**	**Pos. 22**	**Pos. 23**	**Pos. 24**
13.6R38	AL242128	L32X2	mm	1564	1534	1534	1504	1494	1464	—	—
			in	61.6	60.4	60.4	59.2	58.8	57.6		
13.6-46 -R2	AL242117	L32X5	mm	1560	1544	1530	1500	1494	1464	—	—
			in	61.4	60.8	60.2	59.1	58.8	57.6		
16.9R38	AL242126	L32X2	mm	1564	—	—	—	—	—	—	—
			in	61.6							
18.4R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
340/85R38	AL242128	L32X2	mm	1564	1534	1534	1504	1494	1464	1434	—
			in	61.6	60.4	60.4	59.2	58.8	57.6	56.5	
380/80R38	AL242128	L32X2	mm	1564	1534	1534	1504	1494	—	—	—
			in	61.6	60.4	60.4	59.2	58.8			
420/85R38	AL242126	L32X2	mm	1564	1534	1534	—	—	—	—	—
			in	61.6	60.4	60.4					
460/85R38	AL242126	L32X2	mm	1564	—	—	—	—	—	—	—
			in	61.6							
480/70R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
480/80R38 -R4	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
520/70R38	AL242125	L32X2	mm	—	—	—	—	—	—	—	—
			in								
540/65R38	AL242125	L32X2	mm	—	—	—	—	—	—	—	—
			in								
600/65R38	AL242124	L32X2	mm	—	—	—	—	—	—	—	—

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 17	**Pos. 18**	**Pos. 19**	**Pos. 20**	**Pos. 21**	**Pos. 22**	**Pos. 23**	**Pos. 24**
			in								

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

Tread Widths for Rear Wheels with Rims for 32 Positions—Flanged Axles, Bolt Circle Diameter 275 mm (MC Frame Version)											
Tires	**Part Number**	**Rim Cluster*** **	**Unit**	**Arrangement of Rim and Wheel Dish**							
				Pos. 25	**Pos. 26**	**Pos. 27**	**Pos. 28**	**Pos. 29**	**Pos. 30**	**Pos. 31**	**Pos. 32**
13.6R38	AL242128	L32X2	mm	—	—	—	—	—	—	—	—
			in								
13.6-46 -R2	AL242117	L32X5	mm	—	—	—	—	—	—	—	—
			in								
16.9R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
18.4R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
340/85R38	AL242128	L32X2	mm	—	—	—	—	—	—	—	—
			in								
380/80R38	AL242128	L32X2	mm	—	—	—	—	—	—	—	—
			in								
420/85R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
460/85R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
480/70R38	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
480/80R38 -R4	AL242126	L32X2	mm	—	—	—	—	—	—	—	—
			in								
520/70R38	AL242125	L32X2	mm	—	—	—	—	—	—	—	—
			in								
540/65R38	AL242125	L32X2	mm	—	—	—	—	—	—	—	—
			in								
600/65R38	AL242124	L32X2	mm	—	—	—	—	—	—	—	—
			in								

— Installation in this position is not allowed.
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.
*** Refer to Rim Assembly Configuration Graphics.

jg60889,1738927712583-19-12FEB25

Steel Adjustable Wheels in Combination with Adjustable Rear Axles

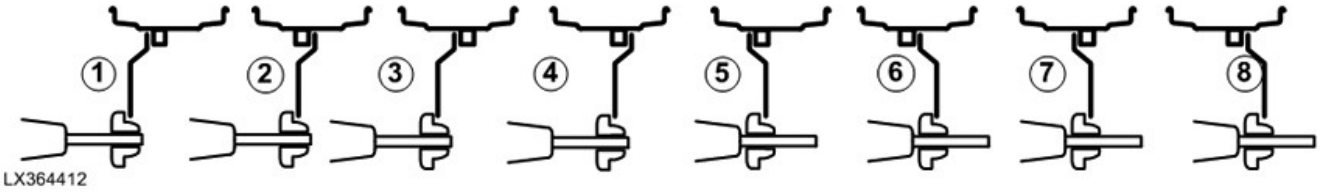
CAUTION: Risk of personal injury and property damage due to loss of control of the tractor.

The overuse of wheels leads to damage and as a result to dangerous driving situations.

Avoid overstressing and use only permissible wheel mounting.

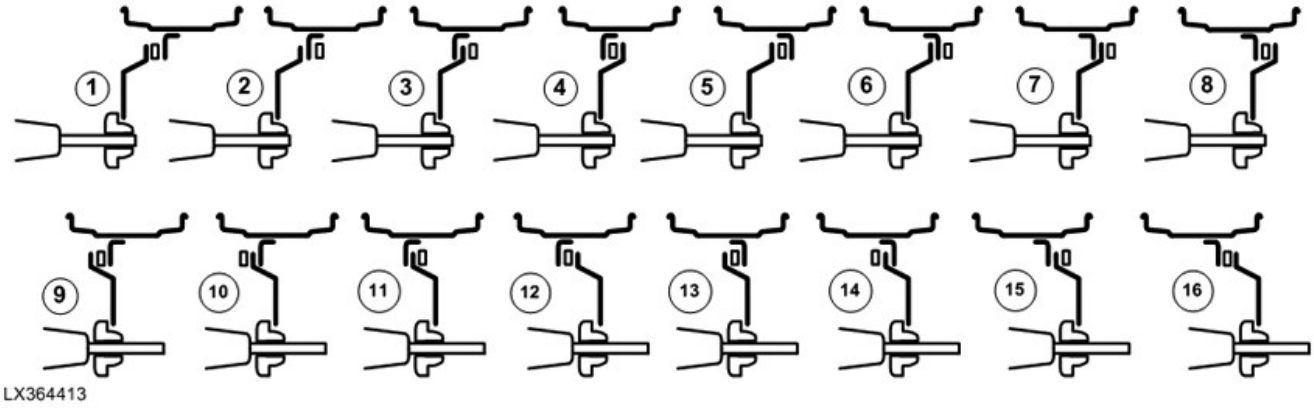
When using a steel adjustable wheel on an adjustable rear axle, mount the Rim and Wheel Dish as shown.

Use only the wheels and hub positions shown. Deviating wheel mounting is not permitted.



LX364412—UN—02JUL19

Steel adjustable wheels for 8 positions. For wheel positions 5 to 8, the position of the wheel hub must be observed.



LX364413—UN—02JUL19

Steel adjustable wheels for 16 positions. For wheel positions 9 to 16, the position of the wheel hub must be observed.

OULXA64,ALL,00053EC-19-22FEB22

Notes on Rear Wheels—Rack-and-Pinion Axles, Shaft Diameter 79 mm with Single Tapered Clamping Sleeves

CAUTION: Serious accidents with life-threatening injuries.

Contact of the wheel with tractor components leads to personal injury and property damage.

When setting the track widths or changing the wheel configuration, make sure that a minimum distance of 25 mm (1 in) mm to tractor components is guaranteed. If this minimum distance cannot be maintained, a larger track width must be set or a suitable wheel configuration must be used.

CAUTION: Danger of injury from improperly tightened or missing wheel bolts or wheel nuts!

Improperly tightened wheel bolts and wheel nuts can become loose and be lost while the vehicle is driving. There is a risk of fatal personal injuries and high property damage due to loss of control over the vehicle.

- **Use only wheel bolts and wheel nuts that belong to the wheel.**
- **Never use different wheel bolts and wheel nuts.**
- **Never operate machine with loose wheel bolts and wheel nuts.**
- **Tighten all wheel bolts and wheel nuts only to the specified torque.**
- **Before starting to drive, check that all wheel bolts and wheel nuts are mounted and firmly seated.**

IMPORTANT: The distance between the side wall of the tire and tractor components should not be less than 25 mm (1 in).

The distance between the running surface (edge) of the tire and tractor components must not be less than 25 mm (1 in).

If snow chains are installed on the tires, the minimum distance from the tires to the tractor components (side wall to fender and running surface to tractor components) must be 100 mm (4 in).

IMPORTANT: Do not use clamp-on style dual wheels when the tractor is equipped with steel wheels and flanged axle.

IMPORTANT: After adjusting tread, check that the wheels can turn freely.

Do NOT let tires come into contact with draft links or lift links. The gap between lift links and tires can be increased by installing the lift links in the front holes of the draft links.

When draft links are raised (even if no implement is attached), the hydraulic or mechanical stabilizer bars must be locked.

If there is still contact with the draft links or lift links despite all these measures, tread width must be increased.

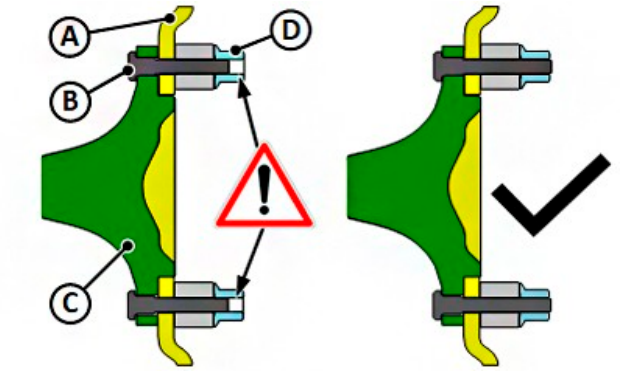
Retighten bolts to the specified torque after 3 operating hours and 10 operating hours.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

CAUTION: Danger to life and high property damage.

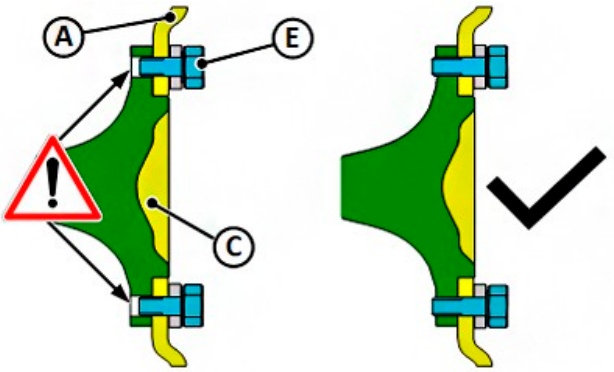
Missing, loose or too short screws and wheel bolts can lead to the loss of the wheel.

When attaching a wheel, it is important to ensure that all screws are tightened and that the screws used provides sufficient screw in depth.



LX601411—UN—19DEC23

Example: Example: Flange Axle Shown, Version with Nuts



LX601412—UN—19DEC23

Example: Example: Flange Axle Shown, Version with Screws

A—Rim
B—Bolt

C—Hub (Flange)
D—Nut
E—Screw

When changing wheels, make sure that fasteners are used according to the requirements of the wheel set being used. Screws, nuts, washers, bushings, and reinforcement rings must match the axle rim combination used. According to the spare parts catalog, only original parts should be used.

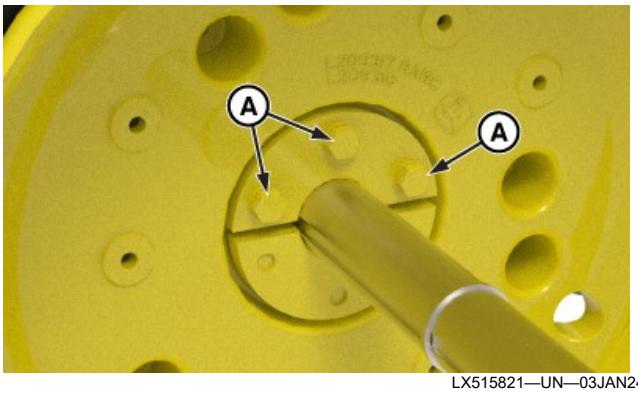
Refer to the following:

Tighten Rear Wheel Bolts—Rack-and-Pinion Axles, Hub Diameter 79 mm with Single Tapered Clamping Sleeves in this section.

LX25458,4CYL,0000A8C-19-10JUL25

Tighten Rear Wheel Bolts—Rack-and-Pinion Axles, Shaft Diameter 79 mm with Single Tapered Clamping Sleeves

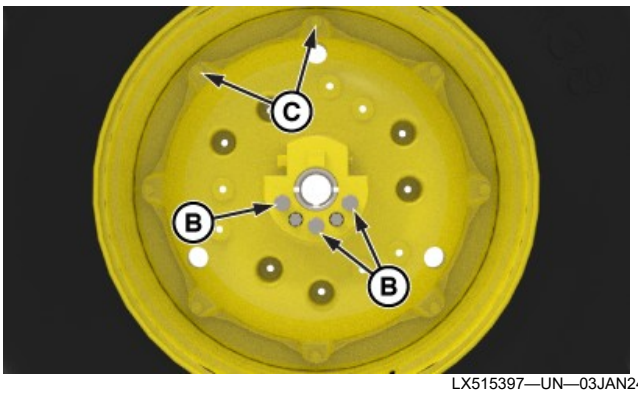
Tighten wheel bolts (A) to (C)—Cast wheel



LX515821—UN—03JAN24

Pinion Hub Half to Cast Dish

A—Pinion Hub Half to Cast Dish - 220 N·m (160 lb·ft)

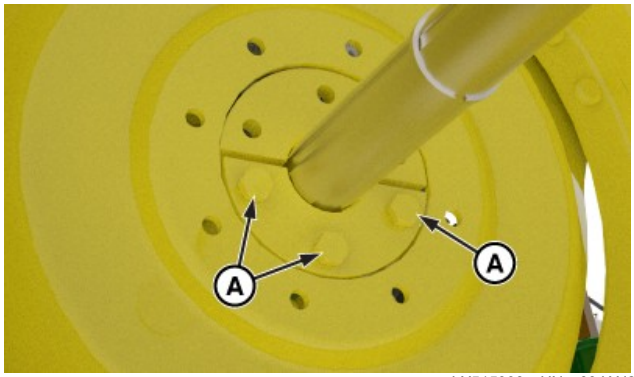


LX515397—UN—03JAN24

Cast Wheel

B—Wheel Hub on Hub Half—400 N·m (300 lb·ft)
C—Rim on Cast Dish—210 N·m (155 lb·ft)

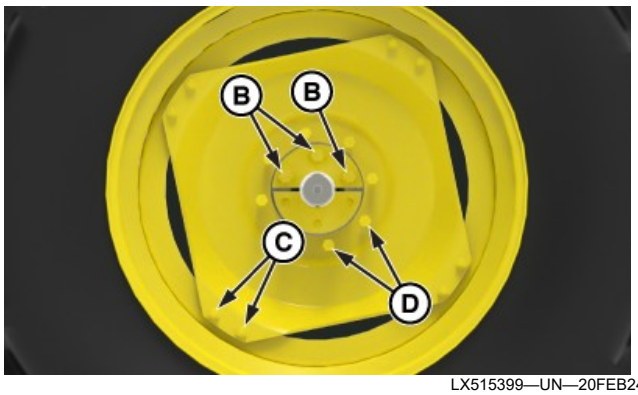
Tighten wheel bolts (A) to (D)—Steel wheel



LX515398—UN—03JAN24

Pinion Hub Half to Steel Dish

A—Pinion Hub Half to Steel Dish—220 N·m (160 lb·ft)



LX515399—UN—20FEB24

Steel Wheel

B—Wheel Hub on Hub Half—400 N·m (300 lb·ft)
C—Rim on Steel Dish—210 N·m (155 lb·ft)
D—Steel Dish on Wheel Hub—400 N·m (300 lb·ft)

220C,15,79,oulxa64,1708350054527-19-19APR24

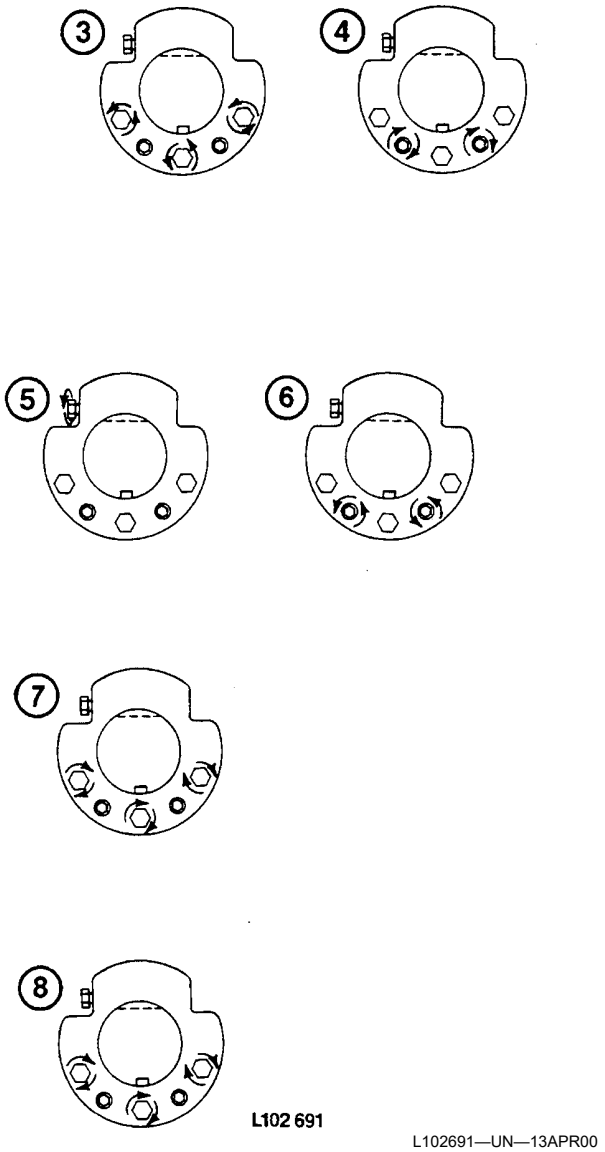
Rack-and-Pinion Axles, Shaft Diameter 79 mm with Single Tapered Clamping Sleeves —Adjust Tread Widths

IMPORTANT: The distance between the side wall of the tire and the fender should not be less than 25 mm (1.0 in).

The distance between the running surface (edge) of the tire and the fender must not be less than 25 mm (1.0 in).

If snow chains are installed on the tires, the minimum distance from the tires to the tractor components (side wall to fender and running surface to tractor components) must be 100 mm (4 in).

Rear Wheel Adjustment



L102 691

L102691—UN—13APR00

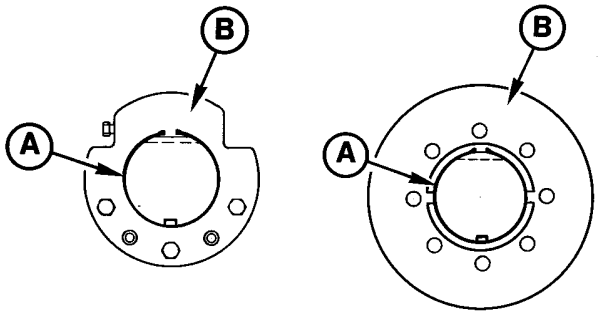
NOTE: Adjustment of wheels is only possible when not more than two wheel weights are attached to each wheel.

1. Clean the axle with a wire brush.
2. Jack up tractor and turn rear wheel so that rack on axle faces upward.
3. Loosen the attaching screws.
4. Tighten the jack screws until the screw heads are flush against the face of the wheel hub.

NOTE: If the wheel hub does not come loose, also unfasten the three screws on the back of the wheel disk. If this does not work, strike the end of the axle several times with a heavy hammer and once again tighten the jack screws evenly. It helps to soak the hub-halves in penetrating oil.

5. Turn adjusting screw in or out until desired position is reached.
6. After adjusting tread width, unfasten jack screws all the way out against stop. Do not use force!
7. Lubricate threads and retighten attaching bolts alternately to 400 Nm (300 lb·ft). When the attaching bolts are tightened to specified torque, the jack screws should be free to turn; if this is not the case, loosen jack screws and retighten attaching screws to specified torque.
8. After completing wheel tread adjustment, make sure that tires and wheel ballast weights do not rub against the tractor. Then drive the tractor approx. 50 m (160 ft), stop the tractor and retighten attaching bolts to 400 N·m (300 lb·ft). The bolts must be retightened to torque after 4 hours, after 8 hours and several times within the next 100 hours. See break-in period in Observe Service Intervals, Section 210 of the relevant Operator's Manual.

Turn wheel hub (pinion inside)



LX008633

LX008633—UN—16AUG94

LX008634

LX008634—UN—16AUG94

A—Snap Ring
B—Wheel Hub

For unfastening, adjusting and tightening wheel hub, see previous page.

1. To facilitate assembly, remove rear wheel.
2. Remove snap ring (A). Turn adjusting screw so that wheel hub (B) is at maximum width. Remove wheel hub (B).
3. Put wheel on axle at desired position. Turn wheel hub (B) around and install it.
4. Install wheel and snap ring (A). For further assembly, see previous page.

LX25458,4CYL,0000A8D-19-19APR24

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)

IMPORTANT: Comply with tread adjustment instructions, and tighten wheel bolts. See *Notes on Rear Wheels—Rack-and-Pinion Axles, Hub Diameter 86 mm, 92 mm, and 100 mm.*

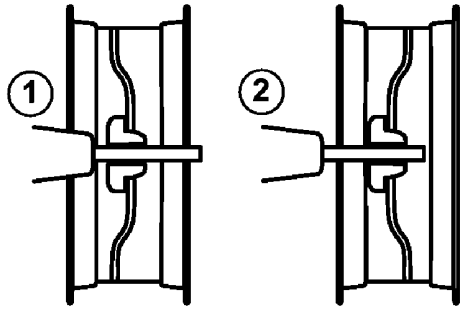
IMPORTANT: After adjusting tread, check that the wheels can turn freely.

Do NOT let tires come into contact with draft links or lift links. The gap between lift links and tires can be increased by installing the lift links in the front holes of the draft links.

When draft links are raised (even if no implement is attached), the hydraulic or mechanical stabilizer bars must be locked.

If there is still contact with the draft links or lift links despite all these measures, tread width must be increased.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).



LX1056800—UN—29OCT12

Tread Widths on Rear Wheels—Rack-and-Pinion Axle

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)					
Tires	Part Number	Unit	Rear Wheels with Cast Wheel Arrangement of Rim and Wheel Dish		
			Minimum (1)	Short Rack-and-Pinion Axles 228.6 cm (90 in)	Medium Rack-and-Pinion Axles 255 cm (100.4 in)
				Maximum (2)	Maximum (2)
16.9R34	AL220759	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
16.9R38	AL220758	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
18.4R34	AL220759	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
18.4R38	AL220758	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
420/85R34	AL220759	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
420/85R38	AL220758	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
460/85R34	AL220759	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
460/85R38	AL220758	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
480/70R34	AL220759	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
480/70R38	AL220758	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
480/80R34 -R4	AL220759	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
480/80R38 -R4	AL220758	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
520/70R34	AL227027	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
520/70R38	AL227024	mm	1828	2184*	2448*

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)					
Tires	Part Number	Unit	Rear Wheels with Cast Wheel Arrangement of Rim and Wheel Dish		
			Minimum (1)	Short Rack-and-Pinion Axles 228.6 cm (90 in)	Medium Rack-and-Pinion Axles 255 cm (100.4 in)
				Maximum (2)	Maximum (2)
		in	72.0	86.0*	96.4*
540/65R34	AL227027	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
540/65R38	AL227024	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
600/65R34	AL227027	mm	1828	2184*	2448*
		in	72.0	86.0*	96.4*
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.					

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)					
Tires	Part Number	Unit	Rear Wheels with Steel Wheel for 2 Positions on Cast Hub Arrangement of Rim and Wheel Dish		
			Minimum (1)	Short Rack-and-Pinion Axles 228.6 cm (90 in)	Medium Rack-and-Pinion Axles 255 cm (100.4 in)
				Maximum (2)	Maximum (2)
16.9R34	AL242266	mm	1535	1926	2190*
		in	60.4	75.8	86.2*
16.9R38	AL242255	mm	1535	1924	2188*
		in	60.4	75.7	86.1*
18.4R34	AL242266	mm	1576	1926	2190*
		in	62.0	75.8	86.2*
18.4R38	AL242255	mm	1576	1924	2188*
		in	62.0	75.7	86.1*
420/85R34	AL242266	mm	1511	1926	2190*
		in	59.5	75.8	86.2*
420/85R38	AL242255	mm	1511	1924	2188*
		in	59.5	75.7	86.1*
460/85R34	AL242266	mm	1550	1926	2190*
		in	61.0	75.8	86.2*
460/85R38	AL242255	mm	1550	1924	2188*
		in	61.0	75.7	86.1*
480/70R34	AL242266	mm	1575	1926	2190*
		in	62.0	75.8	86.2*
480/70R38	AL242255	mm	1575	1924	2188*
		in	62.0	75.7	86.1*
480/80R34 -R4	AL242266	mm	1589	1926	2190*
		in	62.6	75.8	86.2*
480/80R38 -R4	AL242255	mm	1589	1924	2188*
		in	62.6	75.7	86.1*
520/70R34	AL242257	mm	1614	1926	2190*
		in	63.5	75.8	86.2*
520/70R38	AL242178	mm	1614	1924	2188*
		in	63.5	75.7	86.1*
540/65R34	AL242257	mm	1650	1926	2190*
		in	65.0	75.8	86.2*
540/65R38	AL242178	mm	1650	1924	2188*

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)					
Tires	Part Number	Unit	Rear Wheels with Steel Wheel for 2 Positions on Cast Hub Arrangement of Rim and Wheel Dish		
			Minimum (1)	Short Rack-and-Pinion Axles 228.6 cm (90 in)	Medium Rack-and-Pinion Axles 255 cm (100.4 in)
				Maximum (2)	Maximum (2)
		in	65.0	75.7	86.1*
600/65R34	AL242257	mm	1663	1926	2190*
		in	65.5	75.8	86.2*
600/65R38	AL205108	mm	1663	1926	2190*
		in	65.5	75.8	86.2*
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.					

jg60889,1739261820169-19-12FEB25

Tread Widths for Rear Wheels with Steel Adjustable Wheels—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)

IMPORTANT: Comply with tread adjustment instructions, and tighten wheel bolts. See *Notes on Rear Wheels—Rack-and-Pinion Axles, Hub Diameter 86 mm, 92 mm, and 100 mm.*

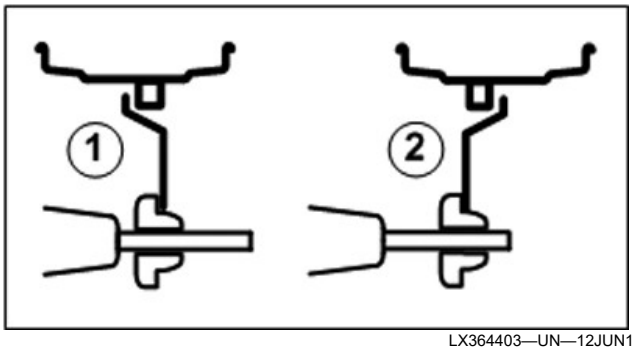
IMPORTANT: After adjusting tread, check that the wheels can turn freely.

Do NOT let tires come into contact with draft links or lift links. The gap between lift links and tires can be increased by installing the lift links in the front holes of the draft links.

When draft links are raised (even if no implement is attached), the hydraulic or mechanical stabilizer bars must be locked.

If there is still contact with the draft links or lift links despite all these measures, tread width must be increased.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).



LX364403—UN—12JUN19

Tread Adjustment on Rear Wheels with Track Adjustment Wheel—Rack-and-Pinion Axle

Tread Widths for Rear Wheels with Steel Adjustable Wheels—Rack-and-Pinion Axles, Shaft Diameter 79 mm (MC Frame Version)						
Tires	Part Number	Rim Cluster***	Unit	Rear Wheels with Steel Adjustable Wheels on Cast Hub Arrangement of Rim and Wheel Dish		
				Minimum (1)	Short Rack-and-Pinion Axles 228.6 cm (90 in)	Medium Rack-and-Pinion Axles 255 cm (100.4 in)
					Maximum (2)	Maximum (2)
13.6-46 -R2	AL242117	L32X5	mm	1445	1598	1862
			in	56.9	62.9	73.3
320/90R42	AL242204	LI16X1	mm	1407	1722	1986
			in	55.4	67.8	78.2
*** Refer to Rim Assembly Configuration Graphics.						

jg60889,1738918530917-19-12FEB25

Notes on Rear Wheels—Rack-and-Pinion Axles, Shaft Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves

CAUTION: Serious accidents with life-threatening injuries.

Contact of the wheel with tractor components leads to personal injury and property damage.

When setting the track widths or changing the wheel configuration, make sure that a minimum distance of 25 mm (1 in) mm to tractor components is guaranteed. If this minimum distance cannot be maintained, a larger track width must be set or a suitable wheel configuration must be used.

CAUTION: Danger of injury from improperly tightened or missing wheel bolts or wheel nuts!

Improperly tightened wheel bolts and wheel nuts can become loose and be lost while the vehicle is driving. There is a risk of fatal personal injuries and high property damage due to loss of control over the vehicle.

- **Use only wheel bolts and wheel nuts that belong to the wheel.**
- **Never use different wheel bolts and wheel nuts.**
- **Never operate machine with loose wheel bolts and wheel nuts.**
- **Tighten all wheel bolts and wheel nuts only to the specified torque.**
- **Before starting to drive, check that all wheel bolts and wheel nuts are equipped and firmly seated.**

IMPORTANT: The distance between the side wall of the tire and tractor components should not be less than 25 mm (1 in).

The distance between the running surface (edge) of the tire and tractor components must not be less than 25 mm (1 in).

If snow chains are installed on the tires, the minimum distance from the tires to the tractor components (side wall to fender and running surface to tractor components) must be 100 mm (4 in).

IMPORTANT: Do not use clamp-on style dual wheels when the tractor is equipped with steel wheels and flanged axle.

IMPORTANT: After adjusting tread, check that the wheels can turn freely.

Do NOT let tires come into contact with draft links or lift links. The gap between lift links and tires can be increased by installing the lift links in the front holes of the draft links.

When draft links are raised (even if no implement is attached), the hydraulic or mechanical stabilizer bars must be locked.

If there is still contact with the draft links or lift links despite all these measures, tread width must be increased.

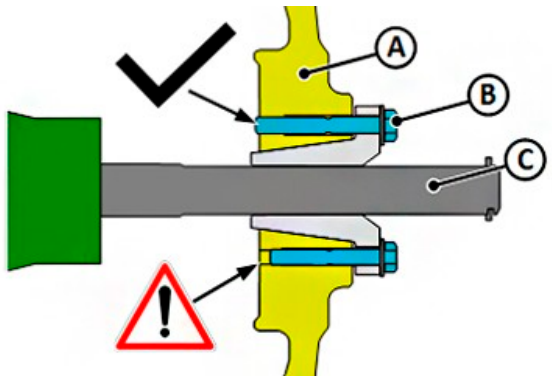
Retighten bolts to the specified torque after 3 operating hours and 10 operating hours.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).

CAUTION: Danger to life and high property damage.

Missing, loose or too short screws and wheel bolts can lead to the loss of the wheel.

When attaching a wheel, it is important to ensure that all screws are tightened and that the screws used provides sufficient screw in depth.



LX601413—UN—18JAN24

Example: One Version of Rack-and-Pinion Axle Shown

A—Cust Dish
B—Screw
C—Rack-and-Pinion Axle

When changing wheels, make sure that fasteners are used according to the requirements of the wheel set being used. Screws, nuts, washers, bushings, and reinforcement rings must match the axle rim combination used. According to the spare parts catalog, only original parts should be used.

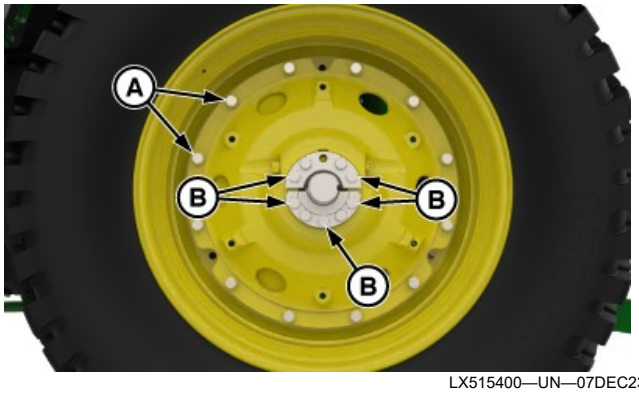
Refer to the following:

Tighten Rear Wheel Bolts—Rack-and-Pinion Axles, Hub Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves in this section.

LX25458,ALL,0000A94-19-10JUL25

Tighten Rear Wheel Bolts—Rack-and-Pinion Axles, Hub Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves

Tighten attaching screws (A) and (B)—Cast wheel to cast hub



LX515400—UN—07DEC23

Cast Dish to Cast Hub

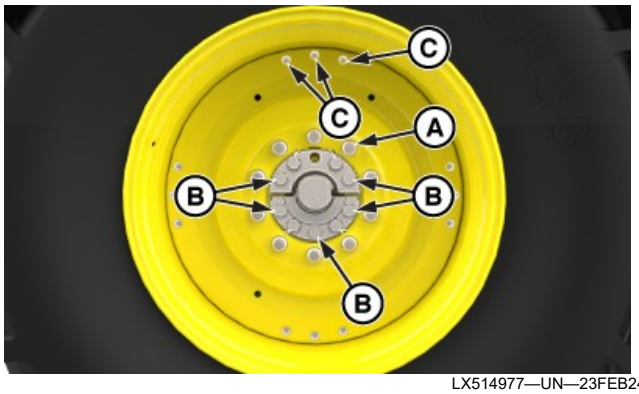
A—550 N·m (405 lb·ft)
B—550 N·m (405 lb·ft)

Rear wheel rims 38 inches and larger have one bolt hole smaller than the other and one slotted hole exactly opposite each other.

IMPORTANT: When attaching screws (B) of the half-shells are loosened, both half-shells have to be evenly tightened to prevent that the hub tears or the screws become loose.

1. Make sure the half-shells are seated correctly and tighten attaching screws (B) to 204 N·m (150 lb·ft) in a star pattern.
2. Tighten screws (B) to 410 N·m (300 lb·ft) again.
3. Drive tractor about 100 m (110 yd), then tighten screws (A) and (B) to 550 N·m (405 lb·ft).
4. Retighten screws after **3 OPERATING HOURS** and **10 OPERATING HOURS**.

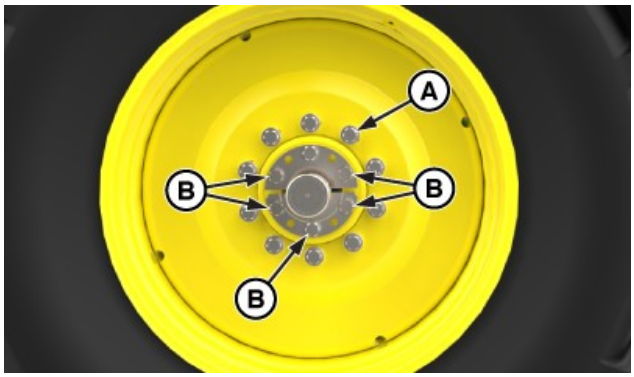
Tighten wheel bolts (A) and (C)—Steel dish to cast hub



LX514977—UN—23FEB24

Steel Dish to Cast Hub, Verion 1

A—600 N·m (445 lb·ft)
B—550 N·m (405 lb·ft)
C—Gold Bolt—280 N·m (205 lb·ft)
C—Gray-Blue Bolt—265 N·m (195 lb·ft)



LX514976—UN—26FEB24

Steel Dish to Cast Hub, Verion 2 (Not for all Models Avalible)

A—600 N·m (445 lb·ft)
B—550 N·m (405 lb·ft)

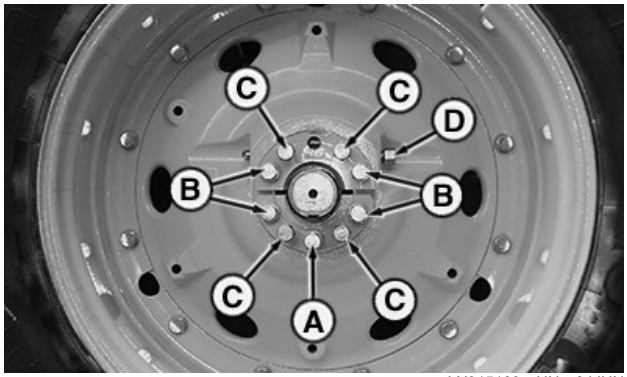
1. Install and tighten bolts finger-tight (A).
2. In a star pattern, tighten bolts to 600 N·m (445 lb·ft).
3. Retighten bolts after **3 OPERATING HOURS**.
4. Retighten bolts after **10 OPERATING HOURS**.

80C,MP22,oulxa64,1731592090213-19-11DEC24

Rack-and-Pinion Axles, Shaft Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves—Adjust Tread Widths for Cast Rear Wheels

CAUTION: Avoid personal injury. Never run engine with transmission in gear and rear wheels off ground. On front-wheel drive tractors, the front wheels pull the rear wheels off the support. The front-wheel drive must be switched off and the transmission must be in neutral to be able to turn the axle.

1. Jack up the tractor on level ground and turn the wheel as shown so that adjusting pinion (D) is at the top as shown.



LX315169—UN—04JUN18

A—Middle Attaching Screw of the Half-Shells
B—Attaching Screws of the Half-Shells
C—Jack Screws
D—Adjusting Pinion

2. Unfasten screw (A) against retaining nut.
3. Unfasten screws (B).
4. To unfasten or push off the half-shells, tighten jack screws (C). Tighten screws to 550 N·m (405 lb·ft) if necessary.

NOTE: If half-shells are difficult to break loose, use penetrating oil and strike the end of the axle with a heavy hammer.

5. Set desired tread width with adjusting pinion (D). *Observe tread width limitations.*
6. Loosen jack screws (C) all the way to stop.

CAUTION: Never operate tractor with a loose rim, wheel, or hub.

IMPORTANT: Keep the faces of half-shells even to prevent the hub from breaking or the screws coming loose.

7. Make sure the half-shells are seated properly and tighten the attaching screws as follows.
   a. Tighten screw (A) and then screws (B) crosswise to 204 N·m (150 lb·ft).
   b. Retighten screws to 410 N·m (300 lb·ft) using the same sequence.
   c. Drive tractor a minimum of 100 meters (100 yd) and tighten bolts to 550 N·m (405 lb·ft).

IMPORTANT: After 3 operating hours and 10 operating hours, retighten all screws daily during the first week of operation and then every 250 operating hours thereafter.

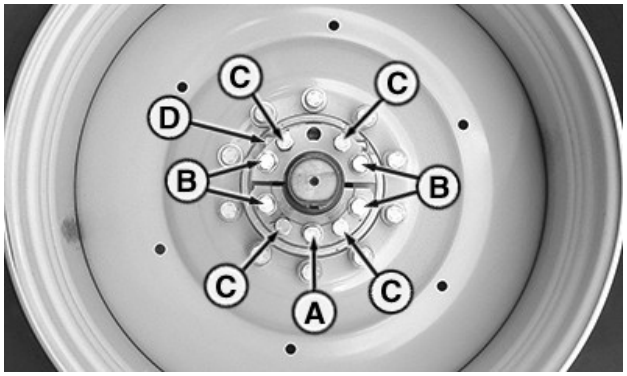
8. Tighten jack screws (C) finger-tight.

LX25458,ALL,0000A95-19-19APR24

Rack-and-Pinion Axles, Shaft Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves—Adjust Tread Widths for Steel Rear Wheels (with Adjusting Pinion)

CAUTION: Avoid personal injury. Never run engine with transmission in gear and rear wheels off ground. On front-wheel drive tractors, the front wheels pull the rear wheels off the support. The front-wheel drive must be switched off and the transmission must be in neutral to be able to turn the axle.

1. Jack up the tractor on level ground and turn the wheel as shown so that adjusting pinion (D) is at the top as shown.



LX315170—UN—05JUN18

A—Middle Attaching Screw of the Half-Shells
B—Attaching Screws of the Half-Shells
C—Jack Screws
D—Adjusting Pinion

2. Loosen screw (A) against the retaining nuts and remove.
3. Unfasten screws (B).
4. To unfasten or push off the half-shells, tighten jack screws (C). Tighten screws to 550 N·m (405 lb·ft) if necessary.

NOTE: If half-shells are difficult to break loose, use penetrating oil and strike the end of the axle with a heavy hammer.

5. Set desired tread width with adjusting pinion (D). *Observe tread width limitations.*
6. Loosen jack screws (C) all the way to stop.

CAUTION: Never operate tractor with a loose rim, wheel, or hub.

IMPORTANT: Keep the faces of half-shells even to prevent the hub from breaking or the screws coming loose.

7. Make sure the half-shells are seated properly and tighten the attaching screws as follows.
   a. Tighten screw (A) and then screws (B) crosswise to 204 N·m (150 lb·ft).
   b. Retighten screws to 410 N·m (300 lb·ft) using the same sequence.
   c. Drive tractor a minimum of 100 meters (100 yd) and tighten bolts to 550 N·m (405 lb·ft).

IMPORTANT: After 3 operating hours and 10 operating hours, retighten all screws daily during the first week of operation and then every 250 operating hours thereafter.

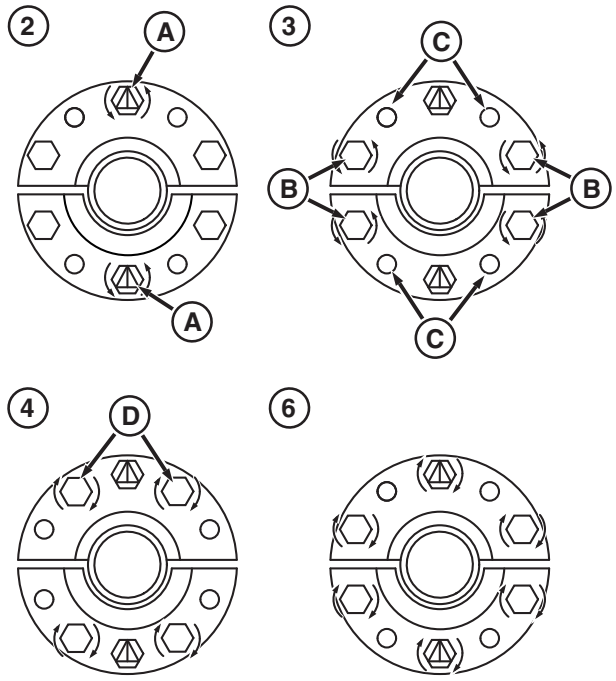
8. Tighten jack screws (C) finger-tight.

LX25458,ALL,0000A96-19-19APR24

Rack-and-Pinion Axles, Shaft Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves—Adjust Tread Widths for Steel Rear Wheels (without Adjusting Pinion)

CAUTION: Avoid personal injury. Never run engine with transmission in gear and rear wheels off ground. On front-wheel drive tractors, the front wheels pull the rear wheels off the support. The front-wheel drive must be switched off and the transmission must be in neutral to be able to turn the axle.

1. Raise tractor on level ground and turn wheel so rack on the axle is upward.



RXA0063068—UN—14OCT02



RW21374—UN—28JUL92

A—Middle Attaching Screw of the Half-Shells
B—Attaching Screws of the Half-Shells
C—Jack Screw Holes
D—Jack Screws

2. Loosen the middle attaching screws (A) against the retaining nuts.
3. Remove screws (B).
4. To loosen or push off the half-shells, install the screws in holes (C) for jack screws. If necessary, tighten the jack screws (D) up to 550 N·m (405 lb·ft).

NOTE: If half-shells are difficult to break loose, use penetrating oil and strike the end of the axle with a heavy hammer.

5. Remove jack screws (D). Attach the wheel adjustment tool JDG667A[1] with the removed jack

[1] *Available via regular John Deere special tool channels.*

screws in holes (B) for the attaching screws of the half-shells. Move wheel to desired position. *Observe tread width limitations.*

6. Remove adjusting tool and the screws.

CAUTION: Never operate tractor with a loose rim, wheel, or hub.

IMPORTANT: Keep the faces of half-shells even to prevent the hub from breaking or the screws coming loose.

7. Make sure the half-shells are seated properly and tighten the attaching screws as follows.
   a. Position the attaching screws of the half-shells in holes (A) and (B).
   b. Tighten the middle screws (A) and then screws (B) crosswise to 204 N·m (150 lb·ft).
   c. Retighten screws to 410 N·m (300 lb·ft) using the same sequence.
   d. Drive tractor a minimum of 100 meters (100 yd) and tighten bolts to 550 N·m (405 lb·ft).

IMPORTANT: After 3 operating hours and 10 operating hours, retighten all screws daily during the first week of operation and then every 250 operating hours thereafter.

LX25458,ALL,0000A97-19-10JUL25

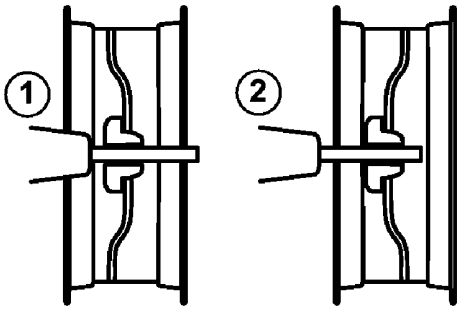
IMPORTANT: After adjusting tread, check that the wheels can turn freely.

Do NOT let tires come into contact with draft links or lift links. The gap between lift links and tires can be increased by installing the lift links in the front holes of the draft links.

When draft links are raised (even if no implement is attached), the hydraulic or mechanical stabilizer bars must be locked.

If there is still contact with the draft links or lift links despite all these measures, tread width must be increased.

NOTE: In certain countries, overall vehicle width for driving on public roads must not exceed 2.55 m (100 in).



LX1056800—UN—29OCT12

Tread Widths on Rear Wheels - Rack-and-Pinion Axle

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 86 mm (MC Frame Version)

IMPORTANT: Comply with tread adjustment instructions, and tighten wheel bolts. See *Notes on Rear Wheels—Rack-and-Pinion Axles, Hub Diameter 86 mm, 92 mm, and 100 mm.*

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 86 mm (MC Frame Version)

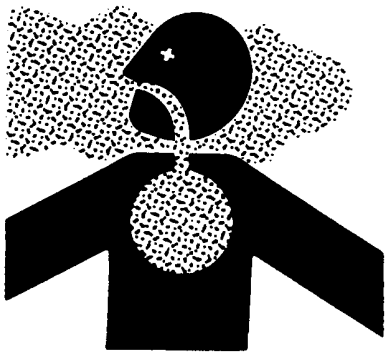
Tires	Part Number	Unit	Rear Wheels with Cast Wheel Arrangement of Rim and Wheel Dish	
			Minimum (1)	Short Rack-and-Pinion Axles 243.8 cm (96 in) Maximum (2)
420/85R38	AL233007	mm	1511	1890
		in	59.5	74.4
460/85R38	AL233007	mm	1550	1890
		in	61.0	74.4
480/70R38	AL233007	mm	1575	1890
		in	62.0	74.4
480/80R38 -R4	AL233007	mm	1589	1890
		in	62.6	74.4
520/70R38	AL233006	mm	1614	1890
		in	63.5	74.4

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 86 mm (MC Frame Version)				
Tires	**Part Number**	**Unit**	**Rear Wheels with Cast Wheel Arrangement of Rim and Wheel Dish**	
			Minimum (1)	**Short Rack-and-Pinion Axles 243.8 cm (96 in)**
				Maximum (2)
540/65R38	AL233007	mm	1650	1890
		in	65.0	74.4
540/65R38	AL233006	mm	1650	1890
		in	65.0	74.4
600/65R38	AL233005	mm	1663	1890
		in	65.5	74.4

Tread Widths for Rear Wheels with Rims for 2 Positions—Rack-and-Pinion Axles, Shaft Diameter 86 mm (MC Frame Version)				
Tires	**Part Number**	**Unit**	**Rear Wheels with Steel Wheel for 2 Positions on Cast Hub Arrangement of Rim and Wheel Dish**	
			Minimum (1)	**Short Rack-and-Pinion Axles 243.8 cm (96 in)**
				Maximum (2)
16.9R38	AL225064	mm	1612	2139*
		in	63.5	84.2*
18.4R38	AL225064	mm	1612	2139*
		in	63.5	84.2*
270/95R48	AL242166	mm	1612	2139
		in	63.5	84.2
420/85R38	AL225064	mm	1612	2139*
		in	63.5	84.2*
460/85R38	AL225064	mm	1612	2139*
		in	63.5	84.2*
480/70R38	AL225064	mm	1612	2139*
		in	63.5	84.2*
480/80R38 -R4	AL225064	mm	1612	2139*
		in	63.5	84.2*
520/70R38	AL242163	mm	1614	2139*
		in	63.5	84.2*
540/65R38	AL242163	mm	1650	2139*
		in	65.0	84.2*
600/65R38	AL207669	mm	1663	2139*
		in	65.5	84.2*
* Total vehicle width greater than 2.55/2.75 m (100/108 in). The regional road traffic licensing regulations or other applicable regulations must be observed.				

jg60889,1739261982768-19-12FEB25

Avoid Contact with Agricultural Chemicals



TS220—UN—15APR13



TS272—UN—23AUG88

CAUTION: This enclosed cab does not protect against inhaling vapor, aerosol or dust.

1. When operating in an environment where pesticides are present, wear a long-sleeved shirt, long-legged pants, shoes, and socks.
2. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.
3. Wear personal protective equipment as required by the pesticide use instructions when leaving the enclosed cab:
   - into a treated area
   - to work with contaminated application equipment such as nozzles which must be cleaned, changed or redirected
   - to become involved with mixing and loading activities
4. Before re-entering the cab, remove protective equipment and store either outside the cab in a closed box or some other type of sealable container or inside the cab in a pesticide resistant container, such as a plastic bag.
5. Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS1-19-25MAR09

Clean Vehicle of Hazardous Pesticides

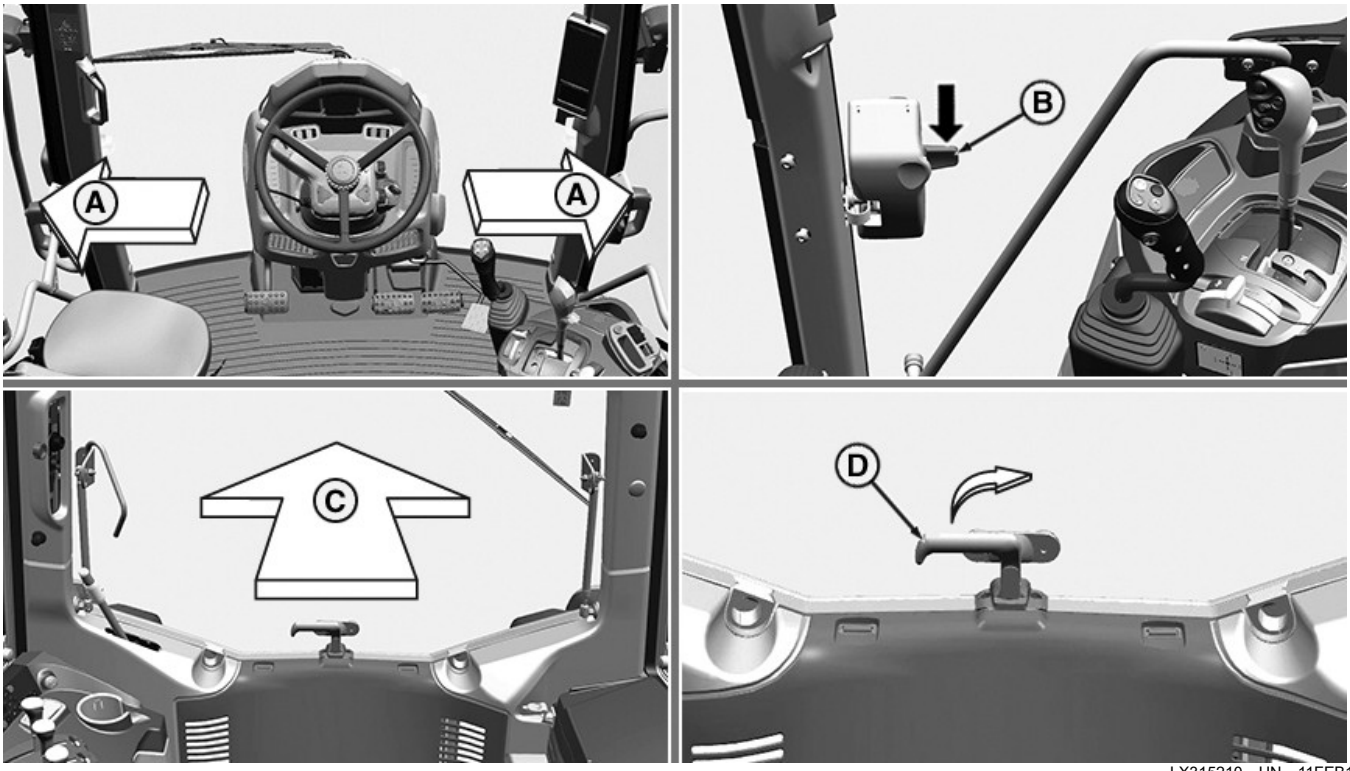
CAUTION: During application of hazardous pesticides, pesticide residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous pesticides.

When exposed to hazardous pesticides, clean exterior and interior of vehicle daily to keep free of the accumulation of visible dirt and contamination.

1. Sweep or vacuum the floor of cab.
2. Clean headliners and inside cowlings of cab.
3. Wash entire exterior of vehicle.
4. Dispose of any wash water with hazardous concentrations of active or non-active ingredients according to published regulations or directives.

DX,CABS2-19-24JUL01

Emergency Exits



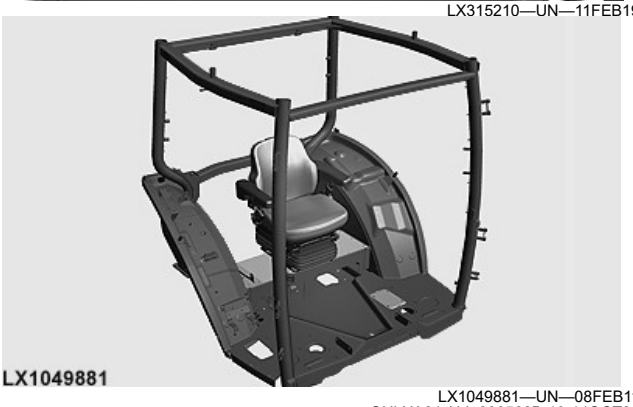
LX315210—UN—11FEB19

In an emergency, it is possible to exit the cab through the two doors (A). To do this, pull lever (B) to release the door and then push it open.

In an emergency, it is also possible to exit the cab through the opening of the rear window (C). Turn lever (D) to the right to release the window and then push it open.

If the cab is not equipped with a right door, either break the glass by using an emergency hammer (if equipped) or open it by pulling out the cotter pin.

OULXA64,SP,000568A-19-23SEP20



LX1049881—UN—08FEB11
OULXA64,ALL,000568B-19-14OCT20

Roll-Over Protective Structure

CAUTION: The operator's cab is equipped with an integrated roll-over protective structure. It is not permitted to make any changes to this construction. Disregarding this instruction will affect the rigidity of the ROPS.

If the tractor tilts over or in the event of collisions, the roll-over protective structure is subjected to very high stress. For safety reasons, the roll-over protective structure always has to be replaced if it is damaged.

Falling Object Protective Structure (FOPS)



LX412372—UN—18JAN21

Information Label - Proven Standards

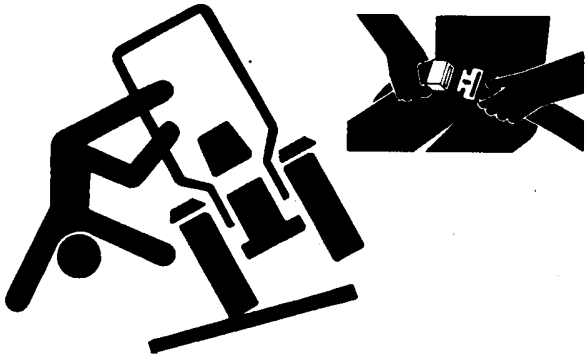
Tractor cabs can be equipped with a John Deere FOPS, which is an attachment providing additional overhead protection from falling objects to an operator in driving position. Standards define the requirements for those tractors exposed to potential hazards of falling objects while operating in certain agricultural applications.

If a John Deere FOPS is installed, an information label can be found on the trim panel behind the seat. This label provides information regarding the standards to witch this John Deere FOPS is tested (see the arrow).

IMPORTANT: Tractors with a cab equipped with a John Deere FOPS are not intended for use in forestry applications.

OULXBER,00030C2-19-25JAN21

Use Seat Belt



TS205—UN—23AUG88

CAUTION: To minimize the risk of injury if an accident occurs, always wear seat belt (A) when driving tractors.

The instructional seat is intended exclusively for training operators or diagnosing machine problems.

Keep all other riders off tractor and equipment.



LX315209—UN—28SEP18

Tractor Shown with Instructional Seat

A—Seat Belts

- Hold the latch and pull the seat belt across the body.
- Insert the latch into the belt buckle.
- Listen for a click.
- Tug on the seat belt latch to make sure that the belt is securely fastened.
- Snug the seat belt across the hips.

Inspect seat belts and mounting hardware once a year. See section 220D.

OULXA64,SP,NA,000568C-19-21MAR23

Tractors with Cab Suspension

The spring elements of the cab are preset at the factory for an average load. If a failure occurs, the setting can be checked and if necessary altered.

See Check the Mechanical Cab Suspension in Section 220D.

Fault	Cause	Remedy
The cab amplifies its vibration.	Damper defective.	Have a John Deere dealer or other service provider replace old parts with new ones (always do this on BOTH sides).
Suspension too soft (cab swings violently	Pre-tension insufficient.	Correct the setting.

Fault	Cause	Remedy
and strikes hard against the stop).		
Suspension too hard.	Excessive pre-tension.	Correct the setting.

OULXA64,SP,000568E-19-15JUL25

Seat Adjustment and Functions (6M Series)

CAUTION: Avoid any danger of injury resulting from confined spaces! The following can represent a crush hazard when the seat is being adjusted:

- **Objects placed in the cab.**
- **Additional equipment in the cab.**
- **Little clearance to adjacent components.**

Only adjust the seat when the tractor is standing still. Set the seat to a position where no accidental contact occurs with the control elements and other components.

When driving the tractor, always align and latch the operator's seat in direction of travel.

Locate the Controls:

NOTE: The illustrations show all possible controls. Depending on the equipment, not all controls are available.



LX514313—UN—08MAY23

Premium Seat (MSG97AL)



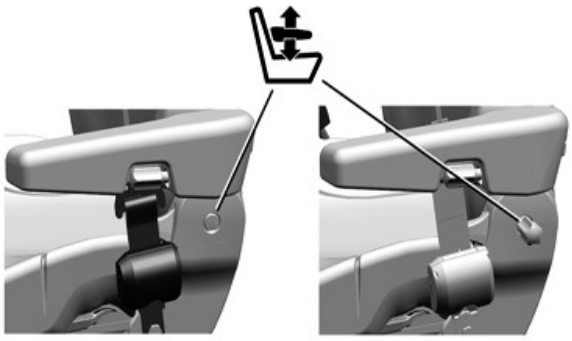
LX514283—UN—12AUG22

Standard Seat (MSG95G)



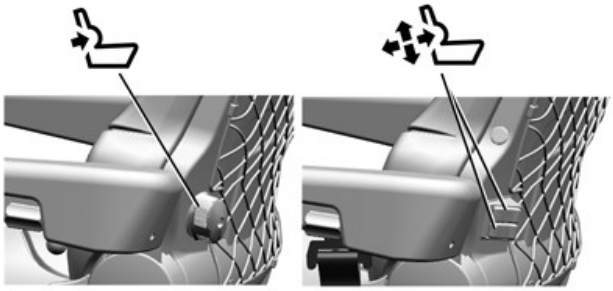
LX514286—UN—23AUG22

Economy Seat (MSG85)



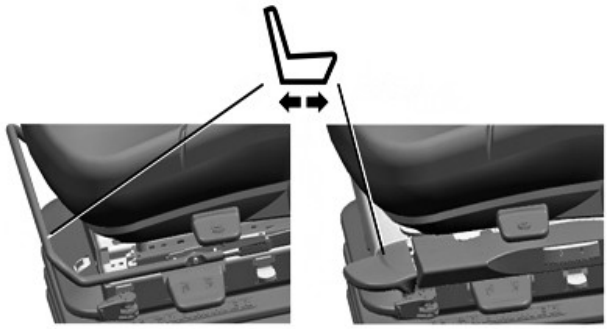
LX514266—UN—10AUG22

Possible Variants



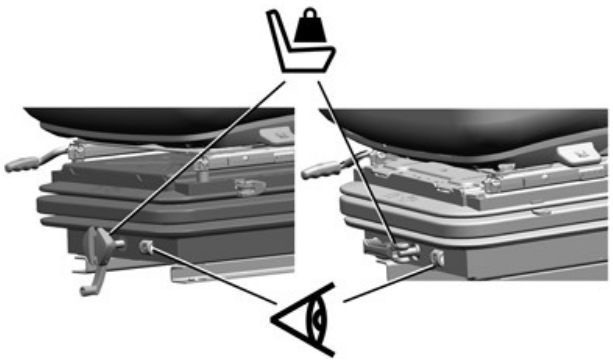
LX514285—UN—10AUG22

Possible Variants



LX514284—UN—10AUG22

Possible Variants



LX514293—UN—31AUG22

Possible Variants (MSG85 only)

Seat Adjustment and Functions:



LX514263—UN—20MAY22

Adjust Seat Cushion:
Pull lever upwards and set desired seat depth. Release lever to lock the seat in position.



LX514264—UN—20MAY22

Adjust Seat Tilt:
Pull lever upwards and set desired seat inclination. Release lever to lock the seat in position.



LX514265—UN—20MAY22

Fore/Aft Adjustment:
Pull lever upwards and set desired seat position. Release lever to lock the seat in position.



LX514311—UN—05MAY23

Vertical Seat Damping:
Turn the lever in the desired position (1, 2, 3, 4, 5) to adjust the vertical seat damping (position 1 = soft and 5 = hard). The recommended



LX514252—UN—20MAY22

Fore/Aft Suspension:
Lever forward—no fore/aft suspension.
Lever backward—fore/aft suspension active.


LX514255—UN—20MAY22

Height Adjustment:
MSG85
To adjust the seat upward, raise it until it clicks into place (three detent positions). To adjust downward, raise the seat to the stop position then lower it.
MSG95G, MSG97AL
After the weight adjustment is made, the seat can be adjusted to any height.
1. Sit in the seat and turn the key switch on (IGN).
2. Pull or push the lever fully to move the seat up or down to the desired height. *NOTE: When the upper or lower limit is reached, an automatic height adjustment takes place. This ensures the functionality of the damping.*


LX514254—UN—20MAY22

Weight Adjustment:
In order to avoid compressor damage during height adjustment, the compressor must be operated for 1 minute at the maximum (seats with compressor only).
MSG85
1. Sit in the seat and adjust the weight by rotating the weight adjustment knob.
2. Observe the weight indicator to check the setting.
Adjustment range = 50 to 130 kg (110 to 285 lb)
MSG95G
1. Sit in the seat and turn the key switch on (IGN).
2. Slightly pull and hold the lever upward until the air pressure is adjusted to the driver's weight. Release the lever when the green mark appears on the indicator scale. Adjustment range = 50 to 130 kg (110 to 285 lb)
MSG97AL
1. Sit in the seat and turn the key switch on (IGN).
2. Slightly pull the lever upward and release to start the automatically weight adjustment. Do not move until the air compressor has set the appropriate air pressure. Adjustment range = 50 to 130 kg (110 to 285 lb)


LX514261—UN—20MAY22

Seat Heater:
The seat heater is switched on and off with a toggle switch.


LX514281—UN—05AUG22

Backrest Extension:
The backrest extension can be individually adjusted for height by pulling it upwards over the various increments up the end stop. To remove the backrest extension, pull it upwards over the end stop.


LX514256—UN—20MAY22

Adjust Swivel:
The seat can be turned to the right and possibly to the left, depending on the model.
Lift lever and turn the seat to the desired detent position. Press the lever down and seat snaps into place automatically at the next detent position.
IMPORTANT: Use the swivel to the left only for entering and exiting.*NOTE: If equipped with the joystick on the armrest, turn the operator's seat to the left only up to the first detent position. Avoid collisions with the steering wheel.*


LX514257—UN—20MAY22

Adjust lateral suspension:
MSG95G and MSG97AL—move lever forward to activate lateral suspension. Move lever backward to deactivate lateral suspension.


LX514258—UN—20MAY22

Adjust Tilt of Backrest:
Pull lever upwards and hold. Tilt the backrest to the desired position and let the lever latch back in audibly.


LX514259—UN—20MAY22

Adjust Height of Armrests:
Version 1: Remove plastic cap on both sides and loosen adjusting screws. Arrange armrests to the desired position.
Tighten the adjusting screws and attach the plastic cap.
Version 2: Turn knob to loosen the clamping. Arrange the armrests in the desired position and turn the knob to clamp the armrest.


LX514262—UN—20MAY22

Adjust Tilt of Armrests:
Turn the knob to adjust the tilting angle. To lower the armrest downwards by 30°, press the knob into the armrest.


LX514260—UN—20MAY22

Adjust Lumbar Support on Backrest:
With the electrical version, use the two rocker switches to adjust the position and intensity of the lumbar support.



LX514268—UN—05AUG22

Adjust Lumbar Support on Backrest:
With the mechanical version, turn the adjusting knob to adjust the lumbar support intensity.

oulxa64,1662385380394-19-29JAN24

CommandARM™—Adjust Height

CAUTION: Danger of injury resulting from confined spaces!

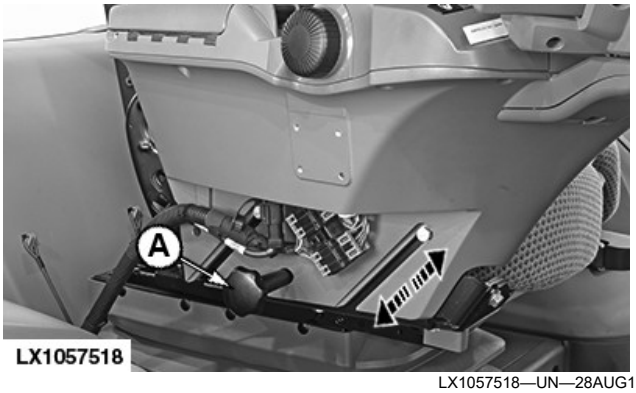
The following can represent a crush hazard when the seat is being adjusted:

- **Objects placed in the cab**
- **Additional equipment in the cab**
- **Little clearance to adjacent components**

Only adjust the seat when the tractor is standing still.

Set the seat to a position where no accidental contact occurs with the control elements and other components.

1. Loosen knob (A).



LX1057518—UN—28AUG15

2. Adjust the CommandARM™ to the desired position.
3. Tighten knob (A).

OULXA64,ALL,0005681-19-23SEP20

Instructional Seat for Training Purposes

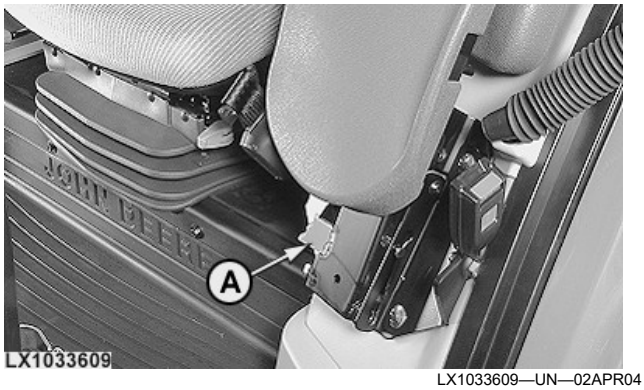
CAUTION: The instructional seat has been provided only for training operators or diagnosing machine problems.

Keep all other riders off tractor and equipment.

When driving, always wear the seat belt.

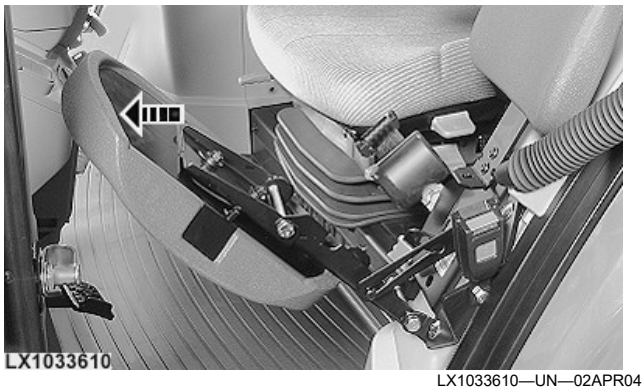
The instructional seat is the only means for transporting an instructor, that was approved by John Deere.

1. Press lock (A).



LX1033609—UN—02APR04

2. Tip seat forward.



LX1033610—UN—02APR04

3. Rotate seat clockwise 90°.



LX1033611—UN—02APR04

4. Tips seat backward. Make sure that pin (B) engages in the appropriate hole.



LX1033612—UN—02APR04

OULXA64,SP,NA,EX,0005682-19-15OCT20

Adjust the Steering Wheel

CAUTION: Danger of injury if steering wheel settings are adjusted while the tractor is moving!

Adjust the steering wheel only when the tractor is stationary.



LX364123—UN—15NOV18

A—Lever for Steering Wheel Tilt
B—Screw for Steering Wheel Height

Adjust Steering Wheel Tilt

1. Operate lever (A).
2. Adjust tilt.
3. Release lever and check whether the steering column is locked.

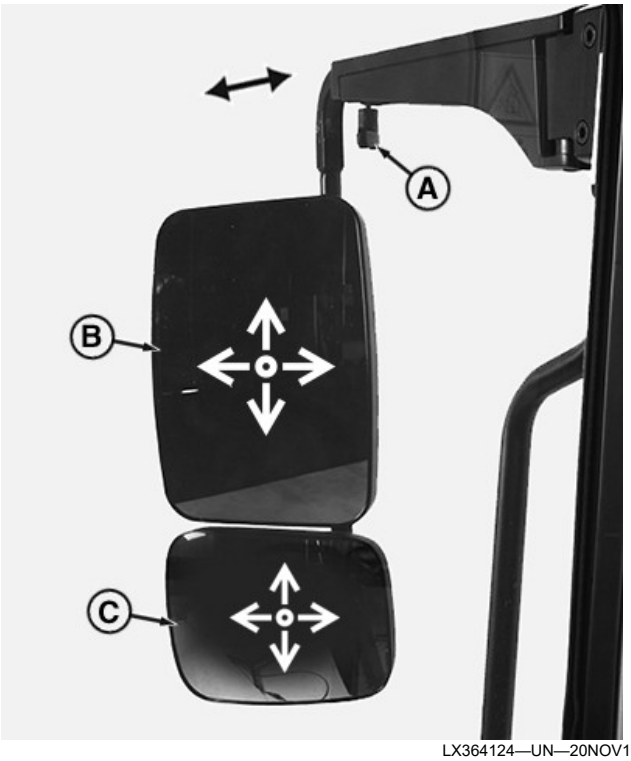
   When the lever (A) is operated, the steering column automatically moves into vertical position to simplify getting in and out.

Adjust Steering Wheel Height

1. Release the screws (B).
2. Adjust height.
3. Tighten screw.

OULXA64,SP,0005683-19-23SEP20

External Mirrors, Manually Adjustable



LX364124—UN—20NOV18

Sample Illustration

1. Unfasten screw (A).
2. Slide mirror arm to desired position.
3. Tighten screw (A).
4. Adjust mirrors (B) and (C) to the desired position.
5. Clean mirror surfaces with a soft cloth.

OULXA64,ALL,0005684-19-23SEP20

Adjust Interior Mirror



LX514917—UN—06DEC22

1. Adjust mirror to the desired position.
2. Clean mirror surfaces with a soft cloth.

oulxa64,SP,All,1669987917852-19-12JAN23

Access Steps and Handrails

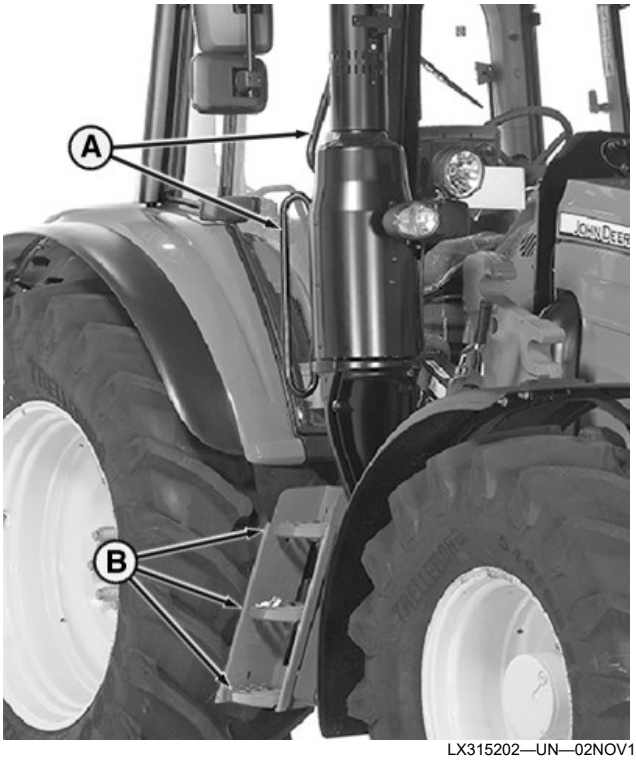
CAUTION: Risk of burns due to very hot components of the exhaust system!

Do not touch components.

When entering and leaving, always hold on to the handrail.

NOTE: Before entering or leaving, clear away any snow, ice, or mud.

When entering and exiting, use access steps (B). Always hold on to handrail (A). Other means of entry and egress are not permitted.



LX315202—UN—02NOV18

Right Side of Tractor



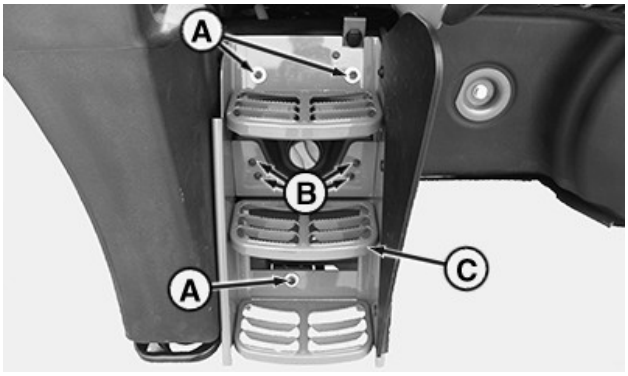
LX364436—UN—28AUG19

Left Side of Tractor

A—Handrail
B—Access Steps

OULXA64,SP,0005685-19-23SEP20

Remove and Install Left Access Step



LX343078—UN—16APR18

1. Remove screws (A).
2. Remove screws (B) and take off access step (C).
3. For installation, follow removal procedure in reverse order while observing the following specifications:
   - Position access step (C) and tighten screws (B) to specified torque.

Specification

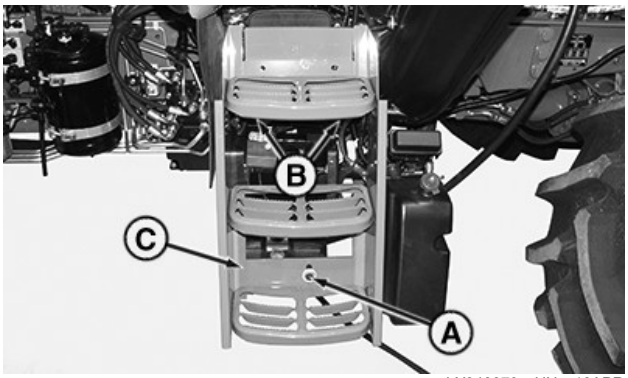
Access Step on DEF Tank,
Attaching Screws—Torque. . . . . 17 N·m (13 lb·ft)

   - Tighten the screws (A) to the prescribed torque.

Specification	
Access Step on Fuel Tank, Attaching Screws—Torque	100 N·m (74 lb·ft)

OULXA64,SP1,00058C0-19-03MAY23

Remove and Install Right Access Step



LX343079—UN—16APR18

1. Remove screw (A).
2. Loosen nuts (B) and remove access step (C) upwards.
3. For installation, follow removal procedure in reverse order, while observing the following specification:

   Tighten screw (A) and nuts (B) to the specified torque.

Specification	
Access Step on Bracket, Attaching Screw—Torque	122 N·m (90 lb·ft)
Access Step on Bracket, Fastening Nuts—Torque	122 N·m (90 lb·ft)

OULXA64,SP1,00058C1-19-03MAY23

Wiper and Washer System

A — Windshield Wiper



LX364142—UN—26NOV18

Rotary switch (A) for windscreen wiper:

- 0 = Off
- 1 = Intermittent
- 2 = Slow wipe
- 3 = Fast wipe
- 4 = Windshield washer ON
  Press switch towards steering column.

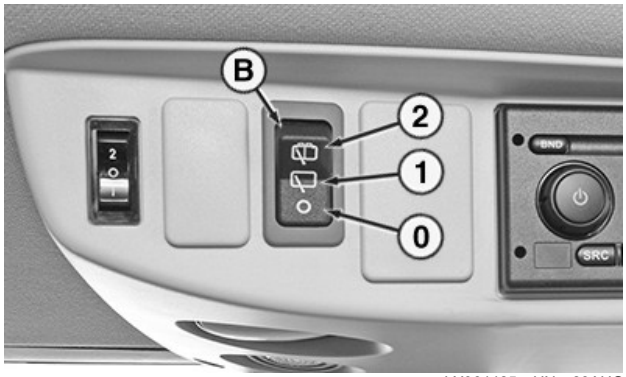
NOTE: On tractors with the wiper motor above the hood, place the wiper arm as follows into service position to change the wiper blade:

1. Turn key switch ON.
2. Move wiper switch to the intermittent position (1).
3. Turn key switch OFF within 5 seconds.
4. The Wiper completes the current cycle.
5. The wiper then automatically goes to the service position.
6. Replace the wiper blade.
7. Turn key switch ON and the wiper return to the park position.

B — Rear Window Wiper

IMPORTANT: Never open the rear window fully without first checking that the rear wiper has reached its home position.

Rear window wiper and washer system only operate if the rear window is closed.

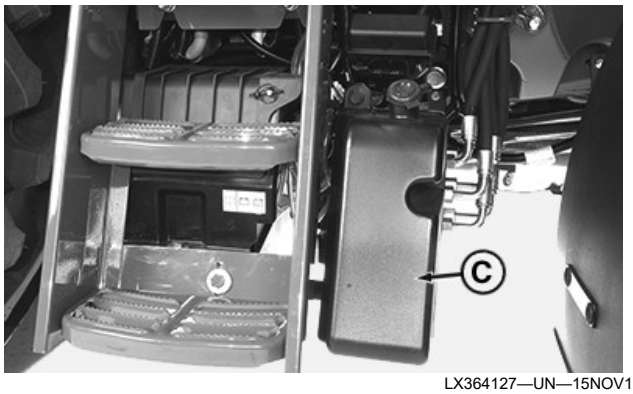


LX364425—UN—28AUG19

Switch (B) for rear window wiper:

- 0 = Off
- 1 = On
- 2 = Rear window washer ON

Supply Tank



LX364127—UN—15NOV18

Add a suitable antifreeze solution to water in supply tank (C) to prevent damage to the system if temperatures are likely to drop below the freezing point.

OULXA64,SP1,00058C2-19-28JUN22

Heater/Ventilation/Air-Conditioning System (HVAC)

IMPORTANT: To maintain consistently high performance, turn on the air-conditioning system for two or three minutes every month, regardless of weather conditions or season (with engine at low idle). Temperature control should be set for maximum cooling (approx. 16° C (29°F)).

At ambient temperatures below 4°C (39°F), the cab should first be heated (using the heating system) so that the temperature inside the cab is as high as possible.

NOTE: Air-conditioning System functions only when the blower is running.

In winter, the air-conditioning system can be operated in conjunction with the heater to remove moisture from the cab air.

IMPORTANT: For tractors with Category 2 cab, Category 2 requires fan speed to be set to at least 3.

Operating the Air-Conditioning System



LX364116—UN—26NOV18

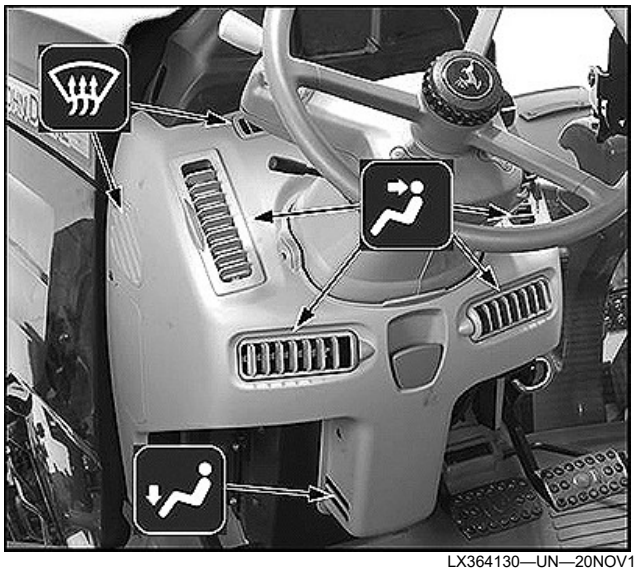
A—Blower Speed +/-
B—Temperature +/-
C—Select Air Flow Distribution
D—Air-Conditioning System ON/OFF

1. Set blower speed (A) with the +/- buttons.
2. Switch on the air-conditioning system (D).
3. Set temperature (B) with the +/- buttons.
4. Adjust air flow distribution by pressing button (C) several times. Move air louvers to the desired positions.



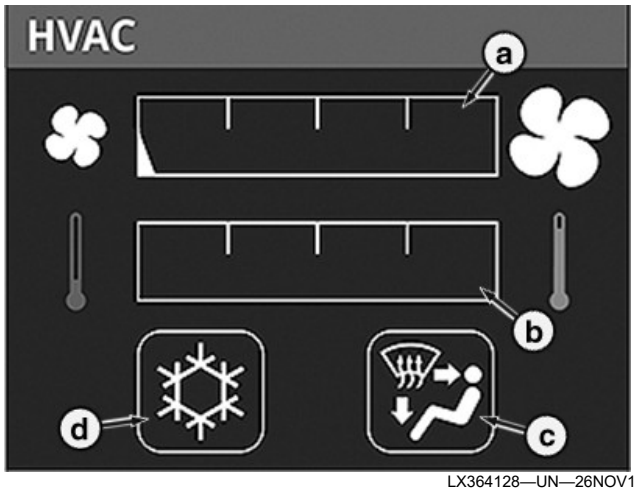
LX364129—UN—20NOV18

- **c1 -** Air flow distributed evenly throughout the operator's cab.
- **c2 -** Air flow directed into the footwell.
- **c3 -** Air flow directed to the operator.
- **c4 -** Defrost and dehumidify the windshield.



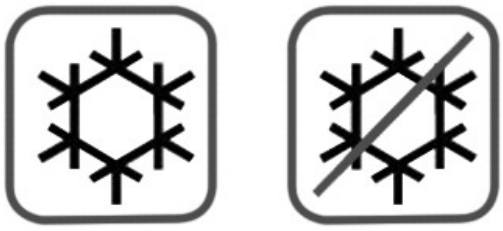
LX364130—UN—20NOV18

The settings are displayed as follows:



LX364128—UN—26NOV18

a—Selected Blower Speed
b—Selected Temperature
c—Selected Air Flow Distribution
d—Air-Conditioning System ON/OFF

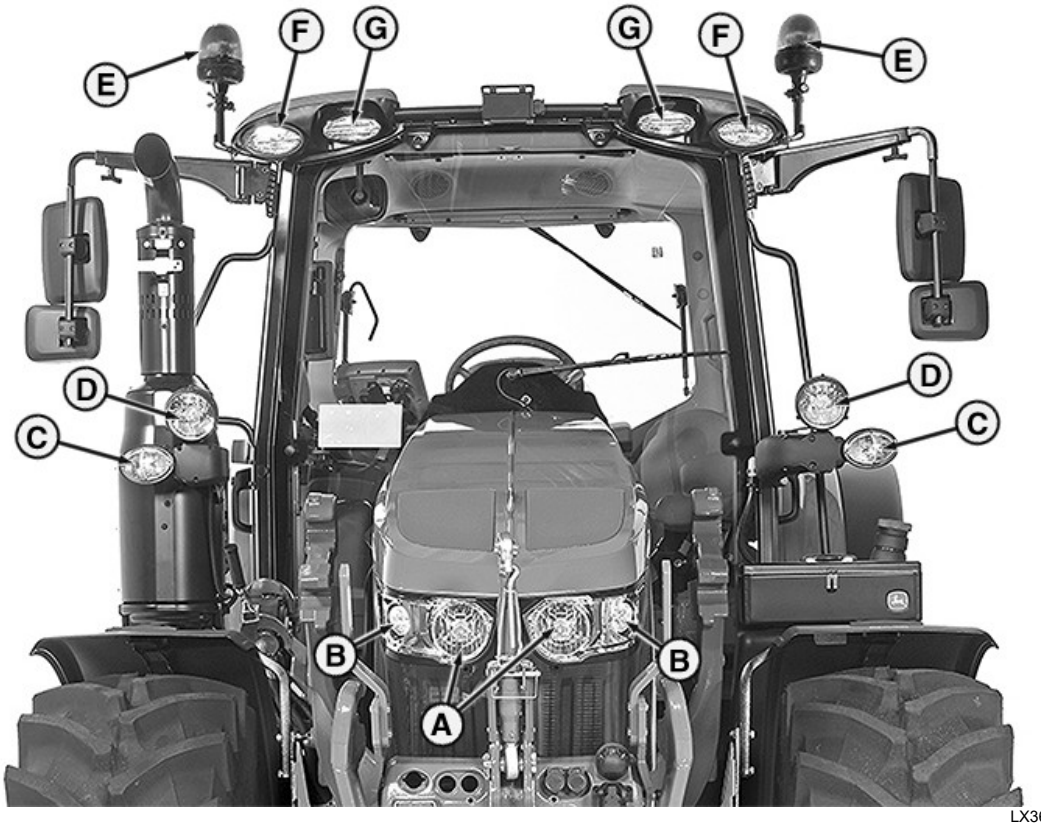


LX364131—UN—20NOV18

Air-Conditioning System ON/OFF

OULXA64,SP,0005689-19-16JAN23

Overview of the Lights



LX364132—UN—26NOV18

A—Low/High-Beam Headlights
B—Worklights[1]
C—Turn-Signal and Clearance Lights
D—Additional Headlights[1] (Low-Beam and High-Beam) or Worklights[1]
E—Beacon Light[1]
F—Worklights[1]
G—Worklights[1]

NOTE: If equipped with LED headlights the upper part of the reflectors is for Low-Beam and the lower part is for the High-Beam. Operating Low-/ and High-Beam to the same time is not possible.

NOTE: H9 bulbs must NOT be used in front corner worklights (B).

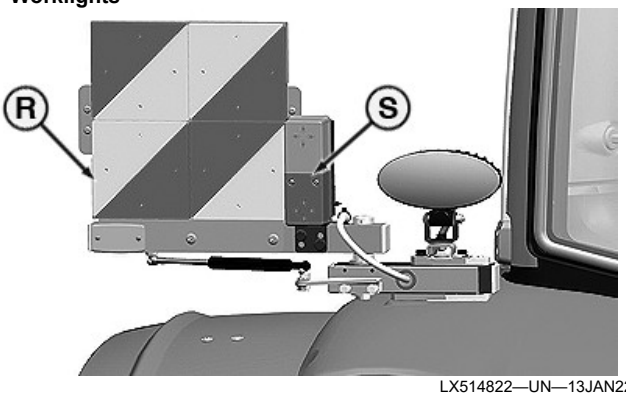
The tractor shown in the illustrations is equipped with optional lighting.

[1] *If equipped*



LX364133—UN—21NOV18

H—Worklights[2]
I—Worklights[2]
J—Worklights[2]
K—License Plate Light
L—Tail Lights/Brake Lights/Turn-Signal Lights
M—Seven-Pin Trailer Socket for Lights
R—Warning Sign on Both Sides[2]
S—Extremity Light on Both Side: Tail Light/Brake Light/Turn-Signal Light[2]



LX514822—UN—13JAN22

Warning Sign with Extremity Light

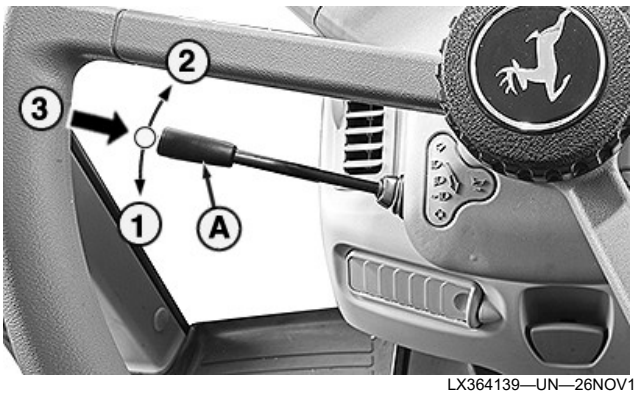
IMPORTANT: Unfold both warning signs (if equipped) on roads.

The regional road traffic licensing regulations or other applicable regulations must be observed.

OULXA64,SP1,EU,00058C3-19-28NOV22

[2] If equipped

Shift Lever for Turn Signal and Horn



LX364139—UN—26NOV18

Turn Signal without Automatic Return

Move shift lever (A) in the desired direction beyond the first point of resistance and let it engage. This activates the turn signals. To switch the turn signals off, move shift lever (A) back to its neutral position (3).

Turn Signal with Automatic Return[3]

Move shift lever (A) in the desired direction beyond the first point of resistance to the detent position. Within one second move the shift lever back to neutral position. This activates the turn signals and shuts them off automatically after some time.

The flashing time depends on how many trailers are pulled by the tractor.

Tractor with:	Flashing time for:
0 trailers	50 meters (164 ft)
1 trailer	70 meters (229 ft)
2 trailers	90 meters (295 ft)

When the shift lever is again moved in the same direction to the detent position and moved back to neutral position within one second the flashing stops.

NOTE: An increased flash frequency indicates a defective bulb of the turn signal. Replace defective bulb immediately. See Section 220B.

Horn

Press shift lever (A) towards the steering column. The horn sounds as long as the shift lever (A) is pressed.

OULXA64,SP,0005690-19-09FEB21

Light Switch

CAUTION: It is not permitted to use worklights on public roads.

IMPORTANT: When the engine is switched off, the low-beam and high-beam headlights remain on and do not switch off automatically. If the engine is going to be in standstill for an extended period, switch off the low-beam and high-beam headlights in advance.

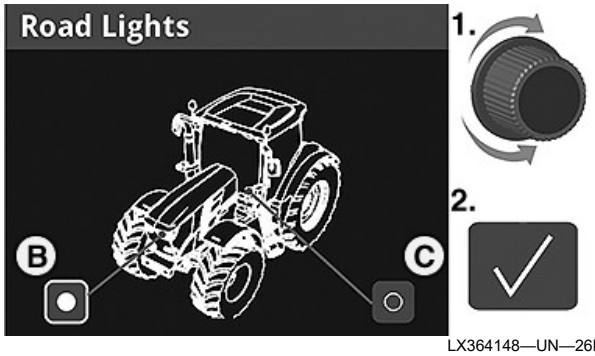
A — Light switch, positions:



LX364141—UN—28NOV18

0 = Lights OFF
1 = Parking light ON
2 = Headlights ON (public roads)

When the headlights are turned on, the Lights page with the currently selected headlights is displayed for about 10 seconds. Changes can be made directly as shown.



LX364148—UN—26NOV18



LX364149—UN—26NOV18

B—Low/High-Beam Headlights on the Hood
C—Low/High-Beam Headlights on Cab Frame (Optional)

[3] *Not for North America*

The selection is saved and remains activated even after the lights are switched off or the tractor is shut down.

B — Shift lever for high/low-beam headlights, positions:



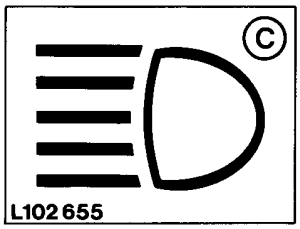
LX364140—UN—26NOV18

▲ — Headlight flasher, pull shift lever toward steering wheel and release

• — Low-beam headlights, shift lever in center position

▼ — High-beam headlights, press shift lever away from steering wheel and engage it

C — Indicator light is lit when high-beam headlights are on.



L102655—UN—15AUG94

OULXA64,SP1,EU,00058C4-19-19NOV20

Select Headlights

NOTE: Additional headlights (high/low-beam headlights) may be attached to the cab frame.

1. Press button (A).



LX364150—UN—28NOV18

A—Lights Button

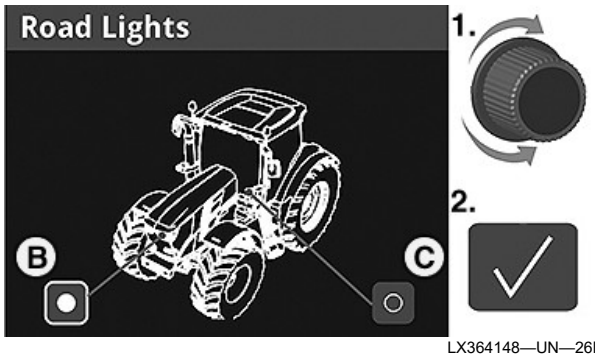
2. Select displayed page and confirm.



LX364151—UN—28NOV18

Lights Page for Headlights

3. The Lights page with the currently selected headlights is displayed. Changes can be made as shown.



LX364148—UN—26NOV18



LX364149—UN—26NOV18

B—Low/High-Beam Headlights on the Hood
C—Low/High-Beam Headlights on Cab Frame (Optional)

The selection is saved and remains activated even

after the lights are switched off or the tractor is shut down.

OULXA64,SP1,EU,00058C5-19-19NOV20

Select Worklights

CAUTION: It is not permitted to use worklights on public roads.

IMPORTANT: When the engine is switched off, the worklights remain on and do not automatically switch off. If the engine is going to be in standstill for an extended period, switch off the worklights in advance.

Switch Worklights On and Off

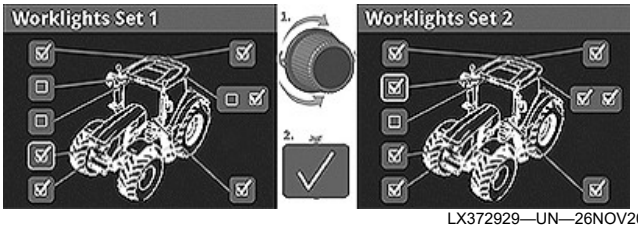
Press button (A) or (B).



LX364152—UN—28NOV18

A—Worklight 1 ON/OFF
B—Worklight 2 ON/OFF

- The settings used last are activated.
- The indicator light of selected button (A) or (B) lights up.
- The page with the settings used last (worklight 1 or 2) is displayed for about 10 seconds.
- Changes can be made directly as shown.



LX372929—UN—26NOV20

Group Worklights

Only lights that are installed are shown.

The selection is saved and is retained even after the lights are switched off or the tractor is shut down.

Switch the front loader worklights on or off with switch (A).



LX364154—UN—28NOV18

Group Worklights

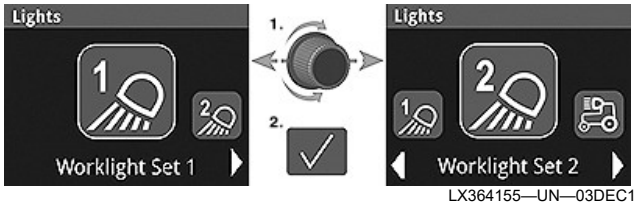
NOTE: The grouping of worklights can be performed with the headlights switched on or off.

1. Press button (A).



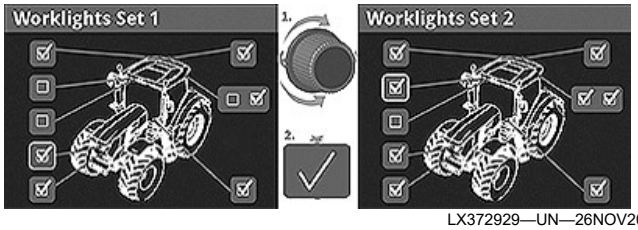
LX364150—UN—28NOV18

2. Select the desired page and press the confirm button.



LX364155—UN—03DEC18

3. Select desired lights.



LX372929—UN—26NOV20

Group Worklights

Only lights that are installed are shown.

4. Press button (A) to exit the page.



LX364156—UN—28NOV18

The settings are saved when you leave the page.

NOTE: If no worklight has been selected, the factory settings will be used the next time the worklight is switched on.

OULXA64,SP,EU,0005693-19-26NOV20

Worklights of ISOBUS Implement

CAUTION: It is not permitted to use worklights on public roads.

IMPORTANT: If the engine is switched off, the worklights remain on and do not automatically switch off. If the engine is going to be in standstill for an extended period, switch off the worklights in advance.

NOTE: On tractors with ISOBUS, control of the lights of the implement can be supported via the ISOBUS socket. See the Operator's Manual of the ISOBUS implement.

Four user settings can be saved for the function of the lights of ISOBUS implements. User settings can group worklights that should light up at the same time.

User settings are set up via diagnostic addresses TEC 000031 to TEC 000034. See Entering Diagnostic Trouble Codes (Customer Level), Section 300B.

The user setting needs to be entered as a seven-digit code. The code can consist of zeros and ones. Each position of the code represents one light or a group of lights.

"0" means OFF.

"1" means ON.

Create a code for a user setting:

Replace each of the seven positions respectively by a "0" or a "1". That depends on whether the light should be switched on or off.

Sample Code:	
_ _ _ _ _ _ 1	Additional Implement Worklights, Option 2
_ _ _ _ _ 0 _	Additional Implement Worklights, Option 1
_ _ _ _ 0 _ _	Implement Worklight, Front Right
_ _ _ 1 _ _ _	Implement Worklight, Front Left
_ _ 0 _ _ _ _	Implement Worklight, Right Side
_ 1 _ _ _ _ _	Implement Worklight, Left Side
1 _ _ _ _ _ _	Implement Worklights, Rear

By using the entry values from bottom to top, the code 1 1 0 1 0 0 1 is created.

Make a note of the code and enter it in the corresponding diagnostic address.

	Switch settings			
Lighting option	I	II	III	IV
Diagnostic address	TEC 000031	TEC 000032	TEC 000033	TEC 000034
Key switch position	On	On	On	On
Position of high/low-beam headlight shift lever (A)	Low beam	High beam	Low beam	High beam
Buttons for worklight 1 or 2	(B)	(B)	(C)	(C)



LX364226—UN—24JAN19

Shift Lever for High/Low-Beam Headlight



LX364157—UN—28NOV18

Buttons for Worklights

OULXA64,SP,EU,0005694-19-21APR23

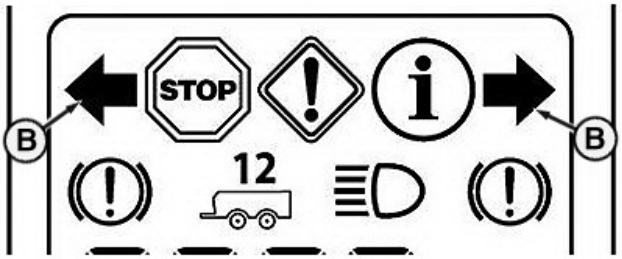
Switch On the Hazard Warning Lights

The hazard lights must be switched on whenever the tractor becomes a hazard for other vehicles.

Switch on the hazard warning lights by pressing button (A).



LX364143—UN—26NOV18



LX364165—UN—28NOV18

When the hazard warning lights are switched on, the indicator light of button (A) lights up and both flashing indicator lights (B) flash.

OULXA64,SP,0005696-19-24SEP20

Beacon Light (Optional)

The beacon light must be used as recommended by local laws (e.g. when driving extremely slowly and when tractor width is excessive).

Press button (A) to switch beacon light on or off.



LX364144—UN—26NOV18

When the beacon light is on, the indicator light on button (A) is lit.

OULXA64,SP,0005697-19-24SEP20

Dome Lights



LX364145—UN—28NOV18

A—Switch
B—Light
C—Light

Position of Switch (A)	Light (C)
0	OFF
1	IN
2	ON when a door is opened.

Light (B) illuminates the transmission shift levers when the parking lights or headlights are on.

OULXA64,SP,0005698-19-24SEP20

Access-Step Light



LX364146—UN—26NOV18

The access-step light (A) only lights up when the tractor is standing still and when the cab door is open.

OULXA64,SP,0005699-19-24SEP20

Seven-Terminal Trailer Socket

See Power Outlet Sockets 90H.

LX25458,ALL,0000AAA-19-05JUN20

Power Outlet Sockets

Socket for GreenStar™ Display

A GreenStar™ display can be attached to the sockets (A).



LX314953—UN—05JUL17

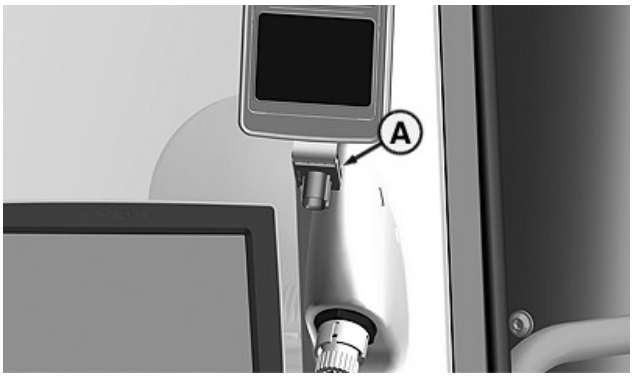
Cab Frame, Front Right / Rear Right

Pin	U	R	V
Protected . .	10 A	10 A	Gnd
Power at 12 V	120 W	120 W	—
Active	Ignition ON	Permanent plus	—

OULXA64,SP,000569A-19-24SEP20

Ethernet Socket for Universal Display (If Equipped)

A Universal display can be attached to the socket (A).



LX514864—UN—23FEB22

A-Post, Right

OULXA64,SP,ALL,00060D6-19-23FEB22

3-Terminal Power Outlet Socket and Power Outlet Socket Strip (12 V, ECE)

IMPORTANT: When electrical consumers with high current draw are operated and multi-outlet power strips are used, the maximum permitted current load of the supply circuit must not be exceeded. It should be noted that the total load results from the sum of all electricity consumers connected to the on-board circuit. This also applies for the consumers that are connected to the on-board circuit at different sockets.

A — 3-Terminal Power Outlet Socket (12 V, ECE)



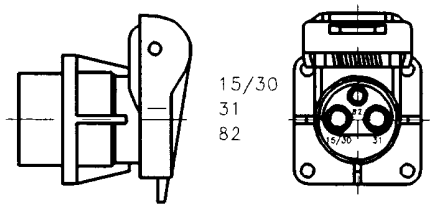
LX364170—UN—28NOV18

Rear Panel, Right



LX364182—UN—03DEC18

Side Console, Left



LX1017965—UN—10OCT97

3-Terminal Power Outlet Socket (12 V, ECE)

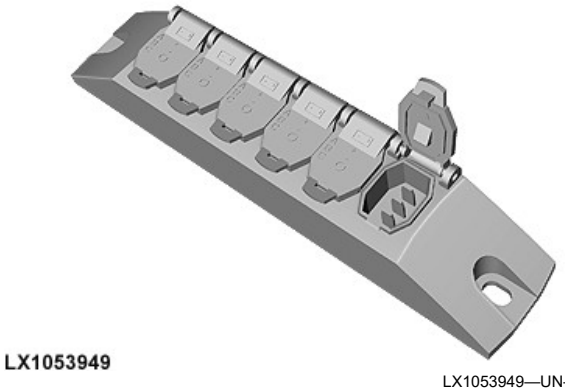
Terminal . . .	15/30	31	82
Fuse protection . .	30 A *MAX* *Continuous load 25 A*	Ground	10 A *MAX* *Continuous load 5 A*
Power at 12 volts	*MAX 300 W*	—	*MAX 60 W*
Active	Permanent positive	—	Ignition ON

3-Terminal Power Outlet Socket Strip (12 V, ECE) between door and switch console



LX364181—UN—03DEC18

3-Terminal Power Outlet Socket Strip



LX1053949—UN—15JUL11

Pin	A	B	C
Protected	30 A Max. continuous 25 A	Gnd	10 A Max. continuous 5 A
Power at 12 V	Max. 300 W	—	Max. 60 W
Active	Permanent plus	—	Ignition ON

OULXA64,SP,EU,000569E-19-30SEP22

12-V Power Outlet Socket/Cigarette Lighter



LX364159—UN—28NOV18

12-V Power Outlet Socket Shown

Pin	1	2
Protected	10 A	Ground
Power at 12 V	120 W	—
Active	Ignition ON	—

A 12-volt socket (A) may be installed instead of a cigarette lighter.

Maximum load = 120 W

OULXA64,SP,000569C-19-26AUG22

Signal Socket According to ISO Standard 11786

The 7-terminal signal socket (A) is protected by a 10 A fuse.



LX364171—UN—28NOV18

Rear Panel

Terminal	Wire color	Description
1	Red	GPS ground speed
2	Brown	Wheel speed
3	Orange	Rear PTO speed
4	Yellow	Implement switch*
5	—	—

Terminal	Wire color	Description
6	Red	Power supply at ignition ON 10 A, 120 watts at 12 volts
7	Black	Ground

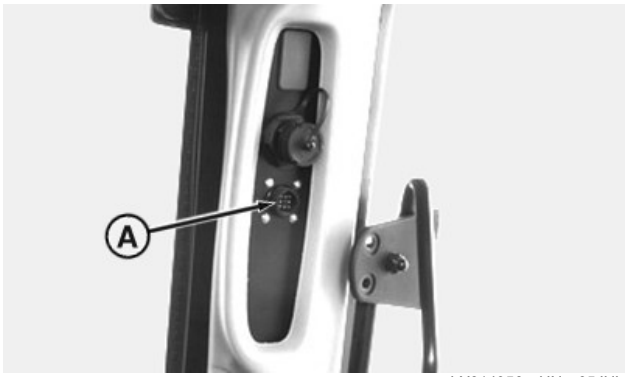
*or hitch status (implement in working position or not). Query configurable.

NOTE: Address CLC 063 (switched output for signal socket [pin 4]) can be used to configure where the information for pin 4 is sourced: From the implement switch or the rear hitch.

By default, the implement switch is configured here.

OULXA64,SP,EU,00056A0-19-14JUL25

ISOBUS Socket in Cab



LX314956—UN—05JUL17

Cab Frame, Rear

A — Socket in acc. with ISO Standard 11783

Pin	7	9
Protected	10 A	Gnd
Power at 12 V	120 W	—
Active	Ignition ON	—

At the socket, a joystick or monitor of an ISOBUS implement can be connected.

OULXA64,SP,000569D-19-24SEP20

Diagnostic Connector (CAN Bus)

Socket (A) **is only** suitable for maintenance and diagnostic purposes. Do not connect any other equipment.



LX364160—UN—28NOV18

Terminal	A	B
Fuse protection	Gnd	10 A
Power at 12 volts	—	120 W
Active	—	Permanent positive

OULXA64,SP,00056A1-19-24SEP20

Radio A—Connection of Memory Storage and Multimedia Appliances

IMPORTANT: This USB port is only suitable for the transmission of audio data. Do not connect any other equipment.



LX364172—UN—03DEC18

A — USB Interface for Transmission of Audio Data.

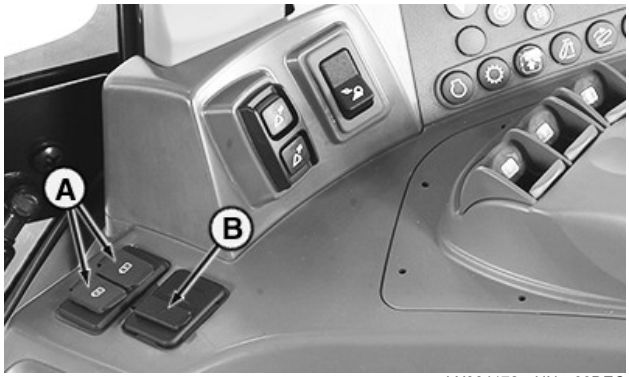
B — AUX port (3.5 mm Stereo Jack) for external audio sources

For more information, see the radio manual.

OULXA64,SP,0005E22-19-15JAN24

Radio B—Connection of Memory Storage and Multimedia Appliances

IMPORTANT: This USB port is only suitable for charging, for example, a smartphone. Do not connect any other equipment.



LX364172—UN—03DEC18

A — USB Charging Sockets, Each Charging Socket 2.4 A / 12 W Active when Ignition ON

B — 3.5 mm Stereo Jack for Transmitting Audio Signals

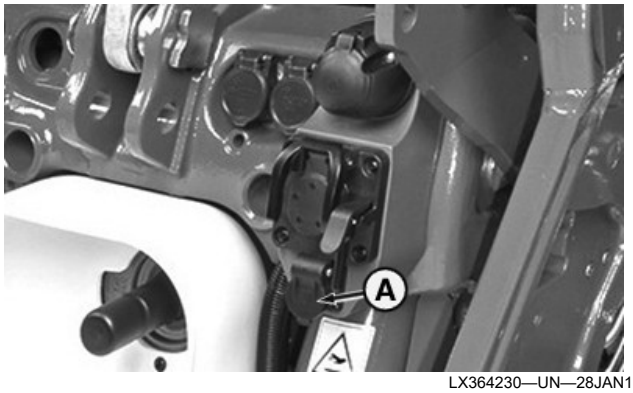
For more information, see the radio manual.

OULXA64,SP,000569B-19-15JAN24

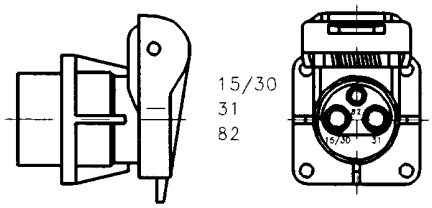
3-Terminal Power Outlet Socket (12 V, ECE), Front Hitch

IMPORTANT: When electrical consumers with high current draw are operated and multi-outlet power strips are used, the maximum permitted current load of the supply circuit must not be exceeded. It should be noted that the total load results from the sum of all electricity consumers connected to the on-board circuit. This also applies for the consumers that are connected to the on-board circuit at different sockets.

A — 3-Terminal Power Outlet Socket (12 V, ECE)



LX364230—UN—28JAN19



LX1017965

LX1017965—UN—10OCT97

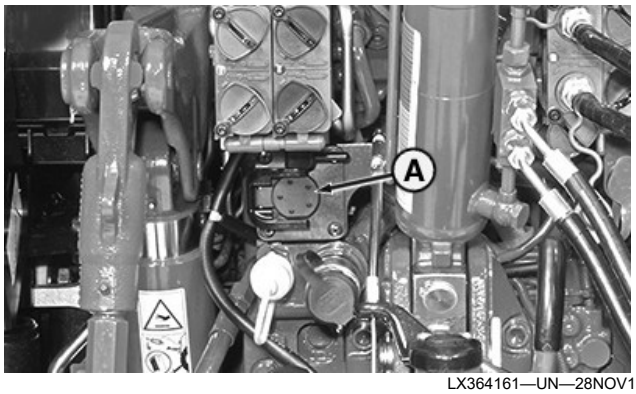
3-Terminal Power Outlet Socket (12 V, ECE)

Terminal . . .	15/30	31	82
Fuse protection . .	30 A *MAX* *Continuous load* *25 A*	Ground	10 A *MAX* *Continuous load* *5 A*
Power at 12 volts	*MAX 300 W*	—	*MAX 60 W*
Active	Permanent positive	—	Ignition ON

OULXA64,SP,EU,000569F-19-26AUG22

ISOBUS Socket (ISB), Rear Hitch

IMPORTANT: When operating electrical consumers with high current draw, the maximum permitted current load of the supply circuit must not be exceeded. It should be noted that the total load results from the sum of all electricity consumers connected to the on-board circuit. This also applies for the consumers that are connected to the on-board circuit at different sockets.



LX364161—UN—28NOV18

Pin	1	2	3	4
Protected	Gnd	Gnd	60 A	30 A
Power at 12 V	—	—	720 W	360 W
Active	—	—	Ignition ON	Ignition ON

Implements that meet ISO Standard 11783 may be connected to socket (A).

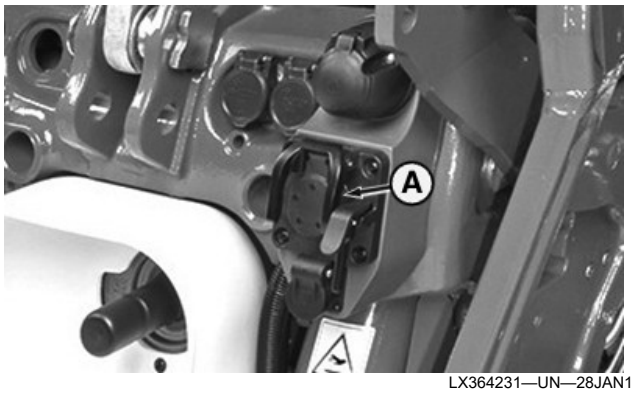
Read the Operator's Manual provided by the implement manufacturer and observe all safety instructions in the manual and on the implement prior to use.

NOTE: The headlights and worklights of an ISOBUS implement can be controlled via the ISOBUS socket. For more information, see Worklights of the ISOBUS Implement in section 90G and the Operator's Manual of the ISOBUS implement.

OULXA64,SP,00056A2-19-02MAY23

ISOBUS Socket (ISB), Front Hitch (Not Available for All Models)

IMPORTANT: When operating electrical consumers with high current draw, the maximum permitted current load of the supply circuit must not be exceeded. It should be noted that the total load results from the sum of all electricity consumers connected to the on-board circuit. This also applies for the consumers that are connected to the on-board circuit at different sockets.



LX364231—UN—28JAN19

Pin	1	2	3	4
Protected	Gnd	Gnd	60 A	30 A
Power at 12 V	—	—	720 W	360 W
Active	—	—	Ignition ON	Ignition ON

Implements that meet ISO Standard 11783 may be connected to socket (A).

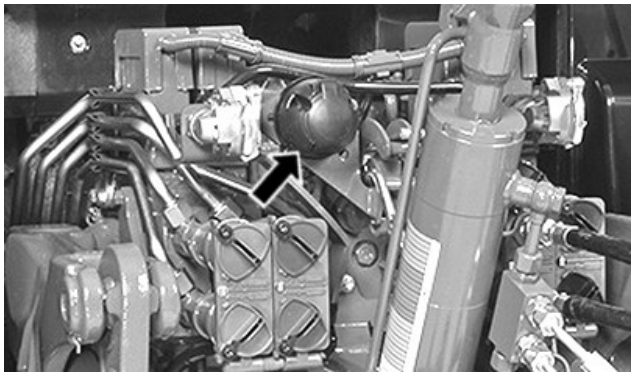
Read the Operator's Manual provided by the implement manufacturer and observe all safety instructions in the manual and on the implement prior to use.

NOTE: The head lights and worklights of an ISOBUS implement can be controlled via the ISOBUS socket. For more information, see Worklights of ISOBUS Implement in section 90G and the Operator's Manual of the ISOBUS implement.

OULXA64,SP,EU,00056A3-19-28MAR23

Seven-Terminal Trailer Socket, Rear Hitch

The trailer lights are controlled via the trailer socket.



LX364147—UN—28NOV18

Pin	31	54
Protected	Gnd	15 A
Power at 12 V	—	180 W
Active	—	Ignition ON

If an implement obscures the rear lights of the tractor, connect additional lighting to the trailer socket.

Only connect and disconnect the connector with the ignition switched off.

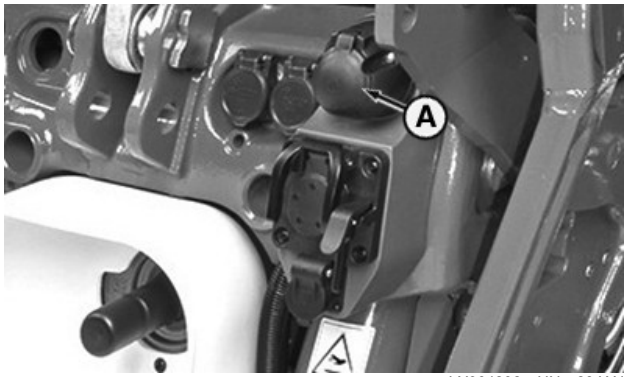
NOTE: Suitable connectors can be obtained via regular spare part channels.

NOTE: The headlights and worklights of an ISOBUS implement can be controlled via the ISOBUS socket. For more information, see Worklights of the ISOBUS Implement in section 90G and the Operator's Manual of the ISOBUS implement.

OULXA64,SP,EU,00056A4-19-15JUL25

Seven-Terminal Trailer Socket, Front Hitch

The trailer lights are controlled via trailer socket (A).



LX364232—UN—28JAN19

If an implement obscures the rear lights of the tractor, connect additional lighting to the trailer socket.

Only connect and disconnect the connector with the ignition switched off.

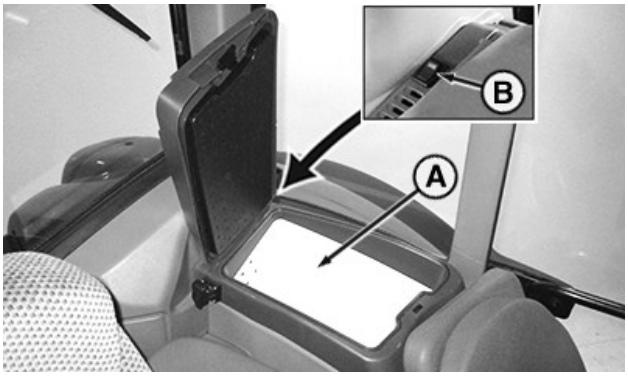
NOTE: Suitable connectors can be obtained via regular spare part channels.

NOTE: The headlights and worklights of an ISOBUS implement can be controlled via the ISOBUS socket. For more information, see Worklights of ISOBUS Implement in section 90G and the Operator's Manual of the ISOBUS implement.

OULXA64,SP,EU,00056A5-19-15JUL25

Storage Tray

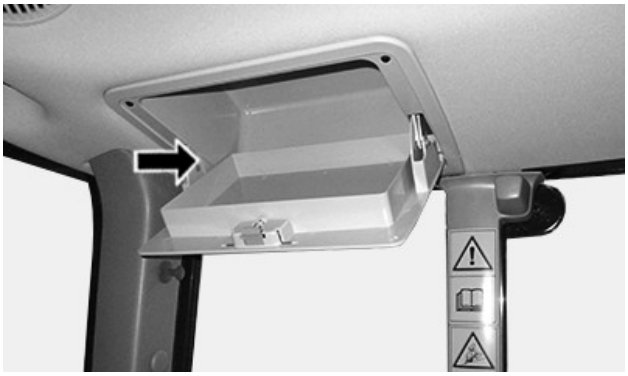
A cooling compartment can be integrated in storage tray (A). Switch cool box on and off with switch (B).



LX364174—UN—03DEC18

Storage Trays with Cooling Compartment, Left Console

The tractor may be equipped with a storage compartment in the cab roof.



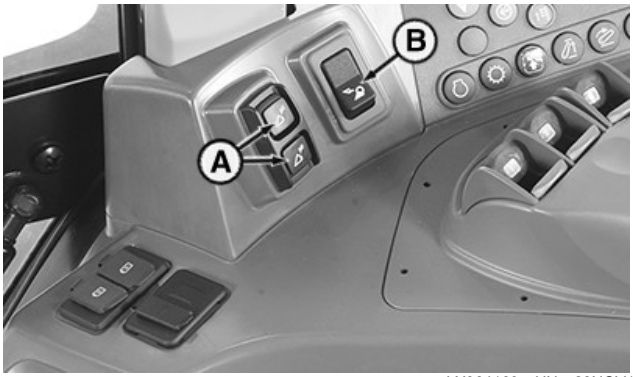
LX364179—UN—03DEC18

The storage compartment provides a place for the first aid kit.

OULXA64,SP,00056A6-19-24SEP20

Controls for Hydraulic Quick Release and Worklights on Front Loader (If Equipped)

CAUTION: It is not permitted to use worklights on public roads.



LX364169—UN—28NOV18

A—Buttons for Rapid Hydraulic Disengagement
B—Worklight Switch

Press the buttons (A) for locking and unlocking when changing the front loader's implement.

NOTE: Refer to the Operator's Manual of the front loader for more information.

The front loader worklights can be switched on and off by switch (B) once the worklights are switched on. Also see Select Worklights in Section 90G.

OULXA64,SP,00056A7-19-26APR23

Turn Backup Alarm ON and OFF (Optional Equipment)

1. Press transmission button (A).



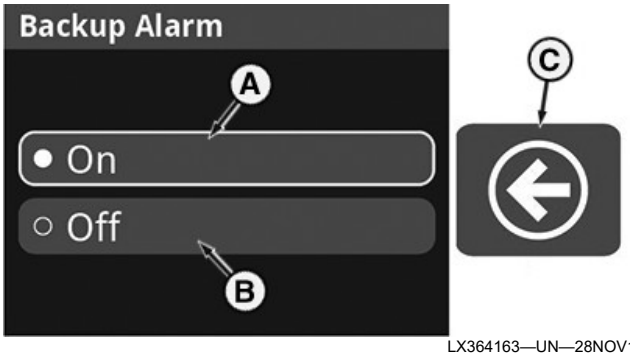
LX364164—UN—29NOV18

2. Select displayed page and confirm.



LX364162—UN—28NOV18

3. Select alert ON or OFF.



LX364163—UN—28NOV18

A—Alert ON
B—Alert OFF
C—Return Button

4. Press button (C) to exit the page.

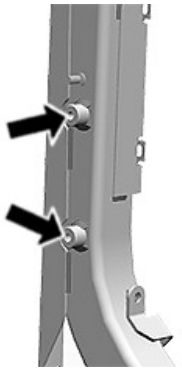
   Changes are applied automatically.

OULXA64,00056A8-19-24SEP20

Install Additional Monitors

In the most cases the Cab posts are providing threaded bores or bushings tom be used for attaching additional equipment.

Remove trim panel and observe for attaching points, see example.



LX372948—UN—21APR21

Example

Trim panels have marks on the rear side, where the relevant bores have to be drilled. If marks are not found, measure and then transfer the hole pattern to the trim panel.

IMPORTANT: Refer to the manual of the monitor or control instrument.

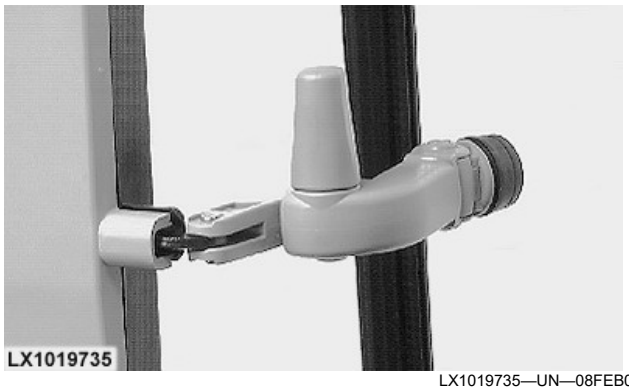
OULXA64,All,00056A9-19-20APR21

Open Rear Window and Side Windows

IMPORTANT: Never open the rear window fully without first checking that the rear wiper has reached its home position.

Rear window wiper and washer system only operate if the rear window is closed.

The side windows and rear window can be opened for better ventilation.



LX1019735—UN—08FEB00

Side Windows



LX1056678—UN—19JUL12

Rear Window

OULXA64,SP,00056AA-19-24SEP20

Rear Window - Cable Guides

There are two cable ducts at the rear window (see arrows).



LX1056646—UN—19JUL12

1. Open the rear window.
2. Remove rubber plugs and separate them at the provided cuts.

3. Position the cables.
4. Insert the rubber plugs together with the cables and close the rear window.

OULXA64,SP,00056AB-19-24SEP20

Roof Hatch (If Equipped)

Open and close roof hatch with handle (A).

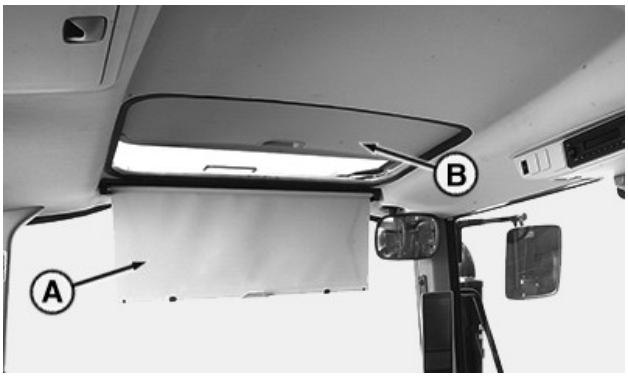


LX266854—UN—20JUL16

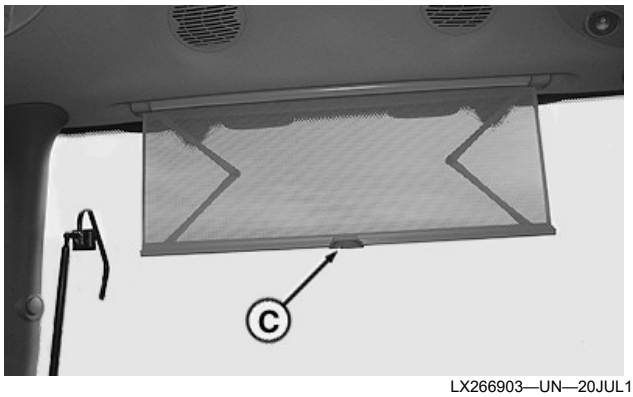
OULXA64,SP,00056AC-19-24SEP20

Pull-Down Sunshade

Pull-down sunshades can be used to shut out direct sunlight, if desired.



LX364178—UN—03DEC18



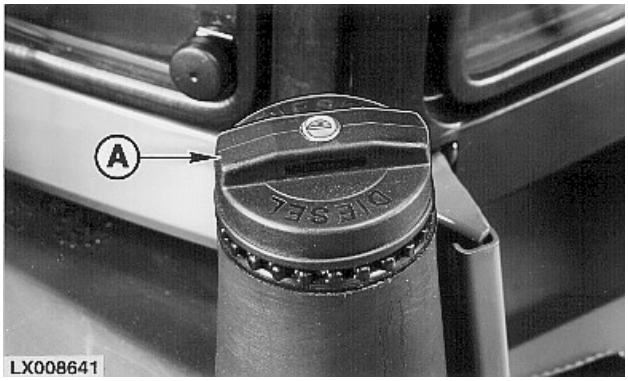
LX266903—UN—20JUL16

A—Pull-Down Sunshade (windshield)
B—Pull-Down Sunshade (panorama roof)
C—Pull-Down Sunshade (rear window)

OULXA64,SP,00056AD-19-24SEP20

Lockable Tank Filler Cap

The tractor may be equipped with a lockable tank filler cap (A).



LX008641—UN—15AUG94

OULXA64,ALL,00056AE-19-24SEP20

Performance Ballast

Ballasting Information and Guidelines for Tractors with Single Tires

Basic Ballasting Definitions

Ballast is mass added to a tractor chassis and/or wheels to:

• Increase **total weight** and/or

• Influence weight distribution between front axle and rear axle (static balance). Static means that front and rear axle loads are determined when tractor is parked.

The static weight distribution between front and rear axles is sometimes called **weight split**. It is expressed as percentages of total tractor static weight supported by the front axle and by the rear axle. For example, if the front axle supports 40% of the total static tractor weight, the tractor has a 40/60 weight split. The percentage of front axle weight is always stated first in this form.

A tractor **properly ballasted** for a given type of implement (towed, integral, or semi-integral) has both the correct **total weight** and **static balance** for that type of implement.

Major Considerations

The **amount** of ballast required and especially the **locations** of ballast weights depend very much on type of implement being used and operating speed.

Ballasting is required to:

1. Ensure that front axle carries sufficient weight for steerability and stability with field draft loads as well as transport in the field and on the road.

2. Provide sufficient traction to efficiently pull high draft loads.

3. Provide proper fore/aft balance to minimize occurrence of "power hop" (uncontrolled, rhythmical bouncing under high load) in tractors with front-wheel drive engaged.

4. Ensure that rear axle carries sufficient weight for traction, braking, and stability when a loader or other front implement is attached to front of tractor.

When changing from one implement to another, it may be necessary to reconfigure ballast on the tractor.

100,01,All,LX25458,0000AAF-19-13FEB24

General Guidelines for Tractor Weight Based on Engine Horsepower (according to UN ECE R120, using PS as Unit of Measurement)

The total tractor weight needed to efficiently deliver power through the wheels to the ground for field draft applications depends on travel speed and soil conditions. As a basic guideline, the table shows the recommended weight per engine horsepower (PS)[1] for several draft speed range and speed thresholds for heavy pull.

		Heavy	Medium	Light
Travel Speed	km/h	≤ 7.2	7.2 - 8.7	≥ 8.7
	mph	≤ 4.5	4.5 - 5.4	≥ 5.4
Vehicle weight per horsepower (PS)[a] (UN ECE R120)	kg	56	50	46
	lb	125	110	100

Indicated Travel Speed

[a]Conversion factor: 1 PS (metric system) corresponds to 0.7355 kW

Wheel slip should normally be in the range of 8 – 12% for optimum efficiency of power delivery at these field speeds. Wheel slip may briefly rise above this range when the tractor encounters a higher draft area in the field, but it should not remain there continuously.

NOTE: Radar is recommended to continually monitor wheel slip. Checking wheel slip manually is possible but will not show slip continuously.

IMPORTANT: To extend drivetrain life, the tractor should never be operated with continuous full-power loads at speeds below 6.6 km/h (4.1 mph) with front-wheel drive engaged, and below 7.0 km/h (4.3 mph) for tractors without front-wheel drive. Some tractor models which are optimized for special applications can have different speed thresholds (see table for more specific values). Travel speed may drop below that level in hard-pull situations, but it must recover to higher levels during normal operation. This applies to tractors with all types of transmission. For tractors equipped with AutoPowr/IVT transmissions operating in automatic mode, the engine will not labor in high draft situations, but minimum travel speed guidelines must still be followed.

The speed thresholds provided by the table can be used as an additional means to optimize the tractor weight for the application. The tractor is ballasted properly if wheel slip is increased and the engine cannot be stalled at speeds below these thresholds and under heavy-pull conditions.

[1] Conversion factor: 1 PS (metric system) corresponds to 0.7355 kW

		Tractors with front-wheel drive axle	Tractors without front-wheel drive axle
Vehicle weight per horsepower (PS)[a] (UN ECE R120)	kg	56	56
	lb	125	125
Lower speed threshold for heavy pull	km/h	6.6	7.0
	mph	4.1	4.3

Lower travel speed thresholds for heavy pull depending on vehicle type

[a]Conversion factor: 1 PS (metric system) corresponds to 0.7355 kW

100,02,All,LX25458,0000AB0-19-14JAN25

Selection of Weights

CAUTION: When choosing the front and rear weights, make sure that the permissible axle weights as well as the permissible total weight including the implement is not exceeded.

Comply with local regulations regarding installation and maximum permissible number of weights. In order to maintain steerability, at least 20% of unladen mass must be on the front axle. Unladen mass is the mass of the tractor without special equipment, implements, trailer or ballast, but with hydraulic oil and lubricants, a full fuel tank, and an operator weighing 75 kg.

CAUTION: Use suitable lifting tackle/hoists when handling weights.

IMPORTANT: If the tractor is driven continuously with high ballast weight, it is necessary to check the toe-in before start-up.

Safety and performance of your tractor depend on correct ballasting of front axle (front weights) and rear axle (wheel weights, filling tires with liquid ballast, pickup weight).

100,03,All,LX25458,0000AB1-19-13FEB24

Load on Rear Wheels

When dimensioning the load on the rear wheels, make sure that around 10-15% slip remains when work is performed with the tractor. This is the range within which the maximum traction is achieved.

However, the load on the rear wheels should only be large enough that, at 7 km/h (4.3 mph), the engine is working at full capacity at rated speed. If overload is possible, or if it is possible to stall the engine below 7 km/h (4.3 mph), the load on the rear wheels is too high.

Too little ballast leads to:

- Excessive slippage and the resulting reduced traction
- Increased tire wear
- High fuel usage

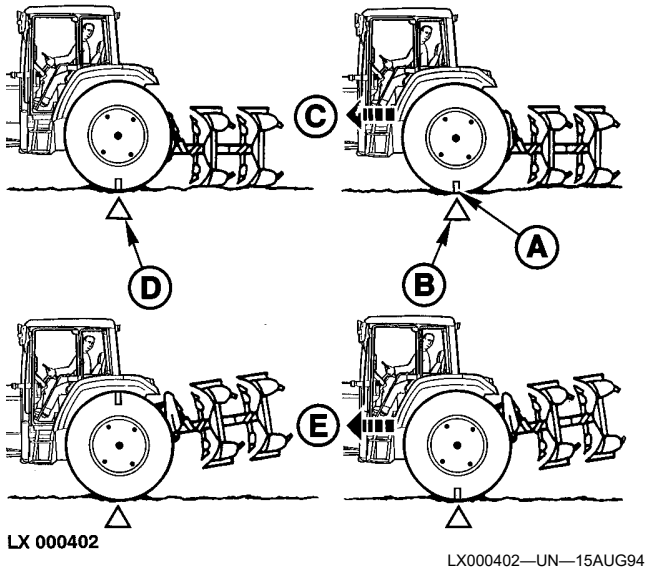
Too much ballast leads to:

- Increased roll resistance and the resulting reduced traction
- Load on tires and transmission too high
- Soil compaction
- High fuel usage

NOTE: It is not permissible to use more than 3 rear wheel weights per wheel. Additionally, the legal stipulations regarding the maximum permissible tractor width have to be observed.

100,04,All,LX25458,0000AB2-19-13FEB24

Measure Rear Wheel Slip



LX000402—UN—15AUG94

1. Mark tire (A).
2. Mark starting point on the ground (B).
3. With the implement lowered, drive until the rear wheel has completed 10 revolutions (C).
4. Place a marker on the ground at point (D).
5. Drive the distance between the ground markings again with implement raised and count the revolutions of the rear wheels (E).

The number of revolutions gives the following percentage of wheel slip:

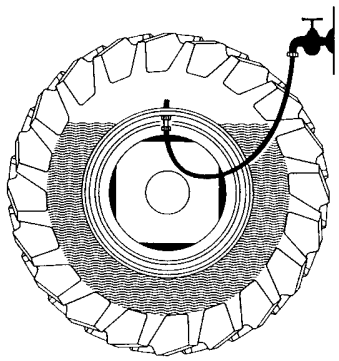
- 10.0 revolutions = 0% wheel slip
- 9.5 revolutions = 5% wheel slip
- 9.0 revolutions = 10% wheel slip

- 8.5 revolutions = 15% wheel slip
- 8.0 revolutions = 20% wheel slip
- 7.5 revolutions = 25% wheel slip
- 7.0 revolutions = 30% wheel slip

NOTE: On tractors with GPS or radar sensor, the slip indicator in the display can be used, if equipped. The calibration of the radar sensor needs to be observed.

100,05,All,LX25458,0000AB3-19-13FEB24

Fill Tires with Water



LX009450

LX009450—UN—03JAN95

To fill the tire, jack up the wheel and turn the tube valve to the top. Instead of the valve insert, screw the water valve onto the valve stem. While the water is flowing in, air escapes through the opening at the side of the water valve. Stop the filling when water flows out of this opening. Depending on the size of the tire, this takes 15 to 30 minutes. Subsequently replace the water valve with the valve insert and pump up the tires to the normal air pressure. The possible fill capacity of the tire depends on the tire size and manufacturer. If necessary, contact a John Deere dealer or other service provider or the tire manufacturer.

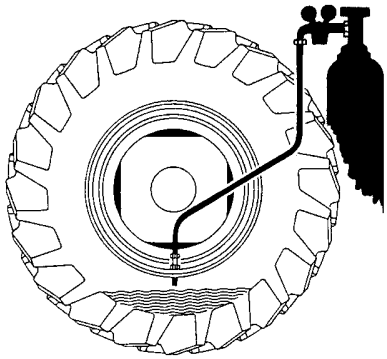
If there is risk of frost, add antifreeze solution. The tire manufacturers recommend a solution consisting of water and calcium chloride.

The antifreeze solution can be drawn in from a container placed higher up, by means of suction. A faster option is using a pump (rinse the pump with clear water afterwards). To make 100 l (26.4 US gal) of antifreeze solution that is effective down to -25°C (-13°F), dissolve 34 kg (75 lb) calcium chloride in 86 l (22.7 US gal) water. This solution adds 120 kg (269 lb) of weight. Add the calcium chloride to the water, not vice versa. This antifreeze solution must not be used for the radiator.

NOTE: On tractors with 50 km/h (31 mph) transmissions, it is not recommended to fill tires with liquid ballast.

100,06,All,LX25458,0000AB4-19-16JUL25

Drain Tires



LX009451

LX009451—UN—03JAN95

Jack up the wheel. After the valve insert has been removed, let the water drain out.

To press the rest of the water out of the tire, use the filling valve with hose extension and pump air into the tire. The air pressure pushes remaining water out of the tire.

100,07,All,LX25458,0000AB5-19-13FEB24

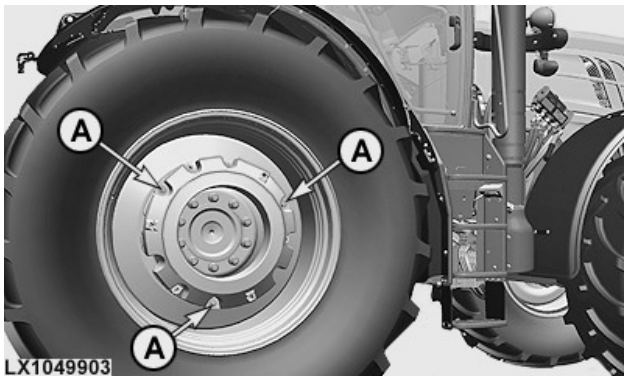
Change Wheel Weights Safely (Type A)

CAUTION: Have the mounting of wheel weights performed by a John Deere dealer or other service provider. Improper handling may result in personal injury.

IMPORTANT: Retighten mounting screws of the wheel weight after 3 hours of operation and then again after 10 hours of operation.

Thereafter, check mounting screws at the same interval as the wheel bolts.

Mounting screws (A), wheel weight to wheel disc.



LX1049903—UN—16FEB11

Wheel Weight with a Diameter of 655 mm (25.8 in)

A—Mounting Screws

Hardware Torque, Wheel Weight to Wheel Disc	
Mounting Screws, M16	310 N·m (230 lb·ft)
Mounting Screws, M20	610 N·m (450 lb·ft)

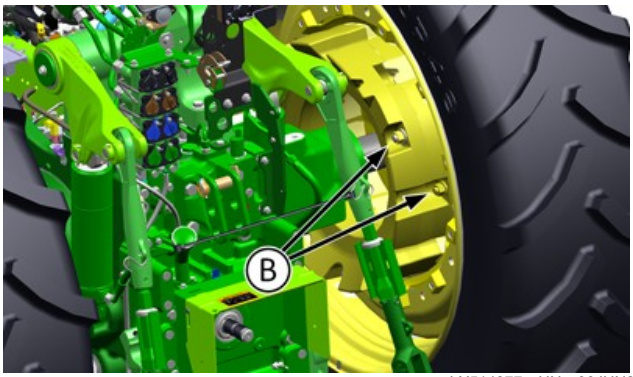
Only for Tractors with Inner Wheel Weight on Cast Rear Wheel with Rack-and-Pinion Axle

Only Applicable to the Following Tractors:			
MX Frame Version	—	—	6R 110 6R 120 6R 130 6R 140 6R 150
MR Frame Version	6175M 6195M 6210M	6M 175 6M 180 6M 195 6M 200 6M 220 6M 240	6R 175 6R 195 6R 215
MT Frame Version	—	6M 230 6M 250	6R 230 6R 250

IMPORTANT: If inner wheel weights are installed, a minimum tread width of 2.1 m (82.7 in) must be observed.

Smaller track widths are possible as long as the minimum distance of 25 mm (1 in) between inner wheel weights and tractor components is observed. These clearances are to be checked when setting the track widths.

Mounting screws (B), wheel weight to cast disc.



LX514877—UN—30JUN22

Inner Wheel Weight to Cast Disc

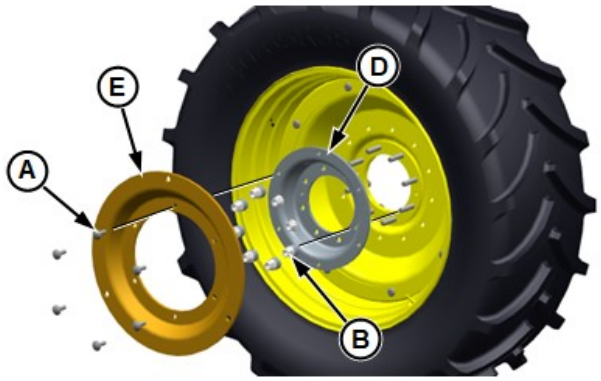
B—Mounting Screws, M20

Hardware Torque, Wheel Weight to Cast Disc	
Mounting Screws, M20	610 N·m (450 lb·ft)

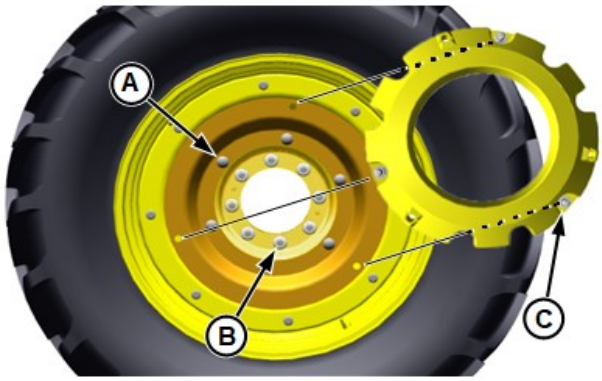
Optional Mounting Version for Wheel Weights

If the wheel disc does not have the bores for attaching the cast steel mounting ring, two steel plates (D) and (E), and longer wheel screws (B) are assembled at the wheel flange. The mounting ring (base weight) will then be mounted to the steel plates (D) and (E). After this, the wheel weights can be mounted as usual. Please note that the tightening torque of the wheel screws (B) will remain the same; tighten them to the torque specified in section 80C.

Hardware	
A	M16 screws (six used for steel disc ; three used for rack and pinion axles with cast disc).
B	Wheel screws, steel plates to wheel flange.
C	M20 screws, ballast weights and weight mounting ring (type A).
D	Steel plate to be mounted on the wheel flange; (not present if equipped with rack-and-pinion axle).
E	Steel plate mounted on plate (D); (directly attached to the cast disc if equipped with rack-and-pinion axle).



LX680538—UN—10JUL25



LX680537—UN—09JUL25

Optional Assembly of Wheel Weights

A—M16 Screws, 200 N·m (148 lb·ft)
B—Tightening Torque, See Section 80C
C—M20 Screws, 610 N·m (450 lb·ft)

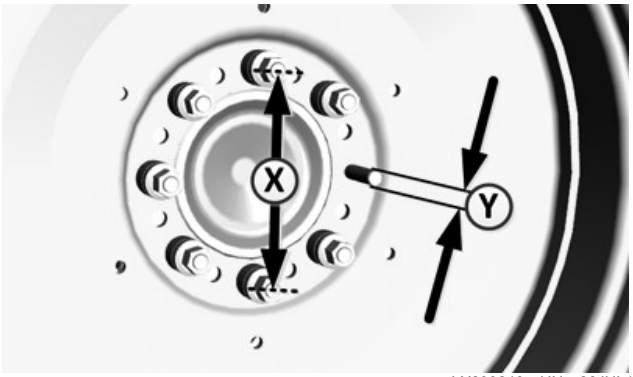
100,11,ALL,OULXA64,000598A-19-10JUL25

Change Wheel Weights Safely (Type B)

CAUTION: Have the mounting of wheel weights performed by a John Deere dealer or other service provider. Improper handling may result in personal injury.

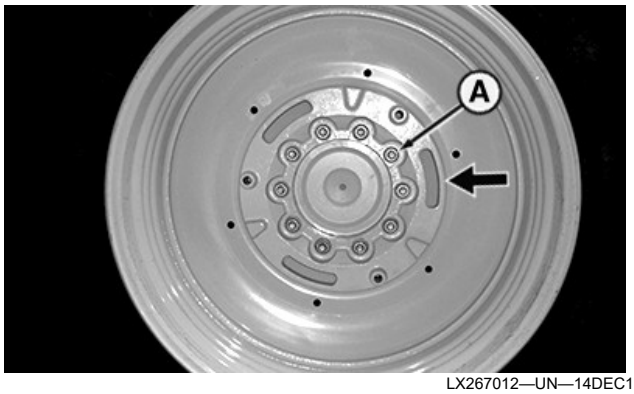
IMPORTANT: Hardware torques depend on the bolt circle diameter (X) and thread size (Y).

Find torques in the table.



LX299248—UN—26JUL17

Mounting screws (A), basic weight to wheel



LX267012—UN—14DEC16

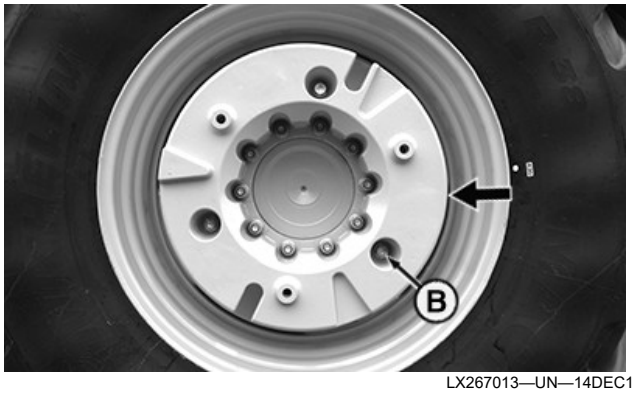
Basic Weight Shown with a Diameter (∅) of 335 mm

Hardware Torque, Basic Weight to Wheel	
∅ 335 mm, M22 x 1.5	600 N·m (445 lb·ft)
∅ 275 mm, M20 x 1.5	500 N·m (370 lb·ft)
∅ 203 mm, M20 x 1.5	500 N·m (370 lb·ft)

IMPORTANT: Retighten mounting screws (A) of the basic weight after 3 hours of operation and then again after 10 hours of operation.

Thereafter, check mounting screws (A) at the same interval as the wheel bolts.

Mounting screws (B), wheel weight to basic weight or to wheel weight



LX267013—UN—14DEC16

Wheel Weight Shown with a Diameter (∅) of 335 mm

Hardware Torque, Wheel Weight	
∅ 335 mm, M20 x 1.5	500 N·m (370 lb·ft)
∅ 275 mm, M20 x 1.5	500 N·m (370 lb·ft)
∅ 203 mm, M20 x 1.5	500 N·m (370 lb·ft)

IMPORTANT: Check the mounting screws for each wheel weight once after 100 operating hours.

100,12,All,LX25458,0000AB6-19-10JUL25

Weight in Three-Point Hitch

NOTE: When driving, raise the three-point hitch to get as much ground clearance as possible.

CAUTION: When the tractor is parked, always lower the pickup weight to the ground.

IMPORTANT: Always make sure the tractor is balanced/ballasted properly.

IMPORTANT: Never use the hitch jaw in the front of the pickup weight for towing loads.

100,20,All,LX25458,0000AB7-19-13FEB24

Attach Pickup Weight to the Front Hitch

CAUTION: Do not attempt to raise the pickup weight unless it is already connected to the center link.

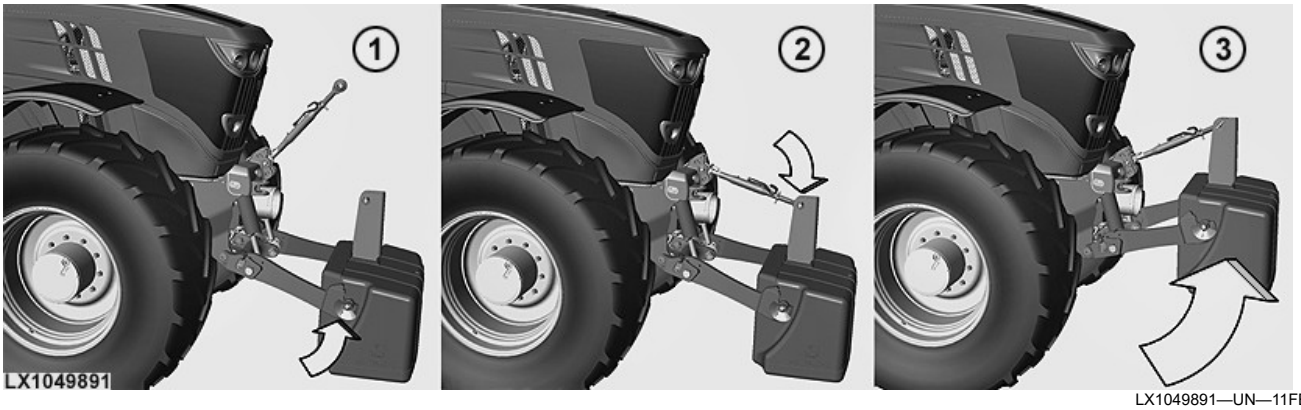
CAUTION: Do not use front-end ballast unless the rear of the tractor has an appropriate counterweight.

CAUTION: If no implement is installed on the rear end, install the pickup weight on the rear hitch before driving to the field.

CAUTION: Incorrect ballasting has a negative effect on handling characteristics.

IMPORTANT: Comply with permissible axle loads and tire and wheel rim bearing capacities.

To prevent the pickup weight from swinging dangerously when it is raised, follow the installation procedure outlined below.

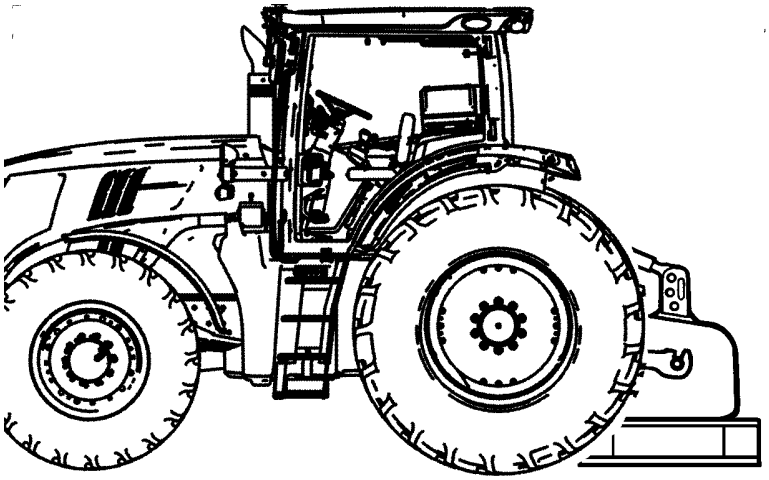


LX1049891—UN—11FEB11

1. Engage the pickup weight in the draft links but do NOT raise the weight at this stage.
2. Adjust the center link and engage it in the pickup weight.
3. Raise the pickup weight as high as it will go.
4. For removing the pickup weight, reverse the attaching procedure.

100,21,All,OULXA64,00056AF-19-13FEB24

Attach the Pickup Weight to the Rear Hitch



LX1046222—UN—13JUL11

CAUTION: Do not attempt to raise the pickup weight unless it is already connected to the center link.

CAUTION: Make sure that the hooks on the draft links are closed properly.

CAUTION: Install all retaining pins.

CAUTION: Steering may be adversely affected unless there is sufficient weight at the front end of the tractor (e.g. a front loader).

IMPORTANT: Comply with permissible rear axle loads and tire and wheel rim bearing capacities.

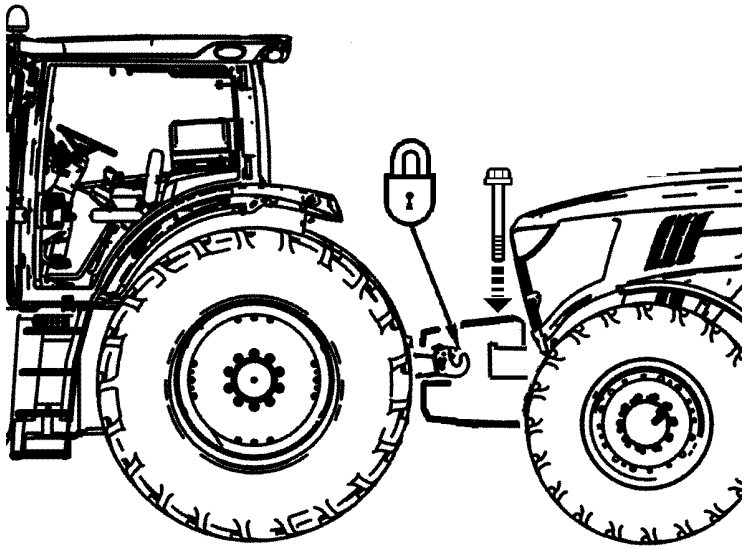
1. Remove adjusting spring rod and eyelet screws.
2. Put the drawbar to its shortest position and swing it to the side.
3. Remove height-adjustable trailer hitch.
4. Install the center link bracket on the pickup weight.
5. Reverse toward the pickup weight and proceed in the same manner as for an implement.

NOTE: On tractors with extra-large tires, it may be necessary to adjust the lift links to their maximum length.

100,30,All,LX25458,0000AB8-19-13FEB24

Attach Pickup Weight to the Basic Weight

Position Pickup Weight with Another Tractor



LX1046223—UN—13JUL11

CAUTION: Make sure that no-one is standing in the danger zone.

CAUTION: On the tractor that is to receive the pickup weight, engage the park lock.

CAUTION: Select depth control for the hitch of the support tractor.

CAUTION: Make sure that the hooks on the draft links are engaged.

IMPORTANT: Front-end installation is authorized only for tractors with front-wheel drive!

IMPORTANT: Comply with permissible axle loads and tire and wheel rim bearing capacities. See Operator's Manual and manufacturer's notes.

IMPORTANT: Do not use center link during attaching process.

NOTE: Once pickup weight has been attached, it is no longer possible to use the conventional, additional front weights. The one exception to this is the 180 kg (400 lb) weight pack.

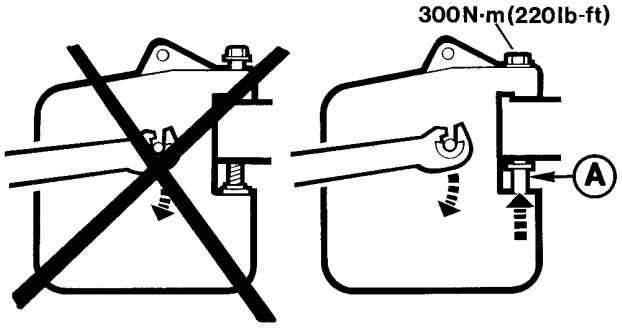
1. Suspend the pickup weight from the draft links of any suitable tractor.

IMPORTANT: Do not use center link during attaching process.

2. Back up the tractor in front of the tractor to which the pickup weight is to be attached.
3. Lower the pickup weight onto the basic weight and let it snap into place audibly.

CAUTION: Keep the pickup weight suspended until the retaining screw has been screwed in fully and is seated tightly. Make sure that the retaining nut (A) is against the basic weight.

4. Position retaining screw and tighten to 300 N·m (220 lb·ft).

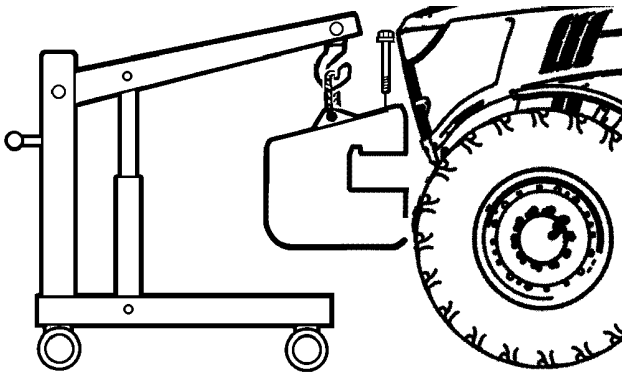


LX013465

LX013465—UN—03APR96

5. Place retaining nut (A) completely against the basic weight.
6. Disengage draft links of the tractor performing the attaching and screw in the weight receiving pin as far as it will go.

Attach Pickup Weight with a Crane or Suitable Hoist



LX1046224—UN—13JUL11

CAUTION: When using commercially available lifting equipment, make sure that its bearing capacity is sufficient.

CAUTION: Use approved lifting equipment only.

1. Suspend the weight by the cast eyelet.
2. Lower the pickup weight onto the basic weight and let it snap into place audibly.

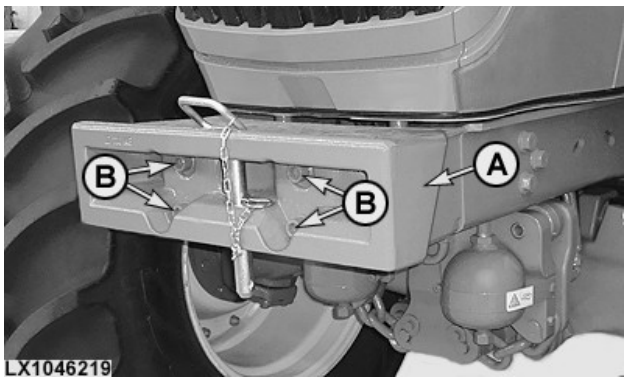
CAUTION: Keep the pickup weight suspended until the retaining screw has been screwed in fully and is seated tightly. Make sure that the retaining nut is against the basic weight.

3. Install retaining screw and tighten to 300 N·m (220 lb·ft).
4. Place retaining nut completely against the basic weight.
5. Detach hoist.

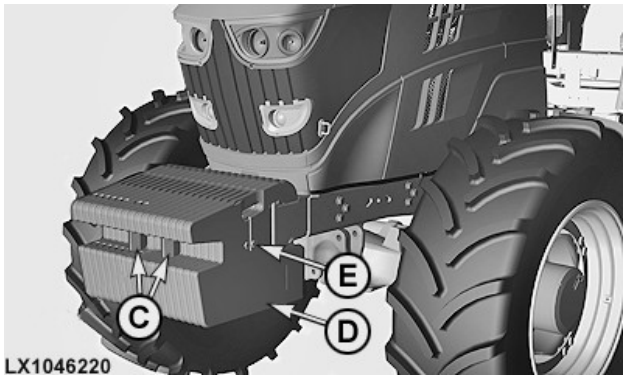
100,31,All,LX25458,ALL,0000AB9-19-13FEB24

Install Front Weights

One basic weight (A) and up to 18 additional weights (D) may be installed. The basic weight is the carrier for the front weights.



LX1046219—UN—22JUN11



LX1046220—UN—22JUN11

A—Basic Weight
B—Attaching Screw
C—Jaw
D—Additional Weight
E—Screw

IMPORTANT: Tighten the attaching screws (B) of the basic weight (A) with 600 N·m (440 lb·ft) and the screws (E) of the additional weights (D) with 230 N·m (170 lb·ft).

Up to 18 additional weights (D) may be installed on the tractor.

Different front weights are shipped and installed in the EU and North America.

Remove the front shield from the main frame before installing a basic weight.

Region	Weight per additional weight	Weight with 18 additional weights
EU, part no.: L38451	50 kg (110 lb)	900 kg (1980 lb)
North America, part no.: R127764 .	43 kg (95 lb)	774 kg (1710 lb)

Per 10 kg (22 lb) weight increase, the load on the front axle increases by 12 kg (26.5 lb).

IMPORTANT: When installing six or more additional weights, they have to be installed to form a jaw (C).

The jaw hitch should be used for shunting and towing on hard-surfaced roads only.

100,40,All,LX25458,0000ABA-19-13FEB24

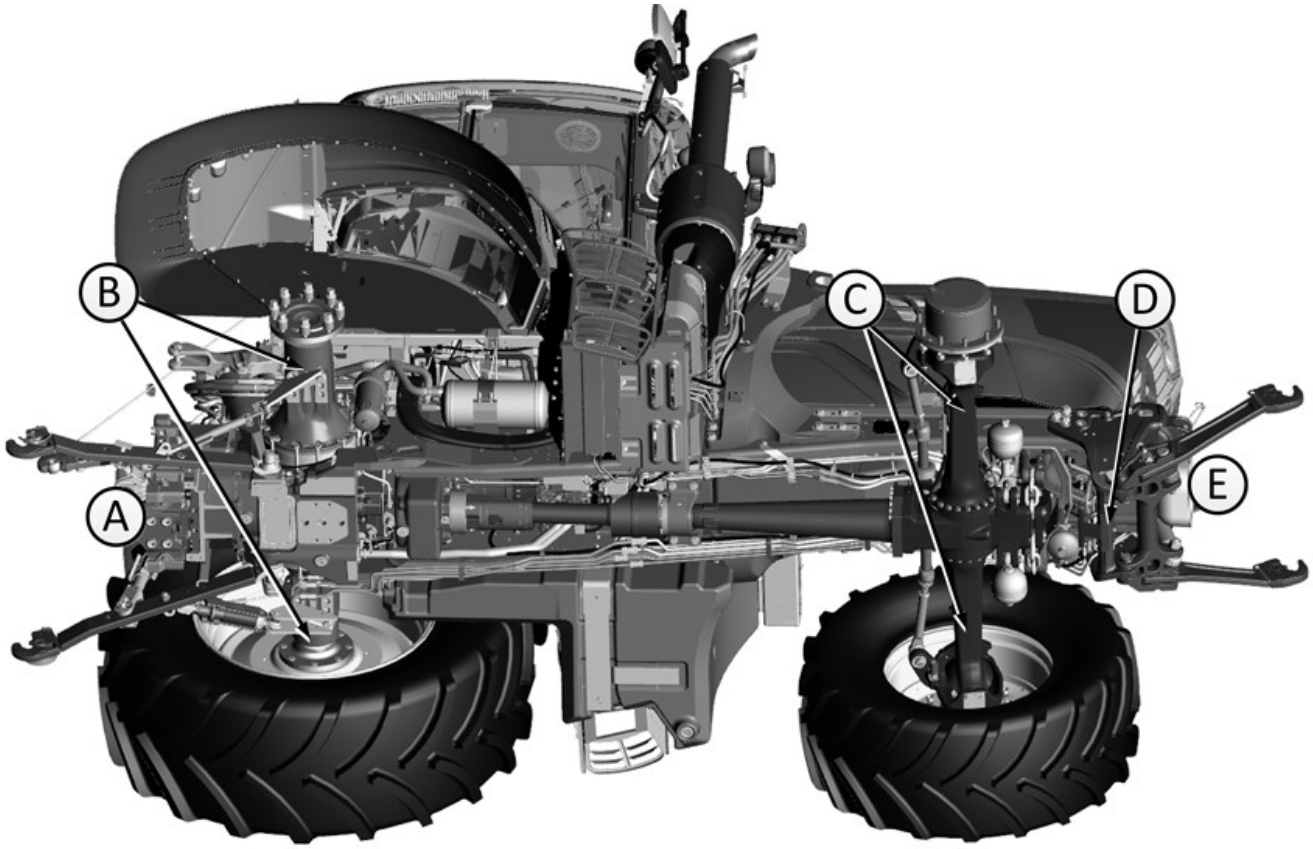
Transporting Tractor

A non-moving tractor is best transported on a flatbed carrier.

Before transporting the tractor on a low-loader truck or flatbed rail waggon, make sure that the hood is secured over the tractor engine and that doors, roof hatch (if equipped), and windows are properly closed.

110,001,ALL,LX25458,ALL,0000ABB-19-10APR24

Lashing the Tractor on a Transport Trailers



LX299237—UN—19JUL17

A—Suspension Devices Located at the Rear
B—Rear Axles
C—Axle Knees of Front-Wheel Drive Axle
D—Rear Cross-Member of Front Hitch
E—Suspension Devices Located at the Front



LXL220473—UN—26FEB21

Tie-Down Label (If Equipped)

CAUTION: Danger to life from lost cargo.

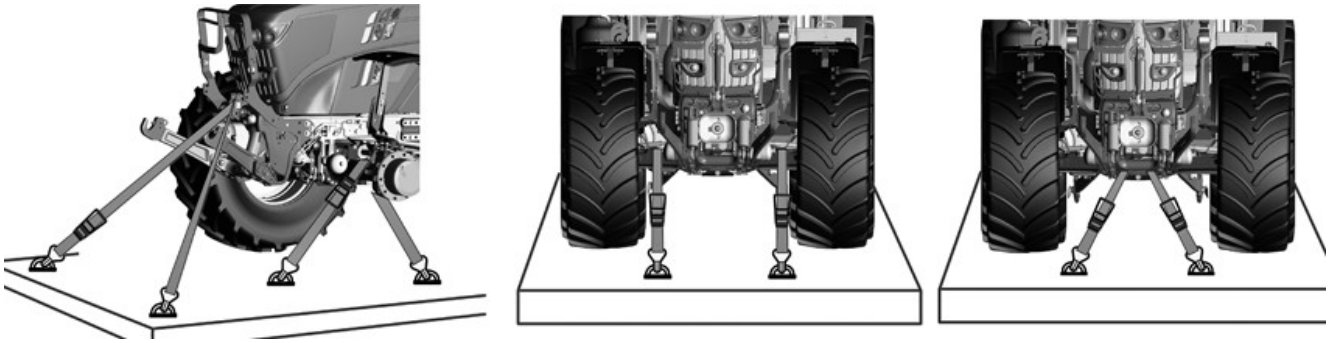
Inadequately secured cargo presents a high risk of the cargo or tractor detaching itself during driving, and falling off the transport trailer.

The tractor has a sufficient number of fixture points where suitable devices such as lashing straps or tensioning chains can be attached. In addition, use lockable chock blocks. Loose wedges might get lost and are therefore not permissible. Always observe legal requirements for securing cargo.

Select the size of lashing straps and tensioning chains in relation to tractor weight.

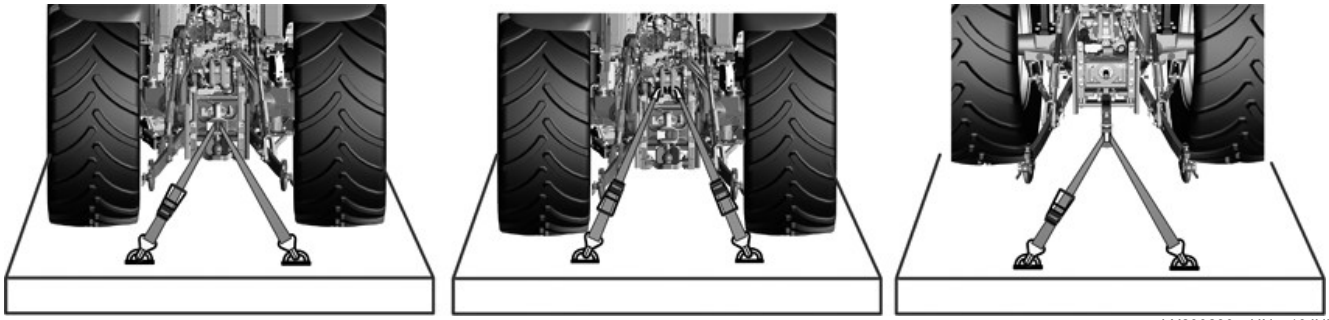
IMPORTANT: Avoid damage to the tractor. During lashing, make sure to use edge protectors or protective cuffs. Do not tie lashing straps or tensioning chains across lines, hoses, cables, and other sensitive components.

Front Side: Examples of various points for lashing the tractor. In addition, available towing devices at the basic weight and additional weights can be used.



LX299238—UN—19JUL17

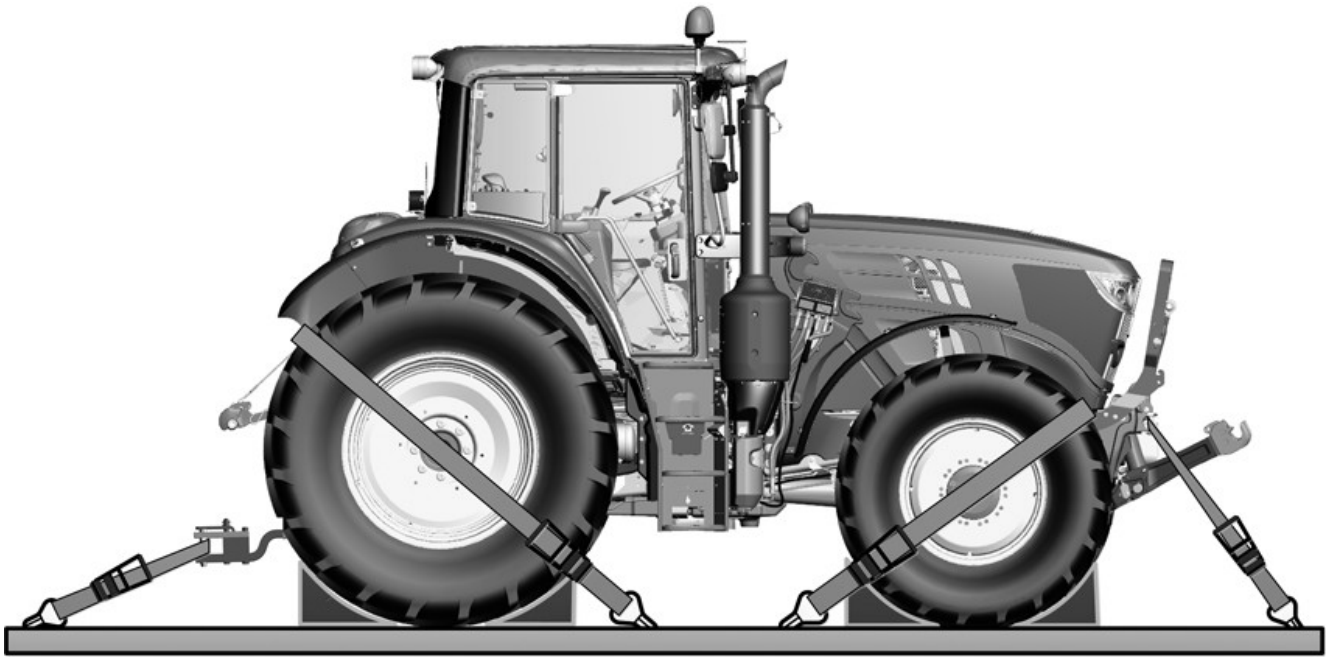
Rear Side: Examples of various points for lashing the tractor.



LX299239—UN—19JUL17

Example of a tractor lashed across the wheels.

Additional cargo securing in front and rear, and use of chock blocks.

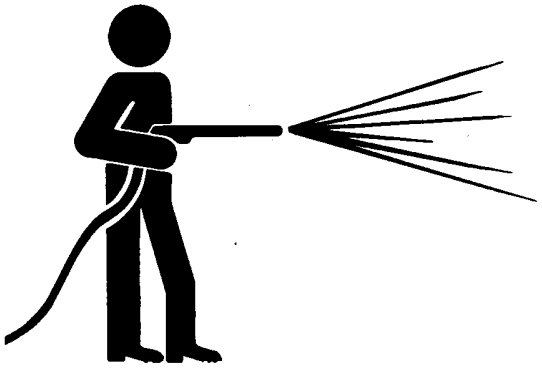


LX299240—UN—19JUL17

Example: Tractor lashed to trailer.

110,002,ALL,LX25458,0000ABC-19-10APR24

Wash Machine After Unloading



T6642EJ—UN—18OCT88

IMPORTANT: Reduce corrosion from road salt and sea salt. Promptly wash equipment delivered by truck during winter months or delivered by cargo ship.

Avoid malfunction or damage to machine components. Do not direct high-pressure spray at electronic or electrical components and connectors, bearings, hydraulic seals, fuel injection pumps, or other sensitive components. Reduce water pressure to wash sensitive components.

Avoid water penetration behind seals and similar components. Do not direct spray on these components at an angle less than 45°.

Avoid discoloration of machine paint. Do not use strong soaps, chemical detergents, or cleaning agents that contain acids, caustics, or abrasives. Do not allow cleaning agents to dry on machine. Promptly rinse machine after washing with a cleaning agent.

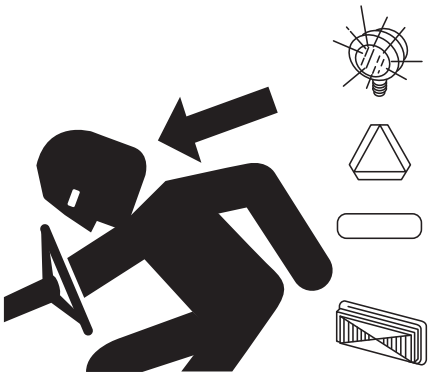
Use a top-to-bottom wash sequence. Wash behind panels and in hidden areas where salt can accumulate during transport.

If a cleaning agent is used, the agent must be the correct concentration. Do not allow cleaning agent to dry on machine, promptly rinse from top to bottom. Your John Deere dealer has cleaners which are compatible with your equipment and which are recommended to remove protective shipping coatings.

Incorrect detergent, excessive concentration, a delay in rinsing, or incomplete rinsing can discolor paint after delivery.

DX,WASH-19-14MAR14

Driving on Public Roads





RXA0086597—UN—09FEB06

CAUTION: Avoid personal injury or death from losing control of tractor. When driving tractor on roads:

- **Wear seat belts.**
- **Service brake: Couple both brake pedals together.**
- **Use speed control pedal instead of throttle lever.**
- **Reduce speed when driving on icy, wet, or graveled surfaces.**
- **Ballast tractor correctly.**
- **Prevent when from locking and kidding on tractors equipped with AutoPowr/IVT transmission.**
- **Avoid holes, ditches, sharp turns, hillsides and obstructions which may cause tractor to roll over.**
- **Always pay attention to the traffic coming from behind, especially in corners, and use the turn signal.**
- **Always operate flashing lights when traveling on a highway or public road, except where prohibited by law.**
- **Before driving on public roads, make sure that tires and fenders are free of mud.**

Check headlights, flashing warning lights and tail lights before operating tractor on roads. Adjust rear view mirrors and clean windows.

Lights—Use headlights and turn signals day and night. Comply with the legal stipulations for device lighting and identification. Make sure that the lighting and identification is visible and in good condition. Make sure that damaged or missing lights and markings are repaired or replaced immediately. Safety lights for implements can be obtained via regular spare part channels.

Brakes — Tap brake pedals to make sure that the differential lock is NOT engaged. **Couple brake pedals together before driving on a road.** Avoid hard application of brakes.

Front-wheel drive—Disengage front-wheel drive when transporting tractor. When driving on roads, engage Brake Assist position of front-wheel drive switch to provide four-wheel braking.

Selective control valves — Lock the control levers of the selective control valves physically or with the lock button, so that the control levers cannot be activated if they are accidentally touched.

Joystick — Lock the joystick or block it with the lock button, so that it cannot be activated if it is accidentally touched.

Front or rear hitch—Position or lock hitch in transport position to eliminate possibility of lowering an implement during transport by inadvertently bumping the raise/lower lever. See Section 60D and 60E.

110,004,ALL,LX25458,0000ABE-19-10JUL25

Towing Loads and Transporting with Ballast

CAUTION: Avoid possible injury due to losing control of tractor while towing a load. Stopping distance increases with speed and weight of towed load, and on slopes.

Tractor wheels may lock and skid on slippery downhill slopes on tractors equipped with IVT transmission. See Operating on Hillsides in Slippery Conditions in section 50J or 50K.

Never transport at speeds exceeding the implement's maximum transport speed. Before transporting a towed implement, determine from signs on implement or information provided in implement's operator manual the maximum transport speed. This tractor is capable of operating at transport speeds that exceed the maximum allowable transport speed for most towed implements. Determine the front weight required from implement code in implement Operator's Manual. Failure to adhere to the implement's maximum permitted transport speed or to have the correct additional weight can result in:

- **Loss of control of the tractor/implement combination**
- **Reduced or no braking ability**
- **Implement tire failure**
- **Damage to implement frame or components**

Follow guidelines for towing equipment with and without brakes. See Transport Towed Equipment at Safe Speeds in Section 05.

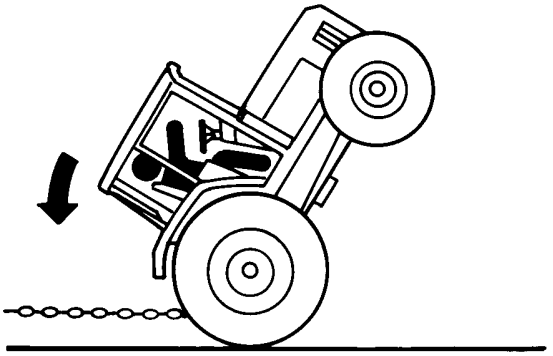
The tractor has to be heavy enough and powerful enough and have sufficient braking capacity for towing the pulled load. Add additional weights to tractor or lighten implement load.

Drive slowly enough to maintain safe control. Be alert for skids. Shift to a lower gear for hillsides, rough ground, and sharp turns, especially when transporting heavy equipment.

Never operate with transmission in neutral position or with clutch disengaged.

110,006,TOW1,NA,EX,LX25458,0000ABF-19-10APR24

Freeing a Mired Machine



TS1645—UN—15SEP95



TS263—UN—23AUG88

Attempting to free a mired machine can involve safety hazards such as the mired tractor tipping rearward, the towing tractor overturning, and the tow chain or tow bar (a cable is not recommended) failing and recoiling from its stretched condition.

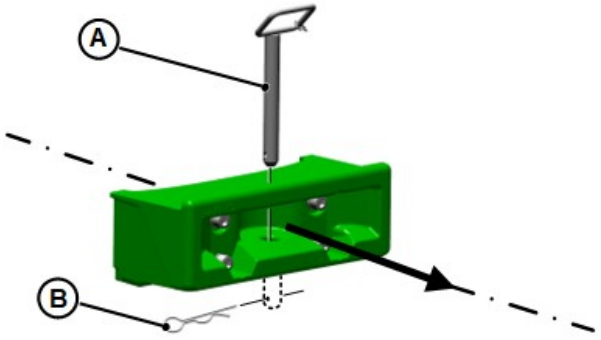
Back your tractor out if it gets mired down in mud. Unhitch any towed implements. Dig mud from behind the rear wheels. Place boards behind the wheels to provide a solid base and try to back out slowly. If necessary, dig mud from the front of all wheels and drive slowly ahead.

If necessary to tow with another unit, use a tow bar or a long chain (a cable is not recommended). Inspect the chain for flaws. Make sure all parts of towing devices are of adequate size and strong enough to handle the load.

Always hitch to the drawbar of the towing unit. Do not hitch to the front pushbar attachment point. Before moving, clear the area of people. Apply power smoothly to take up the slack: a sudden pull could snap any towing device causing it to whip or recoil dangerously.

DX,MIRED-19-07JUL99

Freeing a Mired Machine—Towing Points



LX647518—UN—30JUN25

Towing Point at Base Weight

A—Tow Bolt (AL241988)
B—Spring Locking Pin (L12491)

In addition see Freeing a Mired Machine and relevant safety precautions in section 05.

Freeing a Mired Machine in Forward Direction: It is advised that freeing a mired machine should only be done at the towing point of the front-mounted base weight. Disconnect both front and rear mounted implements or ballast weights. Use tow bolt AL241988 (A) and spring locking pin (B) (L12491) to attach the towing device.

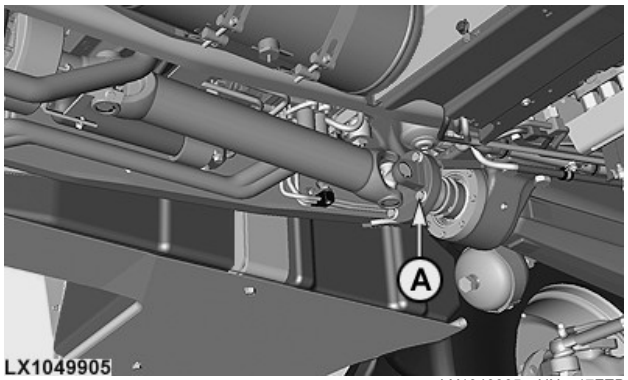
The approved towing load is the permissible total weight of the machine multiplied by 1.5. This is applicable only if the towing direction is straight in line with the machine (see arrow).

Freeing a Mired Machine in Reverse Direction: Disconnect both front and rear mounted implements. Attach the towing device to the trailer hitch. Before towing, check the load capacity as stated in the Operator's Manual and/or on the type plate of the trailer hitch. Never exceed the maximum permissible tow load.

IMPORTANT: It is not allowed to tow a mired machine at the towing points of the quick-tatch weights, the pick-up weight, the front hitch, or any other towing point. These towing points are intended for low loads, such as when maneuvering trailers.

110,009,MP,All,oulxa64,1747216528807-19-30JUN25

Towing the Tractor



LX1049905—UN—17FEB11

CAUTION: Never tow the tractor faster than 10 km/h (6 mph).

When the engine is not running, more force is required to turn the steering wheel and pedal travel is longer (no hydraulic assistance).

Shift both range and reverse drive lever to neutral position.

Make sure that the transmission oil level is between the marks on the sight glass. If the tractor is to be towed with the front wheels raised, observe the following points:

- Never raise the wheels more than 30 cm (12 in).
- For every 15 cm (6 in) that the front wheels are raised, add 4 liters (1 US gal) of transmission and hydraulic oil to the transmission.
- When towing is completed, drain the excess oil.

IMPORTANT: If the engine is capable of running, switch off front-wheel drive.

If the engine is not capable of running, disconnect universal-jointed driveshaft by taking out screws (A). This prevents excessive wear on the tires.

IMPORTANT: The jaw hitch at the front weights may be used for towing on hard-surfaced roads only.

LX25458,SP,0000AC2-19-29AUG23

PowrQuad™ PLUS Transmission—Towing the Tractor

If the tractor needs to be towed, see Towing the Tractor in section 110.

oulxa64,6M,1690953288607-19-28AUG23

AutoQuad™ PLUS Transmission—Towing the Tractor

If the tractor needs to be towed, see Towing the Tractor in Section 110.

oulxa64,6M,1690952772371-19-28AUG23

CommandQuad™ PLUS Transmission—Towing the Tractor

See CommandQuad™ PLUS Transmission—Towing the Tractor in section 50H.

OULXA64,6M,00056B1-19-28AUG23

AutoPowr™/IVT™—Towing the Tractor

If the tractor needs to be towed and park lock cannot be released, follow the instructions in section 110:

- Towing the Tractor
- Release the Park Lock Manually

OULXA64,6M,0005813-19-02AUG23

Release the Park Lock Manually

CAUTION: If the engine is not running or if there is a fault in the transmission oil circuit, the park lock must be released manually.

• Before the park lock is released, ignition must be switched on and come-home mode activated.

• In the event of engine failure, the steering and brake systems are assisted hydraulically only while battery voltage remains sufficient and there are no faults in the hydraulic system.

• Park lock can be re-engaged only when the tractor is at a standstill.

• Comply with instructions on CommandCenter™.

CAUTION: The reverse drive lever must be in the park (P) position on the side in order to manually release the park lock.

CAUTION: As long as the park lock is working normally, i.e. can be operated by means of the reverse drive lever, the tractor must never be operated (not even for short test drives) with a manually released park lock.

CAUTION: The tractor can roll away when park lock is disengaged. Secure the tractor so that it cannot roll either forwards or backwards.

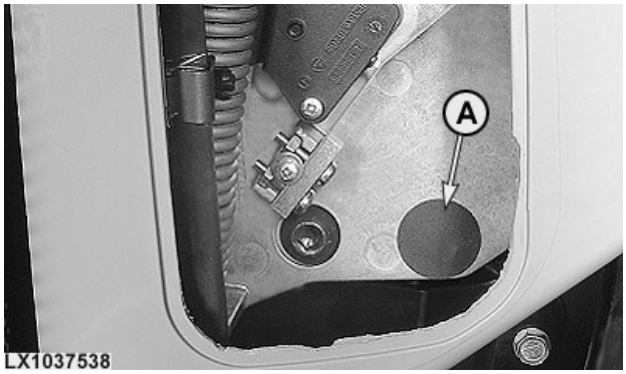
CAUTION: After the towing has been completed, the Bowden cable of the manual park lock release must be disconnected.

1. Remove cover (A).



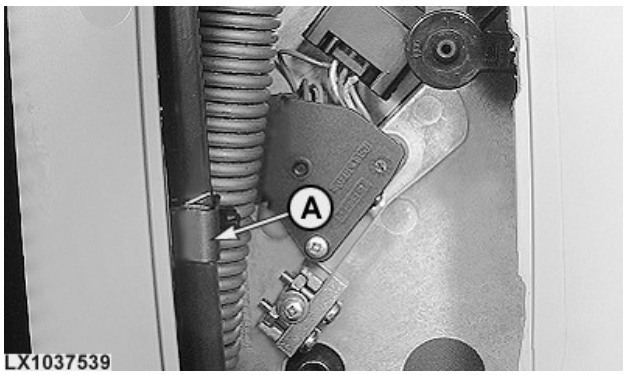
LX1037537—UN—02NOV05

2. Remove adhesive foil (A).



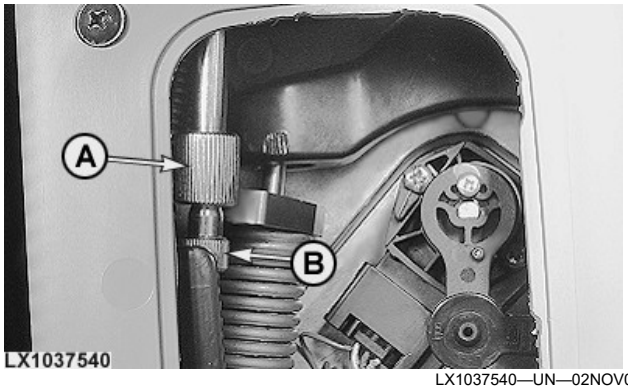
LX1037538—UN—02NOV05

3. Disconnect the Bowden cable from clamp (A).



LX1037539—UN—02NOV05

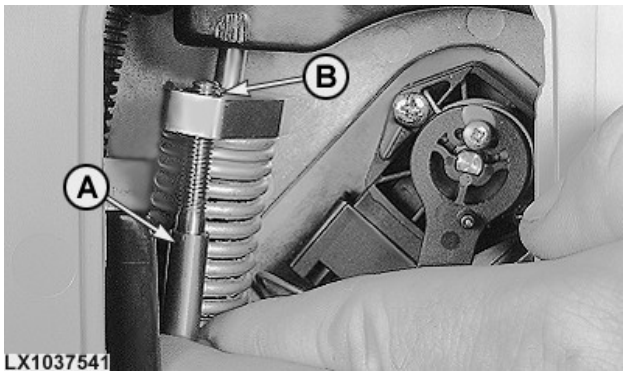
4. Unscrew threaded pin (A) and knurled nut (B).



LX1037540—UN—02NOV05

5. Slightly depress the clutch pedal.

6. Thread the Bowden cable (A) through the eyelet (B) on the clutch pedal or adapter.



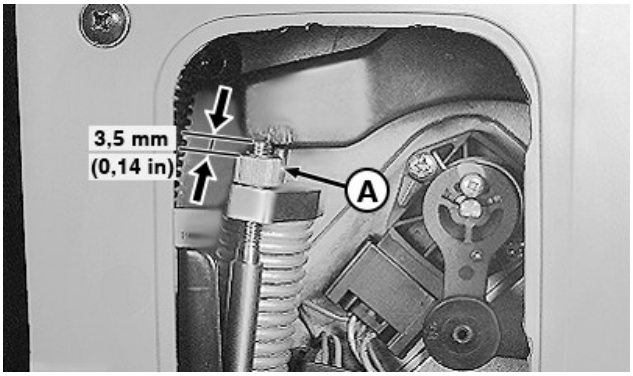
LX1037541—UN—02NOV05

7. As shown, rotate the knurled nut (A) as far as possible in the thread.



LX1037542—UN—02NOV05

8. Depress and release the clutch pedal as far as possible.
9. Adjust the knurled nut (A) as shown.



LX372933—UN—02DEC20

IMPORTANT: The Bowden cable must be tight, with no slack, to ensure complete release of the park lock.

10. Press down the clutch pedal all the way.

IMPORTANT: If the clutch pedal cannot be depressed to the stop and the threaded pin cannot be adjusted further, unscrew the knurled nut until the clutch pedal can be depressed against its stop.

11. Turn set screw (A) into the threaded bore in order to secure the clutch in this position and maintain the park lock in the released position.



LX1037543—UN—02NOV05

OULXA64,0005814-19-13JAN23

Diesel Fuel

Consult your local fuel distributor for properties of the diesel fuel available in your area.

In general, diesel fuels are blended to satisfy the low temperature requirements of the geographical area in which they are marketed.

Diesel fuels specified to EN 590 or ASTM D975 are recommended. Renewable diesel fuel produced by hydrotreating animal fats and vegetable oils is basically identical to petroleum diesel fuel. Renewable diesel that meets EN 590, ASTM D975, or EN 15940 is acceptable for use at all percentage mixture levels.

Required Fuel Properties

In all cases, the fuel shall meet the following properties:

Cetane number of 40 minimum. Cetane number greater than 47 is preferred, especially for temperatures below –20 °C (–4 °F) or elevations above 1675 m (5500 ft.).

Cloud Point should be below the expected lowest ambient temperature or **Cold Filter Plugging Point** (CFPP) should be a maximum 10°C (18°F) below the fuel cloud point.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

Diesel fuel quality and sulfur content must comply with all existing emissions regulations for the area in which the engine operates. DO NOT use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

Materials such as copper, lead, zinc, tin, brass and bronze should be avoided in fuel handling, distribution and storage equipment as these metals can catalyze fuel oxidation reactions which can lead to fuel system deposits and plugged fuel filters.

E-Diesel fuel

DO NOT use E-Diesel (Diesel fuel and ethanol blend). Use of E-Diesel fuel in any John Deere machine may void the machine warranty.

CAUTION: Avoid severe injury or death due to the fire and explosion risk from using E-Diesel fuel.

Sulfur Content for Interim Tier 4, Final Tier 4, Stage III B, Stage IV, and Stage V Engines Above 560 kW

- Use ONLY diesel fuel with a maximum of 500 mg/kg (500 ppm) sulfur content.

Sulfur Content for Interim Tier 4, Final Tier 4, Stage III B, Stage IV Engines, and Stage V Engines

- Use ONLY ultra low sulfur diesel (ULSD) fuel with a maximum of 15 mg/kg (15 ppm) sulfur content.

Sulfur Content for Tier 3 and Stage III A Engines

- Use of diesel fuel with sulfur content less than 1000 mg/kg (1000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 1000—2000 mg/kg (1000—2000 ppm) REDUCES the oil and filter change interval.
- BEFORE using diesel fuel with sulfur content greater than 2000 mg/kg (2000 ppm), contact your John Deere dealer.

Sulfur Content for Tier 2 and Stage II Engines

- Use of diesel fuel with sulfur content less than 2000 mg/kg (2000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content 2000—5000 mg/kg (2000—5000 ppm) REDUCES the oil and filter change interval.[1]
- BEFORE using diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm), contact your John Deere dealer.

Sulfur Content for Other Engines

- Use of diesel fuel with sulfur content less than 5000 mg/kg (5000 ppm) is RECOMMENDED.
- Use of diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm) REDUCES the oil and filter change interval.

IMPORTANT: Do not mix used diesel engine oil or any other type of lubricating oil with diesel fuel.

Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.

DX,FUEL1-19-01NOV22

Handling and Storing Diesel Fuel

CAUTION: Reduce the risk of fire. Handle fuel carefully. DO NOT fill the fuel tank when engine is running. DO NOT smoke while you fill the fuel tank or service the fuel system.

Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.

Keep all storage tanks as full as practical to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering. Monitor water content of the fuel regularly.

[1] *See DX,ENOIL12,OEM, DX,ENOIL12,T2,STD, or DX,ENOIL12,T2, EXT for more information on Engine Oil and Filter Service Intervals.*

When using biodiesel fuel, the fuel filter may require more frequent replacement due to premature plugging.

Check engine oil level daily prior to starting engine. A rising oil level may indicate fuel dilution of the engine oil.

IMPORTANT: The fuel tank is vented through the filler cap. If a new filler cap is required, always replace it with an original vented cap.

When fuel is stored for an extended period or if there is a slow turnover of fuel, add a fuel conditioner to stabilize the fuel. Keeping the free water drained and treating the bulk fuel storage tank quarterly with a maintenance dose of a biocide will prevent microbial growth.

DX,FUEL4-19-01MAR25

Lubricity of Diesel Fuel

Most diesel fuels manufactured in the United States, Canada, and the European Union have adequate lubricity to ensure proper operation and durability of fuel injection system components. However, diesel fuels manufactured in some areas of the world may lack the necessary lubricity.

IMPORTANT: Make sure the diesel fuel used in your machine demonstrates good lubricity characteristics.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

If fuel of low or unknown lubricity is used, add John Deere Fuel-Protect Diesel Fuel Conditioner (or equivalent) at the specified concentration.

Lubricity of BioDiesel Fuel

Fuel lubricity can improve significantly with BioDiesel blends up to B20 (20% BioDiesel). Further increase in lubricity is limited for BioDiesel blends greater than B20.

DX,FUEL5-19-07FEB14

Testing Diesel Fuel

A fuel analysis program can help to monitor the quality of diesel fuel. The fuel analysis can provide critical data such as calculated cetane index, fuel type, sulfur content, water content, appearance, suitability for cold weather operations, bacteria, cloud point, acid number, particulate contamination, and whether the fuel meets ASTM D975 or equivalent specification.

Contact your John Deere dealer or other service provider for diesel fuel analysis.

DX,FUEL6-19-01MAR25

Biodiesel Fuel

Biodiesel fuel is comprised of monoalkyl esters of long chain fatty acids derived from vegetable oils or animal fats. Biodiesel blends are biodiesel mixed with petroleum diesel fuel on a volume basis.

Before using fuel containing biodiesel, review the Biodiesel Use Requirements and Recommendations in this Operator's Manual.

Environmental laws and regulations can encourage or prohibit the use of biofuels. Operators should consult with appropriate governmental authorities prior to using biofuels.

John Deere Stage V Engines Operating in the European Union

Where the engine is to be operated within the Union on diesel or non-road gas-oil, a fuel with a FAME content not greater than 8% volume/volume (B8) shall be used.

John Deere Engines with Exhaust Filter Except Stage V Engines Operating in the European Union

Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751, EN 14214, or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

Biodiesel concentrations above B20 can harm the engine's emission control systems and should not be used. Risks include, but are not limited to, more frequent stationary regeneration, soot accumulation, and increased intervals for ash removal.

John Deere Fuel conditioners or equivalent, which contain detergent and dispersant additives, are required when using biodiesel blends from B10 to B20, and are recommended when using lower biodiesel blends.

John Deere Engines Without Exhaust Filter

Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751, EN 14214, or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

These John Deere engines can operate on biodiesel blends above B20 (up to 100% biodiesel). Operate at levels above B20 ONLY if the biodiesel is permitted by law and meets the EN 14214 specification (primarily available in Europe). Engines operating on biodiesel blends above B20 might not fully comply with or be permitted by all applicable emissions regulations. Expect up to a 12% reduction in power and an 18% reduction in fuel economy when using 100% biodiesel.

John Deere fuel conditioners or equivalent, which contain detergent and dispersant additives, are required when using biodiesel blends from B10 to B100, and are recommended when using lower biodiesel blends.

Biodiesel Use Requirements and Recommendations

The petroleum diesel portion of all biodiesel blends must meet the requirements of ASTM D975 (US) or EN 590 (EU) commercial standard.

Biodiesel users in the U.S. are strongly encouraged to purchase biodiesel blends from a BQ-9000 Certified Marketer and sourced from a BQ-9000 Accredited Producer (as certified by the National biodiesel Board). Certified Marketers and Accredited Producers can be found at the following website: http://www.bq9000.org.

Biodiesel contains residual ash. Ash levels exceeding the maximums allowed in either ASTM D6751 or EN14214 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present).

The fuel filter can require more frequent replacement when using biodiesel fuel, particularly if switching from diesel. Check engine oil level daily prior to starting engine. A rising oil level can indicate fuel dilution of the engine oil. Biodiesel blends up to B20 must be used within 90 days of the date of biodiesel manufacture. Biodiesel blends above B20 must be used within 45 days from the date of biodiesel manufacture.

When using biodiesel blends up to B20, the following must be considered:

- Cold-weather flow degradation
- Stability and storage issues (moisture absorption, microbial growth)
- Possible filter restriction and plugging (usually a problem when first switching to biodiesel on used engines)
- Possible fuel leakage through seals and hoses (primarily an issue with older engines)
- Possible reduction of service life of engine components

Request a certificate of analysis from your fuel distributor to ensure that the fuel is compliant with the specifications provided in this Operator's Manual.

Consult your John Deere dealer for John Deere fuel products to improve storage and performance with biodiesel fuels.

The following must also be considered if using biodiesel blends above B20:

- Possible coking or blocked injector nozzles, resulting in power loss and engine misfire if John Deere fuel additives and conditioners or equivalent containing detergent/dispersants are not used
- Possible crankcase oil dilution (requiring more frequent oil changes)
- Possible lacquering or seizure of internal components
- Possible formation of sludge and sediments
- Possible thermal oxidation of fuel at elevated temperatures
- Possible compatibility issues with other materials (including copper, lead, zinc, tin, brass, and bronze) used in fuel handling, distribution, and storage equipment
- Possible reduction in water separator efficiency
- Possible damage to paint if exposed to biodiesel
- Possible corrosion of fuel injection equipment
- Possible elastomeric seal and gasket material degradation (primarily an issue with older engines)
- Possible high acid levels within fuel system
- Because biodiesel blends above B20 contain more ash, using blends above B20 can result in more rapid ash loading and require more frequent cleaning of the Exhaust Filter (if present)

IMPORTANT: Raw pressed vegetable oils are NOT acceptable for use as fuel in any concentration in John Deere engines. Their use could cause engine failure.

DX,FUEL7-19-13JAN18

Minimizing the Effect of Cold Weather on Diesel Engines

John Deere diesel engines are designed to operate effectively in cold weather.

However, for effective starting and cold-weather operation, a little extra care is necessary. The following information outlines steps that can minimize the effect that cold weather may have on starting and operation of your engine. See your John Deere or other service provider for additional information and local availability of cold-weather aids.

Use Winter Grade Fuel

When temperatures fall below 0°C (32°F), winter grade fuel (No. 1-D in North America) is best suited for cold-weather operation. Winter grade fuel has a lower cloud point and a lower pour point.

Cloud point is the temperature at which wax begins to form in the fuel. This wax causes fuel filters to plug. **Pour point** is the lowest temperature at which movement of the fuel is observed.

NOTE: On average, winter grade diesel fuel has a lower Btu (heat content) rating. Using winter grade fuel may reduce power and fuel efficiency, but should not cause any other engine performance effects. Check the grade of fuel being used before troubleshooting for low-power complaints in cold-weather operation.

Air Intake Heater

An air intake heater is an available option for some engines to aid cold weather starting.

Coolant Heater

An engine block heater (coolant heater) is an available option to aid cold weather starting.

Seasonal Viscosity Oil and Proper Coolant Concentration

Use seasonal grade viscosity engine oil based on the expected air temperature range between oil changes and a proper concentration of low silicate antifreeze as recommended. (See DIESEL ENGINE OIL and ENGINE COOLANT requirements in this section.)

Diesel Fuel Cold Flow Additive

Use John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula), which contains anti-gel chemistry, or equivalent fuel conditioner to treat non-winter grade fuel (No. 2-D in North America) during the cold-weather season. This generally extends operability to about 10° C (18°F) below the fuel cloud point. For operability at even lower temperatures, use winter grade fuel.

IMPORTANT: Treat fuel when outside temperature drops below 0°C (32°F). For best results, use with untreated fuel. Follow all recommended instructions on label.

Biodiesel

When operating with biodiesel blends, wax formation can occur at warmer temperatures. Begin using John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula) or equivalent at 5°C (41°F) to treat biodiesel fuels during the cold-weather season. Use B5 or lower blends at temperatures below 0°C (32°F). Use only winter grade petroleum diesel fuel at temperatures below -10°C (14°F).

Winterfronts

Use of fabric, cardboard, or solid winterfronts is not recommended with any John Deere engine. Their use can result in excessive engine coolant, oil, and charge air temperatures. This can lead to reduced engine life, loss of power and poor fuel economy. Winterfronts may also put abnormal stress on fan and fan drive components potentially causing premature failures.

If winterfronts are used, they should never totally close off the grill frontal area. Approximately 25% area in the center of the grill should remain open at all times. At no time should the air blockage device be applied directly to the radiator core.

Radiator Shutters

If equipped with a thermostatically controlled radiator shutter system, this system should be regulated in such a way that the shutters are completely open by the time the coolant reaches 93°C (200°F) to prevent excessive intake manifold temperatures. Manually controlled systems are not recommended.

If air-to-air aftercooling is used, the shutters must be completely open by the time the intake manifold air temperature reaches the maximum allowable temperature out of the charge air cooler.

DX,FUEL10-19-02MAR25

Supplemental Diesel Fuel Additives

Diesel fuel can be the source of performance or other operational problems for many reasons. Some causes include poor lubricity, contaminants, low cetane number, and a variety of properties that cause fuel system deposits. These and others are referenced in other sections of this Operator's Manual.

To optimize engine performance and reliability, closely follow recommendations on fuel quality, storage, and handling, which are found elsewhere in this Operator's Manual.

To further aid in maintaining performance and reliability of the engine's fuel system, John Deere has developed a family of fuel additive products for most global markets. The primary products include Fuel-Protect Diesel Fuel Conditioner (full feature conditioner in winter and summer formulas) and Fuel-Protect Keep Clean (fuel injector deposit removal and prevention). Availability of these and other products varies by market. See your local John Deere dealer for availability and additional information about fuel additives that might be right for your needs.

DX,FUEL13-19-07FEB14

Diesel Exhaust Fluid

Diesel Exhaust Fluid (DEF) — Use in Selective Catalytic Reduction (SCR) Equipped Engines

In order to maintain the emissions performance of the engine, it is essential to use and refill DEF in accordance with the specification.

Diesel exhaust fluid (DEF) is a high purity liquid that is injected into the exhaust system of engines equipped with selective catalytic reduction (SCR) systems. Maintaining the purity of DEF is important to avoid malfunctions in the SCR system. Engines requiring DEF shall use a product that meets the requirements for aqueous urea solution 32 (AUS 32) according to ISO 22241-1.

The use of John Deere Diesel Exhaust Fluid is recommended. John Deere Diesel Exhaust Fluid is available at your John Deere dealer in a variety of package sizes to suit your operational needs.

If John Deere Diesel Exhaust Fluid is not available, use DEF that is certified by the American Petroleum Institute (API) Diesel Exhaust Fluid Certification Program or by the AdBlue™ Diesel Exhaust Fluid Certification Program. Look for the API certification symbol or the AdBlue™ name on the container.



RG30211—UN—08MAR18

In some cases, DEF is referred to by one or more of these names:

- Urea
- Aqueous Urea Solution 32
- AUS 32
- AdBlue™
- NOx Reduction Agent
- Catalyst Solution

DX,DEF-19-13JAN18

AdBlue is a trademark of VDA, the German Association of the Automotive Industry.

Refilling Diesel Exhaust Fluid (DEF) Tank



TS1731—UN—23AUG13

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

Do not ingest DEF. In the event DEF is ingested, contact a physician immediately. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: Use only distilled water to rinse components that are used to deliver DEF. Tap water can contaminate DEF. If distilled water is not available, rinse with clean tap water, then thoroughly rinse with ample amounts of DEF.

If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

If DEF is filled into engine fuel tank or other fluid compartment, do not operate engine until system is properly purged of DEF. Contact your John Deere dealer or other service provider to drain and clean the system.

Reasonable care should be taken when refilling the DEF tank. Ensure that the DEF tank cap area is free of debris before removing the cap. Seal containers of DEF between use to prevent contamination and evaporation.

Avoid splashing DEF and do not allow DEF to come into contact with skin, eyes, or mouth.

DEF is not harmful to handle, but DEF can be corrosive to materials such as steel, iron, zinc, nickel, copper, aluminum, and magnesium. Use suitable containers to transport and store DEF. Containers made of polyethylene, polypropylene, or stainless steel are recommended.

Avoid prolonged contact with skin. In case of accidental contact, wash skin immediately with soap and water.

Keep anything used to store or dispense DEF clean of dirt and dust. Wash and rinse containers or funnels thoroughly with distilled water to remove contaminants.

If an unapproved fluid, such as diesel fuel or coolant is added to the DEF tank, drain tank, flush with distilled water and refill with new or good DEF. See Testing Diesel Exhaust Fluid (DEF).

If water has been added to the DEF tank, a tank cleaning is necessary. See Cleaning DEF Tank in this manual. After refilling the tank, check the DEF concentration. See Testing Diesel Exhaust Fluid (DEF).

The operator must maintain appropriate DEF levels at all times. Check the DEF level daily and refill the tank as needed. The filling port is identified by a blue colored cap embossed with the following DEF symbol.

DX,DEF,REFILL-19-01MAR25

Storing Diesel Exhaust Fluid (DEF)

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

Do not ingest DEF. In the event DEF is ingested, contact a physician immediately. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: It is unlawful to tamper with or remove any component of the aftertreatment system. Do not use DEF that does not meet the required specifications or operate the engine with no DEF.

Never attempt to create DEF by mixing agricultural grade urea with water. Agricultural grade urea does not meet the necessary specifications and can damage the aftertreatment system.

Do not add any chemicals or additives to DEF in an effort to prevent freezing. Any chemicals or additives added to DEF can damage the aftertreatment system.

Never add water or any other fluid in place of, or in addition to DEF. Operating with a modified DEF or using an unapproved DEF can damage the aftertreatment system.

Storage information provided below is for reference and is to be used as a guideline only.

It is preferred to store DEF out of extreme ambient temperatures. DEF freezes at –11°C (12°F). Exposure to temperatures greater than 30°C (86°F) can degrade DEF over time. Do not store DEF in direct sunlight.

Dedicated DEF storage containers must be sealed between uses to prevent evaporation and contamination. Containers made of polyethylene, polypropylene, or stainless steel are recommended to transport and store DEF.

Ideal conditions for storage of DEF are:

- Store at temperatures between –5°C and 30°C (23°F and 86°F)
- Store in dedicated containers sealed to avoid contamination and evaporation

Under these conditions, DEF is expected to remain useable for a minimum of 18 months. Storing DEF at higher temperatures can reduce its useful life by approximately 6 months for every 5°C (9°F) temperature above 30°C (86°F).

If unsure how long or under what conditions DEF has been stored, test DEF. See Testing Diesel Exhaust Fluid (DEF).

Long-term storage in the DEF tank (over 12 months) is not recommended. If long-term storage is necessary, test DEF prior to operating engine. See Testing Diesel Exhaust Fluid (DEF).

It is recommended to purchase DEF in quantities that will be consumed within 12 months.

DX,DEF,STORE-19-15JUL20

Testing Diesel Exhaust Fluid (DEF)

IMPORTANT: Using DEF with the correct concentration is critical to engine and aftertreatment system performance. Extended storage and other conditions can adversely alter the DEF concentration.

If DEF quality is questionable, draw a sample out of the DEF tank or storage tank into a clear container. DEF must be crystal clear with a light ammonia smell. If DEF appears cloudy, has a colored tint, or has a profound ammonia smell, it is likely not within specification. DEF in this condition should not be used. Drain tank, flush with distilled water and refill with new or good DEF. After refilling the tank, check the DEF concentration.

If the DEF passes the visual and smell test, check the DEF concentration with a handheld refractometer calibrated to measure DEF.

DEF concentration should be checked when the engine has been stored for extended periods, or if there is suspicion the engine or packaged DEF fluid has been contaminated with water.

Two tools are available from your John Deere through the SERVICEGARD special tool program:

- JDG11594 Digital DEF Refractometer—A digital tool providing an easy to read concentration measurement
- JDG11684 DEF Refractometer—Low-cost alternative tool providing an analog reading

Follow instructions included with either tool to obtain the measurement.

The correct DEF concentration is 31.8—33.2% urea. If the DEF concentration is not within specification, drain the DEF tank, flush with distilled water and fill with new or good DEF. If packaged DEF is not within specification, dispose of DEF packages and replace with new or good DEF.

DX,DEF,TEST-19-01MAR25

Disposal of Diesel Exhaust Fluid (DEF)

Although there is little issue with minor spillage of DEF on the ground, large amounts of DEF should be contained. If large spills occur, contact local environmental authorities for assistance with clean-up.

If a substantial quantity of DEF is not within specification, contact the DEF supplier for assistance with disposal. Do not dump substantial quantities of DEF onto the ground or send DEF to wastewater treatment facilities.

DX,DEF,DISPOSE-19-13JUN13

Engine Oil—Final Tier 4 Engines Only

Diesel Engine Break-In OiL

New engines are filled at the factory with John Deere Break-In Plus™ Engine Oil. During the break-in period, add John Deere Break-In Plus™ Engine Oil, as needed to maintain the specified oil level.

Operate the engine under various conditions, particularly heavy loads with minimal idling, to help break-in engine components properly.

During the initial operation of a new or rebuilt engine, change the oil and filter between a minimum of 100 hours and a maximum of 500 hours.

After engine overhaul, fill the engine with John Deere Break-In Plus™ Engine Oil.

If John Deere Break-In Plus™ Engine Oil is not available, use an SAE 10W-30 viscosity grade diesel engine oil meeting one of the following:

- API Service Category CK-4
- API Service Category CJ-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E6

If one of these oils is used during the initial operation of a new or rebuilt engine, change the oil and filter between a minimum of 100 hours and a maximum of 250 hours.

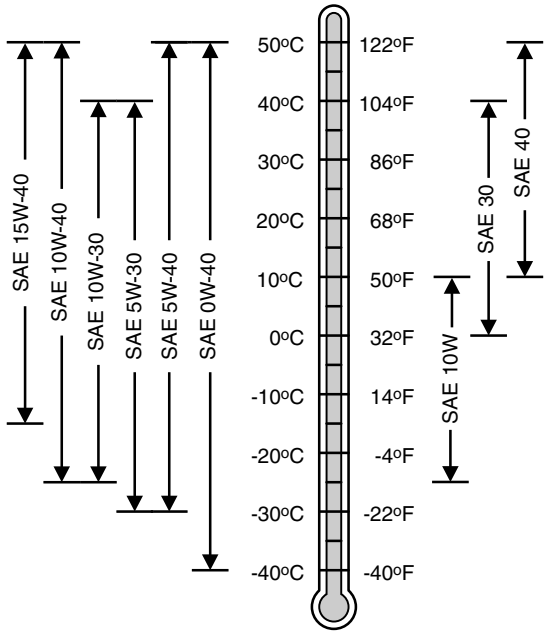
IMPORTANT: Do not use any other engine oils during the initial break-in of a new or rebuilt engine.

John Deere Break-In Plus™ Engine Oil can be used for all John Deere diesel engines at all emission certification levels.

After the break-in period, use John Deere Plus™ II or other diesel engine oil as recommended in this manual.

oulxa64,ALL,LX,ENOIL,BREAKIN-19-13FEB23

Diesel Engine Oil — Interim Tier 4, Final Tier 4, Stage IIIB, Stage IV, and Stage V



TS1743—UN—25APR19

Oil Viscosities for Air Temperature Ranges

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Use oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50™ II is the recommended engine oil.

Extended service intervals may apply when John Deere Plus-50™ II engine oil is used. Refer to the engine oil drain interval table and consult your John Deere dealer for more information.

If John Deere Plus-50™ II engine oil is not available, engine oil meeting one or more of the following may be used:

- API Service Category CK-4
- API Service Category CJ-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E6

DO NOT use engine oil containing more than 1.0% sulfated ash, 0.12% phosphorus, or 0.4% sulfur.

Multi-viscosity diesel engine oils are preferred.

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

Plus-50 is a trademark of Deere & Company

IMPORTANT: Use only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 15 mg/kg (15 ppm).

DX,ENOIL14-19-23APR19

Engine Oil and Filter Service Interval

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Recommended oil and filter service intervals are based on a combination of oil pan capacity, type of engine oil and filter used, and sulfur content of the diesel fuel. Actual service intervals also depend on operation and maintenance practices.

Approved Oil Types see Diesel Engine Break-In Oil and Diesel Engine Oil in this section**.**

Use oil analysis to evaluate the condition of the oil and to aid in selection of the proper oil and filter service interval. Contact a John Deere dealer or other service provider for more information on engine oil analysis.

Change the oil and oil filter at least once every 12 months even if the hours of operation are fewer than the otherwise recommended service interval.

Diesel fuel sulfur content affects engine oil and filter service intervals. Higher fuel sulfur levels reduce oil and filter service intervals.

For regular service intervals with the relevant diesel fuel sulfur content, refer to **Service Intervals for Engine Oil and Engine Oil Filter** in sections 210A—210D.

Engine operation at high altitude decreases oil change intervals. See Diesel Engine Oil Service Interval for Operation at High Altitude for additional information.

IMPORTANT: To avoid engine damage, see Factors that Shorten the Engine Oil and Filter Maintenance Intervals. Refer to Service Intervals for Engine Oil and Engine Oil Filter in sections 210A—210D.

oulxa64,ALL,LX,ENOIL-19-16JUL25

Diesel Engine Oil Service Interval for Operation at High Altitude

To avoid excessive oil degradation and potential engine damage, reduce oil and filter service intervals to 50% of the original recommended values when operating engines at altitudes above **1675 m (5500 ft)**.

Oil analysis may allow longer service intervals.

Use only approved oil types.

Example of Original Hours	Corresponding High Altitude Hours
125	60
150	75
175	85
200	100
250	125
275	135
300	150
350	175
375	185
400	200
500	250

DX,ENOIL,SERV,HIALT-19-11NOV14

Engine Coolant

Diesel Engine Coolant (engine with wet sleeve cylinder liners)

Failure to follow applicable coolant standards and drain intervals can result in severe engine damage that may not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere coolants, parts, or service.

Preferred Coolants

The following pre-mix engine coolants are preferred:

- **John Deere COOL-GARD™II**
- **John Deere COOL-GARD II PG**

COOL-GARD II pre-mix coolant is available in several concentrations with different freeze protection limits as shown in the following table.

COOL-GARD II Pre-Mix	Freeze Protection Limit
COOL-GARD II 20/80	-9°C (16°F)
COOL-GARD II 30/70	-16°C (3°F)
COOL-GARD II 50/50	-37°C (-34°F)
COOL-GARD II 55/45	-45°C (-49°F)
COOL-GARD II PG 60/40	-49°C (-56°F)
COOL-GARD II 60/40	-52°C (-62°F)

Not all COOL-GARD II pre-mix products are available in all countries.

Use COOL-GARD II PG when a non-toxic coolant formulation is required.

Additional Recommended Coolants

The following engine coolant is also recommended:

- John Deere COOL-GARD II Concentrate in a 40—60% mixture of concentrate with quality water.

IMPORTANT: When mixing coolant concentrate with water, do not use less than 40% or greater than 60% concentration of coolant. Less than 40% gives inadequate additives for corrosion protection. Greater than 60% can result in coolant gelation and cooling system problems.

Other Coolants

Other ethylene glycol or propylene glycol base coolants may be used if they meet the following specification:

- Pre-mix coolant meeting ASTM D6210 requirements
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- Coolant concentrate meeting ASTM D6210 requirements in a 40—60% mixture of concentrate with quality water

COOL-GARD is a trademark of Deere & Company

If coolant meeting one of these specifications is unavailable, use a coolant concentrate or pre-mix coolant that has a minimum of the following chemical and physical properties:

- Provides cylinder liner cavitation protection according to either the John Deere Cavitation Test Method or a fleet study run at or above 60% load capacity
- Is formulated with a nitrite-free additive package
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion

Water Quality

Water quality is important to the performance of the cooling system. Deionized or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

Coolant Drain Intervals

Drain and flush the cooling system and refill with fresh coolant at the indicated interval, which varies with the coolant used.

When COOL-GARD II or COOL-GARD II PG is used, the drain interval is 6 years or 6000 hours of operation.

If a coolant other than COOL-GARD II or COOL-GARD II PG is used, reduce the drain interval to 2 years or 2000 hours of operation.[1]

IMPORTANT: Do not use cooling system sealing additives or antifreeze that contains sealing additives.

Do not mix ethylene glycol and propylene glycol base coolants.

Do not use coolants that contain nitrites.

DX,COOL3-19-25AUG20

Operating in Warm Temperature Climates

John Deere engines are designed to operate using recommended engine coolants.

Always use a recommended engine coolant, even when operating in geographical areas where freeze protection is not required.

IMPORTANT: Water may be used as coolant *in emergency situations only.*

[1] Coolant analysis may extend the service interval of other "Coolants" to a maximum not to exceed the interval of Cool-Gard II coolants. Coolant analysis means taking a series of coolant samples at 1000 hour increments beyond the normal service interval until either the data indicate the end of useful coolant life or the maximum service interval of Cool-Gard II is reached.

Foaming, hot surface aluminum and iron corrosion, scaling, and cavitation occur when water is used as the coolant, even when coolant conditioners are added.

Drain cooling system and refill with recommended engine coolant as soon as possible.

DX,COOL6-19-17FEB20

Water Quality for Mixing with Coolant Concentrate

Engine coolants are a combination of three chemical components: ethylene glycol (EG) or propylene glycol (PG) antifreeze, inhibiting coolant additives, and quality water.

Water quality is important to the performance of the cooling system. Deionized or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

All water used in the cooling system should meet the following minimum specifications for quality:

Chlorides	<40 mg/L
Sulfates	<100 mg/L
Total solids	<340 mg/L
Total dissolved I hardness	<170 mg/L
pH	5.5—9.0

IMPORTANT: Do not use bottled drinking water because it often contains higher concentrations of total dissolved solids.

Freeze Protection

The relative concentrations of glycol and water in the engine coolant determine its freeze protection limit.

Ethylene Glycol	Freeze Protection Limit
40%	-24°C (-12°F)
50%	-37°C (-34°F)
60%	-52°C (-62°F)
Propylene Glycol	**Freeze Protection Limit**
40%	-21°C (-6°F)
50%	-33°C (-27°F)
60%	-49°C (-56°F)

DO NOT use a coolant-water mixture greater than 60% ethylene glycol or 60% propylene glycol.

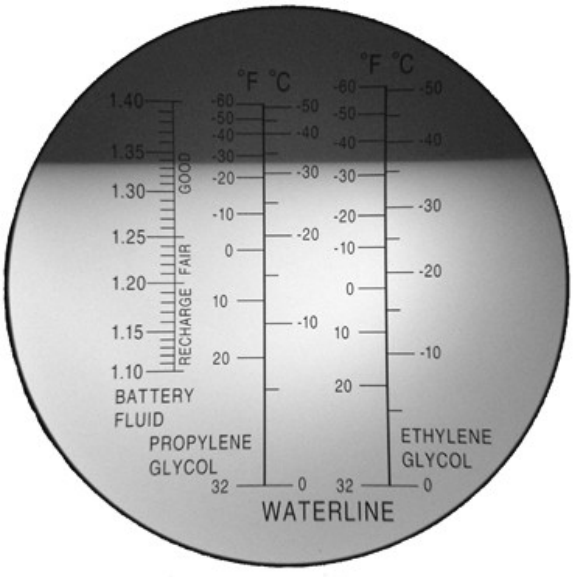
DX,COOL19-19-13JAN18

Testing Coolant Freeze Point



TS1732—UN—04SEP13

SERVICEGARD™ Part Number 75240



TS1733—UN—04SEP13

Image with a Drop of 50/50 Coolant Placed on the Refractometer Window

The use of a handheld coolant refractometer is the quickest, easiest, and most accurate method to determine coolant freeze point. This method is more accurate than a test strip or a float-type hydrometer which can produce poor results.

A coolant refractometer is available through your John Deere dealer under the SERVICEGARD™ tool program. Part number 75240 provides an economical solution to accurate freeze point determination in the field.

To use this tool:

1. Allow cooling system to cool to ambient temperatures.
2. Open radiator cap to expose coolant.

SERVICEGARD is a trademark of Deere & Company

3. With the included dropper, collect a small coolant sample.
4. Open the lid of the refractometer, place one drop of coolant on the window and close the lid.
5. Look through the eyepiece and focus as necessary.
6. Record the listed freeze point for the type of coolant (ethylene glycol coolant or propylene glycol) being tested.

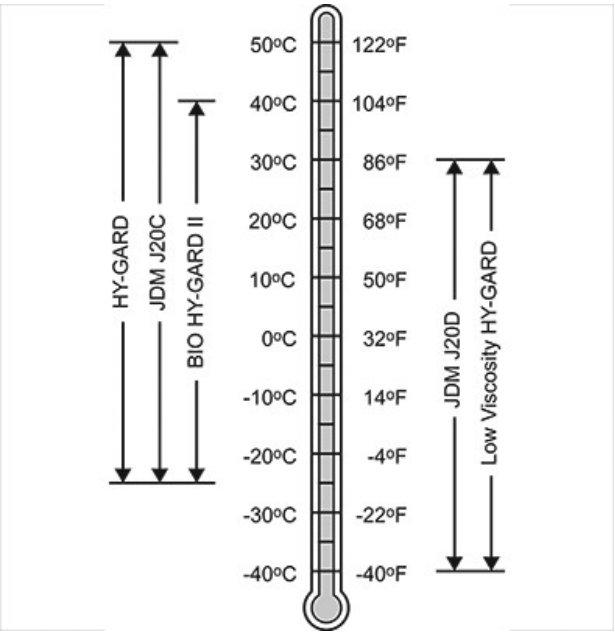
DX,COOL,TEST-19-13JUN13

Other Lubricants

Transmission and Hydraulic Oil

The oil specifed below is used for:

- Hydraulic system
- All transmissions
- Front PTO



RG30204—UN—08MAR18

Oils for Air Temperature Ranges

Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere Bio Hy-Gard™ II oil when a biodegradable fluid is required.[1]

IMPORTANT: Valid for tractors with IVT™:

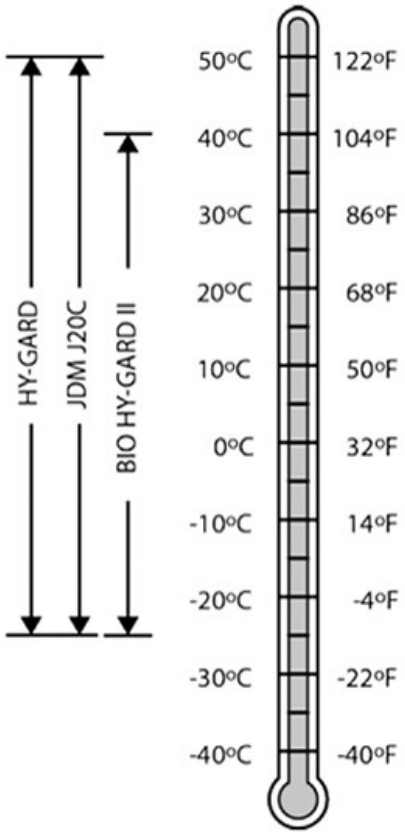
Only John Deere Hy-Gard™ or John Deere BIO Hy-Gard™ II may be used.

Do NOT use Hy-Gard Low Viscosity. Do NOT use oils that meet John Deere specification JDM J20D.

IMPORTANT: Efficiency-enhancing John Deere BIO Hy-Gard™ II is recommended for the Front PTO!

LX25458,0000ADB,DX,ANTI-19-29JUN25

Oil for Front-Wheel Drive Axle



LX315180—UN—20JUN18

Oils for Air Temperature Ranges

Use oil viscosity based on expected air temperature range during the period between oil changes.

Overview of the suitablity of oils		
Type of oil	Axles without disk brake	Axles with disk brake
John Deere Hy-Gard™	YES	YES
John Deere Low Viscosity Hy-Gard™	NO	NO
Bio Hy-Gard™ II oil	YES	NO
Other oils according to specifications:		
John Deere Standard JDM J20C	YES	YES

Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

[1] *Bio Hy-Gard II meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. Bio Hy-Gard II should not be mixed with mineral oils, because this reduces the biodegradability and makes proper oil recycling impossible.*

John Deere Standard JDM J20D	NO	NO

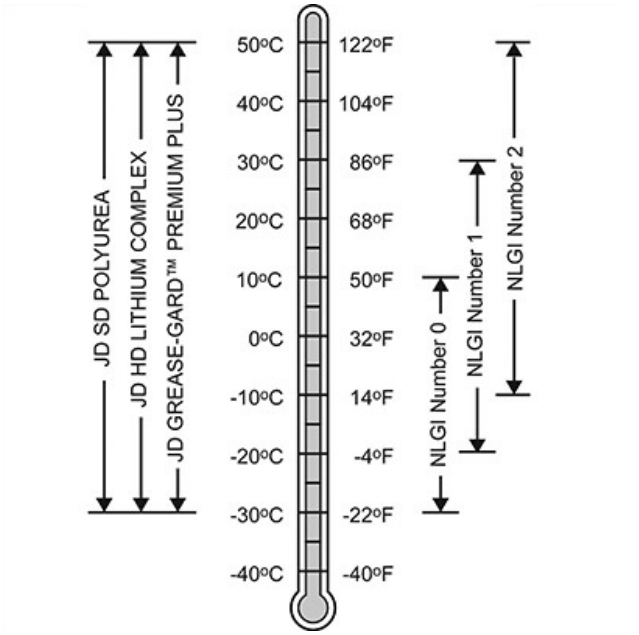
Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

IMPORTANT: Use of improper oils lead to malfunctions and to damage.

LX25458,0000ADC,LX,OILFA-19-09OCT20

Multipurpose Extreme Pressure (EP) Grease

IMPORTANT: For automated lubrication systems different ambient air temperatures need to be considered.



RG30199—UN—08MAR18

Greases for Air Temperature Ranges

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus

Other greases may be used if they meet the following:

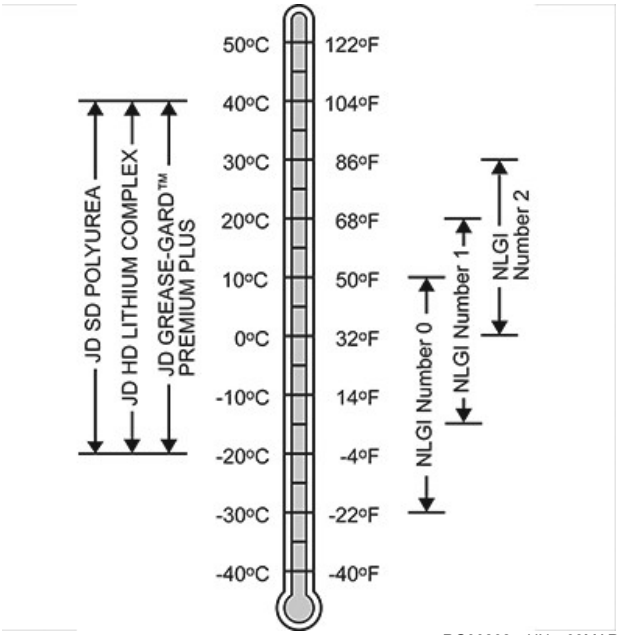
- NLGI Performance Classification GC-LB
- ISO-L-X-BDHB 2 or DIN KP 2 N-10 Lithium Complex, Non-Synthetic Base Oil (100 to 220 mm2/s @ 40°C)

Grease-Gard is a trademark of Deere & Company

IMPORTANT: Some types of thickeners, base oils, and additives used in greases are not compatible with others. Mixing greases should be avoided. Consult your grease supplier before mixing different types of grease.

DX,GREA1-19-13JAN18

Grease for Automated Lubrication Systems



RG30202—UN—08MAR18

Grease for Air Temperature Ranges

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus

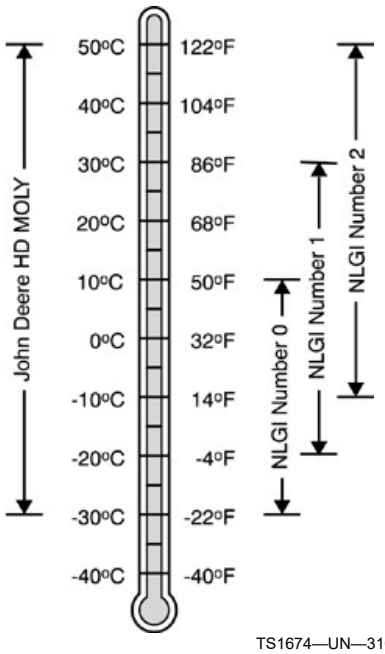
Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB
- ISO-L-X-BDHB 2 (per ISO 6743-9) or DIN KP 2 N-20 (per DIN 51825) Lithium Complex, Non Synthetic Base Oil (100 to 220 mm²/s @40°C)

IMPORTANT: Some types of thickeners, base oils and additives used in greases are not compatible with others. Mixing greases should be avoided. Consult your grease supplier before mixing different types of grease.

DX,GREA2-19-13JAN18

Grease



TS1674—UN—31OCT03

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere HD MOLY GREASE preferred.

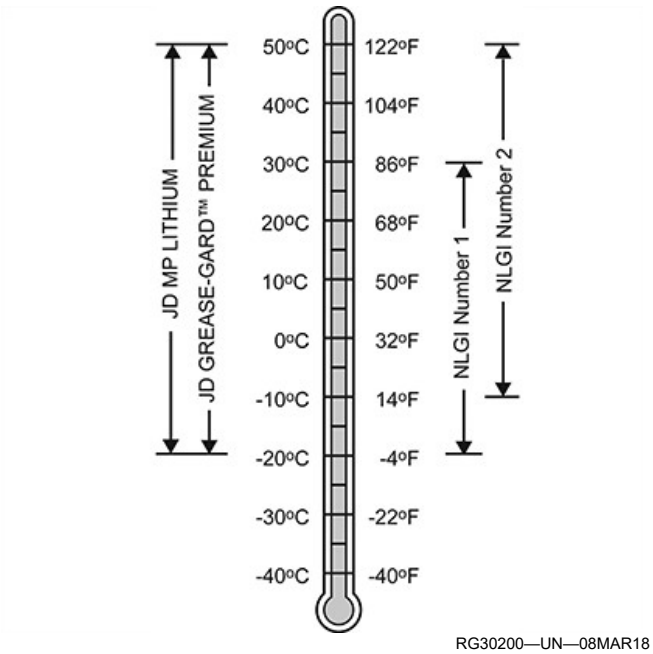
Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB with 3% to 5% molybdenum disulfide

IMPORTANT: Some types of grease thickeners are not compatible with others. Consult your grease supplier before mixing different types of grease

DX,GREA4-19-29JUN25

Multipurpose Grease



RG30200—UN—08MAR18

Greases for Air Temperature Ranges

IMPORTANT: For automated lubrication systems different ambient air temperatures need to be considered.

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

The following greases are preferred:

- **John Deere MP Lithium Grease**
- **John Deere Grease-Gard™ Premium**

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus
- John Deere SD Polyurea Grease

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB
- ISO-L-X-BCEB 2 or DIN K 2 K-10 Lithium, Non Synthetic Base Oil (100 to 220 mm²/s @40°C)

IMPORTANT: Some types of thickeners, base oils and additives used in greases are not compatible with others. Mixing greases should be avoided. Consult your grease supplier before mixing different types of grease.

DX,GREA5-19-13JAN18

Grease-Gard is a trademark of Deere & Company

Mixing of Lubricants

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

DX,LUBMIX-19-18MAR96

Lubricant Storage

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

DX,LUBST-19-11APR11

Safe Maintenance and Cleaning



TS249—UN—23AUG88

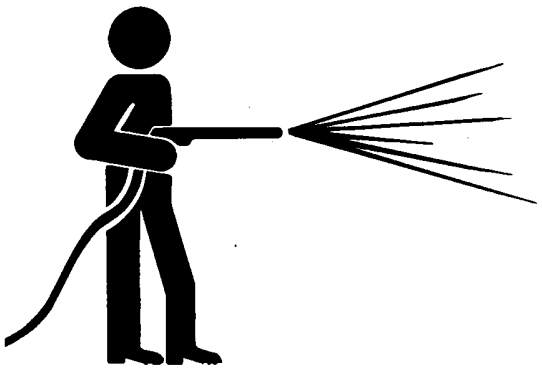
CAUTION: To perform service jobs at inaccessible locations, it is essential to use scaffolding, platforms, or safety ladders.

Special care has to be taken when performing cleaning and maintenance work in inaccessible areas, e.g. when adjusting the roof lights, maintenance work on the cooling system, when adjusting the right-hand outer mirror on tractors without a right-hand door, and many other similar tasks.

CAUTION: It is NOT permitted to perform these jobs by climbing on tractor components that are not intended for that purpose. There is a particularly acute danger of falling if the tractor components are wet, dirty, or iced over.

210,02,ALL,LX25458,0000AE4-19-20DEC23

Using High-Pressure Washers



T6642EJ—UN—18OCT88

IMPORTANT: High-pressure washers are a very effective means of cleaning the tractor. To avoid damage to the tractor, do not go closer than 1 m (39 in) and spray at an angle between 45 and 90° when cleaning sealing surfaces, seals and decals. Maximum pressure must not exceed 12000 kPa (120 bar) (1740 psi).

Do not, under any circumstances, spray or wash components (e.g. the engine) with cold water when hot. Do not use rotary nozzles or water at temperatures over 50°C (122°F), and do not aim at seals. Keep the water jet moving at all times. Cooling units, bearings, and electronic/electrical equipment must not be cleaned with high-pressure washers. Follow the instructions in the Operator's Manual of high-pressure washer and attached equipment.

210,03,ALL,LX25458,0000AE5-19-20DEC23

Observe Service Intervals

IMPORTANT: Recommended service intervals apply to average conditions. Service MORE OFTEN if machine is operated under adverse conditions.

During the break-in period, the following service work has to be performed:

- Service Daily or Every 10 Operating Hours - See in Section 210A, 210B, or 210C.
- Within the first 4, 8, and 100 operating hours, check the torque of all wheel bolts and wheel nuts repeatedly. In Section 220C, see:
  - Tighten Wheel Bolts
  - Tighten Wheel Weights
- Service after 100 Operating Hours - See Section 210A, 210B, or 210C.

IMPORTANT: During the break-in period of a rebuilt engine and when using John Deere Break-In Plus™ engine oil (break-in oil), carry out the first oil and filter change after the first 100 operating hours.

Use an engine oil that complies with the specification, for example, John Deere Plus-50™ II. Refer to the appropriate specifications in Section 200C.

Perform all services at the hourly intervals indicated in Section 210A, 210B, or 210C, and document them.

210,04,ALL,LX25458,0000AE6-19-20DEC23

Maintenance Intervals

CAUTION: Do not service the tractor while the engine is running.

The intervals in which lubrication and maintenance must be carried out depend on the actual elapsed hours of operation as indicated on the hour meter. The meter operates whenever the engine is running and shows the accumulated hours of engine operation.

When maintenance is due, an acoustic signal comes on as the engine starts (for five consecutive engine starts). This reminds the operator that service work is due.

The following service intervals are possible, depending on the engine type and exhaust system:

Engine type and exhaust system	Service Intervals
4-cylinder engines with:	Every
• Final Tier 4	500 hours
• Tier 3	500 hours
• Tier 2	500 hours
6-cylinder engines with:	Every
• Final Tier 4	750 hours
• Tier 3	750 hours
• Tier 3 (6210M)	
• Tier 2	500 hours

Always check to make sure that the hour meter is serviceable.

The lubrication and periodic service intervals are for normal working conditions. These intervals should be shortened when operating under adverse conditions.

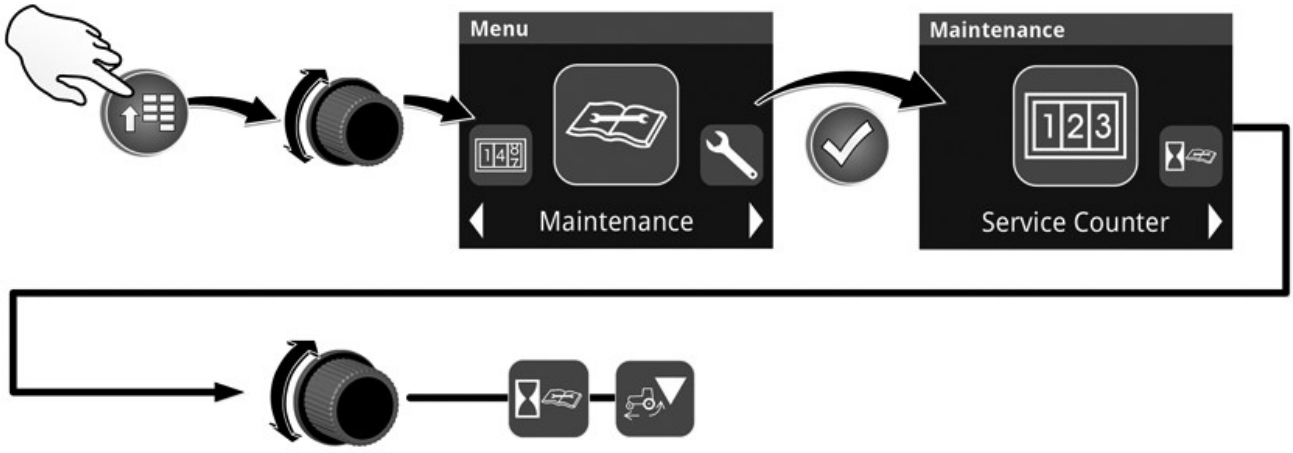
IMPORTANT: After servicing, cleaning, or repairing your machine, re-install any safety guards or shields before operating the tractor again.

210,05,OOS,SP,OULXA64,00053F5-19-20DEC23

Maintenance Menu

Access the Maintenance Menu

Press the menu button, select the maintenance menu, and confirm.



LX368243—UN—04FEB19

Settings in the maintenance menu:

- Hour meter / service due date
- Select service interval

Hour Meter / Due Date of Service

In the maintenance menu, the reminder function is set for the next service. For this purpose, the operating hours since the last service is counted. As of 20 hours before the due date, the system will remind you of the upcoming service at each start.

After service has been completed, the hours need to be reset and the next service interval entered, see Service Interval in this section.

1. Access the Service counter and confirm with (A).



LX368244—UN—04FEB19

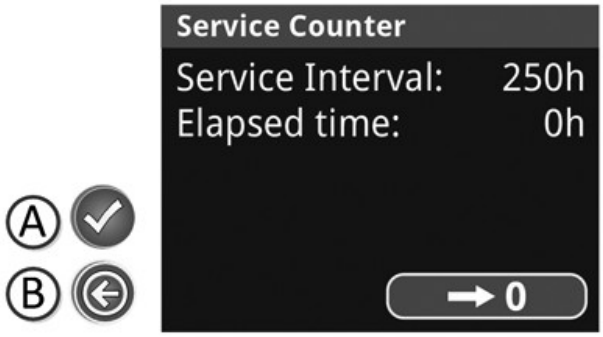
A—Confirm
B—Back

2. Press the button to confirm for three seconds to reset the Service counter to ZERO.



LX368245—UN—04FEB19

3. The Service counter shows zero. Enter the service interval, see Service Interval in this section.



LX368247—UN—04FEB19

A—Confirm
B—Back

Service Interval

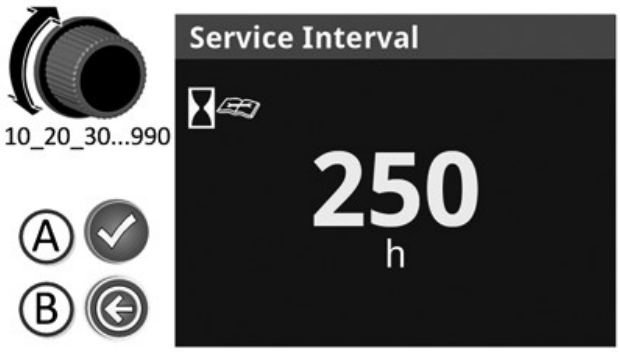
Entering the service interval is required so that the reminder function for the next service can be used.

1. Access the service interval and confirm with (A).



LX368240—UN—04FEB19

2. Set next service interval and confirm with (A).



LX368241—UN—04FEB19

Service Interval Setting

210,06,SP,OULXA64,00056B2-19-20DEC23

Raise the Hood

Unlatch and Raise the Hood (Vesion 1)



LX364419—UN—28AUG19

Use a suitable objekt (e.G. a screwdriver) to push in the latch and fold the hood upwards.

Unlatch and Raise the Hood (Vesion 2)



LX364437—UN—30AUG19

Press in the latch and fold the hood upwards.

Unlatch and Fold Down Hood Guard (If Equipped)



LX267123—UN—12APR17

NOTE: If the tractor is equipped with a hood protector (front loader), the hood protector has to be folded down before the hood can be opened.

210,07,SP1,OULXA64,00058C6-19-20DEC23

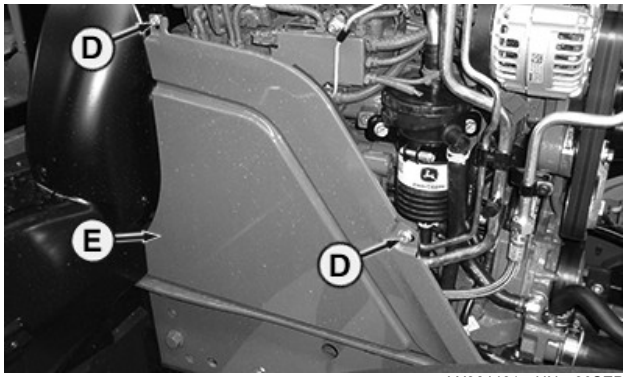
Open Service Doors

1. Open the hood.
2. Remove screw (A) and nut (B).



LX364352—UN—02APR19

3. Remove shield (C).
4. Remove screws (D). Remove service door (E).

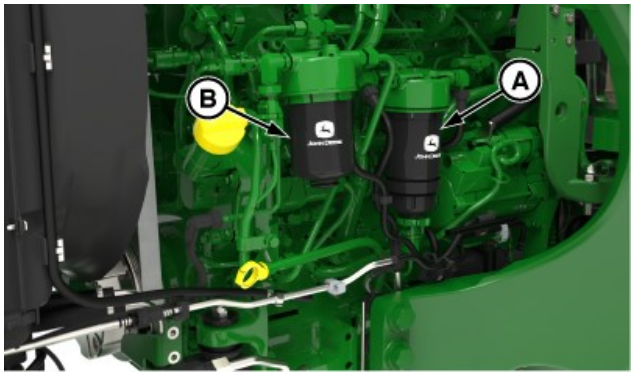


LX364461—UN—30SEP19

210,09,SP1,OULXA64,00058C7-19-20DEC23

Bleed Air from Fuel System (4-Cylinder Engines)

CAUTION: High-pressure fluid remaining in the fuel lines can cause serious injury. Do not disconnect or attempt to repair fuel lines, sensors, or any other components between injection pump and nozzles.



LX515757—UN—28NOV23

A—Primary Fuel Filter
B—Secondary Fuel Filter

The fuel system must be bled whenever the fuel tank has been run dry or the fuel filters (A) ans (B) have been replaced

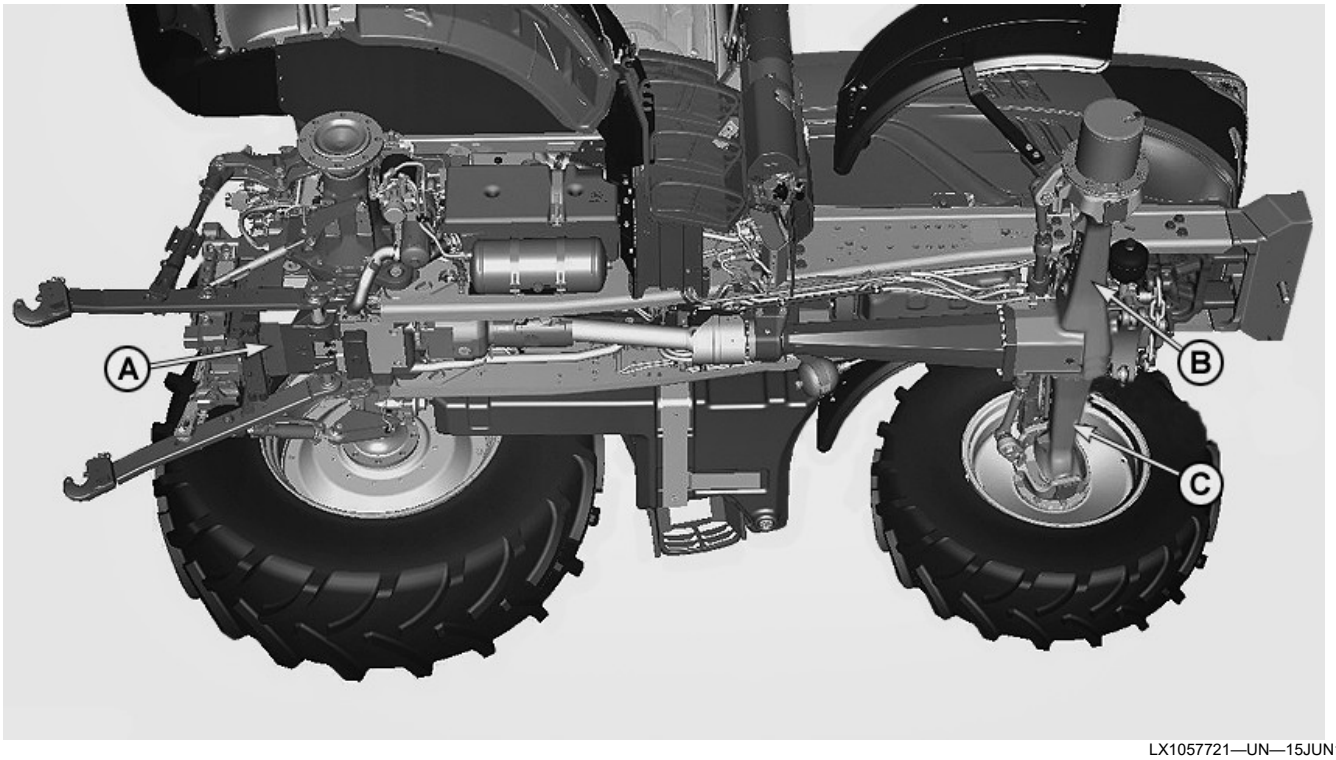
Turn key switch to the right to the first switch position and run the fuel transfer pump for approx. 120 seconds. Repeat as necessary.

210,10,4CYL,SP1,OULXA64,00058E2-19-21DEC23

Jack Up the Tractor, Lifting Points

Lifting Points - Summary

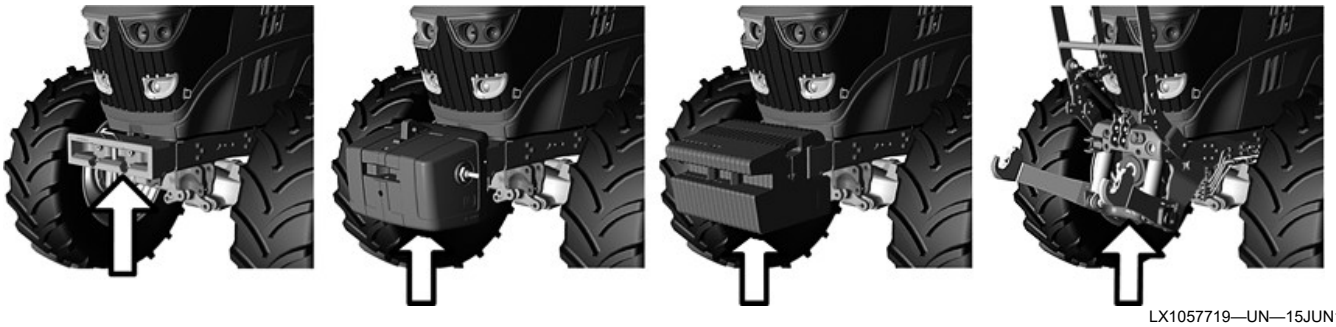
The illustrations show the recommended lifting points for jacking up the tractor. Use a stable jack with sufficient lifting force. See Loads and Weights in Section 500A of the relevant Operator's Manual.



LX1057721—UN—15JUN12

A—Raise Rear of Tractor, e.g. to Remove Rear Wheels
B—Raise Right End of Axle, e.g. to Remove Right Front Wheel
C—Raise Left End of Axle, e.g. to Remove Left Front Wheel

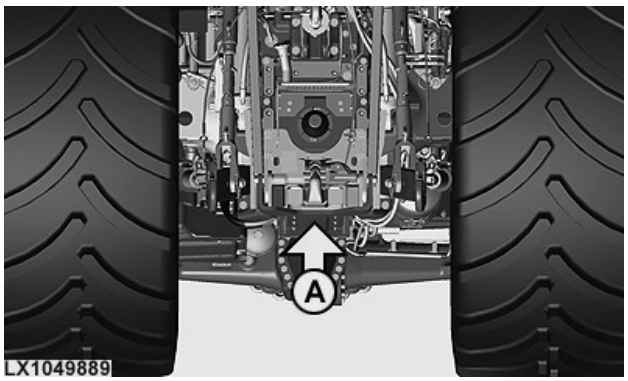
Lifting Points, Front Center of Tractor



LX1057719—UN—15JUN12

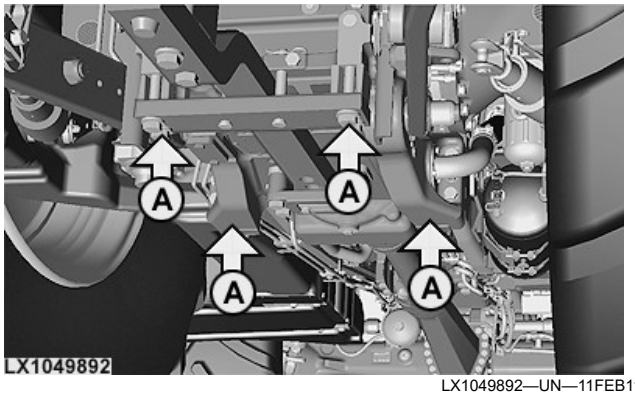
Raise Front Center of Tractor (Depending on How Tractor is Equipped)

Lifting Points on Rear



LX1049889—UN—11FEB11

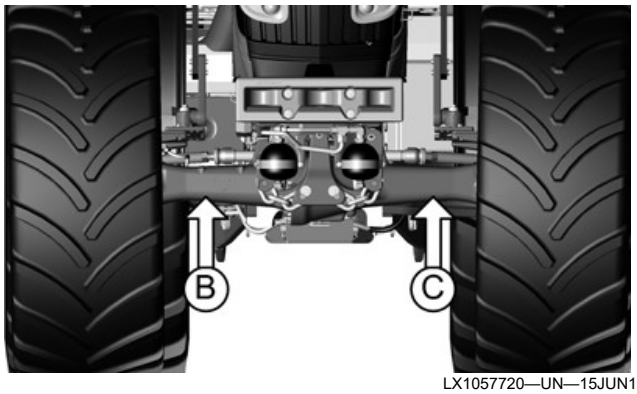
With Pickup Hitch



LX1049892—UN—11FEB11

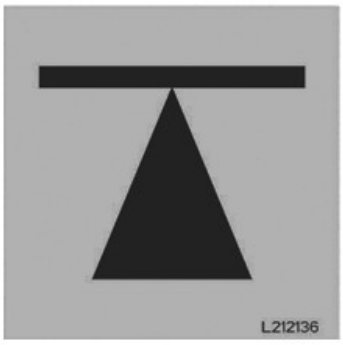
Without Pickup Hitch

Lifting Points at the Front Axle



LX1057720—UN—15JUN12

Raise Axle to Change Front Wheel



RXA0127282—UN—23JUL12

Lifting Points Label (If Equipped)

B—Raise Right End of Axle to Remove Right Front Wheel
C—Raise Left End of Axle to Remove Left Front Wheel

Authorized and Approved Lifting Tools

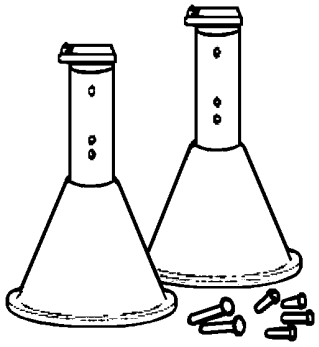
CAUTION: Use only authorized, approved hoists.

Jack up tractor on firm, level ground only.

Before doing any further work on tractor, first secure it using suitable support stands. Within the scope of the European Union, only hoists with CE certification are permitted.

NOTE: Obtain appropriate support stands from a car workshop supplier. Outside the scope of the EU, the support stands shown (without CE certification) are available through the John Deere distribution channel.

JT07211



JT07211—UN—14DEC06

Example: JT02043 or JT02044



LX515430—UN—12JUN23

Example: JT02043 or JT02044



LX515431—UN—12JUN23

Example: JT02043 or JT02044

JT02043—Support Stand, 482 to 736 mm (19 to 29 in)
JT02044—Support Stand, 863 to 1117 mm (34 to 44 in)

210,16,SP,6R,OULXA64,00056B5-19-20DEC23

General Instructions Regarding the Condition of the Tractor

IMPORTANT: Certain service jobs may require technical experience and special equipment.

Carry out a thorough visual inspection of the tractor at regular intervals, at the latest at every service interval. Make sure of the following:

- Safety devices and guards are in place and are properly installed.
- All warning decals and instruction panels are in place and are legible.
- Tires are in good condition.
- All lines and hoses are in good condition.
- Electrical cables and ground connections are in good condition.
- Areas subject to heat are free of combustible material.
- Tractor has no leaks.

NOTE: Service which does not have to be performed at regular hourly intervals is listed in Service (As Required, Annually, Every 2 and 3 Years).

Periodic service included therein (annually, every 2 years and every 3 years) is dealt with in Section 210B of the service record booklet.

210,17,ALL,LX25458,0000AEB-19-10JUL25

Inspect/Replace Hydraulic Hoses

Check hydraulic hoses regularly – at least once a year – for leaks, kinks, cuts, tears, rubbing, bulges, corrosion, exposed fabric, and other signs of wear and damage.

Replace worn or damaged hoses immediately.

Replacement hoses can be obtained via regular spare part channels.

210,18,ALL,LX25458,0000AEC-19-10JUL25

Important Instructions Regarding Alternator

IMPORTANT: The cable of an auxiliary battery or battery charger must be connected only to the poles provided for this purpose.

With battery disconnected, insulate the positive battery cable (+) properly to protect the alternator from damage.

See also Engine Start with an Auxiliary Battery in Section 20.

NOTE: The alternator is equipped with overvoltage protection.



LX364348—UN—02APR19

With the engine running, do not short-circuit or ground the alternator even momentarily.

Connect battery and charger with the correct polarity. If (+) and (—) are improperly connected, the rectifier diodes will be destroyed immediately.

Before carrying out repairs on electrical system,

disconnect battery ground strap (—). Prior to such tasks, always disconnect the negative terminal (—) of the battery.

210,19,SP1,OULXA64,00058C8-19-20DEC23

not come into contact with tractor components when steering. See Prevent Front Wheel or Fender Contact with Tractor Components in Section 80.

210,20,ALL,LX25458,0000AEE-19-20DEC23

Note on Wheels and Tires

IMPORTANT: After changing tires or changing wheels from one side to the other, tighten all wheel bolts and wheel nuts to the specified torque. Check the torque on the wheel nuts and wheel bolts after 4 and 8 hours of operation and also frequently during the next 100 hours of operation. See Section 220C.

After changes to the following components,

- Wheels/tires
- Tread widths
- Fenders
- Steering stop

It is essential to make sure that wheels and fenders do

Notes on, Before Initial Start-Up and Daily Service

IMPORTANT: Prior to initial start-up or during daily servicing, perform the following service:

• Service - Daily or Every 10 Hours, see Section 210B.

NOTE: Before initial start-up and after the tractor has spent long periods out of service, the following jobs must also be performed:

- *Drain water and residues from the fuel tank.*
- *Remove trash and other foreign bodies from underneath the engine hood and cab.*

210,21,ALL,0LX25458,000AEF-19-20DEC23

Information on Engine Serial Number, Stage, and Aftertreatment

Engine serial number	Engines in acc. with stage	Aftertreatment
4-cylinder engines 4045G	Tier 2/Stage II	No
4-cylinder engines 4045L	Tier 3/Stage IIIA	Yes
4-cylinder engines 4045U	Final Tier 4/Stage IV and Stage V	Yes
6-cylinder engines 6068G	Tier 2/Stage II	No
6-cylinder engines 6068L	Tier 3/Stage IIIA	Yes
6-cylinder engines 6068U	Final Tier 4/Stage IV and Stage V	Yes

210,23,OOS,SP,LX25458,0000AF1-19-20DEC23

Instructions for Starting up the Air-Conditioning System

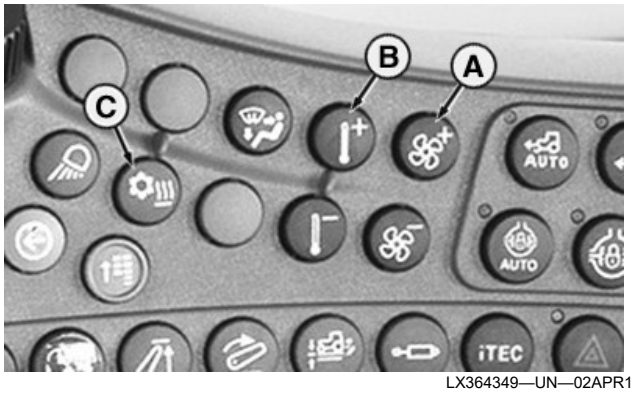
IMPORTANT: Avoid damage caused by long standstill times.

Prior to initial operation, the air conditioner compressor has to be connected.

Prior to initial operation and after long standstill periods, the start-up instructions have to be followed.

Start-Up Instructions:

1. Start engine and run at the low idle setting.



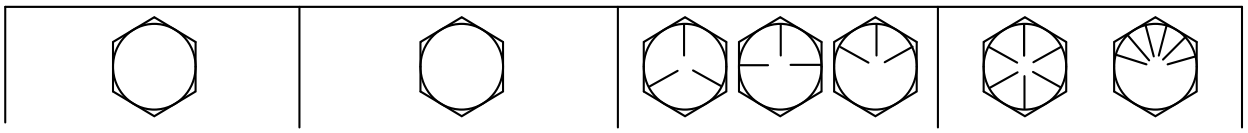
LX364349—UN—02APR19

A—Blower
B—Heating
C—Air-Conditioning System ON/OFF

2. Turn on the blower (A) for 10 minutes and set the heater (B) to maximum heat output.
3. Switch on the air-conditioning system (C) and set the blower to the highest setting. Let the engine run for another 10 minutes.
4. Afterwards, the procedure is complete and the engine can be shut off.

210,24,SP,OULXA64,00056B7-19-20DEC23

Unified Inch Bolt and Screw Torque Values



TS1671—UN—01MAY03

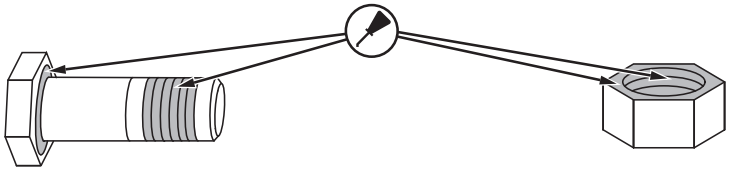
Bolt or Screw Size	SAE Grade 1[a]				SAE Grade 2[b]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]		Hex Head[c]		Flange Head[d]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
1/4	3.1	27.3	3.2	28.4	5.1	45.5	5.3	47.3	7.9	70.2	8.3	73.1	11.2	99.2	11.6	103
													N·m	lb·ft	N·m	lb·ft
5/16	6.1	54.1	6.5	57.7	10.2	90.2	10.9	96.2	15.7	139	16.8	149	22.2	16.4	23.7	17.5
									N·m	lb·ft	N·m	lb·ft				
3/8	10.5	93.6	11.5	102	17.6	156	19.2	170	27.3	20.1	29.7	21.9	38.5	28.4	41.9	30.9
					N·m	lb·ft	N·m	lb·ft								
7/16	16.7	148	18.4	163	27.8	20.5	30.6	22.6	43	31.7	47.3	34.9	60.6	44.7	66.8	49.3
	N·m	lb·ft	N·m	lb·ft												
1/2	25.9	19.1	28.2	20.8	43.1	31.8	47	34.7	66.6	49.1	72.8	53.7	94	69.3	103	75.8
9/16	36.7	27.1	40.5	29.9	61.1	45.1	67.5	49.8	94.6	69.8	104	77	134	98.5	148	109
5/8	51	37.6	55.9	41.2	85	62.7	93.1	68.7	131	96.9	144	106	186	137	203	150
3/4	89.5	66	98	72.3	149	110	164	121	230	170	252	186	325	240	357	263
7/8	144	106	157	116	144	106	157	116	370	273	405	299	522	385	572	422
1	216	159	236	174	216	159	236	174	556	410	609	449	785	579	860	634
1-1/8	305	225	335	247	305	225	335	247	685	505	751	554	1110	819	1218	898
1-1/4	427	315	469	346	427	315	469	346	957	706	1051	775	1552	1145	1703	1256
1-3/8	564	416	618	456	564	416	618	456	1264	932	1386	1022	2050	1512	2248	1658
1-1/2	743	548	815	601	743	548	815	601	1665	1228	1826	1347	2699	1991	2962	2185

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.

Bolt or Screw Size	SAE Grade 1[a]		SAE Grade 2[b]		SAE Grade 5, 5.1 or 5.2		SAE Grade 8 or 8.2	
	Hex Head[c]	Flange Head[d]	Hex Head[c]	Flange Head[d]	Hex Head[c]	Flange Head[d]	Hex Head[c]	Flange Head[d]
• Properly start thread engagement.								

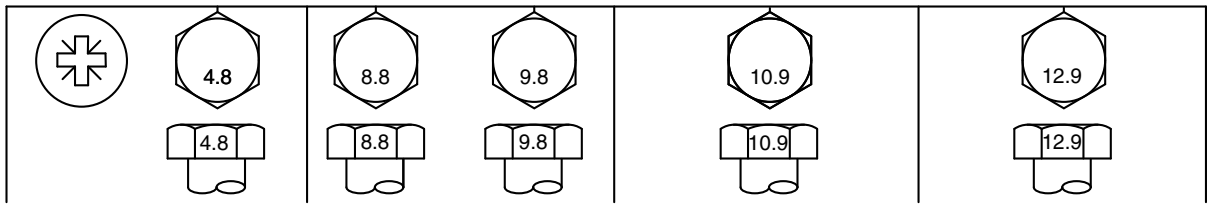


TS1741—UN—22MAY18

[a]*Grade 1 applies for hex cap screws over 6 in (152 mm) long, and for all other types of bolts and screws of any length.*
[b]*Grade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.*
[c]*Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.*
[d]*Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.*

DX,TORQ1-19-09MAY22

Metric Bolt and Screw Torque Values



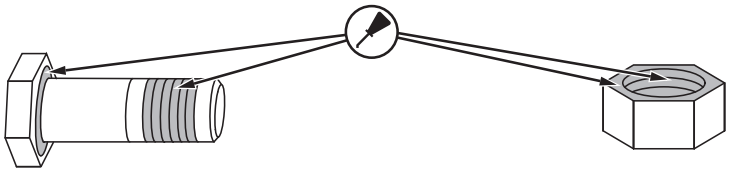
TS1742—UN—31MAY18

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
									N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
			N·m	lb·ft	N·m	lb·ft	N·m	lb·ft								
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
	N·m	lb·ft														
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

Bolt or Screw Size	Class 4.8		Class 8.8 or 9.8		Class 10.9		Class 12.9	
	Hex Head[a]	Flange Head[b]	Hex Head[a]	Flange Head[b]	Hex Head[a]	Flange Head[b]	Hex Head[a]	Flange Head[b]
• Make sure that fastener threads are clean. • Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image. • Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil. • Properly start thread engagement.								



TS1741—UN—22MAY18

[a] *Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.*
[b] *Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.*

DX,TORQ2-19-09MAY22

GENERAL INFORMATION

- The technical information in this Operator's Manual corresponds to the current information at the time of going to press.
- Country and model-specific deviations are possible. Consider that your tractor is not equipped with all the options described here.
- Depending on the country, not all models mentioned may be available.
- Contact a John Deere dealer or other service provider if you have any questions about optional equipment and the relevant specifications.

500A,000,OULXA64,0005EA5-19-10JUL25

Notes

This Operator's Manual contains service schedules for your tractor. To obtain the best performance, economy and service life from your tractor, ensure that all service is carried out in accordance with the specifications in this Operator's Manual and be recorded in this manual. Keeping an accurate account of all service performed on your tractor will help you to obtain the best price should you decide to sell it. A prospective buyer can see from these records that your tractor has been serviced on a regular basis. This booklet also serves as an added means of security since the entire history of the tractor can be easily traced.

All John Deere oils, grease, and service products have been optimally designed to provide your tractor with maximum protection and performance. For this reason, we recommend using only genuine John Deere service products and replacement parts.
To protect your rights under the warranty, ensure all scheduled services are carried out and then recorded. If your tractor is covered by an extended warranty (John Deere PowerGard™), it is important to keep these records for the duration of the warranty period.

210AtoC,001ALL,LX25458,0000AF4-19-10JUL25

Service Daily or Every 10 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Check fuel filter and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Check lights.

CHECK:

- ☐ Engine oil level
- ☐ Coolant level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Check brakes.
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]

LUBRICATE, when operating the tractor in extremely wet and muddy conditions:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.

OULXA64,SP1,EX,00058C9-19-01SEP23

Service (As Required, Annually, Every 2 and 3 Years)—Only on Tractors with Final Tier 4 Engines (4-Cylinder)

Service Procedure	As required	Annually	Every 2 years	Every 3 years
Replace fuse and relay	•			
Clean cab air filter (change cab air filter every 1500 operating hours or 2 years)	•			
Clean radiator, viscous fan, condenser, and engine environment.	•			
Cooling system—Have viscous fan checked	•			
Vent fuel system	•			
Check the mechanical cab suspension	•			
Grease lubricating points (after washing with a pressure washing system)	•			
Rear PTO—Lubricate PTO stub shaft support (reversible PTO stub shaft)	•			
Change transmission oil filter (whenever the attention light flashes and corresponding information appears, or every 500 hours)	•			
Change hydraulic oil filter (whenever the attention light flashes and corresponding information appears, or every 500 hours)	•			
Trailer hitches—Check all components for wear; check that all components function properly	•			
Front and rear wheels—After every wheel change and after adjusting the tread width, check the torques of the bolts listed below. Check after 4 and 8 operating hours and frequently during the next 100 hours of operation (see Maintenance—Every 500 hours). • Wheel disk on axle • Wheel disk on rim • Wheel weights	•			
Wheels—Dual wheel attachment, check torques of attaching screws (see manufacturer's specifications)	•			
After a longer standstill period, observe the instructions for starting up the air-conditioning system (see Service—General Information)	•			
Fuel tank vent (if equipped)—Check the filter for encrustations when operating in dusty environment (at least every 3000 hours)	•			
DEF tank—Clean screen on filler neck	•			
DEF tank venting—Check the filter for incrustations if operating in a particularly dusty environment (every 3000 hours at the latest).	•			
Have the DEF system serviced regularly (or every 4500 hours) • Clean the DEF tank • Change the filter of the DEF dosing unit	•			•
Front loader mounting frame—Check torques of attaching screws (see Operator's Manual and installation instructions of the front loader)	•	•	•	•
Inspect seat belt for damage and ensure proper working order (or every 500 hours, whichever occurs first)		•	•	•
Inspect hydraulic hoses		•	•	•
Engine—Check drive belt for wear (or every 500 hours, whichever occurs first)		•	•	•
Change engine oil (or every 500 hours, whichever occurs first)		•	•	•
Cab—Change the activated carbon filter, if equipped. See section 220E.		•	•	•
Engine air cleaner—Change the primary filter (whenever the attention light flashes and corresponding information appears, or every 1500 hours)			•	
Engine air cleaner—Change the secondary element (at every fourth change of the primary filter or every 4500 hours)				•
Replace cab air filter (always when the primary filter of the engine air cleaner is replaced or every 1500 hours)			•	
Cab—Replace recirculation air filter (always when the primary filter of the engine air cleaner is replaced or every 1500 hours)			•	
Air brake system—Change the receiver-dryer cartridge (an earlier change may be necessary if condensed water drains out when checking compressed-air tank, or every 1500 hours)			•	

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Periodic Service—Only on Tractors with Final Tier 4 Engines (4-Cylinder)

When the following number of operating hours has been reached, the service intervals specified in the table apply.

NOTE: When performing service work, always check for any damage (e.g. on hydraulic lines, wiring harnesses, etc.) and repair as necessary.

Operating hours	The service intervals include the following intervals	Operating hours	The service intervals include the following intervals
10	10	5000	10 + 500
100	10 + 100	5500	10 + 500
500	10 + 500	6000	10 + 500 + 1500 + 3000 + 6000
1000	10 + 500	6500	10 + 500
1500	10 + 500 + 1500	7000	10 + 500
2000	10 + 500	7500	10 + 500 + 1500
2500	10 + 500	8000	10 + 500
3000	10 + 500 + 1500 + 3000	8500	10 + 500
3500	10 + 500	9000	10 + 500 + 1500 + 3000 + 4500
4000	10 + 500	9500	10 + 500
4500	10 + 500 + 1500 + 4500	10000	10 + 500 + 10000

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Service Intervals for Engine Oil and Engine Oil Filter

IMPORTANT: Change the oil and oil filter at least once every 12 months even if the hours of operation are fewer than the otherwise recommended service interval.

After each engine oil and filter change, the date, operating hours and time of the next oil and filter change service must be documented.

To do this, use the check form *Engine Oil and Filter Change, see this section*.

Note that there are factors that shorten oil service intervals. See table at the end.

DO NOT use diesel fuel with a higher sulfur content than specified in the tables.

Conditions for Engine Oil and Filter Service Intervals — Tier 2 Engines Only									
Engine and Emission Standard	**6M Model Over-view**	**6R Model Over-view**	**Engine Typ**	**13-Digit Engine S/N**	**Oil Pan Size (L/KW)**	**(JDS-135G) When diesel fuel sulfur content is:**	**Engine Oil and Oil Filter used:**	**Initial Engine Oil Change Service (Break-In Oil)**	**Regular Interval Hours**
4 Cyl. Tier 2, Stage II Engines	6110M 6125M	—	4045HL289	CD4045-**G**xxxxxx	0.17—0.20	2000 mg/kg (2000 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
4 Cyl. Tier 2, Stage II Engines	6110M 6125M	—	4045HL289	CD4045-**G**xxxxxx	0.17—0.20	2000—5000 mg/kg (2000—5000 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	400
6 Cyl. Tier 2, Stage II Engines	6140M 6155M 6175M 6195M	—	6068HL289	CD6068-**G**xxxxxx	0.15—0.21	2000 mg/kg (2000 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
6 Cyl. Tier 2, Stage II Engines	6140M 6155M 6175M 6195M	—	6068HL289	CD6068-**G**xxxxxx	0.15—0.21	2000—5000 mg/kg (2000—5000 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	400
* After the first 100 hours, at the latest after the first 500 hours.									

Conditions for Engine Oil and Filter Service Intervals — Tier 3 Engines Only									
Engine and Emission Standard	**6M Model Over-view**	**6R Model Ove3r-view**	**Engine Type**	**13-Digit Engine S/N**	**Oil Pan Size (L/KW)**	**(JDS-135G) When diesel fuel sulfur content is:**	**Engine Oil and Oil Filter used:**	**Initial Engine Oil Change Service (Break-In Oil)**	**Regular Interval Hours**
4 Cyl. Tier3, Stage III PSN Engines	6130M 6140M	6R 110 6R 130	4045HL536	CD4045-**L**xxxxxx	0.16 - 0.20	<50 mg/kg (50 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
4 Cyl. Tier 3, Stage III PSN Engines	6130M 6140M	6R 110 6R 130	4045HL536	CD4045-**L**xxxxxx	0.16—0.20	50—500 mg/kg (50—500 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
6 Cyl. Tier 3, Stage III PVN Engines	6155M 6155MH 6175M 6195M	6R 145 6R 155 6R 175 6R 195 6R 215	6068HL535 6068HL538	CD6068-**L**xxxxxx	0.14—0.22	<50 mg/kg (50 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	750
6 Cyl. Tier3, Stage III PVN Engines	6155M 6155MH 6175M 6195M	6R 145 6R 155 6R 175 6R 195 6R 215	6068HL535 6068HL538	CD6068-**L**xxxxxx	0.14—0.22	50—500 mg/kg (50—500 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
6 Cyl. Tier 3, Stage III PTE Engines	6210M	—	6068HL290	CD6068-**L**xxxxxx	0.14	<1000 mg/kg (1000 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
6 Cyl. Tier 3, Stage III PTE Engines	6210M	—	6068HL290	CD6068-**L**xxxxxx	0.14	1000—2000 mg/kg (1000—2000 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	400
6 Cyl. Tier 3, Stage III PSN Engines	—	6R 230	6068HL530	CD6068-**L**xxxxxx	0.14—0.22	<50 mg/kg (50 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	750
6 Cyl. Tier3, Stage III PSN Engines	—	6R 230	6068HL530	CD6068-**L**xxxxxx	0.14—0.22	50—500 mg/kg (50—500 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
6 Cyl. Tier 3, Stage III PSN Engines	—	6R 250	6068HL530	CD6068-**L**xxxxxx	0.13	<50 mg/kg (50 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	750
6 Cyl. Tier 3, Stage III PSN Engines	—	6R 250	6068HL530	CD6068-**L**xxxxxx	0.13	50—500 mg/kg (50—500 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
* After the first 100 hours, at the latest after the first 500 hours.									

Conditions for Engine Oil and Filter Service Intervals — Final Tier 4, Stage IV, and Stage V Engines Only									
Engine and Emission Standard	**6M Model Over-view**	**6R Model Over-view**	**Engine Type**	**13-Digit Engine S/N**	**Oil Pan Size (L/KW)**	**(JDS-135G) When diesel fuel sulfur content is:**	**Engine Oil and Oil Filter used:**	**Initial Engine Oil Change Service (Break-In Oil)**	**Regular Interval Hours**
4 Cyl. Final Tier 4, Stage IV, and Stage V Engines, when ultra low sulfur diesel (ULSD) is used.	6090M 6100M 6110M 6120M	—	4045HL290	CD4045-**U**xxxxxx	0.15—0.20	Max. 15 mg/kg (15 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
4 Cyl. Final Tier 4, Stage IV, and Stage	6130M	6R 110 6R 120	4045HL555	CD4045-**U**xxxxxx	0.15—0.20	Max. 15 mg/kg (15 ppm)	John Deere Plus-50™ II	Between	500

Conditions for Engine Oil and Filter Service Intervals — Final Tier 4, Stage IV, and Stage V Engines Only									
Engine and Emission Standard	**6M Model Over-view**	**6R Model Over-view**	**Engine Type**	**13-Digit Engine S/N**	**Oil Pan Size (L/KW)**	**(JDS-135G) When diesel fuel sulfur content is:**	**Engine Oil and Oil Filter used:**	**Initial Engine Oil Change Service (Break-In Oil)**	**Regular Interval Hours**
V Engines, when ultra low sulfur diesel (ULSD) is used.	6140M 6145M	6R 130 6R 140 6R 150	4045HL556 4045HL557				and JD approved filter	100 and 500 hours*	
6 Cyl. Final Tier 4, Stage IV, and Stage V Engines, when ultra low sulfur diesel (ULSD) is used.	6155M 6155MH 6175M 6195M	6R 145 6R 155 6R 165 6R 175 6R 185 6R 195 6R 215 6R 230 6R 250	6068HL550 6068HL555 6068HL557 6068HL558	CD6068-**U**xxxxxx	0.13—0.22	Max. 15 mg/kg (15 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	750
6 Cyl. Final Tier 4, Stage IV, and Stage V Engines, when ultra low sulfur diesel (ULSD) is used.	6155M 6155MH 6175M 6195M	6R 145 6R 155 6R 165 6R 175 6R 185 6R 195 6R 215 6R 230 6R 250	6068HL550 6068HL555 6068HL557 6068HL558	CD6068-**U**xxxxxx	0.13—0.22	Above 15 mg/kg (15 ppm)	John Deere Plus-50™ II and JD approved filter	Between 100 and 500 hours*	500
* After the first 100 hours, at the latest after the first 500 hours.									

Factors that Shorten the Engine Oil and Filter Maintenance Intervals	Shorten the Regular Interval by...
When other Oil than Plus 50 is used	50%
When Operating Engines at Altitudes above 1675 m (5500 ft)	50%
When using Biodiesel Blends greater than B20 (fuel with more than 20% Bio Diesel)	50%
Example: If the regular interval is 750h and the tractor is operated at high altitude above 1675m, than the oil and filter change interval is reduced to 375 hours (750 hours minus 50%).	

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Engine Oil and Filter Change

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:

Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:

Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.

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Engine Oil and Filter Change

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:
Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.		

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:
Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.		

LX25458,ALL,0000AF9-19-14FEB23

Engine Oil and Filter Change

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:
Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.		

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:
Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.		

LX25458,ALL,0000AF9-19-14FEB23

Engine Oil and Filter Change

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:
Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.		

Service Parts used: ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter	**Service Parts used:** ☐ Plus-50™ II and JD approved Filter ☐ Other Oil and/or other Filter
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Date:.	Date:.	Date:. . . . .
Next engine oil and filter change:	**Next engine oil and filter change:**	**Next engine oil and filter change:**
Hours of operation:	Hours of operation:	Hours of operation: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's stamp:	Dealer's stamp:	Dealer's stamp:
Refer to Service Intervals for Engine Oil and Engine Oil Filter in this section.		

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Service the Engine Air Cleaner and Cab Air Filters

• Change the engine air filter if the relevant information is displayed on the corner post display or every 2 years or every 1500 operating hours, whichever comes first. Up to six cleaning services are allowed for the engine primary air filter. Change cab air filters each time the engine primary air filter is changed.
• For activated carbon filters (CAT 1 and CAT 2 cab only), see additional maintenance of the activated carbon filter.
• Replace the secondary filter every 4500 operating hours or together with each fourth primary filter change or after 3 years, whichever comes first.

Replaced filters: ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:
Replaced filters: ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service / As Required in this Operator's Manual.

OULXA64,SP,00056CD-19-10DEC24

Service the Engine Air Cleaner and Cab Air Filters

• Change the engine air filter if the relevant information is displayed on the corner post display or every 2 years or every 1500 operating hours, whichever comes first. Up to six cleaning services are allowed for the engine primary air filter. Change cab air filters each time the engine primary air filter is changed.
• For activated carbon filters (CAT 1 and CAT 2 cab only), see additional maintenance of the activated carbon filter.
• Replace the secondary filter every 4500 operating hours or together with each fourth primary filter change or after 3 years, whichever comes first.

Replaced filters: ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:
Replaced filters: ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:	**Replaced filters:** ☐ Primary filter and cab air filter ☐ Activated carbon filter (CAT 1 and CAT 2 cab only) ☐ Secondary filter At operating hours:. . . . . . Date:. . . . . . **Next service:** At operating hours:. . . . . . Or date:. . . . . . Signed: . . . . . . Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service / As Required in this Operator's Manual.

OULXA64,SP,00056CD-19-10DEC24

Service the Cooling System

Replace coolant and check thermostat.

- After 6 years or every 6000 hours of operation (whichever comes first) when Cool-Gard™ II is used.
- After 2 years or every 2000 hours of operation (whichever comes first) when another coolant is used.

Filled with: ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:
Filled with: ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:

LX25458,ALL,0000AFF-19-24FEB22

Service the Cooling System

Replace coolant and check thermostat.

- After 6 years or every 6000 hours of operation (whichever comes first) when Cool-Gard™ II is used.
- After 2 years or every 2000 hours of operation (whichever comes first) when another coolant is used.

Filled with: ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:
Filled with: ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:	**Filled with:** ☐ Cool-Gard™ II ☐ Another Coolant At operating hours: . . . . . . Date:. . . . . . **Next refill:** At operating hours: . . . . . . Or date: . . . . . . Signed: . . . . . . Dealer's Stamp:

LX25458,ALL,0000AFF-19-24FEB22

Service the DEF System

Perform DEF system maintenance as needed, or at least every 4500 hours of operation or every 36 months, whichever comes first. **The following components of the system need to be serviced or replaced:**		• Clean DEF tank • Change DEF dosing unit filter • Change in-line DEF filter
Work done:	**Work done:**	**Work done:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Date:.	Date:.	Date:. . . . .
Next service:	**Next service:**	**Next service:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Perform DEF system maintenance as needed, or at least every 4500 hours of operation or every 36 months, whichever comes first. **The following components of the system need to be serviced or replaced:**		• Clean DEF tank • Change DEF dosing unit filter • Change in-line DEF filter
Work done:	**Work done:**	**Work done:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Date:.	Date:.	Date:. . . . .
Next service:	**Next service:**	**Next service:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

LX25458,FROM,MY19,0000B01-19-05JUN20

Service the DEF System

Perform DEF system maintenance as needed, or at least every 4500 hours of operation or every 36 months, whichever comes first. **The following components of the system need to be serviced or replaced:**		• Clean DEF tank • Change DEF dosing unit filter • Change in-line DEF filter
Work done:	**Work done:**	**Work done:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Date:.	Date:.	Date:. . . . .
Next service:	**Next service:**	**Next service:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Perform DEF system maintenance as needed, or at least every 4500 hours of operation or every 36 months, whichever comes first. **The following components of the system need to be serviced or replaced:**		• Clean DEF tank • Change DEF dosing unit filter • Change in-line DEF filter
Work done:	**Work done:**	**Work done:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Date:.	Date:.	Date:. . . . .
Next service:	**Next service:**	**Next service:**
At operating hours:	At operating hours:	At operating hours: . . . . .
Or date:	Or date:	Or date: . . . . .
Signed:	Signed:	Signed: . . . . .
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

LX25458,FROM,MY19,0000B01-19-05JUN20

Yearly

• Inspect seat belt for damage and ensure proper working order. • Change engine oil. Check engine drive belt for wear. • Inspect hydraulic hoses for damage. • Tighten the screws on the front loader bracket. • Change activated carbon filters (if equipped) only on CAT 1 and Cat 2 Cab. See Service the Engine Air Cleaner and Cab Air Filters in this section.

Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:
Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:
Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:
Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:

OULXA64,SP,00056CF-19-10DEC24

Yearly

• Inspect seat belt for damage and ensure proper working order. • Change engine oil. Check engine drive belt for wear. • Inspect hydraulic hoses for damage. • Tighten the screws on the front loader bracket. • Change activated carbon filters (if equipped) only on CAT 1 and Cat 2 Cab. See Service the Engine Air Cleaner and Cab Air Filters in this section.

Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:
Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:
Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:
Inspection completed: Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:	**Inspection completed:** Date:. . . . . . Signature: . . . . . . Dealer's Stamp:

Service after 100 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Check fuel filter and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check lights.

CHECK SCREW TORQUES:

- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine oil level
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Check brakes.
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]

CHANGE:

- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.

Hours:

Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058CB-19-01SEP23

Service after 500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058CC-19-01SEP23

Service after 1000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058CD-19-01SEP23

Service after 1500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front axle suspension—Accumulator check
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ All trailer hitches

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Engine air cleaner—Primary filter[3]
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Transmission and hydraulic system—Replace oil and clean intake screens.
- ☐ Front PTO—Oil filter
- ☐ Front PTO—Oil
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]
- ☐ Cab air filter[3]
- ☐ Cab—Recirculation air filters[3]
- ☐ Air brake system—Change receiver-dryer cartridge.

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058CE-19-01SEP23

Service after 2000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058CF-19-01SEP23

Service after 2500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D0-19-01SEP23

Service after 3000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.
- ☐ Fuel tank vent—Check filter (if equipped).
- ☐ DEF tank vent—Check filter.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Engine—Adjust valve tappets.
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front axle suspension—Accumulator check
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ All trailer hitches

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Engine air cleaner—Primary filter[3]
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Transmission and hydraulic system—Replace oil and clean intake screens.
- ☐ Front PTO—Oil filter
- ☐ Front PTO—Oil
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]
- ☐ Cab air filter[3]
- ☐ Cab—Recirculation air filters[3]
- ☐ Air brake system—Change receiver-dryer cartridge.

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours:

Comments: . . . . . .

Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D1-19-01SEP23

Service after 3500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D2-19-01SEP23

Service after 4000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D3-19-01SEP23

Service after 4500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.
- ☐ Clean DEF tank.[4]

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front axle suspension—Accumulator check
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Filter of the DEF dosing unit[4]
- ☐ In-line DEF filter [4]
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Engine air cleaner—Primary filter[3]
- ☐ Engine air cleaner—Secondary filter[3]
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Transmission and Hydraulic system—Replace oil and clean intake screens.
- ☐ Front PTO—Oil filter
- ☐ Front PTO—Oil
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]
- ☐ Cab air filter[3]
- ☐ Cab—Recirculation air filters[3]
- ☐ Air brake system—Change receiver-dryer cartridge.

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters
[4] See Service the DEF System

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D4-19-01SEP23

Service after 5000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D5-19-01SEP23

Service after 5500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D6-19-01SEP23

Service after 6000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.
- ☐ Fuel tank vent—Check filter (if equipped).
- ☐ DEF tank vent—Check filter.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Engine—Adjust valve tappets.
- ☐ Air intake hoses—Check for leaks.
- ☐ Front axle suspension—Accumulator check
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ All trailer hitches

CHANGE:

- ☐ Coolant[5]
- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)[2]
- ☐ Engine air cleaner—Primary filter[3]
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Transmission and hydraulic system—Replace oil and clean intake screens.
- ☐ Front PTO—Oil filter
- ☐ Front PTO—Oil
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]
- ☐ Cab air filter[3]
- ☐ Cab—Recirculation air filters[3]
- ☐ Air brake system—Change receiver-dryer cartridge.

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters
[5] See Service the Cooling System

Hours:

Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D7-19-01SEP23

Service after 6500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D8-19-01SEP23

Service after 7000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058D9-19-01SEP23

Service after 7500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front axle suspension—Accumulator check
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ All trailer hitches

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Engine air cleaner—Primary filter[3]
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Transmission and hydraulic system—Replace oil and clean intake screens.
- ☐ Front PTO—Oil filter
- ☐ Front PTO—Oil
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]
- ☐ Cab air filter[3]
- ☐ Cab—Recirculation air filters[3]
- ☐ Air brake system—Change receiver-dryer cartridge.

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058DA-19-01SEP23

Service after 8000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058DB-19-01SEP23

Service after 8500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058DC-19-01SEP23

Service after 9000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.
- ☐ Fuel tank vent—Check filter (if equipped).
- ☐ DEF tank vent—Check filter.
- ☐ Clean DEF tank.[4]

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Engine—Adjust valve tappets.
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front axle suspension—Accumulator check
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ All trailer hitches

CHANGE:

- ☐ Fuel filter
- ☐ Filter of the DEF dosing unit[4]
- ☐ In-line DEF filter [4]
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Engine air cleaner—Primary filter[3]
- ☐ Engine air cleaner—Secondary filter[3]
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Transmission and hydraulic system—Replace oil and clean intake screens.
- ☐ Front PTO—Oil filter
- ☐ Front PTO—Oil
- ☐ Front-wheel drive axle—Axle housing, oil
- ☐ Front-wheel drive axle—Final drives without brake, oil
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]
- ☐ Cab air filter[3]
- ☐ Cab—Recirculation air filters[3]
- ☐ Air brake system—Change receiver-dryer cartridge.

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters
[4] See Service the DEF System

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058DD-19-01SEP23

Service after 9500 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—perational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter[2]
- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058DE-19-01SEP23

Service after 10000 Operating Hours

CLEAN:

- ☐ Clean radiator, viscous fan, condenser, and engine environment.
- ☐ Engine air cleaner—Clean precleaner.
- ☐ Service fuel tank and drain water separator.

ELECTRICAL SYSTEM:

- ☐ Access the diagnostic trouble codes and rectify fault, then delete the diagnostic trouble codes.
- ☐ Check the movement inhibitor.
- ☐ PTO actuation—Check safety device.
- ☐ Fuse box—Visually inspect and clean
- ☐ Check lights.
- ☐ Lights—Check settings of headlights.
- ☐ Check that all accessible ground cables are secure.

CHECK SCREW TORQUES:

- ☐ Adjustable front axle—Axle bolts
- ☐ Wheels—Front and rear wheels
- ☐ Wheels—Wheel disk on rim
- ☐ Wheels—Wheel weights
- ☐ Wheels—Dual wheel attachment
- ☐ Drawbar
- ☐ Trailer hitch, guide rails
- ☐ Trailer hitch
- ☐ Pickup hitch
- ☐ Front hitch mounting frame
- ☐ Front loader mounting frame

CHECK:

- ☐ Engine—Check drive belt for wear (rubbing).
- ☐ Coolant level
- ☐ Air intake hoses—Check for leaks.
- ☐ Front-wheel drive axle—Axle housing, oil level
- ☐ Front-wheel drive axle—Final drives without brake, oil level
- ☐ Transmission and hydraulic system—Oil level
- ☐ Check leak-off oil container (if equipped).
- ☐ Cab—Check all rubber seals of the doors and windows as well as the cable feedthroughs for proper seating, wear, and brittleness.
- ☐ Cab—Check function of all closing mechanisms of the doors and windows.
- ☐ Inspect seat belt for damage and ensure proper working order.
- ☐ Brake system—Bleed and check.
- ☐ Service brake—Operational check
- ☐ Secondary brake—Operational check
- ☐ Air brake system—Check compressed-air tank for condensed water.[1]
- ☐ Air brake system—Check the time needed for filling.
- ☐ Air brake system—Check function of secondary brake and park position (park lock).
- ☐ Air brake system—Visual inspection and operational check of couplers.
- ☐ Park lock—Operational check
- ☐ Check all trailer hitches.

CHANGE:

- ☐ Fuel filter
- ☐ Engine oil and engine oil filter²
- ☐ Front PTO—Oil filter
- ☐ Front-wheel drive axle—Final drives with brake, oil

- ☐ Engine—Filter on crankcase vent (oil separator)
- ☐ Hydraulic oil filter
- ☐ Transmission oil filter
- ☐ Front axle suspension—Pressure accumulators
- ☐ Cab—Activated carbon filter (if equipped)[3]

LUBRICATE:

- ☐ Front hitch—Cylinder and three-point hitch
- ☐ Adjustable front axle—Lubrication points
- ☐ Front-wheel drive axle—Pivot bearing
- ☐ Front-wheel drive axle—All universal joints including universal-jointed shaft
- ☐ Front axle suspension—Hydraulic cylinder
- ☐ Universal-jointed shaft between engine and transmission (if equipped)
- ☐ All trailer hitches
- ☐ Three-point hitch—Lift links and rockshaft
- ☐ Rear axle bearings
- ☐ Rear PTO—PTO stub shaft support (reversible PTO stub shaft)

[1] If condensed water drains out, replace receiver-dryer cartridge, otherwise do this every 1500 hours or every 2 years at the latest.
[2] See Engine Oil and Filter Change and Service Intervals for Engine Oil and Engine Oil Filter
[3] See Service the Engine Air Cleaner and Cab Air Filters

Hours: Comments: . . . . . Dealer's Stamp:

Date:

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Work carried out by:

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OULXA64,SP1,EX,00058DF-19-01SEP23

Information about Further Services

IMPORTANT: The following pages are for the documentation of all further services. Perform service work as described in this Operator's Manual. Refer to this Service Booklet to find a list with the jobs involved at each service interval.

The following table illustrates which service interval should be applied when a certain number of operating hours has been reached.

EXAMPLE: A machine with 18 000 hours on the hour meter needs to be serviced.

To do this, find out which service is applicable.

The table clearly shows that after 18 00 operating hours, the same servicing as after 4500 and 6000 hours of operation must be performed.

Operating hours	Service to be performed:	Operating hours	Service to be performed:
100	100	10500	1500
500	500	11000	500
1000	500	11500	500
1500	1500	12000	6000
2000	500	12500	500
2500	500	13000	500
3000	3000	13500	4500
3500	500	14000	500
4000	500	14500	500
4500	4500	15000	3000
5000	500	15500	500
5500	500	16000	500
6000	6000	16500	1500
6500	500	17000	500
7000	500	17500	500
7500	1500	18000	4500 + 6000
8000	500	18500	500
8500	500	19000	500
9000	3000 + 4500	19500	1500
9500	500	20000	10000
10000	10000	20500	500

Example showing how to fill out a record of further services:

The performed service corresponds to a ...**4500 + 6000**... hour service.	Hours of operation displayed:.....**18000**
Comments:	Date:.....xxx
xxx	Signature:.....xxxx
xxx	Stamp:
xxx	

LX25458,500STD,0000B19-19-13OCT22

Record for Further Services

The service performed corresponds to a ..... hour service.	Hours of operation displayed: . . . . .
Comments:	Date:. . . . .
	Signature: . . . . .
. . . . .	Stamp:
. . . . .	
. . . . .	

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

The service performed corresponds to a ..... hour service. Comments:	Hours of operation displayed: . . . . . . Date:. . . . . . Signature: . . . . . . Stamp:

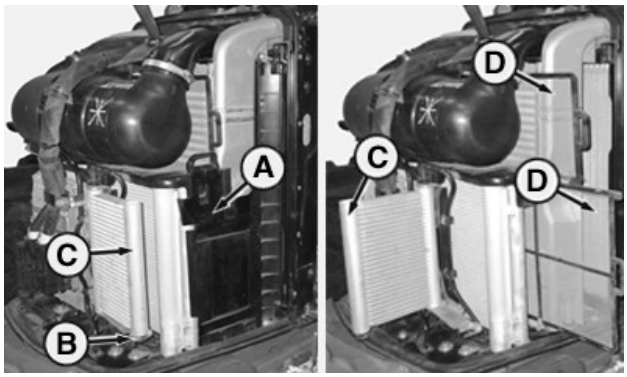
LX25458,ALL,0000B1A-19-29SEP20

Clean Radiator, Viscous Fan, Condenser, and Engine Environment

For good engine operation, as well as for efficient cooling and air-conditioning, it is also essential to keep the outside of the components clean.

Remove dirt from the area surrounding the engine and the radiators.

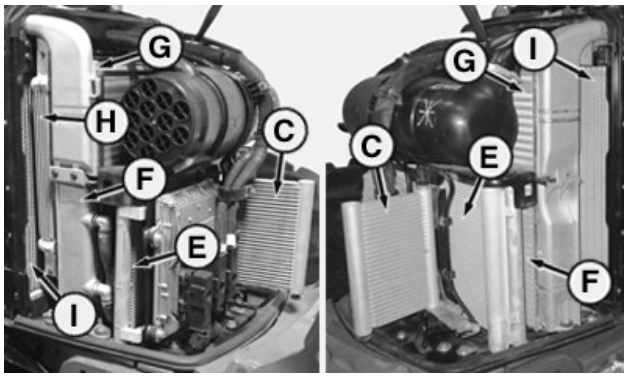
1. Remove cover (A) at both sides.



LX364355—UN—04APR19

A—Cover
B—Lock
C—Fuel Cooler
D—Protective Screen (if equipped)

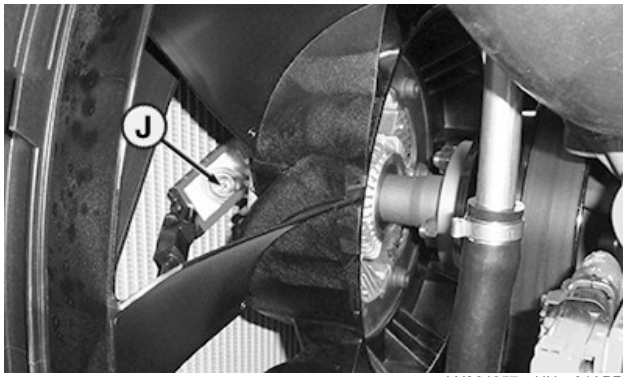
2. Unfasten lock (B) and turn fuel cooler (C) to the side.
3. Pull out the protective screen (D) and remove any dirt.
4. Carefully remove any dirt from elements (C) to (I).



LX364356—UN—04APR19

C—Fuel Cooler
E—Air-Conditioning Condenser
F—Transmission Oil Cooler
G—Charge Air Cooler
H—Front PTO Oil Cooler
I—Radiator

5. Rearrange the protective screen.
6. Reposition the fuel cooler (C) and secure it with lock (B).
7. Reinstall covers.
8. Use a mirror to check cooling fins and, if equipped, the bimetallic spring (J) of the viscous fan for dirt. Clean if necessary.



LX364357—UN—04APR19

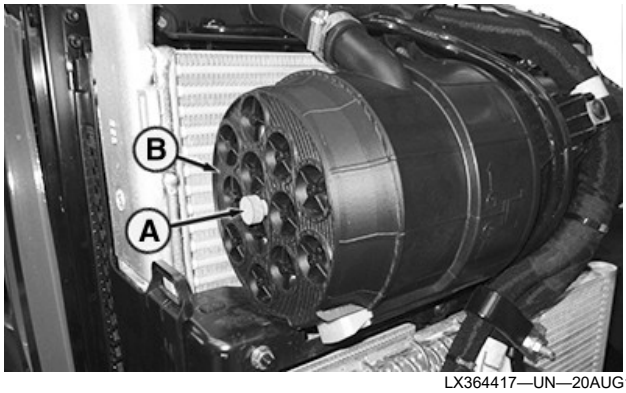
Bimetallic Spring of Viscous Fan

OULXA64,SP1,00058E0-19-20NOV20

Engine Air Cleaner - Clean Precleaner

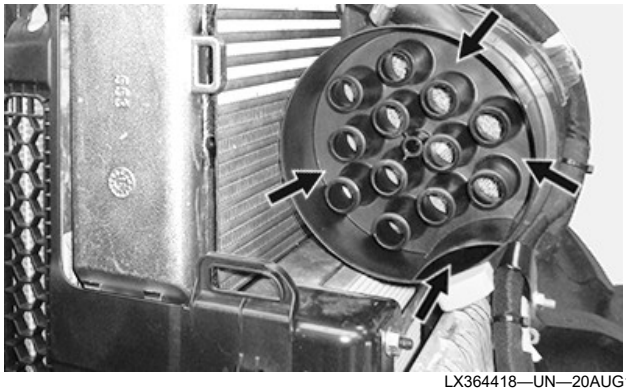
IMPORTANT: Do not run the engine without a precleaner and / or main filter element!

1. Unfasten fitting (A) and remove housing cover (B).



LX364417—UN—20AUG19

2. Check housing cover and housing for dirt, and clean if necessary.



LX364418—UN—20AUG19

3. Position the housing cover (B) and ensure that it is seated correctly.
4. Tighten fitting (A) by hand.

OULXA64,SP1,00058E1-19-20NOV20

Clean Cab Air Filters

CAUTION: It is not permitted to clean the air filter if the cab has been retrofitted with activated carbon filters. Activated carbon filters have to be replaced with new ones.

IMPORTANT: Change cab air filters every 1500 hours or 2 years, whichever comes first.

NOTE: If the cab has been retrofitted with activated carbon filters, a service interval of 500 operating hours or once every year at the latest applies.

Clean Cab Air Filters

1. Remove covers (A) on both sides.



LX234635—UN—07APR15

2. Remove filter cartridges (B) on both sides, and tap to clean them.
3. Clean air filter housing and air passages of dust.
4. For installation, follow removal procedure in reverse order.

   When positioning the filter cartridges, make sure that they sit correctly in the provided grooves.

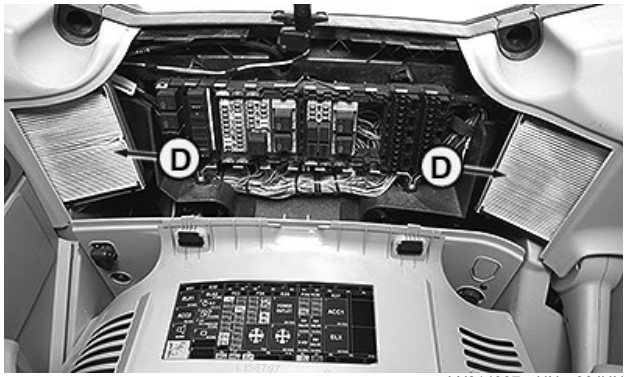
Clean Recirculation Air Filter

1. Remove cover (C).



LX314936—UN—30JUN17

2. Remove recirculation air filters (D) on both sides, and tap to clean them.



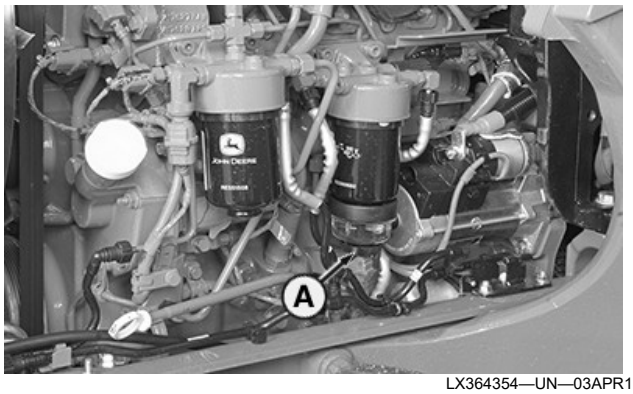
LX314937—UN—30JUN17

3. Clean air filter housing and air passages of dust.
4. For installation, follow removal procedure in reverse order.

220A,05,SP,OULXA64,00056E8-19-22DEC23

Check the Fuel Filters (4-Cylinder Engines)

If water or sediment deposits have settled in filter, proceed as follows:



LX364354—UN—03APR19

A—Drain Screw

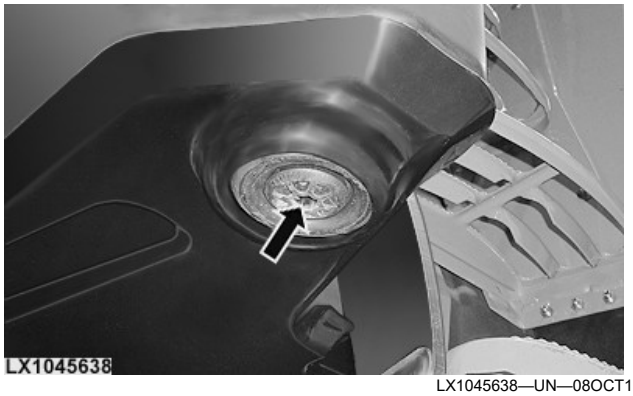
1. Open drain screw (A) by 3/4 of a turn. Retighten the screw as soon as water and sediment deposits have drained out.
2. Turn key in key switch to the right to the first switch position so that the fuel transfer pump is operating. Keep the pump running for approx. 120 seconds.

If water was present in the fuel filter, then drain water separator of the fuel tank. Refer to Service Fuel Tank in this Section.

OULXA64,SP1,4CYL,00058E3-19-30MAY23

Service Fuel Tank

Use a 1/2 inch square-section key to slacken off the drain screw by one turn. Drain water and sludge. Reinsert drain screw and tighten by hand.



LX1045638—UN—08OCT10

220A,07,ALL,25458,0000B43-19-22DEC23

Check Filter of Fuel Tank Vent (Only for Tank Caps with Bayonet Lock and a Short Shaft)

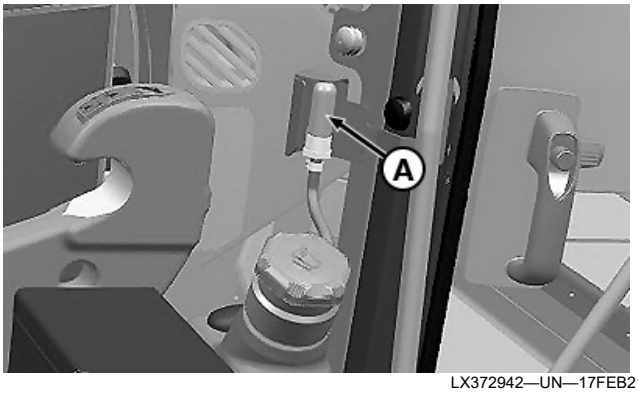
NOTE: When operating in a very dusty environment, check the tank vent filter occasionally for encrustation.

NOTE: Check filter only on tractors with the fuel cap shown.



LX514951—UN—26JUN23

1. Check filter (A) for encrustations. If necessary, unscrew and replace filter.



LX372942—UN—17FEB21

NOTE: Screw in new filter finger-tight.

2. For installation, reverse the removal procedure.

OULXA64,SP1,0005A79-19-26JUN23

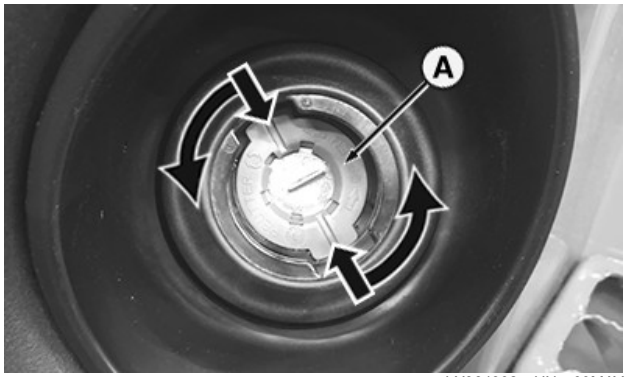
Clean Screen on Filer Neck of DEF Tank

CAUTION: Avoid contact with eyes. If there is contact, immediately flush eyes with large amounts of water for at least 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

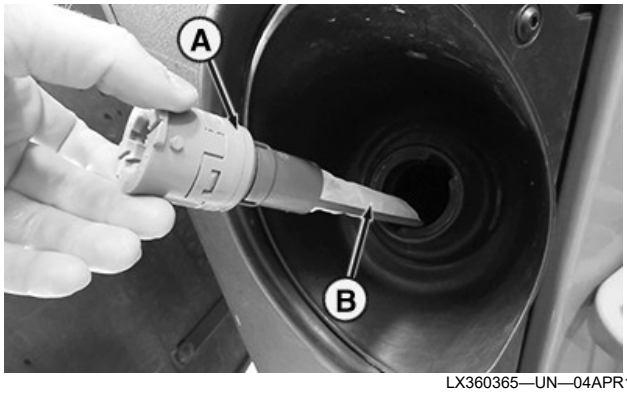
IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

Spilled DEF, if left to dry or if only wiped away with a cloth, leaves a white residue. Improperly cleaned DEF spill may interfere with diagnosis of selective catalytic reduction (SCR) system leakage problems.

1. Remove the cap of the DEF tank.
2. Turn filler neck (A) counterclockwise with a suitable tool and remove.



LX364392—UN—09MAY19



LX360365—UN—04APR19

Sample Illustration

A—Filler Neck
B—Screen

3. Clean screen (B) with distilled water or DEF and check for damage. Replace damaged parts.
4. For installation, reverse the removal procedure.

220A,09,ALL,LX25458,0000B44-19-22DEC23

Check Filter of DEF Tank Vent

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Further information can be found in the Materials Safety Data Sheet (MSDS).

IMPORTANT: When DEF comes into contact with any materials, immediately clean with water.

NOTE: When operating in a very dusty environment, check the tank vent filter occasionally for encrustation.

1. Unfasten filter (A) from holder.



LX343101—UN—05JUN18

A—Diesel Exhaust Fluid (DEF) Tank Vent Filter

2. Check filter (A) for encrustations. If necessary, unscrew and replace filter.

NOTE: Screw in a new filter finger tight.

3. For installation, reverse the removal procedure.

OULXA64,SP1,00058E4-19-20APR23

Cleaning Diesel Exhaust Fluid (DEF) Tank

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

Spilled DEF, if left to dry or if only wiped away with a cloth, leaves a white residue. Improperly cleaned DEF spill can interfere with diagnosis of Selective Catalytic Reduction (SCR) system leakage problems.

If foreign material or fluid has been added to the DEF tank, drain the DEF tank, flush, and fill with new DEF.

If DEF quality is in question, pull a sample out of the DEF tank and place into a clear container. DEF should be crystal clear with a light ammonia smell. If DEF appears cloudy, has a colored tint, or has a profound ammonia smell, it is likely not within specification. DEF in this condition should not be used.

1. Remove drain plug (if equipped), and drain or siphon bad DEF from DEF tank.

NOTE: Cleaning can take place with DEF tank installed or removed.

2. Clean DEF tank with new DEF.

   DEF must pass visual, smell, and concentration checks before running the engine. See Diesel Exhaust Fluid (DEF) – For Use In Selective Catalytic Reduction (SCR) Equipped Engines in the Fuels, Lubricants, and Coolants Section for more information.
3. Drain or siphon DEF tank.

NOTE: Repeat steps 2—3 until DEF tank has been cleaned.

4. **Early version:** Change DEF dosing unit filter and DEF tank header suction screen.

   Later version: Change DEF dosing unit filter and DEF inline filter.
5. If removed, install DEF tank drain plug.
6. If removed, install DEF tank.
7. Fill DEF tank with new DEF.
8. Check DEF concentration with DEF refractometer, such as JDG11594 or JDG11684. The correct DEF concentration is 31.8% — 33.2%. See your authorized dealer for more information.
9. If DEF is not within specification, does not appear clear, or does not have a slight ammonia smell, contact your authorized dealer.

DX,DEF,CLEANTANK-19-18SEP19

Disconnect the Electrical Circuit of Battery

CAUTION: Danger of injury, danger of explosion! Observe the safety precautions, Handling Batteries Safely in Section 05.

CAUTION:

DISCONNECT THE ELECTRICAL CIRCUIT: Disconnect ground cable at the negative terminal (—). Protect the connection points and the battery posts from being touched, e.g. by insulating them with suitable insulating tape.

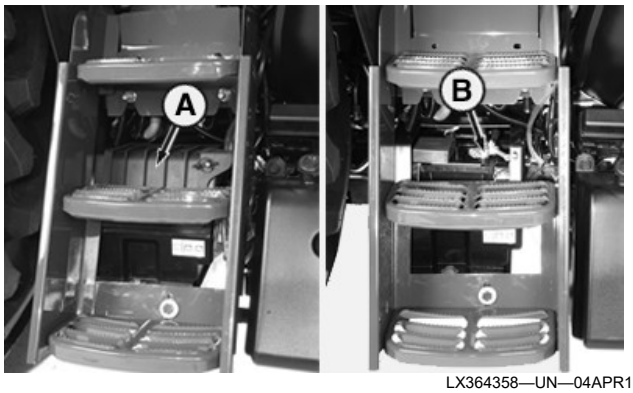
BEFORE REMOVING THE BATTERY: Disconnect all battery terminals. Always disconnect the negative terminal (—) first and then the positive terminals (+). When reconnecting the battery start with the positive terminal (+) and then connect the negative terminal (—) last. The wrong order could cause serious damage to the electrical system and in the worst case an explosion.

IMPORTANT: It is recommended to remove the battery if the vehicle will not be used for more than 30 days. Clean the battery and store it in a cool, dry place and keep it fully charged. If a battery trickle charger is used, read the manufacturer's operating instructions to check whether the device is suitable for this.

IMPORTANT: Wait at least 4 minutes after switching off the engine before disconnecting the electrical circuit. The DEF system needs this time to flush the lines. To ensure trouble-free operation of the DEF system, it is important to not interrupt this procedure by disconnecting the electrical circuit.

Disconnect Electrical Circuit:

1. Take off cover (A).



LX364358—UN—04APR19

Cover / Negative Terminal

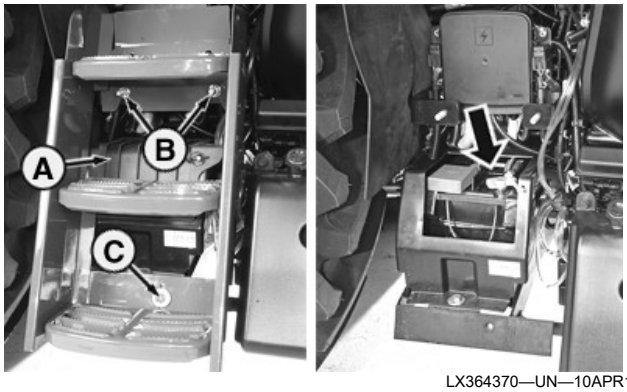
2. Disconnect ground cable at the negative terminal (–) and protect the battery posts from being touched accidentally. The version shown here has its negative terminal at the location marked (B).

For better Access to the Battery, remove the right-hand access step. See the description below.

OULXA64,SP1,00058E5-19-20JUL23

Access to the Battery

1. Remove cover (A) and, if necessary, remove the access step.



LX364370—UN—10APR19

2. Remove nuts (B) and screw (C).
3. Remove the access step.
4. For installation, follow removal procedure in reverse order.

   Tighten nuts (B) and screw (C) to the specified torque.

Specification

Access Step on Bracket, Attaching Screw—Torque	122 N·m (90 lb·ft)
Access Step on Bracket, Fastening Nuts—Torque	122 N·m (90 lb·ft)

OULXA64,SP1,00058E6-19-20NOV20

Access to Fuses

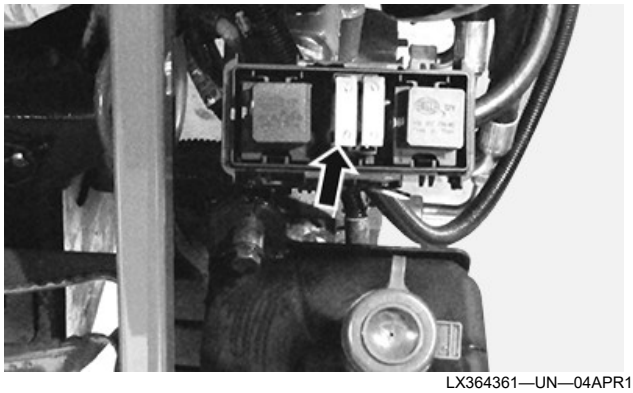
LCS - The fuses and relays of the **L**oad **C**enter **S**econdary circuit are located behind the operator's seat.



LX1056713—UN—12JUL12

LCS - Fuses and Relays

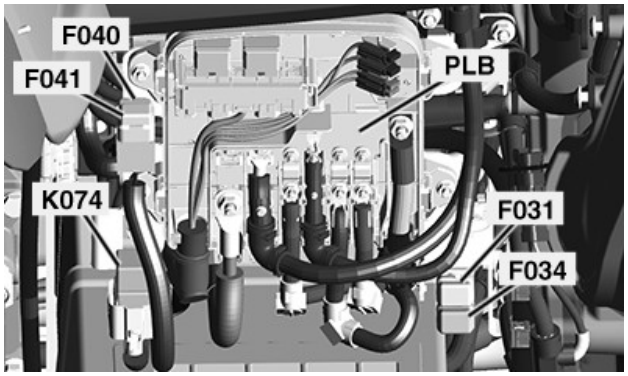
PSB - The fuses and relays of the **P**ower **S**ocket **B**ox are located next to the right access step.



LX364361—UN—04APR19

PSB - Fuses and Relays

The following fuses and relays are located behind the right access step:



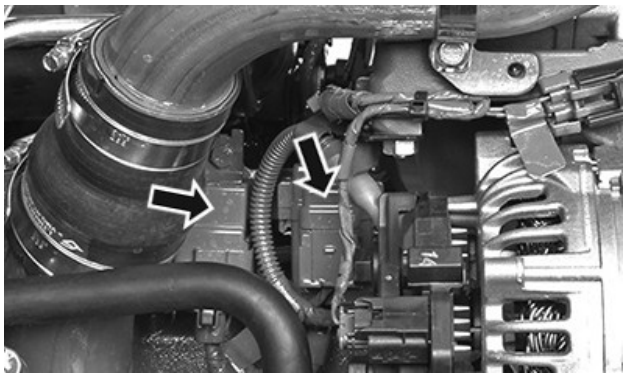
LX364360—UN—09APR19

PLB - Fuses and Relays

- **PLB** - Fuses and Relays of the **P**ower **L**ink **B**ox
- **F031** - 10A, Fuse for Radio with Battary Cut-Off Switch[1]
- **F034** - 10A, Fuse for StarFirr™ Receiver with Battary Cut-Off Switch[1]
- **F040** - 10A, Fuse for 3-Terminal Power Outlet Socket at Front Hitch (ELX)[1]
- **F041** - 30A, Fuse for 3-Terminal Power Outlet Socket at Front Hitch (BAT)[1]
- **K074** - Relay for 3-Terminal Power Outlet Socket at Front Hitch[1]

For access to the fuses and relays, remove the access step. See “Access to Battery” in this Section.

The fuse and relay of the **electrical starting aid** are located on the right side of the engine.



LX364362—UN—04APR19

Fuse on Engine

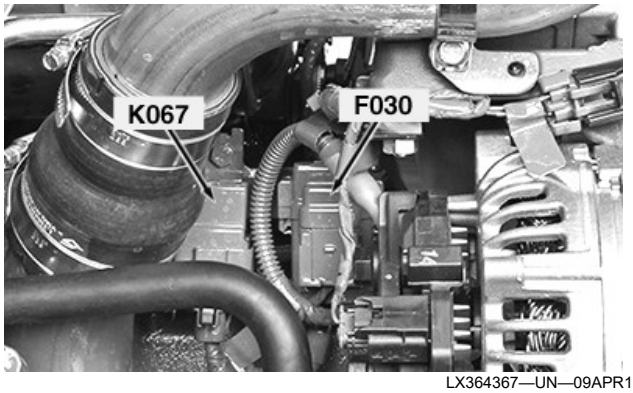
OULXA64,SP1,00058E7-19-21NOV23

Fuse and Relay of Electrical Starting Aid

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a rating higher than the one stated in the table.

IMPORTANT: Some fuse positions are vacant when the tractor is delivered. These must be left vacant until the appropriate options are retro-fitted.

The fuse (F030) and relay (K067) are on the right side of the engine.



LX364367—UN—09APR19

Fuse and Relay of Electrical Starting Aid

F30—Fuse, 70 A
K067—Relay of Electrical Starting Aid

Open the hood and remove the cover.

Check fuse (F030) or relay (K067) and replace if necessary.

Install cover and close hood.

OULXA64,SP1,00058E8-19-20NOV20

[1] *If equipped*

PLB - Fuses and Relays

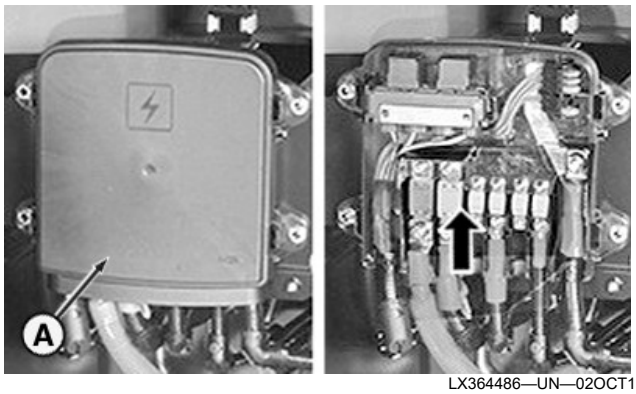
General Information

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a rating higher than the one stated in the table.

IMPORTANT: Some fuse/relay positions are vacant when the tractor is delivered. These must be left vacant until the appropriate option is retrofitted.

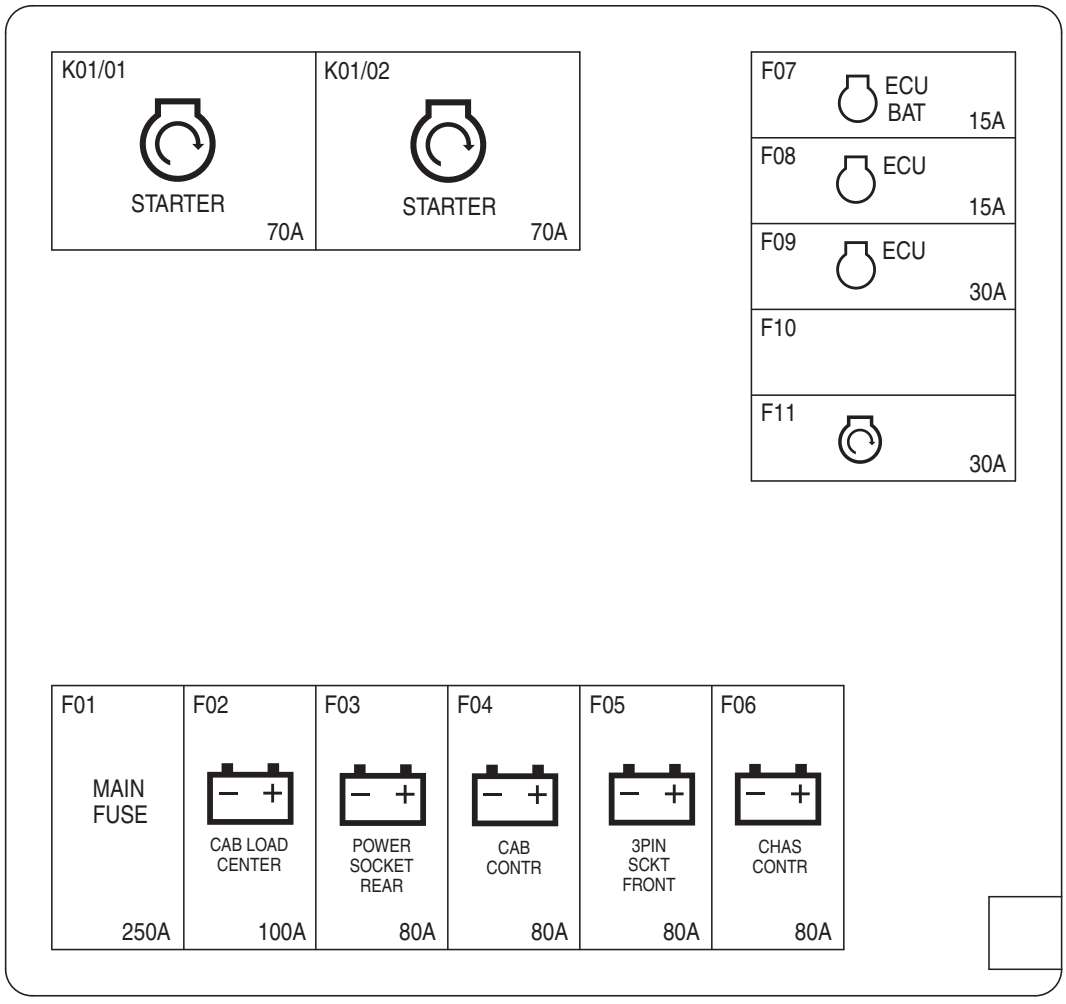
NOTE: Depending on how the tractor is equipped, it may not have all the fuses and relays shown below.

For access to the fuses and relays, remove the access step and cover (A). See Access to the Battery in this Section.



LX364486—UN—02OCT19

Overview of Fuse Box (PLB)



LX358941

LX358941—UN—31JUL18

Fuses and Relays (PLB)

Fuse Number	Rating (Ampere)	Consumer	Torque
F01_PLB	250 A	Main	11 N·m (8.1 lb·ft)
F02_PLB	100 A	Power Supply for Fuse and Relay Box (LCS)	11 N·m (8.1 lb·ft)
F03_PLB	80 A	Power Supply for Fuse and Relay Box (PSB)	4.5 N·m (3.3 lb·ft)
F04_PLB	80 A	Power Supply for Cab Control Unit	4.5 N·m (3.3 lb·ft)
F05_PLB	80 A	Power Supply for 3-Terminal Power Outlet Socket (Front Hitch)	4.5 N·m (3.3 lb·ft)
F06_PLB	80 A	Power Supply for Rear Chassis Control Unit	4.5 N·m (3.3 lb·ft)
F07_PLB	15 A	Engine Control Unit (BAT)	-
F08_PLB	15 A	Engine Control Unit (BAT)	-
F09_PLB	30 A	Engine Control Unit (BAT)	-
F10_PLB	-	Not used	-
F11_PLB	30 A	Starter Motor (Solenoid Switch)	-

Relay Number	Rating (Ampere)	Consumer
K01/01_PLB	70 A	Starter Relay 1
K01/02_PLB	70 A	Starter Relay 2

OULXA64,SP,00056F4-19-12OCT20

LCS - Fuses and Relays, Part 1

General Information

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a rating higher than specified on the arrangement diagram.

IMPORTANT: Some fuse positions are vacant when the tractor is delivered. These must be left vacant until the appropriate options are retro-fitted.

NOTE: Depending on how the tractor is equipped, it may not have all the fuses and relays shown below.

LCS - The fuses and relays of the **L**oad **C**enter **S**econdary circuit are located behind the operator's seat.

Press down the latches and remove the cover.



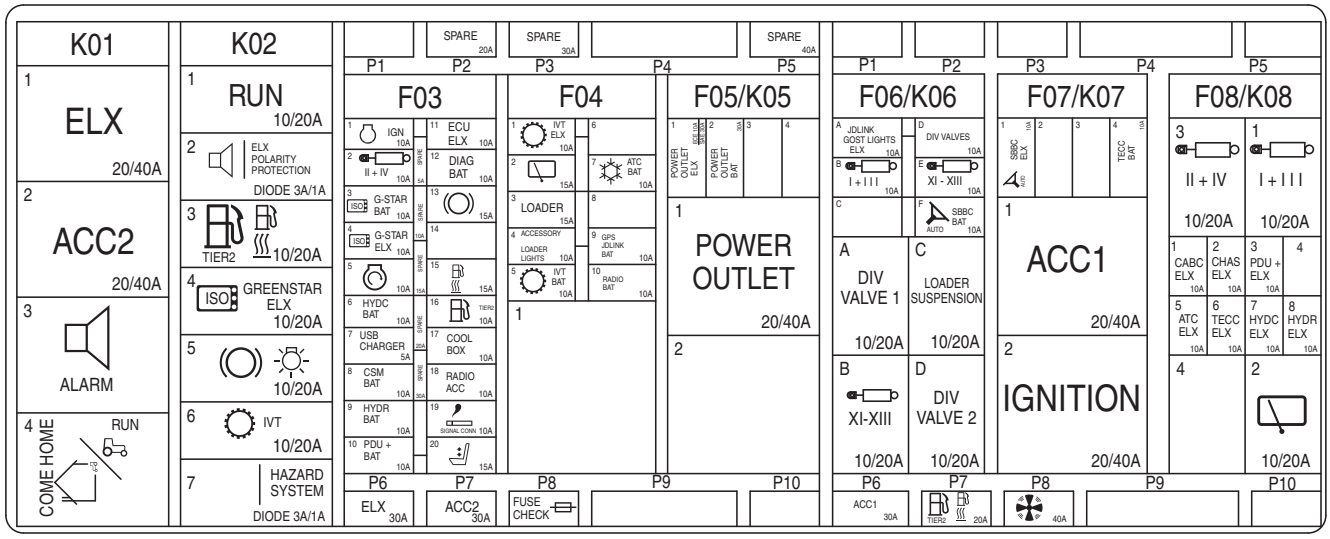
LX1058125—UN—06SEP12



LX1058126—UN—06SEP12

LCS - Fuse and Relay Box

LCS - Summary of Fuse and Relay Box



LX358940

LX358940—UN—30JUL18

OULXA64,SP,00056F2-19-11FEB21

LCS - Fuses and Relays, Part 2

LCS-01 - Relays

Relay Number	Rating (Ampere)	Consumer
K01/01_LCS	20/40 A	Relay for Power Supply to Electronics (ELX1)
K01/02_LCS	20/40 A	Relay for Power Supply to Electronics (ELX2)
K01/03_LCS	-	Acoustic Alarm, Component Information
K01/04_LCS	-	Come-Home Connector, Component Information

LCS-02 - Relays and Diodes

Relay Number	Rating (Ampere)	Consumer
K02/01_LCS	10/20 A	Ignition Relay
K02/02_LCS	1 A	Diode for Acoustic Alarm
K02/02_LCS	3 A	Diode for Power Supply to Electronics (ELX1)
K02/03_LCS	10/20 A	Fuel Preheater Relay[a] Relay for Fuel Pump and Fuel Preheater[b]
K02/04_LCS	10/20 A	Relay for GreenStar™ (AMS)
K02/05_LCS	10/20 A	Relay for Brake Light
K02/06_LCS	10/20 A	Relay For Transmission Enable (AutoPowr™/IVT™ Transmission)
K02/07_LCS	1 A	Not used
K02/07_LCS	3 A	Diode for Hazard Warning Light

[a] *Tractors with Final Tier 4/Stage IV diesel engines (ECU Level 34), engine serial number: CD4045UXXXXXX*
[b] *Tractors with Tier 2/Stage II diesel engines, (ECU Level 16) engine serial number CD4045GXXXXXX*

LCS-03 - Fuses

Fuse Number	Rating (Ampere)	Consumer
F03/01_LCS	10 A	Power Supply of Switched Plus (IGN)
F03/02_LCS	10 A	Stepper Motors E-SCV II, E-SCV IV
F03/03_LCS	10 A	GreenStar™ (AMS), External Monitor (BAT)
F03/04_LCS	10 A	GreenStar™ (AMS) (ELX)
F03/05_LCS	10 A	Key Switch
F03/06_LCS	10 A	Front Chassis Control Unit (BAT)
F03/07_LCS	5 A	USB Charger
F03/08_LCS	10 A	Cab Switch Module Control Unit (BAT)
F03/09_LCS	10 A	Control Unit for E-SCV and Front Loader (BAT)
F03/10_LCS	10 A	Corner Post Display, Immobilizer Control Unit (BAT)
F03/11_LCS	10 A	Engine Control Unit, Immobilizer Control Unit (ELX)
F03/12_LCS	10 A	Service Socket (X571)
F03/13_LCS	15 A	Brake Lights
F03/14_LCS	-	Not used
F03/15_LCS	15 A	Fuel Preheater
F03/16_LCS	10 A	Fuel Pump[a]
F03/17_LCS	10 A	Electrical Cooling Compartment
F03/18_LCS	10 A	Radio (ACC)
F03/19_LCS	10 A	Cigarette Lighter, Signal Socket (ACC)
F03/20_LCS	15 A	Operator’s Seat (ACC)

[a] *Tractors with Tier 2/Stage II diesel engines, (ECU Level 16) engine serial number CD4045GXXXXXX*

LCS-04 - Fuses and Relays

Fuse Number	Rating (Ampere)	Consumer
F04/01_LCS	10 A	Transmission Control Unit (AutoPowr™/IVT™ Transmission) (ELX)
F04/02_LCS	15 A	Rear Window Wiper / Washer Pump (ELX)
F04/03_LCS	15 A	X037F-1 - Connector for Accessories (Lead 0362), Front Loader, Pickup Hitch (E-PUH) (ELX)
F04/04_LCS	10 A	X037F-3 - Connector for Accessories (Lead 0372), Front Loader, Front Loader Worklights (ELX)
F04/05_LCS	10 A	Transmission Control Unit (AutoPowr™/IVT™ Transmission) (BAT)
F04/06_LCS	-	Not used
F04/07_LCS	10 A	Air Conditioner Control Unit (BAT)
F04/08_LCS	-	Not used
F04/09_LCS	10 A	JDLink™, StarFire™ Receiver without Battary Cut-Off Switch (BAT)
F04/10_LCS	10 A	Radio without Battary Cut-Off Switch (BAT)

Relay Number	Rating (Ampere)	Consumer
K04/1_LCS	-	Not used

LCS-05 - Fuses and Relays

Fuse Number	Rating (Ampere)	Consumer
F05/01_LCS	10 A 30 A	3-Terminal Power Outlet Socket, Auxiliary Power Outlet Socket Strip (ECE) (ELX) 3-Terminal Power Outlet Socket, Auxiliary Power Outlet Socket Strip, 7-Terminal Power Outlet Socket (SAE) (ELX)
F05/02_LCS	30 A 30 A	3-Terminal Power Outlet Socket, Auxiliary Power Outlet Socket Strip (ECE) (BAT) 3-Terminal Power Outlet Socket, Auxiliary Power Outlet Socket Strip (SAE) (BAT)
F05/03_LCS	-	Not used
F05/04_LCS	-	Not used

Relay Number	Rating (Ampere)	Consumer
K05/1_LCS	20/40 A	Relay for Power Supply to the Sockets (ELX)
K05/2_LCS	-	Not used

LCS-06 - Fuses and Relays

Fuse Number	Rating (Ampere)	Consumer
F06/A_LCS	10 A	JDLink™, Trailering Signal Lights (Regional Option) (ELX)
F06/B_LCS	10 A	Stepper Motors E-SCV I, E-SCV III
F06/C_LCS	-	Not used
F06/D_LCS	10 A	Relay for Front Loader
F06/E_LCS	10 A	Stepper Motors E-SCV XI, E-SCV XII, E-SCV XIII
F06/F_LCS	10 A	Steering Control Unit (AutoTrac™) (BAT)

Relay Number	Rating (Ampere)	Consumer
K06/A_LCS	10/20 A	Relay for Control Valve 1 (Front Loader)
K06/B_LCS	10/20 A	Relay for Stepper Motors E-SCV XI, E-SCV XII, E-SCV XIII
K06/C_LCS	10/20 A	Relay for Loader Suspension System (Front Loader)
K06/D_LCS	10/20 A	Relay for Control Valve 2 (Front Loader)

LCS-07 - Fuses and Relays

Fuse Number	Rating (Ampere)	Consumer
F07/01_LCS	10 A	Steering Control Unit (AutoTrac™) (ELX)
F07/02_LCS	-	Not used
F07/03_LCS	-	Not used
F07/04_LCS	10 A	Control Unit TEC (BAT)

Relay Number	Rating (Ampere)	Consumer
K07/1_LCS	20/40 A	Relay for Power Supply to Accessories (ACC)
K07/2_LCS	20/40 A	Relay for Power Supply of Switched Plus (IGN)

LCS-08 - Fuses and Relays

Fuse Number	Rating (Ampere)	Consumer
F08/01_LCS	10 A	Cab Control Unit (ELX)
F08/02_LCS	10 A	Rear Chassis Control Unit (ELX)
F08/03_LCS	10 A	Corner Post Display (ELX)
F08/04_LCS	-	Not used
F08/05_LCS	10 A	Air Conditioner Control Unit (ELX)
F08/06_LCS	10 A	Control Unit TEC (ELX)
F08/07_LCS	10 A	Front Chassis Control Unit (ELX)
F08/08_LCS	10 A	Control Unit for E-SCV and Front Loader (ELX)

Relay Number	Rating (Ampere)	Consumer
K08/1_LCS	10/20 A	Relay for Stepper Motors E-SCV I, E-SCV III
K08/2_LCS	10/20 A	Relay for Rear Window Wiper / Washer Pump
K08/3_LCS	10/20 A	Relay for Stepper Motors E-SCV II, E-SCV IV
K08/4_LCS	-	Not used

LCS-FRAME1 - Fuses

Fuse Number	Rating (Ampere)	Consumer
F01FRM/P1_LCS	-	Not used
F01FRM/P2_LCS	-	Not used (Spare Fuse 20 A)
F01FRM/P3_LCS	-	Not used (Spare Fuse 30 A)
F01FRM/P4_LCS	-	-
F01FRM/P5_LCS	-	Not used (Spare Fuse 40 A)
F01FRM/P6_LCS	30 A	Power Supply to Electronics (ELX1)
F01FRM/P7_LCS	30 A	Power Supply to Electronics (ELX2)
F01FRM/P8_LCS	-	Fuse Tester
F01FRM/P9_LCS	-	Not used
F01FRM/P10_LCS	-	Not used

LCS-FRAME2 - Fuses

Fuse Number	Rating (Ampere)	Consumer
F02FRM/P1_LCS	-	Not used
F02FRM/P2_LCS	-	Not used
F02FRM/P3_LCS	-	Not used
F02FRM/P4_LCS	-	Not used

Fuse Number	Rating (Ampere)	Consumer
F02FRM/P5_LCS	-	Not used
F02FRM/P6_LCS	30 A	Power Supply for Accessories (ACC)
F02FRM/P7_LCS	20 A 20 A	Fuel Preheater [a] Fuel Pump and Fuel Preheater[b] Fuel Pump
F02FRM/P8_LCS	40 A	Fan Motors
F02FRM/P9_LCS	-	Not used
F02FRM/P10_LCS	-	Not used

[a]Tractors with Final Tier 4/Stage IV diesel engines (ECU Level 34), engine serial number: CD4045UXXXXXX
[b]Tractors with Tier 2/Stage II diesel engines, (ECU Level 16) engine serial number CD4045GXXXXXX

OULXA64,SP,00056F3-19-21NOV23

PSB - Fuses and Relays

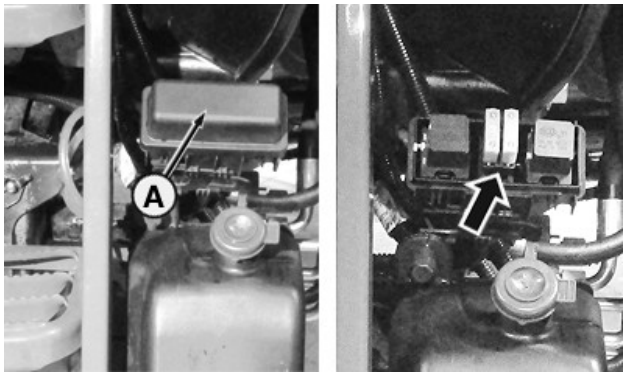
General Information

IMPORTANT: To prevent damage to the electrical system, never use a fuse with a rating higher than the one stated in the table.

IMPORTANT: Some fuse/relay positions are vacant when the tractor is delivered. These must be left vacant until the appropriate option is retrofitted.

NOTE: Depending on how the tractor is equipped, it may not have all the fuses and relays shown below.

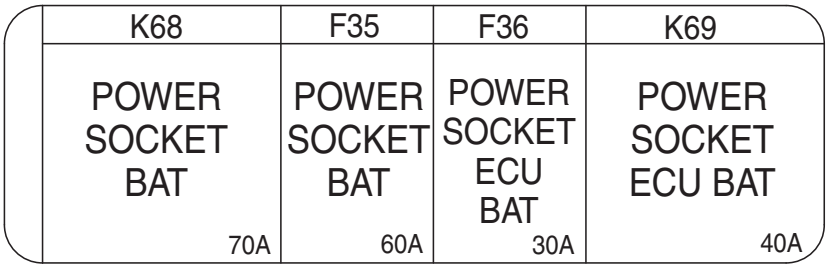
For access to the fuses and relays, remove the access step and cover (A). See Access to the Battery in this Section.



LX364369—UN—10APR19

Behind right-hand Access Step

Overview of the Fuse Box (PSB)



LX1058150

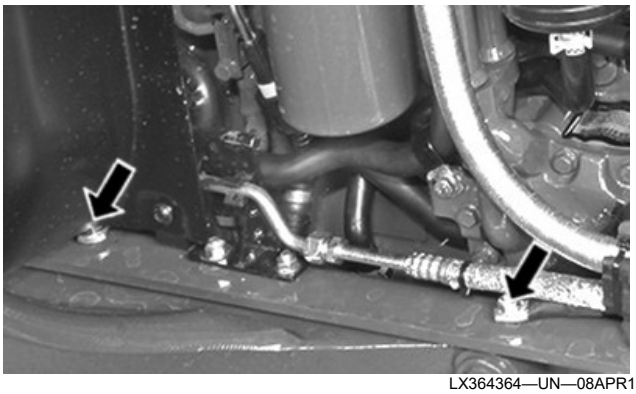
LX1058150—UN—11SEP12

Fuses and Relays (PSB)

Fuse Number	Rating (Ampere)	Consumer	Relay Number	Rating (Ampere)	Consumer
F35_PSB	60 A	Fuse for Implement Sockets (Power Supply for Components) (BAT)	K068_PSB	70 A	Relay for Power Supply to Implements (Power Supply to Components) (BAT)
F36_PSB	30 A	Fuse for Implement Sockets (Power Supply to Implement Control Units) (BAT)	K069_PSB	20/40 A	Relay for Power Supply to Implements (Power Supply to Implement Control Units) (BAT)

OULXA64,SP1,00058E9-19-20NOV20

Check Engine Ground Connection



LX364364—UN—08APR19

Check the ground cable for signs of wear or damage. Check if the attaching screws are tight.

Replace the ground cable if it is damaged.

OULXA64,SP1,00058EA-19-20NOV20

Starter Motor

If the starter motor does not rotate when the starter switch is activated, carry out a thorough check of the starter system. Check battery for sufficient charge level. Check whether a cable is broken or worn through and that no cable connections are loose or oxidized.

If the starter motor still does not rotate after rectifying these possible causes for malfunction, then it needs to be checked and repaired.

LX25458,ALL,0000B51-19-10JUL25

Check Safety Device of PTO Actuation

IMPORTANT: Perform check of safety device separately for front and rear PTOs.

1. Engage park lock.
2. Start the engine and let it run.
3. Engage the PTO and check whether the PTO stub shaft is turning.

NOTE: When checking the rear PTO, select/engage a PTO speed.

4. Shut off the engine without disengaging the PTO.
5. Start the engine once again and let it run. The PTO must not start to turn.
6. If the power take-off starts up, the safety device needs to be repaired.

LX25458,ALL,0000B52-19-10JUL25

Check the Movement Inhibitor (PowrQuad™ PLUS Transmission and AutoQuad™ PLUS Transmission)

1. Place range shift lever in NEUTRAL position (A).



LX364209—UN—22JAN19

2. Move reverse drive lever (B) to forward or reverse position.



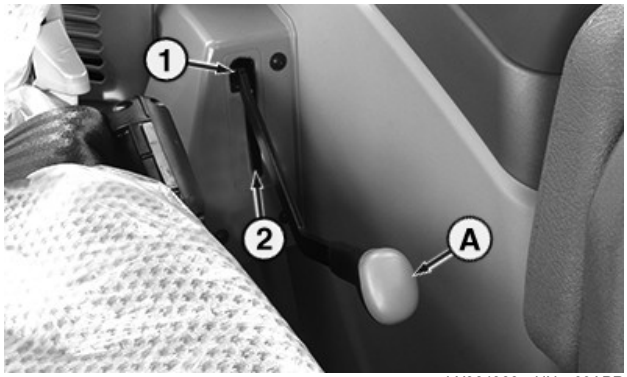
LX364365—UN—08APR19

3. Start the engine and wait 6-7 seconds. The N display must light up.
4. Depress the clutch and engage any range. Slowly release the clutch pedal. The tractor must NOT start to move. If it does, contact a John Deere dealer or other service provider immediately.

OULXA64,SP,00056F8-19-16JUL25

Check the Movement Inhibitor (CommandQuad™ Transmission)

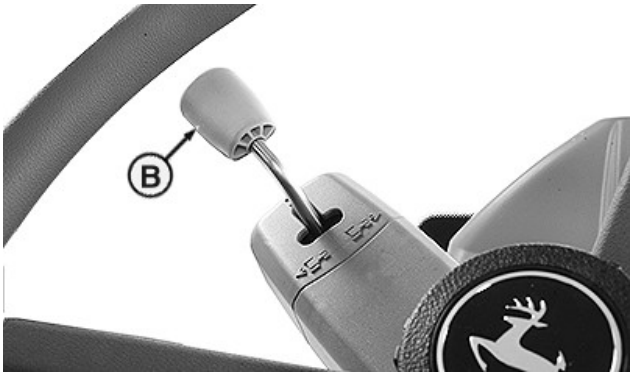
1. Move lever (A) to position (1) to engage the park lock.



LX364366—UN—09APR19

A—Park Lock Lever
1—Park Lock Engaged
2—Park Lock Disengaged

2. Move reverse drive lever (B) to forward or reverse position.



LX364365—UN—08APR19

B—Reverse Drive Lever

3. Start the engine and wait 6-7 seconds. The N display must light up.
4. Engage the brake.
5. Move lever (A) to position (2) to disengage the park lock.
6. Release brake and actuate the speed control pedal or hand throttle. The tractor must NOT start to move. If it does, contact a John Deere dealer or other service provider immediately.

OULXA64,SP,00056F9-19-16JUL25

Check the Movement Inhibitor (AutoPowr™/IVT™ Transmission)

1. Move reverse drive lever (A) to forward or reverse position.



LX372926—UN—18NOV20

A—Reverse Drive Lever

2. Start the engine and wait 6-7 seconds. The N display must light up.
3. Depress the clutch and slowly release the clutch pedal. The tractor must NOT start to move. If it does, contact a John Deere dealer or other service provider immediately.

OULXA64,SP,0005868-19-16JUL25

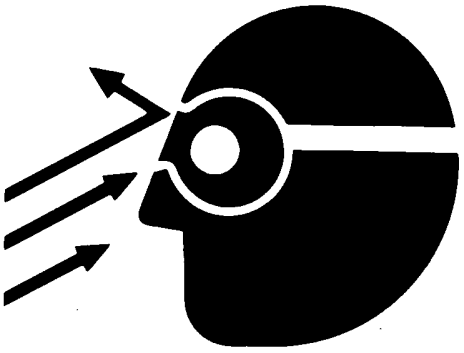
Light Test

Check that the lights are operating correctly, especially before driving on public roads.

Comply with all legal regulations.

220B,700,ALL,LX25458,0000B54-19-02APR24

Handling Halogen Bulbs Safely



TS266—UN—23AUG88



H39474—UN—30JUN00

A—Halogen Bulb

CAUTION: Halogen bulb (A) contains gas under pressure. Handling the halogen bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

- **Switch off the light and allow the halogen bulb to cool down before exchanging it. Leave switch off until the halogen bulb has been exchanged.**
- **Wear safety goggles and gloves.**
- **Hold the halogen bulb only by its base. Keep the halogen bulb away from oil. Wear gloves to prevent contact with the glass.**
- **Do not let the halogen bulb fall and make sure that it does not get scratched. Keep moisture away.**
- **Do not use bulbs that fell down or have scratches on the glass (danger of splintering).**
- **Place a used halogen bulb in the carton of the new halogen bulb and dispose of it properly. Keep out of reach of children.**

220B,701,ALL,LX25458,0000B55-19-02APR24

Safe Maintenance and Cleaning



TS249—UN—23AUG88

CAUTION: To perform service jobs at inaccessible locations, it is essential to use scaffolding, platforms, or safety ladders.

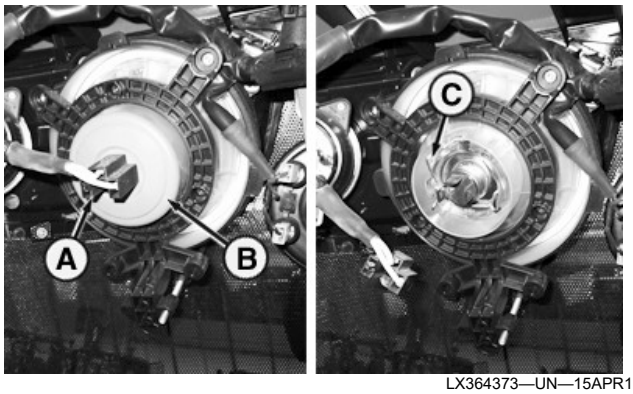
Special care has to be taken when performing cleaning and maintenance work in inaccessible areas, e.g. when adjusting the roof lights, maintenance work on the cooling system, when adjusting the right-hand outer mirror on tractors without a right-hand door, and many other similar tasks.

CAUTION: It is NOT permitted to perform these jobs by climbing on tractor components that are not intended for that purpose. There is a particularly acute danger of falling if the tractor components are wet, dirty, or iced over.

220B,702,ALL,LX25458,0000B56-19-02APR24

Replace Bulb of Headlight in the Engine Hood

1. Switch off lighting and let bulbs cool down.
2. Open engine hood and disconnect connector (A).



LX364373—UN—15APR19

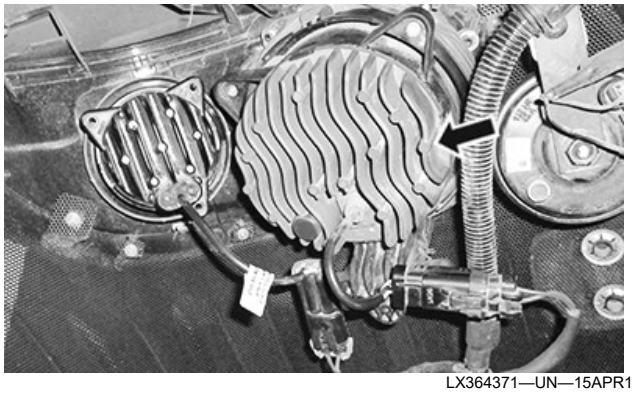
3. Remove cover (B) and unfasten the clamp (C).



LX364374—UN—16APR19

4. Position new bulb with a clean cloth and fixate with clamp (C).
5. Install cover (B) and connector (A).
6. Close engine hood.

NOTE: In the case of LED lights, replace the entire LED light.

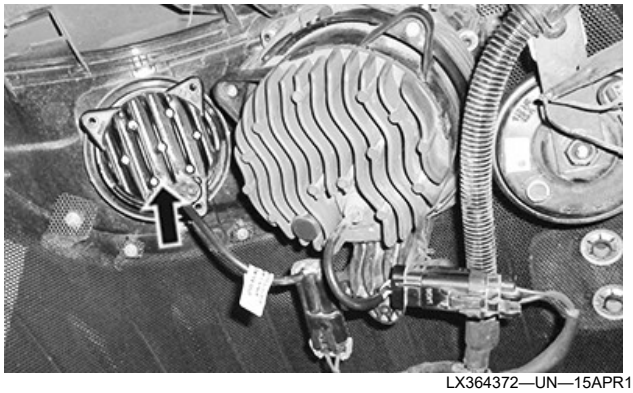


LX364371—UN—15APR19

LED Headlight

220B,710,MC,OULXA64,00058EB-19-02APR24

NOTE: In the case of LED lights, replace the entire LED light.



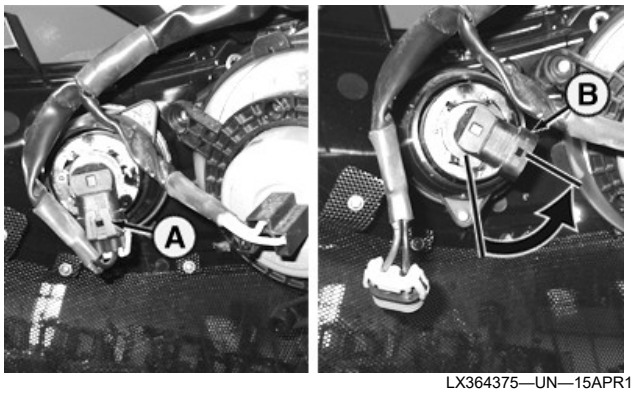
LX364372—UN—15APR19

LED Worklight

220B,713,MC,OULXA64,00058EC-19-02APR24

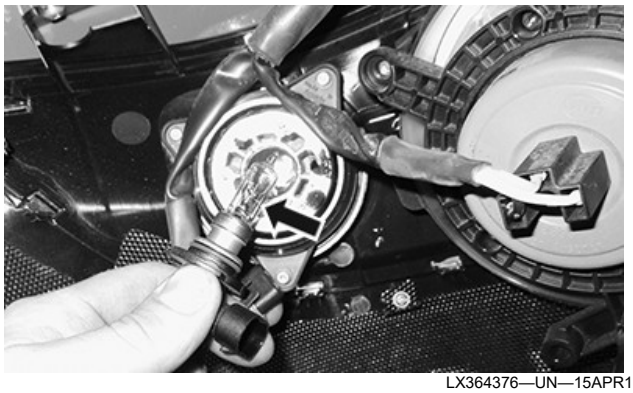
Replace Bulb of Worklight in the Engine Hood

1. Switch off lighting and let bulbs cool down.
2. Open engine hood and disconnect connector (A).



LX364375—UN—15APR19

3. Turn the socket (B) counterclockwise and remove it.
4. Using a clean cloth, install a new bulb.

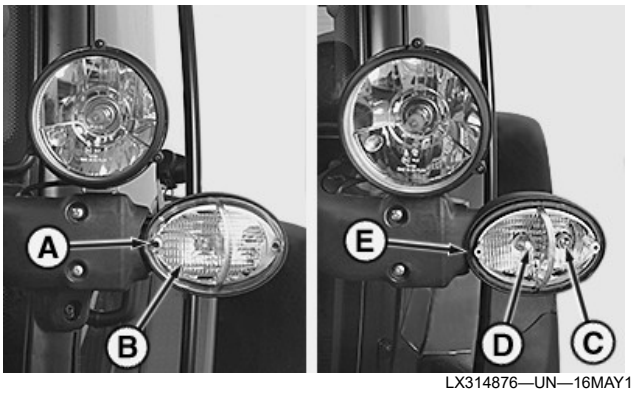


LX364376—UN—15APR19

5. Position socket (B) in the housing and turn clockwise.
6. Attach connector (A) and close engine hood.

Replace Bulb of Turn Signal and Clearance Lights on Cab Frame

1. Switch off lighting and let bulbs cool down.
2. Remove screws (A); remove headlight lens (B).



LX314876—UN—16MAY17

3. **Change bulb (C) of the turn signal light**:
   a. To remove the bulb (C), press it in and turn it counterclockwise.
   b. Using a clean cloth, position the new bulb and install it by pressing it in and turning it clockwise.
4. **Change bulb (D) of clearance light:**
   a. To remove the bulb (D), press it in and turn it counterclockwise.
   b. Using a clean cloth, position the new bulb and install it by pressing it in and turning it clockwise.

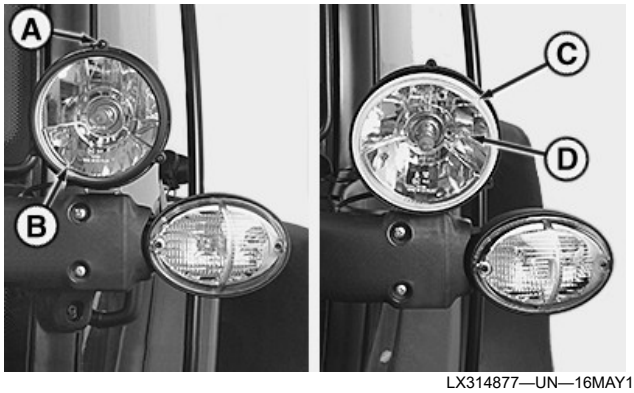
NOTE: Ensure seal (E) is seated correctly.

5. Position the headlight lens (B) and tighten the screws (A).

220B,715,ALL,OULXA64,0005A12-19-02APR24

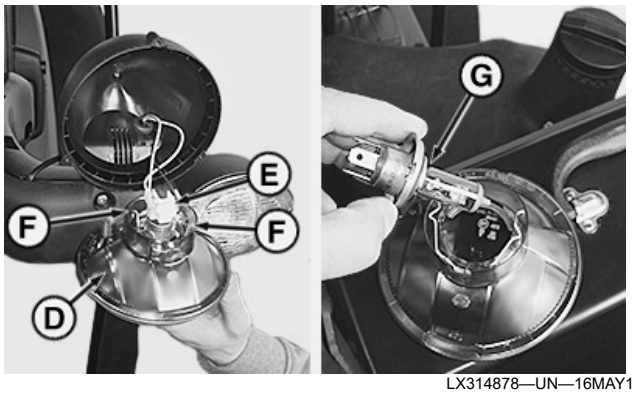
Replace Bulb of Headlights on Cab Frame

1. Switch off lighting and let bulbs cool down.
2. Remove screws (A) and take out mounting frame (B).



LX314877—UN—16MAY17

3. Remove seal (C) and separate light (D) from housing.
4. Disconnect connector (E) and release clamp (F).



LX314878—UN—16MAY17

5. Remove bulb (G).
6. Position new bulb with a clean cloth and fixate with the clamps (F).
7. Install connector (E) and position the light (D) in the housing.
8. Install seal (C) and make sure it is seated correctly.
9. Position mounting frame (B) and tighten screws (A).

NOTE: On LED lights, replace the LED light module, or, if necessary, the entire light.



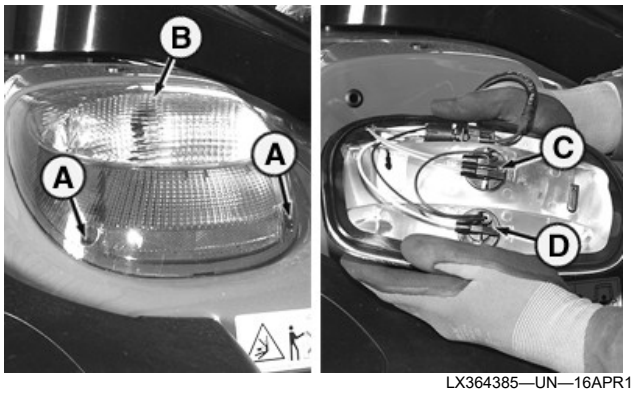
LX364382—UN—16APR19

LED Light

220B,716,ALL,OULXA64,0005A13-19-02APR24

Replace Bulb of Tail Brake Light/Turn Signal on Fender

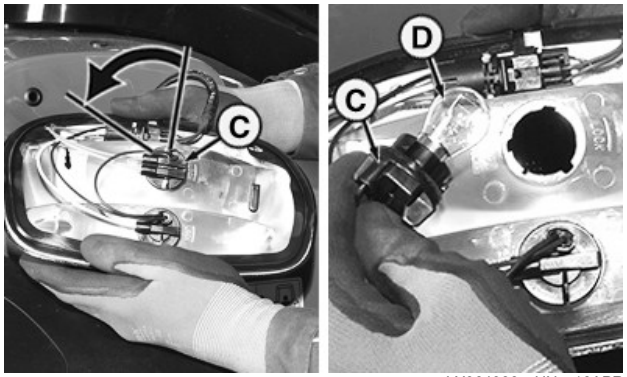
1. Switch off lighting and let bulbs cool down.
2. Take out screws (A) and remove housing (B).



LX364385—UN—16APR19

A—Screws
B—Housing
C—Socket, Brake Light
D—Socket, Turn Signal

3. **Change bulbs of tail and brake light:**



LX364386—UN—16APR19

Tail Light/Brake Light

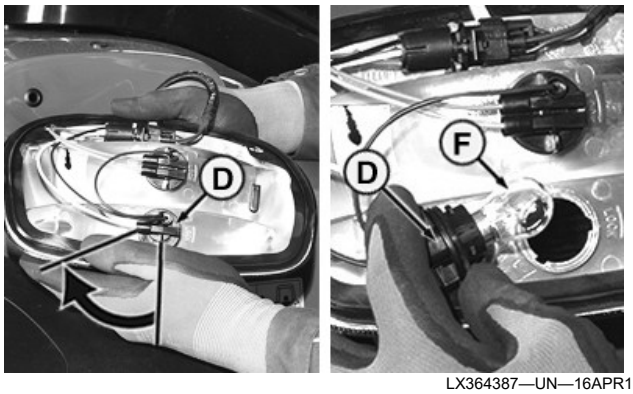
C—Socket of Tail Light and Brake Light
D—Bulb of Tail and Brake Light

a. Turn the socket (C) counterclockwise and remove it.

b. Using a clean cloth, position a new bulb (D) in the socket.

c. Position socket (C) in the housing and turn clockwise.

4. **Change bulb of turn-signal:**



LX364387—UN—16APR19

Turn-Signal Light

D—Socket, Turn-Signal
F—Bulb, Turn-Signal

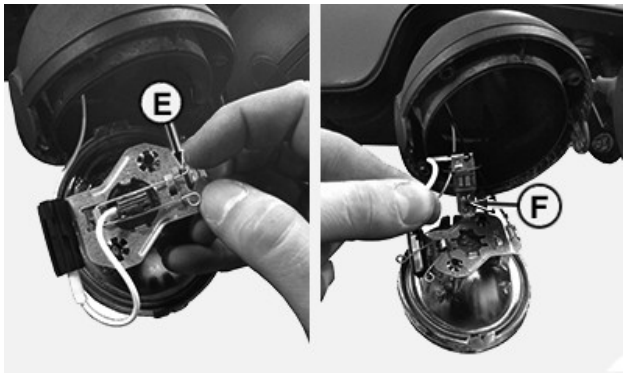
a. Turn the socket (D) clockwise and remove it.

b. Using a clean cloth, position a new bulb (F) in the socket.

c. Position socket (D) in the housing and turn counterclockwise.

5. Install housing (B) and tighten with screws (A).

220B,717,6M,LX25458,0000B5D-19-02APR24



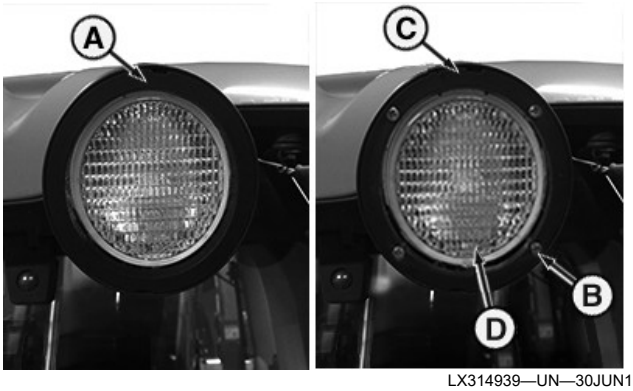
LX314940—UN—30JUN17

1. Switch off lighting and let bulbs cool down.
2. Take off cover (A).
3. Take out screws (B) and remove the retaining ring (C).
4. Separate light (D) from the housing.
5. Release lock (E) and disconnect bulb (F) from the connector.
6. Using a clean cloth, connect a new bulb to the connector.
7. Position bulb (F) in the light and install detent (E).
8. Position the light in the housing.
9. Position retaining ring (C) and tighten screws (B).
10. Install the cover (A).

NOTE: On LED lights, replace the LED light module, or, if necessary, the entire light.

220B,718,6M,OULXA64,00056FC-19-02APR24

Replace Bulb of Worklight (Round)



LX314939—UN—30JUN17

Worklights on Rear of Cab Roof

Replace Bulb of Worklight (Oval)

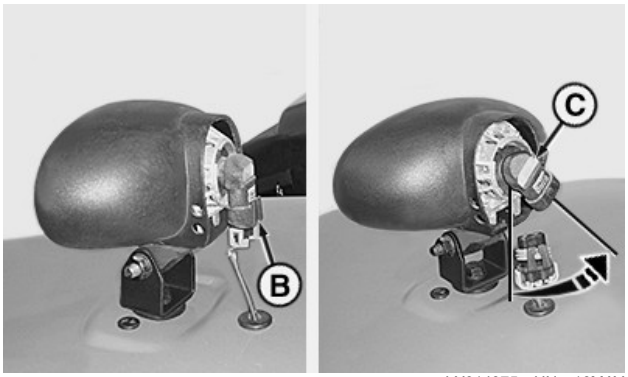
1. Switch off lighting and let bulbs cool down.
2. Take off cover (A).



LX1057351—UN—13NOV13

Worklight on Rear of Fender

3. Disconnect connectors (B).



LX314875—UN—16MAY17

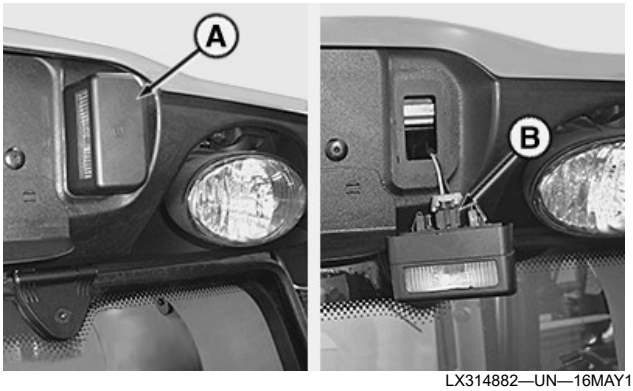
4. Rotate socket (C) counterclockwise and detach it from the housing.
5. Using a clean cloth, mount a new bulb at the socket.
6. Position socket (C) in the housing and turn clockwise.
7. Attach connector (B) and install cover (A).

NOTE: On LED lights, replace the LED light module, or, if necessary, the entire light.

220B,719,6M,OULXA64,00056FD-19-02APR24

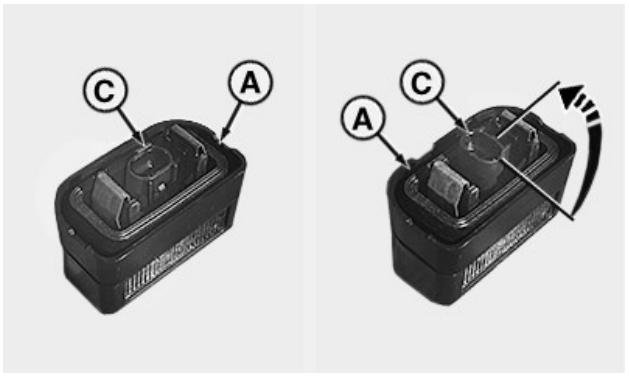
Replace Bulb of License Plate Light

1. Switch off lighting and let bulbs cool down.
2. Disconnect license plate light (A) from the cab and connector (B).



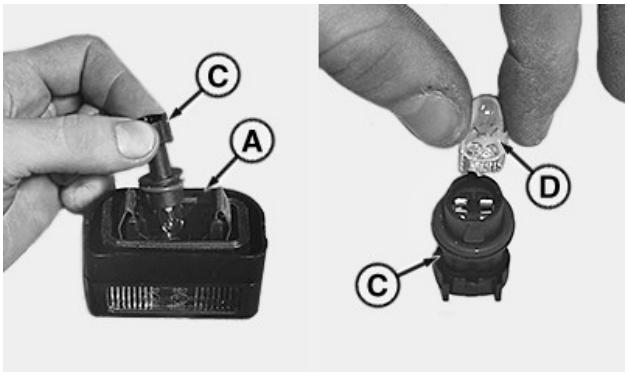
LX314882—UN—16MAY17

3. Turn the socket (C) 90° counterclockwise and remove it.



LX314883—UN—16MAY17

4. Remove bulb (D).



LX314884—UN—16MAY17

5. Using a clean cloth, position a new bulb in the socket (C).
6. Position the socket (C) in the license plate light (A) and rotate clockwise.
7. Attach connector (B) and install license plate light (A) on the roof.

220B,725,ALL,OULXA64,0005A15-19-02APR24

Replace Bulb of Beacon Light



TS249—UN—23AUG88

CAUTION: To perform service jobs at inaccessible locations, it is essential to use scaffolding, platforms or safety ladders.

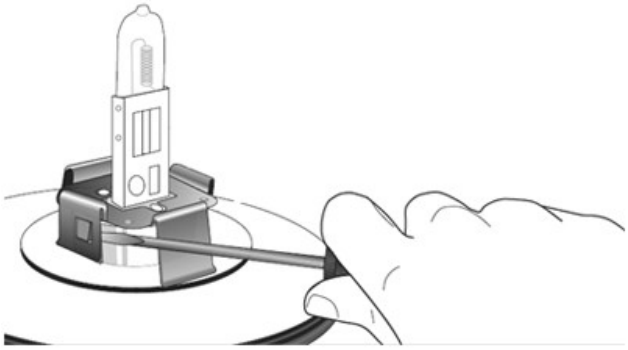
It is NOT permitted to perform these jobs by climbing on tractor components that are not intended for that purpose. There is a particularly acute danger of falling if the tractor components are wet, dirty or iced over.

1. **Removal:** Open the light.



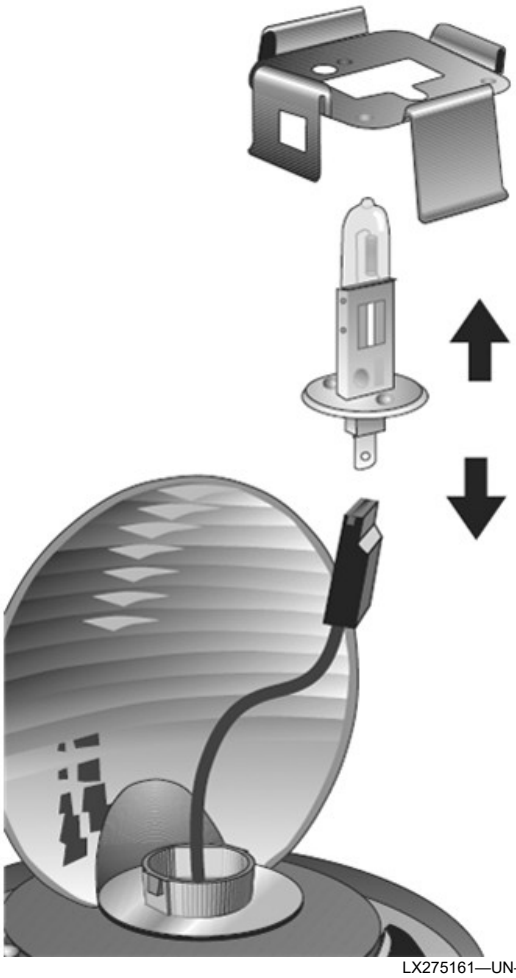
LX275159—UN—03MAR16

2. Disengage the retaining clamp.



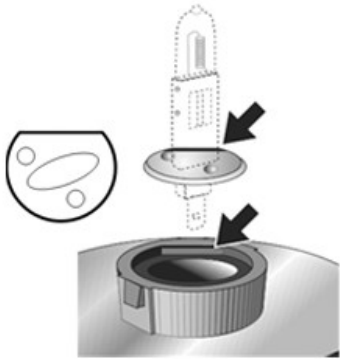
LX275160—UN—03MAR16

3. Remove the bulb.



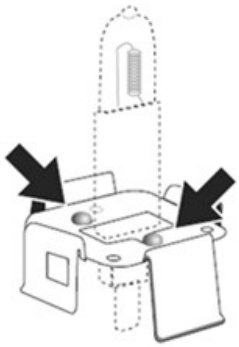
LX275161—UN—03MAR16

4. **INSTALLATION:** Connect the new bulb to the cable and insert the base of the bulb into the socket. Care must be taken to ensure that contours of the base and socket are aligned.



LX275162—UN—03MAR16

Bulb: H1 - 12V, 55W (8GH 002 089-131)



LX275163—UN—03MAR16

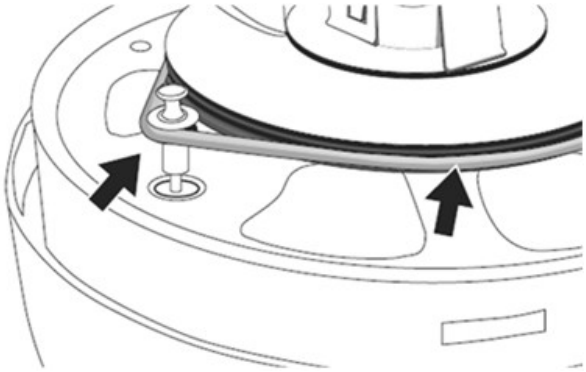
5. Put on the retaining clip and align it so that the pins on the base fit into the recesses in the retaining clip.
6. Press the retaining clip down onto the socket until it engages.



LX275164—UN—03MAR16

Then close the beacon light.

NOTE: If the drive belt has slipped off, it must be re-installed as shown.



LX275165—UN—03MAR16

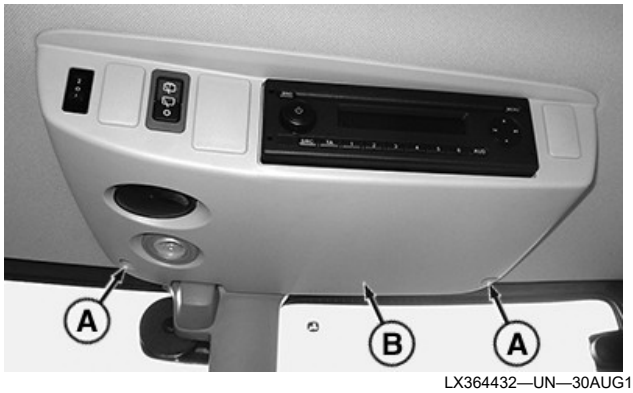
IMPORTANT: Check that the drive belt is installed correctly. The prescribed speed of rotation can only be achieved if the drive belt is installed as shown. The arrangement shown is valid if supply voltage is 12V.

IMPORTANT: Do NOT lubricate the moving parts of the beacon light.

220B,730,ALL,OULXA64,0005A16-19-02APR24

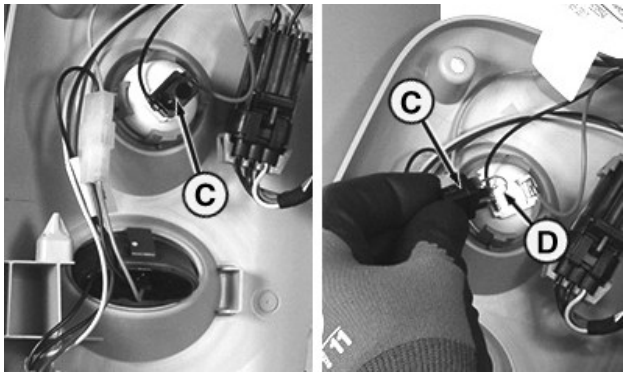
Replace Bulb of Cab Lighting

1. Switch off lighting and let bulbs cool down.
2. Remove screws (A) and remove housing (B).



LX364432—UN—30AUG19

3. Detach socket (C) from housing and remove bulb (D).



LX364380—UN—15APR19

4. Using a clean cloth, position a new bulb (D) in the socket (C).
5. Position socket (C) at housing.
6. Install housing (B) and tighten with screws (A).

220B,735,6M,OULXA64,00056FE-19-02APR24

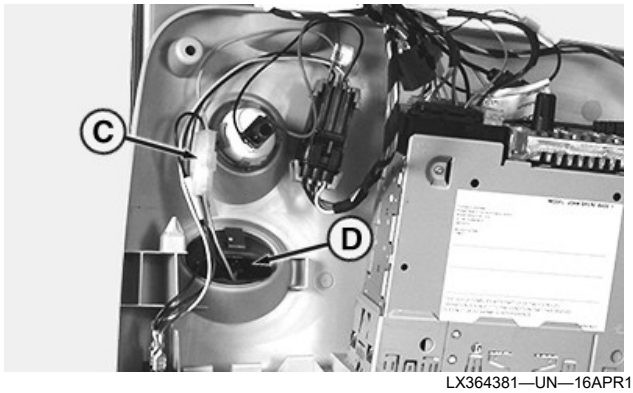
Replace Bulb of Lighting of the Transmission Shift Unit

1. Switch off lighting and let bulbs cool down.
2. Remove screws (A) and remove housing (B).



LX364432—UN—30AUG19

3. Disconnect connector (C) and remove bulb (D).

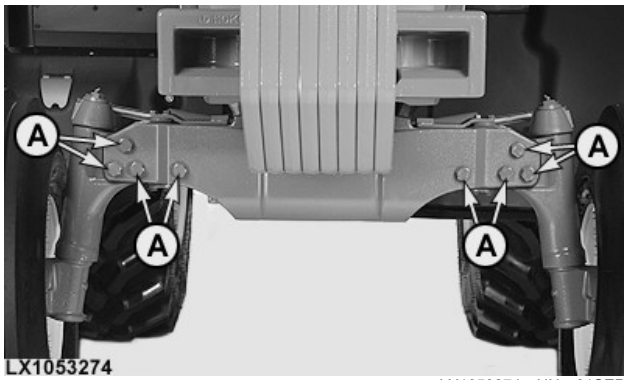


LX364381—UN—16APR19

4. Position new bulb (D) at housing and connect connector (C).
5. Install housing (B) and tighten with screws (A).

220B,740,6M,OULXA64,00056FF-19-02APR24

Tighten Front Axle Bolts—Adjustable Front Axle, Type B

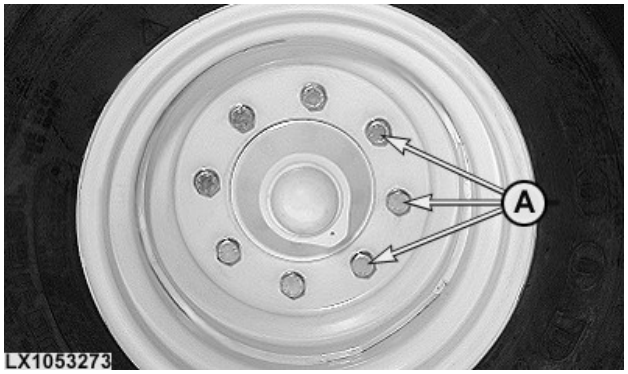


LX1053274—UN—21SEP11

A—600 N·m (445 lb·ft)

LX25458,2WD,0000B60-19-29APR22

Tighten Front Wheel Bolts—Adjustable Front Axle Type B



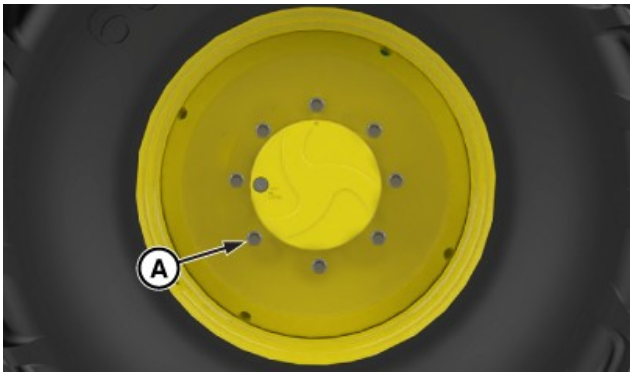
LX1053273—UN—14SEP11

A—310 N·m (230 lb·ft)

LX25458,2WD,0000B61-19-13JAN23

Tighten Front Wheel Bolts—Front-Wheel Drive Axles

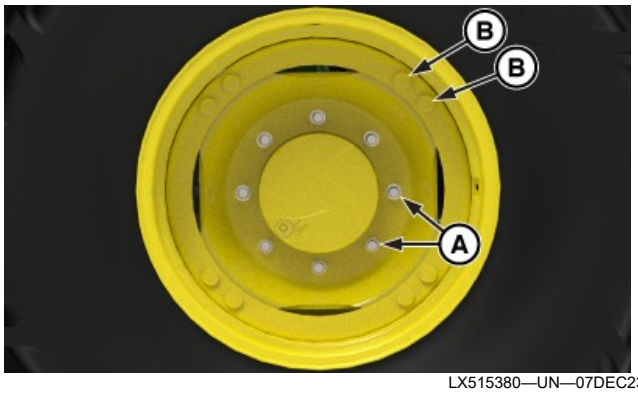
Tighten Wheel Bolts, on Vehicles with Front-Wheel Drive Axles—Front Wheel with 8-Bolt Circle



LX515379—UN—07DEC23

Front Wheel with 8-Bolt Circle and Round Wheel Dish

A—300 N·m (220 lb·ft)

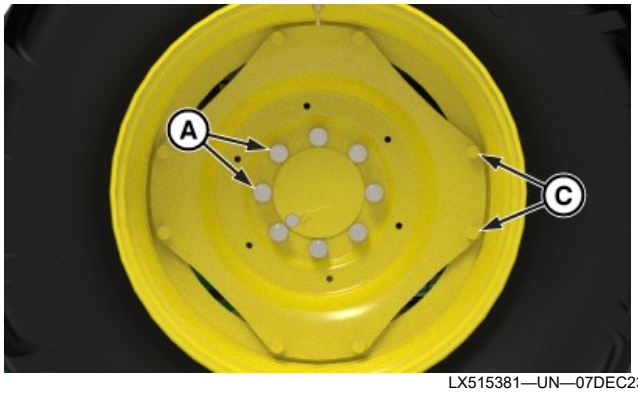


LX515380—UN—07DEC23

Front Wheel with 8-Hole Circle and Square Wheel Dish

A—300 N·m (220 lb·ft)
B—210 N·m (155 lb·ft)

Torque specifications also apply to front wheels with 8-Hole Circle and Round Wheel Dish.

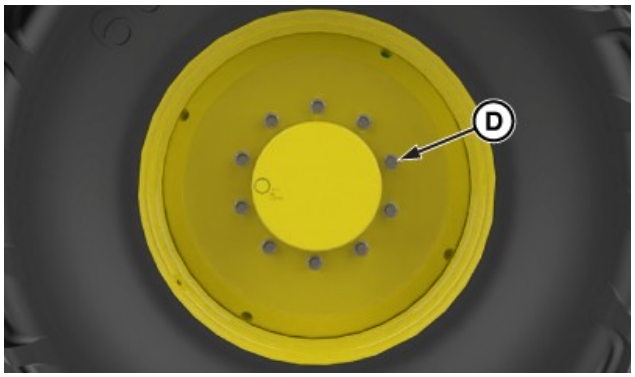


LX515381—UN—07DEC23

Front Wheel with 8-Bolt Circle and Waffle Rim

A—300 N·m (220 lb·ft)
C—Gold Bolt—280 N·m (205 lb·ft)
C—Gray-Blue Bolt—265 N·m (195 lb·ft)

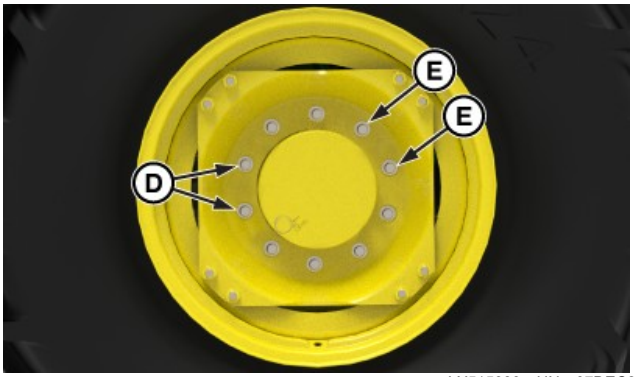
Tighten Wheel Bolts, on Vehicles with Front-Wheel Drive Axles—Front Wheel with 10-Bolt Circle



LX515382—UN—07DEC23

Front Wheel with 10-Bolt Circle and Round Wheel Dish

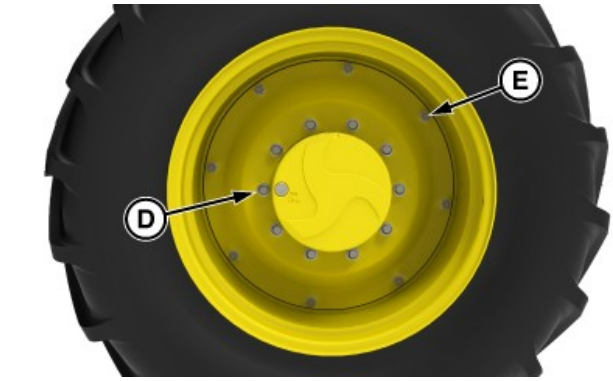
D—480 N·m (355 lb·ft)



LX515383—UN—07DEC23

Front Wheel with 10-Bolt Circle and Square Wheel Dish

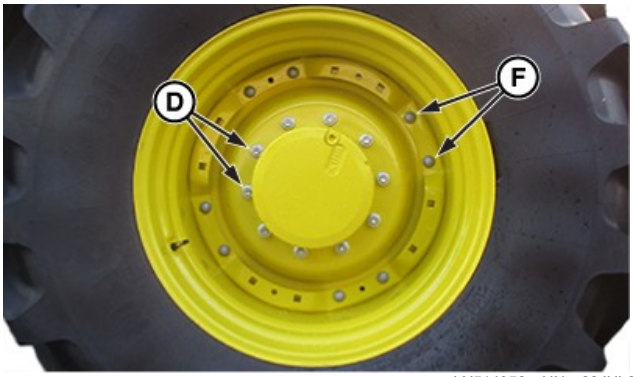
D—480 N·m (355 lb·ft)
E—210 N·m (155 lb·ft)



LX622662—UN—06DEC24

Front Wheel with 10-Bolt Circle and Round Wheel Dish

D—480 N·m (355 lb·ft)
E—210 N·m (155 lb·ft)



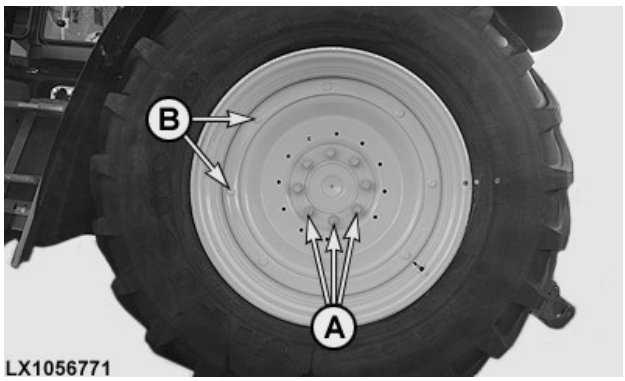
LX514952—UN—22JUL23

Front Wheel with 10-Bolt Circle and Waffle Rim

D—480 N·m (355 lb·ft)
F—Gold Bolt—280 N·m (205 lb·ft)
F—Gray-Blue Bolt—265 N·m (195 lb·ft)

LX25458,ALL,0000B62-19-19MAR25

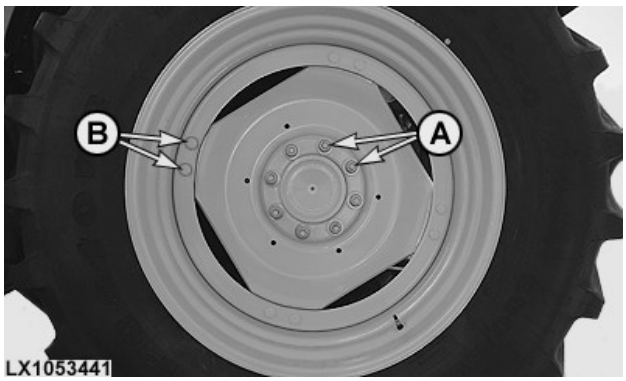
Tighten Rear Wheel Bolts—Flanged Axles



LX1056771—UN—12NOV12

Rear Wheel with 8-Hole Circle and Round Wheel Dish

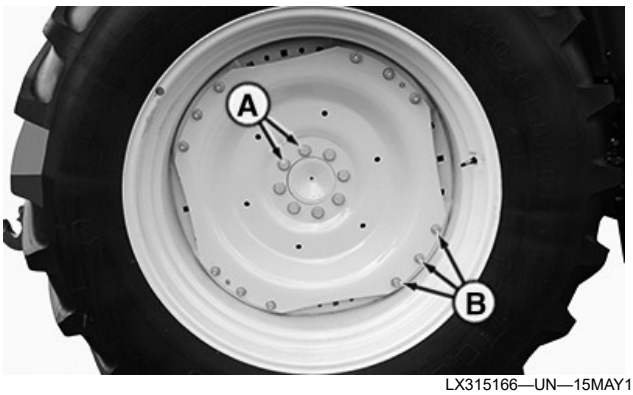
A—500 N·m (370 lb·ft)
B—210 N·m (155 lb·ft)



LX1053441—UN—21MAR12

Rear Wheel with 8-Hole Circle and Square Wheel Dish

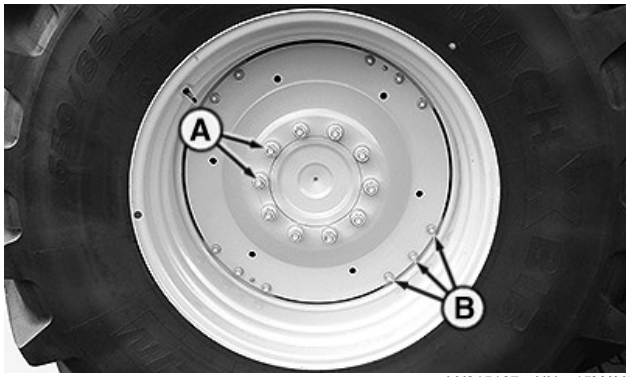
A—500 N·m (370 lb·ft)
B—210 N·m (155 lb·ft)



LX315166—UN—15MAY18

Rear Wheel with 8-Bolt Circle and Waffle Rim

A—500 N·m (370 lb·ft)
B—Gold Bolt—280 N·m (205 lb·ft)
B—Gray-Blue Bolt—265 N·m (195 lb·ft)



LX315167—UN—15MAY18

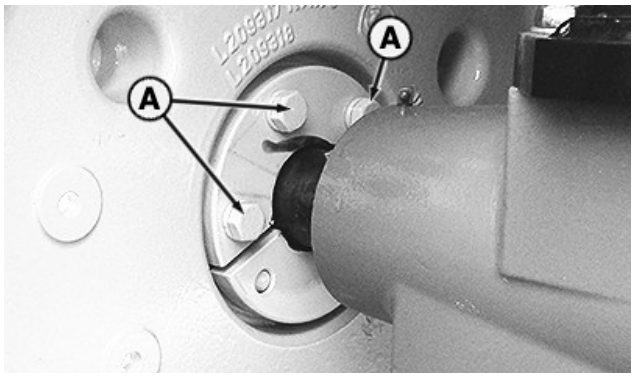
Rear Wheel with 10-Hole Circle and Waffle Rim

A—600 N·m (445 lb·ft)
B—Gold Bolt—280 N·m (205 lb·ft)
B—Gray-Blue Bolt—265 N·m (195 lb·ft)

LX25458,ALL,0000B64-19-07SEP23

Tighten Rear Wheel Bolts—Rack-and-Pinion Axles, Hub Diameter 79 mm with Single Tapered Clamping Sleeves

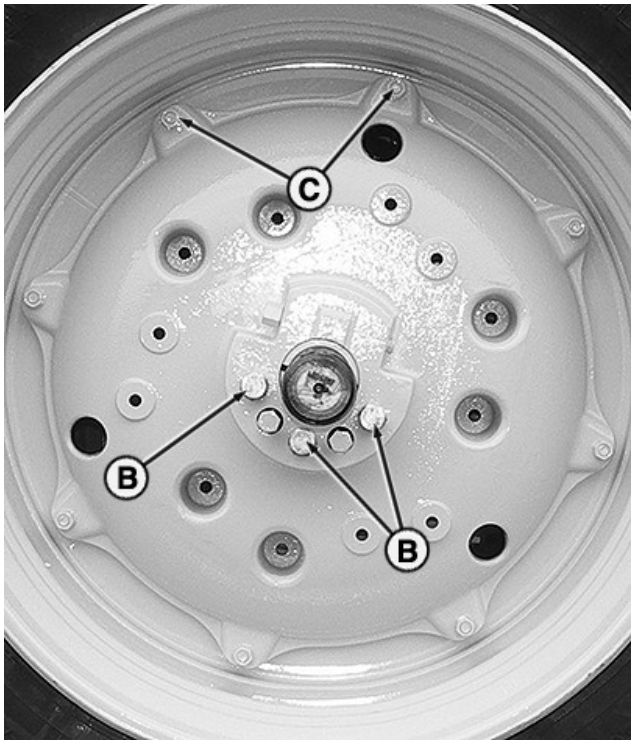
Tighten wheel bolts (A) to (C)—Cast wheel



LX315121—UN—17APR18

Pinion Hub Half to Cast Dish

A—Pinion Hub Half to Cast Dish - 220 N·m (160 lb·ft)

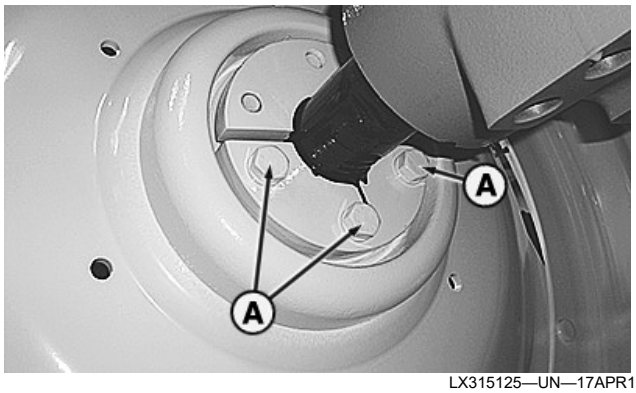


LX315120—UN—17APR18

Cast Wheel

B—Wheel Hub on Hub Half—400 N·m (300 lb·ft)
C—Rim on Cast Dish—210 N·m (155 lb·ft)

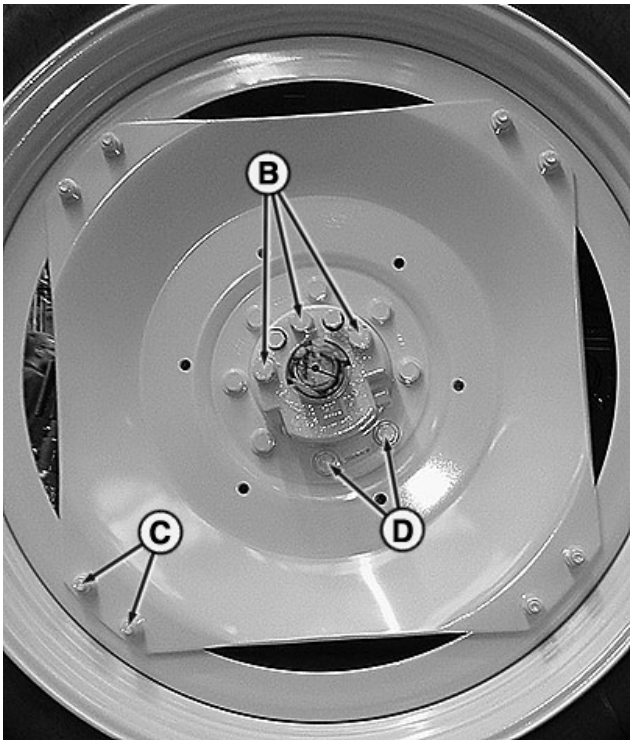
Tighten wheel bolts (A) to (D)—Steel wheel



LX315125—UN—17APR18

Pinion Hub Half to Steel Dish

A—Pinion Hub Half to Steel Dish—220 N·m (160 lb·ft)



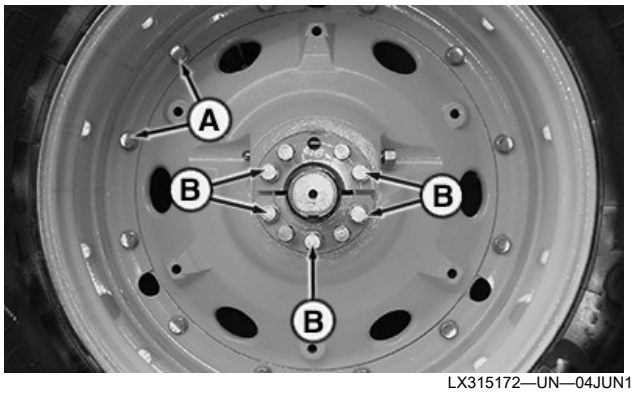
LX315124—UN—17APR18

Steel Wheel

B—Wheel Hub on Hub Half—400 N·m (300 lb·ft)
C—Rim on Steel Dish—210 N·m (155 lb·ft)
D—Steel Dish on Wheel Hub—400 N·m (300 lb·ft)

LX25458,ALL,0000B65-19-07SEP23

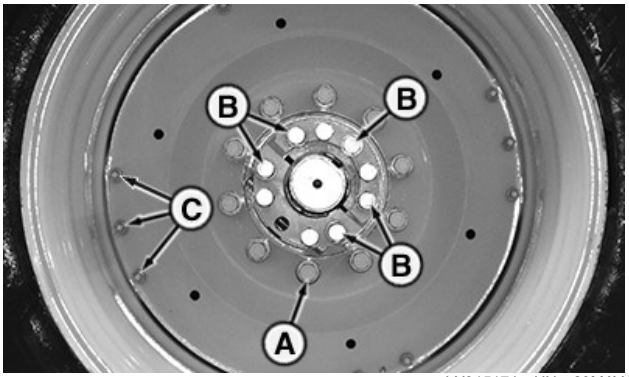
Tighten Rear Wheel Bolts—Rack-and-Pinion Axles, Hub Diameter 86, 92, and 100 mm with Single Tapered Clamping Sleeves



LX315172—UN—04JUN18

Cast Dish to Cast Hub

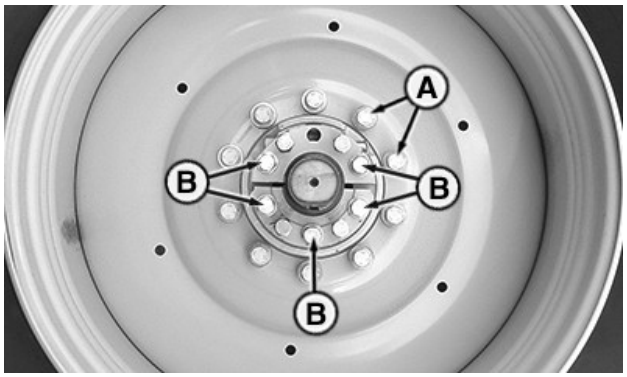
A—550 N·m (405 lb·ft)
B—550 N·m (405 lb·ft)



LX315174—UN—29MAY18

Steel Dish to Cast Hub, Verion 1

A—600 N·m (445 lb·ft)
B—550 N·m (405 lb·ft)
C—Gold Bolt—280 N·m (205 lb·ft)
C—Gray-Blue Bolt—265 N·m (195 lb·ft)



LX315173—UN—04JUN18

Steel Dish to Cast Hub, Verion 2 (Not for all Models Avalible)

A—600 N·m (445 lb·ft)
B—550 N·m (405 lb·ft)

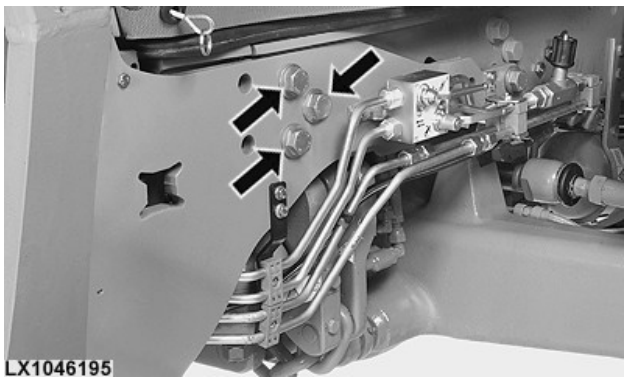
LX25458,ALL,0000B66-19-07SEP23

Tighten Screws of Wheel Weights

See Change Wheel Weights Safely in Section 100.

LX25458,ALL,0000B67-19-13OCT20

Check Hardware Torque of Front Hitch -



LX1046195—UN—14JUN11

Check the hardware torque of the attaching screws to specification on both sides.

Front hitch to main frame

- Gold Bolt—550 N·m (405 lb·ft)
- Gray-Blue Bolt—500 N·m (370 lb·ft)

OULXA64,ALL,0005701-19-07SEP23

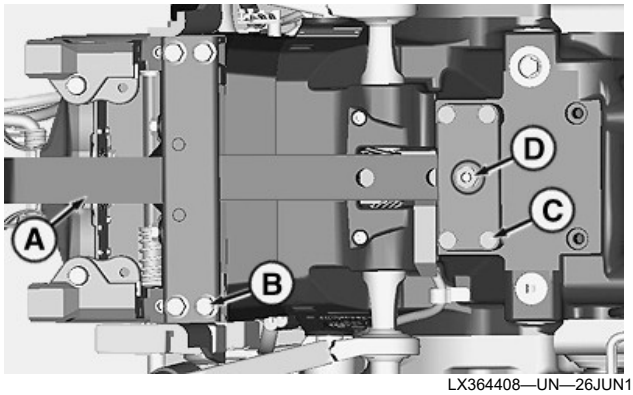
Front Loader Mounting Frame (Maintenance)

IMPORTANT: Check torques of attaching screws at regular intervals. Comply with Operator's Manual and Installation Instructions for maintaining the front loader.

LX25458,ALL,0000B68-19-13OCT20

Tighten Screws of CAT II Drawbar

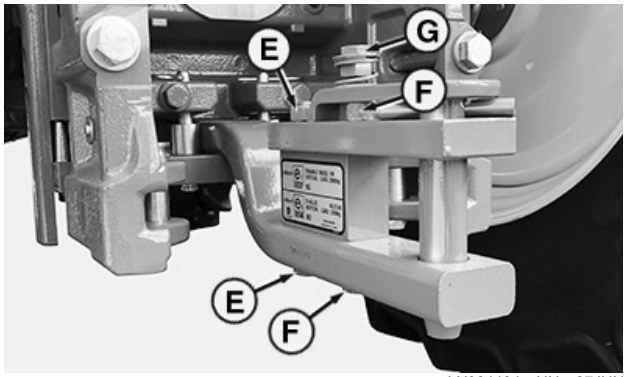
CAT II Drawbar—Standard Version



LX364408—UN—26JUN19

CAT II Drawbar—Standard Version

A—Drawbar
B—Screw (4 used)—310 N·m (230 lb·ft)
C—Screw (4 used)—310 N·m (230 lb·ft)
D—Stopper Plug (1 used)—310 N·m (230 lb·ft)

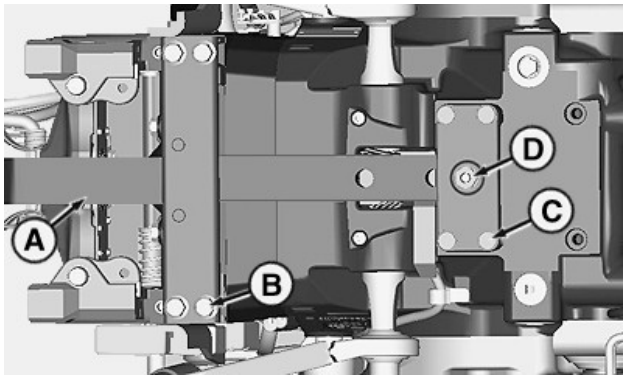


LX364404—UN—27JUN19

CAT II Drawbar—Standard Version

E—Bolt and Nut—520 N·m (385 lb·ft)
F—Bolt and Nut—375 N·m (275 lb·ft)
G—Nut—70 N·m (50 lb·ft)

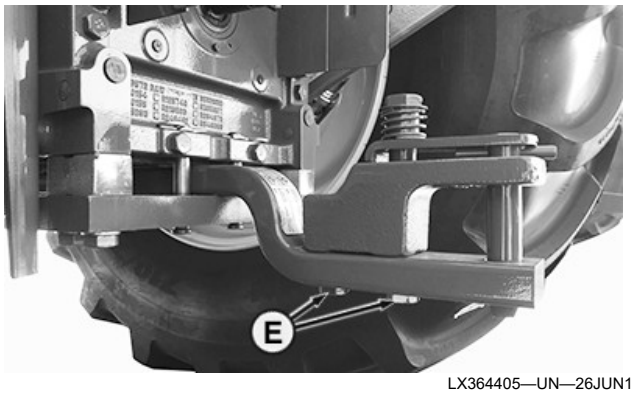
CAT II Drawbar—Heavy-Duty Type



LX364408—UN—26JUN19

CAT II Drawbar—Heavy-Duty Type

A—Drawbar
B—Screws, M16 (4 used)—310 N·m (230 lb·ft)
B—Screws, M20 (4 used)—490 N·m (360 lb·ft)
C—Screws, M16 (4 used)—260 N·m (190 lb·ft)
C—Screws, M20 (4 used)—610 N·m (450 lb·ft)
D—Stopper Plug (1 used)—310 N·m (230 lb·ft)



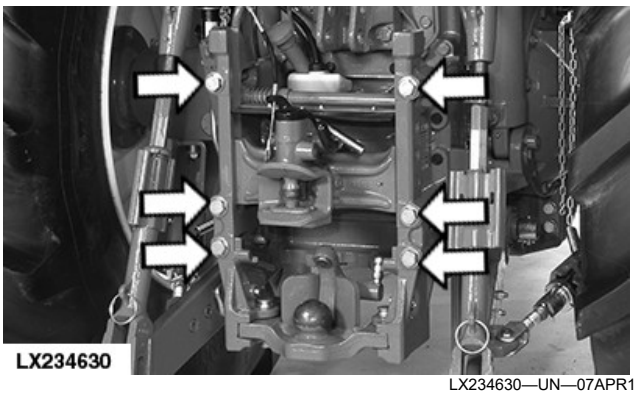
LX364405—UN—26JUN19

CAT II Drawbar—Heavy-Duty Type

E—Screw (2 used)—435 N·m 320 lb·ft)

LX25458,ALL,0000B69-19-07SEP23

Tighten Screws of Trailer Hitch, Guide Rails



LX234630—UN—07APR15

Guide Rails to PTO Housing Attaching Screws	Hardware torque
Gray/gray-blue	475 N·m (350 lb·ft)

NOTE: The torque of 475 N·m (350 lb·ft) applies to factory-fitted trailer hitches only.

Please refer to the relevant installation instructions for the tightening torque of retrofitted trailer hitches.

LX25458,ALL,0000B6A-19-21APR23

Tighten Screws of Piton-Fix or Ball-Type Trailer Hitch (Rigid)



LX622478—UN—24JUN24

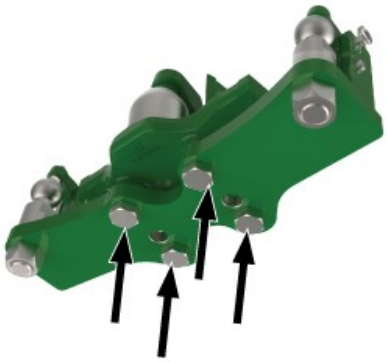
Piton Fix/Ball-Type Trailer Hitch

Check the hardware torques of the attaching screws.

- Hardware Torque, Bracket to Trailer Hitch—650 N·m (480 lb·ft)

220C,80,oulxa64,1718882446568-19-24JUN24

Tighten Screws of Ball-Type Hitch with Attached Arms for Forced Steering



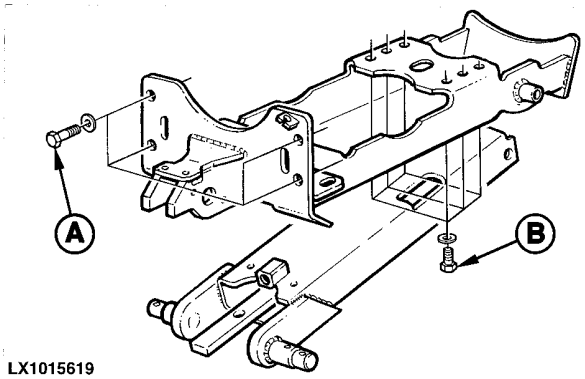
LX622479—UN—24JUN24

Check the hardware torques of the attaching screws.

- Hardware Torque, Forced Steering Arm to Trailer Hitch—490 N·m (360 lb·ft)

LX25458,ALL,0000B6B-19-20JUN24

Tighten Screws of Pickup Hitch



LX1015619—UN—08JAN97

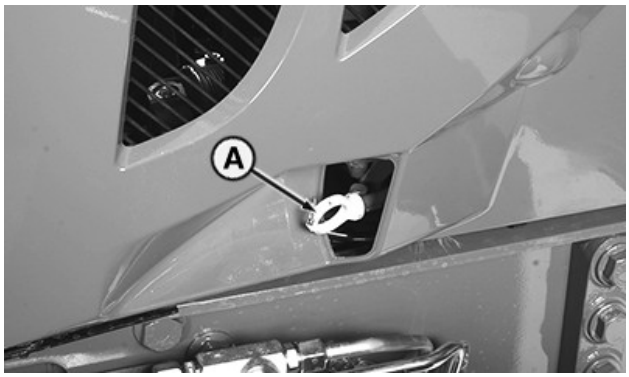
Check the hardware torques of the attaching screws (A) and (B).

Attaching Screws (A)	
M20	500 N·m (370 lb·ft)
Attaching Screws (B)	
M16	310 N·m (230 lb·ft)
M20	500 N·m (370 lb·ft)

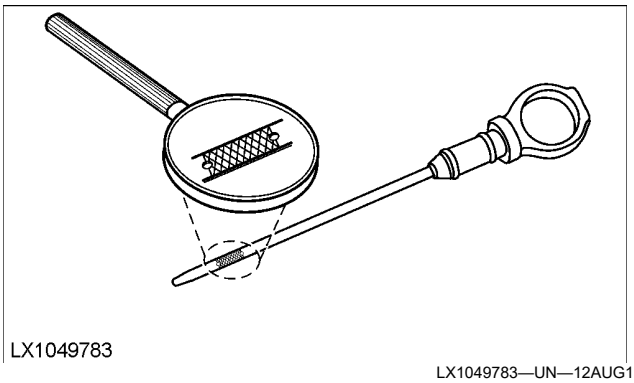
OULXA64,ALL,EU,0005702-19-13OCT20

Check Engine Oil Level

Check with oil dipstick:



LX364300—UN—21FEB19



LX1049783—UN—12AUG10

A—Oil Dipstick

1. Preconditions for checking engine oil level:
   - Tractor parked on level surface
   - Park lock ON
   - Engine OFF

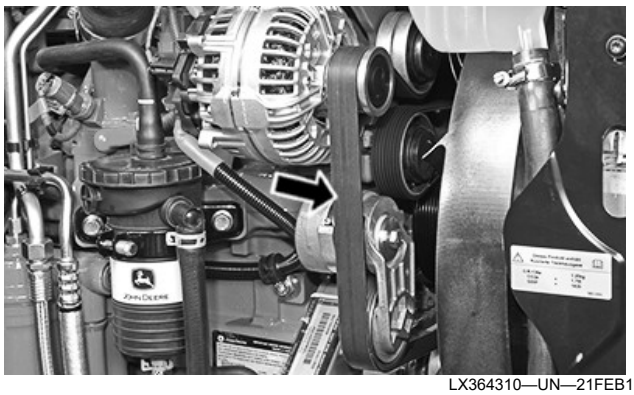
2 ways to check the engine oil level:	
Cold engine oil	**Warm engine oil**
Check when the oil is cold, when the engine has been off for a long time (e.g. in the morning before starting the engine).	If the engine has warmed up, shut the engine off and wait approx. 40 minutes (oil at a temperature of approx. 40 °C; 104 °F).

2. Use oil dipstick (A) to check the level of the engine oil.
3. Remove the dipstick, wipe it clean, insert it as far as it will go, and pull it out again.
4. The oil level must be within the hatched area on the dipstick. Oil level must be corrected if the oil is above the top edge or below the bottom edge.

   Do not start the engine if oil level is below lower mark on dipstick.
5. If necessary, refill with oil of correct viscosity. See Section 220C.

OULXA64,SP1,00058ED-19-20NOV20

Check Engine Drive Belt for Wear



LX364310—UN—21FEB19

If the drive belt shows signs of wear, contact a John Deere dealer or other service provider.

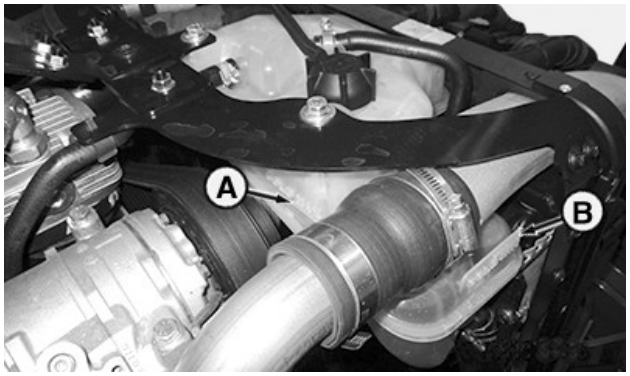
OULXA64,SP1,00058EE-19-17JUL25

Check Viscous Fan of Cooling System

Have the viscous fan checked by a John Deere dealer or other service provider.

LX25458,ALL,0000B6F-19-10JUL25

Check Coolant Level



LX364311—UN—22FEB19

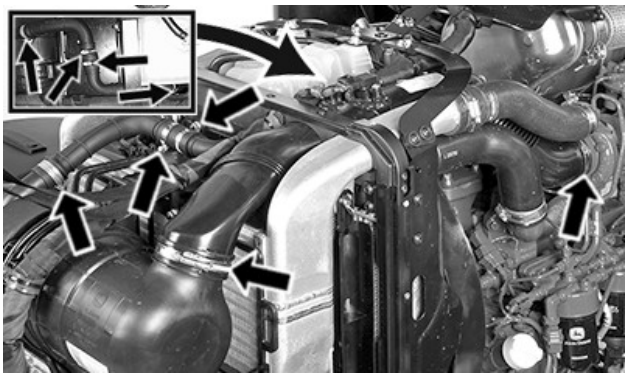
Coolant level should be close to the max. mark (A).

It must under no circumstances fall below the minimum mark (B).

Top up if necessary. See Change Coolant in Section 220E.

OULXA64,SP1,00058F0-19-20NOV20

Check Air Intake Hoses (4-Cylinder Engines)



LX364301—UN—26FEB19

The hoses vary depending on engine type.

Check the hoses and tighten hose clamps if necessary.

Leaking or damaged hoses are the cause of dirt entering the engine.

OULXA64,SP1,00058F2-19-08JUN22

Check Oil Level of Axle Housing on Front-Wheel Drive Axle (730, 733 and 735)



TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot, pressurized oil.

Touching hot surfaces can cause injury.

Avoid contact with hot surfaces or hot oil.

Check oil level when oil is warm (approx. 40 °C; 103 °F).

Unscrew the level screw plug slowly.

NOTE: The position of the level screw plugs varies depending on axle type.

1. Remove oil level screw plug (A) and put a new O-ring on it. Oil must be level with drain screw bore.



LX364297—UN—21FEB19

2. If necessary, top up with oil at this point.

Oil to be used	Hy-Gard™ Transmission and Hydraulic Oil. See also section 200E.

Hy-Gard is a trademark of Deere & Company

3. Tighten oil level screw plug to 90 N·m (66 lb·ft). Always use a transmission oil listed in the Fuel, Lubricants, Hydraulic Oil and Coolant section.

NOTE: Replace oil in the axle housing after the first 100 and after the first 1500 hours of operation. Then change after every 1500 hours of operation or once every 2 years, whichever occurs first.

LX25458,0000B73-19-30AUG23

Check Oil Level of Final Drives without Brakes on Front-Wheel Drive Axle (730, 733 and 735)



TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot, pressurized oil.

Touching hot surfaces, accessories, or hoses and leads can cause injury.

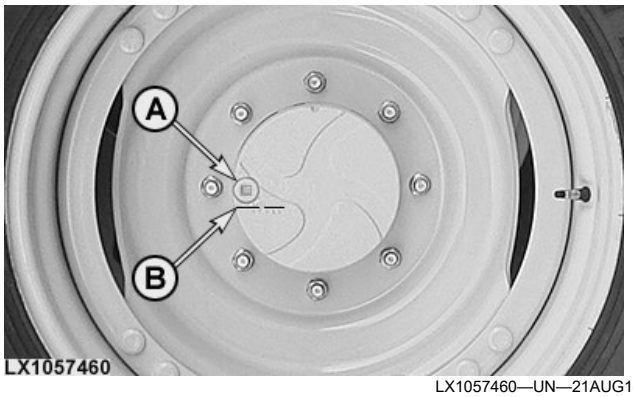
Avoid contact with hot surfaces or hot oil.

Check oil level when oil is warm (approx. 40 °C; 103 °F).

Unscrew the level screw plug slowly.

NOTE: Replace oil in the final drives after the first 100 and after the first 1500 hours of operation. Then change after every 1500 hours of operation or once every 2 years, whichever occurs first.

1. Turn the wheel until **OIL LEVEL** mark (B) is horizontal.



LX1057460—UN—21AUG14

2. Remove oil level screw plug (A) and put a new O-ring on it. Oil must be level with drain screw bore.
3. If necessary, top up with oil at this point.

Oil to be used	Hy-Gard™ Transmission and Hydraulic Oil. See also section 200E.

Hy-Gard is a trademark of Deere & Company

4. Put a new O-ring on the level screw plug and tighten it to 90 N·m (66 lb·ft).

LX25458,0000B74-19-30AUG23

Check Accumulator of Front Axle Suspension

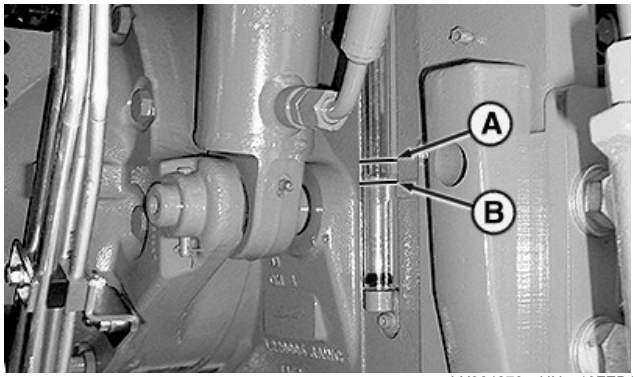
Front axle suspension - Have pressure accumulator checked by a John Deere dealer or other service provider.

OULXA64,ALL,00570D-19-17JUL25

Check Oil Level of Transmission-Hydraulic System

IMPORTANT: Check oil level when oil is cold. If possible, check the oil level in the morning after the tractor has been standing overnight.

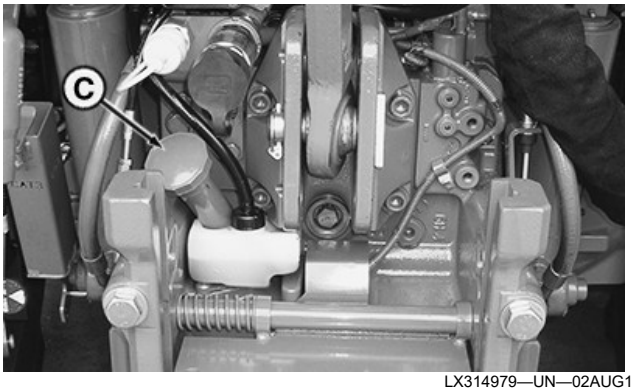
1. Park tractor so that it is level.
2. Engage park lock.
3. Lower draft links, front loader, front implements, and other implements that draw oil from the transmission.
4. Oil level should be between marks (A) and (B) on the sight glass.



LX364279—UN—19FEB19

A—Maximum Mark
B—Minimum Mark

5. If necessary, refill with oil of correct viscosity at filler neck (C). See Section 200E.

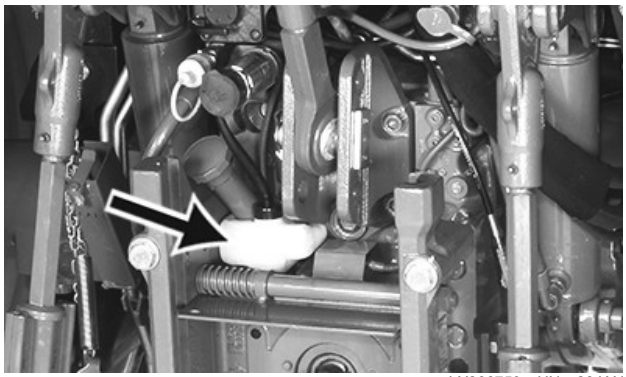


LX314979—UN—02AUG17

C—Filler Neck

OULXA64,SP1,00058F3-19-21APR23

Check Leak-Off Oil Container (If Equipped)



LX266759—UN—26JAN16

Check the leak-off oil container, and empty it if necessary. Dispose of the oil in the container as waste oil.

LX25458,4CYL,0000B79-19-06OCT21

Inspect Hydraulic Hoses

IMPORTANT: Check hydraulic hoses regularly – at least once a year – for leaks, kinks, cuts, tears, rubbing, bulges, corrosion, exposed fabric, and other signs of wear and damage.

Replace worn or damaged hoses immediately.

Replacement hoses can be obtained via regular spare part channels.

LX25458,0000B7A-19-10JUL25

Check the Mechanical Cab Suspension

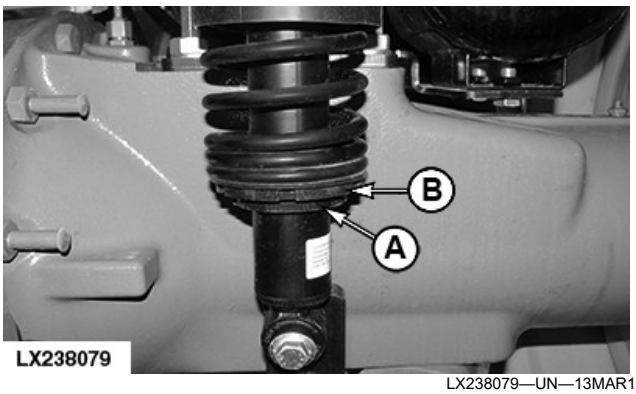
The spring elements of the cab are preset at the factory for an average load. If a failure occurs, the setting can be checked and if necessary altered.

Fault	Cause	Remedy
The cab amplifies its vibration.	Damper defective.	Have a John Deere dealer or other service provider replace old parts with new ones (always do this on BOTH sides).
Suspension too soft (cab swings violently and strikes hard against the stop).	Pre-tension insufficient.	Correct the setting.
Suspension too hard.	Excessive pre-tension.	Correct the setting.

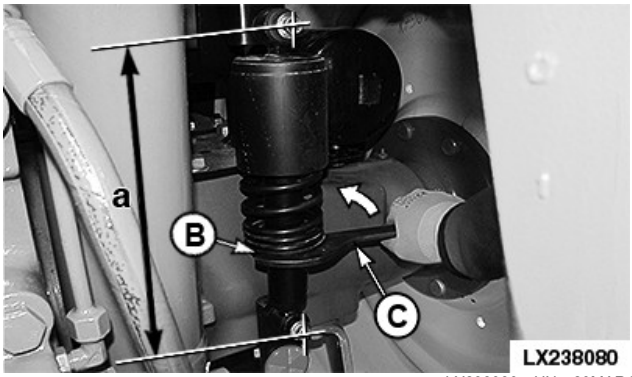
Required tools: Hook Wrench DIN1810–A 80–90.

Personal protection: Safety goggles and gloves.

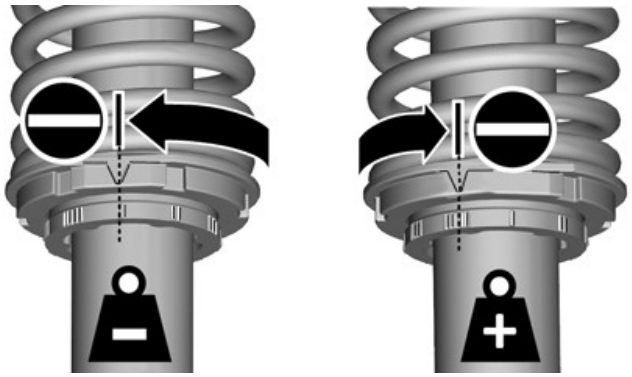
Check and correct the setting.



LX238079—UN—13MAR15



LX238080—UN—20MAR15



LX272578—UN—12FEB16

A—Detents Settings with Marks I to IIIII
B—Adjusting Ring with Arrow Marker
C—Hook Wrench DIN1810–A 80–90
a—Optimal Setting 340 mm (13.39 in)

1. Shut off the engine and engage park lock.

CAUTION: Remove key switch to prevent the engine from starting accidentally. Lower the implement to the ground. Do NOT reach into the spring.

2. Put the desired weight in the cab (this should be approximately the weight of the operator).
3. Determine dimension (a). If the gap is approx. 340 mm (13.39 in), no correction is required.
4. To make a correction, use hook wrench (C) to turn adjusting ring (B) to a detent setting where (a) is approx. 340 mm (13.39 in).

   There are 5 detent settings which each represent a change of 3 mm (0.18 in). Adjustment is as shown in the illustration. Do NOT move the adjusting ring from mark I to IIIII or from mark IIIII to I.

IMPORTANT: Never move the adjusting ring directly from mark I to IIIII or from mark IIIII to I. This causes irreparable damage to the spring strut.

Always set the same stage at both sides.

NOTE: Factory setting = level 3.

OULXA64,SP,0005709-19-16JUL25

Check Closing Mechanisms and Rubber Seals of the Doors, Windows, and Roof Hatches of Cab

Check all rubber seals of the doors, windows, and roof hatches as well as the cable feedthroughs for proper seating, wear, and brittleness. Replace defective rubber seals.

Check all closing mechanisms of the doors, windows, and roof hatches.

OULXA64,ALL,000570C-19-01OCT20

Inspect Seat Belt

Replace entire seat belt if mounting hardware, buckle, belt, or retractor show signs of damage.

Inspect seat belt and mounting hardware at least once a year. Look for loose mounting hardware or damage to the belt such as cuts, fraying unusually heavy wear, discoloration, or glazing. Replace only with replacement parts approved for your machine.

LX25458,ALL,0000B7B-19-10JUL25

Check Brakes

CAUTION: Engage park lock.

Press the brake pedals before starting the engine. It must not be possible to press the pedals all the way to the stops, not even if great force is used. Wait at least 30 seconds before repeating the check.

IMPORTANT: If the pedals can be pressed all the way to the stops, there is a fault and it is essential to contact a John Deere dealer or other service provider.

LX25458,ALL,0000B7C-19-10JUL25

Bleed and Check the Brake System

Have brake system bled and checked by a John Deere dealer or other service provider.

LX25458,ALL,0000B7D-19-10JUL25

Check for Condensed Water on Air Brake System

CAUTION: Risk of personal injury.

Releasing air and water from the unloading valve can be loud and occur under high pressure, which poses a risk of injury from flying debris, loud noises, and sudden releases.

To prevent personal injury and ensure safe procedures when unloading condensed water and air pressure from the air brake system. Before proceeding, ensure you are wearing safety goggles, ear plugs and gloves.

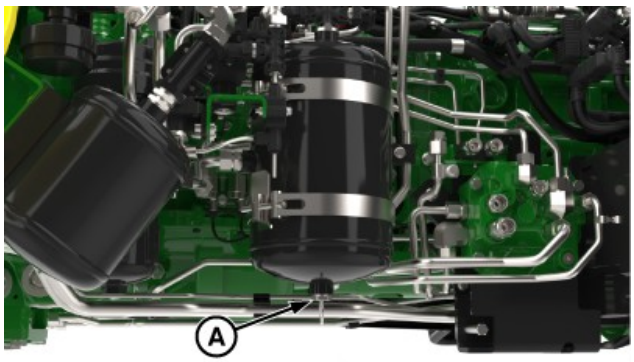
Position yourself away from the direct line of discharge when releasing air and water. Gradually open the unloading valve to control the release and minimize noise and splatter.

IMPORTANT: If condensation (water) is found during the daily check of the compressed-air tank, the air-dryer cartridge must be replaced immediately.

Replace the air-dryer cartridge every 1500 hours or every 2 years at the latest. See section 220E.

IMPORTANT: The compressed-air tank may be equipped with a connection for inflating tires.

The full pressure of the air tank (800 kPa, 8 bar, 116 psi) is present at the tire inflation connection. Do NOT over-inflate the tires!



LX515570—UN—17DEC23

To drain water from the compressed air tank, push or pull valve pin (A) to the side.

Do not use your hands to do this, use a suitable tool.

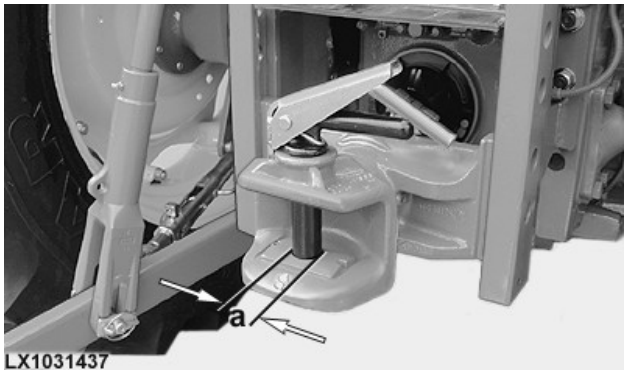
If the air dryer cartridge needs to be replaced, release the compressed air pressure completely and replace the air-dryer cartridge. See section 220E.

OULXA64,SP1,00058F4-19-16JUN25

Check the Manually Operated Hitch for Wear

CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

Check diameter (a) of the hitch pin.

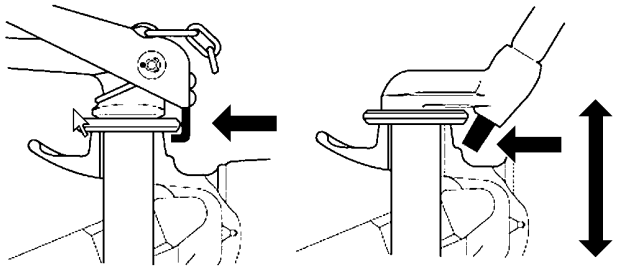


LX1031437—UN—24SEP03

Specification

Pin, Link—Wear Limit or Diameter. . . . . minimum 29.0 mm (minimum 1.14 in)

Check permissible vertical play of the hitch pin.

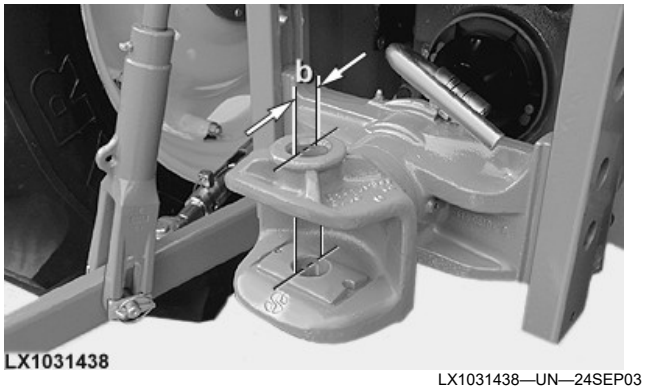


LX1047989—UN—23SEP09

Specification

Pin, Link—Play. . . . . maximum 6 mm (maximm 0.24 in)

Check diameter (b) of the receiver hole.

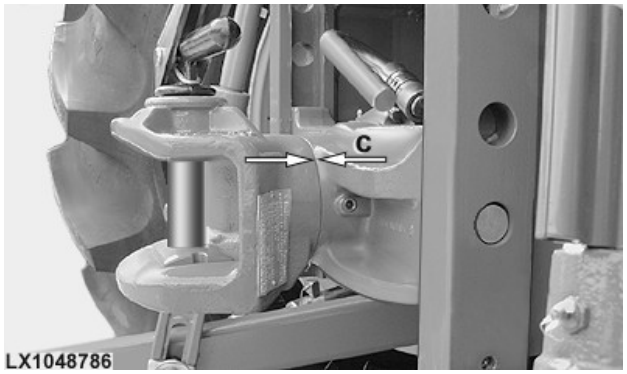


LX1031438—UN—24SEP03

Specification

Top and Bottom Receiver Holes (Measured in Direction of Travel)—Wear Limit or Diameter . . . . . maximum 35.0 mm (oval) [maximum 1.38 in (oval)]

Determine play (c) between hitch and support.



LX1048786—UN—09DEC09

Specification

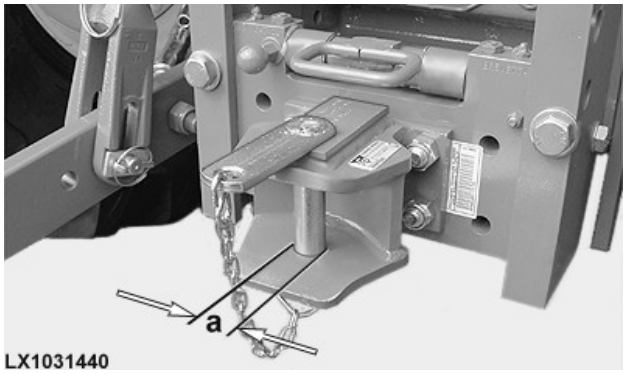
Trailer Hitch and Receiver—Play. . . . . maximum 3.0 mm (maximum 0.12 in)

LX25458,ALL,0000B7E-19-01OCT20

Check CUNA Trailer Hitch (Manually Operated) for Wear

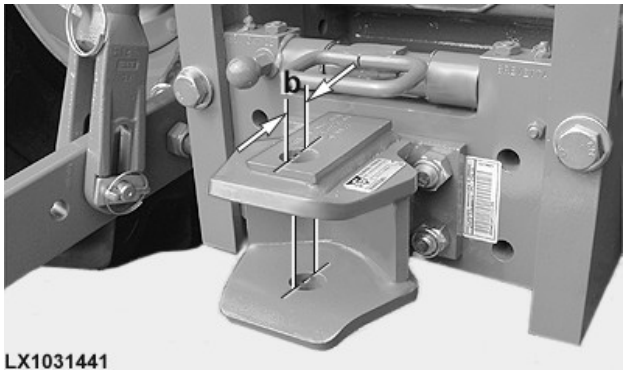
CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

Check diameter (a) of the hitch pin.



LX1031440—UN—23SEP03

Check diameter (b) of the receiver hole.



LX1031441—UN—23SEP03

Specifications for Hitch Pins Type C with a Nominal Diameter of 28.0 mm (1.10 in)

Specification	
Hitch Pin—Wear Limit or Minimum Diameter	26.5 mm (1.04 in)

Specification	
Top and Bottom Receiver Holes (Measured in Direction of Travel)—Wear Limit or Maximum Permissible Diameter	31.0 mm (oval) [1.22 in (oval)]

Specifications for Hitch Pins Type D2 with a Nominal Diameter of 43.0 mm (1.69 in)

Specification	
Hitch Pin—Wear Limit or Minimum Diameter	41.0 mm (1.61 in)

Specification	
Top and Bottom Receiver Holes (Measured in Direction of Travel)—Wear Limit or Maximum Permissible Diameter	46.0 mm (oval) [1.81 in (oval)]

Specifications for Hitch Pins Type D3 with a Nominal Diameter of 51 mm (2.01 in)

Specification	
Hitch Pin—Wear Limit or Minimum Diameter	49.0 mm (1.93 in)

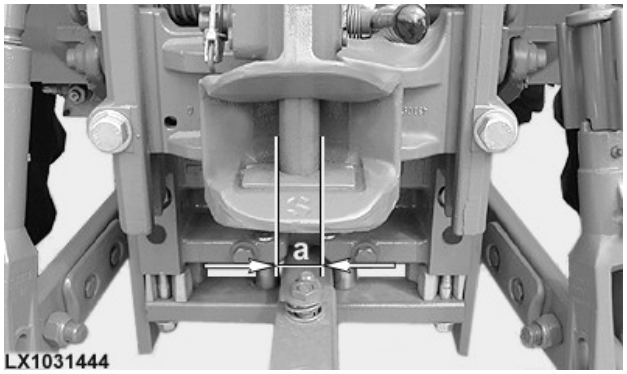
Specification	
Top and Bottom Receiver Holes (Measured in Direction of Travel)—Wear Limit or Maximum Permissible Diameter	54.0 mm (oval) [2.13 in (oval)]

LX25458,ALL,0000B7F-19-12OCT20

Check Trailer Hitch (Remotely Operated) for Wear

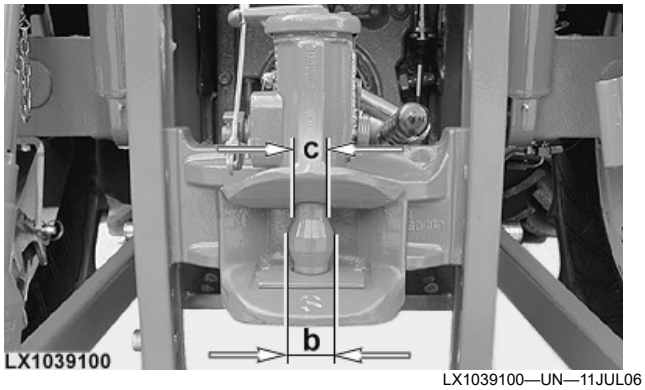
CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

Check diameters (a, b, and c) of the hitch pin.



LX1031444—UN—23SEP03

Straight-Sided Hitch Pin

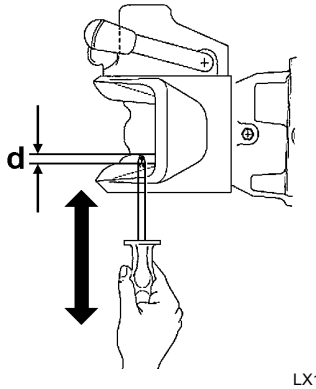


LX1039100—UN—11JUL06

Ball-Shaped Hitch Pin

Specification	
Ball-Shaped Hitch Pin—Wear Limit or Diameter (a)	minimum 29 mm (minimum 1.14 in)
Ball-Shaped Hitch Pin—Wear Limit or Diameter (b)	minimum 36.5 mm (minimum 1.44 in)
Ball-Shaped Hitch Pin—Wear Limit or Diameter (c)	minimum 27 mm (minimum 1.06 in)

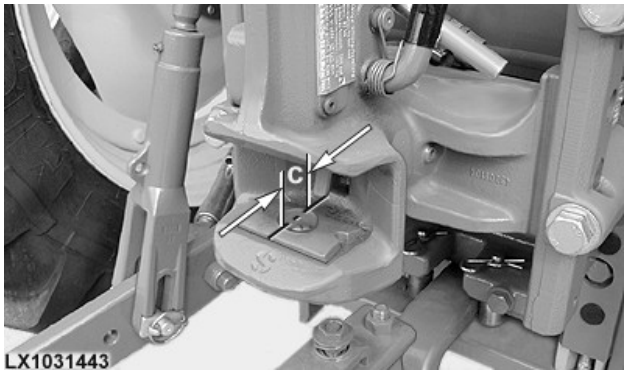
Check hitch pin vertical play (d).



LX1047991—UN—23SEP09

Specification	
Pin, Link—Play	maximum 2.5 mm (maximum 0.1 in)

Check diameter (c) of the receiver hole.

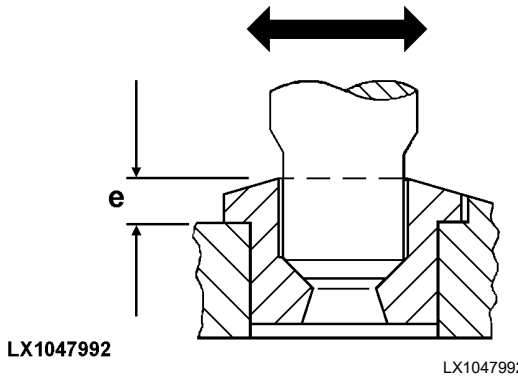


LX1031443—UN—23SEP03

Specification

Bottom Receiver Hole (In Direction of Travel)—Wear Limit or Diameter. . . . . maximum 34.0 mm (oval) [maximum 1.33 in (oval)]

Check thickness (e) of wear plate.



LX1047992—UN—23SEP09

Specification

Wear Plate—Material Thickness. . . . . minimum 6 mm (minimum 0.24 in)

Check play in the bottom pin guide.

Specification

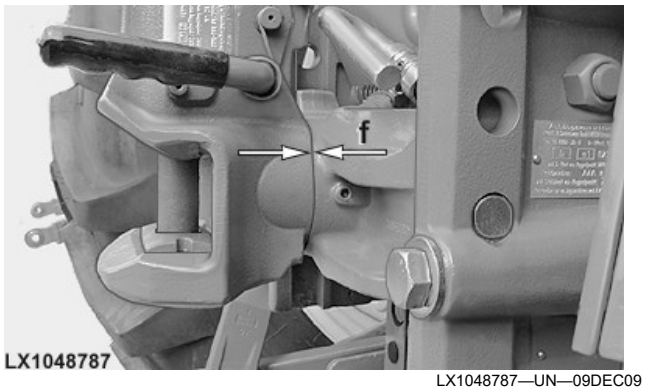
Pin in the Bottom Pin Guide—Play. . . . . maximum 2.5 mm (maximum 0.1 in)

Check wear of hitch pin or hole.

Specification

Hitch Pin and Hole—Wear. . . . . maximum 1.5 mm (maximum 0.06 in)

Determine play (f) between trailer hitch and receiver.



LX1048787—UN—09DEC09

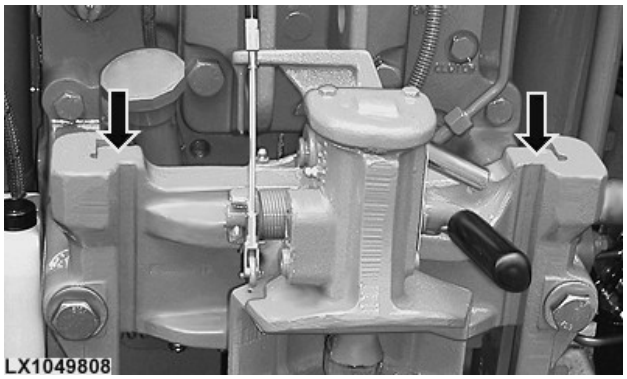
Specification

Trailer Hitch and Receiver—Play. . . . . maximum 3.0 mm (maximum 0.12 in)

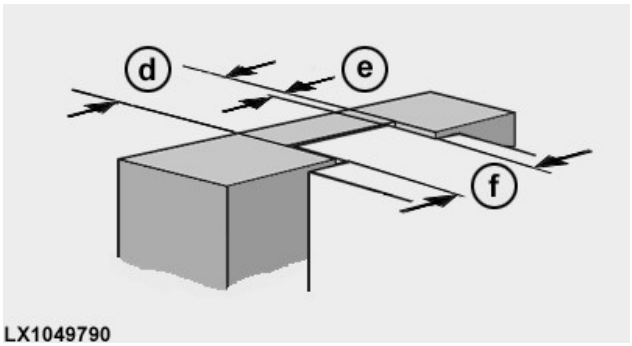
LX25458,ALL,0000B80-19-12OCT20

Trailer Hitch, Check the Guide Rails

Determine play and wear at components (d), (e), and (f). To do this, lock the hitch jaw in all possible positions, and then measure play.



LX1049808—UN—07SEP10



LX1049790—UN—20AUG10

d—Width of Guide Rail
e—Play at Guide Rails
f—Thickness of Slide

Specification

Guide Components in Pull-and-Push Direction (e)—Play. . . . . maximum 2.4 mm (maximum 0.09 in)

Guide Rails, Groove (d) in Trailer Mounting—Wear. . . . . maximum 1.2 mm (maximum 0.05 in)

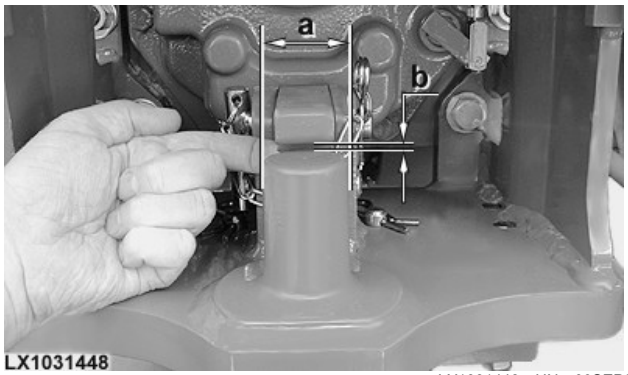
Guide Rails, Guide (f) of the Carriage—Wear. . . . . maximum 0.8 mm (maximum 0.03 in)

LX25458,ALL,0000B81-19-01OCT20

Check Piton-Fix Trailer Hitch for Wear

CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

Check gap (b) at catch.



LX1031448—UN—09SEP03

Specification

Gap at Catch—Maximum Permissible Clearance. . . . . 10.0 mm (0.39 in)

Check diameter (a) of the pin.

Specification

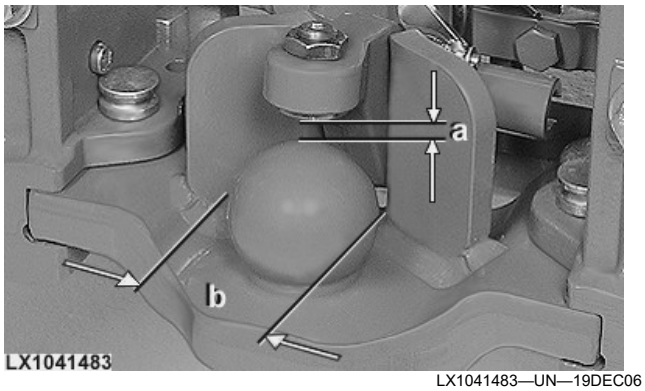
Pins—Wear Limit or Minimum Diameter. . . . . 41.5 mm (1.63 in)

LX25458,ALL,0000B82-19-12OCT20

Check Ball-Type Hitch for Wear

⚠ CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

Check gap (b) at catch.



LX1041483—UN—19DEC06

Specification

Gap at Catch—Maximum Permissible Clearance. . . . . 4.0 mm (0.16 in)

Check diameter (b) of the ball.

Specification

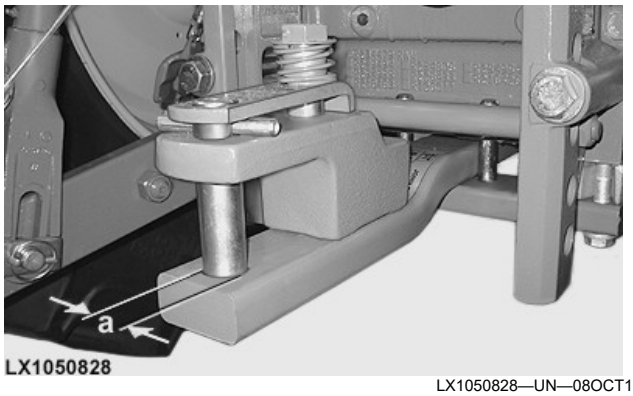
Ball diameter—Wear Limit or Minimum Diameter. . . . . 78.0 mm (3.07 in)

LX25458,ALL,0000B83-19-12OCT20

Check Drawbar for Wear

⚠ CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

Check diameter (a) of the pin.



LX1050828—UN—08OCT10

Specifications for Cat. 2 hitch pins with a nominal diameter of 31.5 mm (1.24 in):

Specification

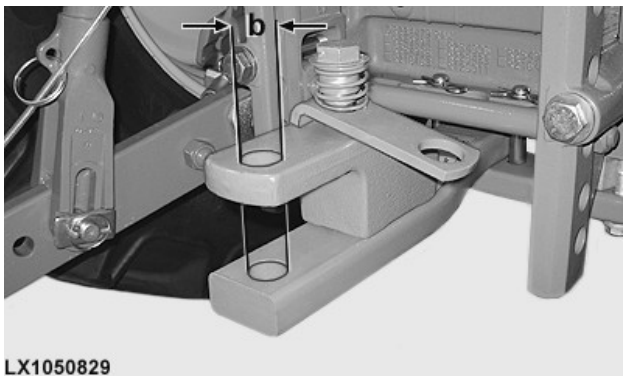
Drawbar, Pin—Wear Limit or Minimum Diameter. . . . . 29.5 mm (1.16 in)

Specifications for Cat. 3 hitch pins with a nominal diameter of 40.0 mm (1.57 in):

Specification

Drawbar, Pin—Wear Limit or Minimum Diameter. . . . . 37.5 mm (1.48 in)

Check diameter (b) of the pin receiver hole.



LX1050829—UN—08OCT10

Specifications for Cat. 2 receiver hole with a nominal diameter of 33.0 mm (1.30 in):

Specification

Top and Bottom Receiver Holes (Measured in Direction of Travel)—Wear Limit or Maximum Permissible Diameter. . . . . 35.0 mm (oval) [1.38 in (oval)]

Specifications for Cat. 3 receiver hole with a nominal diameter of 41.0 mm (1.61 in):

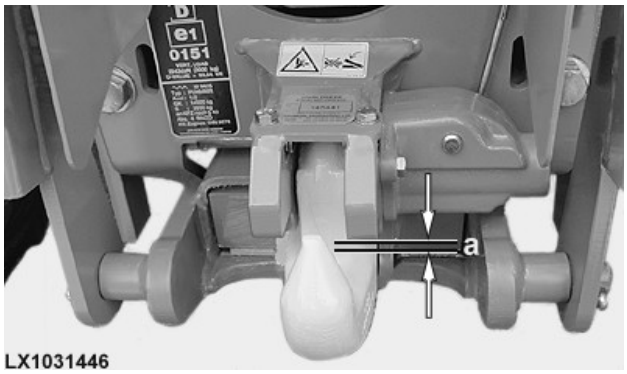
Specification	
Top and Bottom Receiver Holes (Measured in Direction of Travel)—Wear Limit or Maximum Permissible Diameter	43.0 mm (oval) [1.69 in (oval)]

LX25458,ALL,EU,0000B84-19-12OCT20

Check Tow Hook on Pickup Hitch for Wear

CAUTION: Parts that have reached or exceeded their wear limit need to be replaced with new parts.

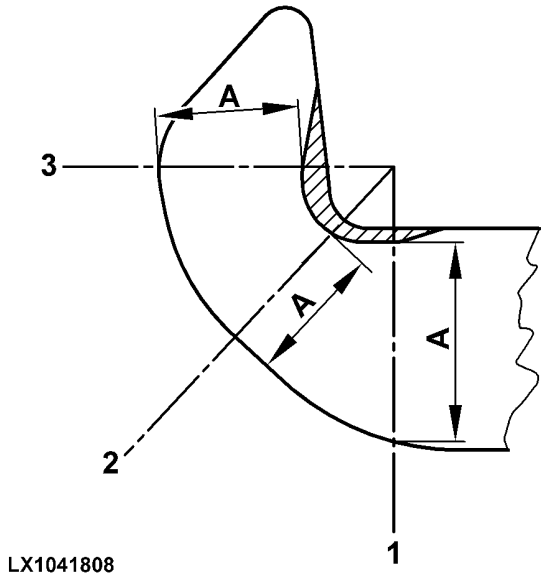
Check gap (a) at catch.



LX1031446—UN—24SEP03

Specification	
Gap at Catch—Maximum Permissible Clearance	10.0 mm (0.39 in)

Read the D-value (unit of measurement = kN) from pickup hitch type plate.



LX1041808—UN—27NOV06

If the D-value indicated that on the type plate is 65 or less, observe the following wear tolerances (A).

Specification	
Tow Hook, Thickness of Hook (D Less than or Equal to 65)—Minimum Value (A), Diameter 1	43.5 mm (1.71 in)
Minimum Value (A), Diameter 2	42.0 mm (1.65 in)
Minimum Value (A), Diameter 3	40.5 mm (1.59 in)

If the D-value indicated that on the type plate is greater than 65, observe the following wear tolerances (A).

Specification	
Tow hook, thickness of hook (D greater than 65)—Minimum Value (A), Diameter 1	45.0 mm (1.77 in)
Minimum Value (A), Diameter 2	43.5 mm (1.71 in)
Minimum Value (A), Diameter 3	42.0 mm (1.65 in)

OULXA64,ALL,EU,000570B-19-27NOV20

Replace Bulbs

See Service—Check Hardware Torques in section 220B.

LX25458,ALL,0000B85-19-29AUG23

Replace Engine Oil Filter



TS281—UN—15APR13

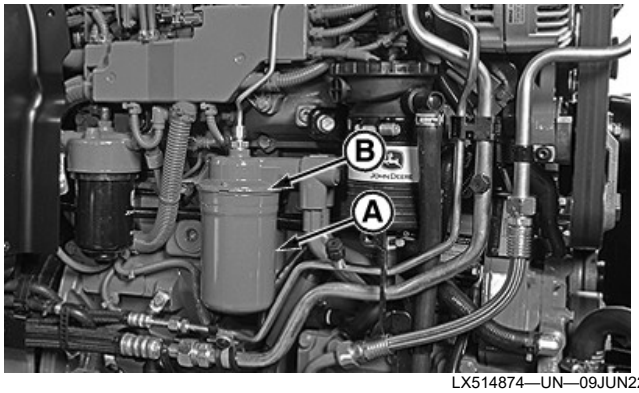
CAUTION: Danger of injury from hot components or hot oil.

Touching hot surfaces, accessories, or hoses and leads can cause injury.

Avoid contact with hot surfaces or hot oil.

Change the oil filter while the oil is warm (approx. 40°C; 103°F).

1. Unscrew oil filter (A).



LX514874—UN—09JUN22

Sample Illustration

2. Clean mounting surface (B).
3. If necessary, replace the dust seal on the mounting surface with a new one. Make sure that the lugs on the dust seal engage in the recesses in the mounting surface of the filter element.
4. Apply a thin film of oil to seal rings (C) of the new filter.



LX1029276—UN—08JUL02

5. Screw in the new filter and finger-tighten!
6. After topping up the engine oil, run the engine and check base of filter for leaks.
7. Stop engine and check the oil level. See Check Engine Oil Level in Section 220D.

NOTE: Always replace the engine oil filter whenever the engine oil is exchanged.

LX25458,OOS,SP,0000B86-19-08JUN22

Change Engine Oil



TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot oil.

Touching hot surfaces, accessories, or hoses and leads can cause injury.

Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40°C, 103°F).

IMPORTANT: Efficiency-enhancing multifunctional oil, John Deere Plus-50™ II, 5W-40 is recommended.

The following specifications must be observed:

ACEA: E9/E7

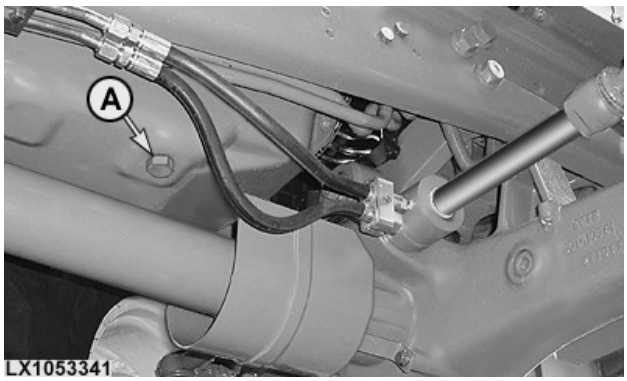
API: CK-4; CJ-4; CH-4; SN; SL; SJ

JD: RGS 50027

NOTE: Initial engine oil change (Brake-In Plus™ Oil), replace engine oil between a minimum of 100 hours and a maximum of 500 hours of operation.

Regular engine oil change (Plus 50 II Oil), after every 500 operating hours but at least once every year. Refer to ***Service Intervals for Engine Oil and Engine Oil Filter*** *in section 210A—210D.*

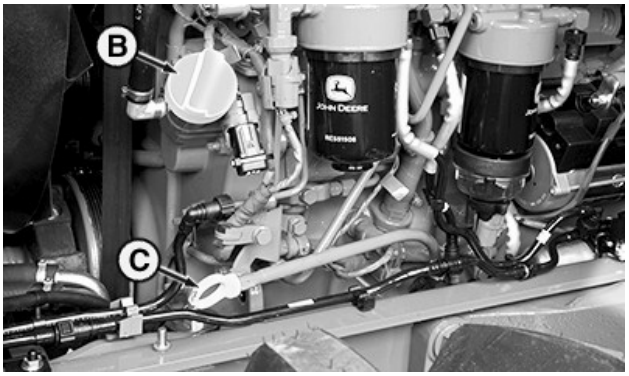
1. Perform oil change while the engine oil is warm (about 40°C, 103°F). Shut down the engine.
2. Place a suitable container underneath to trap the oil, and remove drain screw (A).



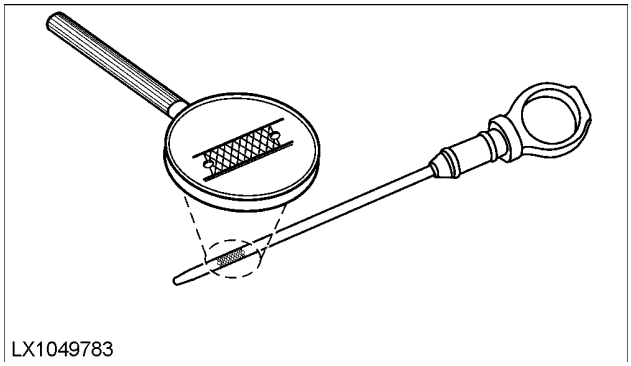
LX1053341—UN—28FEB12

Oil Drain Screw on 4-Cylinder Engines

3. Replace the filter while the oil is draining.
4. Reinstall oil drain screw and tighten to 50 N·m (37 lb·ft). Use a new sealing washer.
5. Fill crankcase with fresh oil of proper viscosity at filler neck (B). See Section 200C.



LX364291—UN—21FEB19



LX1049783—UN—12AUG10

B—Oil Filler Neck
C—Oil Dipstick

Specification

Quantity for filling—Quantity. . . . . approx. 16 L
approx. 4.2 US gal

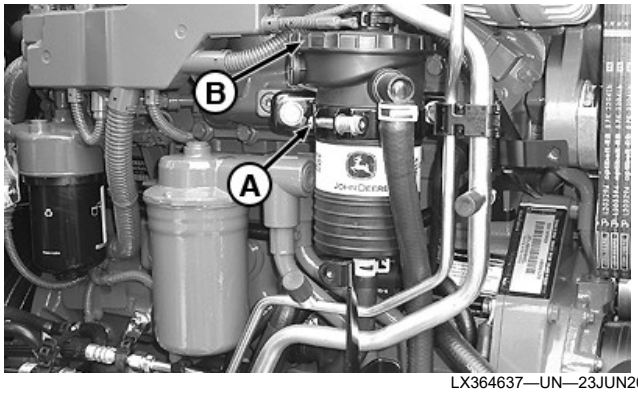
6. Use dipstick (C) to Check the oil Level. Oil level must be in the upper part of the hatched area on the dipstick. Fill to the proper level, if necessary.
7. Run engine for a short time and check for leaks at the filter base and oil drain screw.
8. Shut off engine and remove key switch.
9. Check oil level once again. It should be up to the top mark on the dipstick.

NOTE: Also see Check Engine Oil Level in Section 220.

OULXA64,SP1,00058F6-19-17FEB23

Replace Filter of Oil Separator in Crankcase Vent (If Equipped)

1. Unfasten clamp (A).



LX364637—UN—23JUN20

Sample Illustration

2. Open cover (B) and remove the filter.
3. Clean the housing and install new filter.
4. Install the cover and tighten it.

5. Position housing and tighten the clamp (A).

LX25458,4CYL,0000B89-19-06OCT21

Replace Fuel Filters

CAUTION: Shut off engine and remove key switch.

IMPORTANT:

- **Always change both filters.**
- **Dispose of drained fuel and used filters in accordance with local laws and ordinances.**
- **DO NOT prime fuel filter with fuel.**

1. Change primary fuel filter.



LX364292—UN—21FEB19

A—Primary Fuel Filter
B—Connector
C—Secondary Fuel Filter

   a. Clean exterior of filter and surrounding area.
   b. Disconnect connector (B) from the water sensor.
   c. Open the drain valve and drain fuel into a suitable container.
   d. Loosen and remove filter (A).
   e. Remove the water separator from the filter.
   f. Clean the sealing ring of the water separator and lubricate with fuel.
   g. Attach the water separator to the new filter.
   h. Lubricate the sealing ring of the new filter with fuel.
   i. Install new filter on the base. Tighten another 3/4 turn after seal contacts the mounting surface.
   j. Reconnect connector (B).

2. Replace secondary fuel filter.
   a. Clean exterior of filter and surrounding area.
   b. Loosen and remove filter (C). Catch draining fuel with a suitable container.
   c. Lubricate the sealing ring of the new filter with fuel.
   d. Position new filter (C) and tighten.

3. Put the fuel filter into operation.
   a. Turn the key switch to the right to the first switching position and let the fuel transfer pump run for about 120 seconds. Repeat as necessary.
   b. Start and run engine at high idle for at least 2 minutes.

OULXA64,SP1,00058F8-19-21DEC23

Replace Engine Air Cleaner

IMPORTANT: Never run the engine without the primary filter!

IMPORTANT: Every time the engine primary air cleaner is changed, the cab air filters must be changed also.

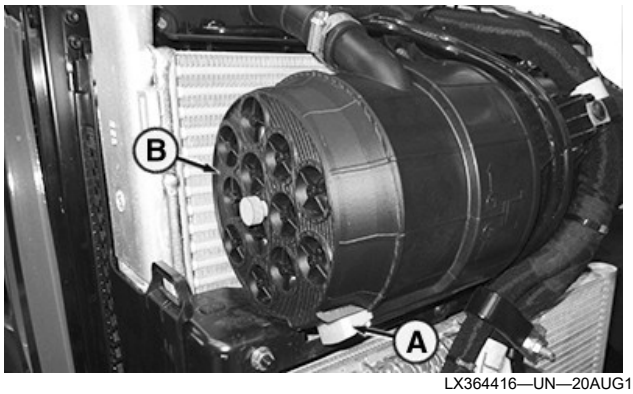
NOTE: If a message appears on the digital display indicating that the engine air cleaner is restricted, the primary filter must be changed that very same day.

After the first message appears, the tractor can still be operated long enough to complete the day's work. However, from the next message onwards, tractor operation is restricted for safety reasons. A filter change is then unavoidable.

Each time the engine air cleaner is changed, check the precleaner for dirt and clean if necessary. See Engine air cleaner - Clean precleaner in Section 220A.

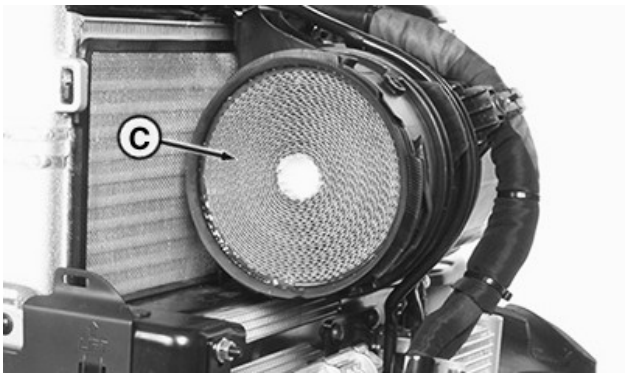
The secondary filter must be changed no later than at every third change of the primary filter, or every 4500 hours or 3 years, whichever comes first. See Engine Air Cleaner and Cab Air Filters, Service in section 210B.

1. Release latch (A) and remove housing cover (B).



LX364416—UN—20AUG19

2. Replace the primary filter (C) and make sure that it is seated correctly.



LX364303—UN—21FEB19

3. Position the housing cover (B) and secure it with latch (A).

OULXA64,SP1,00058F9-19-04MAR24

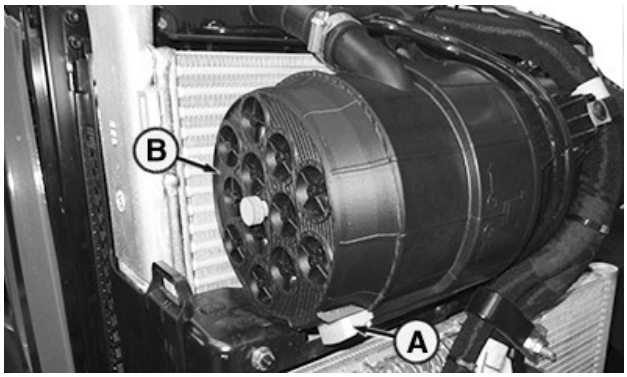
Replace Secondary Filter of Engine Air Cleaner

IMPORTANT: Never run the engine without the primary and/or secondary filter(s)!

IMPORTANT: Do not attempt to clean secondary element, only ever replace it with a new one.

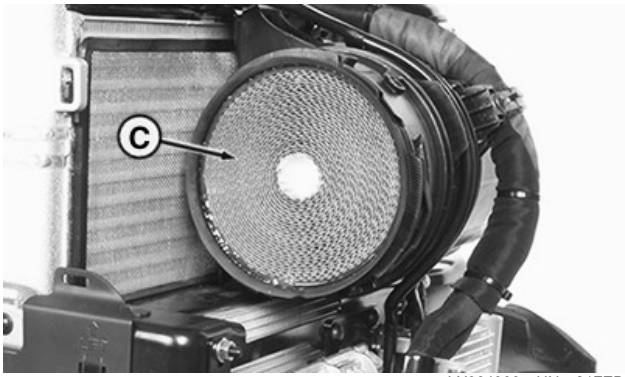
NOTE: The secondary filter must be changed no later than at every third change of the primary filter, or every 4500 hours or 3 years, whichever comes first. See Service the Engine Air Cleaner and Cab Air Filters in section 210B.

1. Release latch (A) and remove housing cover (B).



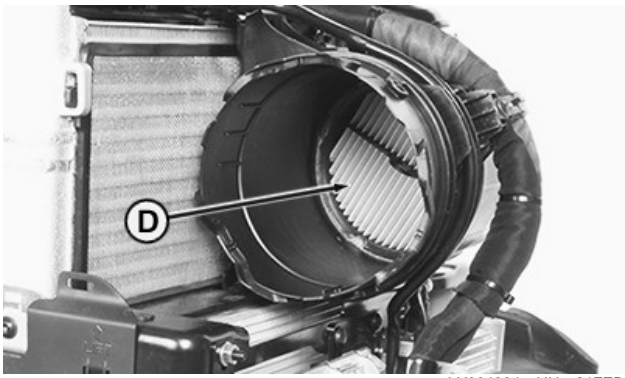
LX364416—UN—20AUG19

2. Remove primary filter (C).



LX364303—UN—21FEB19

3. Replace the secondary filter (D) and make sure it is properly seated.



LX364304—UN—21FEB19

4. Install the primary filter (C) and make sure that it is seated correctly.
5. Position the housing cover (B) and secure it with latch (A).

OULXA64,SP1,00058FA-19-04MAR24

Replace Cab Air Filters

IMPORTANT: Change cab air filters every 1500 hours or 2 years, whichever comes first. See Engine Air Cleaner and Cab Air Filters, Service in section 210B.

Change Cab Air Filters

1. European tractors only: If equipped with, refer to the cab classification label at the left A-post of the cab and order the correct cab air filter.

Cab Air Filter	
For tractors with cab classification CAT1:	For tractors with cab classification CAT2:
Filter element AL225552 - color white.	Filter element AL225554 - color blue.

2. Remove covers (A) on both sides.



LX234635—UN—07APR15

3. Remove the cab air filters (B) on both sides.
4. Clean air filter housing and air passages of dust.
5. For installation, follow removal procedure in reverse order.

   When positioning the new filter, make sure that they sit correctly in the provided grooves.

Change Recirculation Air Filter

1. Remove cover (C).



LX314936—UN—30JUN17

2. Remove recirculation air filters (D) on both sides.



LX314937—UN—30JUN17

3. Clean air filter housing and air passages of dust.
4. Install new filter cartridges in reverse order.

OULXA64,SP,0005717-19-17MAY23

Replace Activated Carbon Filter (If Equipped) of Cab Air Filter System (CAT 1 and CAT 2 Cab Only)

CAUTION: It is not permitted to clean the air filter if the cab has been retrofitted with activated carbon filters. Activated carbon filters have to be replaced with new ones.

IMPORTANT: Replace activated carbon filters every 500 operating hours or at least once every year applies.

See Replace Cab Air Filters in this group.

OULXA64,500h,0005718-19-13DEC24

Change the Coolant



TS281—UN—15APR13

CAUTION: Danger of injury from hot, pressurized coolant.

Touching hot surfaces of the cooling system, accessories, or hoses and leads can cause injury.

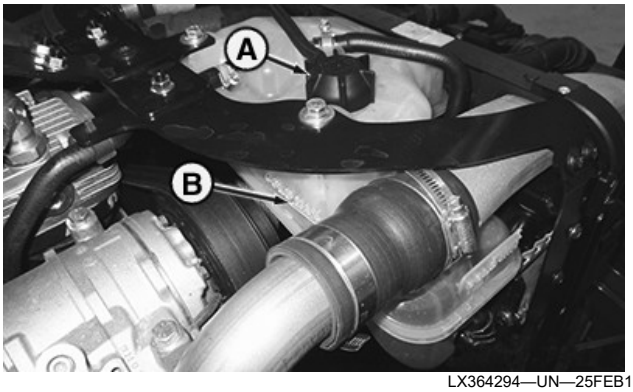
Avoid contact with hot surfaces or hot coolant.

Do not open cap (A) of expansion tank before coolant temperature is below boiling point. First unfasten the cap to relieve pressure, then remove cap completely.

NOTE: Comply with service interval instructions regarding engine coolant.

The FIRST service interval is 6 years or 6000 hours of operation, provided the cooling system has been improved exclusively with John Deere Cool-Gard™ II and Premix and the coolant has been tested at the specified intervals. After initial service, the SCHEDULED interval (2 years or 2000 hours of operation) can be extended up to 6 years or 6000 hours of operation depending on coolant used and if coolant is tested at specified intervals. Comply with the recommended engine coolant service intervals in Diesel Engine Coolant in section 200D of this manual.

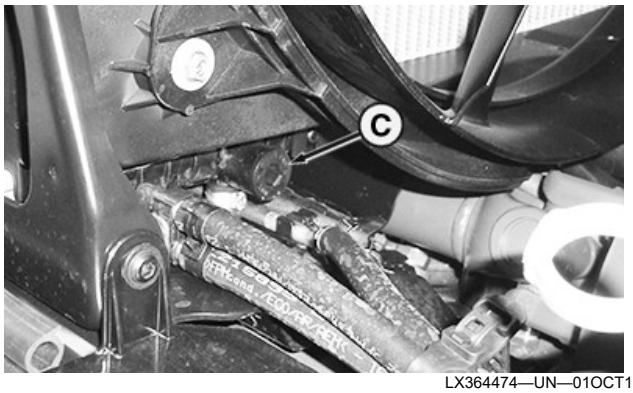
1. Turn the heater control in the cab as far as it goes to the right.
2. First unfasten cap (A) and then take it off.



LX364294—UN—25FEB19

A—Expansion Tank Cap
B—Maximum Marking of the Expansion Tank

3. Place a container under the drain to collect the coolant as it emerges. Open drain plug (C).



LX364474—UN—01OCT19

4. After coolant has drained out, close drain plug (C) and tighten it to the specified torque.

Specification

Coolant - Drain Plug—Torque. . . . . 4—5 N·m (3—3.7 lb·ft)

IMPORTANT: Never pour cold water or coolant into the hot engine. Always use warm water or wait until engine has cooled down.

5. Fill the system up to the MAX mark (B) with clean water, and close cap (A).

CAUTION: Before starting the engine, always close the hood.

6. Run the engine until it reaches operating temperature. Shut off engine and drain system.
7. Close drain plug again and fill the system with clear water.
8. Again run engine until it has reached operating temperature. Shut off engine and drain system again.
9. Close the drain plug (C) and fill the system up to the MAX mark (B) with the prescribed coolant (see section 200D).
10. Start the engine and run it for 5 minutes.
11. Shut off the engine and add coolant up to the MAX mark (B).
12. Start the engine and bring it up to operating temperature.
13. Shut off the engine and add coolant up to the MAX mark (B).
14. Put cap (A) back on and close it.
15. For efficient cooling, the radiator screen must be kept clean. Remove any dirt or oil and carefully straighten any bent fins.

OULXA64,00058FB-19-20NOV20

Change Diesel Exhaust Fluid (DEF) Dosing Unit Filter

CAUTION: Avoid contact with eyes. In case of contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information.

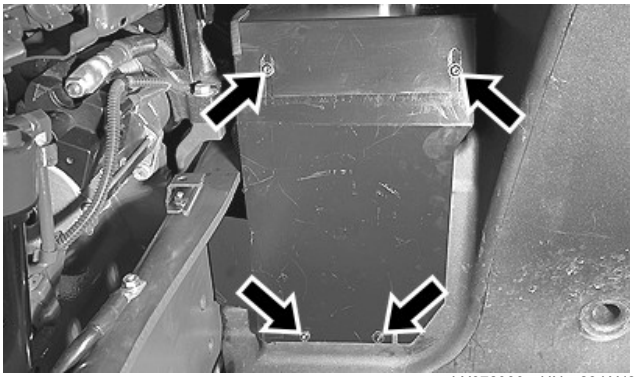
IMPORTANT: If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components.

Spilled DEF, if left to dry or if only wiped away with a cloth, leaves a white residue. Improperly cleaned DEF spill can interfere with diagnosis of Selective Catalytic Reduction (SCR) system leakage problems.

NOTE: See a John Deere equipment technical manual or OEM manufacturer's technical manual for DEF dosing unit filter location.

IMPORTANT: Avoid system and filter damage. Ensure that DEF system is not frozen before changing filter. If system is frozen, operate engine until system has thawed completely.

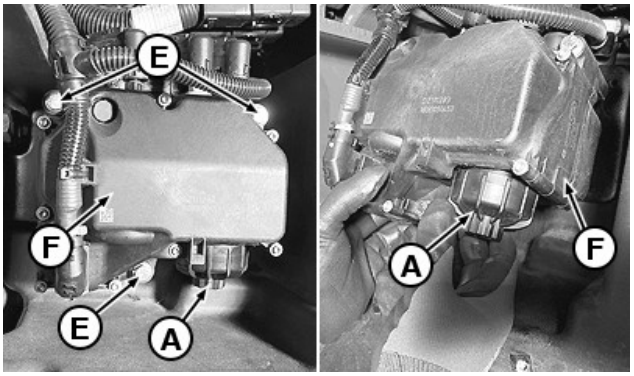
1. Remove screws and cover.



LX372939—UN—28JAN21

Remove Cover

2. Unscrew the DEF dosing unit filter cover (A).

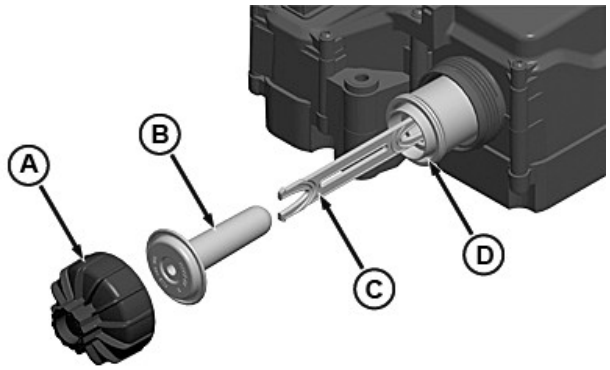


LX372936—UN—28JAN21

Tilt the Housing Carefully

A—DEF Dosing Unit Filter Cover
E—Screws
F—DEF Dosing Unit Housing

3. Remove screws (E).
4. As shown, carefully tilt the housing (F) without bending or damaging the lines.
5. Remove DEF dosing unit filter cover (A).



RG22534—UN—21MAR13

DEF Dosing Unit Filter

A—DEF Dosing Unit Filter Cover
B—DEF Dosing Unit Filter Equalizing Element
C—DEF Dosing Unit Filter Tool (supplied with new filter)
D—DEF Dosing Unit Filter

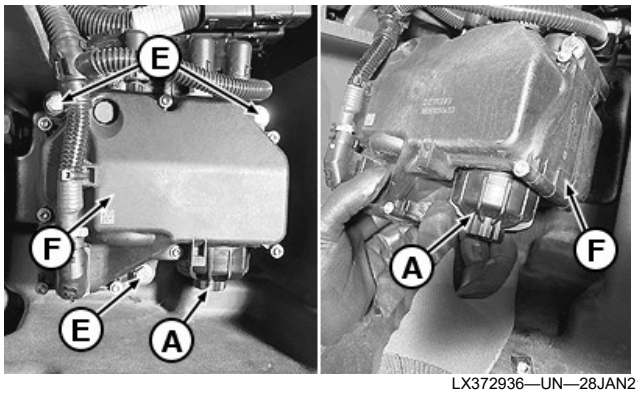
6. Remove and discard DEF dosing unit filter equalizing element (B).

NOTE: DEF dosing unit filter tool (C) is supplied with replacement filter.

7. Insert “Black” end of DEF dosing unit filter tool (C) into DEF dosing unit filter (D) until CLICK is felt or heard indicating DEF dosing unit filter tool is fully engaged.

NOTE: A tool such as a screwdriver can be inserted into DEF dosing unit filter tool slot to assist removal.

8. Pull DEF dosing unit filter tool and DEF dosing unit filter from DEF dosing unit. Discard DEF dosing unit filter and DEF dosing unit filter tool.
9. Clean DEF dosing unit threads and mating surfaces with distilled water.
10. Lubricate DEF filter O-rings with clean DEF. Carefully insert DEF dosing unit filter into DEF dosing unit.
11. Install new DEF dosing unit filter equalizing element into DEF dosing unit filter.
12. Arrange DEF dosing unit filter cover (A) and screw in about two treads.



LX372936—UN—28JAN21

Carefully Arrange the Housing

A—DEF Dosing Unit Filter Cover
E—Screws
F—DEF Dosing Unit Housing

13. Carefully Arrange the housing (F) without bending or damaging the lines.
14. Arrange screws (E) and tighten to specification.

    • Only for 6090M—6120M tractors without holder and with a wheelbase of 2400 mm (94.5 in).

Specification	
DEF Dosing Unit Housing to Fuel Tank—Torque	17 N·m (150 lb·in)

    • Only for tractors with a holder. NOT for 6090M—

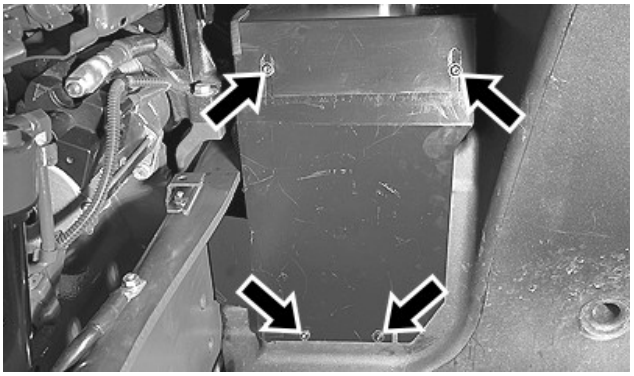
6120M tractors with a wheelbase of 2400 mm (94.5 in).

Specification	
DEF Dosing Unit Housing to Holder—Torque	25 N·m (221 lb·in)

15. Tighten DEF dosing unit filter cover (A) to specification.

Specification	
DEF Dosing Unit Filter Cover—Torque	23 N·m (204 lb·in)

16. Arrange the cover and tighten screws to specification.



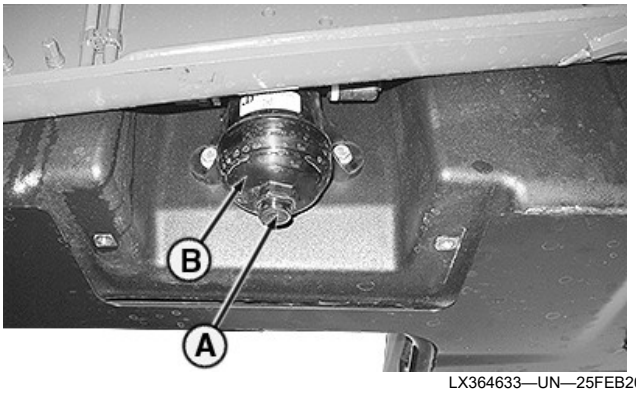
LX372939—UN—28JAN21

Arrange the Cover

Specification	
Cover of DEF Dosing Unit—Torque	25 N·m (221 lb·in)

OULXA64,19,DX,DEF,CHANGE,FILT-19-16JUL25

Installation Position of In-Line DEF Filter



LX364633—UN—25FEB20

For the Sake of Clarity, the Cover on the Tank is not shown.

A—Drain Screw
B—Housing

For changing the filter, see Change In-Line DEF Filter on the following pages.

OULXA64,SP1,00058FC-19-08JUN22

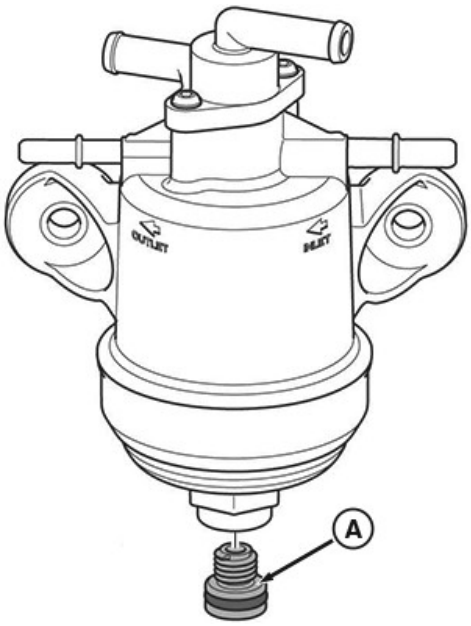
Change Diesel Exhaust Fluid (DEF) In-Line Filter

CAUTION: Avoid possible personal injury. In case of DEF contact, immediately flush eyes with large amounts of water for a minimum of 15 minutes. Reference the Materials Safety Data Sheet (MSDS) for additional information. Do not ingest DEF. In the event DEF is ingested, contact a physician immediately. Reference the Materials Safety Data Sheet (MSDS) for additional information.

IMPORTANT: Avoid corrosion of vehicle parts or surfaces. If DEF is spilled or contacts any surface other than the storage tank, immediately clean the surface with clear water. DEF is corrosive to painted and unpainted metallic surfaces and can distort some plastic and rubber components. Spilled DEF, if left to dry or if only wiped away with a cloth, will leave a white residue. Improperly cleaned DEF spill may interfere with diagnosis of Selective Catalytic Reduction (SCR) system leakage problems.

NOTE: See your John Deere equipment technical manual or OEM manufacturer's technical manual for in-line DEF filter location.

IMPORTANT: Avoid system and filter damage. Ensure that DEF system is not frozen before changing filter. If system is frozen, operate engine until system has thawed completely.



RG30728—UN—08AUG18

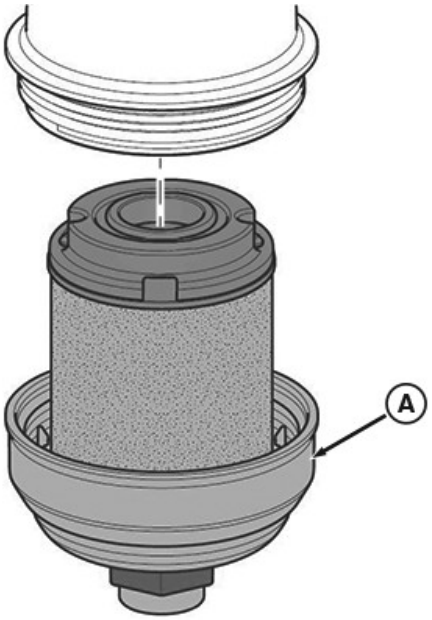
DEF Fluid Removal

A—Drain Plug with O-Ring

1. Remove drain plug with O-ring (A) and discard.

NOTE: Container must be DEF compatible and hold at least 300 mL (0.32 qt).

2. Drain DEF into a proper container.



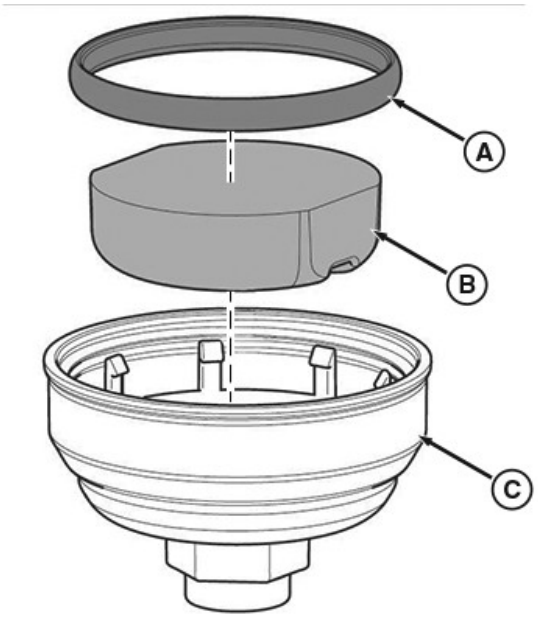
RG30727—UN—08AUG18

Filter Removal

A—Filter Housing

3. Rotate filter housing (A) counterclockwise and pull down.
4. Remove and discard filter from housing (A).

NOTE: If necessary, tap filter to loosen from filter housing (A).



RG30726—UN—08AUG18

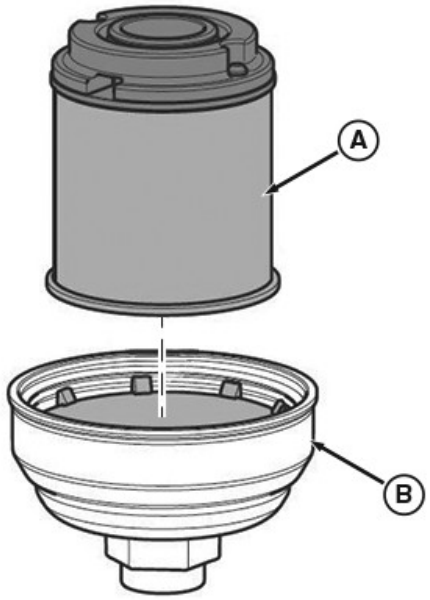
Filter Housing Components

A—O-Ring
B—Foam Compensation Element
C—Filter Housing

5. Remove and discard O-ring (A) and foam compensation element (B).

NOTE: Filter housing should be cleaned with clean DEF before installing new components to remove any sediment debris or contamination.

6. Install new O-ring (A) and foam compensation element (B) into filter housing (C).

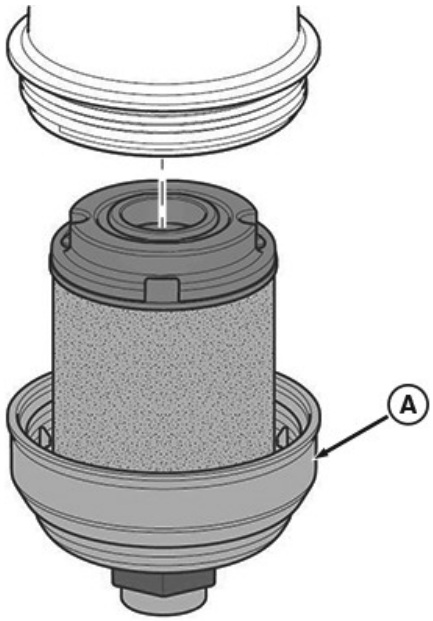


RG30725—UN—08AUG18

Filter Housing and Components Installation

A—Filter
B—Filter Housing

7. Install new filter (A) into filter housing (B).



RG30727—UN—08AUG18

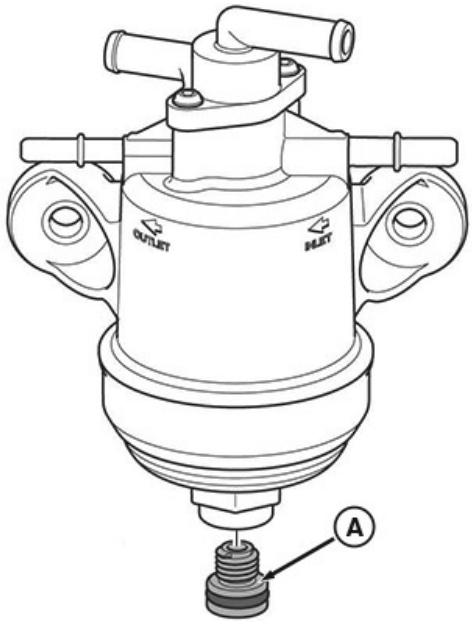
In-Line DEF Filter Housing Installation

A—Filter Housing

8. Install filter housing (A) with O-ring, foam compensation element, and filter element.
9. Rotate filter housing (A) clockwise and tighten to specification.

Specification

In-Line DEF Filter Housing—Torque. . . . . 25 N·m (221 lb·in)



RG30728—UN—08AUG18

In-Line DEF Filter Drain Plug

A—Drain Plug with O-Ring

10. Install new drain plug with O-ring (A). Tighten to specification.

Specification

In-Line DEF Filter Drain Plug—Torque. . . . . 4 N·m (35 lb·in)

DX,DEF,CHANGE,INLINE,FILT-19-15APR20

Front-Wheel Drive Axle—Instructions on Changing Oil (Axle Housing and Final Drives)

Replace oil in the axle housing and final drives of the front-wheel drive axle without brakes after the first 100 and after the first 1500 hours of operation. Then change oil after every 1500 hours of operation or once every 2 years, whichever occurs first. Always use a transmission oil listed in Section 200E.

NOTE: On front-wheel drive axles with brake, change the oil in the final drives after the first 100 hours, after the first 500 hours and thereafter every 500 hours of operation.

Always exchange oil only promptly after a prolonged period of operation.

LX25458,500H,0000B93-19-15OCT21

Front-Wheel Drive Axle (730, 733 and 735)—Change Oil of Final Drives with Brake



TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot, pressurized oil.

Touching hot surfaces can cause injury.

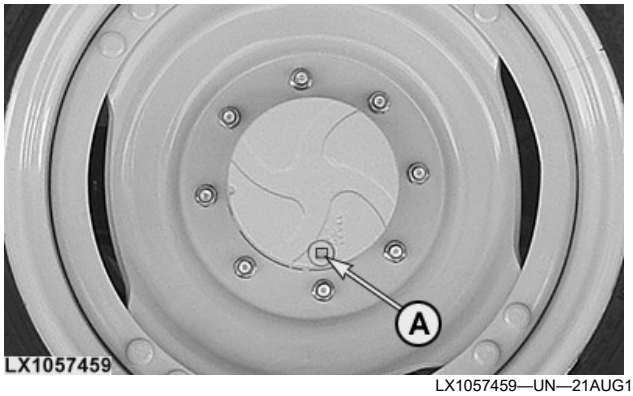
Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40 °C; 103 °F).

Slowly unscrew drain/level screw plug.

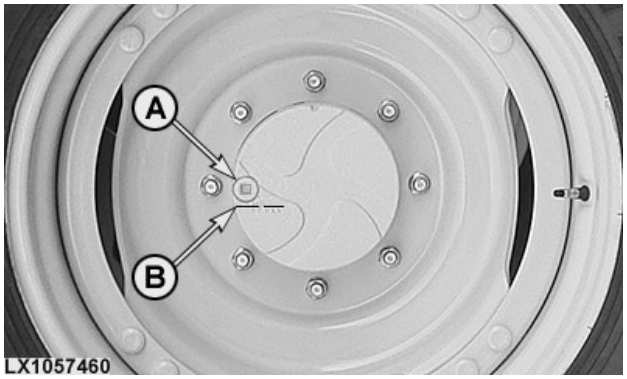
NOTE: Replace oil in the final drives with brakes after the first 100 hours, the first 500 hours and thereafter every 500 hours of operation.

1. Turn wheel so that drain screw (A) is at the bottom. Remove screw, and drain the oil.



LX1057459—UN—21AUG14

2. Turn the wheel through 90° so that the line marked **OIL LEVEL** (B) is horizontal, and fill with fresh oil at drain screw bore. Oil must be level with drain screw bore.



LX1057460—UN—21AUG14

3. Put a new O-ring on the drain screw.
4. Screw in the drain screw and tighten it to 90 N·m (66 lb·ft).

Oil to be used	Hy-Gard™ Transmission and Hydraulic Oil. See also Section 200E.
Capacity	See “Capacity” of relevant tractor in Section 500A.

Hy-Gard is a trademark of Deere & Company

OULXA64,4CYL,0005832-19-29AUG23

Front-Wheel Drive Axle (730, 733 and 735)—Change Oil of Final Drives without Brake



TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot, pressurized oil.

Touching hot surfaces can cause injury.

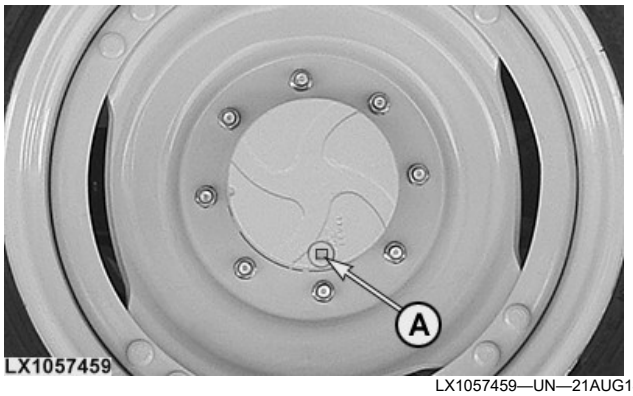
Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40°C, 103°F).

Slowly unscrew the drain/level screw plug.

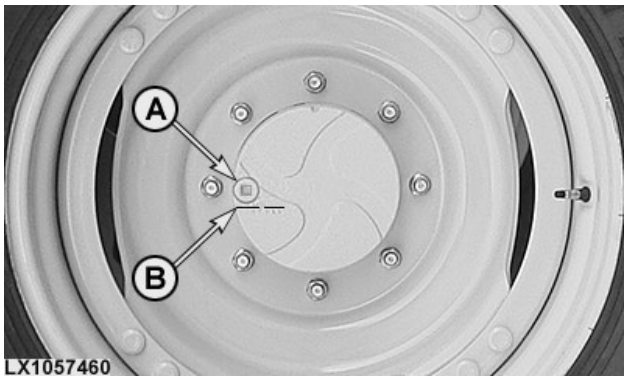
NOTE: Replace oil in the final drives after the first 100 and after the first 1500 hours of operation. Then change oil after every 1500 hours of operation or once every 2 years, whichever occurs first.

1. Turn wheel so that drain screw (A) is at the bottom. Remove screw, and drain the oil.



LX1057459—UN—21AUG14

2. Turn the wheel through 90° so that the line marked **OIL LEVEL** (B) is horizontal, and fill with fresh oil at the drain screw hole. Oil must be level with the drain screw hole.



LX1057460—UN—21AUG14

3. Put a new O-ring on the drain screw.
4. Screw in the drain screw and tighten it to 90 N·m (66 lb·ft).

Oil to be used	Hy-Gard™ Transmission and Hydraulic Oil. See also section 200E.
Capacity	See Capacity of the relevant tractor in section 500A.

Hy-Gard is a trademark of Deere & Company

LX25458,4CYL,0000B94-19-30AUG23

Front-Wheel Drive Axle (730, 733 and 735)—Change Oil of Axle Housing



TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot, pressurized oil.

Touching hot surfaces can cause injury.

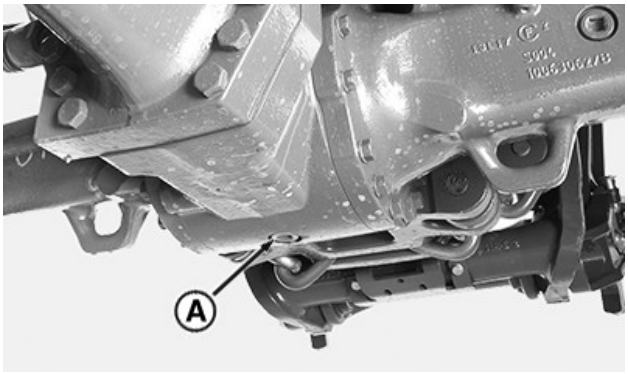
Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40°C, 103°F).

Unscrew the level screw plug slowly.

NOTE: Replace oil in the axle housing after the first 100 and after the first 1500 hours of operation. Then change oil after every 1500 hours of operation or once every 2 years, whichever occurs first.

1. Remove drain screw (A) and drain the oil.



LX364296—UN—21FEB19

2. Put a new O-ring on the drain screw.
3. Reinstall oil drain screw and tighten to 90 N·m (66 lb·ft).
4. Remove filler screw (A) and put a new O-ring on it. Fill with fresh oil. The oil level must be up to the filler hole. Install filler screw.



LX364297—UN—21FEB19

NOTE: Location of screws varies depending on the axle type.

Oil to be used	Hy-Gard™ Transmission and Hydraulic Oil. See also section 200E.
Capacity	See Capacity of the relevant tractor in section 500A.

Hy-Gard is a trademark of Deere & Company

LX25458,4CYL,0000B95-19-30AUG23

Replace Transmission and Hydraulic Oil Filters



TS281—UN—15APR13

CAUTION: Danger of injury from hot hydraulic system components or hot oil.

Touching hot surfaces of the hydraulic system, accessories, or hoses and leads can cause personal injuries.

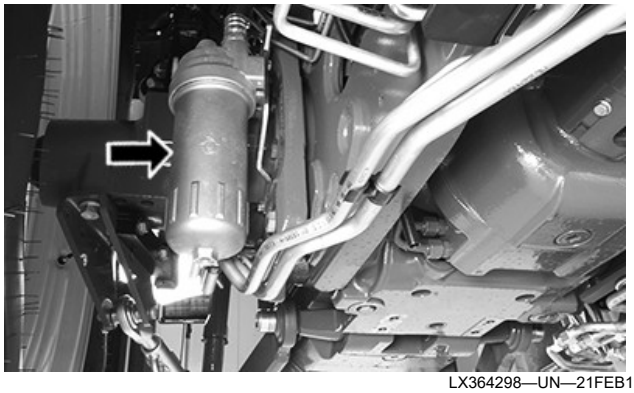
Avoid contact with hot surfaces or hot oil.

Change the oil filter while the oil is warm (approx. 40°C; 103°F).

IMPORTANT: Always replace both filters at the same time.

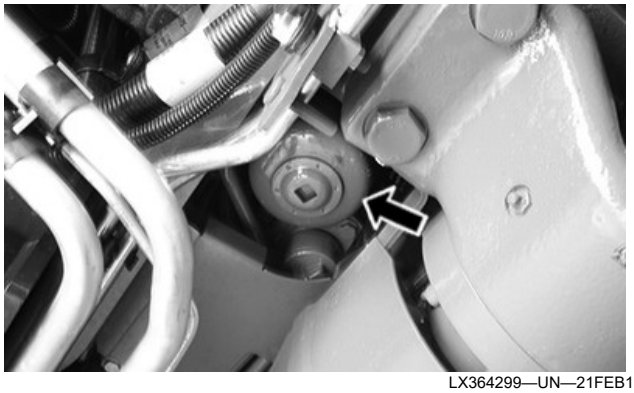
NOTE: Replace transmission and hydraulic oil filters according to the service intervals specified in section 210A.

1. Unscrew filter elements.



LX364298—UN—21FEB19

Hydraulic Oil Filter



LX364299—UN—21FEB19

Transmission Oil Filter

2. Coat seal rings of new filters with grease and screw in the filters.

   Use only genuine John Deere filters.

3. Run the engine briefly and operate several hydraulic functions. Shut off engine and remove key switch.
4. Wait for 10 to 15 minutes, then check oil level. It should be between the marks on the sight glass. If not, correct oil level.

OULXA64,SP1,00058FD-19-30JUL24

Change Transmission and Hydraulic Oil and Clean Intake Screen (PowrQuad™, AutoQuad™, and CommandQuad™ Plus Transmission



TS281—UN—15APR13

CAUTION: Danger of injury from hot hydraulic system components or hot oil.

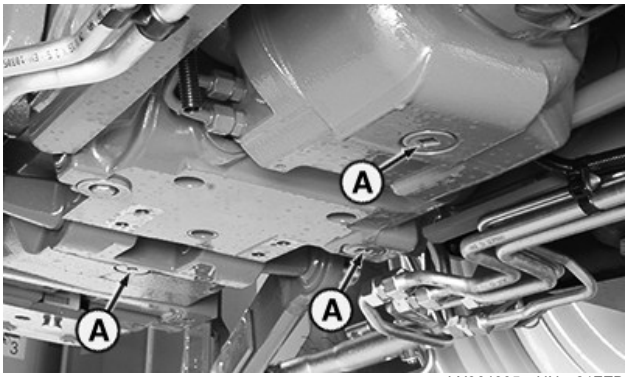
Touching hot surfaces of the hydraulic system, accessories, or hoses and leads can cause personal injuries.

Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40°C; 103°F).

Drain Transmission and Hydraulic Oil

1. Start the engine and actuate a few hydraulic functions so that the oil heats up.
2. Park tractor so that it is level. Lower draft links, front loader, front implements, and other implements that draw oil from the transmission.
3. Shut off engine and remove key switch.
4. Engage park lock.
5. Take out drain screws (A) and (B) and drain the oil into a suitable container. For Capacities, see section 500A.



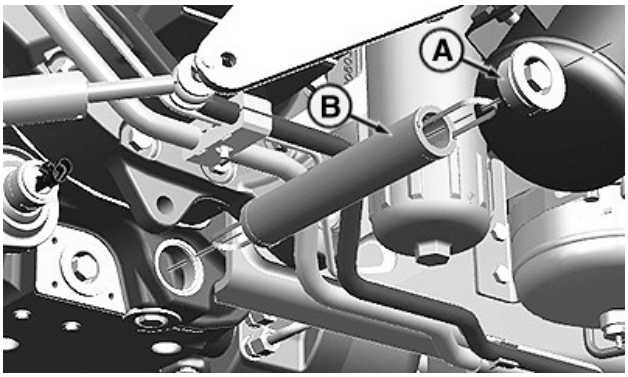
LX364305—UN—21FEB19

A—Drain Screw in Differential Housing (50 N·m; 37 lb·ft)
B—Drain Screw of the Front-Wheel Drive Clutch (50 N·m; 37 lb·ft)

NOTE: If equipped, remove the drawbar.

6. After draining the oil, put new seal rings on drain screws (A) and (B) and tighten them.

Clean Intake Screen and Change Transmission and Hydraulic Oil



LX364306—UN—21FEB19

A—Screw Plug (50·Nm; 37 lb·ft)
B—Intake Screen

1. Remove screw plug (A).
2. Pull out intake screen (B) and wash in fuel.
3. Clean the area where the intake screen is installed.
4. Reinstall the intake screen.
5. Before refilling with fresh oil, replace seals and tighten drain screws to 50 N·m (37 lb·ft).
6. Fill transmission and hydraulic oil into the transmission housing. For capacities, see section 500A.

Check the oil level

Run the engine briefly and operate several hydraulic functions. Stop engine.

Wait for 10 to 15 minutes before checking the oil level. It should be between the marks on the sight glass. If not, correct oil level.

OULXA64,SP1,100058FE-19-29AUG23

Change Transmission and Hydraulic Oil and Clean Intake Screens (AutoPowr™/ IVT™ Transmission)



TS281—UN—15APR13

CAUTION: Risk of injury from hot components of the hydraulic system or hot oil.

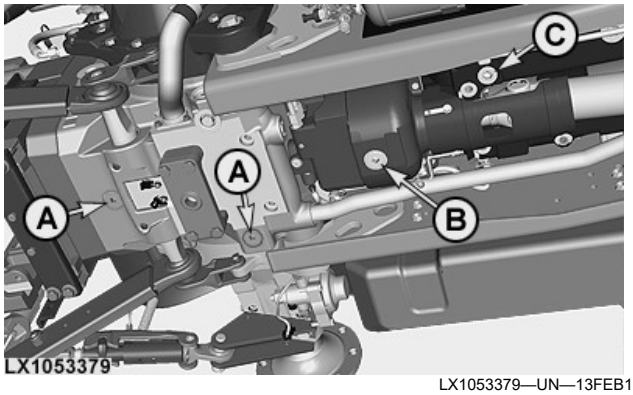
Touching hot surfaces of the hydraulic system, accessories, or hoses and leads can cause personal injuries.

Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40 °C; 103 °F).

Drain Transmission and Hydraulic Oil

1. Start the engine and operate several hydraulic functions to heat up the oil.
2. Park tractor so that it is level. Lower draft links, front loader, front implements, and other implements that draw oil from the transmission.
3. Shut off engine and remove key switch.
4. Engage park lock.
5. Take out drain screws (A), (B), and (C) and trap the oil in a suitable container. For Capacities, see section 500A.



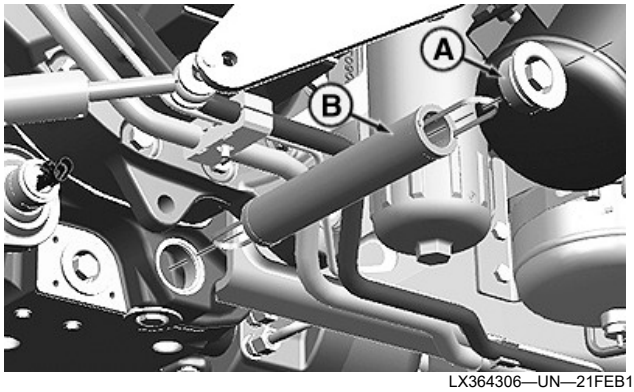
LX1053379—UN—13FEB12

A—Drain Screw in Differential Housing, 50 N·m (37 lb·ft)
B—Drain Screw of the Front-Wheel Drive Clutch, 50 N·m (37 lb·ft)
C—Drain Screw on the Transmission, 50 N·m (37 lb·ft)

NOTE: If equipped, remove the drawbar.

6. After draining the oil, put new seal rings on drain screws (A), (B), and (C) and tighten them.

Clean Intake Screen and Change Transmission and Hydraulic Oil



LX364306—UN—21FEB19

A—Screw Plug (50·Nm; 37 lb·ft)
B—Intake Screen

1. Remove screw plug (A).
2. Pull out intake screen (B) and wash in fuel.
3. Clean the area where the intake screen is installed.
4. Reinstall the intake screen.
5. Before refilling with fresh oil, replace seals and tighten drain screws to 50 N·m (37 lb·ft).
6. Fill transmission and hydraulic oil into the transmission housing. For capacities, see section 500A.

Check the oil level

Run the engine briefly and operate several hydraulic functions. Shut off engine.

Wait for 10-15 minutes and then check oil level. It should be between the minimum and maximum mark on the sight-glass. If not, correct oil level.

OULXA64,SP1,00058FF-19-30AUG23

Replace Air-Dryer Cartridge of Air Brake System

CAUTION: Before doing this job, it is essential to relieve the pressure in the compressed-air system.

CAUTION: It may be necessary to change the air-dryer cartridge sooner. If condensation (water) is found during the daily check of the compressed-air tank, the air-dryer cartridge must be replaced immediately.

Replace the air-dryer cartridge every 1500 hours or every 2 years, whichever comes first.



LX515636—UN—18DEC23

Drain any condensate from the air brake system and completely release the compressed air pressure. See Check for Condensed Water on Air Brake System in Section 220D.

Unscrew the air-dryer cartridge and remove the O-ring.

Put on a new O-ring and tighten the new air-dryer cartridge.

OULXA64,SP1,000591D-19-27JUN25

Replace Oil Filter of Front PTO (If Equipped)



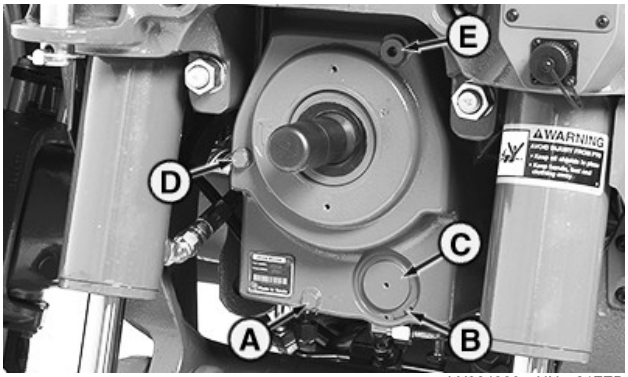
TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot oil.

Touching hot surfaces, accessories, or hoses and leads can cause injury.

Avoid contact with hot surfaces or hot oil.

Change the oil filter while the oil is warm (approx. 40°C; 103°F).



LX364309—UN—21FEB19

A—Drain Screw, 20 N·m (15 lb·ft)
B—Snap Ring
C—Cover
D—Screw, 20 N·m (15 lb·ft)
E—Screw, 40 N·m (30 lb·ft).

1. Take out drain screw (A) and drain the oil into a suitable container.

NOTE: If oil smells burnt or has a very dark appearance, it needs to be changed. If chips or similar things are noticed during a filter change, the PTO clutch needs to be repaired by a John Deere dealer or other service provider.

2. Remove screws (D) and (E).
3. Remove snap ring (B) and cover (C).
4. Replace the oil filter.
5. Put a new seal ring on cover (C) and make sure that it is seated correctly.
6. Install cover (C) and snap ring (B).
7. Remembering to include a new seal, install the oil drain screw and tighten to 20 N·m (15 lb·ft).
8. Fill clean transmission and hydraulic oil through the screw hole (E) into the PTO housing until oil comes out of the screw hole (D).
9. Remembering to include a new seal, install screw (D) and tighten to 20 N·m (15 lb·ft).
10. Remembering to include a new seal, install screw (E) and tighten to 40 N·m (30 lb·ft).

OULXA64,SP,0005711-19-16JUL25

Change Oil of Front PTO (If Equipped)



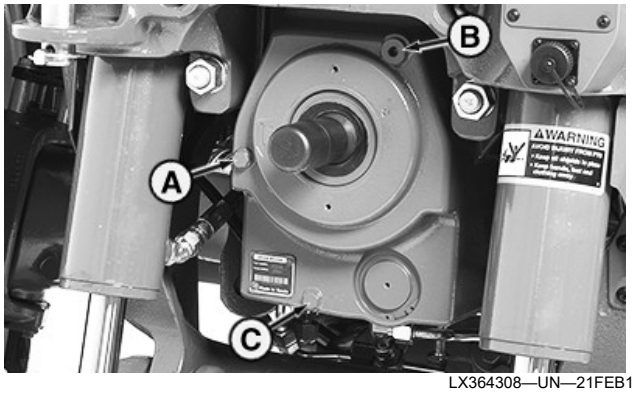
TS281—UN—15APR13

CAUTION: Danger of injury from hot components or hot oil.

Touching hot surfaces, accessories, or hoses and leads can cause injury.

Avoid contact with hot surfaces or hot oil.

Perform oil change while the oil is warm (approx. 40°C, 103°F).



LX364308—UN—21FEB19

A—Screw, 20 N·m (15 lb·ft)
B—Screw, 40 N·m (30 lb·ft).
C—Drain Screw, 20 N·m (15 lb·ft)

1. Take out drain screw (C) and drain the oil into a suitable container.

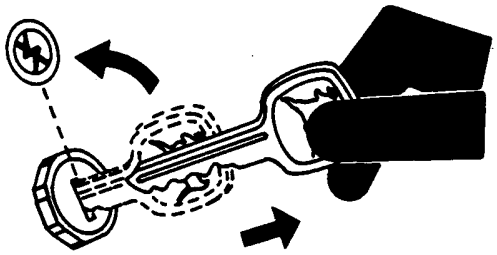
NOTE: If chips or similar things are noticed, the PTO clutch needs to be repaired by a John Deere dealer or other service provider.

At every oil change, also change the oil filter.

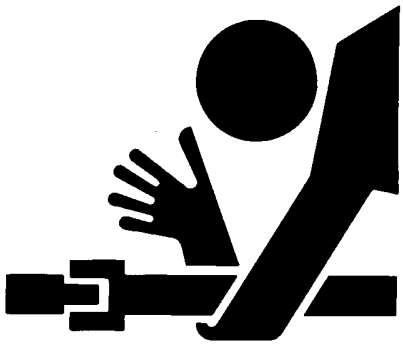
2. Take out screws (A) and (B).
3. Remembering to include a new seal, install drain screw (C) and tighten to 20 N·m (15 lb·ft).
4. Add approx. 2.6 L (0.69 US gal) of fresh transmission and hydraulic oil to the PTO housing at the hole for screw (B) until oil emerges from hole (A). See section 200E.
5. Remembering to include a new seal, install screw (A) and tighten to 20 N·m (15 lb·ft).
6. Remembering to include a new seal, install screw (B) and tighten to 40 N·m (30 lb·ft).

OULXA64,SP,0005712-19-16JUL25

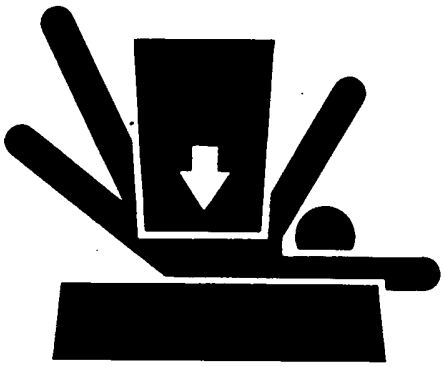
General Information for Lubrication



TS230—UN—24MAY89
Observe Parking the Machine Safely



TS276—UN—23AUG88
Service the Universal-Jointed Shafts only when Engine OFF and Park Lock Actuated



TS229—UN—23AUG88
Supporting the Machine Properly

CAUTION: Stop the engine before lubricating, lower front and rear hitch completely, and apply park lock. If equipped, lower front loader completely.

Make grease fitting of the front universal-jointed shafts accessible:

1. **Turn steer to full stop.**
2. **Stop the engine and engage the park lock.**
3. **Raise axle knee with a jack until the wheel can rotate freely.**
4. **Rotate the wheel until the grease fitting can be reached by the grease gun.**

Stay clear of the danger area underneath the wheel.

IMPORTANT: All the lubrication points displayed below need to be lubricated during a regular service.

There may be deviations due to the variety of equipment. Ignore the illustration in case the displayed component is not available.

Some components are available in different configurations. In case several parts are shown, just observe the relevant version.

Lubrication procedure: When using a conventional grease gun, press in an amount of greases until old grease, dirt, or water comes out of the lubrication point. Remove excessive grease and dispose of properly according to local regulations. One exception is the rear axle bearings. They are lubricated with no more than 6-8 strokes of the conventional grease gun.

Special conditions: There is an anti-wrap guard over each universal joint on the universal-jointed shaft. Remove the anti-wrap guard if it does not feature an access opening to the grease fitting.

Recommended grease: See Grease in section 200E.

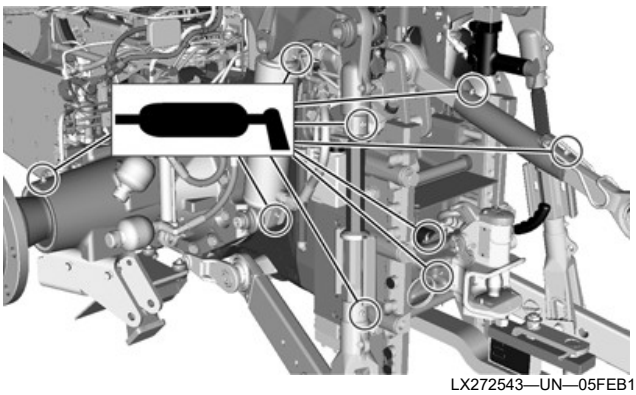
LX25458,ALL,0000B9B-19-13OCT20

Unscheduled Lubrication

If the tractor is operating in particularly wet and muddy conditions, or has been washed with a pressure washing system, lubricate all the lubrication points on the tractor.

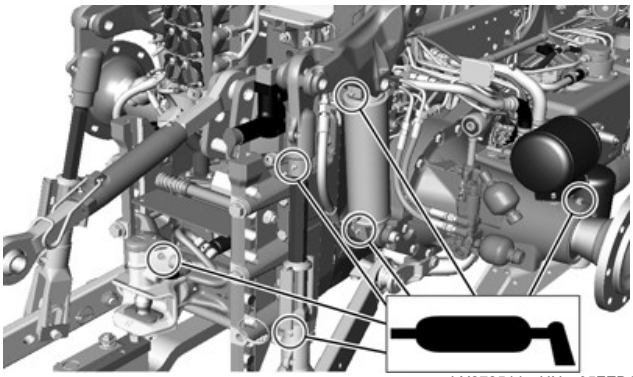
LX25458,ALL,0000B9C-19-05JUN20

Lubricate Tractor—Lubrication Points



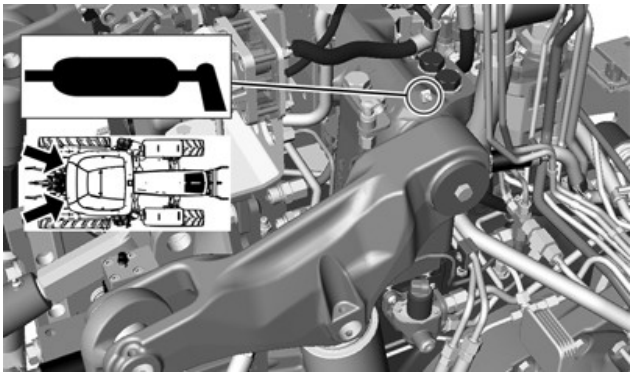
LX272543—UN—05FEB16

Rear Hitch and Axle Bearings



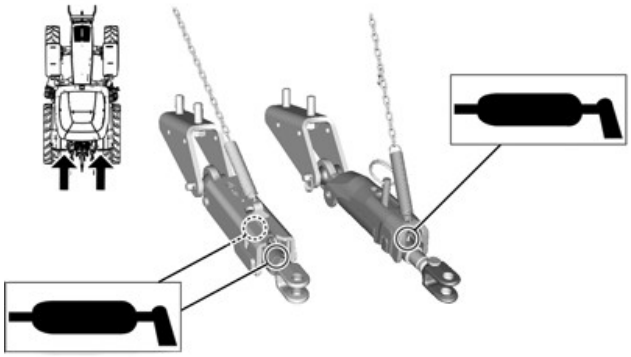
LX272544—UN—05FEB16

Rear Hitch and Axle Bearings



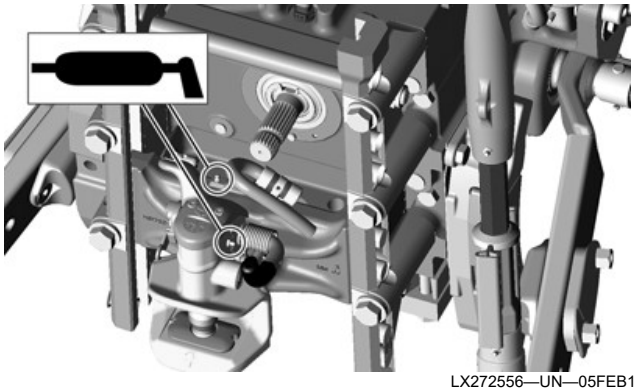
LX272545—UN—05FEB16

Rear Hitch, Rockshaft Block



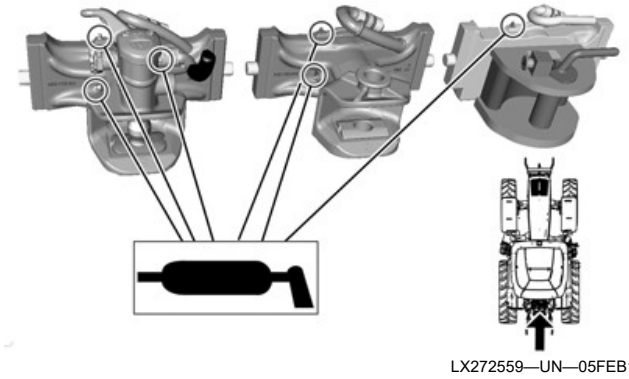
LX272560—UN—05FEB16

Rear Hitch, Stabilizer



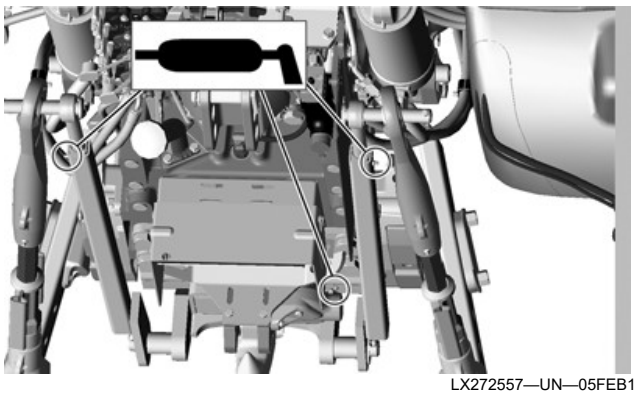
LX272556—UN—05FEB16

Trailer Hitch (if equipped)



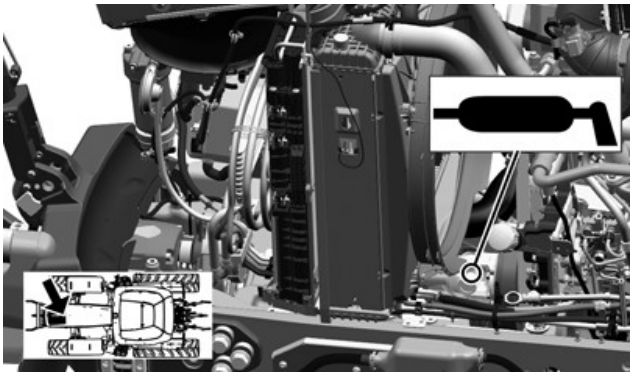
LX272559—UN—05FEB16

Trailer Hitch (several versions)



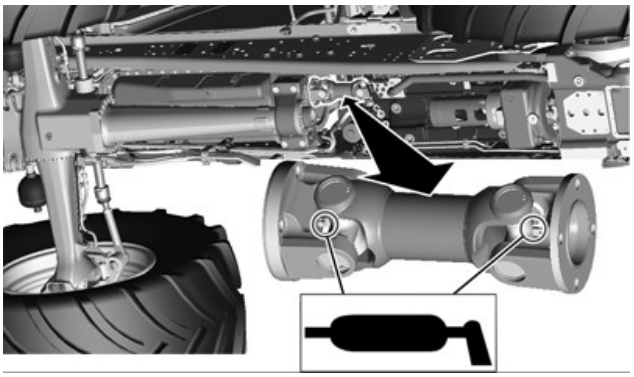
LX272557—UN—05FEB16

Tractor Rear, only for Pickup Hitch



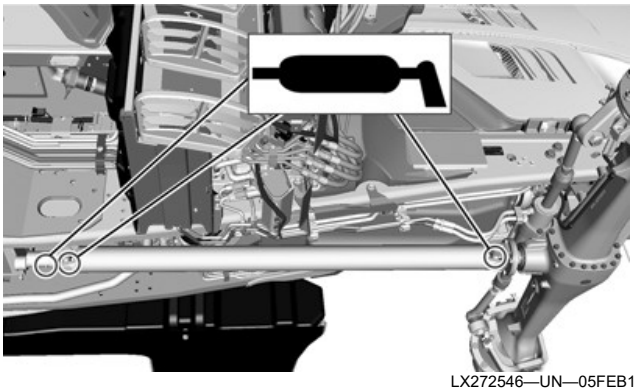
LX514883—UN—21SEP22

Universal-Jointed Shaft Between Engine and Front PTO (if equipped with grease fittings)



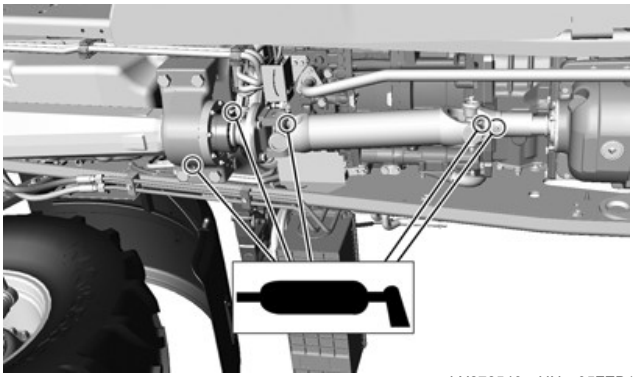
LX272558—UN—05FEB16

Universal-Jointed Shaft Between Engine and Transmission (if equipped with grease fittings)



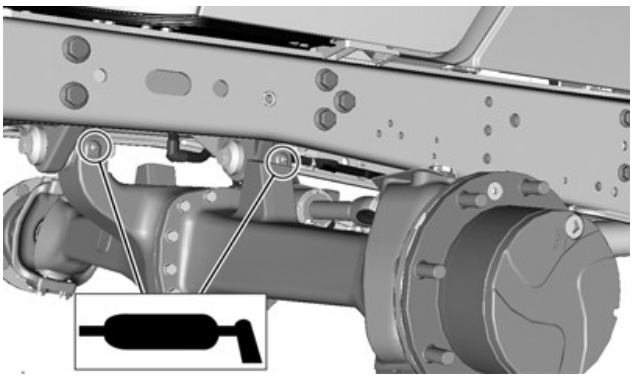
LX272546—UN—05FEB16

Universal-Jointed Shaft, Front-Wheel Drive Axle, without Suspension (if equipped with grease fittings)



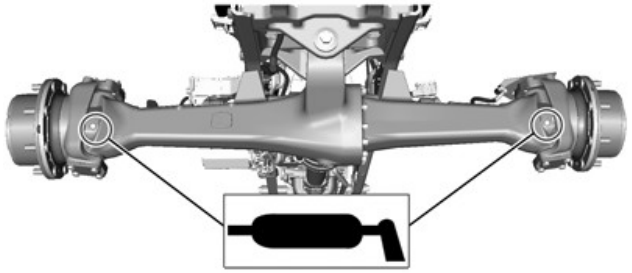
LX272549—UN—05FEB16

Universal-Jointed Shaft, Front-Wheel Drive Axle with Suspension (if equipped with grease fittings)



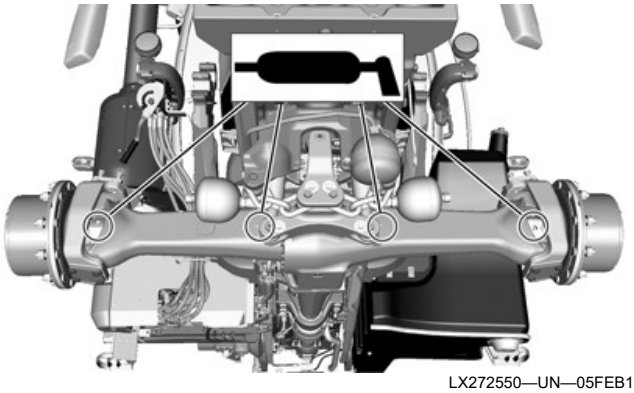
LX272547—UN—05FEB16

Floating Pin, Front-Wheel Drive Axle without Suspension



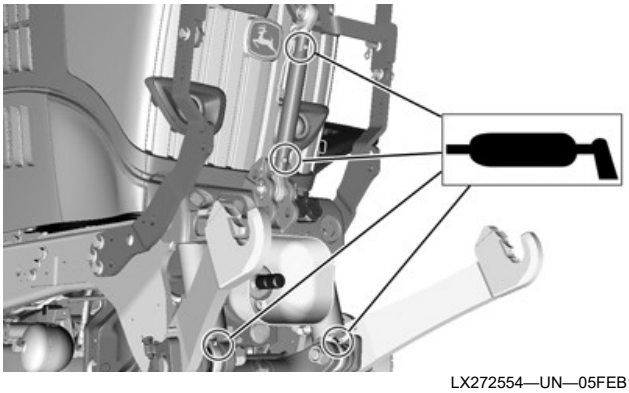
LX272548—UN—05FEB16

Universal Joints, Front-Wheel Drive Axle without Suspension (if equipped with grease fittings)



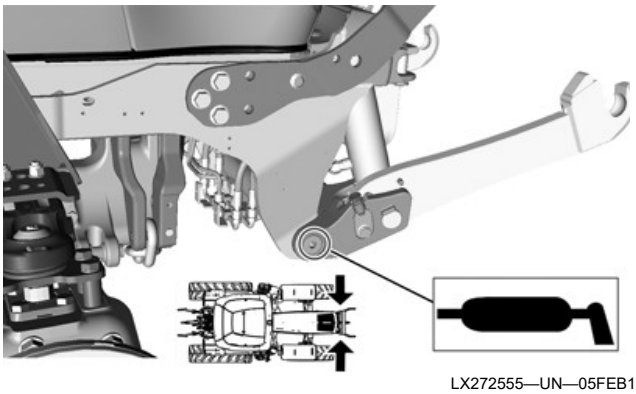
LX272550—UN—05FEB16

Universal Joints and Hydraulic Cylinder, Front-Wheel Drive Axle with Suspension (if equipped with grease fittings)



LX272554—UN—05FEB16

Front Hitch (if equipped)



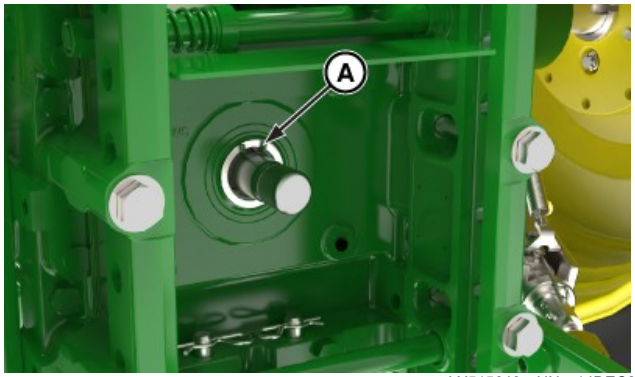
LX272555—UN—05FEB16

Front Hitch (if equipped)

OULXA64,SP,4CYL,0005836-19-15NOV23

Lubricate Rear PTO Stub Shaft Support

CAUTION: Engage park lock and shut off engine. Remove the ignition key to prevent unauthorized operation.



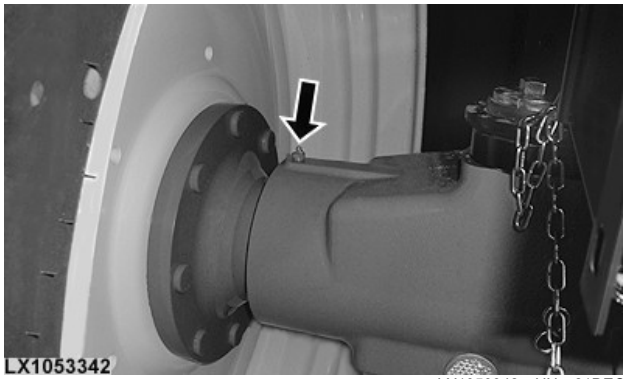
LX515640—UN—14DEC23

1. Remove impurities from PTO stub shaft.
2. Use pliers to compress snap ring (A), and remove the PTO stub shaft together with the snap ring.
3. Lubricate the PTO stub shaft support using John Deere HD Moly Grease.
4. Place snap ring (A) in the groove of PTO stub shaft and compress it with pliers, then install the stub shaft in the PTO housing.
5. Make sure snap ring (A) is seated correctly.

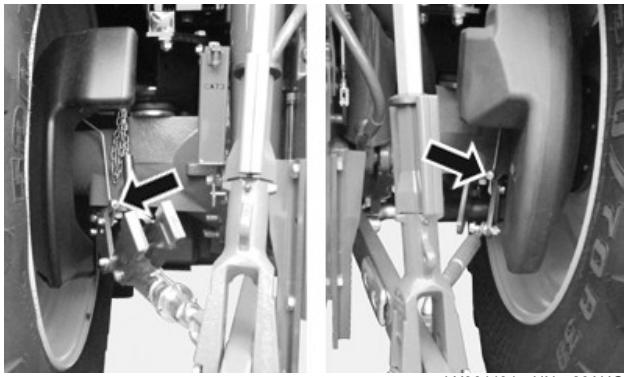
LX25458,ALL,0000B9E-19-23NOV23

Lubricate Rear Axle Bearings

IMPORTANT: Carry out this service after every ten hours of operation when working under very wet and muddy conditions.



LX1053342—UN—21DEC11

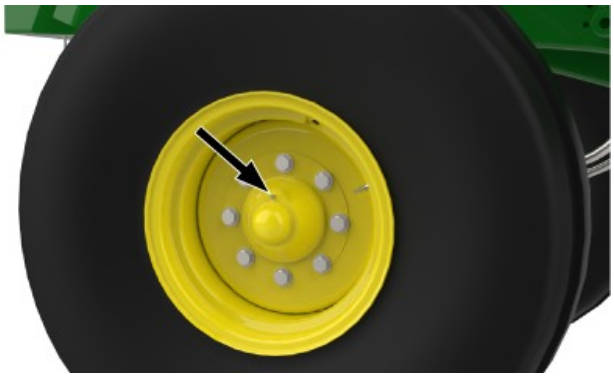


LX364434—UN—28AUG19

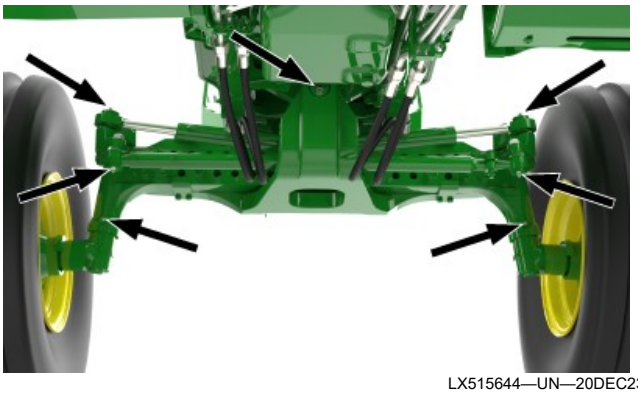
Lubricate both bearings with 6 to 8 strokes of grease gun. Use John Deere multi-purpose grease.

OULXA64,SP1,0005900-19-20NOV20

Lubricate the Grease Fittings of Adjustable Front Axle Type B



LX515643—UN—14DEC23



LX515644—UN—20DEC23



LX515645—UN—20DEC23

IMPORTANT: Carry out this service after every ten hours of operation when working under very wet and muddy conditions.

Lubricate the grease fittings on the front axle using John Deere multi-purpose grease.

IMPORTANT: Thoroughly clean all grease fittings prior to lubricating. Replace damaged grease fittings immediately.

LX25458,OOS,SP,0000BA0-19-19FEB24

Troubleshooting

Transmission

Symptom	Problem	Solution
Transmission oil too hot	Low oil supply	Correct the oil level.
	Excessive oil consumption	Remove oil if necessary.
	Air passages of oil cooler clogged	Clean oil cooler.
	Clogged transmission and hydraulic oil filter	Replace filter.
Transmission oil pressure low	Low oil supply	Correct the oil level.
	Clogged transmission and hydraulic oil filter	Replace filter.
Transmission shifts slowly and tractor steering sluggish	Cold oil	Use cold-weather starting aids and coolant heaters.
Transmission in too fast or too slow gear at start	No failure	Start-up gear can be changed using the instrument unit.
		If the failure continues, contact a John Deere dealer or other service provider.

LX25458,OOS,SP,0000BA1-19-11JUL25

Hydraulic System

Symptom	Problem	Solution
Hydraulic system fails to function	Not enough oil in the system	Correct the oil level.
	Open electrical circuit	Check fuses.
Filter plugged/by-passed warning is active	Plugged filter	Replace filter.
Hydraulic oil overheats	Cooling system overloaded	Dirty oil cooler. Coolant level low.
	Selective control valve accidentally locked in operating position	Move selective control valve to neutral position.
Hitch fails to follow lever or knob position	Fault in sensor circuit for the lever position or the hitch	Contact a John Deere dealer or other service provider.
Hitch fails to lift under load	Excessive load on hitch	Reduce load.
Hitch lifts slowly	Raise rate too slow	Adjust raise rate, see Section 60D or 60E.
Hitch rate-of-drop too slow	Rate-of-drop not adjusted properly	Adjust rate-of-drop.
Insufficient sensitivity to load control	System regulator in depth control or mixed control position	Move system regulator to load control position.

Symptom	Problem	Solution
Excessive sensitivity when attaching implements	System regulator in load control position	Place system regulator in depth control position.
Selective control valves not functioning	Hoses not connected properly	Attach hoses correctly.
Hydraulic cylinder operates too fast or too slow	Rate of flow adjusted wrong.	With M-SCVs, adjust the flow control valve. With E-SCVs, adjust the flow rate at the CommandCenter.

LX25458,ALL,0000BA2-19-16JUL25

Selective Control Valves (SCVs)

Symptom	Problem	Solution
Hydraulic cylinder does not lift load	Missing flow	Move SCV control levers.
	Excessive load	Reduce load.
	Hoses not correctly connected	Attach hoses correctly.
	Wrong hydraulic cylinder size	Use correct cylinder size
	SCV lock button active	Deactivate SCV lock button.
	Incorrect or damaged hose connections	Replace hose connections.
Hydraulic cylinder extends too fast or too slow	Incorrect flow rate	Adjust flow rate.
Hydraulic cylinder works the wrong way around	Incorrect hose connections	Reverse hose connections.
Hoses cannot be connected	Incorrect hose connectors	Replace connectors with ISO Standard connectors.
Detent time of the SCV does not hold correctly or releases too early	Detent time set incorrectly	Set detent time correctly.
	Control lever of SCV is not released in the neutral position	Release SCV valve lever from detent position to neutral position in less than 0.8 seconds.
Control lever of the SCV is not released	Control lever is detented in the float position	Do not press the lever down into the float position (detent position).
	Lever mechanism failed	Contact a John Deere dealer or other service provider.
Implement does not operate or does not operate correctly	Incorrect hose connections	See Operator's Manual of the implement.

LX25458,ALL,0000BA3-19-11JUL25

Engine

Symptom	Problem	Solution
Engine hard to start or will not start	Electrical system failure	Check fuses.
	Wrong key switch for immobilizer	Check for right key switch
	No fuel in the tank	Fill tank.
	Presence of air in the fuel system	Bleed air from fuel system.
	Fuel pump does not work	Turn key switch on and listen for pumping noise to make sure fuel pump is working.
	Weather too cold	Use cold-weather starting aid.
	Fuel filter contaminated	Replace filter(s).
	Engine oil too viscous	Use oil of correct viscosity.
	Faulty glow plugs	Contact a John Deere dealer or other service provider.
Engine knocks	Insufficient oil in engine	Add oil.
Engine overheating	Insufficient coolant level	Fill radiator to prescribed level. Check cooling system for leaks.
	Loose or defective fan belt	Inspect and replace belt if needed.
	Viscous fan dirty	Clean the bimetallic spring with compressed air.
	Viscous fan defective	Contact a John Deere dealer or other service provider.
	Cooling system contaminated	Drain, flush, and refill cooling system.
	Oil cooler or protective grille contaminated	Clean oil cooler and grille.
	Defective thermostat	Remove and check thermostat.
Low engine oil pressure	Engine oil level too low	Add oil.
Excessive oil consumption	Oil of too low viscosity	Refill oil with correct viscosity.
	Leaking	Check oil lines and gaskets.
High fuel consumption	Improper fuel	Use proper fuel.
	Incorrect valve clearance	Contact a John Deere dealer or other service provider.

Symptom	Problem	Solution
	Injectors dirty or damaged	Contact a John Deere dealer or other service provider.
	Injection time incorrectly set	Contact a John Deere dealer or other service provider.
	Clogged or dirty air cleaner	Clean the air cleaner.
Engine emits black or gray exhaust smoke	Improper fuel	Use proper fuel.
	Clogged air cleaner	Clean the air cleane.r
	Injectors dirty or damaged	Contact a John Deere dealer or other service provider.
Engine emits white smoke	Improper fuel	Use proper fuel.
	Engine too cold	Run engine until normal operating temperature is reached.
	Defective thermostat	Replace thermostat.
	Injection time incorrectly set	Contact a John Deere dealer or other service provider.
	Faulty glow plugs	Contact a John Deere dealer or other service provider.

LX25458,ALL,0000BA4-19-11JUL25

Electrical System

Symptom	Problem	Solution
Battery will not charge	Cable connections loose or oxidized	Clean or tighten.
	Alternator fault	Contact a John Deere dealer or other service provider.
	Sulfated battery	Check specific gravity and electrolyte level of battery.
	Loose or defective V-belt	Adjust belt tension or replace belt.
Starter motor inoperative	Cable connections loose or oxidized	Clean or tighten.
	Weak battery	Check and recharge battery.
	Blown fuse	Replace fuse.
	No clicking sound at the starter when starting	Check the start protection countdown timer (overheating protection).

Symptom	Problem	Solution
	Starter control fault code	Check the starter control fault code.
	Defect in starter motor	Contact a John Deere dealer or other service provider.
Starter motor starts slowly	Weak battery	Check and recharge battery.
	Cable connections loose or oxidized	Clean or tighten.
	Defect in starter motor	Contact a John Deere dealer or other service provider.

LX25458,ALL,0000BA5-19-11JUL25

Operator's Cab

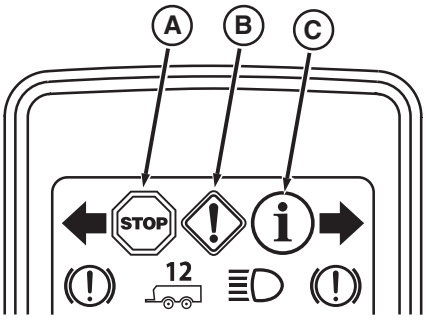
Symptom	Problem	Solution
Blower not keeping dust out of cab	Defective seal around filter element	Check seal condition.
		Check filter for correct installation.
	Defective filter	Replace filter.
	Excessive air leakage	Seal air leaks.
	Blower air flow too low	See Blower Air Flow Too Low.
Blower air flow too low	Clogged filter or air intake screen	Check and/or replace.
	Heater core or evaporator core clogged	Clean.
Heater will not shut off	Heater hoses connected incorrectly	Contact a John Deere dealer or other service provider.
	Bowden cable/water valve not adjusted properly	Contact a John Deere dealer or other service provider.
Air conditioner not cooling	Voltage too low	Contact a John Deere dealer or other service provider.
	Insufficient refrigerant	Contact a John Deere dealer or other service provider.
	Drive belt slippage	Check belt tension.
	Compressor switch not turned ON	Turn compressor switch ON.
Intermittent cooling	Air supply restricted in front corners	Clean radiator, oil cooler, and air conditioner condenser.
Seat suspension not working	Fuses blown	Replace fuses.

Symptom	Problem	Solution
Radio not working	Blown fuse	Replace fuse.
Tractor bouncing and jumping	Power hop/wheel hop	Check load distribution.
		Check ballasts.
		Check tire pressure.
		Select correct ballast.
	Loose wheel hardware	Tighten all hardware to correct torque.

OULXA64,ALL,000571D-19-15JUL25

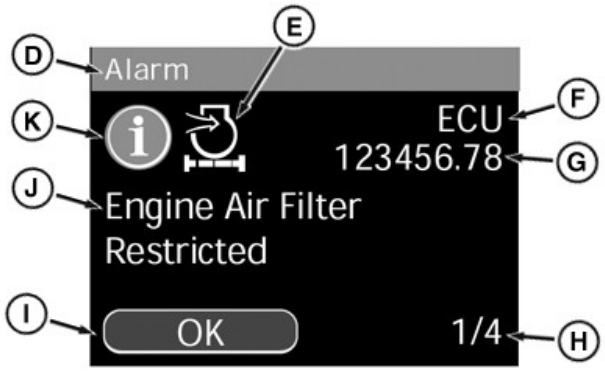
Warning Lights for Stop, Service, Information, and Safety Warnings

IMPORTANT: Whenever a warning or alarm message is active, pay attention to operating conditions, engine performance, and ambient conditions. Refer to the troubleshooting information.



RXA0153450—UN—19AUG16

Warning Lights for Stop, Service, and Information



RXA0153449—UN—19AUG16

Alarm Page

A—STOP Light
B—ATTENTION Indicator
C—INFO Light
D—Alarm Page
E—Icon for System
F—Control Software, Abbreviation
G—Diagnostic Trouble Code
H—Page Reference
I—Confirm (OK)
J—Text Field/Message/Description/Solution
K—Symbol for STOP, ATTENTION, or INFO

NOTE: All warning lights for STOP, ATTENTION, and INFO are accompanied by a message, a diagnostic trouble code, and/or a fault description on the information display.

Audible alarms (beeps or sounds continuously) support the warning lights and/or messages on the information display.

The basic information of the diagnostic trouble code is displayed in the text field (J). Additional information can be called up.

Operator information is displayed in text field (J) without icon (E).

A - STOP Light:
The light flashes and an uninterrupted alarm signal sounds. A serious malfunction has occurred, requiring immediate attention or the tractor will be damaged. The icons for system (E), control software (F), diagnostic trouble code (G), and solution (J) are displayed. If the control unit software detects a malfunction or a status “out of the permissible range”, an error message or a diagnostic trouble code is displayed. A diagnostic trouble code consists of the control software and a number. The numbers to the left of the decimal point show the malfunction.

If the situation allows an immediate termination of the operation, proceed as follows:

1. Set engine speed to idling speed.
2. Shut off engine.
3. Switch on the ignition and the fault and solution are displayed.

   You may need to access the stored codes. See Entering Diagnostic Addresses (Customer Level) in this section.
4. Apply displayed solutions. If the problem cannot be resolved, contact a John Deere dealer or other service provider.
5. The problem must be resolved before the engine is restarted.

If the ATTENTION indicator or the INFO light is lit, switch the transmission to the park position and switch off the engine.

B - ATTENTION Indicator:
The light flashes and the alarm signal sounds five times and indicates a performance problem or malfunction that has to be eliminated as soon as possible. If the ATTENTION indicator is lit and operation continues, this may cause serious faults and the STOP light will illuminate. If corrective action is not taken soon (serviced, repaired, operated in a different manner), a significant reduction in performance and/or machine damage will occur.

C - INFO Light:
Light comes on continuously and alarm sounds for 2 seconds, indicating a fault condition. Tractor operation can continue without causing damage. Performance of some functions may be impaired by this.

Operating in a different manner may correct and clear the "out-of-range" condition. If the ATTENTION indicator or the INFO light is lit, it may be possible to "acknowledge" and clear it with the confirm button in some cases. If condition still exists, diagnostic trouble code may reappear later.

For help with troubleshooting, contact a John Deere

dealer or other service provider who has additional access and tools to diagnose and solve problems.

OULXA64,SP,000571E-19-16JUL25

Diagnostics Menu



RXA0152980—UN—21JUL16

Diagnostics Menu

1. Access the Diagnostics menu. See Entering Diagnostic Addresses (Customer Level) in this section.
2. Make your selection and confirm.



RXA0152981—UN—25JUL16

Selection of Diagnostic Trouble Codes



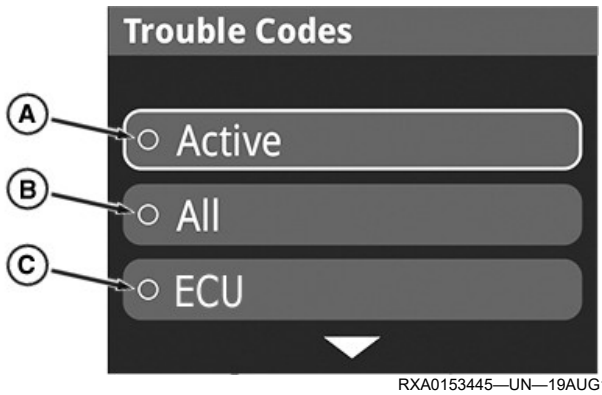
RXA0152973—UN—21JUL16

Selection of Diagnostic Addresses

Selection	Diagnostic Trouble Codes	Diagnostic Addresses
Range	Listed by functional area.	Listed by functional area.
Message	Displays active and stored codes.	Displays addresses that the operator can access or set.

OULXA64,SP,000571F-19-13OCT20

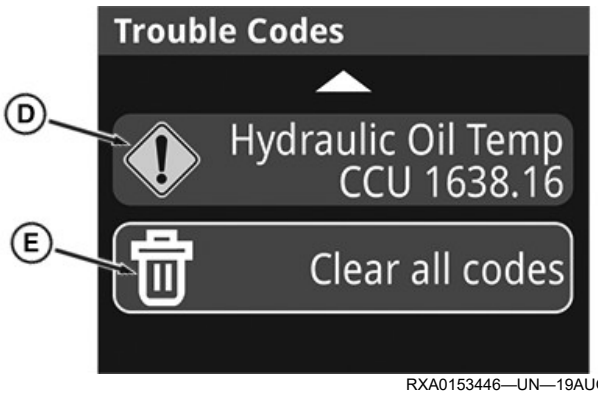
Diagnostic Trouble Codes



RXA0153445—UN—19AUG16

Trouble Code Menu

A—Active Codes
B—All Codes
C—Abbreviation of the Control Software



RXA0153446—UN—19AUG16

Trouble Code List

D—Diagnostic Trouble Code
E—Function: Clear all codes



RXA0152424—UN—28OCT16

Example (Code Information)

A—Active Codes (example)

1. Access the diagnostic trouble code menu. See Entering Diagnostic Addresses (Customer Level) in this section.
2. Select desired menu item:

- A - Active codes ► Only codes that are currently active are displayed.
- B - All codes ► All occurring and currently active codes are displayed. Single or all diagnostic trouble codes can be deleted.
- C - Abbreviation of the control software (ECU) ► All codes of the control software are displayed.

3. With option (B), codes can be deleted. Press the confirm button to navigate to the code list. It may take a few seconds to call up all the codes.
4. Select the desired diagnostic trouble code (D) to get more information.
5. Go through the text to the end until an arrow appears. Select OK to acknowledge the code.
6. Return to the code list and check other codes as needed.
7. After checking the codes, scroll to the end of the code list and select option (E). Press the confirm button to remove all stored and active codes.
8. If there are no active diagnostic trouble codes, the message No Codes Saved appears.
9. Use the back button to return to the main menu.

For help with troubleshooting, contact a John Deere dealer or other service provider who has additional access and tools to diagnose and solve problems.

OULXA64,SP,0005720-19-16JUL25

Enter Diagnostic Addresses (Customer Level)

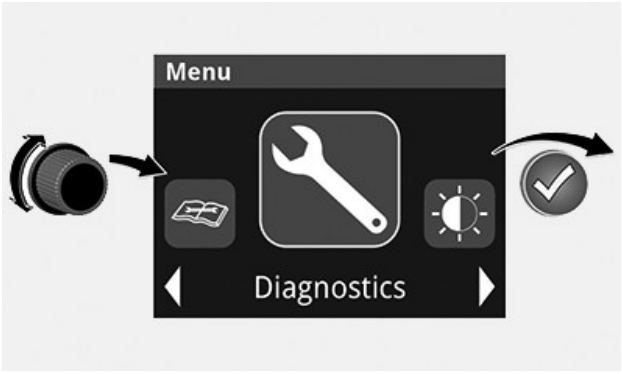
1. Press the menu button.



LX361253—UN—17DEC18

NOTE: If diagnostic trouble codes or messages are displayed, press the confirm button repeatedly until all diagnostic trouble codes and messages disappear.

2. Select displayed page and confirm selection.

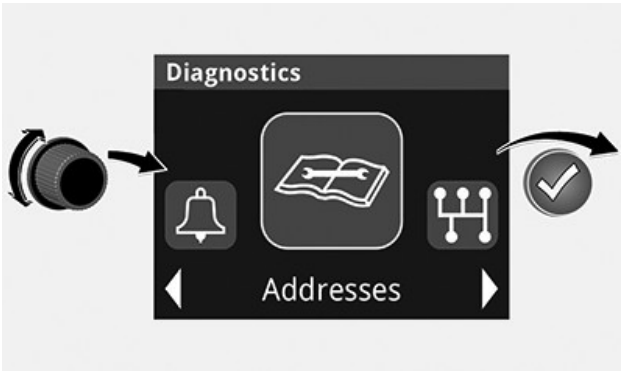


LX364202—UN—14JAN19

Diagnostics Access

NOTE: Control software list can vary depending on installed options.

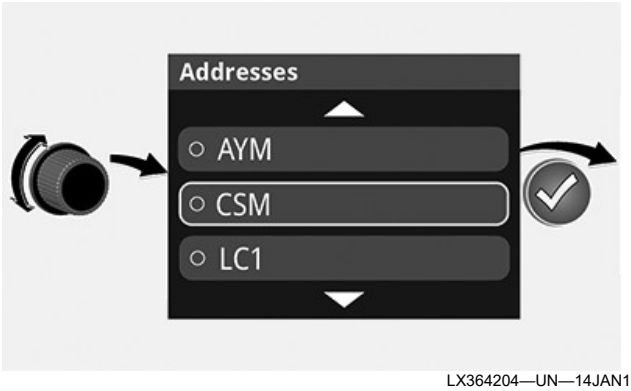
3. Select displayed page and confirm selection.



LX364203—UN—14JAN19

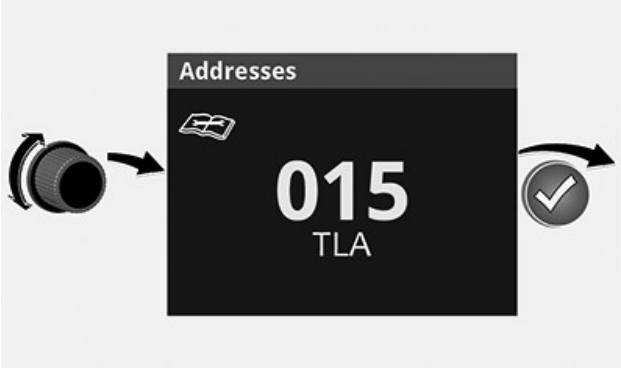
Access Addresses

4. Select desired address and confirm selection.



LX364204—UN—14JAN19

5. Select desired input address and confirm selection.



LX364205—UN—14JAN19

6. Select **Edit** and confirm selection.



LX364206—UN—14JAN19

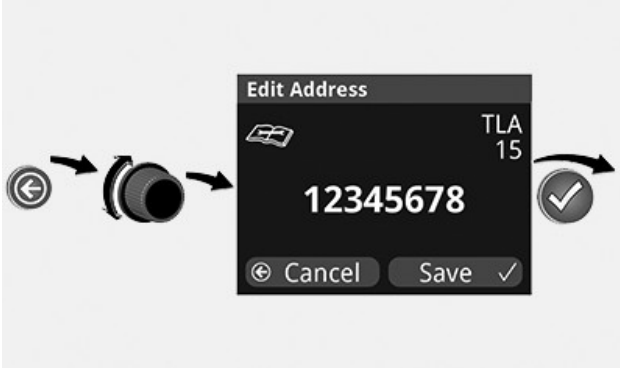
7. Change value shown in the input box by turning and confirm selection.



LX364207—UN—15JAN19

After each confirmation, the input box jumps one digit further.

8. To save, press **back arrow button** (Back), select **Save** and confirm.



LX364208—UN—14JAN19

OULXA64,SP,0005721-19-05OCT20

Storage

Shutting Down for an Extended Period

The following storage preparations are good for long term tractor storage up to one year. When this time is up, run the engine until it reaches operating temperature and operate some hydraulic functions. Afterwards retreat tractor for an extended storage period.

IMPORTANT: Remove the battery if the shutdown is more than 30 days.

IMPORTANT: Any time your tractor will not be used for over six months, the following recommendations for storing it and removing it from storage will help to minimize corrosion and deterioration.

Change engine oil and filter. Change transmission oil and filter. Used oil will not give adequate protection.

Clean the air cleaner.

It is not necessary to drain and flush the cooling system if the engine will only be stored for a few months. However, for extended storage periods of a year or longer, it is recommended that the cooling system be drained, flushed, and refilled. Refill with appropriate coolant.

Top up fuel tank.

If desired, the alternator/fan belt can also be removed.

Battery: It is recommended to remove the battery if the vehicle will not be used for more than 30 days. Clean the battery and store it in a cool, dry place and keep it fully charged. If a battery trickle charger is used, read the manufacturer's operating instructions to check whether the device is suitable for this.

Clean the exterior of the tractor with salt-free water and touch up any scratched or chipped painted surfaces with a good quality paint.

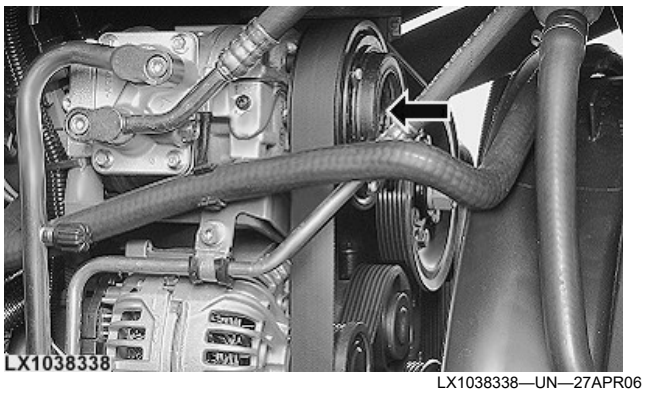
Apply a layer of grease or corrosion protection agent to all unpainted machined metal surfaces that are exposed to the weather.

Seal all openings such as the vent tube and exhaust outlet.

Store the machine in a dry, protected place. If the tractor must be stored outside, cover it with a waterproof canvas or other suitable protective material and use a strong waterproof tape.

Block up the machine so that tires do not touch the ground. Protect tires from heat and sunlight.

Tractors with Air-Conditioning System



LX1038338—UN—27APR06

If tractor is equipped with an air-conditioning system, manually turn the inner part of the pulley through several revolutions once a month.

LX25458,ALL,0000BA9-19-15JAN25

Remove from Storage

Remove all protective coverings. Check tire pressure and remove blocks.

Install battery and connect cables. Negative terminals are grounded!

Check transmission and hydraulic oil level. See that fuel tank is filled. Check level of coolant in the radiator. Check oil level in the engine crankcase. Carry out 500-hour check.

Check whether dirt or other foreign bodies have collected under the hood or cab. If so, remove them.

CAUTION: Never operate the engine in a closed building. Danger of poisoning!

LX25458,0000BAA-19-05JUN20

Specifications

GENERAL INFORMATION

- The technical information in this Operator's Manual corresponds to the current information at the time of going to press.
- Country and model-specific deviations are possible. Consider that your tractor is not equipped with all the options described here.
- Depending on the country, not all models mentioned may be available.
- Contact a John Deere dealer or other service provider if you have any questions about optional equipment and the relevant specifications.

500A,000,OULXA64,0005EA5-19-10JUL25

Note on Specifications

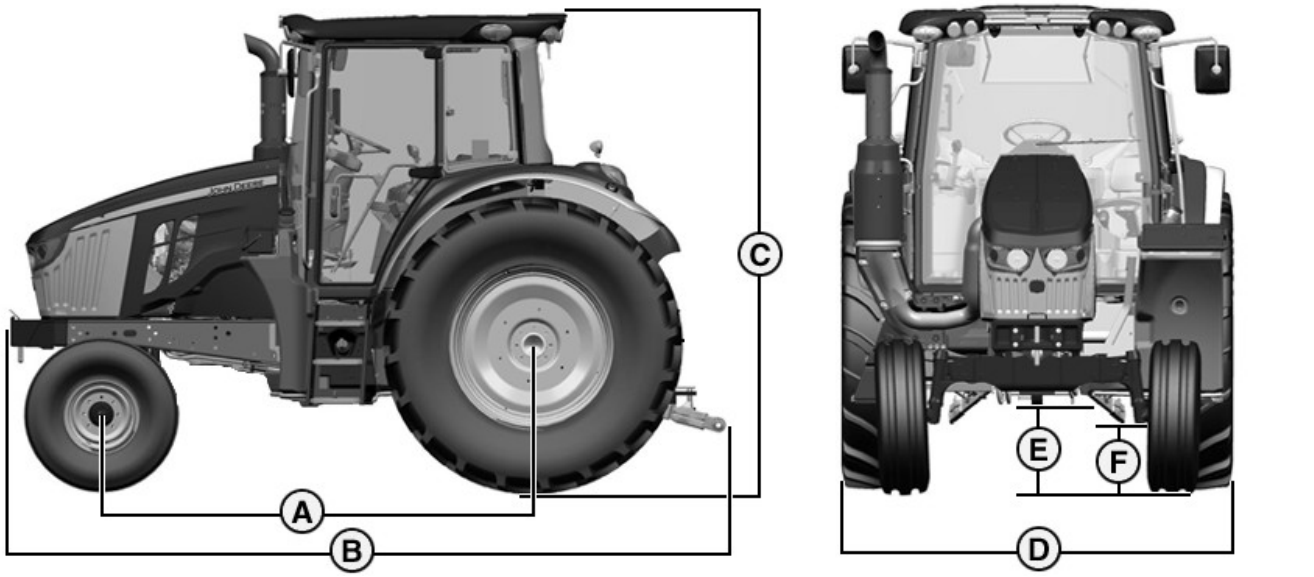
IMPORTANT: Depending on the regional peculiarities and individual vehicle configuration, the specifications are only applicable if the corresponding equipment is available.

The configuration can be found in the order information of the vehicle.

Subsequent additions and conversions must also be taken into account.

500A,001,LX25458,ALL,0000BAB-19-05APR24

Dimensions (6090M to 6120M with Cab and Adjustable Front Axle)



LX364388—UN—05MAR19

	Cab not suspensed		Cab with suspension	
	(mm)	(in)	(mm)	(in)
A - Wheelbase	2573	101.3	2573	101.3
B - Length				
• Basic weight 110 kg to rear hitch, draft link in horizontal position (hook, CAT II)	4366	171.9	4366	171.9
• Front weight to rear hitch, draft link in horizontal position (hook, CAT II)	4781	188.2	4781	188.2
C - Height				
- Maximum total height from ground to cab roof[ab], with rear tires with an SRI of:				
• SRI 700	2675	105.3	2725	107.3
• SRI 725	2700	106.3	2750	108.3
• SRI 750	2725	107.3	2775	109.3
• SRI 775	2750	108.3	2800	110.2
• SRI 800	2775	109.3	2825	111.2
• SRI 825	2800	110.2	2850	112.2
D - Width				
• Front axle				
- Narrowest dimension from flange to flange	1608	63.3	1608	63.3
- Widest dimension from flange to flange	2220	87.4	2220	87.4

• Rear axle				
- Flange axle, bolt circle diameter 203 mm, flange to flange	1552	61.1	1552	61.1
- Flange axle, bolt circle diameter 275 mm, flange to flange	1664	65.5	1664	65.5
- Rack-and-pinion axle, short version, hub diameter 79 mm, face to face	2270	89.4	2270	89.4
- Rack-and-pinion axle, long version, hub diameter 79 mm, face to face	2556	100.6	2556	100.6
- Rack-and-pinion axle, short version, hub diameter 86 mm, face to face	2438	96.0	2438	96.0
• Maximum width for road travel	2550	100.4	2550	100.4
E - Maximum ground clearance				
- At the axle housing of the front axle with front tires with an SRI of:				
• SRI 390	538	21.2	538	21.2
• SRI 425	573	22.6	573	22.6
• SRI 450	598	23.5	598	23.5
- At the steering knuckle of the front axle with front tires with an SRI of:				
• SRI 390	345	13.6	345	13.6
• SRI 425	380	15.0	380	15.0
• SRI 450	405	15.9	405	15.9
- Differential housing with drawbar mount, rear tires with SRI of:				
• SRI 700	348	13.7	348	13.7
• SRI 725	373	14.7	373	14.7
• SRI 750	398	15.7	398	15.7
• SRI 775	423	16.7	423	16.7
• SRI 800	448	17.6	448	17.6
• SRI 825	473	18.6	473	18.6
- On differential housing with pickup hitch (closed), with rear tires with an SRI of:				
• SRI 700	301	11.9	301	11.9
• SRI 725	326	12.8	326	12.8
• SRI 750	351	13.8	351	13.8
• SRI 775	376	14.8	376	14.8
• SRI 800	401	15.8	401	15.8
• SRI 825	426	16.8	426	16.8

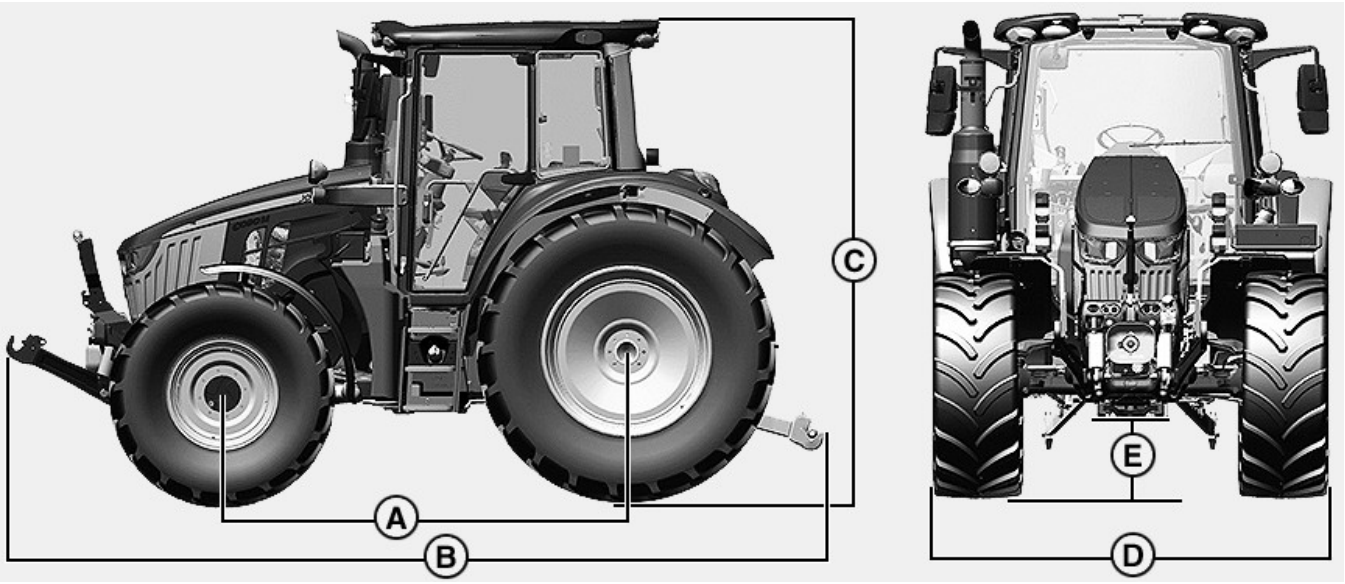
[a] *Without beacon light*
[b] *Without antenna*

IMPORTANT: Ground clearance and height of the tractor depend on the tire manufacturer, tire pressure, ballast, trailer hitches, implements attached, etc.

Before driving through gates, tunnels, bridges etc., the height of the tractor must be checked.

OULXA64,SP1,0005905-19-28AUG23

Dimensions (6090M to 6120M with Cab and Front-Wheel Drive Axle)



LX364389—UN—06MAR19

	Cab not suspensed		Cab with suspension	
	(mm)	(in)	(mm)	(in)
A - Wheelbase	2400	94.5	2400	94.5
B - Length				
• Basic weight 110 kg to rear hitch, draft link in horizontal position (hook, CAT II)	4366	171.9	4366	171.9
• Front weight to rear hitch, draft link in horizontal position (hook, CAT II)	4781	188.2	4781	188.2
• Draft link of front hitch folded-up to rear hitch, draft link in horizontal position (hook, CAT II)	4415	173.8	4415	173.8
• Draft link of front hitch in horizontal position to rear hitch, draft link in horizontal position (hook, CAT II)	4981	196.1	4981	196.1
C - Height				
- Maximum total height from ground to cab roof[ab], with rear tires with an SRI of:				
• SRI 700	2675	105.3	2725	107.3
• SRI 725	2700	106.3	2750	108.3
• SRI 750	2725	107.3	2775	109.3
• SRI 775	2750	108.3	2800	110.2
• SRI 800	2775	109.3	2825	111.2
• SRI 825	2800	110.2	2850	112.2
D - Width				
• Front axle - flange to flange	1680	66.1	1680	66.1
• Rear axle				
- Flange axle, bolt circle diameter 203 mm, flange to flange	1552	61.1	1552	61.1
- Flange axle, bolt circle diameter 275 mm, flange to flange	1664	65.5	1664	65.5
- Rack-and-pinion axle, short version, hub diameter 79 mm, face to face	2270	89.4	2270	89.4
- Rack-and-pinion axle, long version, hub diameter 79 mm, face to face	2556	100.6	2556	100.6
- Rack-and-pinion axle, short version, hub diameter 86 mm, face to face	2438	96.0	2438	96.0
• Maximum width for road travel	2550	100.4	2550	100.4
E - Maximum ground clearance				
- At front hitch at front-wheel drive axle, with front tires with an SRI of:				
• SRI 550	398	15.7	398	15.7
• SRI 575	423	16.7	423	16.7
• SRI 600	448	17.6	448	17.6
• SRI 625	473	18.6	473	18.6
• SRI 650	498	19.6	498	19.6
- At front-wheel drive axle, with front tires with an SRI of:				

• SRI 550	411	16.2	411	16.2
• SRI 575	436	17.2	436	17.2
• SRI 600	461	18.1	461	18.1
• SRI 625	486	19.1	486	19.1
• SRI 650	511	20.1	511	20.1
- Differential housing with drawbar mount, rear tires with SRI of:				
• SRI 700	348	13.7	348	13.7
• SRI 725	373	14.7	373	14.7
• SRI 750	398	15.7	398	15.7
• SRI 775	423	16.7	423	16.7
• SRI 800	448	17.6	448	17.6
• SRI 825	473	18.6	473	18.6
- On differential housing with pickup hitch, rear tire with SRI of:				
• SRI 700	301	11.9	301	11.9
• SRI 725	326	12.8	326	12.8
• SRI 750	351	13.8	351	13.8
• SRI 775	376	14.8	376	14.8
• SRI 800	401	15.8	401	15.8
• SRI 825	426	16.8	426	16.8

[a] *Without beacon light*
[b] *Without antenna*

IMPORTANT: Ground clearance and height of the tractor depend on the tire manufacturer, tire pressure, ballast, trailer hitches, implements attached, etc.

Before driving through gates, tunnels, bridges etc., the height of the tractor must be checked.

OULXA64,SP1,0005906-19-28AUG23

Engine (6090M)

	6090M		
Engine type			
- Final Tier 4/Stage IV	4045HL290		
Type	Turbocharged diesel engine with air-to-air charge air cooler		
Engine power according to UN EC E-R120	(kW)	(PS[a])	(hp[b])
- Approved rated engine power at 2100 rpm	66	90	86
- Approved rated engine power at 2100 rpm with Intelligent Power Management (power boost)	81	110	108
- Approved maximum engine power at 1900 rpm	73	100	98
- Approved maximum engine power at 1900 rpm with Intelligent Power Management (power boost)	83	113	111
Max. torque at 1600 rpm	(N·m)	(lb·ft)	
- Standard	421	310	
- Intelligent Power Management (power boost)	460	339	
Number of cylinders		4	
Displacement	(L)	(in^3)	
	4.5	275	
		(rpm)	
Low idle		850	
High idle		2250	
Rated engine speed		2100	

	6090M
Constant power range	1500 - 2100
- Rear PTO 540	
• 540	1948
- Rear PTO 1000/540	
• 1000	1972
• 540	1977
- Rear PTO 1000/540/540E	
• 1000	1972
• 540	1977
• 540E	1503
- Front PTO 1000	1969

[a]Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)
[b]Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)

OULXA64,SP1,0005907-19-28AUG23

Engine (6100M)

		6100M	
Engine type			
- Final Tier 4/Stage IV		4045HL290	
Type		Turbocharged diesel engine with air-to-air charge air cooler	
Engine power according to UN ECE-R120	(kW)	(PS[a])	(hp[b])
- Approved rated engine power at 2100 rpm	74	100	99
- Approved rated engine power at 2100 rpm with Intelligent Power Management (power boost)	88	120	118
- Approved maximum engine power at 1900 rpm	81	111	109
- Approved maximum engine power at 1900 rpm with Intelligent Power Management (power boost)	91	123	122
Max. torque at 1600 rpm	(N·m)	(lb·ft)	
- Standard	468	345	
- Intelligent Power Management (power boost)	502	370	
Number of cylinders		4	
Displacement	(L)	(in^3)	
	4.5	275	
		(rpm)	
Low idle		850	
High idle		2250	
Rated engine speed		2100	
Constant power range		1500 - 2100	
- Rear PTO 540			
• 540		1948	
- Rear PTO 1000/540			
• 1000		1972	
• 540		1977	

	6100M
- Rear PTO 1000/540/540E	
• 1000	1972
• 540	1977
• 540E	1503
- Front PTO 1000	1969

[a]*Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)*
[b]*Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)*

OULXA64,SP1,0005908-19-28AUG23

Engine (6110M)

		6110M	
Engine type			
- Final Tier 4/Stage IV		4045HL290	
Type		Turbocharged diesel engine with air-to-air charge air cooler	
Engine power according to UN ECE-R120	(kW)	(PS[a])	(hp[b])
- Approved rated engine power at 2100 rpm	81	110	109
- Approved rated engine power at 2100 rpm with Intelligent Power Management (power boost)	96	130	128
- Approved maximum engine power at 1900 rpm	90	122	120
- Approved maximum engine power at 1900 rpm with Intelligent Power Management (power boost)	98	134	132
Max. torque at 1600 rpm	(N·m)	(lb·ft)	
- Standard	515	380	
- Intelligent Power Management (power boost)	543	400	
Number of cylinders		4	
Displacement	(L)	(in^3)	
	4.5	275	
		(rpm)	
Low idle		850	
High idle		2250	
Rated engine speed		2100	
Constant power range		1500 - 2100	
- Rear PTO 540			
• 540		1948	
- Rear PTO 1000/540			
• 1000		1972	
• 540		1977	
- Rear PTO 1000/540/540E			
• 1000		1972	
• 540		1977	
• 540E		1503	
- Front PTO 1000		1969	

[a]*Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)*
[b]*Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)*

OULXA64,SP1,0005909-19-28AUG23

Engine (6120M)

		6120M	
Engine type			
- Final Tier 4/Stage IV		4045HL290	
Type		Turbocharged diesel engine with air-to-air charge air cooler	
Engine power according to UN ECE-R120	(kW)	(PS[a])	(hp[b])
- Approved rated engine power at 2100 rpm	88	120	118
- Approved rated engine power at 2100 rpm with Intelligent Power Management (power boost)	103	140	138
- Approved maximum engine power at 1900 rpm	98	133	131
- Approved maximum engine power at 1900 rpm with Intelligent Power Management (power boost)	106	144	142
Max. torque at 1600 rpm	(N·m)	(lb·ft)	
- Standard	562	415	
- Intelligent Power Management (power boost)	585	431	
Number of cylinders		4	
Displacement	(L)	(in^3)	
	4.5	275	
		(rpm)	
Low idle		850	
High idle		2250	
Rated engine speed		2100	
Constant power range		1500 - 2100	
- Rear PTO 540			
• 540		1948	
- Rear PTO 1000/540			
• 1000		1972	
• 540		1977	
- Rear PTO 1000/540/540E			
• 1000		1972	
• 540		1977	
• 540E		1503	
- Front PTO 1000		1969	

[a]Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)
[b]Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)

OULXA64,SP1,000590A-19-28AUG23

PTO Power Output (6090M)

Maximum rear PTO output		6090M	
At engine rated speed (John Deere measurement according to OECD Code 2 with 1000 PTO)	(kW)	(PS[a])	(hp[b])
- Standard	48	65	64
- Intelligent Power Management (power boost)	62	84	83
At PTO standard speed (John Deere measurement according to OECD Code 2 with 1000 PTO)			
- Standard	55	75	74
- Intelligent Power Management (power boost)	66	90	89
Max. front PTO power is limited to	80	109	107

[a]Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)
[b]Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)

NOTE: The specified rear PTO power has been measured on tractors with the following transmission option and additional equipment:

- *CommandQuad™ PLU transmission*
- *45 cm³ hydraulic pump, PFC system*
- *Without air brake system*
- *Without front PTO*
- *Without rear PTO with 1000E option*
- *Air-conditioning system off*

Rear PTO power may vary depending on the various transmission options and additional equipment.

OULXA64,SP1,000590B-19-28AUG23

PTO Power Output (6100M)

Maximum rear PTO output		6100M	
At engine rated speed (John Deere measurement according to OECD Code 2 with 1000 PTO)	(kW)	(PS[a])	(hp[b])
- Standard	55	75	74
- Intelligent Power Management (power boost)	69	94	93
At PTO standard speed (John Deere measurement according to OECD Code 2 with 1000 PTO)			
- Standard	62	84	83
- Intelligent Power Management (power boost)	73	99	98
Max. front PTO power is limited to	80	109	107

[a]Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)
[b]Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)

NOTE: The specified rear PTO power has been measured on tractors with the following transmission option and additional equipment:

- *CommandQuad™ PLU transmission*
- *45 cm³ hydraulic pump, PFC system*
- *Without air brake system*
- *Without front PTO*
- *Without rear PTO with 1000E option*
- *Air-conditioning system off*

Rear PTO power may vary depending on the various transmission options and additional equipment.

OULXA64,SP1,000590C-19-28AUG23

PTO Power Output (6110M)

Maximum rear PTO output		6110M	
At engine rated speed (John Deere measurement according to OECD Code 2 with 1000 PTO)	(kW)	(PS[a])	(hp[b])
- Standard	62	84	83
- Intelligent Power Management (power boost)	75	102	101
At PTO standard speed (John Deere measurement according to OECD Code 2 with 1000 PTO)			
- Standard	70	95	94

Maximum rear PTO output		6110M	
- Intelligent Power Management (power boost)	80	109	107
Max. front PTO power is limited to	80	109	107

[a]*Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)*
[b]*Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)*

NOTE: The specified rear PTO power has been measured on tractors with the following transmission option and additional equipment:

- *CommandQuad™ PLU transmission*
- *45 cm³ hydraulic pump, PFC system*
- *Without air brake system*
- *Without front PTO*
- *Without rear PTO with 1000E option*
- *Air-conditioning system off*

Rear PTO power may vary depending on the various transmission options and additional equipment.

OULXA64,SP1,000590D-19-28AUG23

PTO Power Output (6120M)

Maximum rear PTO output		6120M	
At engine rated speed (John Deere measurement according to OECD Code 2 with 1000 PTO)	(kW)	(PS[a])	(hp[b])
- Standard	69	94	93
- Intelligent Power Management (power boost)	82	111	110
At PTO standard speed (John Deere measurement according to OECD Code 2 with 1000 PTO)			
- Standard	77	105	103
- Intelligent Power Management (power boost)	87	118	117
Max. front PTO power is limited to	80	109	107

[a]*Conversion factor: 1 kW corresponds to 1.35962 PS (metric system)*
[b]*Conversion factor: 1 kW corresponds to 1.34102 hp (U.S.A.)*

NOTE: The specified rear PTO power has been measured on tractors with the following transmission option and additional equipment:

- *CommandQuad™ PLU transmission*
- *45 cm³ hydraulic pump, PFC system*
- *Without air brake system*
- *Without front PTO*
- *Without rear PTO with 1000E option*
- *Air-conditioning system off*

Rear PTO power may vary depending on the various transmission options and additional equipment.

OULXA64,SP1,000590E-19-28AUG23

Transmission

PowrQuad™ PLUS transmission	Planetary drive, hydraulically actuated
Change of direction of travel	Electro-hydraulic, under load, without operating the clutch

Number of gears	Speed Ranges (km/h)	Speed Ranges (mph)
16 forward gears, 16 reverse gears with and without creeper	2.3 - 30	1.4 - 19
In case of creeper transmission additionally 12 forward gears, 12 reverse gears	0.23- 1.47	0.14 - 0.91
16 forward gears, 16 reverse gears with and without creeper	2.9 - 40	1.8 - 25
In case of creeper transmission additionally 12 forward gears, 12 reverse gears	0.29- 1.86	0.18 - 1.16
24 forward gears, 24 reverse gears ex factory without creeper	1.6 - 40	1.0 - 25
24 forward gears, 24 reverse gears ex factory with creeper	1.4 - 39	0.9 - 24

In case of creeper transmission additionally 12 forward gears, 12 reverse gears	0.14 - 1.06	0.09 - 0.66

AutoQuad™ PLUS transmission . . . . . Planetary drive, hydraulically actuated

Change of direction of travel . . . . . Electro-hydraulic, under load, without operating the clutch

Number of gears	Speed Ranges (km/h)	Speed Ranges (mph)
24 forward gears, 24 reverse gears ex factory without creeper	1.6 - 40	1.0 - 25
24 forward gears, 24 reverse gears ex factory with creeper	1.4 - 39	0.9 - 24
In case of creeper transmission additionally 12 forward gears, 12 reverse gears	0.14 - 1.06	0.09 - 0.66

* For Japan only: Maximum speed limited to 35 km/h (21.8 mph)

AutoQuad™ PLUS Eco Shift™ transmission . . . . . Planetary drive, hydraulically actuated

Change of direction of travel . . . . . Electro-hydraulic, under load, without operating the clutch

Number of gears	Speed Ranges (km/h)	Speed Ranges (mph)
24 forward gears, 24 reverse gears with and without creeper	1.8 - 40	1.1 - 25
Additional gears with creeper transmission 12 forward gears, 12 reverse gears	0.18- 1.4	0.11 - 0.86

CommandQuad™ PLUS transmission . . . . . Planetary drive, hydraulically actuated

Change of direction of travel . . . . . Electro-hydraulic, under load, without operating the clutch

Number of gears	Speed Ranges (km/h)	Speed Ranges (mph)
24 forward gears, 24 reverse gears	1.4 - 40*	0.9 - 25*

* For Japan only: Maximum speed limited to 35 km/h (21.8 mph)

CommandQuad™ PLUS Eco Shift™ transmission . . . . . Planetary drive, hydraulically actuated

Change of direction of travel . . . . . Electro-hydraulic, under load, without operating the clutch

Number of gears	Speed Ranges (km/h)	Speed Ranges (mph)
24 forward gears, 24 reverse gears	1.8 - 40	1.1 - 25

AutoPowr™ transmission . . . . . Infinitely variable mechanical/hydraulic transmission

Change of direction of travel . . . . . Electrical, under load, without operating clutch

Speed bands . . . . . 0.05 - 40 km/h (0.03 - 25 mph)*

* For Japan only: Maximum speed limited to 35 km/h (21.8 mph)

OULXA64,SP,4CYL,EU,000584B-19-30NOV20

Hitch

Rear hitch — lifting forces according to OECD

	(mm)	(in)	(mm)	(in)
Lift cylinder, diameter	70	2.76	80	2.95
	(kg)	(lb)	(kg)	(lb)
Sustained lifting force* directly at coupling points	3150	6945	4100	9040
Sustained lifting force*, 610 mm behind the coupling points	2750	6065	3600	7940
Maximum lifting force* directly at the coupling points with reduced stroke	4350	9590	5700	12570
Category	CAT II and IIIN		CAT II and IIIN	

IMPORTANT: In all applications, pay attention to axle load capacity and tire load capacity.

*The value for sustained lifting force indicates the maximum weight that can be raised over the distance of the lift. The value for maximum lifting force can only be achieved across a small portion of the lift distance and so cannot be regarded as a reference for unlimited usable lifting force.

Front hitch, Category	**CAT IIIN**	
Front hitch, lifting forces according to OECD	(kg)	(lb)
Maximum lifting force at coupling points	4400	8820
Sustained lifting force at coupling points	3300	7275

IMPORTANT: In all applications, pay attention to axle load capacity and tire load capacity.

OULXA64,SP1,EU,0005910-19-28AUG23

Hydraulic System

PC system - open system with load-sensing control and fixed displacement pump	(cm^3)	(in^3)	
Gear-driven pump	35	2.13	
Delivery rate per minute at rated speed	(L))	(US gal)	
- 35 cm^3 pump	80	21.2	
PFC system - closed system with low standby pressure and load-sensing control	(cm^3)	(in^3)	
Axial piston pump	45	2.75	
Delivery Rate per Minute at Rated Speed	(L)	(US gal)	
- 45 cm^3 pump	114	30.1	
System pressure:	(kPa)	(bar)	(psi)
- min (stand-by)	4100	41	590
- max:	20500	205	2970
Steering		hydrostatic	
Selective control valves:			
- Series		200	
- Series		450	

OULXA64,SP1,EU,0005911-19-26NOV20

Capacities

Capacities	(L)	(US gal)
Fuel tank		
- Standard	175	46.2
- Optional	205	54.2
DEF tank	19.0	5.0
Cooling system (engine cooling and cab heating)	20.0	5.3
Engine Crankcase	17.0	4.5
Transmission and hydraulic system, oil change		
- PowrQuad™ PLUS transmission	60.0	15.9
- AutoQuad™ PLUS transmission	60.0	15.9
- CommandQuad™ PLUS transmission	60.0	15.9
- AutoPowr™ transmission	60.0	15.9
- Extra with creeper	2.0	0.7
- Extra with front-wheel drive	3.0	0.8
- Extra with additional oil reservoir	20.0	5.3
Front PTO	2.6	0.7
Front-wheel drive axle		
- Three-piece front axle, type	730, 733 and 735	
- Axle housing (axle without suspension)	6.4	1.7
- Axle housing (suspended axle)	6.4	1.7
- Final drive per side (without brake)	0.8	0.2
- Final drive per side (with brake)	1.4	0.4
Air-conditioning system	(g)	(lb)
R134a refrigerant	775 - 825	1.71 -182

IMPORTANT: Always observe the fill level indicator when changing the oil.

OULXA64,SP1,EU,0005912-19-04DEC23

Oil Withdrawal

Operating condition	Level at oil sight glass	Without additional oil reservoir		With additional oil reservoir	
Maximum oil withdrawal when driving at an inclined angle:		(L)	(US gal)	(L)	(US gal)
- up to 3° at speeds below 3 km/h (1.8 mph)	MAX	15.0	4.0	32.0	8.5
Maximum oil withdrawal, tractor parked in horizontal position:	MAX	15.0	4.0	32.0	8.5
Maximum overfilling of transmission above MAX mark*:		10.0	2.6	Not allowed	
Maximum oil withdrawal, tractor parked in horizontal position with an overfilling** of:	MAX + 10 liters + (2.6 US gal)	25.0	6.6	Not allowed	

Operating condition	Level at oil sight glass	Without additional oil reservoir	With additional oil reservoir

* On tractors with overfilled transmission, ground speed must not exceed 40 km/h (24.9 mph).
** Do not overfill the transmission when the tractor is operated in a strongly inclined position.

OULXA64,SP1,EU,0005913-19-26NOV20

Using Large-Volume Hydraulic Cylinders

The operation of large-volume hydraulic cylinders or telescopic cylinders requires special attention from the user. Instructions, e.g. when operating a trailer with hydraulic tipping function.

- When tipping a trailer maintain an engine speed of 1800-2100 rpm.
- Before tipping a trailer, check whether the maximum permissible oil withdrawal corresponds to the oil capacity required to fill the hydraulic cylinder. Compare the relevant information given in the trailer manual with the maximum permissible oil withdrawal. See Selective Control Valves – Maximum Permissible Oil Withdrawal in section 70 and Oil Withdrawal in section 500A.

IMPORTANT: If the required amount of oil exceeds the maximum permissible oil withdrawal, or/and the oil is withdrawn too quickly, this can lead to cavitation. Cavitation can be recognized by an unusually loud noise and causes mechanical damage. Pay attention to suddenly occurring loud noises, when operating large-volume hydraulic cylinders, such as telescopic cylinders. Immediately stop the operation of the hydraulic cylinder if cavitation is suspected. A change in the engine speed does not lead to an improvement and should therefore be avoided.

500A,401,OULXBER,00030BD-19-04MAR24

Loads and Weights, Part 1

Tractor weights*:	(kg)	(lb)
Total weight	5680	12520
Front axle load	2270	5000
Rear axle load	3410	7520
Load Capacity	4770	10520

* Details apply to a tractor equipped as follows:

• 380/85R24 front tires	• Cab, not suspended	• 3-in-1 hitch	• Air brake system
• 460/85R38 rear tires	• Passenger seat	• 38 mm hitch	• 110 kg (243 lb) basic weight
• AutoQuad™ transmission	• Air-conditioning system	• 1000/540E/540 rear PTO	• without DEF
• Flanged rear axle	• Rear hitch CAT II/IIIN	• 45 cm³ hydraulic pump	• without fuel
• Front-wheel drive axle, not suspended	• Center link	• 3 Selective control valves	• without operator
• Front fenders			

Note: Different equipment, transmission versions, and tire sizes affect the weight details.

	(kg)	(lb)
Maximum permissible front axle load (with adjustable front axle)		
- Normal operation up to 40 km/h (25 mph)	3000	6610
- With front loader, up to max. 10 km/h (6 mph)*	5860	12900
Maximum permissible front axle load (with front-wheel drive axle)		
- Normal operation up to 40 km/h (25 mph)	4380	9700
- With front loader, up to max. 10 km/h (6 mph)**	6160	13580
Maximum permissible rear axle load	7270	16000
Maximum permissible total weight (with adjustable front axle)	8500	18700

Maximum permissible total weight (with front-wheel drive axle)		
• Rear axles with bolt circle diameter 203 mm or hub diameter 79 mm	9500	20950
• Rear axles with bolt circle diameter 275 mm or hub diameter 86 mm	10450	23050
Maximum permissible static vertical load		
- Drawbar category	CAT II	
- on the drawbar, standard duty (road travel) at ≤ 40 km/h (25 mph)	(kg)	(lb)
• 250 mm (9.8 in) extended	2000²	4400²
- On drawbar, standard duty (field use)		
• 250 mm (9.8 in) extended	2000	4400
• 350 mm (13.8 in) extended	1400	3085
• 400 mm (15.7 in) extended	1200	2645
- On drawbar, heavy-duty type (road travel) at ≤ 40 km/h (25 mph)		
• 250 mm (9.8 in) extended	3000²	6610²
- On heavy-duty drawbar (field operation)		
• 250 mm (9.8 in) extended	3000	6610
• 350 mm (13.8 in) extended	1800	3960
• 400 mm (15.7 in) extended	1600	3520
- Hydraulic pickup hitch		
• On tow hook	3000	6610
• On ball	3000	6610
• On CAT II drawbar at 400 mm (15.7 in)	800	1765

* For front loader work, select a tread width between 1700 - 1900 mm (66.9 - 73.2 in).
** For front loader work, select a tread width between 1750 - 1950 mm (68.9 - 76.8 in).
² At ground speeds greater than 40 km/h (25 mph), the maximum permissible static vertical load is limited to 1250 kg (2750 lb).

For maximum permissible static vertical loads when using different trailer hitches, see Loads and Weights - Part 2.

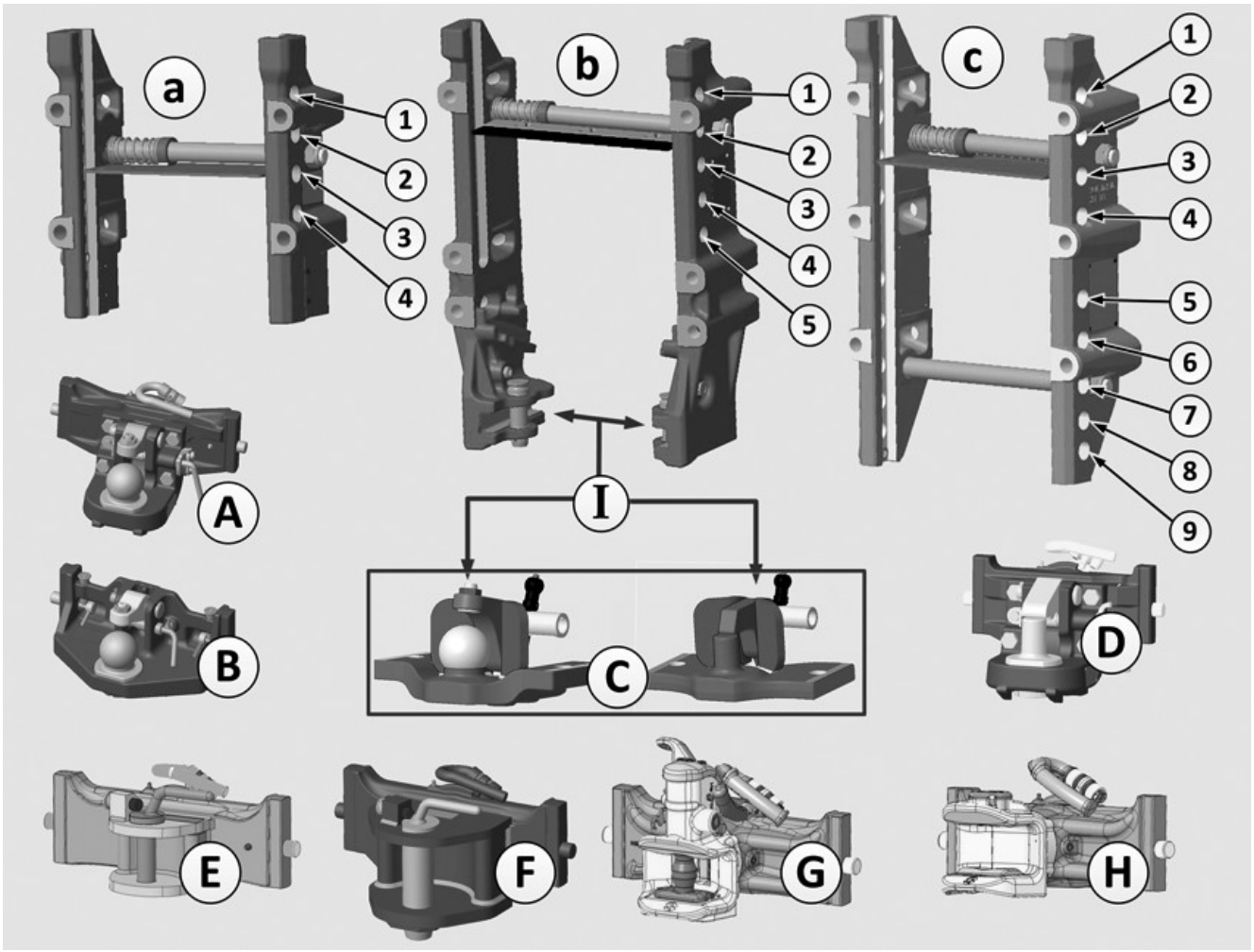
NOTE: The static vertical loads specified on the trailer hitches must not be exceeded.

Observe permissible tire load capacities, axle loads, and the permissible total weight. Traffic regulations in certain countries may restrict the loads to figures lower than those quoted.

See also Maximum Permissible Axle- and Tire Load Capacity in this Section.

OULXA64,SP1,EX,0005914-19-28AUG23

Loads and Weights, Part 2—from MY19



LX315193—UN—22AUG18

Key			
a	Rail, 4 Positions	E	CUNA Type C
b	Rail, 5 Positions (3 in 1)	F*	CUNA Type D2
c	Rail, 9 Positions	F**	CUNA Type D3
A	Height Adjustable, Ball Type 1	G	Automatic Trailer Hitch
B[3]	Height Adjustable, Ball Type 2	H	Manual Trailer Hitch
C	Not Adjustable, Ball or Piton Fix	1 to 9	Positions
D	Height Adjustable Piton Fix	[3]	Only available for: 6M 230, 6M 250, and R 175 to 6R 250

NOTE: The static vertical loads specified on the trailer hitches must not be exceeded.

Observe permissible tire load capacities, axle loads, and the permissible total weight. Traffic regulations in certain countries may restrict the loads to figures lower than those quoted.

Combina-tions	Maximum permissible static vertical loads when using different trailer hitches - from MY19																	
	1		2		3		4		5		6		7		8		9	
	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)	(kg)	(lb)
Aa	2000	4400	2000	4400	2000	4400	2000	4400										
Ab	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610								
Ac	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610
Ba[3]	2000	4400	2000	4400	2000	4400	2000	4400										
Bb[3]	4000	8815	4000	8815	4000	8815	4000	8815	4000	8815								
Bc[3]	4000	8815	4000	8815	4000	8815	4000	8815	4000	8815	4000	8815	4000	8815	4000	8815	4000	8815
Da	2000	4400	2000	4400	2000	4400	2000	4400										
Db	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610								
Dc	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610	3000	6610
Ea	1500	3300	1500	3300	1500	3300	1500	3300										
Eb	1500	3300	1500	3300	1500	3300	1500	3300	1500	3300								
Ec	1500	3300	1500	3300	1500	3300	1500	3300	1500	3300	1500	3300	1500	3300	1500	3300	1500	3300
Fa*	2000	4400	2000	4400	2000	4400	2000	4400										
Fb*	2000	4400	2000	4400	2000	4400	2000	4400	2000	4400								
Fc*	2000	4400	2000	4400	2000	4400	2000	4400	2000	4400	2000	4400	2000	4400	2000	4400	2000	4400
Fa**	2000	4400	2000	4400	2000	4400	2000	4400										
Fb**	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510								
Fc**	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510
Ga	2000	4400	2000	4400	2000	4400	2000	4400										
Gb	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510								
Gc	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510
Ha	2000	4400	2000	4400	2000	4400	2000	4400										
Hb	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510								
Hc	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510	2500	5510
C Ball I	4000	8815																
C Piton Fix I	3000	6610																

500A,490,ALL,LX25458,0000BC7-19-17APR24

Maximum Permissible Axle- and Tire Load Capacity

CAUTION: Risk of personal injury and property damage due to loss of control of the tractor.

When overloaded, essential components of the vehicle will fail with the result of serious accidents.

Load capacity of tires and permissible axle loads must not be exceeded under any circumstances.

Determining the Permissible Load Values:

- Find the maximum permissible axle loads in relevant tables of section 500A.
- Find the maximum permissible tire loads and inflation pressures in the official tables of the respective tire manufacturer.

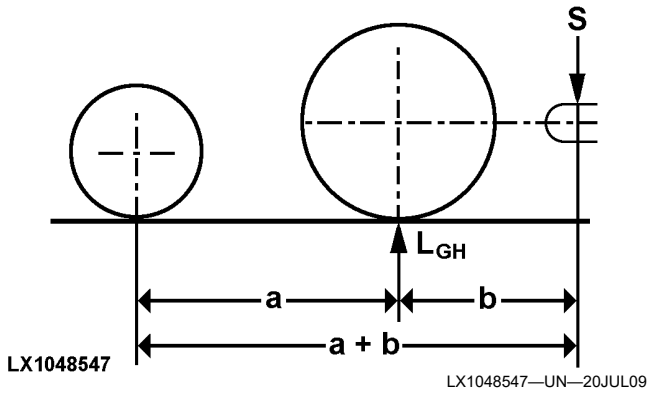
Further Information:

- To determine the current axle loads, place the vehicle with one axle after the other on vehicle scale. The front- and rear implement must be fully raised during the weighing process.
- The maximum permissible tire load capacity depends on the travel speed of the vehicle.

- The maximum permissible tire load capacity depends on the correct inflation pressure.
- Tire inflation pressures specified in this manual must be observed. These have priority over other information.
- Regional regulations can restrict the permissible values.
- Refer to Tire Labeling— Ascertain the Load Capacity of Tires in section 80.

500A,491,ALL,OULXBER,0003155-19-10JUL25

How to Calculate Maximum Permissible Download on Trailer Hitch



LX1048547—UN—20JUL09

Calculation of maximum permissible download at the trailer hitch in relation to Load Index (LI)

- The load index can be read on the sidewall of the tire. If the index is not provided, refer to the tire's load capacity as quoted by the tire manufacturer.
- The load index is quoted in conjunction with a Speed Index (SI).
- As a rule, the load capacity of the tire in kg can be derived directly from the LI; see the following table:

(LI)	(kg)	(LI)	(kg)	(LI)	(kg)	(LI)	(kg)
90. . .	600	111 . .	1090	132 . .	2000	153 . .	3650
91. . .	615	112 . .	1120	133 . .	2060	154 . .	3750
92. . .	630	113 . .	1150	134 . .	2120	155 . .	3875
93. . .	650	114 . .	1180	135 . .	2180	156 . .	4000
94. . .	670	115 . .	1215	136 . .	2240	157 . .	4125
95. . .	690	116 . .	1250	137 . .	2300	158 . .	4250
96. . .	710	117 . .	1285	138 . .	2360	159 . .	4375
97. . .	730	118 . .	1320	139 . .	2430	160 . .	4500
98. . .	750	119 . .	1360	140 . .	2500	161 . .	4625
99. . .	775	120 . .	1400	141 . .	2575	162 . .	4750
100 . .	800	121 . .	1450	142 . .	2650	163 . .	4875
101 . .	825	122 . .	1500	143 . .	2725	164 . .	5000
102 . .	850	123 . .	1550	144 . .	2800	165 . .	5150
103 . .	875	124 . .	1600	145 . .	2900	166 . .	5300
104 . .	900	125 . .	1650	146 . .	3000	167 . .	5450
105 . .	925	126 . .	1700	147 . .	3075	168 . .	5600
106 . .	950	127 . .	1750	148 . .	3150	169 . .	5800
107 . .	975	128 . .	1800	149 . .	3250	170 . .	6000
108 . .	1000	129 . .	1850	150 . .	3350	171 . .	6150
109 . .	1030	130 . .	1900	151 . .	3450	172 . .	6300
110 . .	1060	131 . .	1950	152 . .	3550	173 . .	6500

As a general rule, SI A8 implies a top speed of 40 km/h (25 mph), while SI B implies a top speed of 50 km/h (31 mph). If the SI is different, the manufacturer's instructions apply.

Calculate maximum trailer hitch download as follows:

$$S = \frac{(H_{perm} - L_{GH}) * a}{a + b}$$, where

H_{perm} = The smaller value from 2*load capacity of a tire on the rear axle and the maximum permissible rear axle load in kg

L_{GH} = The mass in kg acting on the ground through the rear wheels (to be ascertained by weighing)

a = The wheelbase (the horizontal distance between the front and rear axles)

b = The rear overhang (the horizontal distance between the center of the rear axle and center of the hitch point)

Example of how to calculate maximum trailer hitch download:

Given that: Empty mass on rear axle L_{GH} = 1800 kg

Wheelbase a = 2100 mm

Overhang b = 600 mm

Tire marking = 130A8

Maximum permitted speed of tractor = 40 km/h (25 mph)

Permissible rear axle load = 3500 kg

H_{perm} = 3500 kg
(1900 kg * 2 = 3800 kg, rear axle load = 3500 kg)

$$S = \frac{(3500\ kg - 1800\ kg) * 2100\ mm}{2100\ mm + 600\ mm} = 1322\ kg$$

CAUTION: At least 20% of the vehicle's total unladen mass must be on the front axle.

Trailer hitch download must not exceed the trailer hitch limit specified by the manufacturer.

500A,492,EU,EX,OULXA64,EU,EX,0005444-19-04MAR24

Calculate Permissible Mass

Calculating permissible tractor mass and permissible trailer mass on the basis of the D value

EC-approved, dynamically tested hitches are always provided with a D value. This is calculated as follows:

$$D = \frac{G * A * B}{A + B}$$, where

D = D value of hitch
G = Gravitational constant 9.81 m/s^2
A = Tractor Mass
B = Trailer mass

To calculate trailer mass for a given D value and a given tractor mass, and to calculate tractor mass for a given D value and a given trailer mass, use the following formulas:

Tractor Mass $$A = \frac{D * B}{G * B - D}$$

Trailer mass $$B = \frac{D * A}{G * A - D}$$

*NOTE: If when calculating A the product of G*B is less than the D value, or if when calculating B the product of G*A is less than the D value, then the result of this calculation is negative. Even so, the D value is sufficient for every combination of tractor mass and trailer mass.*

Example of how to calculate permissible trailer mass:

Given that: D value, D = 55 kN = 55000 N
Tractor mass A = 7000 kg

$$B = \frac{55000\ N * 7000\ kg}{9.81\ m/s^2 * 7000\ kg - 55000\ N} = 28163\ kg$$

Pay close attention to permissible towed mass and tractor mass!

500A,550,EU,EX,OULXA64,0005445-19-04MAR24

Electrical System

	Up to MY 21	As of MY 21
Battery According to Tractor Equipment		
-	12 volts, 154 Ah	12 volts, 154 Ah
-	12 volts, 174 Ah	12 volts, 174 Ah
Alternator According to Tractor Equipment with Overvoltage Protection		
-	• 125 A at 13.5 to 15.5 V[a]	• 125 A at 13.5 to 15.5 V[a]
-	• 150 A at 13.5 to 15.5 V[a]	• 170 A at 13.5 to 15.5 V[a]
-	• 200 A at 13.5 to 15.5 V[a]	• 210 A at 13.5 to 15.5 V[a]
Starter motor	12 V, 3.0 kW (4.0 hp)	12 V, 3.0 kW (4.0 hp)
Ground connection	Negative	Negative

[a] *Generator voltage, depending on temperature*

OULXA64,SP,0005747-19-30JUN21

Vibration

All operator's seats approved by John Deere are component type-approved in accordance with 78/764/EEC or (EU) 1322/2014 Annex XIV, being allocated an average of the vibration acceleration actually measured at the seat (a_{wS}), equivalent to ≤ 1.25 m/s^2.

This value must NOT be used to calculate vibration stress as per 2002/44/EC! Local John Deere dealers can provide assistance in assessing vibration stress.

Measures to reduce vibration may include:

- Appropriate style of driving, e.g. not too fast
- Suspended front axle
- Suspended cab
- Correctly adjusted operator's seat
- Correct tire pressure

DX,VIBRATION,EU-19-28FEB17

Cab, Classification

Standard EN 15695-1 and -2 contains legal requirements for applying crop protection chemicals and liquid fertilizers. It specifies four different categories of cabs. See Cab Classification According to EN 15695-1 and -2 (for Application of Crop Protection Chemicals and Liquid Fertilizer) in section 90.

NOTE: All cabs carry a decal on the left A-post with information on the category. For further details, see section 90.

500A,900,CAT2,EU,GOST,OULXA64,0005748-19-04MAR24

Sound Level

Maximum sound level at operator's ear:	86 dB(A)	Measurement method in accordance with Regulation (EU) 1322/2014 Annex XIII, according to test method 2
Maximum pass-by noise:	89 dB(A)	Measurement method in accordance with Regulation (EU) 2018/985 Annex II

500A,901,LX25458,ALL,0000BCA-19-04MAR24

Identification of Air-Conditioning Systems

CAUTION: The air-conditioning system contains fluorinated greenhouse gases. This is necessary for the air-conditioning system to function.

Designation: R-134a; 1,1,1.2-Tetrafluorethan	
Chemical composition:	CH_2FCF_3
Amounts contained in models M: Equivalent design amount to CO_2e:	800 g (1.76 lb) 1.14 t (2510 lb)
Global Warming Potential (GWP):	1430*
* The greenhouse effect is 1430 times of the same amount of carbon dioxide in regards to a time frame of 100 years.	

All tractors have a decal affixed to them with the corresponding specifications. It is located on the right, top side of the air-conditioning condenser.

Tractor Models

• 6090M • 6100M • 6110M • 6120M

500A,902,SP1,OULXA64,000591B-19-18MAR24

Safety Note Regarding the Subsequent Installation of Electrical and Electronic Appliances and/or Components

The machine is equipped with electronic components whose function may be influenced by electromagnetic radiation from other appliances. Such influences may be hazardous. Therefore, observe the following safety instructions:

No tampering with the tractor's on-board electrical system is permitted. Subsequent installation of electrical/electronic appliances in the machine must make use of the sockets and connectors provided for this purpose. In every case, the user must verify whether the installation affects the electronics or other components. This applies particularly to:

- Implement control units/monitors
- Performance monitors
- Audio/video systems, communication systems

In particular, subsequently installed electrical/electronic components must comply with the relevant edition of EMC Directive 2004/108/EC, and be CE marked.

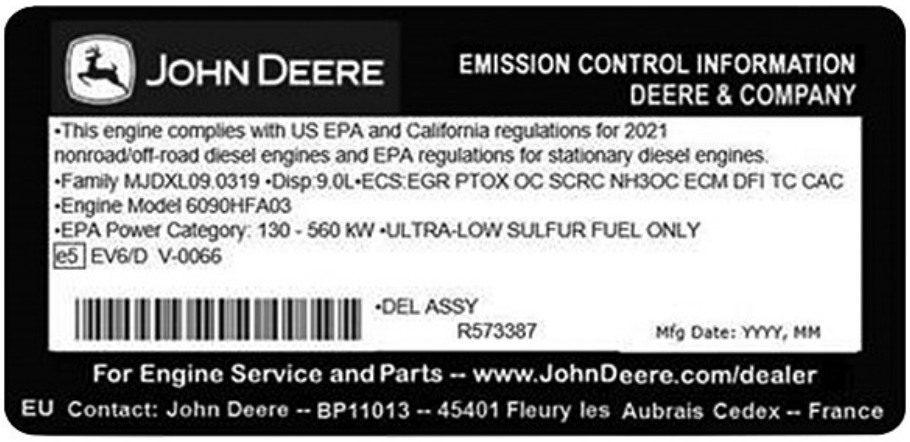
If mobile communication systems (e.g. radio communication, telephone) are to be installed subsequently, the following extra requirements must be met:

- Only devices with an approval complying with the valid national regulation (i.e. BZT approval in Germany) shall be installed.
- The device shall be installed securely.
- Portable or mobile devices may be operated in the vehicle only if connected to a fixed outside antenna.
- Transmitters shall be installed separately from the vehicle's electronics.
- The antenna must be installed in a professional manner, with a good ground connection between the antenna and the vehicle ground.

Wiring, installation, and maximum permissible current supply must be as stated in the installation instructions of the machine manufacturer.

500A,950,LX25458,OM,TRAK,EMV-19-04MAR24

Carbon Dioxide Emissions (CO_2)



RG33429—UN—04FEB21

SAMPLE - Engine Emissions Label

To identify the carbon dioxide (CO_2) output, locate the engine emissions label. Find the appropriate family on the emissions label and reference the chart.

NOTE: The first letter of the family number is not utilized for family identification on the chart.

Emissions Label Family	CO_2 Result
_JDXL02.9323	952 g/kW-hr
_JDXL02.9327	784 g/kW-hr
_JDXL04.5337	819 g/kW-hr
_JDXL04.5338	682 g/kW-hr
_JDXL04.5304	1004 g/kW-hr
_JDXN04.5174	792 g/kW-hr
_JDXL06.8324	720 g/kW-hr
_JDXL06.8328	683 g/kW-hr
_JDXL06.8336	701 g/kW-hr
_JDXN06.8175	771 g/kW-hr
_JDXL09.0319	646 g/kW-hr
_JDXL09.0325	695 g/kW-hr
_JDXL09.0329	657 g/kW-hr
_JDXL09.0333	650 g/kW-hr
_JDXL13.5326	684 g/kW-hr
_JDXL13.6320	651 g/kW-hr
_JDXL13.5340	632 g/kW-hr
_JDXL18.0341	683 g/kW-hr
_JDXL18.0342	687 g/kW-hr
F28	870 g/kW-hr
F32	710 g/kW-hr
F33	677 g/kW-hr

This CO_2 measurement results from testing over a fixed test cycle under laboratory conditions a(n) (parent) engine representative of the engine type (engine family) and shall not imply or express any guarantee of the performance of a particular engine.

DX,EMISSIONS,CO2-19-23JUN23

Eurasian Economic Union



TS1738—UN—26APR16

EAC Marking

This information applies only to products that bear the EAC conformity mark of the Eurasian Economic Union member states.

Manufacturer:
John Deere GmbH & CO. KG, John Deere Werk Mannheim, John-Deere-Str. 90, 68163 Mannheim, Germany

Name of the authorized representative in the Eurasian Economic Union:
Limited Liability Company
“John Deere Rus”

Address of the authorized representative:
142050, Russia, Moscow region, Domodedovo district, Domodedovo, Beliye Stolbi micro district, vladenye “Warehouse 104”, Building 2

For technical support, contact a dealer or other service provider.

Date of manufacture is denoted by the product marking on or near the serial number plate.

OULXA64,DX,EAC,GOST,5753-19-17JUL25

Republic of Korea — Non-Road Emissions Control Warranty Statement — Compression Ignition



DXLOGOV1—UN—28APR09

REPUBLIC OF KOREA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the “Emission Control Information” label located on the engine. Emissions component warranty applies if the engine is operated in the Republic of Korea and the Emission Control Information label states: “Korea Approval”.

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emissions-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 1-319-292-5400.

JOHN DEERE'S WARRANTY RESPONSIBILITY

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine (>19kW) including all parts of its emission-control system was designed, built and equipped so as to conform at the time of sale with the applicable requirements of the Clean Air Conservation Act and is free from defects in materials and workmanship which would cause the engine to fail to conform with applicable regulations for a period of five years from the date the engine is placed into service or 3,000 hours of operation, whichever first occurs.

Where a warrantable condition exists, John Deere will repair or replace, as it elects, any part or component with a defect in materials or workmanship that would increase the engine’s emissions of any regulated pollutant within the stated warranty period at no cost to you, including expenses related to diagnosing and repairing or replacing emission-related parts. Warranty coverage is subject to the limitations and exclusions set forth herein. Emission-related components include engine parts developed to control emissions related to the following:

Exhaust Gas Conversion System:
- Oxygen Sensor
- Catalytic Converter
- Particulate Trap
- SCR System, including dosing module
- Supply Module
- De-NOx Catalyst/NOx Trap
- Regenerative Heater

Positive Crankcase Ventilation:
- PCV Valve

Fuel Metering System:
- Electronic Control Unit (ECU)
- Throttle Position Sensor
- Manifold Absolute Pressure Sensor
- Carburetor/Vaporizer
- Mixer
- Fuel Injector
- Fuel Pressure Regulator
- Water Temperature Sensor
- Fuel Pump
- Idle Speed Control System

Exhaust Gas Recirculation (EGR):
- EGR Control Thermo Valve
- EGR Cooler

Air Induction System:
- Turbocharger
- Waste Gate
- Pop-off
- By-pass Valves
- Ducting

EMISSION WARRANTY EXCLUSIONS

John Deere may deny warranty claims for malfunctions or failures caused by:
- Non-performance of maintenance requirements listed in the Operator’s Manual
- The use of the engine/equipment in a manner for which it was not designed
- Abuse, neglect, improper maintenance, or unapproved modifications or alterations
- Accidents for which it does not have responsibility or by acts of God

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants, and Coolants section in the Operators Manual. Use of any other fuel can harm the emissions control system of the engine / equipment and is not approved for use.

To the extent permitted by law John Deere is not liable for damage to other engine components caused by a failure of an emission-related part,

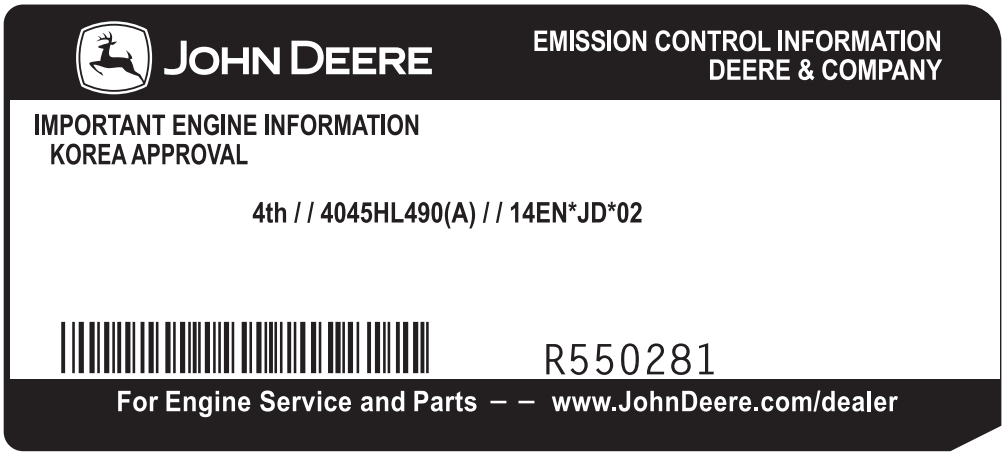
unless otherwise covered by standard warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISIONS OF MATERIAL AND SERVICES AS SPECIFIED HEREIN. WHERE PERMITTED BY LAW, NEITHER JOHN DEERE NOR ANY AUTHORIZED JOHN DEERE ENGINE DISTRIBUTOR, DEALER, OR REPAIR FACILITY OR ANY COMPANY AFFILIATED WITH JOHN DEERE WILL BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

Emission_CI_Korea (09April15)

DX,EMISSIONS,FT4,CI,KO-19-05AUG22

Emissions Control System Certification Label (Korea)



RG26993—UN—09APR15

Engine Emissions Label

DX,EMISSIONS,LABEL,KO-19-09APR15

China Emission Control Warranty Statement

JOHN DEERE

CHINA EMISSION CONTROL WARRANTY STATEMENT
YOUR WARRANTY RIGHTS AND OBLIGATIONS

To determine if the John Deere engine qualifies for the additional warranties set forth below, look for the "Emissions Control Information" label located on the engine. If the engine is operated in China and the Emissions Control Information label contains an Information Disclosure number, refer to the "China Emission Control Warranty Statement".

Warranties stated on this certificate refer only to emissions-related parts and components of your engine. The complete engine warranty, less emissions-related parts and components, is provided separately. If you have any questions about your warranty rights and responsibilities, you should contact John Deere at 400-6576-555.

JOHN DEERE'S WARRANTY RESPONSIBILITY:

John Deere warrants to the ultimate purchaser and each subsequent purchaser that this off-road diesel engine including all parts of its emission-control system was designed, built and equipped so as to conform at the time of sale with GB20891-2014 and HJ1014-2020 and is free from defects in materials and workmanship which would cause the engine to fail to conform with applicable China regulations for a period of five years from the date the engine is placed into service or 3,000 hours of operation, whichever first occurs.

Where a warrantable condition exists, John Deere will repair or replace, as it elects, any part or component with a defect in materials or workmanship that would increase the engine's emissions of any regulated pollutant within the stated warranty period at no cost to you, including expenses related to diagnosing and repairing or replacing emission-related parts. Warranty coverage is subject to the limitations and exclusions set forth herein. Emission-related components include engine parts developed to control emissions related to the following:

Air-induction system
Fuel System
Exhaust gas recirculation systems
Aftertreatment devices
Sensors
Electronic control units

EMISSION WARRANTY EXCLUSIONS:

John Deere may deny warranty claims for malfunctions or failures caused by:

- Non-performance of maintenance requirements listed in the Operator's Manual.
- The use of the engine / equipment in a manner for which it was not designed.
- Abuse, neglect, improper maintenance or unapproved modifications or alterations.
- Accidents for which it does not have responsibility or by acts of God.

The off-road diesel engine is designed to operate on diesel fuel as specified in the Fuels, Lubricants and Coolants section in the Operators Manual. Use of any other fuel can harm the emissions control system of the engine / equipment and is not approved for use.

To the extent permitted by law John Deere is not liable for damage to other engine components caused by a failure of an emission-related part, unless otherwise covered by standard warranty.

THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. REMEDIES UNDER THIS WARRANTY ARE LIMITED TO THE PROVISIONS OF MATERIAL AND SERVICES AS SPECIFIED HEREIN. WHERE PERMITTED BY LAW, NEITHER JOHN DEERE NOR ANY AUTHORIZED JOHN DEERE ENGINE DISTRIBUTOR, DEALER, OR REPAIR FACILITY OR ANY COMPANY AFFILIATED WITH JOHN DEERE WILL BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES.

LX528019—UN—10DEC21

JOHN DEERE

中国排放物控制质保声明
您的质保权利和责任

为了确定约翰迪尔发动机是否符合下述额外质保，请查看发动机的"排放标签"。如果发动机是在中国销售使用并且"排放标签"包含信息公开编号，请参考本声明。

本质保声明只涉及与发动机排放相关的零部件。对于发动机整机以及与非排放相关零部件的质保声明将另行提供。如果您对您的质保权利和责任有任何疑问，请致电 400-6576-555 联系约翰迪尔。

约翰迪尔保修责任

约翰迪尔向最终购买者和每位后续购买者保证：该非道路柴油发动机，包括其排放控制系统的所有零件的设计、制造和配置在销售时均符合《非道路移动机械用柴油机排气污染物排放限值及测量方法(三、四阶段）》(GB20891-2014)和《非道路柴油移动机械污染物排放控制技术要求》(HJ1014—2020)标准的规定，发动机材料无缺陷，在工艺上不会导致不符合中国法规的缺陷。保修期从发动机销售之日起算五年或作业 3000 小时，先到者为准。

如符合质保条件，约翰迪尔将按其选择，修理或者更换任何在材料或工艺存在缺陷、会导致法规规定的发动机排放污染物增加的零部件，在规定的质保期内，您无需支付任何费用，包括与诊断、维修或更换排放相关零部件的费用。保修范围受以下限制和排除条款约束。排放相关的部件包括下列为控制排放物而开发的发动机零件：

进气系统
燃油系统
废气再循环系统
后处理装置
传感器
发动机电子控制单元

排放保修除外条款

约翰迪尔有权拒绝由以下原因引起故障或失效的保修申请：

- 不履行操作手册中列出的维修要求
- 不按设计的方式使用发动机/设备
- 误用、疏忽、不正确的维修或未经批准而进行的修改或改装
- 非因约翰迪尔责任导致的事故或不可抗力引起的事故

该非道路柴油发动机的运行需要使用指定的柴油机燃油，这一点在操作手册中"燃油、润滑油和冷却液"章节中明确规定。任何其它燃油的使用都可能导致发动机/设备的排放控制系统受损，因此不得使用。

在法律允许的范围内，除非标准保修另有规定，否则约翰迪尔对因排放相关零部件故障而导致的其他发动机部件损坏不承担责任。

本质保声明将替代所有其他明示或暗示的保证， 包括任何促销性或出于其他目的的间接保证。本质保声明所涉及的保修服务仅限定于本声明规定的零部件和质保条款。在法律允许的情况下，约翰迪尔或任何约翰迪尔授权的发动机批发商、经销商或维修机构或任何约翰迪尔附属公司均不对间接或后继损失负责。

LX528020—UN—10DEC21
DX,EMISSIONS,NR4-19-21APR22

Serial Numbers

Type Plates

The following illustrations show a few type plates of the tractor. The letters and numbers on the plates are needed when ordering spare parts, for example.

NOTE: The corresponding letters and numbers should be entered into the boxes intended for this purpose.

500B,01,ALL,LX25458,0000BE6-19-10APR24

Plate for Product Identification and Serial Numbers of Components



LX515805—UN—04OCT23

The plate for product identification and serial numbers of components is located on the left side in the direction of travel (see arrow).

The plate is applied by the dealer. The position of the sticker may change due to regional legislation.

NOTE: For the position of individual serial numbers, refer to the following pages.

Product Identification Number

*																	*

Engine Serial Number

*														*

Transmission Serial Number

*														*

Front-Wheel Drive Serial Number

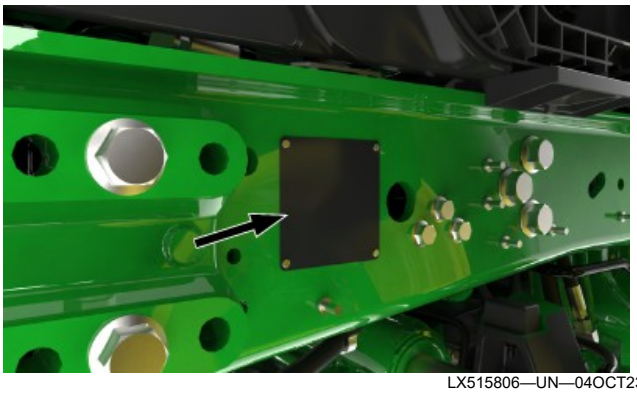
*																	*

Cab Serial Number

*														*

500B,02,MC,OULXA64,0005901-19-10APR24

Plate for Product Identification Number



LX515806—UN—04OCT23

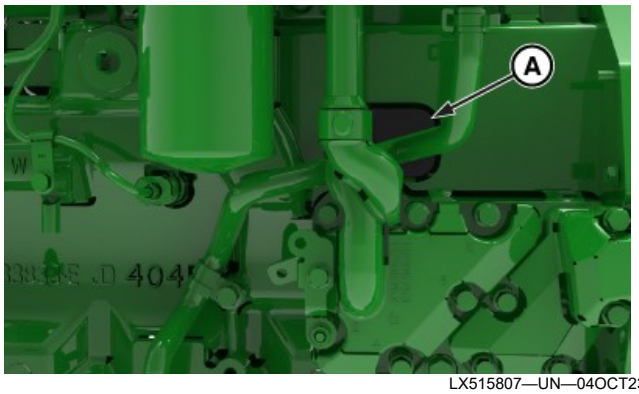
Sample Illustration

The plate bearing the product identification number is located on the right side of the main frame. The tractor is provided with one of two possible product identification numbers. Select the appropriate box.

*																	*

500B,05,ALL,LX25458,0000BE8-19-10APR24

Engine Serial Number

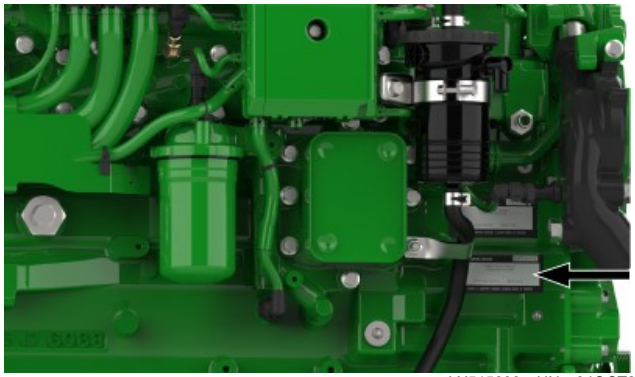


LX515807—UN—04OCT23



LX515808—UN—04OCT23

Copy of Engine Serial Number for 4-Cylinder Engines



LX515809—UN—04OCT23

Copy of Engine Serial Number for 6-Cylinder Engines

A—Engine Serial Number

The engine number is located behind a cover on the right side of the engine. A copy of the engine number is located at the position shown (see arrow). This allows the number to be read without having to do any assembly work.

NOTE: Besides the engine serial number, the plate shows the engine type as well. When ordering spare parts for the engine, please quote all the numbers and letters on this plate.

*													*

Summary of Engine Serial Number Plates



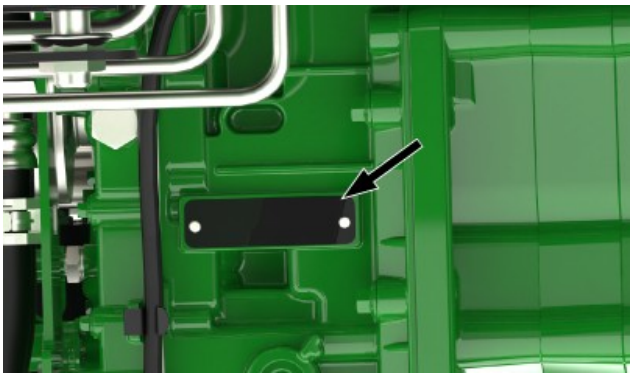
LX565079—UN—14FEB23

Engine Serial Number is Defined by 13 Characters	
First Line	Designates1 — Two letters for engine factory designation
1 — Two letters for engine factory designation	PE: Torreon, Mexico, CD: Saran, France, J0: Rosario, Argentina, UG: Teda, China
2 — One digit for number of cylinders.	4 Cylinder, 6 Cylinder
3 — Three digits for displacement in liters	045: 4.5 Liter, 068: 6.8 Liter
4 — One letter for emission level	• B= Non-Certified • C= Tier1/Stage I emission level • G= Tier 2/Stage II emission level • L= Tier 3/Stage IIIA emission level • R= Interim Tier 4/ Stage IIIB emission level • U or V= Final Tier 4/Stage IV/Stage V emission level
5 — Six digits	123456= Engine build sequence number. Sequence numbers start at 000001
Engine Type is Defined by 9 Alpha-Numerical Characters	
6 — Four digits	Same as items 2 and 3 above
7 — One letter for aspiration type	• A= Turbocharged with air-to-water after-cooler • D= Naturally Aspirated • T= Turbocharged • H= Turbocharged with air-to-air after cooler • S= Turbocharged with air-to-sea water after-cooler
8 — One or two letters for OEM application	F: OEM, FM: Marine, FH: HazLoc, FN: Compressed Natural Gas
8 — One or two letters for John Deere Vehicle application	DW, KV: Construction, RW, LV, L, BM: Tractor, TJ: Forestry, H, Z, CQ : Combine, N: Picker/Sprayer, E: Windrower
9 — Two or three digits for version	485
10 — Two Letter and 5 or 6 digit for engine Part number	DD12345 (Saran Only Engines)

500B,06,ALL,OULXA64,0005722-19-10APR24

Transmission Serial Number

NOTE: The string of numbers/letters represents the transmission serial number.



LX515810—UN—04OCT23

PowrQuad™, AutoQuad™, and CommandQuad™ Transmission

The transmission serial number is located on the left side of the transmission housing.

*														*

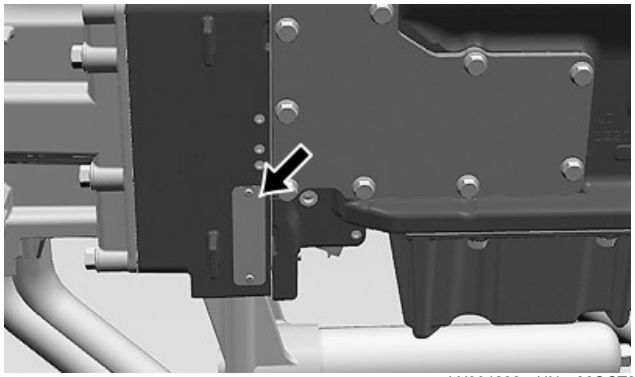


LX515811—UN—04OCT23

AutoPowr™/IVT™ Transmission

The transmission serial number is located on the top of the transmission housing.

*														*



LX394288—UN—26OCT20

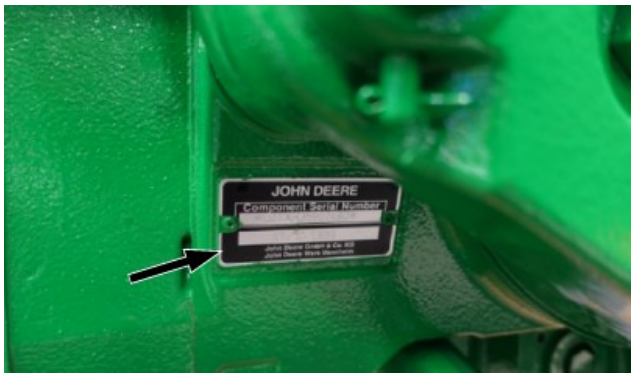
DirectDrive Transmission

The transmission serial number is located on the left side of the transmission housing.

*														*

500B,05,OULXA64,00057E0-19-04DEC23

Differential with Final Drive Serial Number



LX515813—UN—03JAN24

Differential with Final Drive Serial Number (Version A)



LX515814—UN—04OCT23

Differential with Final Drive Serial Number (Version B)

The serial number is located on the right side of the differential housing, above the final drive housing.

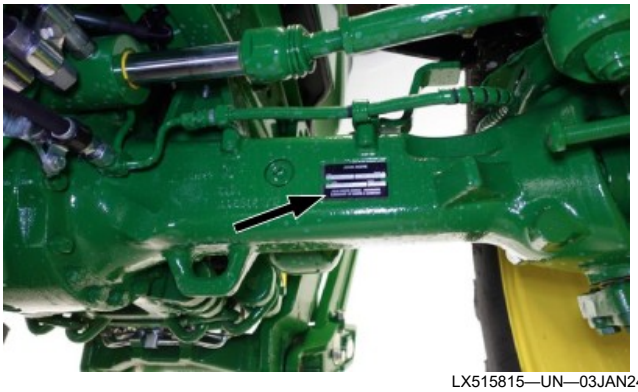
It provides details of the transmission ratio of the front-wheel drive axle (e.g. 1,712) and the transmission ratio of the differential gear pair (e.g. 54/13). This information will be required if a different tire combination is to be used.

NOTE: The string of numbers/letters represents the differential with final drive serial number.

*													*

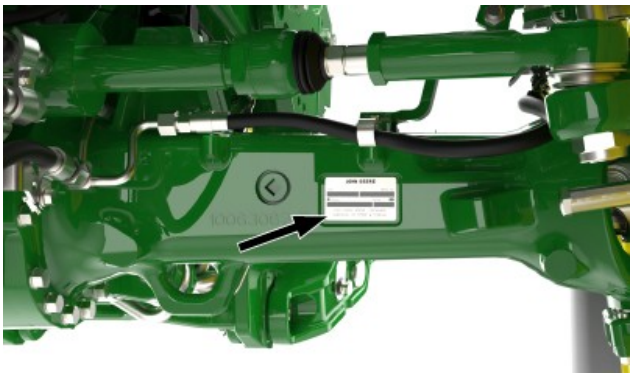
500B,08,ALL,OULXA64,0005723-19-10APR24

Front-Wheel Drive Serial Number



LX515815—UN—03JAN24

Front-Wheel Drive Axle (730 to 736)



LX515816—UN—04OCT23

Front-Wheel Drive Axle (750 and 755)

The plate bearing the front-wheel drive number is located on the end of the axle, at the rear. Information provided on it includes the transmission ratio of the front axle. These numbers are required if the tire combination of the front-wheel drive has to be changed.

*																*

500B,09,ALL,OULXA64,0005724-19-25APR24

Serial Number of Operator's Cab



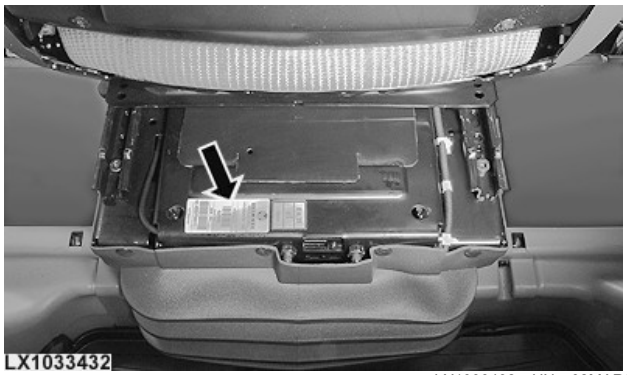
LX1056760—UN—09OCT12

The serial number of the operator's cab is located behind the driver's seat on the cover of the hydraulic pump.

*													*

500B,08,OULXA64,6M,0005725-19-04DEC23

Serial Number of Operator's Seat



LX1033432—UN—02MAR04



LX1036876

LX1036876—UN—22SEP05

Example Shown

A—Designation
B—Part Number (needed for orders)
C—Date of Manufacture (year - week)

The serial number of the operator's seat is located on the back of the seat.

Explanation of the serial number plate (box C):

The first two digits (XXxx xx) indicate the year of manufacture.

Third and fourth digits (xxXX xx) indicate the week of manufacture.

500B,11,ALL,LX25458,0000BED-19-10APR24

Subassembly Serial Numbers

Fuel injection pump, fuel injection nozzles, alternator, starting motor, steering unit (hydrostatic steering system), air-conditioning system compressor (if equipped), and the hydraulic pump also have serial numbers. These numbers help to distinguish between the different types of a subassembly.

500B,12,ALL,LX25458,0000BEE-19-10APR24

Change of Ownership

Record of Changes of Ownership

Machine Data	
Serial Number:	Tractor Model:
Engine Number:	Registration Number:

1st Change of Ownership	
First Owner:	Second Owner:
Address:	Address: . . . .
Delivery Date: Operating Hours upon Purchase: Number of Keys Handed Over (only for immobilizer):	Dealer's Stamp *(only if sold through a dealer)*

2nd Change of Ownership	
Second Owner:	Third Owner:
Address:	Address: . . . .
Delivery Date: Operating Hours upon Purchase: Number of Keys Handed Over (only for immobilizer):	Dealer's Stamp *(only if sold through a dealer)*

3rd Change of Ownership	
Third Owner:	Fourth Owner:
Address:	Address: . . . .
Delivery Date: Operating Hours upon Purchase: Number of Keys Handed Over (only for immobilizer):	Dealer's Stamp *(only if sold through a dealer)*

LX25458,0000BEF-19-05OCT20

Notes on Pre-Delivery Inspection

IMPORTANT: Depending on the regional peculiarities and individual vehicle configuration, the tasks are only applicable if the corresponding equipment is available.

The configuration can be found in the order information of the vehicle.

Subsequent additions and conversions must also be taken into account.

LX25458,0000BF0-19-05JUN20

Service Procedure

The following inspection, adjustment, and service work was performed prior to the delivery of the machine.

1. Fill levels of the following systems were checked and refilled if necessary:
   - ☐ 1.1 Engine oil*
   - ☐ 1.2 Transmission and hydraulic oil*
   - ☐ 1.3 Front-wheel drive axle, oil*
   - ☐ 1.4 Front PTO, oil (if equipped)*
   - ☐ 1.5 Coolant

2. Screws and nuts of the following components have been tightened to the specified torque:
   - ☐ 2.1 Wheels and rims
   - ☐ 2.2 Additional weights (if equipped)
   - ☐ 2.3 Front PTO (if equipped)
   - ☐ 2.4 Front hitch (if equipped)
   - ☐ 2.5 Front loader, mounting frame (if equipped)

- ☐ 3. All grease fittings have been lubricated.
- ☐ 4. Guards and shields have been checked.
- ☐ 5. Battery, charge battery to maximum level.
- ☐ 6. Operator's cab controls have all been checked (heater, blower, windshield wiper, and windshield washer).
- ☐ 7. Observe the instructions for starting up the air-conditioning system. See Section 210.
- ☐ 8. Operator's seat adjustment is working properly and customer has been familiarized with all seat settings.
- ☐ 9. Seat belts checked.
- ☐ 10. Headlights have been adjusted**.
- ☐ 11. Lights are working properly.
- ☐ 12. Infobord display and indicator lights work flawlessly.
- ☐ 13. Movement inhibitor is working properly.
- ☐ 14. Engine shutoff device is working properly.
- ☐ 15. Transmission shifting mechanism is working properly.

16. PTOs are working properly:
   - ☐ 16.1 Rear PTO
   - ☐ 16.2 Front PTO (if equipped)

17. Hitches are working properly:
   - ☐ 17.1 Rear hitch
   - ☐ 17.2 Front hitch (if equipped)

- ☐ 18. Selective control valves are working properly.
- ☐ 19. Trailer hitches are working properly.
- ☐ 20. Tire pressure has been checked and, if necessary, corrected.
- ☐ 21. Front axle toe-in has been checked with tractor fully ballasted; adjust, if necessary.
- ☐ 22. Pivoting fenders have been adjusted.
- ☐ 23. Steering stops checked and adjusted. Inspection of the clearances when the front-wheel drive axle is pivoted and steering is at the stop. See Prevent Front Wheel or Fender Contact with Tractor Components in Section 80.
- ☐ 24. Steering system is working properly.
- ☐ 25. With mechanical joystick, activate loader suspension system.
- ☐ 26. With electrical joystick, adjustments have been checked or calibration has been performed.
- ☐ 27. Park lock and park function of trailer air brake valve have been checked.
- ☐ 28. Service brakes and secondary brake have been checked.
- ☐ 29. Trailer brake has been checked.
- ☐ 30. Diagnostic trouble codes have been accessed, causes rectified, and codes deleted.
- ☐ 31. Display language, units of measurement, and date have been adjusted according to operator's needs.

- ☐ 32. On tractors with aftertreatment (Final Tier 4/Stage IV) the automatic exhaust filter cleaning has been activated.
- ☐ 33. Depending on tractor model, the due date message for service intervals has been set. See Periodic Service in Section 210B.
- ☐ 34. Install antenna. On the John Deere radio, check whether receiver is set to country-specific wave band (tuner band).
- ☐ 35. Attach StarFire™ receiver (if equipped).
- ☐ 36. Paint has been checked for good condition.
- ☐ 37. All warning and information stickers present and in good condition.

38. The SMV emblem is attached (only for North America):
   - ☐ 38.1 Engine cooling system
   - ☐ 38.2 Fuel system
   - ☐ 38.3 Hydraulic system

39. The following systems have been checked and are free of leaks:
   - ☐ 39.1 Engine cooling system
   - ☐ 39.2 Fuel system
   - ☐ 39.3 Hydraulic system

- ☐ 40. All obligatory and open product improvement programs must be completed prior to delivering the machine to a customer.
- ☐ 41. A test drive has been performed.
- ☐ 42. Calibration of (PowrQuad) Transmission according to Diagnostic Technical Manual (PTQ 038 – Transmission Calibration)***
- ☐ 43. *Execute the Connected Machine Setup Process together with the customer. See CCMS Solution 206001 for details.*

***** *Top up with oil only if oil level is at or below MIN mark.*
****** *Lights checked for compliance with local regulations and adjusted if necessary (also additional headlights, if equipped).*
*** On tractors equipped with PowrQuad™, AutoQuad™, or CommandQuad™ transmissions.

Date and signature of dealer/service technician: .....

6M,LX25458,0000BF1-19-13MAR24

Copy for Owner

Serial Number: _____

Vehicle model: _____

Operator's Manual No.: _____ Issue: _____

Registration Number: _____

Engine Number: _____

Delivery Date: _____

Owner's Name: _____

Operating Hours at Delivery: _____

Address: _____
_____
_____

Number of Keys Handed Over (only for immobilizer): _____

Dealer: _____

Dealer's Stamp:

DELIVERY CHECK LIST

At the Dealer

- □ Pre-delivery inspection completed (see PRE-DELIVERY INSPECTION)
- □ All necessary forms and documents present
- □ All decals affixed
- □ All special equipment/implements installed/present
- □ Wheel treads adjusted as specified
- □ Only for tractors with 38-inch rear wheels in combination with mudguard, the tread width is set to 1900 mm (75 inches) or wider.
- □ A copy was made and attached to the dealer document.

At Delivery Area with Customer:

Shown and Explained

- □ All machine warning labels
- □ Location of all serial numbers on machine
- □ Operator's Manual
- □ Lubrication points on machine and implements
- □ Care and maintenance (cleaning with high-pressure washers)
- □ Tire maintenance and care
- □ Lubrication and service record booklet
- □ Warranty procedure

Operating the Tractor

- □ Operator's seat, all possible seat configurations
- □ Consoles/corner post display
- □ Differential lock
- □ Transmission
- □ Starting and stopping
- □ Steering and steering system
- □ Brakes and brake systems
- □ Speed control
- □ Lights
- □ Wipers
- □ Heater
- □ Air conditioning system
- □ PTOs
- □ Rear hitch, front hitch, and selective control valves
- □ Hydraulic pickup hitch
- □ Three-point hitch adjustment
- □ Fuel system and fuel quality
- □ Checking fluid levels (radiator, engine, transmission)
- □ Settings on the corner post display
- □ iTEC—Intelligent Total Equipment Control
- □ Front axle suspension
- □ Cab suspension

Signature of dealer/service technician:
Date:

LX25458,OOS,SP,0000BF3-19-15JAN25

Copy for Dealer

Serial Number: _____ Vehicle model: _____

Operator's Manual No.: _____ Issue: _____ Registration Number: _____

Engine Number: _____ Delivery Date: _____

Owner's Name: _____ Operating Hours at Delivery: _____

Address: _____ Number of Keys Handed Over (only for immobilizer): _____

_____

_____ Dealer: _____

Dealer's Stamp:

DELIVERY CHECK LIST

At the Dealer

- □ Pre-delivery inspection completed (see PRE-DELIVERY INSPECTION)
- □ All necessary forms and documents present
- □ All decals affixed
- □ All special equipment/implements installed/present
- □ Wheel treads adjusted as specified
- □ Only for tractors with 38-inch rear wheels in combination with mudguard, the tread width is set to 1900 mm (75 inches) or wider.
- □ A copy was made and attached to the dealer document.

At Delivery Area with Customer:

Shown and Explained

- □ All machine warning labels
- □ Location of all serial numbers on machine
- □ Operator’s Manual
- □ Lubrication points on machine and implements
- □ Care and maintenance (cleaning with high-pressure washers)
- □ Tire maintenance and care
- □ Lubrication and service record booklet
- □ Warranty procedure

Operating the Tractor

- □ Operator's seat, all possible seat configurations
- □ Consoles/corner post display
- □ Differential lock
- □ Transmission
- □ Starting and stopping
- □ Steering and steering system
- □ Brakes and brake systems
- □ Speed control
- □ Lights
- □ Wipers
- □ Heater
- □ Air conditioning system
- □ PTOs
- □ Rear hitch, front hitch, and selective control valves
- □ Hydraulic pickup hitch
- □ Three-point hitch adjustment
- □ Fuel system and fuel quality
- □ Checking fluid levels (radiator, engine, transmission)
- □ Settings on the corner post display
- □ iTEC—Intelligent Total Equipment Control
- □ Front axle suspension
- □ Cab suspension

I hereby confirm receiving the tractor in good condition complete with Operator's Manual. I have received the Operator’s Manual. All necessary work upon delivery has been carried out. I have been informed of the safe method of operation and the mandatory daily maintenance work as per the delivery check list.

Owner's Signature:
Date:

LX25458,OOS,SP,0000BF5-19-15JAN25

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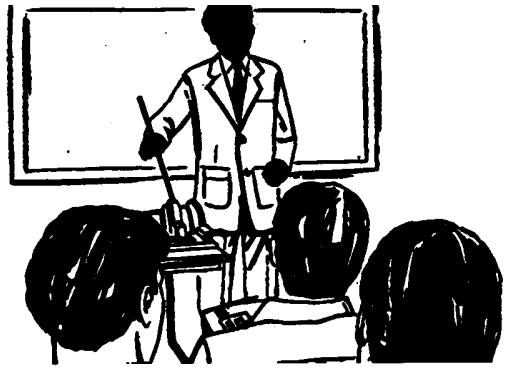


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