

**5075GV, 5075GN, 5075GF, 5075GL,
5090GV, 5090GN, 5090GF, 5090GL,
5100GL, 5105GN and 5105GF (MY20-)
Tractors**



JOHN DEERE

OPERATOR'S MANUAL

**5075GV, 5075GN, 5075GF, 5075GL, 5090GV, 5090GN, 5090GF,
5090GL, 5100GL, 5105GN and 5105GF (MY20-) Tractors**

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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 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 the direction of forward travel.

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I. N.) in the Specification or Identification Numbers section. Accurately record all the numbers to help in tracing the machine should it be stolen. Your dealer also needs these numbers when you order parts. File the identification numbers in a secure place off the machine.

SETTING FUEL DELIVERY BEYOND PUBLISHED factory specifications or otherwise overpowering will result in loss of warranty protection for this machine.

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection. After operating for the first 100 hours, schedule an after-sale inspection with your dealer to ensure best performance.

THIS TRACTOR IS DESIGNED SOLELY for use in customary agricultural or similar operations ("INTENDED USE"). Use in any other way is considered as contrary to the intended use. The manufacturer accepts no liability for damage or injury resulting from this misuse, and these risks must be borne solely by the user. Compliance with and strict adherence to the conditions of operation, service and repair as specified by the manufacturer also constitute essential elements for the intended use.

THIS TRACTOR SHOULD BE OPERATED, serviced and repaired only by persons familiar with all its particular characteristics and acquainted with the relevant safety rules (accident prevention). The accident prevention regulations, all other generally recognized regulations on safety and occupational medicine and the road traffic regulations must be observed at all times. Any arbitrary modifications carried out on this tractor will relieve the manufacturer of all liability for any resulting damage or injury.

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Engine Serial Number	500B-2		
Transmission Serial Number	500B-3		

Glossary

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
Cold Cranking Amperes	CCA	Amperage of a battery at low temperatures
CommandCenter™	CC	Computerized system for tractor monitoring
Component Technical Manual	CTM	Component Technical Manual
Diesel Exhaust Fluid	DEF	Diesel Exhaust Fluid
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
Electrohydraulic	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 Intelligent 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	T ractor I mplement A utomation
Front-Axle Suspension	TLS	Front-Wheel Drive Axle

Trademarks

Trademarks		Trademarks	
AutoPowr™	Trademark of Deere and Company	iTEC™ Basic	Trademark of Deere and Company
AutoPowr™/IVT™	Trademark of Deere and Company	iTEC™ Pro	Trademark of Deere and Company
AutoQuad™ II	Trademark of Deere and Company	IVT™	Trademark of Deere and Company
AutoQuad™ PLUS	Trademark of Deere and Company	IVT Selector™	Trademark of Deere and Company
AutoTrac™	Trademark of Deere and Company	JDLink™	Trademark of Deere and Company
Bio Hy-Gard™	Trademark of Deere and Company	JDOffice™	Trademark of Deere and Company
ClimaTrak™	Trademark of Deere and Company	John Deere	Trademark of Deere and Company
ComfortGard™	Trademark of Deere and Company	Oilscan™	Trademark of Deere and Company
ComfortGard Deluxe™	Trademark of Deere and Company	Parallel Tracking™	Trademark of Deere and Company
CommandARM™	Trademark of Deere and Company	Plus-50™	Trademark of Deere and Company
CommandCenter™	Trademark of Deere and Company	PowerTech™	Trademark of Deere and Company
CommandQuad™	Trademark of Deere and Company	PowerTech™ Plus	Trademark of Deere and Company
COOL-GARD™	Trademark of Deere and Company	PowerZero™	Trademark of Deere and Company
COOL-GARD II™	Trademark of Deere and Company	PowrQuad™	Trademark of Deere and Company
CoolScan™	Trademark of Deere and Company	PowrQuad™ PLUS	Trademark of Deere and Company
CoolScan PLUS™	Trademark of Deere and Company	PowrReverser™	Trademark of Deere and Company
Deere™	Trademark of Deere and Company	Service ADVISOR™	Trademark of Deere and Company
DieselScan™	Trademark of Deere and Company	SERVICEGARD™	Trademark of Deere and Company
FieldCruise™	Trademark of Deere and Company	StarFire™	Trademark of Deere and Company
Field Doc™	Trademark of Deere and Company	StarFire™ iTC	Trademark of Deere and Company
Field Office™	Trademark of Deere and Company	StellarSupport™	Trademark of Deere and Company
GreenStar™	Trademark of Deere and Company	SyncroPlus™	Trademark of Deere and Company
Hy-Gard™	Trademark of Deere and Company	TLS™	Trademark of Deere and Company
ILS™	Trademark of Deere and Company	Tractor-Implement Automation™	Trademark of Deere and Company
iTEC™	Trademark of Deere and Company	Triple Link Suspension™	Trademark of Deere and Company

OULXA64,0003F82-19-15MAY18

Safety

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-19-29SEP98

Understand Signal Words



▲ WARNING

▲ CAUTION

TS187—19—30SEP88

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

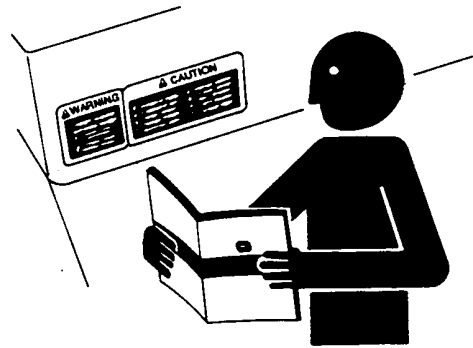
WARNING; The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

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 from your John Deere dealer.

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

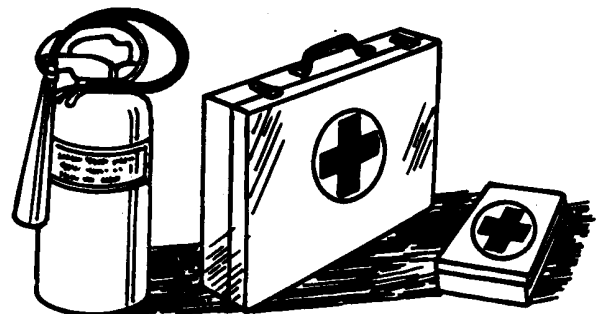
Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

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

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.

DX,READ-19-16JUN09

Prepare for Emergencies



TS291—UN—15APR13

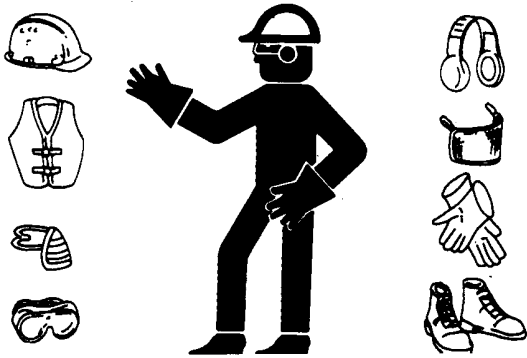
Be prepared if a fire starts.

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

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.

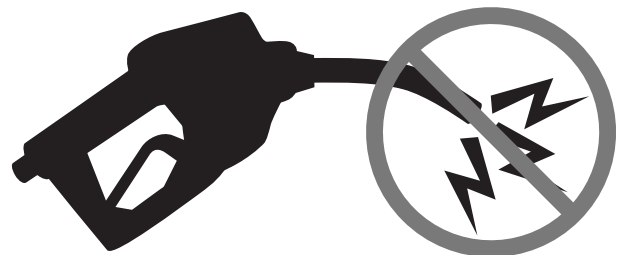
2. Aim low. Point the extinguisher at the base of the fire.
3. Squeeze the lever slowly and evenly.
4. Sweep the nozzle from side-to-side.

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.

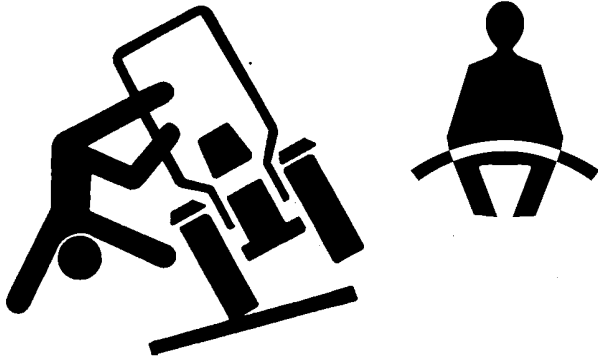
Static charges can build up in ULSD fuel while it is flowing through fuel delivery systems. Static electricity discharge when combustible vapors are present could result in a fire or explosion.

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

Use Foldable ROPS and Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

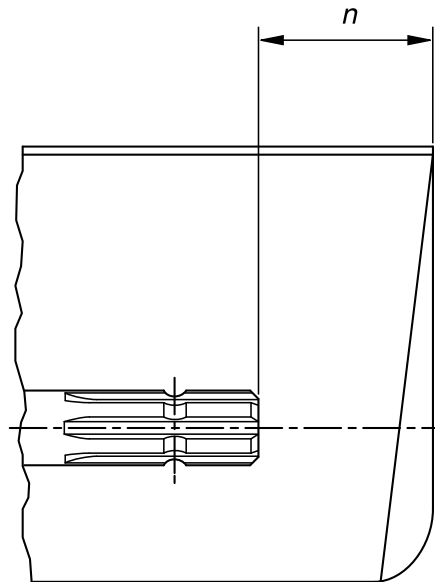
- If this machine is equipped with a foldable rollover protective structure (ROPS), keep the ROPS in the fully extended and locked position. USE a seat belt when you operate with a ROPS in the fully extended position.
 - Hold the latch and pull the seat belt across the body.
 - Insert the latch into 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.

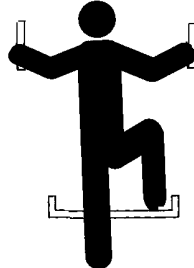
Do not raise implements high enough to damage the tractor master shield or guard of primary implement PTO driveshaft. Detach the PTO driveline shaft if it is necessary to increase implement height. (See Attaching/ Detaching PTO Driveline)

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

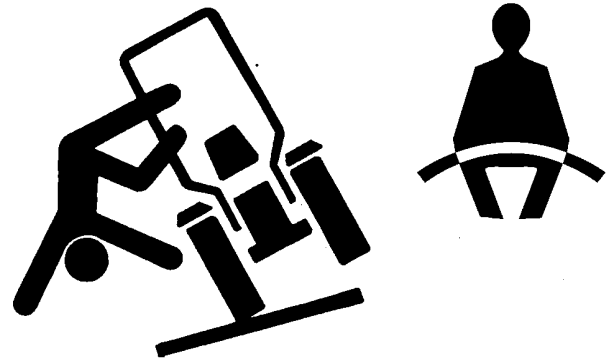
In addition to GreenStar™ Applications, this display can be used as a display device for any ISOBUS Controller that meets ISO 11783 standard. This includes capability to control ISOBUS implements. When used in this manner, information and control functions placed on the

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 approved for your machine. See your John Deere dealer.

DX,ROPS1-19-22AUG13

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 $\leq 1.25 \text{ m/s}^2$.

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

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 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

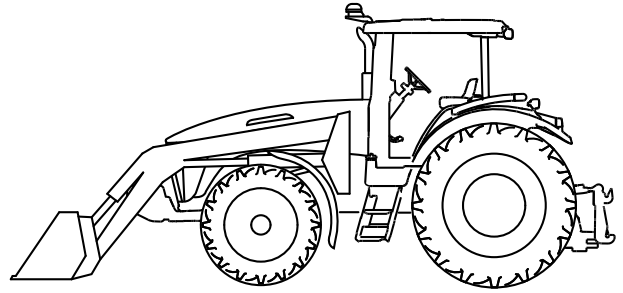
Limited Use in Forestry Operation

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 these applications, such as forwarding and loading, requires fitment of application-specific components including Falling Object Protective Structure (FOPS) and/or Operative Protective Structures (OPS). Contact John Deere dealer for special components.

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.

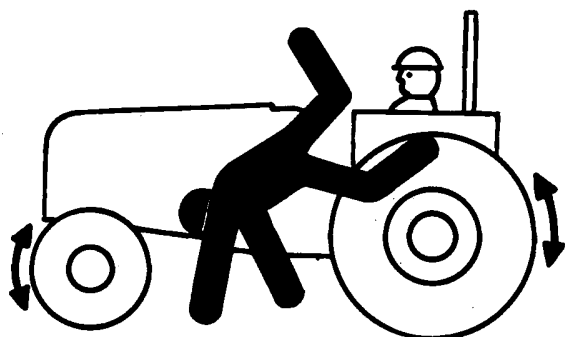
Lower loader to ground before leaving operators station.

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 claspers).

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

Passenger Seat



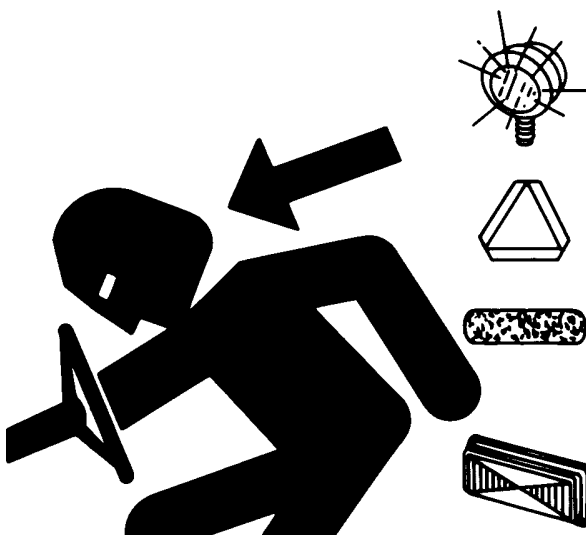
TS1730—UN—24MAY13

The passenger seat is intended only for transport of a passenger in on-road operations (that is, transport from farm to field).

If it is necessary to transport a passenger, the passenger seat is the only means of transporting a passenger provided by John Deere.

DX,SEAT,EU-19-28FEB17

Use Safety Lights and Devices



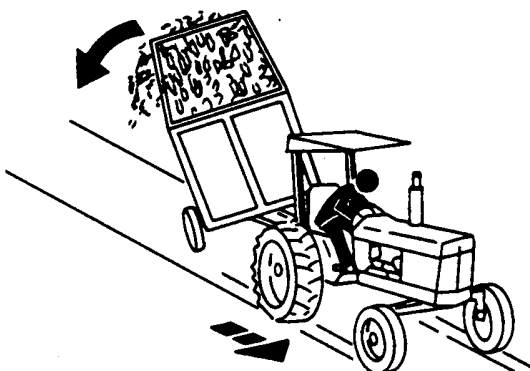
TS951—UN—12APR90

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. An implement safety lighting kit is available from your John Deere dealer.

DX,FLASH-19-07JUL99

Towing Trailers/Implements Safely



TS216—UN—23AUG88

Stopping distance increases with speed and mass of trailer/implement, and when transporting on slopes. Towed mass with or without brakes that is too heavy for the tractor or is towed too fast can cause loss of control. Consider the total weight of the equipment and its load.

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.

Stay clear of area between tractor and trailed vehicle.

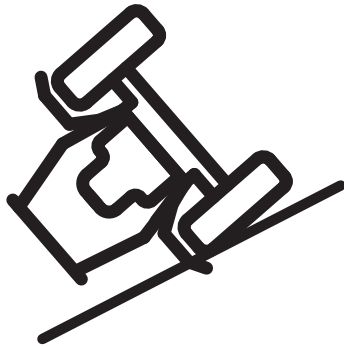
Trailer/Implement Brake System	Top Speed
Unbraked	25 km/h (15.5 mph)
Independent	25 km/h (15.5 mph)
Overrun brake	25 km/h (15.5 mph)
Single-line hydraulic brake	25 km/h (15.5 mph)
Dual-line hydraulic brake	40 km/h (25 mph)
Single-line air brake	25 km/h (15.5 mph)
Dual-line air brake	Maximum design speed

There may be legal limits in force that restrict travel speeds to figures lower than those quoted here.

Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.

DX,TOW3,EU-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

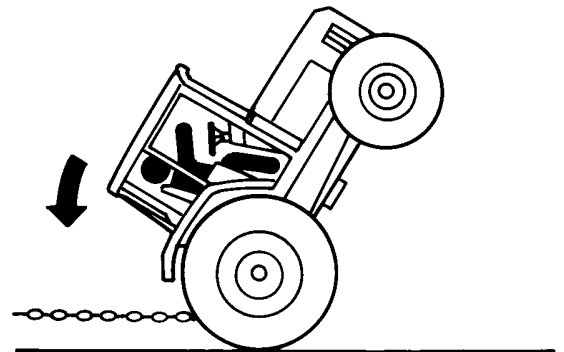
Choose a low ground speed so you will not have to stop or shift while on a slope.

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,VW,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.

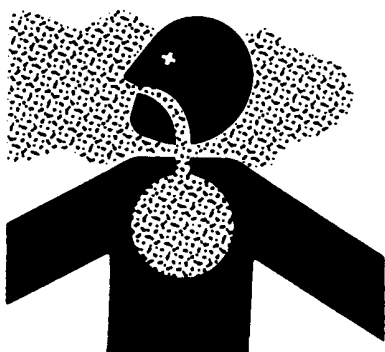
If necessary to tow with another unit, use a tow bar or a long chain (a cable is not recommended). Inspect the

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,MIRE-19-07JUL99

Avoid Contact with Agricultural Chemicals



TS220—UN—15APR13



TS272—UN—23AUG88

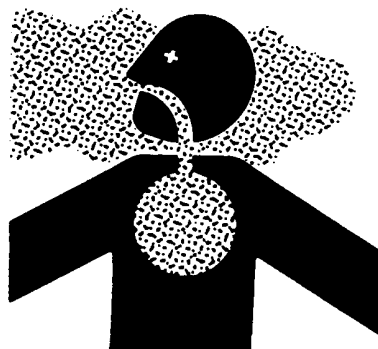
This enclosed cab does not protect against inhaling vapor, aerosol or dust. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

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.

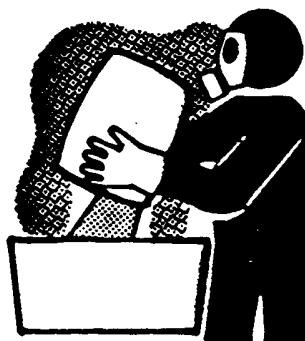
Clean your shoes or boots to remove soil or other contaminated particles prior to entering the cab.

DX,CABS-19-25MAR09

Handle Agricultural Chemicals Safely



TS220—UN—15APR13



A34471

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.

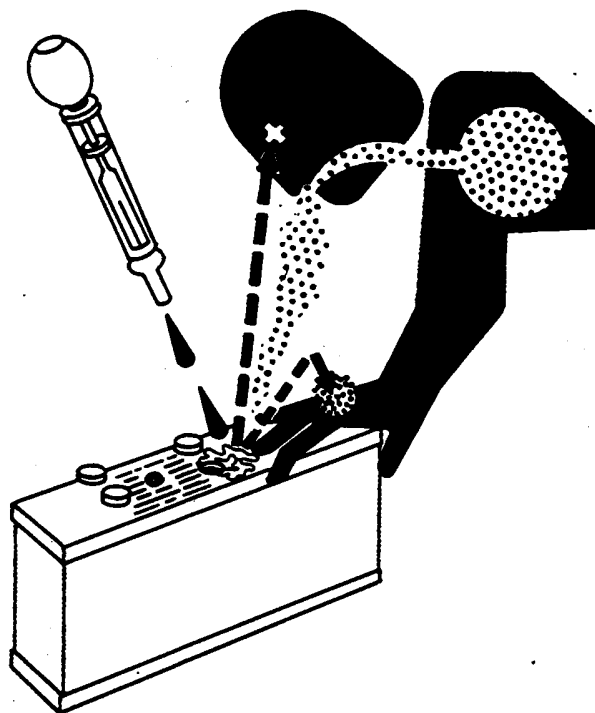
- Do not smoke or eat while applying chemicals.
- After handling chemicals, always bathe or shower and change clothes. Wash clothing before wearing again.
- Seek medical attention immediately if illness occurs during or shortly after use of chemicals.
- Keep chemicals in original containers. Do not transfer 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

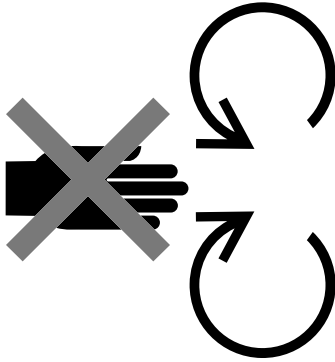
Clean Exhaust Filter Safely



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

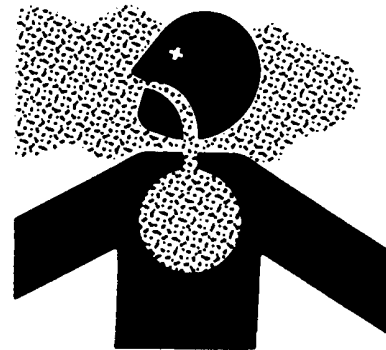
Keep hands, feet, and clothing away from power-driven parts.

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



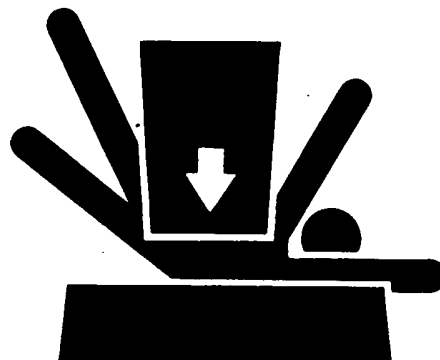
TS220—UN—15APR13

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

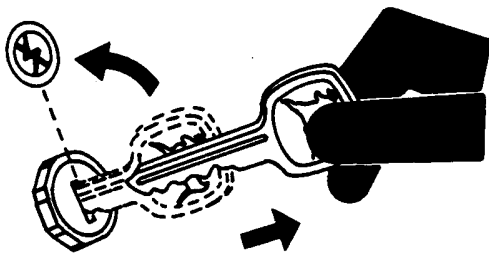
Avoid possible injury or death from machinery runaway.

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



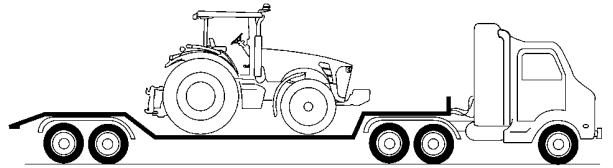
TS230—UN—24MAY89

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

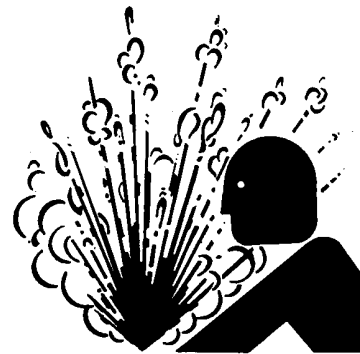
A disabled tractor is best transported on a flatbed carrier. Use chains to secure the tractor to the carrier. The axles and tractor frame are suitable attachment points.

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



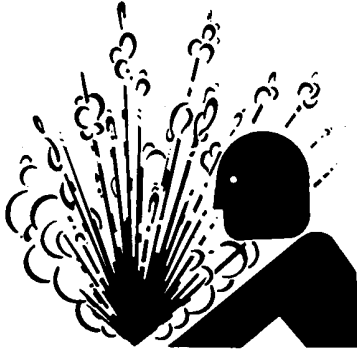
TS281—UN—15APR13

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.

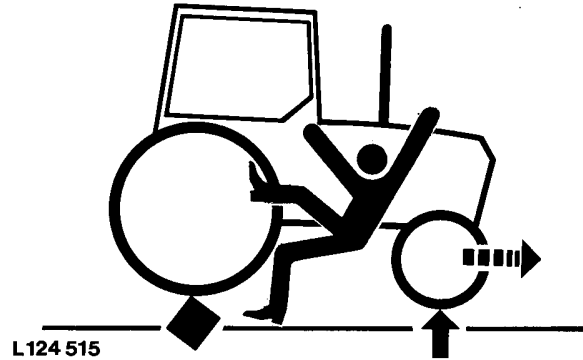
When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

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



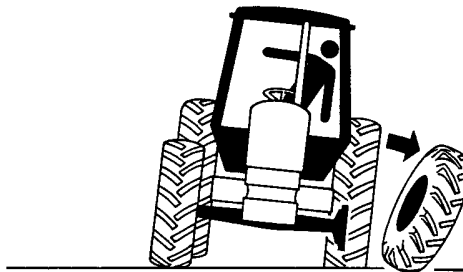
L124 515

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



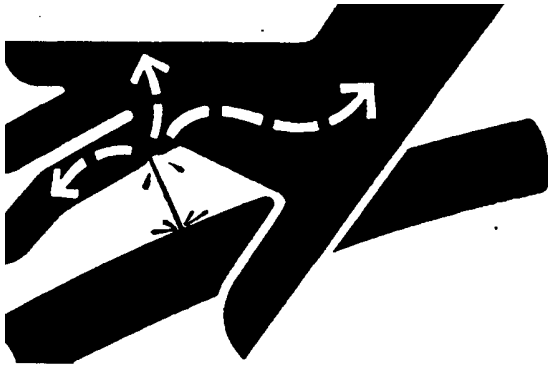
L124 516

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.

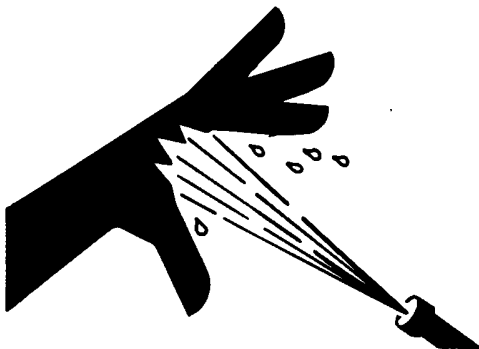
Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

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. 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.

Only technicians familiar with this type of system can perform repairs. (See your John Deere dealer.)

DX,WW,HPCR1-19-07JAN03

Store Attachments Safely



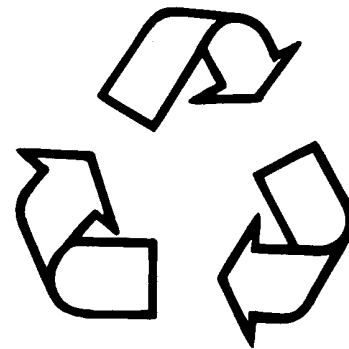
TS219—UN—23AUG88

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 Decals

Pictorial Safety Signs

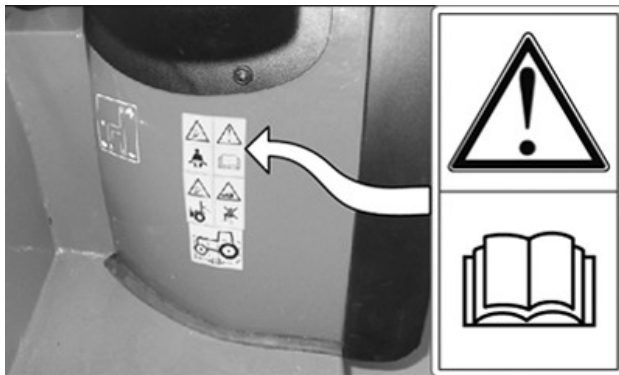


PY34454—UN—21NOV16

At several important places on this machine, safety signs are affixed intended to signify potential danger. A picture in a warning triangle identifies the hazard. An adjacent picture provides information on how to avoid personal injury. These safety signs, their placement on the machine, and a brief explanation follow.

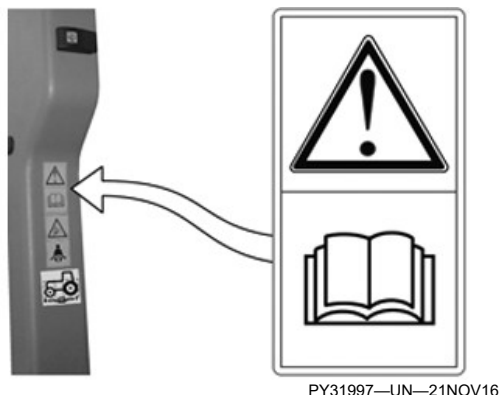
RA84036,0001168-19-10AUG17

Operator's Manual



PY31996—UN—10NOV16

Open Operator Station



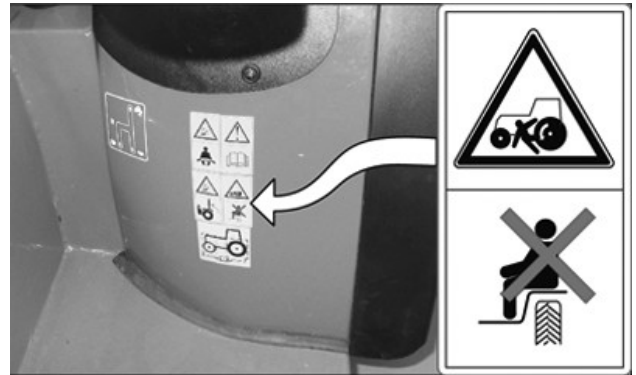
PY31997—UN—21NOV16

Cab

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 rules to avoid accidents.

RA84036,0000991-19-03OCT18

No Riders (Foldable ROPS)



PY31998—UN—10NOV16

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 the machine. Riders can also obstruct the operator's view, resulting in the machine being operated in an unsafe manner.

RA84036,0001A63-19-23JUL19

Use Seat Belt Properly (Cab or Fixed ROPS)



PY31999—UN—21NOV16

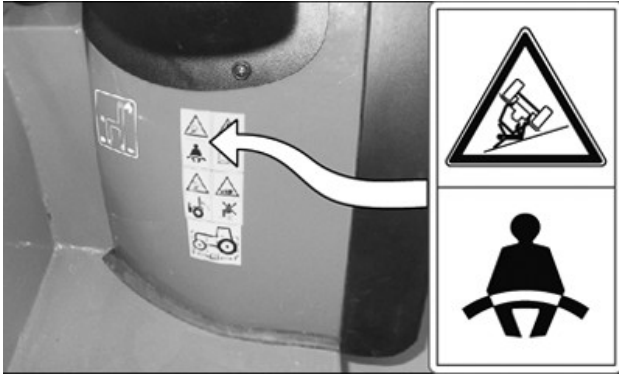
CAUTION: Avoid crushing injury or death during rollover. This machine is equipped with a roll-over protective structure (ROPS). **USE** a seat belt when you operate with a ROPS.

- 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.

MS76789,0000637-19-24SEP18

Use Seat Belt Properly (Foldable ROPS)



PY34366—UN—10NOV16

Use Foldable ROPS and Seat Belt Properly

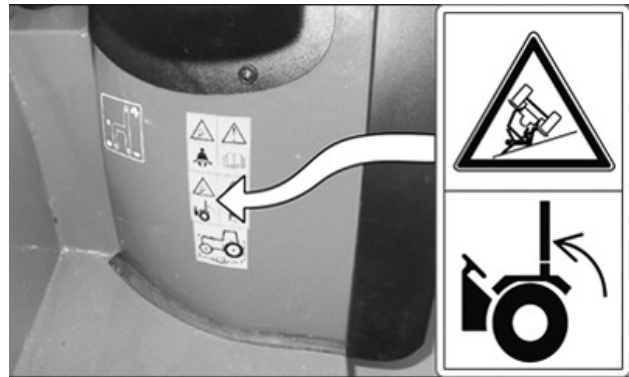
CAUTION: Avoid crushing injury or death during rollover. This machine is equipped with a foldable roll-over protective structure (ROPS). Keep the ROPS in the fully extended and locked position. USE a seat belt when you operate with a ROPS.

- 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.

CAUTION: 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.

MS76789,0000638-19-24SEP18

ROPS in Normal Position (Foldable ROPS)



PY34367—UN—10NOV16

CAUTION: Avoid crushing injury or death during rollover. Use Foldable ROPS and seat belt properly. If this machine is equipped with a foldable roll-over 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 latch to make sure that the belt is securely fastened.
- Snug the seat belt across the hips

CAUTION: 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.

RA84036,0001A64-19-23JUL19

Hitch Remote Control (Mechanical Hitch)



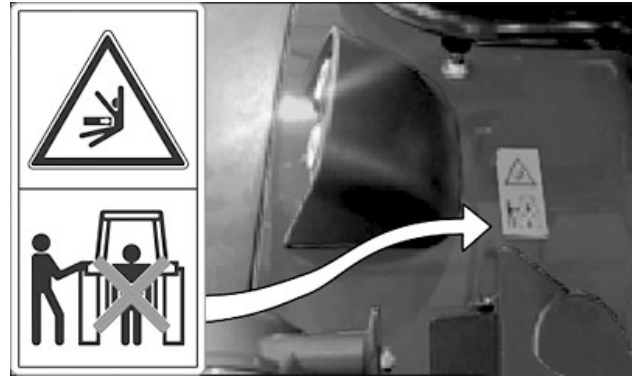
APY11196—UN—15MAY19

(5GV, 5GN, 5GF)



APY11197—UN—15MAY19

(5GF) Wide Orchard



APY11295—UN—12JUL19

(5GF) Wide Orchard

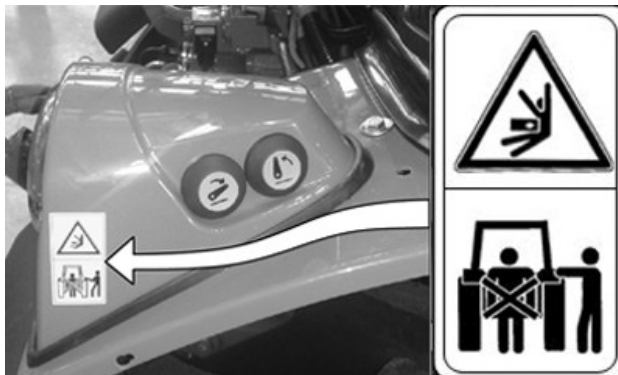
CAUTION: Avoid crushing. When attaching or detaching an implement, there is a risk of crushing in the area between the tractor and implement. When attaching to the hitch, stay clear of the area where the three-point hitch rises and do not permit anyone to be in the area.

RA84036,0001997-19-12JUL19

CAUTION: Avoid crushing. 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 rises and do not permit anyone to be in the area.

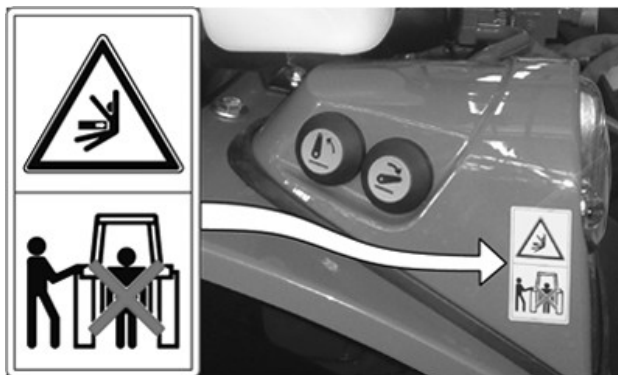
RA84036,0001998-19-08JUL19

Hitch Remote Control (Electronic Hitch)



PY34370—UN—22NOV16

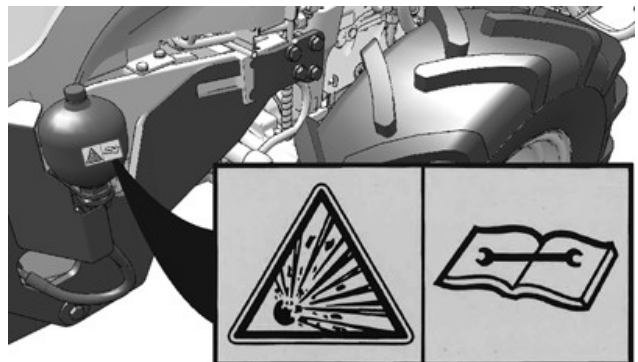
(5GV, 5GN, 5GF)



PY34371—UN—10NOV16

(5GV, 5GN, 5GF)

Accumulator — Front Hitch

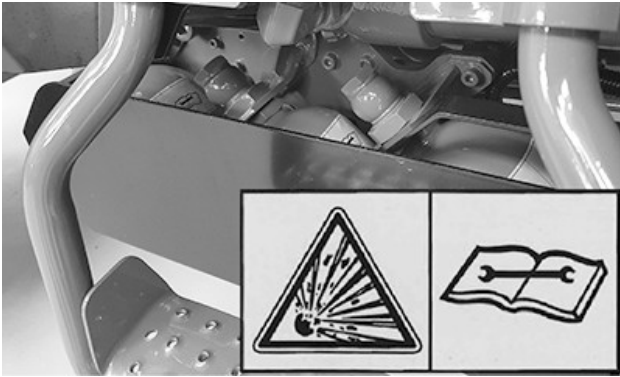


LX203974—UN—21JAN15

CAUTION: Avoid crushing and fluid injection. Releasing pressure may cause machine movement and exposure to fluid under pressure. See dealer for instruction on relieving pressure before servicing system.

MS76789,000063B-19-24SEP18

Accumulator — Front Suspended Axle

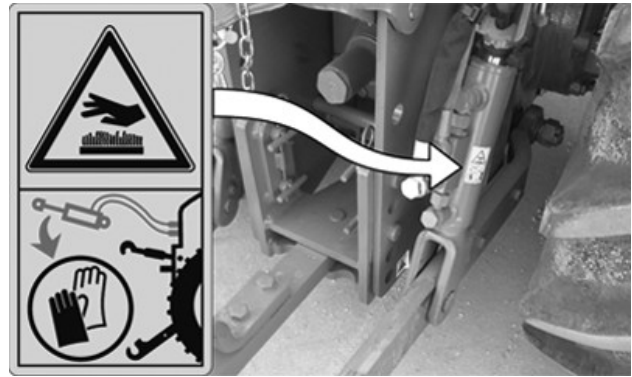


APY11198—UN—15MAY19

- CAUTION: Avoid crushing and fluid injection.**
Releasing pressure may cause machine movement and exposure to fluid under pressure. See dealer for instruction on relieving pressure before servicing system.

RA84036,0001999-19-20JUN19

Hydraulic Lines and Hydraulic Components — Rear Hitch

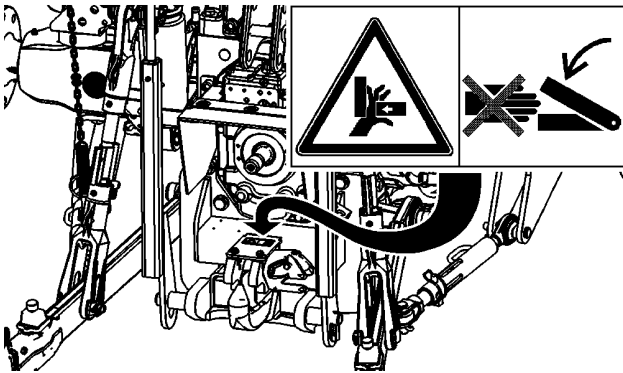


PY34377—UN—10NOV16

- CAUTION: Avoid contact with hot surfaces.**
Hydraulic system components can get hot. Touching hot surfaces of the hydraulic system, accessories, or hoses and leads can cause personal injuries.
Wear work gloves or allow the hydraulic components to cool before starting maintenance work on the hydraulic system.

RA84036,000099E-19-22NOV16

Pick-Up Hitch

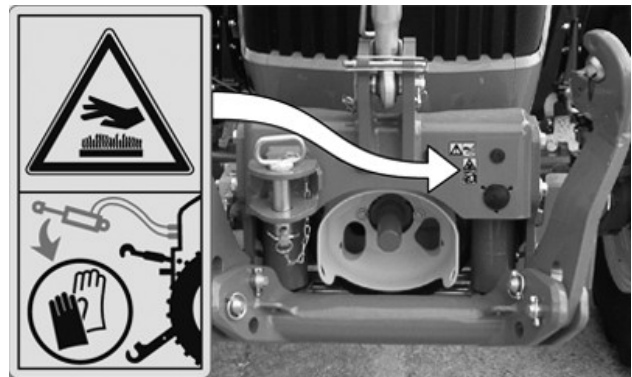


LX1054654—UN—02FEB12

- CAUTION: Avoid crushing and pinching.**
When attaching or detaching an implement, there is a risk of crushing in the area between the tractor and implement. Keep clear of pick-up hitch components while operating the pick-up hitch.

RA84036,0000999-19-10NOV16

Hydraulic Lines and Hydraulic Components — Front Hitch

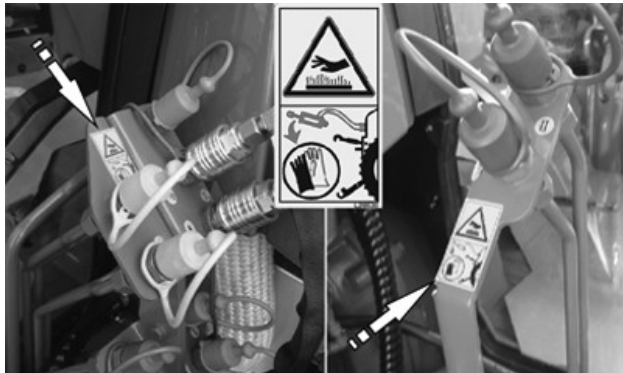


PY34380—UN—10NOV16

- CAUTION: Avoid contact with hot surfaces.**
Hydraulic system components can get hot. Touching hot surfaces of the hydraulic system, accessories, or hoses and leads can cause personal injuries.
Wear work gloves or allow the hydraulic components to cool before starting maintenance work on the hydraulic system.

RA84036,00009A1-19-22NOV16

Hydraulic Lines and Hydraulic Components — Front Distributors



PY34383—UN—10NOV16

! CAUTION: Avoid contact with hot surfaces.
Hydraulic system components can get hot.

Touching hot surfaces of the hydraulic system, accessories, or hoses and leads can cause personal injuries.

Wear work gloves or allow the hydraulic components to cool before starting maintenance work on the hydraulic system.

RA84036,00009A4-19-22NOV16

Vehicle Overview

Product Identification View



(Cab) (5GV, 5GN, 5GF)

PY28118—UN—25AUG16



(Open Operator Station) (5GF)

PY28119—UN—09NOV16



(Open Operator Station) (5GL, 5GL-N)

PY28120—UN—29AUG16



(Cab) (5GL-N)

APY01860—UN—19FEB18

SD74272,00016E6-19-03OCT18

Operator's Manual - General Information

Scope of This Manual

This publication 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 through your authorized John Deere dealer.

OULXA64,0003F84-19-17MAR17

Operator Manual Usage Information

Using this Manual:

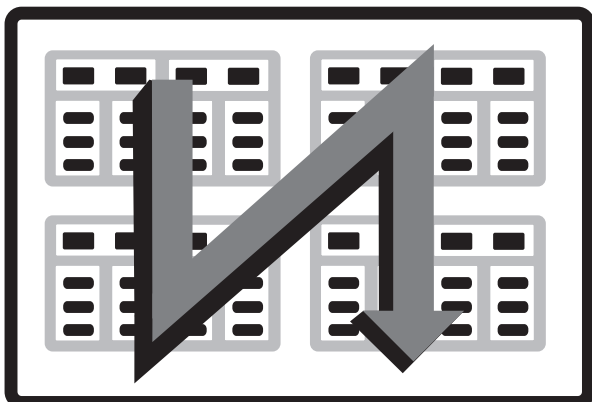
The information provided in this manual is divided into sections. The sections are organized by typical machine features or functional systems (Engine, Electrical, Hydraulic, Transmission, etc). These sections are identified at the top of each page. Specific information within each section is organized into modules. These modules are enclosed in boxes and the main modules are identified by 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 will 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 Safety information and there is an alphabetical index at the very end of the manual.

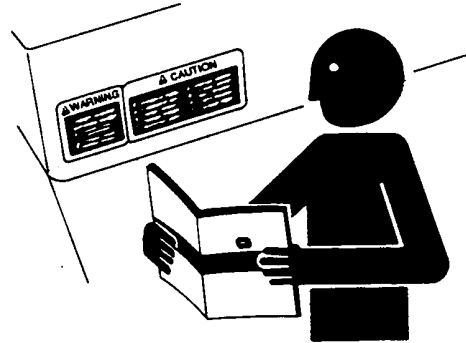
The Operator's Manual content flows as sequential reading down one column of text and graphic then over to the top of the next column as shown.



W28329—UN—18OCT17

RA84036,0001895-19-06SEP18

Comply with Operator's Manuals of Implement Manufacturers



TS201—UN—15APR13

CAUTION: Before operating the tractor in conjunction with a mounted implement or trailer, it is the responsibility of the operator to make himself 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 for all operators of the tractor.

OULXBER,0001B74-19-16DEC11

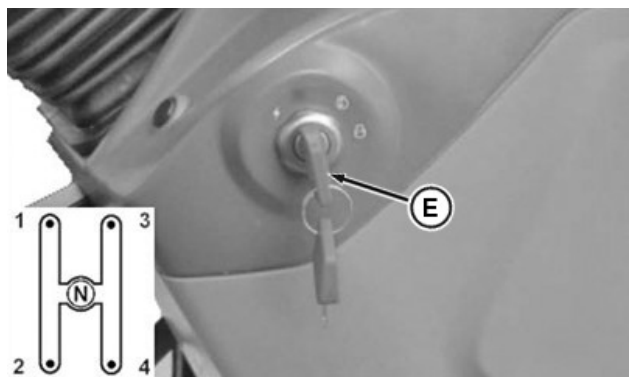
Operator Training Required

- Read this manual carefully before operating tractor.
- Operate tractor in an open, unobstructed area under direction of an experienced operator.
- Learn use of all controls.

OULXBER,000200E-19-31JAN13

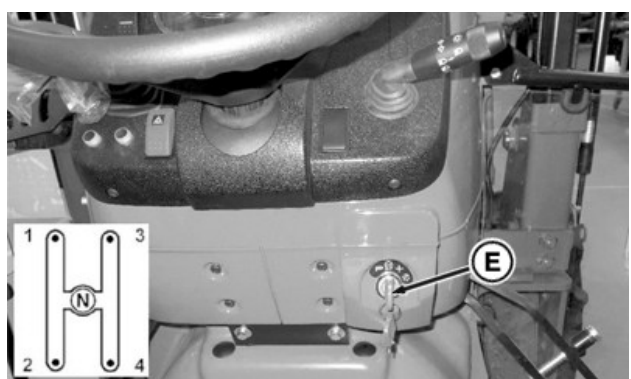
Operating the Engine

Neutral Start Switch



(5GV, 5GN, 5GF)

PY28170—UN—25AUG16



(5GL, 5GL-N)

PY42822—UN—02JUL17

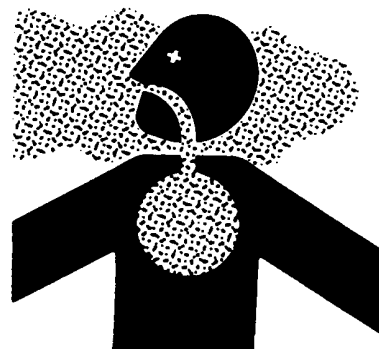
E—Key

CAUTION: If a range and a gear are selected with the engine running and the reverse drive lever is not in neutral position, the tractor starts moving. Always engage park brake and put the gear lever in **NEUTRAL** position before restarting the tractor. Otherwise the tractor moves slightly even with the reverse drive lever in neutral position.

NOTE: If the tractor is equipped with the neutral start switch on the transmission, the gear lever has to be in neutral position. Otherwise the engine does not start.

RA84036,0001A57-19-19JUL19

Starting the Engine



TS220—UN—15APR13

CAUTION: Prevent asphyxiation. Engine exhaust fumes can cause sickness or death.

If you must operate engine in a building, make sure that there is adequate ventilation. Either use an exhaust pipe extension to remove the exhaust fumes or open doors and windows to bring enough outside air into the area.

Also refer to Prevent Machine Runaway in the Safety section of this manual.



(5GV, 5GN, 5GF)

APY11209—UN—23MAY19



(5GL)

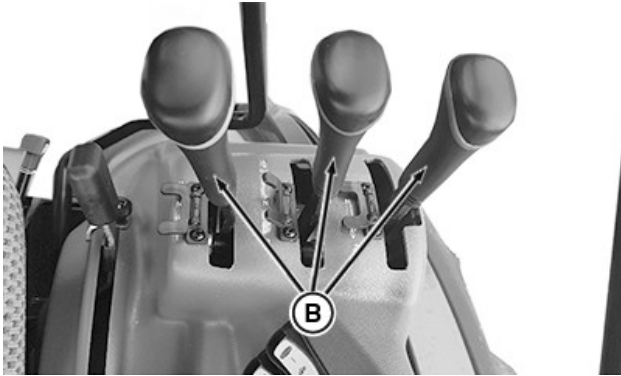
APY11210—UN—23MAY19

A—Hitch Control Lever

1. Check fuel gauge to be sure that there is plenty of fuel in the tank.

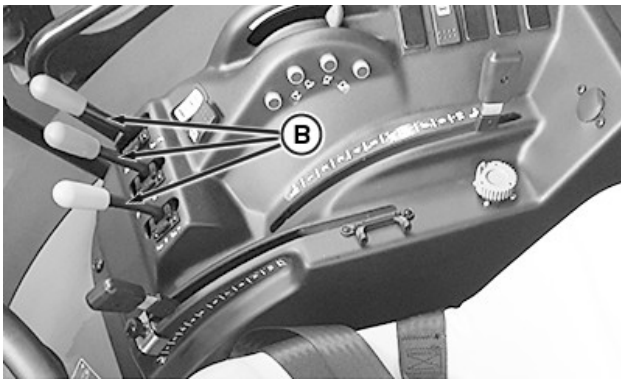
2. Place hitch control lever (A) in lower position.
3. Check the alternator indicator and the engine oil pressure indicator lights to ensure that there is oil pressure. The indicator lights come on when key switch is turned to the ON position.

If either light does not function properly, contact your John Deere dealer.



APY11211—UN—23MAY19

(5GV, 5GN, 5GF)



APY11212—UN—23MAY19

(5GL)

B—SCV Levers (No. 1, 2, and 3)

4. Set selective control valve levers (B) to neutral position.



APY11213—UN—23MAY19

(5GV, 5GN, 5GF)

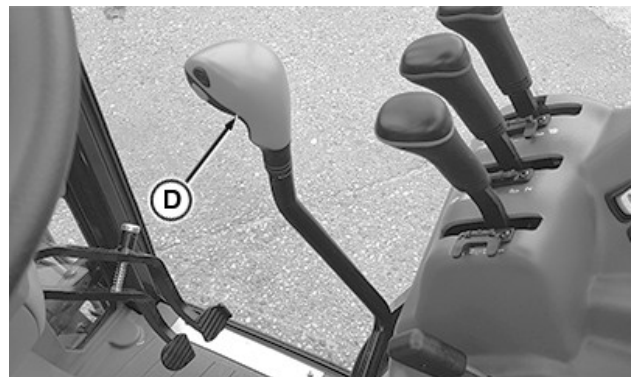


APY11214—UN—23MAY19

(5GL)

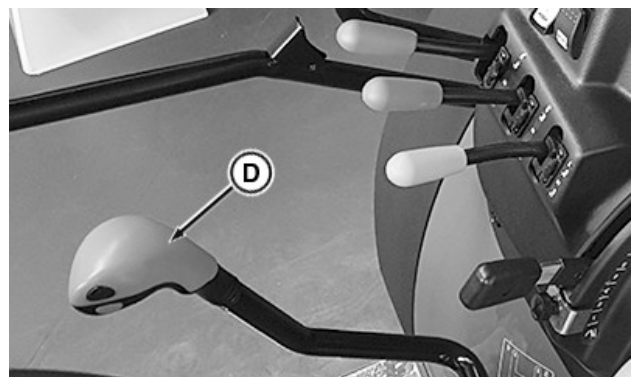
C—Hand Throttle Lever

5. Move hand throttle (C) to a medium speed setting (first third of lever travel).



APY11215—UN—23MAY19

(5GV, 5GN, 5GF)



APY11216—UN—23MAY19

(5GL)

D—Gear Shift Lever

6. Move gearshift lever (D) to neutral.

NOTE: The engine does not start if gearshift lever (D) is in engaged position.

IMPORTANT: Tractors with 24/12 speed transmission: first move the reverse drive lever to neutral position. Then move the reverse drive lever to the desired travel direction to move the tractor.



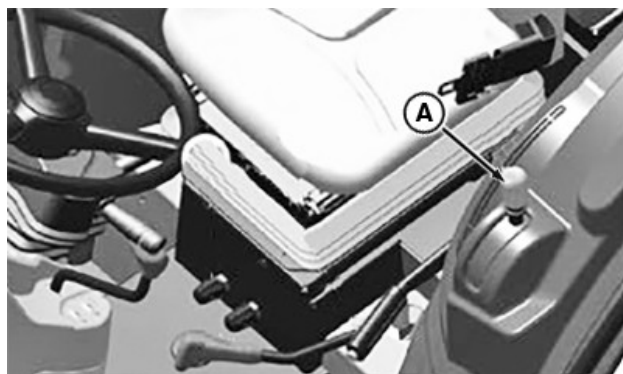
(5GV, 5GN, 5GF)

APY11217—UN—23MAY19



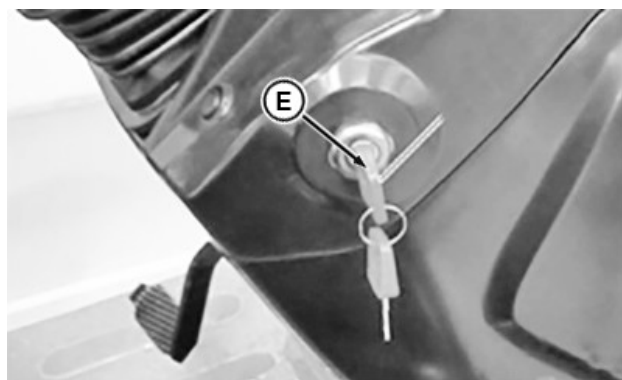
(5GL)

APY11218—UN—23MAY19



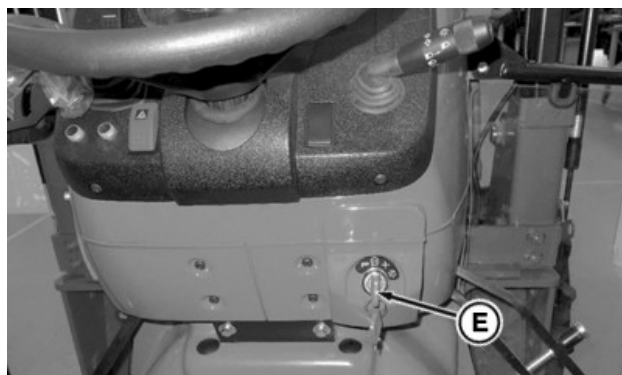
Tractor with Mechanical PTO

PY28176—UN—09NOV16



(5GV, 5GN, 5GF)

PY28161—UN—09NOV16



(5GL, 5GL-N)

PY42851—UN—03JUL17

A—PTO Clutch Switch or Knob or Lever
E—Key

NOTE: The engine does not start if PTO switch or lever (A) is in engaged position.

7. Turn key (E) in clockwise to end position. Release key as soon as engine starts.

IMPORTANT: DO NOT operate starting motor more than 20 seconds at a time. If engine does not start, turn the key to the ZERO position. Wait at least one minute for the starting motor to cool before trying again.

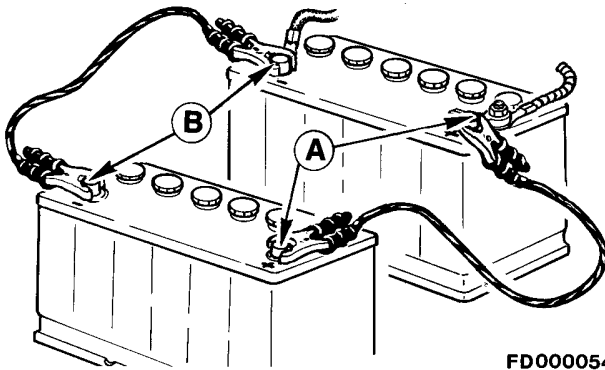
Do not adjust hand throttle lever. Run engine for a few minutes. At temperatures below 0°C (32° F), extend warm-up period accordingly.

CAUTION: Never operate the engine in a closed building. Make sure that there is plenty of ventilation.

Danger of asphyxiation.

RA84036,00019A5-19-20JUN19

Start with a Booster Battery



A—Positive Terminal
B—Negative Terminal

CAUTION: Gas given off by batteries is highly explosive. Keep sparks and naked flames away from batteries. Be sure that polarity is correct before making connections: ground cable to the negative terminal and starter cable to positive terminal of battery.

Reversed polarity damages the electrical system. Always connect positive cable first and then negative cable.

Connections to allow an additional 12-volt battery to be brought into the circuit represent an effective aid to starting. Connect positive terminal (A) of battery before connecting negative terminal (B).

RA84036,000118A-19-11AUG17

Start the Engine with a Slave Battery

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

CAUTION: Explosions can cause injury. Take safety precautions to reduce the danger of injuries from explosions. See Handling Batteries Safely in Safety (Section 05) of this manual.

CAUTION: Be sure that polarity is correct before making connections.

CONNECT: Connect positive terminal (+) first and then negative battery terminal (—).

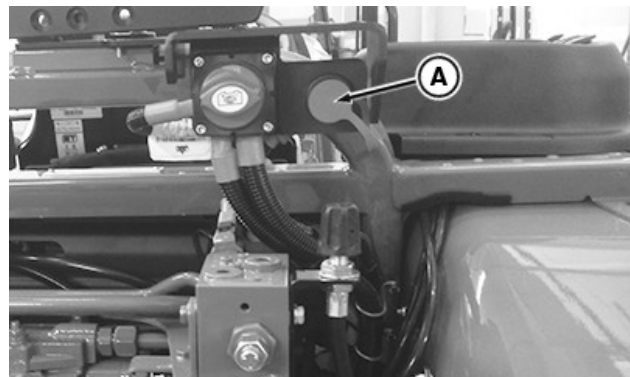
DISCONNECT: Disconnect negative battery terminal (—) first and then positive terminal (+). Reversed polarity damages the electrical system.

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

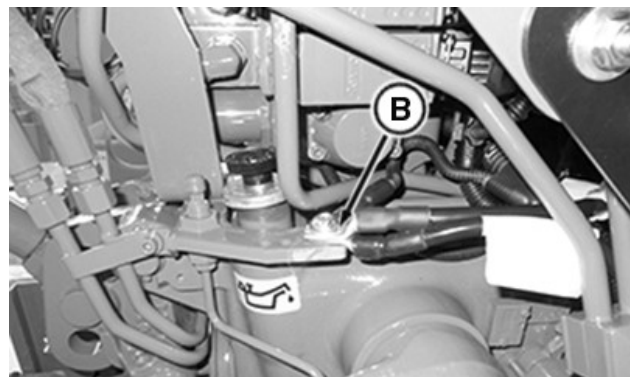
For jump-starting, use cables that cannot be incorrectly connected (to avoid reversed polarity) and have an approximately 70 mm² cross-section; in addition, the terminals must be insulated.

IMPORTANT: If the engine is to be started using a slave 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 terminal (+) properly to protect the alternator from damage. Contact your John Deere dealer for more information.



Positive Battery Terminal (+)



Negative Battery Terminal (—)

A—Positive Battery Terminal (+)
B—Negative Battery Terminal (—)

The tractor can be equipped with a jump-start connector (A). The connector is used to allow jump-starting by an additional 12 V battery.

The jump-start is located closed to the battery cut-off switch (if fitted) on the rear side of the tractor.

To connect to the jump connector, remove the cover from the connector (A). Connect positive pole (+) before connecting negative poles (-) to the tractor chassis (B).

IMPORTANT: Be sure that the polarity is correct before making connections.

Always connect positive terminal (+) first and then negative terminal (-).

Reversed polarity damages the electrical system.

When work is finished, first disconnect negative terminal (-) and then positive terminal (+). Fit the cover on the connector (A).

RA84036,00019A6-19-19JUL19

Battery — Disconnect Electrical Circuit (5GV, 5GN, 5GF)

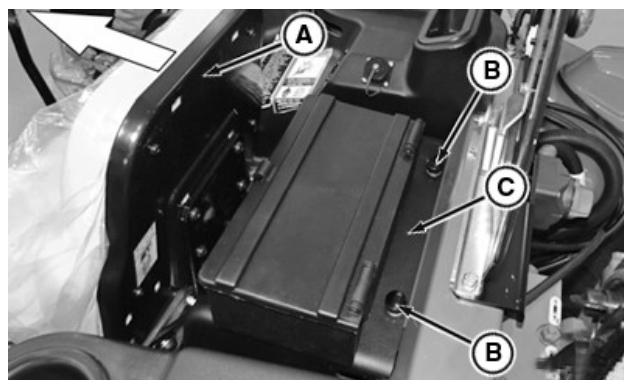
CAUTION: Explosions can cause injury. Take safety precautions to reduce the danger of injuries from explosions. See Handling Batteries Safely in Safety (Section 05) of this manual.

CAUTION:
DISCONNECT ELECTRICAL CIRCUIT: Always protect the connection points or the battery posts from being touched—for example, by insulation—with suitable insulating tape.

BEFORE BATTERY REMOVAL: Disconnect all battery terminals. Always disconnect the negative terminal (—) first and then the positive terminals (+). The wrong sequence could seriously damage the electrical system.

Disconnect Electrical Circuit:

1. Disconnect the battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (Section 220B) in this manual.



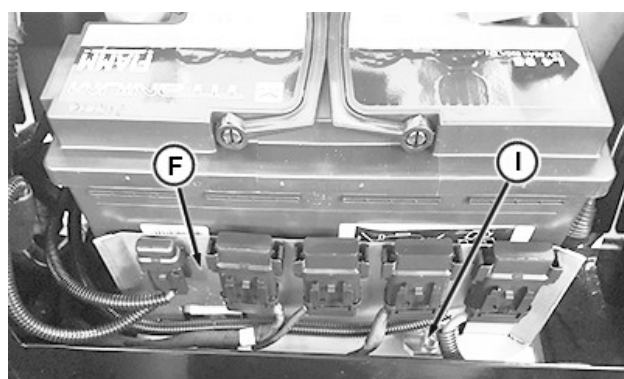
PY28248—UN—25AUG16
(Open Operator Station) (5GV, 5GN, 5GF)



PY28249—UN—25AUG16
(Cab) (5GV, 5GN, 5GF)

A—Seat
B—Knob Mounting
C—Battery Cover

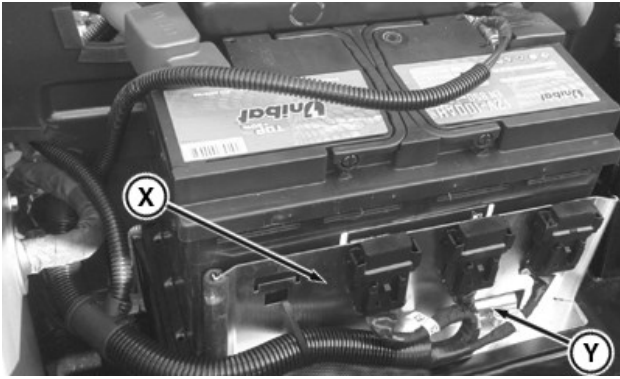
2. Move the seat (A) forward.
3. Remove knobs mountings (B).
4. Remove battery cover (C).



APY11220—UN—23MAY19
(Cab)

F—Fuse Bracket Assembly
I—Bolt (2 Used)

5. **For Cab Tractors:** Unscrew the two bolts (I) and the fuse bracket assembly (F).



PY28378—UN—28SEP16

(Open Operator Station)

X—Fuse Bracket Assembly
Y—Bolt

6. **For Open Operator Station Tractors:** Unscrew the two bolts (Y) and remove the fuse bracket assembly (X).



PY28250—UN—28SEP16

F—Positive Battery Cable
G—Negative (Ground) Battery Cable
H—Battery

7. Remove protective (black) cap and disconnect ground (—) cable (G) from battery (H), and protect the connection points or the battery posts from being touched accidentally.

IMPORTANT: When disconnecting the ground cable, make sure that it is done in the correct order. Reconnecting the ground cables is done in the reverse order.

8. Remove protective (red) cap and disconnect positive (+) cable (F) from battery (H), and protect the connection points or the battery posts from being touched accidentally.

RA84036,00019A7-19-19JUL19

Battery — Disconnect Electrical Circuit (5GL, 5GL-N)

CAUTION: Danger of injury; danger of explosion! Take safety precautions. See Handling Batteries Safely (section 05).

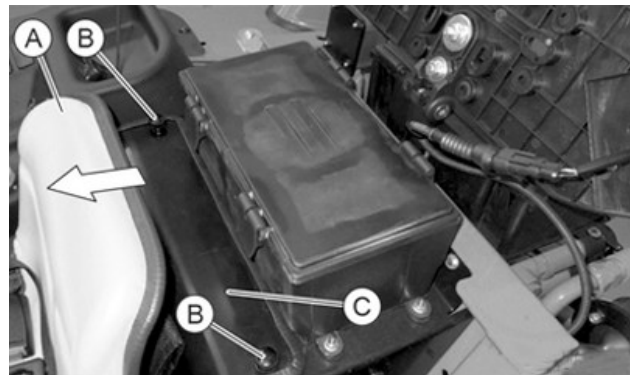
CAUTION: Disconnect Electrical Circuit:
Always protect the connection points or the battery posts from being touched, for example, by insulation with suitable insulating tape.

Before Battery Removal:

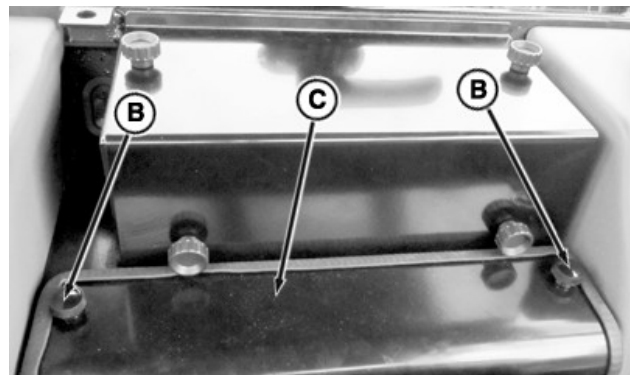
Disconnect all battery terminals. Always disconnect the negative terminal (—) first for that and then the positive terminals (+). The wrong sequence could seriously damage the electrical system.

Disconnect electrical circuit:

1. Disconnect the battery. See Battery Cut-Off Switch (IF Equipped) in Service — Electrical System (Section 220B) in this manual.



APY01875—UN—12MAR18



APY01876—UN—12MAR18

A—Seat
B—Knob Mounting
C—Battery Cover

2. Move the seat (A) forward.
3. Remove knob mountings (B).
4. Remove battery cover (C).



APY01877—UN—12MAR18

F—Positive Battery Cable
G—Negative (Ground) Battery Cable
H—Battery

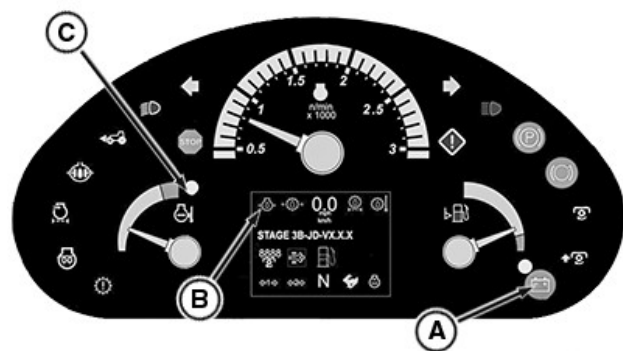
- Remove protective (black) cap and disconnect ground (—) cable (G) from battery (H). Protect the connection points or the battery posts from being touched accidentally.

IMPORTANT: When disconnecting the ground cable, make sure that it is in the correct order. Reconnecting the ground cables is done in reverse order.

- Remove protective (red) cap and disconnect positive (+) cable (F) from battery (H). Protect the connection points or the battery posts from being touched accidentally.

RA84036,00014AD-19-01OCT18

Observe Instruments After Starting the Engine



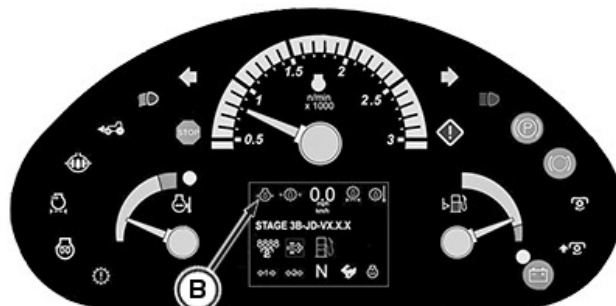
PY28177—UN—25AUG16

A—Alternator Indicator Light
B—Engine Oil Pressure Indicator Light
C—Coolant Temperature Gauge

IMPORTANT: If the alternator indicator light (A) or engine oil pressure indicator light (B) fails to go out, stop the engine. If the coolant temperature gauge (C) indicates hot, stop engine and determine the cause.

FENAFNX,0000436-19-17MAY21

Engine Oil Pressure Indicator Light



PY28178—UN—25AUG16

B—Oil Pressure Indicator Light

IMPORTANT: NEVER operate engine without sufficient oil pressure. If indicator light glows longer than 5 seconds under normal operating conditions, stop engine and check for cause.

Engine oil pressure indicator light (B) will glow if engine oil pressure is low. Indicator light comes on when key is turned to engage starting motor and goes out when engine starts.

If low oil level is not the problem, contact your John Deere dealer.

FENAFNX,0000437-19-17MAY21

Alternator Indicator Light



PY28179—UN—25AUG16

A—Alternator Indicator Light

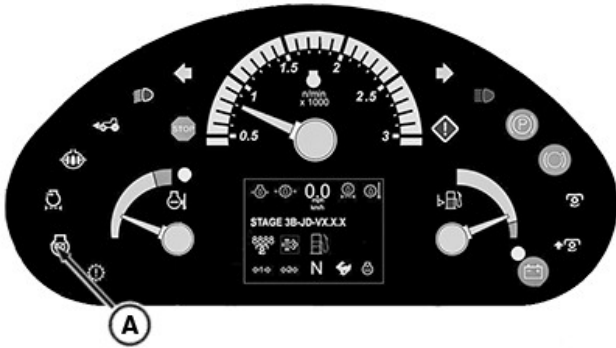
The alternator indicator light (A) will glow when alternator output is low. Indicator light comes on when

key is turned to engage starting motor and goes out when engine starts.

If indicator light glows longer than 5 seconds under the normal operating conditions, stop engine and check for cause. If a loose or broken fan belt is not the cause, contact your John Deere dealer.

FENAFNX,0000438-19-17MAY21

Air Cleaner Indicator Light



A—Air Cleaner Indicator Light

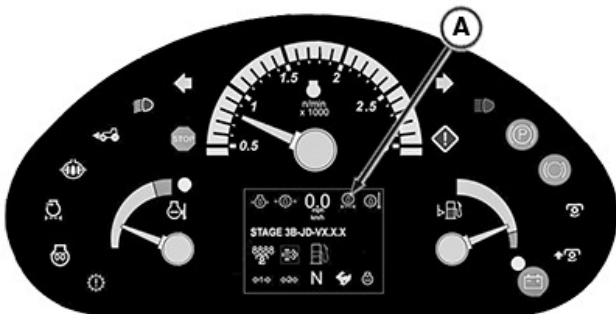
PY28180—UN—25AUG16

The air cleaner indicator light (A) comes on when the air cleaner is restricted. Replace air cleaner as soon as possible.

FENAFNX,0000439-19-17MAY21

Transmission Warning Light

NOTE: This is applicable only for tractors with 24/12 speed transmission.



A—Transmission Oil Filter Indicator Light

PY28181—UN—25AUG16

The transmission oil filter indicator light (A) will glow if oil filter becomes plugged. Replace oil filter as soon as possible.

FENAFNX,000043A-19-17MAY21

Coolant Temperature Gauge



A—Coolant Temperature Gauge

PY28182—UN—10JUL17

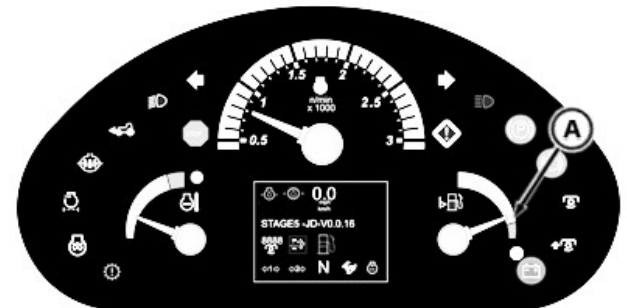
CAUTION: Remove radiator cap when engine is cold. Slowly loosen cap to the first stop to relieve pressure before removing completely.

The needle on the coolant temperature gauge (A) rises as engine warms up. If the needle reaches the red zone, stop engine and determine the cause.

Check coolant level in the coolant expansion tank and radiator when engine cools. Also check grille, radiator, and radiator screen for plugging. Check fan belt tension. If the problem is not corrected, contact your John Deere dealer.

FENAFNX,000043B-19-17MAY21

Observe Fuel Level



A—Fuel Level Gauge

LX510568—UN—21MAY21

IMPORTANT: Use diesel fuel only. Refer to the Section Fuel, Lubricants, Hydraulic Oil, and Coolant (Section 200) for fuel specifications in this manual.

Refuel before fuel gauge (A) reaches the empty mark.

If the tractor runs out of fuel and does not start in several tries, air must be bled from the fuel system. To bleed the fuel system, see Drain Water and Sediment from Fuel

Filter to bleed the fuel system in Service — Change (Section 220E) of this manual.

FENAFNX,000043C-19-24MAY21

Fill Fuel Tank

CAUTION: Handle fuel carefully. Do not refuel the machine while smoking or when near an open flame or sparks.

Always stop engine before refueling machine.

IMPORTANT: Ensure that there is no risk of any flames or sparks when filling the fuel tank.

Stand in a well-ventilated location.

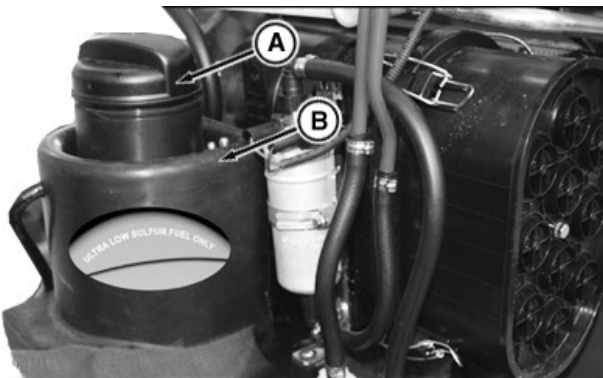
Mop up any fuel spills.

Before filling the fuel tank, carefully clean around the tank opening. Remove any residue of straw, hay, or twigs which, in certain cases, could help start and then propagate a fire.

While handling fuel, use the containers intended for this purpose. The container used must be reserved exclusively for this purpose.



TS202—UN—23AUG88



PY32824—UN—20OCT16

A— Filler Cap
B— Fuel Tank

Fill the fuel tank (B):

- At the end of each daily operation.

- Only to the bottom of the filler neck.

Specification

Main Fuel Tank (5GV, 5GN, 5GF)—Capacity. 74 L

Specification

Main Fuel Tank (5GL, 5GL-N)—Capacity. 74 L

Specification

Main Fuel Tank with Front PTO (5GV, 5GN, 5GF)—Capacity. 54.5 L

Specification

Main Fuel Tank with Front PTO (5GL, 5GL-N)—Capacity. 52.5 L

Specification

Auxiliary Fuel Tank (5GN, 5GF)—Capacity. 27.5 L

IMPORTANT: The fuel tank is vented through the filler cap (A). If a new filler cap is required, always replace it with an original vented cap.

RA84036,00019A8-19-20JUN19

Change Engine Speeds



APY11213—UN—23MAY19

(5GV, 5GN, 5GF)

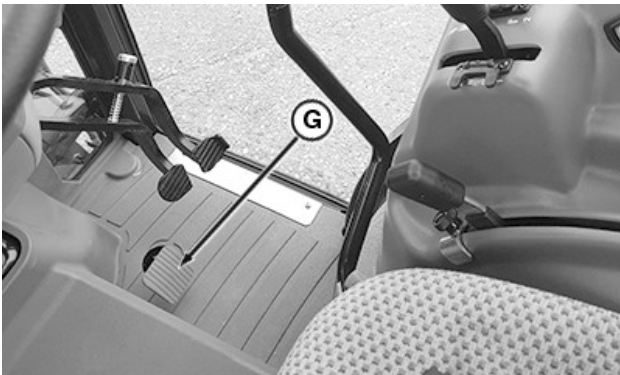


APY11214—UN—23MAY19

(5GL)

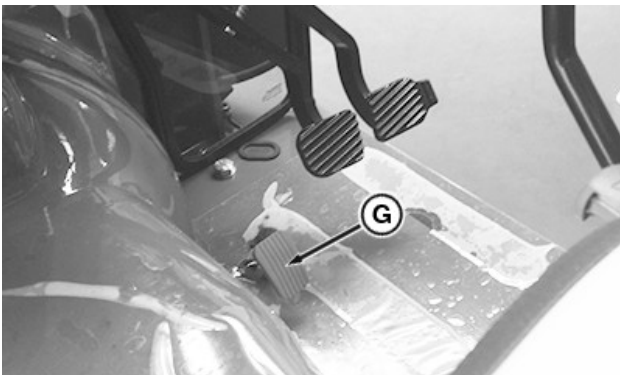
C—Hand Throttle

To increase speed, push hand throttle (C) forward.



APY11221—UN—23MAY19

(5GV, 5GN, 5GF)



APY11222—UN—23MAY19

(5GL)

G—Foot Throttle

To increase engine speed temporarily above the hand throttle setting, depress the foot throttle (G).

RA84036,00019A9-19-20JUN19

Warm up the Engine



PY28185—UN—25AUG16

Do not place the tractor under a full load until engine is properly warmed up.

1. Run engine at about 1500 rpm for several minutes.
2. Run engine at about 1900 rpm and under light load until engine reaches normal operating temperature.

NOTE: If hydraulic functions are slow, refer to Cold-Weather Operation (section 20A) in this manual.

FENAFNX,000043D-19-17MAY21

Restart a Stalled Engine

Should the engine stall when operating under load, restart it immediately to prevent abnormal heat build up and continue with normal operation or operate at slow idle for 1 or 2 minutes before stopping.

OULXBER,00020AC-19-10MAY13

Engines with Turbocharger

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

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.

OULXBER,00020AD-19-10MAY13

Avoid Idling the Engine



PY28185—UN—25AUG16

Allowing engine to idle at low rpm uses fuel inefficiently, and can cause an increase of carbon in the engine.

If the tractor must be left with the engine running more than 3 or 4 minutes, adjust engine speed above 1200 rpm.

FENAFNX,000043E-19-17MAY21

Observe Engine Work and Idle Speeds

Low idle speed should be 825—875 rpm. At light or no load, full throttle speed will increase to 2460—2510 rpm.

Engine rated speed is 2300 rpm.

Normal operating speed is 1200—2300 rpm. Within these limits engine can be put under full load.

RA84036,0001198-19-10AUG17

Stop the Engine



APY11213—UN—23MAY19

(5GV, 5GN, 5GF)



APY11214—UN—23MAY19

(5GL)

C—Hand Throttle

CAUTION: Lower mounted implements or equipment to the ground before leaving the tractor.

IMPORTANT: Cooling of the certain engine parts is provided by engine oil. Stopping a hot engine suddenly can cause damage to these parts by overheating or lack of lubrication.

1. Pull hand throttle (C) back to the low idle position. Allow engine idling for 1 to 2 minutes.
2. Turn key switch to the OFF position.
3. Always apply park brake.

CAUTION: Remove ignition key to prevent operation by untrained personnel.

RA84036,00019AA-19-20JUN19

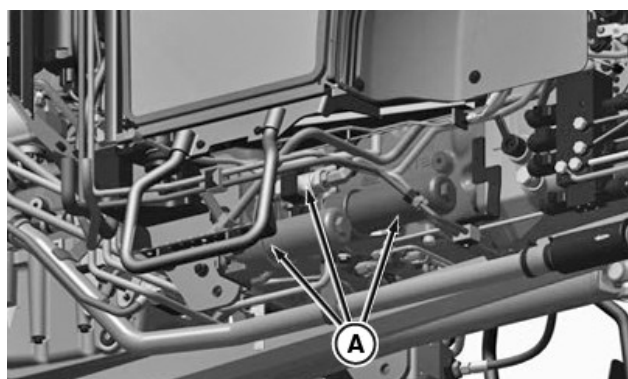
Park the Tractor

- Always apply park brake when parking or operating the tractor from a stationary position.
- Turn key switch to the OFF position.
- Remove the ignition key to prevent the accident or operation by untrained personnel.

RA84036,000119A-19-11AUG17

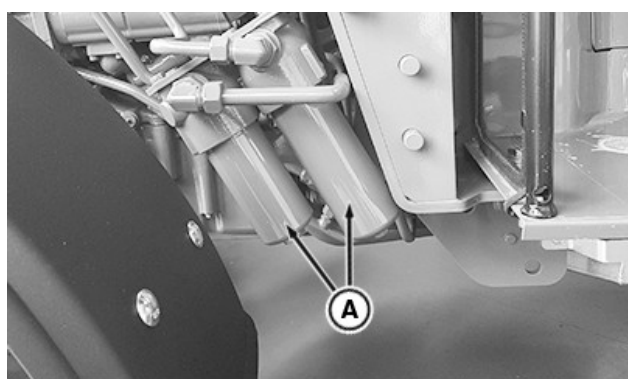
Cold Weather Operation

Cold-Weather Operation



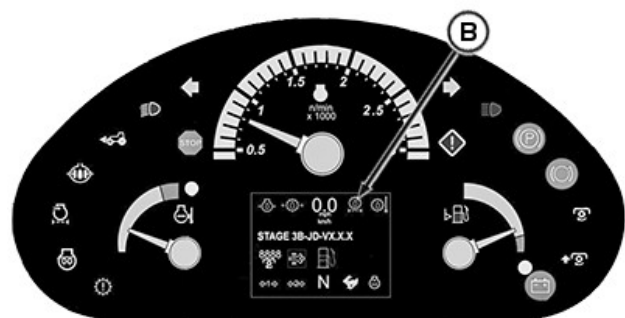
PY28218—UN—25AUG16

(5GV, 5GN, 5GF)



APY11208—UN—20MAY19

(5GL)



PY28219—UN—25AUG16

A—Hydraulic System Filters

B—Transmission Oil Filter Indicator Light

If the oil is cold, the hydraulic function, including steering, goes slowly.

NOTE: Cold oil does not flow easily through the filter screen or hydraulic system filter (A).

Once the oil is warmed up, the hydraulic system (including the steering system) operates normally again.

IMPORTANT: To prevent damage to the hydraulic pump or relief valve, warm-up time MUST NOT be less than 2 to 3 minutes.

1. Start engine and run it at about 1000 rpm.
2. Turn and hold steering wheel in full left or right position.

NOTE: Applies on the PowrReverser™ transmission only. If the oil filter is clogged while oil is at normal operating temperature, the transmission oil filter indicator light (B) glows.

FENAFNX,000043F-19-17MAY21

PowrReverser is a trademark of Deere & Company

Aftertreatment Equipment (DOC/DPF)

Note on Exhaust Cleaning System

The Exhaust Cleaning System Section only applies to tractors equipped with a diesel particulate filter (DPF).

OULXBER,00020BA-19-27MAY13

Exhaust Filter Cleaning, General Information



ICONCC058—UN—06JUN13
Automatic Exhaust Filter
Cleaning Activated



ICONCC059—UN—06JUN13
Automatic Exhaust Filter
Cleaning not Activated

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

1. **Passive exhaust filter cleaning** always occurs when the engine is at moderate or high loads.
2. **Automatic exhaust filter cleaning** is started when soot in the exhaust filter reaches a certain level.

NOTE: If inability to inhibit regeneration of the DPF because of the broken set-up buttons, immediately go to the dealer. Avoid standing in areas of fire hazard due to the presence of unburned hydrocarbons.

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. **Service cleaning** requires you to contact your John Deere dealer.

IMPORTANT: Recommended practice is to keep automatic exhaust filter cleaning activated.

Comply with safety instructions; See Clean Exhaust Filter Safely in Safety (Section 05) in this manual.

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

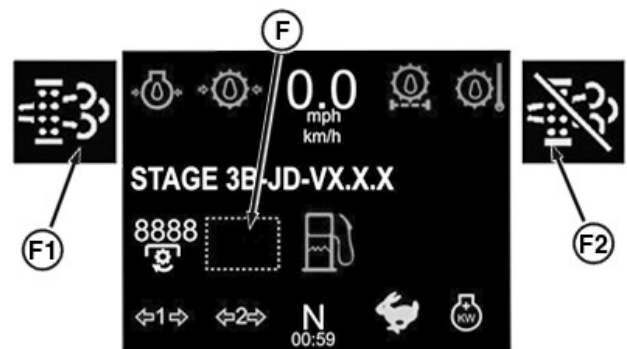
- Do not deactivate the automatic exhaust filter cleaning until it is necessary.

- Avoid unnecessary idling.
- Do not interrupt cleaning process until it is necessary.
- If possible, do not shut off the engine while the indicator light for the exhaust filter cleaning is on.
- Take note of information displayed for the operator, and act accordingly.

NOTE: It is important to use high-quality consumables.

RA84036,000119D-19-10AUG17

Aftertreatment General Warning (Tractor with DPF System)



PY28139—UN—25AUG16

(F) message		
F1	Warning Light	Automatic or Manual Regeneration ongoing
F2	Warning Light	Regeneration Inhibited
F1	Warning Light (Light Blinking)	Manual Regeneration is required

FENAFNX,0000440-19-17MAY21

DPF Soot Load, General Information



ICONCC058—UN—06JUN13
F1 - Automatic or
Manual Regeneration
Ongoing



ICONCC059—UN—06JUN13
F2 - Regeneration
Inhibited



ICONCC058—UN—06JUN13
F1 - Light Blinking — Manual Regeneration is Required

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

Functions of Buttons		
	B1	B2
Pressed for less than 0.3 seconds	Navigate upward	Navigate downward
Pressed for 1 second or longer	Confirm entry	Enter and exit the sub menu

1. **Automatic exhaust filter cleaning** is started when soot in the exhaust filter reaches a certain level.

Display Information:

The Icon (F1) on the display is switched on during the regeneration

2. **Inhibit regeneration active:** When this function is active, the automatic regeneration is inhibited.

Display Information:

The Icon (F2) on the display is switched on. The function stays active till a different set is selected by the menu (Automatic regeneration selected). If the function is active and the icon (F1) start flashing, a regeneration is requested.

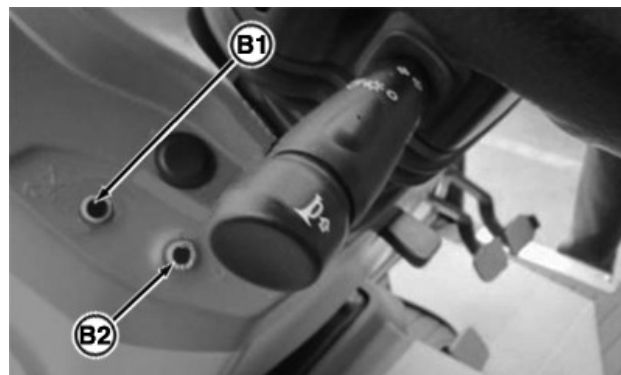
3. **Manual regeneration Active:** When this function is activated, a forced regeneration is performed. In order to start the manual regeneration the engine need to be warm up (coolant temperature > 80°C). The tractor needs to be parked on a flat surface and kept in safety condition (message shown on the display):

- Handbrake engaged, (tractor speed = 0)
- PTO OFF

If all the safety conditions are respected and the engine coolant temperature is higher than 80°C, the regeneration start. In case that the safety conditions are not respected during the regeneration process, the regeneration is aborted.

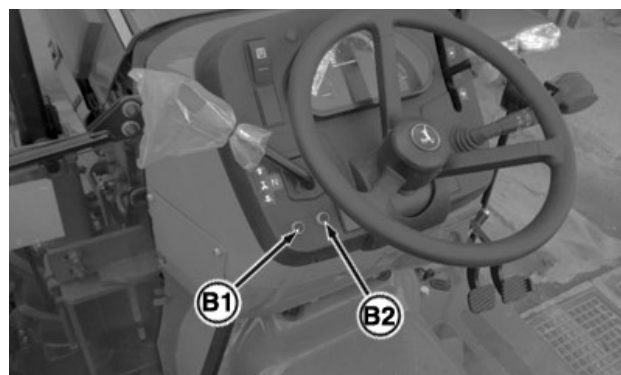
Display Information:

The Icon (F1) on the display is switched on during the regeneration. The engine speed is set at 2000 rpm On the display the message “ MANUAL REGENERATION” Flashes. When the regeneration is finished, the message “COMPLETED” appears.



PY31854—UN—26AUG16

(5GV, 5GN, 5GF)



PY42803—UN—02JUL17

(5GL, 5GLN)

B1—Program Button
B2—Program Button

With the key switch in ON position, press and hold button (B1) for 1 second. Press button (B1) or (B2) for navigating to the DPF menu (DPF is displayed).

	Select and confirm	Select and confirm
After accessing the DPF menu	AUTO REGENERATION (recommended)	OK (recommended setting)
		NO
	MANUAL REGENERATION	OK - (starts the procedure for manual regeneration)
		NO

Access the DPF Menu on the Digital Display

NOTE: See *Digital Display — User Interface, in Digital Display (Section 30B)* in this manual for more information.

NOTE: It is necessary to stop the tractor and engage the park brake before accessing the menu.

If the tractor speed exceeds zero, the menu is automatically closed.

FENAFNX,0000441-19-17MAY21

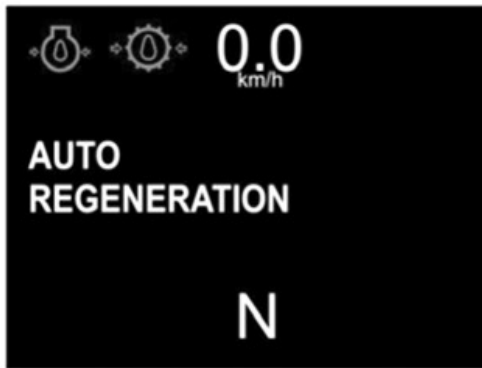
Automatic Exhaust Filter Cleaning:



DPF Menu

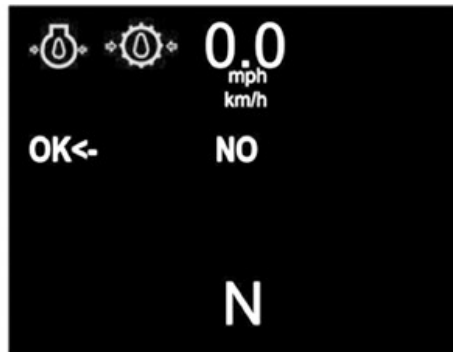
PY42849—UN—11JUL17

1. Access the DPF menu, then press and hold button (B1) for 1 second.



PY31857—UN—26AUG16

2. Select AUTO REGENERATION, then press and hold button (B1) for 1 second.



PY31858—UN—26AUG16

- Select OK and activate the automatic exhaust filter cleaning.
- Select NO and disable the automatic exhaust filter cleaning.

Manually Initiated Exhaust Filter Cleaning:

1. Stop the tractor, apply the park brake, and switch off PTO.



PY31859—UN—26AUG16

2. Access the DPF menu, then press and hold button (B1) for 1 second.



PY31860—UN—26AUG16

3. Select MANUAL REGENERATION, then press and hold button (B1) for 1 second.



PY31861—UN—26AUG16

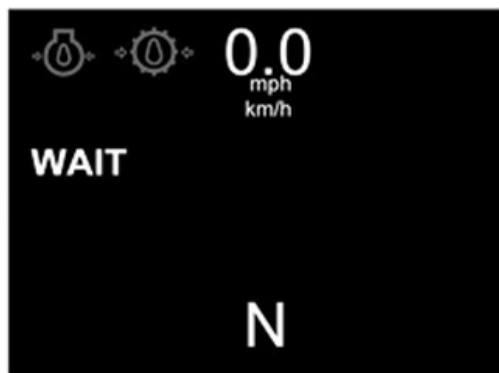


PY42825—UN—11JUL17

4. The control unit checks the safety requirements. A

message is displayed when the requirements are not met.

- HANDBRAKE is displayed if park brake is not applied. Apply park brake and proceed.
- TURN OFF PTO is displayed when the PTO is switched on. Switch off PTO and proceed.

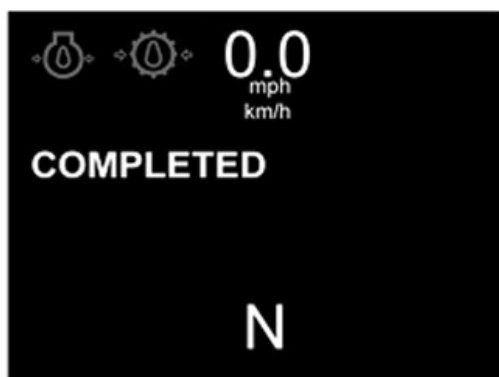


PY42826—UN—11JUL17

- If safety requirements are met, WAIT message flashes. DPF regeneration is in progress.

If one or more safety requirements are not met, the corresponding warning message flashes for 5 seconds. Then the system exits the manual regeneration procedure and returns to the MANUAL REGENERATION menu. Restart the regeneration at step 3.

IMPORTANT: Do not operate any controls during the regeneration process. The engine is controlled with the control unit and engine speed is set to 1500 rpm automatically. The regeneration process is aborted immediately when the controls are operated manually.



PY42827—UN—11JUL17

- After COMPLETED appears, wait for 3 seconds and then exit the DPF menu. The cleaning process for the exhaust filter is completed.

FENAFNX,0000442-19-17MAY21

Manual Regeneration, General Information



ICONCC058—UN—06JUN13

Light Blinking — Manual Regeneration is Required

- When the DPF lamp is blinking, manual DPF regeneration is required.
- Park the vehicle in a safe place and warm up the engine (coolant temperature > 60°C).
- Engage the park brake, disengage the PTO, and put gearshift lever in neutral position .

IMPORTANT: Do not press the clutch pedal or foot throttle pedal while manual regeneration operation.

- Perform a manual regeneration. See Manually Initiated Exhaust Filter Cleaning in Aftertreatment Equipment (DOC/DPF) (Section 20B) in this manual.
- The engine increases its idling speed to start the manual DPF regeneration.
- The idling speed of the engine returns to the original idling speed and the DPF lamp is switched OFF. This indicates completion of the manual DPF regeneration.
- Once the manual DPF regeneration is completed, the operator can operate the vehicle normally.

RA84036,000199B-19-22JUL19

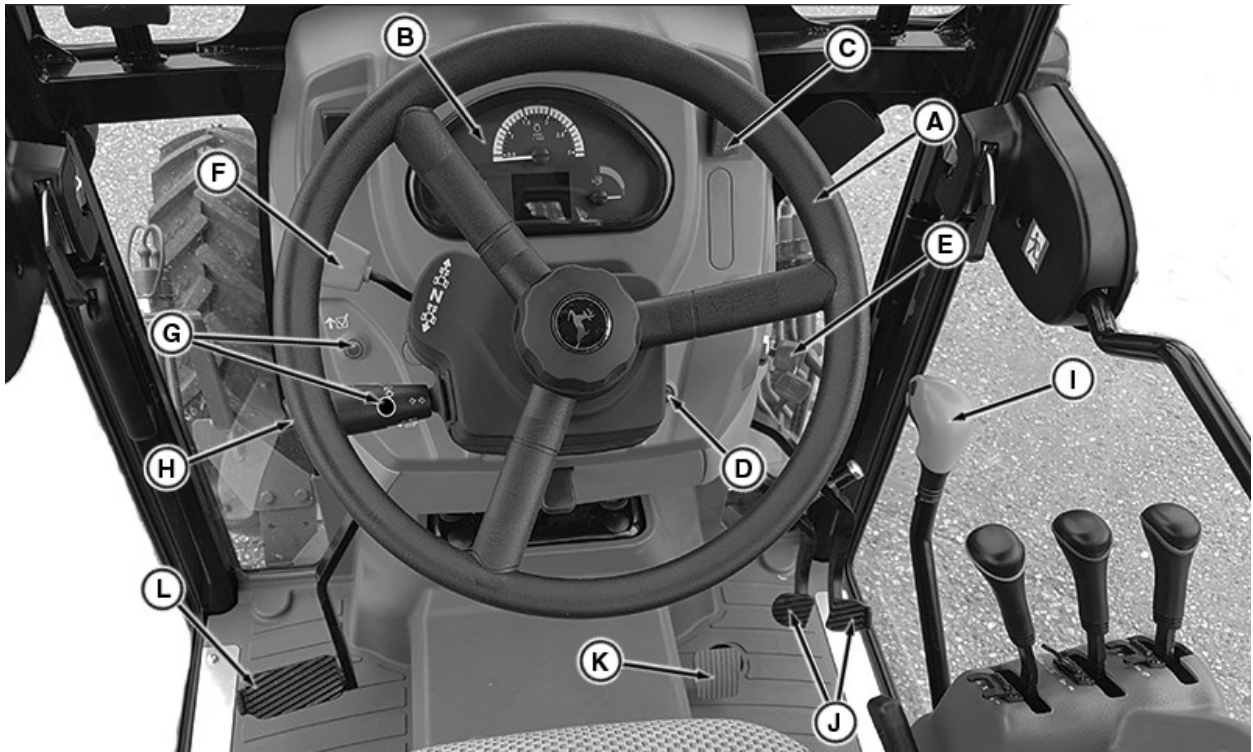
DPF Soot Load

Soot Load	Action Required
Less than 90%	No Action
90%—130%	Possible automatic regeneration (managed by the ECU)
130%—170%	Automatic regeneration enabled, Manual regeneration requested
170%—230%	Soft engine derates (25% engine power derate applied). <i>NOTE: Contact to an authorized John Deere dealer.</i>
More than 230%	Strong engine derates (55% engine power derate applied). <i>NOTE: Contact to an authorized John Deere dealer.</i>

RA84036,0001A6D-19-23JUL19

Controls

Vehicle Controls (Cab) (5GV, 5GN, 5GF)

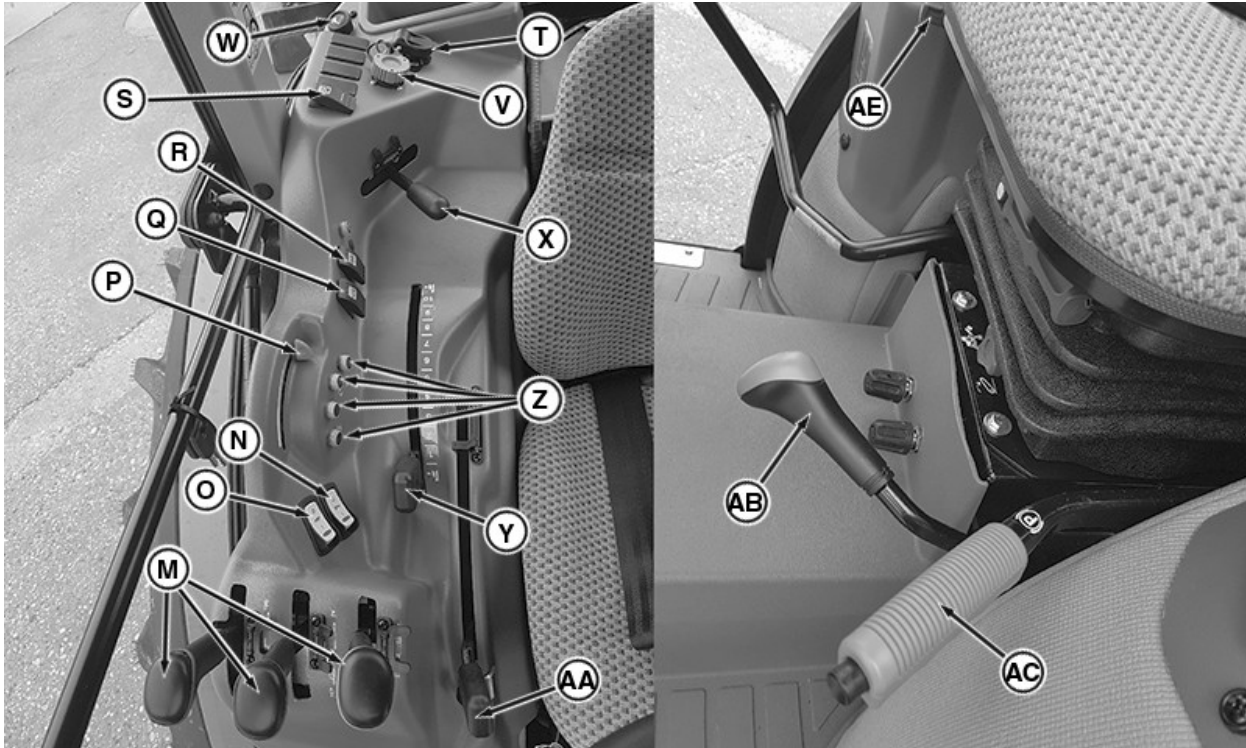


APY11223—UN—04JUN19

Vehicle Controls – (Cab)

A—Steering Wheel
B—Instrument Panel
C—Hazard Warning Light Switch (amber warning lights)
D—Trailer Brake Valve Warning Light
E—Ignition Key Switch
F—Reverser Lever

G—Programming Switch
H—Light, Horn, and Turn Signal Switch
I—Gear Shift Lever
J—Left and Right Brake Pedals
K—Accelerator Pedal
L—Clutch Pedal



APY11224—UN—24MAY19

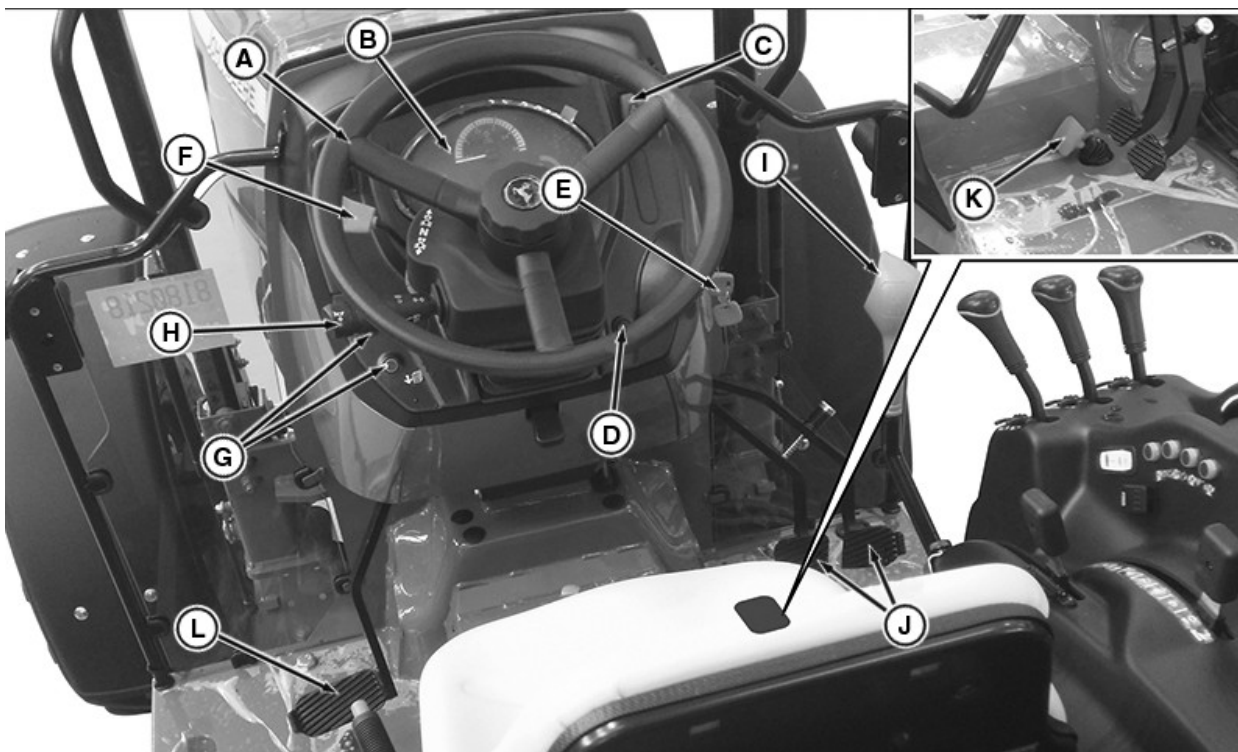
Vehicle Controls – (Cab)

M—SCV Levers (No. 1, 2, and 3)
 N—Front PTO Switch (if equipped)
 O—Rear PTO Switch (if equipped)
 P—Hand Throttle Lever
 Q—Front-Wheel Drive Switch
 R—Differential Lock Switch
 S—Beacon Light Switch
 T—Socket
 V—Diagnostic Socket

W—Cigarette Lighter
 X—SCV Lever (No. 4)
 Y—Hitch Load Control Lever
 Z—Cruise Control Switches
 AA—Hitch Position Control Lever
 AB—Range Shift Lever
 AC—Park Brake Lever
 AE—Seat Position Lever

RA84036,00019AB-19-20JUN19

Vehicle Controls (Open Operator Station) (5GF)

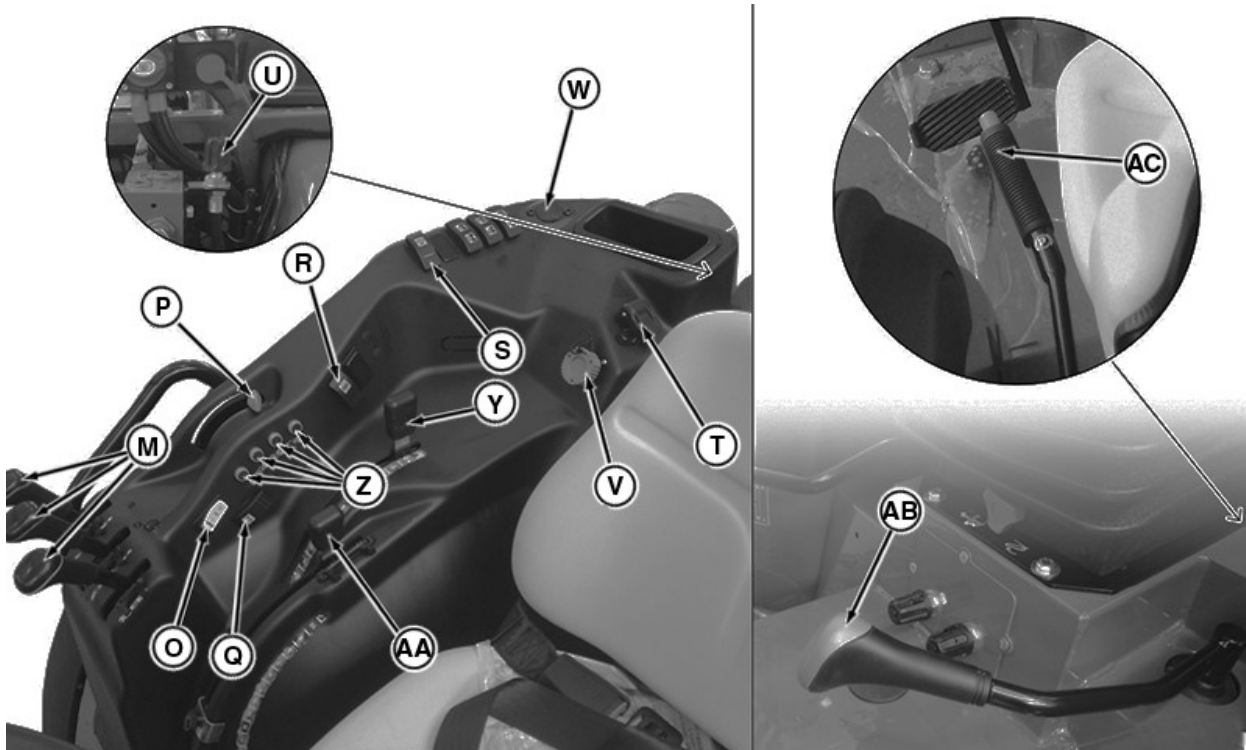


APY11225—UN—24JUN19

Vehicle Controls – (Open Operator Station)

A—Steering Wheel
B—Instrument Panel
C—Hazard Warning Light Switch (amber warning lights)
D—Trailer Brake Valve Warning Light
E—Ignition Key Switch
F—Reverser Lever

G—Programming Switch
H—Light, Horn, and Turn Signal Switch
I—Gear Shift Lever
J—Left and Right Brake Pedals
K—Accelerator Pedal
L—Clutch Pedal



Vehicle Controls – (Open Operator Station)

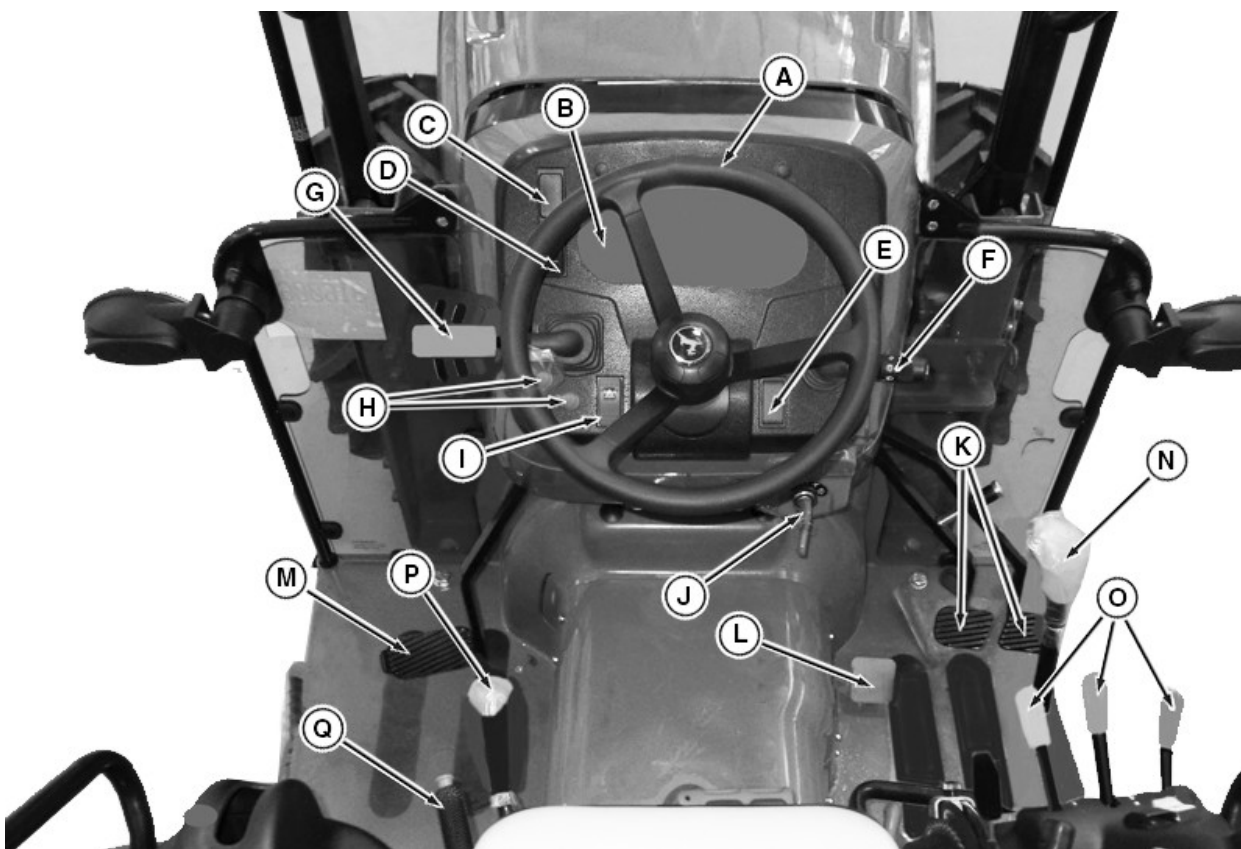
APY11226—UN—25JUN19

M—SCV Levers (No. 1, 2, and 3)
 O—Rear PTO Switch (if equipped)
 P—Hand Throttle Lever
 Q—Front-Wheel Drive Switch
 R—Differential Lock Switch
 S—Beacon Light Switch
 T—Socket
 U—Flow Regulator Valve Control Knob

V—Diagnostic Socket
 W—Cigarette Lighter
 Y—Hitch Load Control Lever
 Z—Cruise Control Switches
 AA—Hitch Position Control Lever
 AB—Range Shift Lever
 AC—Park Brake Lever

RA84036,00019AC-19-24JUN19

Vehicle Controls (5GL)

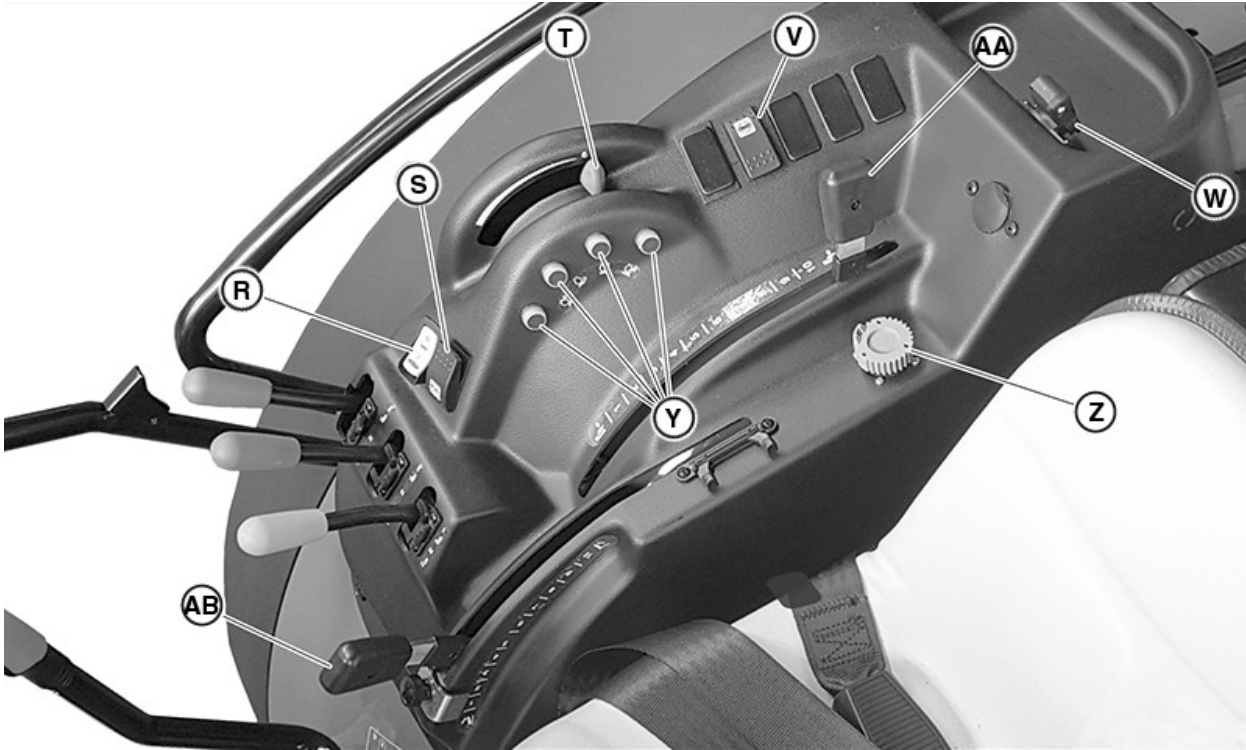


PY28362—UN—27SEP16

Vehicle Controls

A—Steering Wheel
 B—Instrument Panel
 C—Beacon Light Switch
 D—Not Used
 E—Trailer Brake Valve Warning Light
 F—Light, Horn, and Turn Signal Switch
 G—Reverser Lever
 H—Programming Switch
 I—Hazard Warning Light Switch (amber warning lights)

J—Ignition Key Switch
 K—Left and Right Brake Pedals
 L—Accelerator Pedal
 M—Clutch Pedal
 N—Gear Shift Lever
 O—Selective Control Valve Levers
 P—Range-Shift Lever
 Q—Park-Brake Lever



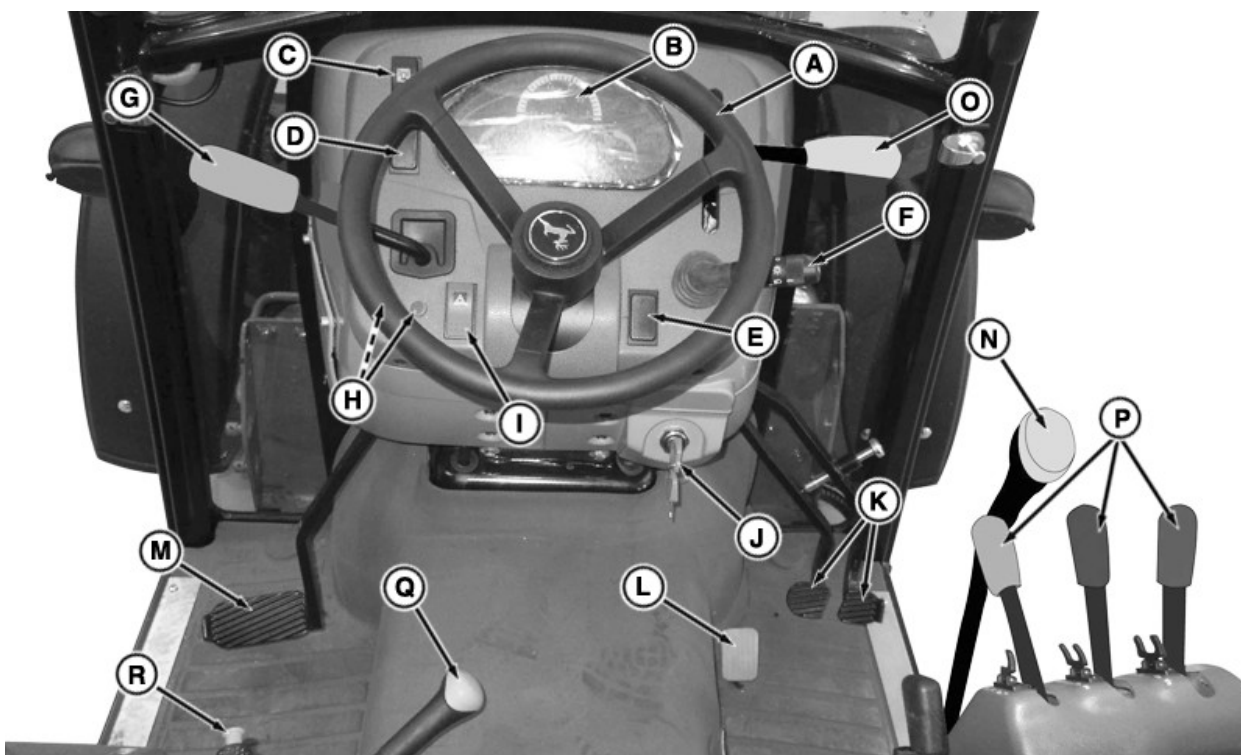
APY11227—UN—24MAY19

R—Rear PTO Switch
S—Front-Wheel Drive Switch
T—Hand Throttle Lever
V—Differential Lock Switch
W—Socket

Y—Cruise Control Switches
Z—Diagnostic Socket
AA—Hitch Load Control Lever
AB—Hitch Position Control Lever

RA84036,00019AD-19-20JUN19

Vehicle Controls (Mechanical Transmission) (Cab) (5GL-N)

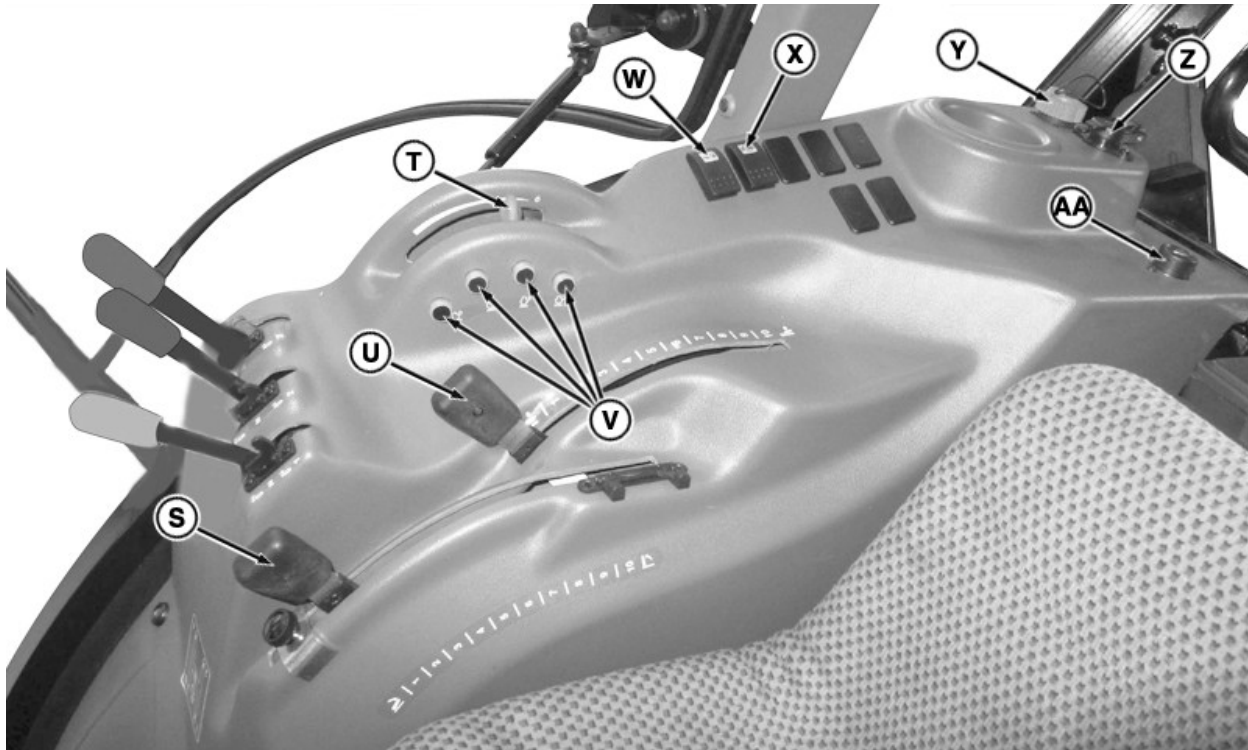


APY01861—UN—07MAR18

Vehicle Controls

A—Steering Wheel
B—Instrument Panel
C—Beacon Light Switch
D—Not Used
E—Not Used
F—Light, Horn, and Turn Signal Switch
G—Reverser Lever
H—Programming Switch
I—Hazard Warning Light Switch (amber warning lights)

J—Ignition Key Switch
K—Left and Right Brake Pedals
L—Accelerator Pedal
M—Clutch Pedal
N—Gear Shift Lever
O—HI-LO Mechanical Levers
P—Selective Control Valve Levers
Q—Range-Shift Lever
R—Park-Brake Lever



APY01862—UN—07MAR18

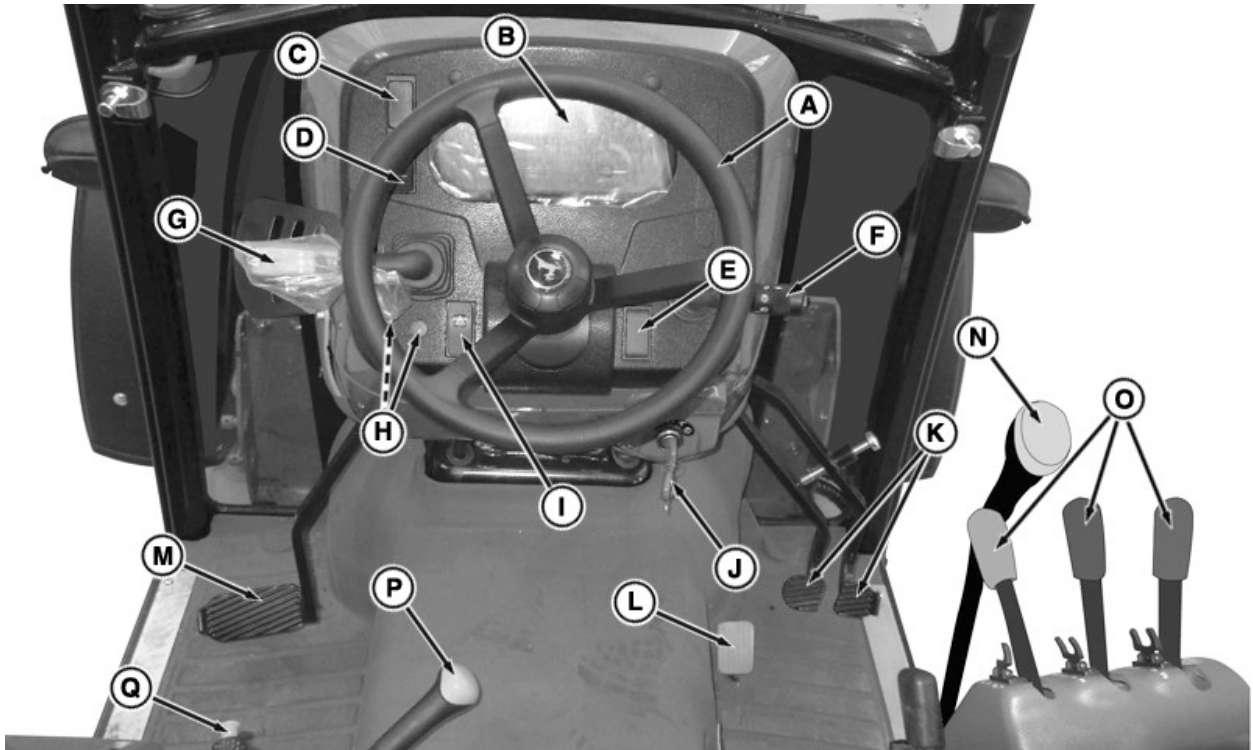
Vehicle Controls

S—Hitch Position Control Lever
T—Hand Throttle Lever
U—Hitch Load Control Lever
V—Cruise Control Switches
W—Differential Lock Switch

X—Front-Wheel Drive Switch
Y—Diagnostic Socket
Z—Socket
AA—Cigarette Lighter

RA84036,00014A8-19-11SEP18

Vehicle Controls (PowrReverser™ Transmission) (Cab) (5GL-N)

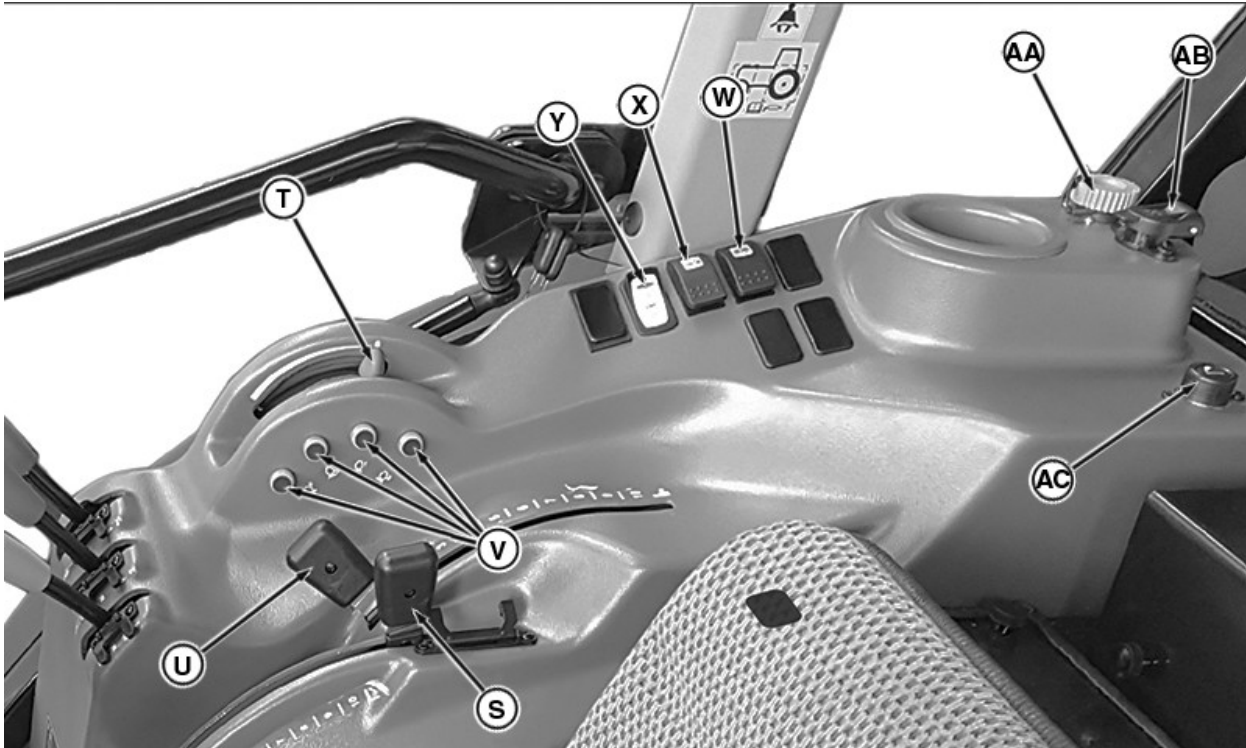


APY01863—UN—08MAR18

Vehicle Controls

A—Steering Wheel
B—Instrument Panel
C—Beacon Light Switch
D—Not Used
E—Not Used
F—Light, Horn, and Turn Signal Switch
G—Reverser Lever
H—Programming Switch
I—Hazard Warning Light Switch (amber warning lights)

J—Ignition Key Switch
K—Left and Right Brake Pedals
L—Accelerator Pedal
M—Clutch Pedal
N—Gear Shift Lever
O—Selective Control Valve Levers
P—Range-Shift Lever
Q—Park-Brake Lever



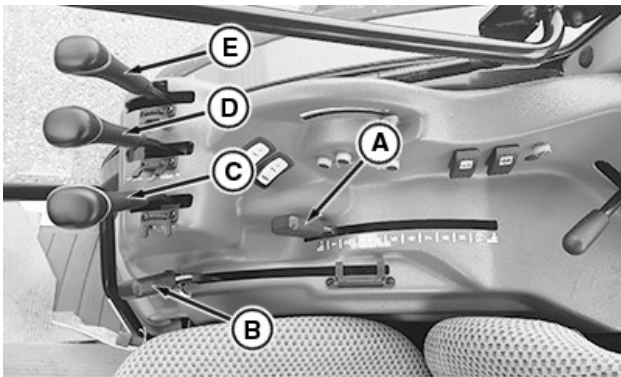
APY11228—UN—24MAY19

S—Hitch Position Control Lever
T—Hand Throttle Lever
U—Hitch Load Control Lever
V—Cruise Control Switch
W—Differential Lock Switch

X—Front-Wheel Drive Switch
Y—Rear PTO Switch
AA—Diagnostic Socket
AB—Socket
AC—Cigarette Lighter

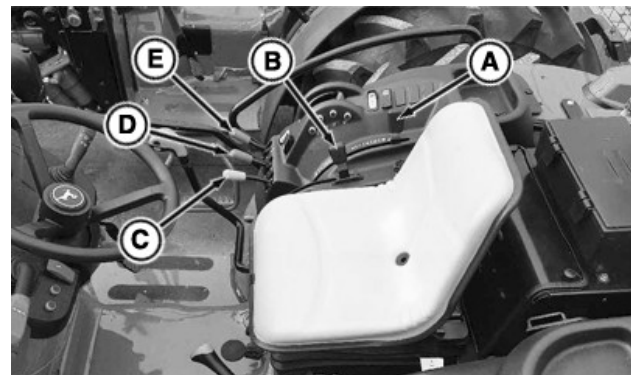
RA84036,00019AE-19-23JUL19

Vehicle Controls



APY11229—UN—24MAY19

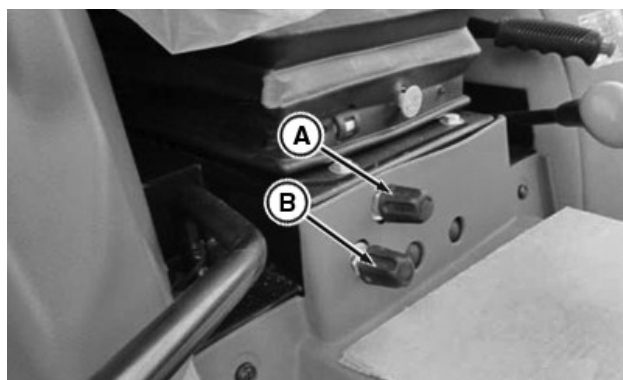
(5GV, 5GN, 5GF)



APY01882—UN—02APR18

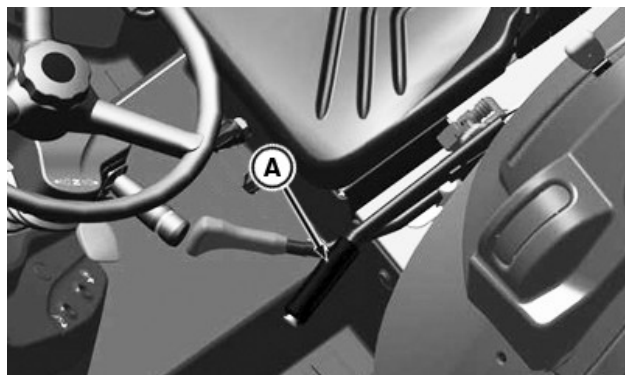
(5GL, 5GL-N)

A—Hitch Load Control Lever
B—Hitch Position Control Lever
C—First Selective Control Valve Lever
D—Second Selective Control Valve Lever
E—Third Selective Control Valve Lever



PY28126—UN—25AUG16
(Cab) (5GV, 5GN, 5GF)

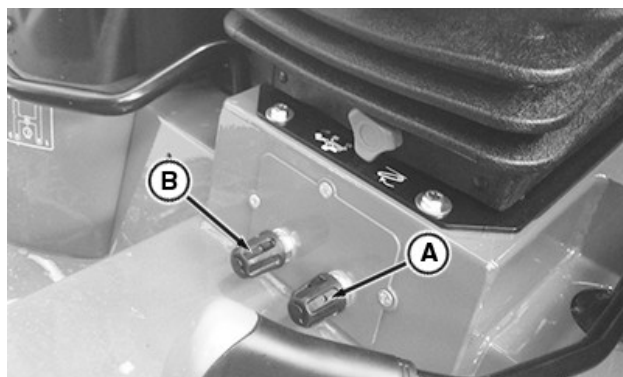
A—Adjusting Knob - Hitch Rate-of-Drop Valve
B—Adjusting Knob - Hitch Sensitivity Control Valve



PY28127—UN—25AUG16

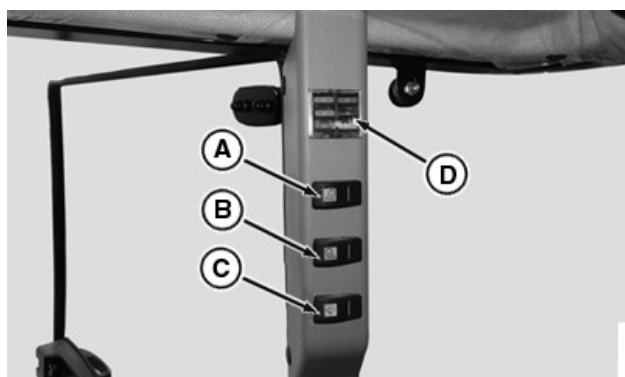
A—Park Brake Lever

NOTE: The auxiliary brake system can be used to brake the tractor when the service brake fails.

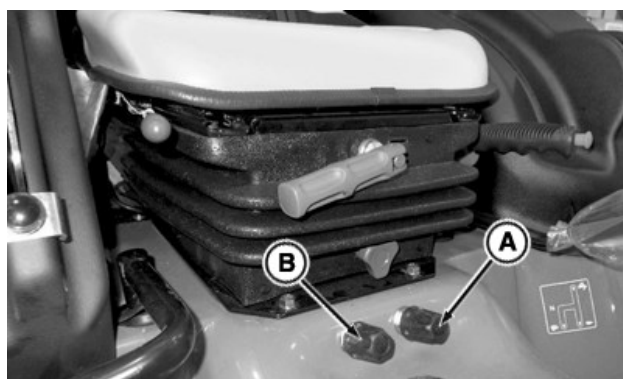


APY11230—UN—24MAY19
(Open Operator Station) (5GF)

Right-Hand Cab Post Switches:



PY28128—UN—25AUG16
(Cab) (5GV, 5GN, 5GF)

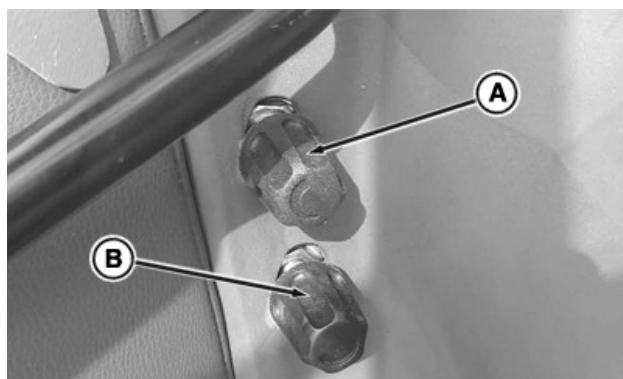


PY42834—UN—02JUL17
(Open Operator Station) (5GL, 5GL-N)

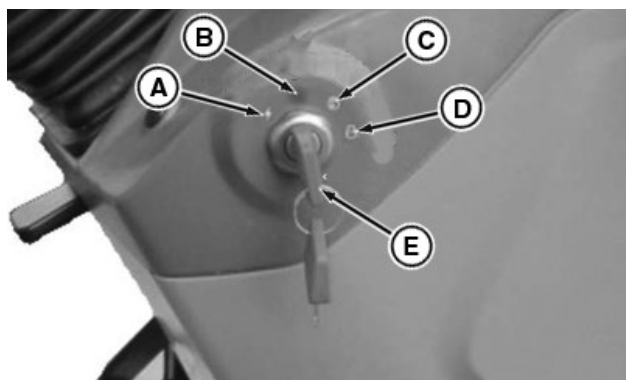


APY01884—UN—13APR18
(Cab) (5GL-N)

A—Front Roof Worklights Switch
B—Rear Roof Worklights Switch
C—Wiper and Washer Switch
D—Fuse Box (Cab)

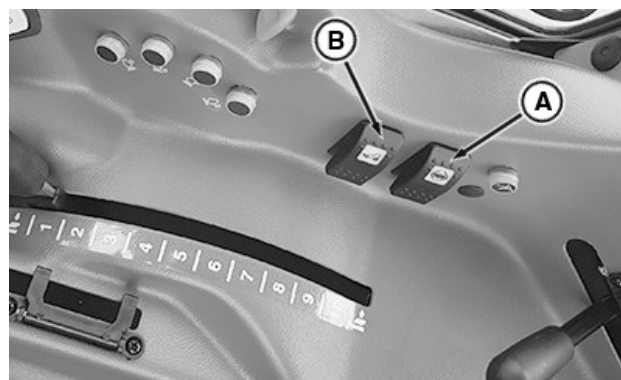


APY01883—UN—08MAR18
(Cab) (5GL-N)

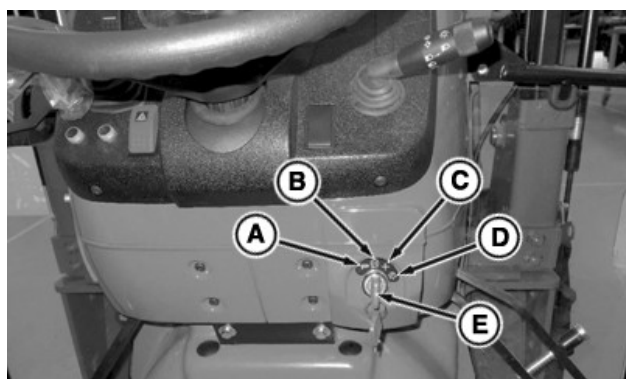


PY28129—UN—25AUG16

(5GV, 5GN, 5GF)

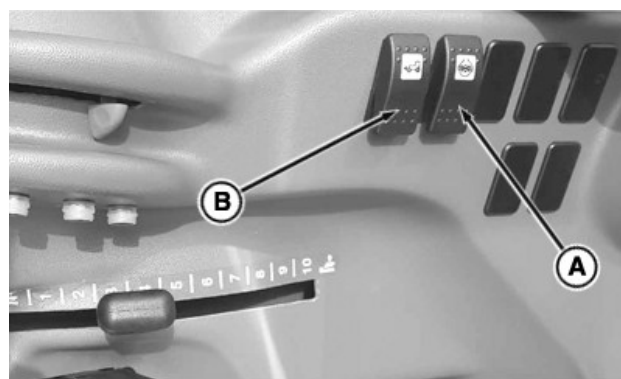


APY11231—UN—24MAY19



PY42801—UN—02JUL17

(5GL, 5GL-N)



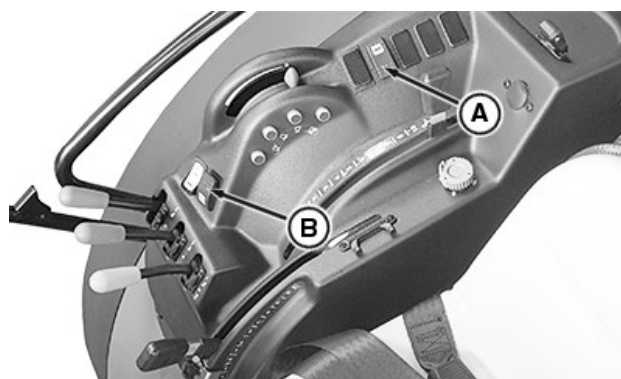
APY01885—UN—08MAR18

(Cab) (5GL-N)

- A—Parking
B—Ignition Off/Engine Stopped (press key to go to A)
C—Ignition On
D—Start
E—Key

IMPORTANT: The following functions remain active when the ignition key is removed:

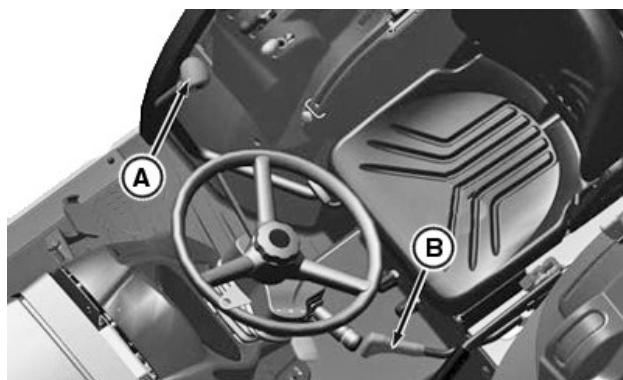
- Switch Box Electrical Socket
- Cigarette Lighter
- Warning Beacon
- Hazard Warning Lights
- Instrument Panel
- Transmission Electronic Control Unit



APY11232—UN—24MAY19

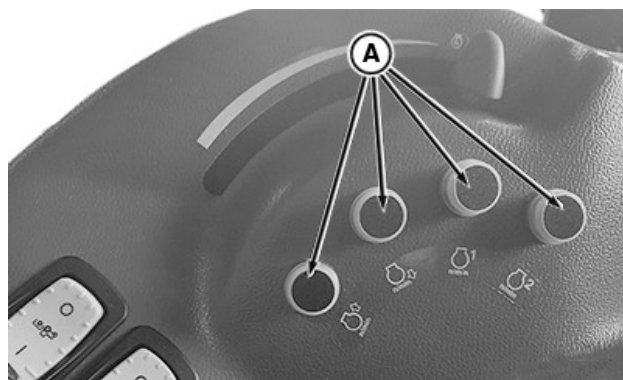
(Open Operator Station) (5GL, 5GL-N)

- A—Differential Lock Switch
B—Front-Wheel Drive Switch



PY28131—UN—25AUG16

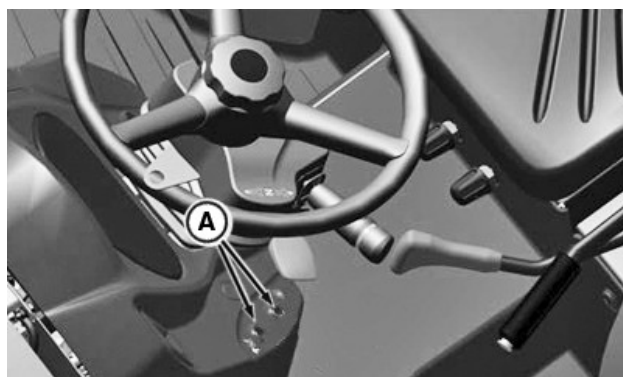
A—Gear Shift Lever (mechanical version shown)
B—Range Shift Lever



APY11233—UN—24MAY19

A—Cruise Control Switches

RA84036,00019AF-19-22JUL19



PY28132—UN—25AUG16



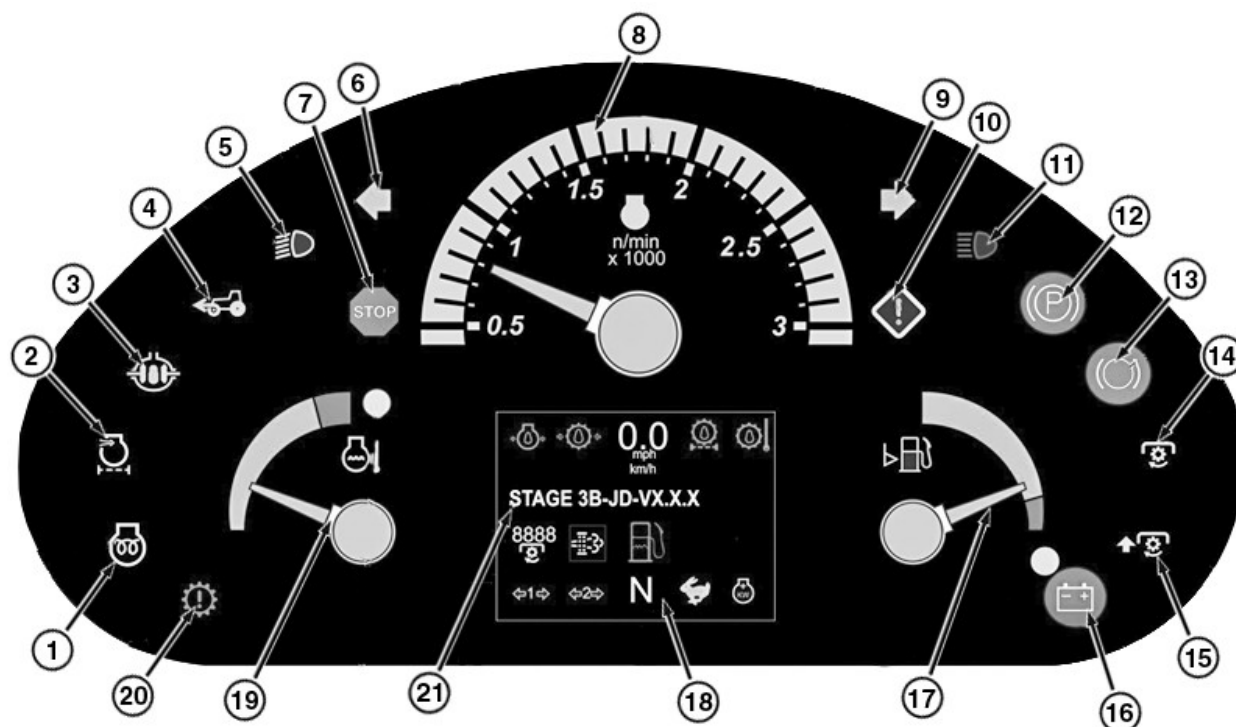
APY01887—UN—08MAR18

(5GL, 5GL-N)

A—Program Switches

Instrument Panel

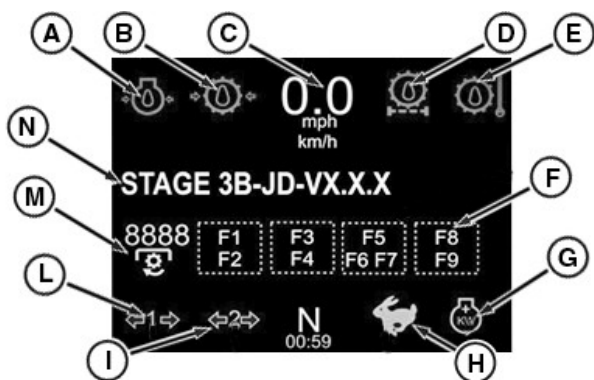
Instruments and Indicator Lights



PY28134—UN—25AUG16

1. Preheater Indicator Light - Indicates that the preheater is activated; turn key switch to start position only when preheating sequence has finished.
2. Air Cleaner Restriction Indicator Light - Comes on when engine air cleaner is clogged.
3. Differential Lock Indicator Light - Comes on when differential lock is switched on.
4. Front-Wheel Drive Indicator Light - Comes on when front-wheel drive is switched on.
5. Low Beam Indicator Light - Comes on when low beam is switched on.
6. Flashing Indicator Light on Left - Starts flashing when left turn signal light or hazard warning lights are switched on.
7. STOP Warning Light - If this warning light comes on, park the tractor and stop the engine.
8. Tachometer - Indicates crankshaft speed in revolutions per minute.
9. Flashing Indicator Light on Right - Starts flashing when right turn signal light or hazard warning lights are switched on.
10. Yellow CAUTION Light - Flashes when a malfunction occurs (review the error messages).
11. High Beam Indicator Light - Comes on when switch is in "high beam" position.
12. Park Brake Indicator Light - Comes on when the park brake is activated.
13. Brake Oil Level Indicator Light - Comes on when the brake oil level is low.
14. Rear PTO Indicator Light - Comes on when the rear PTO is switched on.
15. Ground Drive PTO Indicator Light - Comes on when the ground drive PTO is activated.
16. Alternator Indicator Light - Comes on when there is a problem in the charging system.
17. Fuel Level Warning Light - Comes on when fuel level is low.
18. Digital Display - Displays information for the operator.
19. Engine Coolant Temperature Warning Light - Comes on when coolant temperature is high.
20. Transmission Failure Light - For PowrReverser™ transmission only.
21. Front PTO Indicator Light - Comes on when the front PTO is switched on.

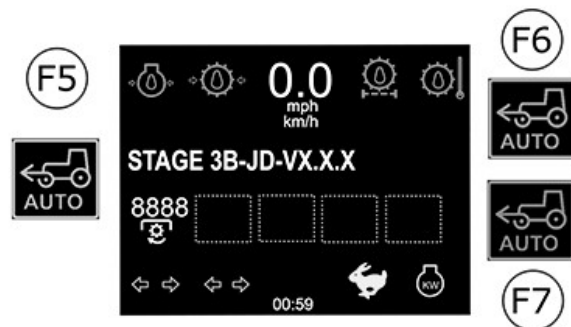
PowrReverser is a trademark of Deere & Company



PY28135—UN—25AUG16

- A**—Engine Oil Pressure Indicator Light - comes on when engine oil pressure is low.
- B**—Transmission Low Oil Pressure Light - comes on when transmission oil pressure is low.
- C**—Speedometer, Digital Display
- D**—Transmission Oil Filter indicator light - comes on when the transmission oil filter is clogged.
- E**—Transmission Oil Temperature Light - comes on when oil temperature is high.
- F**—Inducement General Warning
- G**—Indicator Light for BOOST, the icon lights up when BOOST is activated.
- H**—High-Speed Indicator Light - Comes on when electrohydraulic high-low transmission is in high mode.
- I**—Turn Signal Indicator Light (second trailer)
- L**—Turn Signal Indicator Light (first trailer)
- M**—Displays the Rear PTO Speed
- N**—Line for Digital Messages

FENAFNX,0000443-19-17MAY21

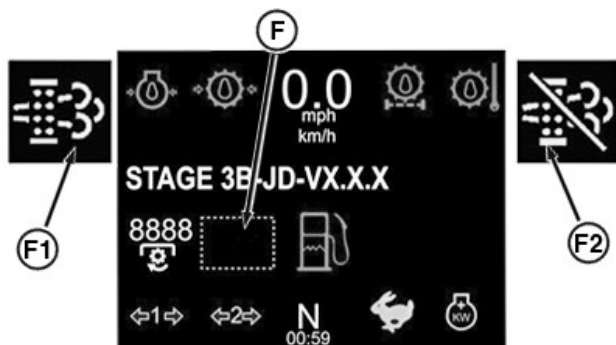


APY11234—UN—24MAY19

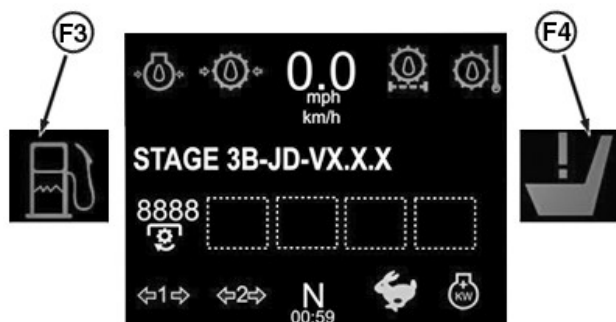
(F) Message		
F1	Warning Amber Light	Automatic Exhaust Filter Cleaning Activated
F2	Warning Amber Light	Automatic Exhaust Filter Cleaning NOT Activated
F3	F3 Icon	Water in Fuel Indicator Light
F4	F4 Icon	Seat Switch Anomaly
F5	F5 Icon	Auto 4WD Active
F6	F6 Icon	Auto 4WD NOT Active
F7	F7 Icon	Auto 4WD Error

FENAFNX,0000444-19-17MAY21

F Inducement General Warning



PY28139—UN—25AUG16



PY28136—UN—25AUG16

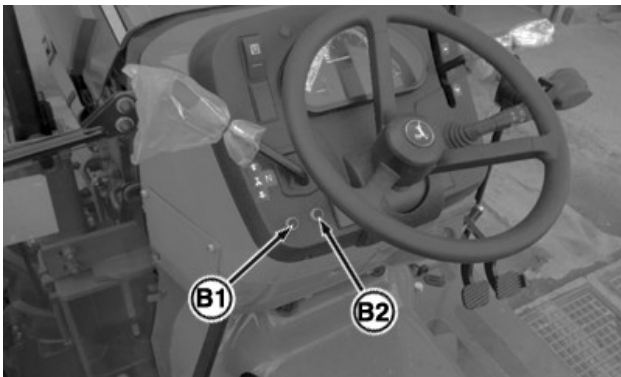
Digital Display

Digital Display - User Interface



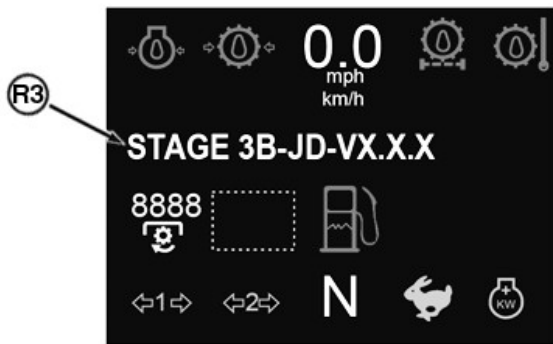
PY28140—UN—25AUG16

(5GV, 5GN, 5GF,)



PY42803—UN—02JUL17

(5GL, 5GL-N)



PY28141—UN—10NOV16

With the key switch in ON position, the digital display shows the hours of operation in row (R3). Information is provided in the language selected in the user menu. Default language is English.

B1 and B2 can be used to change information displayed in row (R3) as follows:

- 1.Hour Meter
- 2.Fuel Consumption
- 3.DPF Load in percent
- 4.Coolant Temperature

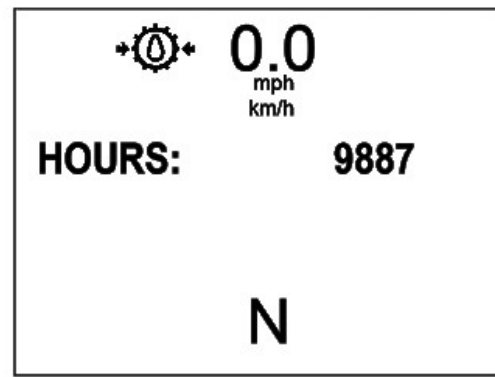
5.Transmission Oil Temperature (only if equipped with PowrReverser™ transmission).

6.PTO Speed

7.Front-Wheel Drive Status

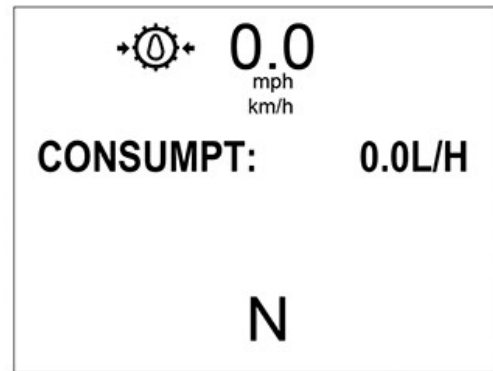
NOTE: The button functions are different depending on how long the buttons are pressed.

	Functions of Buttons	
	B1	B2
Pressed for less than 0.3 seconds	Navigate upward	Navigate downward
Pressed for 1 second or longer	Confirm entry	Access and exit the sub menu



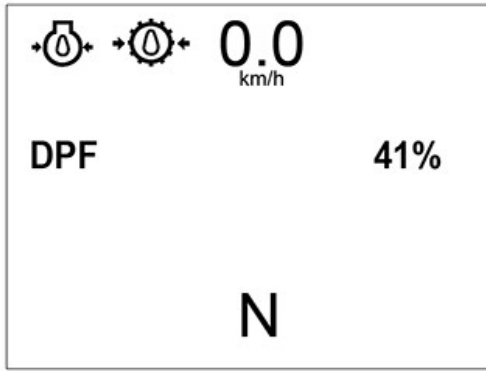
PY28142—UN—25AUG16

1. Hour Meter



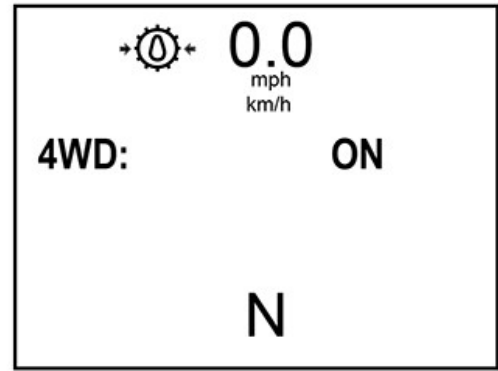
PY28143—UN—25AUG16

2. Fuel Consumption

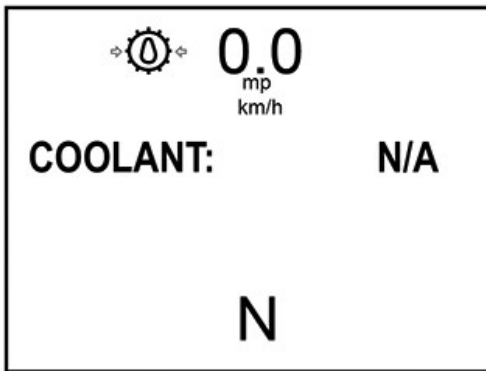


PY26994—UN—28JAN16

3. DPF Load in Percent

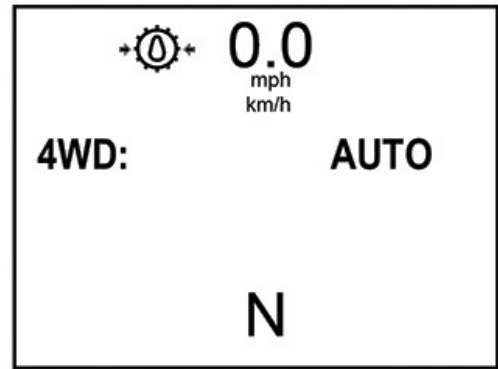


PY28146—UN—25AUG16

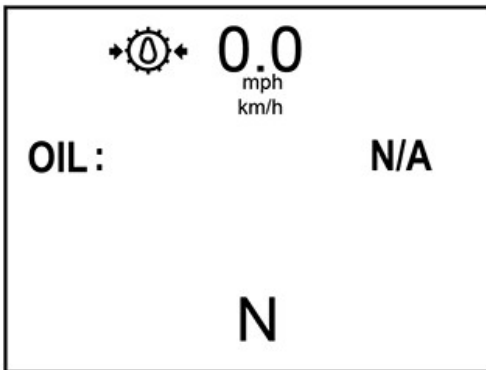


PY28144—UN—25AUG16

4. Coolant Temperature



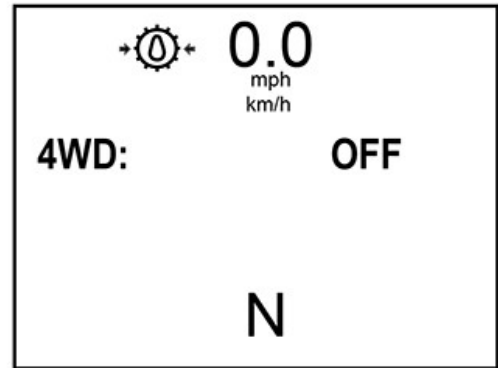
PY28147—UN—25AUG16



PY28145—UN—25AUG16

5. Transmission oil temperature (only if equipped with PowrReverser™ transmission).

6. PTO speed (appears if the front PTO ratio set is other than 000).



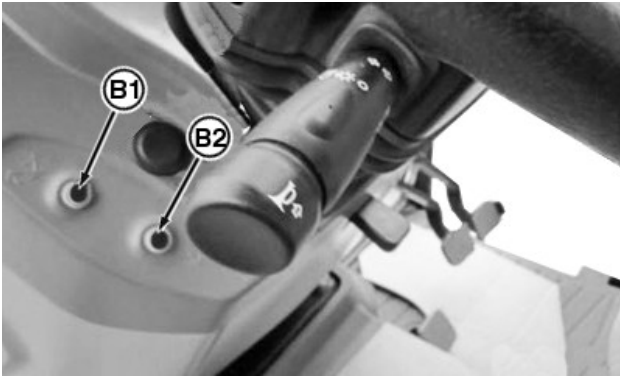
PY28148—UN—25AUG16

7. Front-wheel drive ON, AUTO, or OFF (depending on the status of MFWD).

FENAFNX,0000445-19-17MAY21

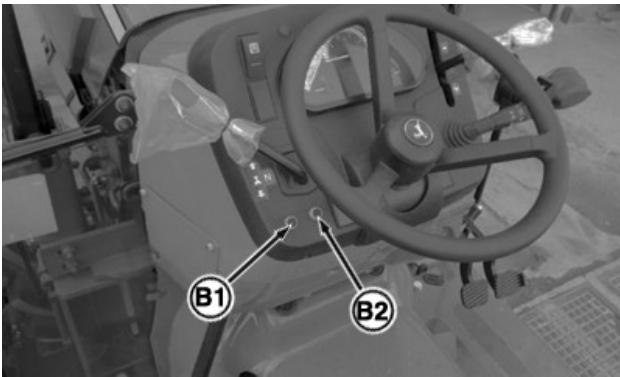
User Menu

Accessing the Menu:



PY28140—UN—25AUG16

(5GV, 5GN, 5GF)



PY42803—UN—02JUL17

(5GL, 5GL-N)

NOTE: Stop the tractor and engage the park brake before accessing the menu. The menu is automatically closed if the tractor moves.

	Functions of Buttons	
	B1	B2
Pressed for less than 0.3 seconds	Navigate upward	Navigate downward
Pressed for 1 second or longer	Confirm entry	Access and exit the sub menu (pages)

To access the menu: With the key switch in ON position, press and hold the button (B1) for 1 second.

To navigate to pages: Press button (B1) or (B2) to switch between the different pages.

To exit the menu: Press (B2) for 1 second.

Available Pages:

- A - DPF
- B - LANGUAGE
- C - UNIT
- D - TRANSMISSION ERRORS
- E - ENGINE ERRORS
- F - PTO SETTINGS



PY42849—UN—11JUL17

A - DPF Sub Menu:

See Access the DPF Menu on the Digital Display located in Aftertreatment Equipment (DOC/DPF) (Section 20B) of this manual.



PY28149—UN—11JUL17

B - LANGUAGE: Press button (B1) or (B2) and navigate to the LANGUAGE page.

Default language is English. Press button (B1) for 1 second to access the page, then use buttons (B1) or (B2) to select the desired language.

Press button (B1) for 1 second to confirm selection. An arrow appears next to the newly selected language.

Press button (B2) 1 second and return to the menu.



PY28150—UN—11JUL17

C - UNIT SETTINGS: Press button (B1) or (B2) and navigate to the UNIT page. Press button (B1) for 1 second to access the page.

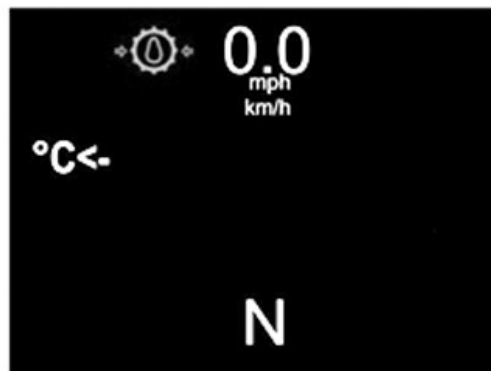
Use the buttons (B1) and (B2) to switch between the

units. Select unit to be changed by pressing (B1) for 1 second. An arrow appears next to the unit to mark the current selection. Select unit with button (B1) or (B2). Press button (B1) for 1 second to confirm the input.

Repeat procedure for all other units.

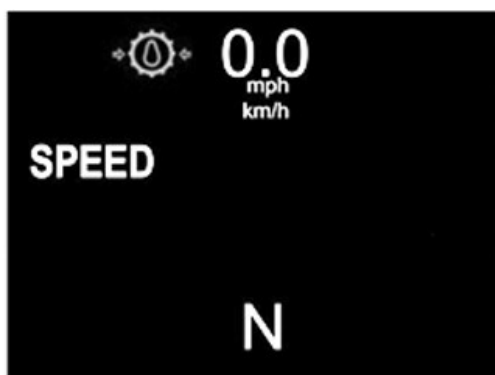
Press the button (B2) for 1 second and exit the page.

C - UNIT SETTINGS	Unit 1	Unit 2
a) SPEED	km/h	mph
b) TEMPERATURE	°C	°F
c) ENGINE POWER	hp	KW

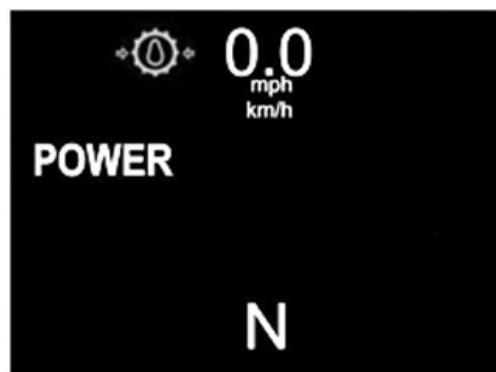


PY28154—UN—11JUL17

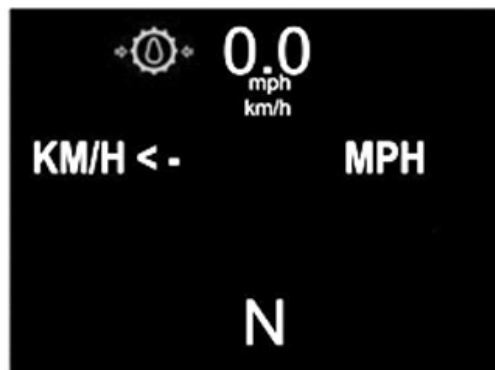
b) TEMPERATURE: Select unit to be changed by pressing (B1) for 1 second. An arrow appears next to the unit to mark the current selection. Select unit with button (B1) or (B2). Press button (B1) for 1 second to confirm the input and to exit the page.



PY28151—UN—11JUL17

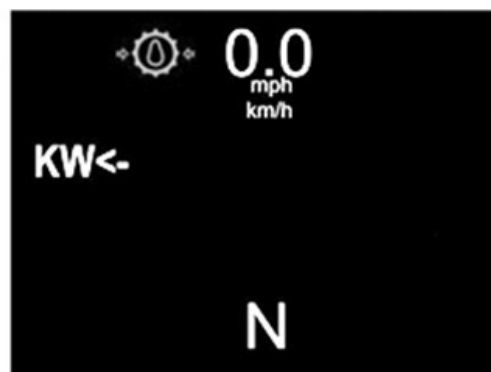


PY28155—UN—11JUL17



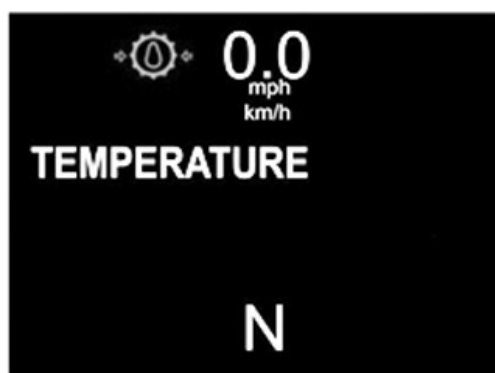
PY28152—UN—11JUL17

a) SPEED: Select unit to be changed by pressing (B1) for 1 second. An arrow appears next to the unit to mark the current selection. Select unit with button (B1) or (B2). Press button (B1) for 1 second to confirm the input and to exit the page.



PY28156—UN—11JUL17

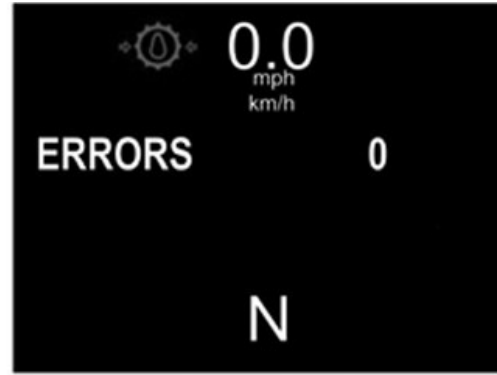
c) POWER: The display mode of the power expressed by the PTO. It is calculated as a product of the torque detected by the torque meter (hp is the default setting). Select unit to be changed by pressing (B1) for 1 second. An arrow appears next to the unit to mark the current selection. Select unit with button (B1) or (B2). Press button (B1) for 1 second to confirm the input and to exit the page.



PY28153—UN—11JUL17



PY28157—UN—11JUL17



PY28158—UN—11JUL17

E - ENGINE ERRORS:

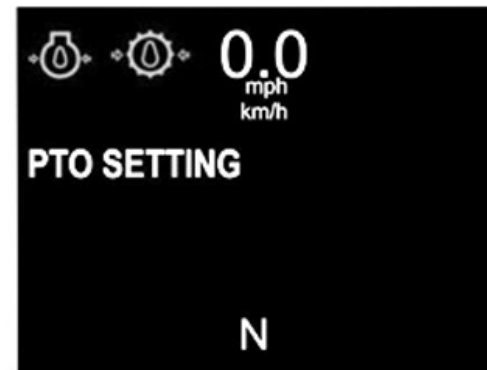
1. Access the menu and press (B1) or (B2) until the Engine Error Sub menu is displayed.
2. Engine Errors Sub menu: Once in this menu, the message X ERRORS appears, with X indicating the number of errors active at that moment.
3. If errors are present, it is possible to access the list by pressing and holding button B1 for 1 second. Press buttons B1 or B2 and scroll through the list of errors. By pressing and holding B2 for 1 second, the operator returns to the user menu.

D - TRANSMISSION ERRORS:

1. Access the menu and press (B1) or (B2) and the Transmission Error Sub Menu is displayed.
2. Transmission Errors Sub Menu: Once in this menu, the message X ERRORS appears, with X indicating the number of errors active at that moment.
3. If errors are present, it is possible to access the list by pressing and holding button B1 for 1 second. Press buttons B1 or B2 and scroll through the list of errors. By pressing and holding B2 for 1 second, the operator returns to the user menu.



PY28159—UN—11JUL17



PY42850—UN—11JUL17

F - PTO SETTING:

NOTE: PTO-settings is a menu that is used by the dealer only if calibrations are required.

FENAFNX,0000446-19-17MAY21

Digital Display - Initial Setup (Matching with Tractor)

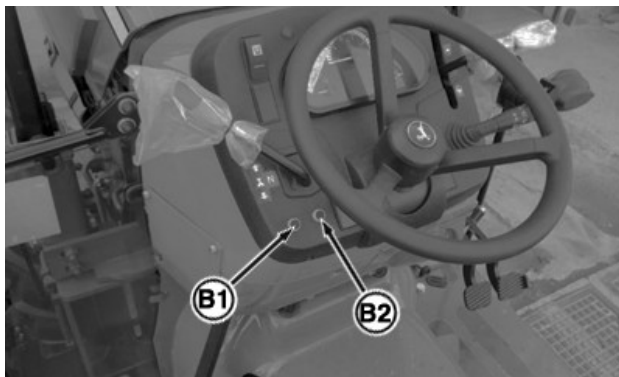
NOTE: The initial setup is required to align the control unit settings with the tractor configuration. If malfunctions occur, have the settings checked by your John Deere dealer.

Accessing the Setup Menu



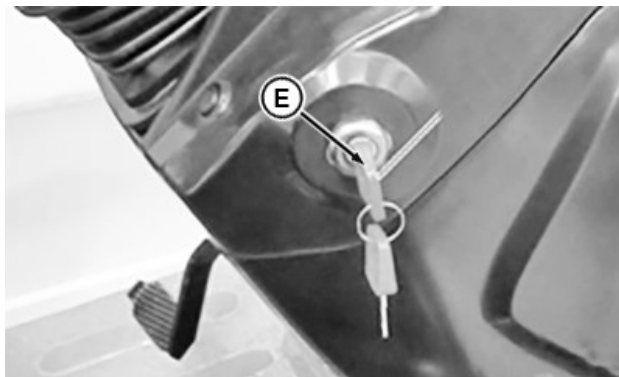
(5GN, 5GV, 5GF)

PY28140—UN—25AUG16



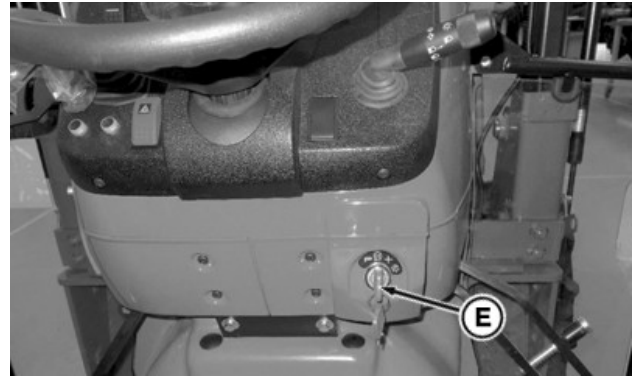
(5GL, 5GL-N)

PY42803—UN—02JUL17



(5GN, 5GV, 5GF)

PY28161—UN—09NOV16



(5GL, 5GL-N)

PY42851—UN—03JUL17

B1—Program Button
B2—Program Button
E—Key

NOTE: Stop the tractor and engage the park brake before accessing the menu.

The menu is automatically closed if the tractor moves.

Functions of Buttons		
	B1	B2
Pressed for less than 0.3 seconds	Navigate upward	Navigate downward
Pressed for 1 second or longer	Confirm entry	Access and exit the sub menu

1. To access the initial setup menu, press and hold the buttons (B1) and (B2) simultaneously, then turn key switch in ON position.
2. After entering the initial setup menu, use the buttons (B1) or (B2) to select the relevant sub menu. Press and hold button (B1) for 1 second to access the selected sub menu.
3. Press (B1) for 1 second to exit the selected menu.

Initial Setup Menu — Menu presentation

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05081—UN—16APR18

```

TCE          NOT PRES
H4 LIGHTS    PRES
HYD BOSCH    NOT PRES
DAMPER        465589
PREV PAGE

```

APY12272—UN—02OCT18

HAND THROTTLE

```

HAND THROTTLE  OK
FOOT THROTTLE  OK
SPEEDPULSE     285
FRONT PTO       000
REAR PTO        MECH
2ND GEAR        540E
4WD             NOT PRES
TRANSMISS.      POW. REV.
VEHICLE TYPE    GL
NEXT PAGE

```

APY05082—UN—16APR18

Initial Setup Menu	
SUB MENU	SETTINGS
Hand Throttle (Calibration)	Follow instructions of display
Foot Throttle (Calibration)	Follow instructions of display
Speed Pulse (Parameter Depending on Tires)	Note: Find input parameter in the tire size overview.
Front PTO Ratio	Input three digits—485 indicate 1000 rpm
Rear PTO (Gear Selection)	MEC - Mechanically actuated HYD - Hydraulically actuated
Second Gear (Rear PTO with 540E/1000 Speed)	Input 540E
4WD (Front-Wheel Drive)	Not present - Tractor not equipped with MFWD Present - Tractor equipped with MFWD
Reverser (Type of Transmission)	POW - Tractors with electrohydraulic PowrReverser™ MEC - Tractors with mechanic PowrReverser™
Type of Vehicle	GL Orchard Vineyard
TCE (EHS - Electronic Hitch Sensing)	Not present - Tractor not equipped with EHS Present - Tractor equipped with EHS
H4 Lights (Additional H4 Farm Headlights)	Not present - Tractor not equipped with farm headlights Present - Tractor equipped with farm headlights
Hydraulic BOSCH (Electrohydraulic SCVs)	Not present - Tractor not equipped with electrohydraulic SCVs Present - Tractor equipped with electrohydraulic SCVs
Damper	Possible setups are: 465589 - If the tractor is equipped with the NEW clutch damper. 426097 - If the tractor is equipped with the OLD clutch damper. MECH - If the tractor is equipped with mechanical transmission.

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```

                POS      NEG
MECH MIN      0.488 V   4.504 V
MECH MAX      4.504 V   0.488 V
-----
CURRENT      3.141 V   0.406 V

```

KICKDOWN

PY28064—UN—28JAN16

```

                POS      NEG
MECH MIN      0.488 V   4.504 V
MECH MAX      4.504 V   0.488 V
-----
CURRENT      3.141 V   0.406 V

```

RELEASE

PY28065—UN—28JAN16

```

                POS      NEG
MECH MIN      0.450 V   4.524 V
MECH MAX      4.524 V   0.450 V
-----
CURRENT      4.580 V   0.406 V

```

CALIBRATION OK

PY28066—UN—28JAN16

For the hand throttle calibration, follow the messages on the display. Fully press and release the hand throttle 4 times. Calibration is completed when CALIBRATION OK is displayed.

FOOT THROTTLE

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05083—UN—16APR18

	POS	NEG
MECH MIN	0.488 V	4.504 V
MECH MAX	4.504 V	0.488 V
CURRENT	3.141 V	0.406 V
KICKDOWN		

PY28064—UN—28JAN16

	POS	NEG
MECH MIN	0.488 V	4.504 V
MECH MAX	4.504 V	0.488 V
CURRENT	3.141 V	0.406 V
RELEASE		

PY28065—UN—28JAN16

	POS	NEG
MECH MIN	0.450 V	4.524 V
MECH MAX	4.524 V	0.450 V
CURRENT	4.580 V	0.406 V
CALIBRATION OK		

PY28066—UN—28JAN16

In Foot Throttle calibration, follow the messages on the display. Fully press and release the foot throttle 4 times. Calibration is completed when CALIBRATION OK is displayed.

SPEED PULSE

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05084—UN—16APR18

The output of the speed sensor is impulses depending on the wheel rpm. For the travel speed calculation, it is important to enter parameter accordingly to the correct tire size.

After accessing the speed pulse menu, the first (left side) digit flashes. The entry can be changed by using buttons (B1) and (B2). To confirm the entry, press and hold button B1 longer than 1 second (the next digit begins flashing). To skip digits without changing it, simply press and hold (B1) longer than 1 second (the next digit begins flashing).

With the final digit (right side) flashing, press and hold (B1) for 1 second to start over with the first digit.

NOTE: To exit the sub menu at any time, press and hold button B2 for 1 second.

Select Appropriate Tire Size				Input Parameter Accordingly to Tractor		
Rear Tires				Rolling Circumference (m)	30 km/h	40 km/h
320/70-R20	11.2-R20	280/85-R20	—	2.955	361	287
360/70-R20	12.4-R20	320/85-R20	—	3.128	341	271
380/70-R20	—	—	—	3.225	331	263
320/70-R24	11.2-R24	280/85-R24	—	3.285	325	258
360/70-R24	12.4-R24	320/85-R24	—	3.423	311	247
9.5-R28	250/85-R28	—	—	3.402	313	249
380/70-R24	13.6-R24	340/85-R24	—	3.566	299	237
320/70-R28	11.2-R28	280/85-R28	—	3.585	297	236
480/65-R24	—	—	—	3.68	290	230
420/70-R24	14.9-R24	380/85-R24	—	3.714	287	228
360/70-R28	12.4-R28	320/85-R28	—	3.743	285	226
380/70-R28	13.6-R28	340/85-R28	—	3.87	275	219
480/70-R24	16.9-R24	420/85-R24	13.6-R28	3.921	272	216
480/65-R28	—	—	—	3.98	268	213
420/70-R28	14.9-R28	380/85-R28	—	4.057	263	209
420/70-R30	14.9-R30	380/85-R30	—	4.214	253	201
480/70-R28	16.9-R28	420/85-R28	—	4.235	252	200
12.4-R36	320/85-R36	—	—	4.362	244	194
540/65 R30	—	—	—	4.39	243	193
480/70-R30	16.9-R30	420/85-R30	—	4.423	241	191
480/70-R34	16.9-R34	420/85-R34	—	4.729	225	179
18.4-R26	—	—	—	4.285	249	198
18.4-R34	13.6-R38	—	—	4.838	220	175
16.9-R38	—	—	—	4.995	213	170
23.1-26	—	—	—	4.805	222	176
15.5 - R38	—	—	—	4.712	226	180
18.4-R30	—	—	—	4.629	230	183

FRONT PTO Ratio

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05085—UN—16APR18

After accessing the front PTO ratio menu, the first (left side) digit flashes. The entry can be changed by using buttons (B1) and (B2). To confirm the entry, press and hold button B1 longer than 1 second (the next digit begins flashing). To skip digits without changing it, simply press and hold (B1) longer than 1 second (the next digit begins flashing).

With the final digit (right side) flashing, press and hold (B1) for 1 second to start over with the first digit.

Front PTO Option:	
Speed	Value to be Set
1000	485

NOTE: During normal operation, these digits show the value of the rear PTO, if active. Otherwise it does not appear.

REAR PTO

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05086—UN—16APR18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

MECH

HYDR

Select the required option and confirm by pressing button B1 for 1 second. Press and hold button B2 for 1 second to exit the sub menu.

2ND GEAR

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05087—UN—16APR18

It is possible to move from one option to another using buttons B1 and B2.

Option:

540E / 1000

Select the required option and confirm by pressing button B1 for 1 second. Press and hold button B2 for 1 second to exit the sub menu.

4WD

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05088—UN—16APR18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

NOT PRES - Tractor is not equipped with MFWD.

PRES - Tractor is equipped with MFWD.

Select the required option and confirm by pressing button B1 for 1 second.

TRANSMISS

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05089—UN—16APR18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

POW. REV. - Tractors equipped with the electrohydraulic PowrReverser™.

MECHANICAL - Tractors equipped with the mechanical PowrReverser™.

Select the required option and confirm by pressing button B1 for 1 second.

VEHICLE TYPE

HAND THROTTLE	OK
FOOT THROTTLE	OK
SPEEDPULSE	285
FRONT PTO	000
REAR PTO	MECH
2ND GEAR	540E
4WD	NOT PRES
TRANSMISS.	POW. REV.
VEHICLE TYPE	GL
NEXT PAGE	

APY05090—UN—16APR18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

GL

ORCHARD

VINEYARD

Select the required option and confirm by pressing button B1 for 1 second.

TCE (EHS - Electronic Hitch Sensing)



APY12273—UN—02OCT18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

NOT PRES - Tractor is not equipped with EHS.

PRES - Tractor is equipped with EHS.

Select the required option and confirm by pressing button B1 for 1 second.

H4 LIGHTS (Additional H4 Farm Headlights)



APY12274—UN—02OCT18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

NOT PRES - Tractor is not equipped with the additional farm headlights.

PRES - Tractor is equipped with the additional farm headlights.

Select the required option and confirm by pressing button B1 for 1 second.

HYD BOSCH (E-SCVs)



APY12275—UN—02OCT18

It is possible to move from one option to another using buttons B1 and B2.

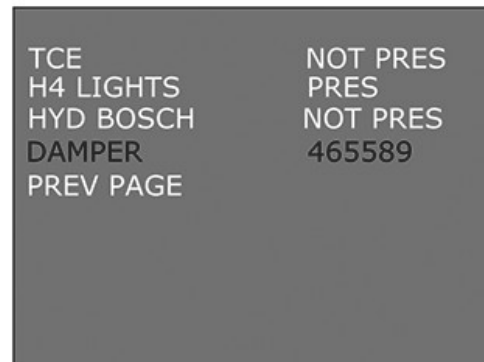
Options are:

NOT PRES - Tractor is not equipped with electrohydraulic SCVs.

PRES - Tractor is equipped with electrohydraulic SCVs.

Select the required option and confirm by pressing button B1 for 1 second.

DAMPER



APY12276—UN—02OCT18

It is possible to move from one option to another using buttons B1 and B2.

Options are:

465589 - Tractor is equipped with the NEW clutch damper.

426097 - Tractor is equipped with the OLD clutch damper.

MECH - Tractor is equipped with Mechanical transmission.

Select the required option and confirm by pressing button B1 for 1 second.

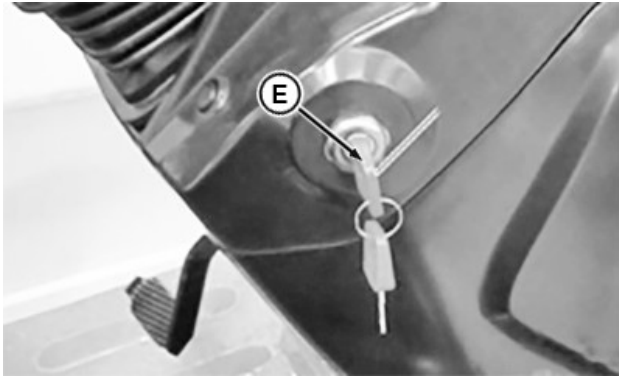
To leave the setup menu, turn the key OFF.

FENAFNX,0000447-19-17MAY21

Oil Service Message Reset

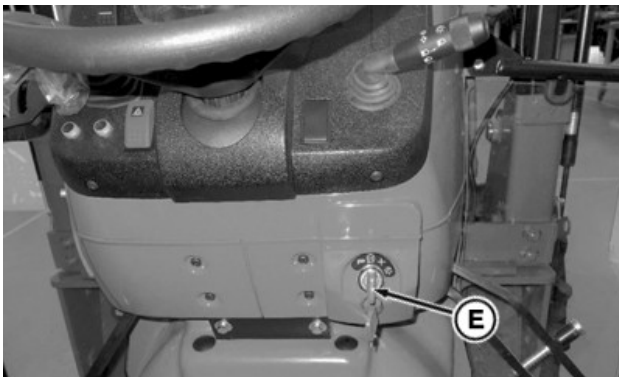
After changing the engine oil, it is necessary to reset the timer of the oil life-time monitoring system.

Proceed as follows to reset the timer:



(5GN, 5GV, 5GF)

PY28161—UN—09NOV16



(5GL 5GL-N)

PY42851—UN—03JUL17

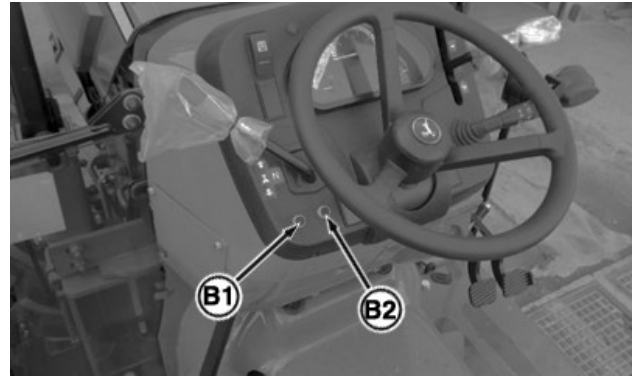
E—Key

1. Turn the key (E) in the ON position without starting the engine.
2. Wait 6 seconds.



(5GN, 5GV, 5GF)

PY28140—UN—25AUG16

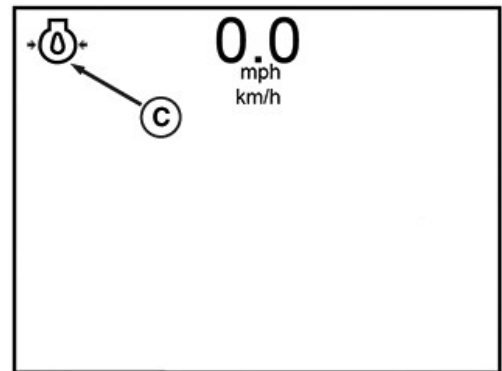


PY42803—UN—02JUL17

(5GL and 5GL-N)

B1—Program Button
B2—Program Button
C—Icon

3. Press and hold the buttons (B1) and (B2) for at least 15 seconds.



PY28078—UN—02FEB16

4. Release the buttons (B1) and (B2). The icon (C) begins flashing and the buzzer sounds for a short time. It indicates the end of the procedure.
5. At this point, you can use the tractor normally.

NOTE: The procedure can be performed only once in the same trip. A further attempt has no effect on the timer.

FENAFNX,0000448-19-17MAY21

Drive Train

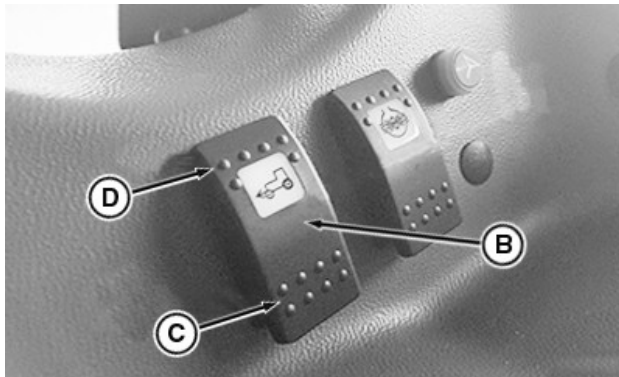
Drive Train - Overview

- Front-Wheel Drive
- Differential Lock
- Brakes
- Transmission - General Information
- PowrReverser™ Transmission

RA84036,0001A6A-19-23JUL19

Front-Wheel Drive

Operate Front-Wheel Drive



APY11167—UN—13MAY19



PY31892—UN—26AUG16

- A—Front-Wheel Drive Indicator Light
- B—Front-Wheel Drive Switch
- C—Switching ON the Front-Wheel Drive
- D—Switching OFF the Front-Wheel Drive

Use front-wheel drive as required for better traction.

CAUTION: Front-wheel drive greatly increases traction. When this option is used, extra caution is needed on slopes. Compared to 2-wheel drive, a front-wheel drive tractor maintains traction on steeper slopes, increasing the possibility of a tip over.

When driving on icy, wet, or graveled surfaces, reduce speed and make sure that tractor is properly ballasted to avoid skidding and loss of steering control. For best control, engage front-wheel drive (if equipped).

IMPORTANT: To extend tire life, engage front-wheel drive only when needed. DO NOT engage front-wheel drive when driving at high speed on public roads.

IMPORTANT: Electro-hydraulically actuated front-wheel drive only:

The front-wheel drive can be engaged and disengaged in all gears (forward and reverse) on-the-go and under load without using the clutch. Anticipate the need for front-wheel drive and make sure that neither of the rear wheels are slipping. Then engage or disengage when minimum torque is being used and the tractor is moving slowly.

When tractor speed exceeds 23 km/h (14 mph), the electro-hydraulically actuated front-wheel drive disengages automatically.

Press the front-wheel drive switch (B) to engage the front-wheel drive in position (C) and to disengage in position (D). Indicator light (A) glows when front-wheel drive is engaged.

NOTE: Once engaged, the 4WD mode remains active until disengaged, even if the engine has been shut down.

NOTE: When the brakes are applied, front-wheel drive cuts in automatically regardless of the position selected at the front-wheel drive switch. In this case, the indicator light (A) does not come on.

Pressing the front-wheel drive switch (B) for longer than 3 seconds allows the front-wheel drive to be engaged permanently, independently from vehicle speed and brakes usage. In this case, the message 4WD ON appears on the digital display for about 3 seconds; the indicator (A) will glow until front-wheel drive is disengaged.

FENAFNX,0000449-19-17MAY21

Setting of the Steering Angle (Auto 4WD)



APY11168—UN—05JUN19

Purpose:

Set the desired wheels' turning angle beyond which the 4WD disengage.

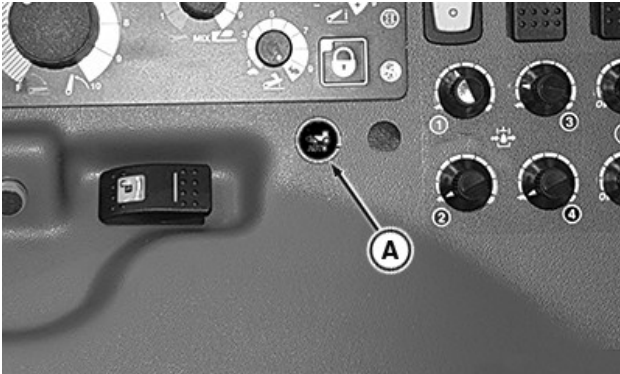
Initial Conditions:

- Engine ON.

- Wheels in straight forward position (0° turn).
- Tractor speed = 0 km/h.
- No brake pedals pressed.

NOTE: In this case, the requested angle is probably too close to 0°. Repeat the procedure with a different angle set.

FENAFNX,000044A-19-17MAY21

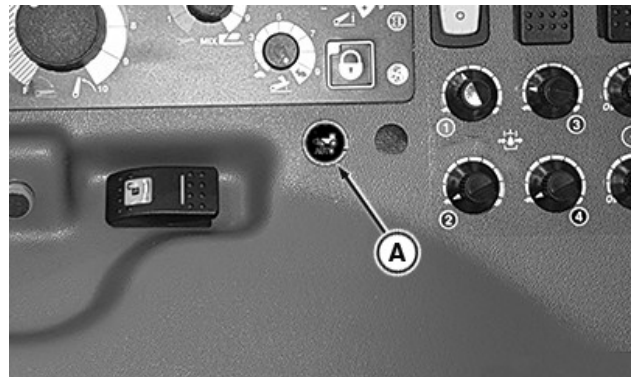


APY11169—UN—13MAY19

Activation of the Auto 4WD

Initial conditions:

- Engine ON.
- Tractor speed < 23 km/h (14 mph).
- No brake pedals pressed.
- 4WD engaged in AUTO mode.



APY11172—UN—13MAY19

To Set the Angle:

- Turn the wheels to the desired angle.
- Keep the button (A) pressed for 5 seconds and then release it.



APY11170—UN—13MAY19

If the angle is acceptable, "NEW ANGLE SAVED" appears on the display: It means that when wheels turning angle exceeds the saved value, 4WD is automatically disengaged.

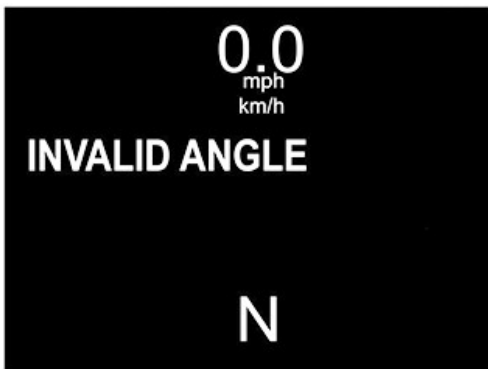


APY11173—UN—13MAY19

Press the button (A) for 1 seconds to activate the function. The green icon (B) appears on the dashboard. It means that the function is active.

If the turning angle exceeds the saved value, the 4WD icon on the panel is switched-off and 4WD is disengaged automatically.

If the turning angle is less than the saved value, the 4WD icon on the panel is switched-on and 4WD is engaged automatically.



APY11171—UN—13MAY19

If the selected angle is not valid, the message "INVALID ANGLE" appears on the display.



In case the red icon (D) appears on the dashboard, an error occurred to the AUTO steering system.

If malfunctions occur, have the function checked by your John Deere dealer.

FENAFNX,000044B-19-17MAY21

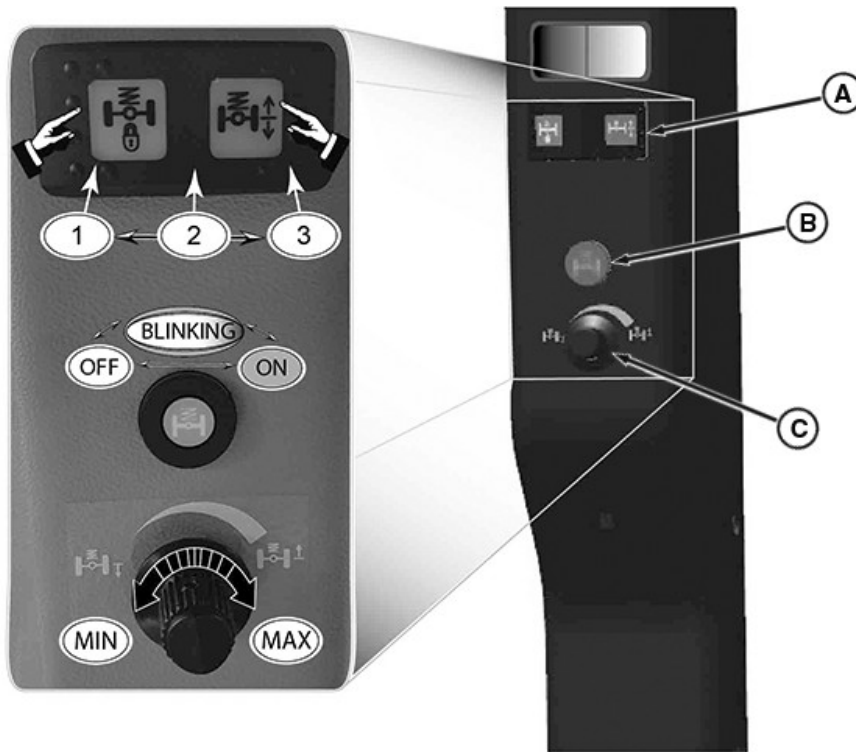
APY11174—UN—13MAY19

If brakes are applied when turning angle exceeds the saved value, the 4WD icon on the panel is switched-on and 4WD is engaged automatically. In this situation, the gray icon (C) appears on the dashboard.



APY11175—UN—13MAY19

Controls on the Right-Hand Cab Post



A—Suspension System Activation Switch (3 Positions)
B—Activation LED Indicator Light

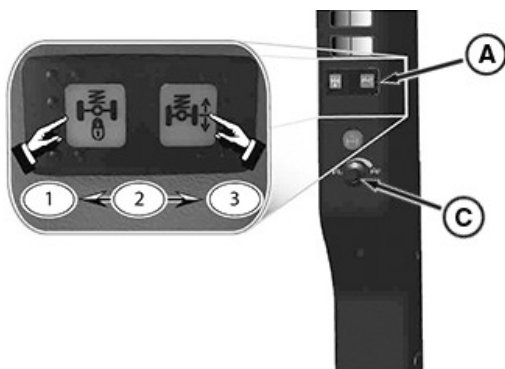
C—Height Regulation Potentiometer Knob

IMPORTANT: Do not perform any inspection and/or service interventions on the suspension system.

It is recommended to perform the maintenance procedure **ONLY** by a specialized service technician. Refer to an authorized John Deere dealer.

Risk of burns from hot surfaces, injuries and/or health problems.

Suspension System Activation Switch



A—Suspension System Activation Switch (3 Positions)
C—Height Regulation Potentiometer Knob

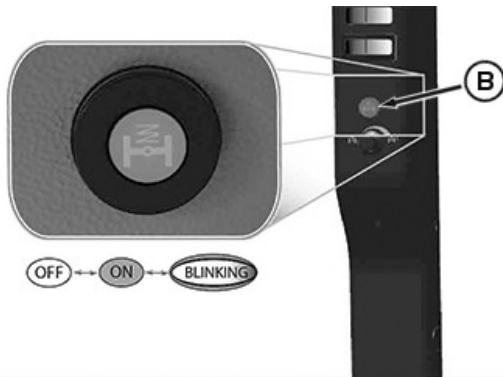
The activation switch (A) is on the right-hand cab post and can be set in three different positions:

- **Automatic mode** (activation switch (A) in the central position "2" - default position): Activates the automatic functioning of the suspended front axle.
- **Manual mode** (activation switch (A) pressed the right position "3" - unstable position - the activation switch turns back to default position "2"): Activates the manual positioning of the suspended front axle. The height of the suspended front axle can be adjusted via the potentiometer knob (C).
- **Blocked mode** (activation switch (A) pressed the left position "1" - stable position – the activation switch remains in blocked position "1"): Locks the suspended front axle in intermediate central position.

APY11159—UN—09MAY19

APY11160—UN—09MAY19

Activation LED Indicator Light



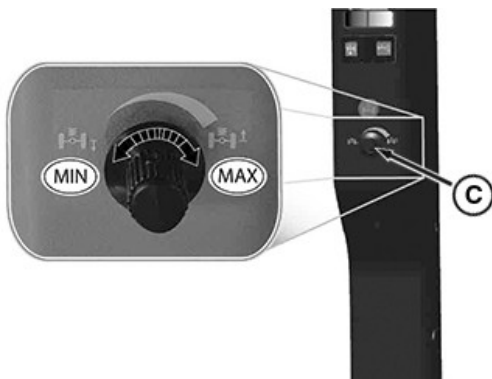
APY11161—UN—09MAY19

B—Activation LED Indicator Light

The LED indicator light (B) can display four possible states:

- **LED indicator light OFF:** Suspension system in blocked mode.
- **Steady LED indicator light ON (green lit):** Activation of automatic mode.
- **Flashing LED indicator light (slow blinking):** Activation of manual mode.
- **Flashing LED indicator light (fast blinking):** Malfunction error occurred in the axle suspension system.

Height Regulation Potentiometer Knob



APY11162—UN—09MAY19

C—Height Regulation Potentiometer Knob

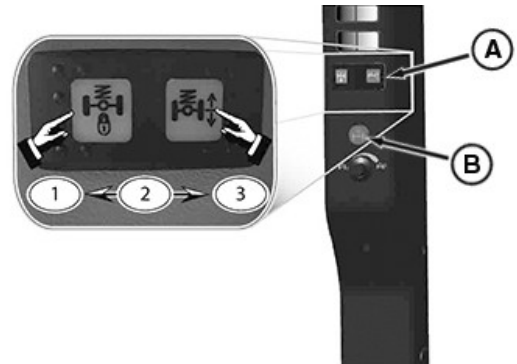
In manual mode, use the regulation potentiometer knob (C) to adjust the height of the front axle:

- Turn the knob clockwise to increase the height of the front axle.
- Turn the knob counterclockwise to reduce the height of the axle.

RA84036,000198A-19-15MAY19

Activation of the Suspension System

Suspension System in Automatic Mode (Active Amortization)



APY11163—UN—09MAY19

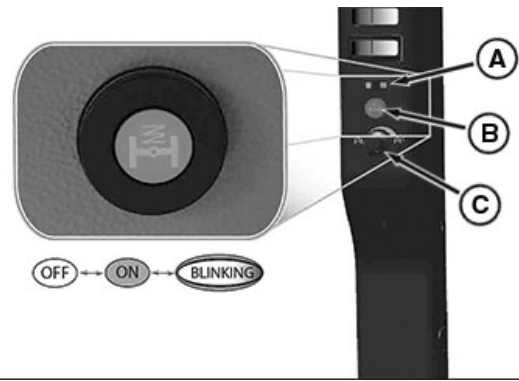
A—Suspension System Activation Switch (3 Positions) B—Activation LED Indicator Light

To activate the Automatic mode (automatic functioning of the suspension system):

1. Make sure the activation switch (A) is in the central position "2" (default position).
2. Turn the ignition key ON: the LED indicator light (B) is ON (steady green).

The suspension system is therefore in automatic mode (active amortization).

Suspension System in Manual Mode



APY11164—UN—09MAY19

A—Suspension System Activation Switch (3 Positions) B—Activation LED Indicator Light C—Height Regulation Potentiometer Knob

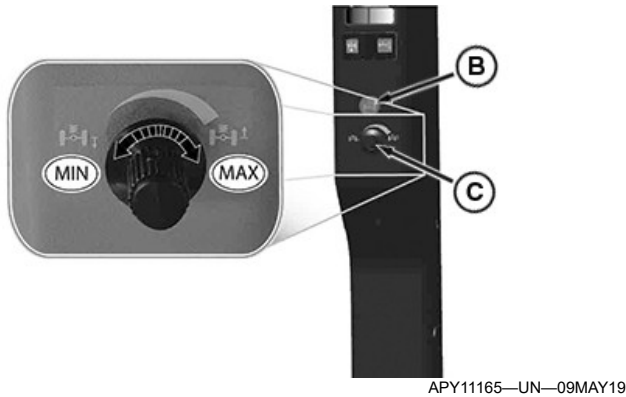
IMPORTANT: Before activating the manual mode, make sure that the tractor is on a flat surface.

To activate the Manual mode (manual functioning of the suspension system):

1. Turn the ignition key ON: the LED indicator light (B) is ON (steady green).
2. Move the vehicle above 2 km/h speed threshold.
3. Press the activation switch (A) on the right (manual

position "1") for more than three seconds and then release the switch.

4. The LED indicator light (B) from steady, starts flashing (fast blinking): the manual mode becomes active.
5. Turn the potentiometer knob (C) until the current position of the suspension system is matched: the flashing LED indicator light (B) at that point starts blinking slowly.



B—Activation LED Indicator Light
C—Height Regulation Potentiometer Knob

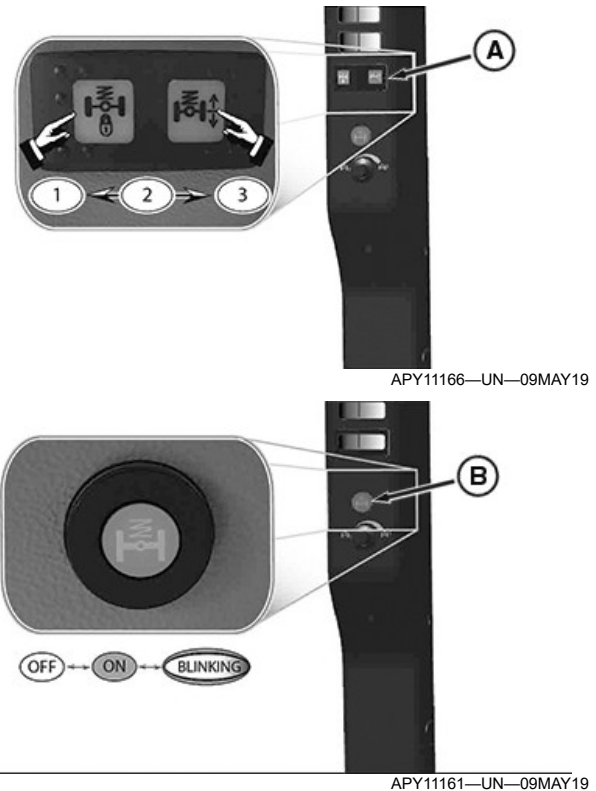
In manual mode, once the flashing LED indicator light (B) blinks slowly, it is possible to adjust the height of the suspension front axle (up / down) by regulating the adjustment potentiometer knob (C):

- Turn the knob clockwise to increase the height of the front axle.
- Turn the knob counterclockwise to reduce the height of the axle.

The selected height value remains unchanged as long as the vehicle speed does not exceed the threshold of 5 km/h.

- The suspension system returns to automatic mode.
- The LED indicator light (B) from blinking becomes lit steady.
- The suspension front axle is automatically repositioned at the intermediate center position.

Suspension System in Blocked Mode



A—Suspension System Activation Switch (3 Positions)
B—Activation LED Indicator Light

To activate the Blocked mode (suspended front axle in a locked position), press the activation switch (A) on the left (blocked position "1"). The activation LED indicator light (B) turns OFF.

With speed range 0—2 km/h, the suspended front axle locks in the current position (the same height value set before locking the suspension system).

With speed range 2—25 km/h, if the suspended front axle has been previously locked in a position other than the intermediate, it shifts to the intermediate height and locks in that position.

With a speed threshold more than 25 km/h:

- The control unit switches from locked mode to automatic mode.
- The LED indicator light (B) previously switched off becomes steady green lit (automatic mode active) and remains in this state until the tractor is stopped ($V = 0$ km/h).
- Once this condition is reached ($V = 0$ km/h), the control unit switches from automatic mode to locked mode (previously selected) and the activation LED indicator light (B) turns OFF.

Malfunction Error Codes and Indicator Lights

IMPORTANT: Service work and calibration must be performed by a specialized service technician ONLY.

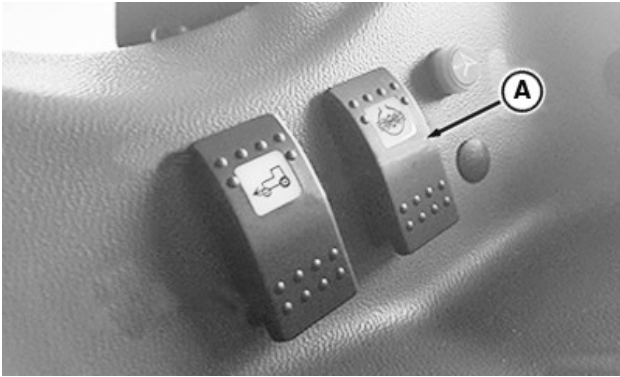
If hydraulic or electrical malfunction is detected of the suspended axle system, the LED indicator light (B) starts to FLASH quickly (fast blinking), indicating to the operator that the system is in an error state. During an active error or failure, once the error state is entered, all coils are de-energized.

Refer to an authorized service center for the inspection, troubleshooting, and resolution of the malfunction

RA84036,000198C-19-14MAY19

Differential Lock

Use Differential Lock



APY11176—UN—14MAY19

A—Differential Lock Switch

CAUTION: DO NOT operate tractor at high speed or turn the tractor when the differential lock is engaged.

IMPORTANT: To prevent damage to the power train, DO NOT engage differential lock when one wheel is spinning and the other is stopped.

When one wheel starts to lose traction, engage differential lock using the differential lock switch (A).

IMPORTANT: The electrohydraulic differential lock disengages automatically when an individual brake pedal is pressed and engages again after the pedal has been released. Press the differential lock switch (A) again and disengage the differential lock.

When tractor speed exceeds 14 km/h (9 mph), the electrohydraulic differential lock disengages automatically.

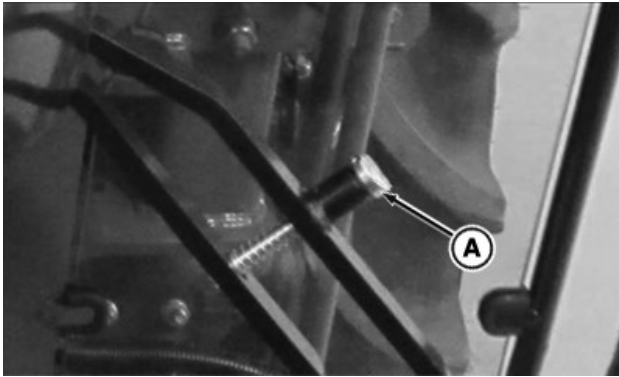
Unequal traction keeps the lock engaged. When traction equalizes, lock disengages itself by spring action. If lock does not disengage, depress one brake pedal and then the other.

If tires repeatedly slip, then get traction, then slip again, hold pedal in the engaged position.

RA84036,0001990-19-14MAY19

Brakes

Use Brakes



A—Locking Pin

CAUTION: Before driving the tractor on a public road, lock brake pedals together using locking pin (A). Use brake lightly and cautiously at transport speeds.

When negotiating sharp turns, use individual brake to assist steering. Disengage brake pedal locking pin (A) and depress only one brake pedal.

To stop the tractor, depress both brake pedals.

IMPORTANT: To prevent unnecessary wear, never ride the brakes by resting a foot on the pedals.

Reduce speed if towed load weighs more than the tractor and is not equipped with brakes. Avoid hard braking applications. Consult implement operator's manual for recommended transport speeds.

Use additional caution when transporting towed loads under adverse conditions, when turning, or stopping on inclines.

RA84036,0001123-19-08AUG17

Stop the Tractor



PY31893—UN—26AUG16
Reverse Drive Lever (Mechanically Actuated) (5GV, 5GN, 5GF)



PY31894—UN—26AUG16
Reverse Drive Lever (Electrically Actuated) (5GV, 5GN, 5GF)



PY34659—UN—13JUL17
Reverse Drive Lever (Mechanically Actuated) (5GL and 5GL-N)

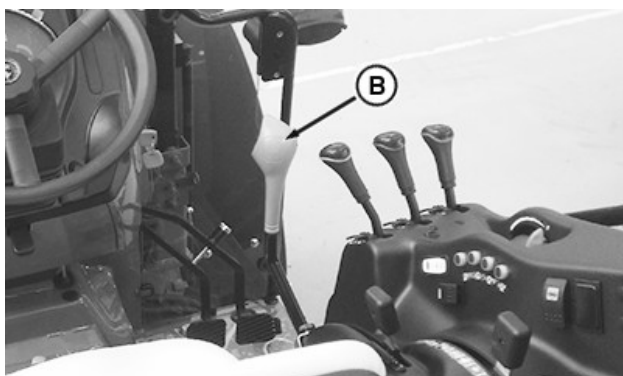


APY11177—UN—14MAY19
Reverse Drive Lever (Electrically Actuated) (5GL and 5GL-N)

A—Reverse Drive Lever

CAUTION: Always engage park brake before dismounting tractor. Leaving transmission in gear with engine stopped, without engaging the park brake, DOES NOT prevent tractor from moving.

1. Stop tractor by using the brakes.
2. Place reverse drive lever (A) in neutral position.



(5GV, 5GN, 5GF) APY11178—UN—14MAY19



(5GL) APY11181—UN—14MAY19



(5GL) APY11179—UN—14MAY19

B—Gear Shift Lever

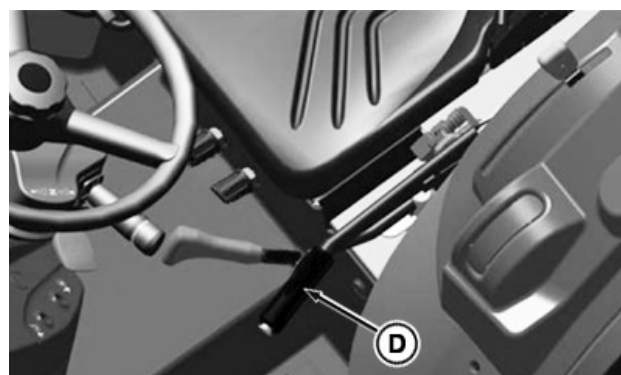
- Place the gearshift lever (B) in neutral position.



(5GV, 5GN, 5GF) APY11180—UN—14MAY19

C—Hitch Control Lever

- Lower equipment to the ground using hitch control lever (C).



PY31897—UN—26AUG16

D—Park Brake Lever

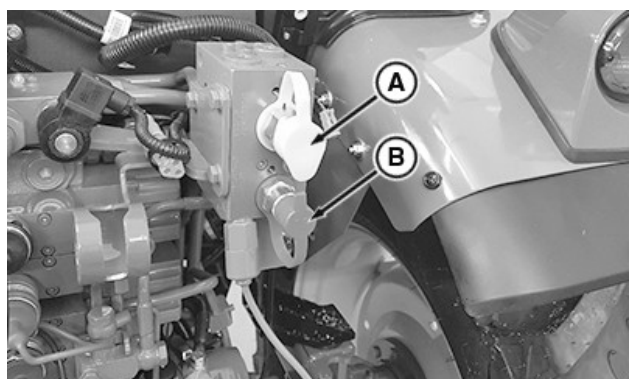
E—Park Brake Indicator Light

- Pull park brake lever (D) up to engage park brake. Lever locks in raised position and the park brake indicator light (E) will glow.



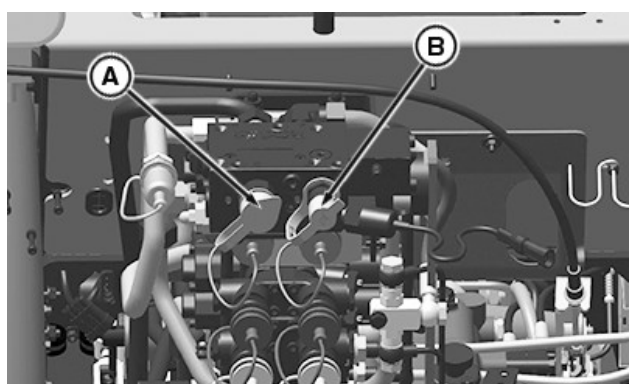
PY31898—UN—26AUG16

Hydraulic Trailer Brakes



(5GV, 5GN, 5GF)

APY11182—UN—14MAY19



(5GL)

APY11183—UN—14MAY19

A—Couplers (High-Pressure Line)
B—Couplers (Low-Pressure Line)

Connect pressure hoses to couplers (A) and (B).

Depress the brake pedals and operate the hydraulic trailer brake. The braking effect depends on pressure applied to the brake pedals.

CAUTION: Never exceed a speed of 25 km/h (15 mph) when traveling with hydraulically braked trailers.

IMPORTANT: To prevent undue wear on the brakes, observe the following points:

Make sure that the pressure hose is connected. When driving downhill, select the same gear you would for driving uphill.

Check the hydraulic trailer brake regularly to make sure that it is functioning correctly.

NOTE: The park brake of the tractor affects the hydraulic trailer brake. Operate the trailer in accordance with the manufacturers instructions. It is important, particularly while operating the park brake of the trailer.



PY31901—UN—26AUG16

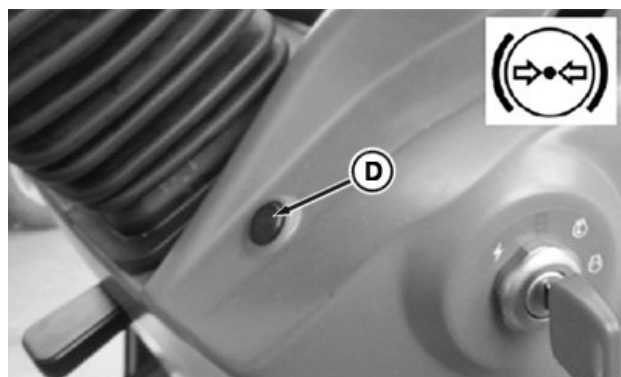
C—Indicator Light

Indicator light (C) lights up when the oil level in the brake reservoir is low.

Lights come on when there is low pressure in the system, the park brake is applied, or a pressure test is performed.

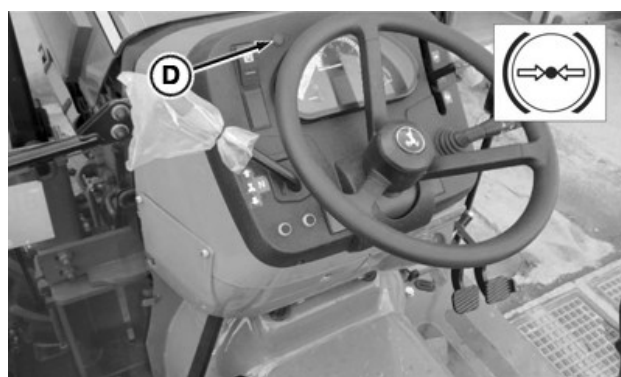
Trailer Brake Valve Test

Follow the steps for checking if the trailer brake valve and the trailer brakes are working.



(5GV, 5GN, 5GF)

PY31902—UN—09NOV16



(5GL, 5GL-N)

PY42833—UN—11JUL17

D—Button (trailer brake valve warning light)

- With the engine on, press the warning light/test button (D) (lights must come on).
- Keep the button (D) pressed and slowly move the

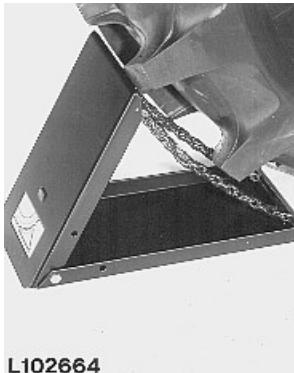
tractor a small distance. Determine whether the trailer brake is engaged or not.

- When the trailer brake is not engaged, release the button (D) and move the tractor.

NOTE: The tractor is equipped with an auto selecting trailer brake valve. In case that an old, single brake line trailer (EEC Model) is required, connect the trailer hose to the coupler (A).

FENAFNX,000044D-19-17MAY21

Chock Block



L102664—UN—03JAN95

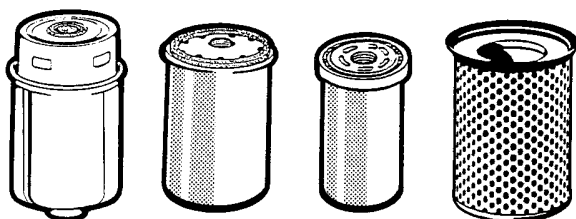
Place chock block in front of or behind rear wheel when parking the tractor on sloping ground.

RA84036,000111A-19-08AUG17

Transmission - General Information

Reduce Fuel Consumption

Service Correctly

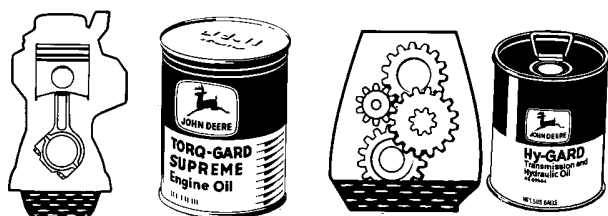


LX007829

LX007829—UN—15AUG94

Replace air cleaner element and fuel, engine oil, and transmission/hydraulic filter elements at specified service intervals. See Service — Change (section 220E) in this manual for the appropriate service interval schedule.

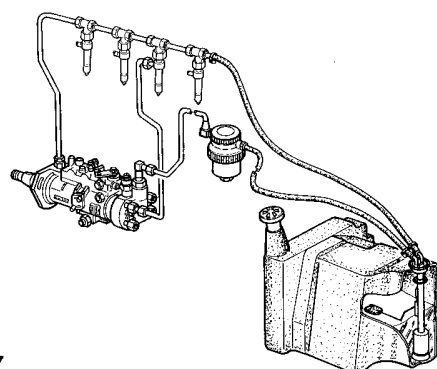
Use only John Deere filters.



L103 642

L103642—UN—15AUG94

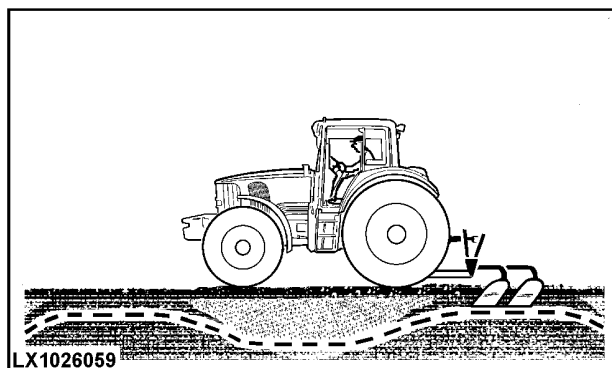
Use recommended oils and lubricants only. See Fuel, Lubricants, Hydraulic Oil, and Coolant in (section 200) in this manual for specific recommendations.



LX000347

LX000347—UN—15AUG94

Have the fuel system checked regularly by your John Deere dealer.

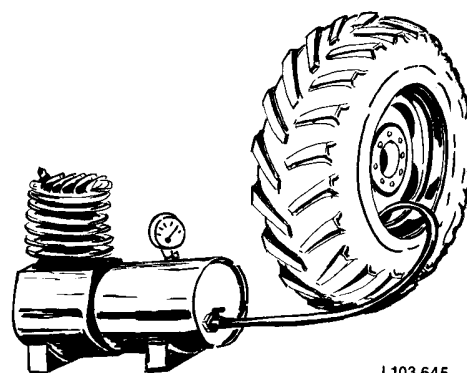


LX1026059

LX1026059—UN—18MAY01

Have the hitch control function checked regularly by your John Deere dealer.

Drive with Correct Tire Pressure

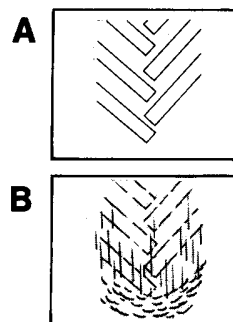


L103 645

L103645—UN—15AUG94

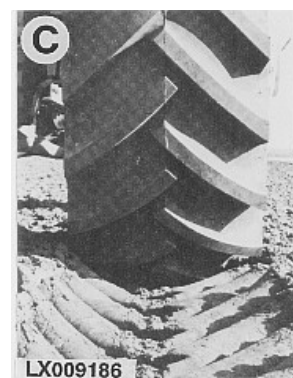
Adapt tire pressure to type of work and ground conditions. Consult with your John Deere dealer or local tire agent.

Choose Correct Ballast



LX009185

LX009185—UN—01SEP94



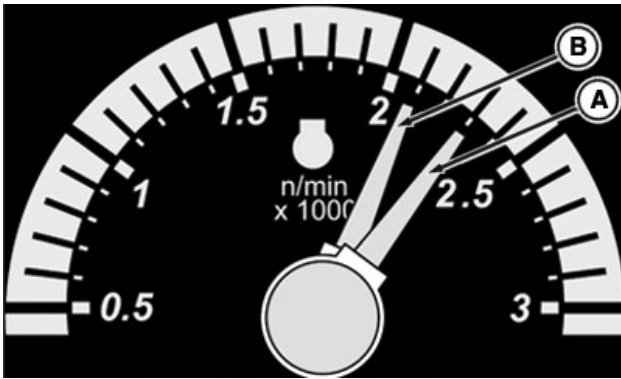
LX009186

LX009186—UN—01SEP94

A—Too Much Ballast
B—Too Little Ballast
C—Correct Ballast

Choose ballast to obtain 10 to 15% wheel slip. Use no more ballast than necessary; reduce ballast for light work.

Select Correct Gear



A—Engine RPM
B—Engine Under Load

PY31805—UN—09NOV16

RA84036,0000F81-19-08AUG17

Always drive in the highest possible gear that keeps working rpm in the proper torque curve to avoid stalling.

For light load operation, use a higher gear and lower engine speed which saves fuel and reduces wear.

Choose a gear so that the engine rpm (A), when the engine is not under load, drops 150 to 250 rpm compared to when the tractor is operating and the engine is under load (B).

NOTE: For light work, reduce engine speed below 2000 rpm. Select a gear so that engine speed drops 200 to 300 rpm when operating.

Travel Speeds

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission																
RANGE	GEAR		Travel Speed at Engine Speed of 2300 rpm													
			Rear Tire Index Radius (SRI)													
			600		580		575		560		550		525		500	
			km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
I	1	Lo	0.6	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3
		Hi	0.7	0.4	0.6	0.3	0.6	0.3	0.6	0.3	0.6	0.3	0.6	0.3	0.5	0.3
	2	Lo	0.8	0.4	0.8	0.4	0.8	0.4	0.7	0.4	0.7	0.4	0.7	0.4	0.7	0.4
		Hi	0.9	0.5	0.9	0.5	0.9	0.5	0.9	0.5	0.9	0.5	0.8	0.4	0.8	0.4
	3	Lo	1.2	0.7	1.1	0.7	1.1	0.7	1.1	0.7	1.1	0.7	1.0	0.6	1.0	0.6
		Hi	1.4	0.8	1.3	0.8	1.3	0.8	1.3	0.8	1.3	0.8	1.2	0.7	1.2	0.7
	4	Lo	1.7	1.0	1.6	1.0	1.6	1.0	1.6	1.0	1.6	1.0	1.5	0.9	1.4	0.8
		Hi	2.0	1.2	1.9	1.1	1.9	1.1	1.9	1.1	1.8	1.1	1.7	1.0	1.7	1.0
II	1	Lo	2.6	1.6	2.5	1.5	2.5	1.5	2.4	1.4	2.3	1.4	2.2	1.3	2.1	1.3
		Hi	3.0	1.8	2.9	1.7	2.9	1.7	2.8	1.7	2.8	1.7	2.6	1.6	2.5	1.5
	2	Lo	3.7	2.2	3.6	2.2	3.5	2.1	3.4	2.1	3.4	2.1	3.2	1.9	3.1	1.9
		Hi	4.3	2.6	4.2	2.6	4.1	2.5	4.0	2.4	4.0	2.4	3.8	2.3	3.6	2.2
	3	Lo	5.4	3.3	5.2	3.2	5.2	3.2	5.0	3.1	4.9	3.0	4.7	2.9	4.5	2.7
		Hi	6.3	3.9	6.1	3.7	6.1	3.7	5.9	3.6	5.8	3.6	5.5	3.4	5.3	3.2
	4	Lo	7.8	4.8	7.5	4.6	7.5	4.6	7.3	4.5	7.2	4.4	6.8	4.2	6.5	4.0
		Hi	9.2	5.7	8.8	5.4	8.8	5.4	8.5	5.2	8.4	5.2	8.0	4.9	7.6	4.7
III	1	Lo	11.3	7.0	10.9	6.7	10.8	6.7	10.6	6.5	10.4	6.4	9.9	6.1	9.4	5.8
		Hi	13.3	8.2	12.8	7.9	12.7	7.9	12.4	7.7	12.2	7.5	11.6	7.2	11.1	6.8
	2	Lo	16.2	10.2	15.7	9.7	15.5	9.6	15.1	9.3	14.9	9.2	14.2	8.8	13.5	8.3
		Hi	19.0	11.8	18.4	11.4	18.2	11.3	17.8	11.0	17.4	10.8	16.7	10.3	15.9	9.8
	3	Lo	23.8	14.7	23.0	14.2	22.8	14.1	22.2	13.7	21.8	13.5	20.9	12.9	19.9	12.3
		Hi	28.0	17.3	27.0	16.7	26.8	16.6	26.1	16.2	25.6	15.9	24.5	15.2	23.3	14.4
	4	Lo	34.4	21.3	33.3	20.5	33.0	20.5	32.1	19.9	31.6	19.6	30.1	18.7	28.7	17.8
		Hi	40.4	25.1	39.1	24.2	38.7	24.0	37.7	23.4	37.0	22.9	35.4	21.9	33.7	20.9

Travel Speeds (GL)

Transmission - General Information

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission																
RANGE	GEAR		Travel Speed at Engine Speed of 2300 rpm													
			Rear Tire Index Radius (SRI)													
			650		625		600		575		560		550		525	
			km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
I	1	Lo	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.4	0.3	0.4	0.3
		Hi	0.6	0.4	0.6	0.4	0.6	0.3	0.6	0.3	0.5	0.3	0.5	0.3	0.5	0.3
	2	Lo	0.8	0.5	0.7	0.4	0.7	0.4	0.7	0.4	0.7	0.4	0.7	0.4	0.6	0.4
		Hi	0.9	0.5	0.9	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.7	0.4
	3	Lo	1.1	0.7	1.1	0.6	1.0	0.6	1.0	0.6	1.0	0.6	0.9	0.6	0.9	0.6
		Hi	1.3	0.8	1.3	0.8	1.2	0.7	1.2	0.7	1.1	0.7	1.1	0.7	1.1	0.7
	4	Lo	1.6	1.0	1.6	0.9	1.5	0.9	1.4	0.9	1.4	0.9	1.4	0.8	1.3	0.8
		Hi	1.9	1.1	1.8	1.1	1.8	1.1	1.7	1.0	1.6	1.0	1.6	1.0	1.5	0.9
II	1	Lo	2.4	1.5	2.3	1.4	2.2	1.3	2.2	1.3	2.1	1.3	2.1	1.2	2.0	1.2
		Hi	2.9	1.7	2.7	1.6	2.6	1.6	2.5	1.5	2.5	1.5	2.4	1.4	2.3	1.4
	2	Lo	3.5	2.1	3.4	2.0	3.3	2.0	3.1	1.9	3.1	1.9	3.0	1.8	2.9	1.8
		Hi	4.2	2.5	4.0	2.4	3.8	2.3	3.7	2.2	3.6	2.2	3.5	2.1	3.4	2.1
	3	Lo	5.1	3.1	4.9	3.0	4.7	2.8	4.5	2.7	4.4	2.7	4.3	2.6	4.1	2.5
		Hi	6.0	3.6	5.8	3.5	5.6	3.3	5.3	3.2	5.2	3.1	5.1	3.1	4.9	3.0
	4	Lo	7.4	4.5	7.1	4.3	6.9	4.1	6.6	3.9	6.4	3.8	6.3	3.8	6.0	3.7
		Hi	8.7	5.2	8.4	5.0	8.0	4.8	7.7	4.6	7.5	4.5	7.4	4.4	7.0	4.3
III	1	Lo	10.7	6.4	10.3	6.2	9.9	5.9	9.5	5.7	9.2	5.5	9.1	5.4	8.7	5.4
		Hi	12.6	7.6	12.1	7.3	11.6	7.0	11.1	6.7	10.8	6.5	10.6	6.4	10.2	6.3
	2	Lo	15.7	9.4	15.1	9.0	14.5	8.7	13.8	8.3	13.5	8.1	13.2	7.9	12.6	7.8
		Hi	18.4	11.0	17.7	10.6	17.0	10.2	16.2	9.7	15.8	9.5	15.5	9.3	14.8	9.1
	3	Lo	22.6	13.6	21.8	13.1	20.9	12.5	20.0	12.0	19.5	11.7	19.2	11.5	18.3	11.3
		Hi	26.6	15.9	25.5	15.3	24.5	14.7	23.5	14.1	22.9	13.7	22.5	13.5	21.5	13.3
	4	Lo	32.8	19.7	31.5	18.9	30.3	18.2	29.0	17.4	28.2	16.9	27.7	16.6	26.5	16.4
		Hi	38.5	23.1	37.0	22.2	35.5	21.3	34.0	20.4	33.1	19.9	32.5	19.5	31.1	19.3

Travel Speeds (GL, GN)

Travel Speeds, 30 km/h (18.5 mph) - 12/12 Speed Transmission

Travel Speeds, 30 km/h (18.5 mph) - 12/12 Speed Transmission																
RANGE	GEAR		Travel Speed at Engine Speed of 2300 rpm													
			Rear Tire Index Radius (SRI)													
			650		625		600		575		560		550		525	
			km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
I	1		1.5	0.9	1.4	0.9	1.4	0.9	1.3	0.8	1.3	0.8	1.3	0.8	1.2	0.7
			1.5	0.9	1.4	0.9	1.4	0.9	1.3	0.8	1.3	0.8	1.3	0.8	1.2	0.7
	2		2.2	1.3	2.1	1.3	2.0	1.2	1.9	1.1	1.9	1.1	1.8	1.1	1.7	1.0
			2.2	1.3	2.1	1.3	2.0	1.2	1.9	1.1	1.9	1.1	1.8	1.1	1.7	1.0
	3		3.1	1.9	3.0	1.8	2.9	1.8	2.8	1.7	2.7	1.6	2.6	1.6	2.5	1.5
			3.1	1.9	3.0	1.8	2.9	1.8	2.8	1.7	2.7	1.6	2.6	1.6	2.5	1.5
	4		4.5	2.7	4.4	2.7	4.2	2.6	4.0	2.4	3.9	2.4	3.8	2.3	3.7	2.2
			4.5	2.7	4.4	2.7	4.2	2.6	4.0	2.4	3.9	2.4	3.8	2.3	3.7	2.2
II	1		3.7	2.2	3.6	2.2	3.4	2.1	3.3	2.0	3.2	1.9	3.2	1.9	3.0	1.8
			3.7	2.2	3.6	2.2	3.4	2.1	3.3	2.0	3.2	1.9	3.2	1.9	3.0	1.8
	2		5.4	3.3	5.2	3.2	5.0	3.1	4.8	2.9	4.7	2.9	4.6	2.8	4.4	2.7
			5.4	3.3	5.2	3.2	5.0	3.1	4.8	2.9	4.7	2.9	4.6	2.8	4.4	2.7
	3		7.9	4.9	7.6	4.7	7.3	4.5	7.0	4.3	6.8	4.2	6.7	4.1	6.3	3.9

Transmission - General Information

	4	7.9	4.9	7.6	4.7	7.3	4.5	7.0	4.3	6.8	4.2	6.7	4.1	6.3	3.9
		11.4	7.0	10.9	6.7	10.5	6.5	10.1	6.2	9.8	6.0	9.6	5.9	9.2	5.7
		11.4	7.0	10.9	6.7	10.5	6.5	10.1	6.2	9.8	6.0	9.6	5.9	9.2	5.7
III	1	10.0	6.2	9.6	5.9	9.2	5.7	8.8	5.4	8.6	5.3	8.5	5.2	8.1	5.0
		10.0	6.2	9.6	5.9	9.2	5.7	8.8	5.4	8.6	5.3	8.5	5.2	8.1	5.0
	2	14.6	9.0	14.0	8.6	13.5	8.3	12.9	8.0	12.6	7.8	12.3	7.6	11.8	7.3
		14.6	9.0	14.0	8.6	13.5	8.3	12.9	8.0	12.6	7.8	12.3	7.6	11.8	7.3
	3	21.1	13.11	20.0	12.4	19.5	12.1	18.7	11.6	18.2	11.3	17.9	11.1	17.0	10.5
		21.1	13.11	20.3	12.6	19.5	12.	18.7	11.6	18.2	11.3	17.9	11.1	17.0	10.5
	4	30.5	18.9	29.4	18.2	28.2	17.5	27.0	16.7	26.3	16.3	25.8	16.0	24.7	15.3
		30.5	18.9	29.4	18.2	28.2	17.5	27.0	16.7	26.3	16.3	25.8	16.0	24.7	15.3

Travel Speeds (GL, GN)

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission																
RANGE	GEAR		Travel Speed at Engine Speed of 2300 rpm													
			Rear Tire Index Radius (SRI)													
			650		625		600		575		560		550		525	
			km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
I	1	Lo	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3	0.4	0.3	0.4	0.3
		Hi	0.6	0.4	0.6	0.4	0.6	0.4	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3
	2	Lo	0.8	0.5	0.7	0.5	0.7	0.5	0.7	0.4	0.7	0.4	0.7	0.4	0.6	0.4
		Hi	0.9	0.5	0.9	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.7	0.4
	3	Lo	1.1	0.7	1.1	0.7	1.0	0.6	1.0	0.6	1.0	0.6	0.9	0.6	0.9	0.6
		Hi	1.3	0.8	1.3	0.8	1.2	0.7	1.2	0.7	1.1	0.7	1.1	0.7	1.1	0.7
	4	Lo	1.6	1.0	1.6	1.0	1.5	0.9	1.4	0.9	1.4	0.8	1.4	0.8	1.3	0.8
		Hi	1.9	1.1	1.8	1.1	1.8	1.1	1.7	1.0	1.6	1.0	1.6	1.0	1.5	0.9
II	1	Lo	2.4	1.5	2.3	1.4	2.2	1.3	2.2	1.3	2.1	1.3	2.1	1.2	2.0	1.2
		Hi	2.9	1.7	2.7	1.6	2.6	1.6	2.5	1.5	2.5	1.5	2.4	1.4	2.3	1.4
	2	Lo	3.5	2.1	3.4	2.0	3.3	2.0	3.1	1.9	3.1	1.8	3.0	1.8	2.9	1.8
		Hi	4.2	2.5	4.0	2.4	3.8	2.3	3.7	2.2	3.6	2.2	3.5	2.1	3.4	2.1
	3	Lo	5.1	3.1	4.9	3.0	4.7	2.8	4.5	2.7	4.4	2.7	4.3	2.6	4.1	2.5
		Hi	6.0	3.6	5.8	3.5	5.6	3.3	5.3	3.2	5.2	3.1	5.1	3.1	4.9	3.0
	4	Lo	7.4	4.5	7.1	4.3	6.9	4.1	6.6	3.9	6.4	3.8	6.3	3.8	6.0	3.7
		Hi	8.7	5.2	8.4	5.0	8.0	4.8	7.7	4.6	7.5	4.5	7.4	4.4	7.0	4.3
III	1	Lo	10.7	6.4	10.3	6.2	9.9	5.9	9.5	5.7	9.2	5.5	9.1	5.4	8.7	5.4
		Hi	12.6	7.6	12.1	7.3	11.6	7.0	11.1	6.7	10.8	6.5	10.6	6.4	10.2	6.3
	2	Lo	15.7	9.4	15.1	9.0	14.5	8.7	13.8	8.3	13.5	8.1	13.2	7.9	12.6	7.8
		Hi	18.4	11.0	17.7	10.6	17.0	10.2	16.2	9.7	15.8	9.5	15.5	9.3	14.8	9.1
	3	Lo	22.6	13.6	21.8	13.1	20.9	12.5	20.0	12.0	19.5	11.7	19.2	11.5	18.3	11.3
		Hi	26.6	15.9	25.5	15.3	24.5	14.7	23.5	14.1	22.9	13.7	22.5	13.5	21.5	13.3
	4	Lo	32.8	19.7	31.5	18.9	30.3	18.2	29.0	17.4	28.2	16.9	27.7	16.6	26.5	16.4
		Hi	38.5	23.1	37.0	22.2	35.5	21.3	34.0	20.4	33.1	19.9	32.5	19.5	31.1	19.3

Travel Speeds (GV, GN, GF)

Travel Speeds, 30 km/h (18.5 mph) - 12/12 Speed Transmission

Travel Speeds, 30 km/h (18.5 mph) - 12/12 Speed Transmission								
RANGE	GEAR	Travel Speed at Engine Speed of 2300 rpm						
		Rear Tire Index Radius (SRI)						
		650	625	600	575	560	550	525

Transmission - General Information

		km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph	km/h	mph
I	1	1.5	0.9	1.4	0.9	1.4	0.8	1.3	0.8	1.3	0.8	1.3	0.8	1.2	0.7
	2	2.2	1.3	2.1	1.2	2.0	1.2	1.9	1.1	1.9	1.1	1.8	1.1	1.7	1.0
	3	3.1	1.9	3.0	1.8	2.9	1.7	2.8	1.7	2.7	1.6	2.6	1.6	2.5	1.5
	4	4.5	2.7	4.4	2.6	4.2	2.5	4.0	2.4	3.9	2.3	3.8	2.3	3.7	2.2
II	1	3.7	2.2	3.6	2.1	3.4	2.1	3.3	2.0	3.2	1.9	3.2	1.9	3.0	1.8
	2	5.4	3.3	5.2	3.1	5.0	3.0	4.8	2.9	4.7	2.8	4.6	2.8	4.4	2.7
	3	7.9	4.7	7.6	4.5	7.3	4.4	7.0	4.2	6.8	4.1	6.7	4.0	6.3	3.9
	4	11.4	6.8	10.9	6.6	10.5	6.3	10.1	6.0	9.8	5.9	9.6	5.8	9.2	5.7
III	1	10.0	6.0	9.6	5.8	9.2	5.5	8.8	5.3	8.6	5.2	8.5	5.1	8.1	5.0
	2	14.6	8.8	14.0	8.4	13.5	8.1	12.9	7.7	12.6	7.5	12.3	7.4	11.8	7.3
	3	21.1	12.7	20.3	12.2	19.5	11.7	18.7	11.2	18.2	10.9	17.9	10.7	17.0	10.5
	4	30.5	18.3	29.4	17.6	28.2	16.9	27.0	16.2	26.3	15.8	25.8	15.5	24.7	15.3

Travel Speeds (GV, GN, GF)

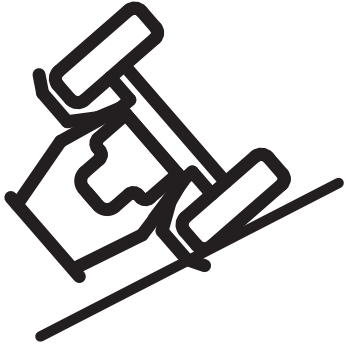
Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission

Travel Speeds, 40 km/h (25 mph) - 24/24 and 24/12 Speed Transmission										
RANGE	GEAR		575		550		525		500	
			km/h	mph	km/h	mph	km/h	mph	km/h	mph
I	1	Lo	0.5	0.3	0.5	0.3	0.5	0.3	0.5	0.3
		Hi	0.6	0.4	0.6	0.4	0.6	0.4	0.5	0.3
	2	Lo	0.8	0.5	0.7	0.4	0.7	0.4	0.7	0.4
		Hi	0.9	0.5	0.9	0.5	0.8	0.5	0.8	0.5
	3	Lo	1.1	0.7	1.1	0.7	1.0	0.6	1.0	0.6
		Hi	1.3	0.8	1.3	0.8	1.2	0.7	1.1	0.6
II	1	Lo	1.6	1.0	1.6	1.0	1.5	0.9	1.4	0.8
		Hi	1.9	1.1	1.8	1.1	1.7	1.0	1.7	1.0
	2	Lo	2.4	1.5	2.3	1.4	2.2	1.3	2.1	1.3
		Hi	2.9	1.7	2.7	1.6	2.6	1.6	2.5	1.5
	3	Lo	3.6	2.1	3.4	2.0	3.3	2.0	3.1	1.9
		Hi	4.2	2.5	4.0	2.4	3.8	2.3	3.6	2.2
III	1	Lo	5.2	3.1	4.9	3.0	4.7	2.9	4.5	2.7
		Hi	6.0	3.6	5.8	3.5	5.5	3.4	5.3	3.2
	2	Lo	7.5	4.5	7.1	4.3	6.8	4.2	6.5	4.0
		Hi	8.7	5.2	8.4	5.0	8.0	4.9	7.6	4.7
	3	Lo	10.8	6.5	10.3	6.2	9.8	6.0	9.4	5.8
		Hi	12.6	7.6	12.1	7.3	11.5	7.1	11.0	6.8
IV	1	Lo	15.7	9.4	15.0	9.3	14.4	8.9	13.7	8.5
		Hi	18.4	11.0	17.6	10.9	16.8	10.4	16.0	9.9
	2	Lo	22.7	14.1	21.7	13.4	20.8	12.9	19.8	12.3
		Hi	26.7	16.5	25.5	15.8	24.3	15.0	23.2	14.4
	3	Lo	32.9	20.4	31.5	19.5	30.1	18.7	28.6	17.7
		Hi	38.6	23.9	36.9	22.9	35.2	21.8	33.6	20.8

Travel Speeds (GL-N) (Cab)

MS76789,0000642-19-03OCT18

Use Caution on Slopes, Uneven Terrain, and Rough Ground



RXA0103437—UN—01JUL09

Avoid holes, ditches, and obstructions, which may 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.

FENAFNX,000044E-19-17MAY21

Select a Gear



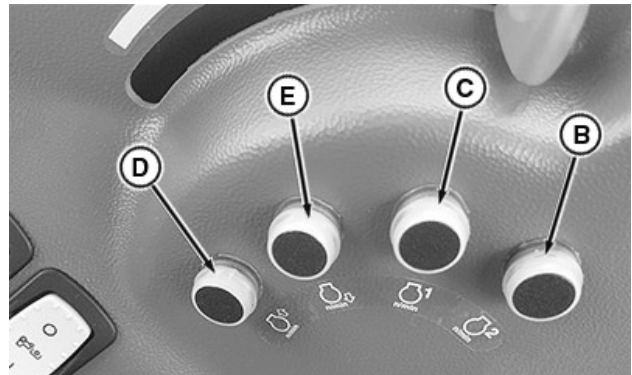
PY31880—UN—26AUG16

IMPORTANT: To extend power train life and avoid excessive soil compaction and rolling resistance, avoid ballasting for **CONTINUOUS** full power operations in gears slower than B-2 gear. When using front-wheel drive, ballasting to one gear slower is appropriate.

Operate tractor in any gear with engine speeds between 1500 rpm and 2300 rated engine rpm. Within these limits, the engine can be put under full load. For light load operation, use a higher gear and lower engine speed. It saves fuel and reduces wear.

MS76789,0000609-19-11SEP18

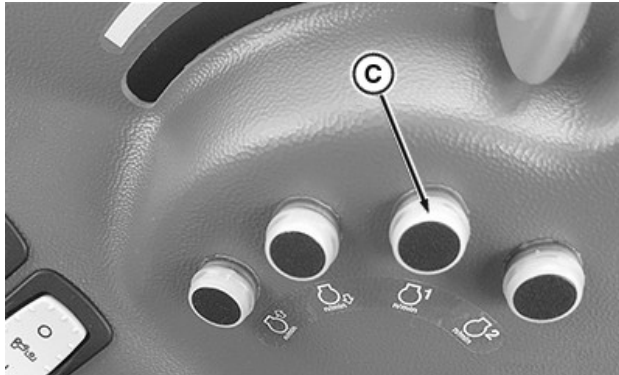
Cruise Control



APY11184—UN—15MAY19

B—Memory 2 Button
C—Cruise Control Activation and Memory 1 Button
D—Increasing the Engine Speed
E—Decreasing the Engine Speed

Cruise Control Activation



APY11185—UN—15MAY19



PY31882—UN—26AUG16

C—Cruise Control Activation and Memory 1 Button

With engine ON, press button (C) until the message SET POINT appears on the digital display.



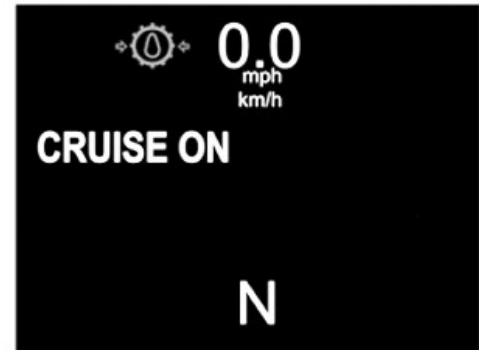
APY11186—UN—23MAY19



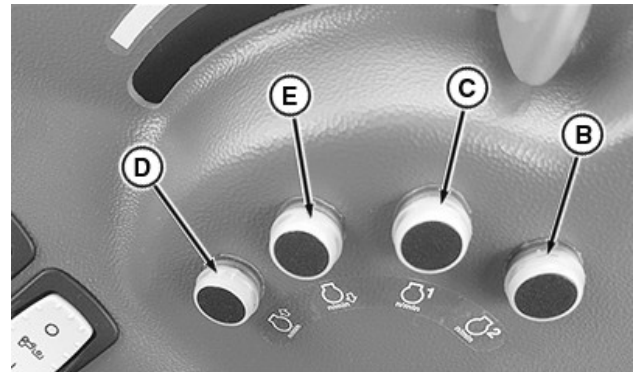
APY11187—UN—23MAY19

A—Hand Throttle
G—Foot Throttle

Adjust the desired engine speed by the foot throttle (G) or the hand throttle (A).



PY31885—UN—26AUG16



APY11188—UN—15MAY19



PY31887—UN—26AUG16

B—Memory 2 Button
C—Cruise Control Activation and Memory 1 Button
D—Increasing the Engine Speed
E—Decreasing the Engine Speed

Press the button (C) longer than 3 seconds to confirm the setting.

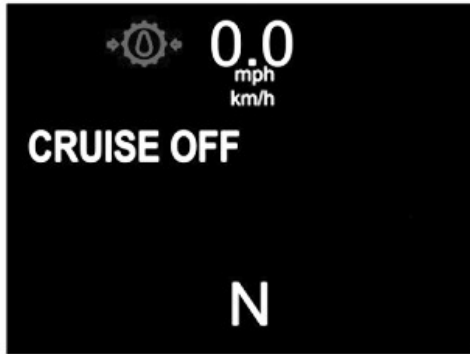
The message CRUISE ON appears on the digital display and indicates the activation of cruise control. If the hand or foot throttle is released, the engine speed is maintained at the value stored.

The engine speed can be corrected in steps of 25 rpm by pressing buttons increase engine speed (D) and decrease engine speed (E). Use the button (D) to

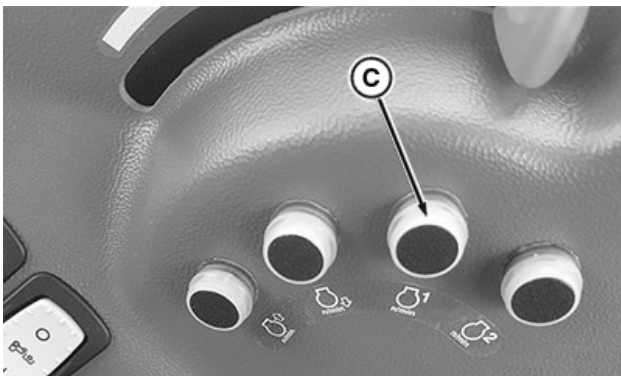
increase or button (E) to decrease the speed. The current engine speed is then stored as default.

To change the engine speed, press the cruise control activation and memory 1 button (C) longer than 3 seconds. The message NEW RPM SAVED appears on the digital display.

Cruise Control Deactivation



PY31888—UN—26AUG16



APY11189—UN—15MAY19

C—Cruise Control Activation and Memory 1 Function

Press cruise control activation and memory 1 function button (C) shorter than 3 seconds to switch OFF the cruise control. The message “CRUISE OFF” appears on the digital display.

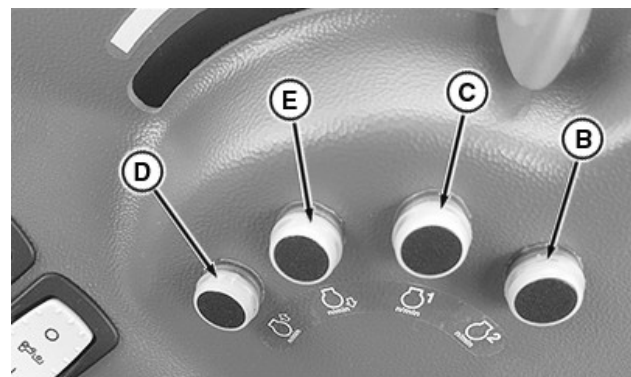
NOTE: With the cruise control ON at tractor speeds above 14 km/h (9 mph), the activation of the brake pedals (both or only one side), switches off the cruise control. The settings for cruise control will be deleted after switching OFF the tractor.

RA84036,0001993-19-22JUL19

Manually Adjusting the Engine Speed Memories MEM1/ MEM2 (Optional)



PY31993—UN—09NOV16



APY11190—UN—15MAY19

- B—Memory 2 Button
- C—Memory 1 Button
- D—Increase Speed Button
- E—Decrease Speed Button

Reach the desired engine speed using the hand throttle or foot throttle.

- To save the engine speed reached in engine speed memory 1, press the memory 1 button (C) for more than 3 seconds.
- To save the engine speed reached in engine speed memory 2, press the memory 2 button (B) for more than 3 seconds.

When the new value is saved in the engine speed memory, the confirmation message SET POINT appears on the instrument panel display.

The engine speed memory is automatically activated after the save has been confirmed. The engine speeds remain stored and available for following start-ups.

RA84036,0001994-19-15MAY19

PowrReverser™ Transmission

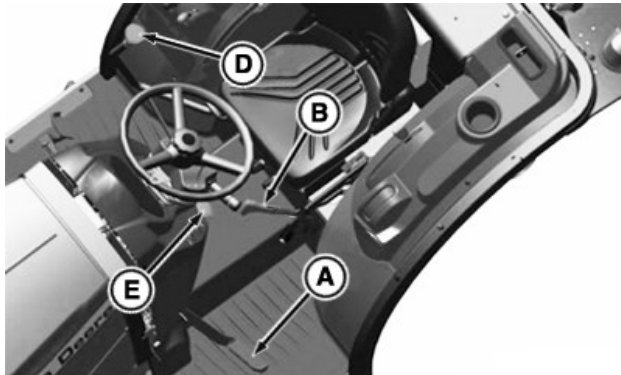
Shifting Transmission

24/12 PowrReverser™ Transmission (5GV, 5GN, 5GF, 5GL, and 5GL-N)

Range, Gear, Mechanical Splitter, and Electrohydraulic Hi-Lo Shifts:

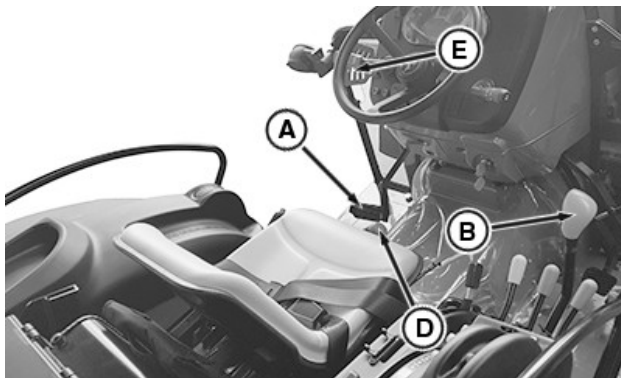
IMPORTANT: To prevent unnecessary wear, never “ride” the clutch by resting a foot on the pedal.

To prevent transmission damage, do not make range shifts on-the-go.



(5GV, 5GN, 5GF)

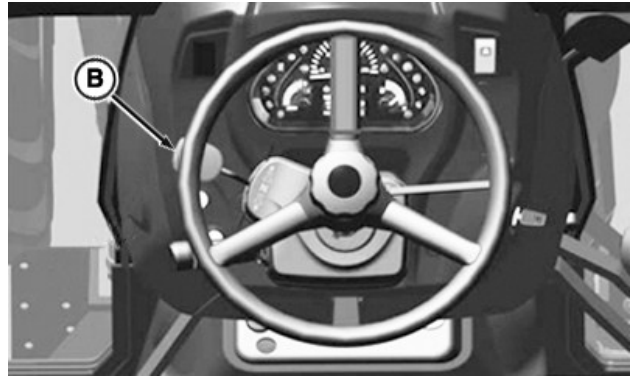
PY31870—UN—26AUG16



(5GL, 5GL-N)

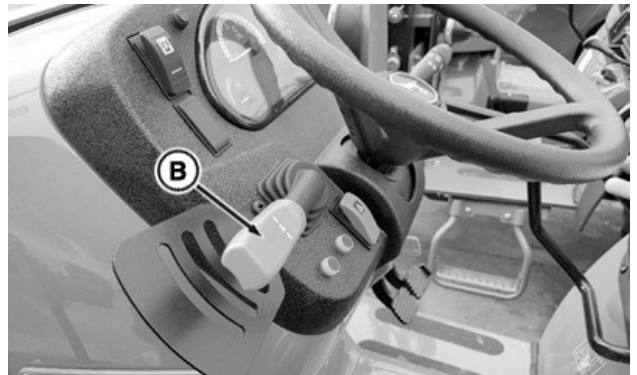
APY11235—UN—27MAY19

A—Clutch Pedal
B—Range Shift Lever
D—Gear Shift Lever
E—Reverse Drive Lever



(5GV, 5GN, 5GF)

PY31874—UN—26AUG16



(5GL, 5GL-N)

APY05004—UN—15MAR18

B—Reverse Drive Lever

To prevent transmission damage, do not make range shifts on-the-go.

Depress clutch pedal and stop the tractor before shifting the range shift lever. If the oil temperature is low, shift ranges only with the gearshift lever in neutral position.

The reverse drive lever (B) has three positions:

- Forward
- Neutral
- Reverse

The reverse drive lever (B) and the gearshift lever can be shifted on-the-go without depressing the clutch pedal.

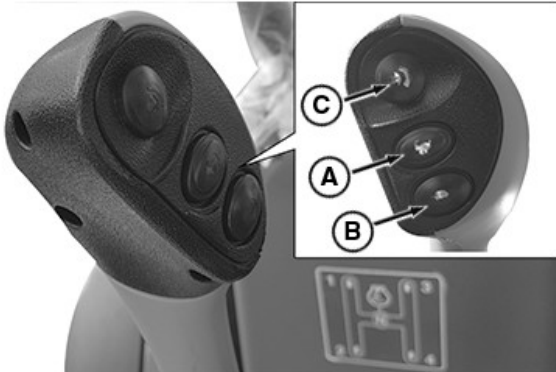
- Push lever (B) from neutral to front for forward travel.
- Pull lever (B) from neutral to rear for reverse travel.

CAUTION: If a range and a gear are selected with the engine running and the reverse drive lever is not in neutral position, the tractor starts moving.

On tractors with 24/12 speed transmission, always engage park brake and put the gear lever in NEUTRAL position before restarting the tractor.

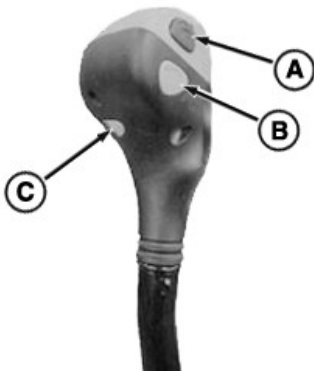
RA84036,00019B4-19-23JUL19

Electrohydraulic Hi-Lo (24/12 - Speed Transmission) (If Equipped)



APY11236—UN—27MAY19

(5GN, 5GV, 5GF)



PY31875—UN—26AUG16

(5GL and 5GL-N)

- A—High Speed
- B—Low Speed
- C—Declutch Switch (tractors with 24/12 speed transmission only)

The Hi-Lo speed is activated by operating switch (A) or (B) on the gear lever.

When pushing the switch (C), the clutch is disengaged and the gears can be shifted up or down. After releasing the switch (C), the clutch is engaged.



PY31879—UN—26AUG16

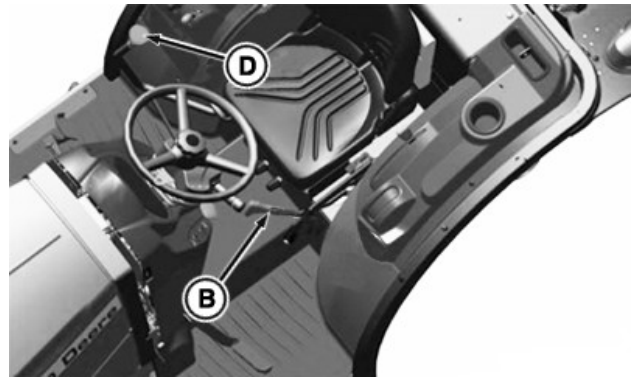
F—Indicator Light

The electrohydraulic Hi-Lo transmission can be shifted in any gear, using switches on the gearshift lever. It can be shifted on-the-go and under load without using the clutch from low speed to high speed and conversely.

When high speed is selected the indicator light (F) on the dashboard lights up.

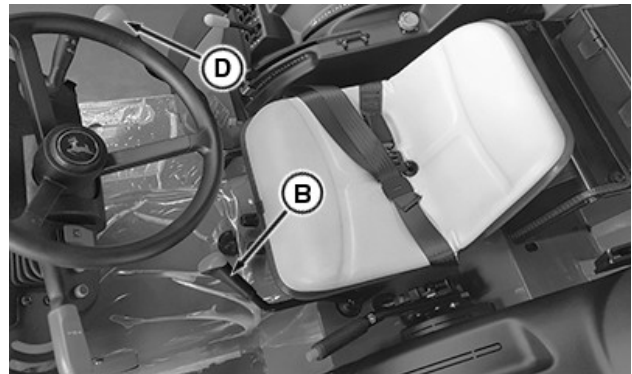
FENAFNX,000044F-19-17MAY21

Operate Transmission Shift Levers



(5GN, 5GV, 5GF)

PY31876—UN—26AUG16



(5GL and 5GL-N)

APY11237—UN—27MAY19

- B—Range Shift Lever
- D—Gear Shift Lever

The transmission gearshift lever (D) operates in an H-pattern.

- Center position is neutral.
- Move the lever from neutral to the left and forward to select the first gear.
- Move the lever from neutral to the left and rearward to select the second gear.
- Move the lever from neutral to the right and forward to select the third gear.
- Move the lever from neutral to the right and rearward to select the fourth gear.

Range Shifting (All Tractors)

The transmission range lever (B) has three positions:

- Forward is low range.
- Rearward is high range.
- To the right and forward is the creeper.

RA84036,00019B6-19-27MAY19

Mechanical Transmission

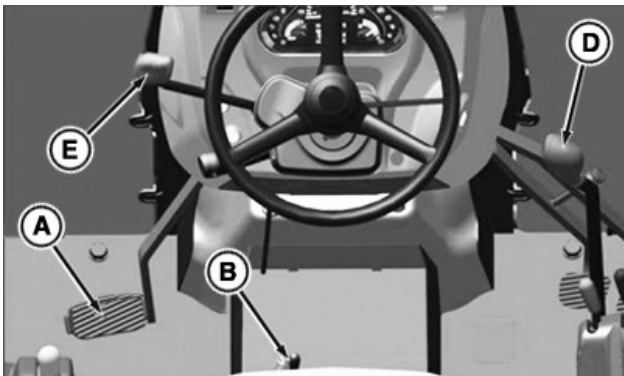
Shifting Transmission

12/12 Mechanical Transmission (5GV, 5GN, 5GF)

Range, Gear, Mechanical Splitter, and Electrohydraulic Hi-Lo Shifts:

IMPORTANT: To prevent unnecessary wear, never “ride” the clutch by resting a foot on the pedal.

To prevent transmission damage, do not make range shifts on-the-go.



(5GV, 5GN, 5GF)

A—Clutch Pedal
B—Range Shift Lever
D—Gear Shift Lever
E—Reverse Drive Lever

Depress clutch pedal (A) and stop the tractor before shifting the range shift lever (B) and reverse drive lever (E).

Depress clutch pedal (A) before shifting the gearshift lever (D). Gears (1), (2), (3), and (4) can be shifted on-the-go.

Depress clutch pedal (A) before shifting the mechanical Hi-Lo shift lever. The mechanical Hi-Lo can be shifted on-the-go.

Release the clutch pedal gradually to take up load smoothly.

Reverse Drive Lever



Mechanically Actuated - (5GV, 5GN, 5GF)

T—Reverse Drive Lever

The reverse drive lever (T) has three positions:

- Forward
- Neutral
- Reverse

Press the clutch pedal and then move the lever (T) in the desired direction:

- Push lever from neutral to front for forward travel.
- Pull lever from neutral to rear for reverse travel.

24/24 Mechanical Transmission (Mechanical Hi-Lo) (5GV, 5GN, 5GF, 5GL and 5GL-N)

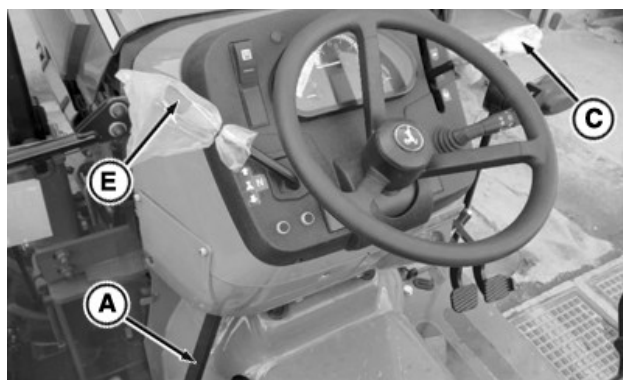
Range, Gear, Mechanical Splitter, and Electrohydraulic Hi-Lo Shifts:

IMPORTANT: To prevent unnecessary wear, never “ride” the clutch by resting a foot on the pedal.

To prevent transmission damage, do not make range shifts on-the-go.



Mechanical Hi-Lo Shift Lever - (5GV, 5GN, 5GF)



PY42829—UN—02JUL17

Mechanical Hi-Lo Shift Lever - (5GL, 5GL-N)

A—Clutch Pedal
C—Mechanical Hi-Lo Shift Lever
E—Reverse Drive Lever

Reverse Drive Lever



PY31872—UN—26AUG16

Mechanically Actuated - (5GV, 5GN, 5GF)



PY42830—UN—02JUL17

Mechanically Actuated - (5GL, 5GL-N)

T—Reverse Drive Lever

The reverse drive lever (T) has three positions:

- Forward
- Neutral
- Reverse

Press the clutch pedal and then move the lever (T) in the desired direction:

- Push lever from neutral to front for forward travel.
- Pull lever from neutral to rear for reverse travel.

RA84036,00019B7-19-23JUL19

Mechanical Hi-Lo (24/24 - Speed Transmission) (5GV, 5GN, 5GF, 5GL, and 5GL-N)



PY31877—UN—21SEP16

(5GV, 5GN, 5GF)



PY42832—UN—02JUL17

(5GL, 5GL-N)

C—Lever

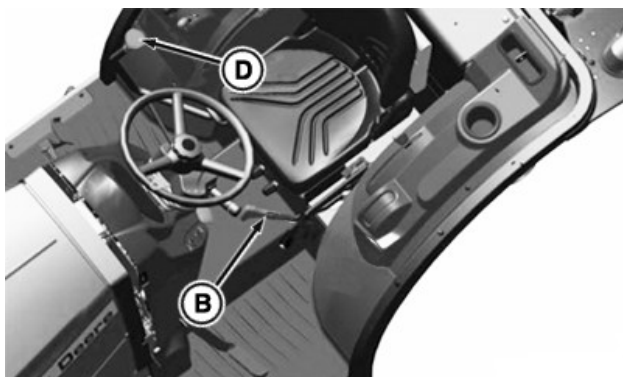
The mechanical Hi-Lo transmission is available as an option for the 24/24 speed transmission.

With clutch pedal depressed, the mechanical Hi-Lo transmission can be shifted in any gear. It can also be shifted on-the-go from low speed to high speed and from high to low speed using lever (C).

- Lever forward is high speed.
- Lever rearward is low speed.

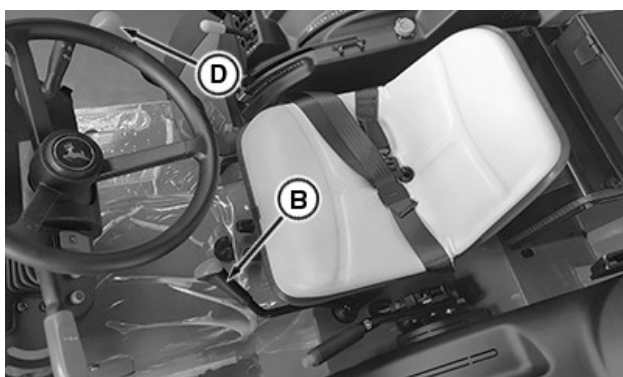
SD74272,00016FF-19-03OCT18

Operate Transmission Shift Levers



(5GV, 5GN, 5GF)

PY31876—UN—26AUG16



(5GL, 5GL-N)

APY11237—UN—27MAY19

B—Range Shift Lever
D—Gear Shift Lever

The transmission gearshift lever (D) operates in an H-pattern.

- Center position is neutral.
- Move the lever from neutral to the left and forward to select the first gear.
- Move the lever from neutral to the left and rearward to select the second gear.
- Move the lever from neutral to the right and forward to select the third gear.
- Move the lever from neutral to the right and rearward to select the fourth gear.

Range Shifting (All Tractors)

The transmission range lever (B) has three positions:

- Forward is low range.
- Rearward is high range.
- To the right and forward is the creeper.

RA84036,00019B9-19-27MAY19

PTO Shaft and Hitch

Maximum Lifting Force

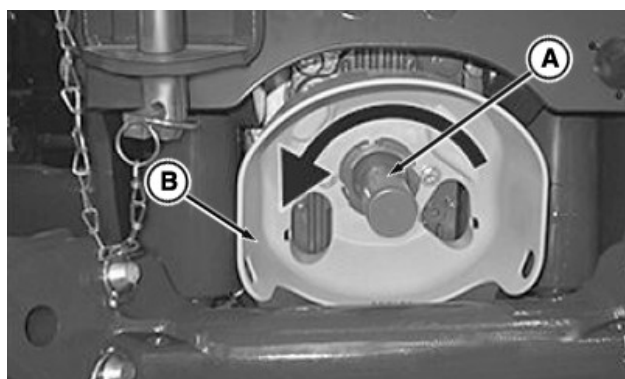
Information on maximum lifting force can be found in the Specifications (section 500A) of this manual.

NOTE: Legal restrictions relating to axle loads and tire load capacity must be complied with. Due to these legal restrictions, maximum permitted lifting force may be less than the stated value.

RA84036,000112A-19-09AUG17

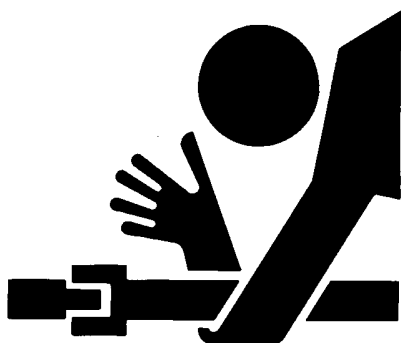
PTO Shaft - General Information

Front PTO — PTO Shield



PY34474—UN—07DEC16

Protective Cap and PTO Shield



TS276—UN—23AUG88

A—Protective Cap
B—PTO Shield

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.

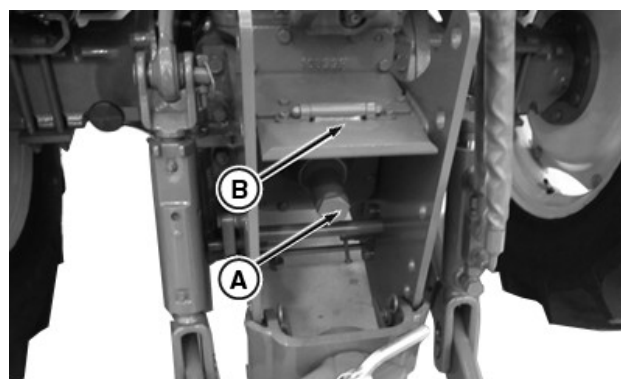
CAUTION: Operate the PTO shaft only if there is a PTO shield (B). Switch off the PTO before raising the implement.

CAUTION: The maximum permissible angle of articulation on the universal joint shaft must be determined before using the PTO. During operation, there must be no contact between the PTO guard and the universal joint shaft.

While connecting the PTO, wear the gloves.

RA84036,0001150-19-09AUG17

PTO Guard



PY28220—UN—25AUG16



PY28221—UN—25AUG16



TS276—UN—23AUG88

A—PTO Cap
B—Shield
C—Guard

CAUTION: Remove PTO cap (A) only when the PTO is to be used.

As soon as PTO-driven implement is removed, reinstall cap over PTO stub shaft.

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 the PTO guard that are not shown here.*

CAUTION: Operate the PTO only if 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 telescoping driveline must be determined. During operation, there must be no contact between the PTO guard and the telescoping driveline. This is important when turning corners.

With Type 3 PTOs (dia. 45 mm, 20 splines), clearance in the area of the PTO guard is restricted. Always keep in mind when operating; avoid unnecessary damage.

Wear gloves when connecting the PTO.

CAUTION: Always put a guard (C) on the telescoping driveline, which prevents it from turning with the shaft. Operate the telescoping driveline only if the guard is installed. It covers the PTO shaft completely and never turns with the shaft.

joints must be the same at both ends of the telescoping driveline.

In applications where it 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 guards on the telescoping driveline. A guard is mandatory when using telescoping drivelines.

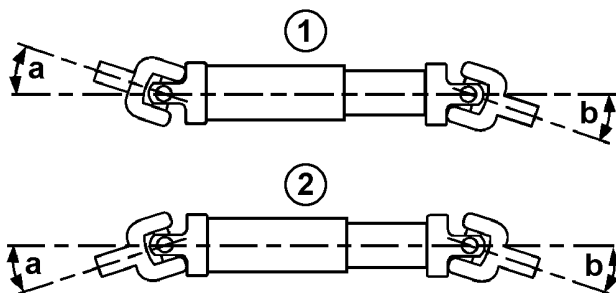
IMPORTANT: Only operating conditions described in the Operators Manuals of the various implements are permitted. It applies particularly to the maximum permissible angle of articulation, to the use of freewheel clutches and overload clutches, and to the prescribed amount of overlap when shaped pipes are pushed together.

IMPORTANT: Before using a PTO-driven implement, ensure that the telescoping driveline is lubricated regularly. Comply with instructions in the Operator's Manual provided by the manufacturer.

IMPORTANT: On multi-component telescoping drivelines, the yokes at each end must be aligned as shown. The yokes at each end must NOT be at 90° to one another as shown in illustration Align Forks Correctly.

RA84036,0001148-19-09AUG17

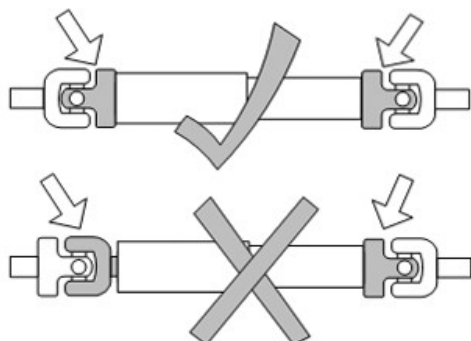
Operating Instructions



LX1049749

LX1049749—UN—21MAY10

Articulation on Telescoping Driveline



LX1049900

LX1049900—UN—22FEB11

Align Forks Correctly

1—Z-Shaped Layout
2—W-Shaped Layout

As far as possible, angles (a) and (b) at the universal

RA84036,0001149-19-09AUG17

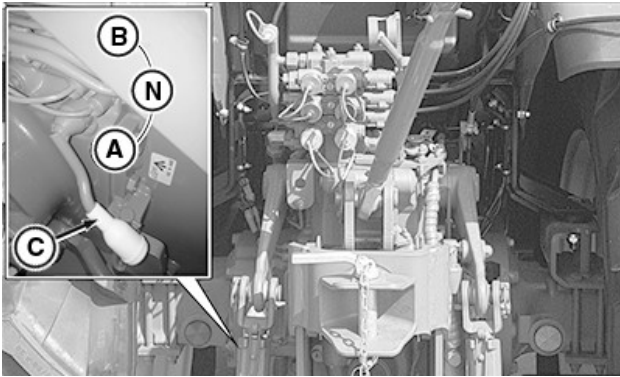
PTO Automatic Shutoff Function

NOTE: PTO system is equipped with safety features that automatically disengage it when the driver leaves the seat.

If the PTO system must be used during stationary working (without the presence of the driver on the seat). See Operating the Rear PTO in this section for more information.

RA84036,000114A-19-09AUG17

Selecting PTO Speeds



APY11238—UN—28MAY19

A—PTO Speed 540 rpm
N—Neutral
B—PTO Speed 540E/1000 rpm
C—Lever

Select PTO speed with lever (C) if the tractor is equipped with 540 and 540E/1000 PTO. This lever is on the back of the tractor. Move lever in position (A) for 540 or rearward in position (B) for 540E/1000 operation. Position (N) is neutral. When the tractor is equipped with single speed PTO only, the lever (C) is not present.

IMPORTANT: The PTO speed selector lever is used only when no equipment is connected to the PTO.

RA84036,00019BD-19-28MAY19

shaft to be sure that drive line is locked to PTO shaft. Place PTO shield in downward position.

4. Be sure that all shields are in place and in good condition. Operate the PTO only if the master shield is properly installed. **WITH ENGINE STOPPED**, check integral shields on the drive line by making sure that they rotate freely on shaft. Lubricate or repair as necessary.
5. Check carefully for any interference. Make sure that 3-point hitch is locked in the upward position if it is not used.

RA84036,000114B-19-09AUG17

Attaching PTO-Driven Implement

CAUTION: Shut off engine and disengage PTO before attaching PTO-driven equipment.

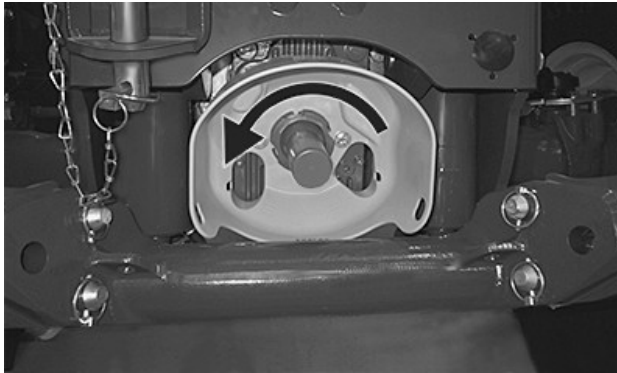
CAUTION: High-inertia implements do not come to a standstill the moment the PTO control lever is shifted to the disengaged position. Do NOT approach the implement while it is coasting down. Do not work on the implement until it has stopped.

CAUTION: Before attempting to clean, adjust, or lubricate a PTO-driven machine, the 3-point hitch, or universal joint, always make sure that the PTO is switched off and stopped, the tractor engine is shutoff and the ignition key is removed.

1. Turn key off to stop engine.
2. Attach implement to tractor before connecting PTO drive line. Lock 3-point hitch in upward position if it is not to be used.
3. Rotate PTO shield upward for clearance. With engine off, turn shaft slightly by hand if necessary to line up splines. Connect drive line to PTO shaft. Pull out on

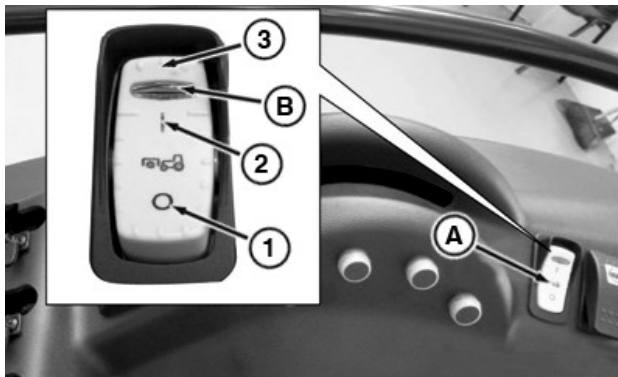
Front PTO

Front PTO



AGCPDJ0047—UN—13JAN14

CAUTION: The counterclockwise-rotating front PTO uses a stub shaft with six splines and operates at a rated speed of 1000 rpm (engine speed 2060 rpm).



PY34700—UN—29MAY17



PY28141—UN—10NOV16

A—Rocker Switch
B—Indicator Light
R3—Display Message on Row
1—Position 1
2—Position 2
3—Position 3

Operating the Front PTO (All Models):

CAUTION: Always disengage the PTO when not in use.

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 implement until it has stopped.

Switching ON the PTO:

To engage the PTO, press the switch (A) in position (2), then press to position (3).

Position (3) is not fixed, so the switch always returns to position (2).

To disengage the PTO, press the switch (A) in position (1).

The PTO starts rotating and indicator light (B) turns ON. The message FRONT PTO ON is displayed on row (R3) of the digital display.

The current speed of the front PTO is displayed on row (R3) of the digital display if selected by the menu.

Switching OFF the PTO:

Press rocker switch (A) in position (1) and indicator light (B) turns OFF.

The message FRONT PTO OFF is displayed on row (R3) of the digital display.

NOTE: If the engine is shut off while the front PTO is running in order to restart the engine, the front PTO must be switched off by pressing rocker switch (A).

Front Power Take-Off	Engine rpm	Dashboard Setting
1000 rpm	2200 rpm	485

IMPORTANT: PTO system is equipped with safety features that automatically disengage it when the driver leaves the seat (within 7 seconds).

If PTO system must be used during stationary working (without driver's presence on the seat), follow these steps:

Initial Conditions:

Tractor speed = 0 km/h

PTO status = ON

1) First condition

Leave the seat with the PTO ON, the buzzer is ON, and the switch indicator light (B) starts flashing quickly.

Within 7 seconds, PTO must be re-engaged by moving switch in position (3). The PTO indicator (D) flashes slowly and the buzzer stops ringing.

If PTO is not re-engaged by moving switch in position (3), the PTO stops, the PTO indicator (D) turns OFF, and the switch indicator light (B) turns OFF.

To start the PTO again, put the switch in position (1), then in position (2).

2) Second condition

Before leaving the seat, press the switch (A) in position (3), the PTO is ON, the indicator light (B) starts flashing fast, and the buzzer is OFF.

If the operator leaves the seat within 5 seconds, the PTO remains ON and the indicator light (B) starts flashing slowly.

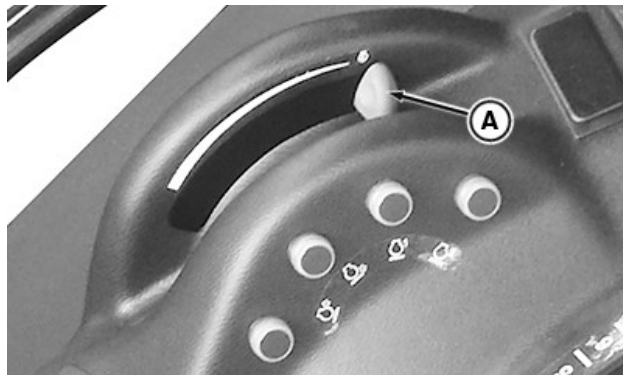
If the operator does not leave the seat within 5 seconds, the PTO remains ON and the indicator light (B) is ON.

FENAFNX.0000450-19-17MAY21

Rear PTO

Operating the Rear PTO (Mechanical Version)

NOTE: If the PTO clutch lever is engaged, the engine never starts.



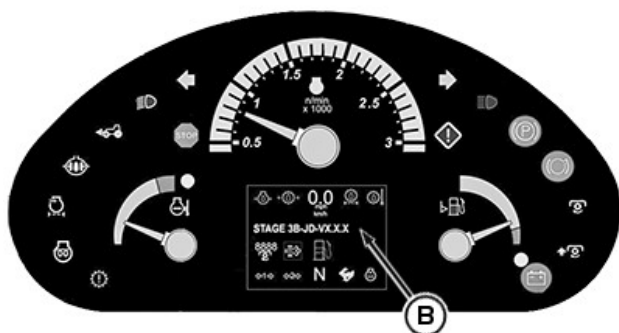
APY11239—UN—28MAY19

A—Hand Throttle Lever

1. Start engine and, using hand throttle lever (A), select correct engine speed for PTO operation.

Rated PTO speeds are achieved at the following engine speeds:

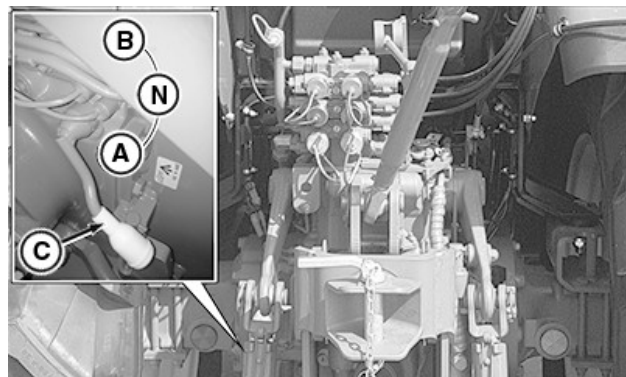
540 rpm rear PTO	1938 rpm
540E rpm rear PTO	1648 rpm
1000 rpm rear PTO	1962 rpm



PY28223—UN—25AUG16

B—Dashboard Screen

NOTE: Direct reading of PTO rpm value is possible on digital display (B) when the PTO is engaged.

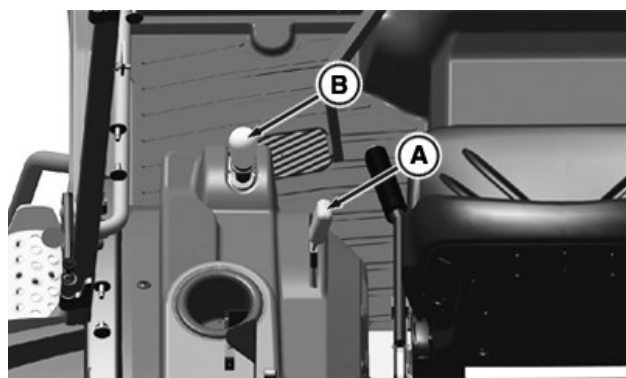


APY11238—UN—28MAY19

A—PTO Speed 540 rpm
B—PTO Speed 540E/1000 rpm
C—Lever
N—Neutral

2. Select the PTO speed with lever (C) if the tractor is equipped with 540 and 540E/1000 PTO. This lever is on the back of the tractor. Move lever (C) in position (A) for PTO speed 540 rpm or rearward position (B) for 540E/1000 rpm PTO speed operation. Position (N) is neutral. Lever (C) is not present when tractor is equipped with single speed PTO only.

IMPORTANT: The PTO speed selector lever is used only when no equipment is connected to the PTO.

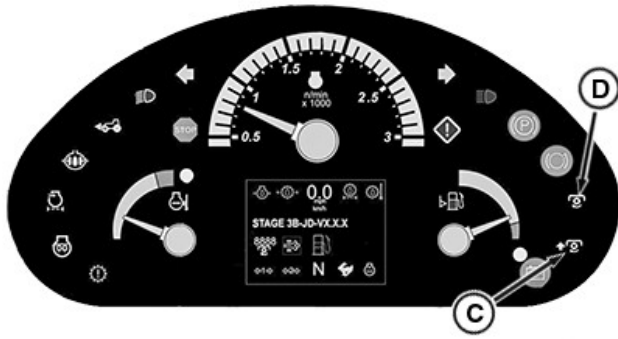


PY28369—UN—11NOV16

A—PTO Mode Selector Lever
B—PTO Engagement Lever

3. Make sure that PTO mode selector lever (A)¹ on the left side is in rear position (PTO operation dependent on engine speed).
4. Move PTO engagement lever (B) forward to engage PTO.

¹ If equipped.



PY28370—UN—28SEP16

C—Ground Drive PTO Indicator
D—PTO Engaged Indicator

- PTO engaged indicator (D) lights up when the PTO is engaged.

CAUTION: Turn the key off to stop engine. Make sure that all the mechanisms have stopped before cleaning out machine or before any adjustments to the PTO driven implement.

- Pull engagement lever (B) back to disengage PTO.

For ground drive PTO operation, move the PTO mode selector lever (A)² forward. For this operation, the tractor has to be stopped. If coupling is not possible, move tractor slowly forward to allow the gears to connect. In this case, PTO engagement is independent from position of the PTO engagement lever (B). If ground drive PTO is engaged, the ground drive PTO indicator (C) will glow.

If ground drive PTO mode is activated, the PTO engagement lever (B) has no effect.

CAUTION: Even if PTO engagement lever (B) is in disengaged position, the PTO turns when moving the tractor.

IMPORTANT: PTO system is equipped with safety features that automatically disengage it when the driver leaves the seat (within 7 seconds).

The PTO system must be used during stationary working (without driver's presence on the seat). Follow these steps:

Initial Conditions:

Tractor Speed = 0 km/h

PTO Status is = ON

1) First Condition

Leave the seat, the buzzer starts ringing, and the PTO

² If equipped.

indicator (D) on cluster starts flashing. Within 7 seconds, PTO must be disengaged and immediately re-engaged (using the lever). The PTO indicator (D) lights up and the buzzer stops ringing.

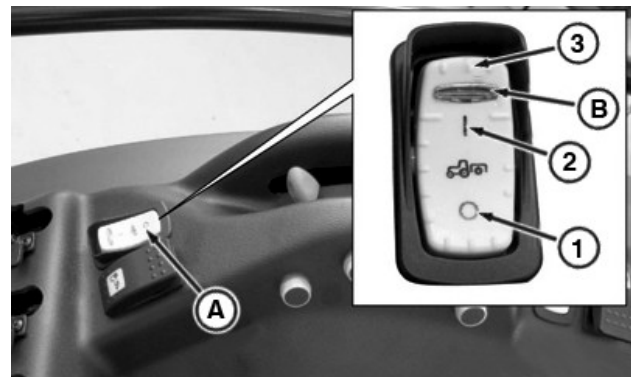
2) Second Condition

If the PTO is not disengaged and immediately re-engaged, the PTO stops and the PTO indicator (D) starts flashing. To restart the PTO, move the lever to OFF and then to the ON position.

FENAFNX,0000451-19-17MAY21

Operating the Rear PTO (Electrohydraulic Version)

NOTE: The electrohydraulic rear PTO is available for 24/12 transmission only.



PY34699—UN—29MAY17



PY28225—UN—25AUG16

A—PTO Switch
B—Indicator Light (ON when PTO engaged)
D—Indicator Light (ON when PTO engaged)
1—Position 1
2—Position 2
3—Position 3

To engage the PTO, press the switch (A) in position (2), then press in position (3).

Position (3) is not fixed, so the switch always returns to position (2).

To disengage the PTO, press the switch (A) in position (1).

Indicator lights (D) and (B) turn ON when the PTO is engaged and turn OFF when the PTO is disengaged.

IMPORTANT: PTO system is equipped with safety features that automatically disengage it when the driver leaves the seat (within 7 seconds).

The PTO system is used during stationary working (without driver's presence on the seat). Follow these steps:

Initial Conditions:

Tractor speed = 0 km/h

PTO status is = ON

1) First Condition

Leave the seat with the PTO ON, the buzzer is ON, the switch indicator light (B) starts flashing quickly.

Within 7 seconds, PTO must be re-engaged by moving the switch to position (3). The PTO indicator (D) flashes slowly and the buzzer stops ringing.

If PTO is not re-engaged, move the switch to position (3), the PTO stops, the PTO indicator (D) turns OFF, and the switch indicator light (B) turns OFF.

To restart the PTO, put the switch in position (1) then in position (2).

2) Second condition

Before leaving the seat, press the switch (A) in position (3), the PTO is ON, the indicator light (B) starts flashing fast, and the buzzer is OFF.

If the operator leaves the seat within 5 seconds, the PTO remains ON and the indicator light (B) starts flashing slowly.

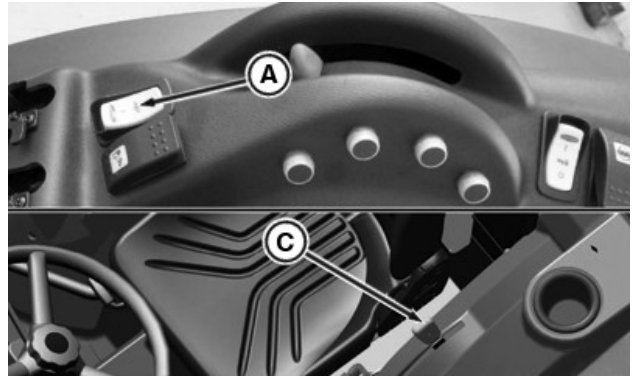
If the operator does not leave the seat within 5 seconds, the PTO remains ON and the indicator light (B) is ON.

FENAFNX,0000452-19-17MAY21

Selecting Ground Drive PTO

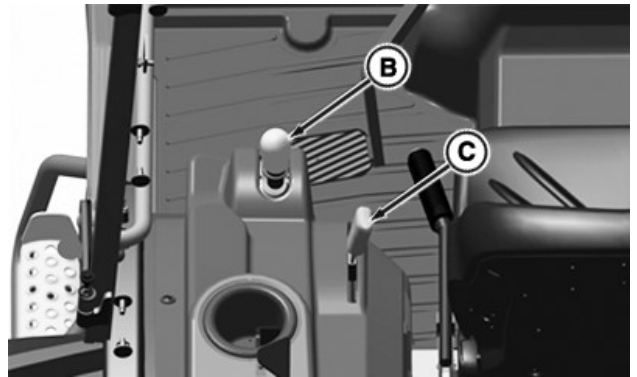
CAUTION: Pay attention to the direction in which the PTO stub shaft rotates. The PTO stub shaft changes the direction in which it rotates depending on whether the tractor is traveling forward or reversing. The ground drive PTO remains engaged until the lever (C) is moved backward. The ground drive PTO remains active when it is already engaged and the engine is restarted. It starts to rotate as soon as the vehicle moves.

IMPORTANT: The tractor must be stationary to engage ground drive PTO. If engagement is not possible, slowly drive the tractor forward to allow the gears to mesh.



PY34701—UN—29MAY17

Electrohydraulic Versions Tractors



PY34456—UN—24NOV16

Mechanical Versions Tractors

A—PTO Engagement Switch
B—PTO Engagement Lever
C—PTO Mode Selector Lever

Electrohydraulic version:

1. Disengage PTO engagement switch (A) to disengage PTO.
2. Move PTO mode selector lever (C) forward to engage ground drive PTO.

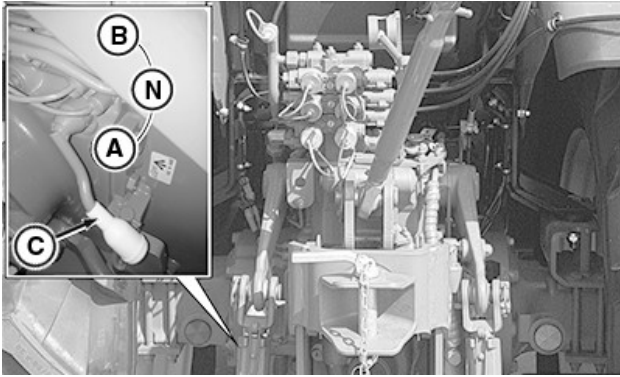
Mechanical version:

1. Pull PTO engagement lever (B) rearward to disengage PTO.
2. Move PTO mode selector lever (C) forward to engage ground drive PTO.

CAUTION: Always comply with implement specifications when selecting the PTO speeds. See additional information given in the Operator's Manual of the attached implement.

FENAFNX,0000453-19-17MAY21

Ground Drive PTO Revolution Speeds



APY11238—UN—28MAY19

A—PTO Speed 540 rpm
B—PTO Speed 540E/1000 rpm
C—PTO Speed Selector Lever
N—Neutral

PTO speed selector lever (C) is at the back side of the tractor. See Selecting PTO Speeds in this section.

Based on PTO speed, ground PTO speed can have different values.

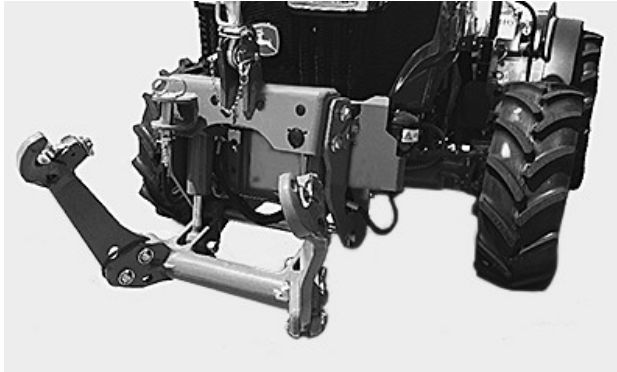
Ground Drive PTO Speeds	Number of PTO Drive Shaft revolutions per one revolution of rear wheels		
	Speed selector lever at 540	Speed selector lever at 540E	Speed selector lever at 1000
5GL, 40 km/h	9.1	10.7	16.6
5GV, 30 km/h	11.4	13.4	20.9
5GV, 40 km/h	9.1	10.7	16.6
5GN, 30 km/h	11.4	13.4	20.9
5GN, 40 km/h	9.1	10.7	16.6
5GF, 30 km/h	11.4	13.4	20.9
5GF, 40 km/h	9.1	10.7	16.6

RA84036,00019C0-19-28MAY19

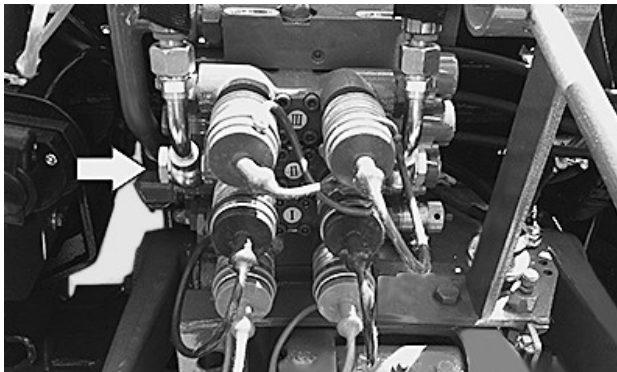
Front Hitch

Front Hitch

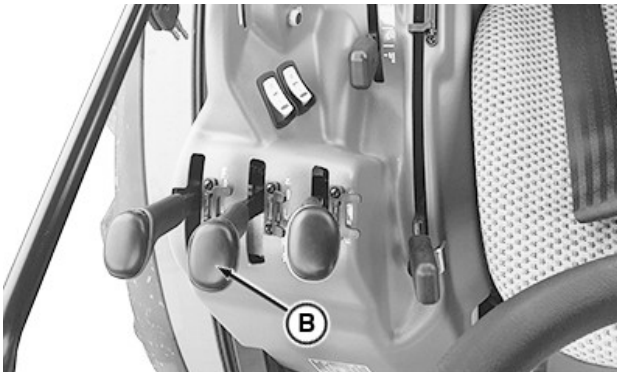
Front Hitch Controls:



AGCPTJD0657—UN—29OCT14

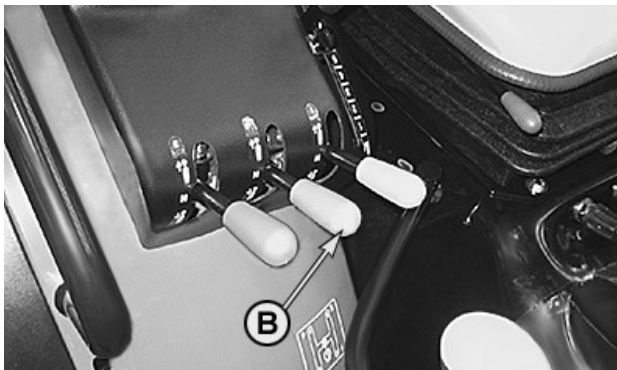


AGCPTJD0658—UN—29OCT14



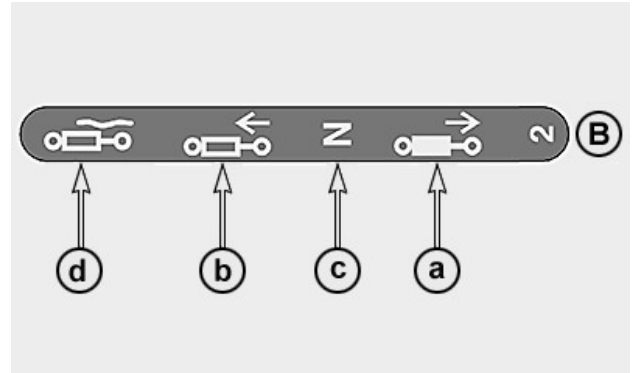
APY11240—UN—28MAY19

(5GV, 5GN, 5GF)



AGCPTJD0659—UN—29OCT14

(5GL, 5GL-N)



AGCPTJD0660—UN—29OCT14

B—Control Lever

The front hitch is operated with the control lever (B), which controls the SCV at position II.

Position of the control lever (B):

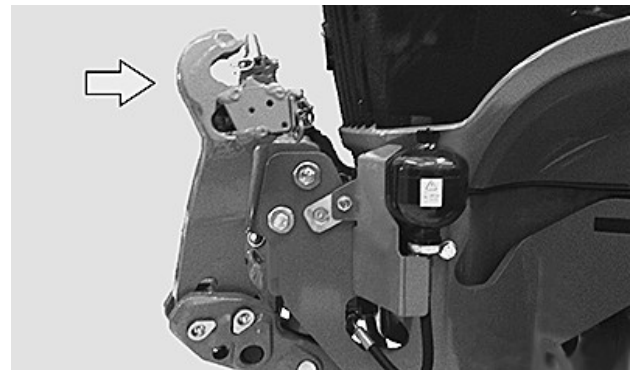
- (a) Front hitch—upward
- (b) Front hitch—downward
- (c) Neutral, the front hitch is locked and cannot move
- (d) Floating position

Front Hitch, SCV Connection:

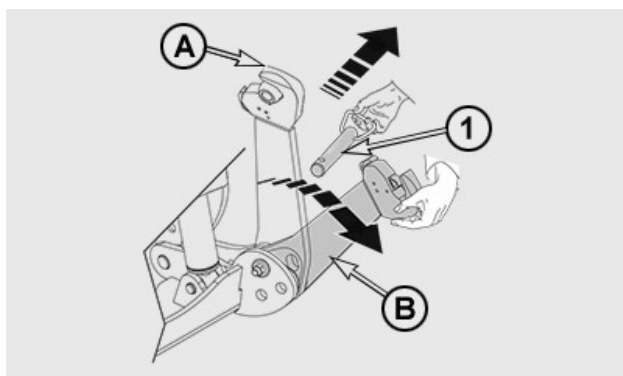
SCV Type:	SCV Position:			
	I	II	III	IV
Mechanical	-	X	-	-
Electro-Hydraulic	X	-	-	-
SCV Type:	Front Quick Coupler Position:			
	I	II	III	IV
Mechanical	-	NP*	-	-
Electro-Hydraulic	X	-	-	-

* SCV II - The hydraulic connections are linked directly on the rear SCVs

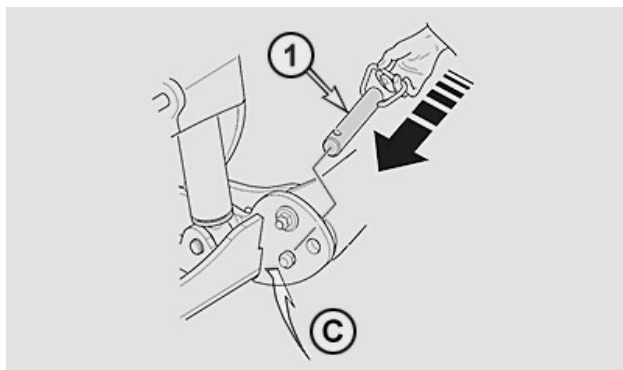
Front Hitch, Draft Links



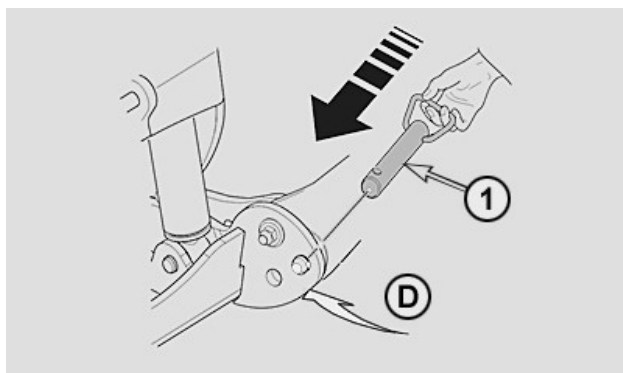
AGCPTJD0661—UN—29OCT14



AGCPDJ0040—UN—13JAN14



AGCPDJ0041—UN—13JAN14



AGCPDJ0042—UN—13JAN14

- A—Transport Position**
B—Operating Position
C—Operating Position, Locked
D—Operating Position, Float

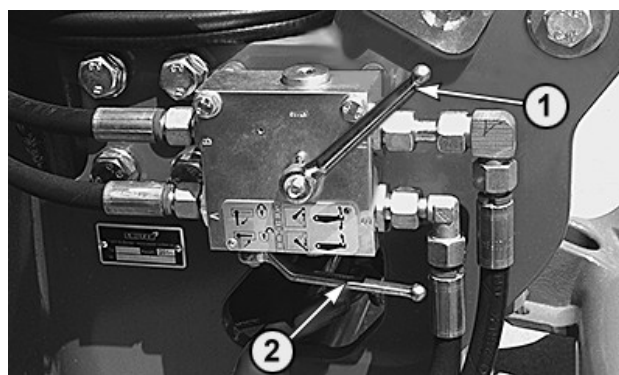
The photo shows the draft links in transport position. To change from transport position (A) to operating position (B) proceed as follows on both draft links.

Remove quick-lock pin, then remove the pin (1) and lower the lift arm until the bore is aligned with the bore for position (C) or (D).

- Insert pin (1) in bore (C) to lock lift arm in operating position.
- Insert pin (1) in bore (D) to allow float in operating position.

CAUTION: Make sure that pins on both lift arms are secured with quick-lock pins all times.

Front Hitch, Shut Off Valve

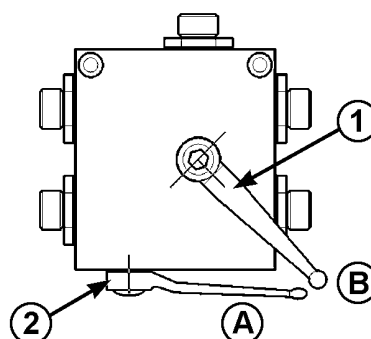


AGCPTJD0698—UN—29OCT14

Lever (1) - double action/single action

Lever (2) - lock/unlock

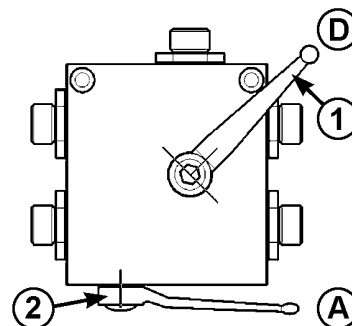
Setting for single action operation:



AGCPTJD0662—UN—29OCT14

Lever (1) in position (B), lever (2) in position (A).

Setting for double action operation:

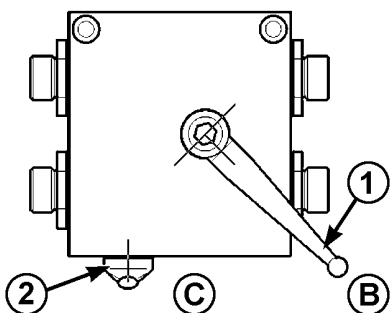


AGCPTJD0663—UN—29OCT14

Lever (1) in position (D), lever (2) in position (A).

When the front-hitch is not in use, DO NOT operate the valve when driving on roads.

Setting to lock the valve:

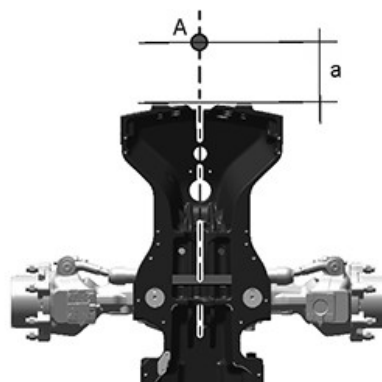


AGCPTJD0664—UN—29OCT14

Lever (2) in position (C), lever (1) in position (B).

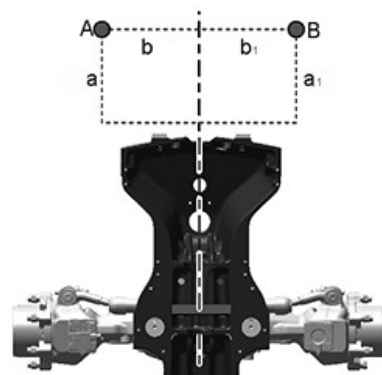
CAUTION: If the SCV II is equipped with additional couplers towards the rear (for operation of rear implements), the shutoff valve must be locked before rear implements are operated using SCV II.

RA84036,00019C1-19-22JUL19



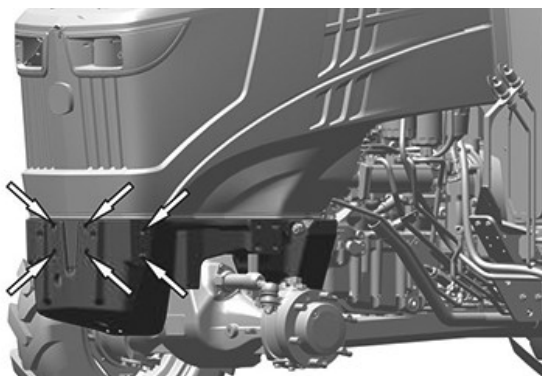
PY28387—UN—17OCT16

Asymmetric Load Capacity Left or Right



PY28388—UN—17OCT16

Front Implement Fixing Points



PY28386—UN—17OCT16

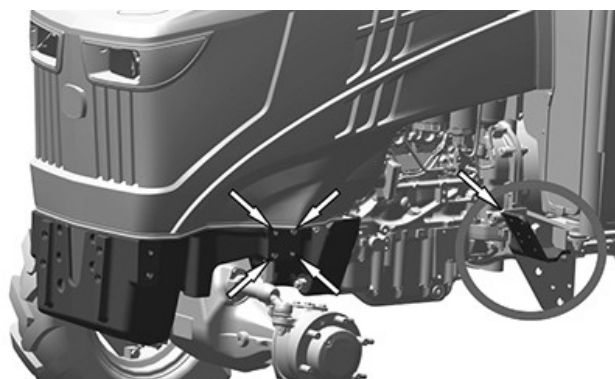
CAUTION: Do not exceed front maximum load capacity. See Maximum Permissible Axle Load in Relation to Tires (Normal Operation) in Specifications (Section 500A) in this manual.

Symmetric Load Capacity

A (maximum)	1200 kg (2645 lb)
a (maximum)	500 mm (19.68 in)

a	600 mm (23.62 in)
a1	600 mm (23.62 in)
b	500 mm (19.68 in)
b1	500 mm (19.68 in)
Condition 1	
A (maximum)	680 kg (1499 lb)
B (maximum)	0 kg (0 lb)
Condition 2	
A (maximum)	0 kg (0 lb)
B (maximum)	680 kg (1499 lb)

To manage the loads, it is also necessary to use two auxiliary rods, fixed as shown in the graphic.

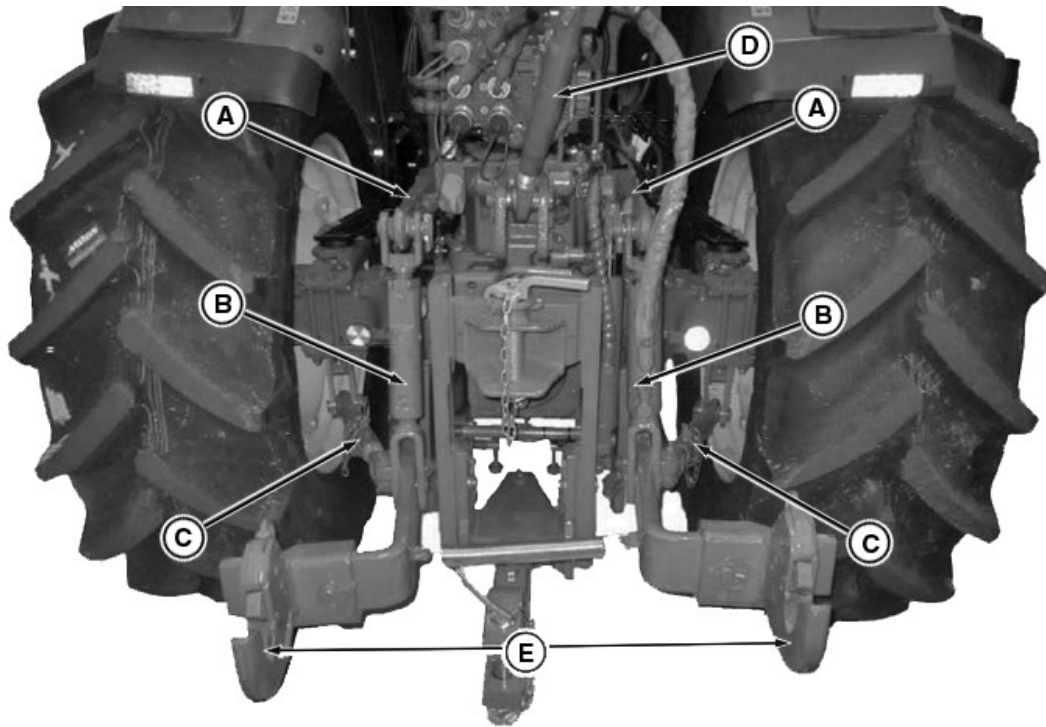


PY28389—UN—17OCT16

RA84036,0001A14-19-22JUL19

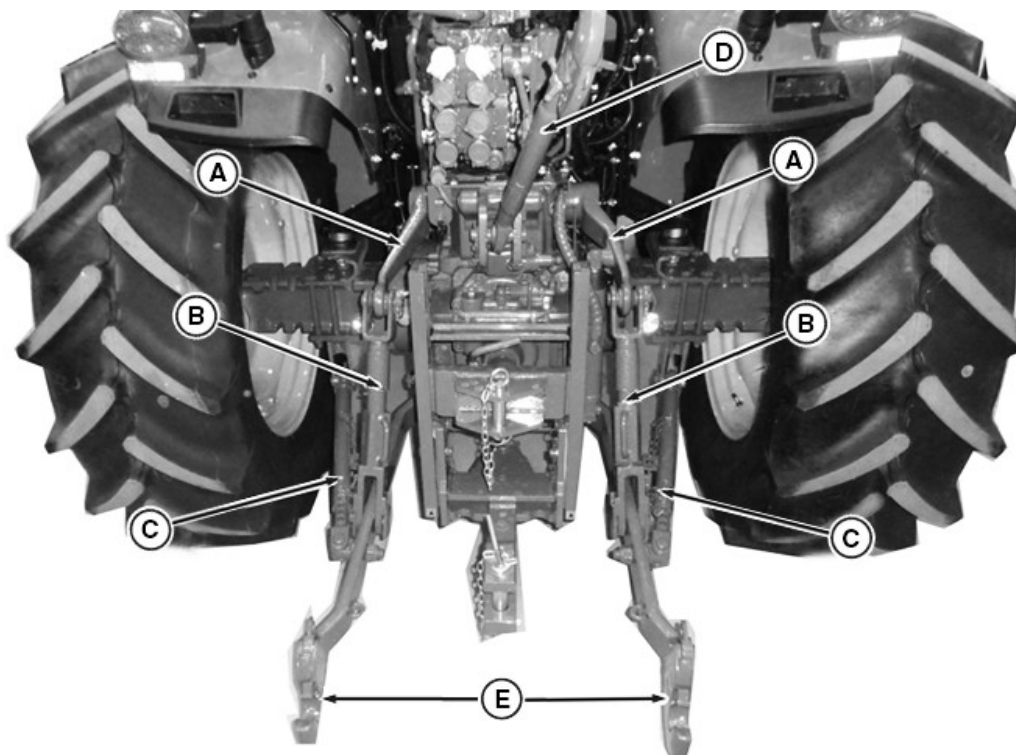
Rear Hitch

Three-Point Hitch Components



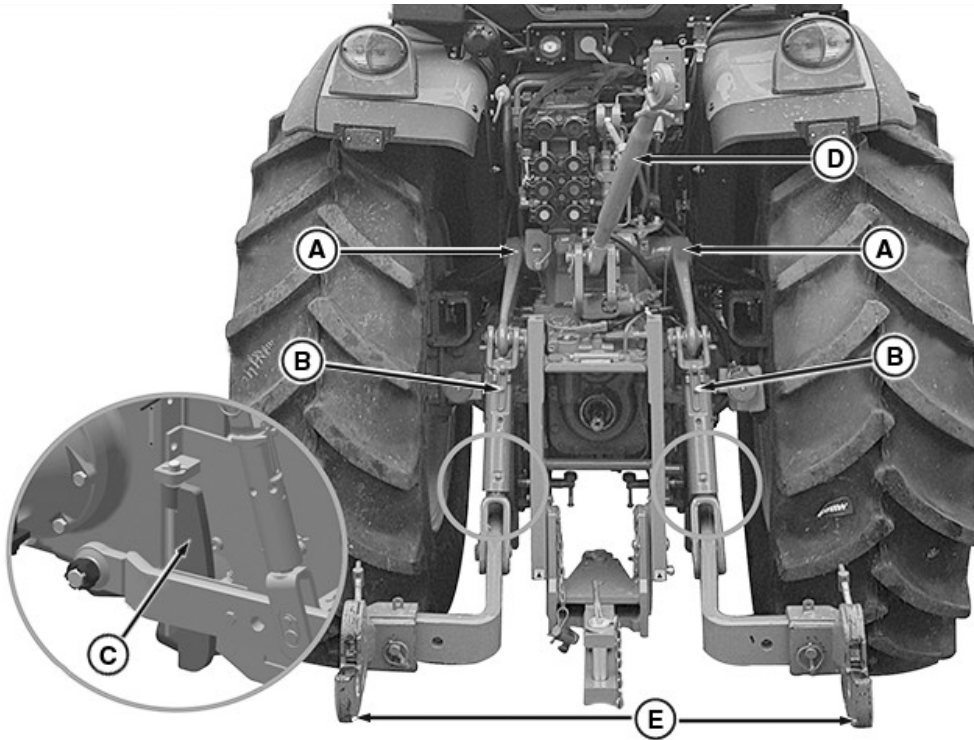
Tractor with Telescopic Stabilizing System

PY28186—UN—30AUG16



Wide Axle (1540 mm rear axle flange to flange) (5GF)

PY37723—UN—03SEP18



Tractor with Mechanical Stabilizing System

APY11241—UN—28MAY19

A—Lift Arms
B—Lift Links
C—Stabilizing System

D—Center Link
E—Draft Links

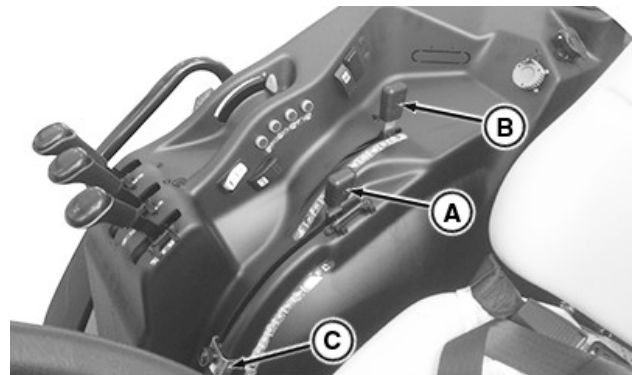
RA84036,00019C2-19-20JUN19

Match Tractor Power to Implement

IMPORTANT: Tractor power should be matched to the size of certain implements. Excessive power can damage an implement, and too large an implement can damage the tractor. (Refer to your implement operator's manual for minimum and maximum power requirements before attaching an implement.)

AT,5NOM,45-19-01SEP97

Hitch Control Levers (Mechanical Hitch)



APY11242—UN—28MAY19

(5GV, 5GN, 5GF)



APY11243—UN—28MAY19

(5GL, 5GL-N)

- A—Position Control Lever
- B—Draft Control Lever
- C—Stop Knob

The hitch position is controlled by the two levers, the position control lever (A) and the draft control lever (B).

CAUTION: To avoid unintentional lowering of the implement during transport, use stop knob (C) to lock position control lever (A).

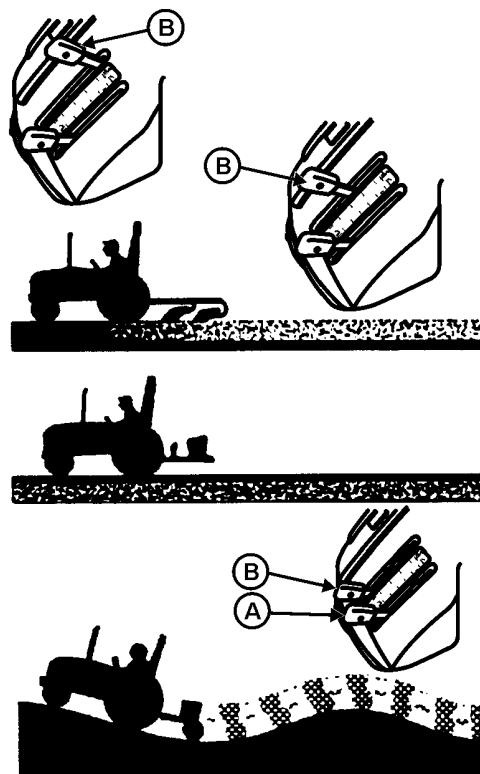
During transport and when hitch is not in use, push draft control lever (B) all the way forward.

The position control lever (A) raises the 3-point hitch when pulled rearward and lowers the 3-point hitch when moved forward. For further information, refer to Use the Hitch Position Control in this Section.

The draft control lever (B) controls the 3-point hitch position relative to draft loads. For further information, refer to Use the Draft Control in this Section.

RA84036,00019C3-19-29MAY19

Use the Hitch Position Control (Mechanical Hitch)



PULX001011

PULX001011—UN—07AUG08

- A—Position Control Lever
- B—Draft Control Lever
- C—Stop Knob

CAUTION: To prevent the unexpected movement of hitch, move the draft control lever (B) to full forward position before attaching an implement.

Move draft control lever (B) forward when you DO NOT want hitch to adjust automatically to draft load, such as attaching implement to tractor.

Use position control lever (A) to control the 3-point hitch position. Position control is used for transporting implements and end-of-field operations.

IMPORTANT: Be careful not to raise implement too far, as it can damage to the rear part of the tractor.

CAUTION: To avoid unintentional lowering of the implement during transport, use stop knob (C) to lock position control lever (A).

During transport and when hitch is not in use, push draft control lever (B) all the way forward.

Place the position control lever (A) at the desired depth. It gives **CONSTANT DEPTH** of implements on level terrain and for non-ground engaging implement such as spreaders or sprayers.

FLOAT operation for implements with skids or depth gauge wheels designed to carry full implement weight. Push both levers (A) and (B) all the way forward so implement can follow the ground contour.



(5GV, 5GN, 5GF)

APY11244—UN—28MAY19



(5GL, 5GL-N)

APY11245—UN—30MAY19

D—Ring Nut

Position Control Lever Stop Knob

For convenience, set adjustable depth. Operate implement for a few minutes and determine proper height, then unscrew ring nut (D). Move stop up against lever, and lock stop in position by tightening ring nut (D). Then the hitch lowers to same position each time lever is pushed forward to stop.

RA84036,00019C4-19-05JUN19

Use the Draft Control (Mechanical Hitch)

The hitch is equipped with a variable draft control system.

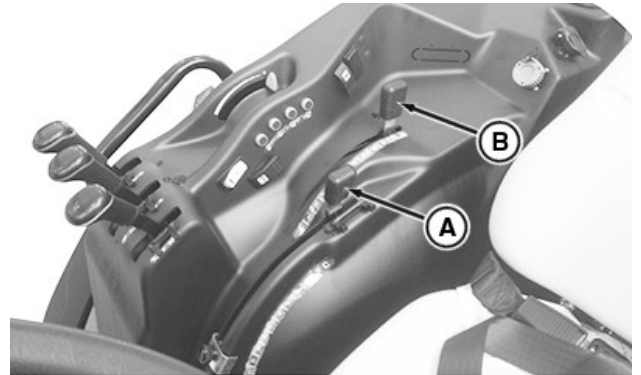
Use draft control when:

- Operating with a fully mounted implement in hilly and swale terrain. The implement raises and lower to

follow the ground contours while maintaining a nearly constant depth.

- Operating in varying soil conditions. The implement is raised slightly to get through tough spots so shifting to a lower gear is not necessary.

⚠ CAUTION: When the hitch is not in use, push draft control lever (B) all the way forward.



(5GV, 5GN, 5GF)

APY11246—UN—28MAY19



(5GL, 5GL-N)

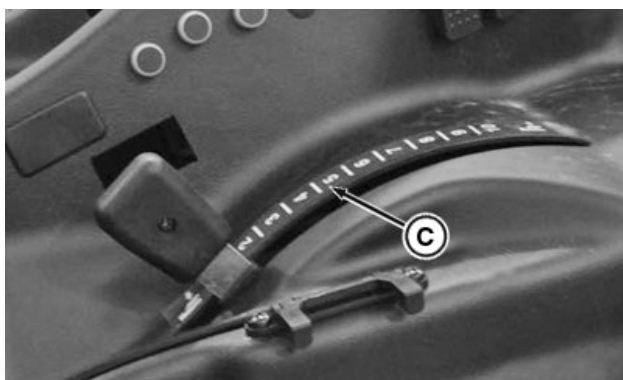
APY11247—UN—28MAY19

A—Position Control Lever
B—Draft Control Lever

Draft control lever (B) controls amount of load required before 3-point hitch responds. With lever moved fully forward to the position marked **OFF**, there is no draft control. Placing the lever towards the rear position reduces the amount of draft load required to override the position setting that is set by the position control lever (A) to raise the hitch.

The draft sensitivity range is changed with repositioning the center link. For further information, refer to **Position the Center Link** in this section.

For the draft control operation, initially move position control lever (A) in its fully forward position. Then move the draft control lever (B) in the fully rearward (least draft) position. Now, with the tractor moving, push the draft control lever (B) forward to increase the load to the desired setting.



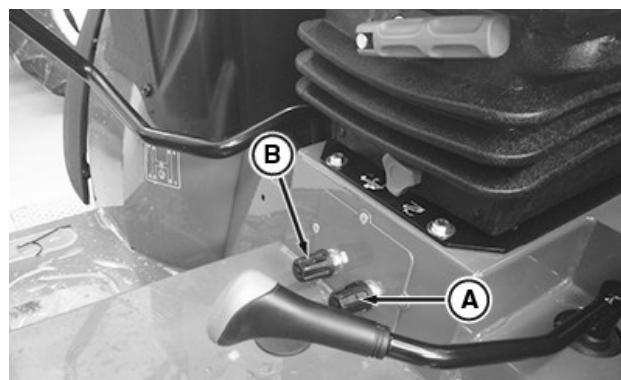
PY28191—UN—25AUG16

C—Stop Knob

Pull position control lever (A) rearward to set maximum depth of implement. Set the position control lever stop knob (C) so control lever can be brought back to the same position each time. The maximum depth prevents the hitch from lowering all the way when the tractor begins to slip. The position control lever (A) can also be raised slightly to override the draft control setting to help get through slippery spots without getting stuck.

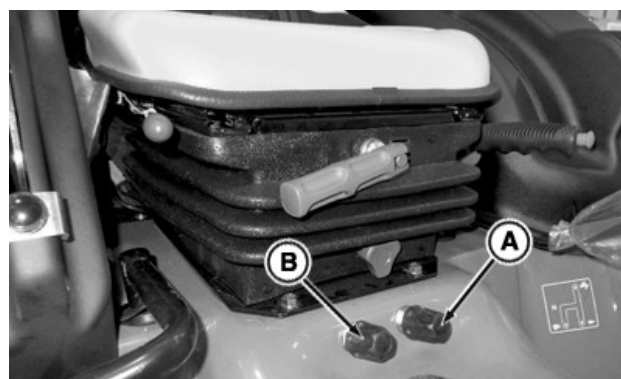
The position control lever (A) can be moved fully rearward to raise the 3-point hitch at the end of the field.

RA84036,00019C5-19-22JUL19



APY11248—UN—28MAY19

(Open Operator Station) (5GF)

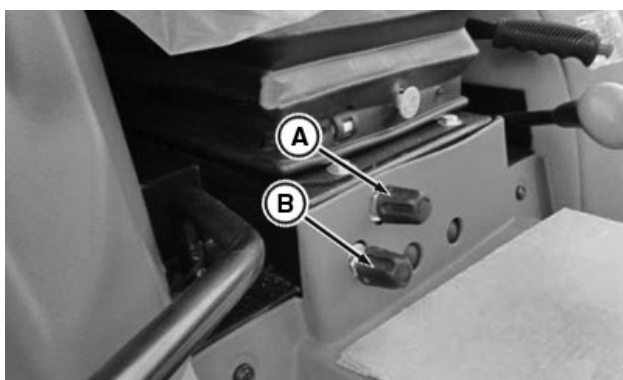


PY42834—UN—02JUL17

(Open Operator Station) (5GL, 5GL-N)

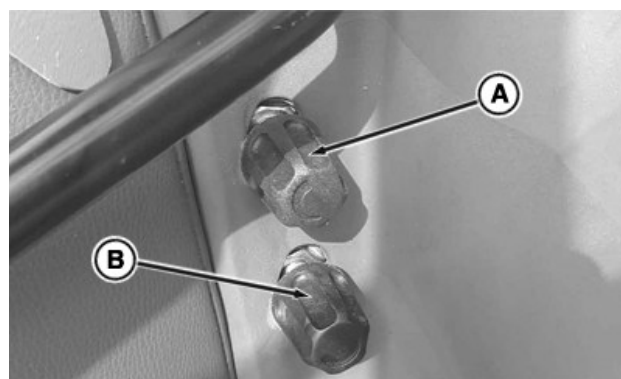
Adjust the Rate-of-Drop

CAUTION: Excessive rate-of-drop causes damage or injury. Fully lowering the implement requires at least 2 seconds.



PY28126—UN—25AUG16

(Cab) (5GV, 5GN, 5GF)



APY01883—UN—08MAR18

(Cab) (5GL-N)

A—Rate-Of-Drop Adjusting Knob
B—Sensitivity Adjusting Knob

Hitch drops faster when a heavy implement is attached. Adjust rate-of-drop so that it is slow enough to be safe and prevent implement damage.

Turn the rate-of-drop adjusting knob (A) clockwise to slow down hitch drop. Turn counterclockwise to increase the rate-of-drop. Rate-of-drop knob is also called implement lock. When the knob is fully screwed in, the implement is unable to be lowered, even if the position control lever is fully down. Use implement lock while transporting implement.

Adjust the Sensitivity

Turn hitch sensitivity adjusting knob (B) clockwise to increase the sensitivity of hitch. Turn counterclockwise to reduce sensitivity.

This adjustment is in addition to the different positioning of center link. See Position the Center Link in this section.

In some specific cases, the high sensitivity of the hitch involves vibrations.

To eliminate vibrations, turn the knob (B) progressively counterclockwise.

RA84036,00019C6-19-22JUL19

Transporting Mounted Implements (EHS II)



PY28193—UN—25AUG16

Transport Lock Switch (with Red LED)

Use the transport lock switch to prevent unintentional lowering of the implement during transport.

To activate the transport lock, press and hold the switch for more than 5 seconds. The hitch then raises the implement to the previously adjusted height limit. See Height Adjustment (EHS II) in this section.

A red LED indicates that the transport lock is activated.

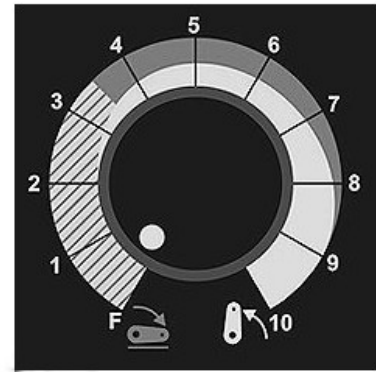
NOTE: The LED begins flashing, when a Diagnostic Trouble Code is present. Different flashing sequences are assigned to the Diagnostic Trouble Codes. See Diagnostic Trouble Codes - Operator Information in Troubleshooting (Section 300A) for more information.

CAUTION: Ensure that the height limit is adjusted correctly and that the height limit control is activated (green LED at the height limit, memory switch).

Otherwise the hitch lifts the implement all the way up, which can cause injuries or damage.

RA84036,0001A5B-19-22JUL19

Depth Adjustment (EHS II)



PY28194—UN—25AUG16

Depth Control Switch

Adjust the desired depth using the depth control switch. For best hitch sensitivity, set the depth control switch to a value between F and 3.5.

NOTE: Depth cannot be adjusted beyond the height previously set with the height limit, memory switch.

RA84036,0001132-19-09AUG17

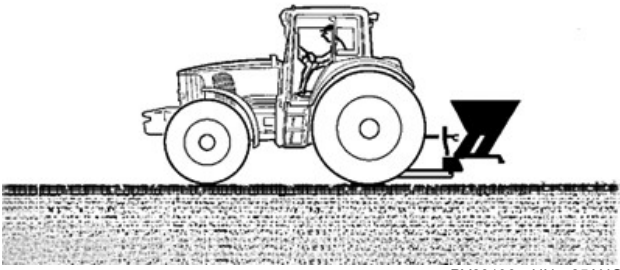
Load/Depth Adjustment (EHS II)

CAUTION: Before connecting the implements to the 3-point hitch, load/depth control must be moved to the fully counterclockwise position (depth control). This prevents the unintentional raising or lowering of the hitch.



PY28195—UN—25AUG16

Fix Control Position



Position Control

PY28196—UN—25AUG16



Mixed Control Position

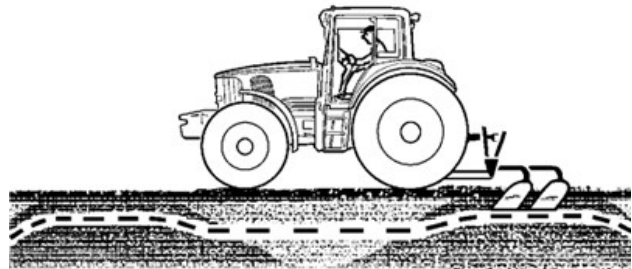
PY28199—UN—25AUG16

With load/depth control in the fully counterclockwise position, the implement is held at the selected position.



Load Control Position

PY28197—UN—25AUG16

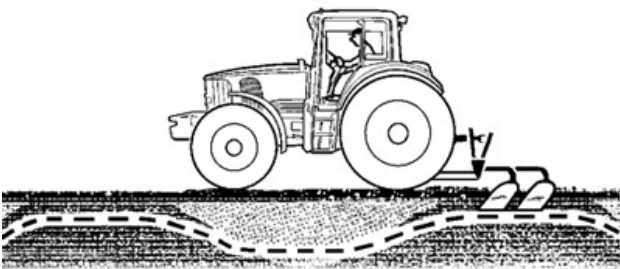


Mixed Control

PY28200—UN—25AUG16

The MIX positions of the load/depth control allow the effects of depth control and/or load control to be infinitely varied as the ground conditions require.

RA84036.0001133-19-09AUG17

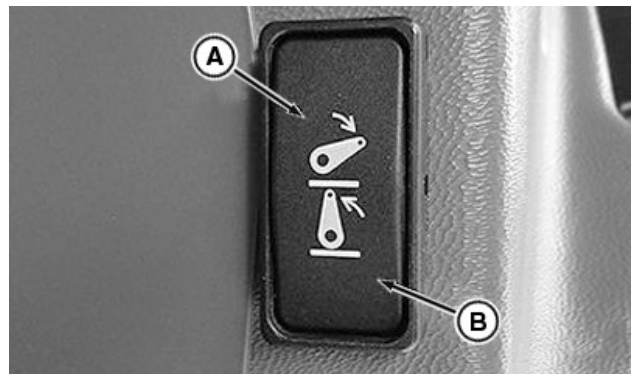


Load Control

PY28198—UN—25AUG16

With load/depth control in fully clockwise position, the implement is raised as resistance (soil density) increases and lowered as resistance decreases, thus maintaining the preselected load.

Raise/Lower Switch (EHS II)



Raise/Lower Switch

PY28201—UN—25AUG16

A—Lower
B—Raise

To raise the hitch, press the raise symbol (B) on the switch. To lower the hitch press the lower symbol (A). The relevant LED on the EHS control panel lights up.

The movement of the hitch can be stopped whenever necessary by a short push of the raise switch or the lower switch.

The switch does not operate when transport lock is activated.

RA84036,0001134-19-09AUG17

Height Adjustment (EHS II)



PY34467—UN—05DEC16

Height Limit Memory Switch



PY34468—UN—05DEC16

A—Raise Symbol

To adjust the desired maximum implement height, turn the height limit memory switch fully counterclockwise.

Press the raise symbol (A) at the raise/lower switch and raise the hitch.

Turn the height limit memory switch clockwise (increase the height) and/or counterclockwise (decrease the height) to adjust the height.

IMPORTANT: The height limit control is always activated and overrides all other movement orders. The selected height is never exceeded. Each time the implement is changed, the height must be adjusted again. If the height is not readjusted, the hitch lifts the implement all the way up, which can cause injuries or damage.

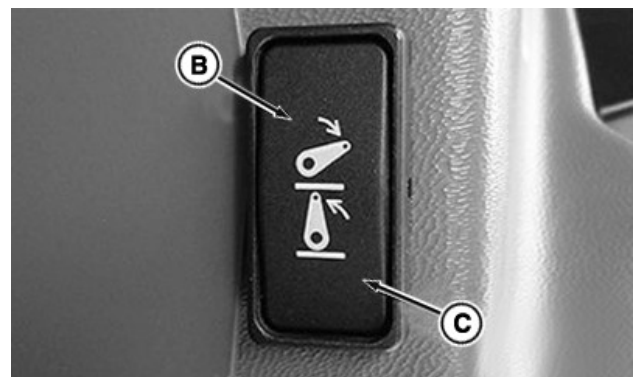
RA84036,0001135-19-09AUG17

Adjusting Rate-of-Drop (EHS II)



PY34469—UN—05DEC16

Lowering Speed Control Switch



PY34470—UN—05DEC16

Raise/Lower Switch

B—Lowering Symbol

C—Raise Symbol

IMPORTANT: To avoid damaging the attached implement, turn the lowering speed selector switch fully counterclockwise (turtle) if the hitch is not used.

To adjust the lowering speed of implement, press the raise symbol (C) at the raise/lower switch to raise the hitch.

Turning the switch counterclockwise (turtle) decreases the lowering speed; turning the switch clockwise (rabbit) increases the lowering speed.

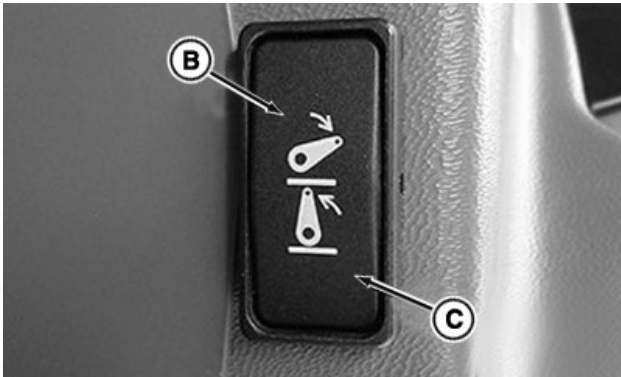
Press the lowering symbol (B) at the raise/lower switch and lower the hitch. Repeat if necessary.

NOTE: The lowering speed varies depending on implement weight and hydraulic oil temperature.

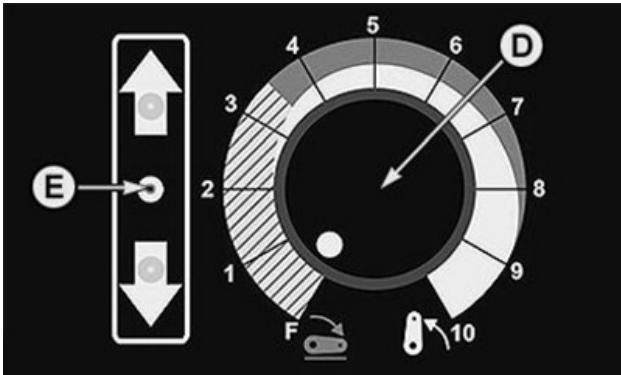
A change in lowering speed has no effect on draft control.

RA84036,0001A5C-19-22JUL19

Reset the Electronic Hitch Sensing (EHS II)



PY34470—UN—05DEC16

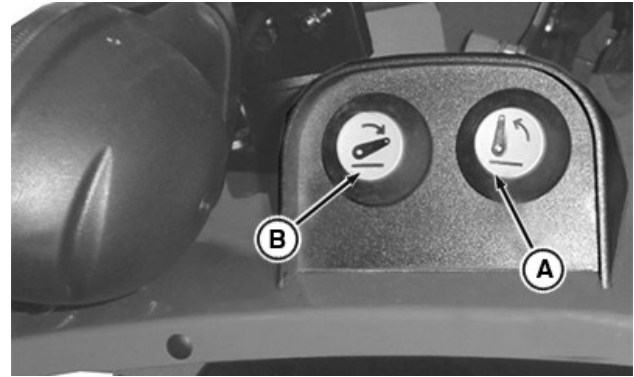


PY34471—UN—05DEC16

- B—Raise/Lower Switch (lower)
- C—Raise/Lower Switch (raise)
- D—Depth Control Switch
- E—Hitch Movement Indicator LED (hitch stop)

If the EHS system detects that the actual hitch position differs from the previously selected position, the hitch movement indicator LED (E) flashes. Press the raise/lower switch (B) or slowly turn the depth control switch (D) to the left or to the right until the LED is OFF.

RA84036,0001137-19-09AUG17



PY37724—UN—03SEP18

Wide Axle (1540 mm rear axle flange to flange) (If equipped) (5GF)

- A—Remote Control Button — Raise Hitch
- B—Remote Control Button — Lower Hitch

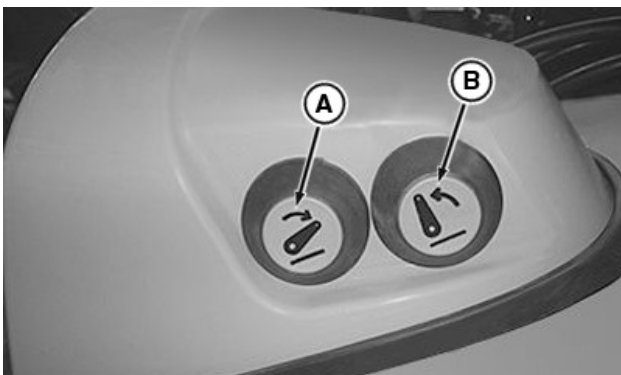
Two external buttons (A) and (B) allow the hitch to be operated from outside the cab. Pressing one of these buttons for the first time deactivates the EHS system (hitch does not move).

NOTE: Transport lock switch must be deactivated.



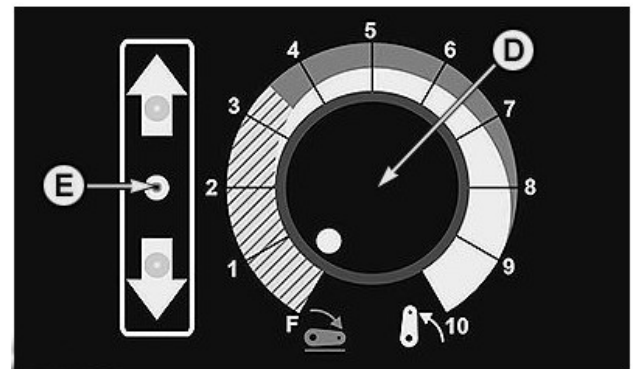
PY28203—UN—25AUG16

Hitch Remote Control (EHS II)



PY28202—UN—25AUG16

Hitch Remote Control (If equipped)



PY28204—UN—25AUG16

- C—Raise/Lower Switch
- D—Depth Control Switch
- E—Hitch Movement Indicator LED (Hitch Stop)

NOTE: To reactivate the hitch control via the EHS II panel, press the raise/lower switch (C) (lower position) or turn the depth control switch (D) slowly to the left or to the right until the hitch movement indicator LED (E) is OFF or stops flashing.

When pressing one of the remote control buttons again, the hitch begins to move in the desired direction. The hitch movement indicator LED (E) goes on or starts flashing. LED remains flashing after the hitch has stopped which indicates that a diagnostic trouble code is active. See *Diagnostic Trouble Codes - Operator Information in Troubleshooting (section 300A) in this manual.*

CAUTION: Stay clear of 3-point hitch lift range when operating the remote control. Apply park brake before lifting the implement.

RA84036,0001138-19-04OCT18

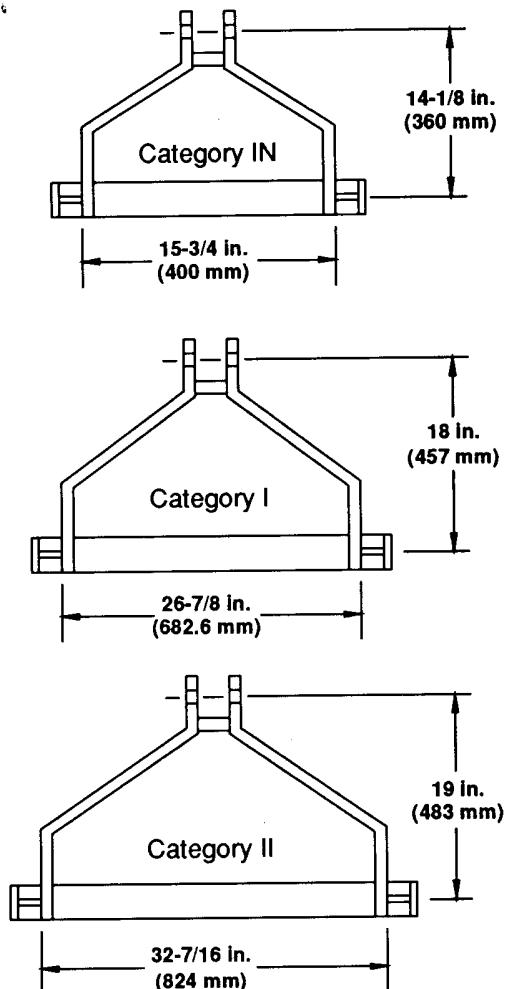
used on smaller implements than Category II implements. Refer the chart to identify implement category.

Category II implements have the top hole of the implement mast located 483 mm (19 in) above the lower pins. Drill another hole in top mast or extend top mast if necessary.

Hitch Category	Mast Height	Width Between Lower Pins	Pin Sizes	
			Lower	Upper
IN	360 mm (14-1/8 in)	400 mm (15-3/4 in)	22 mm (7/8 in)	19 mm (3/4 in)
I	457 mm (18 in)	682.6 mm (26-7/8 in)	22 mm (7/8 in)	19 mm (3/4 in)
II	483 mm (19 in)	824 mm (32-7/16 in)	28 mm (1-1/8 in)	25.4 mm (1 in)

RA84036,000113A-19-09AUG17

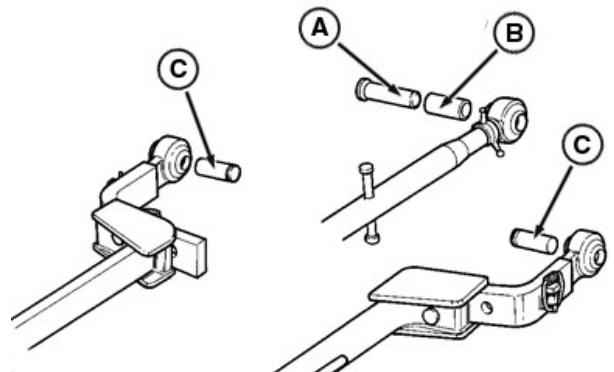
Prepare the Implement



LV616—19—13JUN94

Category IN and I 3-Point Hitches are narrower and

Converting Category II Hitch to Category IN or Category I



PY28205—UN—25AUG16

A—Mast Pin
B—Bushing
C—Bushing (2 Used)

Tractor center link and draft link ends are sized for Category II implement attaching pins.

If Category IN or Category I implements are to be used, the Category II hitch can be converted as follows:

Install bushing (B) to reduce diameter of the center link end. Smaller implement mast pin (A) is also needed when bushing is installed.

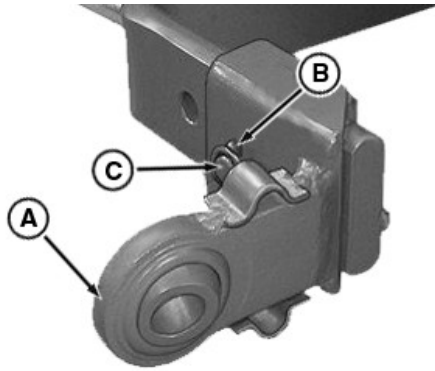
Install bushings (C) in end of draft links.

See your John Deere dealer for parts.

NOTE: Refer to *Positioning Draft Link Ends* in this section for further information on hitch conversions.

RA84036,000113B-19-09AUG17

Positioning Draft Link Ends



PY28206—UN—25AUG16

A—Brackets
B—Lock Pin
C—Pin

Draft link ends are adjustable for Category IN, I, and II implements.

The different positions are obtained by changing the position of the brackets (A) after removing lock pin (B) and pin (C).

Reinstall pin (C) and lock pin (B) once the desired setting is obtained.

RA84036,000113C-19-09AUG17

A—Lock Parts Kit

These draft links are intended for Category I and Category II implements. Implements can be attached to and removed from the draft links without the driver having to leave the seat.

Lock for Draft Link Hooks

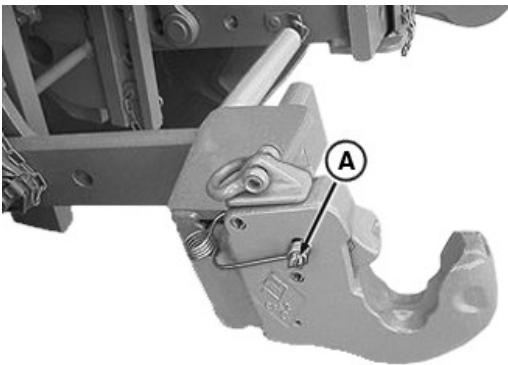
CAUTION: Draft links must be secured against opening accidentally in the following circumstances:

- When implements with an asymmetrical load are attached (for example, side-mounted mowing unit).
- When driving through high-growing bushes and trees (for example, when working in the forest).

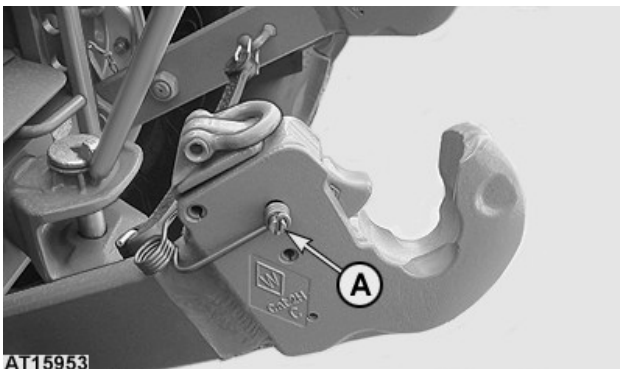
Use John Deere **AL165485** lock parts kit (A) at both of the coupler hooks.

SD74272,00016EA-19-20SEP18

Quick-Coupling (Hook-Type) Draft Links



PY28207—UN—25AUG16

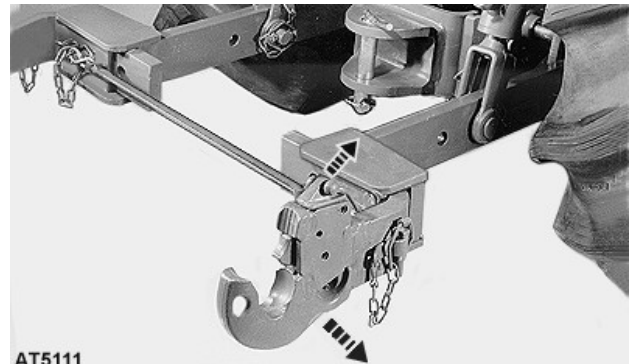


AT15953

AT15953—UN—13SEP06

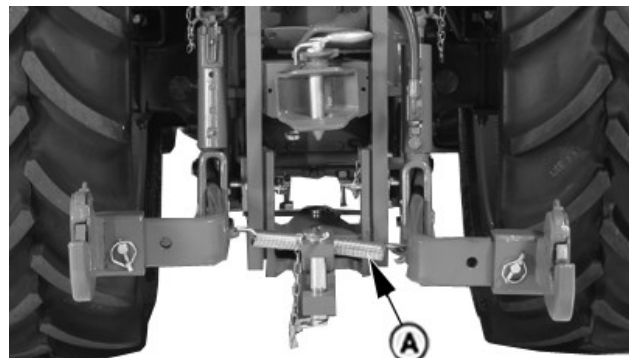
For 5GF - Wide Axle (1540 mm rear axle flange to flange)

Attaching Implements



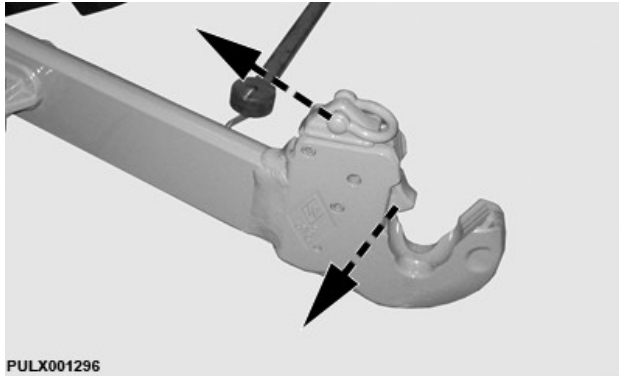
AT5111

AT5111—UN—17APR00



PULX002185

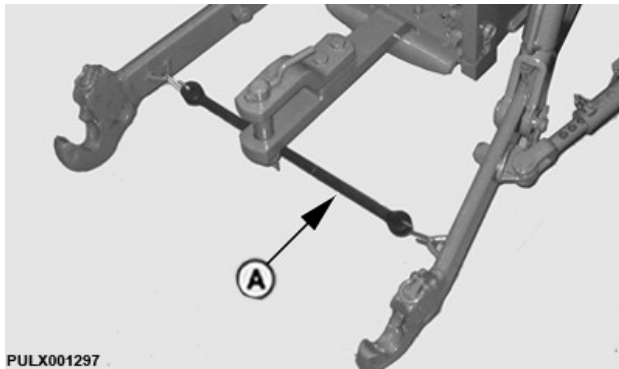
PULX002185—UN—17OCT08



PULX001296

PULX001296—UN—08SEP08

Wide Axle (1540 mm rear axle flange to flange) (5GF)



PULX001297

PULX001297—UN—08SEP08

Wide Axle (1540 mm rear axle flange to flange) (5GF)

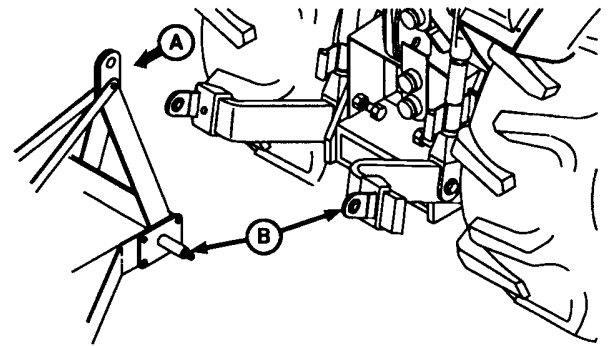
A—Adjusting Spring Rod

1. Remove adjusting spring rod (A), (If equipped).
2. With draft links lowered, reverse tractor until the coupler hooks are below the implement hitch pins.
3. Slowly raise draft links until pins are engaged in coupler hooks and locked into position.
4. Adjust center link to required length and attach to top attaching point of the implement mast.

CAUTION: Make certain that implement is correctly locked to coupler hooks.

SD74272,00016EB-19-04OCT18

Attach Implements to 3-Point Hitch



LV734—UN—25JUN94

A—Implement
B—Hitch Points

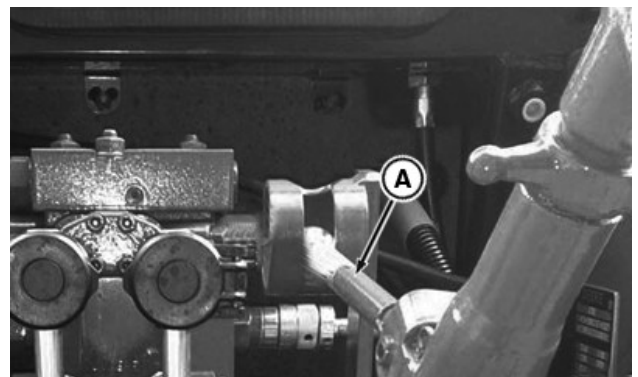
1. Be sure that the drawbar does not interfere with the implement. If necessary, move the drawbar ahead or remove it. Check for any other potential interference points.

CAUTION: Do not stand between tractor and implement unless the parking brake is applied firmly.

CAUTION: Prevent unexpected movement of hitch by placing draft sensing lever in the forward or OFF position before attaching implement to hitch.

IMPORTANT: When attaching 3-point-hitch mounted or drawn implements for the first time, conduct a trial. The trial is to ensure that implement is not damaging the cab in any position. With hitch-mounted implements, pay attention to the highest lift position; with drawn implements, be careful when turning sharply.

2. Back tractor up to implement (A) so hitch points (B) align. Place transmission levers in neutral, engage park brake, and stop engine BEFORE leaving the tractor seat.



PY28210—UN—25AUG16

A—Locking Rod

3. To remove the center link from the transport hook, lift center link locking rod (A).

4. Attach center link to implement top mast.
5. Adjust center link and lift links as necessary. See Level the Hitch in this section.

CAUTION: To avoid bodily injury or machine damage whenever an implement, implement quick coupler, or other attachment is connected to the tractor 3-point hitch, check full range of operation for interference, binding, or PTO separation.



(5GV, 5GN, 5GF)

APY11249—UN—28MAY19



(5GL, 5GL-N)

APY11250—UN—28MAY19

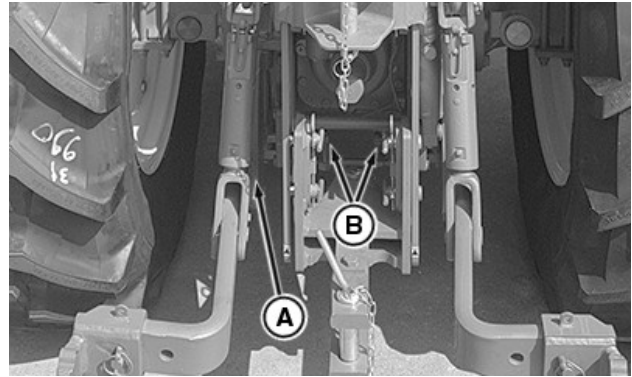
A—Position Control Lever

6. Using position control lever (A) lower implement, then raise slowly and check for any point of interference.

RA84036,00019C7-19-22JUL19

Adjust Sway Blocks

NOTE: Check implement operator's manual for instruction on whether to allow side sway.



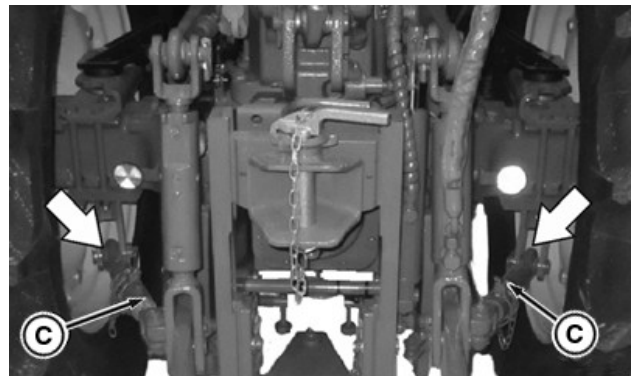
APY11251—UN—28MAY19

A—Sway Blocks
B—Screws

Sway blocks (A) are used to limit side sway of draft links. Adjust sway blocks by changing the length of the screws (B) on one side for work outside centered position of the implement.

If attachment (plow, disk) needs side sway in operating position, adjust sway blocks tight to the frame by turning screws (B).

When required to limit side sway, adjust out blocks away from frame to contact draft links and limit side-to-side motion.



PY28212—UN—25AUG16

Stabilizer Bars



AGCPTJD0127—UN—27MAY13

Wide Axle (1540 mm rear axle flange to flange) (5GF)

C—Stabilizer Bars

Stabilizer Bars:

The draft links can be stabilized using these stabilizer bars (C). No tools are required.

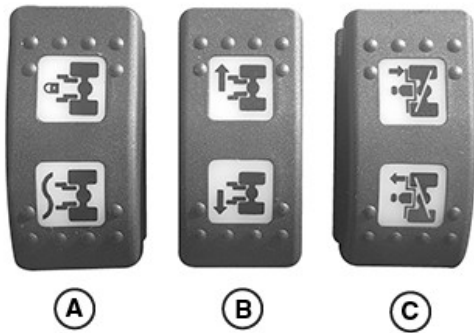
IMPORTANT: Do NOT let the draft links or lift links come into contact with the tires or other tractor components. When the draft links are raised (even with no implement attached), the stabilizer bars must be locked.

RA84036,00019C8-19-29MAY19

Functions of Switches			
Switch	Description	Switch Up	Switch Down
A	To block the draft links or set the draft links in floating position	Floating	Blocked
B	To move the rear draft links on the left side or right side	Lateral adjustment LEFT	Lateral adjustment RIGHT
C	To extend or retract the hydraulic vertical rod	Vertical adjustment of lift link, upward	Vertical adjustment of lift link, downward

3-Point Hitch Leveling System (If Equipped)

RA84036,00019C9-19-22JUL19



APY11252—UN—28MAY19



PY28213—UN—25AUG16

A—Draft Links Switch — Float Position Set
 B—Draft Links Switch — Move Left/Right
 C—Hydraulic Cylinder Rods Switch — Extend/Retract

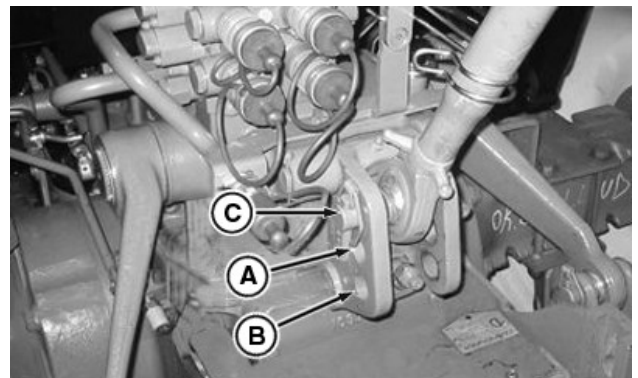
IMPORTANT: Check implement Operator's Manual for instructions on whether to allow side sway.

The vertical and the horizontal positions of implements are adjusted with the Implement Alignment Valve Assembly. It is a hydraulic option, providing the following functions:

- Electrohydraulic central and lateral adjustment.
- Hydraulic leveling control.

By using the switches (A), (B), and (C), it is possible to set the rear implement in to the desired position:

Position the Center Link



PY28214—UN—25AUG16

A—Middle Hole — Moderate Sensitivity
 B—Lower Hole — Highest Sensitivity
 C—Upper Hole — Least Sensitivity

The center link bracket has holes which allow three different positions for attaching the center link. The position affects the draft sensing sensitivity.

Move the center link attachment to holes (A) or (C) if:

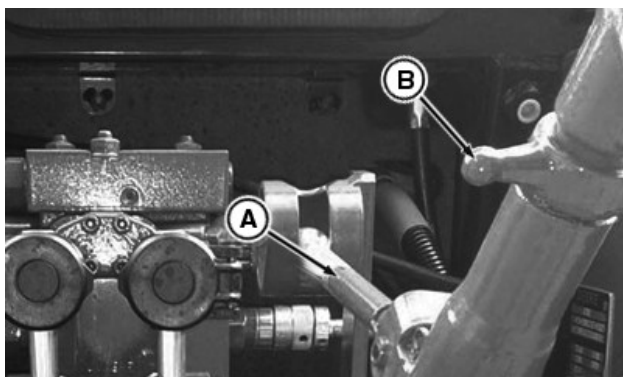
- Excessive hitch activity or hunting occurs in draft control operation.
- The rear of the implement raises too much when lifted. The lowest position provides the greatest lifting height and less lifting force and is used when working with a plow.
- The draft control lever range is too small.

Move the center link attachment to holes (A) or (B) if:

- The hitch response in draft control operation is unsatisfactory, and the engine speed drops too far before raising the implement.
- The rear of the implement droops and drags the ground as the implement is lifted.

RA84036,0001142-19-09AUG17

Level the Hitch



A—Locking Rod
B—Ring Nut

PY28215—UN—25AUG16

1. Lower implement to take off weight hitch.
2. Adjust center link to level the implement front to rear:

Unlock locking rod (A). Loosen ring nut (B). Rotate center link body clockwise to lengthen center link or counterclockwise to shorten it.

Length of link must be kept within the following limits (measured at the center link ends):

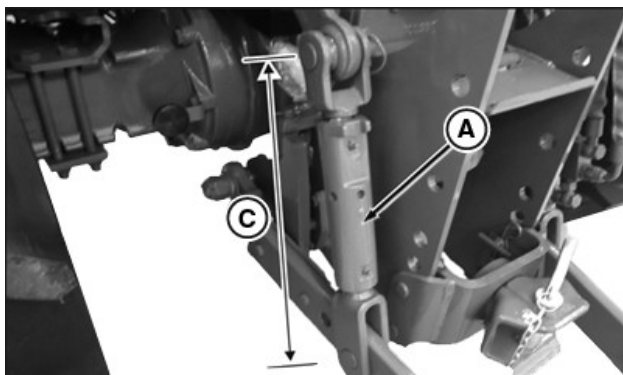
- Minimum length 518 mm (20.4 in)
- Maximum length 718 mm (28.3 in)

Depending on the tractor configuration, adjust to:

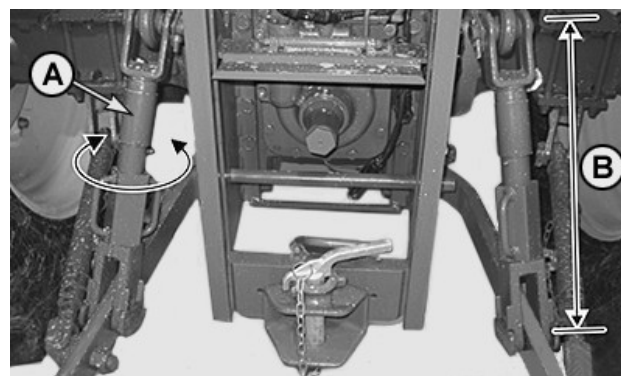
- Minimum length 530 mm (20.9 in)
- Maximum length 730 mm (28.7 in)

IMPORTANT: DO NOT deviate from the specified dimensions. Link body threads could be damaged.

Relock the locking rod (A) if the link is not in use.



PY28216—UN—25AUG16



AGCPTJD0128—UN—27MAY13

Wide Axle (1540 mm rear axle flange to flange) (5GF)

A—Sleeve
B—Length (Wide Axle (1540 mm rear axle flange to flange) (5GF)
C—Length

3. Adjust right-hand or left-hand link to the level implement side to side: Slide up the sleeve (A) then turn it clockwise to raise draft link or counterclockwise to lower it.

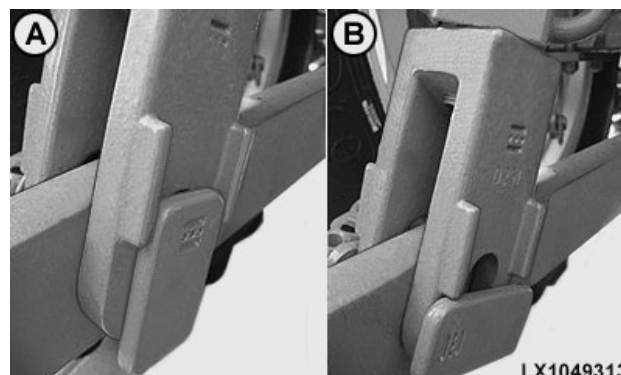
After the adjustments of the lower level, align the slot in the sleeve (A), with the pin in the rod. It is to prevent the turning of parts during operation.

Length (B) of links must be kept within the following limits:

- Minimum length 500 mm (19.7 in)
- Maximum length 670 mm (26.4 in)

Length (C) of links must be kept within the following limits:

- Minimum length 430 mm (17 in)
- Maximum length 560 mm (22 in)



LX1049313
LX1049313—UN—15JUL10

4. **For Wide Axle (1540 mm rear axle flange to flange) (5GF) Only:**

Adjust for vertical float:

Depending on the position of the plate, draft links can be adjusted to allow for vertical float or to lock out float.

Vertical float:

Plate in vertical position (A).

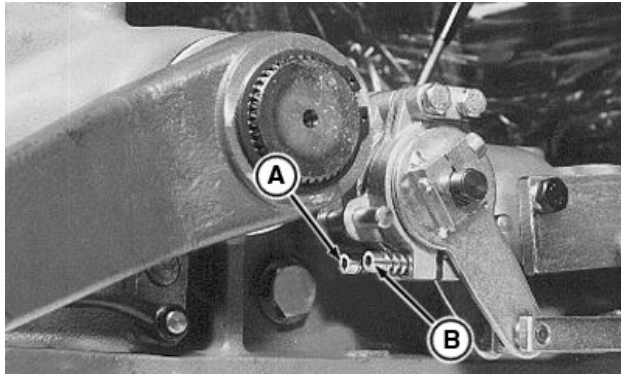
No float:

Plate in horizontal position (B).

SD74272,00016ED-19-04OCT18

Adjust Hitch Control Lever Friction

IMPORTANT: Ensure that the engine is not running and the hitch is in lowered position.



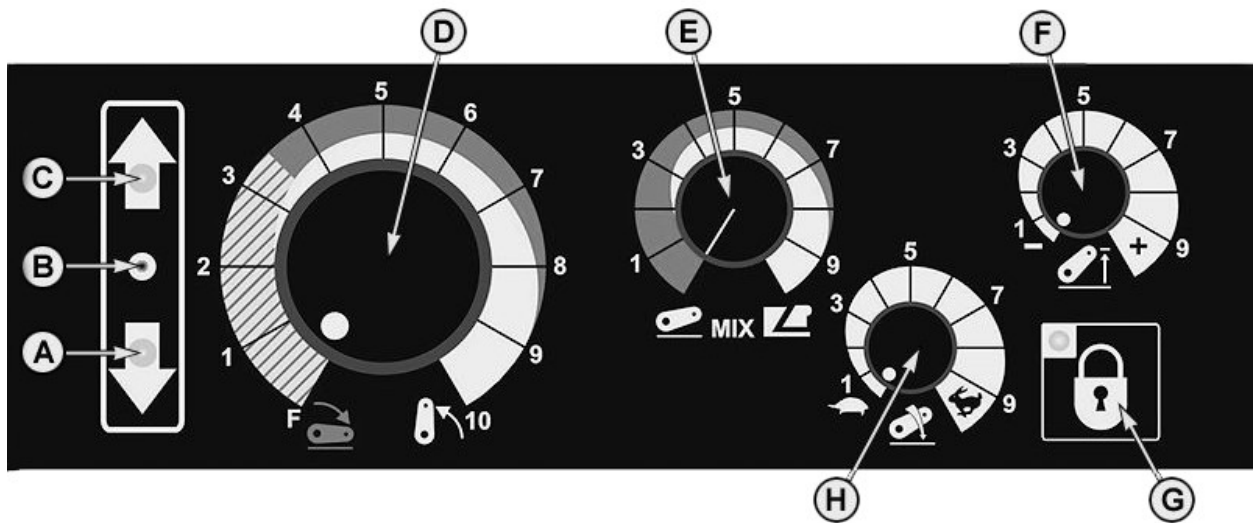
PY28217—UN—25AUG16

A—Position Control Lever Screw
B—Draft Control Lever Screw

If the position and draft control levers do not stay in set position, increase relevant lever friction by tightening screw (A) and/or screw (B). Tighten the screws until the desired friction is obtained.

RA84036,0001144-19-09AUG17

Electronic Hitch Sensing II (EHS II)



EHS II Control Panel

PY28192—UN—30AUG16

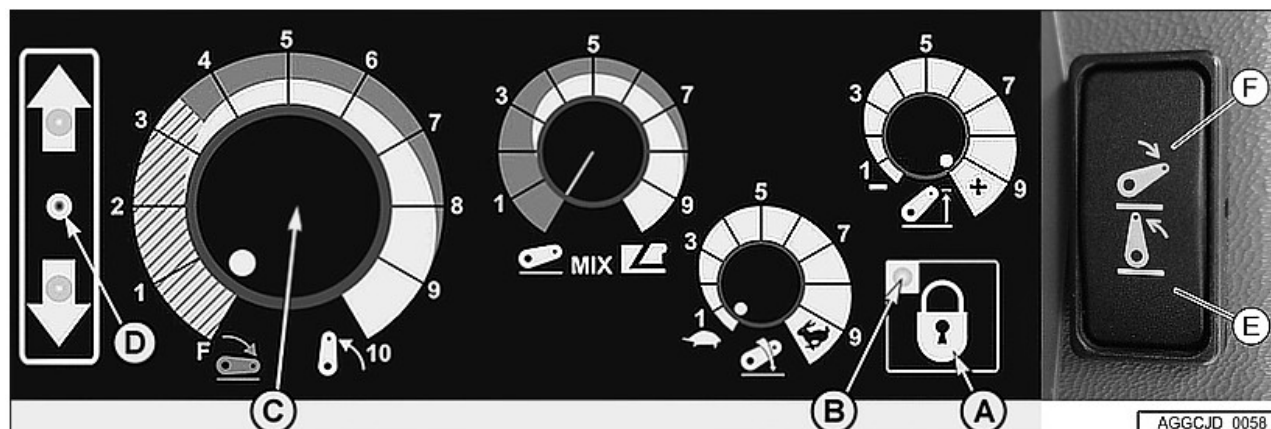
A—Hitch Movement Indicator LED — Hitch Lowering
B—Hitch Movement Indicator LED — Hitch Stop
C—Hitch Movement Indicator LED — Hitch Raising
D—Depth Control Switch

E—Mode Control Switch
F—Height Limit Memory Switch
G—Transport Lock Switch (with red LED)
H—Lowering Speed Control Switch

NOTE: A continuous flashing LED (B) indicates that there are Diagnostic Trouble Codes present. See Diagnostic Trouble Codes - Operator Information in Section 300A.

RA84036,0001130-19-09AUG17

Calibrating the System (EHS II)



AGGCJD0036—UN—20OCT15

A—Transport Lock Key
B—LED
C—Depth Setting Switch

D—LED
E—Raise/Lower Switch — Raise
F—Raise/Lower Switch — Lower

CAUTION: During the calibration, the hitch moves over its entire range from fully lowered to fully raised, without reference to the set position values. During calibration, there is no way to influence the movements of the hitch. In an emergency, switch off the ignition.

Preliminary Work:

1. For calibration, attach a weight of approx. 50 kg (100 lb) to the draft links.
2. Heat the transmission oil to approx. 40°C (104°F).
3. Raise the hitch as high as it goes.
4. Shut off the engine, switch the ignition OFF, and turn all the hitch potentiometers according to the illustration.

9. The calibration procedure is completed, when the LED (D) is ON. If the LED (D) is flashing, the calibration is not OK. (repeat the procedure or check for possible failure).
10. Switch OFF the engine.
11. Increase the setting of the lowering speed control switch and restart the engine.
12. Now LED (D) starts to FLASH because the position setting does not match the actual position of the hitch.
13. To rectify, set depth setting switch (C) to position 10 and slowly turn it to the left until the LED stops flashing.
14. Check that the hitch operates correctly.

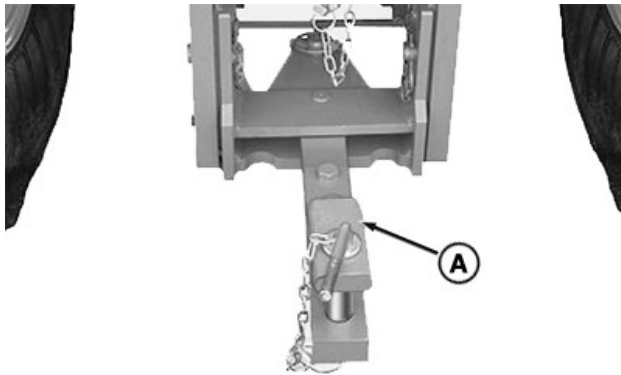
RA84036,0001139-19-04OCT18

Start the Automatic Calibration Process:

1. Start the engine.
2. Press the transport lock switch (A) and then (within 0.5 seconds) the raise/lower switch in raise position (E).
3. Release the two switches (A) and (E) simultaneously.
4. The LED (B) starts to FLASH.
5. Briefly touch the raise/lower switch two times at lower symbol (F) – the hitch lowers.
6. Wait until the hitch is all the way down, then briefly touch the raise position (E). The hitch starts to rise.
7. When the hitch has risen as high as it goes, press the transport lock key (A) to end calibration.
8. The control unit return to its normal operating mode and LED (B) stops flashing.

Coupling Devices

Drawbar



A—Drawbar with Vertical Load

The tractor is equipped with a drawbar with vertical load allowed (A).

For maximum traction and efficiency, position the drawbar in the center, short position. See operator's manual of implement for more information.

Maximum permissible static vertical loads and towable loads are stated in the Specifications section.

NOTE: Check and replace components subjected to wear and tear. Contact your John Deere dealer or see Service Intervals (section 210B) in this manual for more information.

NOTE: Towing on public roads with the swinging drawbar set to one side is not permitted.

PY31966—UN—20SEP16

IMPORTANT: Comply with local traffic regulations when using the drawbar. Use suitable, approved hitch pins only. Combine drawbars as shown only.

RA84036,0000FC3-19-11JUL17

Height Adjustable Trailer Hitches

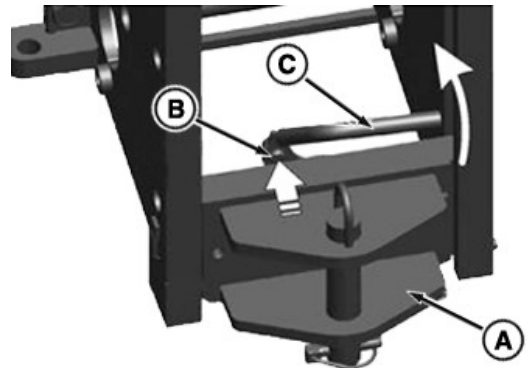
These hitches can be adjusted up or down according to the implement height and to obtain clearance for the center link or PTO operation.

Depending on legal requirements in the different countries, hitches of EEC or CUNA type are available.

Adjust Sliding Hitch Height

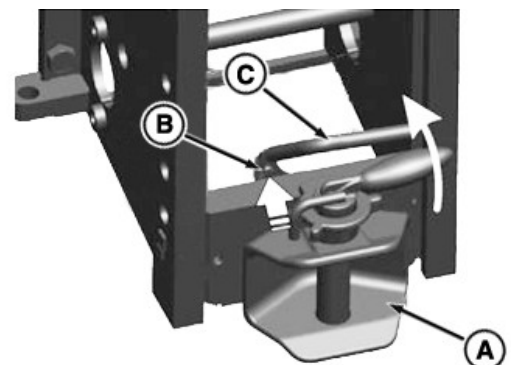
IMPORTANT: Use the CUNA hitch system for trailers with pivoting towing eyes only.

IMPORTANT: Use the EEC hitch system for trailers with non-pivoting towing eyes only.



CUNA Hitch

PY31967—UN—20SEP16

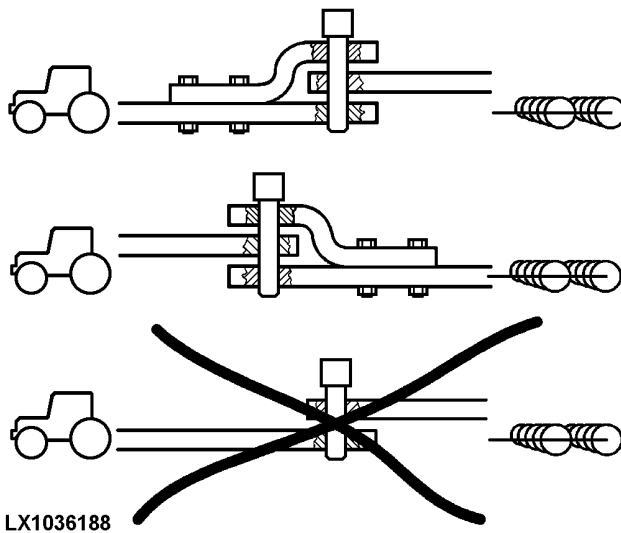


EEC Hitch

PY31968—UN—20SEP16

A—Hitch
B—Pin
C—Release Lever

Proper Use of Drawbar



LX1036188

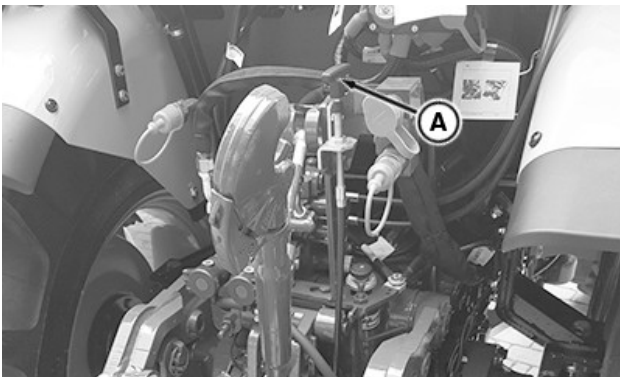
LX1036188—UN—02MAY05

1. Support hitch (A) with one hand and with the other

- hand simultaneously pull pin (B) and release lever (C) to the left.
2. Move hitch (A) to the required position and push the quick release lever (C) to the right and down to lock it.
3. Make sure that the side locking pins have fully engaged in the side support slots.

RA84036,000115F-19-10AUG17

Pick-Up Hitch

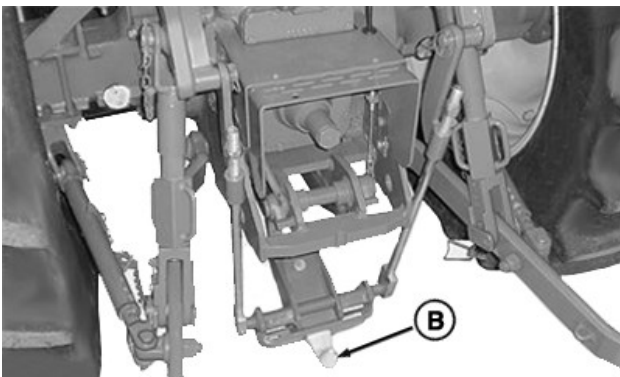


APY11253—UN—28MAY19

A—Release Knob

The pick-up hitch is operated using the hitch controls and the release knob (A).

1. Raise draft links to maximum height.

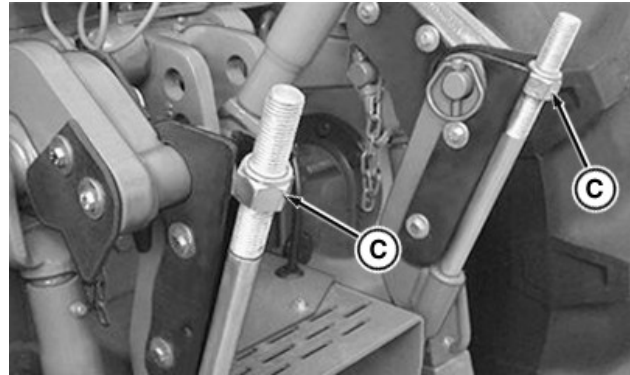


PY31970—UN—20SEP16

B—Hook

2. Pull and hold the release knob (A) (located on the rear side of the tractor close to the locking rod support) and unlock the hook (B).
3. With lever (A) still pulled, lower draft links until the hook is at desired height. Release knob (A).
4. Reverse the tractor and position the hook under the trailer towing eye.
5. Raise draft links to engage the hook in the trailer towing eye. Continue to raise the hitch until the hook (B) engages in its lock position. Knob (A) returns to its home position.

6. Lower the draft links slightly until the trailer weight is supported by the hook.
7. Check that the pick-up hitch is locked correctly. It never lowers when the draft links are lowered.



PY31971—UN—17NOV16

C—Lift Link Adjusting Nuts

IMPORTANT: If the release lever is hard to operate or the hook does not lock properly (step 5 or step 7), contact your John Deere dealer. Check the setting of the lift links adjusting nuts (C) or of the pick-up hitch hook.

Pick-up hitch components that are subject to wear must be checked every 250 hours. Replace them if necessary.

CAUTION: Before driving away, make sure that the pick-up hitch is fully raised and locked.

With the pick-up hitch lowered, **NEVER** reach between hook mechanism and transmission housing. Risk of injury!

NOTE: Lubricate the pick-up hitch every 250 hours, See Service Intervals (Section 210B) in this manual.

For maximum permissible static vertical loads and towable loads, see Specifications (Section 500A) in this manual.

Drawbar

It is possible to replace the hook of the pick-up hitch with a drawbar. Refer the steps 1, 2, and 3. Shutoff the engine and change the hook or drawbar.

Remove the retaining pins of the hook frame and carefully pull out the hook and replace it with the drawbar. Install the hook in reverse order of removal procedures.

IMPORTANT: Carefully reinstall all securing pins and inspect the pick-up hitch pivots for obstructions.

RA84036,00019CA-19-22JUL19

Pick-Up Hitch Decal

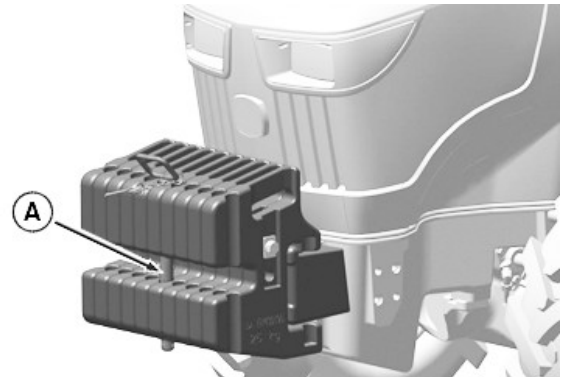


PY34464—UN—25NOV16

Understand all functions before operating the pick-up hitch. Replace pick-up hitch decal if worn and illegible.

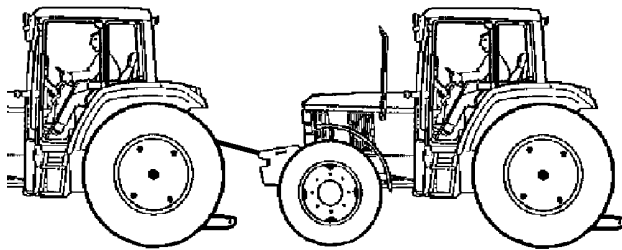
RA84036,0000FC5-19-11JUL17

IMPORTANT: On tractors with front-wheel drive, switch off front-wheel drive if the engine is running.



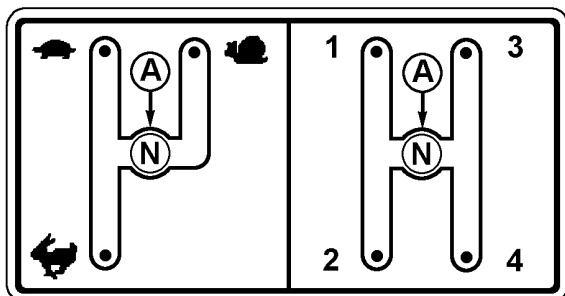
PY28365—UN—27SEP16

Tow the Tractor



AT1277

AT1277—UN—12JUN01



AT1289

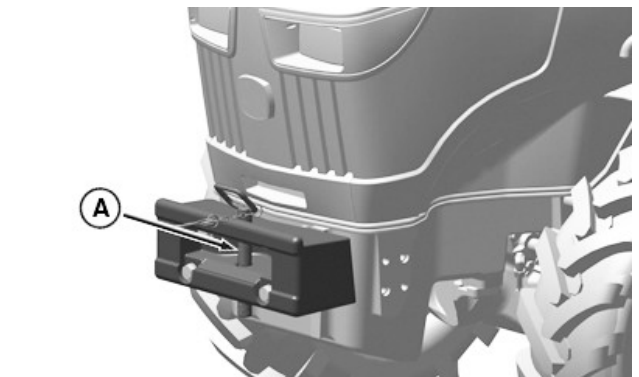
AT1289—UN—05JUL01

A—Neutral position

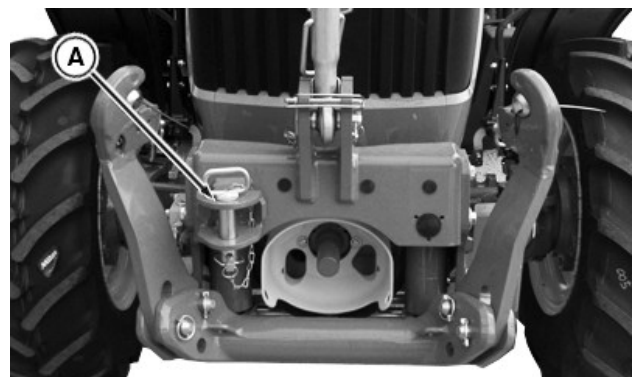
A non-moving tractor is best transported on a flatbed carrier. See Transporting the Tractor in Transport (Section 110) of this manual.

CAUTION: Never tow the tractor at a speed greater than 10 km/h (6.2 mph).

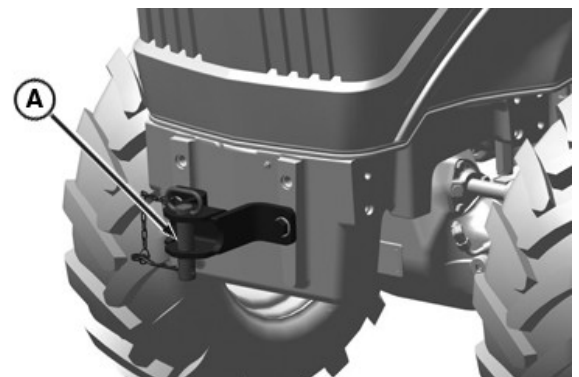
Shift the gear-shift lever to neutral position (A) and the range-shift lever to the neutral position (A).



PY28366—UN—27SEP16



PY28367—UN—27SEP16



PY28368—UN—27SEP16

A—Towing Point

NOTE: *If towing is needed, the only permitted towing points (A) are as shown.*

The tractor can be towed using a tow chain or a tow bar (a cable is not recommended). Engage the chain or the bar only in the specific points, using the supplied pins.

If ballasts are present, use only the central hole to fix the pin and the tow chain or bar.

If necessary to tow with another unit, use a tow bar or long chain (a cable is not recommended).

Inspect the chain for flaws.

Make sure that 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.

RA84036,0001A5D-19-22JUL19

Hydraulic System

Maximum Permissible Oil Withdrawal

To operate large hydraulic cylinders such as those used on tipping trailers, 10 liters (2.6 gal) of oil may be drawn from the transmission case through the connecting lines.

This figure applies when the oil in the transmission case is at the minimum mark on the dipstick. If the oil is up to the maximum mark, a further 5 liters (1.3 gal) may be withdrawn.

Never perform heavy jobs such as towing, operating a PTO, or driving fast when withdrawal results in the oil level dropping below the minimum mark.

If required, a further 10 liters (2.6 gal) may be added to the transmission case; this increases the amount that may be withdrawn accordingly.

During oil withdrawal, the tractor should not be inclined in any direction by more than 18° (32%). If the tractor is inclined by more than 18° (32%), only a correspondingly lower quantity of oil may be withdrawn.

For refilling, use only John Deere Hy-Gard™ Transmission and Hydraulic Oil or its equivalent.

RA84036,000115A-19-10AUG17

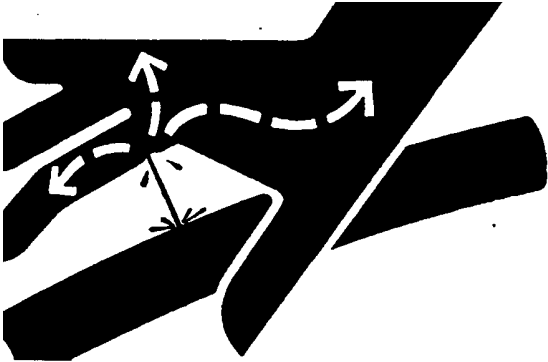
Hydraulic Connections

Use Correct Hose Tips

If your tractor is equipped with a selective control valve (SCV), the coupler receptacles accept a standard hose tip as recommended by ISO¹ and SAE². Adapters are available to allow connecting the older John Deere hose tips to the ISO couplers on your tractor.

RA84036,0001155-19-09AUG17

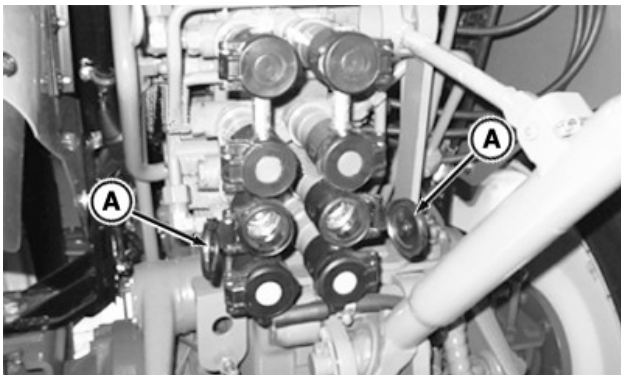
Connecting Cylinder Hoses



X9811—UN—23AUG88

⚠ CAUTION: 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.

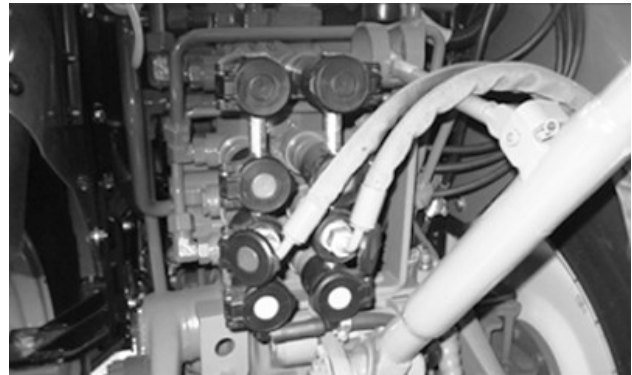
If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene can result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.



PY31955—UN—20SEP16

A—Dust Plug

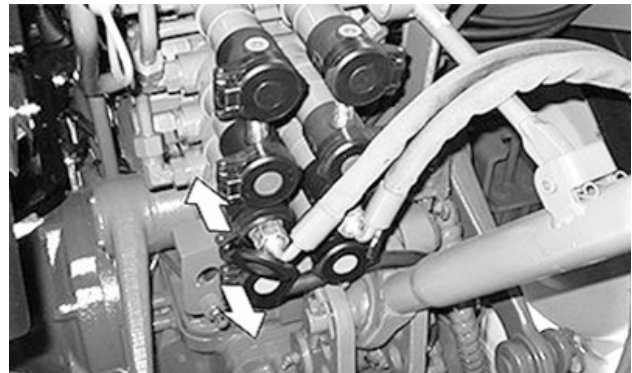
2. Pull dust plugs (A) from couplers.
3. Make sure that hose end and coupler receptacles are clean.



PY31956—UN—20SEP16

4. Check hose connection and see which coupler is used for extending cylinder. This hose must be connected to the couplers in order to extend cylinder when SCV levers are moved rearward or inward.

⚠ CAUTION: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure. Check hoses regularly. Replace damaged hoses.



PY31957—UN—20SEP16

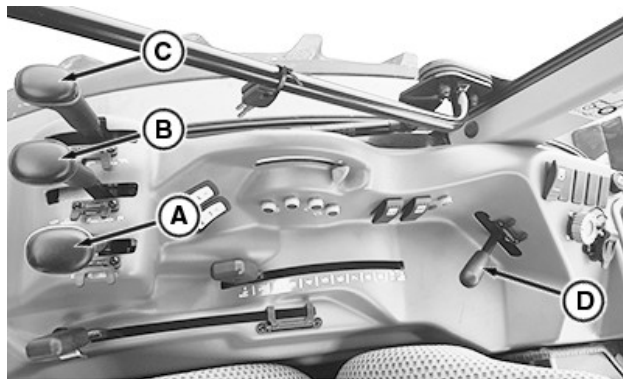
5. To connect each hose, push hose tip firmly into the coupler receptacle.
6. Pull lightly on hose to make sure that connection is tight.

RA84036,000115B-19-10AUG17

Connect Hose Under Pressure

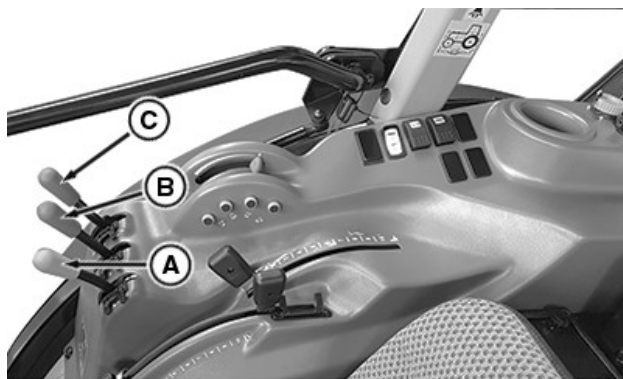
IMPORTANT: Implement must be raised slightly, by pulling back lever (A), (B), (C), or (D) to reset coupler check valves, before it can be moved.

¹ International Standards Organization
² Society of Automotive Engineers



APY11254—UN—30MAY19

(5GV, 5GN, 5GF)



APY11255—UN—30MAY19

(5GL, 5GL-N)

A—Lever
B—Lever
C—Lever
D—Lever

Clean the hose tip and coupler receptacle if any of the hoses are accidentally disconnected from the tractor during use. Hoses can be reinstalled with minimal loss of oil. See Connecting Cylinder Hoses in this section.

RA84036,00019CB-19-22,JUL19

Selective Control Valves - Controls

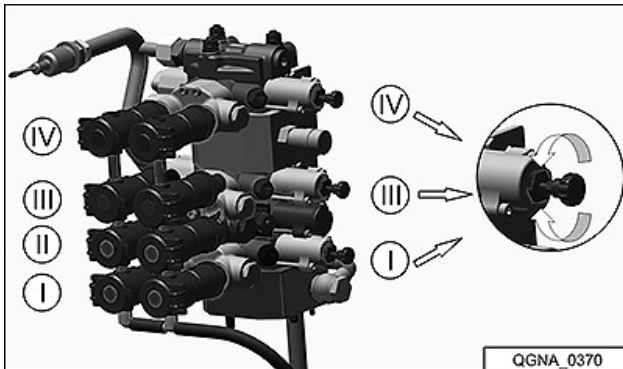
Selective Control Valve (SCV) Levers

Control Lever Detents - Settings

Each section of the SCVs has selectable detents, used to change control lever operations to meet operating requirements of different implements. Detent settings do only affect the lever positions "Extend" and "Retract." There is no effect to the "Float" position.

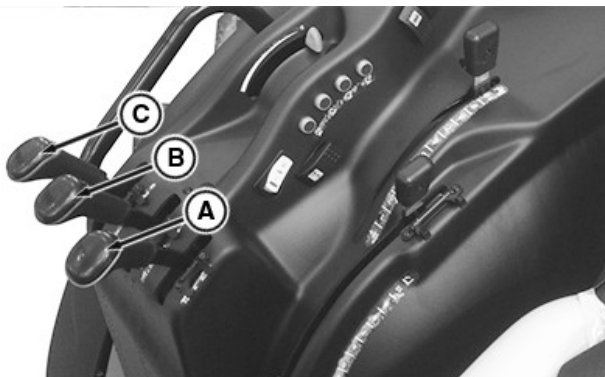
Selector Knob Detent Setting	Control Lever Detent
Screwed in (Loader Operation)	No Detent: Lever returns to neutral when released
Unscrewed (Hydraulic Motor Operation)	Continuous Detent: Lever remains in operating position until manually returned to neutral

Operating the Control Levers



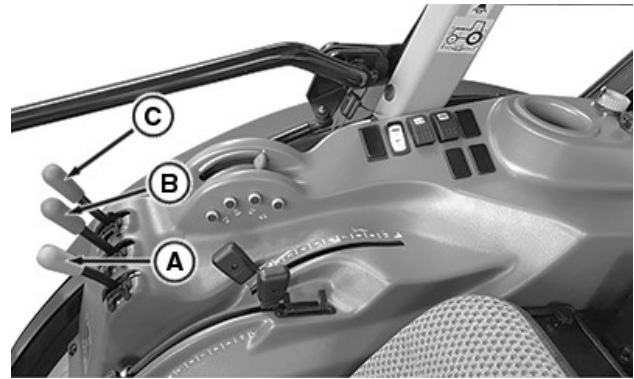
QGNA0370—UN—02NOV15

Selective Control Valve (SCV) Levers



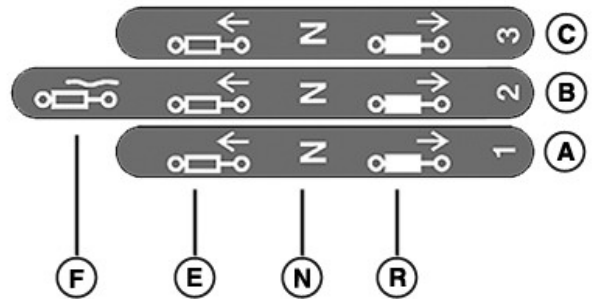
(5GV, 5GN, 5GF)

APY11256—UN—30MAY19



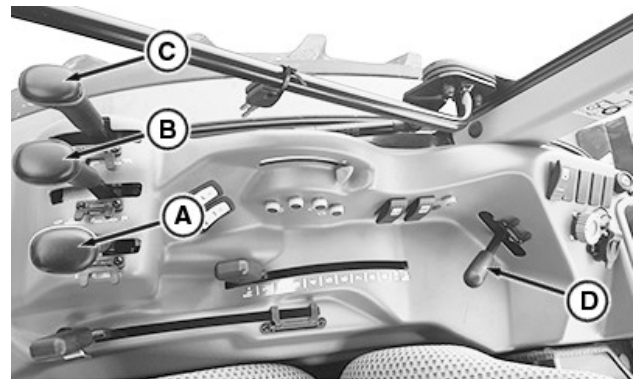
(5GL, 5GL-N)

APY11255—UN—30MAY19



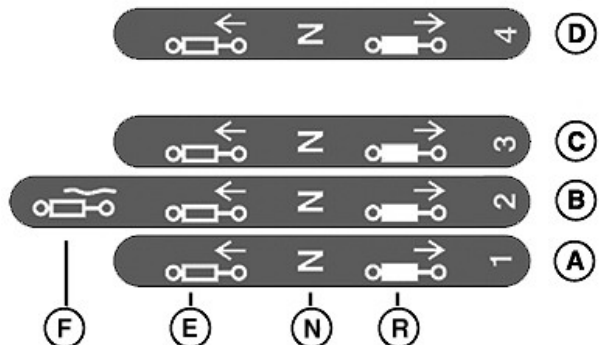
PY31935—UN—02DEC16

Tractor with 3 SCVs shown



(5GV, 5GN, 5GF)

APY11254—UN—30MAY19



PY31937—UN—02DEC16

Tractor with 4 SCVs shown

A—SCV Control Lever
 B—SCV Control Lever
 C—SCV Control Lever
 D—SCV Control Lever
 E—Extend Position
 F—Float Position
 N—Neutral Position
 R—Retract Position

Extend and Retract Cylinders: With hoses properly connected to couplers, pull lever back to extend the remote cylinder or push forward to retract.

- When the selector knob is set to No Detent (Loader) position, lever returns to neutral when released.
- When the selector knob is set to Continuous Detent position (Hydraulic Motor) lever must be manually returned to neutral.

With the lever in neutral, remote cylinder is hydraulically locked in position.

Float Position: Push lever (B) forward, through retract, into detent to operate "Float" feature. "Float" operation allows the cylinder to extend and retract freely, such as when an implement follows ground contour. Manually return the lever to neutral when "Float" is no longer required.

The control levers (A, B, C, and D) can have up to four settings depending on the configuration identified by the decals.

The remote cylinder retracts when the lever is moved backwards to the Retract position.

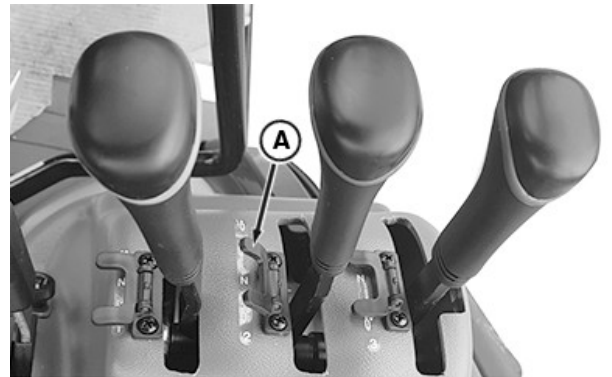
The remote cylinder extends when the lever is moved forward to the Extend position.

The remote cylinder is held in place when the lever is in Neutral.

When the lever is in the Float position (piston moves freely inside the remote cylinder), the mounted implement follows the ground contours.

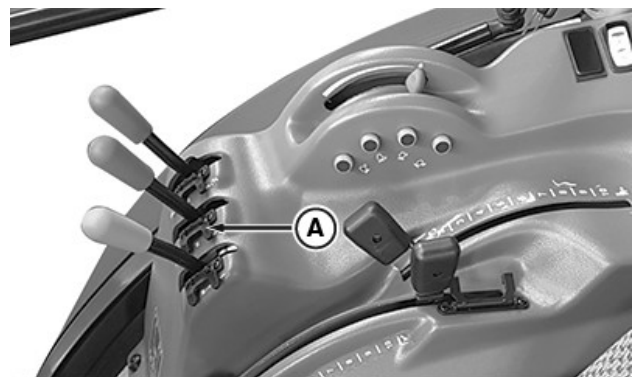
NOTE: After the engine has been switched-off, Continuous Detent is automatically deactivated within 20 seconds. If this function is manually set (by the relevant knob on the valve), it is restored when the engine is switched-on again. To avoid continuous Detent engagement, completely unscrew the knob to reach No Detent position.

Activation of the Mechanical SCVs:



APY11257—UN—21JUN19

(5GV, 5GN, 5GF)



APY11258—UN—30MAY19

(5GL, 5GL-N)

A—Locking Plate

The mechanical SCVs are kept in neutral position (safety condition) by a mechanical detention system. In order to activate the SCV, pull up the locking plate (A), then move forward or backwards as needed.

RA84036,00019CC-19-23JUL19

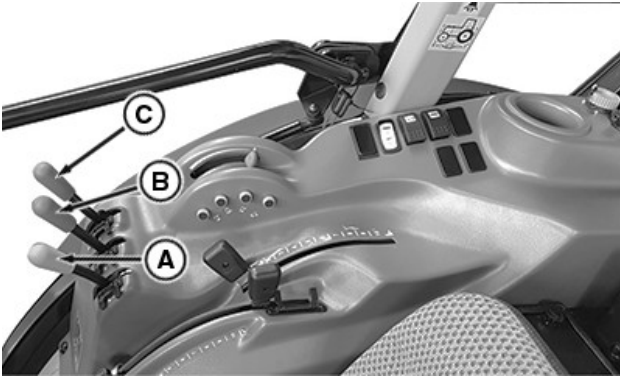
Control Lever and Coupler Identification

Control Lever and Coupler Identification



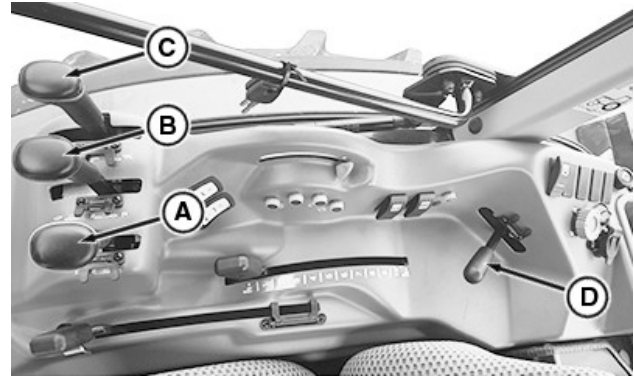
APY11256—UN—30MAY19

(5GV, 5GN, 5GF)

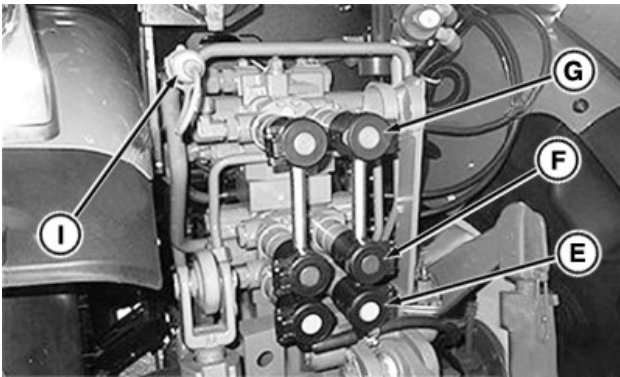


APY11255—UN—30MAY19

(5GL, 5GL-N)

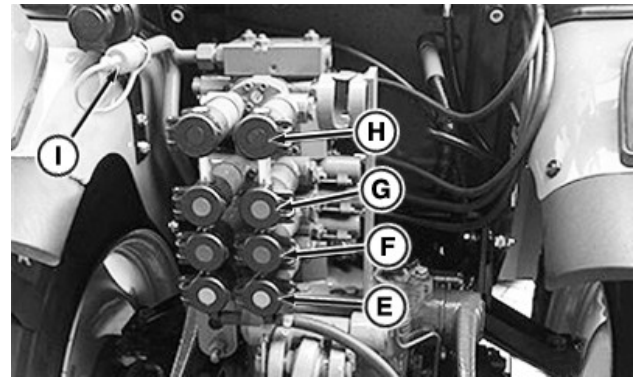


APY11254—UN—30MAY19



PY31940—UN—20SEP16

Tractor with 3 SCVs



PY31942—UN—20SEP16

Tractor with 4 SCVs

A—Lever
B—Lever
C—Lever
E—Coupler
F—Coupler
G—Coupler
I—Pressure-Free Return Couplers

Standard Version

The tractor can be equipped with:

Three additional double-acting SCVs:

- Fore/aft movement of lever (A) operates the couplers (E).
- Fore/aft movement of lever (B) operates the couplers (F)¹.
- Fore/aft movement of lever (C) operates the couplers (G)¹.

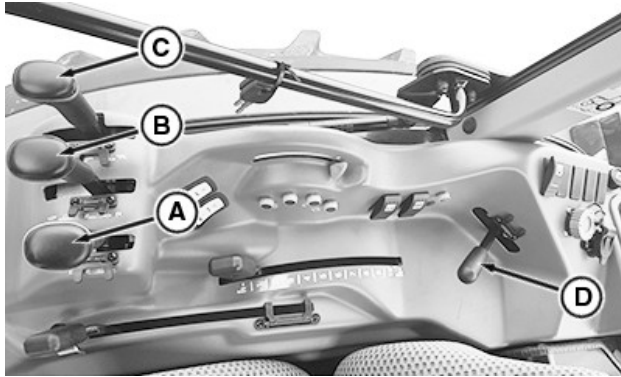
Four additional double-acting SCVs:

A—Lever
B—Lever
C—Lever
D—Lever
E—Coupler
F—Coupler
G—Coupler
H—Coupler
I—Pressure Free Return Couplers

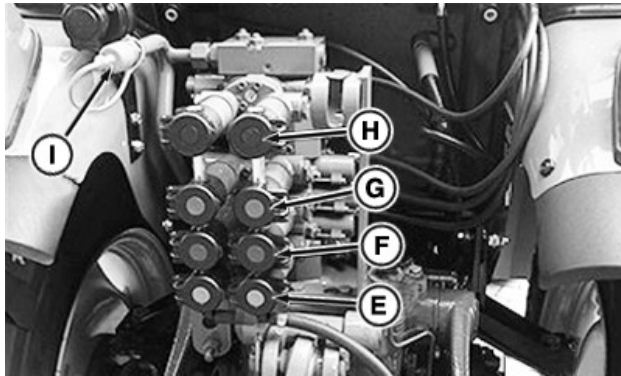
- Fore/aft movement of lever (A) operates the couplers (E).
- Fore/aft movement of lever (B) operates the couplers (F)¹.
- Fore/aft movement of lever (C) operates the couplers (G)¹.
- Fore/aft movement of lever (D) operates the couplers (H)¹.

¹ If equipped

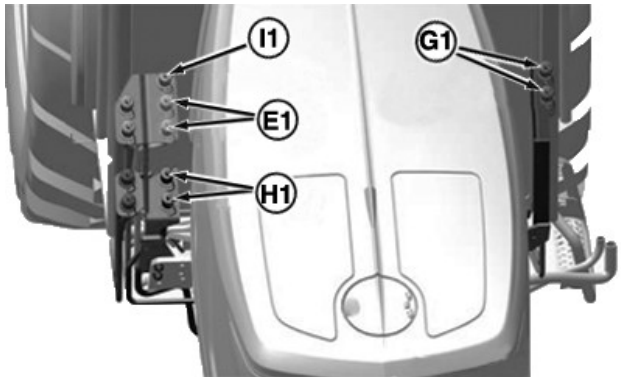
Optional Version



APY11254—UN—30MAY19



PY31944—UN—20SEP16



PY31945—UN—20SEP16

- A—Lever
- B—Lever
- C—Lever
- D—Lever
- E—Rear Coupler
- F—Rear Coupler
- G—Rear Coupler
- H—Rear Coupler
- I—Pressure Free Return Coupler
- E1—Mid-Mounted Coupler
- G1—Mid-Mounted Coupler
- H1—Mid-Mounted Coupler
- I1—Pressure Free Return Coupler

The tractor can be equipped with four additional single/double acting SCVs and a flow regulator valve.

- Fore/aft movement of lever (A) operates the rear couplers (E) and the mid-mounted couplers (E1).
- Fore/aft movement of lever (B) operates the rear couplers (F).

- Fore/aft movement of lever (C) operates the rear couplers (G) and the mid-mounted couplers (G1).
- Fore/aft movement of lever (D) operates the rear couplers (H) and the mid-mounted couplers (H1).
- The flow regulator valve splits the amount of oil between SCV 1, 2, 3, hitch and 4th SCV.

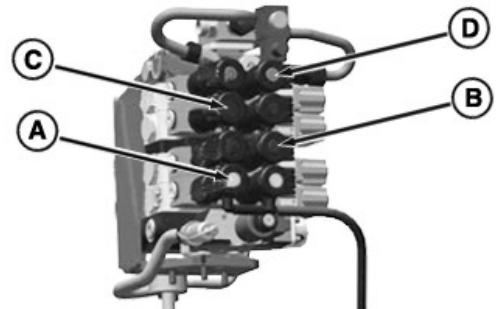
NOTE: On tractors equipped with three pumps, the flow regulator affects only the splitting of oil between SCV 1, 2, 3, and SCV 4. It does not affect the hitch.

Pressure free-return couplers (I) and (I1) are used to return oil from the equipment (implement) to the tank.

RA84036,00019CD-19-22JUL19

Electrically-Actuated Selective Control Valve (Optional)

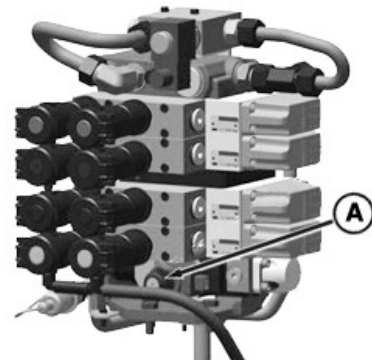
Hydraulic Components



E-SCV

PY31915—UN—20SEP16

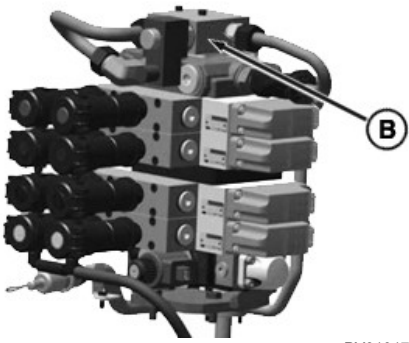
- A—E-SCV No. 1
- B—E-SCV No. 2
- C—E-SCV No. 3
- D—E-SCV No. 4



E-SCV End Cover Valve

PY31916—UN—20SEP16

- A—E-SCV End Cover Valve



E-SCV Safety Valve

PY31917—UN—20SEP16

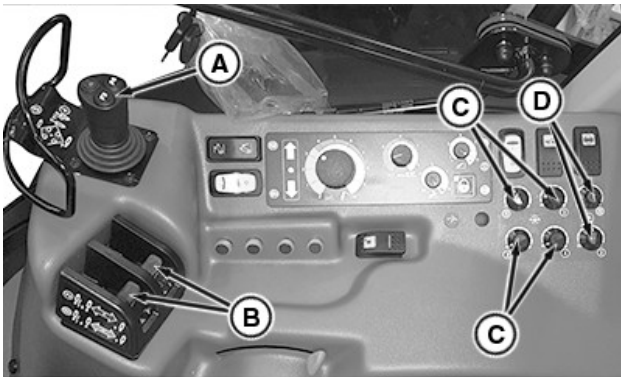


F—Fuse Box

APY11261—UN—30MAY19

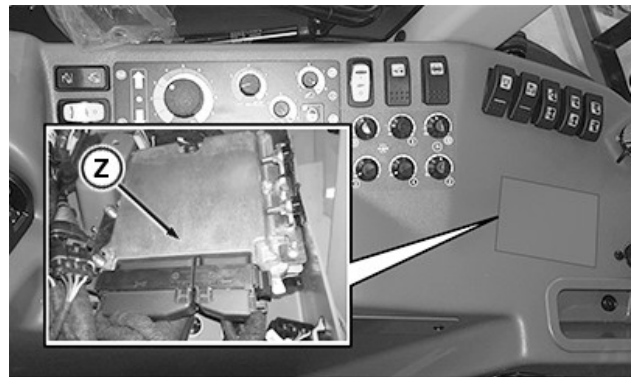
B—E-SCV Safety Valve

Electric Components



- A—Multi-Function Lever
- B—E-SCV Levers
- C—E-SCV Flow Regulators
- D—Kick-Out Timing Regulators

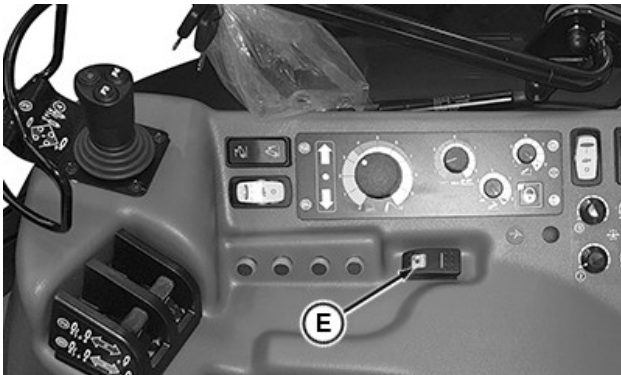
APY11259—UN—30MAY19



Z—E-SCV Control Unit (TCV)

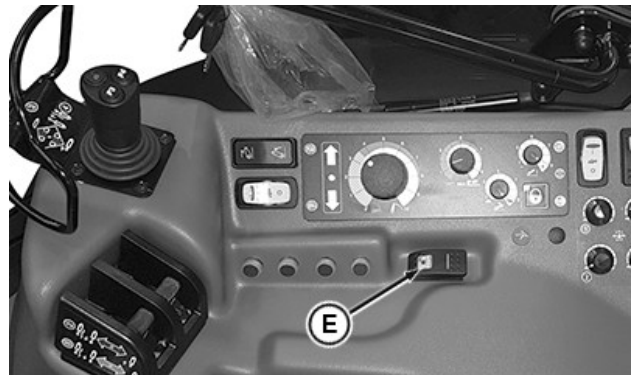
APY11262—UN—30MAY19

Activating the System



E—Transport Lock Switch

APY11260—UN—30MAY19



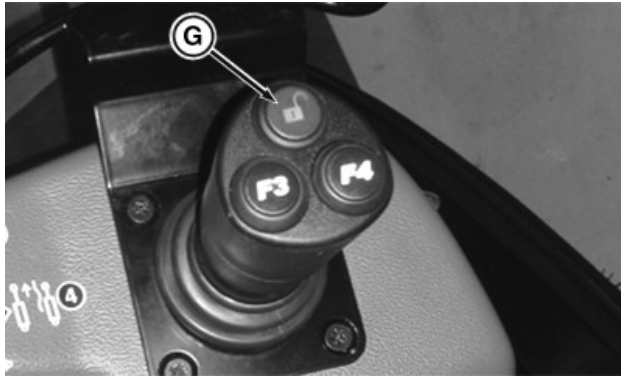
E—Transport Lock Switch

APY11260—UN—30MAY19

1. Start the engine.
2. Switch on the transport lock switch (E) to wake up the system and allow initial low oil pressure inside the E-SCVs.

NOTE: The backlight of the switch blinks briefly, then switches off. Multi-function lever and SCV levers are not yet activated.

NOTE: If the transport lock switch backlight starts blinking again, the operator is warned that a failure has occurred.



PY33523—UN—17NOV16

G—Activation Switch

- To activate the system, push the activation switch (G) on the top of the multi-function lever for 3—5 seconds.

NOTE: The activation switch backlight turns to ON (fixed green light).

After 30 seconds of NO ACTION on multi-function lever or SCV levers, a time-out occurs and the system enters standby mode (pressure on E-SCVs decreases).

To reactivate the system, an input on the multi-function lever or on SCV levers is required.

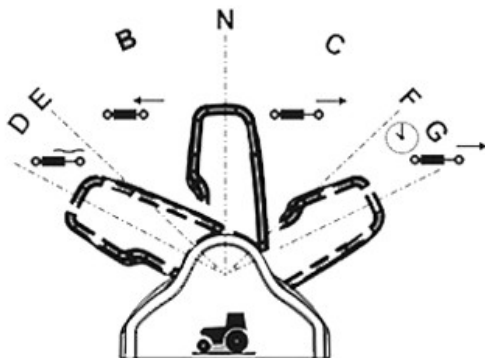
If the detent position (multi-function lever or SCV levers locked-out) or float position is engaged, time-out is disabled because high pressure is still required even in absence of operator input.

To lock out the multi-function lever or SCV levers, press the activation switch (G) on top of multi-function lever.

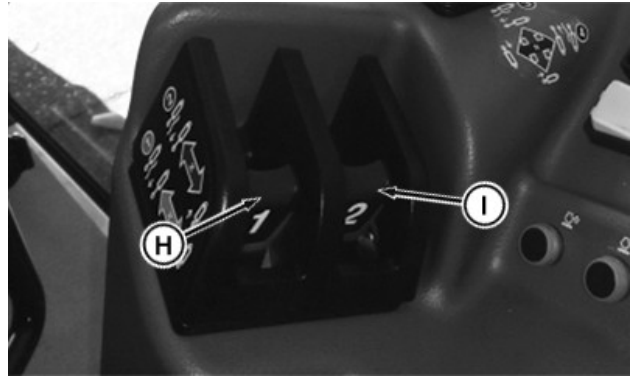
NOTE: The Activation Switch backlight turns to OFF.

E-SCV Levers

Pressure Position



PY31925—UN—20SEP16



PY33524—UN—17NOV16

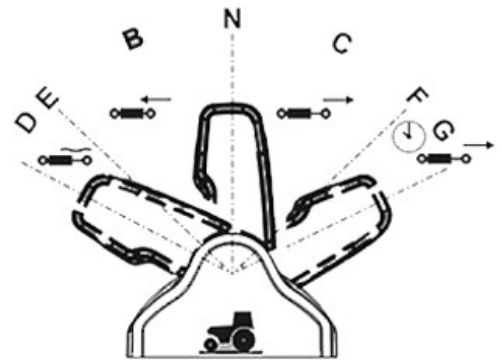
H—Lever for E-SCV No. 1

I—Lever for E-SCV No. 2.

Each linear control has the same operating logic:

- Position (N) = Neutral.
- Positions (B-C) = Supply proportional to the control movement.

Float Position



PY31925—UN—20SEP16



PY33525—UN—17NOV16

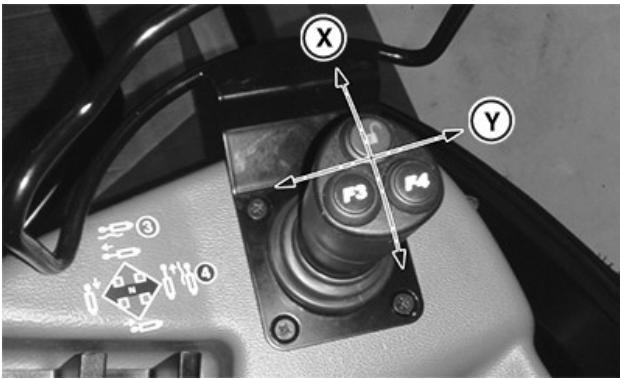
Each linear control has a floating function.

– In float position (D), the pressure connectors are connected to the tank, which enables the hitched implement to follow the contours of the terrain.

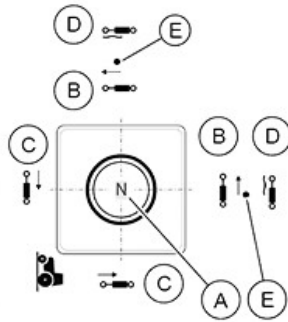
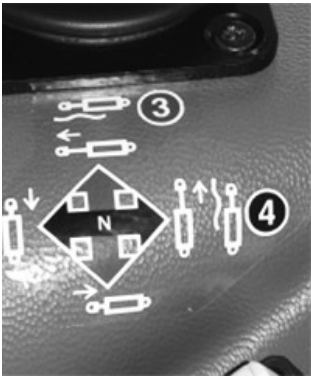
– Push the linear control beyond the point of resistance (E) on one of its axes.

NOTE: The linear control locks in this position.

Multi-Function Lever



PY33526—UN—17NOV16



PY33527—UN—17NOV16

X—E-SCV No.3
Y—E-SCV No.4

The multi-function lever controls E-SCVs no. 3 and 4. The joystick enables two auxiliary hydraulic control valves to be activated simultaneously (or independently):

- Moving the lever along the longitudinal axis (X) controls auxiliary hydraulic control valve no. 3 (Green).
- Moving the lever along the longitudinal axis (Y) controls auxiliary hydraulic control valve no. 4 (Purple).

Each axis has the same operating logic:

- Position (A) is = Neutral.
- Position (B-C) is = Supply proportional to the control movement.

Floating Position:

The multi function lever has a floating function on its 2 axes.

In the floating position (D), the pressure connectors are connected to the tank.

- This position can be locked.
- Push the multi function lever beyond the point of resistance (E) on one of its axes.
- The multi-function lever locks in this position.
- The multi-function lever can be in the floating position on both axes simultaneously.

F3 and F4 Functions

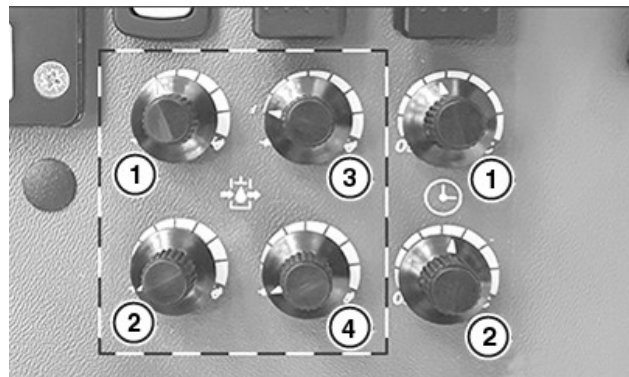
Additional functions on the implement are activated when using the F3 and F4 buttons.

F3 and F4 functions are used by the implement. On the tractor, there are two electric plugs on the rear. One is close to the SCVs pack on CAB version and the other is close to the battery on OOS version.

The tractor (CAB version) is equipped with two connectors on the rear side of the tractor. One is for the power supply (two pins superseal connector), and one is for the functions activations (three pins superseal connector).

The tractor (OOS version) is equipped with one connector. It is close to battery area and used for the functions activations.

Flow Regulators



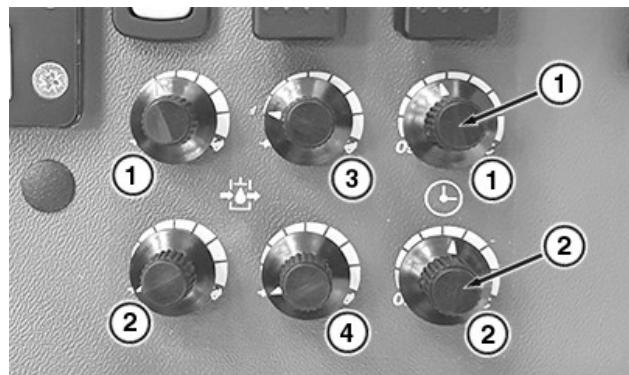
APY11263—UN—30MAY19

Distributor oil flow is adjusted by the flow regulators. Each auxiliary electrohydraulic control valve is fitted with a hydraulic flow control unit.

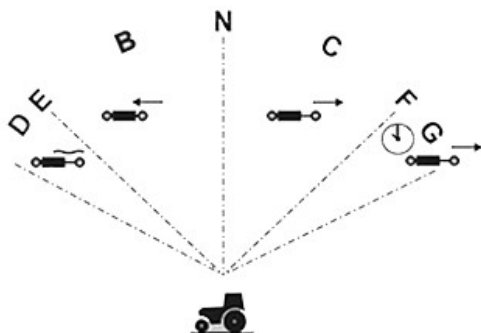
Turn the setting knob in one direction or the other to adjust the flow rate of the auxiliary hydraulic control valve oil:

- Clockwise: Increase hydraulic flow.
- Counterclockwise: Decrease hydraulic flow.

Kick-Out Timing Regulators (For E-SCV Levers Only)



APY11264—UN—30MAY19



PY31931—UN—20SEP16

1—Auxiliary Electrohydraulic Control Valve No. 1, Adjustment Knob

2—Auxiliary Electrohydraulic Control Valve No. 2, Adjustment Knob

Auxiliary electrohydraulic valves 1 and 2 are fitted with a hydraulic timer:

- Adjustment knob (1): Auxiliary electrohydraulic control valve no. 1
- Adjustment knob (2): Auxiliary electrohydraulic control valve no. 2

Push the linear control beyond the point of resistance (F) on one of its axes. The linear control locks in position (G).

The new setting for the timer is active.

Set Up

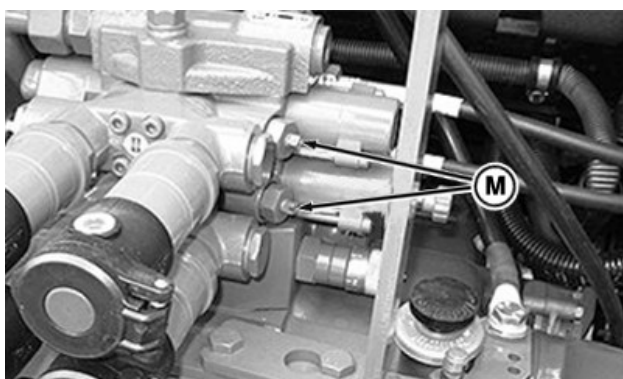
- Turn the setting knob (1) or (2) in one direction or the other to set the hydraulic timer:
- Clockwise: Increases the hydraulic timer period.
- Counterclockwise: Decreases the hydraulic timer period.

Turn the setting knob (1) or (2) fully clockwise to lock the linear control in position (G) permanently.

RA84036,00019CE-19-22JUL19

Selective Control Valves - Settings

Double/Single Acting SCVs Conversion



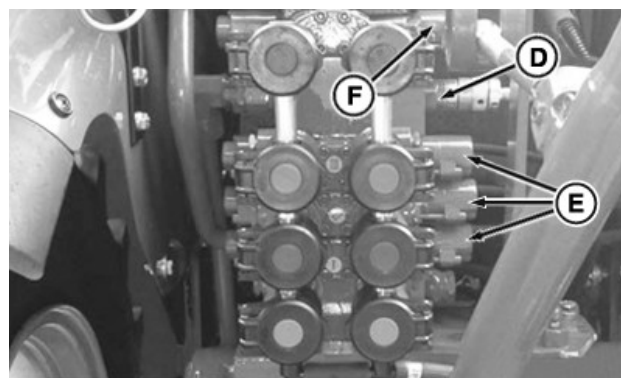
M—Screw

The spool valves are fitted with a square drive screw (M) for conversion between double and single acting.

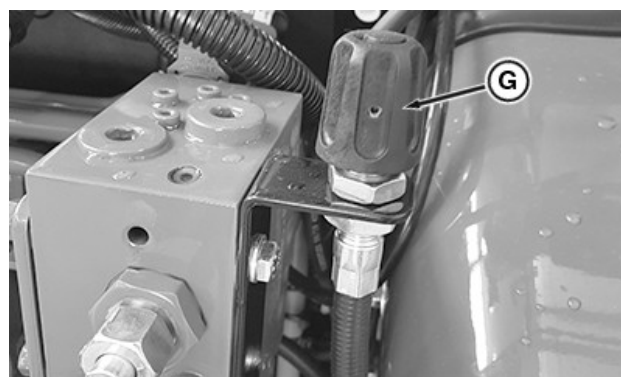
Unscrew the screw until the mechanical stop is felt.

To use a spool valve in single acting mode, connect the implements hose to the left-hand outlet.

MS76789,0000614-19-11SEP18



PY31953—UN—20SEP16



APY11265—UN—30MAY19

- D—Flow Regulator Valve**
- E—Double-Acting SCVs/hitch**
- F—Double-Acting SCVs**
- G—Knob (Cab Version)**

The Flow regulator (D) can be fitted on tractor equipped with 2 or 3 pumps configuration, the behavior of the hydraulic circuit can change accordingly.

NOTE: The position can be different according to the tractor configuration.

2 Pump Configurations

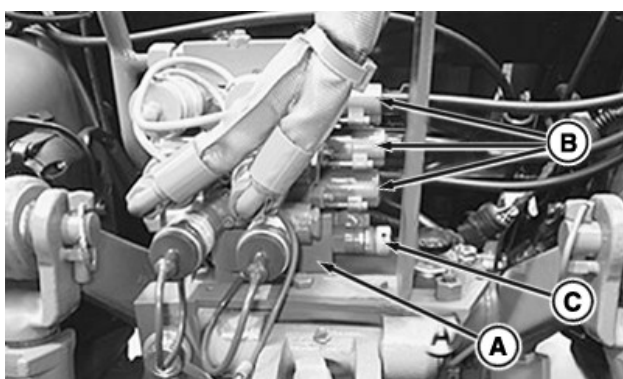
If there are tractors with 2 pump configuration, by the set of the knob (D) the oil flow can be divided between the SCVs (F) above the flow regulator and the SCVs (E) including the rear hitch below the flow regulator.

The oil flow delivered by the SCV (F) is not constant according to the set of the knob (D). In this case, the flow increases or decreases according to the engine rpm.

The oil flow delivered by the SCVs (E) is constant, according to the set of the knob (D). In this case the flow set by the knob is not dependant on the engine rpm. Once the pump delivers the needed flow set by the knob, the increase of the engine rpm will not increase the flow delivered by the SCV (constant flow). The maximum flow available on the SCV (F) is about the 60% of the maximum pump flow.

Independently from the set of the knob (C), the rear hitch has priority in respect to the oil flow delivered by the pump.

Flow Divider Valve



PY31951—UN—20SEP16

Flow Divider (2 pump configuration only)

- A—Flow Divider Valve**
- B—Double Acting SCVs/Hitch**
- C—Adjusting Knob**

By the knob (C), the total amount of oil delivered by the hydraulic pump can be divided between the SCVs and the rear hitch.

The flow delivered by the SCVs, is dependant on the engine rpm and the knob set.

Independently from the set of the knob (C), the rear hitch has a priority in respect to the oil flow delivered by the pump.

Flow Regulator Valve Control

3 Pump Configurations

In this case, the rear hitch is supplied by a dedicated hydraulic pump.

If there are tractors with 3 pump configuration, by the set of the knob (D) the oil flow can be divided between the SCV (F) above the flow regulator and the SCVs (E) below the flow regulator.

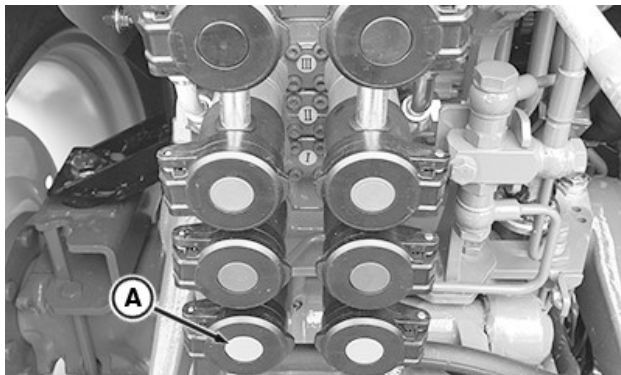
The oil flow delivered by the SCVs (E) is not constant according to the set of the knob (D). In this case, the flow increases or decreases according to the engine rpm.

The oil flow delivered by the SCV (F) is constant, according to the set of the knob (D). In this case, the flow set by the knob is not dependant on the engine rpm. Once the pump delivers the needed flow set by the knob, the increase of the engine rpm will not increase the flow delivered by the SCV (constant flow). The maximum flow available on the SCV (F) is about the 53% of the maximum pump flow.

RA84036,00019CF-19-22JUL19

Remote Hydraulic Cylinders

Connecting Single-Acting Cylinder



APY11266—UN—30MAY19

A—Receptacle

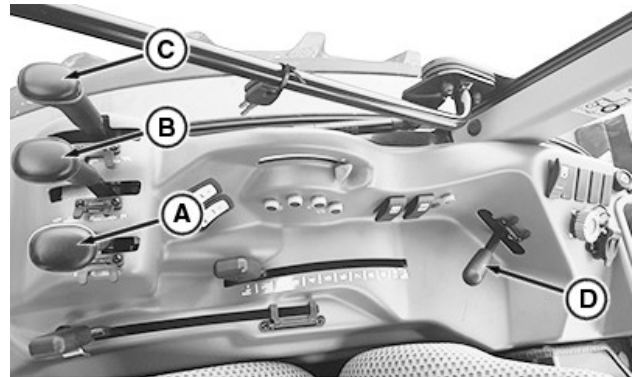
IMPORTANT: The volume of oil required to extend the cylinder must not lower transmission/ hydraulic oil level below end of dipstick.

Check oil level with cylinder fully extended.

In order for lever to work properly, a single-acting cylinder is connected only to receptacle (A).

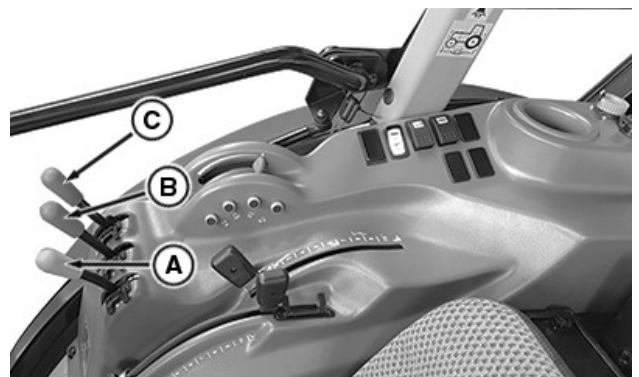
NOTE: If cylinder response is reversed, extending when it retracts, reverse the cylinder hose connections at coupler.

Neutral Position



APY11254—UN—30MAY19

(5GV, 5GN, 5GF)



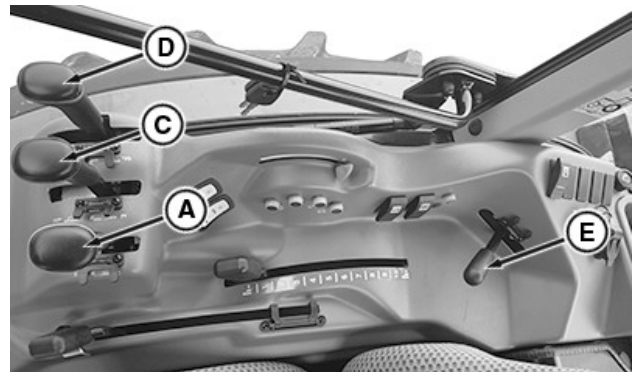
APY11255—UN—30MAY19

(5GL, 5GL-N)

A—D—Lever

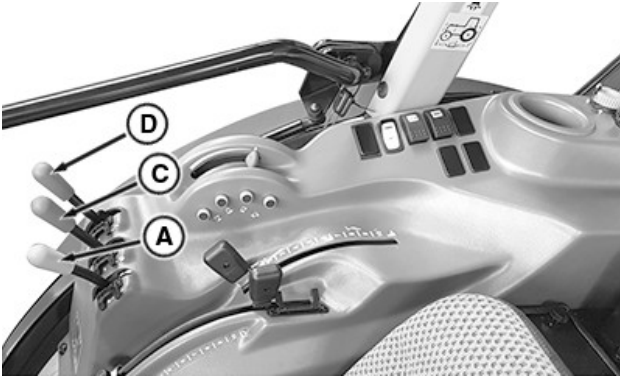
Spring pressure returns levers (A), (B), (C), and (D) to a centered position. In this position, the remote cylinder is hydraulically locked in position, with the help of the control lever.

Retracting and Extending Cylinder



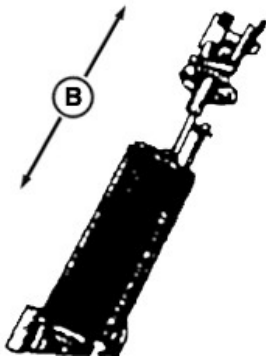
APY11267—UN—30MAY19

(5GV, 5GN, 5GF)



APY11268—UN—30MAY19

(5GL, 5GL-N)



PY31962—UN—20SEP16

A—Lever
B—Cylinder
C—Lever
D—Lever
E—Lever

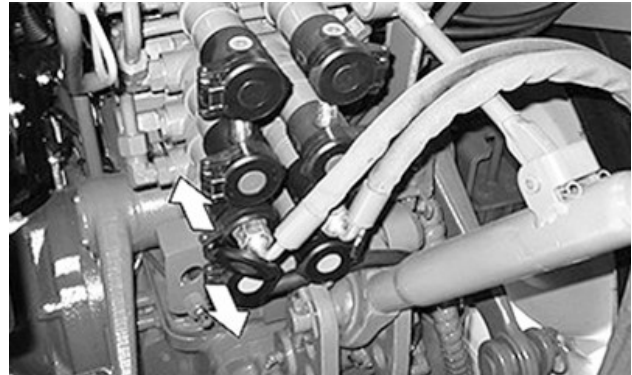
Retracting Cylinder :

Pull lever (A) or (C) from neutral to the rear and hold it against spring pressure. It retracts cylinder (B) (arrow down) connected to SCV I, II, or III coupler receptacles.

Extending Cylinder :

Push lever (A) or (C) from neutral to the front and hold it against spring pressure. It extends cylinder (B) connected to SCV I, II, or III coupler receptacles.

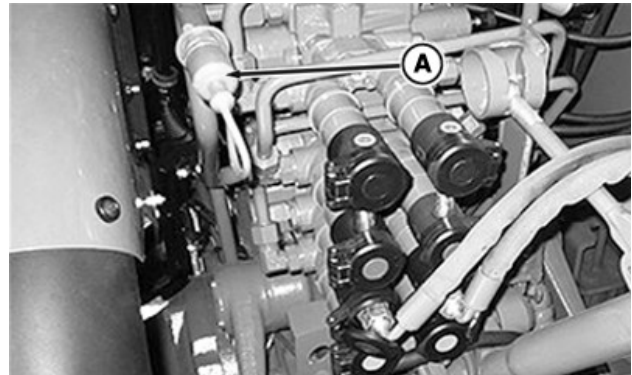
Disconnecting Cylinder Hoses



PY31964—UN—20SEP16

1. If possible, retract the remote cylinder as much as possible to protect the cylinder rod from damage.
2. With as much hydraulic pressure as possible relieved from hoses, pull hoses from couplers.
3. Make sure dust plugs for receptacles and dust caps for hoses are clean, then reinstall.

Return Line to Sump



PY31965—UN—20SEP16

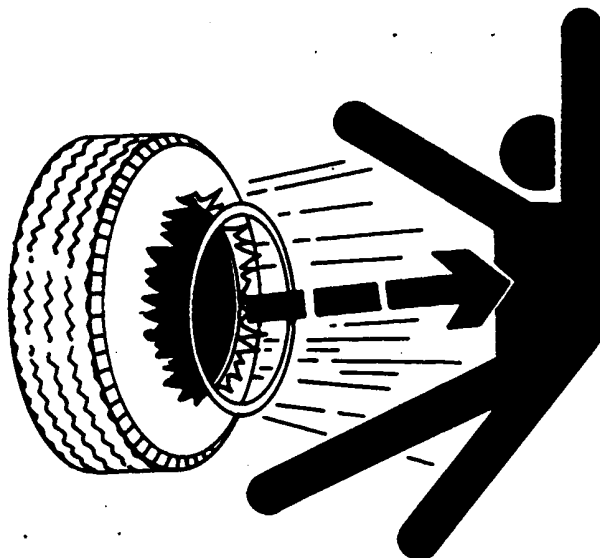
A—Quick Coupler

For some applications (front loader for example), it is necessary to connect the oil return hose to the sump via quick coupler (A).

RA84036,00019D0-19-22JUL19

Wheels and Tires

Service Tires Safely



TS211—UN—15APR13

CAUTION: 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.

NR25796,000130A-19-25MAR09

Changing Wheels Safely



KJD10581—Wheel Dolly
JT02043—Support Stand, 482 to 736 mm (19 to 29 in)
JT02044—Support Stand, 863 to 1117 mm (34 to 44 in)

LX1049987—UN—15JUL11

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 ignition key to prevent unauthorized operation.
- When removing rear wheels, prevent front axle oscillation by using wedges.
- When jacking up the tractor, only use the recommended lifting points, See "Jack Up the Tractor - Lifting Points" in Section 210.
- Use a stable jack with sufficient lifting force. See "Loads and Weights" in Section 500A.
- 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 as the special tool KJD10581 at your John Deere dealer.
- Support the tractor when a wheel is removed. The support stands are available as the special tools (JT02043 and JT02044) at your John Deere dealer.
- When installing wheels, make sure that the correct torques are applied, See "Tighten Wheel Bolts" for Front tiers in Section 80A and for Rear tiers in Section 80C.

**If not equipped with the park lock, apply park brake instead.*

CAUTION: Do not operate the tractor until the wheel change has been completed.

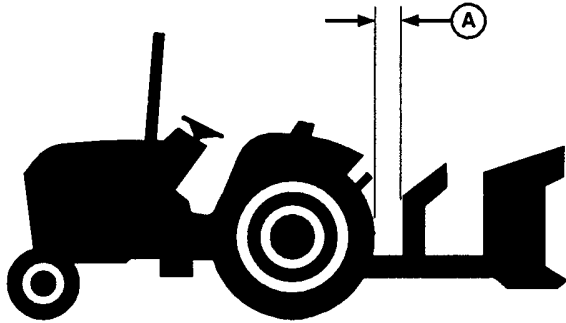
When changing wheels, make sure that no-one is standing in the danger zone.

When removing a wheel, make sure that the tractor is supported safely.

When storing removed wheels, make sure that they cannot fall.

RA84036,0000FB2-19-25JUL18

Check Implement-to-Tire Clearance



LV736—UN—25JUN94

IMPORTANT: Check for adequate clearance (A) between outside diameter of the tire and implement with hitch in raised position.

When large diameter rear tires are installed on a tractor with a 3-Point hitch, a quick coupler or similar device is required to provide adequate implement-to-tire clearance.

LV,5400NWT,B1-19-30MAY96

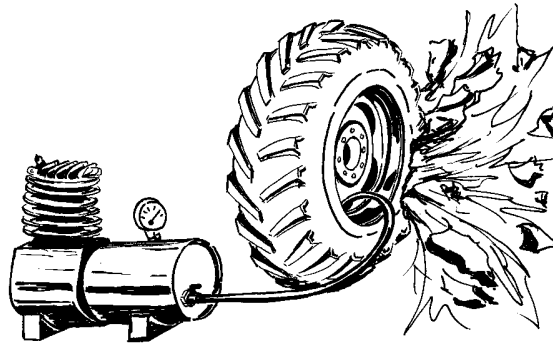
Tire Pressures

Long life and satisfactory performance of the tires depend on proper tire inflation. Under-inflation of tires leads to rapid wear. Over-inflated tires reduce traction and increase wheel slippage.

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 your John Deere dealer or tire company for advice.

AG,OU12401,170-19-28MAR00

Mounting Tires



Z 20924

Z20924—UN—15AUG94

Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do NOT attempt to mount a tire unless you have the proper equipment and experience to perform the job safely. Have it done by your John Deere dealer or a qualified tire repair service.

When seating tire beads on rims, never exceed maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead and reinflate.

Detailed agricultural tire mounting instructions, including the necessary safety precautions, are available from your local tire manufacturer agents.

OULXA64,0000C96-19-31JUL03

Tire Combinations

In order to achieve maximum drawbar pull, maintain proper steerability, and reduce tire wear and fuel consumption, comply with the correct tire combinations as shown in the table. If front tires show excessive wear in comparison with rear tires, the front tires must be replaced in order to maintain the predetermined tire ratio.

IMPORTANT: When replacing tires, consult your tire dealer. Never mix worn and new tires, bias, and radial tires or tires with different diameters. It reduces life of the tire and decreases the overall tractor performance. Using other tire combinations, apart from the tire combination chart, causes premature tire and power train wear.

Tire Combinations - 4WD WITH FRONT ADJUSTABLE RIMS

5GF		5GF	
Rear Tires	Rear Rims	Front Tires	Front Rims
340/85 R24	W12x24 in	250/80 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R18	W9x18 in

Wheels and Tires

380/70 R28	W12x28 in	280/70 R20	W10x20 in
380/70 R24	W12x24 in	250/80 R16	W8x16 in
480/65 R24	W15Lx24 in	280/70 R18	W9x18 in
420/70 R24	W12x24 in	280/70 R20	W10x20 in
420/70 R28	W12x28 in	320/70 R20	W10x20 in
420/70 R28	W12x28 in	300/70 R20	W10x20 in
480/65 R28	W15Lx28 in	320/70 R20	W10x20 in
380/85 R28	W12x28 in	9.5 R20	W8x20 in
420/70 R24	W12x24 in	280/70 R18	W9x18 in
380/85 R28	W12x28 in	9.5 R20	W8x20 in
420/70 R24	W14Lx24 in	280/70 R18	W9x18 in
420/70 R24	W12x24 in	280/70 R18	W9x18 in
420/70 R28	W12x28 in	320/70 R20	W10x20 in
420/70 R28	W12x28 in	300/70 R20	W10x20 in
4WD WITH FRONT ADJUSTABLE REINFORCED RIMS			
5GF		5GF	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R24	W12x24 in	280/70 R18	W9x18 in
480/65 R24	W15Lx24 in	280/70 R18	W9x18 in
420/70 R24	W12x24 in	280/70 R18	W9x18 in
4WD WITH FRONT FIXED RIMS			
5GF		5GF	
Rear Tires	Rear Rims	Front Tires	Front Rims
340/85 R24	W12x24 in	250/80 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R18	W9x18 in
380/70 R28	W12x28 in	280/70 R20	W10x20 in
380/70 R24	W12x24 in	250/80 R16	W8x16 in
480/65 R24	W15Lx24 in	280/70 R18	W9x18 in
420/70 R24	W12x24 in	280/70 R20	W10x20 in
420/70 R28	W12x28 in	320/70 R20	W10x20 in
420/70 R28	W12x28 in	300/70 R20	W10x20 in
480/65 R28	W15Lx28 in	320/70 R20	W10x20 in
420/70 R24	W12x24 in	280/70 R18	W9x18 in
420/70 R24	W14Lx24 in	280/70 R18	W9x18 in
2WD			
5GF		5GF	
Rear Tires	Rear Rims	Front Tires	Front Rims
320/85 R28	W10x28 in	6.00-16	4.00Ex16 in
340/85 R28	W12x28 in	6.50-16	5.50Fx16 in
340/85 R28	W12x28 in	7.50-16	5.50Fx16 in
380/70 R28	W12x28 in	7.50-16	5.50Fx16 in

4WD WITH FRONT ADJUSTABLE RIMS			
5GL		5GL	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R20	W11x20 in	260/70 R16	W8x16 in
360/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W9x18 in
440/65 R24	W15Lx24 in	280/70 R16	W9x18 in
4WD WITH FRONT FIXED RIMS			
5GF		5GF	

Wheels and Tires

Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R24	W12x24 in	280/70 R18	W9x18 in
440/65 R24	W15Lx24 in	280/70 R18	W9x18 in
380/70 R20	W11x20 in	260/70 R16	W8x16 in
360/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W8x16 in

4WD WITH FRONT ADJUSTABLE RIMS			
5GL-N		5GL-N	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R20	W11x20 in	260/70 R16	W8x16 in
360/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R18	W9x18 in
440/65 R24	W15Lx24 in	280/70 R18	W9x18 in
4WD WITH FRONT FIXED RIMS			
5GL-N		5GL-N	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R20	W11x20 in	260/70 R16	W8x16 in
360/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R18	W9x18 in
440/65 R24	W15Lx24 in	280/70 R18	W9x18 in

4WD WITH FRONT ADJUSTABLE RIMS			
5GL-N (Cab)		5GL-N (Cab)	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R20	W11x20 in	260/70 R16	W8x16 in
360/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R18	W9x18 in
440/65 R24	W15Lx24 in	280/70 R18	W9x18 in
4WD WITH FRONT FIXED RIMS			
5GL-N (Cab)		5GL-N (Cab)	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R20	W11x20 in	260/70 R16	W8x16 in
360/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R16	W8x16 in
380/70 R24	W12x24 in	280/70 R18	W9x18 in
440/65 R24	W15Lx24 in	280/70 R18	W9x18 in

4WD WITH FRONT ADJUSTABLE RIMS			
5GN		5GN	
Rear Tires	Rear Rims	Front Tires	Front Rims
320/85 R28	W10x28 in	7.50 R16	5.50Fx16 in
380/70 R24	W12x24 in	260/70 R16	W8x16 in
340/85 R28	W12x28 in	7.50 R16	5.50Fx16 in
340/85 R28	W12x28 in	280/70 R18	W9x18 in
340/85 R28	W12x28 in	8.25-16	5.50Fx16 in

Wheels and Tires

420/70 R28	W12x28 in	280/70 R18	W9x18 in
380/85 R28	W12x28 in	7.50 R18	5.50Fx18 in
380/85 R28	W12x28 in	280/70 R18	W9x18 in
480/65 R28	W15Lx28 in	280/70 R18	W9x18 in
280/85 R28	W10x28 in	260/70 R16	W8x16 in
4WD WITH FRONT ADJUSTABLE REINFORCED RIMS			
5GN		5GN	
Rear Tires	Rear Rims	Front Tires	Front Rims
340/85 R28	W12x28 in	280/70 R18	W9x18 in
420/70 R28	W12x28 in	280/70 R18	W9x18 in
380/85 R28	W12x28 in	280/70 R18	W9x18 in
480/65 R28	W15Lx28 in	280/70 R18	W9x18 in
4WD WITH FRONT FIXED RIMS			
5GN		5GN	
Rear Tires	Rear Rims	Front Tires	Front Rims
320/85 R28	W10x28 in	7.50 R16	5.50Fx16 in
380/70 R24	W12x24 in	260/70 R16	W8x16 in
340/85 R28	W12x28 in	7.50 R16	5.50Fx16 in
340/85 R28	W12x28 in	280/70 R18	W9x18 in
340/85 R28	W12x28 in	8.25-16	5.50Fx16 in
420/70 R28	W12x28 in	280/70 R18	W9x18 in
380/85 R28	W12x28 in	7.50 R18	5.50Fx18 in
380/85 R28	W12x28 in	280/70 R18	W9x18 in
480/65 R28	W15Lx28 in	280/70 R18	W9x18 in
280/85 R28	W10x28 in	260/70 R16	W8x16 in
2WD			
5GN		5GN	
Rear Tires	Rear Rims	Front Tires	Front Rims
280/85 R28	W10x28 in	6.00-16	4.00Ex16 in
320/85 R28	W10x28 in	6.00-16	4.00Ex16 in
340/85 R24	W12x24 in	6.00-16	4.00Ex16 in
340/85 R28	W12x28 in	6.50-16	5.50Fx16 in
340/85 R28	W12x28 in	7.50-16	5.50Fx16 in

4WD WITH FRONT ADJUSTABLE RIMS			
5GV		5GV	
Rear Tires	Rear Rims	Front Tires	Front Rims
250/85 R28	W8x28 in	180/95 R16	5.50Fx16 in
280/85 R28	W10x28 in	180/95 R16	5.50Fx16 in
320/85 R24	W10x24 in	180/95 R16	5.50Fx16 in
320/85 R24	W10x24 in	240/70 R16	W8x16 in
360/70 R24	W10x24 in	240/70 R16	W8x16 in
360/70 R28	W12x28 in	280/70 R16	W8x16 in
320/85 R28	W10x28 in	7.50 R16	5.50Fx16
340/85 R24	W12x24 in	180/95 R16	5.50Fx16 in
340/85 R24	W12x24 in	10.0/75-15.3	9.00x15.3 in
340/85 R28	W12x28 in	7.50 R16	5.50Fx16 in
340/85 R24	W12x24 in	260/70 R16	W8x16 in
320/85 R24	W10x24 in	260/70 R16	W8x16 in
340/85 R28	W12x28 in	8.25-16	5.50Fx16 in
340/85 R24	W12x24 in	180/95 R16	5.50Fx16 in
280/85 R28	W10x28 in	260/70 R16	W8x16 in

Wheels and Tires

380/70 R24	W12x24 in	260/70 R16	W8x16 in
420/70 R28	W12x28 in	280/70 R18	W9x18 in
380/70 R24	W12x24 in	260/70 R16	W8x16 in
380/85 R28	W12x28 in	280/70 R18	W9x18 in
280/85 R28	W10x28 in	260/70 R16	W8x16 in
4WD WITH FRONT ADJUSTABLE REINFORCED RIMS			
5GV		5GV	
Rear Tires	Rear Rims	Front Tires	Front Rims
250/85 R28	W8x28 in	180/95 R16	5.50Fx16 in
250/85 R28	W8x28 in	6.00-16	4.50Ex16 in
280/85 R28	W10x28 in	180/95 R16	5.50Fx16 in
320/85 R24	W10x24 in	180/95 R16	5.50Fx16 in
340/85 R24	W12x24 in	180/95 R16	5.50Fx16 in
4WD WITH FRONT FIXED RIMS			
5GV		5GV	
Rear Tires	Rear Rims	Front Tires	Front Rims
250/85 R28	W8x28 in	180/95 R16	5.50Fx16 in
280/85 R28	W10x28 in	180/95 R16	5.50Fx16 in
320/85 R24	W10x24 in	180/95 R16	5.50Fx16 in
360/70 R24	W10x24 in	240/70 R16	W8x16 in
360/70 R28	W12x28 in	280/70 R16	W8x16 in
320/85 R28	W10x28 in	7.50 R16	5.50Fx16 in
340/85 R24	W12x24 in	180/95 R16	5.50Fx16 in
340/85 R24	W12x24 in	10.0/75-15.3	9.00x15.3 in
340/85 R28	W12x28 in	7.50 R16	5.50Fx16 in
340/85 R24	W12x24 in	260/70 R16	W8x16 in
320/85 R24	W10x24 in	260/70 R16	W8x16 in
340/85 R28	W12x28 in	8.25-16	5.50Fx16 in
280/85 R28	W10x28 in	180/95 R16	5.50Fx16 in
280/85 R28	W10x28 in	260/70 R16	W8x16 in
380/70 R24	W12x24 in	260/70 R16	W8x16 in
420/70 R28	W12x28 in	280/70 R18	W9x18 in
380/85 R28	W12x28 in	280/70 R18	W9x18 in
250/85 R28	W8x28 in	6.00-16	4.50Ex16 in
280/85 R28	W10x28 in	260/70 R16	W8x16 in
2WD			
5GV		5GV	
Rear Tires	Rear Rims	Front Tires	Front Rims
9.5 R28	W8x28 in	6.00-16	4.00Ex16 in
280/85 R28	W10x28 in	6.00-16	4.00Ex16 in
360/70 R24	W10x24 in	6.00-16	4.00Ex16 in
320/85 R28	W10x28 in	6.50-16	5.50Fx16 in
340/85 R24	W12x24 in	6.00-16	4.00Ex16 in

4WD WITH FRONT ADJUSTABLE RIMS			
5GF - Wide Axle (1540 mm rear axle flange to flange)		5GF - Wide Axle (1540 mm rear axle flange to flange)	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R24	W12x24 in	280/70 R18	W9x18 in
380/70 R28	W12x28 in	280/70 R20	W10x20 in
420/70 R24	W12x24 in	280/70 R20	W10x20 in
420/70 R28	W12x28 in	320/70 R20	W10x20 in
420/70 R28	W12x28 in	300/70 R20	W10x20 in

Wheels and Tires

480/65 R28	W15Lx28 in	320/70 R20	W10x20 in
480/65 R28	W15Lx28 in	420/65 R20	W11x20 in
4WD WITH FRONT ADJUSTABLE REINFORCED RIMS			
5GF - Wide Axle (1540 mm rear axle flange to flange)		5GF - Wide Axle (1540 mm rear axle flange to flange)	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R24	W12x28 in	280/70 R18	W9x18 in
4WD WITH FRONT FIXED RIMS			
5GF - Wide Axle (1540 mm rear axle flange to flange)		5GF - Wide Axle (1540 mm rear axle flange to flange)	
Rear Tires	Rear Rims	Front Tires	Front Rims
380/70 R24	W12x24 in	280/70 R18	W9x18 in
380/70 R28	W12x28 in	280/70 R20	W10x20 in
420/70 R24	W12x24 in	280/70 R20	W10x20 in
420/70 R28	W12x28 in	320/70 R20	W10x20 in
420/70 R28	W12x28 in	300/70 R20	W10x20 in
480/65 R28	W15Lx28 in	320/70 R20	W10x20 in

RA84036,00019BC-19-28MAY19

Front Wheels, Tires, and Treads

Tighten Wheel Bolts

Tighten Front Wheel Nuts (Tractors without Front Wheel Drive)

IMPORTANT: Check tightness of rim, disk, and wheel bolts after 10 hours every time you replace wheels.



AT1285

AT1285—UN—13JUN01

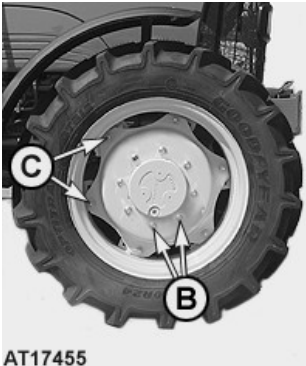
A—Disk to Axle Flange

Specification

Disk to Axle Flange (Tractors without Front Wheel Drive)—Torque. 175 N·m (130 lb·ft)

Tighten Wheel Nuts of Front Wheel Drive Axle

IMPORTANT: Check tightness of rim, disk, and wheel bolts after 10 hours every time you replace wheels.



AT17455

AT17455—UN—20JUL07

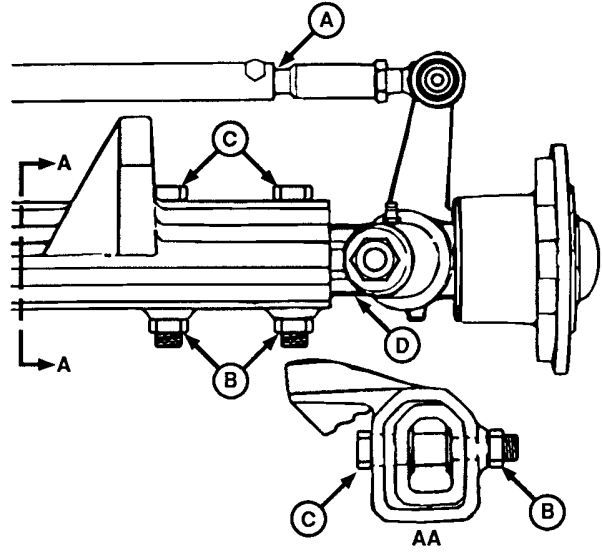
B—Disk to Axle Flange
C—Rim to Disk

Specification

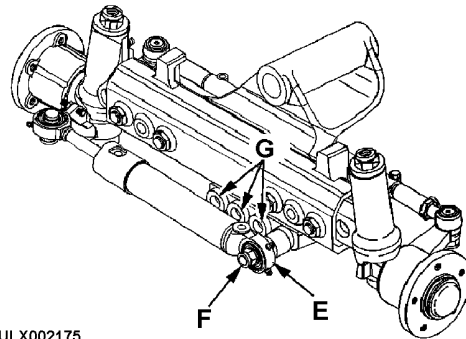
Disk to Axle Flange (B)—Torque. 300 N·m (220 lb·ft)
M18 bolt (C)—Torque. 280 N·m (207 lb·ft)
M16 bolt (C)—Torque. 210 N·m 155 lb·ft

RA84036,0001A5E-19-22JUL19

Adjusting Front Axle Tread Width



LV810—UN—08JUL94



PULX002175

PULX002175—UN—16OCT08

A—Tie Rod Length
B—Nut
C—Cap Screws
D—Axle Knees
E—Steering Cylinder
F—Lock Nut

IMPORTANT: DO NOT place jack under the engine oil pan.

1. Jack up the front end of tractor.
2. When making large tread adjustments it is necessary to change the tie rod length (A) before or during axle adjustments. See "Check Toe-In" and "Adjust Toe-In" in this Section.
3. Change the steering cylinder (E) anchoring position to axle body in relation to the change of tread width using the available holes (G). Tighten lock nut (F) to 250 N·m (184 lb·ft)
4. Remove nuts (B), cap screws (C), and bushings from the front axle (two on each side).
5. Slide axle knees (D) to desired position. Both sides are adjusted to the same spacing.

- Reinstall cap screws (C), bushings, and nuts (B) on each side. Tighten hardware to 150 N·m (110 lb·ft).
- Set toe-in. Refer to "Check Toe-In" and "Adjust Toe-In" for your axle type in this Section.

RA84036,0000FB5-19-11JUL17

Check Toe-In

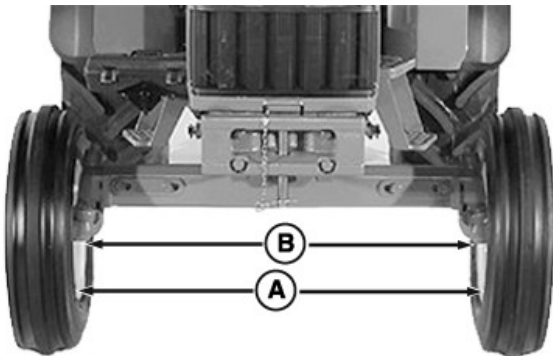
With Front Wheel Drive Axle



PY31907—UN—29AUG16

- Disengage front wheel drive and park tractor on smooth, level surface. Steer front wheels straight ahead. Stop engine.
- Measure distance between the center line of tires at the hub level in the front of axle, using an outside bar of each tire.
- Move tractor back about 1 m (3 ft) so mark is at the hub level behind the axle. Again measure distance between tires at same point on tire.
- Determine the difference between front and rear measurements. If the front measurement is smaller, toe is "in". If the rear is smaller, toe is "out". Toe-in is less than 2 mm (1/12 in).

Without Front Wheel Drive



PY31908—UN—29AUG16

- Park machine on the leveled surface.
- Turn steering wheel so front wheels are in the straight-ahead position. Stop engine.
- Measure distance (B) between tires at the hub level

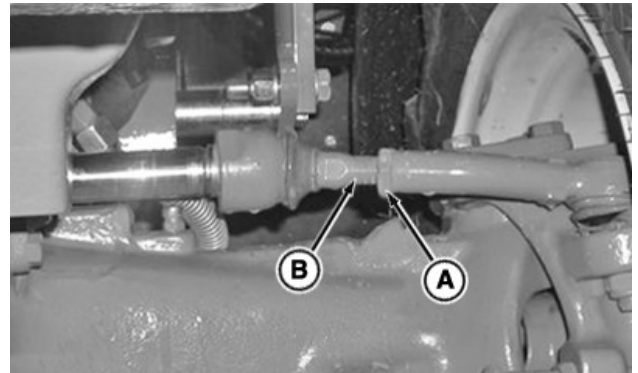
in the front of axle. Record measurement and mark the tires.

- Move tractor back about 1 m (3 ft), so mark is at the hub level behind the axle. Again, measure distance between tires at same point on tire. Record measurement.
- Determine the difference between front and rear measurements. If the front measurement is smaller, toe is "in". If the rear is smaller, toe is "out".
- Distance (A) at the front of tires must be 3 - 6 mm (1/8 - 1/4 in.), less than distance measured at rear of tires. Adjust toe-in if necessary. See "Adjust Toe-In" in this Section for more information.

RA84036,0000FB6-19-11JUL17

Adjust Toe-In

With Front-Wheel Drive



PY31909—UN—30AUG16

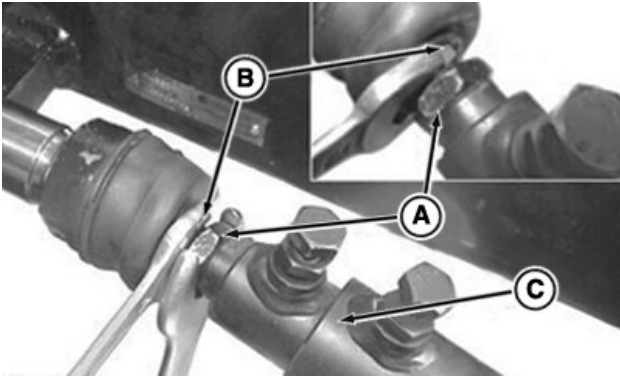
A—Lock nut
B—Inner rod

- Loosen lock nuts (A) on both ends of tie rod.
- Adjust both sides equally by rotating the inner rod (B) and lengthen or shorten the tie rod. Adjust toe-in to 0-2 mm (0-1/12 in.).

Tie Rod Rotation	Approximate Change in Toe-in
1/8 turn	4 mm (3/16 in)
1/4 turn	8 mm (3/8 in)
1/2 turn	16 mm (5/8 in)

- Tighten lock nuts (A) to 120 N·m (88 lb·ft).

Without Front-Wheel Drive



PY31910—UN—30AUG16

A—Inner Tube
B—Lock nut
C—Tie Rod

1. Loosen lock nuts (B) on both ends of tie rod.
2. Turn inner tube (A) to lengthen or shorten the tie rod (C) until toe-in is 3 - 6 mm (0.12 - 0.24 in).

Tie Rod Rotation	Approximate Change in Toe-In
1/2 turn	8 mm (0.31 in)
1 turn	16 mm (0.63 in)

3. Tighten lock nuts (B) to 140 N·m (103 lb·ft).

RA84036,0000FB7-19-11JUL17

A—Direction of Forward Travel
B—Tire Lug

When mounting or changing the tires, make sure that the arrow on the flank of tires points in the direction of forward travel (A).

When the tractors with front wheel drive are to be used primarily for transport purposes or front loader operation, turn tires against usual rolling direction of tire lugs (B). Tire life increases by 25—30% and better traction is achieved.

Because of reduced traction and tire self-cleaning effects, this arrangement is not recommended for field work under wet conditions.

RA84036,0001A5F-19-22JUL19

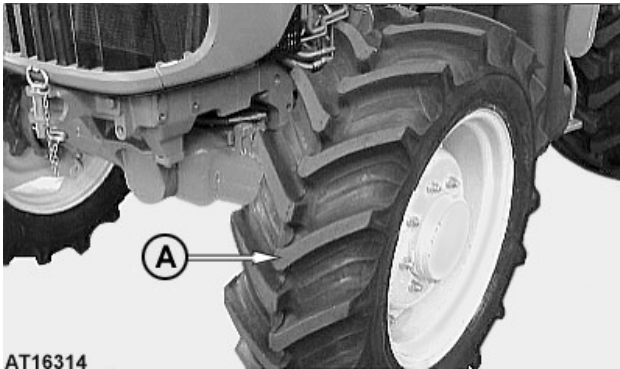
Tread Adjustment

Front wheel tread is adjusted by repositioning or reversing the rims or by reversing the wheel disks. In addition, the complete wheel can be installed on the other side of the tractor. The arrow on the side wall of tire must point in the direction of forward travel. If front wheels are removed to adjust tread, tighten front wheel attaching nuts to specified torque. See Tighten Wheel Bolts in this section.

IMPORTANT: Always mount nuts on the rim side.

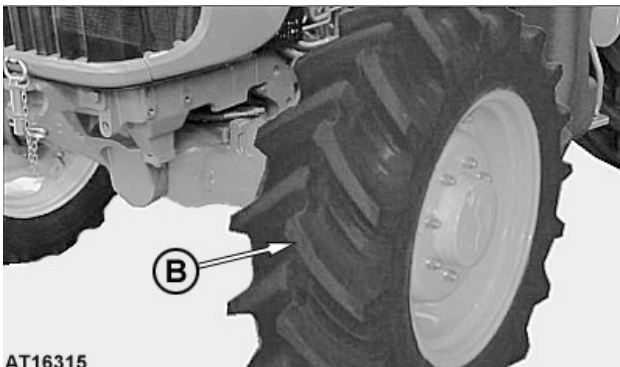
NOTE: The illustration shows the right-hand front wheel. Tread widths are measured at the lowest point of the tires.

Direction of Tire Rotation



AT16314

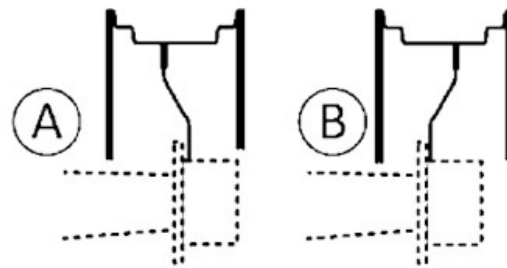
AT16314—UN—24JUN03



AT16315

AT16315—UN—18SEP03

Front-Wheel Tread Settings — with Front-Wheel Drive (5GF)



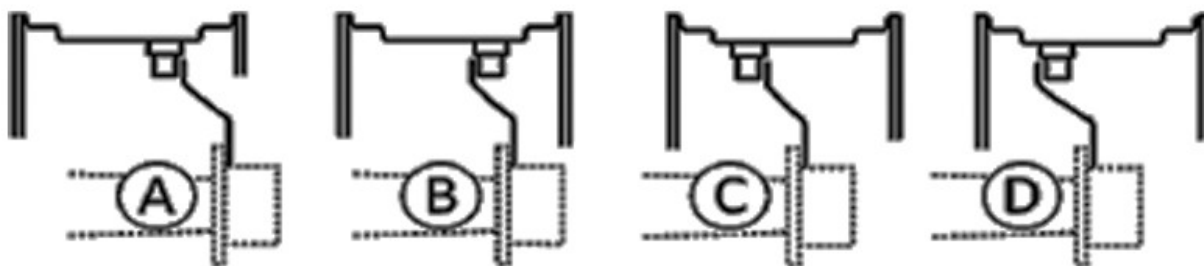
PY31904—UN—29AUG16

Front Wheels, Tires, and Treads

Front-Wheel Tread Settings - with Front-Wheel Drive (5GF)				
Front Tires	Rim	Unit	Position of Rim and Wheel Disks	
	2 Position Welded		A	B
250/80-16	W8x16 in	mm	1262 ^a	1366
		in	50 ^a	54
280/70 R18	W9x18 in	mm	1217 ^a	1413
		in	48 ^a	56
280/70 R20	W10x20 in	mm	1163 ^a	1463
		in	46 ^a	58
300/70 R20	W10x20 in	mm	1163 ^a	1463
		in	46 ^a	58
320/70 R20	W10x20 in	mm	—	1462
		in	—	58

^aNot available with fender support

Front-Wheel Tread Settings — with Front-Wheel Drive (5GF)



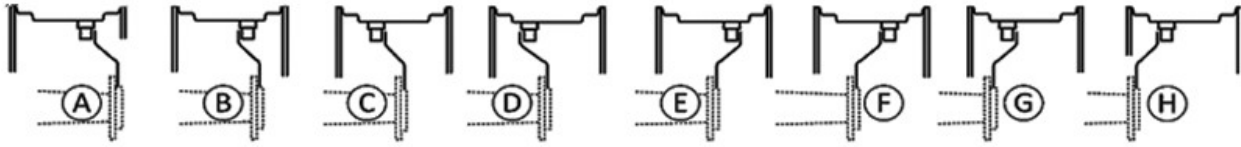
PY37713—UN—25JUL18

Front-Wheel Tread Settings - with Front-Wheel Drive (5GF)										
Front Tires	Rim	Unit	Position of Rim and Wheel Disks							
	4 Adjustable Position Rims		A	B	C	D	A	B	C	D
250/80 R16	W8x16 in	mm	1256 ^a	1332	1296	1372	—	—	—	—
		in	49 ^a	52	51	54	—	—	—	—
280/70 R18	W9x18 in	mm	1181 ^a	1257 ^a	1369	1445	—	—	—	—
		in	46 ^a	49 ^a	54	57	—	—	—	—
280/70 R20	W10x20 in	mm	—	1129 ^a	1233 ^a	1343	1280 ^b	1389	1493	1603
		in	—	44 ^a	49 ^a	53	50 ^b	55	59	63
300/70 R20	W10x20 in	mm	—	1129 ^a	1233 ^a	1342	1279 ^b	1389	1493	1602
		in	—	44 ^a	49 ^a	53	50 ^b	55	59	63
320/70 R20	W10x20 in	mm	—	—	1232 ^a	1341	1279 ^b	1388	1492	—
		in	—	—	49 ^a	53	50 ^b	55	59	—
9.5 R20	W8x20 in	mm	—	1158 ^a	1202 ^a	1312	1309	1418	1462	1572
		in	—	46 ^a	47 ^a	52	52	56	58	62

^aNot available with fender support

^bNot available with steering sensor

Front-Wheel Tread Settings — with Front-Wheel Drive (5GF)



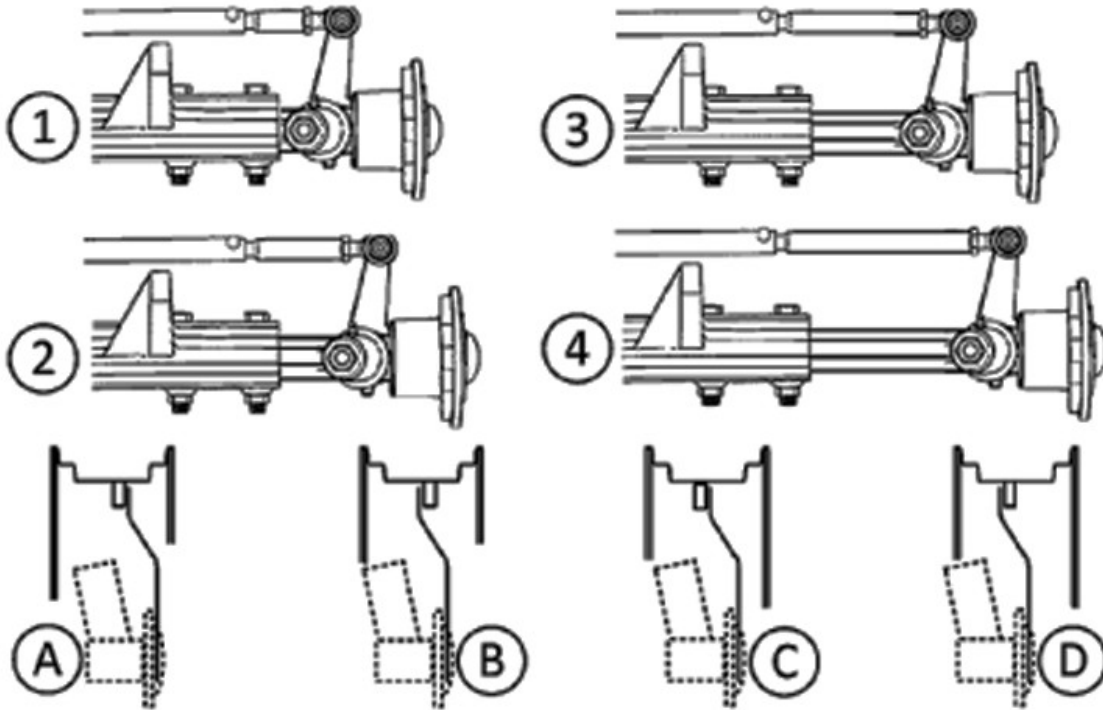
PY37714—UN—25JUL18

Front-Wheel Tread Settings (with Front-Wheel Drive) 4+4 position adjustable rims (5GF)										
Front Tires	Rim	Unit	Position of Rim and Wheel Disks							
	4+4 Position Reinforced Adjustable		A	B	C	D	E	F	G	H
280/70 R18	W9x18 in	mm	—	1263 ^a	1367	1483	—	1225 ^b	1405	1445
		in	—	50 ^a	54	58	0	48 ^b	55	57

^aNot available with fender support

^bNot available with steering sensor

Front Wheel Tread Settings — without Front-Wheel Drive (5GF)



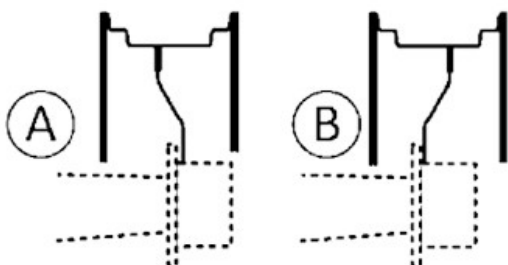
PY31905—UN—29AUG16

Front Wheel Tread Settings - without Front-Wheel Drive (5GF)										
Front Tires	Rim	Unit	Wheel and Disk in Axle Arm Position 1				Wheel and Disk in Axle Arm Position 2			
			1A	1B	1C	1D	2A	2B	2C	2D
6.00-16	4.00Ex16 in	mm	998	—	1196	—	1098	—	1296	—
		in	39	—	47	—	43	—	51	—
6.50-16	5.50Fx16 in	mm	1031	1107	1091	1167	1131	1207	1191	1267

Front Wheels, Tires, and Treads

		in	41	44	43	46	45	48	47	50
7.50-16	5.50Fx16 in	mm	1029	1105	1089	1165	1129	1205	1189	1265
		in	41	44	43	46	44	47	47	50
Front Tires	Rim	Unit	Wheel and Disk in Axle Arm Position 3				Wheel and Disk in Axle Arm Position 4			
			3A	3B	3C	3D	4A	4B	4C	4D
6.00-16	4.00Ex16 in	mm	1198	—	1396	—	1298	—	1496	—
		in	47	—	55	—	51	—	59	—
6.50-16	5.50Fx16 in	mm	1231	1307	1291	1367	1331	1407	1391	1467
		in	48	51	51	54	52	55	55	58
7.50-16	5.50Fx16 in	mm	1229	1305	1289	1365	1329	1405	1389	1465
		in	48	51	51	54	52	55	55	58

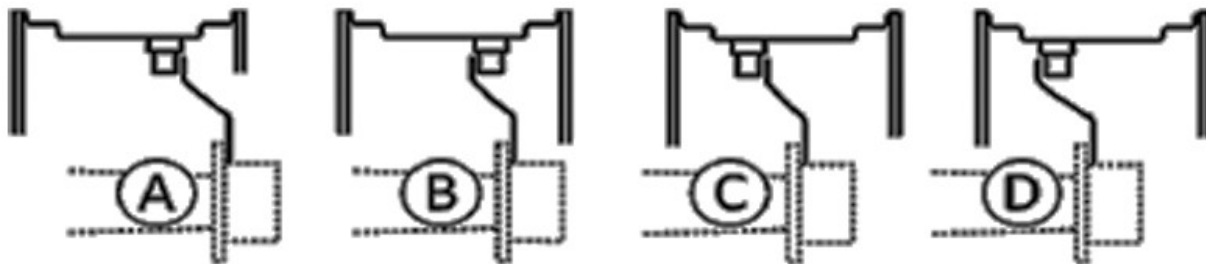
Front-Wheel Tread Settings — with Front-Wheel Drive (5GL)



PY31904—UN—29AUG16

Front-Wheel Tread Settings - with Front-Wheel Drive (5GL)				
Front Tires	Rim	Unit	Position of Rim and Wheel Disks	
	2 Position Rims (welded)		A	B
260/70 R16	W8x16 in	mm	1263	1367
		in	50	54
280/70 R16	W8x16 in	mm	1262	1366
		in	50	54
280/70 R18	W9x18 in	mm	1217	1413
		in	48	56

Front-Wheel Tread Settings — with Front-Wheel Drive (5GL)

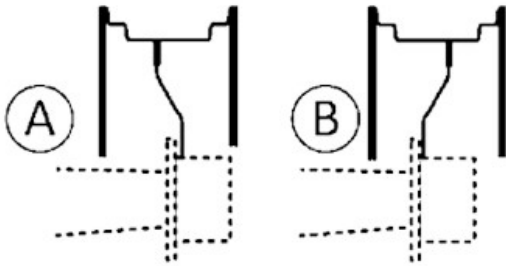


PY37713—UN—25JUL18

Front Wheels, Tires, and Treads

Front-Wheel Tread Settings - with Front-Wheel Drive (5GL)						
Front Tires	Rim	Unit	Position of Rim and Wheel Disks			
	4 Position Adjustable		A	B	C	D
260/70 R16	W8x16 in	mm	1257	1333	1297	1373
		in	49	52	51	54
280/70 R16	W8x16 in	mm	1256	1332	1296	1372
		in	49	52	51	54
280/70 R18	W9x18 in	mm	1181	1257	1369	1445
		in	46	49	54	57

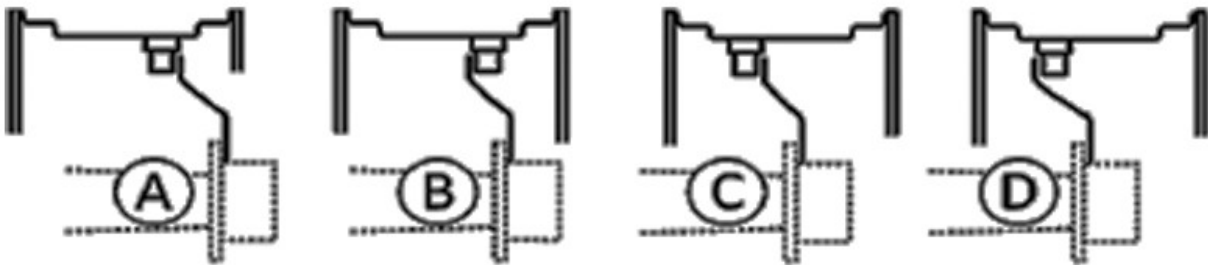
Front-Wheel Tread Settings — with Front-Wheel Drive (5GL-N)



PY31904—UN—29AUG16

Front-Wheel Tread Settings - with Front-Wheel Drive (Cab) (5GL-N)				
Front Tires	Rim	Unit	Position of Rim and Wheel Disks	
	2 Position Rims (welded)		A	B
260/70 R16	W8x16 in	mm	1067	1223
		in	42	48
280/70 R16	W8x16 in	mm	1066	1222
		in	42	48
280/70 R18	W9x18 in	mm	1065	1225
		in	42	48

Front-Wheel Tread Settings — with Front-Wheel Drive (5GL-N)



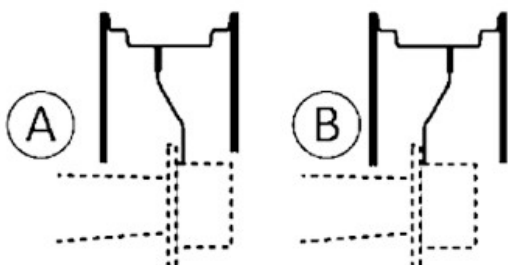
PY37713—UN—25JUL18

Front-Wheel Tread Settings - with Front-Wheel Drive (Cab) (5GL-N)						
Front Tires	Rim	Unit	Position of Rim and Wheel Disks			
	4 Position Adjustable		A	B	C	D
260/70 R16	W8x16 in	mm	—	—	1201	1277

Front Wheels, Tires, and Treads

		in	—	—	47	50
280/70 R16	W8x16 in	mm	—	—	1200	1276
		in	—	—	47	50
280/70 R18	W9x18 in	mm	—	1087	1199	1275
		in	—	43	47	50

Front-Wheel Tread Settings — with Front-Wheel Drive (5GN)

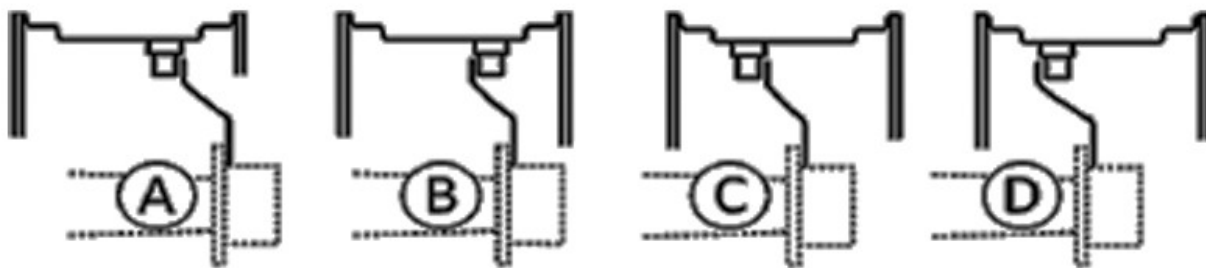


PY31904—UN—29AUG16

Front-Wheel Tread Settings - with Front-Wheel Drive (5GN)				
Front Tires	Rim	Unit	Position of Rim and Wheel Disks	
	2 Position Rims (welded)		A	B
7.50 R16	5.50Fx16 in	mm	911 ^a	1047
		in	36 ^a	41
260/70 R16	W8x16 in	mm	—	1088
		in	—	43
280/70 R18	W9x18 in	mm	—	1060
		in	—	42
8.25-16	5.50Fx16 in	mm	910 ^a	1046
		in	36 ^a	41
7.50 R18	5.50Fx18 in	mm	939	1019
		in	37	40

^aNot compatible with steering sensor

Front-Wheel Tread Settings — with Front-Wheel Drive (5GN)

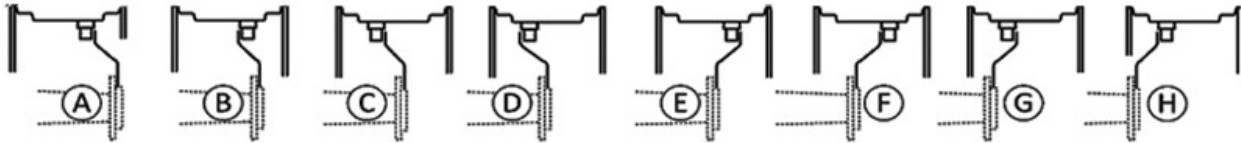


PY37713—UN—25JUL18

Front Wheels, Tires, and Treads

Front-Wheel Tread Settings - with Front-Wheel Drive (5GN)						
Front Tires	Rim	Unit	Position of Rim and Wheel Disks			
	4 Position Adjustable		A	B	C	D
260/70 R16	W8x16 in	mm	—	—	1036	1112
		in	—	—	41	44
280/70 R18	W9x18 in	mm	—	—	1034	1110
		in	—	—	41	44
7.50 R16	5.50Fx16 in	mm	—	1005	953	1029
		in	—	40	38	41
7.50 R18	5.50Fx18	mm	929	1005	949	1025
		in	37	40	37	40
8.25-16	5.50Fx16 in	mm	—	1004	952	1028
		in	—	40	37	40

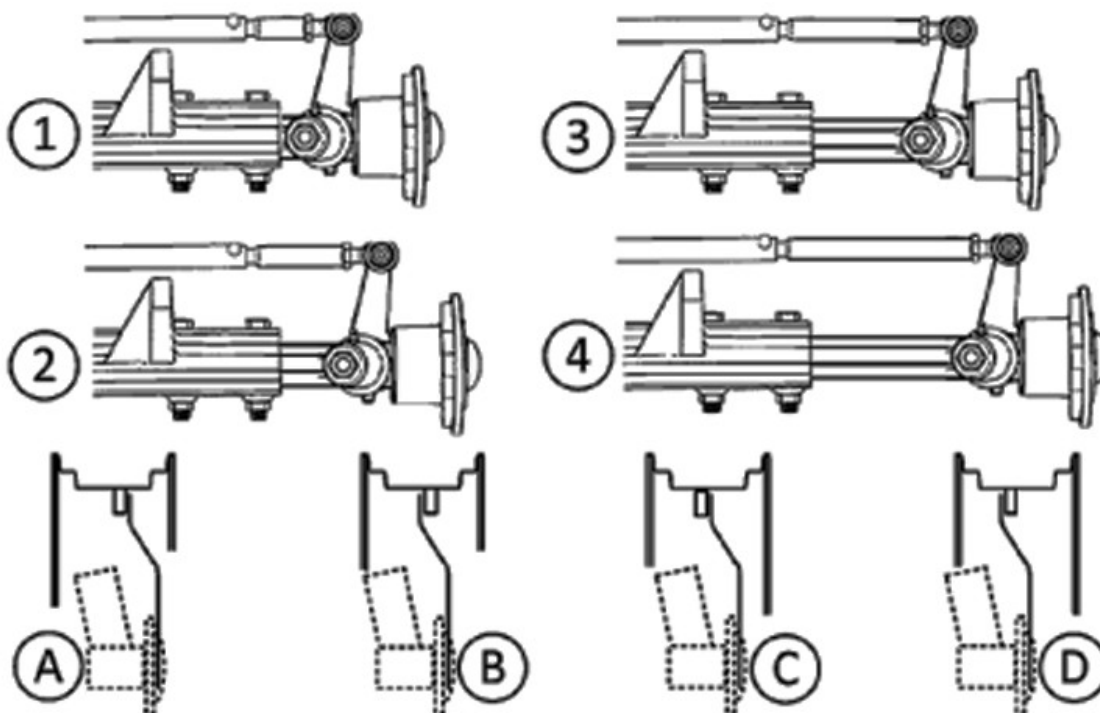
Front-Wheel Tread Settings — with Front-Wheel Drive (5GN)



PY37714—UN—25JUL18

Front-Wheel Tread Settings - with Front-Wheel Drive (5GN)										
Front Tires	Rim	Unit	Position of Rim and Wheel Disks							
	4+4 Position Reinforced Adjustable		A	B	C	D	E	F	G	H
280/70 R18	W9x18 in	mm	—	—	1032	1148	—	—	1070	1110
		in	—	—	41	45	—	—	42	44

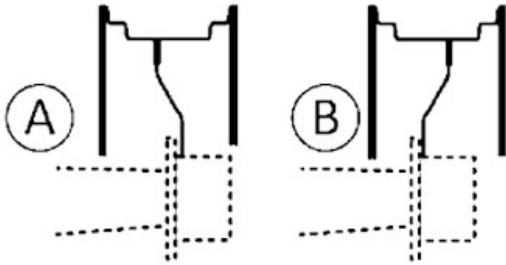
Front Wheel Tread Settings — without Front-Wheel Drive (5GN)



PY31905—UN—29AUG16

Front Wheel Tread Setting - without Front-Wheel Drive (5GN)										
Front Tires	Rim	Unit	Wheel and Disk in Axle Arm Position 1				Wheel and Disk in Axle Arm Position 2			
			1A	1B	1C	1D	2A	2B	2C	2D
6.00-16	4.00Ex16 in	mm	776	—	974	—	876	—	1074	—
		in	31	0	38	0	34	0	42	0
6.50-16	5.50Fx16 in	mm	809	885	869	945	909	985	969	1045
		in	32	35	34	37	36	39	38	41
7.50-16	5.50Fx16 in	mm	—	883	867	943	—	983	967	1043
		in	—	35	34	37	—	39	38	41
Front Tires	Rim	Unit	Wheel and Disk in Axle Arm Position 3				Wheel and Disk in Axle Arm Position 4			
			3A	3B	3C	3D	4A	4B	4C	4D
6.00-16	4.00Ex16 in	mm	776	—	974	—	876	—	1074	—
		in	31	0	38	0	34	0	42	0
6.50-16	5.50Fx16 in	mm	809	885	869	945	909	985	969	1045
		in	32	35	34	37	36	39	38	41
7.50-16	5.50Fx16 in	mm	—	1083	1067	1143	—	1183	1167	1243
		in	—	43	42	45	—	47	46	49

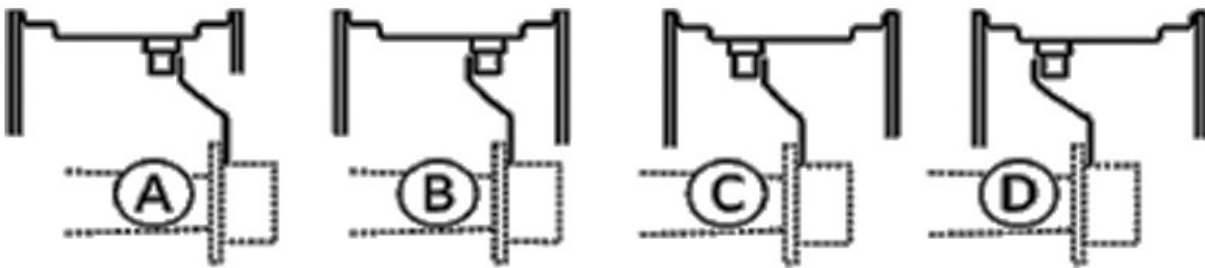
Front-Wheel Tread Settings — with Front-Wheel Drive (5GV)



PY31904—UN—29AUG16

Front-Wheel Tread Settings - with Front-Wheel Drive (5GV)				
Front Tires	Rim	Unit	Position of Rim and Wheel Disks	
	2 Position Welded		A	B
10.0/75-15.3	9.00x15.3 in	mm	816	1012
		in	32	40
260/70 R16	W8x16 in	mm	807	1023
		in	32	40
280/70 R18	W9x18 in	mm	835	995
		in	33	39
6.00-16	4.50Ex16 in	mm	819	1007
		in	32	40
7.50 R16	5.50Fx16 in	mm	846	982
		in	33	39
240/70 R16	W8x16 in	mm	—	1024
		in	—	40
280/70 R16	W8x16 in	mm	—	1022
		in	—	40
8.25-16	5.50Fx16 in	mm	845	981
		in	33	39
180/95 R16	5.50Fx16 in	mm	847	983
		in	33	39

Front-Wheel Tread Settings — with Front-Wheel Drive (5GV)

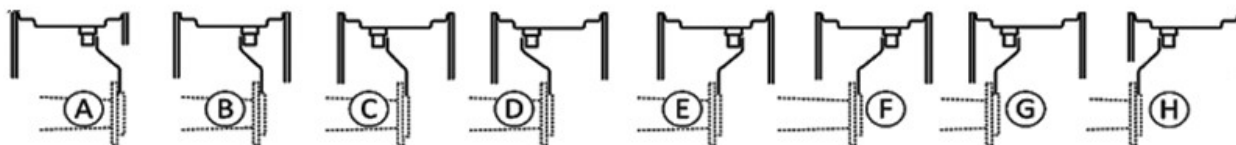


PY37713—UN—25JUL18

Front Wheels, Tires, and Treads

Front-Wheel Tread Settings - with Front-Wheel Drive (5GV)						
Front Tires	Rim	Unit	Position of Rim and Wheel Disks			
	4 Position Adjustable		A	B	C	D
7.50 R16	5.50Fx16 in	mm	864	940	888	964
		in	34	37	35	38
240/70 R16	W8x16 in	mm	—	—	972	1048
		in	0	0	38	41
10.0/75-15.3	9.00x15.3	mm	—	894	934	1010
		in	—	35	37	40
280/70 R16	W8x16 in	mm	—	—	970	1046
		in	—	—	38	41
260/70 R16	W8x16 in	mm	—	—	971	1047
		in	—	—	38	41
8.25-16	5.50Fx16 in	mm	863	939	887	963
		in	34	37	35	38
280/70 R18	W9x18 in	mm	—	—	969	1045
		in	—	—	38	41
180/95 R16	5.50Fx16 in	mm	865	941	889	965
		in	34	37	35	38

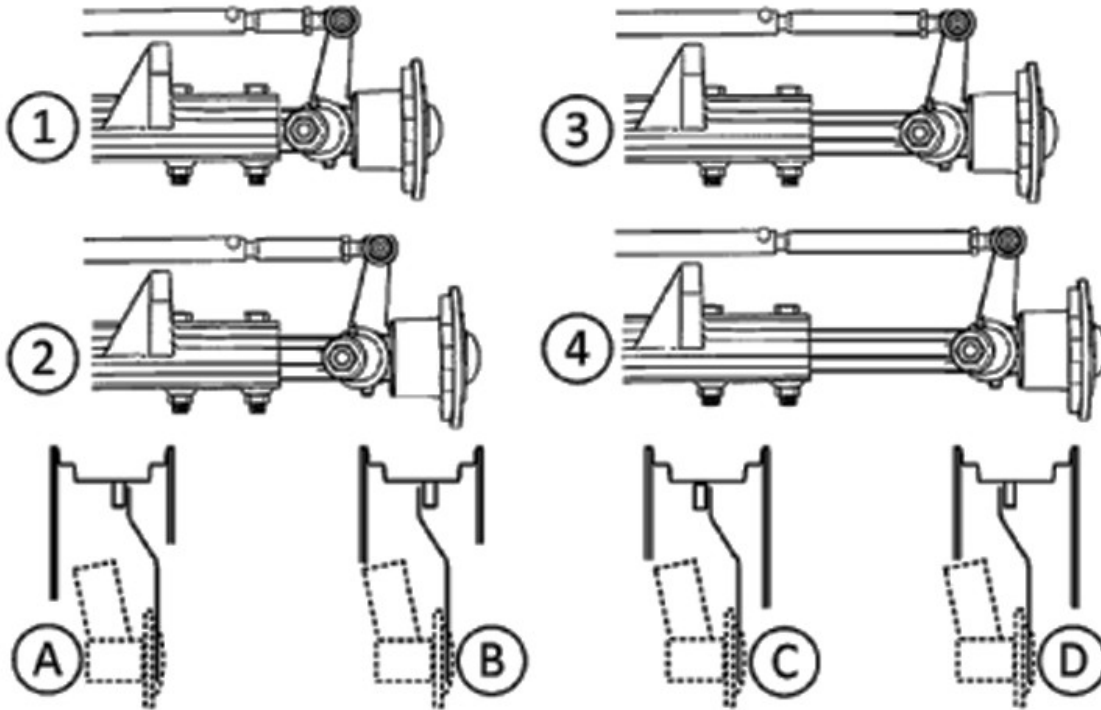
Front-Wheel Tread Settings — with Front-Wheel Drive (5GV)



PY37714—UN—25JUL18

Front-Wheel Tread Settings - with Front-Wheel Drive (5GV)										
Front Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Reinforced Adjustable		A	B	C	D	E	F	G	H
6.00-16	4.50Ex16 in	mm	839	955	879	995	877	917	917	957
		in	33	38	35	39	35	36	36	38

Front Wheel Tread Settings — without Front-Wheel Drive (5GV)

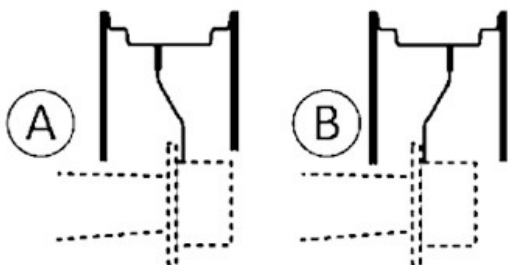


PY31905—UN—29AUG16

Front Wheel Tread Settings - Without Front-Wheel Drive (5GV)										
Front Tires	Rim	Unit	Wheel and Disk in Axle Arm Position 1				Wheel and Disk in Axle Arm Position 2			
			1A	1B	1C	1D	2A	2B	2C	2D
6.00-16	4.00Ex16 in	mm	776	—	974	—	876	—	1074	—
		in	31	0	38	0	34	0	42	0
6.50-16	5.50Fx16 in	mm	809	885	869	945	909	985	969	1045
		in	32	35	34	37	36	39	38	41
Front Tires	Rim	Unit	Wheel and Disk in Axle Arm Position 3				Wheel and Disk in Axle Arm Position 4			
			3A	3B	3C	3D	4A	4B	4C	4D
6.00-16	4.00Ex16 in	mm	976	—	1174	—	1076	—	1274	—
		in	38	0	46	0	42	0	50	0
6.50-16	5.50Fx16 in	mm	1009	1085	1069	1145	1109	1185	1169	1245
		in	40	43	42	45	44	47	46	49

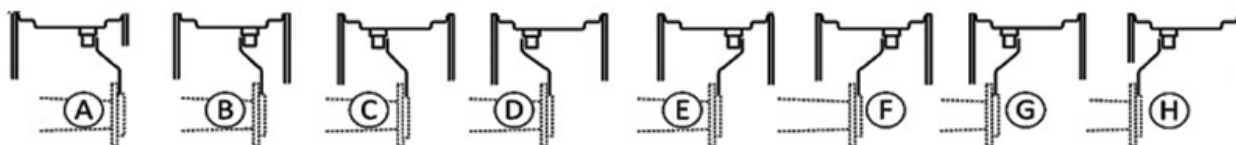
Front-Wheel Tread Settings with Front-Wheel Drive
— Wide Axle (1540 mm rear axle flange to flange)
(5GF)

PY31904—UN—29AUG16



Front-Wheel Tread Settings with Front-Wheel Drive — Wide Axle (1540 mm rear axle flange to flange) (5GF)				
Front Tires	Rim	Unit	Position of Rim and Wheel Disks	
	2 Position Welded		A	B
280/70 R18	W9 x 18 in	mm	1532	1728
		in	60	68
280/70 R20	W10 x 20 in	mm	1479	1779
		in	58	70
300/70 R20	W10 x 20 in	mm	1478	1778
		in	58	70
320/70 R20	W10 x 20 in	mm	1447	1777
		in	58	70

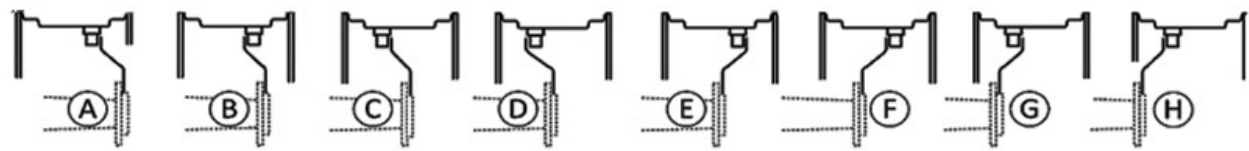
Front-Wheel Tread Settings with Front-Wheel Drive — Wide Axle (1540 mm rear axle flange to flange) (5GF)



PY37714—UN—25JUL18

Front-Wheel Tread Settings with Front-Wheel Drive — Wide Axle (1540 mm rear axle flange to flange) (5GF)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	4 Position Adjustable		A	B	C	D	E	F	G	H
280/70 R18	W9 x 18 in	mm	1496	1572	1684	1760	—	—	—	—
		in	59	62	66	69	—	—	—	—
280/70 R20	W10 x 20 in	mm	1335	1445	1549	1658	1595	1705	1809	—
		in	53	57	61	65	63	67	71	—
300/70 R20	W10 x 20 in	mm	1334	1444	1548	1657	1594	1704	1808	—
		in	53	57	61	65	63	67	71	—
320/70 R20	W10 x 20 in	mm	1334	1443	1547	1656	1594	1703	1807	—
		in	53	57	61	65	63	67	71	—
420/65 R20	W11 x 20 in	mm	1343	1453	1534	1643	1603	1713	—	—
		in	53	58	60	64	63	67	—	—

Front-Wheel Tread Settings with Front-Wheel Drive — Wide Axle (1540 mm rear axle flange to flange) (5GF)



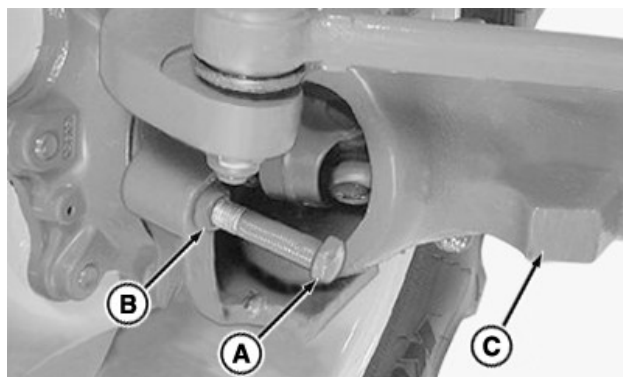
PY37714—UN—25JUL18

Front-Wheel Tread Settings with Front-Wheel Drive — Wide Axle (1540 mm rear axle flange to flange) (5GF) 4+4 position adjustable rims										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	4+4 Position Reinforced Adjustable		A	B	C	D	E	F	G	H
280/70 R18	W9 x 18 in	mm	—	1578	1682	1798	—	1540	1720	1760
		in	—	62	66	71	—	61	68	69

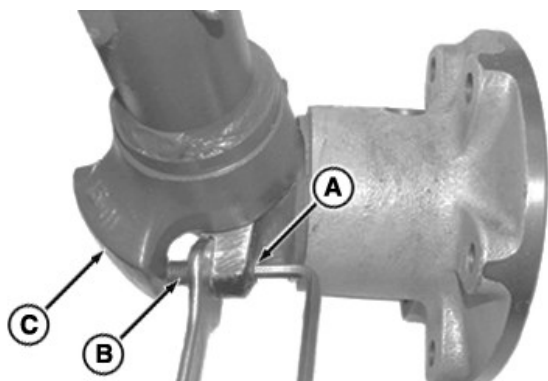
RA84036,00019BB-19-22JUL19

Steering Stop and Fender - Settings

Steering Angle Adjustment



PY31911—UN—30AUG16



PY31912—UN—30AUG16

A—Adjusting Screw
B—Lock Nut
C—Stop

NOTE: The tractor must be ready for operation when the steering angle is adjusted. Tires, fenders, implements, and different types of ballast are factors that affect each tractor differently.

Steering angle must be the same on both sides.

CAUTION: RISK OF CRUSHING!

The engine must be shutoff when the adjustment is made.

1. Lift front of tractor until the front axle can swing to its limits.
2. Support the tractor safely.
3. Move the right side of the axle upwards until it reaches the stop.
4. Turn the steering to full lock in both directions.
5. Measure the distance between the wheels and the other tractor components.
6. If necessary, loosen lock nut (B) and adjust steering angle as per specification using screw (A).

Specification

Minimum Clearance, Steering

Stop—Distance. 25 mm
1 in

7. Tighten lock nut to specified torque.

Specification

Front axle without front-wheel
drive—Torque. 56 N·m
41 lb·ft

Front axle with front-wheel
drive—Torque. 150 N·m
110 lb·ft

8. Repeat this procedure on the left side.

RA84036,0000FB8-19-11JUL17

Rear Wheels, Tires, and Treads

Tighten Rear Wheel Nuts and Bolts

IMPORTANT: Check tightness of rim, disk, and wheel bolts after 10 hours every time you replace wheels.



A—Disk to Axle Flange
B—Rim to Disk

AT1284—UN—13JUN01

Specification

(A)—Torque. 400 N·m (295 lb·ft)
(B) M18 bolt—Torque. 280 N·m (207 lb·ft)
(B) M16 bolt—Torque. 210 N·m 155 lb·ft

SD74272,00011EE-19-20AUG18

IMPORTANT: When installing weights, use appropriate lifting equipment or see your near by John Deere dealer.

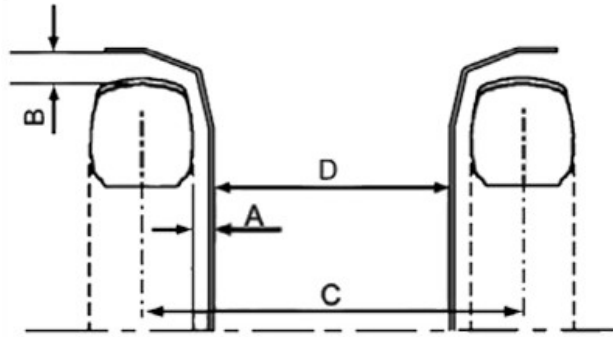
If the tractor is equipped with holes (A) on rear rim's flange for weights mounting, a John Deere ballast can be fitted 43 kg (90 lb).

Up to three weights of 43 kg (90 lb) on each side can be fitted.

The maximum total weight applicable on the rear axle is 258 kg (596 lb).

SD74272,00016EE-19-28JUL19

Observe Rear Wheel Tread Width Limitations

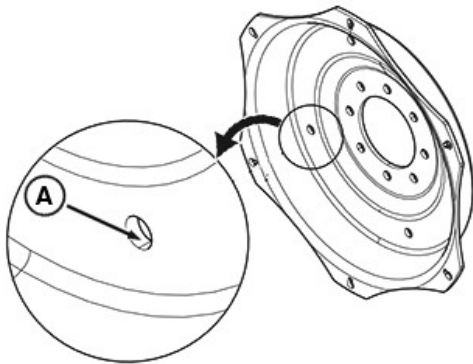


PY31903—UN—29AUG16

IMPORTANT: Check clearance (A) and (B) between tires and fenders, before changing the rear tires.

The tires must clear the fenders by at least:

Rear Wheel Weights



PY37725—UN—03SEP18

5GF - Wide Axle (1540 mm rear axle flange to flange)

Fixed Width (mm) (in)						
A = 15 mm minimum	B = 30 mm minimum	D				
		GF	GV	GN	GL	Wide Axle (1540 mm rear axle flange to flange) (5GF)
		600	450	520	600	520

Tire Dimension	5GF			Tire Dimension	5GV			Tire Dimension	5GN		
	Minimum Value				Minimum Value				Minimum Value		
	A	B	C		A	B	C		A	B	C
320/85 R28	20.2	97.8	984	280/85 R28 (11.2 R28)	53.4	124.9	879.4	280/85 R28 (11.2 R28)	58.4	125.3	959.4
340/85 R24	81.2	133.3	1140	320/85 R28 (12.4 R28)	42.9	97.4	879.4	320/85 R28 (12.4 R28)	47.9	97.8	959.4
340/85 R28 (13.6 R28)	61.2	77.8	1114	250/85 R28 (9.5 R28)	30.7	155.9	783	340/85 R24 (13.6 R24)	62.4	131.8	1039.4
380/70 R24	59.2	133.8	1140	360/70 R24	58.4	151.9	961.4	340/85 R28 (13.6 R28)	21.9	77.8	955.4

Rear Wheels, Tires, and Treads

380/70 R28	53.7	90.3	1114	340/85 R24 (13.6 R24)	57.4	131.4	959.4	380/70 R24	48.9	133.8	1039.4
380/85 R28 (14.9 R28)	44.2	46.3	1114	320/85 R24 (12.4 R24)	20.2	147.9	848	380/85 R28 (14.9 R28)	30.5	46.3	1006.6
420/70 R24	36.2	97.3	1140	360/70 R28	24.4	103.9	875.4	420/70 R28	71.7	52.3	1118
420/70 R28	29.7	52.3	1114	340/85 R28	23.9	82.4	875.4	480/65 R28	53.2	49.8	1126
480/65 R24	46.9	99.3	1191.4	9.5 R28	23.2	162.9	756	480/70 R26	67.7	48.3	1148
480/65 R28	58.9	49.9	1106	380/70 R24	43.9	133.4	959.4	—	—	—	—
480/70 R26	26.7	48.3	844.6	420/70 R28	66.7	51.9	1038	—	—	—	—
420/70 R24	53.7	103.3	1150	380/85 R28 (14.9 R28)	25.5	45.9	926.6	—	—	—	—
420/70 R28	37.2	50.3	1114	480/65 R28	54.2	49.4	1058	—	—	—	—

5GL					5GL-N			
Maximum Value					Maximum Value			
Tire Dimension	A	B (20 in Fender)	B (24 in Fender)	C	A	B (20 in Fender)	B (24 in Fender)	C
360/70 R20	15	66	125	1024	25	66	125	965
380/70 R20	15	42	101	1024	19	49	108	965
360/70 R24	16	—	70	1027	62	—	70	1039
380/70 R24	16	—	49	1027	49	—	52	1039
440/65 R24	55	—	47	1191	22	—	47	1043
420/65 R20	—	—	—	—	66	—	120	1072

Tire Dimension	Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)		
	Minimum Value		
	A	B	C
380/70 R24	151.5	133.8	1324.6
380/70 R28	84	90.3	1174.6
420/70 R28	128.5	52.3	1324.6
420/70 R24	60	97.3	1174.6
480/65 R28	39.5	44.5	1182.6

Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)

RA84036,00019EC-19-22JUL19

Tread Adjustment

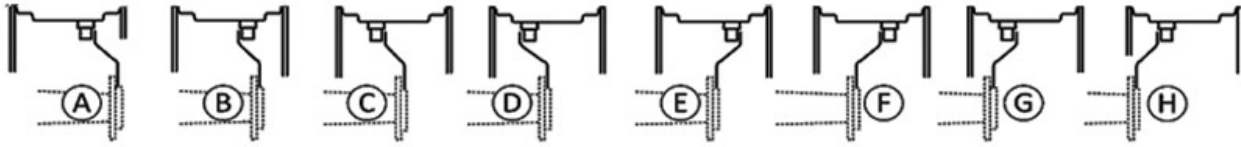
Front wheel tread is adjusted by repositioning or reversing the rims or by reversing the wheel disks. In addition, the complete wheel can be installed on the other side of the tractor. The arrow on the side wall of tire must point in the direction of forward travel. If front wheels are removed to adjust tread, tighten front wheel

attaching nuts to specified torque. See Tighten Rear Wheel Nuts and Bolts in this section.

IMPORTANT: Always mount nuts on the rim side.

NOTE: The illustration shows the right-hand front wheel. Tread widths are measured at the lowest point of the tires.

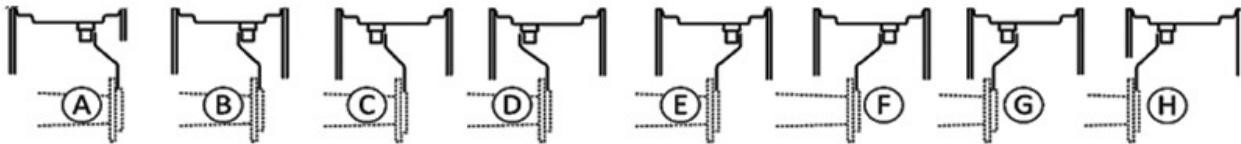
Rear-Wheel Tread Settings (5GF)



PY37714—UN—25JUL18

Rear-Wheel Tread Settings (5GF)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
320/85 R28	W10x28 in	mm	—	984	1118	1229	1273	1384	1518	1629
		in	—	39	44	48	50	54	60	64
340/85 R24	W12x24 in	mm	—	—	1196	1309	1195	1308	1364	1477
		in	—	—	47	52	47	51	54	58
340/85 R28	W12x28 in	mm	—	—	1114	1225	1277	1388	1514	—
		in	—	—	44	48	50	55	60	—
380/70 R24	W12x24 in	mm	—	—	1196	1309	1195	1308	1364	1477
		in	—	—	47	52	47	51	54	58
380/70 R28	W12x28 in	mm	—	—	1114	1225	1277	1388	1514	—
		in	—	—	44	48	50	55	60	—
380/85 R28	W12x28 in	mm	—	—	1114	1225	1277	1388	1514	—
		in	—	—	44	48	50	55	60	—
420/70 R24	W12x24 in	mm	—	—	1196	1309	1195	1308	1364	1477
		in	—	—	47	52	47	51	54	58
420/70 R28	W12x28 in	mm	—	—	1114	1225	1277	1388	1514	—
		in	—	—	44	48	50	55	60	—
480/65 R24	W15Lx24 in	mm	—	—	—	1191	1313	1426	1478	—
		in	—	—	—	47	52	56	58	—
480/65 R28	W15Lx28 in	mm	—	—	—	1217	1285	1396	—	—
		in	—	—	—	48	51	55	—	—
420/70 R24	W14Lx24 in	mm	1150	—	1358	—	—	—	—	—
		in	45	—	53	—	—	—	—	—

Rear-Wheel Tread Settings (5GL)

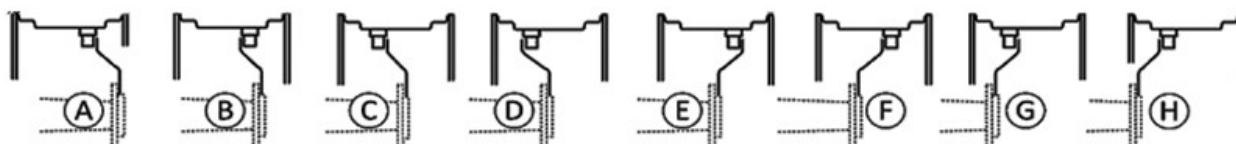


PY37714—UN—25JUL18

Rear Wheels, Tires, and Treads

Rear-Wheel Tread Settings (5GL)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
380/70 R20	W11x20 in	mm	—	—	—	1236	1264	1376	1384	—
		in	—	—	—	48.66	49.76	54.10	54.50	—
360/70 R24	W12x24 in	mm	—	—	1196	1309	1195	1308	1364	—
		in	—	—	47	52	47	51	54	—
380/70 R24	W12x24 in	mm	—	—	1196	1309	1195	1308	1364	—
		in	—	—	47	52	47	51	54	—
440/65 R24	W15Lx24 in	mm	—	—	—	1191	1313	—	—	—
		in	—	—	—	47	52	—	—	—

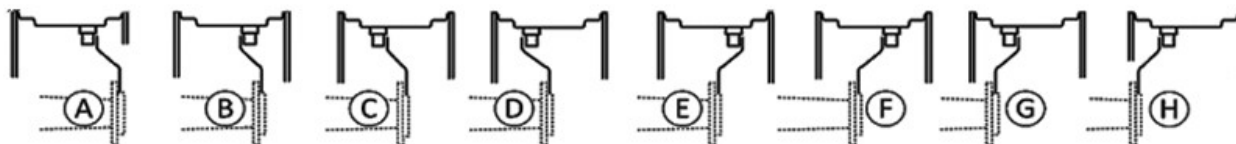
Rear-Wheel Tread Settings (5GL-N)



PY37714—UN—25JUL18

Rear-Wheel Tread Settings (5GL-N)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
380/70 R20	W11x20 in	mm	—	—	—	966	994	1106	1114	1226
		in	—	—	—	38	39.1	44	44	48
360/70 R24	W12x24 in	mm	—	—	—	1039	—	1038	1094	1207
		in	—	—	—	41	—	41	43	48
380/70 R24	W12x24 in	mm	—	—	—	1039	—	1038	1094	1207
		in	—	—	—	41	—	41	43	48
440/65 R24	W15Lx24 in	mm	—	—	—	—	1043	1156	1208	1321
		in	—	—	—	—	41	46	48	52

Rear-Wheel Tread Settings (5GL-N) (Cab)



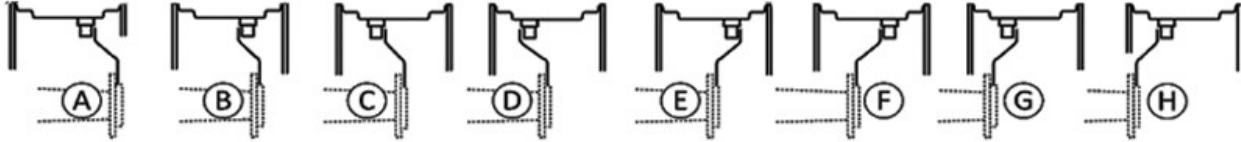
PY37714—UN—25JUL18

Rear-Wheel Tread Settings (5GL-N) (Cab)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
380/70 R20	W11x20 in	mm	—	—	—	1094	1122	1234	1242	1354
		in	—	—	—	43.1	44.2	48.6	48.9	53.3

Rear Wheels, Tires, and Treads

360/70 R24	W12x24 in	mm	—	—	1054	1167	1053	1166	1222	1335
		in	—	—	41.5	46	41	46	48	53
380/70 R24	W12x24 in	mm	—	—	1054	1167	1053	1166	1222	1335
		in	—	—	41.5	46	41	46	48	53
440/65 R24	W15Lx24 in	mm	—	—	—	—	1171	1284	—	—
		in	—	—	—	—	46	51	—	—

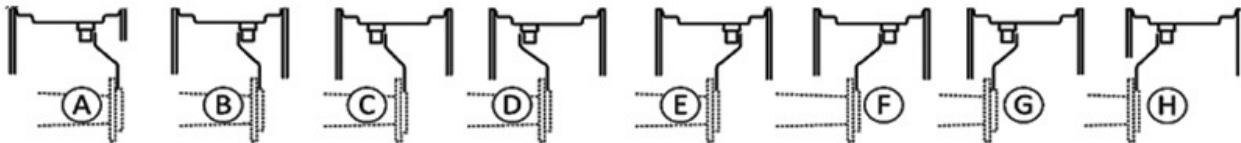
Rear-Wheel Tread Settings (5GN)



PY37714—UN—25JUL18

Rear-Wheel Tread Settings (5GN)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
280/85 R28	W10x28 in	mm	—	—	—	959	1003	1114	1248	1359
		in	—	—	—	38	39	44	49	54
320/85 R28	W10x28 in	mm	—	—	—	959	1003	1114	1248	1359
		in	—	—	—	38	39	44	49	54
340/85 R24	W12x24 in	mm	—	—	—	1039	—	1038	1094	1207
		in	—	—	—	41	—	41	43	48
340/85 R28	W12x28 in	mm	—	—	—	955	1007	1118	1244	1355
		in	—	—	—	38	40	44	49	53
380/70 R24	W12x24 in	mm	—	—	—	1039	—	1038	1094	1207
		in	—	—	—	41	—	41	43	48
380/85 R28	W12x28 in	mm	—	—	—	—	1007	1118	1244	1355
		in	—	—	—	—	40	44	49	53
420/70 R28	W12x28 in	mm	—	—	—	—	—	1118	1244	1355
		in	—	—	—	—	—	44	49	53
480/65 R28	W15Lx28 in	mm	—	—	—	—	—	1126	1236	1347
		in	—	—	—	—	—	44	49	53

Rear-Wheel Tread Settings (5GV)



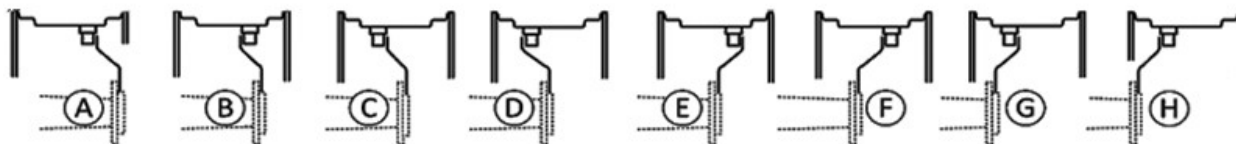
PY37714—UN—25JUL18

Rear Wheels, Tires, and Treads

Rear-Wheel Tread Settings (5GV)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
280/85 R28	W10x28 in	mm	—	—	—	879	923	1034	1168	1279
		in	—	—	—	35	36	41	46	50
320/85 R28	W10x28 in	mm	—	—	—	879	923	1034	1168	1279
		in	—	—	—	35	36	41	46	50
250/85 R28	W8x28 in	mm	—	783	—	826	974	1083	1017	1126
		in	—	31	—	33	38	43	40	44
360/70 R24	W10x24 in	mm	—	—	—	961	—	956	1016	1129
		in	—	—	—	38	—	38	40	44
340/85 R28	W12x28 in	mm	—	—	—	—	927	1038	1164	1275
		in	—	—	—	0	36	41	46	50
340/85 R24	W12x24"	mm	—	—	—	959	—	958	1014	1127
		in	—	—	—	38	—	38	40	44
320/85 R24	W10x24 in	mm	—	—	848	961	—	956	1016	1129
		in	—	—	33	38	—	38	40	44
360/70 R28	W12x28 in	mm	—	—	—	875	927	1038	1164	1275
		in	—	—	—	34	36	41	46	50
320/85 R24	W10x24 in	mm	—	—	843	961	843	956	1016	1129
		in	—	—	33	38	33	38	40	44
9.5 R28	W8x28 in	mm	—	756	—	853	947	1056	1044	1153
		in	—	30	—	34	37	42	41	45
380/70 R24	W12x24 in	mm	—	—	—	959	—	958	1014	1127
		in	—	—	—	38	—	38	40	44
420/70 R28	W12x28 in	mm	—	—	—	—	—	1038	1164	1275 ^a
		in	—	—	—	—	—	41	46	50
380/85 R28	W12x28 in	mm	—	—	—	—	927	1038	1164	1275
		in	—	—	—	0	36	41	46	50
280/85 R28	W10x28 in	mm	—	—	—	879	923	1034	1168	1279
		in	—	—	—	35	36	41	46	50

^aValue that exceeds maximum value for road use.

Wide Axle (1540 mm Rear Axle Flange to Flange), Rear-Wheel Tread Settings (5GF)



PY37714—UN—25JUL18

Wide Axle (1540 mm rear axle flange to flange), Rear-Wheel Tread Settings (5GF)										
Rear Tires	Rim	Unit	Position of Rim and Wheel Disks							
	8 Position Adjustable		A	B	C	D	E	F	G	H
380/70 R24	W12 x 24 in	mm	1325	1438	1494	1607	1493	1606	1662	1775
		in	52	57	59	63	59	63	65	70
380/70 R28	W12 x 28 in	mm	1175	—	1412	1523	1575	1686	1812	—
		in	46	—	56	60	62	66	71	—
420/70 R24	W12 x 24 in	mm	1325	1438	1494	1607	1493	1606	1662	—

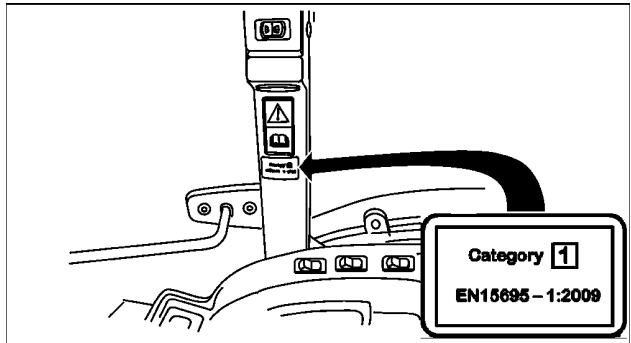
Rear Wheels, Tires, and Treads

		in	52	57	59	63	59	63	65	—
420/70 R28	W12 x 28 in	mm	1175	—	1412	1523	1575	1686	—	—
		in	46	—	56	60	62	66	—	—
480/65 R28	W15L x 28 in	mm	1183	—	1404	1515	1583	1694	—	—
		in	47	—	55	60	62	67	—	—

RA84036,00019BA-19-22JUL19

Operator's Station and Cab

Cab Classification According to EN 15695-1 (for Application of Crop Protection Chemicals and Liquid Fertilizer)



LX1054626—UN—15DEC11

*Label Shown for Illustration Purposes Only (May Not
Indicate the Category of the Cab Installed)*

Cab classification according to EN 15695-1 provides information on the effectiveness of protection against harmful substances offered by the cab.

Categories 1—4 are used for classification and specified on a label inside the cab.

Replace label if missing or damaged. See your John Deere dealer.

- A**—Category 1 — The cab does not offer any protection against substances which are harmful to health.
- B**—Category 2 — The cab offers protection against solid airborne particles such as dust, but not against aerosols, and vapors.
- C**—Category 3 — The cab offers protection against dust and aerosols (liquid airborne substances such as spray), but not against vapors.
- D**—Category 4 — The cab offers protection against dust, aerosols, and vapors.

CAUTION: Before working in an environment containing hazardous substances, for example, when using pesticides, check whether the cab offers sufficient protection. Refer to the product data sheets of the spraying liquid manufacturer specifying the category required for the cab.

CAUTION: In case of category 3 and 4 cabs, find out whether the installed filters have been checked according to EN 15695-2:2009 and whether they are suitable for the chemical being used (refer to the manufacturer's information) before working in an environment containing hazardous substances.

CAUTION: The cab air filters must be serviced as specified. See Service Intervals (Section 210B) in this manual.

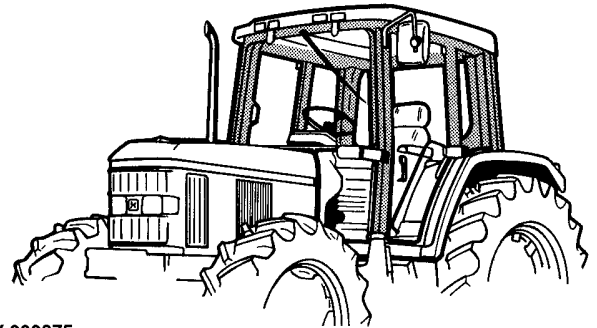
CAUTION: Refer to product data sheets and product identification of the crop protection chemicals. These contain important information on how to avoid hazards.

The following requirements must be met to offer best protection:

1. All seals (on door, windows, and roof) in good condition
2. Doors, windows, and roof closed
3. Grommets for cables in the cab sealed properly
4. Fan ON
5. Cab air filters must be in good condition.

RA84036,000117D-19-10AUG17

Roll-Over Protective Structure



LX 000375

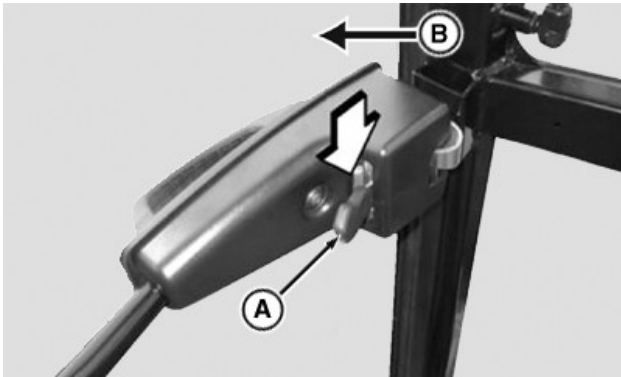
LX000375—UN—03JAN95

CAUTION: A four-post roll-over protective structure (ROPS) is incorporated into each operator's cab. On this construction, do not, under any circumstances, modify structural members by welding on additional parts, drilling holes, or cutting or grinding. Disregarding this instruction affects the rigidity of the ROPS.

A tractor roll-over places a severe strain on the ROPS. Therefore, replace the ROPS immediately if structural members have been bent, buckled or otherwise damaged.

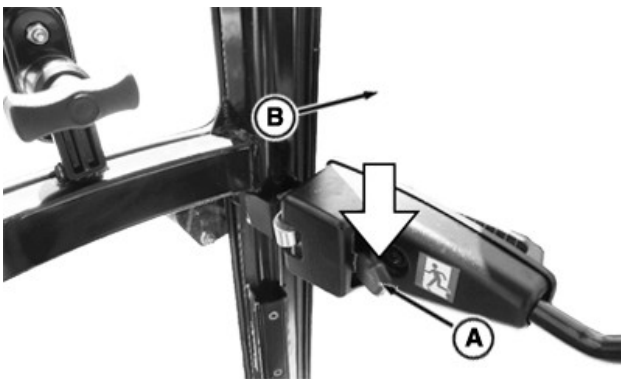
RA84036,0000F63-19-10AUG17

Emergency Exits



(5GV, 5GN, 5GF)

PY31825—UN—26AUG16



(5GV, 5GN, 5GF)

PY42813—UN—02JUL17



(Cab) (5GL-N)

APY01892—UN—08MAR18

A—Latch
B—Door

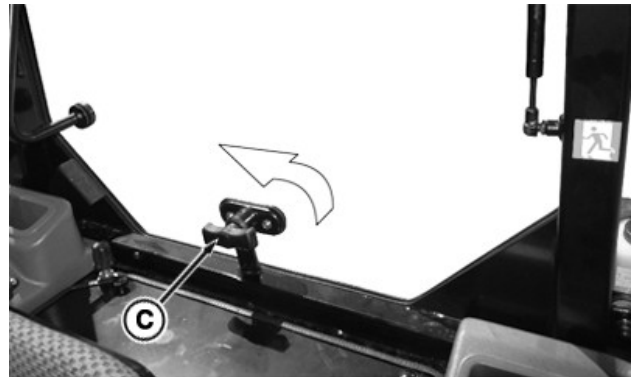
In an emergency, exit the cab through the left-hand side cab door.

It is also possible to exit the cab through the emergency exit on the right-hand side.

This emergency exit is labeled with an emergency exit sign.

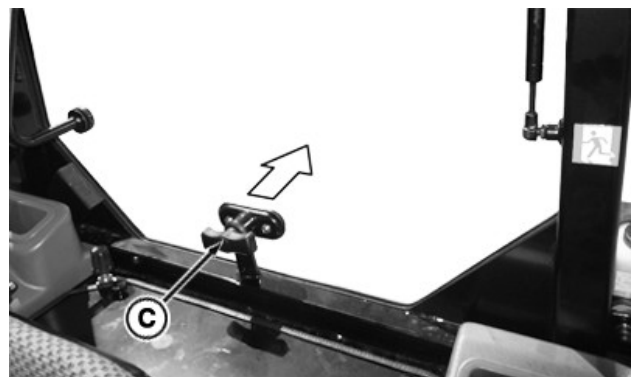
To open, pull down latch (A) and push door (B) outwards.

Emergency Exit Through the Rear Window



(5GV, 5GN, 5GF)

PY42814—UN—13JUL17



(5GV, 5GN, 5GF)

PY42815—UN—13JUL17



(Cab) (5GL-N)

APY01893—UN—19MAR18

C—Lever

It is also possible to exit the cab through the emergency exit in the rear.

This emergency exit is labeled with an emergency exit sign.

To open, turn the lever (C) anticlockwise. Push window outwards.

RA84036,0001521-19-04OCT18

Clean Vehicle of Hazardous Pesticides

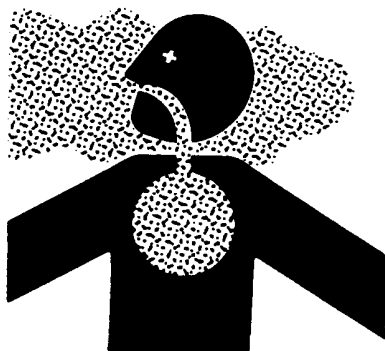
⚠ CAUTION: During application of hazardous pesticides, pesticide residue can build up on the inside or outside of the vehicle. Clean vehicle according to use instructions of hazardous pesticides.

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

Handle Agricultural Chemicals Safely



TS220—UN—15APR13



A34471

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

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

Operating Roll-Over Protective Structure

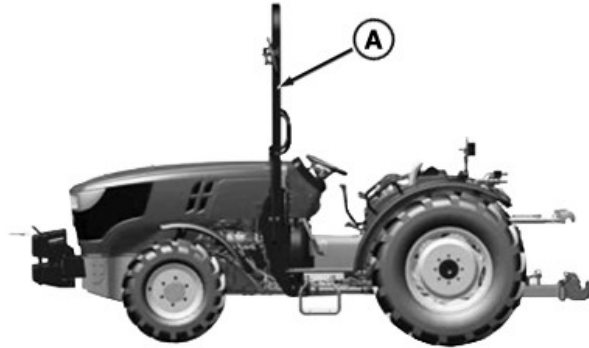
CAUTION: Make certain all parts are installed correctly if roll-over protective structure (ROPS) is loosened or removed for any reason. Tighten mounting bolts to proper torque.

The protection offered by ROPS is impaired if ROPS is subjected to structural damage, as in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged ROPS should be replaced, not reused. Any alteration to the ROPS must be approved by the manufacturer.

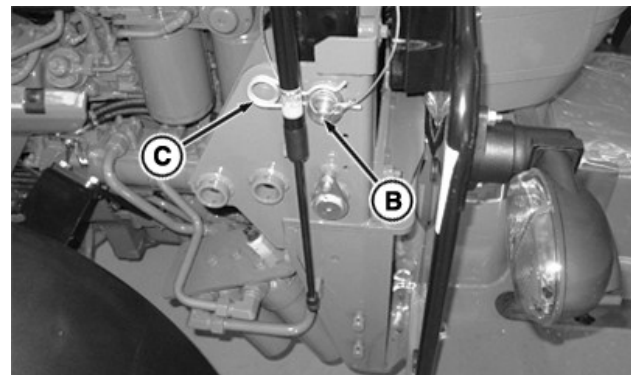
Always keep upper part of ROPS pinned in vertical position (as pictured) when operating tractor. If the tractor is operated with ROPS folded (for example, to enter a low building) drive with extreme caution.

Do not use a seat belt while operating with ROPS folded down or without ROPS.

Fold the ROPS up again as soon as the tractor is operated under normal conditions.

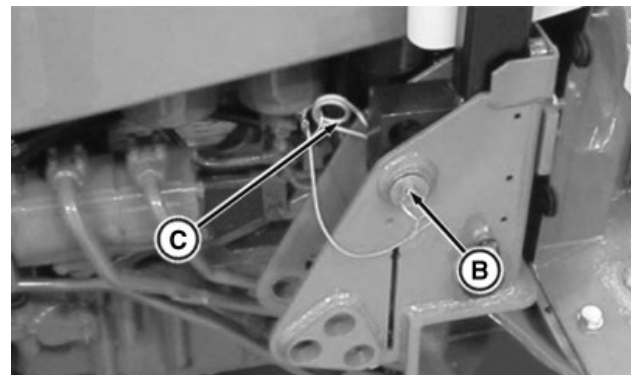


PY31829—UN—29AUG16



PY42816—UN—02JUL17

(5GV, 5GN, 5GF)



PY31830—UN—26AUG16

(5GL, 5GL-N)

A—ROPS
B—Pin
C—Quick-Lock Pin

To lower ROPS:

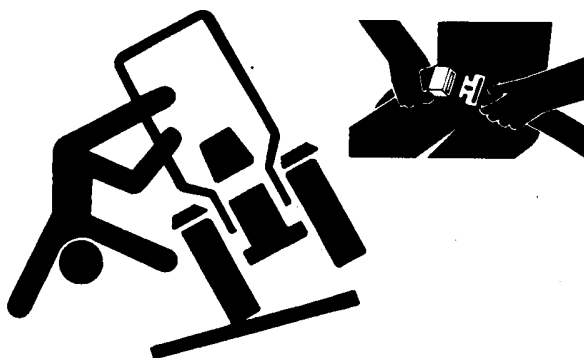
1. Remove quick-lock pins (C) and headed pins (B).
2. Lower ROPS (A) onto stops.
3. Reinstall pins (B) and (C) to lock ROPS in down position.

Folding ROPS into operating position:

1. Remove quick-lock pins (C) and headed pins (B).
2. Lift ROPS to position shown. Install pins (B) and quick-lock pins (C).

FENAFNX,0000454-19-17MAY21

Use the Seat Belt



TS205—UN—23AUG88



PY36451—UN—02DEC16

A—Seat Belts

CAUTION: To minimize the risk of injury if an accident occurs, always wear seat belt (A) when driving tractors.

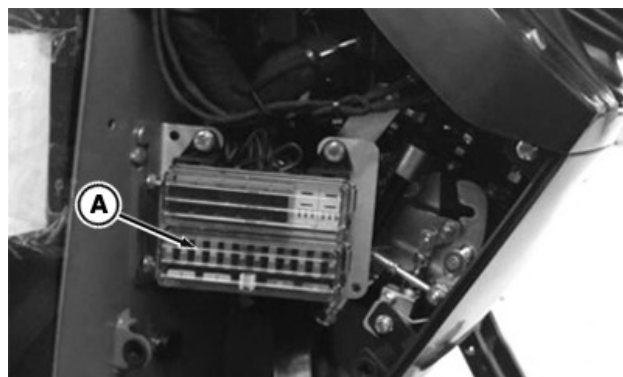
The passenger seat is intended only for transport of a passenger in on-road operations (transport from farm to field).

- 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 belt is securely fastened.
- Snug the seat belt across the hips.

- Inspect seat belts and mounting hardware once a year. See Service—Checks (Section 220D).

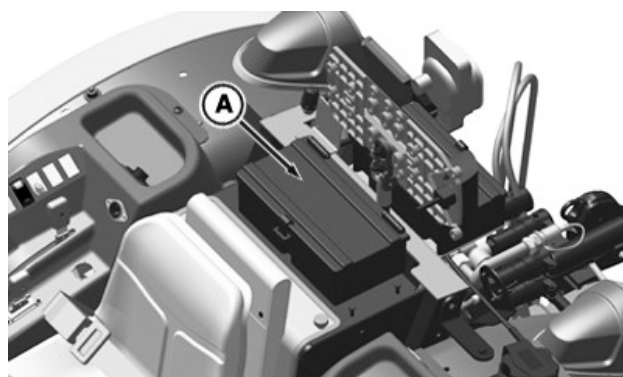
RA84036,0000F64-19-01AUG18

Fuse Box



PY31853—UN—29AUG16

Fuse Box — (5GV, 5GN, 5GF)



PY42818—UN—02JUL17

Fuse Box — (5GL, 5GL-N)



APY01900—UN—08MAR18

Fuse Box — (Cab) (5GL-N)

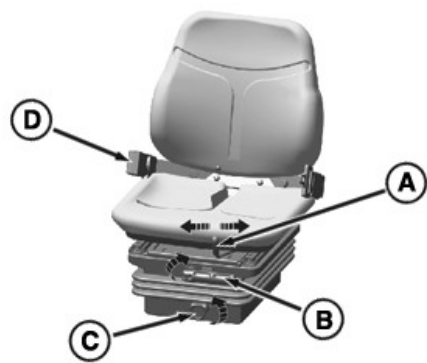
A—Fuse Box

Remove left-hand side cover of the instrument unit and gain access to the main fuse box (A). See Fuses and Relays in Service—Electrical System (Section 220B).

RA84036,0001529-19-04OCT18

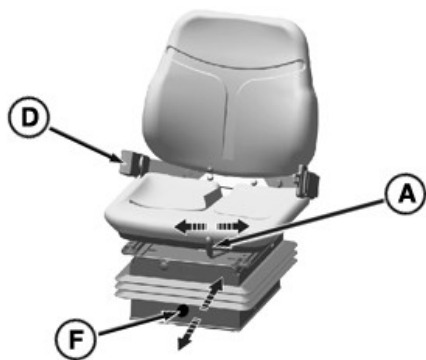
Seat Adjustment

Seat Adjustment



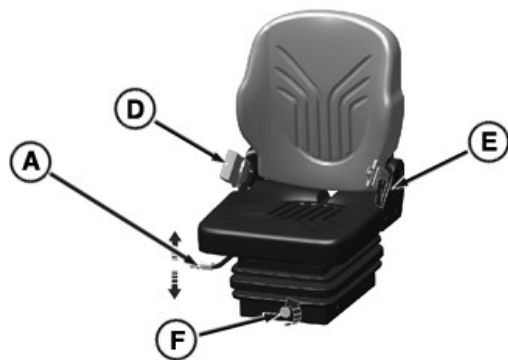
Mod. SC74 - M200

PY34385—UN—11NOV16



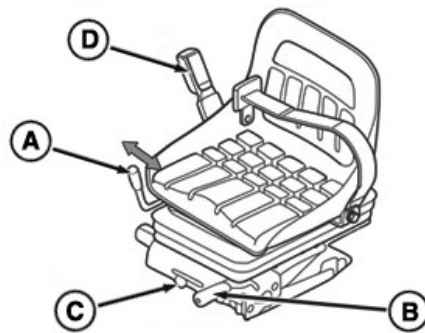
Mod. SC74 - M97

PY34386—UN—11NOV16



Mod. MSG 93/511

PY34387—UN—11NOV16



Mod. XH2

APY01894—UN—08MAR18

- A—Longitudinal Adjustment**
B—Seat Adjustment as a Function of Driver Weight
C—Seat Adjustment as a Function of Driver Height
D—Seat Belt
E—Backrest Angle Adjustment Handle
F—Adjusting the Seat Height (pneumatic seat)

- After adjustment, the seat must stay in the set configuration.
- Never adjust the seat while driving the tractor.

Category	Function
A	Longitudinal adjustment: — Activate the lever to release the lock. — At the chosen position, release the lever and check that the lock is engaged.
B	Seat adjustment as a function of driver weight: — Make all the adjustments while the operator is seated, so that the seat is loaded. — Turn the lever positioned on the front side of the suspension clockwise or counterclockwise. — Correct adjustment is reached when the seat height is taken to half the travel stroke of the suspension.
C	Seat adjustment as a function of driver height: — Make all the adjustments while the operator is seated so that the seat is loaded. — The seat height can be adjusted upward and downward by turning the knob. — It raises and lowers the seat while maintaining the travel of the suspension.
D	Seat belt (depending on country)
E	Backrest angle adjustment handle: — Pull the handle to adjust the backrest angle and release it when the desired angle is reached. — The backrest can be tilted forward by maintaining the handle pulled.
F	Adjusting the seat height (pneumatic seat): — Push the control to raise the seat. — Pull the control to lower the seat.

RA84036,0001523-19-09APR18

Mirrors

Mirrors (Open Operator Station)



PY31835—UN—26AUG16

Mirror (Open Operator Station)

A—Mirror

To adjust the mirror (A), loosen the clamp screw, move the mirror to the desired position, and retighten the clamp screw.

⚠ CAUTION: Make sure that the mirrors are always clean and correctly adjusted.

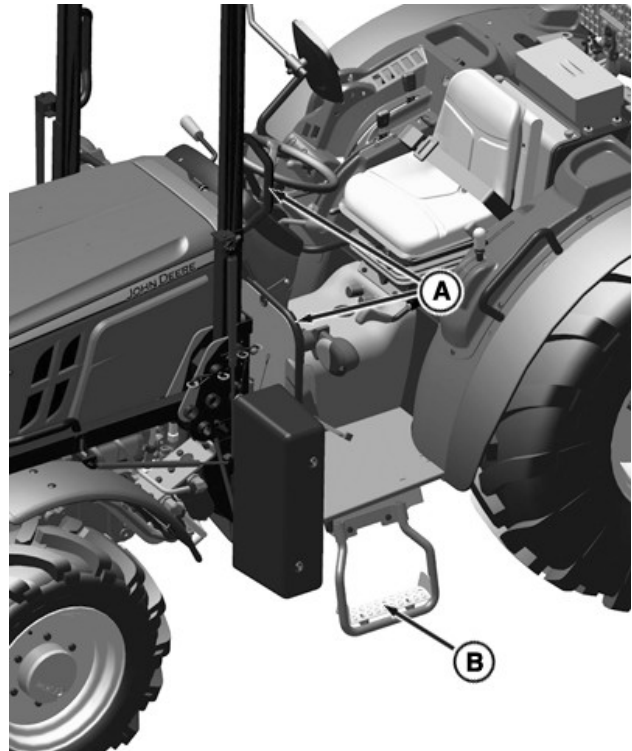
RA84036,0000F66-19-06JUL17

Access Steps

Steps and Handrails



PY36452—UN—02DEC16
5GF, 5GV, and 5GN Models



PY42819—UN—02JUL17
5GL and 5GLN Models

A—Handrail
B—Steps

Use access steps (B) to enter and leave. Always hold on to handrail (A). Other means of entry and egress are not permitted.

- When entering and leaving, always hold on to the handrail. Do not touch components of the exhaust system, as there is a risk of burning.
- Before entering or leaving, clear away any snow, ice, or mud.

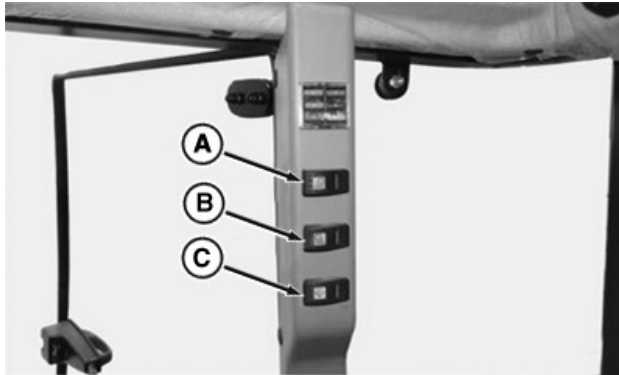
RA84036,00019D1-19-31MAY19



APY11269—UN—21JUN19
5GF, 5GV, and 5GN Models

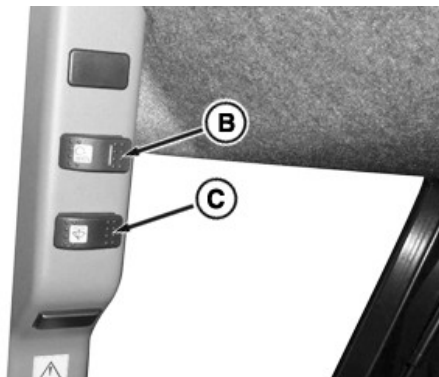
Wiper / Washer System

Operator's Cab Switches



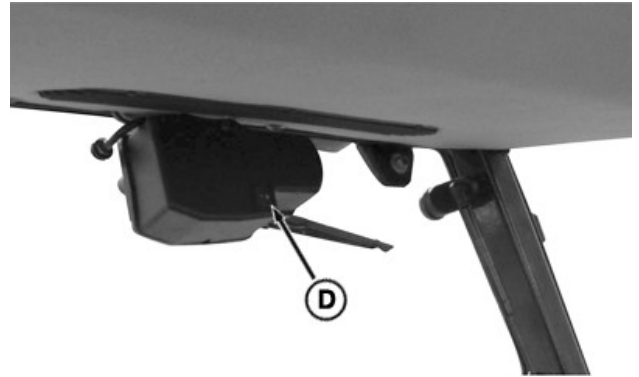
PY31836—UN—26AUG16

5GV, 5GN, and 5GF Tractor Models



APY01896—UN—08MAR18

5GL-N Cab Tractor Models



APY01897—UN—08MAR18

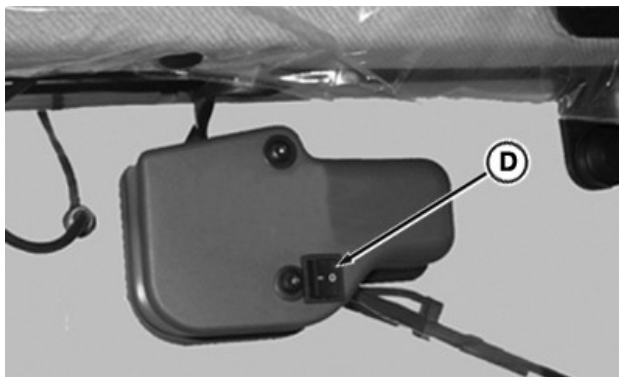
5GL-N Cab Tractor Models

- A—Front Work Light Switch
- B—Rear Work Light Switch
- C—Windshield Wiper and Washer Switch
- D—Rear Window Wiper Switch

The cab switches are located in the post on the right-hand side.

Windshield switch (C) includes both wiper and washer functions. If the switch (C) is pushed and held in position, it activates washer function for both front and rear wipers.

RA84036,0001525-19-02APR18

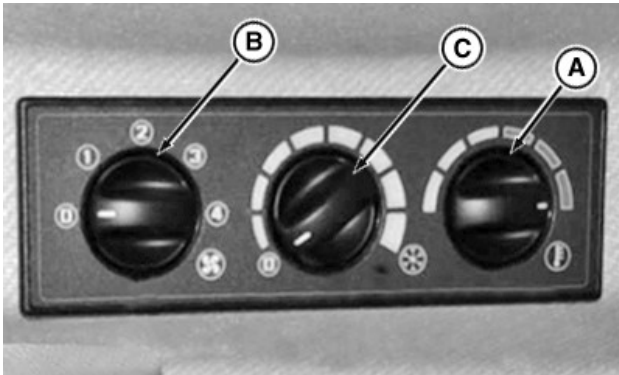


PY31837—UN—26AUG16

5GV, 5GN, and 5GF Tractor Models

Heater / Ventilation / Air Conditioning (HVAC)

Heater and Air Conditioning System Controls (5GV, 5GN, 5GF)



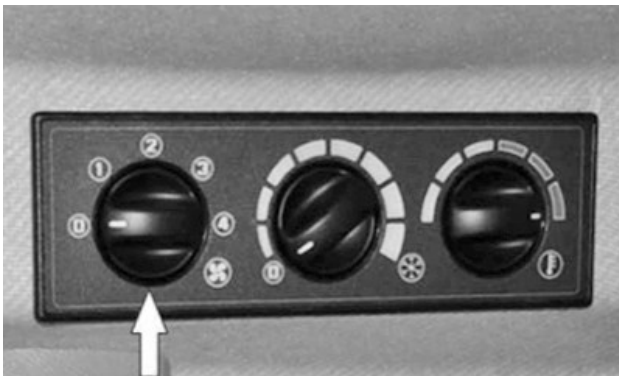
PY31839—UN—26AUG16

Tractors with Air Conditioning System

- A—Heater Control
- B—Blower Control
- C—Air Conditioner Control

The cab has been designed to produce comfortable working conditions for the operator with all the windows closed. Fresh air can be brought in from outside the cab or the heated or cooled air within the cab can be recirculated.

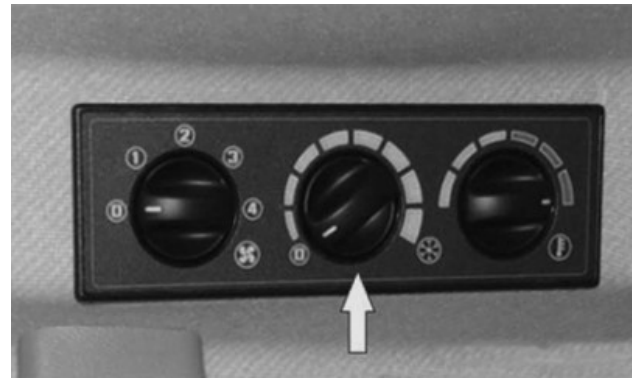
The air conditioning system is operated with the following controls:



PY31840—UN—26AUG16

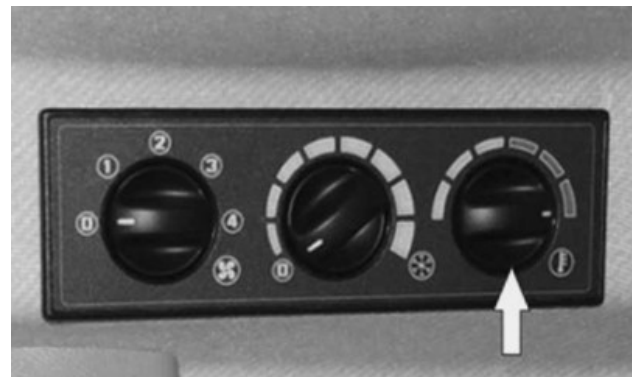
Blower control knob operates the four-speed blower fan. Turn the knob counterclockwise to switch off the fan.

NOTE: When the air conditioning system is switched on and fan switch is off, fan operates at fan speed (1).



PY31841—UN—26AUG16

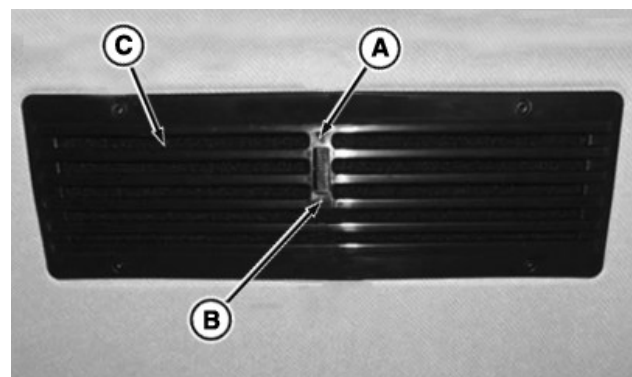
Air conditioner control knob is used to adjust the desired temperature. Turn the knob counterclockwise to switch off and clockwise to cool the air. Always turn off when not in use.



PY31842—UN—26AUG16

Heat control knob is used to adjust the heat delivered. Turn the knob counterclockwise to switch off and clockwise to heat the air. Full heat output is available when the engine has reached full operating temperature.

Air Recirculation Control



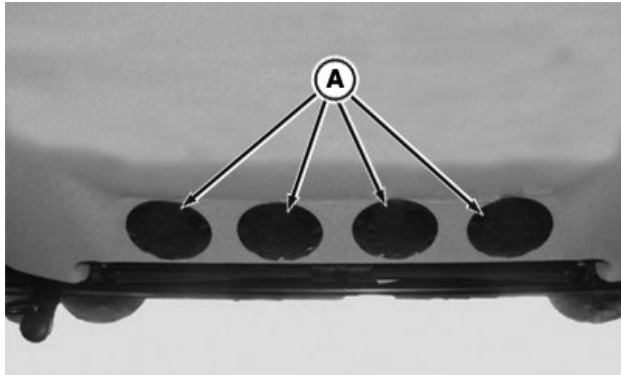
PY31843—UN—26AUG16

- A—Close
- B—Open
- C—Vent

Move up air recirculation control toward (A) (close) so that it maximizes fresh air into the cab. Moving the air recirculation control down toward (B) (open) recirculates the air in the cab. The recirculated air passes through the vents (C), the air filter, and back into the blower.

Move up air recirculation control toward (A) (close) to obtain fresh air from outside the cab. It gives the maximum cooling effect with the air conditioning off.

Air Flow Louvers



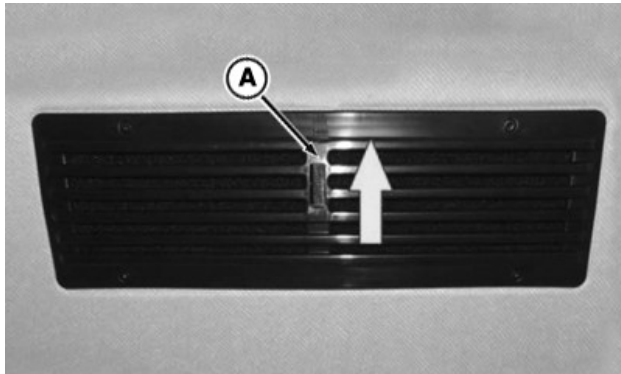
PY31844—UN—26AUG16

A—Air Flow Louvers

Fresh air enters into the cab from outside and passes through the air filter, blower, heater, and air conditioner evaporator. It is blown through a set of four adjustable louvers (A) above the windshield.

CAUTION: The cab air filter is designed to remove dust from the air but not exclude chemical vapor. Follow the chemical manufacturer's directions regarding protection from hazardous chemicals.

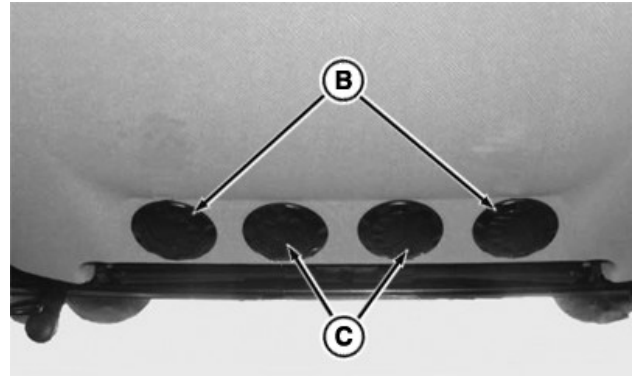
Cold-Weather Operation



PY31845—UN—29AUG16

A—Air Recirculation Control

Open the air recirculation control (A) and recirculate air that has already been heated. It gives the maximum heating effect.

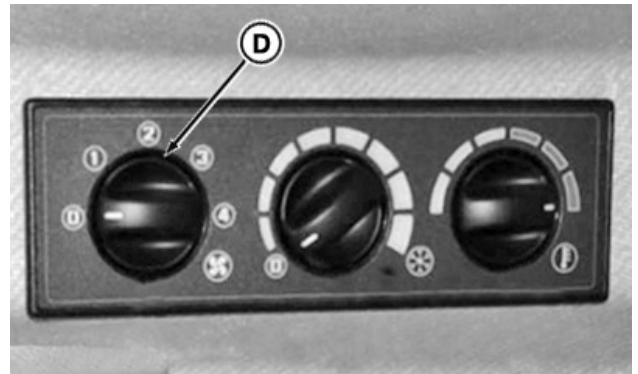


PY31846—UN—26AUG16

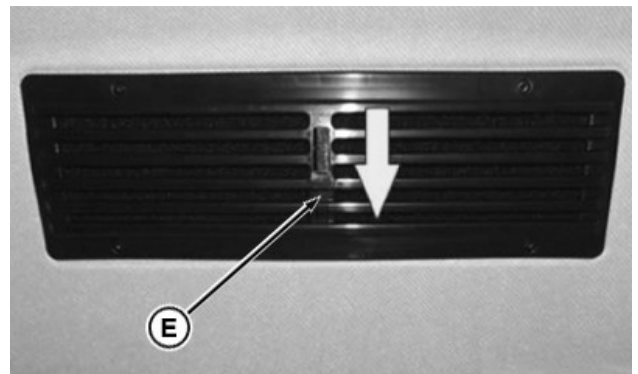
**B—Louvers
C—Louvers**

It is necessary to adjust the opening of the various louvers (B) and (C) to balance the heat output between the windshield and rear window.

To move large quantities of heat to the floor, open the left-hand and right-hand louvers in row (B) and close or partially close the others. Set the blower control (D) to full speed.



PY31847—UN—26AUG16



PY31848—UN—26AUG16

**D—Blower Control
E—Air Recirculation Control**

Defrosting the Windshield

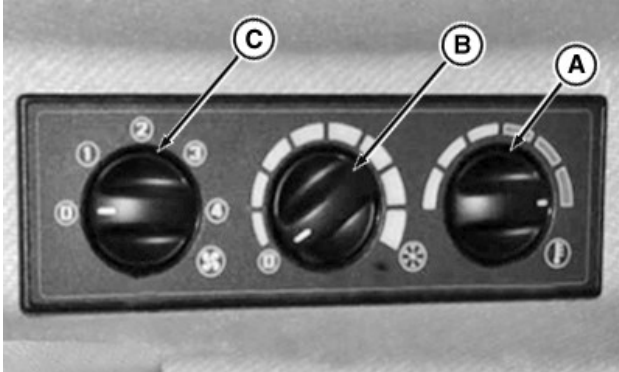
Close the air recirculation control (E) remove the humidity in the cab. When clear, open the air recirculation control to recirculate air that has already been heated. Open and direct the louvers (B) and (C) to the windshield. Set the blower control (D) to maximum.

Dusty Conditions

Close the air recirculation control (E) and run the blower on maximum to pressurize the air in the cab.

Air Conditioning Operation

Operating the System



PY31849—UN—26AUG16

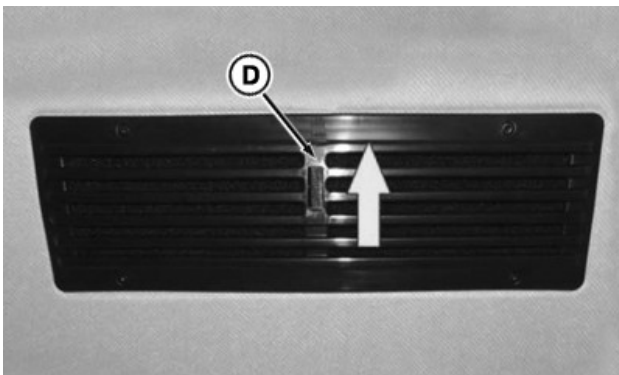
- A—Heater Control
- B—Air Conditioner Temperature Control
- C—Blower Control

Make sure that all doors, windows, and the roof hatch are closed.

Make sure that the heater control (A) is turned off.

When the engine is running, turn on the air conditioning and temperature control (B).

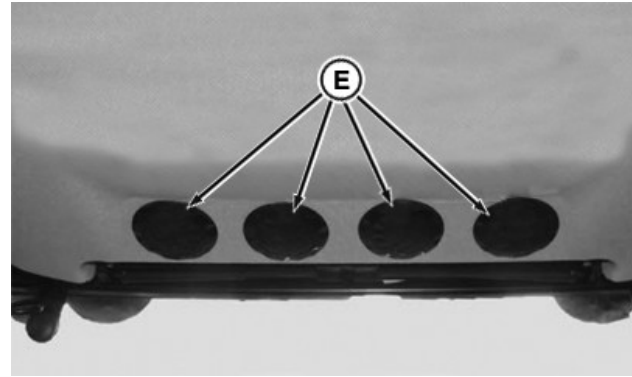
Turn on the blower control (C) to mid speed.



PY31850—UN—26AUG16

- D—Air Recirculation Control

Fully open the air recirculation control (D) by moving left. It recirculates the air that has been already cooled to give the best cooling effect.



PY31851—UN—26AUG16

- E—Louvers

Open and adjust the louvers (E) to obtain the best cooling for the ambient temperature and humidity. Lower blower speeds result in cooler air.

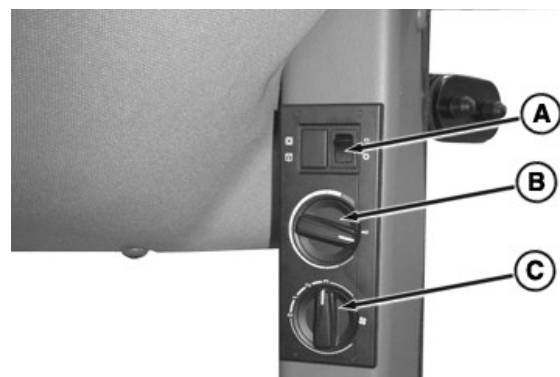
When the desired temperature has been obtained, adjust the blower speed and temperature control to maintain the cooling level. If problems occurred with the system, immediately inspect for a clogged condenser, which is at the front of the engine radiator.

IMPORTANT: Switch on the air conditioning system for approximately 20 minutes every month, even in the cooler seasons. It lubricates the moving parts of the system (for example: the compressor) and prevents loss of refrigerant.

If the blower stops working, set the fan control knob to position 4 and wait at least 1 minute. Allow the fan resistor to cool down. Then restart the blower by switching the control knob to any intermediate position (1 / 2 / 3). If the problem persists, contact your authorized dealer.

RA84036,0001527-19-13SEP18

Heater and Air Conditioning System Controls (5GL-N)



APY01866—UN—12MAR18

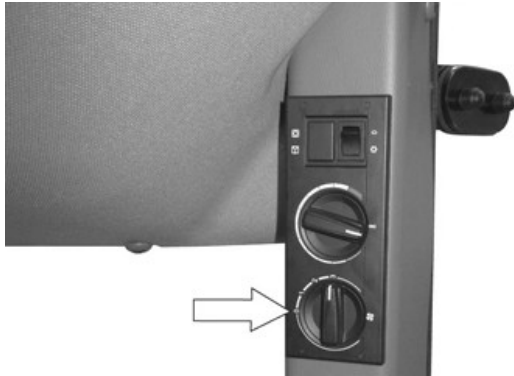
- A—Air Conditioning Control Switch
- B—Temperature Control
- C—Fan Speed Control

The cab has been designed to produce comfortable

working conditions for the operator with all the windows closed. Fresh air can be brought in from outside the cab or the heated or cooled air within the cab can be recirculated.

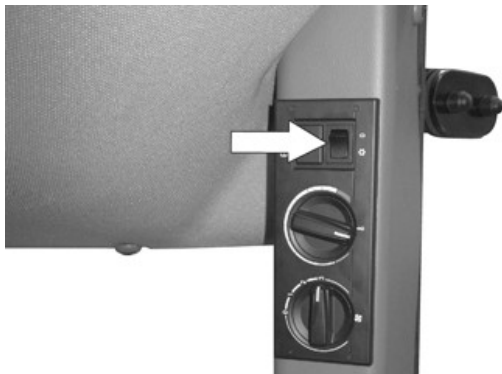
The air conditioning system is operated with the following controls:

- Air Conditioning Control Switch
- Temperature Control
- Fan Speed Control



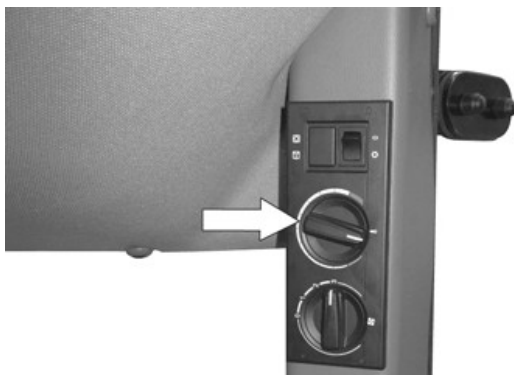
APY01867—UN—12MAR18

Blower control knob operates the three-speed blower fan. Turn the knob counterclockwise to the "0" position to switch off the fan.



APY01868—UN—12MAR18

Use the air conditioning control switch to activate or stop the air conditioning system.

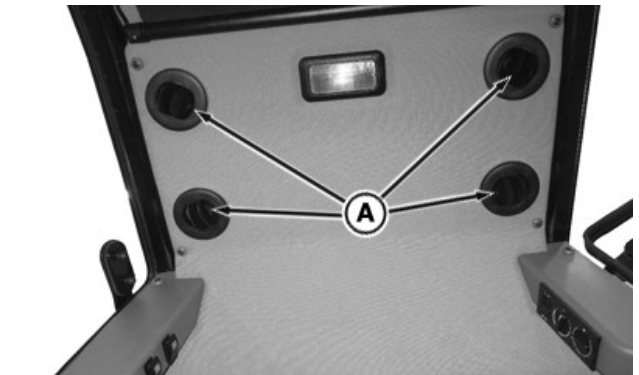


APY01869—UN—12MAR18

(5GL, 5GL-N)

Temperature control knob is used to adjust the desired temperature.

Air Flow Louvers



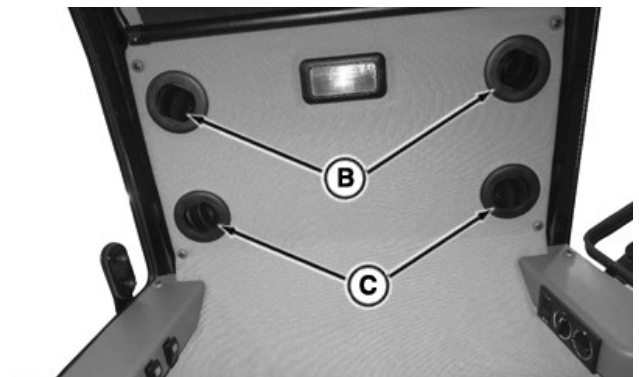
APY01870—UN—12MAR18

A—Louvers

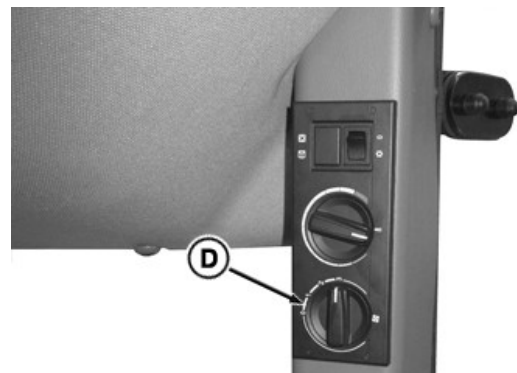
Fresh air enters into the cab from the outside passes through the air filter, blower, heater, and air conditioner evaporator. It is blown through a set of four adjustable louvers (A) above the windshield.

CAUTION: The cab air filter is designed to remove dust from the air but not exclude chemical vapor. Follow the chemical manufacturer's directions regarding protection from hazardous chemicals.

Cold-Weather Operation



APY01871—UN—12MAR18



APY01872—UN—12MAR18

B—Louvers

C—Louvers
D—Blower Control

It is necessary to adjust the opening of the various louvers (B) and (C) to balance the heat output between the windshield and rear window.

To move large quantities of heat to the floor, open the left-hand and right-hand louvers in row (B) and close or partially close the others. Set the blower control (D) to full speed.

Defrosting the Windshield

Open and direct the louvers (B) and (C) to the windshield. Set the blower control (D) to maximum.

Air Conditioning Operation

Operating the System - .



(5GL, 5GL-N) APY01873—UN—12MAR18

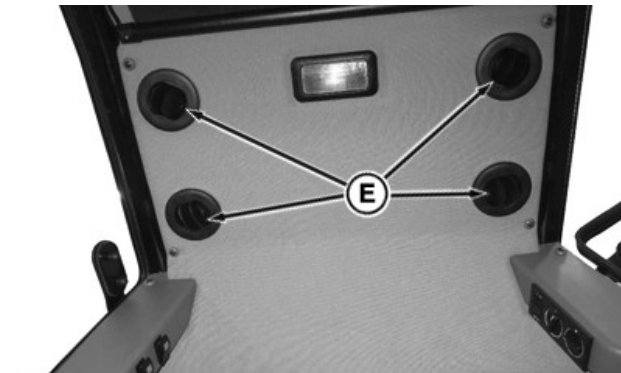
A—Air conditioning Control Switch
B—Temperature Control
C—Fan Speed Control

Make sure that all doors, windows, and the roof hatch are closed

Make sure that the air conditioning control switch (A) is turned ON.

Turn the temperature control knob (B) to the desired temperature.

Turn on the blower control (C) to desired speed.



(5GL, 5GL-N) APY01874—UN—12MAR18

E—Louvers

Open and adjust the louvers (E) to obtain the best cooling for the ambient temperature and humidity. Lower blower speeds result in cooler air.

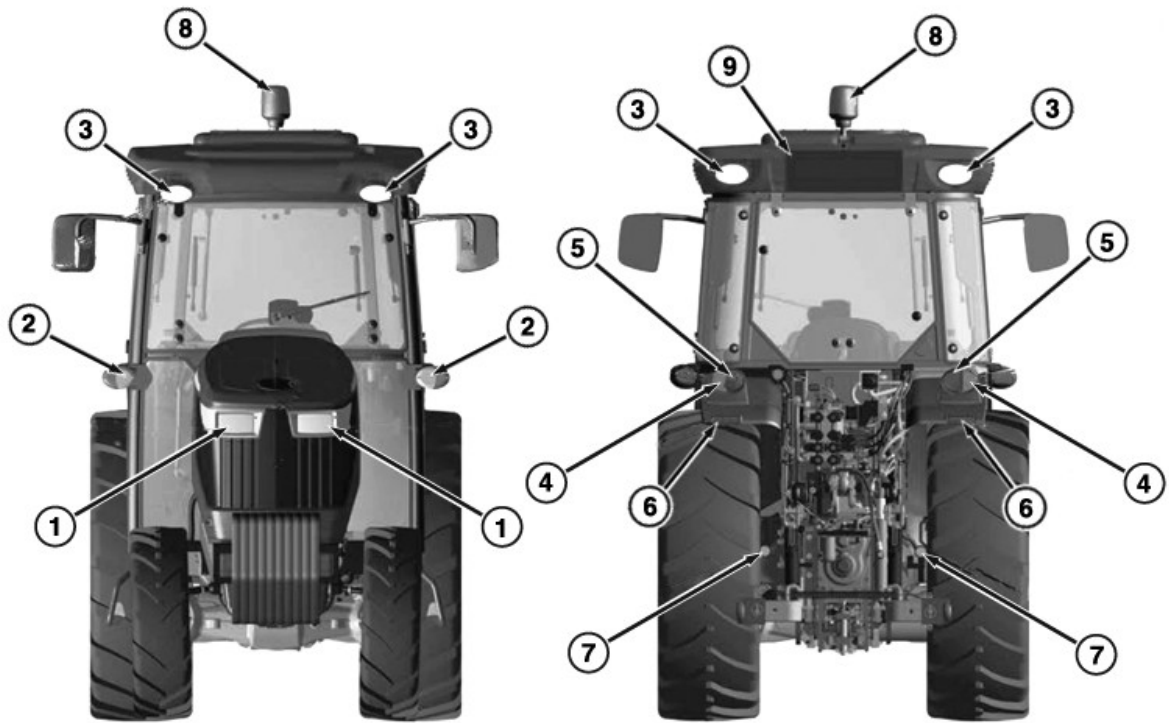
When the desired temperature has been obtained, adjust the blower speed and temperature control to maintain the cooling level. If problems are experienced with the system, immediately inspect for a clogged condenser, which is at the front of the engine radiator.

IMPORTANT: Switch on the air conditioning system for approximately 20 minutes every month, even in the cooler seasons. It lubricates the moving parts of the system, for example, the compressor, and prevents loss of refrigerant.

FENAFNX,0000455-19-17MAY21

Lights

Total View - Lights (Cab) (5GV, 5GN, 5GF)



(5GV, 5GN, 5GF)

PY31801—UN—26AUG16

- 1—Headlights, High, and Low Beam
- 2—Front Turn Signal and Clearance Lights
- 3—Worklights
- 4—Rear Turn Signal Lights
- 5—Tail Lights and Brake Lights

- 6—Reflectors
- 7—Reflectors
- 8—Beacon Light
- 9—License Plate Light



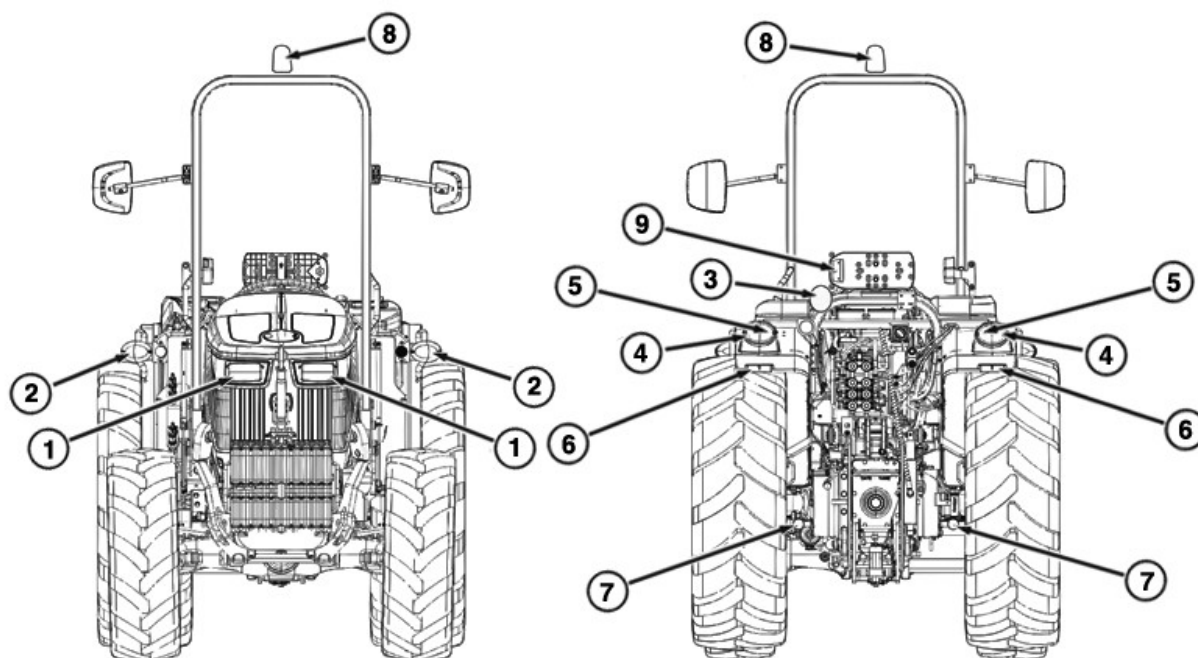
CAUTION: Never use work lights on public roads.

Clean all light lenses before driving on a public road.

NOTE: If a bulb on one side is replaced, also replace the bulb on the other side.

MS76789,0000615-19-04OCT18

Total View - Lights (Open Operator Station)



(5GF)

PY31802—UN—08NOV16

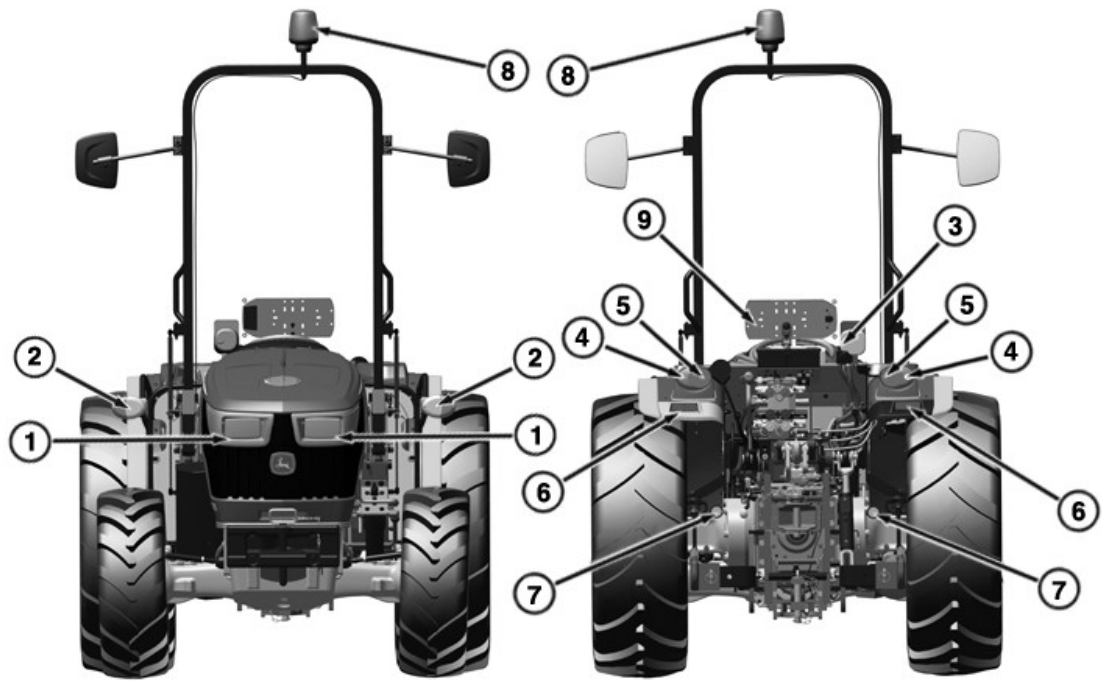
- 1—Headlights, High and Low Beam
- 2—Front Turn Signal and Clearance Lights
- 3—Worklights
- 4—Rear Turn Signal Lights
- 5—Tail Lights and Brake Lights

- 6—Reflectors
- 7—Reflectors
- 8—Beacon Light
- 9—License Plate Light

CAUTION: Never use work lights on public roads.

Clean all light lenses before driving on a public road.

NOTE: If a bulb on one side is replaced, also replace the bulb on the other side.



(5GL)

PY31803—UN—08NOV16

- 1—Headlights, High and Low Beam
- 2—Front Turn Signal and Clearance Lights
- 3—Worklights
- 4—Rear Turn Signal Lights
- 5—Tail Lights and Brake Lights

CAUTION: Never use work lights on public roads.
Clean all light lenses before driving on a public road.

NOTE: If a bulb on one side is replaced, also replace the bulb on the other side.

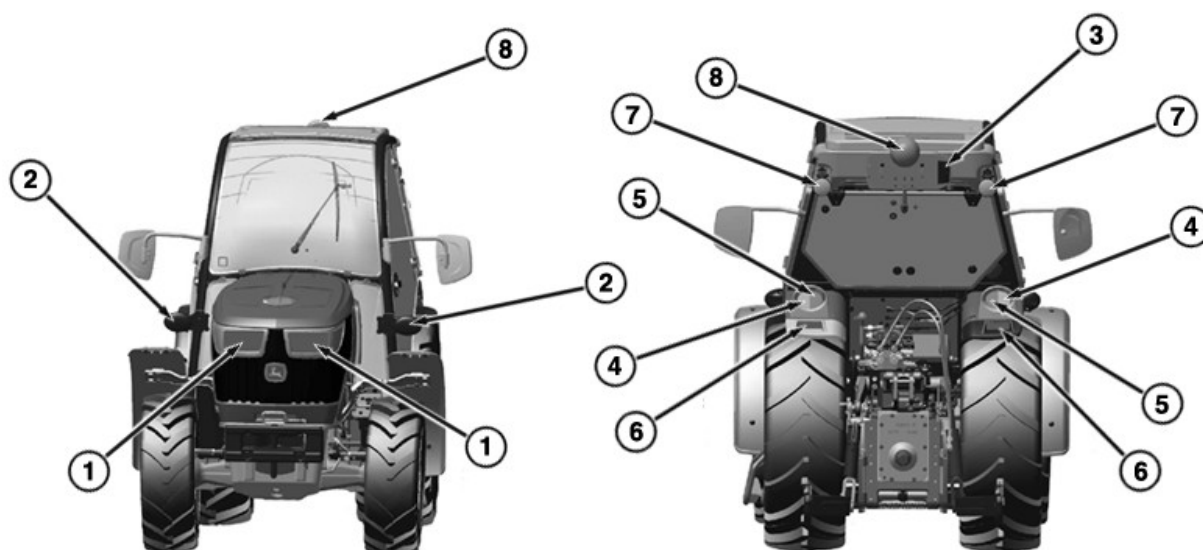
- 6—Reflectors
- 7—Reflectors
- 8—Beacon Light
- 9—License Plate Light

Total View - Lights (Cab) (5GL)

CAUTION: Never use worklights on public roads. Clean all light lenses before driving on a public road.

NOTE: If a bulb on one side is replaced, also replace the bulb on the other side.

MS76789,0000616-19-04OCT18



(Cab) (5GL)

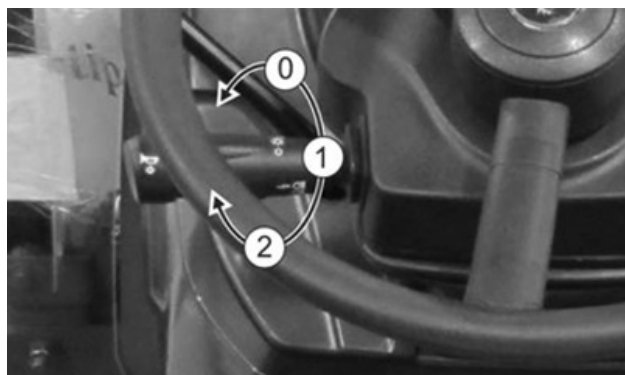
APY01865—UN—08MAR18

- 1—Headlights, High, and Low Beam
- 2—Front Turn Signal and Clearance Lights
- 3—License Plate Light
- 4—Rear Turn Signal Lights

- 5—Tail Lights and Brake Lights
- 6—Reflectors
- 7—Rear Worklights
- 8—Beacon Light

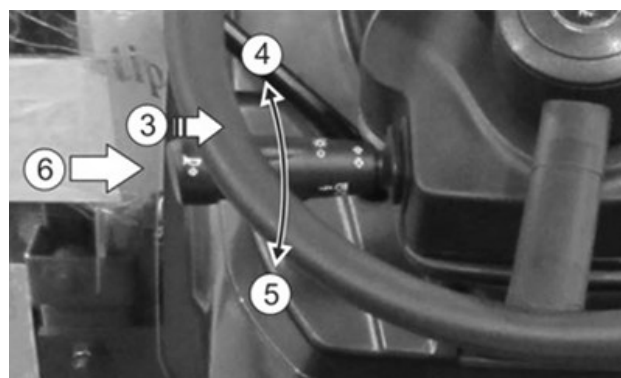
MS76789,0000617-19-04OCT18

Light Switch and Turn Signal Switch



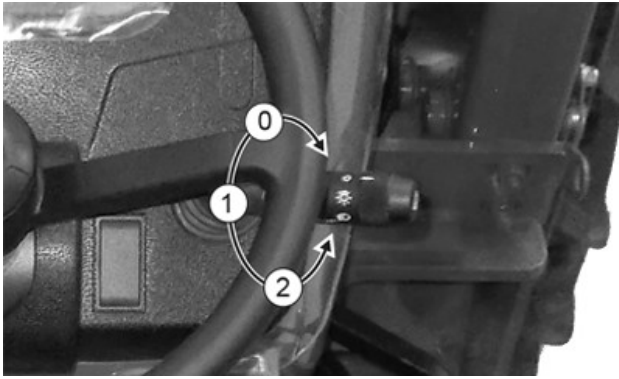
PY31806—UN—26AUG16

5GF, 5GV, and 5GN Models



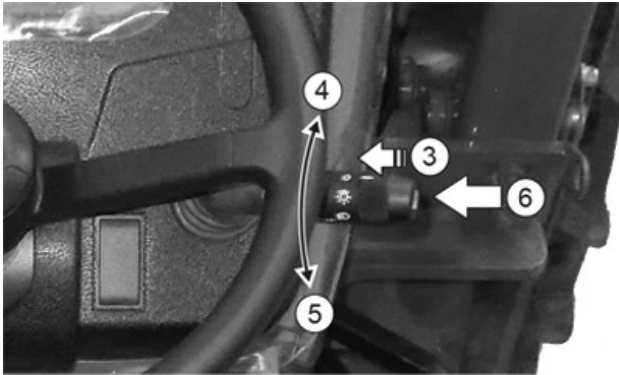
PY31807—UN—26AUG16

5GF, 5GV, and 5GN Models



PY42808—UN—02JUL17

5GL and 5GLN Models



PY42809—UN—02JUL17

5GL and 5GLN Models

Position	Function
0	OFF (fully rotated clockwise). Pull upward and release to FLASH with the HI beam.
1	First position (counterclockwise) instrument panel and rocker switches backlights, tail lights ON. Pull upward and release to FLASH the HI beam.
2	Second position (counterclockwise): Instrument panel backlight, LOW beam ON. Pull upward and release to FLASH the HI beam.
2+3	Pull upward and release to FLASH the HI beam. Pull downward to have HI beam ON permanently.
4	Left turn signal lights ON.
5	Right turn signal lights ON.
6	Push switch to activate horn.

RA84036,0001175-19-10AUG17

Low Beam and High Beam Indicator Light



PY31808—UN—26AUG16

A—High Beam Indicator Light
B—Low Beam Indicator Light

NOTE: Refer to Light Switch and Turn Signal Switch in this section for positions (2) and (3) and for the functions of the lights switches.

High beam indicator light (A) comes on when light switch is turned to position (3) and the switch is pulled in direction of the steering wheel.

Low beam indicator light (B) comes on when light switch is turned to position (2).

FENAFNX,0000456-19-17MAY21

Wake up Mode



PY31809—UN—26AUG16

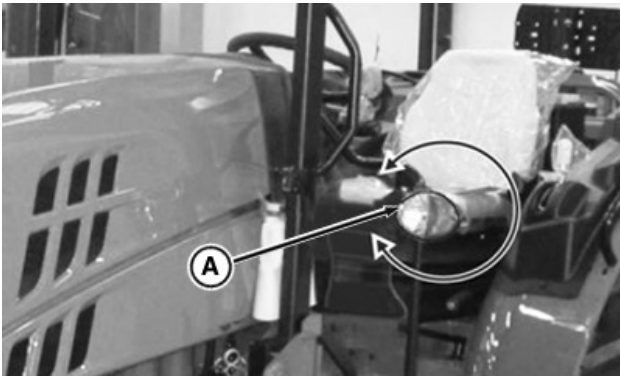
If the key is switched in Park position and the position light are switched ON the display is turned ON in order to show the position light status.

OFF Mode

If the key is switched OFF, the display is turned OFF accordingly (OFF Mode).

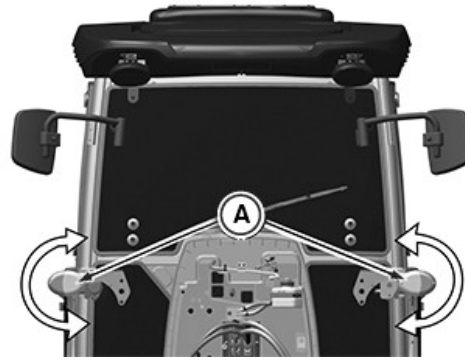
RA84036,0001177-19-10AUG17

Front Clearance Lights, Turn Signal Lights, and Tail Lights



PY31810—UN—26AUG16

(Open Operator Station)



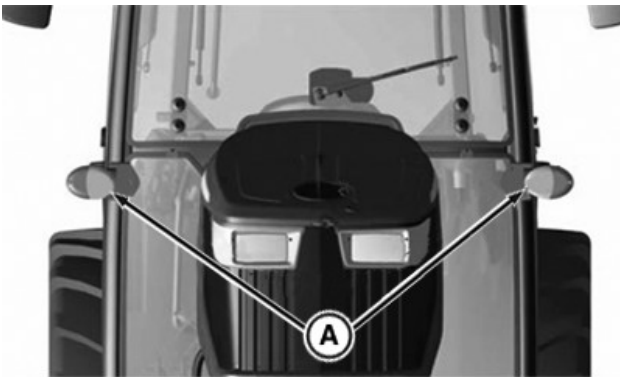
PY37720—UN—03SEP18

Wide Axle (1540 mm rear axle flange to flange) (5GF)

A—Front Clearance Lights and Turn Signal Lights

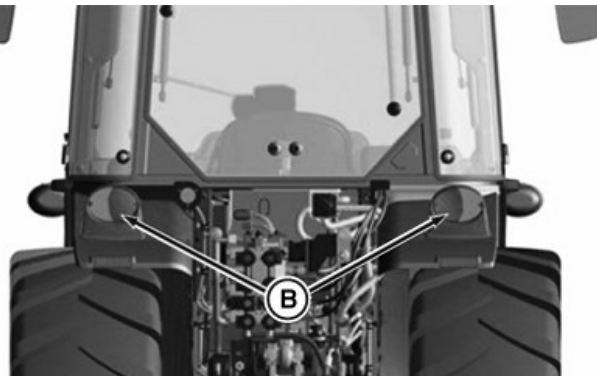
On tractors with open operator station, fold out front turn signal lights (A) to the correct position before driving on public roads.

NOTE: For tractors with open operator's station, front clearance and turn signal lights (A) can be folded. It is to avoid contact with the tree branches during work in orchards or similar conditions.

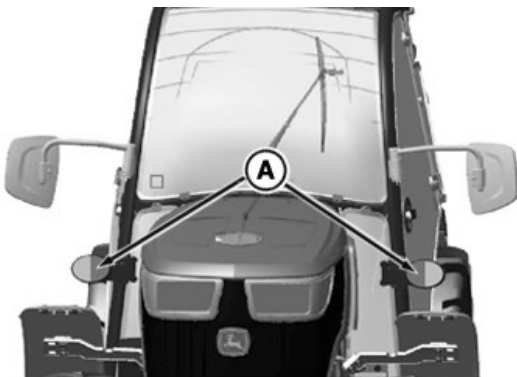


PY31811—UN—26AUG16

(Cab)

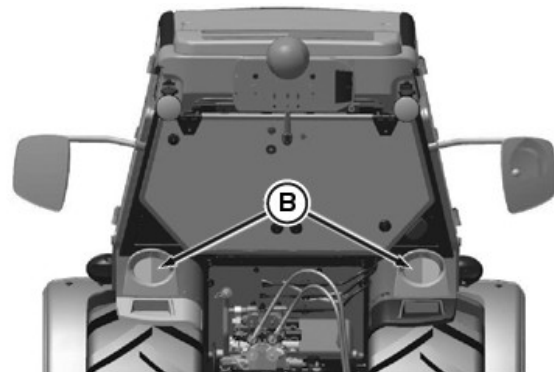


PY31812—UN—26AUG16



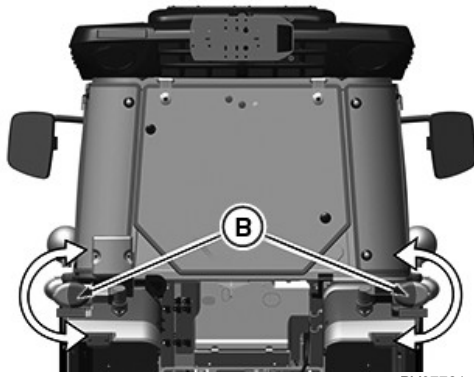
APY01888—UN—08MAR18

(Cab) (5GL-N)

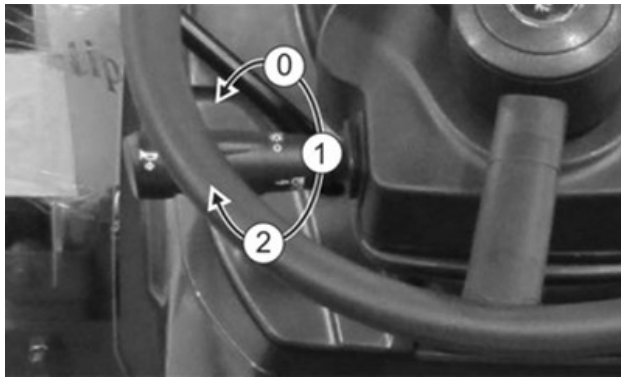


PY37722—UN—03SEP18

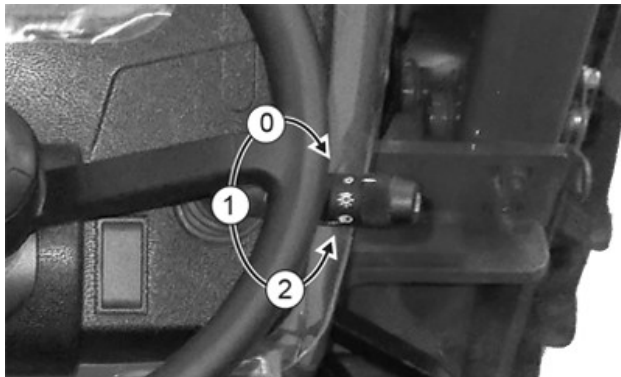
(Cab) (5GL-N)



PY37721—UN—03SEP18
Wide Axle (1540 mm rear axle flange to flange) (5GF)



PY31813—UN—26AUG16
(5GV, 5GN, 5GF)



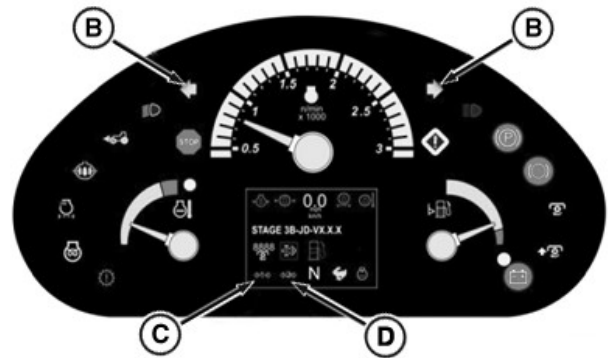
PY42808—UN—02JUL17
(5GL, 5GL-N)

B—Tail Lights

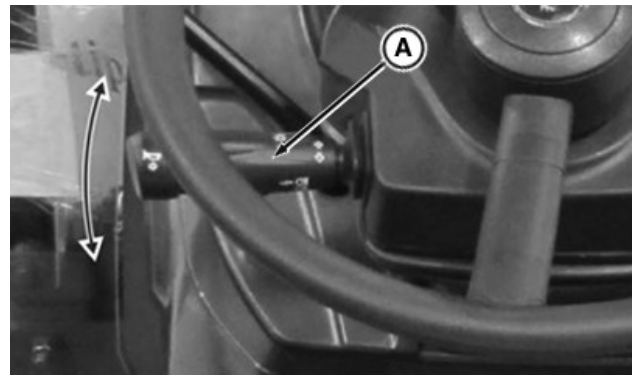
The red tail lights (B) go on when the light switch is turned to position (1) or (2). Be sure that tail light lenses are clean before driving on a public road, so other drivers can see the lights easily.

SD74272,00016E8-19-04OCT18

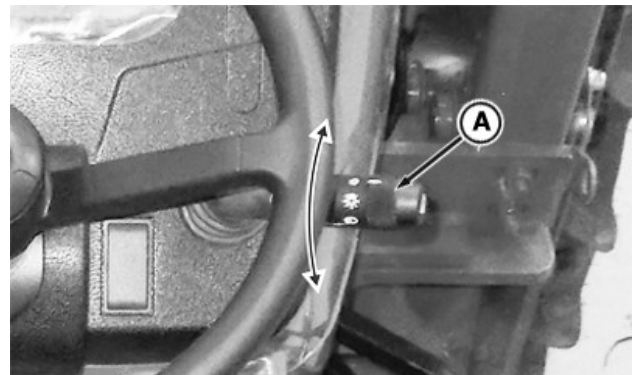
Turn Signal Lights



PY31815—UN—26AUG16



PY31814—UN—26AUG16
(5GV, 5GN, 5GF)



PY34662—UN—13JUL17
(5GL, 5GL-N)

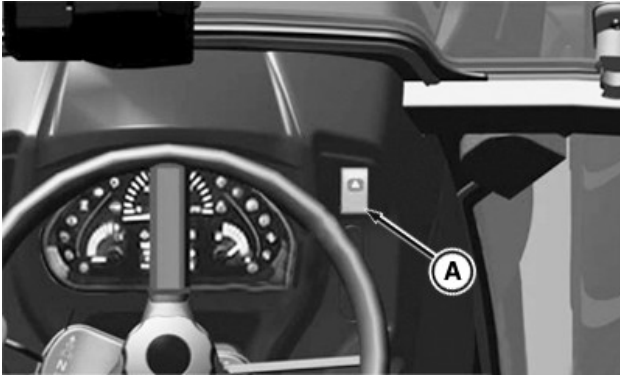
- A—Turn Signal Switch
- B—Turn Signal Indicator Lights
- C—Turn Signal Indicator Light for First Trailer
- D—Turn Signal Indicator Light for Second Trailer

Move turn signal switch (A) from the center (off) position forward to indicate a left-hand turn or backward to indicate a right-hand turn. Indicator lights (B), at the instrument panel, flash to signal turn direction.

When towing one trailer, the indicator light (C) flashes. When towing two trailers, the indicator lights (C) and (D) flashes.

FENAFNX,0000457-19-17MAY21

Hazard Warning Light Switch



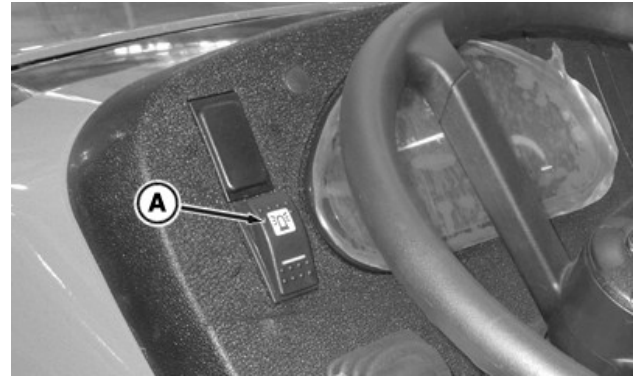
(5GV, 5GN, 5GF)

PY31816—UN—26AUG16



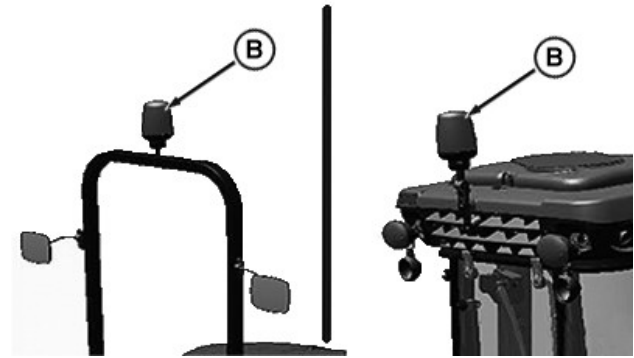
(5GL, 5GL-N)

PY42810—UN—02JUL17



(5GL, 5GL-N)

PY42811—UN—02JUL17



(5GV, 5GN, 5GF)

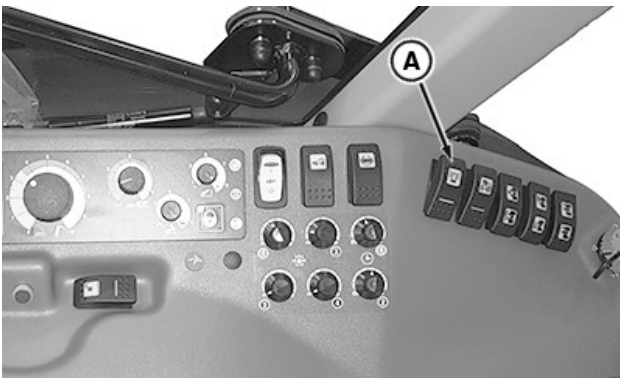
PY31818—UN—26AUG16

A—Hazard Warning Light Switch

Use the switch to operate hazard warning lights when driving on roadways.

MS76789,0000644-19-04OCT18

Beacon Light



(5GV, 5GN, 5GF)

APY11270—UN—31MAY19



(Cab) (5GL-N)

APY01890—UN—08MAR18

A—Beacon Light Switch B—Beacon Light

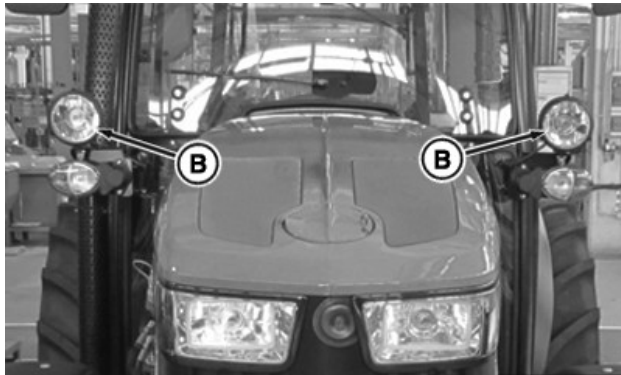
The beacon light (B) is turned on by switch (A). Use beacon light as required by local regulations.

RA84036,00019D2-19-31MAY19

H4 Farm Headlights (Optional)



PY42812—UN—02JUL17



PY31819—UN—09NOV16

(Cab) (5GV, 5GN, 5GF)

A—Provision for Switch (optional)

B—Farm Headlights

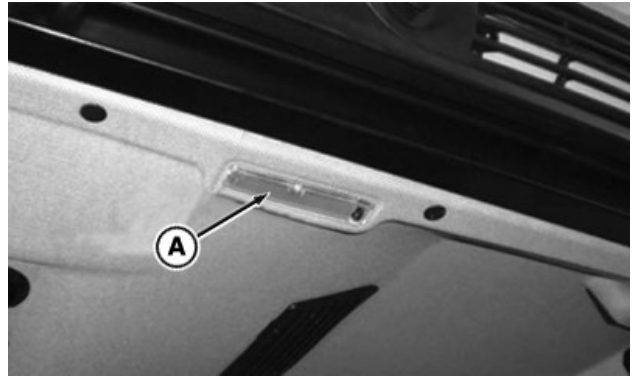
If equipped, the H4 farm headlights are mounted on the cab frame.

Use the switch (A) to operate the H4 farm headlights (B).

Switch (A) allows the operator to choose between normal headlights and these additional lights (for example, when front attachments are installed). Comply with legal restrictions when driving on public roads.

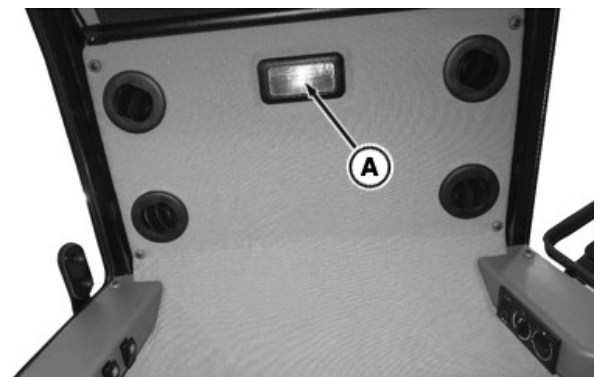
RA84036,000151F-19-04OCT18

Dome Light



PY31838—UN—26AUG16

(5GV, 5GN, 5GF)



APY01898—UN—08MAR18

(Cab) (5GL-N)

A—Dome Light

The dome light (A) can be switched on by the switch at the light.

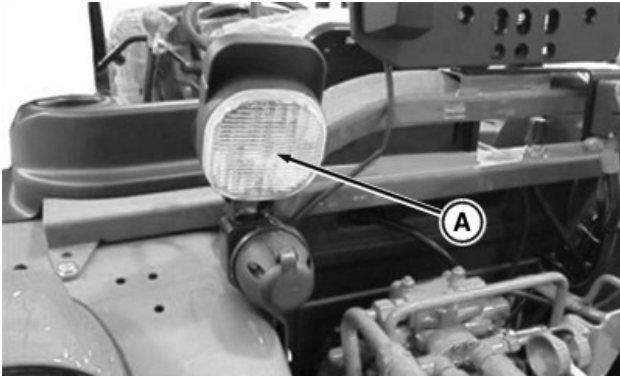
RA84036,0001526-19-04OCT18

Worklight Switches (Open Operator Station)

⚠ CAUTION: Do not switch on worklights when driving on public roads.



PY31820—UN—26AUG16



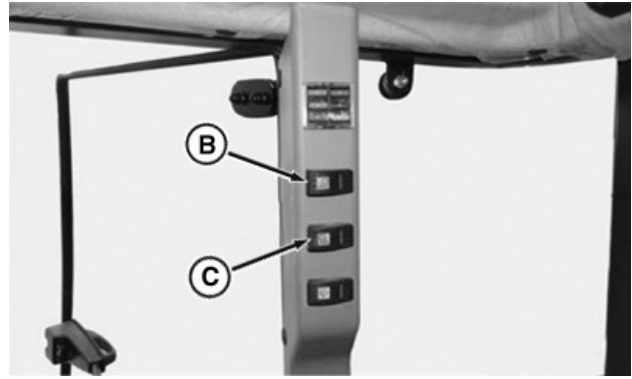
PY31821—UN—26AUG16

A—Rear Worklight
B—Worklight Switch

On tractors with open operator's station, the worklight (A) is switched on by worklight switch (B).

Adjust the work lights (A) by turning them to the desired position.

MS76789,0000629-19-04OCT18



PY31823—UN—26AUG16

Work Light Switches

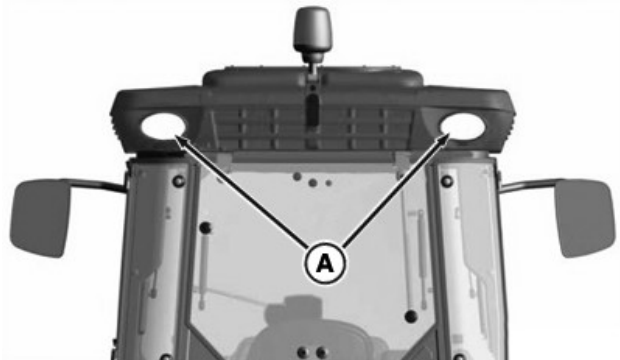
A—Rear Worklights
B—Front Worklight Switch
C—Rear Worklight Switch

On tractors with cab, the work light is switched on by the worklight switches (B) and (C) in the post on the right-hand side.

MS76789,000062A-19-04OCT18

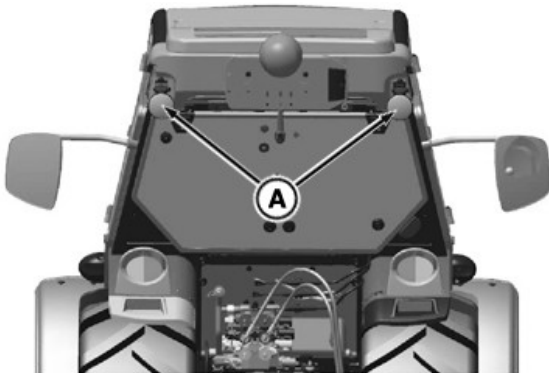
Worklight Switches (Cab)

CAUTION: Do not switch on worklights when driving on public roads.



PY31822—UN—26AUG16

(5GV, 5GN, 5GF)

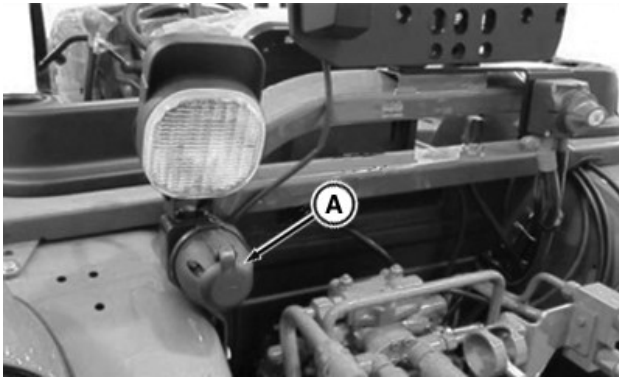


APY01891—UN—08MAR18

(5GL-N)

Power Outlet Sockets

Seven-Terminal Trailer Socket



PY31824—UN—26AUG16

A—Seven-Terminal Trailer Socket

Socket (A) allows lights, turn signals, and other electrical equipment on a trailer or implement to be connected.

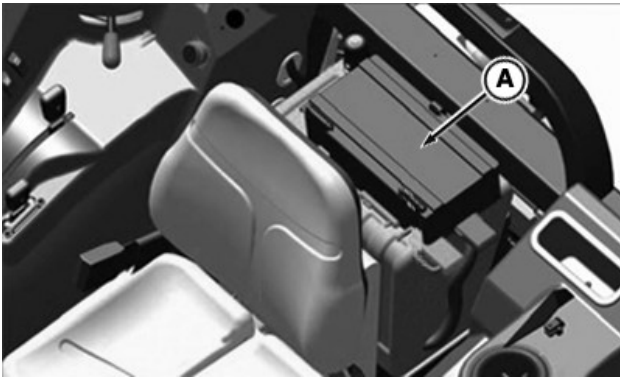
Always use additional lighting on a mounted implement, if the turn signals and other lights at the rear of the tractor are concealed due to some reason.

NOTE: Suitable plugs can be obtained from your dealer.

RA84036,000117C-19-10AUG17

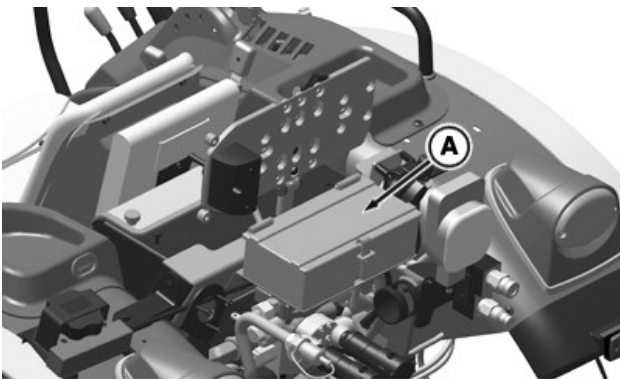
Accessories

Tool Box



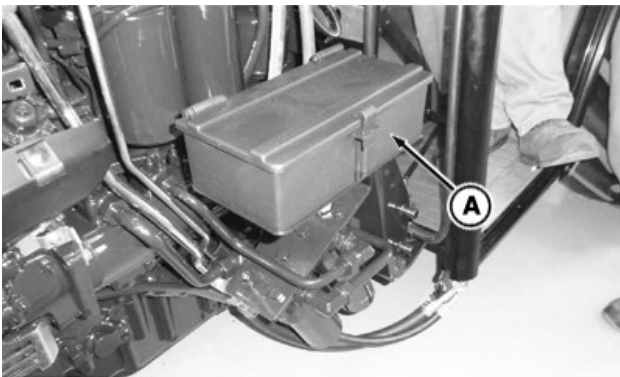
PY31834—UN—26AUG16

5GF, 5GV, and 5GN Models



PY42817—UN—02JUL17

5GL and 5GLN Models



APY01895—UN—08MAR18

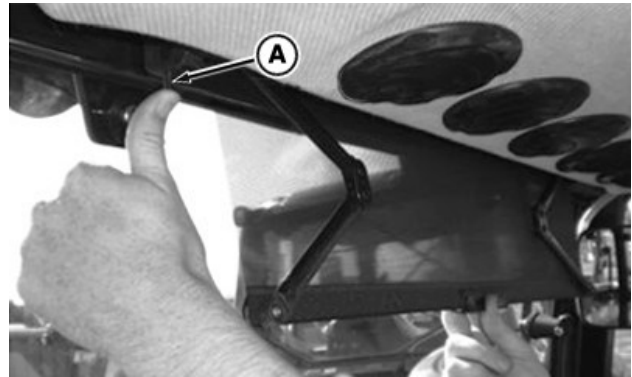
5GL-N Cab Tractor Models

A—Tool Box

The tool box (A) can be used for storing a number of tools.

RA84036,0001524-19-02MAR18

Sun Visor



PY31852—UN—26AUG16

5GV, 5GN, and 5GF Tractor Models



APY11271—UN—31MAY19

5GL-N Cab Tractor Models

A—Button

A front sun visor is available.

Push button (A) for partial or complete rewinding of the curtain.

Guide curtain movement by hand to avoid any damage to it.

RA84036,00019D3-19-31MAY19

Performance Ballast

Ballasting Information and Guidelines for Tractors

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. Assure 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. Assure 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.

VS70618,0000712-19-18DEC19

Select Ballast

 **CAUTION:** When determining front and rear axle ballast, ensure that permissible axle loads and the maximum permissible machine weight (including mounted implements) are not exceeded. See Section 500A for more information on maximum permissible machine weight conditions.

Comply with local regulations regarding installation and maximum permissible number of weights. In order to maintain steerability, at least 20% of the unladen mass must be on the front axle. Unladen mass is the mass of the tractor without special equipment, attachments, trailer ballast. But it is with hydraulic oil and lubricants, a full fuel tank and an operator weighing 75 kg (165 lb).

 **CAUTION:** Use the suitable lifting tackle/hoists while handling weights.

Safety and performance of your tractor depend on correct ballasting of the axles.

For example: Front Axle (Front Weights) and Rear Axle (Wheel Weights, filling tires with liquid ballast, pickup weight).

RA84036,0000FAE-19-10JUL17

Ballast Limitations

Ballast is limited by either tire capacity or tractor capacity. Each tire has a recommended carrying capacity which is not to be exceeded. See "Wheels, Tires, and Treads" in Section 65.

If greater traction is needed, a larger single tire is been considered.

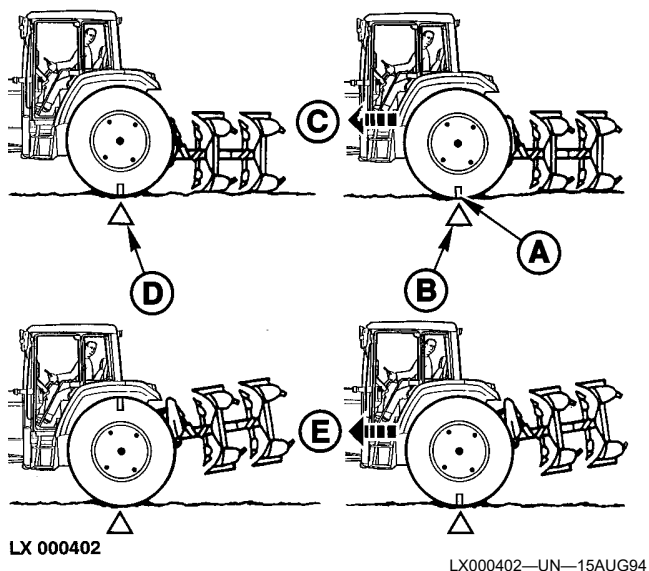
In this case, the selected tires are been among the approved. The front to rear tire combination for front wheel drive version is such as to maintain the correct front wheel lead.

For further information and details, contact your John Deere dealer.

IMPORTANT: Do not exceed axle and tire capacities under any circumstances. See Section 500A for more information.

RA84036,0000FAF-19-10JUL17

Measuring Rear Wheel Slip



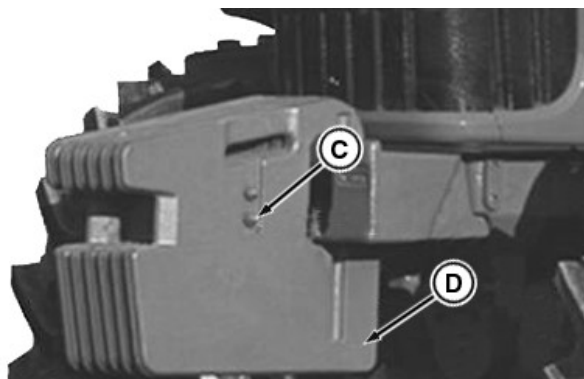
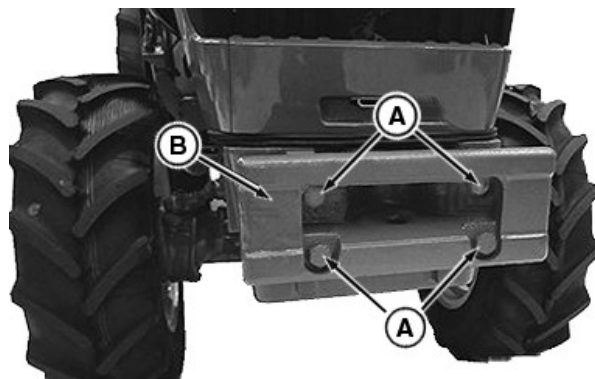
1. Mark tire (A).
2. Mark starting point on the ground (B).
3. Drive tractor forward with implement lowered until ten revolutions of the rear wheel have been made (C).
4. Again place a marker on the ground (D).
5. Now raise implement and again drive between the two markers on the ground. Note number of revolutions made between the two markers (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

RA84036,00015AB-19-02APR18

Installing Front Weights



- A—Screw (4 used)
 B—Basic Weight
 C—Screw (2 used)
 D—Front Weight

IMPORTANT: Tighten the basic weight attaching screws (A) to 390 N·m (287 lb·ft) and the screws (C) on front weights (D) to 230 N·m (170 lb·ft).

Install the basic weight (B) with screws (A) and place additional weights (D) as required. Secure them with screws (C).

IMPORTANT: When installing six or more front weights, they must be installed to form a jaw.

RA84036,0001A61-19-22JUL19

Ballasting Front Wheel Drive Tractors

Ideal tire slippage for front wheel drive tractors is 8-12 percent. To reduce wheel slip to this level, more weight is needed on the front than without front wheel drive tractors. The ideal weight split is 40 percent front, 60 percent rear, of total tractor weight.

OULXA64,0000316-19-26JUN01

With Weight in Three-Point Hitch

NOTE: Keep the three-point hitch raised when driving.
This maximizes ground clearance.

CAUTION: When the tractor is parked, always lower the pick-up 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 pick-up weight for towing loads.

MHM611,12-19-01MAR00

Front Weights

One basic weight and additional front weights are installed on the tractor, if necessary. See the table for information on the various ballast configurations that are installed on each tractor type.

On All Tractors: A number of additional weights, 50 kg (110 lb), 30 kg (66 lb), 25 kg (55 lb) each, can be installed on the basic weight, according to the table.

CAUTION: Additional front ballast is needed for transporting rear mounted implements. When implement is raised, drive slowly over rough ground, regardless of how much ballast is used.

CAUTION: See “Maximum Permissible Axle Loads and Total Weights” in Section 500A.

4WD Tractor >>>	GV		GN		GF		GL-GLN	
	kg	lb	kg	lb	kg	lb	kg	lb
Basic Weight (a)	70	154	70	154	70	154	70	154
Weight Each	25	55	25	55	25	55	25	55
Max. Number of Weights	14	—	14	—	14	—	14	—
Total Additional Weight (b)	350	770	350	770	350	770	350	770
Total Weight (a)+(b)	420	924	420	924	420	924	420	924
Weight Each	30	66	30	66	30	66	30	66
Max. Number of Weights	14	—	14	—	14	—	14	—
Total Additional Weight (b)	420	924	420	924	420	924	420	924
Total Weight (a)+(b)	490	1078	490	1078	490	1078	490	1078
Weight Each	50	110	50	110	50	110	—	—
Max. Number of Weights	8	—	8	—	10	—	—	—
Total Additional Weight (b)	400	880	400	880	500	1100	—	—
Total Weight (a)+(b)	470	1034	470	1034	570	1254	—	—

2WD Tractor >>>	GV		GN		GF	
	kg	lb	kg	lb	kg	lb
Basic Weight (a)	70	154	70	154	70	154
Weight Each	25	55	25	55	25	55
Max. Number of Weights	12	—	14	—	14	—
Total Additional Weight (b)	300	660	350	770	350	770
Total Weight (a)+(b)	370	814	420	924	420	924
Weight Each	30	66	30	66	30	66
Max. Number of Weights	10	—	14	—	12	—
Total Additional Weight (b)	300	660	420	924	360	792
Total Weight (a)+(b)	370	814	490	1078	430	946
Weight Each	50	110	50	110	50	110
Max. Number of Weights	6	—	8	—	8	—
Total Additional Weight (b)	300	660	400	880	400	880
Total Weight (a)+(b)	370	814	470	1034	470	1034

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Transport

Transporting the Tractor

A disabled tractor is best transported on a flatbed carrier.

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

OU12401,00009BF-19-01JUL02

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.

While selecting inflation pressure, consider these steps;

- 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

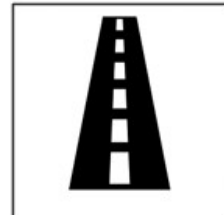
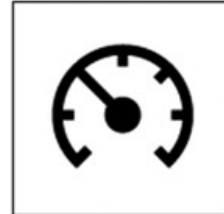
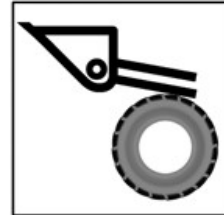
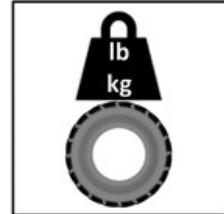
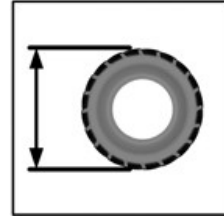
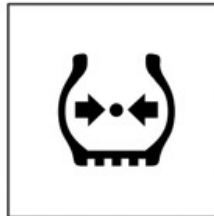
To determine the pressure for specific applications, refer to the inflation pressure tables provided by the tire manufacturers. Many tire manufacturers provide apps online, which allow the recommended tire pressure to be calculated.

IMPORTANT: Any tire inflation quoted in this Operator's Manual is binding.

Never inflate tires to a pressure higher than the maximum value stated on the tire.

Use a tire pressure of 2 bar (29 psi) if no other pressure value is available.

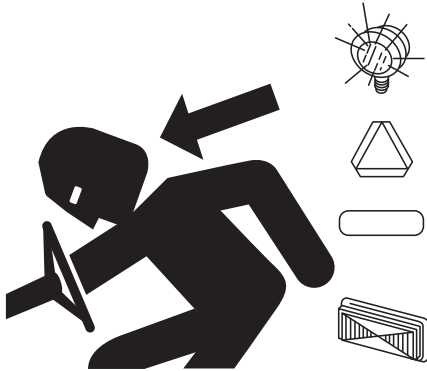
Particular attention must be paid to inflation pressures for row-crop tires, special tires, and tires with liquid ballast. If in doubt, obtain the correct inflation pressure from the tire manufacturer.



LX299189—UN—16NOV16
RA84036,0001161-19-26JUL18

Drive on Public Roads

CAUTION: Avoid personal injury or death from losing control of tractor. When driving tractor on roads:



- Use seat belt
- Couple brake pedals together
- If equipped, use accelerator pedal instead of throttle lever
- Reduce speed when driving on icy, wet, or graveled surfaces
- Ballast tractor correctly
- Prevent wheels from locking and skidding on tractors equipped with IVT transmission.
- Avoid holes, ditches, sharp turns, hillsides, and obstructions that causes the tractor to roll over.
- Always pay attention to the traffic behind you, 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.

CAUTION: To prevent possible personal injury, always switch on the hazard warning lights when traveling on roads, except where prohibited by law.

Lights—Use headlights and turn signals day and night. Comply with the legal stipulations for the device lighting and identification. Make sure that the lighting and identification are visible and in good condition. Make sure that damaged or missing lights and marking are repaired or replaced immediately. Safety lights for implements can be obtained from your authorized dealer.



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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. With the control levers locked, they cannot be activated if they are accidentally touched.

Multi-Function Lever — Lock the multi-function lever 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 Hitch in this manual.

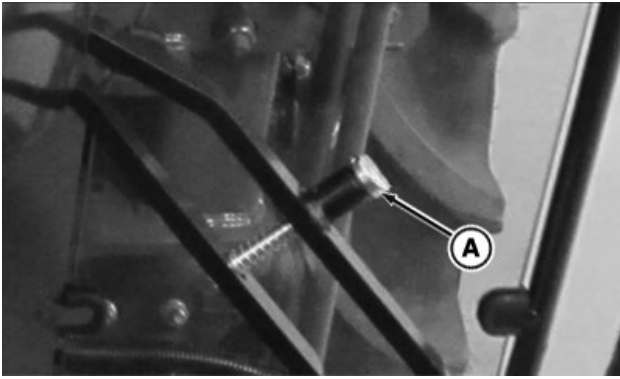
RA84036,0001162-19-10AUG17

Driving Tractor on Public Roads

CAUTION: When driving on a public road, use accessory lights and devices for an adequate warning to operators of other vehicles. Check local governmental regulations. Various safety devices are available from your authorized dealer. Keep safety items in good condition. Replace missing or damaged items.

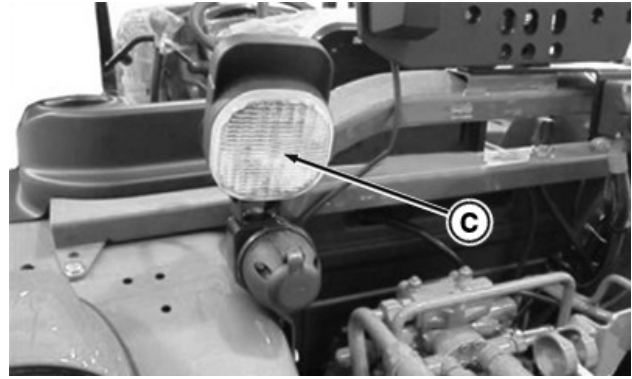
NEVER operate rear facing work light when transporting tractor. A clear bright light at the rear of the tractor could confuse drivers of other vehicles as they approach from the rear.

Before operating tractor on a road, lock brake pedals together. Use brake lightly and cautiously at transport speeds.



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A—Brake Pedals Locking Pin

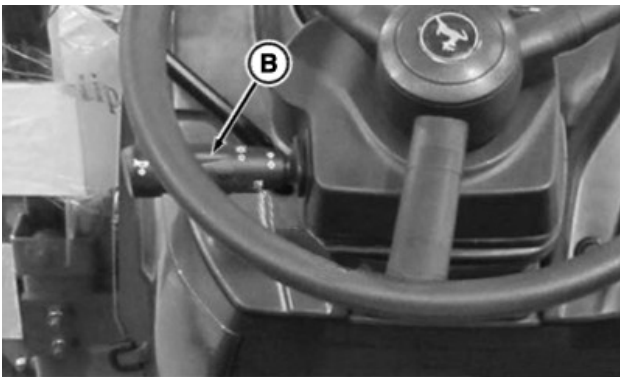


PY31867—UN—26AUG16

Worklight — (Open Operator Station)

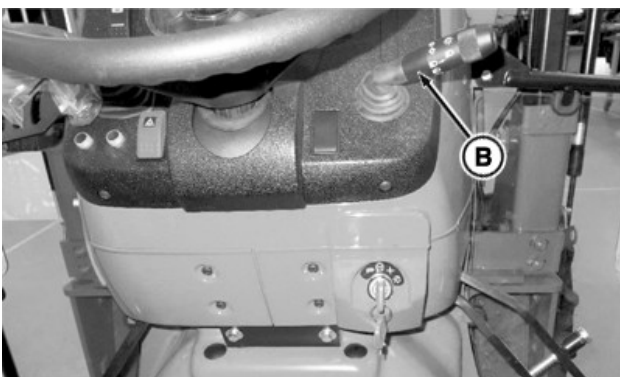
IMPORTANT: Refer to Lights (Section 20) in this manual for detailed descriptions of lighting operations and functions.

1. Couple brake pedals together using locking pin (A). Avoid hard applications of brakes. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes (refer to implement operator's manual for recommended transport speeds).



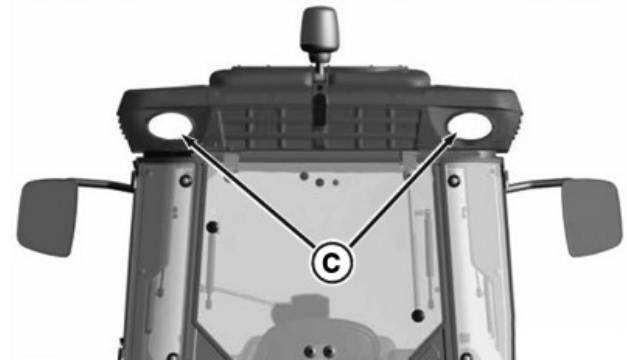
PY31866—UN—26AUG16

(5GV, 5GN, 5GF)



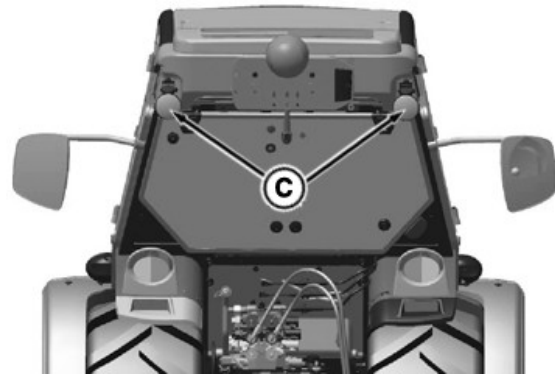
PY42828—UN—02JUL17

(5GL, 5GL-N)



PY31868—UN—26AUG16

(5GV, 5GN, 5GF)



APY05002—UN—15MAR18

(Cab) (5GL-N)

**B—Light Switch
C—Rear Worklights**

2. Turn the light switch (B) to the high beam headlights or the low beam headlights position. Never use rear worklights (C). Always dim headlights before meeting another vehicle. Keep headlights properly adjusted.
3. Use turn signals when turning. Be sure to return turn signal switch to center position after turning.



APY11272—UN—31MAY19

B—Switch

4. Disengage front-wheel drive using switch (B). Driving on hard surfaces with front-wheel drive engaged results in excessive wear of front tires.
5. Do not engage the differential lock. See Use Differential Lock in Differential Lock (Section 50B).
6. Drive slowly enough to maintain control at all times. Slow down for hillsides, rough ground, and sharp turns, especially when transporting heavy, rear mounted equipment.
7. Before going down a hill, shift to a gear low enough to control speed without using brakes. Never coast downhill.
8. When driving downhill on icy or graveled grades, be alert for skids which could result in loss of steering control. To decrease chance of skids, reduce speed and be sure that tractor has proper ballast.
9. Use additional caution when transporting towed loads under adverse surface conditions and when turning or braking on inclines. Be sure that wheel tread is adjusted wide to provide maximum stability.

RA84036,00019D4-19-22JUL19

IMPORTANT: NEVER tow the tractor faster than 16 km/h (10 mph). Have an operator steer and brake tractor.

When the engine is not running, more force is required to turn the steering wheel and pedal travel is longer (no hydraulic assistance).

IMPORTANT: To prevent damage to the transmission/hydraulic system, observe the following precautions:

1. Be sure that transmission/hydraulic system oil is to the full mark on the dipstick (A). If the tractor is to be towed with the front wheels raised, add 1 liter of oil for each 9 cm (3½ in), raising of the wheels. **DO NOT** raise front wheels more than 30 cm (12 in) above ground.

NOTE: After transporting tractor, drain oil that was added for towing.

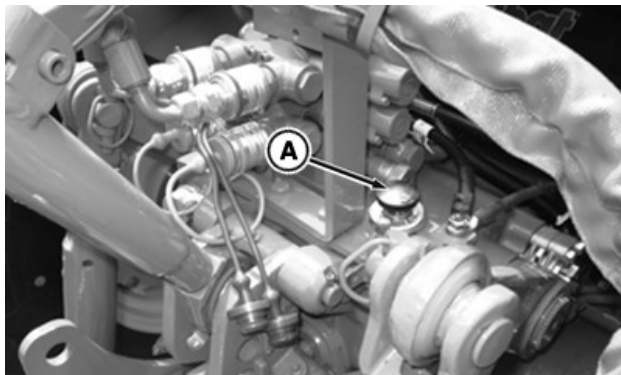
2. Make sure that the differential lock is disengaged.
3. Make sure that range and gearshift levers are in neutral.

IMPORTANT: Switch off front-wheel drive if the engine can run. If the engine is not capable of running, disconnect the universal-jointed driveshaft; this prevents excessive wear on the tires.

IMPORTANT: The jaw hitch at the front weights is used for towing on metaled roads only.

RA84036,0001163-19-10AUG17

Towing Tractor

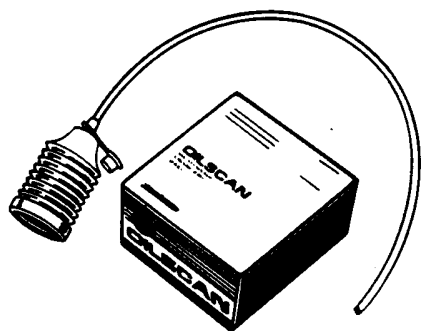


PY31973—UN—05OCT16

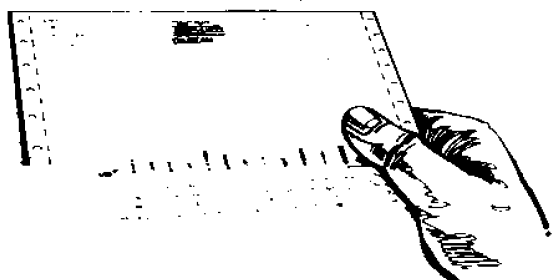
A—Dipstick

Fuel, Lubricants, Hydraulic Oil and Coolant

Oilscan™ and CoolScan™



T6828AB—UN—15JUN89



T6829AB—UN—26AUG11

Oilscan™ and CoolScan™ are John Deere sampling programs to help you monitor machine performance and identify potential problems before they cause serious damage.

Oil and coolant samples should be taken from each system before its recommended change interval.

Check with your John Deere dealer for the availability of Oilscan™ and CoolScan™ kits.

DX,OILSCAN-19-13SEP11

Diesel Fuel

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 A and 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,FUEL1-19-13JUL20

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. Contact your fuel supplier or John Deere dealer for recommendations.

DX,FUEL4-19-13JAN18

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 for more information on diesel fuel analysis.

DX,FUEL6-19-13JAN18

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 dealer 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.

Ether

An ether port on the intake is available to aid cold weather starting.

 **CAUTION: Ether is highly flammable. Do not use ether when starting an engine equipped with glow plugs or an air intake heater.**

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.

For more information, see your John Deere dealer.

DX,FUEL10-19-13JAN18

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

Engine Oil

John Deere Break-In Plus™ Engine 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 seat 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 maximum equal to the interval specified for John Deere Plus-50™ II oil.

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 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-50™ II or other diesel engine oil as recommended in this manual.

OULXBER,0002383-19-14FEB14

Engine Break-In Period

Engine

During the first 100 hours of operation:

- Operate the engine in the mid-to-upper load range, and do not idle it for long periods of time.
- Check oil level in the engine frequently.

IMPORTANT: Top up with oil only when the level has dropped to the low mark.

NOTE: During the break-in period, a higher-than-usual oil consumption is considered as normal.

*Break-In Plus is a trademark of Deere & Company
Plus-50 is a trademark of Deere & Company.*

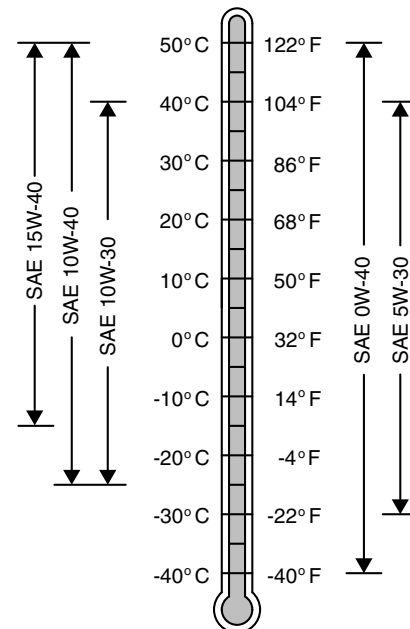
Top up the oil according to standards (ACEA E7 and API CI 3), if necessary.

Recommended

- SAE 10W30
- SAE 15W40
- SAE 20W40

RA84036,0001184-19-10AUG17

Diesel Engine Oil — Interim Tier 4, Final Tier 4, Stage IIIB, and Stage IV



TS1691—UN—18JUL07

Oil Viscosities for Air Temperature Ranges

Use oil viscosity based on the expected air temperature range during the period between oil changes.

If John Deere Plus-50™ II engine oil is not available, engine oil meeting one or more of the following may be used:

Oil specifications	Recommended Oil
Premium oils 15W-40 API CJ-4	John Deere Plus-50™ II (SAE 15W-40 CJ-4, CI-4, CH-4, SM, SL, SJ)

Plus-50 is a trademark of Deere & Company

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.

IMPORTANT: Use only ultra low sulfur diesel (ULSD) fuel with a maximum sulfur content of 15 mg/kg (15 ppm).

OULXBER,000287F-19-08DEC15

Engine Oil and Filter Service Intervals

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.

Use oil analysis to evaluate the condition of the oil and to aid in selection of the proper oil and filter service interval. Contact your John Deere dealer 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.

Use of diesel fuel with sulfur content less than 15 mg/kg (15 ppm) is **REQUIRED**.

IMPORTANT: To avoid engine damage:

- **Reduce oil and filter service intervals by 50% when using BioDiesel blends greater than B20. Oil analysis may allow longer service interval.**
- **Use only approved oil types.**

Engine oil and filter change intervals:	
After the first 100 hours of operation	Drain brake-in oil and refill with recommended engine oil. Replace engine oil filter
Every 250 hours of operation	If Bio-Diesel blends greater than B20 are used or if oils, other as recommended are used.
Every 500 hours of operation	If STANDARD fuel compliant to the EN 590 (2005/55 - 2005/78) is used. The use of additives is discouraged. A fuel known as BIO DIESEL is allowed only if it is compliant with the EN EN 14214 - ASTM 6751 norm, mixed in standard fuel with a maximum percentage of 20%. If recommended oil is used.

OULXBER,0002382-19-14FEB14

Engine Coolant

Diesel Engine Coolant

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
- Coolant concentrate meeting ASTM D6210 requirements in a 40—60% mixture of concentrate with quality water

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
- 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. Distilled, deionized, or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate.

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.

OULXBER.0002384-19-19FEB14

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.

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:

COOL-GARD is a trademark of Deere & Company

Chlorides	<40 mg/L
Sulfates	<100 mg/L
Total solids	<340 mg/L
Total dissolved 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 Diesel Engine Coolant

Maintaining adequate concentrations of glycol and inhibiting additives in the coolant is critical to protect the engine and cooling system against freezing, corrosion, and cylinder liner erosion and pitting.

Test the coolant solution at intervals of 12 months or less and whenever excessive coolant is lost through leaks or overheating.

Coolant Test Strips

Coolant test strips are available from your John Deere dealer. These test strips provide a simple, effective method to check the freeze point and additive levels of your engine coolant.

When Using John Deere COOL-GARD II

John Deere COOL-GARD II Premix™, COOL-GARD II PG Premix and COOL-GARD II Concentrate are maintenance free coolants for up to six years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix or COOL-GARD II PG premix. Test the coolant condition annually with coolant test strips designed for use with John Deere COOL-GARD II coolants. If the test strip chart indicates that additive is required, add John Deere COOL-GARD II Coolant Extender as directed.

Add only the recommended concentration of John Deere COOL-GARD II Coolant Extender. DO NOT add more than the recommended amount.

When Using Nitrite-Containing Coolants

Compare the test strip results to the supplemental coolant additive (SCA) chart to determine the amount of inhibiting additives in your coolant and whether more John Deere Liquid Coolant Conditioner should be added.

Add only the recommended concentration of John Deere Liquid Coolant Conditioner. DO NOT add more than the recommended amount.

Coolant Analysis

For a more thorough evaluation of your coolant, perform a coolant analysis. The coolant analysis can provide critical data such as freezing point, antifreeze level, pH, alkalinity, nitrite content (cavitation control additive), molybdate content (rust inhibitor additive), silicate content, corrosion metals, and visual assessment.

Contact your John Deere dealer for more information on coolant analysis.

DX,COOL9-19-11APR11

Supplemental Coolant Additives

Some coolant additives will gradually deplete during engine operation. For nitrite-containing coolants, replenish coolant additives between drain intervals by adding a supplemental coolant additive as determined necessary by coolant testing.

John Deere Liquid Coolant Conditioner is recommended as a supplemental coolant additive for nitrite-containing coolants.

John Deere Liquid Coolant Conditioner is not designed for use with John Deere COOL-GARD™ II Premix, COOL-GARD II PG Premix, or COOL-GARD II Concentrate.

IMPORTANT: Do not add a supplemental coolant additive when the cooling system is drained and refilled with any of the following:

- John Deere COOL-GARD II
- John Deere COOL-GARD II PG

If other coolants are used, consult the coolant supplier and follow the manufacturer's recommendation for use of supplemental coolant additives.

The use of non-recommended supplemental coolant additives may result in additive drop-out and gelation of the coolant.

Add the manufacturer's recommended concentration of supplemental coolant additive. DO NOT add more than the recommended amount.

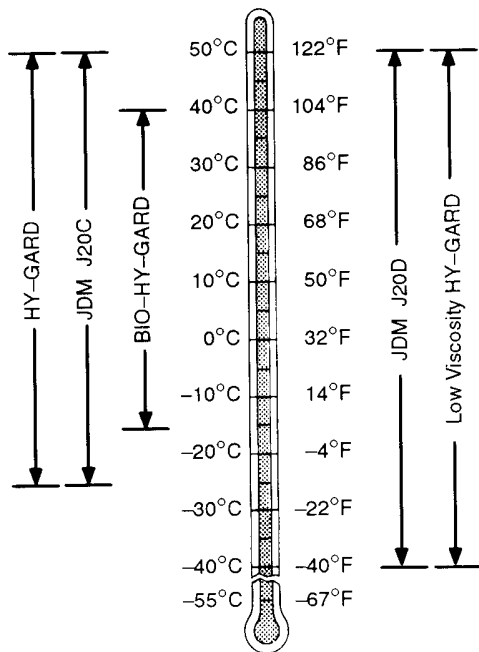
COOL-GARD is a trademark of Deere & Company

COOL-GARD is a trademark of Deere & Company

OULXBER,0002880-19-08DEC15

Other Lubricants

Transmission and Hydraulic Oil



TS1625—UN—12DEC94

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™

John Deere BIO-HY-GARD™ oil is also recommended.

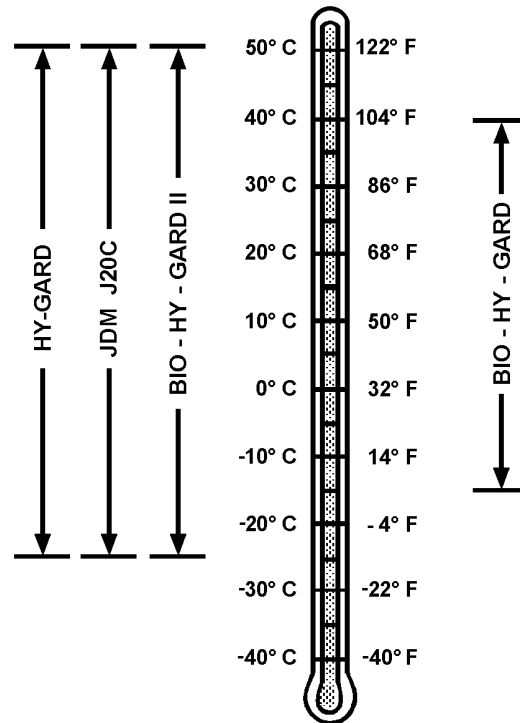
Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Arctic oils (such as Military Specification MIL-L-46167B) may be used at temperatures below -30°C (-22°F).

DX,HYOIL2-19-01DEC94

Front-Wheel Drive Axle Oil



LX1033632

LX1033632—UN—29APR04

Use oil with a viscosity based on the expected air temperature range during the period between oil changes.

The following oil is preferred:

John Deere Hy-Gard™

Other oils may be used if they meet the following:

John Deere Standard JDM J20C

Use one of the following oils when a biodegradable fluid is required:

John Deere Bio Hy-Gard™ II¹ or Bio Hy-Gard™²

NOTE: Do NOT use Bio Hy-Gard™ on braked axles.

RA84036,00010DC-19-03AUG17

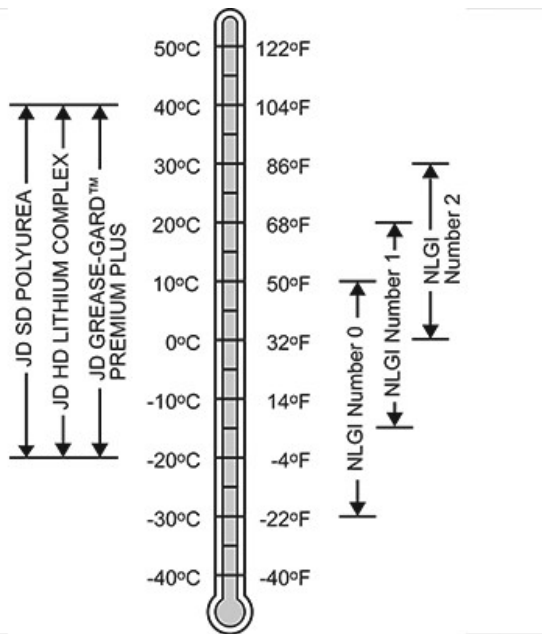
Hy-Gard is a trademark of Deere & Company
Bio Hy-Gard is a trademark of Deere & Company

¹ BIO-HY-GARD™ II meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC L-33-A-93 test method. BIO-HY-GARD™ meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC L-33-T-82 test method. These oils should not be mixed with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.

² BIO-HY-GARD™ II meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC L-33-A-93 test method. BIO-HY-GARD™ meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC L-33-T-82 test method. Do not mix these oils with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.

HY-GARD is a registered trademark of Deere & Company.
BIO-HY-GARD is a trademark of Deere & Company.

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

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.

Consult your John Deere dealer to obtain specific information and recommendations.

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

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

The temperature limits and service intervals shown in this manual apply to John Deere branded fluids or fluids that have been tested and/or approved for use in John Deere equipment.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER-19-13JAN18

Service — General Information

Safe Maintenance and Cleaning



TS249—UN—23AUG88

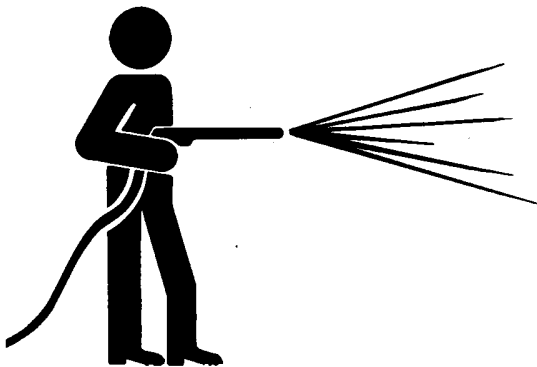
CAUTION: To perform service work at locations that are difficult to reach, it is essential to use suitable platforms or safety ladders.

Particular care is required when performing service work and cleaning jobs at locations that are difficult to reach, for example, adjusting roof-mounted lights, servicing the cooling system, adjusting the right outside mirror on tractors without a door on the right side and many other similar tasks.

CAUTION: It is NOT permissible to stand on tractor components to perform such tasks unless the tractor components are intended for this purpose. There is a high risk of falling, especially if the tractor components are wet, dirty, or coated with ice.

RA84036,00010DD-19-03AUG17

Using High Pressure Washers

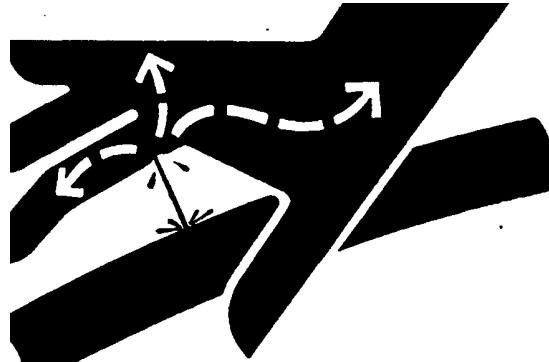


T6642EJ—UN—18OCT88

IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps, or other sensitive parts and components may cause product malfunctions. Reduce pressure and spray at a 45 to 90° angle.

RA84036,00010DE-19-03AUG17

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

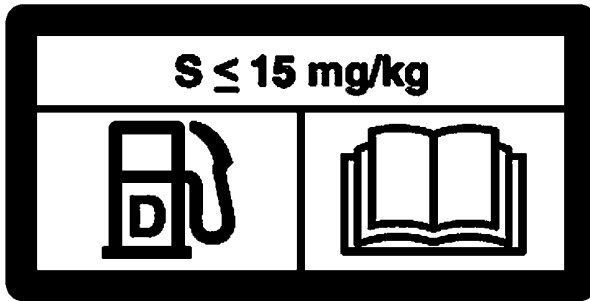
Storing Fuel

If there is a very slow turnover of fuel in the fuel tank or supply tank, it may be necessary to add a fuel conditioner to prevent water condensation. Contact your

John Deere dealer for proper service or maintenance recommendations.

DX,FUEL-19-03MAR93

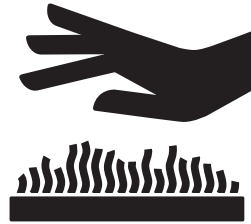
Ultra Low Sulfur Fuel



AGCPTJD0744—UN—18AUG14

IMPORTANT: When this label is present, use Ultra Low Sulfur Fuel only.

OULXBER,0002882-19-08DEC15



RG17488—UN—21AUG09

A—Hood

The hood (A) is a protective element.

CAUTION: Never perform any service work near rotating or moving parts. Never remove or open any service doors or other guards when engine is running or hot. No service must be performed on or around the engine with engine running.

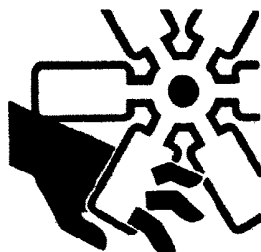
Prevent unintentional operation of the engine or starting motor when hood is open or guards are removed.

RA84036,0000FD0-19-11JUL17

When Performing Services

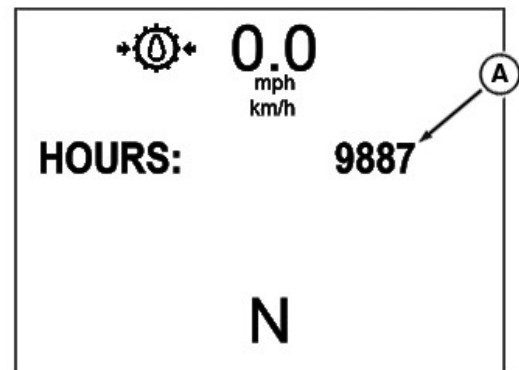


PY28232—UN—25AUG16



T133592—UN—15APR13

Lubrication and Periodic Service



PY28230—UN—25AUG16

A—Hour Meter

CAUTION: Do not lubricate or adjust the tractor while the engine is running.

IMPORTANT: Recommended service intervals are for average conditions. Service more often if tractor is operated under adverse conditions.

The intervals at which the various parts are checked, lubricated, serviced, or adjusted are based on the actual hours of operation. It is shown on the hour meter (A). The hour meter operates whenever the engine is running and shows the accumulated hours of engine operation.

Using hour meter (A) as a guide, perform all services at the hourly intervals indicated on the following pages.

Always check to make sure that the hour meter is serviceable.

After servicing, cleaning, or repairing your machine, reinstall any safety guards or shields before operating the tractor again.

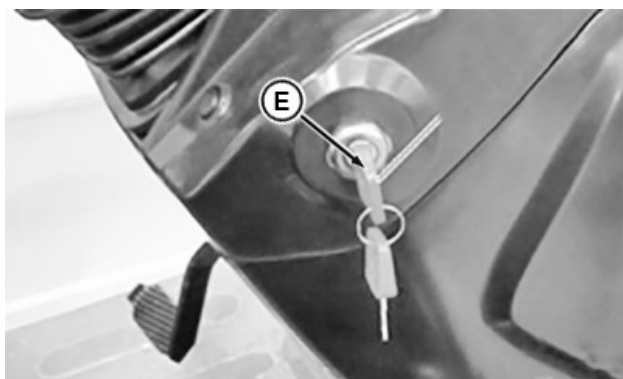
RA84036,0001164-19-10AUG17

Oil Service Message Reset

IMPORTANT: Reset Oil Service Message after each oil change. Failure to follow this procedure leads to engine derate.

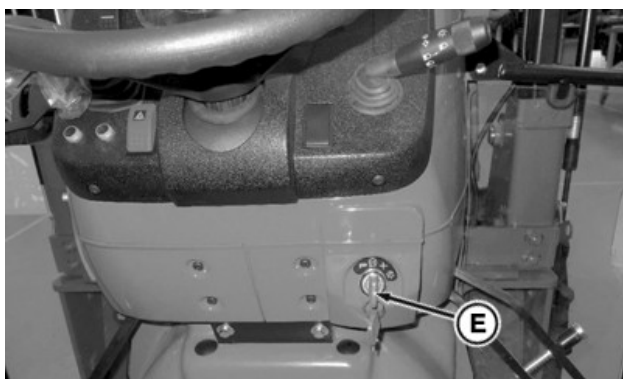
After changing the engine oil, it is necessary to reset the timer of the oil life, time monitoring system.

Procedure to reset the timer:



PY28161—UN—09NOV16

(5GV, 5GN, 5GF)



PY42851—UN—03JUL17

(5GL, 5GL-N)

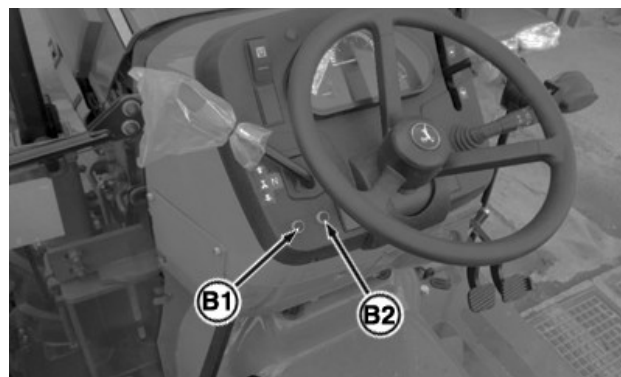
E—Key

1. Turn the key (E) in the ON position without starting the engine.
2. Wait for 6 seconds.



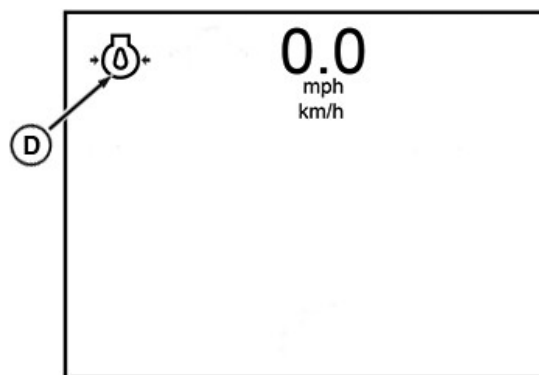
PY28140—UN—25AUG16

(5GV, 5GN, 5GF)



PY42803—UN—02JUL17

(5GL, 5GL-N)



PY28231—UN—25AUG16

B1—Button
B2—Button
D—Icon

3. Press and hold the buttons (B1) and (B2) for at least 15 seconds.
4. Release the buttons (B1) and (B2). The icon (D) begins flashing and the buzzer sounds for a short time. It indicates the end of the procedure.
5. After this procedure, you can use the tractor normally.

NOTE: The procedure can be performed only once in the same trip. A further attempt has no effect on the timer.

RA84036,00019EF-19-21JUN19

Use Correct Lubricant

IMPORTANT: Use only lubricants meeting specifications outlined in Fuels and Lubricants section when performing tractor service.

RA84036,0001166-19-10AUG17

Other Service Jobs

If the tractor is used in particularly wet and muddy terrain, apply extra lubrication as follows:

- Front axle—lubricate pivot pin and king pins (tractors without front-wheel drive).
- Front axle and driveshaft (tractors with front-wheel drive).
- Lubricate front axle wheel bearings.
- Lubricate all universal joints including universal joint shaft from transmission to front-wheel drive axle.
- Lubricate rear axle bearings.
- 3-point hitch—lubricate all grease fittings.
- Trailer hitch—lubricate all grease fittings.

These jobs are described in the other service sections in this manual.

RA84036,00010E0-19-03AUG17

Oil Vapor Recirculation System Maintenance

Let your authorized dealer check the blow-by filter.

RA84036,00010E1-19-03AUG17

Turbo Compressor Maintenance

Let your authorized dealer check the turbo compressor.

OULXBER,0002914-19-21DEC15

Overhaul Injection Pump

Ask your authorized dealer to perform this service.

OULXBER,0002910-19-21DEC15

Fuel Filters

The importance of fuel filtration cannot be overemphasized with modern fuel systems. The combination of increasingly restrictive emission regulations and more efficient engines requires fuel system to operate at much higher pressures. Higher pressures can only be achieved using fuel injection components with very close tolerances. These close

manufacturing tolerances have significantly reduced capacities for debris and water.

John Deere brand fuel filters have been designed and produced specifically for John Deere engines.

To protect the engine from debris and water, always change engine fuel filters as specified in this manual.

DX,FILT2-19-14APR11

Tire Pressures

Long life and satisfactory performance of the tires depend on proper tire inflation. Under-inflation of tires leads to rapid wear. Over-inflated tires reduce traction and increase wheel slippage.

The correct tire pressure depends not only on working conditions and load, but also on the tractor model, tire size, and the manufacturer. Because of this, we recommend approaching your John Deere dealer or tire company for advice. The tire pressure shown in the table is considered as a standard guide only. The tire pressures shown are for field operations. If you are operating 20% or more of the time on roads, increase tire pressures according to the manufacturer's specifications.

NOTE: Refer to Maximum Permissible Axle Load in Relation to Tires (Normal Operation) in Specifications (section 500A) in this manual.

RA84036,00010E2-19-03AUG17

Inspect All Tires

Inspect tires and check inflation pressures. For correct tire pressures refer Tire Pressures in this manual for more information concerning tire pressures.

RA84036,0001167-19-10AUG17

Service Tractor Safely

Disengage power to attachments and stop engine before making any repairs or adjustments.

Do not change engine governor setting or overspeed engine.

Keep the vehicle and attachments in good operating condition.

Keep safety devices in place and in working condition.

Keep all nuts, bolts, and screws tight to be sure the equipment is in safe, working condition.

CAUTION: Before you work on any part of the engine, stop the engine and let it cool. Hot engine parts can burn skin on contact.

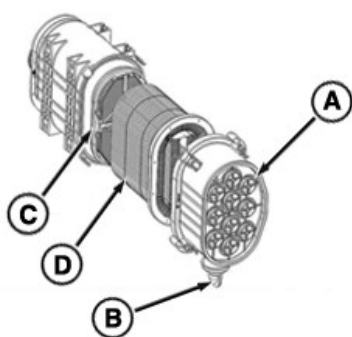
Never run engine unless the reverse drive lever is in neutral position.

CAUTION: Be careful to prevent clothing, jewelry, or long hair from getting caught in the fan blades, drive belts, or any other moving engine parts.

Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

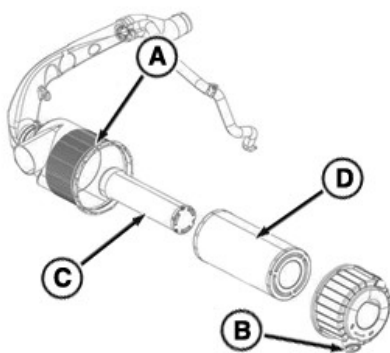
RA84036,00010E4-19-03AUG17

Air Intake System Components



PY28239—UN—11NOV16

For GN, GV, and GF Tractors



PY28240—UN—11NOV16

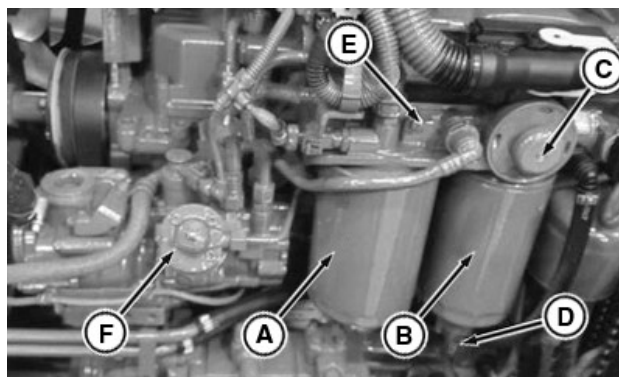
For GL Tractors

- A—Air Cleaner Canister
- B—Dust Unloading Valve
- C—Secondary Filter Element
- D—Primary Filter Element

Air enters the intake system through the open end of the air cleaner canister (A). A major portion of the dust is separated out by air turbulence action caused by the primary air cleaner element (D). This dust is then passed out into the radiator inlet air flow through the dust unloading valve (B). If the primary element becomes plugged, dust gets filtered out by the secondary element (C).

RA84036,00010E6-19-03AUG17

Fuel System Components



PY28241—UN—25AUG16

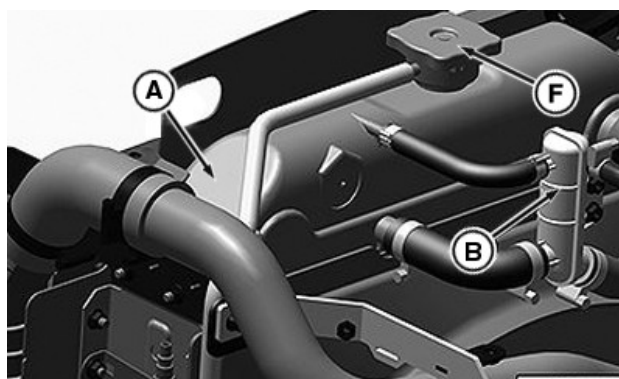
- A—Fuel Prefilter
- B—Fuel Filter
- C—Priming Pump
- D—Drain Port
- E—Fuel System Bleeding Screw
- F—Fuel Pump

RA84036,00010E5-19-03AUG17

Engine Cooling System Components

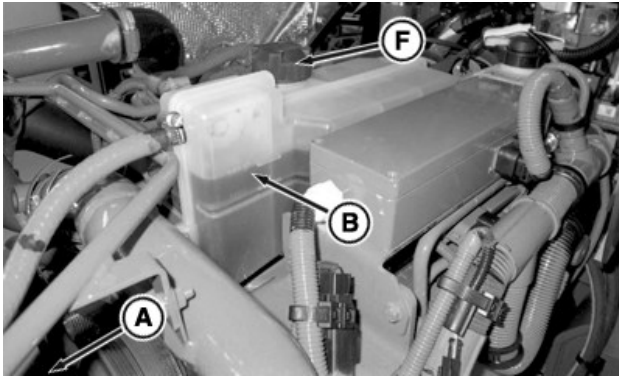


TS281—UN—15APR13



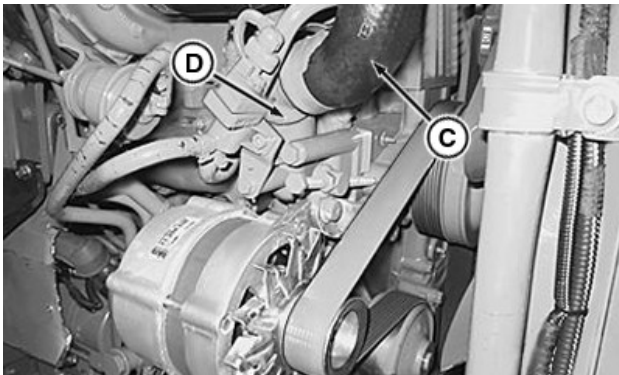
PY28242—UN—11JUL17

(5GV, 5GN, 5GF)

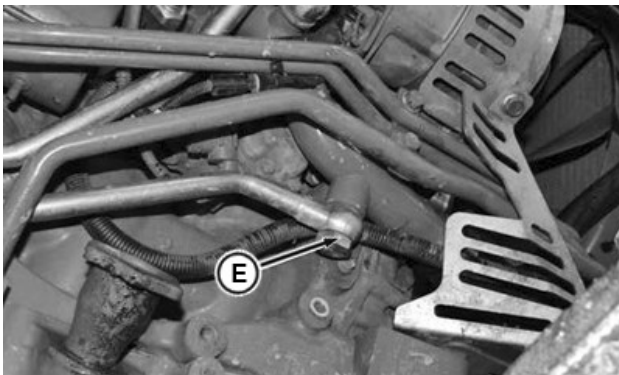


(5GL)

PY42836—UN—02JUL17



PY28243—UN—25AUG16



PY28244—UN—25AUG16

- A—Radiator
- B—Level Tank
- C—Upper Radiator Hose
- D—Thermostat Housing
- E—Drain Plug
- F—Tank Cap

CAUTION: Remove radiator cap only when engine is cold. Slowly loosen cap to first stop to relieve pressure before removing completely.

Check coolant level, See Check Coolant Level in Service — Checks (Section 220D) in this manual.

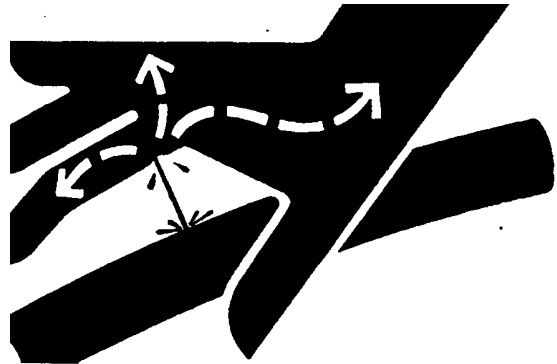
IMPORTANT: Never pour cold water into the cooling system of a hot engine. It can crack the cylinder block or head. DO NOT operate engine without coolant for even a few minutes.

If the coolant has been drained or changed, the cab heating system should be engaged for at least 10 minutes to bleed the air out of the system while the engine is running.

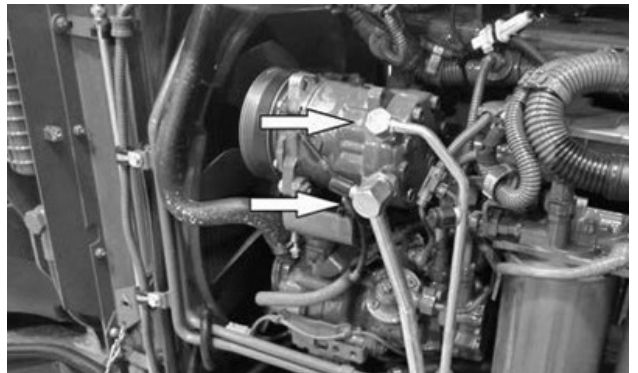
Check coolant level through the coolant level tank (B). See Check Coolant Level in Service — Checks (section 220D) in this manual.

MS76789,0000630-19-04OCT18

Air-Conditioning System



X9811—UN—23AUG88



PY28246—UN—25AUG16

If the cooling effect is intermittent, clean the front grille, side panels, radiator, and condenser. Check and clean cab air filter if necessary. If all of these procedures do not solve the problem and the system still not working properly, the refrigerant level in the system is low. See your John Deere dealer.

CAUTION: The refrigerant in the system is under pressure. If it escapes it can penetrate the skin or the eyes and it can cause burns.

IMPORTANT: The system is filled with R-134a refrigerant. Servicing it requires special procedures and equipment. See your John Deere dealer.

At ambient temperatures below 0°C (32°F), operate the compressor by switching on the air conditioning system for 10 to 15 minutes at least once in a month. Run the engine at 1500 rpm. This usage ensures that the seals in the compressor are lubricated and prevent them from becoming dry and brittle.

IMPORTANT: Frequently check air conditioning components for leaks or damage. Wear protective clothing. Air conditioning components contaminated with oil indicate possibility of a refrigerant leak. If there is any doubt, contact your John Deere dealer.

IMPORTANT: Never open refrigerant lines, as it allows the refrigerant to escape.

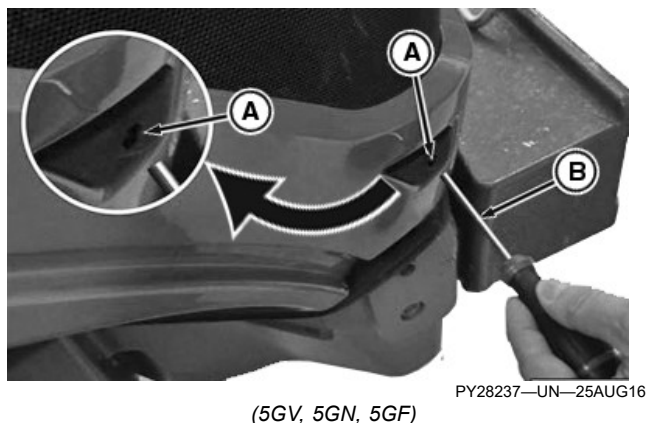
CAUTION: Refrigerant is harmful to the eyes and skin. If a leak is detected, put on safety glasses and wear protective clothing. Call your John Deere dealer, who has the special equipment required to service and repair the air-conditioning circuit.

NOTE: Cleaning of the front grille, side panels, radiator, and condenser, as well as checking and cleaning the cab air filter, need special equipment for avoiding damage.

For any service required for the air conditioning system, contact your John Deere dealer. See *Service Intervals* (section 210B) in this manual.

RA84036,0001A6E-19-23JUL19

Open Hood



(5GL)

A—Hole
B—Tool

In order to open the hood, insert a suitable tool (B) into the hole (A).

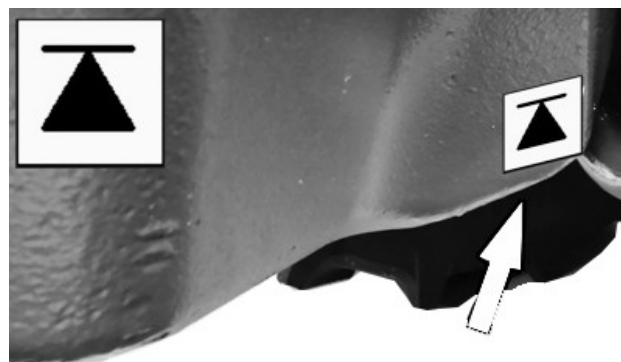
Push the latch to free the hood and at the same time lift it from the front.

To close the hood, push it fully down.

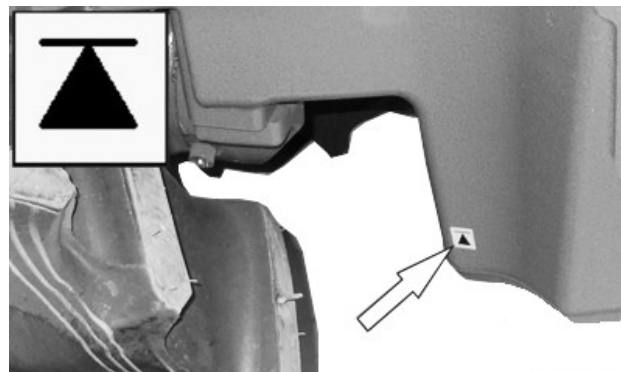
An audible click signals engagement of the locking catch. Check that the hood is properly closed.

RA84036,0001532-19-04OCT18

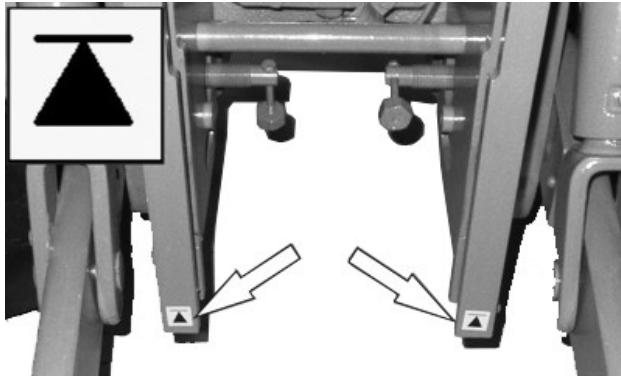
Lifting Points



PY28371—UN—28SEP16



PY28372—UN—28SEP16



PY28373—UN—28SEP16

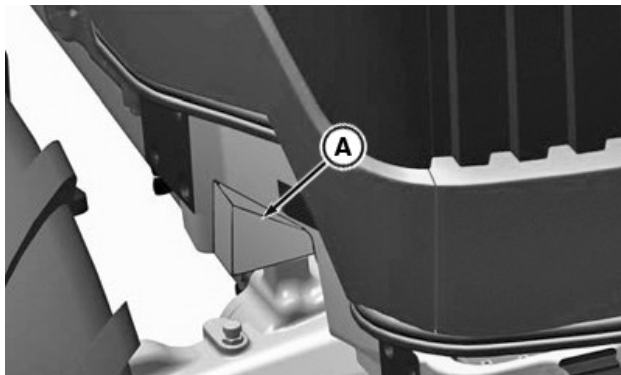
Allowed lifting points are shown with specific decals.

RA84036.0000FD9-19-11JUL17

Jack up the Tractor - Lifting Points

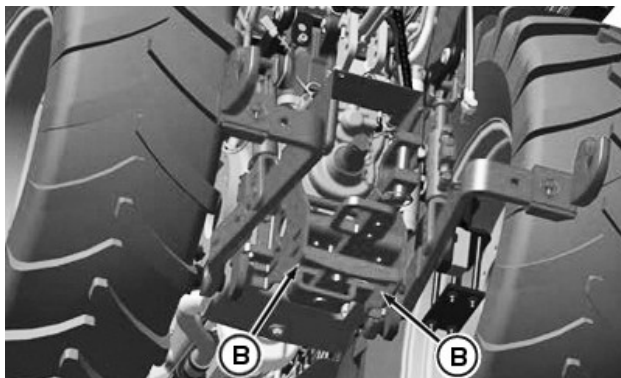
The illustrations show the recommended lifting points for jacking up the tractor. Use a stable jack with sufficient lifting force. See Specification (section 500A) in this manual

Raise rear of tractor:



PY28233—UN—25AUG16

Wooden Wedges

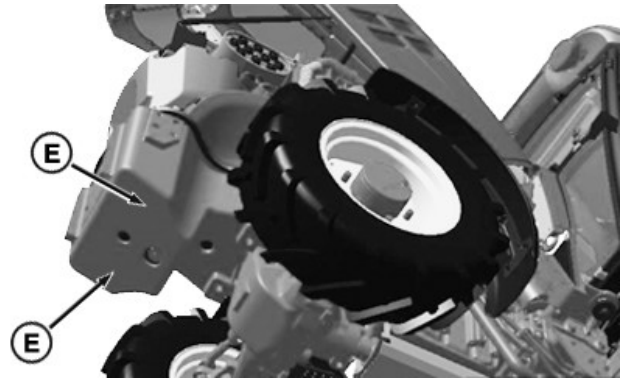


PY28234—UN—25AUG16

Raise Rear of Tractor

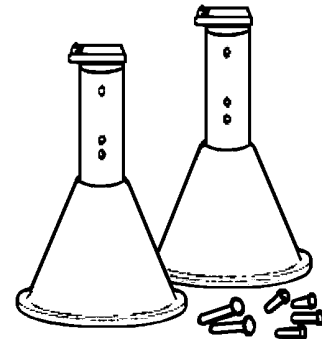
A—Wooden Wedges
B—Raise Rear of Tractor

Raise front of tractor:



PY34391—UN—11NOV16

E—Raise Front End of Tractor under the Front Axle Support



JT07211

JT07211—UN—14DEC06

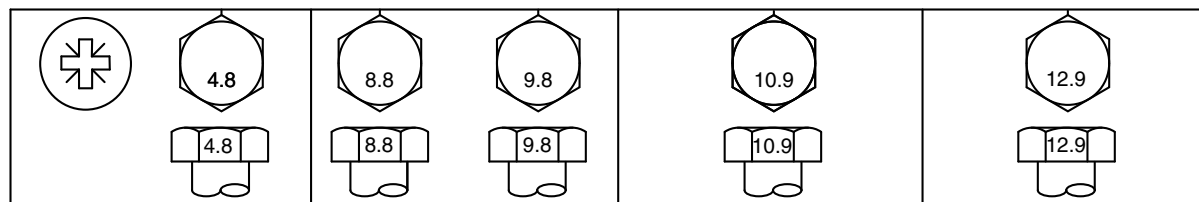
JT02043 and JT02044 Support Stands

JT02043—Support Stand, 482 to 736 mm (19 to 29 in)
JT02044—Support Stand, 863 to 1117 mm (34 to 44 in)

CAUTION: Use approved lifting equipment only.
Jack up the tractor on firm, level ground only.
Before doing any further work on the tractor, first secure it using a suitable jackstand. The special John Deere tools shown can be used for this purpose. These jackstands are available from your John Deere dealer.

RA84036.00010EA-19-03AUG17

Metric Bolt and Screw Torque Values



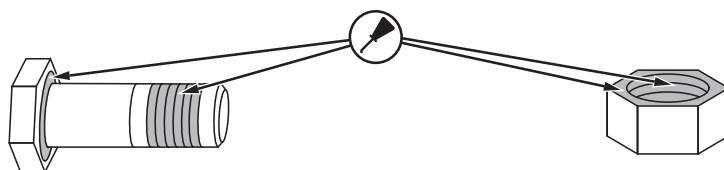
TS1742—UN—31MAY18

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.

- 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.



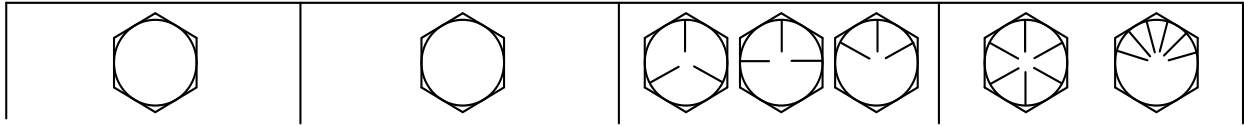
TS1741—UN—22MAY18

^aHex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.

^bHex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ2-19-30MAY18

Unified Inch Bolt and Screw Torque Values



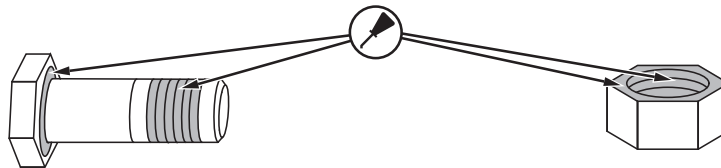
TS1671—UN—01MAY03

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.
- Properly start thread engagement.



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^aGrade 1 applies for hex cap screws over 6 in (152 mm) long, and for all other types of bolts and screws of any length.

^bGrade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.

^cHex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.

^dHex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ1-19-30MAY18

Service Intervals

Information

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 according to the Operator's Manual. It is recommended that your John Deere dealer perform the service work and afterwards stamp the appropriate page in this Operator's 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 Operator's Manual 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.

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Service (Daily / Every 10, After First 50, Every 250, 500, and 750 Hours)

Service Procedure	Perform All Tasks Marked - In addition carry out the 10-hour service				
	Every 10 hours or daily	After the first 50 hours	Every 250 hours	Every 500 hours	Every 750 hours
Lights - Check that all lights (including headlights) are functioning properly	.				
Fuel system - Drain water and sediment from the fuel filter	Sensor and message to the operator implemented in the dashboard				
Engine - Check oil level	.				
Cooling system/air-conditioning system - Clean the radiator and condenser, fins, and screens	.				
Cooling system - Check coolant level	.				
Transmission and hydraulic system - Check the oil level	.				
Air cleaner - Clean the dust unloading valve	.				
Three-point hitch - Lubricate lift links and rockshaft (only when operating in wet and muddy conditions)	.				
Trailer hitch - Lubricate all grease fittings (only when operating in wet and muddy conditions)	.				
Front-wheel drive axle - Lubricate pivot pin and king pins (only when operating in wet and muddy conditions)	.				
Front-wheel drive axle - Lubricate wheel bearings (only when operating in wet and muddy conditions)	.				
Front-wheel drive axle - Lubricate all universal joints including universal joint shaft from transmission to the front-wheel drive axle (only when operating in wet and muddy conditions)	.				
Rear axle - Lubricate bearings (only when operating in wet and muddy conditions)	.				
Front PTO - Change oil and replace oil filter		.		.	
Transmission - Replace transmission oil filter (first & second pump), check oil level					.
Engine - Change engine oil				.	

Service Intervals

Service Procedure	Perform All Tasks Marked - In addition carry out the 10-hour service				
	Every 10 hours or daily	After the first 50 hours	Every 250 hours	Every 500 hours	Every 750 hours
Engine - Change engine oil filter				•	
Front PTO - Check oil filter				•	
Clutch and PTO clutch - Check free play				•	
Brake system - Check oil level			•	•	•
Brake system - Check free play of the park brake and foot brakes			•	•	•
Drawbar - Check torque on attaching screws			•	•	•
Height-adjustable trailer hitch - Check torque on attaching screws			•	•	•
Trailer hitch - Check torque on attaching screws			•	•	•
Steering system - Lubricate tie rod ends			•	•	•
Front hitch - Mounting frame, check torque on attaching screws			•	•	•
Front hitch - Lubricate all grease fittings			•	•	•
Wheels - Check torque of wheel and rim bolts (check after the first 10 hours, the first 50, and every 500 hours)	•	•		•	
Trailer hitch - Lubricate all grease fittings			•	•	•
Front-wheel drive axle or front axle - Lubricate pivot pin and king pins			•	•	•
Front axle - Lubricate wheel bearings			•	•	•
Front-wheel drive axle - Lubricate all universal joints including universal joint shaft from transmission to the front-wheel drive axle			•	•	•
Front-wheel drive axle - Check oil level in the axle housing and final drive housings			•	•	•
Rear axle - Lubricate bearings			•	•	•
Check neutral start circuit			•	•	•
Alternator drive belt - Check for wear and damages, check belt tension			•	•	•
Fuel system - Replace fuel filter, fuel prefilter, and bleed fuel system				•	
Fuel system - Drain residue from the fuel tank				•	
Three-point hitch - Lubricate lift links and rockshaft				•	
Air intake hoses - Check connections for leaks				•	
Components of drawbar and trailer hitches - Check all components for wear, check all components function properly				•	
Clean radiator (As required, depending on working condition)	•			•	
Check condition of the alternator drive belt				•	
Check engine speeds, have speeds adjusted by your John Deere dealer					•
Front axle pivot pins - Have your Deere dealer check the end play					•
Cab and ROPS - Check torque of mounting bolts and nuts					•
Lubricate front axle shaft (SFA axle)				•	

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Service (Every 1000, 1250, 1500, 3000 Hours and Service — As Required)

Service procedure	Perform all tasks marked - In addition carry out the 10-hour service				
	Every 1000 hours	Every 1250 hours	Every 1500 hours	Every 3000 hours	Service — as required
Transmission - Replace transmission oil filter (Third pump - OPTIONAL), check oil level				•	
Engine - Change engine oil	•		•	•	•
Engine - Change engine oil filter	•		•	•	•

Service Intervals

Service procedure	Perform all tasks marked - In addition carry out the 10-hour service				
	Every 1000 hours	Every 1250 hours	Every 1500 hours	Every 3000 hours	Service — as required
Front PTO - Check oil level	•	•	•	•	
Front PTO - Change oil and replace oil filter	•		•	•	
Clutch and PTO clutch - Check free play	•		•	•	
Brake system - Check oil level	•	•	•	•	
Brake system - Check free play of park brake and foot brakes	•	•	•	•	
Drawbar - Check torque on attaching screws	•	•	•	•	
Height-adjustable trailer hitch - Check torque on attaching screws	•	•	•	•	
Trailer hitch - Check torque on attaching screws	•	•	•	•	
Steering system - Lubricate pivot pins	•	•	•	•	
Front hitch - Mounting frame, check torque on attaching screws	•	•	•	•	•
Front hitch - Lubricate all grease fittings	•	•	•	•	•
Wheels - Check torque of wheel and rim bolts (check after the first 10 hours, the first 50, and every 500 hours)	•		•	•	
Trailer hitch - Lubricate all grease fittings	•	•	•	•	
Front-wheel drive axle or front axle - Lubricate pivot pin and king pins	•	•	•	•	
Front axle - Lubricate wheel bearings	•	•	•	•	
Front-wheel drive axle - Lubricate all universal joints including universal joint shaft from transmission to front-wheel drive axle	•	•	•	•	
Front-wheel drive axle - Check oil level in axle housing and final drive housings	•	•	•	•	
Rear axle - Lubricate bearings	•	•	•	•	
Check neutral start circuit	•	•	•	•	
Alternator drive belt - Check for wear and damages, check belt tension	•	•	•	•	
Fuel system - Replace fuel filter, fuel prefilter, and bleed fuel system	•		•	•	
Fuel system - Drain residue from fuel tank	•		•	•	
Three-point hitch - Lubricate lift links and rockshaft	•		•	•	
Air intake hoses - Check connections for leaks	•		•	•	
Components of drawbar and trailer hitches - Check all components for wear, check all components function properly	•		•	•	
Check engine speeds, have speeds adjusted by your John Deere dealer			•	•	
Front axle pivot pins - Let the John Deere dealer check the end play			•	•	
Cab and ROPS - Check torque of mounting bolts and nuts			•	•	
Transmission and hydraulic system - Replace transmission oil and suction strainer			•	•	
Transmission and hydraulic system - Replace transmission/hydraulic oil filters (first and second pump)			•	•	
Front-wheel drive axle - Drain oil and refill with fresh oil			•	•	
Brake system - Have brake system oil changed by your John Deere™ dealer			•	•	
Air intake system - Replace air cleaner			•	•	
Check turbo compressor			•	•	
Oil vapor recirculation system maintenance			•	•	
Injection pump, overhaul				•	
Replace diesel particulate filter				•	
Clean/replace radiator pressure cap				•	
Change cooling system cooling fluid				•	
Replace the alternator drive belt and replace water pump				•	
Inspect seat belt for damage and ensure proper working order					•
Inspect hydraulic hoses					•
Lubricate front PTO ^a					•
Lubricate suspended front axle ^b					•

^aPerformed maintenance every 20 hours or ones in a year depending on working condition.

^bPerformed lubrication maintenance intervals according to SFA lubrication informations.

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Information on Changing Engine Oil

Change engine oil at least **once a year**. Service intervals vary depending on the type of engine oil used and the sulfur content of the diesel fuel. When changing engine oil, always change the oil filter.

At every oil change, note the type of oil used in the service record. The next oil change is determined using the table below.

Engine oil and filter change intervals:	
After the first 100 hours of operation	Drain break-in oil and refill with recommended engine oil. Replace engine oil filter.
Every 250 hours of operation	If biodiesel blends greater than B20 are used or if oils, other than recommended, are used.
Every 500 hours of operation	If STANDARD fuel compliant to the EN 590 (2005/55 - 2005/78) is used. The use of additives is

Engine oil and filter change intervals:	
	discouraged. A fuel known as BIODIESEL is allowed only if it is compliant with the EN 14214 - ASTM 6751 norm, mixed in standard fuel with a maximum percentage of 20%. If recommended oil is used.

Oil specifications, TIER 3 , Stage III	Oil specifications, Interim Tier 4, Final Tier 4, Stage IIIB, and Stage IV
Premium oils 10W-30 API CJ-4 / CI-4 Plus / CI-4 Premium oils 15W-40 CPI CJ-4 / CI-4 Plus / CI-4	Premium oils 10W-40 API CJ-4

RA84036,00010EF-19-03AUG17

Engine Oil and Filter Change

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

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Service Intervals

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

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Engine Oil and Filter Change

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

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Service Intervals

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

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Engine Oil and Filter Change

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next refill:	Next refill:	Next refill:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

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Service Intervals

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

*Plus-50 is a trademark of Deere & Company
Torq-Gard is a trademark of Deere & Company*

Engine Oil and Filter Change

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

*Plus-50 is a trademark of Deere & Company
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Service Intervals

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

*Plus-50 is a trademark of Deere & Company
Torq-Gard is a trademark of Deere & Company*

Engine Oil and Filter Change

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

*Plus-50 is a trademark of Deere & Company
Torq-Gard is a trademark of Deere & Company*

Service Intervals

Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:	Filled with: ☐ John Deere Plus-50™ II ☐ John Deere Torq-Gard™ Supreme ☐ 15W-40 CPI CJ-4 ☐ 15W-40 CPI CI-4 Plus ☐ 15W-40 CPI CI-4 ☐ 10W-30 API CJ-4 ☐ 10W-30 API CI-4 Plus ☐ 10W-30 API CI-4 Hours of operation: Date: Next refill: Hours of operation: Or date: Signature: Dealer's Stamp:

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RA84036,00010F4-19-04OCT18

Engine Air Cleaner and Cab Air Filters, Service

Change the engine air cleaner and cab air filters every 2 years or after every 1500 hours of operation, whichever comes first.

Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:

Change the engine air cleaner and cab air filters every 2 years or after every 1500 hours of operation, whichever comes first.

Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service—As Required in this section.

Engine Air Cleaner and Cab Air Filters, Service

Change the engine air cleaner and cab air filters every 2 years or after every 1500 hours of operation, whichever comes first.

Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:

Change the engine air cleaner and cab air filters every 2 years or after every 1500 hours of operation, whichever comes first.

Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:	Work done: Hours of operation: Date: Next service: Hours of operation: Or date: Signature: Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service—As Required in this section.

Activated Carbon Filters in Cab, Service (If Equipped)

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service—As Required in this section.

RA84036,00010F7-19-01AUG18

Activated Carbon Filters in Cab, Service (If Equipped)

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service—As Required in this section.

RA84036,00010F8-19-01AUG18

Activated Carbon Filters in Cab, Service (If Equipped)

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service—As Required in this section.

RA84036,00010F9-19-01AUG18

Activated Carbon Filters in Cab, Service (If Equipped)

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Change the activated carbon filters of the cab every year or after every 250 hours of operation, whichever comes first.		
Work done:	Work done:	Work done:
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next service:	Next service:	Next service:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

NOTE: Difficult operating conditions (such as extremely dusty environments) may shorten this service interval. See Service—As Required in this section.

RA84036,00010FA-19-01AUG18

Cooling System, Service

Drain, flush and fill coolant system with fresh Cool-Gard™ II. Interval for 5GV-N-F is every 3000 hours of operation.		
Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next refill:	Next refill:	Next refill:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Cool-Gard is a trademark of Deere & Company

Drain, flush and fill coolant system with fresh Cool-Gard™ II. Interval for 5GV-N-F is every 3000 hours of operation.		
Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next refill:	Next refill:	Next refill:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Cool-Gard is a trademark of Deere & Company

MS76789,0000635-19-04OCT18

Cooling System, Service

Drain, flush and fill coolant system with fresh Cool-Gard™ II. Interval for 5GV, 5GN, and 5GF is every 3000 hours of operation.		
Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next refill:	Next refill:	Next refill:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Cool-Gard is a trademark of Deere & Company

Drain, flush and fill coolant system with fresh Cool-Gard™ II. Interval for 5GV, 5GN, and 5GF is every 3000 hours of operation.		
Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II	Filled with: ☐ Cool-Gard™ II
Hours of operation:	Hours of operation:	Hours of operation:
Date:	Date:	Date:
Next refill:	Next refill:	Next refill:
Hours of operation:	Hours of operation:	Hours of operation:
Or date:	Or date:	Or date:
Signature:	Signature:	Signature:
Dealer's Stamp:	Dealer's Stamp:	Dealer's Stamp:

Cool-Gard is a trademark of Deere & Company

MS76789,0000636-19-04OCT18

Yearly Service

- Inspect seat belt for damage and ensure proper working order.
- Change engine oil. Check engine drive belt for wear.
- Tighten the screws on the front loader bracket.
- Check oil hoses for wear and leaks.
- Change activated carbon filters, if equipped. *See Activated Carbon Filters, Service 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:

- Inspect seat belt for damage and ensure proper working order.
- Change engine oil. Check engine drive belt for wear.
- Tighten the screws on the front loader bracket.
- Check oil hoses for wear and leaks.
- Change activated carbon filters, if equipped. *See Activated Carbon Filters, Service 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:

Yearly Service

- Inspect seat belt for damage and ensure proper working order.
- Change engine oil. Check engine drive belt for wear.
- Tighten the screws on the front loader bracket.
- Check oil hoses for wear and leaks.
- Change activated carbon filters, if equipped. *See Activated Carbon Filters, Service 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:

- Inspect seat belt for damage and ensure proper working order.
- Change engine oil. Check engine drive belt for wear.
- Tighten the screws on the front loader bracket.
- Check oil hoses for wear and leaks.
- Change activated carbon filters, if equipped. *See Activated Carbon Filters, Service 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:

50 Hour Service

After the first 50 hours of operation:

- ☐ Front PTO, oil
- ☐ Front PTO oil filter
- ☐ Wheels and Rims

Note: In addition, perform service checks after 10 hours. See Service (Daily / Every 10, After First 50, Every 250, 500 and 750 Hours) in this section.

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,00010FF-19-03AUG17

250 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front Hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:**LUBRICATE:**

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001100-19-03AUG17

500 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)
- ☐ Radiator (As required, depending on working condition)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Lubricate front axle shaft (SFA axle)
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

750 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front axle mounting
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Transmission/hydraulic system, oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:.....

Work carried out by:

1000 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check and adjust valve clearance
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine drive belt
- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:.....

Work carried out by:

1250 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours:

Comments:

Dealer's Stamp:

Date:

Work carried out by:

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1500 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine air cleaner
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front wheel drive axle, oil in final drives and differential housing
- ☐ Brake system oil
- ☐ Front PTO, oil
- ☐ Front PTO, Transmission/hydraulic system, suction strainer

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

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1750 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001106-19-03AUG17

2000 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check and adjust valve clearance
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine drive belt
- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, u.j. shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Service Intervals

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001107-19-03AUG17

2250 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front axle mounting
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001108-19-03AUG17

2500 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil
- ☐ Transmission/hydraulic system, oil filter
- ☐ Transmission/hydraulic system, suction strainer
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

2750 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours:

Comments:

Dealer's Stamp:

Date:

Work carried out by:

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3000 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check valve clearance
- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine, flush cooling system and replace coolant
- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine air cleaner
- ☐ Engine drive belt
- ☐ Transmission/hydraulic system, oil
- ☐ Transmission/hydraulic system, suction strainer
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front wheel drive axle, oil in final drives and differential housing
- ☐ Brake system oil
- ☐ Front PTO, oil
- ☐ Front PTO oil filter
- ☐ Water pump

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

3250 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,000110C-19-03AUG17

3500 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Service Intervals

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch and pick-up hitch, and replace components as necessary.
** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments: Dealer's Stamp:

Date:
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Work carried out by:
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RA84036,000110D-19-03AUG17

3750 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front axle mounting
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Transmission/hydraulic system, oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments: Dealer's Stamp:

Date:
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Work carried out by:
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RA84036,000110E-19-03AUG17

4000 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check and adjust valve clearance
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine drive belt
- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front PTO, oil
- ☐ Front PTO oil filter
- ☐ Alternator drive belt

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

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4250 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

4500 Hour Service**CLEAN:**

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Transmission/hydraulic system, oil filter
- ☐ Engine air cleaner
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front wheel drive axle, oil in final drives and differential housing
- ☐ Brake system oil
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

4750 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

5000 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, drive belt
- ☐ Engine valve clearance
- ☐ Engine, coolant level
- ☐ Engine air intake hoses, check for leaks
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine, drive belt
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil
- ☐ Transmission/hydraulic system, oil filter
- ☐ Transmission/hydraulic system, suction strainer
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

** See Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

.....
.....

5250 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front axle mounting
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Trailer hitch: check torque

CHANGE:

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Operating hours: Comments:

Dealer's Stamp:

Date:
.....

Work carried out by:
.....

5500 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, rocker arm cover ventilation
- ☐ Fuel tank, drain residue

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Front axle mounting
- ☐ Trailer hitches
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Engine, ground connection
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches***
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Engine oil, engine oil filter**
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front PTO, oil
- ☐ Front PTO oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Trailer hitches
- ☐ Three-point hitch
- ☐ Front hitch: lubricate grease fittings

** See Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.

*** Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001A74-19-23JUL19

5750 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crank case vent tube
- ☐ Engine, fuel filter (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Front hitch: check torque

CHECK:

- ☐ Engine oil level
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Transmission/hydraulic system, oil filter

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Front axle, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

Service Intervals

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001A75-19-23JUL19

6000 Hour Service

CLEAN:

- ☐ Engine, valve cap of the air cleaner
- ☐ Engine, crankcase vent tube
- ☐ Engine, fuel tank (drain residue)

ELECTRICAL SYSTEM:

- ☐ Neutral start circuit, check
- ☐ Battery, check electrolyte level
- ☐ Check lights

CHECK SCREW TORQUES:

- ☐ Wheels and rims
- ☐ Operator's cab, open operator's station and ROPS, check mounting bolts
- ☐ Front hitch: check torque

CHECK:

- ☐ Engine, check valve clearance
- ☐ Engine, check engine speeds
- ☐ Engine, coolant level
- ☐ Engine, drive belt
- ☐ Engine, air intake hoses (leakage)
- ☐ Transmission/hydraulic system, oil level
- ☐ Front-wheel drive axle, oil levels
- ☐ Front axle, check end play of front axle pivot pin
- ☐ Front PTO, oil level
- ☐ Brake fluid, level
- ☐ Brakes and pedal free travel
- ☐ Clutch pedal, free travel
- ☐ PTO actuation, free travel
- ☐ Trailer hitches, functional check
- ☐ Components of drawbar, tow hitch (piton fix/ball-type), trailer hitch*
- ☐ Trailer hitch: check torque

CHANGE:

- ☐ Transmission/hydraulic system, oil
- ☐ Engine oil **
- ☐ Engine oil filter **
- ☐ Engine air cleaner
- ☐ Engine drive belt
- ☐ Engine, flush cooling system and replace coolant
- ☐ Engine, fuel filter and fuel prefilter
- ☐ Transmission/hydraulic system, oil filter
- ☐ Front wheel drive axle, oil in final drives and differential housing
- ☐ Brake system oil
- ☐ Front PTO, oil
- ☐ Front PTO oil filter
- ☐ Transmission/hydraulic system, suction strainer
- ☐ Water pump

LUBRICATE:

- ☐ Lubricate all grease fittings
- ☐ Front axle, wheel bearings
- ☐ Front axle, knuckle pin bearing
- ☐ Steering system, tie-rod joints
- ☐ Front-wheel drive axle, universal joint shafts
- ☐ Clutch, release bearing
- ☐ Rear axle, axle bearings
- ☐ Rear hitch
- ☐ Trailer hitches
- ☐ Front hitch: lubricate grease fittings

* Check for wear at swinging drawbar, tow hitch (piton fix/ball-type), wagon hitch, and pick-up hitch, and replace components as necessary.

** See *Change Engine Oil and Replace Oil Filter in Service — Change (section 220E) in this manual.*

Operating hours: Comments:

Dealer's Stamp:

Date:

Work carried out by:

RA84036,0001A76-19-23JUL19

Service Intervals

Information About Further Services

IMPORTANT: The following pages are for the documentation of all further services. Perform service work as described in the 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 operating hours reach a certain level.

EXAMPLE: A machine with 7500 hours on the hour meter needs to be serviced. To do this, find out which service is applicable. The table shows that the 1250 and the 1500-hour services must be performed when 7500 hours are on the hour meter.

Operating hours:	Service to be performed:	Operating hours:	Service to be performed:
3250	250	6750	750
3500	500	7000	1000
3750	750 + 1250	7250	250
4000	2000	7500	1250 + 1500
4250	250	7750	250
4500	1500	8000	2000
4750	250	8250	750
5000	1000 + 1250	8500	500
5250	750	8750	1250
5500	500	9000	3000
5750	250	9250	250
6000	6000	9500	500
6250	1250	9750	750
6500	500	10000	1250 + 2000

Example showing how to fill out a record of further services:

The service performed corresponds to a 1250 + 1500..... hour service. Comments: xxx xxx xxx	Hours of operation displayed:.....7500 Date:.....xxx Signature:.....xxx Stamp:

RA84036,0001118-19-03AUG17

Record for Further Services

The service performed corresponds to a hour service. Comments:	Hours of operation displayed: Date: Signature: Stamp:

Service Intervals

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

Service Intervals

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

Service Intervals

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

Service Intervals

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

Service Intervals

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

The service performed corresponds to a hour service.	Hours of operation displayed:
Comments:	Date:
.....	Signature:
.....	Stamp:
.....	

Service Intervals

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:

Service Intervals

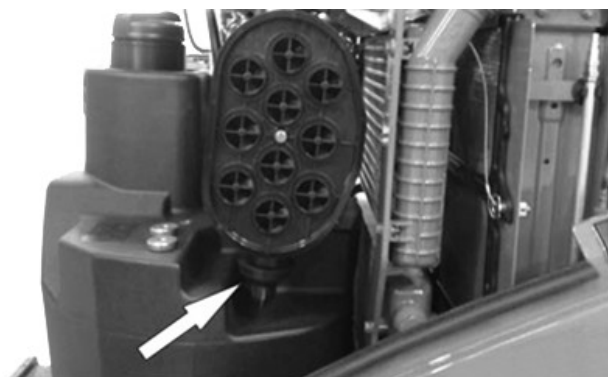
The service performed corresponds to a hour service. Comments:	Hours of operation displayed: Date: Signature: Stamp:

RA84036,0001119-19-03AUG17

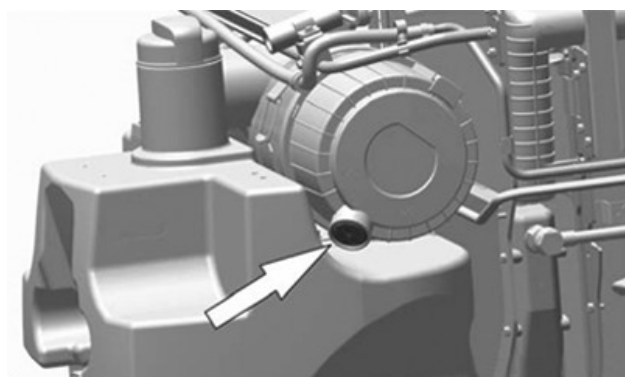
Service — Cleaning

Cleaning the Dust Unloading Valve

IMPORTANT: Never run the engine when the dust unloading valve is removed.



PY31988—UN—05OCT16



GL Tractor

PY31989—UN—05OCT16

During harvest, grass and chaff can adversely affect the performance of the dust unloading valve. Remove and clean the dust unloading valve as necessary. Replace damaged valve immediately.

NOTE: In dusty conditions, clean the dust unloading valve every day.

RA84036,00010AF-19-02AUG17

Clean Radiator and Oil Cooler



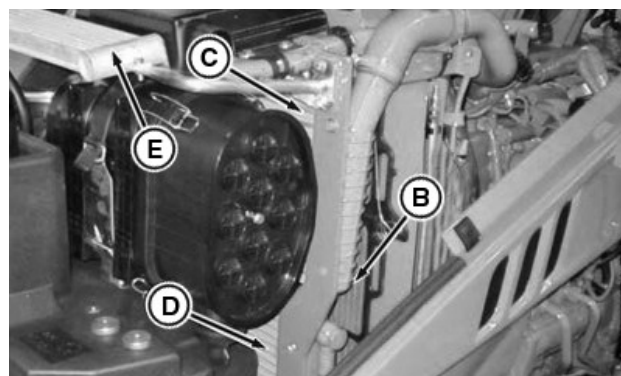
PY28265—UN—25AUG16



APY05008—UN—15MAR18

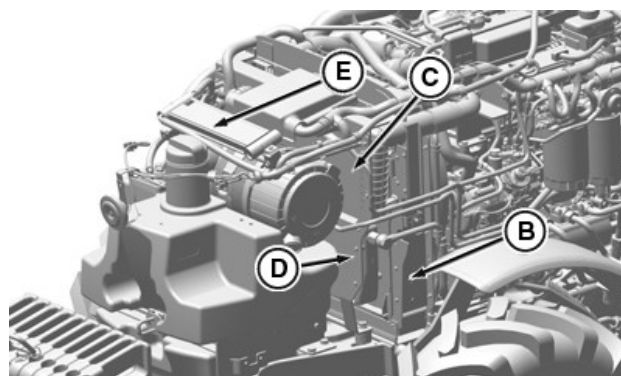
A—Front Grill

1. Whenever dirt builds up on the front grill (A), stop engine and clean it with a brush.



PY28266—UN—25AUG16

(5GV, 5GN, 5GF)



PY28381—UN—30SEP16

(5GL)

B—Radiator
C—Charge Air Cooler (CAC)
D—Oil Cooler
E—Fuel Cooler

2. Open the hood and see if dirt has built up on the charge air cooler (C), radiator (B), oil cooler (D), and fuel cooler (E). If so, remove it using the specific tool and compressed air. See Radiators, Cleaning in this section.

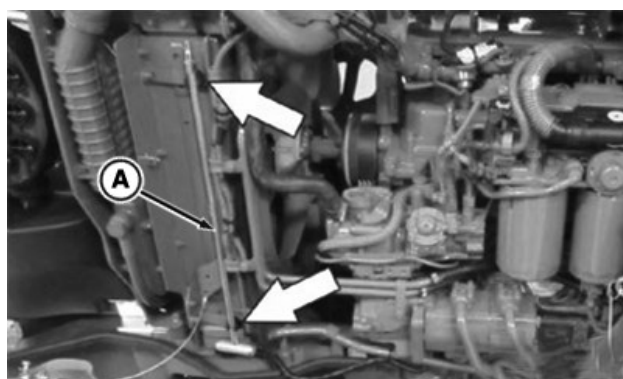
CAUTION: Reduce compressed air pressure to less than 210 kPa (2 bar) (30 psi) when using for cleaning purposes. Clear area of bystanders, guard against flying chips, and wear personal protection equipment including eye protection.

3. If a more thorough cleaning is necessary, clean radiator (B) from behind with compressed air or water. Straighten any bent fins.

MS76789,0000631-19-04OCT18

Radiators, Cleaning

Clean the radiator by using the special tool (A) fixed on the left side of the radiator.



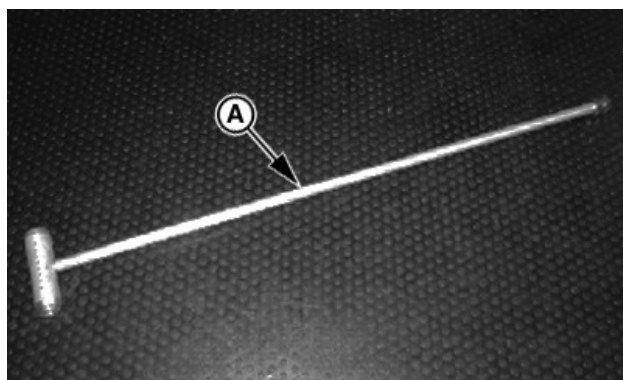
(5GV, 5GN, 5GF)

PY31976—UN—05OCT16

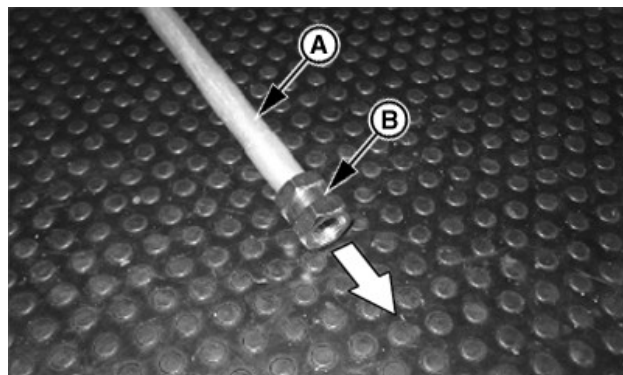


(5GL, 5GL-N)

APY05009—UN—15MAR18



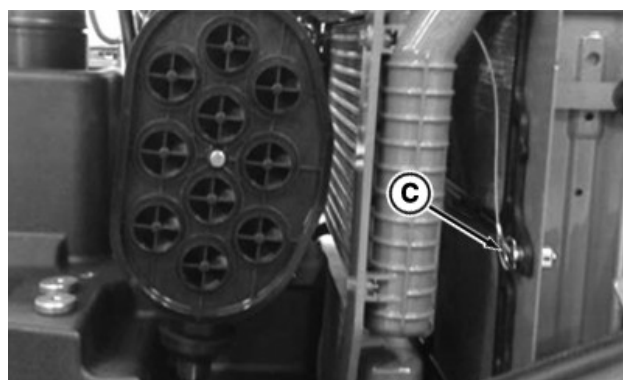
PY31977—UN—05OCT16



PY31978—UN—05OCT16

A—Special Tool
B—Fitting

1. Open the hood.
2. Remove the engine left-hand side panel.
3. Unhook the special tool (A) from the radiator and connect it to the compressed air line through the fitting (B).

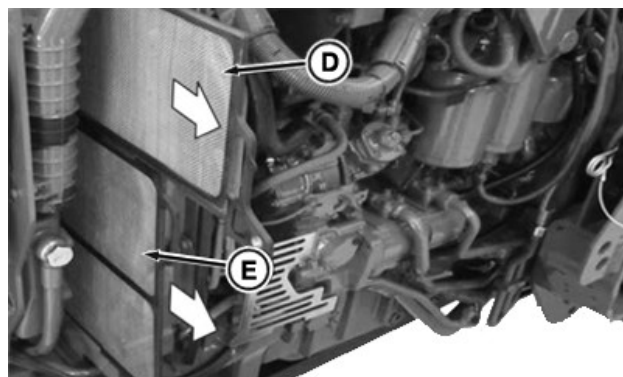


(5GV, 5GN, 5GF)

PY31979—UN—05OCT16

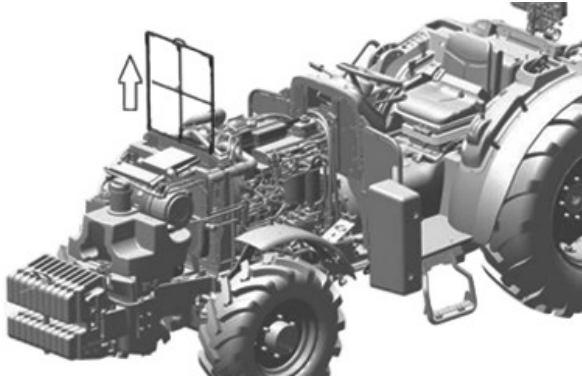
C—Pin

4. For (5GV, 5GN, 5GF): Unlock and remove the pin (C).



(5GV, 5GN, 5GF)

PY31980—UN—05OCT16

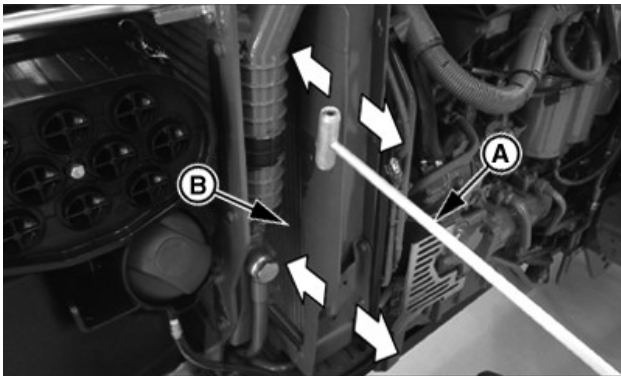


(5GL)

PY31981—UN—05OCT16

D—Upper Grille
E—Lower Grille

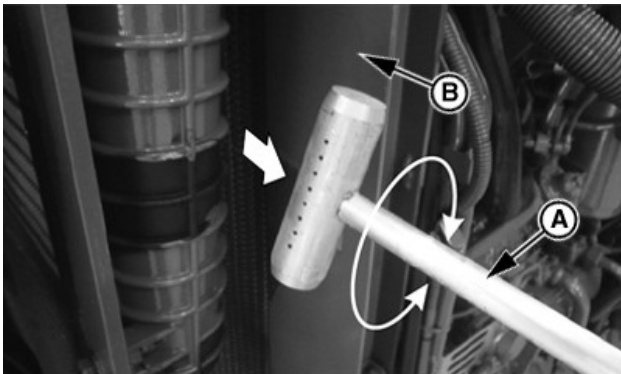
5. Remove and clean upper grille (D) and lower grille (E) to gain access to the radiator.



PY31982—UN—05OCT16

A—Special Tool
B—Radiator

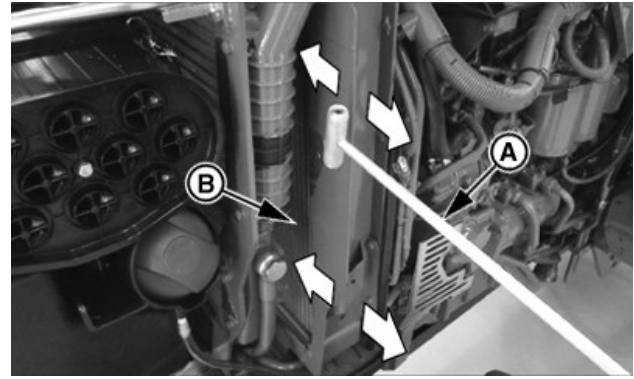
6. Clean the radiator (B) by the use of the special tool (A) as per the picture.



PY31983—UN—05OCT16

A—Tool
B—Radiator

7. Extract the special tool (A) from the radiator (B) and rotate it.



PY31984—UN—05OCT16

A—Special Tool
B—Radiator

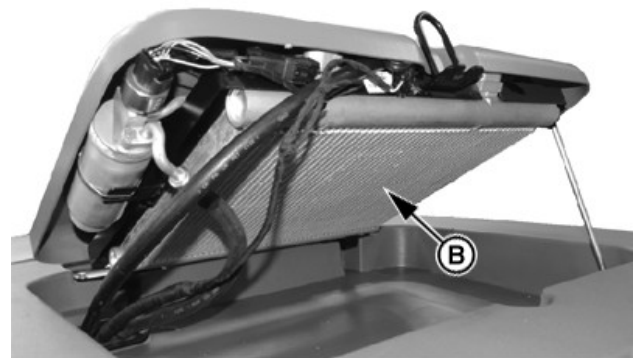
8. Clean the radiators (B) by the use of the special tool (A) as per the picture. The cleaning procedure is the same for both sides of the radiator.
9. Disconnect the special tool (A) from the compressed air line and place it on the left-hand side of the radiator.
10. Reinstall in reverse order the other removed components.

MS76789,0000632-19-06OCT18

Clean Air-Conditioning System Condenser



PY31985—UN—05OCT16



PY31986—UN—05OCT16

A—Knurled-Head Screw
B—Air-Conditioning System Condenser

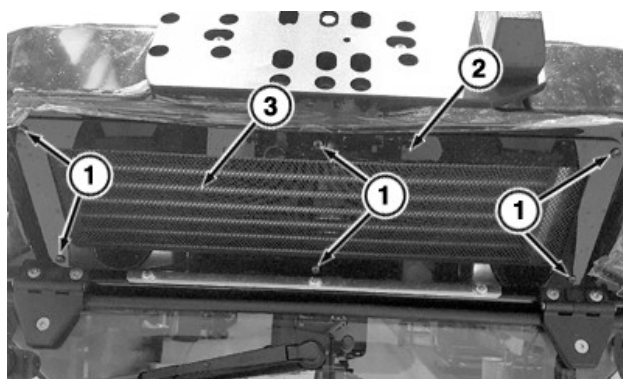
Loosen knurled-head screw (A). Pull out cover for cleaning condenser (B).

Use compressed air to blow the condenser (B) clean.

Take care to not bend any fins; Straighten any bent fins.

IMPORTANT: Reduce compressed air pressure to less than 210 kPa (2 bar) (30 psi) when using for cleaning purposes. Clear area of bystanders, guard against flying chips, and wear personal protection equipment including eye protection.

Low Profile Cab Version



APY05012—UN—15MAR18

- 1—Screw
- 2—Rear Cover
- 3—Air-Conditioning System Condenser

Remove the fixing screw (1) of the rear cover of the roof. Remove the rear cover (2) of the roof.

Use compressed air to blow the condenser (3) clean from the bottom to the top to eliminate all foreign matter.

IMPORTANT: Reduce compressed air pressure to less than 210 kPa (2 bar) (30 psi) when using for cleaning purposes. Clear area of bystanders, guard against flying chips, and wear personal protection equipment including eye protection.

IMPORTANT: Cover inlet air conditioning hose to protect the hose from foreign matter inlet.

RA84036,0001535-19-26JUL18

Service Air Cleaner at Regular Intervals



PY34432—UN—16NOV16

A—Air Cleaner Restriction Light

A dual element air cleaner is standard.

IMPORTANT: Check unloading valve frequently. Frequently empty the valve to keep it from filling with dust. If valve is allowed to fill with dust, air cleaner element becomes plugged rapidly.

A dirty element is indicated when the air cleaner restriction light (A) is on. A dirty element can result in loss of power or excessive smoke.

Replace air cleaner elements at least once a year. Replace the primary element after cleaning it five times having been cleaned five times.

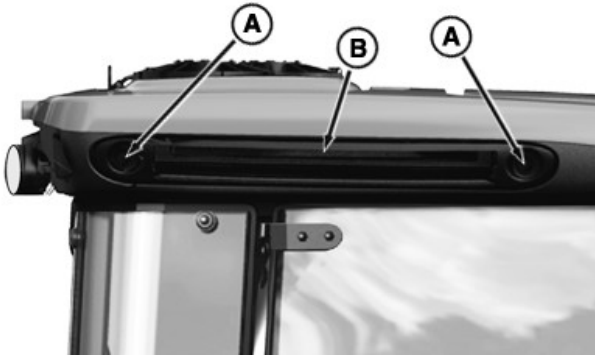
Remove the smaller secondary element only when being replaced, which is normally once a year.

RA84036,00010B5-19-03AUG17

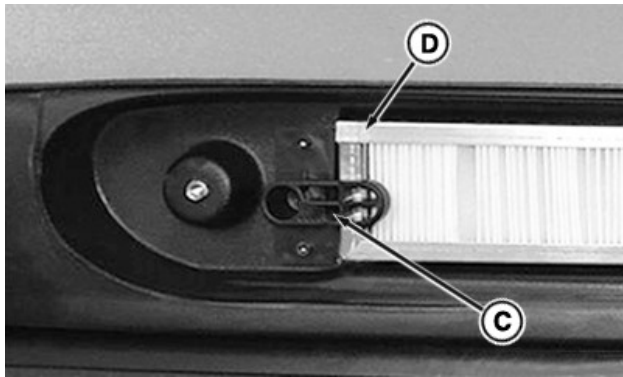
Clean Cab Air Filters (5GV, 5GN, 5GF)

IMPORTANT: The cab air filters do not protect against inhaling harmful pesticides. If pesticide-use instructions require respiratory protection, wear an appropriate respirator inside the cab.

Every time the engine primary filter element is serviced, also remove the cab air filters (one on each side) and the recirculated air filter. Clean them with compressed air directed from the clean side.



PY34425—UN—15NOV16



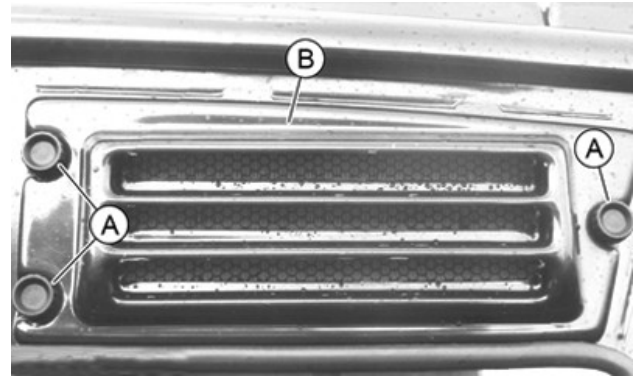
PY34426—UN—15NOV16

- A—Screws
B—Filter Cover
C—Lever
D—Cab Air Filter Element

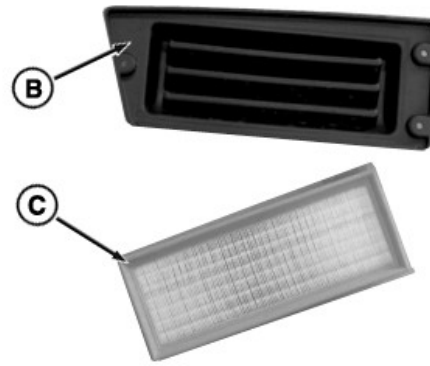
1. Remove screws (A) and filter cover (B). On both ends of the filter, turn lever (C) upwards.
2. Remove the cab air filter element (D).

Replace cab air filters when replacing the engine primary filter element (after 1500 hours of operation or 2 years, whichever comes first).

MS76789,000062B-19-13SEP18



APY05013—UN—15MAR18



APY05014—UN—15MAR18

- A—Screws
B—Filter Cover
C—Cab Air Filter Element

1. Remove screws (A) and filter cover (B).
2. Remove cab air filter element (C).

Replace cab air filters with engine primary filter element (the latest after 1500 hours of operation or 2 years).

MS76789,000062C-19-13SEP18

Clean Cab Air Filters (5GL-N)

IMPORTANT: The cab air filters do not protect against inhaling harmful pesticides. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

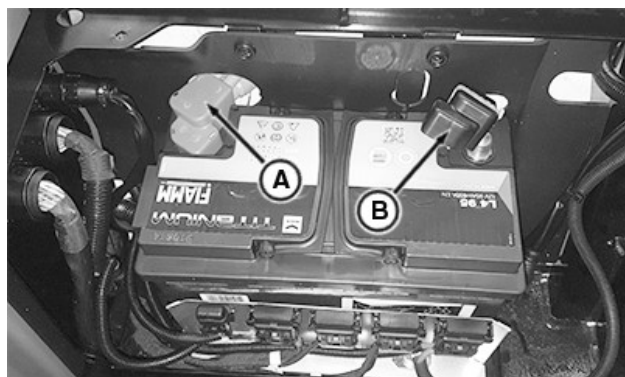
Every time the engine primary filter element is serviced, also remove the cab air filters (one on each side) and the recirculated air filter, and clean them with compressed air directed from the clean side.

Service — Electrical System

Observe Electrical Service Precautions



TS204—UN—15APR13



APY11199—UN—20MAY19

A—Positive Battery Cable
B—Negative (Ground) Battery Cable

CAUTION: Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. To avoid sparks, connect negative (ground) cable (B) last and disconnect it first. When using a booster battery, follow instructions in Section 40, Operating the Engine.

To avoid shocks and burns, disconnect battery negative (ground) cable (B) before servicing any part of the electrical system. Then remove positive cable (A) if removing battery.

Keep all electrical shields in place.

CAUTION: Depending on the manufacturers, the arrangement of battery connections differs.

Pay close attention to the symbols marked on the battery.

To avoid sparks, connect negative (ground) cable last and disconnect it first.

RA84036,000199C-19-20MAY19

Battery

Clean and Check Battery



APY11200—UN—20MAY19

Wipe battery with a damp cloth. Clean and tighten connections if needed. It is not necessary to check fluid level (maintenance-free battery).

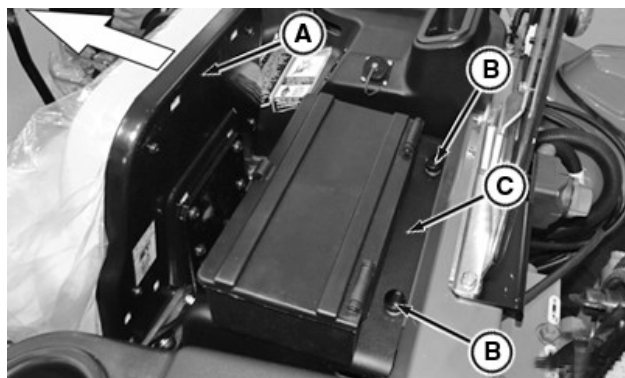
Remove and Install Battery

CAUTION: Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. To avoid sparks, connect negative (ground) cable last and disconnect it first.

Pay close attention to the symbols marked on the battery.

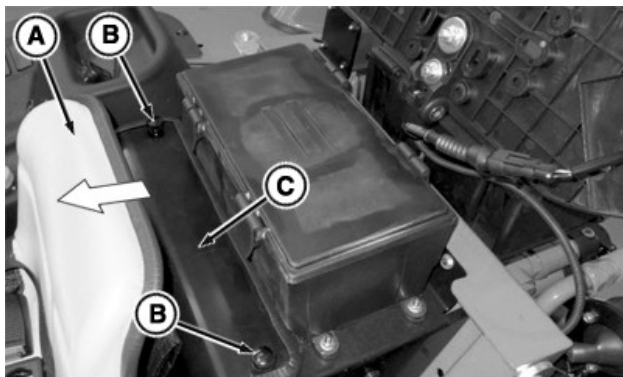
To avoid shocks and burns, disconnect battery ground cable before servicing any part of the electrical system.

1. Disconnect the battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B) in this manual.



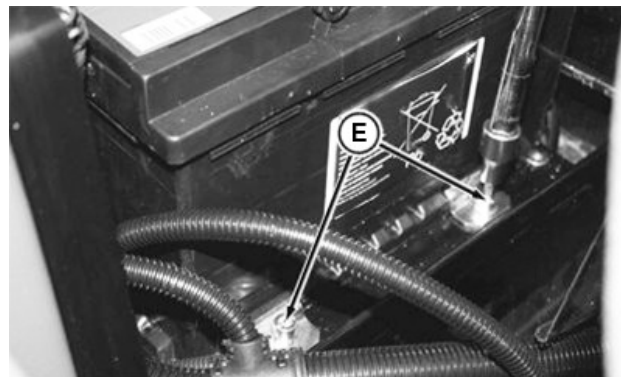
PY28248—UN—25AUG16

Open Operator Station (5GF)



(5GL, 5GL-N)

PY42824—UN—02JUL17



(5GL, 5GL-N)

APY11207—UN—20MAY19

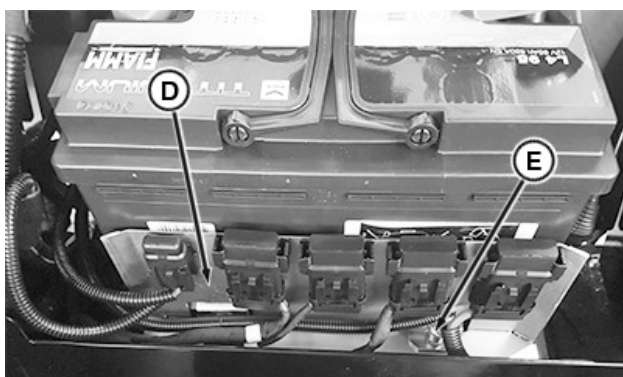


Cab (5GV, 5GF, 5GN)

PY28249—UN—25AUG16

A—Seat
B—Knob Mounting
C—Battery Cover

2. Move the seat (A) forward.
3. Remove knob mountings (B).
4. Remove battery cover (C).



(5GV, 5GF, 5GN)

APY11201—UN—20MAY19

D—Fuse Bracket
E—Bolt (2 Used)

5. Remove the two bolt (E) and remove the fuse bracket assembly (D) if fitted.

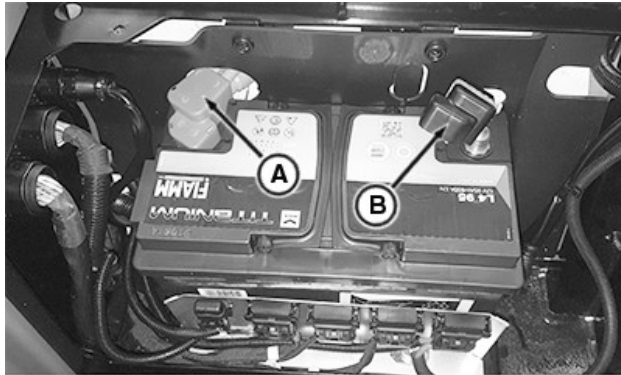


PY28250—UN—28SEP16

F—Positive Battery Cable
G—Negative (Ground) Battery Cable
H—Battery

6. Remove protective (black) cap and disconnect ground (—) cable (G) from battery (H).
7. Remove protective (red) cap and disconnect positive (+) cable (F) from battery (H).
8. Remove battery from the battery tray.
9. Install in reverse order.
10. Connect the battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (Section 220B) in this manual.

Servicing



APY11199—UN—20MAY19

A—Positive Battery Terminal
B—Negative (Ground) Battery Terminal

1. Keep battery clean by wiping with a damp cloth. Keep connections (A) and (B) clean and tight.

CAUTION: To avoid sparks, connect negative (ground) cable last and disconnect it first. Pay close attention to the symbols marked on the battery.

2. Keep battery fully charged, especially during cold weather. If a battery charger is connected, connect the positive lead to the positive battery terminal (A). Then connect the negative charger lead to the negative battery terminal (B).

Replacement

CAUTION: To avoid sparks, connect negative (ground) cable last and disconnect it first. Pay close attention to the symbols marked on the battery.

When replacing battery, use a John Deere battery or equivalent.

Specification

Battery Specifications (5GV, 5GN, 5GF)—Voltage. 12 V
 100 Ah

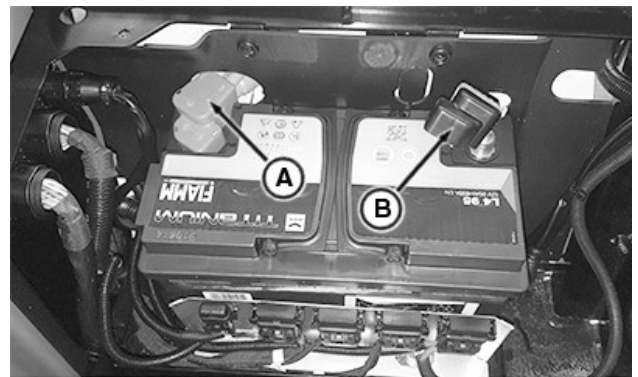
Specification

Battery Specifications (5GL)—Voltage. 12 V
 80 Ah

Charging



TS204—UN—15APR13



APY11199—UN—20MAY19

A—Positive Battery Terminal
B—Negative (Ground) Battery Terminal

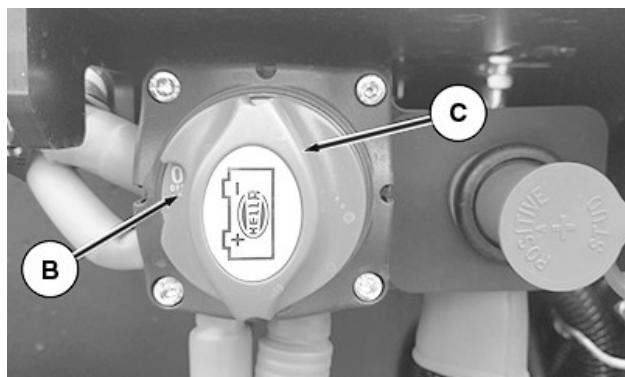
Under normal use, it is not necessary to add an electrolyte to maintenance-free batteries. Keep battery fully charged, especially during cold weather.

CAUTION: Gas given off by the battery is explosive. Keep sparks and flames away from battery. Before connecting or disconnecting a battery charger, turn off charger.

1. With charger off, connect positive battery charger lead to the positive battery terminal (A), then connect negative charger lead to the negative battery terminal (B).
2. Turn on the charger and recharge the battery. While using the charger, follow the instructions given by the battery manufacturer.
3. To disconnect the battery charger, turn off charger. Remove negative charger lead first, followed by positive charger lead.

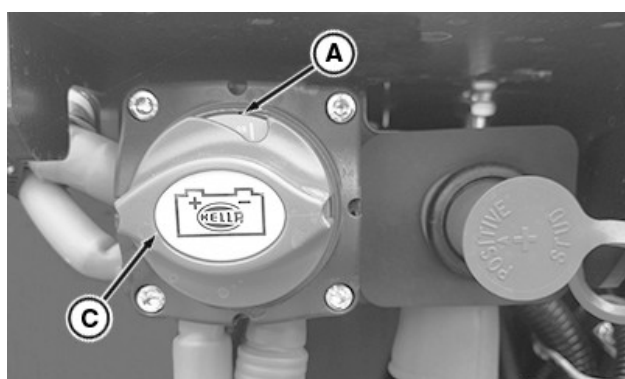
RA84036,000199D-19-24JUN19

Battery Cut-off Switch (If Equipped)



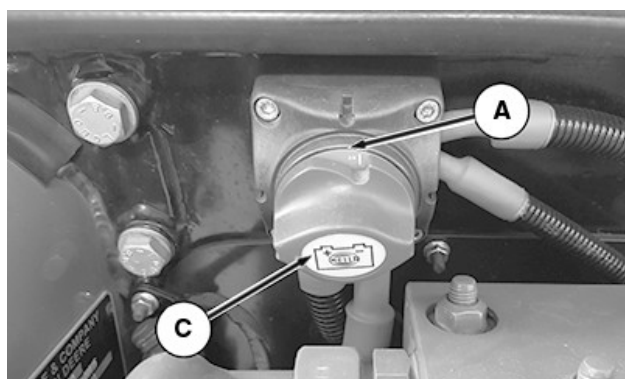
(5GV, 5GN, 5GF)

APY11299—UN—18JUL19



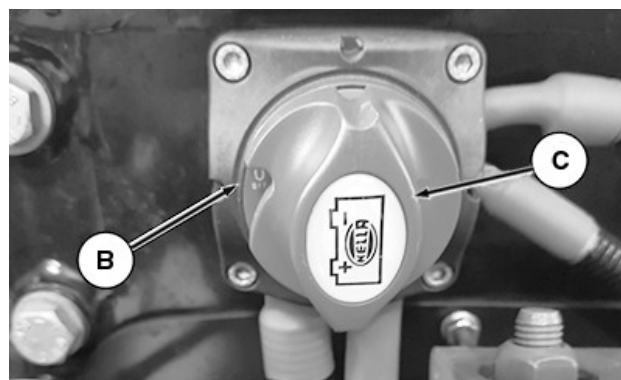
(5GV, 5GN, 5GF)

APY11300—UN—18JUL19



(5GL)

APY11297—UN—18JUL19



(5GL)

APY11298—UN—18JUL19

- A—ON Position
- B—OFF Position
- C—Battery Cut off Switch

The battery cut-off switch is on the rear side of the tractor, close to the battery.

- To disconnect the battery, turn the switch (C) to position (B) = OFF.
- To connect the battery, turn switch (C) to position (A) = ON

IMPORTANT: This vehicle is equipped with a battery cut-off switch that allows the battery to be disconnected from the electric system.

The cut-off switch is not a safety switch and **CANNOT** be used to stop the engine.

Never use the battery cut-off switch when the engine is still running: Switch-off the engine and wait at least 1 minute before activating the cut-off switch to avoid serious damage to the vehicle electric/electronic system. In addition, the voltage peaks that occur at the alternator are dangerous.

IMPORTANT: Before turning the battery cut-off switch to the OFF position, wait at least 1 minute from the last engine stop (key - off). It allows the various control units to disconnect properly.

After turning the battery cut-off switch to the ON position, wait at least 10 seconds before turning the ignition key to start the engine. It allows the various control units to operate correctly.

CAUTION: To avoid shock and burns, disconnect the battery before servicing on any part of the electrical system.

RA84036,000199E-19-18JUL19

Bulb Replacement — Safety Instructions

When replacing a bulb, always comply with the following safety instructions:

- ⚠ CAUTION:** Always switch the lights off before you change a bulb.
 - ⚠ CAUTION:** First allow the bulb to cool down (may cause burns).
 - ⚠ CAUTION:** Wear safety goggles and gloves when changing the bulb.
 - ⚠ CAUTION:** The bulb is made of glass and contains gas; the bulb is under high pressure, so there is a risk of it shattering.
 - ⚠ CAUTION:** Do NOT use any bulbs that have fallen on the ground or have scratches on their surface, as there is a risk of them shattering.
 - ⚠ CAUTION:** Make sure that the bulb is seated correctly in its holder in the light.
 - ⚠ CAUTION:** Check the light for signs of damage and make sure that the seals are seated correctly.
- IMPORTANT:** Use only bulbs that require 12 volts and are of the same type and wattage as the bulb that is being replaced.
- IMPORTANT:** Never touch the glass surface of the bulb. Hold it only by its base.
- IMPORTANT:** Use a clean cloth and alcohol to remove any fingerprints from the glass bulb.

RA84036,00010B9-19-03AUG17

Checking on Lights

Check that the lights are operating correctly, especially before driving on public roads.

Comply with all legal regulations.

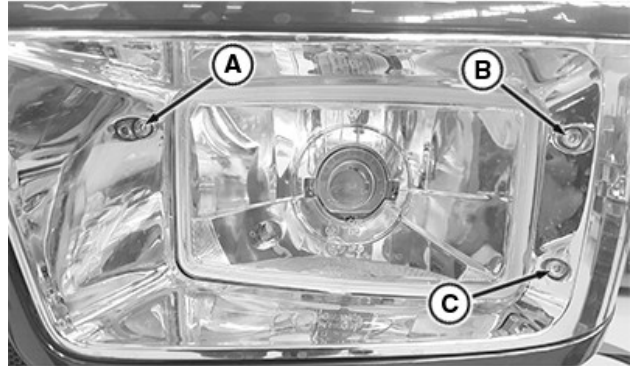
LX,LICHT 002082-19-01FEB92

Adjusting the Headlights

- ⚠ CAUTION:** Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive.
- To avoid sparks, connect negative (ground) cable last and disconnect it first.
- Pay close attention to the symbols marked on the battery.

To avoid shocks and burns, disconnect battery ground cable before servicing any part of the electrical system.

Disconnect the battery. See Battery Cut-Off Switch (If Equipped) in this section.



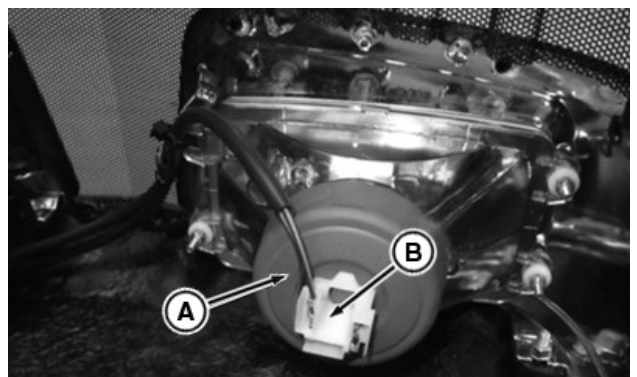
APY11203—UN—20MAY19

A—Nut
B—Nut
C—Nut

1. Turn nuts (A) and (C) counterclockwise to adjust the light downward or clockwise to adjust the light upward.
2. To adjust the light towards the inside, turn the nut (A) counterclockwise and nuts (B) and (C) clockwise. Always turn nuts (B) and (C) together, but in the opposite direction that nut (A) was turned.
3. To adjust the light towards the outside, turn the nut (A) clockwise and nuts (B) and (C) counterclockwise. Always turn nuts (B) and (C) together, but in the opposite direction that nut (A) was turned.
4. Close the hood and check the adjustment using a headlight tester.

RA84036,000199F-19-22JUL19

Replace Headlight Bulbs



PY28253—UN—25AUG16

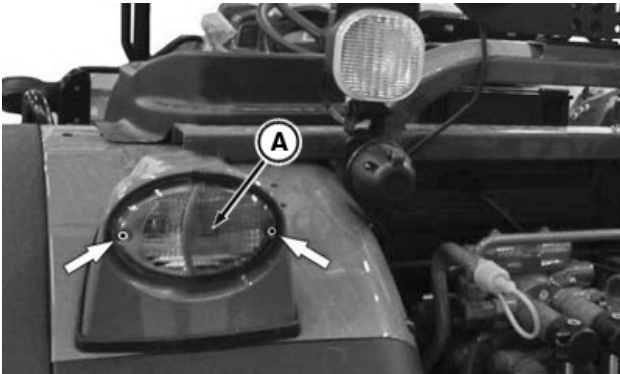
A—Dust Protector Cap
B—Connector

1. Turn OFF ignition.

2. Remove connector (B) from the bulb socket.
3. Remove dust protector cap (A).
4. Remove bulb.
5. Install new bulb, protector cap (A), and connector (B).

RA84036,0001A62-19-22JUL19

Replace Clearance, Brake, and Turn Signal Light Bulbs



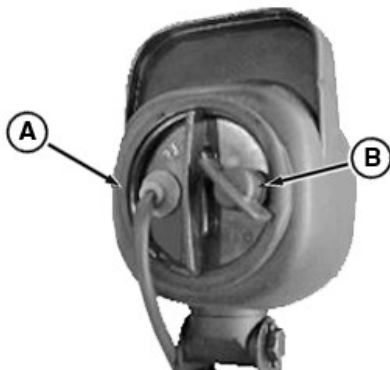
PY28254—UN—25AUG16

A—Lens

1. Turn OFF ignition.
2. Unscrew the two screws and remove the lens (A).
3. Push the bulb into the socket against the spring force and turn it to unlock. Release bulb and pull it out of the socket.
4. Slide new bulb into the socket, push it inside against the spring, and then turn to lock it.
5. Clean and reinstall the lens (A).

RA84036,00010BB-19-03AUG17

Replace Rear Working Light Bulb



PY28255—UN—25AUG16

A—Working Light
B—Cap

1. Turn OFF ignition.

2. Remove cap (B), push the bulb into the socket against the spring force, and turn it to unlock. Release bulb and pull it out of the socket.
3. Slide new bulb into the socket, push it inside against the spring, and then turn to lock it. Clean lens and install cap (B).

RA84036,00010BC-19-03AUG17

Battery, Checking Status / Charge



APY11200—UN—20MAY19

The battery is a sealed maintenance-free type.

Use a multimeter to check the battery charge; voltage value must be 12 V.

IMPORTANT: It is not allowed to open a maintenance-free battery.

RA84036,00019A0-19-22JUL19

Starting Motor

If the starting motor fails to operate after the starter switch has been operated, the complete starter system must be thoroughly checked. Check specific gravity of the battery with a hydrometer and make sure that none of the cables are broken or worn through and that none of the cable connections are loose or corroded.

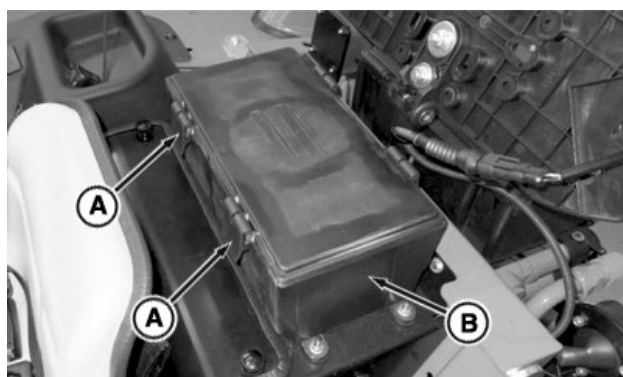
If these above checks fail to improve the operation of the starting motor, see your John Deere dealer.

RA84036,00010BE-19-03AUG17

Main Fuses and Relays (Open Operator Station) (5GL, 5GL-N)

IMPORTANT: To prevent damage to the electrical system, NEVER use a fuse with a rating higher than the one already installed. If the original size fuse does not carry the electrical load and continues to blow, have the electrical system checked by your John Deere dealer.

Main Fuse Box

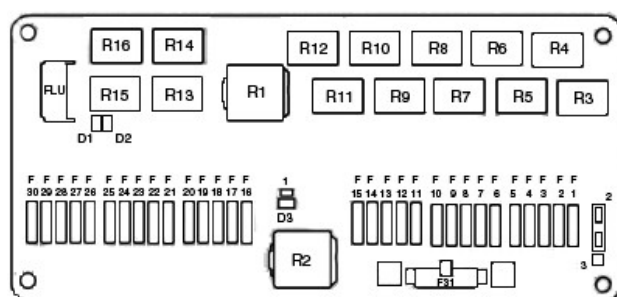


PY42841—UN—02JUL17

A—Block
B—Fuse Box

The main fuse box is located in a box, placed over the battery cover.

Open the block (A) to get access to the fuse box (B).



PY37716—UN—30JUL18

RELAY		
Relay	Type	Description
R1	70 A	Starter Relay
R2	50 A	Not Used
R3	30/15 A	High Beam
R4	30/15 A	H4
R5	30/15 A	Low Beam
R6	30/15 A	H4
R7	30/15 A	Not Used
R8	30/15 A	Not Used
R9	30/15 A	Not Used
R10	30/15 A	Not Used
R11	30/15 A	Safety Start Relay
R12	30/15 A	Front PTO Safety Start Relay
R13	30/15 A	Not Used
R14	30/15 A	Front PTO Relay (value enable)
R15	30/15 A	Not Used
R16	30/15 A	Trailer Brake Valve

Mechanical - (Open Operator Station)

Fuses		
Position	Type	Function
F1	15 A	High Beam
F2	5 A	RHS Tail Light
F3	5 A	LHS Tail Light
F4	15 A	Low Beam
F5	15 A	Not Used
F6	15 A	Not Used
F7	15 A	HAZARD +30
F8	15 A	3 Pole Socket +30
F9	15 A	Beacon
F10	15 A	OOS Rear Work Light
F11	10 A	+30 PowrReverser™, +30 Tractor VCU
F12	10 A	Not Used
F13	10 A	Not Used
F14	10 A	Not Used
F15	20 A	Not Used
F16	20 A	Not Used
F17	15 A	Not Used
F18	15 A	Not Used
F19	30 A	Not Used
F20	7.5 A	+15 Engine ECU
F21	15 A	Hazard +15
F22	25 A	3 Pole Socket +15
F23	15 A	Stop Light
F24	15 A	Not Used
F25	15 A	+15 PowrReverser™, +15 Tractor VCU
F26	10 A	Air Seat, Speed Sensor
F27	10 A	PTO 4WD, D/I
F28	20 A	Front PTO E Valve
F29	10 A	Not Used
F30	20 A	Not Used
F31	50 A	Key Switch Supply

Mechanical - (Open Operator Station)
PowrReverser is a trademark of Deere & Company

OTHER		
Position	Current	Function
D1	2 A	Not Used
D2	2 A	Not Used
D3	2 A	Diode
1		CAN Resistance
2		Fuse Test Port
3		Fuse Test Led
FLU		Not Used

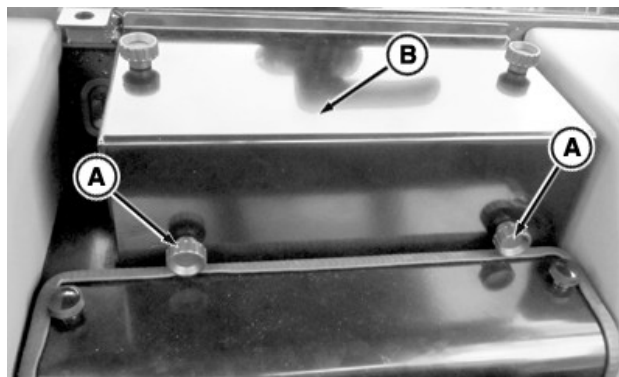
Mechanical - (Open Operator Station)

RELAY		
Relay	Type	Description
R1	70 A	Starter Relay
R2	50 A	Not Used
R3	30/15 A	High Beam

Fuses		
Position	Type	Function
F1	15 A	High Beam
F2	5 A	RHS Tail Light
F3	5 A	LHS Tail Light
F4	15 A	Low Beam
F5	15 A	Not Used
F6	15 A	Not Used
F7	15 A	HAZARD +30
F8	15 A	3 Pole Socket +30
F9	15 A	Beacon
F10	15 A	OOS Rear Work Light
F11	10 A	+30 PowrReverser™, +30 Tractor VCU
F12	10 A	Not Used
F13	10 A	Not Used
F14	10 A	Not Used
F15	20 A	Not Used
F16	20 A	Not Used
F17	15 A	Not Used
F18	15 A	Not Used
F19	30 A	Not Used
F20	7.5 A	+15 Engine ECU
F21	15 A	Hazard +15
F22	25 A	3 Pole Socket +15
F23	15 A	Stop Light
F24	15 A	Not Used
F25	15 A	+15 PowrReverser™, +15 Tractor VCU
F26	10 A	Air Seat, Speed Sensor
F27	10 A	PTO 4WD, D/I
F28	20 A	Front PTO E Valve
F29	10 A	Not Used
F30	20 A	Not Used
F31	50 A	Key Switch Supply

Main Fuses and Relays (Cab) (5GL, 5GL-N)

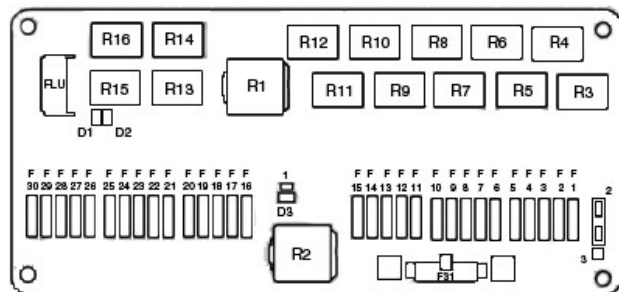
Main Fuse Box



APY05025—UN—27MAR18

The main fuse box is located in a box, placed over the battery cover.

Open the block (A) to get access to the fuse box (B).



220B-8

RELAY		
Relay	Type	Description
R1	70 A	Starter Relay
R2	50 A	Roof Power Supply Relay
R3	30/15 A	High Beam
R4	30/15 A	H4
R5	30/15 A	Low Beam
R6	30/15 A	H4
R7	30/15 A	Front Work Light Relay
R8	30/15 A	Not Used
R9	30/15 A	Not Used
R10	30/15 A	AC Clutch Relay
R11	30/15 A	Safety Start Relay
R12	30/15 A	Front PTO Safety Start Relay
R13	30/15 A	Condenser Fan Relay
R14	30/15 A	Front PTO Relay (value enable)
R15	30/15 A	Not Used
R16	30/15 A	Trailer Brake Valve

Mechanical - (Cab)

Fuses		
Position	Type	Function
F1	15 A	High Beam
F2	5 A	RHS Tail Light
F3	5 A	LHS Tail Light
F4	15 A	Low Beam
F5	15 A	Not Used
F6	15 A	Front Roof Work Light
F7	15 A	HAZARD +30
F8	15 A	3 Pole Socket +30
F9	15 A	Beacon
F10	15 A	OOS Rear Work Light
F11	10 A	+30 PowrReverser™, +30 Tractor VCU
F12	10 A	Dome Light
F13	10 A	Not Used
F14	10 A	AC Clutch Relay
F15	20 A	Not Used
F16	20 A	Not Used
F17	15 A	Not Used
F18	15 A	Wipers
F19	30 A	Condenser Fan
F20	7.5 A	+15 Engine ECU
F21	15 A	Hazard +15
F22	25 A	3 Pole Socket +15
F23	15 A	Stop Light
F24	15 A	Not Used
F25	15 A	+15 Tractor VCU
F26	10 A	Air Seat, Speed Sensor
F27	10 A	PTO 4WD, D/I
F28	20 A	Front PTO E Valve
F29	10 A	Not Used
F30	20 A	Roof Ventilation Fan

F31	50 A	Key Switch Supply

Mechanical - (Cab)
PowrReverser is a trademark of Deere & Company

OTHER		
Position	Current	Function
D1	2 A	Not Used
D2	2 A	Not Used
D3	2 A	Diode
1		CAN Resistance
2		Fuse Test Port
3		Fuse Test LED
FLU		Not Used

Mechanical - (Cab)

RELAY		
Relay	Type	Description
R1	70 A	Starter Relay
R2	50 A	Roof Power Supply Relay
R3	30/15 A	High Beam
R4	30/15 A	H4
R5	30/15 A	Low Beam
R6	30/15 A	H4
R7	30/15 A	Front Work Light Relay
R8	30/15 A	Not Used
R9	30/15 A	Not Used
R10	30/15 A	AC Clutch Relay
R11	30/15 A	Safety Start Relay
R12	30/15 A	Front PTO Safety Start Relay
R13	30/15 A	Condenser Fan Relay
R14	30/15 A	Front PTO Relay (value enable)
R15	30/15 A	PWM Enabler
R16	30/15 A	Trailer Brake Valve

PowrReverser™ - (Cab)

Fuses		
Position	Type	Function
F1	15 A	High Beam
F2	5 A	RHS Tail Light
F3	5 A	LHS Tail Light
F4	15 A	Low Beam
F5	15 A	Not Used
F6	15 A	Rear Roof Work Light
F7	15 A	HAZARD +30
F8	15 A	3 Pole Socket +30
F9	15 A	Beacon
F10	15 A	OOS Rear Work Light
F11	10 A	+30 PowrReverser™, +30 Tractor VCU
F12	10 A	Dome Light
F13	10 A	Not Used
F14	10 A	AC Clutch Relay

F15	20 A	Not Used
F16	20 A	Not Used
F17	15 A	Not Used
F18	15 A	Wipers
F19	30 A	Condenser Fan
F20	7.5 A	+15 Engine ECU
F21	15 A	Hazard +15
F22	25 A	3 Pole Socket +15
F23	15 A	Stop Light
F24	15 A	Not used
F25	15 A	+15 PowrReverser™, +15 Tractor VCU
F26	10 A	Air Seat, Speed Sensor
F27	10 A	PTO 4WD, D/I
F28	20 A	Front PTO E Valve
F29	10 A	Not Used
F30	20 A	Roof Ventilation Fan
F31	50 A	Key Switch Supply

PowrReverser™ - (Cab)

PowrReverser is a trademark of Deere & Company

OTHER		
Position	Current	Function
D1	2 A	Diode
D2	2 A	Diode
D3	2 A	Diode
1		CAN Resistance
2		Fuse Test Port
3		Fuse Test LED
FLU		FLU Noise Filter (24+12 PR Transmission)

PowrReverser™ - (Cab)

RA84036,0001A6C-19-23JUL19

Fit the fuse (B) to be checked on the connector (A) and check if the LED (C) is switched ON.

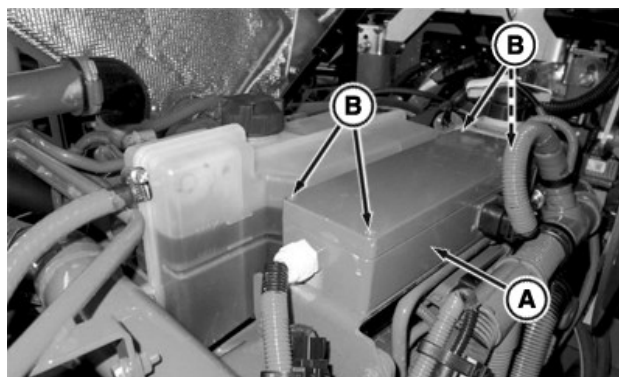
If the LED (C) is ON, the fuse is OK.

If not, replace the fuse (B).

NOTE: The fuse check can be performed with the Start key OFF and the battery cut-off switch (If Equipped) is ON.

RA84036,00010C6-19-01OCT18

Engine Fuses and Relays (5GL, 5GL-N)



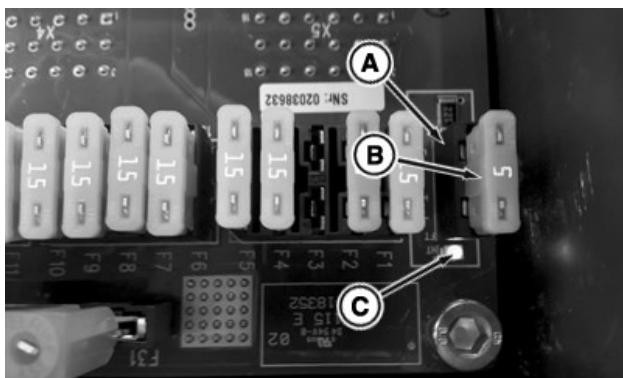
PY42847—UN—02JUL17

A—Fuse Box
B—Screw

Other fuses and relays are on the upper side of the engine.

Loosen screws (B) and remove cover to access the fuse box (A).

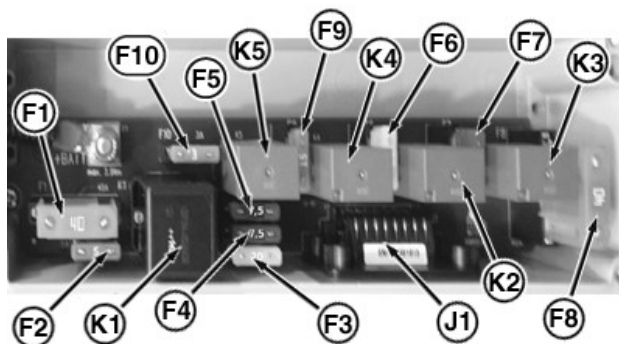
Fuse Check (5GL, 5GL-N)



PY42842—UN—11JUL17

A—Fuse Test Connector
B—Fuse
C—LED

It is possible to check the fuse by the fuse test connector (A).



PY37715—UN—30JUL18

FUSES		
Position	Type	Function
F1	40 A	Main Fuse
F2	5 A	Main Fuse Main Relays Solenoid

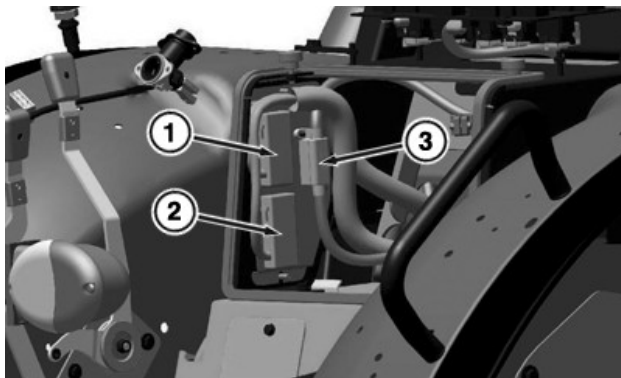
F3	20 A	ECU Pin 3-5
F4	7.5 A	ECU Pin 1
F5	7.5 A	Relay Solenoids Power Supply
F6	25 A	Not Used
F7	10 A	Not Used
F8	40 A	Not Used
F9	15 A	Fuel Heater
F10	3 A	EHC (option)

RELAYS		
Position	Type	Function
K1	Main	50 A
K2	Not Used	15 A
K3	Not Used	15 A
K4	Fuel Heater	15 A
K5	EHC (option)	15 A

MS76789,0000620-19-01OCT18

Main Power Supply Fuses and Additional Relays (5GL, 5GL-N)

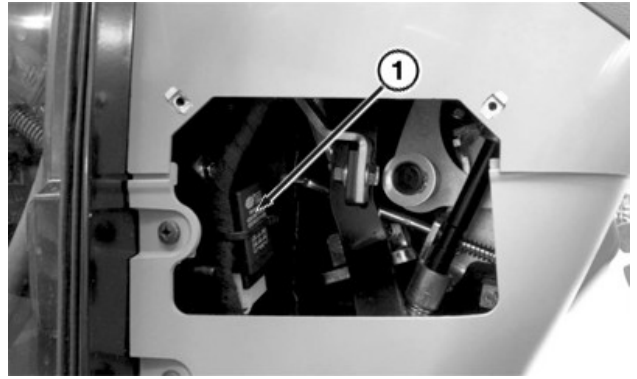
It is on the battery side.



PY42844—UN—02JUL17

FUSES			
Position	Fuses	Function	Size
1	F01—P40	Glow Plug Fuse	60 A
2	F02—P41	Engine ECU Fuse	70 A
3	F03—P39	Fuse and Relay Board Power Supply	125 A

Located on the left-hand side on dashboards cowl



PY42845—UN—02JUL17

FUSES		
Position	Function	Size
1	Turn Signal Lights Blinker	21 W 12 V

MS76789,0000622-19-01OCT18

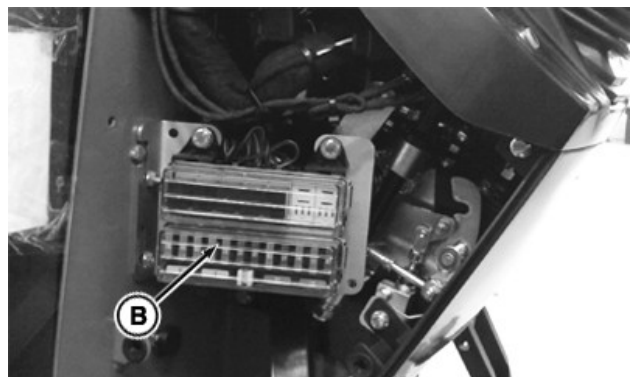
Main Fuses and Relays (5GV, 5GN, 5GF)

IMPORTANT: To prevent damage to the electrical system, NEVER use a fuse with a rating higher than the one already installed. If the original size fuse does not carry the electrical load and continues to blow, have the electrical system checked by your John Deere dealer.

Main Fuse Box



PY34434—UN—16NOV16



PY34435—UN—16NOV16

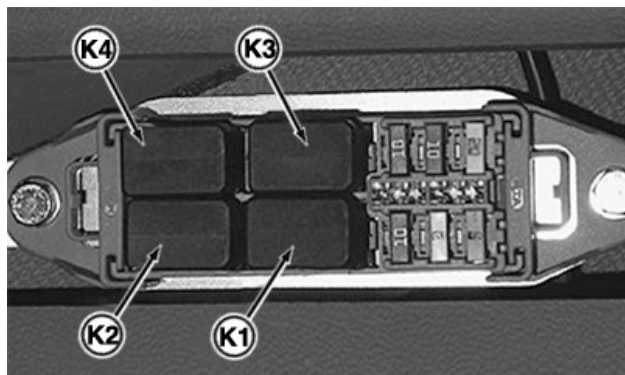
B—Fuse Box

The main fuse box is located under the left dashboard cowl.

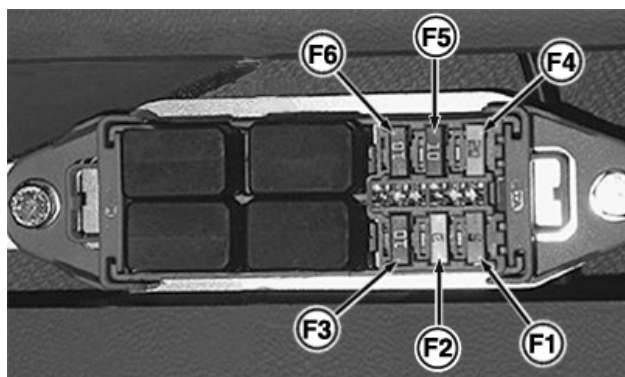
Remove the left lower dashboard cowl by carefully disengaging the internal lugs from the related holes to get access to the fuse box (B).

MS76789,0000624-19-01OCT18

Fuses and Relays (E-SCV) (5GV, 5GN, 5GF)



PY31932—UN—20SEP16



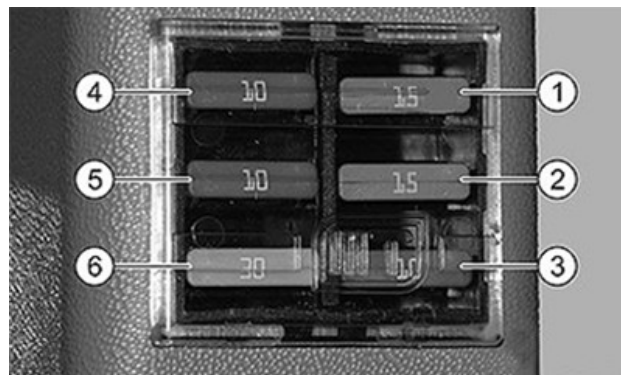
PY31933—UN—20SEP16

Relay box is located inside the right lever cover.

Fuses	
K1 — (12 V 20 A)	Relay for E-SCV Power Supply
K2 — (12 V 20 A)	Relay for E-SCV End Cover Valve Power Supply
K3 — (12 V 20 A)	Relay for E-SCV Valve 3 Power Supply
K4 — (12 V 20 A)	Relay for E-SCV Valve 4 Power Supply
Relays	
F1 — (5 A)	Fuse for E-SCV End Cover Relay Power Supply
F2 — (3 A)	Fuse for E-SCV Power Supply (+15)
F3 — (10 A)	Fuse for E-SCV Valve 1 and 2 Power Supply
F4 — (20 A)	Fuse for E-SCV Control Unit Power Supply
F5 — (10 A)	Fuse for E-SCV Valve 3 Power Supply
F6 — (10 A)	Fuse for E-SCV Valve 4 Power Supply

MS76789,0000646-19-01OCT18

Fuse Box (Cab) (If Equipped) (5GV, 5GN, 5GF)



PY34437—UN—16NOV16



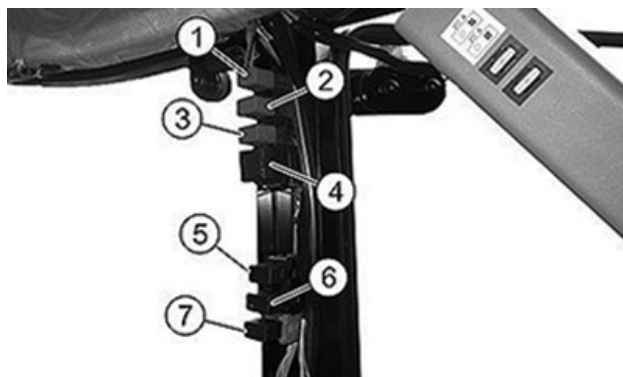
PY34438—UN—16NOV16

The cab fuses are located in the post on the right-hand side.

Post at the right-hand side of cab		
Position	Type	Function
1	15 A	Front work lights
2	15 A	Rear work lights
3	10 A	Radio (+15), rear window wiper
4	10 A	Radio (+30), courtesy light
5	10 A	Windshield wiper, windscreen washer pump
6	30 A	Air conditioning module

Post at the left-hand side of cab		
Position	Type	Function
1	15 A	Fan motor
2	15 A	Fan motor

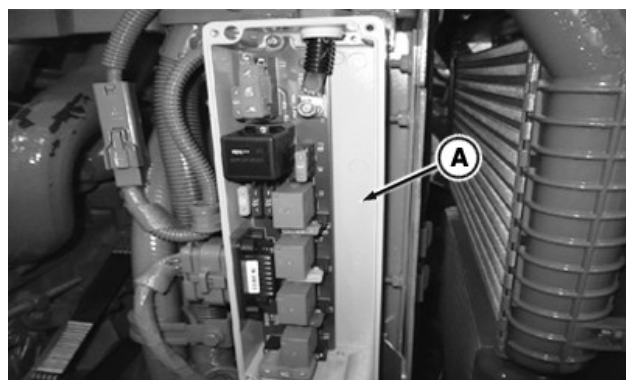
RA84036,00010C3-19-01OCT18

Relays (Cab) (5GV, 5GN, 5GF)

PY34439—UN—16NOV16

Relays in the cab		
Position	Type	Function
1	30 A	Front working light
2	30 A	Rear working light
3	20 A	Air-conditioning clutch
4	70 A	Power supply
5	20 A	Micro relay for fan (series)
6	20 A	Micro relay for fan (parallel)
7	15-25 A	Micro relay for fan

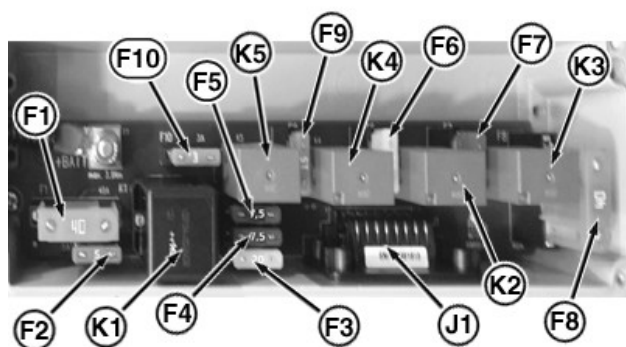
MS76789,0000647-19-01OCT18



PY34442—UN—17NOV16

A—Fuse Box
B—Screw

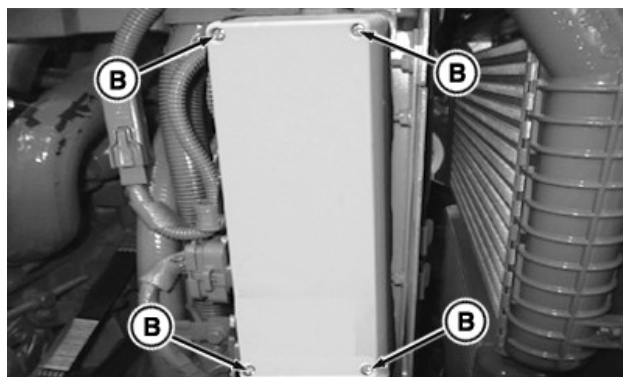
Loosen screws (B) and remove cover to access the fuse box (A).



PY37715—UN—30JUL18

Engine Fuses and Relays (5GV, 5GN, 5GF)

Other fuses and relays are on the right-hand side of the engine, close to the radiators.



PY34441—UN—17NOV16

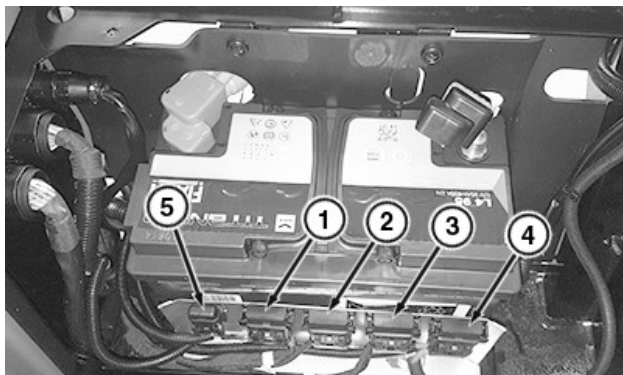
FUSES		
Position	Type	Function
F1	40 A	Main fuse
F2	5 A	Main fuse main relays solenoid
F3	20 A	ECU pin 3-5
F4	7.5 A	ECU pin 1
F5	7.5 A	Relay solenoids, power supply
F6	25 A	Not used
F7	10 A	Not used
F8	40 A	Not used
F9	15 A	Fuel heater
F10	3 A	EHC (option)

RELAYS		
Position	Type	Function
K1	Main	50 A
K2	Not used	15 A
K3	Not used	15 A
K4	Fuel heater	15 A
K5	EHC (option)	15 A

MS76789,0000625-19-01OCT18

Main Power Supply Fuses and Additional Relays (5GV, 5GN, 5GF)

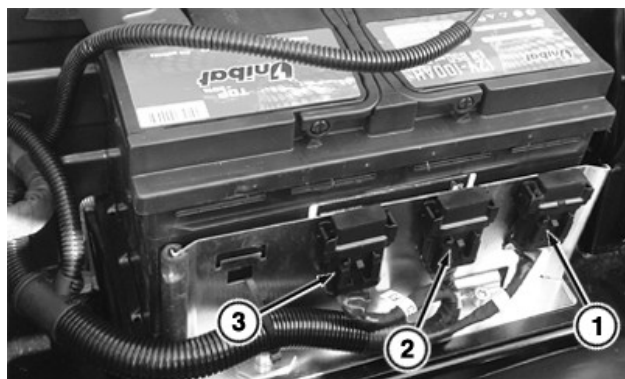
Located under the battery cover:



APY11204—UN—20MAY19

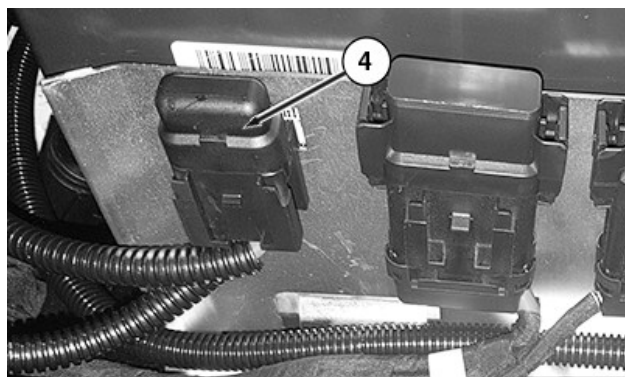
(Cab)

Fuse Allocation			
Reference	Fuses	Designation	Current
	Note — Allocation depends on the tractor equipment		
1	F1	Main Harness	50 A
2	F2	Glow Plug	60 A
3	F3	Engine ECU	70 A
4	F4	Cab Roof Maxi Fuse	70 A
5	F5	EH-SCV	30 A



PY34446—UN—17NOV16

(Open Operator Station)



APY11296—UN—18JUL19

(Open Operator Station)

Fuse Allocation			
Reference	Fuses	Designation	Current
	Note — Allocation depends on the tractor equipment		
1	F1	Main Harness	50 A
2	F2	Glow Plug	60 A
3	F3	Engine ECU	70 A
4	F4	EH-SCV	30 A



PY34447—UN—17NOV16

Located under the instrument panel:

Relay Allocation	
Relay (12 V—20 A)	Description
Note — Allocation depends on the tractor equipment	
1	Auxiliary Fuel Tank Pump

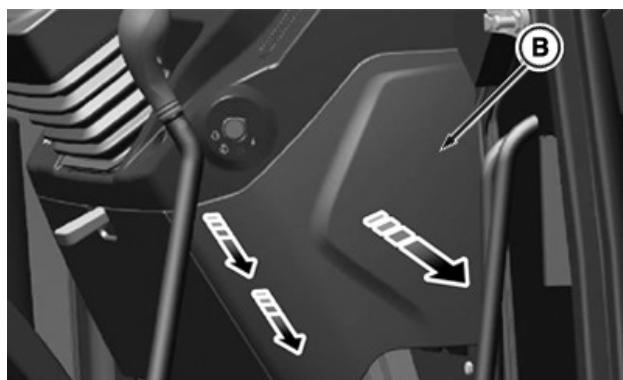


APY11206—UN—20MAY19

1—Starter Relay

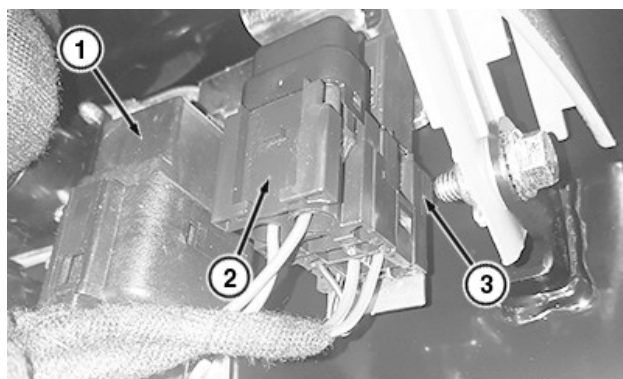
Located under the instrument panel:

Relay Allocation	
Relay (12 V—70 A)	Description
Note — Allocation depends on the tractor equipment	
1	Starter Relay



PY34449—UN—17NOV16

B—Right-Hand Dashboard Cowl



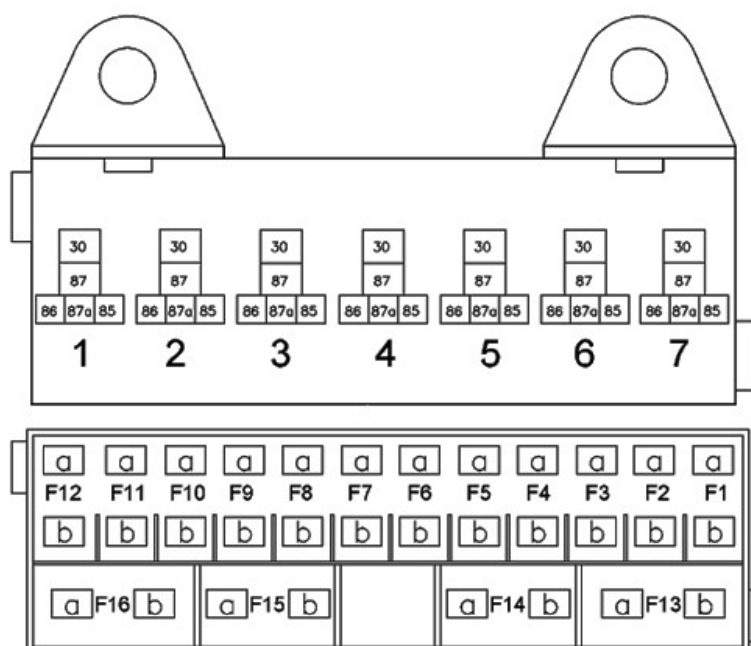
APY11205—UN—20MAY19

Located under the right-hand dashboards cowl (B):

Relay Allocation			
Relay		Description	
Note — Allocation depends on the tractor equipment			
1		Starter Relay (12 V—70 A)	
3		Suspended front axle Relay (12 V 15/30 A) (optional)	
Fuse Allocation			
Reference	Fuse	Description	Current
Note — Allocation depends on the tractor equipment			
2	F2	Suspended front axle	15A

RA84036,00019A1-19-22JUL19

Fuse and Relay Box (Mechanical Transmission) (5GV, 5GF, 5GN)

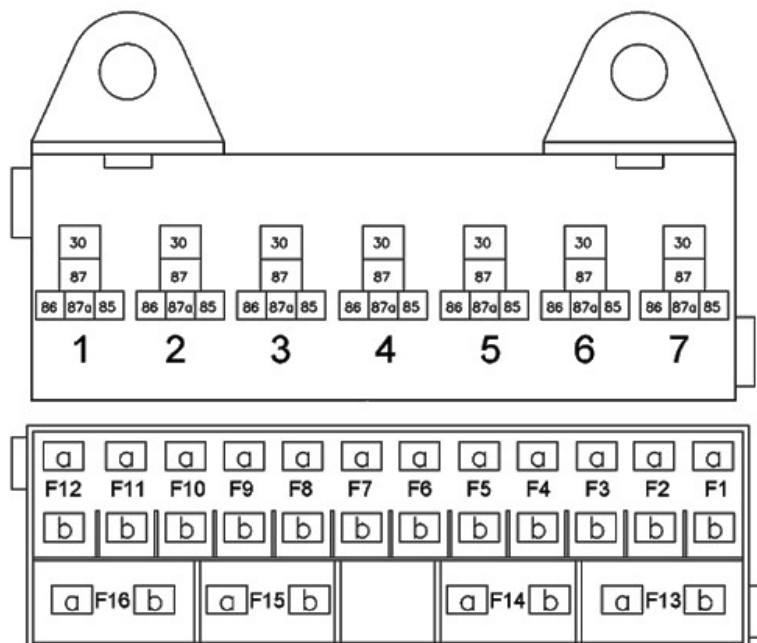


Located on the left-hand side on dashboards cowl

PY34436—UN—16NOV16

RELAYS (Mechanical Transmission)	
Relay	Description
K1	Low Beam
K2	High Beam
K3	Trailer Brake Valve
K4	H4 Low Beam
K5	H4 High Beam
K6	Safety Start Relay
K7	Safety Start Relay

Fuses (Mechanical Transmission)		
Position	Type	Function
F1	7.5	+15 Engine ECU
F2	10 A	3 Terminal Power Outlet Socket (+15)
F3	10 A	3 Terminal Power Outlet Socket (+30); Cigarette Lighter
F4	7.5 A	4WD Valve; 4WD Switch; Foot Throttle Sensor; Speed Sensor
F5	15 A	Air Seat; Cab +15; DEPORT; Front PTO Valve; Auxiliary Fuel Tank
F6	7.5 A	PTO Switches; PTO Valve; Hand Throttle Sensor; Differential Lock Switch; Differential Lock Pressure Switch; 4WD Pressure Switch; Trailer Brake Valve
F7	7.5 A	Dashboard +15; Hi-Lo Switches
F8	10 A	Dashboard +30
F9	15 A	Beacon Light
F10	15 A	Stop Lights
F11	10 A	Horn; Turn Signal Lights
F12	15 A	Hazard
F13	15 A	Low Beam
F14	15 A	High Beam
F15	5 A	Right Clearance Lights and Back-Lights
F16	5 A	Left Clearance Light

Fuse and Relay Box (PowrReverser™ Transmission) (5GV, 5GN, 5GF)

Located on the left-hand side on dashboard cowl

PY34436—UN—16NOV16

Relays (PowrReverser™ Transmission 24/12)	
Relay	Description
K1	Low Beam
K2	High Beam
K3	Trailer Brake Valve
K4	H4 Low Beam
K5	H4 High Beam
K6	Safety Start Relay
K7	Safety Start Relay

Fuses (PowrReverser™ Transmission 24/12)		
Position	Type	Function
F1	7.5	+15 Engine ECU
F2	10 A	3 Terminal Power Outlet Socket (+15)
F3	10 A	3 Terminal Power Outlet Socket (+30); Cigarette Lighter
F4	7.5 A	4WD Valve; 4WD Switch; Foot Throttle Sensor; Speed Sensor
F5	15 A	Air Seat; Cab +15; DEPORT; Front PTO Valve; Auxiliary Fuel Tank
F6	7.5 A	PTO Switches; PTO Valve; Hand Throttle Sensor; Differential Lock Switch; Differential Lock Pressure Switch; 4WD Pressure Switch; Trailer Brake Valve
F7	7.5 A	Dashboard +15; Hi-Lo Switches; PowrReverser™+15
F8	10 A	Dashboard +30; PowrReverser™+30
F9	15 A	Beacon Light
F10	15 A	Stop Lights
F11	10 A	Horn; Turn Signal Lights

Service — Electrical System

F12	15 A	Hazard
F13	15 A	Low Beam
F14	15 A	High Beam
F15	5 A	Right Clearance Lights and Back-Lights
F16	5 A	Left Clearance Lights

PowrReverser is a trademark of Deere & Company

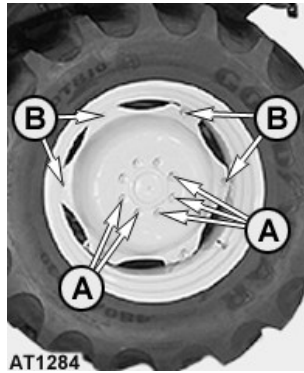
RA84036,00019A3-19-22JUL19

Maintenance — Checking Hardware Torques

After the First 4 and 8 Hours of Operation

Tighten Rear Wheel Nuts and Bolts to Specified Torque

IMPORTANT: Check tightness of rim, disk, and wheel bolt after 10 hours each time you replace wheels.



AT1284

AT1284—UN—13JUN01

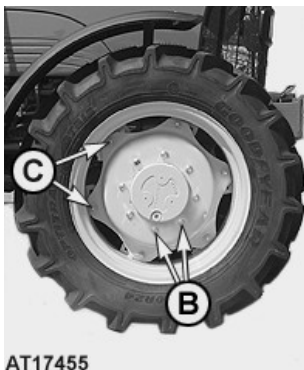
A —Disk-to-Axle Flange
B —Rim to Disk

Specification

Disk-to-Axle Flange	
(A)—Torque.	400 N·m (295 lb·ft)
Rim-to-Disk (B) M18	
Bolt—Torque.	280 N·m (207 lb·ft)
Rim-to-Disk (B) M16	
Bolt—Torque.	210 N·m (155 lb·ft)

Tighten Wheel Nuts of Front Wheel Drive Axle

IMPORTANT: Check tightness of rim, disk, and wheel bolt after 10 hours each time you replace wheels.



AT17455

AT17455—UN—20JUL07

B —Disk-to-Axle Flange
C —Rim to Disk

Specification

Rim-to-Disk (C)—Torque.	300 N·m (220 lb·ft)
Disk-to-Axle Flange (B) M16	
Bolt (on Disk for R20)—Torque.	280 N·m (207 lb·ft)
Disk-to-Axle Flange (B) M16	
Bolt—Torque.	210 N·m (155 lb·ft)

Tighten Front Wheel Nuts and Bolts to Specified Torque

IMPORTANT: Check tightness of rim, disk, and wheel bolt after 10 hours each time you replace wheels.



AT1285

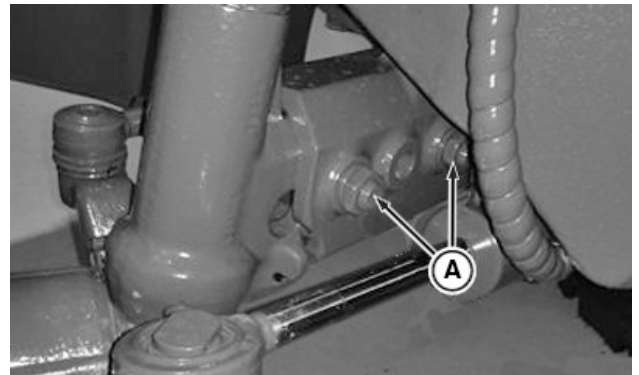
AT1285—UN—13JUN01

A—Disk-to-Axle Flange

Specification

Disk-to-Axle Flange (tractors without front-wheel drive)—Torque.	175 N·m (130 lb·ft)

Adjustable Front Axle (Tractors without Front Wheel Drive)



PY28163—UN—25AUG16

A —Axle Bolts

Specification

Axle Bolts (A)—Torque.	150 N·m (110 lb·ft)

RA84036,00019D7-19-22JUL19

Mounting Bolts of Operator's Cab / Open Station and ROPS

Check mounting bolts for tightness.

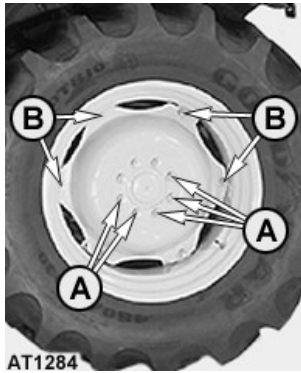
OULXA64,0000CCC-19-18AUG03

Service — Checks

Check Torque of Wheel and Rim Bolts

Tighten Rear Wheel Nuts and Bolts to Specified Torque

IMPORTANT: Check tightness of rim, disk, and wheel bolt after 10 hours each time you replace wheels.



AT1284—UN—13JUN01

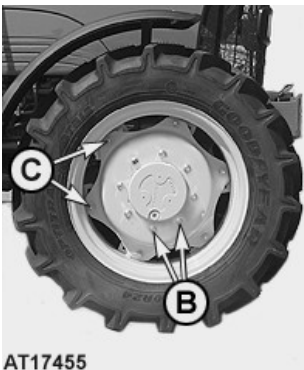
A—Disk-to-Axle Flange
B—Rim to Disk

Specification

Disk-to-Axle Flange (A)—Torque.	400 N·m 295 lb·ft
Rim-to-Disk (B) M18 Bolt—Torque.	280 N·m 207 lb·ft
Rim-to-Disk (B) M16 Bolt—Torque.	210 N·m 155 lb·ft

Tighten Wheel Nuts of Front Wheel Drive Axle

IMPORTANT: Check tightness of rim, disk, and wheel bolt after 10 hours each time you replace wheels.



AT17455—UN—20JUL07

B—Disk-to-Axle Flange
C—Rim to Disk

Specification

Rim to Disk (C)—Torque.	300 N·m 220 lb·ft

Disk-to-Axle Flange (B) M16 Bolt (on Disk for R20)—Torque.	280 N·m 207 lb·ft

Disk-to-Axle Flange (B) M16 Bolt—Torque.	210 N·m 155 lb·ft

Tighten Front Wheel Nuts (Tractors without Front Wheel Drive)

IMPORTANT: Check tightness of rim, disk, and wheel bolt after 10 hours each time you replace wheels.



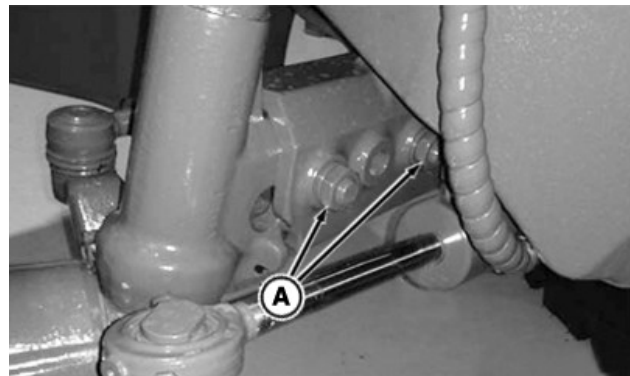
AT1285—UN—13JUN01

A—Disk-to-Axle Flange

Specification

Disk-to-Axle Flange (Tractors without Front-wheel Drive)—Torque.	175 N·m 130 lb·ft

Adjustable Front Axle (Tractors without Front Wheel Drive)



PY31974—UN—05OCT16

A—Axle Bolts

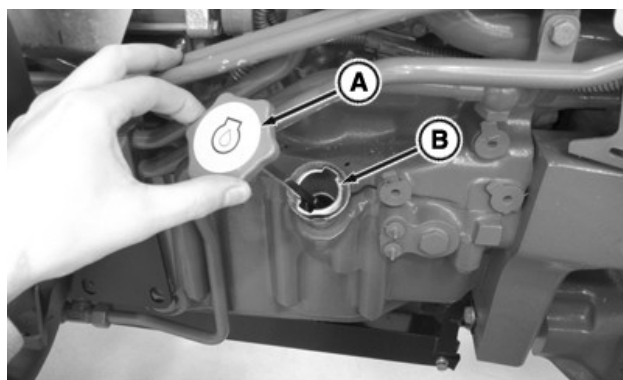
Specification

Axle Bolts (A)—Torque.	150 N·m 110 lb·ft

RA84036,00019D8-19-22JUL19

Check Engine Oil Level

Park tractor on level ground for checking engine oil level.



PY42821—UN—02JUL17

A—Dipstick
B—Oil Filler Neck

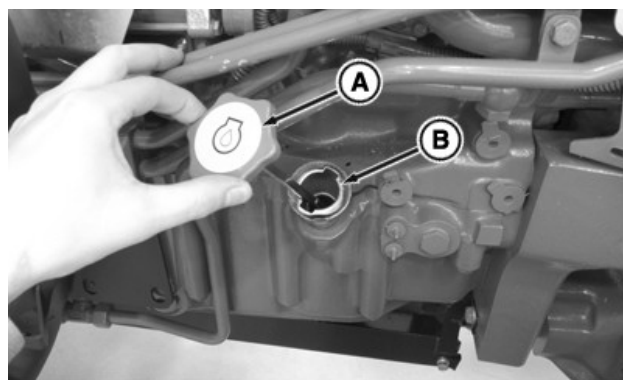
Remove dipstick (A), wipe, clean and reinsert it fully. Once again remove the dipstick and check oil level.

Correct oil level is in between the two marks on the dipstick.

IMPORTANT: DO NOT operate engine when oil level is below the low mark on dipstick.

If level is low, add specified oil through filler neck (B) until even with upper mark. See Engine Oil (Section 200C) in this manual.

RA84036,00010CC-19-03AUG17



PY42821—UN—02JUL17

A—Dipstick
B—Filler Neck

Check engine oil level. Remove dipstick (A), wipe clean and reinsert it fully. Remove and check oil level. Safe operating range is between the two marks on dipstick (A). Do not operate engine when oil level is below lower mark on dipstick (A). In this case, add specified oil through filler neck (B). See Fuel, Lubricants, Hydraulic Oil and Coolant in Section 200 in this manual.

Check Coolant Level

CAUTION: Only remove radiator cap when engine is cold. Slowly loosen cap to first stop to relieve pressure before removing completely.

Prestarting Checks

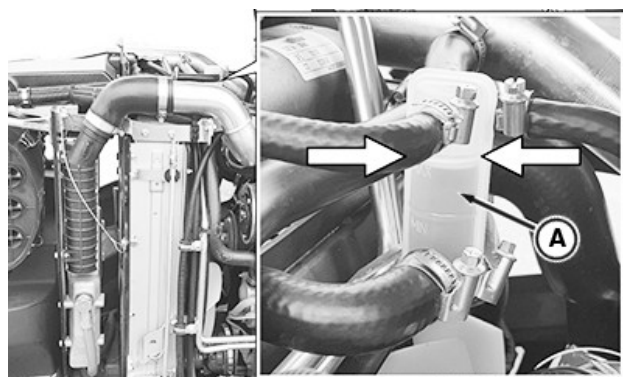
Check Engine Oil Level

CAUTION: Never perform any service work near rotating or moving parts. Never remove or open any service doors or other guards when engine is running or hot. No service must be performed on or around the engine with engine running. Prevent unintentional operation of the engine or starting motor when hood is open or guards are removed.

IMPORTANT: Check oil level when oil is cold. If possible, check the oil level after tractor was not in use for a couple of hours.

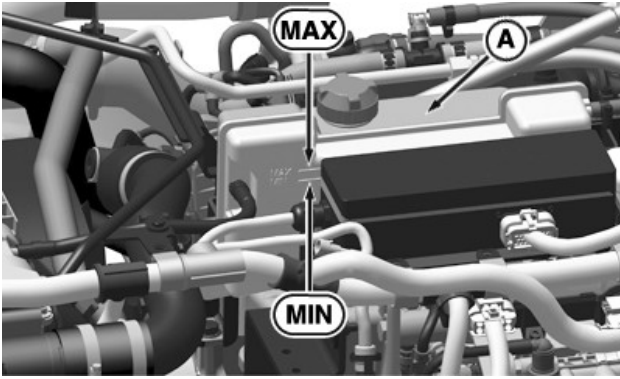


TS281—UN—15APR13



APY11273—UN—31MAY19

5GF, 5GV, and 5GN Models



PY42820—UN—02JUL17

5GL Models

A—Coolant Level Tank

Check coolant level in radiator through the coolant level tank (A).

Check that the coolant level with a cold engine is near the MAX level mark on the level tank (A). Add coolant if necessary.

If you find it necessary to top up the level several times after short trips, have the system checked by an authorized dealer.

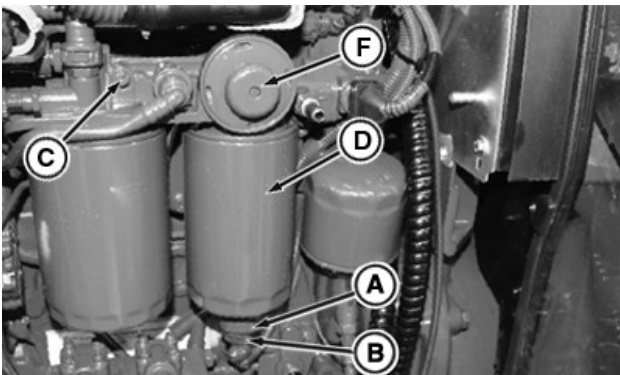
RA84036,00019D9-19-22JUL19

Check the Fuel Filter

CAUTION: Before starting work, make sure that the engine is cold.

CAUTION: Handle fuel with care; it is highly flammable. Never perform work on the fuel system while smoking or next to open flames or sparks.

1. Disconnect battery. See Battery Cut-Off Switch (If equipped) in Service — Electrical System (Section 220B) in this manual.



PY37717—UN—30JUL18

A—Water-In-Fuel Sensor
B—Connector
C—Bleed Screw
D—Fuel Pre-Filter

F—Hand Primer

2. Open the hood and remove the left-hand side panel.
3. Remove connector (B).
4. Position a suitable container under the water-in-fuel sensor (A) for collecting the draining fuel.
5. Unscrew the bleed screw (C) and the water-in-fuel sensor (A) for draining the liquids.

IMPORTANT: Do not allow draining fuel to soil the drive belt or the environment.

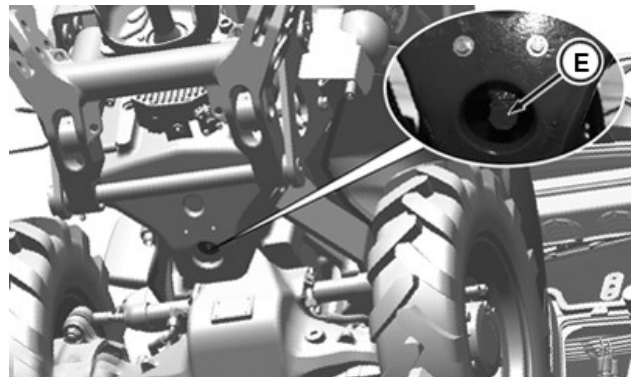
6. Retighten water-in-fuel sensor (A) to the specification after any water and sediment deposits have drained out from fuel.

Specification

Water-In-Fuel Sensor

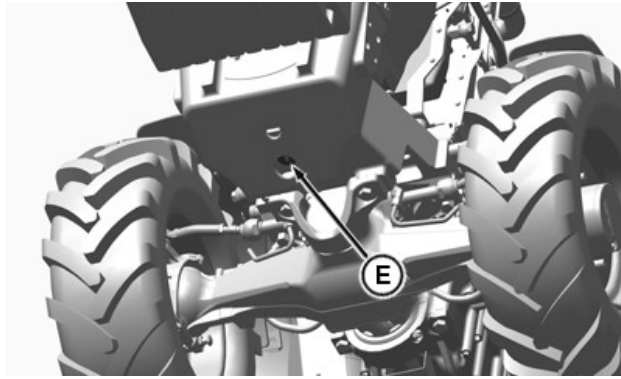
(A)—Torque. $1.8 \pm 0.65 \text{ N}\cdot\text{m}$
1.32 lb·ft

7. Operate the hand primer (F) on the fuel transfer pump until fuel appears at the bleed screw (C).
8. Tighten the bleed screw (C) after air has been removed from the system.
9. Reconnect the connector (B).
10. Connect Battery. See Battery Cut-Off Switch (If equipped) in Service — Electrical System (Section 220B) in this manual.
11. Start engine and run it at minimum speed for a few minutes to eliminate any residual air. Check fuel system for leaks.



PY28259—UN—28SEP16

(5GV, 5GN, 5GF)



PY28364—UN—27SEP16

(5GL)

E—Fuel Tank Drain Screw

12. If water was present in the fuel pre-filter (D), arrange a suitable container to collect fuel. Open the fuel tank drain screw (E) and drain accumulated moisture and sediment from the fuel tank.
13. After having drained off any water deposits, retighten fuel tank drain screw (E) to the specification.

Specification

Drain Screw (E)—Torque. 30 N·m
22.12 lb·ft

14. Install the left- hand side panel and close the hood.

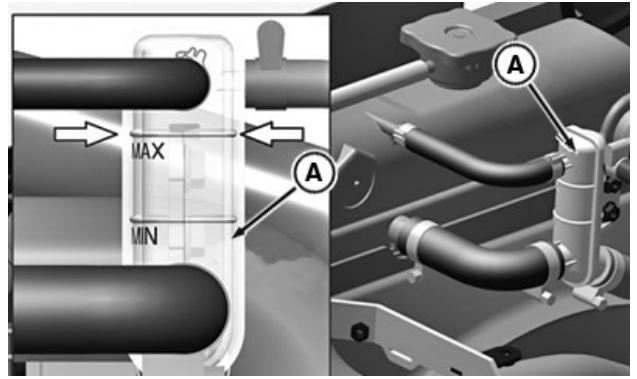
RA84036,00010CD-19-06OCT18

Check Coolant Level

CAUTION: Only remove radiator cap when engine is cold. Slowly loosen cap to first stop to relieve pressure before removing completely.

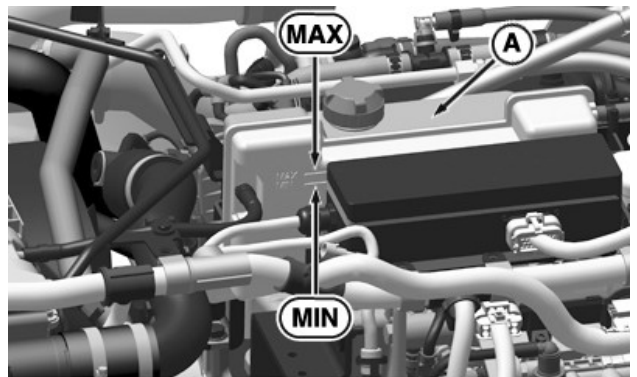


TS281—UN—15APR13



PY28165—UN—25AUG16

5GV, 5GF, and 5GN Models



PY42820—UN—02JUL17

5GL and 5GLN Models

A—Coolant Level Tank

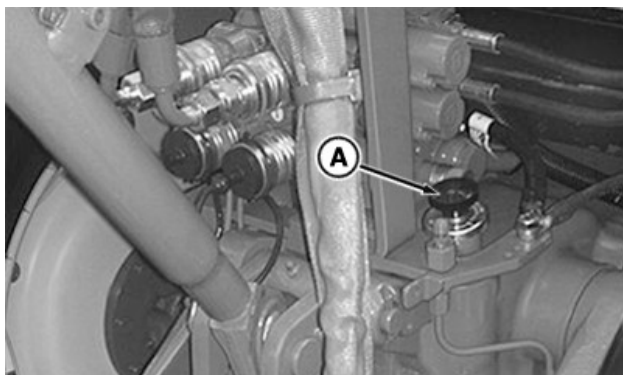
Check coolant level in radiator through the coolant level tank (A).

Check the coolant level with a cold engine is near the MAX level mark on the level tank (A). Add coolant if necessary.

If you find it necessary to top up the level several times after short trips, have the system checked by an authorized dealer.

RA84036,00010CE-19-03AUG17

Check Transmission/Hydraulic System Oil Level



PY31987—UN—05OCT16

A—Dipstick

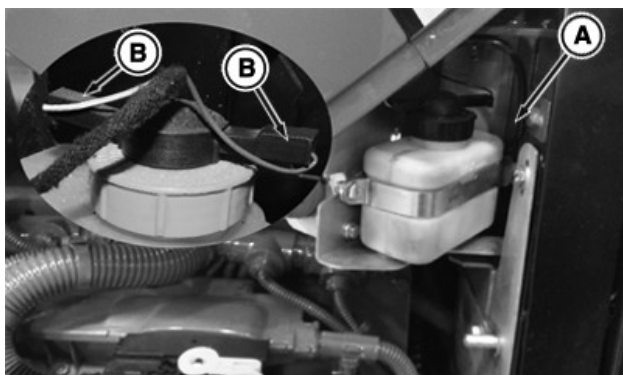
IMPORTANT: Check oil level when oil is cold. If possible, check the oil level after tractor has not been use for several hours.

1. Park tractor on level ground.
2. Apply park brake (transmission in neutral).
3. Lower draft links and front-mounted implements.
4. Remove dipstick (A) and wipe clean. Fully insert the dipstick and remove again. Oil level must be between the full mark and end of dipstick.
5. Add specified oil at (A) if level is low. See Transmission and Hydraulic Oil in Other Lubricants (section 200E) in this manual.

If using implements that require a greater quantity of oil in the hydraulic circuit, the oil level must be up to mark “XXX.”

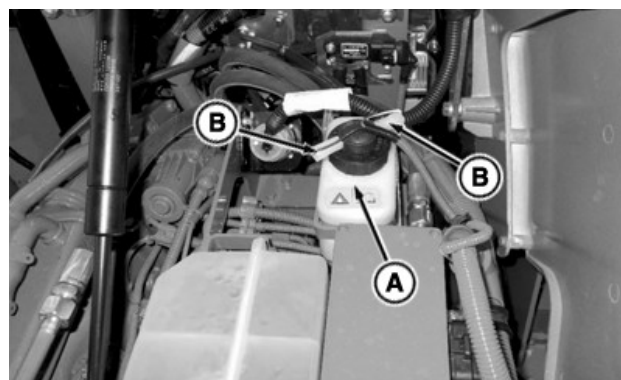
RA84036,00010CF-19-03AUG17

Check Brake System Oil Level



PY34401—UN—14NOV16

5GV, 5GF, and 5GN Models



PY42848—UN—02JUL17

5GL and 5GLN Models



PY34402—UN—08DEC16

A—Cap
B—Connectors
C—Indicator Light

The brakes are hydraulically operated by an independent circuit and have a separate oil reservoir.

If oil level is low, disconnect connectors (B), remove cap (A), and add John Deere low viscosity Hy-Gard™ JD20D or 10W20 mineral oil.

When the key switch is ON and the oil level in the brake system is low, the indicator light (C) glows up.

To check the electrical system, press the top of the cap; indicator light (C) illuminate.

If the oil level is low, check for leakage.

IMPORTANT: For any service brake service, see your authorized John Deere dealer.

RA84036,00010D1-19-03AUG17

Hy-Gard is a trademark of Deere & Company

Check Brake Operation



PY34403—UN—15NOV16

Shut off the engine and check that the brakes are operating properly:

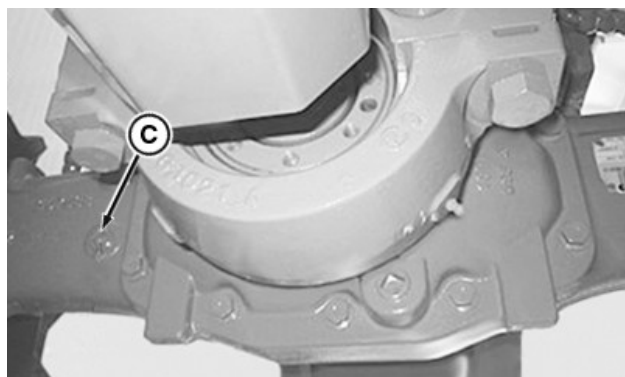
1. One at a time, press down on the left and right brake pedals (do this several times to each pedal). Distinct resistance should be noticeable at each of the two pedals. If no resistance can be felt at the pedals, contact your John Deere dealer.
2. Check to make sure that the pedals do not settle to the end of stroke within 10 seconds after being applied. If leakage exceeds this rate, or if one pedal settles faster than the other, see your John Deere dealer.
3. Press both pedals down at the same time. Distinct resistance should occur at both pedals at roughly the same height. If the height at which resistance experienced differs by more than 51 mm (2 in), contact your John Deere dealer.

IMPORTANT: Any noticeable drift downward from the point of resistance indicates brake leakage. Contact your John Deere dealer.

Distinct pedal resistance and balance between the left and right pedals are important for emergency braking with the two brakes coupled together.

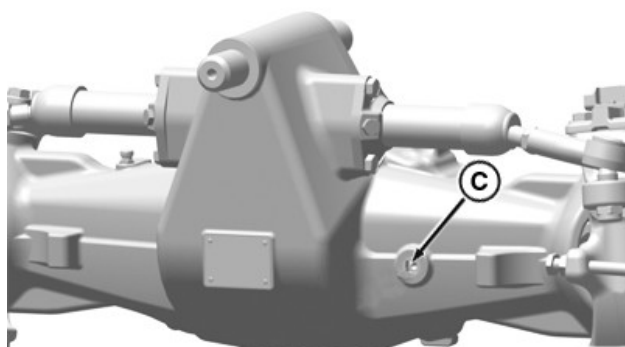
RA84036,00010D2-19-03AUG17

Check Oil Levels in Front-Wheel Drive Axle



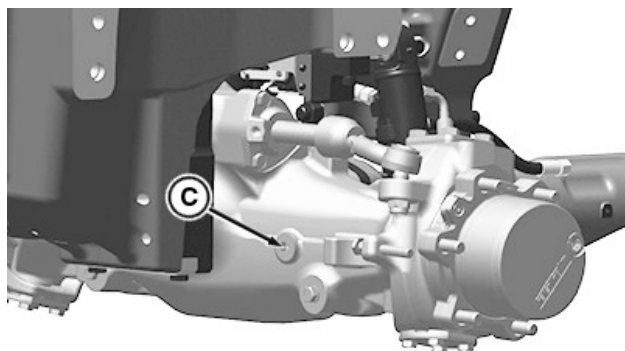
APY11274—UN—31MAY19

(5GF, 5GL)



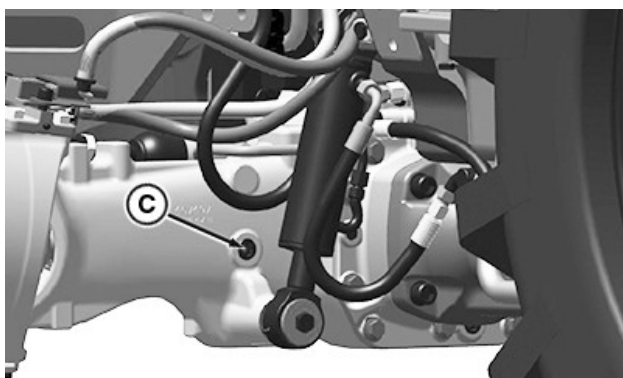
APY11275—UN—31MAY19

(5GV, 5GN)



APY11276—UN—31MAY19

(5GV, 5GN) (with Suspended Front Axle)



APY11277—UN—31MAY19
(5GF) (with Suspended Front Axle)

C—Oil Level/Filler Plug

1. Position the tractor on a flat, horizontal, and stable surface.
2. Apply the handbrake and stop the engine.
3. Remove the ignition key.
4. Remove the oil level/filler plug (C). If level is low, add specified oil. See Front-Wheel Drive Axle Oil in Other Lubricant (Section 200E). Oil level should be with the plug bore.
5. Reinstall oil level/filler plug (C) and tighten to the specification.

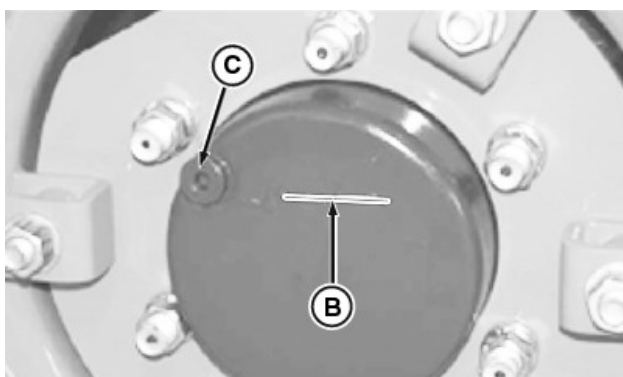
Specification

Oil Level/Filler Plug—Torque. 70 N·m (51.4 lb·ft).

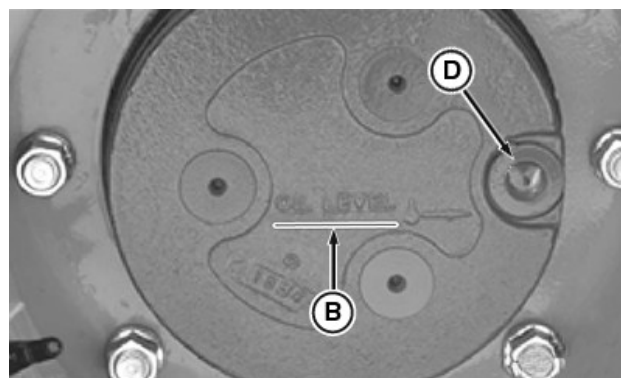
NOTE: Change oil in the axle housing and final drives after the first 100 hours of operation. Then replace after every 1500 hours of operation or once every 2 years, whichever occurs first.

RA84036,00019DA-19-22JUL19

Check Oil Levels in Front-Wheel Drive (Final Drive) Axle



APY11278—UN—31MAY19
(5GV, 5GN, 5GL, 5GL-N)



APY11279—UN—31MAY19
(5GF)

B—Oil Level Mark C—Level Plugs D—Level Plugs

1. Turn wheel until OIL LEVEL mark (B) on final drives (both sides) is horizontal.
2. Remove level plugs (C) or (D). Oil should be level with the plug bore.
3. If level is low, add specified oil. See Front-Wheel Drive Axle Oil in Other Lubricants (section 200E) in this manual.
4. Reinstall level plugs (C) or (D) and tighten to the specification.

Specification

Level Plug (C) (5GV)—Torque. 40 N·m (29.4 lb·ft)
Level Plug (C) (5GN)—Torque. 70 N·m (51.4 lb·ft)
Level Plug (C) (5GL)—Torque. 80 N·m (58.8 lb·ft)
Level Plug (C) (5GL-N)—Torque. 70 N·m (51.4 lb·ft)

Specification

Level Plug (D) (5GF)—Torque. 60 N·m (44 lb·ft)
Level Plug (D) (5GF Wide Orchard) —Torque. 80 N·m (58.8 lb·ft)

NOTE: Change oil in the axle housing and final drives after the first 100 hours of operation. Then replace oil after every 1500 hours of operation or once every 2 years, whichever occurs first.

RA84036,00019DF-19-22JUL19

Check Neutral Start System – 24/12 Transmission

When the key switch is turned, start the engine only if the gear-shift lever (A) is in neutral position and PTO switch (B) is in disengaged position.

CAUTION: If starting motor starts engine in one or both of the following steps, have the neutral start system repaired by your authorized dealer.



(5GV, 5GN, 5GF)

APY11280—UN—31MAY19



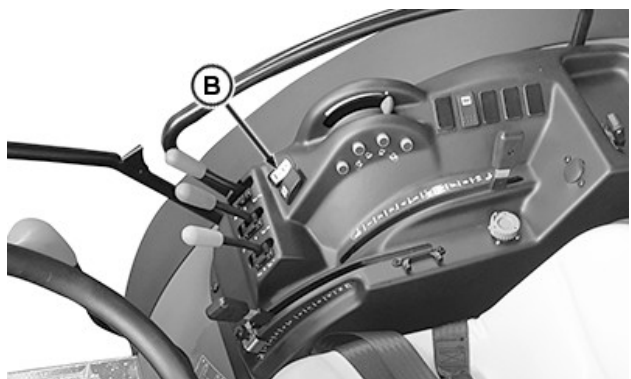
(5GL, 5GL-N)

APY11281—UN—31MAY19



(5GV, 5GN, 5GF)

APY11282—UN—31MAY19



(5GL, 5GL-N)

APY11283—UN—31MAY19

A—Gear-Shift Lever
B—PTO Switch

1. Move gear-shift lever (A) out of neutral and turn the key switch to start position. Starting motor must NOT start engine.
2. Engage PTO switch (B) and turn the key switch to start position. Starting motor must NOT start engine.

RA84036,00019DB-19-31MAY19

Check Neutral Start System – 12/12 and 24/24 Transmission

When the key switch is turned, start the engine only if the reverser lever (B) is in neutral position and PTO lever (A) is disengaged.

CAUTION: If starting motor starts engine in one or both of the following steps, have the neutral start system repaired by your authorized dealer.



(5GV, 5GN, 5GF)

PY34422—UN—15NOV16



(5GL, 5GL-N)

APY11284—UN—31MAY19



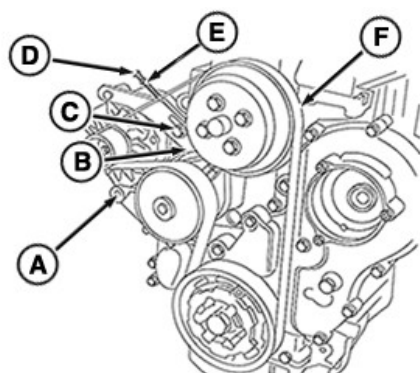
A—PTO Lever
B—Reverser Lever

PY34423—UN—15NOV16

1. Move reverser lever (B) out of neutral and turn the key switch to start position. Starting motor must NOT start engine.
2. Engage PTO lever (A) and turn the key switch to start position. Starting motor must NOT start engine.

RA84036,00019DC-19-31MAY19

Check Belt Wear and Belt Tension



A—Nut
B—Holder
C—Bolt
D—Screw
E—Locknut
F—Belt

PY34424—UN—15NOV16

1. Remove the bolt (C).
2. Loosen the locknut (E).
3. Remove nut (A).
4. Screw the screw (D) until the end of the oblong holder (B) opening is in contact with the screw (C).
5. Check the condition and tension of the belt (F).
6. Once the belt tension is reached, tighten the mounting bolt (C), the locknut (E), and the nut (A).

NOTE: For the value of belt tension, refer to relevant CTM (Component Technical Manual).

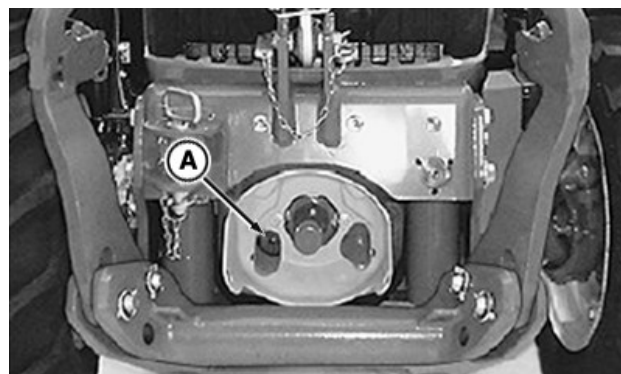
RA84036,00010D4-19-03AUG17

Check Torque of Drawbar Attaching Screws

Check all parts for wear and damage. Check torque of attaching screws. Let your authorized dealer perform this service.

RA84036,0000FED-19-11JUL17

Check Front PTO Oil Level



PY34427—UN—15NOV16

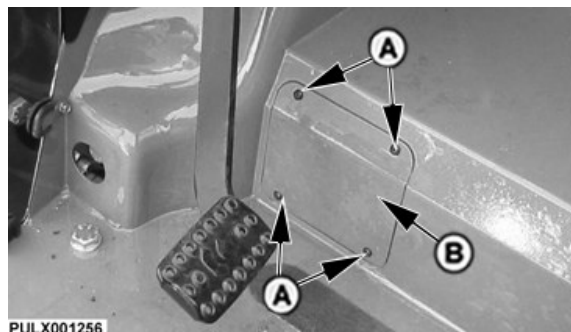
A—Cap

1. Unscrew the cap (A).
2. Check the oil level. Oil should be up to the lip of the aperture. Top up if necessary.
3. Retighten the cap (A).

Oil Type	Oil Quantity	Ordering Information
John Deere HD Synthetic Transmission	0.85 L (0.22 gal)	TY26391 (22.7 L (6 gal)) TY26392 (3.8 L (1 gal))

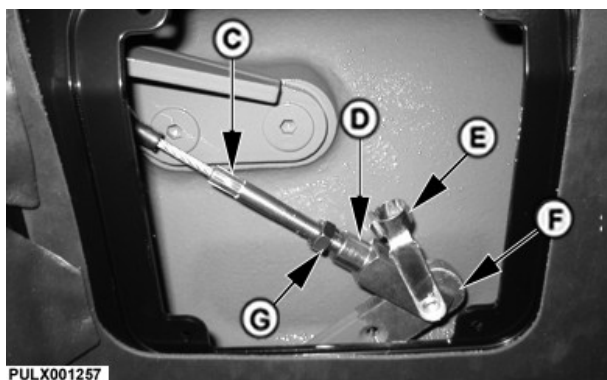
RA84036,00019DD-19-31MAY19

Check Clutch Pedal Free Travel



PULX001256

PULX001256—UN—22JAN09



PULX001257

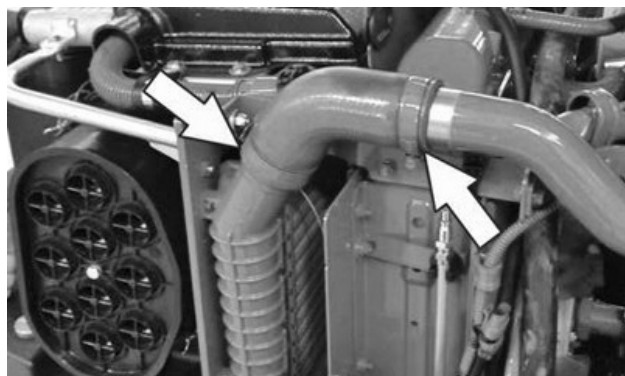
PULX001257—UN—22JAN09

- A—Screws
B—Cover
C—Cable
D—Yoke
E—Pin
F—Clutch Lever
G—Lock Nut

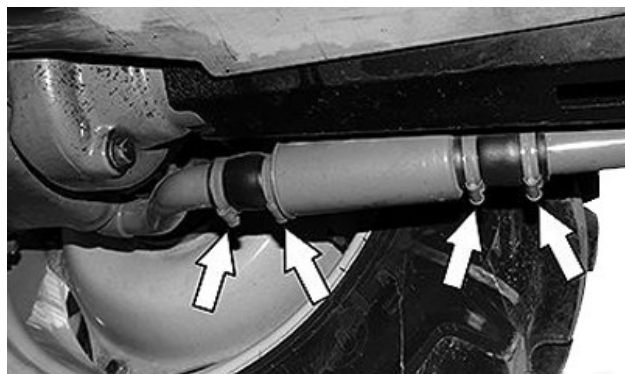
1. To check and adjust, unscrew screws (A) and remove cover (B).
2. Disconnect the linkage.
3. Move up the clutch lever (F) all the way.
4. Turn yoke (D) until the holes in yoke and clutch lever (F) are aligned.
5. Check if pin (E) can be inserted in the holes.
6. Connect clutch lever (F) and yoke (D) using pin (E) and lock nut (G).
7. Depress the clutch pedal 10 times.
8. Release lock nut on pin (E).
9. Repeat steps 3 through 5.
10. Turn yoke (D) counterclockwise by 2 ½ turns to move clutch lever (F) towards the right.
11. Connect clutch lever (F) and yoke (D) using pin (E) and lock nut (G).
12. Select a gear and make sure that clutch does not drag.
13. Adjustment is complete if step 13 is OK. If not, repeat steps 9 through 13 turning yoke (D) by 2 turns.

RA84036,00010D6-19-03AUG17

Check Hoses and Hose Clamps



PY28263—UN—25AUG16



PY28264—UN—25AUG16

Check hose clamps of the following systems for tightness:

- Air cleaner to engine intake or turbocharger
- Cooling system
- Hydraulic system
- Fuel system

Check all hoses for cracks, which could cause leaks or failure. Replace as necessary.

RA84036,00010D7-19-03AUG17

Check Components of Drawbar and Trailer Hitches

Perform functional check. Check all components for wear and damage.

OULXBER,0002901-19-21DEC15

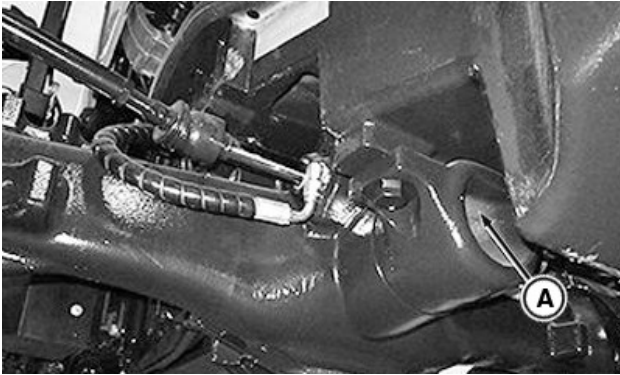
Check Engine Idle Speeds

Engine Idle Speeds	
Slow idle	800—900 rpm
Fast idle	2400—2500 rpm

NOTE: If idle speeds are not correct, contact your John Deere dealer.

RA84036,00010D8-19-18JUL18

Check and Lubricate Front Axle Pivot Pin



PY28272—UN—25AUG16

A—Pivot Pin

Ask your John Deere dealer to check the front axle pivot pin (A) for correct end play.

RA84036,0000FF2-19-11JUL17

Check the 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 signs of loose hardware or belt damage, such as cuts, fraying, extreme or unusual wear, discoloration, or abrasion. Replace the belt system only with replacement parts approved for your machine. Contact your John Deere dealer if the belt needs to be changed.

RA84036,00019DE-19-31MAY19

Check Condition of Diesel Engine Coolant

John Deere Cool-Gard™ II Premix and Cool-Gard™ II Concentrate are maintenance free coolants for up to 6 years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere Cool-Gard™ II Premix. Test the coolant condition annually with coolant test strips designed for use with John Deere Cool-Gard™ II coolants. If the test strip chart indicates that additive is required, add John Deere Cool-Gard™ II Coolant Extender as directed.

RA84036,00010DA-19-03AUG17

Radiator Pressure Cap Check

Ask your authorized dealer to perform this service.

OULXBER,0002911-19-21DEC15

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 are available from your John Deere dealer.

RA84036,00010DB-19-03AUG17

Inspect Alternator

Ask your authorized dealer to perform this service.

OULXBER,000290E-19-21DEC15

Inspect Suspended Front Axle

NOTE: Do not perform any interventions on the hydraulic system of the front suspended axle.

Ask your authorized dealer to perform this service.

RA84036,00019ED-19-03JUN19

Service — Change

Change Engine Oil and Replace Oil Filter



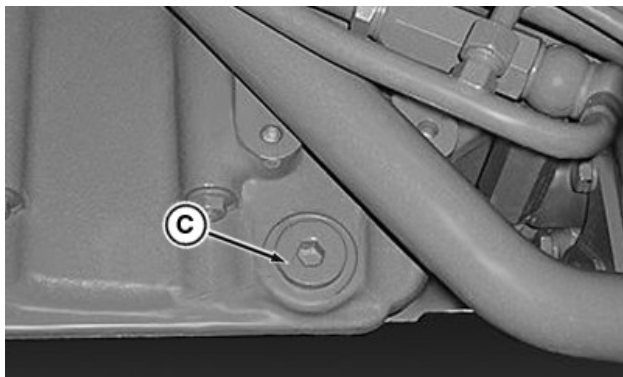
TS281—UN—15APR13

Perform oil change when the oil is warm. Stop the engine and remove the ignition key.

CAUTION: Avoid burns due to HOT oil. Wear gloves when draining oil.

CAUTION: Do not perform the oil change while the oil is hot as there is the risk of injury.

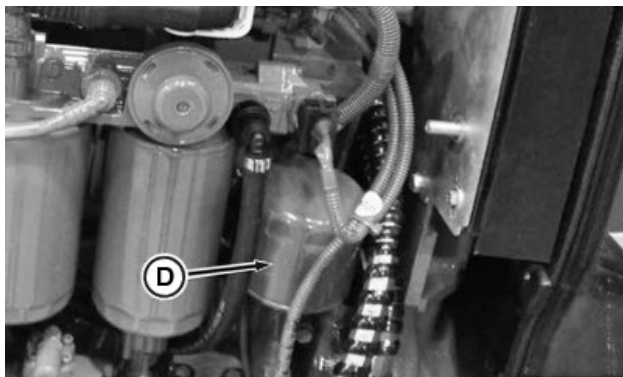
IMPORTANT: Use oil with a viscosity suitable for the relevant season.



PY28257—UN—25AUG16

C—Drain Plug

1. Remove the two oil drain plugs (C) on both sides of engine and drain oil. Trap oil in a suitable container.

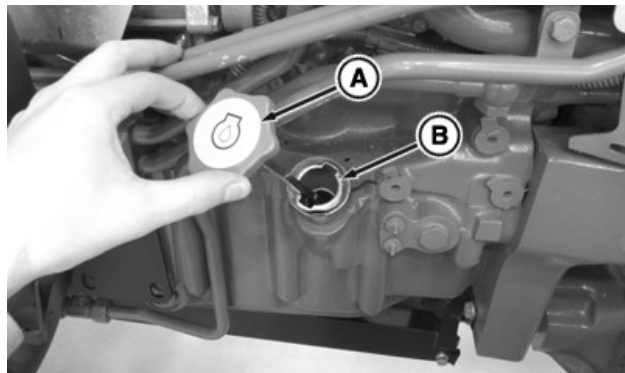


PY28258—UN—25AUG16

D—Engine Oil Filter

2. Open hood and unscrew engine oil filter (D).

3. Apply a film of oil on the gasket before installing the new filter. Hand tighten the oil filter plus 1/2 turn.
4. Install and tighten drain plugs (use new seal rings).



PY42821—UN—02JUL17

A—Dipstick
B—Filler Neck

5. Fill up with specified oil quantity through filler neck (B).
6. Close hood, run engine for short time, and check for leaks at the filter base and drain plugs.
7. Stop engine, wait 15 minutes, and then recheck oil level.
8. Remove dipstick (A), wipe clean, and reinsert it fully. Remove dipstick once again and check oil level.
9. The oil must be up the XXX mark on the dipstick (A). If necessary, top up with oil.

RA84036,000108B-19-27JUL18

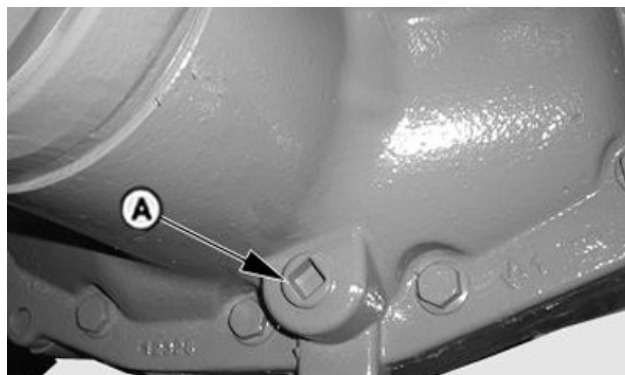
Changing Oil in Front-Wheel Drive Axle

Replace oil of the axle housing and final drives after the first 100 hours of operation. Then replace after every 1500 hours of operation or once every 2 years, whichever occurs first. Always use a transmission oil listed in the Fuel, Lubricants, Hydraulic Oil, and Coolant section, in this manual.

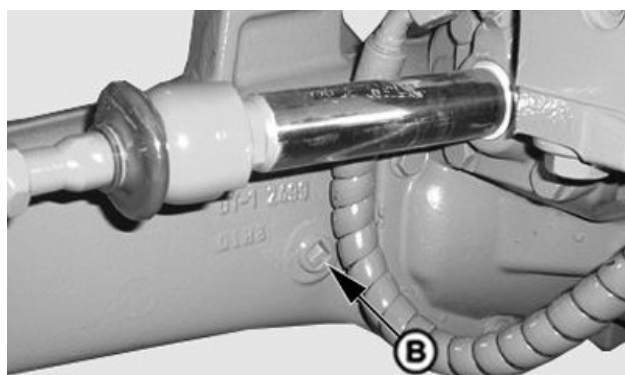
Always drain oil while it is still warm such as immediately after a prolonged period of operation.

RA84036,000108C-19-31JUL17

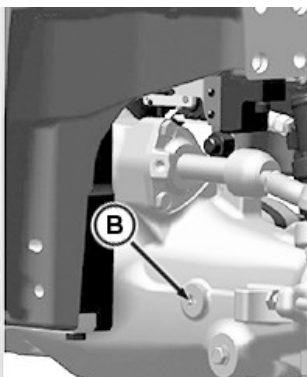
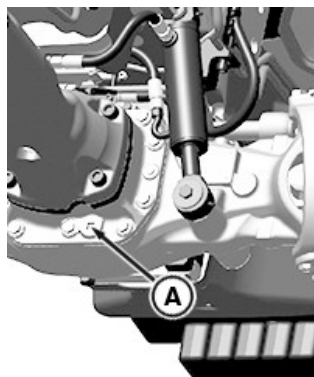
Change Oil in Front-Wheel Drive Axle Housing



PY28273—UN—25AUG16

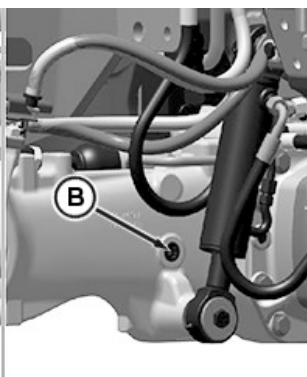
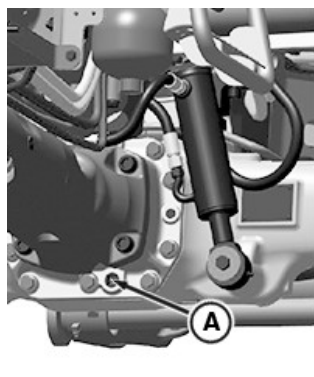


PY28274—UN—25AUG16



APY11285—UN—31MAY19

(5GV, 5GN) (with Suspended Front Axle)



APY11286—UN—31MAY19

(5GF) (with Suspended Front Axle)

A—Drain Plug
B—Oil Level/Filler Plug

1. Remove drain plug (A) and drain oil into a suitable container.
2. Reinstall drain plug (A) and tighten to specified torque.

Specification

Drain Plug—Torque. 70 N·m
52 lb·ft

3. Remove oil level/filler plug (B).
4. Refill with John Deere Hy-Gard™ oil. See Front-Wheel Drive Axle Oil in Other Lubricants (Section 200E). Oil level should be with the plug bore.
5. Reinstall plug (B) and tighten to the specification.

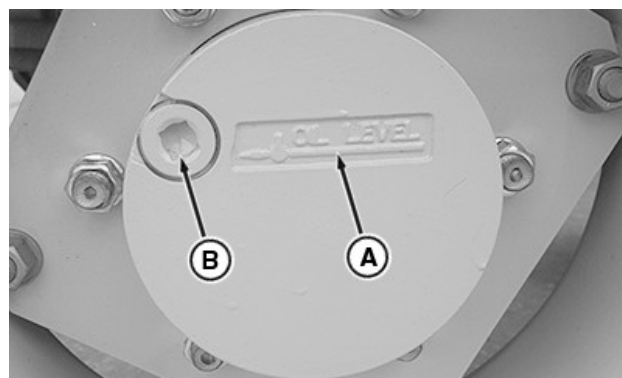
Specification

Drain Plug—Torque. 70 N·m (52 lb·ft)

For capacities, see Capacities in Specifications (section 500A) in this manual.

RA84036,00019E0-19-22JUL19

Change Oil in Front-Wheel Drive Final Drives



APY11287—UN—31MAY19

(5GV, 5GN, 5GL, 5GL-N)



PY28275—UN—25AUG16

(5GF)

Hy-Gard is a trademark of Deere & Company

A—Oil Level Mark
B—Drain Plug

1. Position the tractor on level ground and ensure correct oil levels when refilling.
2. Turn wheel until drain plug (B) is at the bottom. Remove drain plug and drain oil into a suitable container.
3. Turn the wheel until OIL LEVEL mark (A) is horizontal.
4. Refill with John Deere Hy-Gard™ oil. See Front-Wheel Drive Axle Oil in Other Lubricants (Section 200E). Check oil level is with the plug bore.
5. Reinstall drain plug (B) and tighten to the specification.

Specification

(5GV) Drain Plug (B)—Torque. 40 N·m
29.4 lb·ft

Specification

(5GN) Drain Plug (B)—Torque. 70 N·m
51.4 lb·ft

Specification

(5GL) Drain Plug (B)—Torque. 80 N·m
58.8 lb·ft

Specification

(5GL-N) Drain Plug (B)—Torque. 70 N·m
51.4 lb·ft

Specification

(5GF) Drain Plug (B)—Torque. 60 N·m
44 lb·ft

Specification

(5GF Wide Orchard) Drain Plug
(B)—Torque. 80 N·m
58.8 lb·ft

Repeat steps for the other side.

IMPORTANT: Recheck oil level after 30 minutes. Add oil as needed.

For capacities, see Capacities in Specifications (section 500A) in this manual.

RA84036,00019E1-19-22JUL19

Change Brake System Oil

Have your authorized dealer perform all brake system service.

RA84036,000108D-19-31JUL17

Change Engine Coolant

Have engine cooling system drained, flushed, and refilled by your authorized dealer.

RA84036,000108E-19-31JUL17

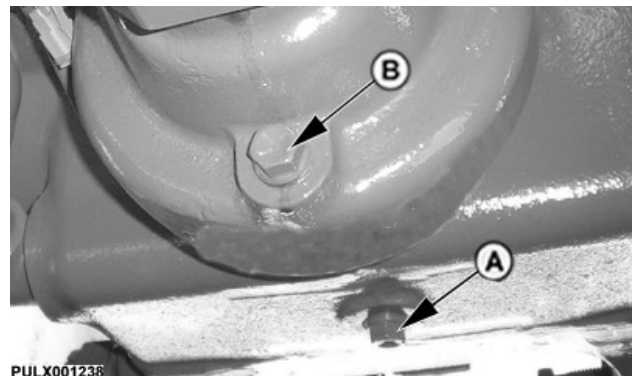
Change Cooling System Coolant

Ask your authorized dealer to perform this service.

OULXBER,000290B-19-21DEC15

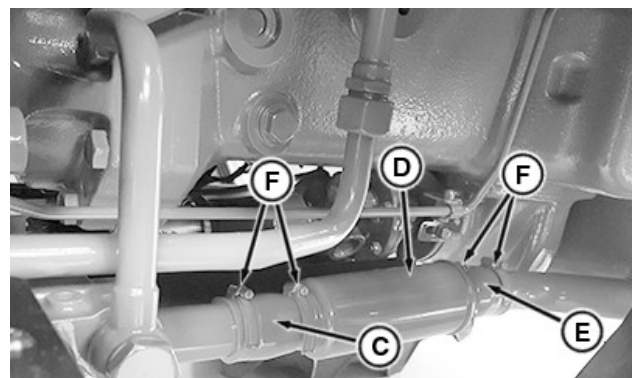
Replace Transmission Hydraulic Oil and Suction Strainer

1. Disconnect the battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B).



A—Drain Plug
B—Drain Plug

PULX001238—UN—09SEP08



C—Hose
D—Oil Filter
E—Hose
F—Clamp (4 used)

APY11288—UN—31MAY19

2. Remove the drain plugs (A) and (B) and drain transmission oil. Collect the transmission oil in a vessel.

NOTE: Suitable container should be arranged to collect the hydraulic oil.

3. Remove the clamps (F).
4. Slide hose (C) rearward and hose (E) forward to replace oil filter (D).
5. Install all parts in reverse order.
6. Reinstall the drain plugs (A) and (B).
7. Refill transmission with specified oil capacity.

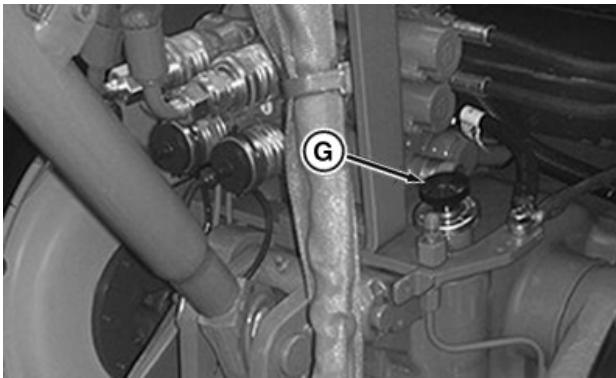
Specification

Transmission/Hydraulic Oil, 12/
12—Capacity. 39 L
10.30 gal

Specification

Transmission/Hydraulic Oil, 24/
12—Capacity. 43 L
11.40 gal

8. Reconnect the Battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B).
9. Run engine at idle condition for several seconds.



PY32520—UN—24NOV16

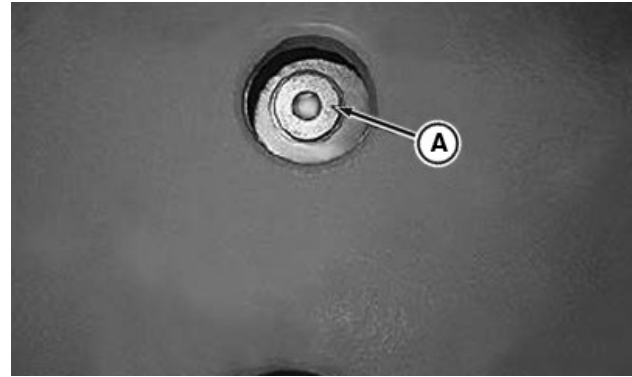
G—Dipstick

10. Check hydraulic oil level. Remove dipstick (G) and wipe clean. Fully insert the dipstick and remove again. Oil level should be between the top and bottom marks.
11. Check for leakage.

RA84036,00019E2-19-03JUN19

Change Oil and Replace Oil Filter of Front PTO

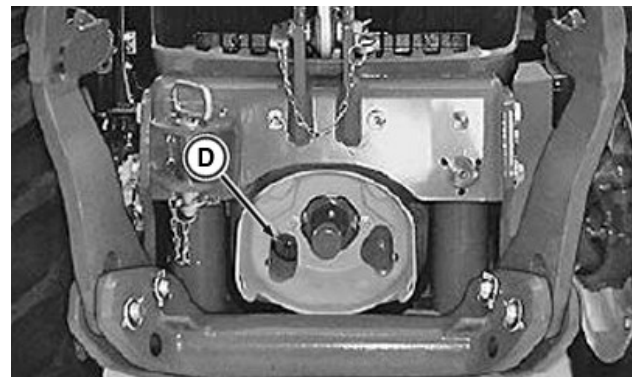
1. Place the tractor on a flat, horizontal surface.
2. Apply the parking brake and stop the engine.
3. Remove key from the key switch.



PY28269—UN—25AUG16

A—Drain Plug

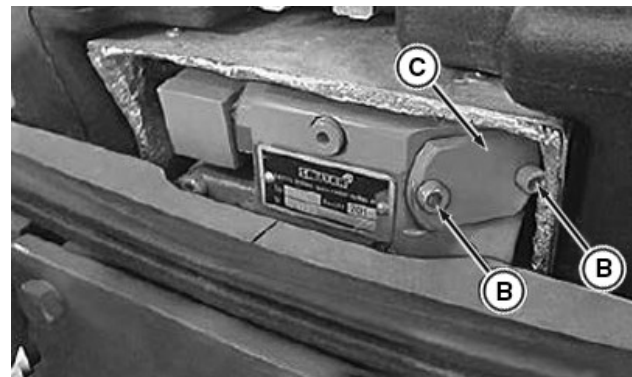
4. Place a suitable container under the drain plug (A).



PY28271—UN—25AUG16

D—Cap

5. Unscrew the cap (D).
6. Once all the oil has drained out, reinstall the plug (A).



PY28270—UN—25AUG16

B—Bolts (2 used)
C—Cover

7. Unscrew bolts (B) and remove cover (C).
8. Pull out and replace the oil filter.
9. Replace the O-ring.
10. Reinstall assembly by performing the removal operations in reverse order.

11. Fill fresh oil into front PTO by cap (D) to the lip of the aperture.
12. Start the engine and let it run for a few minutes.
13. Stop the engine.
14. Check the oil level. It should be up to the lip of the cap (D) and top up if necessary.

Oil Type	Oil Quantity	Ordering Information
John Deere HD Synthetic Transmission	0.85 L (0.22 gal)	TY26391 (22.7 L (6 gal)) TY26392 (3.8 L (1 gal))

RA84036,00019E3-19-22JUL19

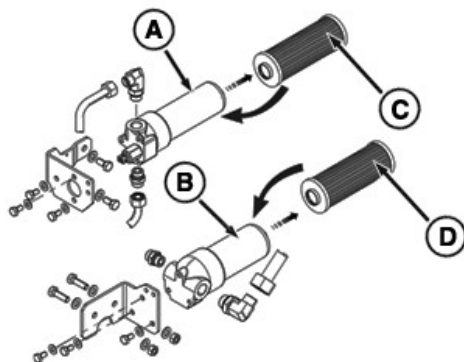
Replace Transmission/Hydraulic Oil Filter Cartridge (First and Second Pump)

CAUTION: Do not perform the oil change while the oil is hot, as there is the risk of injury.

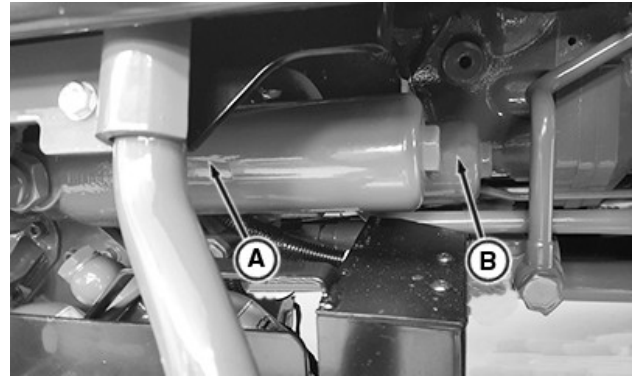
CAUTION: Before working on hydraulic oil filters, ensure that the hydraulic oil is cold. Wear impervious, protective gloves. There is a risk of burns, injuries, and/or health problems.



TS281—UN—15APR13



PY34430—UN—16NOV16



APY11289—UN—31MAY19

(5GV, 5GN, 5GF) (with Suspended Front Axle)

A—Hydraulic Filter Bowls
B—Hydraulic Filter Bowls
C—Filter Cartridges
D—Filter Cartridges

1. Disconnect the battery. See **Battery Cut-Off Switch (If Equipped)** in Service — Electrical System (section 220B) in this manual.
2. Arrange a suitable container for collecting the hydraulic oil.
3. Unscrew the hydraulic filter bowls (A) and (B) using a filter wrench.
4. Remove the filter cartridges (C) and (D).
5. Properly clean the filter bowls (A) and (B) and their seats.
6. Apply a film of oil on the gaskets.
7. Install new filter cartridges (C) and (D).
8. Refit the filter bowls (A) and (B), and tighten to the specification.

Specification

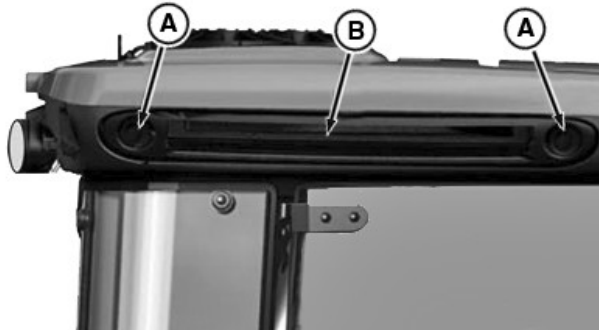
Filter Bowls (A) and (B)—Torque 70 N·m
51.62 lb·ft

9. Restore the transmission oil level with proper oil. See **Capacities** in Specifications (section 500A) and **Transmission and Hydraulic Oil** in Other Lubricants (section 200E) in this manual.
10. Reconnect the Battery. See **Battery Cut-Off Switch (If Equipped)** in Service — Electrical System (section 220B) in this manual.
11. Run the engine for several seconds.
12. Check the hydraulic oil level. See **Check Transmission/Hydraulic System Oil Level** in Service — Checks (section 220D) in this manual.
13. Check for leaks.

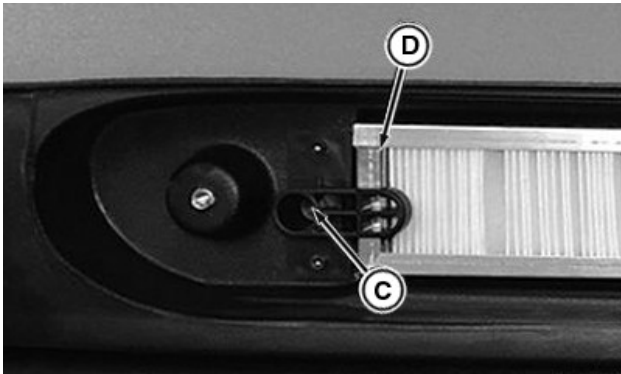
RA84036,00019E4-19-03JUN19

Replace Cab Air Filters

IMPORTANT: The cab air filters do not protect against inhaling harmful pesticides. If pesticide-use instructions require respiratory protection, wear an appropriate respirator inside the cab.



PY28284—UN—25AUG16



PY28285—UN—25AUG16

A—Screws
B—Filter Cover
C—Lever
D—Cab Air Filter Element

Replace cab air filters when changing the engine primary filter element (after 1500 hours of operation or 2 years, whichever comes first).

1. Remove screws (A) and filter cover (B).
2. On both ends of the filter, turn lever (C) upwards.
3. Remove the cab air filter element (D) and replace it with a new one.

RA84036,0000FF8-19-01AUG17

Replace Diesel Particulate Filter

Ask your authorized dealer to perform this service.

OULXBER,0002909-19-21DEC15

Replace Alternator Drive Belt

Ask your authorized dealer to perform this service.

OULXBER,000290D-19-21DEC15

Replace Water Pump

Ask your authorized dealer to perform this service.

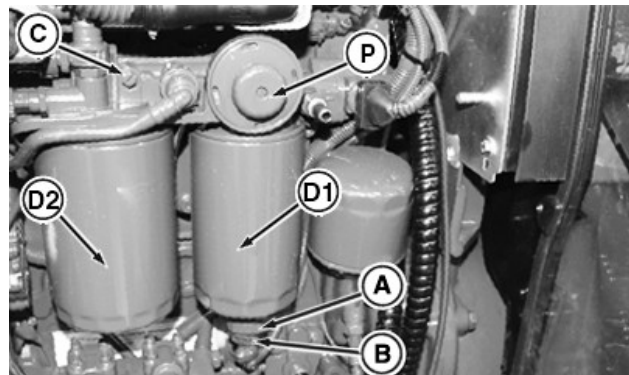
OULXBER,000290F-19-21DEC15

Replace Fuel Filter

CAUTION: Before starting work, make sure that the engine is cold.

CAUTION: Handle fuel with care, it is highly flammable. Never perform work on the fuel system while smoking, or next to open flames or sparks.

1. Disconnect the Battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B) in this manual.
2. Open the hood and remove the left-hand engine side panel.



PY37718—UN—31JUL18

A—Connector
B—Water-in-Fuel Sensor
C—Bleed Screw
D1—Fuel Prefilter
D2—Fuel Filter
P—Hand Primer

3. Remove connector (A).
4. Position a suitable container under the water-in-fuel sensor (B) and collect the draining fuel.
5. Unscrew the water-in-fuel sensor (B) and the bleed screw (C).

IMPORTANT: Do not allow draining fuel to soil the drive belt or the environment.

6. Unscrew the fuel prefilter (D1) and fuel filter (D2) cartridges.

7. Clean the gasket seat on the support and slightly oil the gasket on the new fuel filter.
8. Screw the new fuel filter cartridges (D1) and (D2) on their seats and hand-tighten them. Make sure that the gaskets are correctly seated.

Tighten to the specification.

Specification

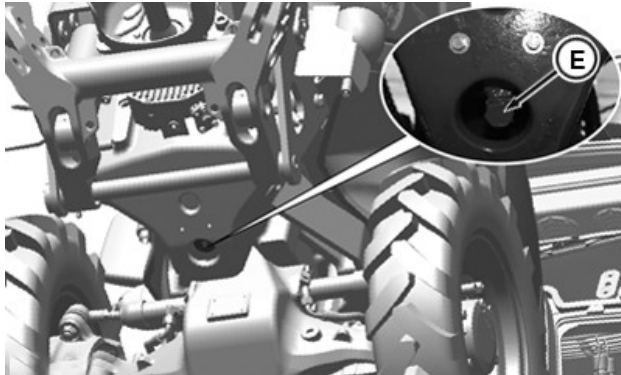
Fuel Filter Cartridges (D1) and (D2)—Torque. 20 N·m
14.75 lb·ft

9. Retighten water-in-fuel sensor (B) to the specification (or by hand).

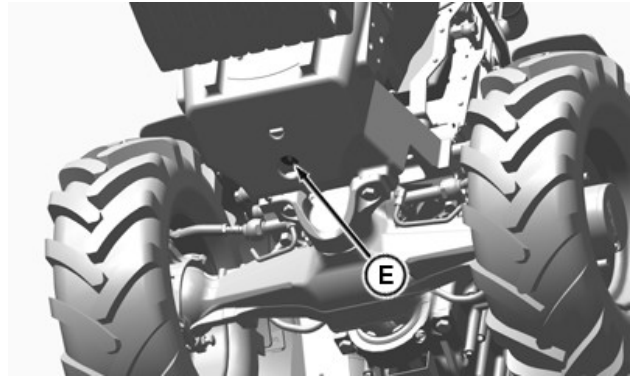
Specification

Water-in-Fuel Sensor (B)—Torque. 1.8 ± 0.65 N·m
1.32 lb·ft

10. Operate the hand primer (P) on the fuel transfer pump until fuel appears at the bleed screw (C).
11. Tighten the bleed screw (C) after air has been removed from the system.
12. Connect the connector (A).
13. Connect the Battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B) in this manual.
14. Start the engine and let it run at idle for a few minutes to eliminate any residual air. Check fuel system for leaks.



PY28259—UN—28SEP16



PY28364—UN—27SEP16

5GL Tractor Models

E—Fuel Tank Drain Screw

15. If water is present in the fuel prefilter (D1), arrange a suitable container to collect the fuel. Open the drain screw (E) and drain the accumulated moisture and sediment from the fuel tank.
16. After having drained off any water deposits, retighten the drain screw (E) to the specification.

Specification

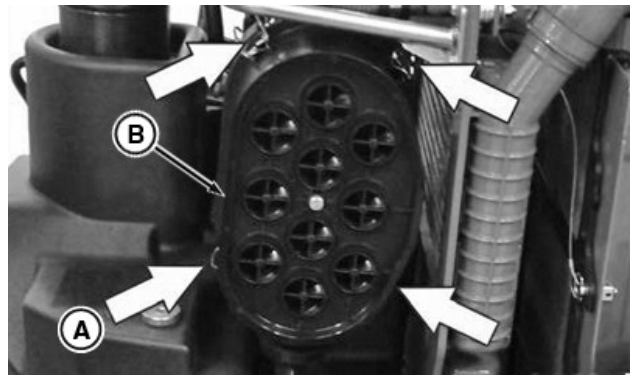
Drain Screw (E)—Torque. 30 N·m
22.12 lb·ft

17. Install the left-hand engine side panel and close the hood.

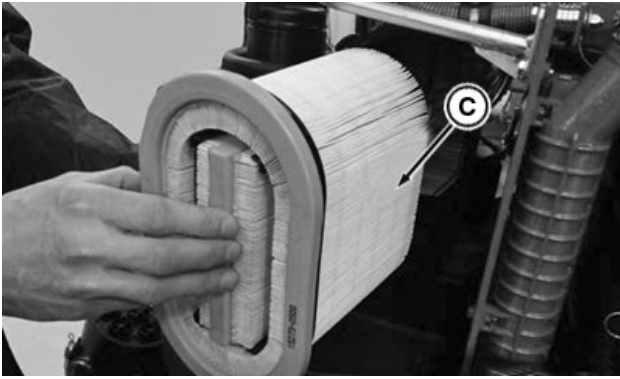
RA84036.0000FF9-19-31JUL18

Replace and Clean Engine Air Filter

IMPORTANT: Always run the engine with the primary filter element.



PY28276—UN—25AUG16



PY28277—UN—25AUG16



PY28278—UN—25AUG16

(5GL)



PY28279—UN—25AUG16

(5GL)

- A—Latch
- B—Cover
- C—Primary Filter Element

If the air cleaner, indicator light comes on during operation, remove, and clean the primary filter element (C).

The service interval can be extended briefly, for example, until the next suitable opportunity. Provided the filter is serviced properly, this service is not adversely affecting the performance.

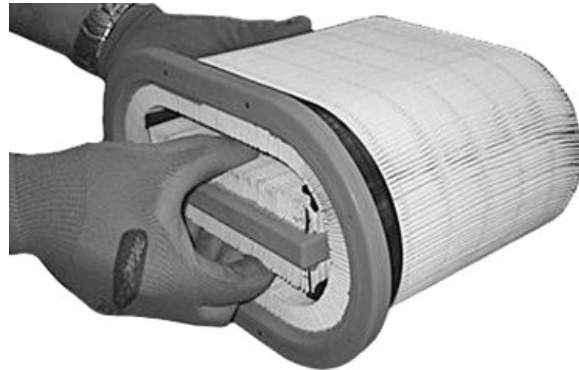
The primary filter element (C) can be cleaned up to 5 times. Thereafter, **it must be replaced** after 1500 hours of operation or 2 years, whichever comes first.

1. Open the hood and release latches (A). Remove cover (B).

2. Pull the primary filter element (C) out of the filter housing.
3. Install in reverse order.
4. Put on cover (B) and engage latch (A).

IMPORTANT: Never close the hood or start the engine if the filter is locked securely.

Cleaning a Dusty Filter Element



PY28280—UN—25AUG16

(5GV, 5GN, 5GF)



PY28281—UN—25AUG16

(5GL)

If tapping element does not remove dust, blow out the dust with compressed air. This procedure is performed by inserting nozzle inside the element and blowing from the inside of the filter to the outside.

Pressure must not exceed 600 kPa (6 bar) (90 psi).

Replace element if air filter, indicator light continues glowing after the element has been cleaned.

Secondary (Safety) Filter Element



(5GV, 5GN, 5GF)

PY28282—UN—25AUG16



(5GL)

PY28283—UN—25AUG16

This filter element must be changed if it becomes damaged. Change it at every fifth change of the air filter primary filter element, and at the latest after 1500 hours of operation.

IMPORTANT: Always replace secondary (safety) filter element, do not attempt to clean it.

MS76789,0000633-19-06OCT18

Replace Transmission/Hydraulic Oil Filter Cartridge (Third Pump)

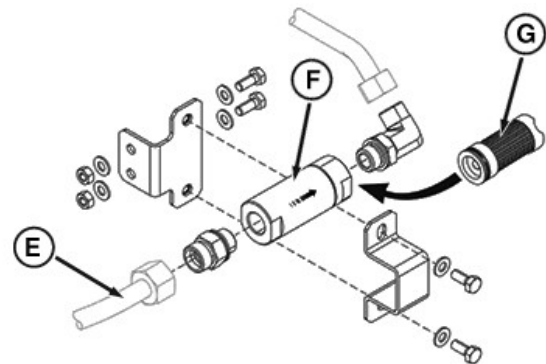
CAUTION: Do not perform the oil change while the oil is hot, as there is the risk of injury.

CAUTION: Before working on hydraulic oil filters, ensure that the hydraulic oil is cold. Wear impervious, protective gloves. Otherwise there is a risk of burns, injuries, and/or health problems.



TS281—UN—15APR13

1. Disconnect the battery. See **Battery Cut-Off Switch (If Equipped)** in Service — Electrical System (section 220B) in this manual.
2. Arrange a suitable container for collecting the hydraulic oil.



PY33430—UN—20OCT16

E—Oil Pipe
F—Filter Cap
G—Filter Cartridge

3. Disconnect the oil pipe (E).
4. Unscrew the filter cap (F).
5. Remove the filter cartridge (G).
6. Properly clean the filter cap (F) and its seat.
7. Apply a film of oil on the gasket.
8. Install new filter cartridge (G).
9. Refit the filter cap (F) and tighten to the specification.

Specification

Filter Cap (F)—Torque. 70 N·m
51.62 lb·ft

10. Reconnect the oil pipe (E).
11. Restore the transmission oil level with proper oil. See **Capacities** in Specifications (section 500A) and **Transmission and Hydraulic Oil** in Other Lubricants (section 200E) in this manual.
12. Reconnect the battery. See **Battery Cut-Off Switch (If Equipped)** in Service — Electrical System (section 220B) in this manual.

13. Run the engine for several seconds.
14. Check the hydraulic oil level. See **Check Transmission/Hydraulic System Oil Level** in Service — Checks (section 220D) in this manual.
15. Check for leaks.

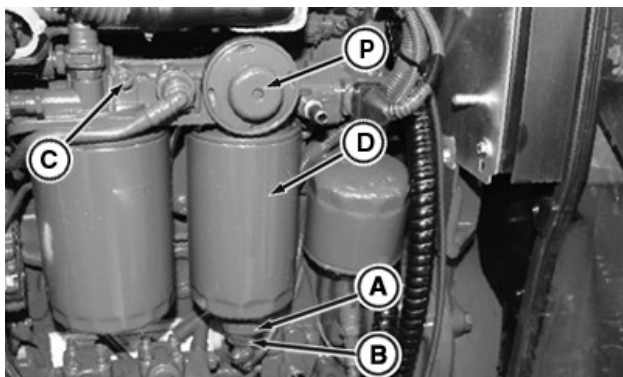
RA84036,0001599-19-12JUL18

Drain Water and Sediment from Fuel Filter

CAUTION: Before starting work, make sure that the engine is cold.

CAUTION: Handle fuel with care, it is highly flammable. Never perform work on the fuel system while smoking, or next to open flames or sparks.

1. Disconnect Battery. See **Battery Cut-Off Switch (If Equipped)** in Service — Electrical System (section 220B) in this manual.
2. Open the hood and remove the left-hand side panel



PY37719—UN—01AUG18

A—Water-in-Fuel Sensor
B—Connector
C—Bleed Screw
D—Fuel Prefilter
P—Hand Primer

3. Remove the connector (B).
4. Position a suitable container under the water-in-fuel sensor (A) for collecting the draining fuel.
5. Unscrew the bleed screw (C) and the water-in-fuel sensor (A) for draining the liquids.

IMPORTANT: Do not allow draining fuel to soil the drive belt or the environment.

6. Retighten water-in-fuel sensor (A) to the specification as soon as fuel and any water and sediment deposits have drained out.

Specification

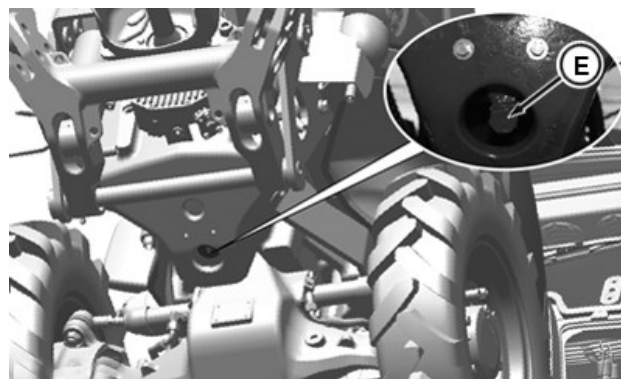
Water-in-Fuel Sensor
(A)—Torque. $1.8 \pm 0.65 \text{ N}\cdot\text{m}$
1.32 lb·ft

7. Operate the hand primer (P) on the fuel transfer pump until fuel appears at the bleed screw (C).
8. Tighten the bleed screw (C) after air has been removed from the system.
9. Reconnect the connector (B).
10. Connect Battery. See **Battery Cut-Off Switch (If Equipped)** in Service — Electrical System (section 220B) in this manual.
11. Start the engine and let it run at idle for a few minutes to eliminate any residual air. Check fuel system for leaks.
12. Install the left-hand side panel and close the hood.

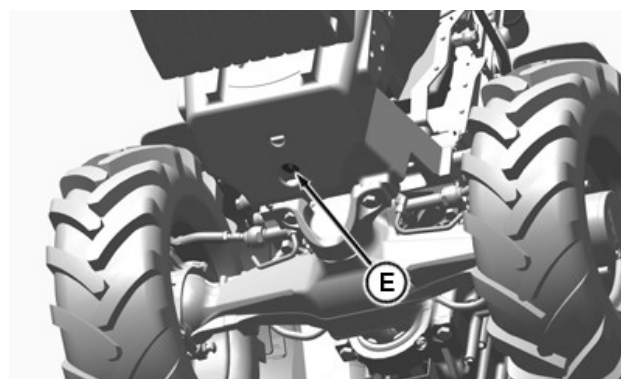
RA84036,0000FFC-19-01AUG18

Drain Water and Sediment from Fuel Tank

CAUTION: Handle fuel with care, it is highly flammable. Never perform work on the fuel system while smoking, or next to open flames or sparks.



PY28259—UN—28SEP16



PY28364—UN—27SEP16

5GL Tractor Model

E—Drain Screw

Arrange a suitable container for collecting the draining fuel. Open the drain screw (E) and drain accumulated moisture and sediment from the fuel tank.

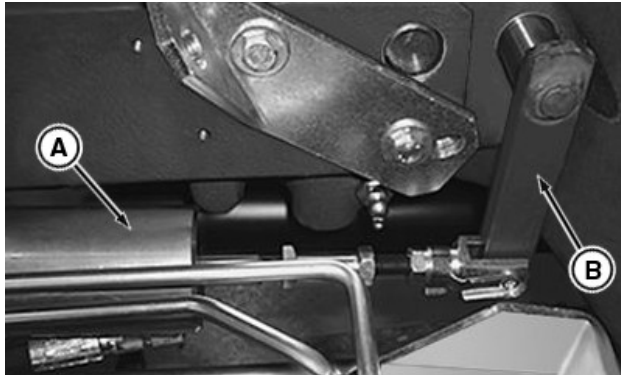
After draining off any water deposits, retighten drain screw (E) to the specification.

Specification

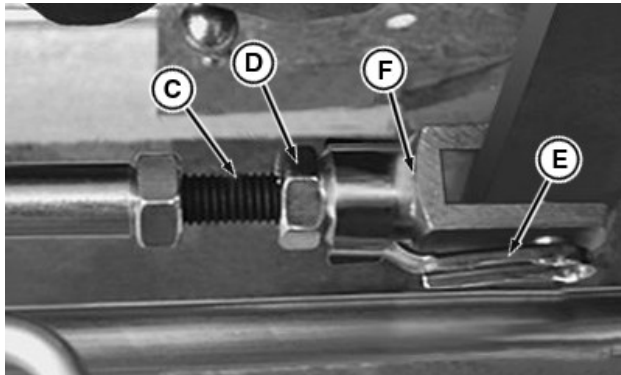
Drain Screw—Torque. 30 N·m
22.12 lb·ft

RA84036,0000FFD-19-01AUG18

Adjust PTO Clutch Linkage



PY28260—UN—25AUG16



PY28261—UN—25AUG16

A—Actuator
B—PTO lever
C—Rod
D—Lock Nut
E—Clip Pin
F—Yoke

1. Loosen the nut (D).
2. Remove the pin (E) from the yoke (F).
3. Move the PTO lever (B) to the left until it meets the stroke end position (PTO bearing is in contact with the PTO clutch fingers).
4. Keep the PTO lever (B) in position and turn the yoke (F) so that the hole of the yoke (F) is aligned with the one of the PTO lever (B).

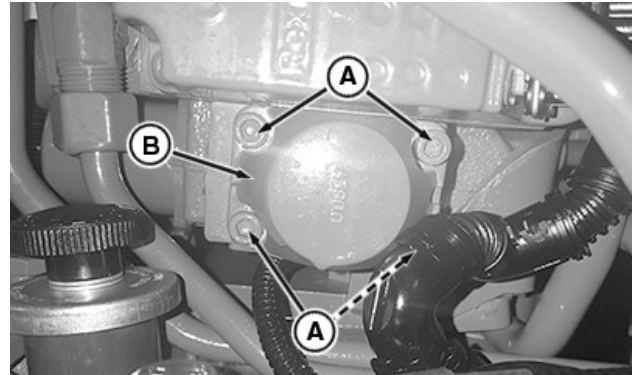
Starting from this point, turn the yoke (F) by 1.5 rotations to extend the rod (C).

5. Match the PTO lever (B) and the yoke (F) with the pin (E) and tighten the nut (D).

RA84036,0000FFE-19-01AUG17

Replace E-SCV End Cover Valve Filter

1. Disconnect the battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B).



APY11290—UN—31MAY19

A—Bolts
B—Filter Cover

2. Unscrew bolts (A) and remove the filter cover (B). Replace the filter cartridge and O-rings.
3. Reinstall filter cover (B) and tighten bolts (A).

Specification

Bolt (A)—Torque. 5.5 N·m
4.056 lb·ft

4. Reconnect the Battery. See Battery Cut-Off Switch (If Equipped) in Service — Electrical System (section 220B).

RA84036,00019E5-19-25JUN19

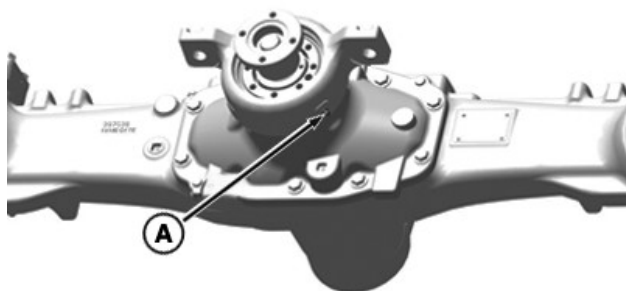
Service — Lubrication

Lubricate Front-Wheel Drive Axle

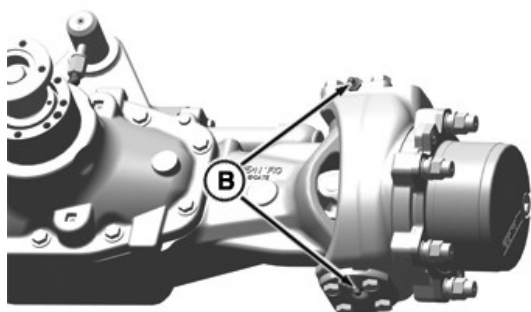
- A—Grease Fitting
- B—Grease Fitting
- C—Grease Fitting
- D—Grease Fitting

Apply several shots of multipurpose grease to the grease fitting (A), (B), (C), and (D).

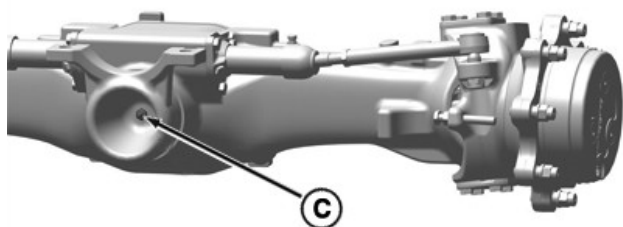
RA84036,0000FFF-19-01AUG17



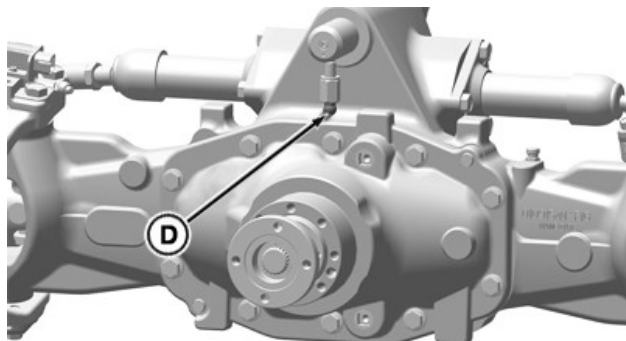
PY34404—UN—15NOV16



PY34405—UN—15NOV16

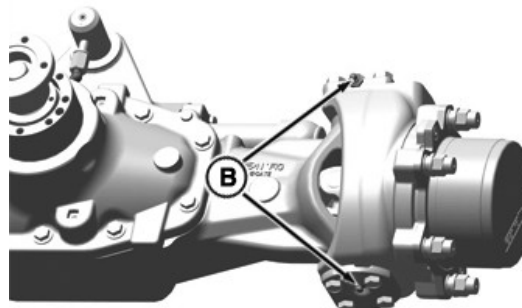


PY34406—UN—15NOV16



PY34407—UN—15NOV16

Lubricate Front Axle King Pins



PY34405—UN—15NOV16

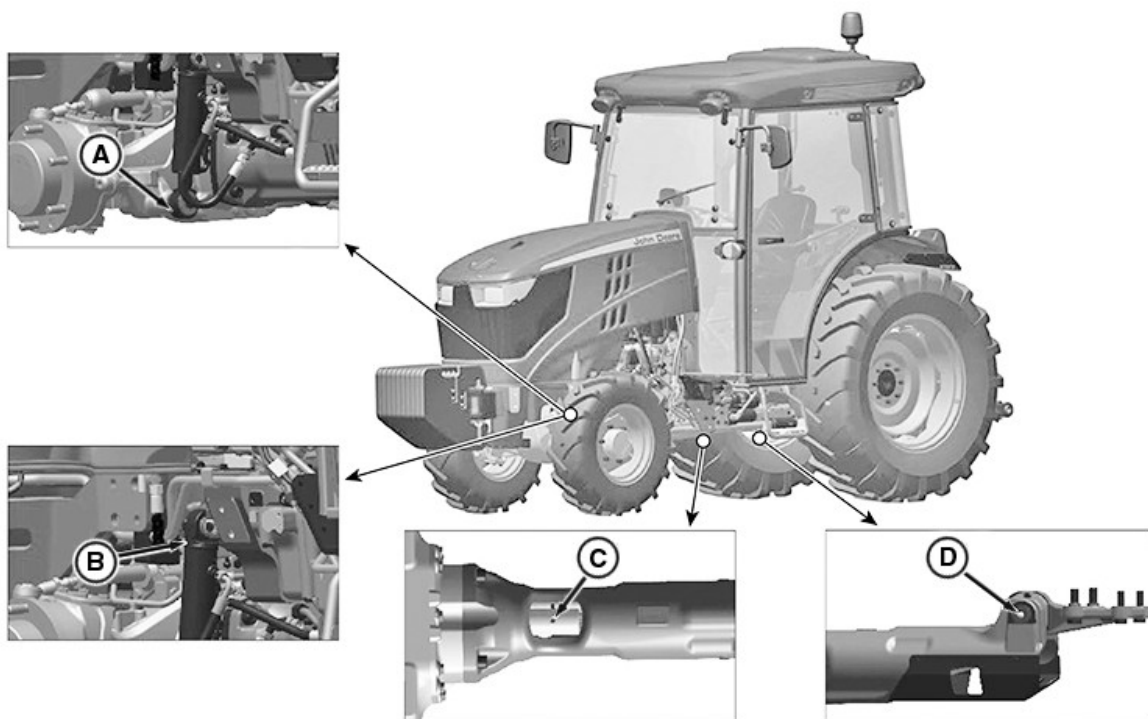
B—Fitting

On tractors equipped with the front-wheel drive axle, apply several shots of multi-purpose grease to upper and lower front axle king pin fittings (B).

RA84036,0001000-19-01AUG17

Lubricate Suspended Front Axle

Suspension Front Axle Rams and Support



APY11291—UN—31MAY19

A—Grease Fitting, Lower Rams
B—Grease Fitting, Upper Rams

Suspension Front Axle Rams and Lower Support

1. Park the tractor on a flat surface.
2. Clean the grease nipples (A), (B), (D) on each side of tractor and lubricate.

NOTE: The suspension rams and the lower joint support must be lubricated every 100 hours.

Suspension System Front Axle Shaft

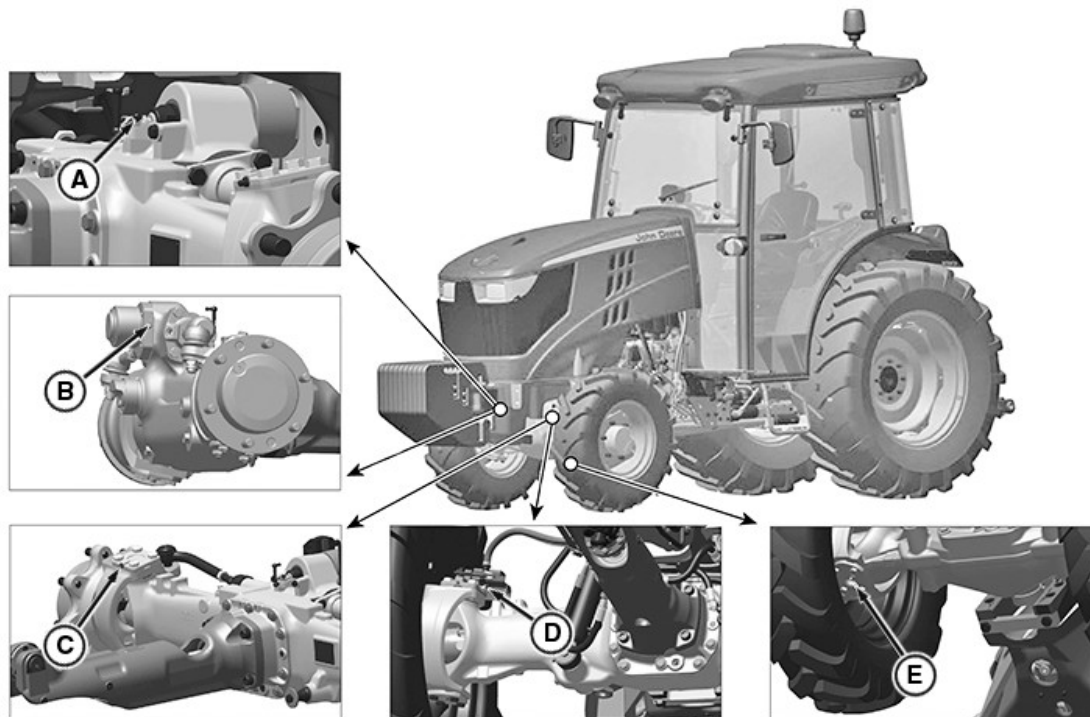
C—Grease Fitting, Front Axle Shaft
D—Grease Fitting, Lower Joint Support

1. Park the tractor on a flat surface.
2. Clean the grease nipples (C) and lubricate.

NOTE: The front axle shaft must be lubricated every 500 hours.

NOTE: Do not perform any interventions on the hydraulic system of the front suspended axle. Ask your authorized dealer to perform this service.

Suspension Front Axle Steering Pilot



APY11292—UN—31MAY19

- A—Grease Fitting (5GF)
- B—Grease Fitting (5GV, 5GN)
- C—Grease Fitting (tractors without steering sensor)

- D—Grease Fitting (tractors with steering sensor)
- E—Grease Fitting

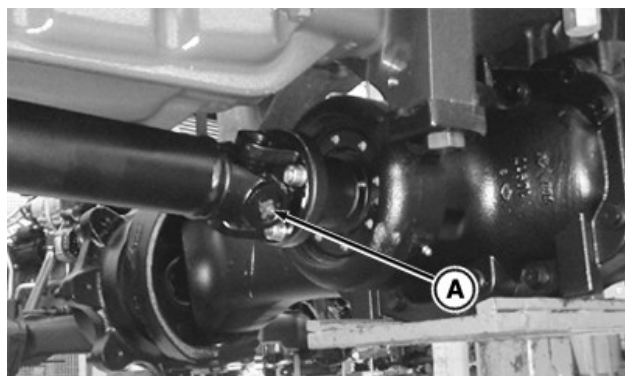
1. Park the tractor on a flat surface.
2. Clean the grease nipples (A), (B), (C), (D), (E) on each side of tractor and lubricate.

NOTE: The steering pilot greasing points must be lubricated every 100 hours.

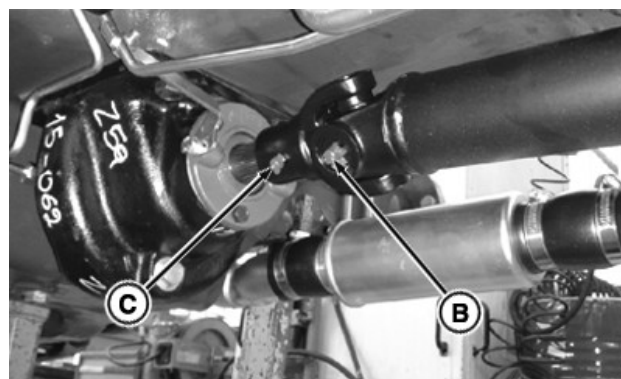
NOTE: Do not perform any interventions on the hydraulic system of the front suspended axle. Ask your authorized dealer to perform this service.

RA84036,00019E6-19-25JUN19

Lubricate 4WD Shaft



PY34408—UN—15NOV16



PY34409—UN—15NOV16

- A—Grease Fitting
- B—Grease Fitting
- C—Grease Fitting

On tractors equipped with the front wheel drive axle,

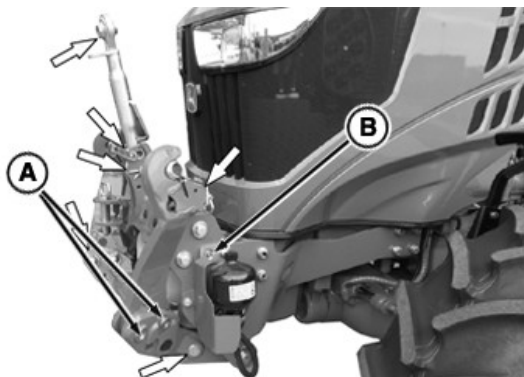
apply several shots of multi-purpose grease to grease fittings (A), (B), and (C).

RA84036,0001001-19-01AUG17

apply several shots of multi-purpose grease to fittings (A), (B), and (C).

RA84036,0001002-19-01AUG17

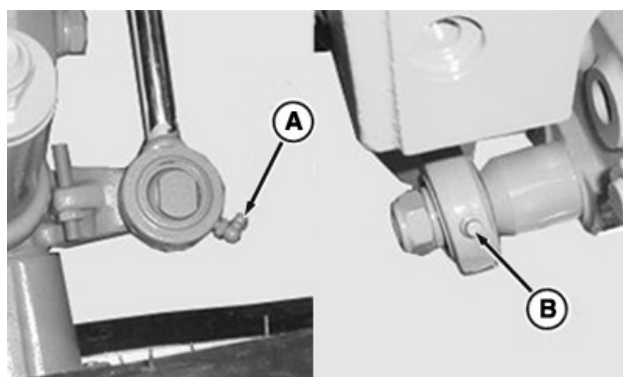
Lubricate Front Hitch King Pins



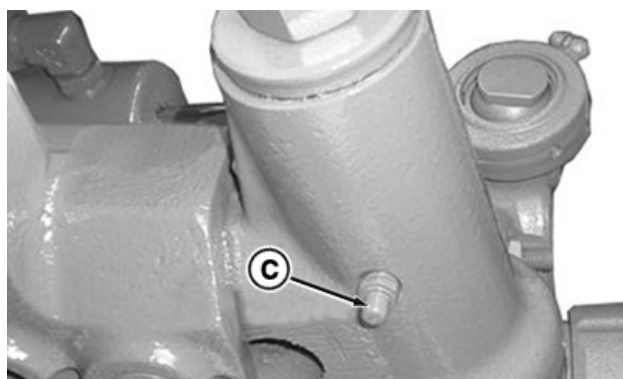
PY34410—UN—15NOV16

A—Greasing Points
B—Greasing Points

On tractors equipped with the front hitch, apply several shots of multi-purpose grease to greasing points (A) and (B). Apply several shots of multi-purpose grease to all other pins.



PY34411—UN—15NOV16

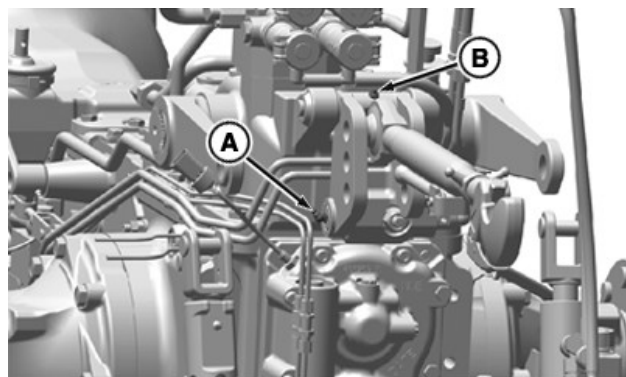


PY34412—UN—15NOV16

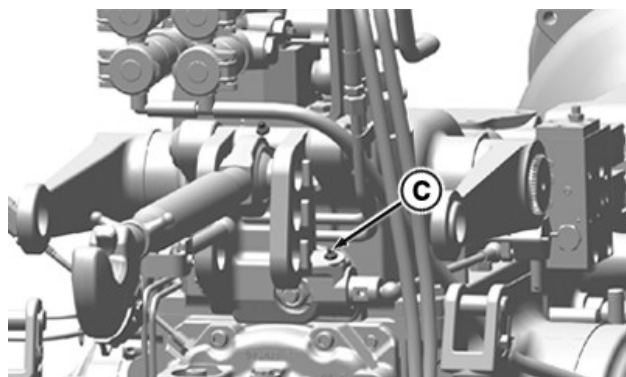
A—Fitting
B—Fitting
C—Fitting

On tractors equipped with the adjustable front axle,

Lubricate 3-Point Hitch



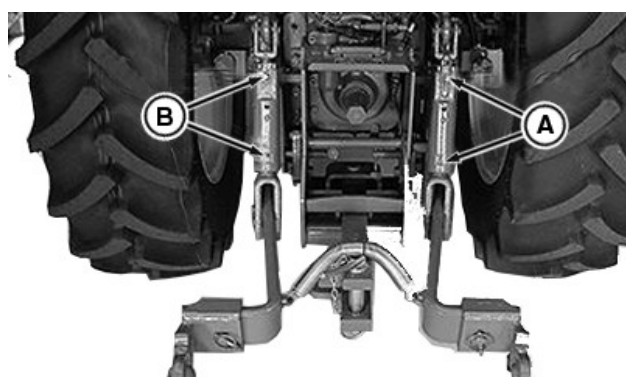
PY34413—UN—15NOV16



PY34414—UN—15NOV16

A—Fitting
B—Fitting
C—Fitting

1. Apply several shots of multipurpose grease to fittings (A), (B) and (C).



PY28262—UN—25AUG16

A—Right-hand Lift Link
B—Left-hand Lift Link

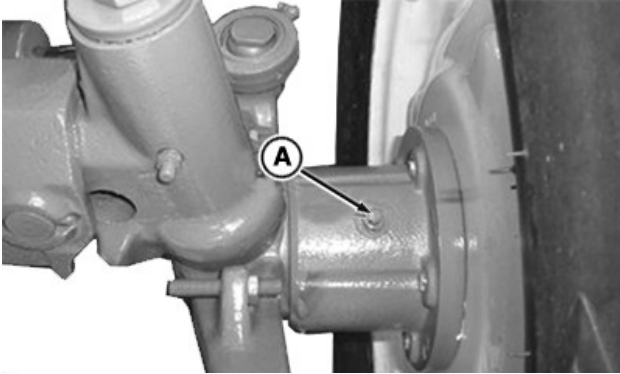
2. Lubricate 3-point hitch in shorter intervals when operating in wet and muddy conditions.

Lubricate right-hand lift link (A) and left-hand lift link (B) with several strokes of multi-purpose grease. See

Multiluber Grease in Other Lubricants (section 200E) in this manual.

RA84036,0001003-19-01AUG17

Lubricate Hub Bearings (Tractors without Front-Wheel Drive)



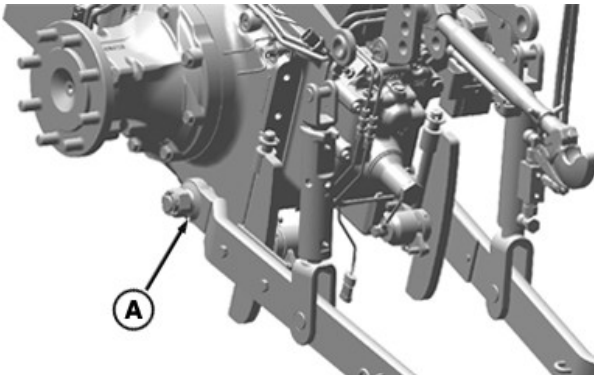
PY34415—UN—15NOV16

A—Hub Bearing

Lubricate hub bearings (A) on both sides with several strokes of multi-purpose grease.

RA84036,0001004-19-01AUG17

Lubricate Draft Links



PY34416—UN—15NOV16

A—Draft Links

Lubricate draft links (A) on both sides with several strokes of multi-purpose grease.

RA84036,0001005-19-01AUG17

Lubricate

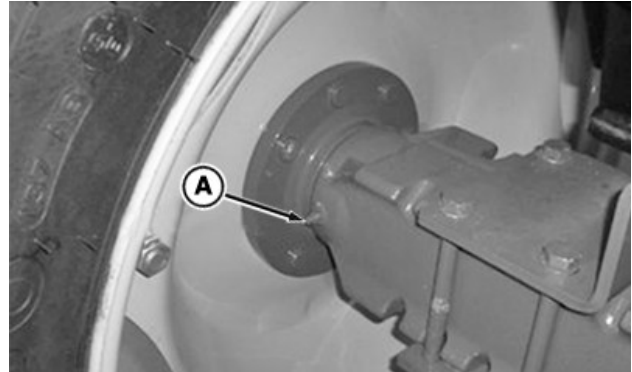
Lubricate the following items every 10 hours of operation when operating in wet or muddy conditions:

- Front axle pivot pin
- Front axle king pins
- Tie rod ends

Use specified multi-purpose grease. See Multiluber Grease in Service—Change (Section 200E) and Service Intervals (Section 210B) in this manual for more information.

RA84036,0001186-19-10AUG17

Lubricate Rear Axle Bearings



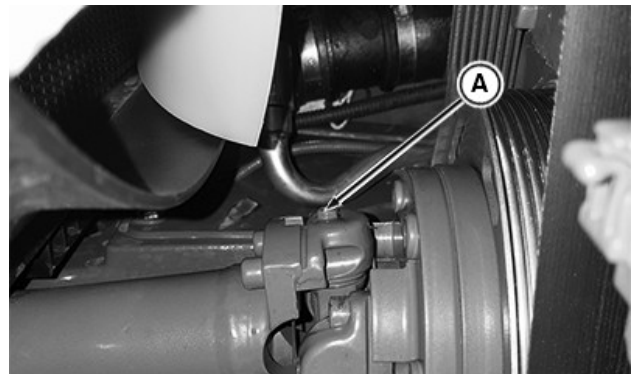
PY34419—UN—15NOV16

A—Fitting

Lubricate grease fittings (A) for rear axle bearings on both sides with several strokes of multi-purpose grease. See Multiluber Grease in Other Lubricants (section 200E) in this manual.

RA84036,0001006-19-01AUG17

Lubricate Front PTO



PY37726—UN—03SEP18

A—Fitting

On tractor equipped with front PTO, apply several shots of multi-purpose grease through fitting (A) of the front PTO shaft

NOTE: Perform maintenance at every 20 hours or yearly depending on the working condition.

SD74272,00016F1-19-22AUG18

Troubleshooting

Diagnostic Trouble Codes - Operator Information

Most diagnostic trouble codes are stored on the control unit. Some diagnostic trouble codes are displayed on

the digital display automatically. See relevant diagnostic technical manual for more information.

RA84036,0001090-19-01AUG17

Engine Troubleshooting

Symptom	Problem	Solution
Engine hard to start or will not start	Improper starting procedure.	Review starting procedure.
	No fuel.	Check fuel tank.
	Air in fuel system.	Bleed fuel system.
	Hand primer remains in raised position.	Push primer down.
	Cold weather.	Use cold weather starting procedure.
	Slow starter speed.	See Starter Cranks Slowly in Electrical System Troubleshooting in this section.
	Crankcase oil too heavy.	Use oil of proper viscosity.
	Improper type of fuel.	Consult fuel supplier; use proper type of fuel for operating conditions.
	Water, dirt, or air in fuel system.	Drain, flush, fill, and bleed system.
	Clogged fuel filter.	Replace filter element.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
	Injection pump shutoff not reset.	Turn key switch to OFF then to ON.
	Fuel shutoff valve closed.	Open fuel shutoff valve.
Engine knocks	Insufficient oil.	Add oil.
	Injection pump out of time.	See your John Deere dealer.
	Low coolant temperature.	Remove and check thermostat.
	Engine overheating.	See Engine Overheats in this block.
Engine runs irregularly or stalls frequently	Low coolant temperature.	Remove and check thermostat.
	Clogged fuel filter.	Replace filter element.
	Water, dirt, or air in fuel system.	Drain, flush, fill, and bleed system.

Troubleshooting

Symptom	Problem	Solution
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
	Improper type of fuel.	Use proper fuel.
Below normal engine temperature	Defective temperature gauge or sender.	Check gauge, sender, and connections.
Lack of power	Engine overloaded.	Reduce load or shift to lower gear.
	Low fast-idle speed.	See your John Deere dealer.
	Intake air restriction.	Service air cleaner.
	Clogged fuel filter.	Replace filter element.
	Improper type of fuel.	Use proper fuel.
	Overheated engine.	See Engine Overheats in this block.
	Below normal engine temperature.	Remove and check thermostat.
	Improper valve clearance.	See your John Deere dealer.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
	Injection pump out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.
	Leaking exhaust manifold gasket.	See your John Deere dealer.
	Implement improperly adjusted.	See implement operator's manual.
	Restricted fuel line.	Clean or replace fuel line.
	Restricted return line.	Clean or replace return line.
	Improper ballast.	Adjust ballast to load.
Low oil pressure	Low oil level.	Add oil.
	Improper type of oil.	Drain, fill crankcase with oil of proper viscosity and quality.
High oil consumption	Crankcase oil too light.	Use proper viscosity oil.
	Oil leaks.	Check for leaks in lines, around gaskets, and drain plugs.
	Restricted crankcase vent tube.	Clean vent tube.

Troubleshooting

Symptom	Problem	Solution
Engine emits white smoke	Defective turbocharger.	See your John Deere dealer.
	Improper type fuel.	Use proper fuel.
	Low engine temperature.	Warm up engine to normal operating temperature.
	Defective thermostat.	Remove and check thermostat.
	Defective injection nozzles.	See your John Deere dealer.
Engine emits black or gray exhaust smoke	Engine out of time.	See your John Deere dealer.
	Improper type of fuel.	Use proper fuel.
	Clogged or dirty air cleaner.	Service air cleaner.
	Engine overloaded.	Reduce load or shift to a low gear.
	Injection nozzles dirty.	See your John Deere dealer.
Engine overheats	Engine out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.
	Dirty radiator core or grille screens.	Remove all trash.
	Engine overloaded.	Shift to lower gear or reduce load.
	Low engine oil level.	Check oil level. Add oil as required.
	Low coolant level.	Fill radiator to proper level, check radiator, expansion tank, and hoses for loose connection or leaks.
	Faulty radiator cap.	See your John Deere dealer.
	Loose or defective fan belt.	Adjust belt tension; replace belt, if necessary
	Cooling system needs flushing.	Flush cooling system.
	Defective thermostat.	Remove and check thermostat.
High fuel consumption	Defective temperature gauge or sender.	See your John Deere dealer.
	Incorrect grade of fuel.	Use proper fuel.
	Improper type of fuel.	Use proper fuel.
	Clogged or dirty air cleaner.	Service air cleaner.

Troubleshooting

Symptom	Problem	Solution
	Engine overloaded.	Reduce load or shift to a lower gear.
	Improper valve clearance.	See your John Deere dealer.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Implement improperly adjusted.	See implement operator's manual.
	Low engine temperature.	Check thermostat.
	Excessive ballast.	Adjust ballast to load.
	Defective turbocharger.	See your John Deere dealer.
	Restricted air intake system.	Check system.
	Plugged crankcase vent tube.	Clean vent tube.

RA84036,0001091-19-01AUG17

Transmission Troubleshooting

Symptom	Problem	Solution
Transmission oil overheats	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.
	Internal hydraulic leak.	See your John Deere dealer.
	Hitch feedback linkage improperly adjusted.	Reset linkage. See your John Deere dealer.
	Hydraulic motor not connected correctly.	See your John Deere dealer.
Low transmission pressure	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.

RA84036,0001092-19-01AUG17

Brakes Troubleshooting

Symptom	Problem	Solution
No solid pedal feel	Air in system.	See your John Deere dealer.
Pedal settles	Rear brake piston seal leaking.	See your John Deere dealer.

Symptom	Problem	Solution
Excessive pedal travel	Air in system.	See your John Deere dealer.
Brakes drag during transport	Brakes out of adjustment.	See your John Deere dealer.

MX, TSIP, DA1-19-24JUL95

Rockshaft and Quick-Coupler 3-Point Hitch Troubleshooting

Symptom	Problem	Solution
Insufficient transport clearance	Center link too long.	Adjust center link.
	Lift links too long.	Adjust lift links.
	Implement not level.	Level implement.
	Implement not properly adjusted.	See implement operator's manual.
	Center link in upper holes.	Move center link to lower holes.
	Sway chains adjusted too short.	Lengthen sway chains.
Hitch drops slowly	Rockshaft rate-of-drop not properly set.	Adjust rate-of-drop knob.
Hitch fails to lift or lifts slowly	Excessive load on the hitch.	Reduce load.
	Hitch fails to lift or lifts slowly	Adjust flow divider valve and/or change the allocation.
	Low oil level.	Fill system with proper oil.
	The hydraulic oil too cold.	Allow oil to warm.
	The transmission-hydraulic oil filter clogged.	Replace filter.
	The transmission-hydraulic filter screen clogged.	Clean or replace the screen.
Implement will not operate at desired depth	Lift links too short.	Adjust lift links.
	Lack of penetration.	See implement operator's manual.
	Improper setting of the limit stop.	Reset position limit.
	Improper setting of the draft lever.	See Hitch (section 50) in this manual.
Insufficient or no hitch response to draft load	Center link in upper holes.	Move center link to lower holes.
	Draft control lever in OFF position.	Move lever rearward.

Troubleshooting

Symptom	Problem	Solution
	Lift links too short.	Adjust lift links.
	Flow divider valve closed.	Adjust flow divider valve and/or change the allocation
	Lack of penetration.	See implement operator's manual.
	Rate-of-drop too slow.	Adjust rate-of-drop valve.
Hitch too responsive	Center link in lower holes.	Move center link to upper holes.
	Sensitivity valve set too responsive.	Adjust sensitivity valve.
Hitch drops too fast	Rate-of-drop set too fast.	Adjust rate-of-drop.

RA84036,0001093-19-01AUG17

Remote Hydraulic Cylinders Troubleshooting

Symptom	Problem	Solution
Direction of remote cylinder travel is reversed	Improper hose connections.	Reverse hose connections.
Hoses will not couple	Improper hose male tips.	Replace tip with ISO Standard tips.
Remote cylinder will not lift load	Excessive load.	Reduce load.
	Flow divider valve closed.	Adjust flow divider valve.
	Hoses not completely installed.	Attach hoses correctly.
	Incorrect remote cylinder size.	Use correct size cylinder.
Automatic return to neutral position of no. 2 SCV lever does not function and direction of remote cylinder travel is reversed	Improper hose connections.	Reverse hose connections.

OULXA64,00002A8-19-01JUL04

Electrical System Troubleshooting

Symptom	Problem	Solution
Battery will not charge	Loose or corroded connections.	Clean and tighten connections.
	Sulfated or worn-out battery.	Replace battery.
	Loose or defective fan belt.	Adjust belt tension or replace belt.
Charging system indicator glows with engine running	Low engine speed.	Increase speed.
	Defective battery.	Replace battery.

Troubleshooting

Symptom	Problem	Solution
Starter inoperative	Defective alternator.	See your John Deere dealer.
	Slipping fan belt.	Tighten belt.
	Gear shift lever in gear.	Move lever to neutral.
	PTO lever in engaged position.	Move PTO lever to disengaged position.
	Low battery output.	Charge or replace battery.
Starter cranks slowly	Blown fuse.	Replace fuse.
	Low battery output.	Charge or replace battery.
	Crankcase oil too heavy.	Use proper viscosity oil.
	Loose or corroded connections.	Clean and tighten loose connections.
Light system does not function; rest of electrical system functions	Blown fuse.	Replace fuse.
Entire electrical system does not function	Faulty battery connection.	Clean and tighten connections.
	Sulfated or worn-out batteries.	Replace battery.
	Blown fuse.	Replace fuse.
Relay(s) sticking or nonfunctional; repeated failures	Diode to protect circuit from arcing has failed.	Replace diode module.

SS40167,000008D-19-20MAR09

Storage

Storage for Long Period

The following storage preparations are good for long-term tractor storage up to 1 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: Any time your tractor will not be used for over 6 months, the following recommendations for storing it and removing it from storage will help to minimize corrosion and deterioration.

Change engine oil and replace filter. Change transmission oil and filter. Used oil will not give adequate protection.

Clean air cleaner.

Draining and flushing of cooling system is not necessary if engine is to be stored only for several 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.

Fill the fuel tank.

Remove fan/alternator belt, if desired.

Remove and clean battery. Store it in a cool, dry place and keep it fully charged.

Clean the exterior of the tractor with salt-free water and touch up any scratched or chipped painted surfaces with a good quality paint.

Coat all exposed (machined) metal surfaces with grease or corrosion inhibitor if not feasible to paint.

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 tractor so that the tires do not touch the ground. Protect tires from heat and sunlight.

Secure clutch pedal in disengaged position.

RA84036,0001094-19-01AUG17

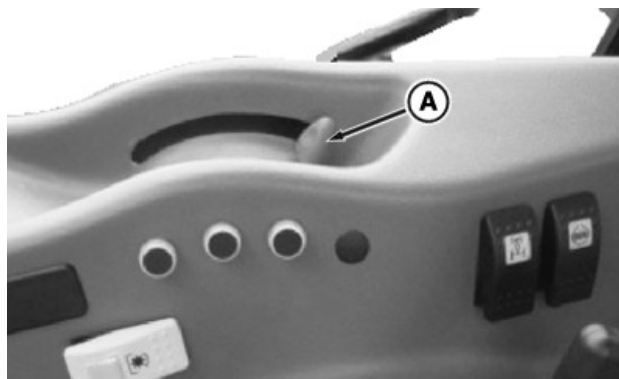
Remove Tractor from Storage

1. Check tire inflation pressure. See Specifications (section 500A) in this manual.
2. Unseal all openings sealed when storing tractor.
3. Install battery.

IMPORTANT: On tractors with cab, if the air conditioner compressor has seized, do not run the engine with compressor clutch engaged. Drive belt or compressor damage could be the result.

4. On tractors with cab: check that compressor pulley moves freely and is not seized.
5. Adjust tension of the alternator/fan belt on tractors with cab. Adjust tension of the compressor drive belt.
6. Release clutch pedal.
7. Check levels of engine oil, transmission-hydraulic oil, and engine coolant. Add if necessary.
8. Drain a small amount of fuel from the fuel tank for purging any moisture condensation that has collected.
9. Fill fuel tank.
10. Perform all appropriate 10 hour, 250 hour, and 500 hour services as instructed. See Service (Daily / Every 10, After First 50, Every 250, 500 and 750 Hours) in Service Intervals (section 210B) in this manual.

IMPORTANT: DO NOT operate starting motor more than 20 seconds at a time. Wait at least 2 minutes for the motor to cool before trying again.



PY34392—UN—14NOV16

A—Hand Throttle

11. Pull hand throttle (A) all the way back and crank engine until oil pressure rises.
12. Connect wiring lead to shutoff solenoid of the fuel injection pump.
13. Start engine. Operate engine at low-idle for several minutes. Warm up carefully and check all systems before placing tractor under load.

RA84036,0001095-19-01AUG17

Specifications

Engine

Engine Type

5075 Tractor	F5DFL413C*E
5090 Tractor	F5DFL413T*A
5075 Tractor (A)	F5DFL413Y*A
5090 Tractor (B)	F5DFL413X*A
5090 IPM Tractor	F5DFL413N*A
5100 Tractor	F5DFL413P*A
5105 Tractor	F5DFL413R*A
5105 IPM Tractor	F5GFL413H*B

Aspiration	Turbocharger and Air-to-Air After-Cooled

Power at Rated Speed

acc. to 97/68 EEC

5075 Tractor	54 kW (75 hp) @ 2300 rpm
5090 Tractor	67.1 kW (91.2 hp) @ 2300 rpm
5075 Tractor (A)	55 kW (74.8 hp) @ 2300 rpm
5090 Tractor (B)	64 kW (87 hp) @ 2300 rpm
5090 IPM Tractor	70.8 kW (96.9 hp) @ 2300 rpm
5100 Tractor	74.6 kW (102.2 hp) @ 2300 rpm
5105 Tractor	77 kW (105.4 hp) @ 2300 rpm
5105 IPM Tractor	77 kW (105.4 hp) @ 2300 rpm

NOTE: The max power is at 82 kW (110 hp) @ 2000 rpm

Maximum Torque

5075 Tractor	321 N·m @ 1500 rpm
5090 Tractor	366 N·m @ 1500 rpm
5075 Tractor (A)	320 N·m @ 1500 rpm
5090 Tractor (B)	370 N·m @ 1500 rpm
5090 IPM Tractor	366 N·m @ 1500 rpm
5100 Tractor	401 N·m @ 1500 rpm
5105 Tractor	403 N·m @ 1500 rpm
5105 IPM Tractor	404 N·m @ 1500 rpm

Number of Cylinders	4

Bore	99 mm (3.89 in)

Stroke	110 mm (4.32 in)

Displacement	3387 cm ³ (206.7 in ³)

Compression Ratio	17:1

Firing Order	1—3—4—2

Valve Clearance

Intake Valve Clearance	0.25 mm ± 0.05 (0.00984 in)

Exhaust Valve Clearance	0.50 mm ± 0.05 (0.01968 in)

Slow Idle	800—900 rpm

Fast Idle	2400—2500 rpm

Rated Engine Speed	2300 rpm

Operating Speed Range	1200—2300 rpm

Engine Oil Capacity (Including Oil Filter)	9.5 L (2.50 gal)

Speed for PTO Operation

540 rpm Rear PTO	1938 rpm
540E rpm Rear PTO	1648 rpm
1000 rpm rear PTO	1962 rpm

MS76789,000177A-19-25JUN20

DPF Soot Load

Soot Load	Action Required
Less than 90%	No Action
90%—130%	Possible automatic regeneration (managed by the ECU)
130%—170%	Automatic regeneration enabled, Manual regeneration requested
170%—230%	Soft engine derates (25% engine power derate applied). <i>NOTE: Contact to an authorized John Deere dealer.</i>
More than 230%	Strong engine derates (55% engine power derate applied). <i>NOTE: Contact to an authorized John Deere dealer.</i>

RA84036,0001A6D-19-23JUL19

Transmission

Transmission	Availability
12/12 Synchronized Gears	
24/24 Synchronized Gears with mechanical high-low	
24/12 Synchronized Gears with electro-hydraulic high-low and declutch switch on the gearshift lever	
Gear Selections	Lever
Shifting	Manual
Final drive	Planetary Gear
Clutch	
12/12 Transmission	Dual, Dry
24/24 Transmission	Dual, Dry
24/12 Transmission only	PTO with Electro-Hydraulic Wet Clutch
RA84036,00019E7-19-02JUN19	

Front-Wheel Drive Clutch

Front-Wheel Drive Clutch	
12/12 Transmission	Hydraulically Engaged
24/12 Transmission with electrohydraulic Hi/Lo and declutch switch on the gearshift lever	Hydraulically Engaged
RA84036,000159B-19-31JUL18	

Hydraulic System

Type	Position and Draft Control
Pump	Tandem Gear
Pump Displacement	
Steering	11 cm ³ (0.67 in ³)
Implement	25 cm ³ (1.53 in ³)
Implement (Optional)	11 cm ³ (0.67 in ³)
Flow Rate^a	(1 gal/min = 3.7854 L/min)
Steering	29.8 L/min (7.9 gal/min)
Implement	66.8 L/min (17.65 gal/min)
Implement (Optional)	29.8 L/min (7.9 gal/min)
Maximum Pressure	
Steering	19,000—19,500 kPa (190 -195 bar) (2756—2683 psi)
Implement	19,000—19,500 kPa (190 -195 bar) (2756—2683 psi)
Steering system	Hydrostatic Power

SCV Flow Rate^a	60L/min (15.85 gal/min)
Base Configuration	10—36 L/min (2.64—9.52 gal/min)
2 Pumps + Flow Regulator Configuration	8—40 L/min (2.11—10.58 gal/min)
3 Pumps + Flow Regulator Configuration	0—32 L/min (0—8.46 gal/min)
^a Flow rate at 90% pump efficiency and engine at rated speed	
RA84036,0001099-19-31JUL18	

Electrical System

Type	12 V Negative Ground
Battery	12 V 100 Ah (VNF Models) 12 V 80 Ah (GL Models)
Alternator	95 A
Starter Motor	12 V 4.2 kW
RA84036,000159C-19-31JUL18	

Front PTO

Clutch Type	Multi-disc wet with electrohydraulic engagement
PTO end fitting diameter	1.375 in (34.93 mm)
Type of end fitting	6 splines
PTO direction of rotation	Clockwise
Front 1000 PTO Speed	
At rated engine speed at 2300 rpm	1100 rpm
Maximum continuous power and torque at 1000 rpm	50 kW and 480 N·m
Maximum admissible power and torque at 1000 rpm	74 kW and 700 N·m
SD74272,00016F2-19-22AUG18	

Fuel System

Type	High-Pressure Common Rail Injection System
RA84036,0001010-19-31JUL18	

Specifications

Brakes

Type	Oil immersed multi-disc
Number of Discs per Side	5
Outer Diameter of Discs	165 mm (6.5 in)
Inner Diameter of Discs	110 mm (4.3 in)
Park Brake	Mechanical lever, activates foot brake
Brake Assist	Automatically engaged when the brakes are applied

RA84036,000109D-19-31JUL18

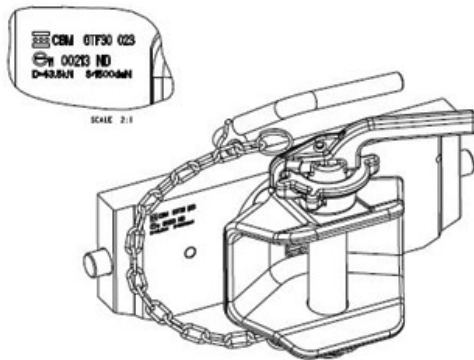
Three-Point Hitch

Category	I, II, and 1N

RA84036,000109E-19-31JUL18

Loads and Weights

Clevis Type Mechanical Coupling (CBM GTF30023)

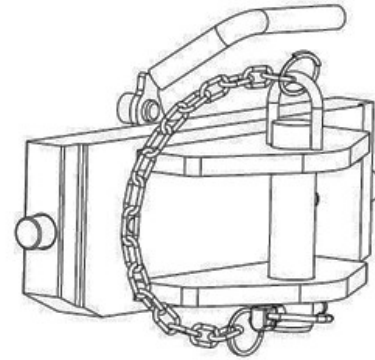


A

APY05026—UN—15APR18

No	Type	Ladder Frame: Slider		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
A	Clevis Type Mechanical Coupling CBM GTF30023	1500	—	43.5
	Clevis Type Mechanical Coupling CBM GTF30023D	1800	—	60

No-Swivel Clevis Coupling (CBM X 244 SL-E/xx and X 314 SL-E Category X)

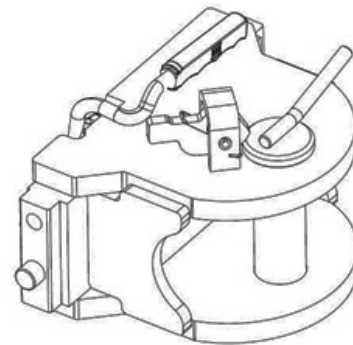


B

APY05027—UN—15APR18

No	Type	Ladder Frame: Slider		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
B	No-Swivel Clevis Coupling CBM X 244 SL-E/xx and X 314 SL-E Category x	1500	6000	—

No-Swivel Clevis Coupling (CBM Y 244 SL-E/xx and Y 314 SL Category Y)



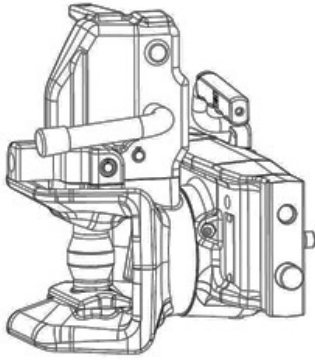
C

APY05028—UN—15APR18

No	Type	Ladder Frame: Slider		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
C	No-Swivel Clevis Coupling CBM Y 244 SL-E/xx and Y 314 SL Category y	2000	14000	—

Specifications

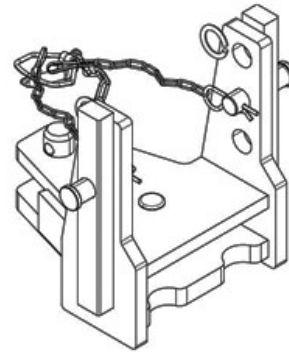
Clevis Type Mechanical Coupling (CBM GTF30014)



F

APY05029—UN—15APR18

Tractor Drawbar (CBM GTB 30003 Category 2)



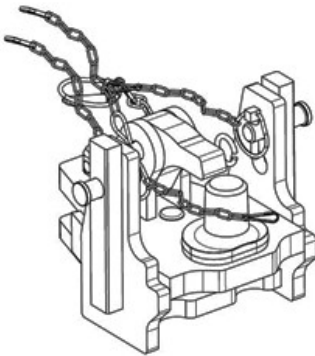
N

APY05031—UN—15APR18

No	Type	Ladder Frame: Slider		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
F	Clevis Type Mechanical Coupling CBM GTF30014	2000	—	96.4
	Clevis Type Mechanical Coupling CBM GTF30014D			

No	Type	Ladder Frame: Slider		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
N	Tractor Drawbar CBM GTB 30003 Category 2	736	—	35
	Tractor Drawbar CBM GTB 30002D Category (2)			

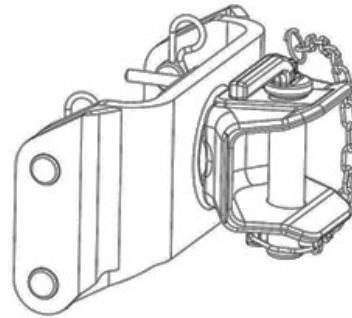
Pin (Piston) Type Mechanical Coupling (CBM GTP001)



D

APY05030—UN—15APR18

Clevis Type Mechanical Coupling (CBM GTF30031)



I

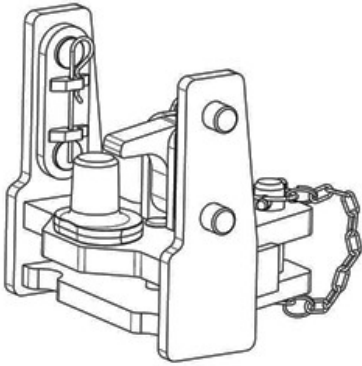
APY05032—UN—15APR18

No	Type	Ladder Frame: Slider		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
D	Pin (Piston) Type Mechanical Coupling CBM GTP001	2000	20000	—

No	Type	Ladder Frame: Holes		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
I	Clevis Type Mechanical Coupling CBM GTF30031	1350	—	40
	Clevis Type Mechanical Coupling CBM GTF30028D			

Specifications

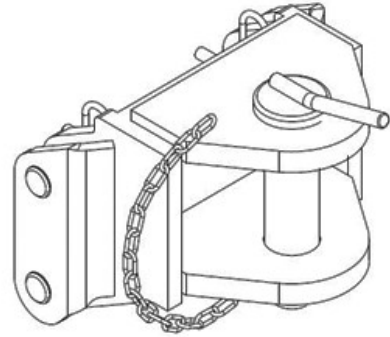
Tractor Drawbar (CBM GTB 30003 Category 2)



L

APY05033—UN—15APR18

No-Swivel Clevis Coupling (CBM X 212 F/xx Category Y)



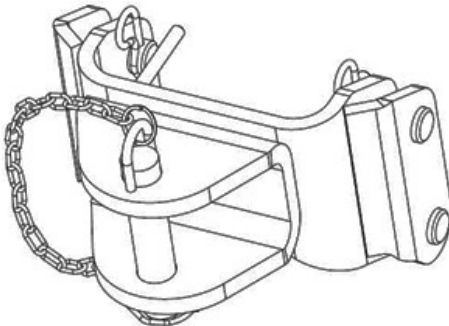
P

APY05035—UN—15APR18

No	Type	Ladder Frame: Holes		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
L	Tractor Drawbar CBM GTB 30003 Category 2	736	—	35
	Tractor Drawbar CBM GTB 30002D Category (2)			

No	Type	Ladder Frame: Holes		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
P	No-Swivel Clevis Coupling CBM X 212 F/xx Category y	2000	14000	—

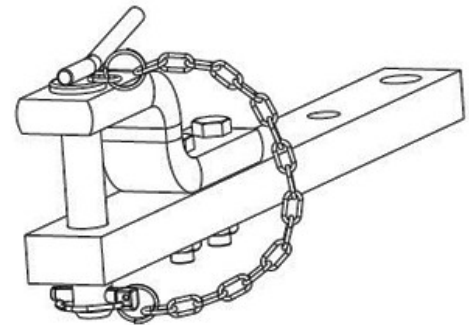
No-Swivel Clevis Coupling (CBM X 212 F/xx Category X)



APY05034—UN—15APR18

No	Type	Ladder Frame: Holes		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
O	No-Swivel Clevis Coupling CBM X 212 F/xx Category x	1500	6000	—

Drawbar (CBM X002BT/xx Category X)



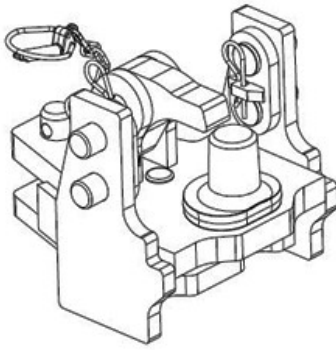
Q

APY05036—UN—15APR18

No	Type	Ladder Frame: Holes		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
Q	Drawbar CBM X002BT/xx Category X	0	6000	—

Specifications

Pin (Piston) Type Mechanical Coupling (CBM GTP001)

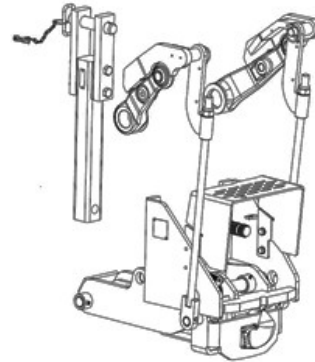


R

APY05037—UN—15APR18

No	Type	Pick-Up Hitch		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
M	Towing Hook CBM GTU001 Pick-Up Hitch	3000	—	88.1
	Towing Hook CBM GTU001D Pick-Up hitch			

Tractor Drawbar (CBM GTB 30020 Category 2)

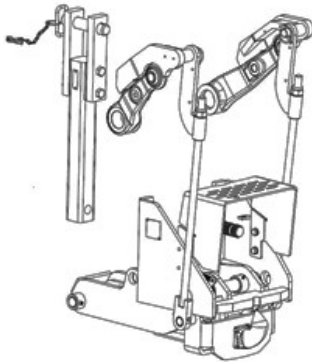


M

APY05038—UN—15APR18

No	Type	Ladder Frame: Holes		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
R	Pin (Piston) Type Mechanical Coupling CBM GTP001	2000	20000	—

Towing Hook CBM GTU001 Pick-Up Hitch



M

APY05038—UN—15APR18

No	Type	Pick-Up Hitch		
		Vertical Load (Kg)	Maximum Towable Weight (Kg)	D-Value (kN)
M	Tractor Drawbar CBM GTB 30020 Category 2	1200	—	40

RA84036.00019E8-19-22JUL19

Capacities

Fuel Tank Capacity			
Tractor Models	Tractor without Front PTO	Tractor with Front PTO	Auxiliary Fuel Tank (Optional) ^a
5G-V/N/F	74L (19.55 gal)	54.5 L (14.4 gal)	27.5 L (7.27 gal)
5GL-LN	74L (19.55 gal)	52.5 L (13.87 gal)	—
Cooling System			
Tractors without Cab			10 L (10.6 qt)
Tractors with Cab			12 L (12.72 qt)
Crankcase (Including Filter Change)			9.5 L (10.04 qt)

Specifications

Transmission/Hydraulic System^b	
12/12 Transmission with Front-Wheel Drive	39 L (10.30 gal)
24/24 Transmission without Front-Wheel Drive	37 L (9.77 gal)
24/24 Transmission with Front-Wheel Drive	43 L (11.4 gal)
24/12 Transmission with Front-Wheel Drive	43 L (11.4 gal)
Front-Wheel Drive Axle	
5GV	
Final Drive, each	0.6 L (0.6 qt)
Axle Housing	4 L (4.24 qt)
5GN	
Final Drive, each	0.4 L (0.42 qt)
Axle Housing	3 L (3.18 qt)
5GF	
Final Drive, each	0.6 L (0.6 qt)
Axle Housing	3.5 L (3.7 qt)
5GF - Wide Axle (1540 mm rear axle flange to flange)	
Final Drive, each	0.6 L (0.6 qt)
Axle Housing	4.4 L (4.64 qt)
5GL	
Final Drive, each	0.6 L (0.6 qt)
Axle Housing	3.5 L (3.7 qt)
5GL-N	
Final Drive, each	0.4 L (0.42 qt)
Axle Housing	4.4 L (4.64 qt)
Brake System	
Oil Reservoir	0.5 L (0.53 qt)
Air-Conditioning System	
5GV, 5GN, 5GF	

^aAvailable for 5GN and 5GF models only.

^bOil volume varies depending on the configuration of the hydraulic system

R-134a Refrigerant	1 kg (35 oz)			
5GL				
R-134a Refrigerant	0.8 kg (28 oz)			
Suspended Front Axle				
Tractor Models				
	5GV	5GN	5GF	Unit
Suspended Front Axle (40 Km/h)	X	—	—	20.09S
	—	X	—	20.09S
	—	—	X	20.16S
Steering Angle (max. track width)	X	—	X	55°
	—	X	—	51°
Steering Angle (min. track width)	—	—	X	44°
	X	—	—	43°
	—	X	—	30°
Pendulum Angle	X	—	—	6°
	—	X	—	8°

Specifications

	—	—	X	9°
Turning Radius (max. track width)				
Tires (6.5 R16)	X	—	—	3370 mm
Tires (280/70 R18)	—	X	—	3720 mm
Tires (320/70 R20)	—	—	X	3560 mm
Distance between Flange	X	—	—	925 mm
	—	X	—	990 mm
	—	—	X	1325 mm
Stud Position Diameter	X	X	—	205 mm
	—	—	X	275 mm
Diameter of Wheel Alignment Boss	X	X	—	162 mm
	—	—	X	221 mm
Wheel Bolt Diameter	X	X	X	M18
Number of Wheel Bolts	X	X	—	6
	—	—	X	8
Differential Lock	X	X	X	Self-Locking
Suspension Stroke	X	X	X	+/- 40 mm
Max. load on front axle w/F/F track width at 4 Km/h	—	—	X	3970 kg
	—	X	—	4000 kg
	X	—	—	4060 kg
Min. Load on Front Axle for Suspension Setting	X	—	—	980 kg
	—	X	—	1085 kg
	—	—	X	1120 kg

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Sound Level

Measurement method in accordance with regulation (EU) 1322/2014 ANNEX XIII of Reg. (EU) 167/2013.

Sound Level (5GV)

Maximum Sound Level at Operator's Ear

Models	GV					
	5075		5090		5090 IPM	
Exhaust System	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Cab Closed dB (A)	80	82	81	82	80	82
Cab Opened dB (A)	81	82	82	82	81	82
Engine Speed (rpm)	2450		2450		2450	

Sound Level (5GN)

Measurement method in accordance with regulation (EU) 1322/2014 ANNEX XIII of Reg. (EU) 167/2013.

Maximum Sound Level at Operator's Ear

Models	GN									
	5075		5090		5090 IPM		5105		5105 IPM	
Exhaust System	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Cab Closed dB (A)	80	82	81	82	80	82	80	82	80	82
Cab Opened dB (A)	81	82	82	82	81	82	81	82	81	82
Engine Speed (rpm)	2450		2450		2450		2450		2450	

Sound Level (5GF)

Measurement method in accordance with regulation (EU) 1322/2014 ANNEX XIII of Reg. (EU) 167/2013.

Maximum Sound Level at Operator's Ear

Specifications

Models	GF									
	5075		5090		5090 IPM		5105		5105 IPM	
Exhaust System	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Without Cab	85	—	86	—	86	—	76	—	76	—
Cab Closed dB (A)	80	82	81	82	80	82	80	82	80	82
Cab Opened dB (A)	81	82	82	82	81	82	81	82	81	82
Engine Speed (rpm)	2450		2450		2450		2450		2450	

Sound Level (5GL)

Maximum Sound Level at Operator's Ear

Measurement method in accordance with regulation (EU) 1322/2014 ANNEX XIII of Reg. (EU) 167/2013.

Models	GL					
	5075		5090		5100	
Exhaust System	Horizontal	Vertical	Horizontal	Vertical	Horizontal	Vertical
Without Cab	86	—	86	—	86	—
Cab Closed dB (A)	84	—	82	—	82	—
Cab Opened dB (A)	82	—	84	—	84	—
Engine Speed (rpm)	2450		2450		2450	

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Maximum Lifting Force

Maximum Lifting Force	kg	lb
Maximum Lifting Force	2400	5290
Hitch Lift Capacity @ 610 mm	1630	3593
Additional Cylinder Maximum Lift Capacity – Ball Ends ^a	3040	6700

^aOptional 3 t (for GN and GF models)

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Towable Loads

2WD Models								

	5GV CAB		5GN CAB		5GF CAB		5GF OOS	
	kg	lb	kg	lb	kg	lb	kg	lb
Unbraked	1200	2640	1200	2640	1200	2640	1200	2640
Inertia-braked	8000	17600	8000	17600	8000	17600	8000	17600
Hydraulic braked	14600	32120	15900	34980	16200	35640	15700	34540

4WD Models								

	5GV CAB		5GN CAB		5GF CAB		5GF OOS	
	kg	lb	kg	lb	kg	lb	kg	lb
Unbraked	1800	3960	1800	3960	1800	3960	1800	3960
Inertia-braked	8000	17600	8000	17600	8000	17600	8000	17600
Hydraulic braked	16900	37180	18200	40040	18500	40700	17500	38500

Specifications

4WD Models

	5GL OOS		5GL-N OOS		5GL-N CAB	
	kg	lb	kg	lb	kg	lb
Unbraked	1500	3300	1500	3300	1100	2420
Inertia-braked	8000	17600	8000	17600	8000	17600
Hydraulic braked	16600	36520	15800	34760	16900	37180

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Shipping Weights

Shipping Weights of Tractors without Front-Wheel Drive

Shipping Weights of Tractors without Front-Wheel Drive:	5GV		5GN		5GF	
	kg	lb	kg	lb	kg	lb
Front	1000	2200	1020	2244	1040—1100	2288—2420
Rear	1730	3806	1770	3894	1650—1810	3630—3982
Total	2730	6006	2790	6138	2750—2850	6050—6270

Shipping Weights of Tractors with Front-Wheel Drive

Shipping Weights of Tractors with Front-Wheel Drive:	5GL		5GLN		5GLN CAB		5GV		5GN		5GF	
	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb	kg	lb
Front	1360	2992	1260	2772	1190	2618	1220	2684	1240	2728	1260—1320	2772—2904
Rear	1545	3399	1485	3267	1700	3740	1770	3894	1810	3982	1690—1850	3718—4070
Total	2905	6391	2745	6039	2890	6358	2990	6578	3050	6710	3010—3110	6622—6842

NOTE: Tare weight (according to definition of Reg. (ue) 2015/504 ANNEX I) is the unladen weight of tractor in running order, excluding optional accessories but including coolant, oils, full fuel tank, tools, and operator (75 kg) (165 lb).

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Maximum Permissible Axle Loads and Total Weights

Maximum Permissible Load on Tractors with Front-Wheel Drive

Maximum Permissible Load on Tractors with Front-Wheel Drive:	5GL/5GLN		5GV		5GN		5GF	
	kg	lb	kg	lb	kg	lb	kg	lb
Front	2000	4409	2000	4409	2200	4850	2200	4850
Rear	2500	5512	3000	6614	3100	6834	3100	6834
Total	4200	9259	4100	9039	4400	9700	4400	9700

Maximum Permissible Load on Tractors without Front-Wheel Drive

Maximum Permissible Load on Tractors without Front-Wheel Drive:	5GL/5GLN		5GV		5GN		5GF	
	kg	lb	kg	lb	kg	lb	kg	lb
Front	—	—	1800	3968	1800	3968	1800	3968
Rear	—	—	3000	6614	3100	6834	3100	6834
Total	—	—	4100	9039	4200	9259	4200	9259

Maximum Permissible Load on Tractors with Front-Wheel Drive (Limited at 3500 kg)

Maximum Permissible Load on Tractors with Front-Wheel Drive:	5GL/5GLN		5GV		5GN		5GF	
	kg	lb	kg	lb	kg	lb	kg	lb
Front	—	—	2000	4409	2200	4850	2200	4850
Rear	—	—	2800	6173	2800	6173	2800	6173
Total	—	—	3500	7716	3500	7716	3500	7716

Maximum Permissible Load on Tractors without Front-Wheel Drive (Limited at 3500 kg)

Maximum Permissible Load on Tractors without Front-Wheel Drive:	5GL/5GLN		5GV		5GN		5GF	
	kg	lb	kg	lb	kg	lb	kg	lb
Front	—	—	1800	3968	1800	3968	1800	3968
Rear	—	—	2800	6173	2800	6173	2800	6173
Total	—	—	3500	7716	3500	7716	3500	7716

NOTE: The maximum permissible total weight (according to Reg. 2015/208 ANNEX XXII) is the weight of tractor and equipment allowed for driving on public roads up to 40 km/h (25 mph) without, however, exceeding individual axle and tire capacity.

IMPORTANT: Under no circumstances must this weight be exceeded.

IMPORTANT: Comply with maximum load capacity of tires.

NOTE: Traffic regulations in certain countries may restrict the permissible axle loads and total weight to figures lower than these quoted.

Maximum Permissible Axle Load in Relation to Tires (Normal Operation)

IMPORTANT: The maximum permissible axle load is not to be exceeded even though the tire load capacity is higher.

NOTE: The axle loads quoted here for normal operation apply only for travel speeds up to 40 km/h (25 mph) and at recommended inflation pressure.

NOTE: Traffic regulations in certain countries can restrict the permissible axle loads and total weight to figures lower than the quoted in the tables.

NOTE: Maximum tire load capacity depends on the recommended tire pressure. Use of tires with a load capacity exceeding the front-wheel drive axle, load capacity allows lowering of the recommended tire pressure without any effect on the permissible front axle load. It can be advantageous when operating in difficult ground conditions. When reducing the tire pressure, refer to load capacity tables and tire pressure recommendations of the relevant tire manufacturers.

RA84036,00019EA-19-22JUL19

Specifications

Maximum Permissible Axle Load in Relation to Tires (5GV)

5GV — 2WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4100 kg (9020 lb)											
Maximum permissible front axle load 1800 kg (3968 lb)											
Maximum permissible rear axle load 3000 kg (6614 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
9.5 R28	109	A8	2060	4532	1.6	6.00-16	88	A8	1120	2464	3.3
250/85 R28	112	A8	2240	4928	1.6	6.00-16	88	A8	1120	2464	3.3
280/85 R28	118	A8	2640	5808	1.6	6.00-16	88	A8	1120	2464	3.3
360/70 R24	122	A8	3000	6600	1.6	6.00-16	88	A8	1120	2464	3.3
320/85 R28	124	A8	3200	7040	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R24	125	A8	3300	7260	1.6	6.00-16	88	A8	1120	2464	3.3
320/85 R28	124	A8	3200	7040	1.6	6.50-16	98	A8	1500	3300	4.2

5GV — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4100 kg (9020 lb)											
Maximum permissible front axle load 2000 kg (4409 lb)											
Maximum permissible rear axle load 3000 kg (6614 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
250/85 R28	112	A8	2240	4928	1.6	180/95 R16	105	A8	1850	4070	3.2
250/85 R28	112	A8	2240	4928	1.6	6.00-16	91	A8	1230	2706	4
280/85 R28	118	A8	2640	5808	1.6	180/95 R16	105	A8	1850	4070	3.2
280/85 R28	118	A8	2640	5808	1.6	260/70 R16	109	A8	2060	4532	2.4
320/85 R24	122	A8	3000	6600	1.6	180/95 R16	105	A8	1850	4070	3.2
320/85 R24	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
320/85 R24	122	A8	3000	6600	1.6	240/70 R16	104	A8	1800	3960	2.4
320/85 R28	124	A8	3200	7040	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R24	125	A8	3300	7260	1.6	10.0/75-15,3	106	A8	1900	4180	3
340/85 R24	125	A8	3300	7260	1.6	260/70 R16	109	A8	2060	4532	2.4
340/85 R24	125	A8	3300	7260	1.6	180/95 R16	105	A8	1850	4070	3.2
340/85 R28	127	A8	3500	7700	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R28	127	A8	3500	7700	1.6	8.25-16	104	A8	1800	3960	2.9
360/70 R24	122	A8	3000	6600	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R28	125	A8	3000	7260	1.6	280/70 R16	112	A8	2240	4928	2.4

Specifications

380/70 R24	125	A8	3000	7260	1.6	260/70 R16	109	A8	2060	4532	2.4
380/85 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
420/70 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
9.5 R28	109	A8	2060	4532	1.6	6.00-16	91	A8	1230	2706	4
480/65 R28	139	A8	4860	10692	1.6	280/70 R18	114	A8	2360	5192	2.4

5GV — 2WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 1800 kg (3968 lb)											
Maximum permissible rear axle load 2800 kg (6160 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
9.5 R28	109	A8	2060	4532	1.6	6.00-16	88	A8	1120	2464	3.3
250/85 R28	112	A8	2240	4928	1.6	6.00-16	88	A8	1120	2464	3.3
280/85 R28	118	A8	2640	5808	1.6	6.00-16	88	A8	1120	2464	3.3
360/70 R24	122	A8	3000	6600	1.6	6.00-16	88	A8	1120	2464	3.3
320/85 R28	124	A8	3200	7040	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R24	125	A8	3300	7260	1.6	6.00-16	88	A8	1120	2464	3.3
320/85 R28	124	A8	3200	7040	1.6	6.50-16	98	A8	1500	3300	4.2

5GV — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 2000 kg (4409 lb)											
Maximum permissible rear axle load 2800 kg (6160 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
250/85 R28	112	A8	2240	4928	1.6	180/95 R16	105	A8	1850	4070	3.2
250/85 R28	112	A8	2240	4928	1.6	6.00-16	91	A8	1230	2706	4
280/85 R28	118	A8	2640	5808	1.6	180/95 R16	105	A8	1850	4070	3.2
280/85 R28	118	A8	2640	5808	1.6	260/70 R16	109	A8	2060	4532	2.4
320/85 R24	122	A8	3000	6600	1.6	180/95 R16	105	A8	1850	4070	3.2
320/85 R24	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
320/85 R24	122	A8	3000	6600	1.6	240/70 R16	104	A8	1800	3960	2.4
320/85 R28	124	A8	3200	7040	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R24	125	A8	3300	7260	1.6	10.0/75-15.3	106	A8	1900	4180	3
340/85 R24	125	A8	3300	7260	1.6	260/70 R16	109	A8	2060	4532	2.4

Specifications

340/85 R24	125	A8	3300	7260	1.6	180/95 R16	100	A8	1850	4070	3.2
340/85 R28	127	A8	3500	7700	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R28	127	A8	3500	7700	1.6	8.25-16	104	A8	1800	3960	2.9
360/70 R24	122	A8	3000	6600	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R28	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	260/70 R16	109	A8	2060	4532	2.4
380/85 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
420/70 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
9.5 R28	109	A8	2060	4532	1.6	280/70 R18	91	A8	1230	2706	4
480/65 R28	139	A8	4860	10692	1.6	280/70 R18	114	A8	2360	5192	2.4

Maximum Permissible Axle Load in Relation to Tires (5GN)

5GN — 2WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4200 kg (9240 lb)											
Maximum permissible front axle load 1800 kg (3968 lb)											
Maximum permissible rear axle load 3100 kg (6834 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
280/85 R28	118	A8	2640	5808	1.6	6.00-16	88	A8	1120	2464	3.3
320/85 R28	124	A8	3200	7040	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R24	125	A8	3300	7260	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R28	127	A8	3500	7700	1.6	6.50-16	98	A8	1500	3300	4.2
340/85 R28	127	A8	3500	7700	1.6	7.50-16	109	A8	2060	4532	3.7

5GN — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4400 kg (9680 lb)											
Maximum permissible front axle load 2200 kg (4850 lb)											
Maximum permissible rear axle load 3100 kg (6834 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
280/85 R28	118	A8	2640	5808	1.6	260/70 R16	109	A8	2060	4532	2.4
280/85 R28	118	A8	2640	5808	1.6	180/95 R16	105	A8	1850	4070	3.2
340/85 R24	125	A8	3300	7260	1.6	180/95 R16	105	A8	1850	4070	3.2
320/85 R28	124	A8	3200	7040	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R28	127	A8	3500	7700	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R28	127	A8	3500	7700	1.6	280/70 R18	114	A8	2360	5192	2.4
340/85 R28	127	A8	3500	7700	1.6	8.25-16	104	A8	1800	3960	2.9

Specifications

380/70 R24	125	A8	3300	7260	1.6	260/70 R16	109	A8	2060	4532	2.4
380/85 R28	133	A8	4120	9064	1.6	7.50 R18	102	A8	1700	3740	3.2
380/85 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
420/70 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
480/65 R28	139	A8	4860	10692	1.6	280/70 R18	114	A8	2360	5192	2.4
480/70 R26	139	A8	4860	10692	1.6	280/70 R18	114	A8	2360	5192	2.4

5GN — 2WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 1800 kg (3968 lb)											
Maximum permissible rear axle load 2800 kg (6160 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
280/85 R28	118	A8	2060	4532	1.6	6.00-16	88	A8	1120	2464	3.3
320/85 R28	124	A8	3200	7040	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R24	125	A8	3300	7260	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R28	127	A8	3500	7700	1.6	6.50-16	98	A8	1500	3300	4.2
340/85 R28	127	A8	3500	7700	1.6	7.50-16	109	A8	2060	4532	3.7

5GN — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 2200 kg (4850 lb)											
Maximum permissible rear axle load 2800 kg (6160 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
280/85 R28	118	A8	2640	5808	1.6	260/70 R16	109	A8	2060	4532	2.4
280/85 R28	118	A8	2640	5808	1.6	180/95 R16	105	A8	1850	4070	3.2
340/85 R24	125	A8	3300	7260	1.6	180/95 R16	105	A8	1850	4070	3.2
320/85 R28	124	A8	3200	7040	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R28	127	A8	3500	7700	1.6	7.50 R16	100	A8	1600	3520	3.2
340/85 R28	127	A8	3500	7700	1.6	280/70 R18	114	A8	2360	5192	2.4
340/85 R28	127	A8	3500	7700	1.6	8.25-16	104	A8	1800	3960	2.9
380/70 R24	125	A8	3300	7260	1.6	260/70 R16	109	A8	2060	4532	2.4
380/85 R28	133	A8	4120	9064	1.6	7.50 R18	102	A8	1700	3740	3.2
380/85 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4

Specifications

420/70 R28	133	A8	4120	9064	1.6	280/70 R18	114	A8	2360	5192	2.4
480/65 R28	139	A8	4860	10692	1.6	280/70 R18	114	A8	2360	5192	2.4
480/70 R26	139	A8	4860	10692	1.6	280/70 R18	114	A8	2360	5192	2.4

Maximum Permissible Axle Load in Relation to Tires (5GF)

5GF — 2WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4200 kg (9240 lb)											
Maximum permissible front axle load 1800 kg (3968 lb)											
Maximum permissible rear axle load 3100 kg (6834 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
320/85 R28	124	A8	3200	7040	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R28	127	A8	3500	7700	1.6	6.50-16	98	A8	1500	3300	4.2
340/85 R28	127	A8	3500	7700	1.6	7.50-16	109	A8	2060	4532	3.7
380/70 R28	127	A8	3500	7700	1.6	7.50-16	109	A8	2060	4532	3.7

5GF — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4400 kg (9680 lb)											
Maximum permissible front axle load 2200 kg (4850 lb)											
Maximum permissible rear axle load 3100 kg (6834 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
320/85 R28	124	A8	3200	7040	1.6	280/70 R20	116	A8	2500	5500	2.4
340/85 R24	125	A8	3300	7260	1.6	250/80-16	110	A8	2300	5060	2.8
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
360/80 R24	138	D	5450	11990	3.2	250/80 R16	119	G	3500	7700	4.5
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
380/70 R24	125	A8	3300	7260	1.6	250/80-16	110	A8	2300	5060	2.8
380/70 R28	127	A8	3500	7700	1.6	280/70 R20	116	A8	2500	5500	2.4
380/70 R28	127	A8	3500	7700	1.6	250/80-18	115	A8	2300	5060	2.8
380/85 R28	133	A8	4120	9064	1.6	9.5 R20	8PR	—	1560	3432	2.8
400/80 R28	146	D	6900	15180	3.2	340/80 R18	138	D	5450	11990	4
420/70 R24	130	A8	3800	8360	1.6	280/70 R20	116	A8	2500	5500	2.4
420/70 R24	130	A8	3800	8360	1.6	280/70 R18	114	A8	2360	5192	2.4
420/70 R28	133	A8	4120	9064	1.6	320/70 R20	113	A8	2300	5060	1.6
420/70 R28	133	A8	4120	9064	1.6	300/70 R20	110	A8	2120	4664	1.6

Specifications

480/65 R24	136	A8	4480	9856	1.6	280/70 R18	114	A8	2360	5192	2.4
480/65 R28	139	A8	4860	10692	1.6	320/70 R20	113	A8	2300	5060	1.6
480/70 R26	139	A8	4860	10692	1.6	320/70 R20	113	A8	2300	5060	1.6
480/70 R26	139	A8	4860	10692	1.6	9.5 R20	8PR	—	1560	3432	2.8

5GF — 2WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 1800 kg (3968 lb)											
Maximum permissible rear axle load 2800 kg (6160 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
320/85 R28	124	A8	3200	7040	1.6	6.00-16	88	A8	1120	2464	3.3
340/85 R28	127	A8	3500	7700	1.6	6.50-16	98	A8	1500	3300	4.2
340/85 R28	127	A8	3500	7700	1.6	7.50-16	109	A8	2060	4532	3.7
380/70 R28	127	A8	3500	7700	1.6	7.50-16	109	A8	2060	4532	3.7

5GF — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 2200 kg (4850 lb)											
Maximum permissible rear axle load 2800 kg (6160 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
320/85 R28	124	A8	3200	7040	1.6	280/70 R20	116	A8	2500	5500	2.4
340/85 R24	125	A8	3300	7260	1.6	250/80-16	110	A8	2300	5060	2.8
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
360/80 R24	138	D	5450	11990	3.2	250/80 R16	119	G	3500	7700	4.5
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
380/70 R24	125	A8	3300	7260	1.6	250/80-16	110	A8	2300	5060	2.8
380/70 R28	127	A8	3500	7700	1.6	280/70 R20	116	A8	2500	5500	2.4
380/70 R28	127	A8	3500	7700	1.6	250/80-18	115	A8	2300	5060	2.8
380/85 R28	133	A8	4120	9064	1.6	9.5 R20	8PR	—	1560	3432	2.8
400/80 R28	146	D	6900	15180	3.2	340/80 R18	138	D	5450	11990	4
420/70 R24	130	A8	3800	8360	1.6	280/70 R20	116	A8	2500	5500	2.4
420/70 R24	130	A8	3800	8360	1.6	280/70 R18	114	A8	2360	5192	2.4
420/70 R28	133	A8	4120	9064	1.6	320/70 R20	113	A8	2300	5060	1.6

Specifications

420/70 R28	133	A8	4120	9064	1.6	300/70 R20	110	A8	2120	4664	1.6
480/65 R24	136	A8	4480	9856	1.6	280/70 R18	114	A8	2360	5192	2.4
480/65 R28	139	A8	4860	10692	1.6	320/70 R20	113	A8	2300	5060	1.6
480/70 R26	139	A8	4860	10692	1.6	320/70 R20	113	A8	2300	5060	1.6
480/70 R26	139	A8	4860	10692	1.6	9.5 R20	8PR	—	1560	3432	2.8

Maximum Permissible Axle Load in Relation to Tires — Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)

Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF) — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4400 kg (9700 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 3100 kg (6834 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Index Radius (mm)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Index Radius (mm)	Pressure (bar)
380/70 R24	125	A8	3300 (7275 lb)	575	1.6	280/70 R18	114	A8	2360 (5203 lb)	410	2.4
420/70 R24	130	A8	3800 (8378 lb)	600	1.6	280/70 R20	116	A8	2500 (5516 lb)	425	2.4
380/70 R28	127	A8	3500 (7716 lb)	625	1.6	280/70 R20	116	A8	2500 (5516 lb)	425	2.4
420/70 R28	133	A8	4120 (9083 lb)	650	1.6	300/70 R20	110	A8	2120 (4674 lb)	450	1.6
420/70 R28	133	A8	4120 (9083 lb)	650	1.6	320/70 R20	113	A8	2300 (5070 lb)	465	1.6
480/65 R28	139	A8	4820 (10626 lb)	650	1.6	320/70 R20	113	A8	2300 (5070 lb)	465	1.6

Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF) — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7716 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2800 kg (6173 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Index Radius (mm)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Index Radius (mm)	Pressure (bar)
380/70 R24	125	A8	3300 (7275 lb)	575	1.6	280/70 R18	114	A8	2360 (5203 lb)	410	2.4
420/70 R24	130	A8	3800 (8378 lb)	600	1.6	280/70 R20	116	A8	2500 (5516 lb)	425	2.4
380/70 R28	127	A8	3500 (7716 lb)	625	1.6	280/70 R20	116	A8	2500 (5516 lb)	425	2.4
420/70 R28	133	A8	4120 (9083 lb)	650	1.6	300/70 R20	110	A8	2120 (4674 lb)	450	1.6
420/70 R28	133	A8	4120 (9083 lb)	650	1.6	320/70 R20	113	A8	2300 (5070 lb)	465	1.6
480/65 R28	139	A8	4820 (10626 lb)	650	1.6	320/70 R20	113	A8	2300 (5070 lb)	465	1.6

Specifications

Maximum Permissible Axle Load in Relation to Tires (5GL)

5GL — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4200 kg (9240 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2500 kg (5500 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
360/70 R20	120	A8	2800	6160	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R20	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	125	A8	3950	8690	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	125	A8	3950	8690	1.6	320/65 R18	112	A8	2060	4532	1.6

5GL — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2500 kg (5500 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
360/70 R20	120	A8	2800	6160	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R20	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	125	A8	3950	8690	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	125	A8	3950	8690	1.6	320/65 R18	112	A8	2060	4532	1.6

Maximum Permissible Axle Load in Relation to Tires (5GL-N)

(Open Operator Station) 5GL-N — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4200 kg (9240 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2500 kg (5500 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
360/70 R20	120	A8	2800	6160	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
360/70 R24	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4

Specifications

380/70 R20	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
380/70 R20	122	A8	3000	6600	1.6	180/95 R16 (6.50 R16)	105	A8	1850	4070	3.2
380/70 R24	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	128	A8	3950	8690	1.6	280/70 R18	114	A8	2360	5192	2.4

(Open Operator Station) 5GL-N — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2500 kg (5500 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
360/70 R20	120	A8	2800	6160	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
360/70 R24	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
380/70 R20	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
380/70 R20	122	A8	3000	6600	1.6	180/95 R16 (6.50 R16)	105	A8	1850	4070	3.2
380/70 R24	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	128	A8	3950	8690	1.6	280/70 R18	114	A8	2360	5192	2.4

(Cab) 5GL-N — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 4200 kg (9240 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2500 kg (5500 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
380/70 R20	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
360/70 R20	120	A8	2800	6160	1.6	200/70 R16	94	A8	1340	2948	2.4
360/70 R20	120	A8	2800	6160	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R24	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R20	122	A8	3000	6600	1.6	180/95 R16	105	A8	1850	4070	3.2
380/70 R24	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4

Specifications

440/65 R24	128	D	3950	8690	1.6	280/70 R18	114	A8	2360	5192	2.4

(Cab) 5GL-N — 4WD MAXIMUM TOTAL TECHNICALLY PERMISSIBLE MASS = 3500 kg (7700 lb)											
Maximum permissible front axle load 2200 kg (4400 lb)											
Maximum permissible rear axle load 2500 kg (5500 lb)											
Rear Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)	Front Tire	Load Index	Speed Index	Tire Load (kg)	Tire Load (lb)	Pressure (bar)
380/70 R20	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
360/70 R20	120	A8	2800	6160	1.6	200/70 R16	94	A8	1340	2948	2.4
360/70 R20	120	A8	2800	6160	1.6	240/70 R16	104	A8	1800	3960	2.4
360/70 R24	122	A8	3000	6600	1.6	260/70 R16	109	A8	2060	4532	2.4
360/70 R24	122	A8	3000	6600	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R20	122	A8	3000	6600	1.6	180/95 R16	105	A8	1850	4070	3.2
380/70 R24	125	A8	3300	7260	1.6	280/70 R16	112	A8	2240	4928	2.4
380/70 R24	125	A8	3300	7260	1.6	280/70 R18	114	A8	2360	5192	2.4
440/65 R24	128	D	3950	8690	1.6	280/70 R18	114	A8	2360	5192	2.4

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Load Capacity of Tires with Front Loader

Load capacity with the front loader is obtained by multiplying the load capacity of the tire by the percentage given in the table. (Load capacity varies from tire manufacturer to tire manufacturer).

To obtain precise values, also refer the tire manual provided by the tire manufacturer.

Permissible load capacity in percent					
Speed		Without front-wheel drive	With front-wheel drive	With front-wheel drive	With front-wheel drive
		PR ^a tires	PR ^a tires	A6 ^a tires	A8 ^b tires
km/h	mph	%	%	%	%
8	50	150	140	150	150
15	90	—	—	134	134
20	125	135	120	123	123
25	155	115	107	111	111
30	185	100	100	100	107
35	215	—	—	95	103
40	250	—	—	90	100

^aTires up to 30 km/h (18.5 mph)

^bTires up to 40 km/h (25 mph)

NOTE: Maximum travel speed with the front loader is 8 km/h (5 mph).

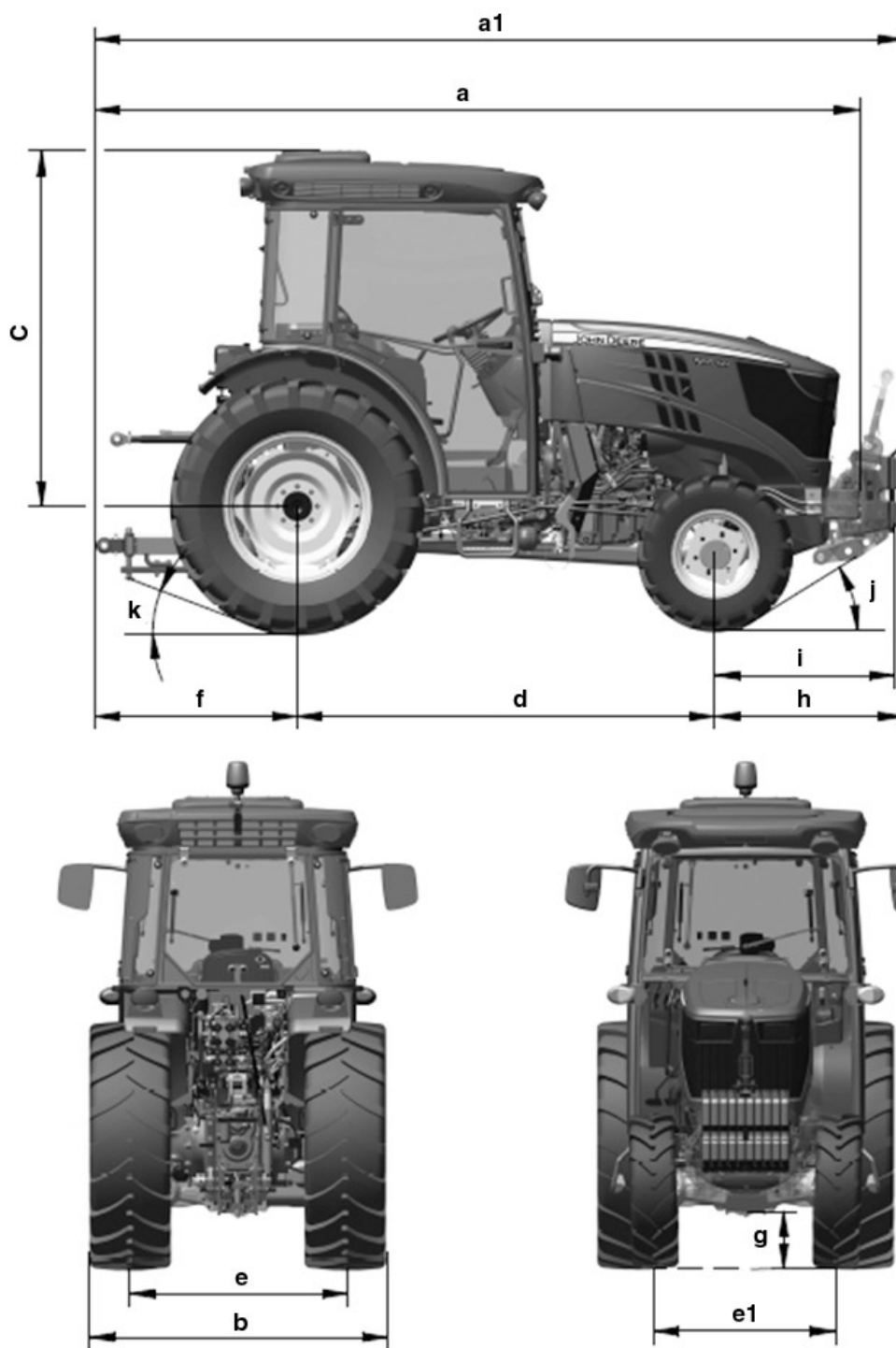
Specifications

*Maximum front tread width with the front loader is
1.80 m (71 in).*

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Vehicle Dimensions

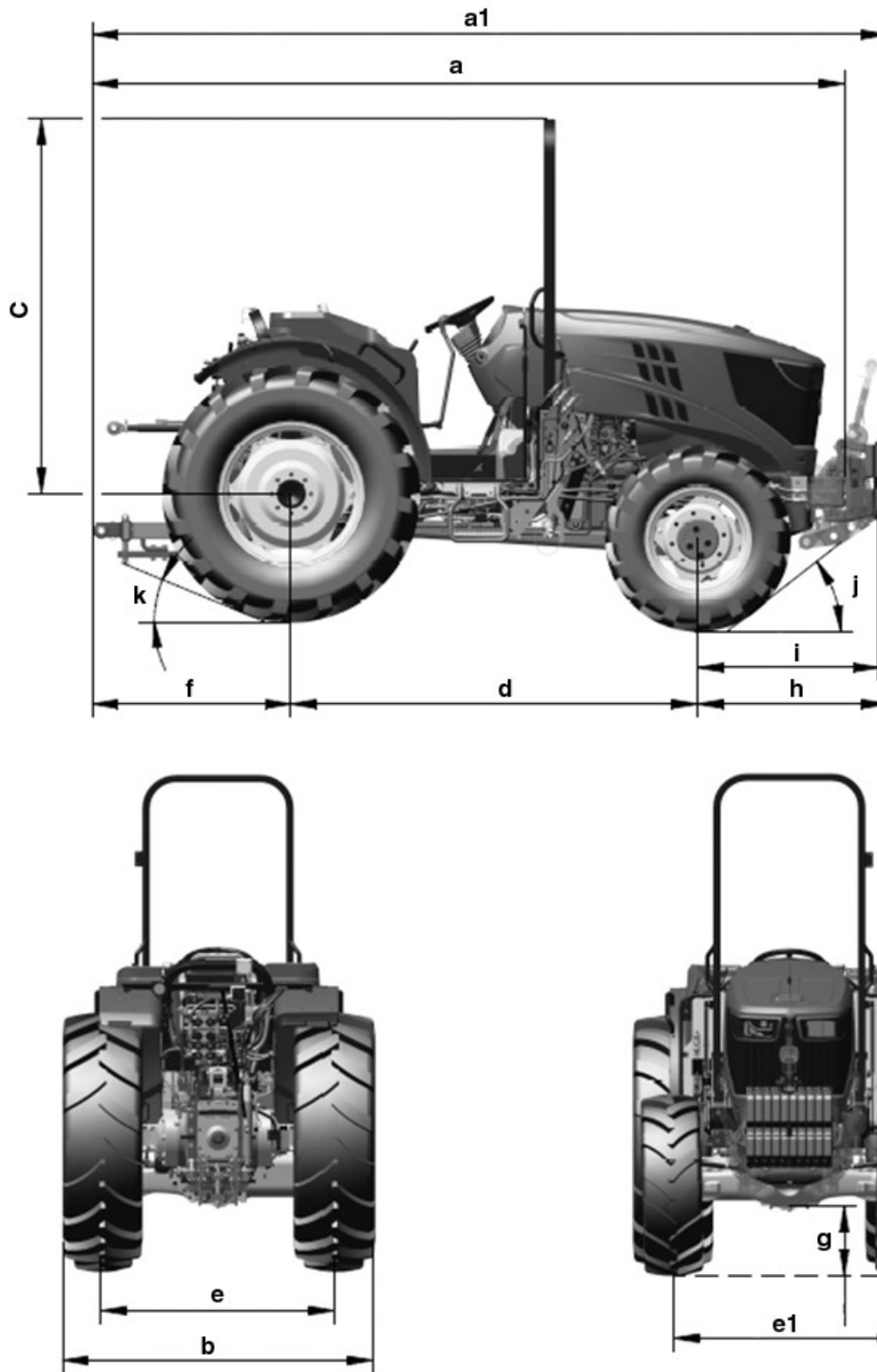
5GV, 5GN, 5GF (Cab), and 5GF (Open Operator Station)



5GV, 5GN, 5GF (Cab)

APY11293—UN—03JUN19

Specifications



5GF (Open Operator Station)

APY11294—UN—03JUN19

		Cab			Open Operator Station
		GV	GN	GF	GF
a	2WD	3857	3857	3857	3857
	4WD	3857	3857	3857	3857
a1 ^a	2WD	4282	4282	4282	4282

Specifications

	4WD	4282	4282	4282	4282
b	2WD	991 ^b —1676	1257—1822	1303—1951	1303—1951
	4WD	991 ^b —1676	1257—1822	1303—1951	1303—1951
c	2WD	1830	1830	1830	1952
	4WD	1830	1830	1830	1952
d	2WD	2148	2148	2148	2148
	4WD	2148	2148	2124	2124
e1	2WD	776—974	776—974	998—1196	998—1196
	4WD	819—1048	910—1148	1129—1603	1181—1603
e	2WD	756—1279	955—1359	984—1629	984—1629
	4WD	783—1279	955—1359	984—1629	1114—1629
f	2WD	1065	1065	1065	1065
	4WD	1065	1065	1065	1065
g	2WD	306—423	336—423	336—423	336—423
	4WD	207—324	239—326	243—330	243—330
h ^c	2WD	1069	1069	1069	1069
	4WD	1069	1069	1093	1093
l	2WD	923	923	923	923
	4WD	923	923	947	947
r ^d	2WD	29°	29°	29°	29°
	4WD	28°	30°	30°	30°
k ^d	2WD	13°	15°	15°	15°
	4WD	13°	15°	15°	15°

^aWith 30 kg ballast

^bMinimum overall tire (1000 mm minimum axle width)

^cWith 30 kg ballast

^dValues determinate with the minimum radius

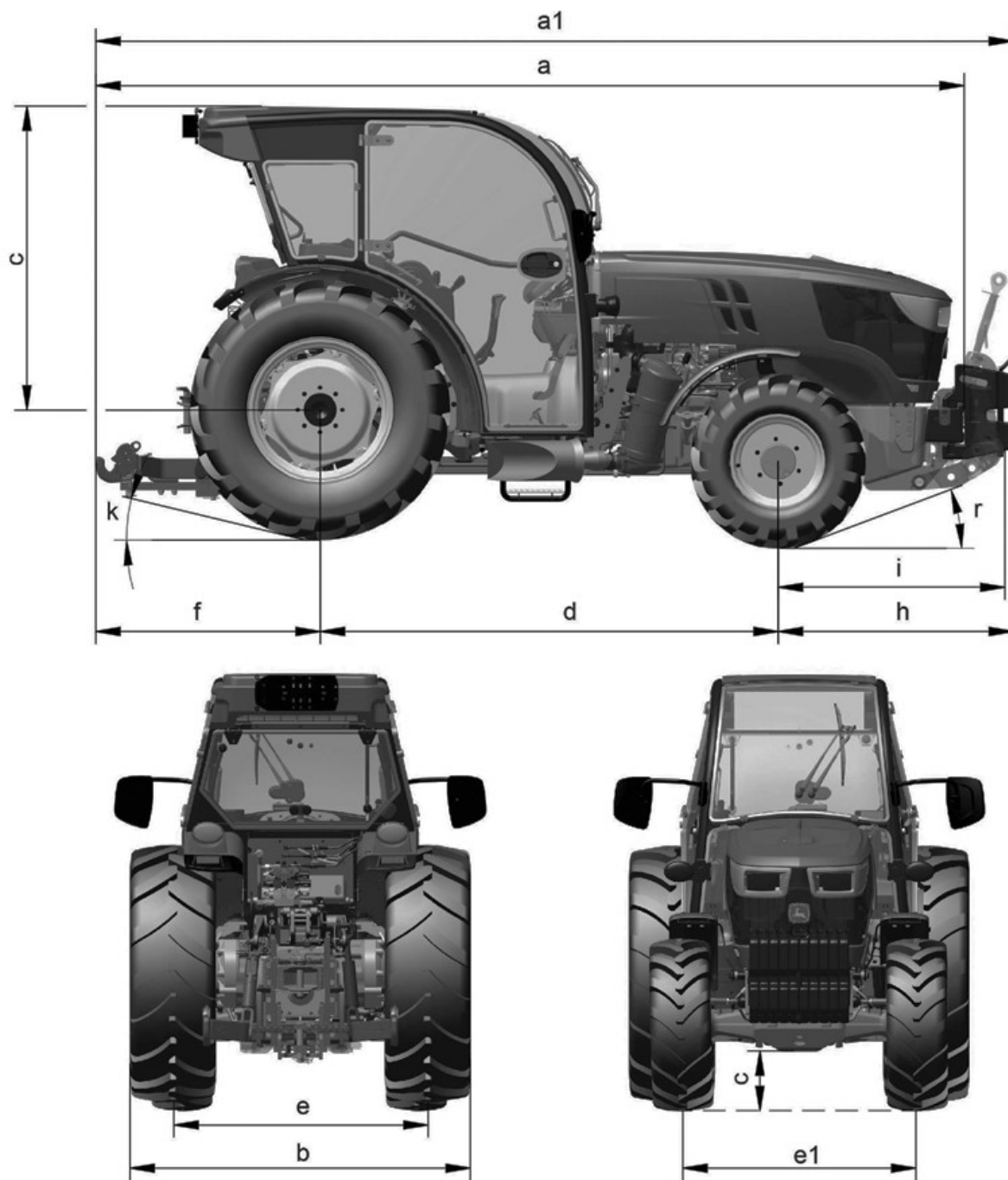
		(Cab) Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)	(Open Operator Station) Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)
		GF	GF
a	4WD	3875	3875
a1 ^a	4WD	4282	4282
b	4WD	1490—2194	1490—2194
c	4WD	1830	1830
d	4WD	2124	2124
e1	4WD	1168—1809	1168—1809
e	4WD	1138—1816	1138—1816
f	4WD	1065	1065
g	4WD	236—336	236—336
h ^a	4WD	1093	1093
l	4WD	947	947
r ^b	4WD	30°	30°
k ^b	4WD	15°	15°

5GF Wide Axle (1540 mm Rear Axle Flange to Flange)

^aValues determined with the minimum radius

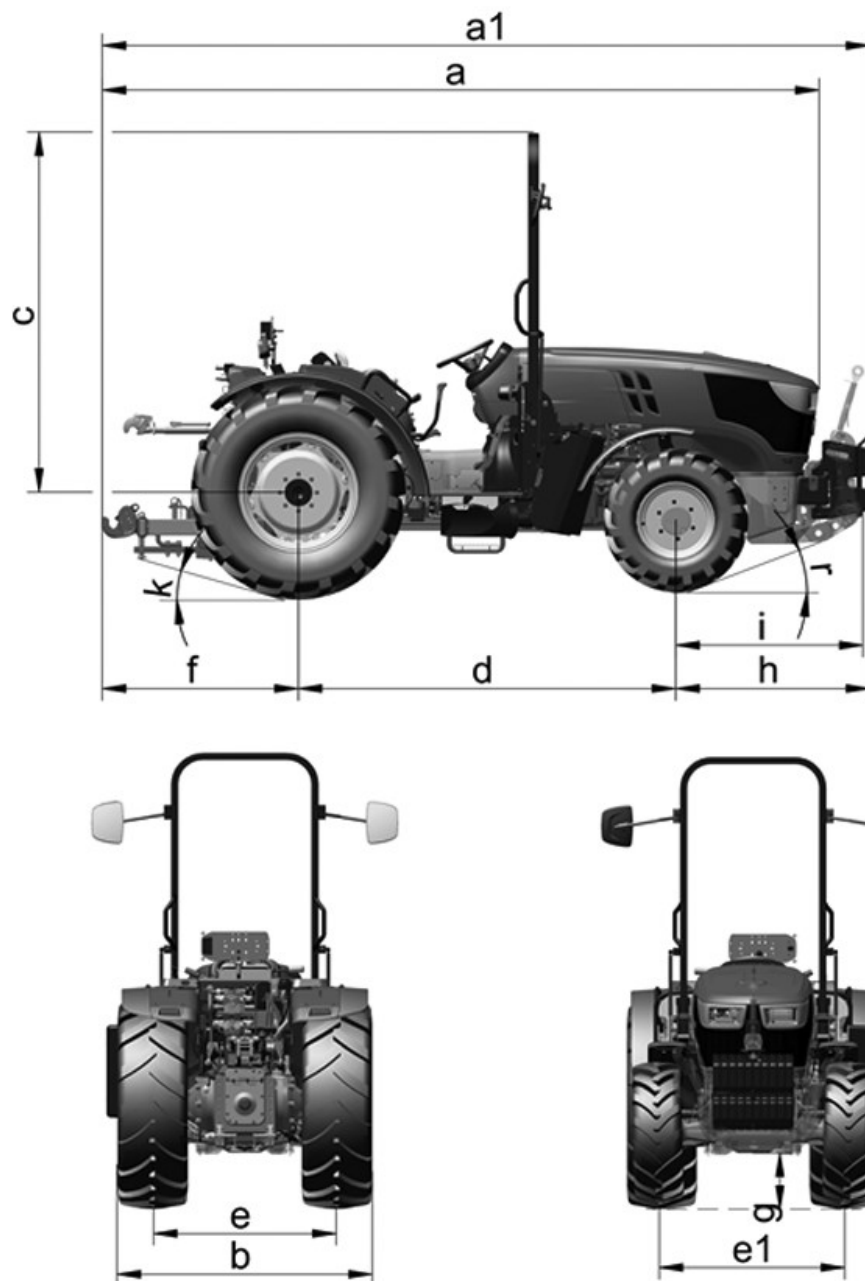
^bWith 30 kg ballast

Dimensions - (5GL)



5GL (Cab)

APY05039—UN—30MAR18



5GL (Open Operator Station)

PY34453—UN—18NOV16

4WD	Cab	Open Operator Station	
	GL	GL	GL-N
a	3950	3959	3959
a1 ^a	4240	4340	4340
b	1284—1791	1376—1829	1246—1776
c	1382—1462	1987	1987
d	2085	2075	2085
e1	1014—1279	1147—1445	1011—1278
e	989—1335	1024—1477	965-1321
f	1083	1083	1083
g	122—314	229—304	225—300

Specifications

h ^a	1072	1182	1172
i	1083	1043	1033
r ^b	16°	21°	21°
k ^b	5°	9°	9°

^aWith 30 kg ballast

^bValues determined with the minimum radius

RA84036,00019EB-19-22JUL19

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, so take the following safety instructions into account:

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, communications systems

In particular, subsequently installed electrical/electronic components must comply with the relevant edition of EMC Directive 89/336/EEC and be CE marked.

If mobile communication systems (for example, 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 (that is 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.

RA84036,00010A8-19-01AUG17

How to Calculate Permissible Mass

Calculating permissible tractor mass and permissible trailer mass on the basis of the D value:

EC-approved, dynamically tested trailer hitches are always provided with a D value. This is calculated as follows:

$$D = \frac{G * A * B}{A + B}, \text{ where}$$

D = D value of hitch
G = Gravitational constant 9.81 m/s²
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:

$$\text{Tractor mass } A = \frac{D * B}{G * B - D}$$

$$\text{Trailer mass } B = \frac{D * A}{G * A - D}$$

NOTE: If when calculating A the product of G*B exceeds the D value, or if when calculating B the product of G*A exceeds 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

$$55000 \text{ N} * 7000 \text{ kg}$$

$$B = \frac{9.81 \text{ m/s}^2 \times 7000 \text{ kg} - 55000 \text{ N}}{9.81 \text{ m/s}^2} = 28163 \text{ kg}$$

Pay close attention to permissible towed mass and tractor mass!

RA84036,00010AA-19-01AUG17

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 $\leq 1.25 \text{ m/s}^2$.

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

Limited Battery Warranty

NOTE: Applicable in North America only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

To Secure Warranty Service

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

Free Replacement

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship within 90 days of purchase will be replaced free of charge. Installation costs will be covered by warranty if (1) the unserviceable battery was installed by a John Deere factory or dealer, (2) failure occurs within 90 days of purchase, and (3) the replacement battery is installed by a John Deere dealer.

Pro Rata Adjustment

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship more than 90 days after purchase, but before the expiration of the applicable adjustment

period, will be replaced upon payment of the battery's current list price less a pro rata credit for unused months of service. The applicable adjustment period is determined from the Warranty Code printed at the top of the battery and chart below. Installation costs are not covered by warranty after 90 days from the date of purchase.

This Warranty Does Not Cover

Breakage of the container, cover, or terminals.

Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.

Transportation, mailing, or service call charges for warranty service.

Limitation of Implied Warranties and Purchaser's Remedies

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

No Dealer Warranty

The selling dealer makes no warranty of its own and the dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.

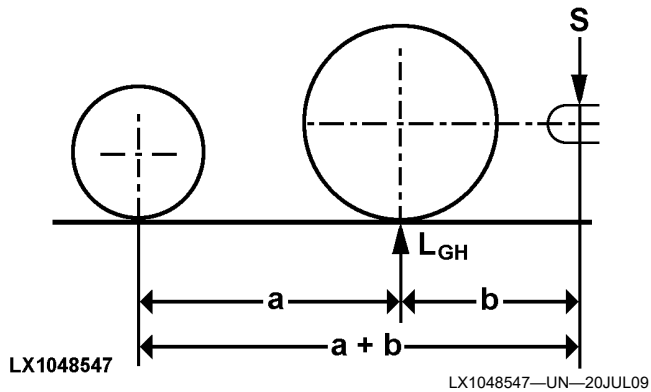
Pro Rata Months of Adjustment

Warranty Code	Warranty Period
A	40 Months
B	36 Months
C	24 Months

NOTE: If your battery is not labeled with a warranty code, it is a warranty code "B".

DX,BATWAR,NA-19-16APR92

How to Calculate Maximum Permissible Download on Trailer Hitch



The calculation of the maximum permissible download, at the trailer hitch, in relation to the Load Index (LI):

- The load index can be read on the sidewall of the tire. If the index is not provided, refer to the load capacity of the tires 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:

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 the 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

$H_{Max.}$ = 3500 kg
(1900 kg * 2) = 3800 kg (rear axle load = 3500)

$$S = \frac{(H_{Max.} - L_{GH}) * a}{a + b}, \text{ where}$$

$H_{Max.}$ = 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)

Specifications

kg)

$$S = \frac{3500 \text{ kg} - 1800 \text{ kg} * 2100 \text{ mm}}{2100 \text{ mm} + 600 \text{ mm}} = 1322 \text{ kg}$$

IMPORTANT: 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.

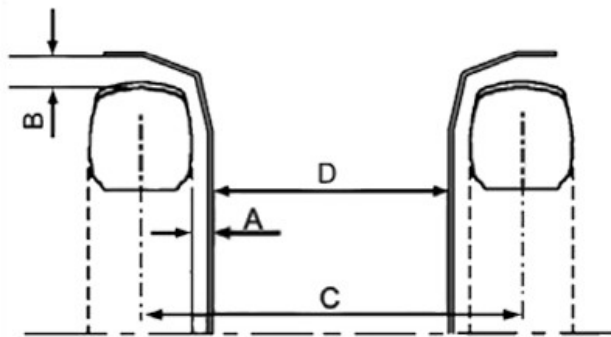
IMPORTANT: Check clearance (A) and (B) between tires and fenders, before changing the rear tires.

The tires must clear the fenders by at least:

Fixed Width (mm) (in)							
A = 15 mm mini- mum	B = 30 mm mini- mum	D					
		GF	GV	GN	GL	GL- N	Wide Axle (1540 mm rear axle flange to flange) (5GF)
		600	450	520	600	520	600

RA84036,00010A9-19-01AUG17

Observe Rear Wheel Tread Width Limitations



PY31903—UN—29AUG16

Tire Dimension	5GF			Tire Dimension	5GV			Tire Dimension	5GN		
	Minimum Value				Minimum Value				Minimum Value		
	A	B	C		A	B	C		A	B	C
320/85 R28	20.2	97.8	984	280/85 R28 (11.2 R28)	53.4	124.9	879.4	280/85 R28 (11.2 R28)	58.4	125.3	959.4
340/85 R24	81.2	133.3	1140	320/85 R28 (12.4 R28)	42.9	97.4	879.4	320/85 R28 (12.4 R28)	47.9	97.8	959.4
340/85 R28 (13.6 R28)	61.2	77.8	1114	250/85 R28 (9.5 R28)	30.7	155.9	783	340/85 R24 (13.6 R24)	62.4	131.8	1039.4
380/70 R24	59.2	133.8	1140	360/70 R24	58.4	151.9	961.4	340/85 R28 (13.6 R28)	21.9	77.8	955.4
380/70 R28	53.7	90.3	1114	340/85 R24 (13.6 R24)	57.4	131.4	959.4	380/70 R24	48.9	133.8	1039.4
380/85 R28 (14.9 R28)	44.2	46.3	1114	320/85 R24 (12.4 R24)	20.2	147.9	848	380/85 R28 (14.9 R28)	30.5	46.3	1006.6
420/70 R24	36.2	97.3	1140	360/70 R28	24.4	103.9	875.4	420/70 R28	71.7	52.3	1118
420/70 R28	29.7	52.3	1114	340/85 R28	23.9	82.4	875.4	480/65 R28	53.2	49.8	1126
480/65 R24	46.9	99.3	1191.4	9.5 R28	23.2	162.9	756	480/70 R26	67.7	48.3	1148
480/65 R28	58.9	49.9	1106	380/70 R24	43.9	133.4	959.4	—	—	—	—
480/70 R26	26.7	48.3	844.6	420/70 R28	66.7	51.9	1038	—	—	—	—
420/70 R24	53.7	103.3	1150	380/85 R28 (14.9 R28)	25.5	45.9	926.6	—	—	—	—
420/70 R28	37.2	50.3	1114	480/65 R28	54.2	49.4	1058	—	—	—	—

Specifications

5GL					5GL-N			
Maximum Value					Maximum Value			
Tire Dimension	A	B (20 in Fender)	B (24 in Fender)	C	A	B (20 in Fender)	B (24 in Fender)	C
360/70 R20	15	66	125	1024	25	66	125	965
380/70 R20	15	42	101	1024	19	49	108	965
360/70 R24	16	—	70	1027	62	—	70	1039
380/70 R24	16	—	49	1027	49	—	52	1039
440/65 R24	55	—	47	1191	22	—	47	1043
420/65 R20	—	—	—	—	66	—	120	1072

Tire Dimension	Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)		
	Minimum Value		
	A	B	C
380/70 R24	151.5	133.8	1324.6
380/70 R28	84	90.3	1174.6
420/70 R28	128.5	52.3	1324.6
420/70 R24	60	97.3	1174.6
480/65 R28	39.5	44.5	1182.6

Wide Axle (1540 mm Rear Axle Flange to Flange) (5GF)

RA84036,00019EC-19-22JUL19

Working off Level Operation

Working off Level Operation

Longitudinal Slope 30°
 Longitudinal Side Slope 18°

MS76789,00020C9-19-20APR21

Serial Numbers

Type Plates

Serial numbers identifying machine components or assemblies are stamped on components or factory serial number plates.

These numbers and letters are required when ordering replacement parts.

To ensure that you always have these numbers at hand, enter the appropriate serial numbers in the spaces provided in each illustration.

RA84036,00010AC-19-02AUG17

Identification Plates

The identification plate has the following information:

- Model Number
- Spec Number
- Serial Number

All of these characters are needed when ordering parts or identifying a component.

They are also needed for law enforcement to trace the machine if it is ever stolen.

Accurately record these characters in the spaces provided and have available when contacting your John Deere dealer.

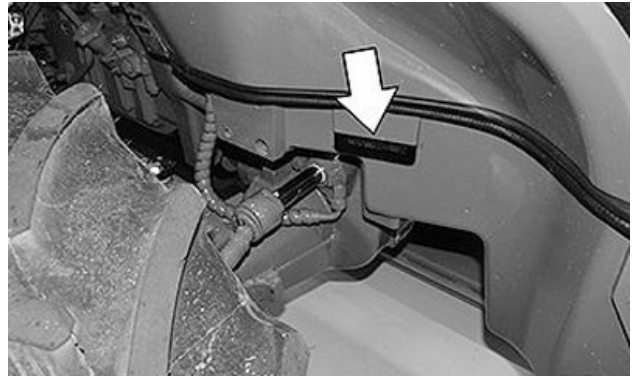
RA84036,00010AD-19-02AUG17

Product Identification Number



(5GV, 5GN, 5GF)

APY11191—UN—15MAY19



(5GL)

PY28286—UN—25AUG16

The product identification number is on the right-hand side of the front support.

Product Identification Number (17 Digits)

*																*

Product Identification Number Plates



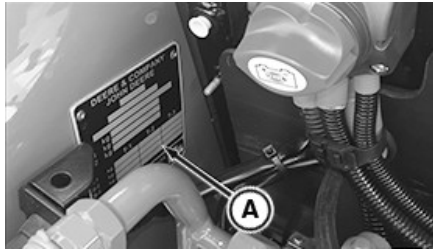
(5GV, 5GN, 5GF)

APY11192—UN—15MAY19



(Open Operator Station) (5GL)

PY28382—UN—30SEP16



(Cab) (5GL)

APY11195—UN—15MAY19



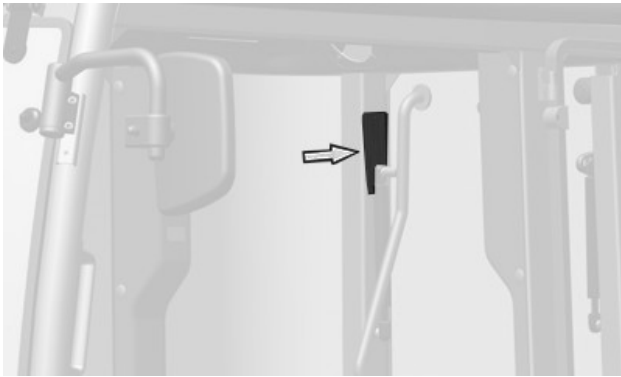
(5GL)

PY28383—UN—30SEP16

A—Identification Number Plate

Due to different regulations, in some countries the location and dimensions of the identification number plate (A) can be different.

Safety Structure Plates



(Cab) (5GV, 5GN, 5GF)

PY28287—UN—28SEP16

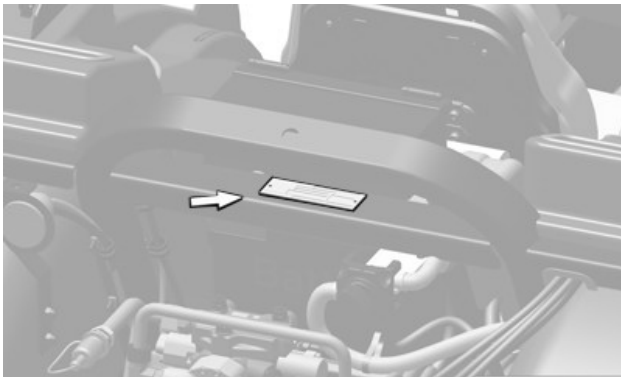


(Cab) (5GL)

APY05040—UN—30MAR18

Plates are fixed on the ROPS in highlighted positions.

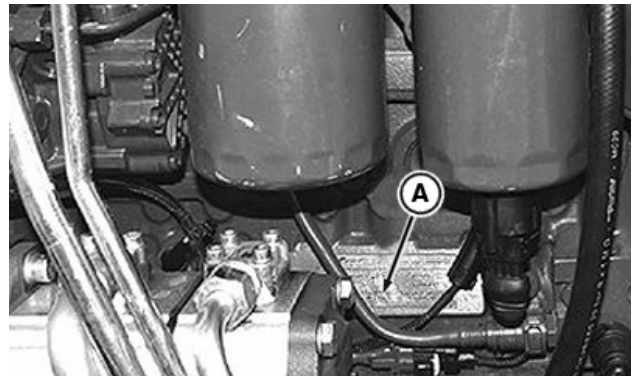
RA84036,0001995-19-15MAY19



(Open Operator Station) (5GV, 5GN, 5GF)

PY28288—UN—28SEP16

Engine Serial Number



PY28289—UN—25AUG16

A—Engine Serial Number Plate

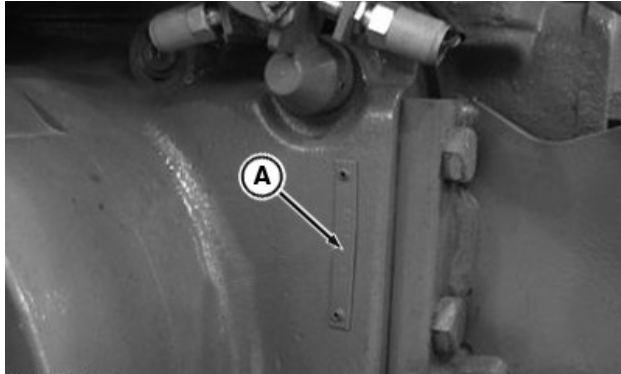
The engine serial number plate (A) is located on the right-hand side of the engine.

Serial Numbers

Engine Serial Number _____

SD74272,00003FB-19-25AUG16

Transmission Serial Number

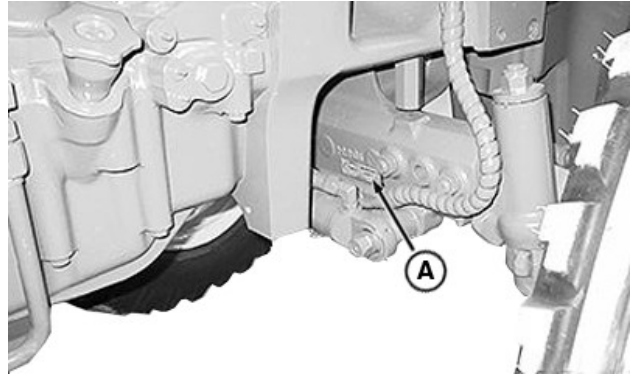


PY28290—UN—25AUG16

A—Transmission Serial Number Plate

The transmission (drivetrain) serial number (A) is located at the rear of the machine on the bottom left-hand corner of the PTO housing.

SD74272,00003FC-19-25AUG16



PY28293—UN—25AUG16

Tractor without MFWD

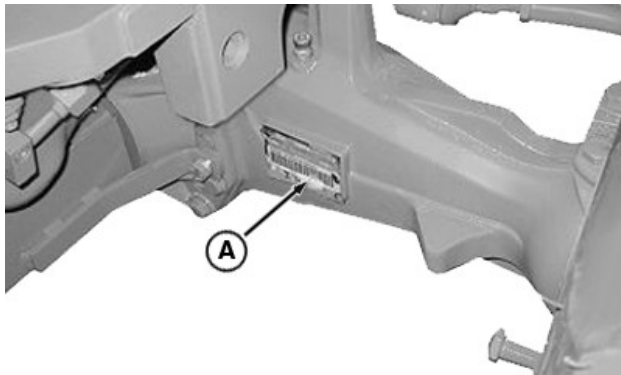
A—Front Wheel Drive Serial Number Plate

The front wheel drive serial number plate (A) is located on the rear side of the right-hand axle housing.

Front Wheel Drive Serial Number _____

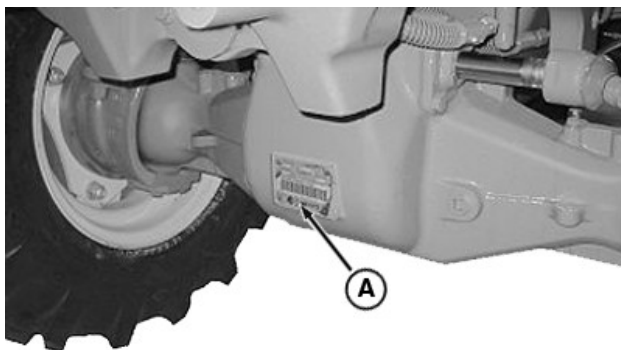
RA84036,00010AE-19-02AUG17

Front Axle Serial Number



PY28291—UN—25AUG16

Tractor with MFWD

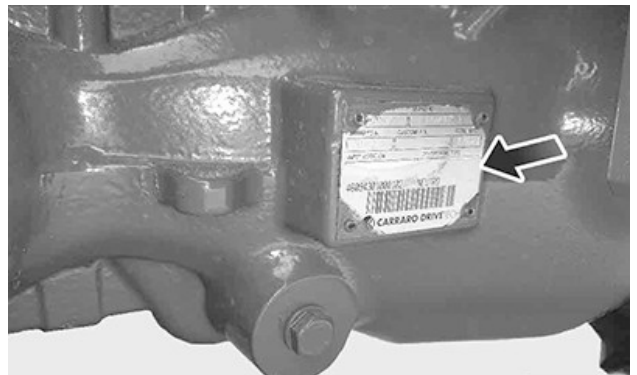


PY28292—UN—25AUG16

Tractor with MFWD

Suspended Front Axle Serial Number

The suspended front axle identification plate is on the front right-hand side of the 5GV model.

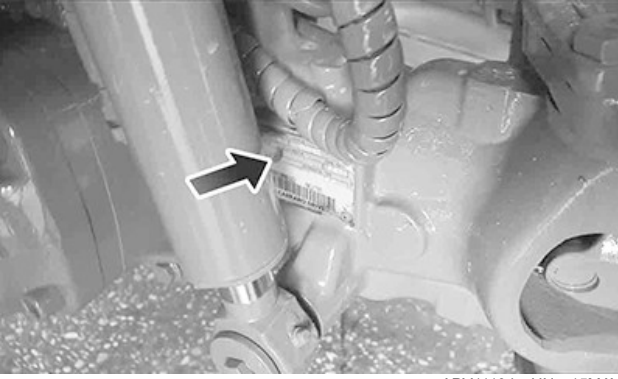


APY11193—UN—15MAY19

(5GV)

The suspended front axle identification plate is on the rear right-hand side of the 5GN and 5GF model.

Serial Numbers



APY11194—UN—15MAY19
(5GN, 5GF)

RA84036.0001996-19-25JUN19

Change of Ownership

List of Owners

Machine Identification	
Serial Number:	Tractor Model:
Engine Number:	Registration Number:

1st Change of Ownership	
First Owner:	Second Owner:
Address:	Address:
Purchase Date: Hours at Purchase:	Dealer's Stamp <i>(only if sold through a dealer)</i>

2nd Change of Ownership	
Second Owner:	Third Owner:
Address:	Address:
Purchase Date: Hours at Purchase:	Dealer's Stamp <i>(only if sold through a dealer)</i>

3rd Change of Ownership	
Third Owner:	Fourth Owner:
Address:	Address:

Change of Ownership

..... 	
Purchase Date: Hours at Purchase:	Dealer's Stamp <i>(only if sold through a dealer)</i>

OULXBER,000197A-19-01SEP10

Service — Predelivery Inspection

Service Procedure

The following inspection, adjustment, and service work were performed prior to the delivery of the machine.

1. Oil levels of the following systems have been checked and refilled if necessary:

☐ 1.1 Engine oil*

☐ 1.2 Transmission and hydraulic oil*

☐ 1.3 Front-wheel drive axle, oil*

☐ 1.4 Brake fluid*

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)

☐ 3. All grease fittings have been lubricated.

☐ 4. Guards and shields have been checked.

☐ 5. Battery charge checked; battery recharged if necessary.

☐ 6. Operator's cab controls have all been checked (heater, blower, windshield wiper, and windshield washer).

☐ 7. Initial operation of the air-conditioning system according to break-in instructions (compressor connected and air-conditioning system activated).***

☐ 8. Operator's seat can be adjusted properly.

☐ 9. Seat belt has been checked (if equipped).

☐ 10. Headlights have been adjusted.**

☐ 11. Lights are working properly.

☐ 12. Instrument panel gauges and indicator lights are working properly.

☐ 13. Neutral start switch is working properly.

☐ 14. Engine shutoff device is working properly.

☐ 15. Transmission shifting mechanism is working properly.

☐ 16. PTOs are working properly.

☐ 17. Hitch is working properly.

☐ 18. Selective control valves are working properly.

☐ 19. Trailer hitches are working properly.

☐ 20. Tire pressure has been checked and, if necessary, corrected.

☐ 21. Steering angle on the front-wheel drive axle has been checked.

☐ 22. Pivoting fenders have been adjusted.

☐ 23. Steering system is working properly.

☐ 24. Park brake checked.

☐ 25. Foot brakes have been checked.

☐ 26. Trailer brake has been checked.

☐ 27. Settings of the multi-function lever have been checked (if equipped).

☐ 28. Paintwork and decals have been checked and are OK.

☐ 29. A test drive has been performed.

☐ 30. Front-wheel toe-in has been checked with tractor fully ballasted.

31. The following systems have been checked and are free of leaks:

☐ 31.1 Engine cooling system

☐ 31.2 Fuel system

☐ 31.3 Hydraulic system

☐ 31.3 Brake system

* 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 lights, if equipped).

*** For details, see separate information leaflet in tractor cab.

Date and signature of dealer/service technician:

Copy for Dealer

Serial Number: _____

OM Number: _____ Issue: _____

Engine No.: _____

Owner's Name: _____

Address: _____

Vehicle Model: _____

Registration No.: _____

Delivery Date: _____

Delivery Hours: _____

Dealer: _____

Dealer's Stamp:

At the Dealer

☐ Predelivery inspection completed (see the following pages)	☐ Customer specified attachments/options are installed/available
☐ All necessary forms and literature available	☐ Wheel treads adjusted as specified
☐ Decals installed	

At Delivery Area with Customer: *Shown and Explained*

☐ All warning labels on machine	☐ Tire maintenance and care
☐ Location of all serial numbers on machine	☐ Use of lubrication and maintenance schedules
☐ Operator's Manual	☐ Warranty procedure
☐ Lubrication points on machine and attachments	

Demonstration of Operating Procedures

☐ Operator's seat	☐ Lights
☐ Consoles/digital displays	☐ Wipers
☐ Differential lock	☐ Heater
☐ Transmission	☐ Air-conditioning system
☐ Starting and stopping	☐ PTOs
☐ Steering	☐ Hitch and SCVs
☐ Brakes	☐ Pick-up hitch
☐ Speed control	☐ Three-point hitch adjustment

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, and I have been informed of the safe method of operation and the mandatory daily maintenance work as per the delivery check list on the following page.

Signature of owner:

Date:

Copy for Owner

Serial Number: _____

Vehicle Model: _____

OM Number: _____ Issue: _____

Registration No.: _____

Engine No.: _____

Delivery Date: _____

Owner's Name: _____

Delivery Hours: _____

Address: _____

Dealer: _____

Dealer's Stamp:

At the Dealer

- ☐ Predelivery inspection completed (see the following pages)
- ☐ All necessary forms and literature available
- ☐ Decals installed
- ☐ Customer specified attachments/options are installed/available
- ☐ Wheel treads adjusted as specified

At Delivery Area with Customer:

Shown and Explained

- ☐ All warning labels on machine
- ☐ Location of all serial numbers on machine
- ☐ Operator's Manual
- ☐ Lubrication points on machine and attachments
- ☐ Tire maintenance and care
- ☐ Use of lubrication and maintenance schedules
- ☐ Warranty procedure

Demonstration of Operating Procedures

- ☐ Operator's seat
- ☐ Consoles/digital displays
- ☐ Differential lock
- ☐ Transmission
- ☐ Starting and stopping
- ☐ Steering
- ☐ Brakes
- ☐ Speed control
- ☐ Lights
- ☐ Wipers
- ☐ Heater
- ☐ Air-conditioning system
- ☐ PTOs
- ☐ Hitch and SCVs
- ☐ Pick-up hitch
- ☐ Three-point hitch adjustment

Date and signature of dealer/instructor:

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