

JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors

(Serial No. - 512124 (JD954))

(Serial No. - 510022 (JD1104))

(Serial No. - 511588 (JD1204-A))

(Serial No. - 510200 (JD1354-A))

(Serial No. - 512890 (JD1404-A, 4045 Engine))

(Serial No. - 512910 (JD1404-A, 6068 Engine))



OPERATOR'S MANUAL

JD954, JD1104, JD1204-A, JD1354-A,
and JD1404-A Tractors

OMSU51537 ISSUE D8 (英语)

约翰迪尔 (天津) 有限公司

Edition

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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.

The enterprise standard of JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A tractors carried out is Q/12 JDTW 003—2017.

THIS TRACTOR IS DESIGNED SOLELY for use in plowing, raking, rototilling, seeding, intertilling, field transporting, 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.

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

OUYC278,000079C -19-13APR17-1/1

Identification View



John Deere 6B Tractor

NOTE: Tractor shown has optional equipment.

CPA0004671 —UN—01DEC17

JL31334,0000CC7 -19-01DEC17-1/1

Look for Supplemental Information

Occasionally new or revised information will become available after manuals are printed. To get this up-to-date information in your hands, publication supplements are prepared and supplied to the field in the machine literature package.

Supplements can be supplied in the following forms and are usually identified with one of these titles:

- Directions Sheet
- Installation Instructions
- Publications Supplement

Before your initial review of the manual, look through the machine literature package to see if any supplemental

information has been provided. If supplied, review this information to determine which procedures are impacted or modified by the revised instructions. Pay close attention to "CAUTION" and "IMPORTANT" statements. CAUTION statements address your safety, the safety of others and safe operation of the machine. IMPORTANT statements refer to machine adjustment, servicing and care.

Manuals are revised annually, at that time the supplemental information is incorporated directly into the manual, thereby eliminating the supplement.

CP00613,000055B -19-08JUN13-1/1

Contents

	Page		Page
Safety			
Recognize Safety Information	05-1	Service Tires Safely	05-21
Understand Signal Words	05-1	Service Front-Wheel Drive Tractor Safely	05-21
Follow Safety Instructions	05-1	Tightening Wheel Retaining Bolts/Nuts	05-22
Prepare for Emergencies	05-2	Avoid High-Pressure Fluids	05-22
Wear Protective Clothing	05-2	Do Not Open High-Pressure Fuel System	05-22
Protect Against Noise	05-2	Store Attachments Safely	05-23
Handle Fuel Safely—Avoid Fires	05-3	Decommissioning — Proper Recycling and Disposal of Fluids and Components	05-23
Handle Starting Fluid Safely	05-3	Emergency Measures	05-23
Fire Prevention	05-3		
In Case of Fire	05-4	Safety Signs	
Avoid Static Electricity Risk When Refueling	05-4	Replace Damaged or Missing Safety Signs	10-1
Keep ROPS Installed Properly	05-5		
Use Foldable ROPS and Seat Belt Properly	05-5	Controls and Instruments	
Stay Clear of Rotating Drivelines	05-6	Tractor Controls	15-1
Use Steps and Handholds Correctly	05-6	Instrument Panel	15-4
Read Operator's Manuals for ISOBUS Controllers	05-7		
Use Seat Belt Properly	05-7	Lights	
Operating the Tractor Safely	05-8	Light Switch Positions	20-1
Avoid Backover Accidents	05-9	Light Switch Positions (optional)	20-2
Limited Use in Forestry Operation	05-9	Use Headlights and Floodlights	20-3
Operating the Loader Tractor Safely	05-9	High Beam Indicator	20-4
Keep Riders Off Machine	05-10	Use Tail Lights and Warning Lights	20-5
Instructional Seat	05-10	Use Turn Signals	20-6
Use Safety Lights and Devices	05-10	Use Cab Light	20-8
Transport Towed Equipment at Safe Speeds	05-11		
Use Caution on Slopes, Uneven Terrain, and Rough Ground	05-12	Operator Station	
Freeing a Mired Machine	05-12	Seat Adjustments	25-1
Avoid Contact with Agricultural Chemicals	05-13	Use Seat Belt	25-1
Handle Agricultural Chemicals Safely	05-14	Open Windows	25-2
Handling Batteries Safely	05-15	Open Door	25-2
Avoid Heating Near Pressurized Fluid Lines	05-15	RH Emergency Exit (if equipped)	25-3
Remove Paint Before Welding or Heating	05-16	Sun Visor	25-3
Handle Electronic Components and Brackets Safely	05-16	Operate Wipers	25-3
Practice Safe Maintenance	05-17	Adjusting Blower Speed (if equipped)	25-4
Avoid Hot Exhaust	05-17	Controlling Temperature	25-4
Clean Exhaust Filter Safely	05-18	Deicing, Demisting, or Defrosting Windshield	25-5
Work In Ventilated Area	05-19	Optimizing A/C and Heater Performance	25-6
Support Machine Properly	05-19	Operating Windshield Wiper and Washer	25-7
Prevent Machine Runaway	05-19	Toolbox Location	25-8
Park Machine Safely	05-20		
Transport Tractor Safely	05-20	Break-In Period	
Service Cooling System Safely	05-20	Observe Engine Operation Closely	30-1
Service Accumulator Systems Safely	05-21	Break-In Service	30-2

Continued on next page

Original Instructions. All information, illustrations and specifications in this manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.

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A John Deere ILLUSTRATION™ Manual

	Page		Page
Prestarting Checks		SCV Control Levers and Couplers	55-2
Service Daily Before Start-Up.....	35-1	Connect Cylinder Hoses.....	55-2
Operating Engine		Disconnect Cylinder Hoses	55-3
Before Starting Engine	40-1	Reconnect Hoses Under Pressure	55-4
Key Switch Positions	40-2	Neutral Lever Position	55-4
Start Engine.....	40-3	Extend Cylinder	55-4
Check Instruments After Starting.....	40-4	Retract Cylinder.....	55-5
Engine Information Indicator.....	40-4	Cylinder Float Position.....	55-5
Charging System Indicator	40-5	SCV Selection Table.....	55-5
Air Restriction Indicator	40-6		
Coolant Temperature Gauge	40-7	Drawbar and PTO	
Watch Fuel Level.....	40-8	Observe Drawbar Load Limitations	60-1
Change Engine Speeds.....	40-8	Use Swinging Drawbar.....	60-1
Warm Up Engine	40-9	Proper Use of Drawbar.....	60-1
Restart Stalled Engine.....	40-9	Stay Clear of Rotating Drivelines.....	60-2
Avoid Idling Engine.....	40-9	Reversible PTO Stub Shaft	60-3
Observe Engine Work and Idle Speeds	40-9	Attach PTO-Driven Implement.....	60-4
Use Tachometer/Hour Meter	40-10	Operate Tractor PTO	60-5
Stop Engine	40-11	Adjust PTO Clutch Operating Rod.....	60-7
Use Booster Battery	40-12		
Driving Tractor		Ballast	
Operator Training Required	45-1	Plan for Maximum Productivity	65-1
Avoid Contact with Agricultural Chemicals	45-1	Select Ballast Carefully.....	65-1
Driving on Public Roads	45-2	Match Ballast to Work Load.....	65-1
Use Caution on Slopes, Uneven		Check for Correct Ballast.....	65-1
Terrain, and Rough Ground.....	45-4	Measure Rear Wheel Slip—Manually.....	65-2
Operate Transmission	45-4	Ballast Limitations.....	65-2
Shifting Transmission	45-7	Ballast Front End for Transport	65-3
Select a Gear.....	45-8	Add Ballast on Tractor	65-3
Use Brakes.....	45-8	Determine Maximum Rear Ballast.....	65-4
Use Differential Lock	45-9	Determine Maximum Front Ballast	65-4
Operate Mechanical Front-Wheel Drive	45-9	Use Cast Iron Weights.....	65-4
Stopping Tractor	45-10	Install Rear Cast Iron Weights.....	65-5
Rockshaft and 3-Point Hitch		Wheels, Tires, and Treads	
Match Tractor Power to Implement	50-1	Service Tires Safely.....	70-1
3-Point Hitch Components.....	50-1	Check Implement-to-Tire Clearance.....	70-1
Rockshaft Control Lever	50-3	Check Tire Inflation Pressure	70-2
Use Rockshaft Position Control.....	50-4	Tire Inflation Pressure Chart.....	70-2
Set Position Control Lever Stop	50-5	Tire Combinations—MFWD.....	70-3
Use Rockshaft Draft Control.....	50-6	Jacking Up Tractor—Lifting Points	70-3
Adjust Rockshaft Rate-of-Drop.....	50-7	Tighten Wheel/Axle Hardware Correctly	70-4
Prepare Implement.....	50-7	Tighten Bolts—MFWD Axle.....	70-5
Attach Implements to 3-Point Hitch	50-8	Tighten Bolts—Rear Axle	70-5
Adjust Stabilizer Bar	50-10	Tread Settings — MFWD Axle	70-6
Adjust Sway Chains (if equipped).....	50-11	Tread Settings—Multi-Position Rear Wheels	70-8
Leveling Hitch	50-11	Adjust Steering Stop.....	70-9
Adjust Implement Float.....	50-12	Check Toe-In	70-10
Hydraulics and Selective Control Valves		Adjust Toe-In.....	70-10
Open Center Hydraulic System	55-1	Transporting	
Warm Hydraulic System Oil.....	55-1	Use Safety Lights and Devices.....	75-1
Use Correct Hose Tips	55-1	Use a Safety Chain.....	75-1
		Driving Tractor on Roads.....	75-1
		Transport Tractor Safely	75-4
		Tow Tractor	75-4

Continued on next page

Page	Page
Fuels, Lubricants, and Coolant	
Handle Fuel Safely—Avoid Fires.....	80-1
Handle Fluids Safely—Avoid Fires.....	80-1
Handling and Storing Diesel Fuel.....	80-1
Cold Weather Operation.....	80-2
Hot Weather Operation.....	80-2
Diesel Fuel.....	80-3
Diesel Fuel (supplier engine).....	80-4
Lubricity of Diesel Fuel.....	80-4
Testing Diesel Fuel.....	80-4
Fill Fuel Tank.....	80-5
Alternative and Synthetic Lubricants.....	80-5
Lubricant Storage.....	80-5
Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III.....	80-6
Diesel Engine Oil — Tier 3 and Stage III.....	80-7
Diesel Engine Oil (supplier engine).....	80-8
Oil Filters.....	80-8
Heavy Duty Diesel Engine Coolant.....	80-9
John Deere COOL-GARD™ II Coolant Extender.....	80-10
Transmission and Hydraulic Oil.....	80-10
Use Correct Transmission/Hydraulic Filter Element.....	80-11
MFWD Front Axle Housing Oil.....	80-11
MFWD Wheel Hub Oil.....	80-11
Multipurpose Extreme Pressure (EP) Grease ..	80-12
Maintenance and Service Intervals	
Additional Service Information.....	85-1
Service Tractor Safely.....	85-1
Service Interval Chart - Daily or 10 Hours - 50 Hours - 250 Hours.....	85-2
Service Interval Chart - 500 Hours - 1000 Hours or Annually - 2 Years or 2000 Hours - 5000 Hours / Five Years.....	85-3
Service after First 100 Hours.....	85-3
Observe Service Intervals.....	85-4
Use Correct Lubricant.....	85-4
General Maintenance and Inspection	
Service Air Cleaner.....	90-1
Replace Primary and Secondary Elements.....	90-3
Check Air Intake System.....	90-5
Check and Adjust Transmission.....	90-5
Adjust Brake Pedal Free Play.....	90-6
Adjust Clutch Pedal Free Play.....	90-7
Check and Adjust Front, Rear Drive Axle.....	90-7
Check and Adjust Differential.....	90-7
Clean Cab Air Filters.....	90-8
Service Air Conditioner (cab).....	90-10
Clean Engine Crankcase Vent Tube.....	90-11
Check Engine Idle Speeds.....	90-11
Service EGR (supplier engine).....	90-11
Check Hoses and Hose Clamps for Tightness ..	90-12
Loose Hardware Inspection.....	90-14
Check Neutral Start System.....	90-15
Check Seat Belt.....	90-16
Adjust Hand Throttle Friction.....	90-16
Inspect Tires.....	90-16
Check Tractor Before Paddy Field Work Quarterly.....	90-17
Maintenance Tractor during Paddy Field Work Quarterly.....	90-19
Service Tractor after Paddy Field Work Quarterly.....	90-20
Lubrication	
Use Lubricant Correctly.....	95-1
Check Engine Oil Level.....	95-2
Change Engine Oil and Filter (Deere engine)	95-3
Change Engine Oil and Filter (supplier engine) ..	95-4
Check Transmission/Hydraulic System Oil Level.....	95-5
Replace Transmission/Hydraulic Oil Filter.....	95-6
Lubricate Steering Spindles.....	95-7
Lubricate MFWD Front Axle.....	95-7
Lubricate MFWD Front Axle Pivot Pins.....	95-8
Lubricate MFWD Drive Shaft.....	95-8
Lubricate 3-Point Hitch Links.....	95-9
Check MFWD Axle Housing Oil Level.....	95-9
Check MFWD Wheel Hub Oil Level.....	95-10
Lubricate Rear Axle Bearings.....	95-10
Change Transmission/Hydraulic System Oil.....	95-11
Change MFWD Front Axle Housing Oil.....	95-13
Change MFWD Wheel Hub Oil.....	95-14
Maintenance—Cooling System	
Engine Cooling System Components.....	100-1
Front Grille, Side Screens, Radiator, and Oil Cooler Cleaning.....	100-2
Check Coolant Level.....	100-3
Check Cooling System for Leaks.....	100-4
Flush Cooling System.....	100-5
Deaerate Cooling System.....	100-6
Maintenance—Fuel System	
Bleed Fuel System.....	105-1
Drain Water and Sediment From Fuel Filters and Water Separator.....	105-2
Drain Water and Sediment from Fuel Tank	105-3
Replace Water Separator.....	105-3
Replace Primary Fuel Filter.....	105-4
Replace Secondary Fuel Filter.....	105-4
Replace Primary/Secondary Fuel Filter (supplier engine).....	105-5
Do Not Modify Fuel System.....	105-5

Continued on next page

	Page		Page
Maintenance—Electrical System		Lubrication and Maintenance Record Charts	
Observe Electrical Service Precautions	110-1	Daily or 10 Hour Service Chart.....	135-1
Alternator/Fan Belt Replacement	110-1	50, 200, 250, 400, 500 Hour Service Chart.....	135-2
Alternator/Fan Belt Replacement (supplier engine)	110-2	1000 Hour or Annual Service Chart.....	135-3
Adjust Alternator/Fan Belt (supplier engine).....	110-2	2000, 5000 Hour Service Chart.....	135-4
Battery Access.....	110-3	As Required Service Chart.....	135-5
Charge Battery	110-3		
Clean Battery.....	110-4		
Check Battery Condition.....	110-4		
Remove Battery.....	110-4		
Battery Replacement Specifications.....	110-5		
Service Battery	110-5		
Adjust Headlights.....	110-5		
Aiming Headlights.....	110-6		
Replace Headlight Bulbs	110-7		
Replace Flood Light Bulb	110-8		
Replace Front Turn Signal Bulb	110-8		
Replace Tail Light/Rear Turn Signal/Brake Light Bulbs	110-9		
Starter Wiring Connections.....	110-9		
Locate Fuses.....	110-10		
Locate Relays.....	110-10		
Fuse Size and Function.....	110-11		
Fuse Size and Function (supplier engine).....	110-12		
Relay Size and Function.....	110-13		
Troubleshooting			
Engine Troubleshooting.....	115-1		
Transmission Troubleshooting.....	115-4		
Hydraulic System Troubleshooting	115-5		
Brakes Troubleshooting.....	115-5		
Rockshaft and 3-Point Hitch Troubleshooting ..	115-6		
Hydraulic Cylinders Troubleshooting.....	115-7		
Electrical System Troubleshooting	115-8		
Clutch Troubleshooting.....	115-9		
Steering System Troubleshooting	115-9		
Front and Rear Axle Troubleshooting.....	115-10		
Storage			
Tractor Storage.....	120-1		
Remove Tractor from Storage	120-2		
Specifications			
Machine Dimensions and Weights	125-1		
Machine Specifications.....	125-3		
Ground Speeds	125-7		
Metric Bolt and Screw Torque Values.....	125-10		
Unified Inch Bolt and Screw Torque Values....	125-11		
Identification Numbers			
Identification Plates	130-1		
Record Tractor Serial Number.....	130-1		
Record MFWD Front Axle Serial Number	130-2		
Record Engine Serial Number.....	130-2		
Record Transmission Serial Number.....	130-3		

Safety

Recognize Safety Information

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 -19-29SEP98-1/1

TS1389 —UN—28JUN13

Understand Signal Words

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.

⚠ DANGER

⚠ WARNING

⚠ CAUTION

DX,SIGNAL -19-05OCT16-1/1

TS187 —19—30SEP88

Follow Safety Instructions

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 -19-16JUN09-1/1

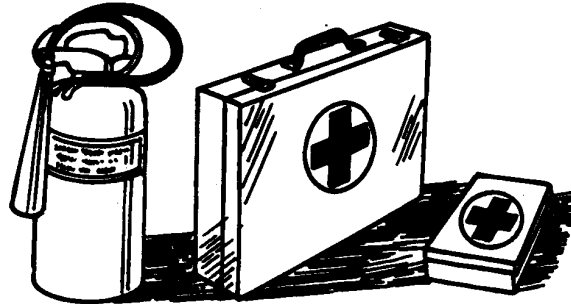
TS201 —UN—15APR13

Prepare for Emergencies

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.



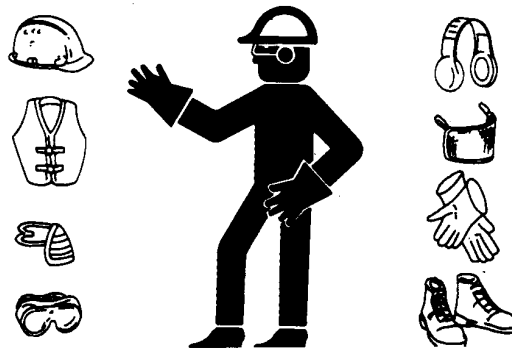
TS291 —UN—15APR13

DX,FIRE2 -19-03MAR93-1/1

Wear Protective Clothing

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.



TS206 —UN—15APR13

DX,WEAR2 -19-03MAR93-1/1

Protect Against Noise

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.



TS207 —UN—23AUG88

DX,NOISE -19-03OCT17-1/1

Handle Fuel Safely—Avoid Fires

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 -19-12OCT11-1/1

TS202 —UN—23AUG88

Handle Starting Fluid Safely

Starting fluid is highly flammable.

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

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

Do not incinerate or puncture a starting fluid container.

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



DX,FIRE3 -19-14MAR14-1/1

TS1356 —UN—18MAR92

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 -19-12OCT11-1/1

In Case of Fire

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 -19-22AUG13-1/1

TS227 —UN—15APR13

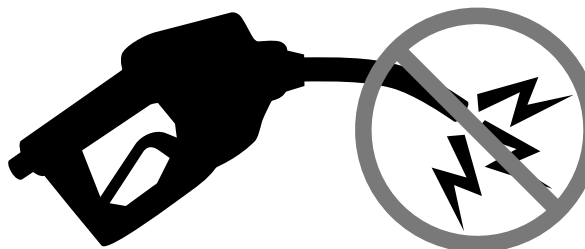
Avoid Static Electricity Risk When Refueling

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 -19-12JUL13-1/1

RG22142 —UN—17MAR14

RG21992 —UN—21AUG13

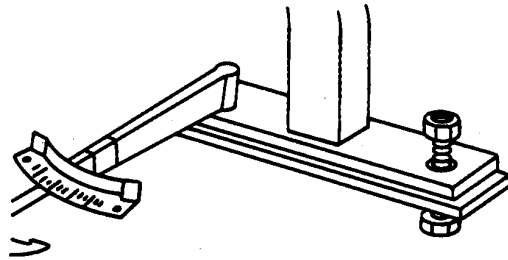
Keep ROPS Installed Properly

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

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

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

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



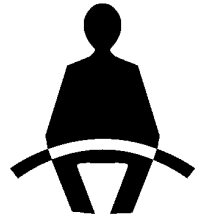
DX,ROPS3 -19-12OCT11-1/1

TS212 —UN—23AUG88

Use Foldable ROPS and Seat Belt Properly

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 -19-22AUG13-1/1

TS1729 —UN—24MAY13

Stay Clear of Rotating Drivelines

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.

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.

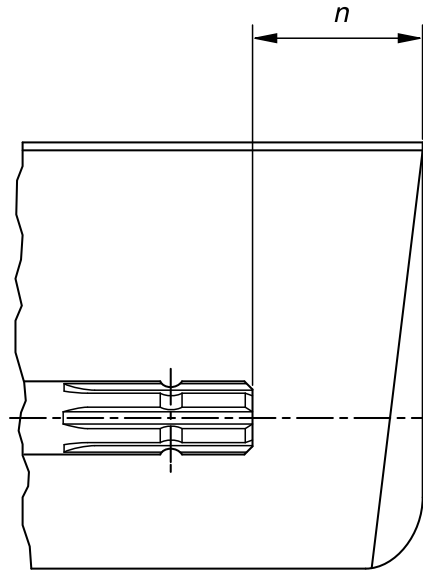
Do not install any adapter device between the tractor and the primary implement PTO drive shaft that will allow a 1000 rpm tractor shaft to power a 540 rpm implement at speeds higher than 540 rpm.

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.

PTO Type	Diameter	Splines	$n \pm 5 \text{ mm (0.20 in.)}$
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	38 mm (1.496 in)	8	85 mm (3.35 in)



TS1644 —UN—22AUG95



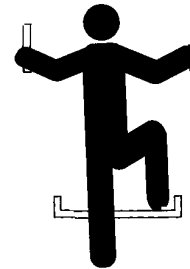
H96219 —UN—29APR10

N400041,00035B9 -19-12JAN17-1/1

Use Steps and Handholds Correctly

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.



T13468 —UN—15APR13

DX,VVV,MOUNT -19-12OCT11-1/1

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.

GreenStar is a trademark of Deere & Company

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 -19-15JUL15-1/1

Use Seat Belt Properly

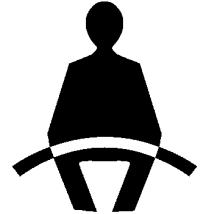
Avoid crushing injury or death during rollover.

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,



TS1728 —UN—24MAY13

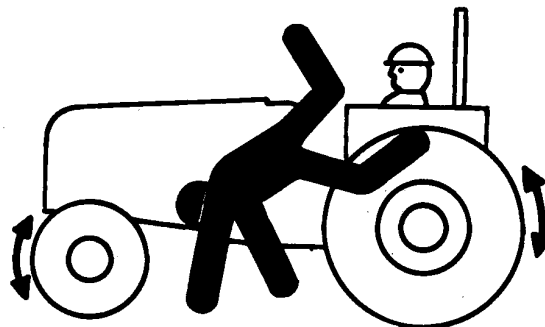
discoloration, or abrasion. Replace only with replacement parts approved for your machine. See your John Deere dealer.

DX,ROPS1 -19-22AUG13-1/1

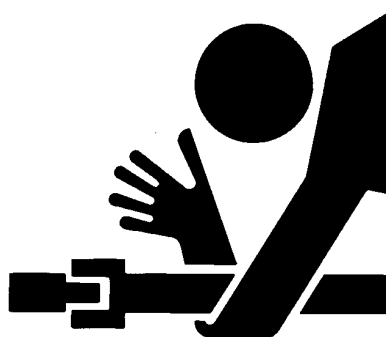
Operating the Tractor Safely

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.
- 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 pick-up hitch (if equipped) when controlling them.
- Keep hands, feet, and clothing away from power-driven parts.



TS290 — UN—23AUG88



TS276 — UN—23AUG88

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 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.

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 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:

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

DX,WW,TRACTOR -19-28FEB17-1/1

Avoid Backover Accidents

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.



PC10857XW —UN—15APR13

DX,AVOID,BACKOVER,ACCIDENTS -19-30AUG10-1/1

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 -19-12OCT11-1/1

Operating the Loader Tractor Safely

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.

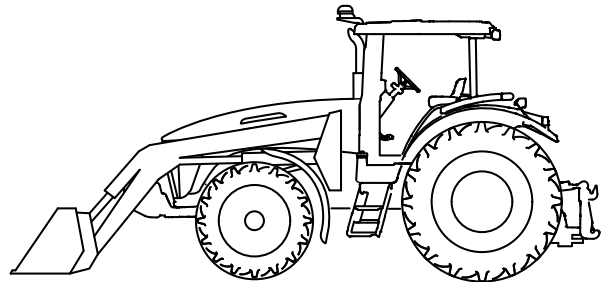
Never allow anyone to walk or work under a raised loader.

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



TS1692 —UN—09NOV09

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 clammers).

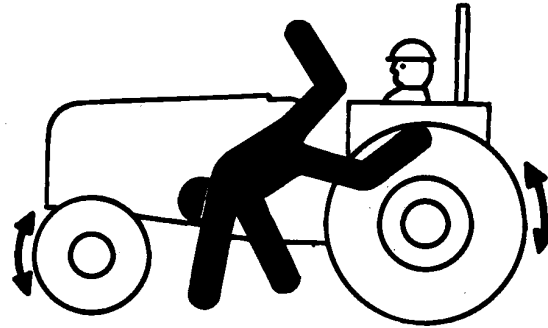
Ballast tractor in accordance to Ballast Recommendations in PREPARE TRACTOR section.

DX,WW,LOADER -19-18SEP12-1/1

Keep Riders Off Machine

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.

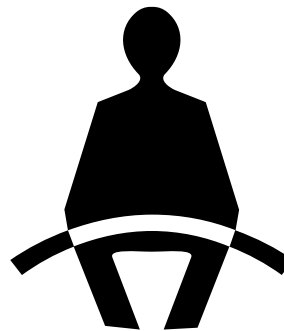


TS290 —UN—23AUG88

DX,RIDER -19-03MAR93-1/1

Instructional Seat

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



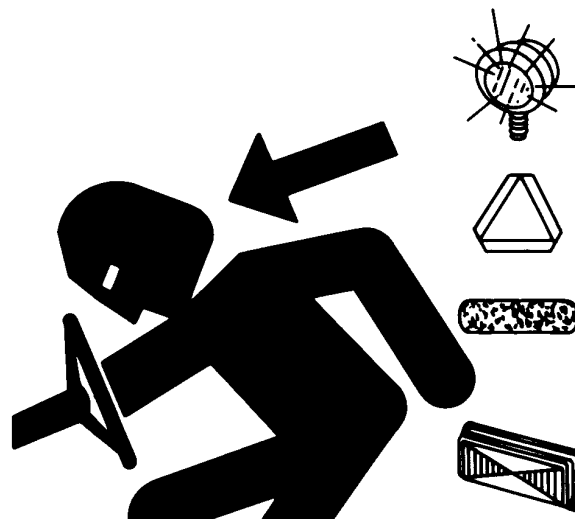
TS1730 —UN—24MAY13

DX,SEAT,NA -19-22AUG13-1/1

Use Safety Lights and Devices

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.



TS951 —UN—12APR90

DX,FLASH -19-07JUL99-1/1

Transport Towed Equipment at Safe Speeds

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

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

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

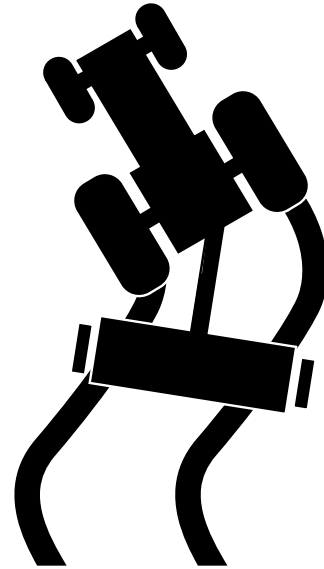
Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

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

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

Implements with brakes:

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



- When transporting at speeds between 40—50 km/h (25—31 mph) the fully loaded implement must weigh less than 3.0 times the towing unit weight.

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

DX,TOW1 -19-28FEB17-1/1

TS1686 —UN—27SEP06

Use Caution on Slopes, Uneven Terrain, and Rough Ground

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.

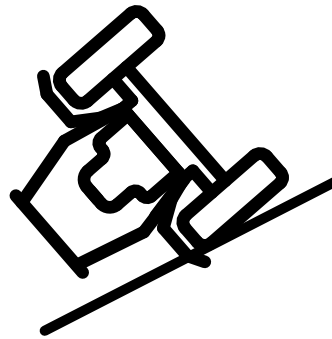
Danger of overturn increases greatly with narrow tread setting, at high speed.

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



RXA0103437 —UN—01JUL09

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

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

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

DX,WW,SLOPE -19-28FEB17-1/1

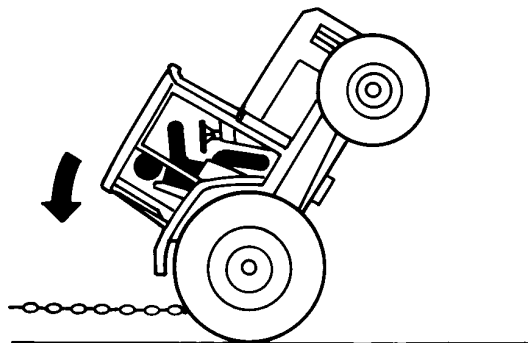
Freeing a Mired Machine

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.



TS1645 —UN—15SEP95



TS263 —UN—23AUG88

DX,MIREO -19-07JUL99-1/1

Avoid Contact with Agricultural Chemicals

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 -19-25MAR09-1/1

TS220 —UN—15APR13

TS272 —UN—23AUG88

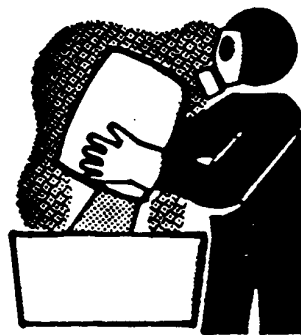
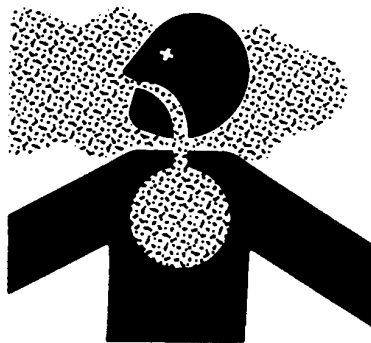
Handle Agricultural Chemicals Safely

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.



A34471

- 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.

TS220 —UN—15APR13

A34471 —UN—11OCT88

DX,WW,CHEM01 -19-24AUG10-1/1

Handling Batteries Safely

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.

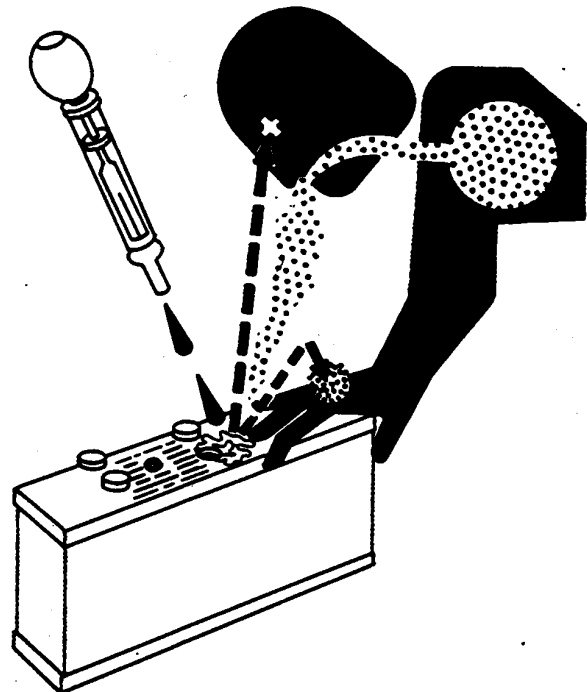
If acid is swallowed:

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.**



TS204 —UN—15APR13



TS203 —UN—23AUG88

DX,WW,BATTERIES -19-02DEC10-1/1

Avoid Heating Near Pressurized Fluid Lines

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.



TS953 —UN—15MAY90

DX,TORCH -19-10DEC04-1/1

Remove Paint Before Welding or Heating

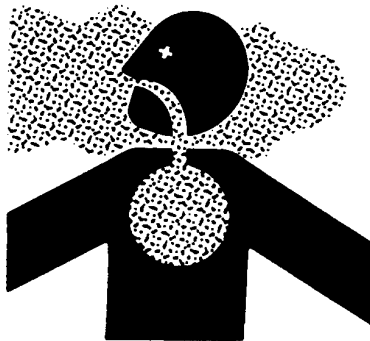
Avoid potentially toxic fumes and dust.

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 -19-24JUL02-1/1

TS220 —UN—15APR13

Handle Electronic Components and Brackets Safely

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 -19-24AUG10-1/1

TS249 —UN—23AUG88

Practice Safe Maintenance

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.



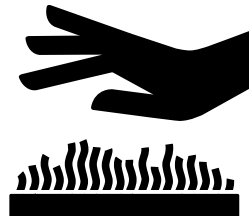
TS218 —UN—23AUG88

DX,SERV -19-28FEB17-1/1

Avoid Hot Exhaust

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.



RG17488 —UN—21AUG09

DX,EXHAUST -19-20AUG09-1/1

Clean Exhaust Filter Safely

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.

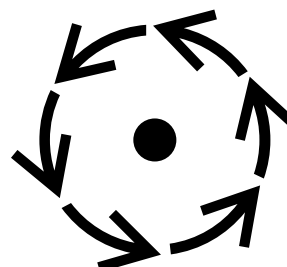
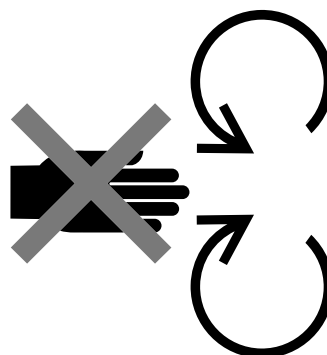
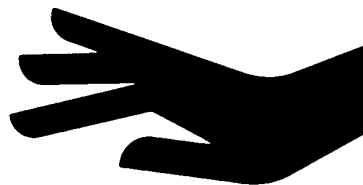
If service procedure requires engine to be running:

- 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.



STOP

TS227 —UN—15APR13

TS271 —UN—23AUG88

TS1683 —UN—09DEC09

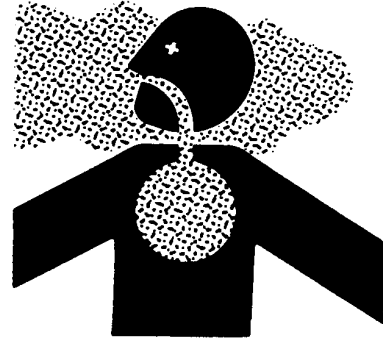
TS1685 —UN—07DEC09

DX,EXHAUST,FILTER -19-12JAN11-1/1

Work In Ventilated Area

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 -19-17FEB99-1/1

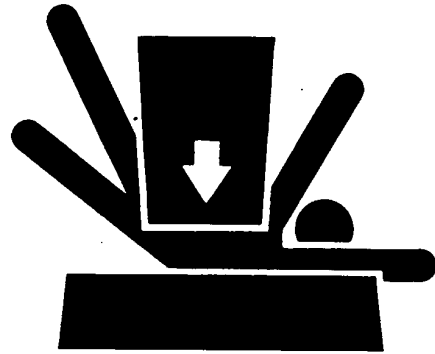
TS220 —UN—15APR13

Support Machine Properly

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 -19-24FEB00-1/1

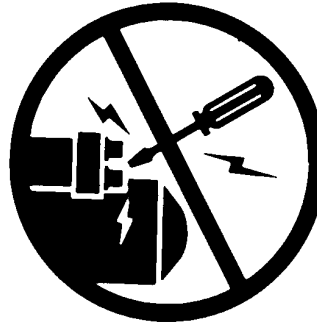
TS229 —UN—23AUG88

Prevent Machine Runaway

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.



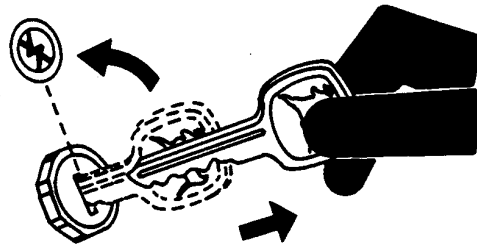
DX,BYPAS1 -19-29SEP98-1/1

TS177 —UN—11JAN89

Park Machine Safely

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.



TS230 —UN—24MAY89

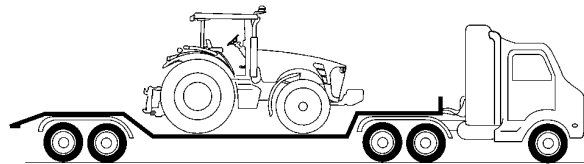
DX,PARK -19-04JUN90-1/1

Transport Tractor Safely

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.



RXA0103709 —UN—01JUL09

DX,WW,TRANSPORT -19-19AUG09-1/1

Service Cooling System Safely

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.



TS281 —UN—15APR13

DX,WW,COOLING -19-19AUG09-1/1

Service Accumulator Systems Safely

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.



T5281 —UN—15APR13

DX,WW,ACCLA2 -19-22AUG03-1/1

Service Tires Safely

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.



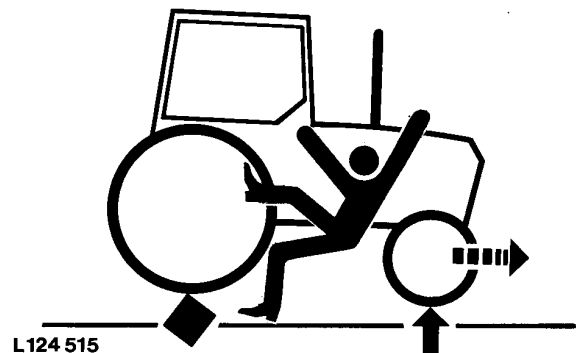
RXA0103438 —UN—11JUN09

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 -19-28FEB17-1/1

Service Front-Wheel Drive Tractor Safely

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.



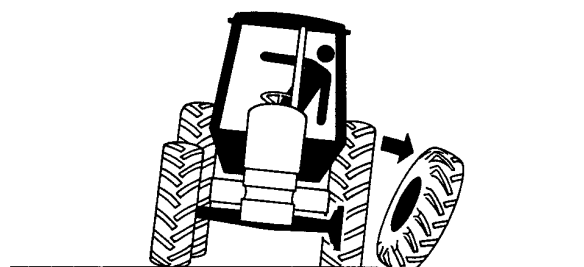
L124 515

L124515 —UN—06AUG04

DX,WW,MFWD -19-19AUG09-1/1

Tightening Wheel Retaining Bolts/Nuts

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



L124 516

L124516 —UN—03JAN95

DX,WW,WHEEL -19-12OCT11-1/1

Avoid High-Pressure Fluids

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.

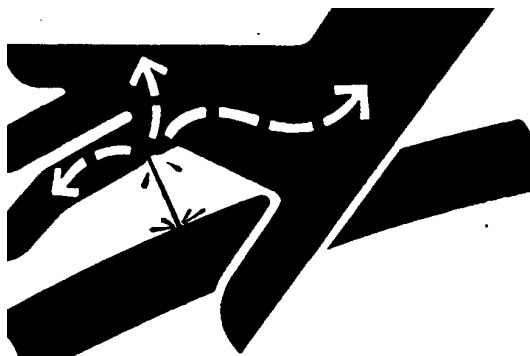
Replace worn or damaged hose assemblies immediately with John Deere approved replacement parts.

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



X9811 —UN—23AUG88

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 -19-12OCT11-1/1

Do Not Open High-Pressure Fuel System

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.)



TS1343 —UN—18MAR92

DX,WW,HPCR1 -19-07JAN03-1/1

Store Attachments Safely

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.



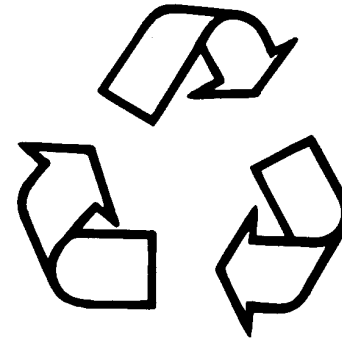
DX,STORE -19-03MAR93-1/1

TS219 —UN—23AUG88

Decommissioning — Proper Recycling and Disposal of Fluids and Components

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 -19-01JUN15-1/1

TS1133 —UN—15APR13

Emergency Measures

Emergency measure when engine coasters:

Measures when “coaster”, the main measures are fuel cut-off or air cut-off to shut down engine. The emergency measures are: First is release throttle and apply service

brake; second is plug air intake hose; third is disconnect high pressure fuel hose to cut off fuel supplying.

Emergency measure when machine head springs:

Release clutch to avoid machine roll back.

CP00612,0002056 -19-30OCT14-1/1

Safety Signs

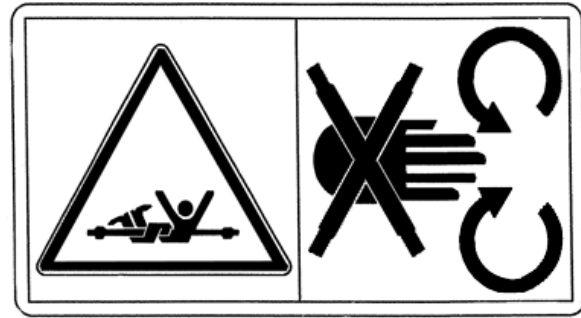
Replace Damaged or Missing Safety Signs

IMPORTANT: Install new safety signs if old signs are damaged, lost or cannot be read. Install a new safety sign when replacing any part that previously had a safety sign.



On PTO Shield

CPA0001756 —UN—26AUG15



Decal

PUC1619 —UN—21NOV08

CAUTION: Avoid entanglement.

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

N400041,00035C5 -19-18JAN17-1/7



B Post (left side)

CPA0001550 —UN—28APR15



Decal

PUC1613 —UN—03NOV08

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.

Continued on next page

N400041,00035C5 -19-18JAN17-2/7



Left-hand Fender

CPA0002029 —UN—30SEP15



Decal

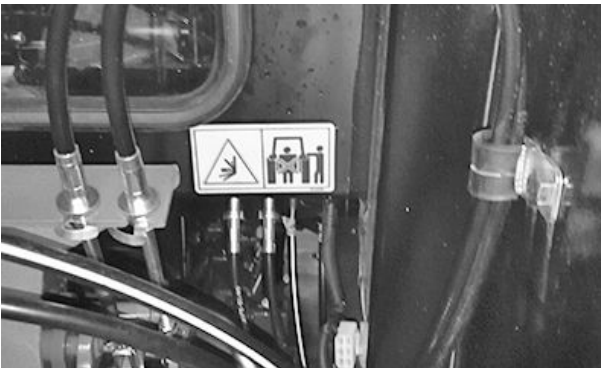
PUC1615 —UN—03NOV08

⚠ CAUTION: Avoid falling and being struck.

Keep off riders. 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.

N400041,00035C5 -19-18JAN17-3/7



Rear of Tractor

CPA0002481 —UN—04JAN16



Decal

PUC1633 —UN—27NOV08

⚠ 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 the hitch, stay clear of the area where the 3-point hitch rises and do not permit anyone to be in the area.

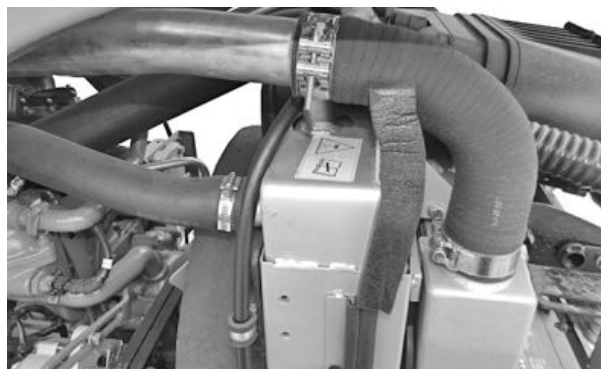
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N400041,00035C5 -19-18JAN17-4/7



Radiator (Deere engine)

CPA0001172 —UN—18DEC14



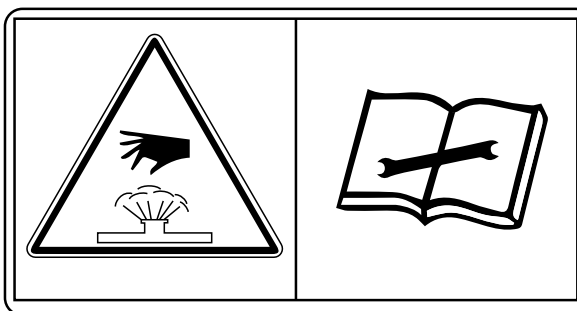
Radiator (supplier engine)

CPA0002302 —UN—18NOV15

CAUTION: Avoid scalding.

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

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



Decal

CPA0000190 —UN—16DEC14

N400041,00035C5 -19-18JAN17-5/7



B Post (left side)

CPA0001397 —UN—22APR15



Decal

CPA0000207 —UN—09OCT13

Use Seat Belt Properly.

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.

Continued on next page

N400041,00035C5 -19-18JAN17-6/7

Fight fire and open flame.

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

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

Prevent fires by keeping machine clean of accumulated trash, grease, and debris.

Always clean up spilled fuel.



Decal

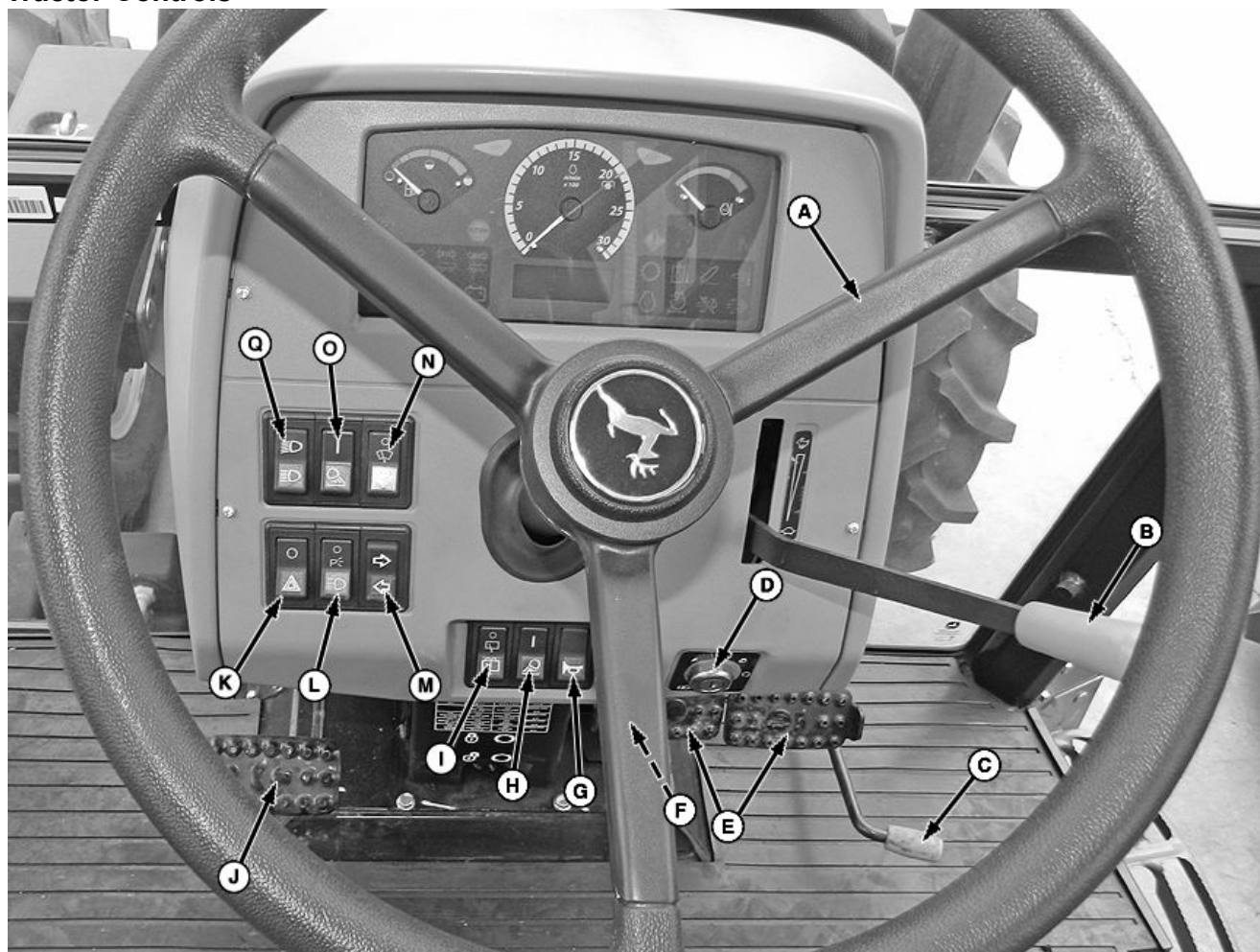
N400041,00035C5 -19-18JAN17-7/7

CPA0003052 —UN—07FEB17

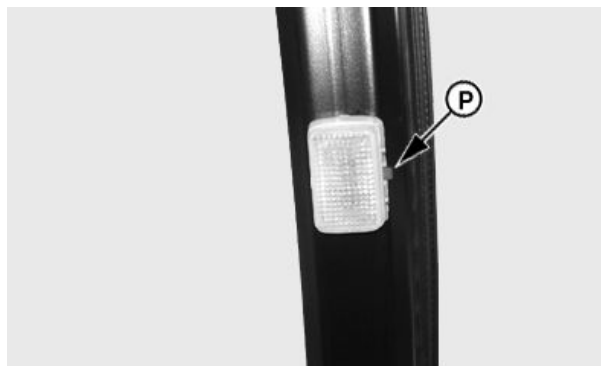
CPA0003051 —UN—07FEB17

Controls and Instruments

Tractor Controls



- | | |
|--------------------------------|---------------------------------|
| A—Steering Wheel | J—Clutch Pedal |
| B—Hand Throttle | K—Warning Light Switch |
| C—Foot Throttle | L—Light Switch |
| D—Ignition Switch | M—Turn Signal Switch |
| E—Brake Pedal (2 used) | N—Front Windshield Wiper Switch |
| F—Parking Brake Lever | O—Rear Floodlight Switch |
| G—Horn Switch | P—Cab Light Switch |
| H—Front Floodlight Switch | Q—High/Low Beam Switch |
| I—Rear Windshield Wiper Switch | |

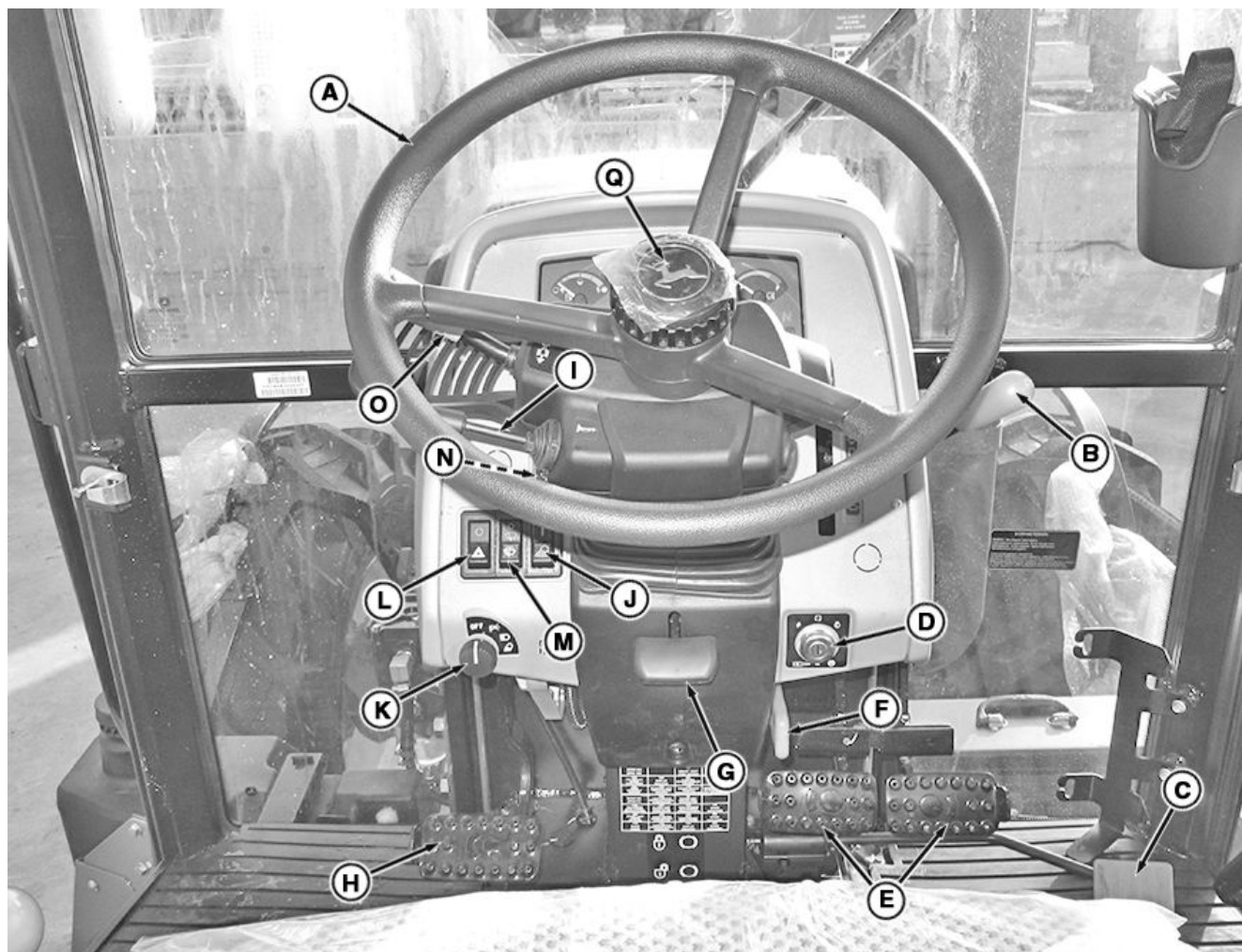


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N400041,000359F -19-13FEB17-1/3

CPA0002068 —UN—19OCT15

PUC2400 —UN—29SEP09



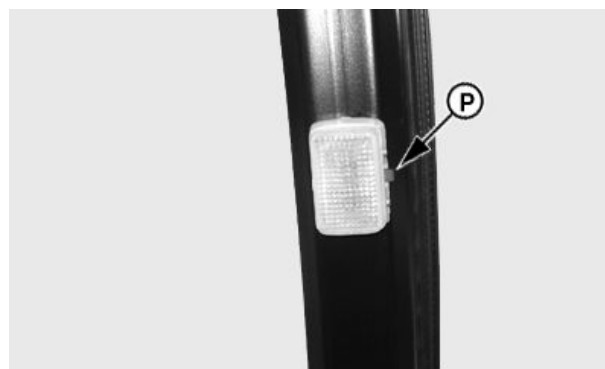
CPA0003008 —UN—18OCT16

Optional

Pull up or down throw the steering wheel adjusting handle (G), at the same time to adjust steering wheel (A), adjust the steering wheel position. After waiting for steering wheel adjustment to the appropriate location, loosen the adjusting handle, locked position of steering column.

NOTE: Steering column total rotation Angle range $30^{\circ} \pm 2^{\circ}$.

Grasp the steering wheel with hands, counterclockwise adjusting cap (Q) 90° , can loosen the steering column height adjustment; clockwise adjusting cap (Q) 90° , locked position of steering column.



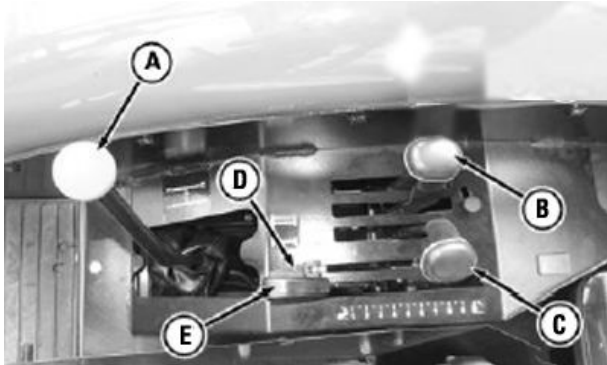
PUC2400 —UN—29SEP09

A—Steering Wheel
B—Hand Throttle
C—Foot Throttle
D—Ignition Switch
E—Brake Pedal (2 used)
F—Parking Brake Lever
G—Steering Wheel Adjusting handle
H—Clutch Pedal
I—Light Handle

J—Front Floodlight Switch
K—Light Switch
L—Warning Light Switch
M—Front Windshield Wiper Switch
N—Rear Windshield Wiper Switch
O—Power Reverser Lever
P—Cab Light Switch
Q—Adjusting Cap

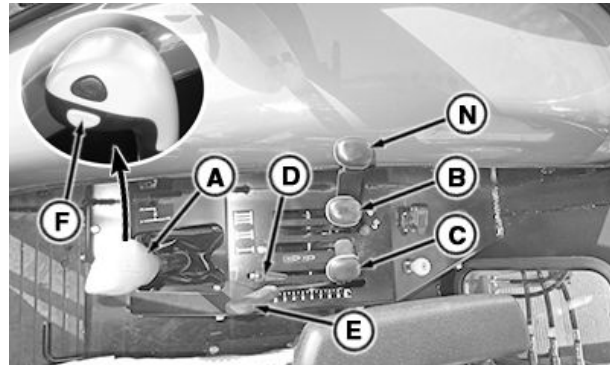
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N400041,000359F -19-13FEB17-2/3



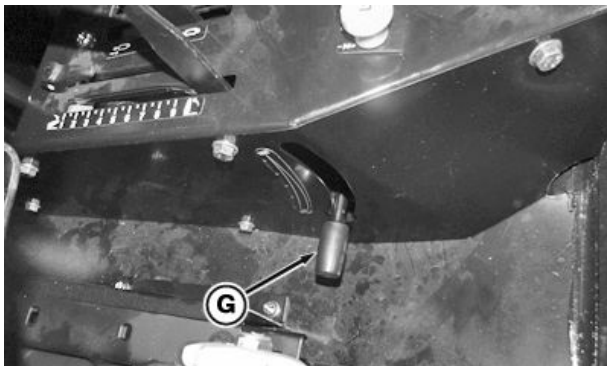
Right-Hand Side Controls (12 x 4 transmission)

CPA0001107 —UN—10NOV14



Right-Hand Side Controls (24 x 8/24 x 12 transmission)

CPA0003009 —UN—19OCT16



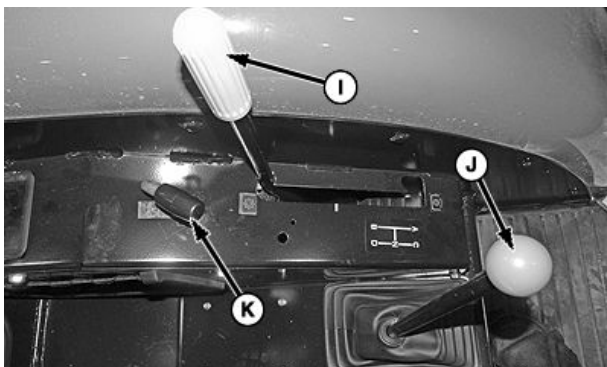
Left-Hand Side Controls (dry clutch)

CPA0002310 —UN—23NOV15



Differential Lock Pedal

CPA0002068 —UN—19OCT15



PTO Switch (wet clutch)

CPA0002057 —UN—22OCT15



PY16722 —UN—17NOV12

NOTE: Rockshaft rate-of-drop knob (H) is at rear of driver's seat, on left-hand side.

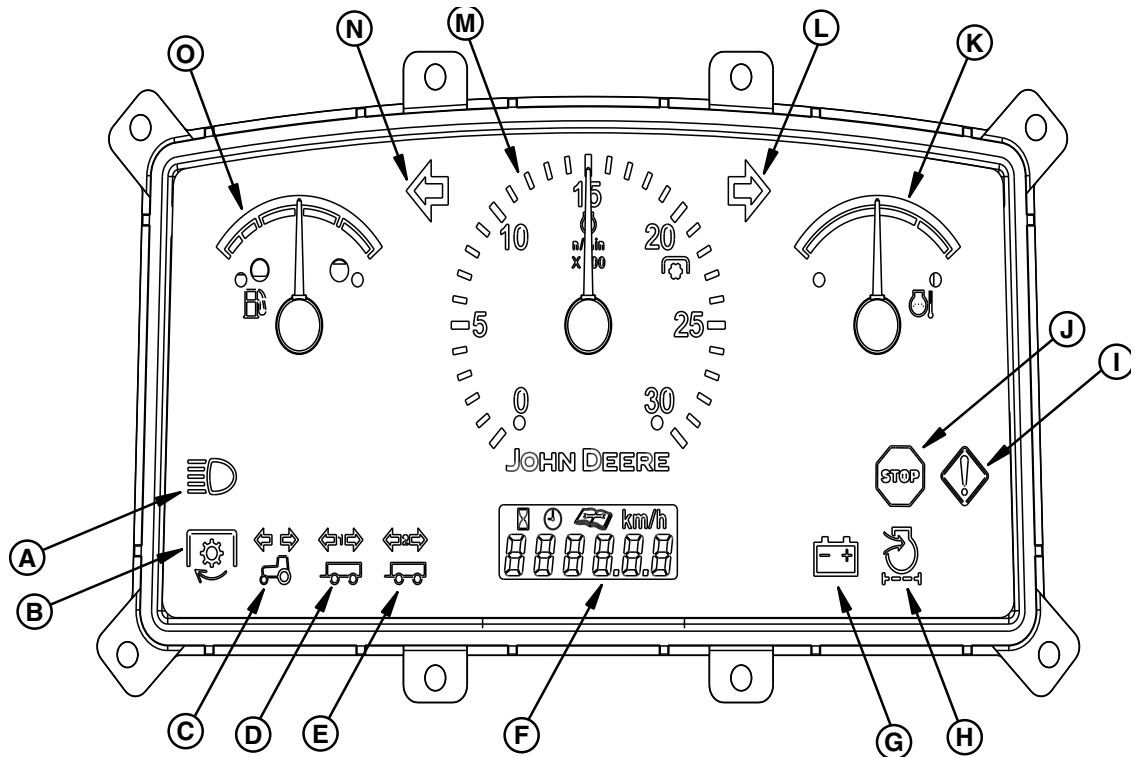
- | | |
|-------------------------------|-----------------------------------|
| A—Speed Shift Lever | H—Rate-of-Drop Knob |
| B—SCV II Lever | I— PTO Control Lever (dry clutch) |
| C—SCV I Lever | J— Range Shift Lever |
| D—Position Control Lever Stop | K—MFWD Lever |
| E—Position Control Lever | L—Differential Lock Pedal |
| F—High/Low Speed Shift Button | M—PTO Switch (Wet Clutch) |
| G—Draft Control Knob | N—SCV III Lever |

CPA0002039 —UN—15OCT15

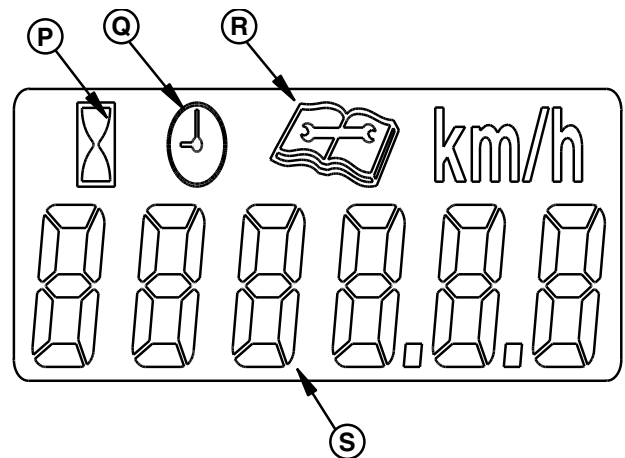
Instrument Panel

Dry Clutch Transmission

NOTE: The information display (F) displays hours when tractor speed is less than 1 km/h; displays speed when speed is above 1 km/h.



- | | |
|-----------------------------|------------------------------------|
| A—High Beam Indicator | K—Engine Coolant Temperature Gauge |
| B—PTO Engaged Indicator | L—Right Turn Indicator |
| C—Vehicle Indicator | M—Tachometer |
| D—Trailer 1 Indicator | N—Left Turn Indicator |
| E—Trailer 2 Indicator | O—Fuel Level Gauge |
| F—Information Display | P—Engine Hour Meter |
| G—Charging System Indicator | Q—Job Timer—Not Available |
| H—Air Restriction Indicator | R—Service Indicator—Not Available |
| I—Service Alert Indicator | S—Information Display |
| J—STOP Indicator | |



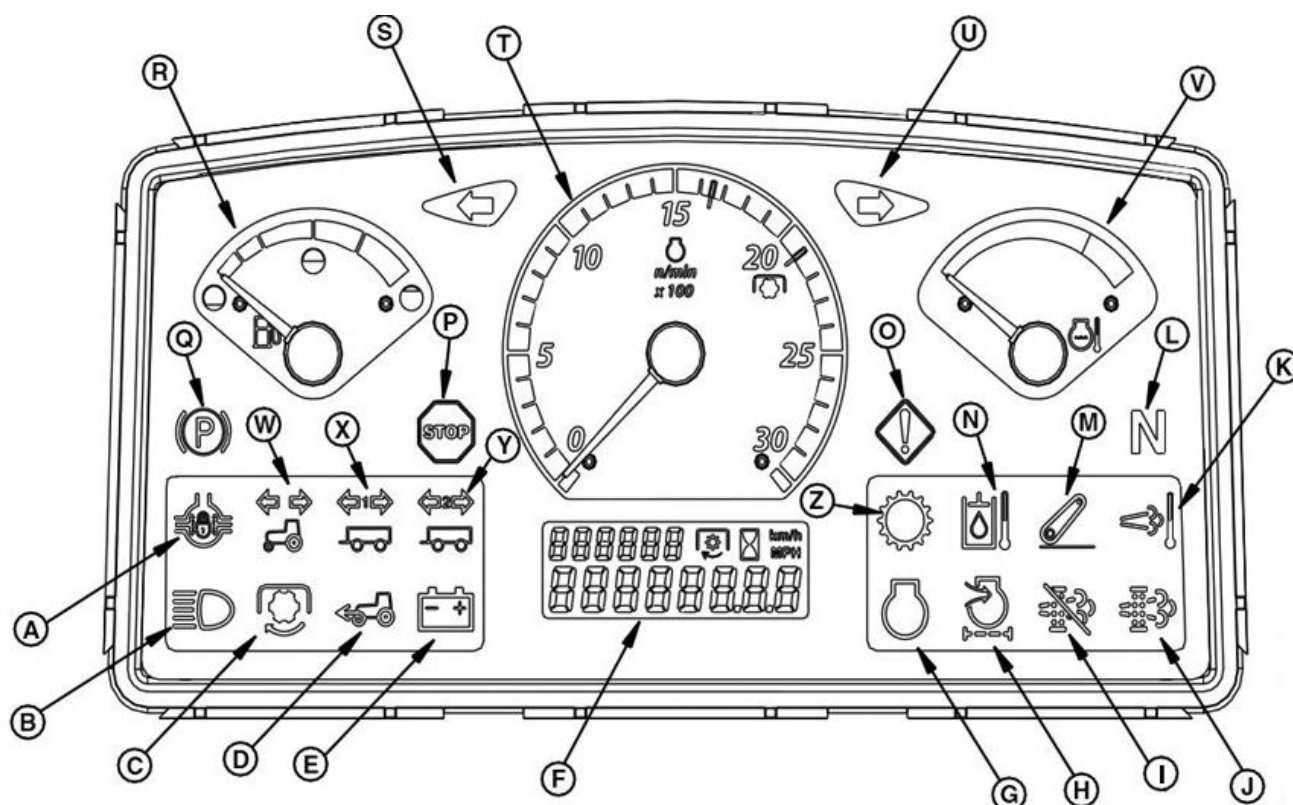
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N400041,00035A0 -19-31MAY17-1/4

PY14895—UN—31JAN13

PY14922—UN—01FEB13

Wet Clutch Transmission

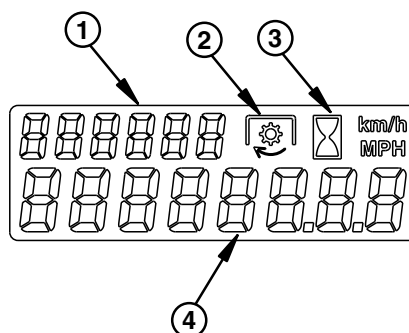


- | | | | |
|---|--|------------------------------------|---------------------------------------|
| A—Differential Lock Indicator—Not Available | H—Air Restriction Indicator | N—Hydraulic Oil Temperature | W—Vehicle Indicator |
| B—High Beam Indicator | I—Exhaust Filter Disabled Indicator—Not Available | O—Service Alert Indicator | X—Trailer 1 Indicator |
| C—PTO Engaged Indicator | J—Exhaust Filter Indicator—Not Available | P—STOP Indicator | Y—Trailer 2 Indicator |
| D—MFWD Engaged Indicator—Not Available | K—High Exhaust Temperature Indicator—Not Available | Q—Park Brake Indicator | Z—Transmission Information Indicator |
| E—Charging System Indicator | L—Neutral Indicator | R—Fuel Level Gauge | A1—EPTO Speed Indicator—Not Available |
| F—Information Display | M—Electrohydraulic Hitch Indicator—Not Available | S—Left Turn Indicator | |
| G—Engine Information Indicator | | T—Tachometer | |
| | | U—Right Turn Indicator | |
| | | V—Engine Coolant Temperature Gauge | |

N400041,00035A0 -19-31MAY17-2/4

NOTE: Information display (4) displays hours when tractor speed is less than 0.1 km/h; displays speed when speed is above 0.1 km/h.

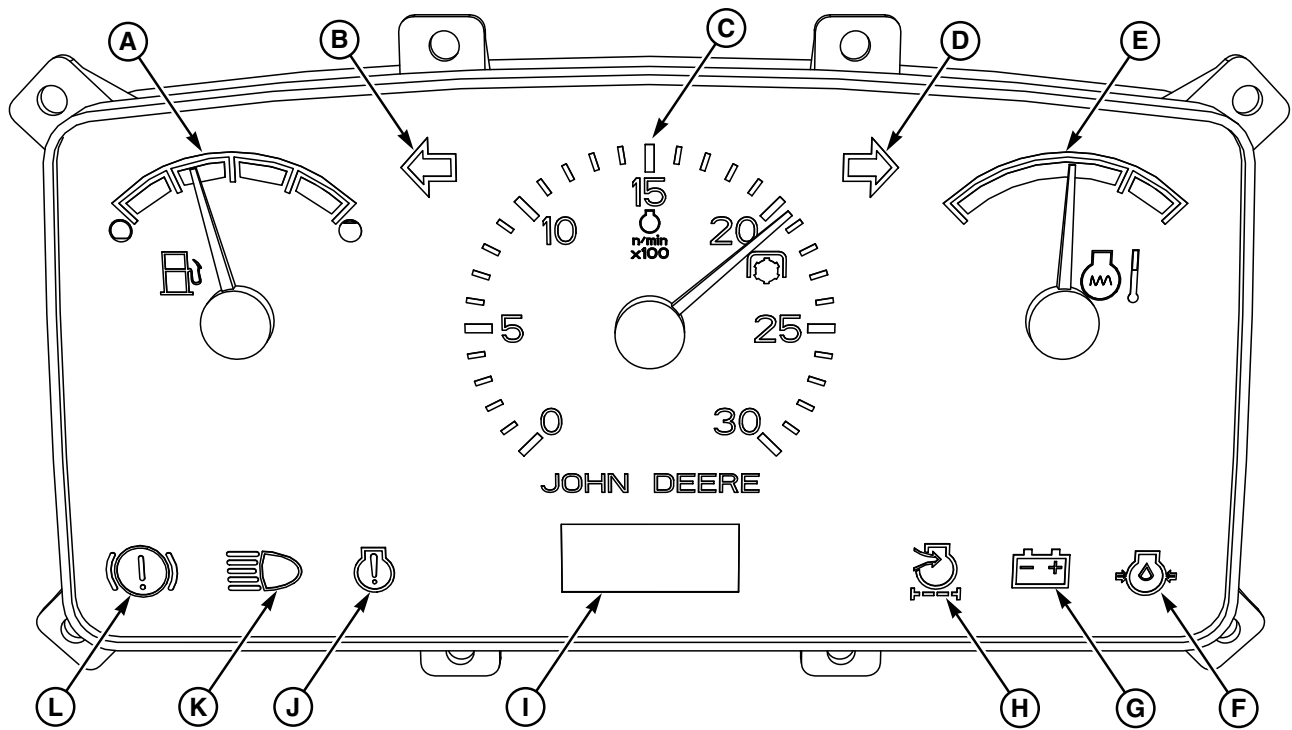
- | | |
|--------------------------|-----------------------|
| 1—Information Display | 3—Hour Meter Icon |
| 2—PTO Icon—Not Available | 4—Information Display |



Continued on next page

N400041,00035A0 -19-31MAY17-3/4

Dry Clutch Transmission (supplier engine)



CPA0002301

A—Fuel Level Gauge
B—Left Turn Indicator
C—Tachometer
D—Right Turn Indicator

E—Engine Coolant Temperature Gauge
F—Oil Pressure Alarm Indicator
G—Charging System Indicator
H—Air Restriction Indicator
I—Hours Display
J—Engine Malfunction Indicator

K—High Beam Indicator
L—Air Pressure Indicator

N400041,00035A0 -19-31MAY17-4/4

CPA0002301 —UN—19NOV15

Lights

Light Switch Positions

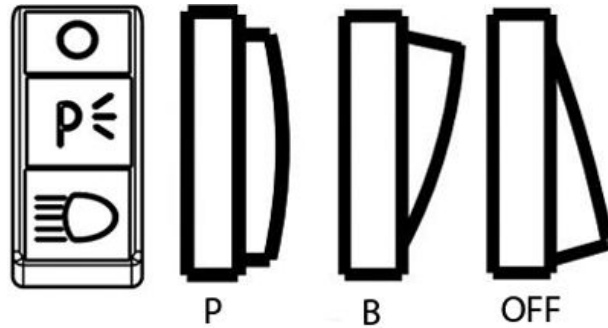
Light Switch		
Function	Light Switch	In width Light
OFF	OFF	OFF
PARK	ON	OFF
ROAD	ON	ON

Tractor light switch has three positions.

Above table shows control of tail lights and headlights by light switch.

P—Park Position
B—Road Position

OFF—OFF Position



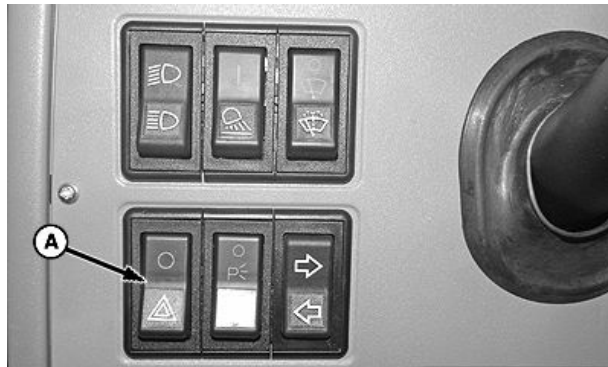
CPA0002067 —UN—19OCT15

N400041,000370D -19-30MAR17-1/3

Warning Light Switch

Warning light switch (A) is only used to switch ON warning lights.

A—Warning Light Switch



CPA0002062 —UN—19OCT15

N400041,000370D -19-30MAR17-2/3

High/Low Beam Switch

High/Low beam switch (A) is used to choose bright headlights or dimmed headlights and is only effective when light switch is in road position.

A—High/Low Beam Switch



CPA0002063 —UN—19OCT15

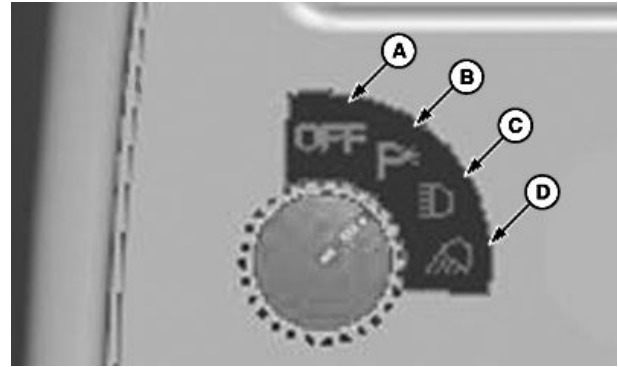
N400041,000370D -19-30MAR17-3/3

Light Switch Positions (optional)

Light Switch			
Function	Headlights	Front/Rear Position Lights	Rear Floodlight
OFF	OFF	OFF	OFF
PARK	OFF	ON	OFF
ROAD	ON	ON	OFF
WORK	ON	ON	ON

Tractor light switch has 4 positions.

Above table shows control of headlights, front/rear position lights and rear floodlight by light switch.



A—OFF Position
B—Park Position

C—Road Position
D—Work Position

N400041,000361B -19-18JAN17-1/3

CPA0000219—UN—07NOV13

Warning Light Switch

Warning light switch (A) is only used to switch ON warning lights.

A—Warning Light Switch



N400041,000361B -19-18JAN17-2/3

CPA0002984—UN—18OCT16

Light Handle

Horizontal: Push forward light handle (A), right turn lights can be turned ON.

Pull backward light handle (A), left turn lights can be turned ON.

Center position is OFF.

Vertical: Pull downward light handle (A), high beam can be turned ON.

Light handle (A) is in the center position, low beam can be turned ON.

Push upward light handle (A), high/low beam can be turned ON at the same time . It can be automatically reset after releasing light handle. It's called overtaking light generally.

Press light handle (A) , horn can be turned ON. It can be automatically reset after releasing light handle.

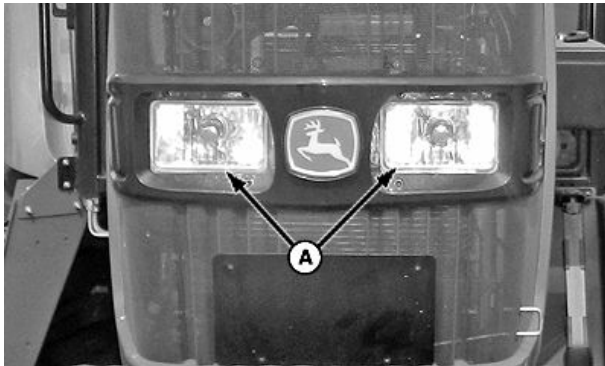


A—Light Handle

N400041,000361B -19-18JAN17-3/3

CPA0002985—UN—18OCT16

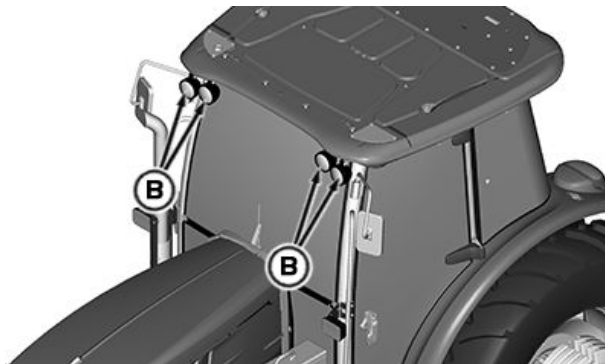
Use Headlights and Floodlights



CPA0002059 —UN—19OCT15



PY17020 —UN—05OCT12

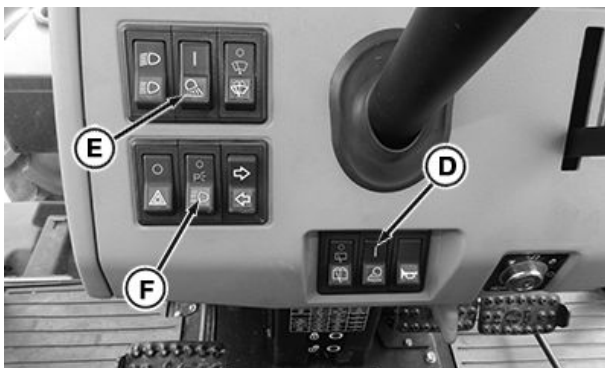


CPA0002882 —UN—07APR16



CPA0002413 —UN—07DEC15

Optional



CPA0002414 —UN—07DEC15



CPA0002986 —UN—18OCT16

Optional

- A—Headlight (2 used)
B—Front Floodlights (2 used or 4 used)
C—Rear Floodlights (2 used)
D—Front Floodlight Switch

- E—Rear Floodlight Switch
F—Light Switch
G—Light Switch

CAUTION: Bright lights could blind drivers of other vehicles as they approach. When operating on a road, move high/low beam switch to either bright or dim position. Never use floodlights when transporting.

Switch, high/low beam switch, to high beam position when driving on highway.

Always turn high/low beam switch to low beam position before meeting another vehicle.

Keep headlights adjusted properly. (See Adjust Headlights in Maintenance - Electrical System section.)

IMPORTANT: Rear-facing floodlights may blind or confuse driver of other vehicles approaching from behind. When driving or transporting tractor on public roads, use headlights only, never use floodlights.

Front floodlights (B) are ON when front floodlight switch (D) is switched ON.

Continued on next page

N400041,00035A1 -19-12JAN17-1/2

Rear floodlights (C) are ON when rear floodlight switch (E) is switched ON.

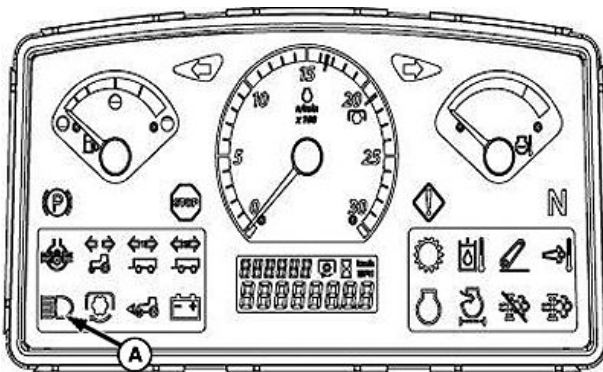
Floodlights are for field work only and should not be used on roads.

For the optional model, rear floodlights (C) are ON when light switch (G) is switched WORK position.

N400041,00035A1 -19-12JAN17-2/2

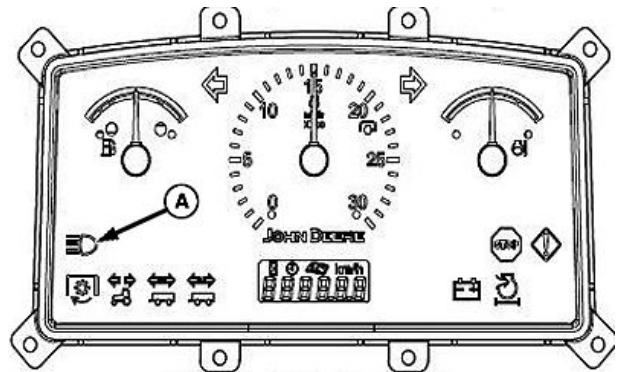
High Beam Indicator

High beam indicator (A) glows when light switch is switched to road position and high/low beam switch is switched to high beam position.



Instrument Cluster (wet clutch)

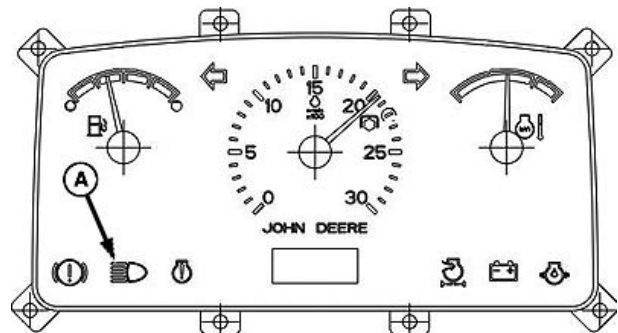
CPA0002130 —UN—28OCT15



Instrument Cluster (dry clutch)

CPA0002132 —UN—28OCT15

A—High Beam Indicator



Instrument Cluster (supplier engine, dry clutch)

CPA0002129 —UN—28OCT15

N400041,000361C -19-18JAN17-1/1

Use Tail Lights and Warning Lights

Tail lights (B) are ON when the light switch (D or E) is in PARK position or ROAD position.

Be sure that tail light lenses are clean before driving on a road, so other drivers can see them easily.

CAUTION: Prevent collisions between the 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 hand signals or turn signal lights.

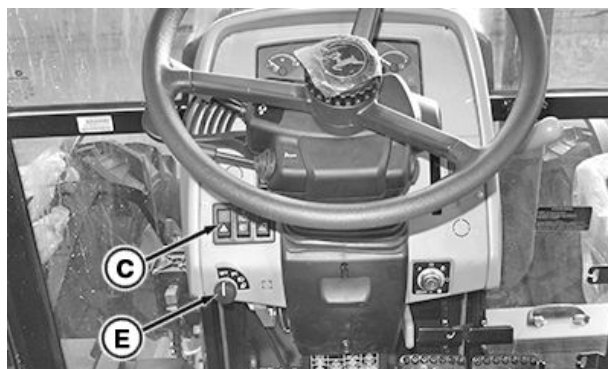
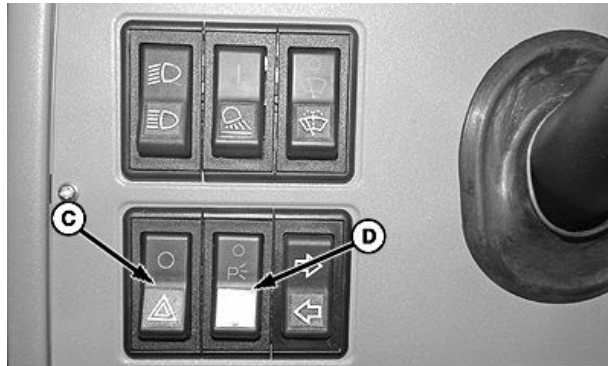
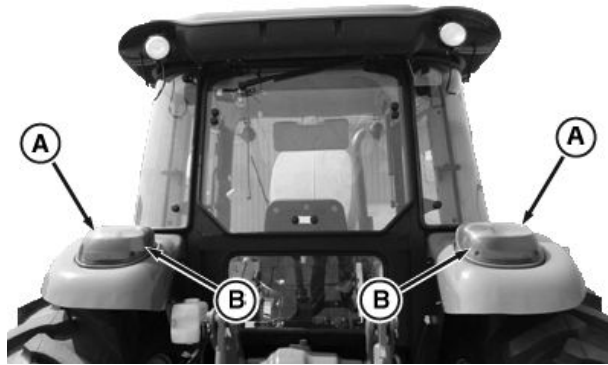
Follow local regulations for the equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.

Warning lights can be turned ON or OFF using warning light switch (C).

Flashing warning lights do not indicate turning. Switch off the warning lights before operating the turn signal lights.

A—Warning Lights (2 used)
B—Tail Lights (2 used)
C—Warning Light Switch

D—Light Switch
E—Light Switch



Optional

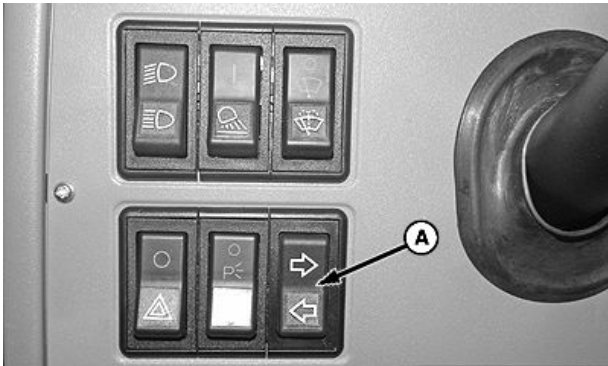
N400041,000370E -19-30MAR17-1/1

PY17021 —UN—06OCT12

CPA0002065 —UN—19OCT15

CPA0002987 —UN—18OCT16

Use Turn Signals



CPA0002066 —UN—19OCT15



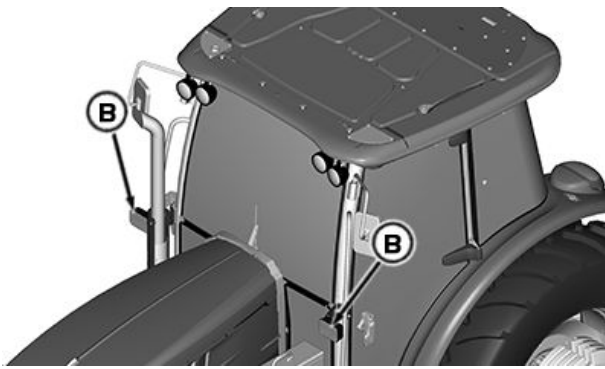
CPA0002988 —UN—18OCT16

Optional



PY17022 —UN—05OCT12

Front Side



CPA0002686 —UN—07APR16

Front Side (optional)

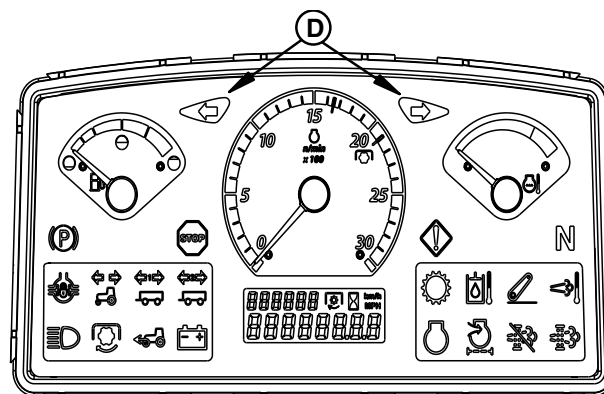
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N400041,000361D -19-18JAN17-1/2



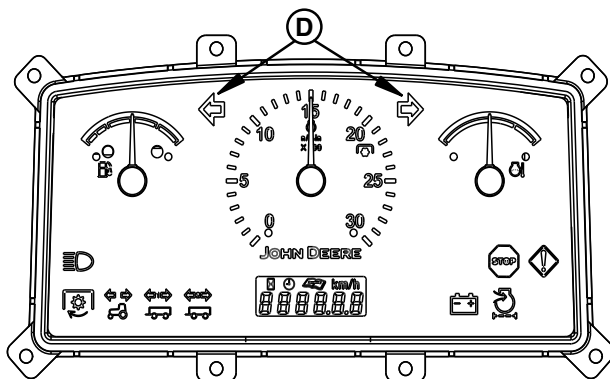
Rear Side

PY17023 —UN—06OCT12



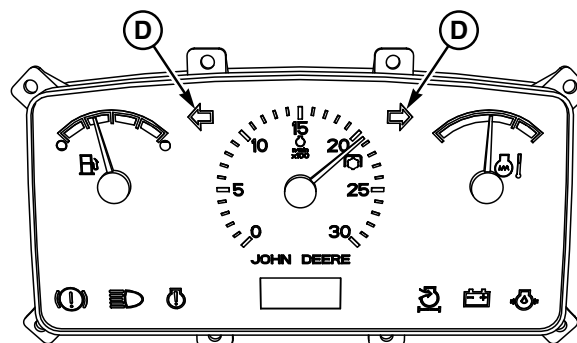
Instrument Cluster (wet clutch)

PY14899 —UN—31JAN13



Instrument Cluster (dry clutch)

PY14916 —UN—01FEB13



Instrument Cluster (supplier engine, dry clutch)

CPA0002304 —UN—19NOV15

- A—Turn Signal Switch
 B—Front Turn Signal Lights (2 used)
 C—Rear Turn Signal Lights (2 used)
 D—Turn Signal Indicators (2 used)

- E—Light Handle

IMPORTANT: Turn signal switch is not functional when warning lights are flashing. Switch off warning lights with the warning light switch before operating turn signal switch.

Press turn signal switch (A) to left-hand turn position (down) to indicate left-hand turn.

Press turn signal switch (A) to right-hand turn position (up) to indicate right-hand turn.

For optional model,

Horizontal: Push forward light handle (E) to right-hand turn position to indicate left-hand turn.

Pull backward light handle (E) to left-hand turn position to indicate left-hand turn.

Turn signal indicators (D) on instrument panel will flash, to signal turn direction.

NOTE: Be sure to return turn signal switch (A) or light handle (E), manually, to center position after turning.

N400041,000361D -19-18JAN17-2/2

Use Cab Light

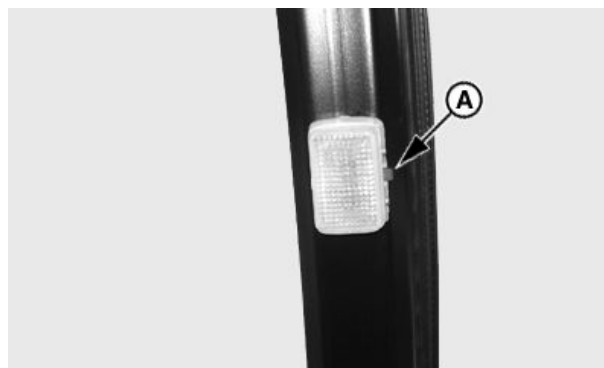
Cab light switch has two positions:

ON - Light ON

OFF - Light OFF

IMPORTANT: Before exiting cab, make sure that cab light switch is in OFF position. Failure to do so causes battery to lose its charge.

A—Cab Light Switch



Inside Cab

PUC2418 —UN—29SEP09

CP00613,0000596 -19-08JUN13-1/1

Operator Station

Seat Adjustments

⚠ CAUTION: Do not make adjustments to the seat, while driving.

NOTE: Use these instructions as a guideline. Since everybody is different, the final settings must be determined by personal preferences. Each operator should make adjustments that suit them best.

There are three seat adjustments available:

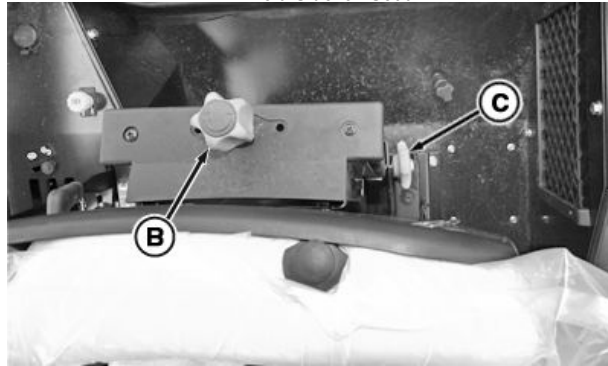
1. Seat position adjustment: Turn seat position adjusting handle (A) outward to adjust seat back or forth relatively to baseboard. Release the handle to lock the seat after adjusting.
2. Seat comfort adjustment: According to operator's weight turn seat comfort adjusting knob (B) in clockwise or counterclockwise to your satisfaction.
3. Seat height adjustment: Loosen seat height adjusting knob (C). Adjust the seat to the required height. Then Lock the seat height knob.

A—Seat Position Adjusting Handle
B—Seat Comfort Adjusting Knob

C—Seat Height Adjusting Knob



Left Side of Seat



Back Side of Seat

JL31334,0000DD8 -19-30MAR16-1/1

CPA0002069—UN—19OCT15

CPA0002305—UN—19NOV15

Use Seat Belt

To properly retain operator, seat belt (A) must fit snugly across abdomen. Seat belt (A) extends as necessary to fit comfortably.

Inspect seat belt (A) and mounting hardware annually. (See Check Seat Belt in the General Maintenance and Inspection section.)

A—Seat Belt

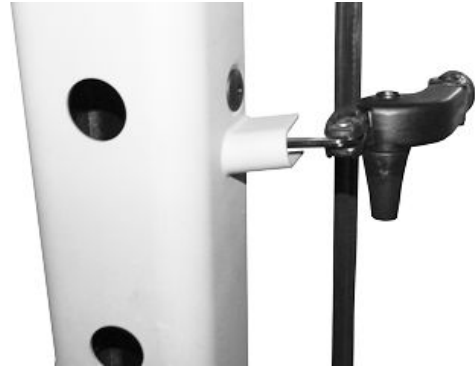


JL31334,0000D60 -19-18FEB16-1/1

CPA0002048—UN—25JAN18

Open Windows

Open left and right side, and rear windows for better ventilation.



Right-Side Window Shown



Rear Window

PY17027 —UN—05OCT12

PY17028 —UN—05OCT12

CP00613,000059B -19-08JUN13-1/1

Open Door

Press handle (A) down from inside of cab and push door.

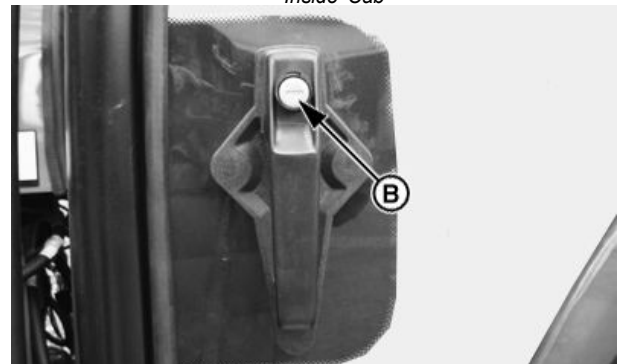
Press knob (B) from outside of cab and pull door.

A—Handle

B—Knob



Inside Cab



Outside Cab

PY17048 —UN—05OCT12

PUC2424 —UN—29SEP09

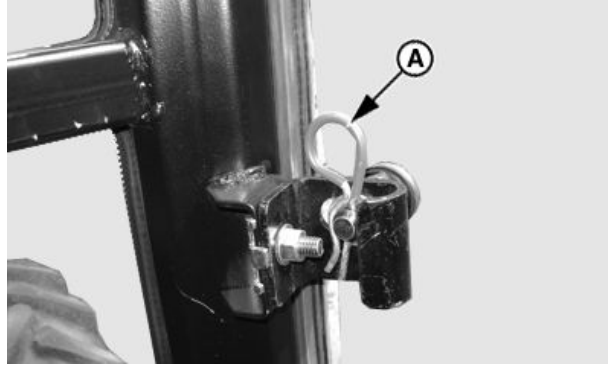
CP00613,000059C -19-08JUN13-1/1

RH Emergency Exit (if equipped)

Remove retaining pin (A) to get access to right-hand (RH) emergency exit.

CAUTION: Panel falls out when retaining pin (A) is removed. Make sure that nobody is near to the RH emergency exit.

A—Retaining Pin



Right-Hand Side

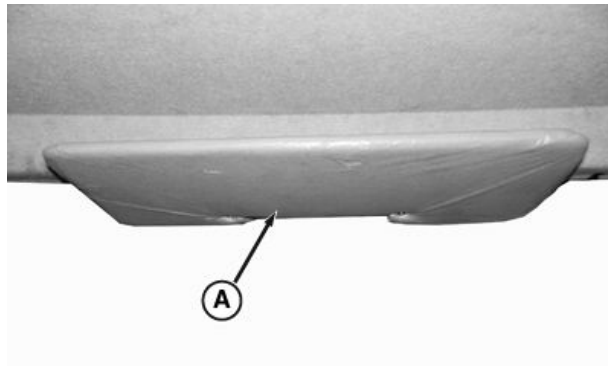
N400041,000370F -19-30MAR17-1/1

PUC2425 —UN—29SEP09

Sun Visor

Cab is equipped with sun visor (A).

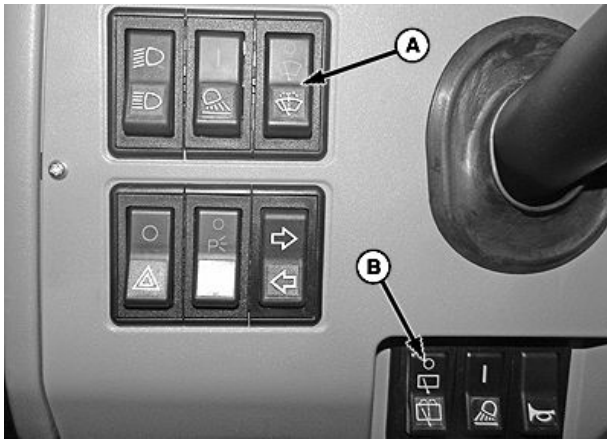
A—Sun Visor



CP00613,000059E -19-08JUN13-1/1

PY17047 —UN—05OCT12

Operate Wipers

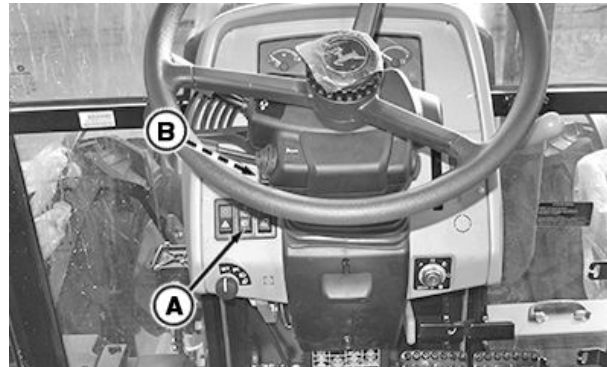


A—Front Wiper Switch

B—Rear Wiper Switch

Operate wiper switches (A and B) to activate windshield wipers.

CPA0002071 —UN—19OCT15



Optional

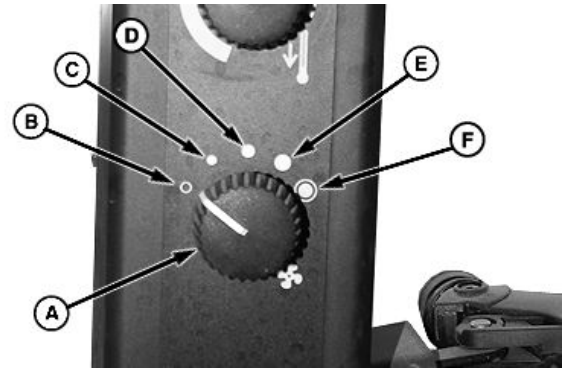
N400041,0003710 -19-30MAR17-1/1

CPA0002989 —UN—19OCT16

Adjusting Blower Speed (if equipped)

Turn blower speed control knob (A) to desired setting. For the rapid cab cool down, use purge (F) setting.

- | | |
|------------------------------------|-----------------|
| A—Blower Speed Control Knob | D—Medium |
| B—Off | E—High |
| C—Low | F—Purge |



CPA0000171 —UN—08JUN13

N400041,0003711 -19-30MAR17-1/1

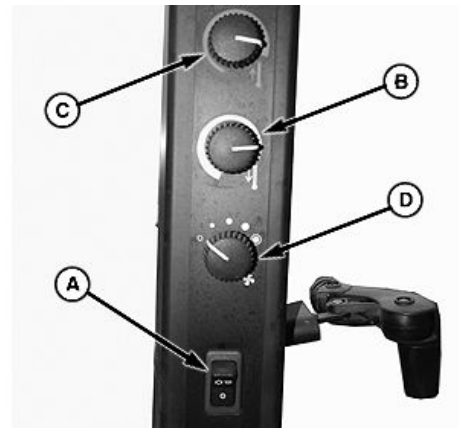
Controlling Temperature

Push top half of the air conditioning and deicing switch (A) to turn air conditioning and deicing ON and push bottom half to turn it OFF.

Adjust air conditioning temperature, turn air conditioning temperature control knob (B).

Adjust heater temperature, turn heater temperature control knob (C).

- | | |
|--|--|
| A—Air Conditioning and Deicing Switch | C—Heater Temperature Control Knob |
| B—Air Conditioning Temperature Control Knob | D—Blower Speed Control Knob |



CPA0000172 —UN—08JUN13

N400041,0003712 -19-30MAR17-1/1

Deicing, Demisting, or Defrosting Windshield

1. Aim two front vents (A) toward windshield.

NOTE: Closing middle and rear vents will help to clear the windshield faster.

2. Press top half of deicing switch (B) and turn air conditioner temperature control knob (C) to full counterclockwise position.
3. Turn heater temperature control knob (D) clockwise to obtain desired temperature.

A—Front Vent (2 used)
B—Deicing Switch

C—Air Conditioner
Temperature Control Knob
D—Heater Temperature Control
Knob



CPA0002415—UN—07DEC15

CPA000173—UN—08JUN13

N400041,0003713 -19-30MAR17-1/1

Optimizing A/C and Heater Performance

Adjust individual vents to target heating or cooling:

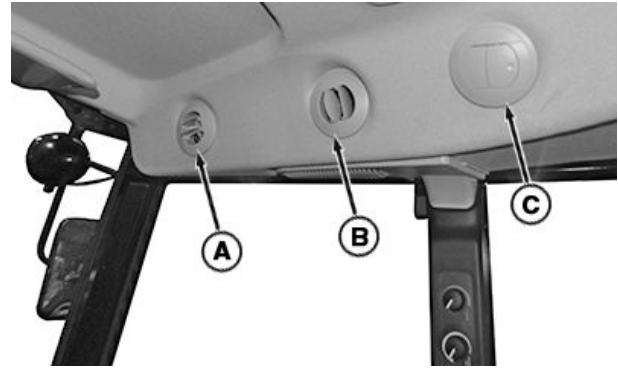
- Position front vents (A) toward legs and mid-body.
- Position middle vents (B) toward your head.
- Position rear vents (C) toward your back.

NOTE: For maximum cooling effect, turn heater temperature control knob (D) to full counterclockwise position.

Position all vents (A, B, and C) down to heat the floor and feet.

A—Front Vent
B—Middle Vent

C—Rear Vent
D—Heater Temperature Control Knob

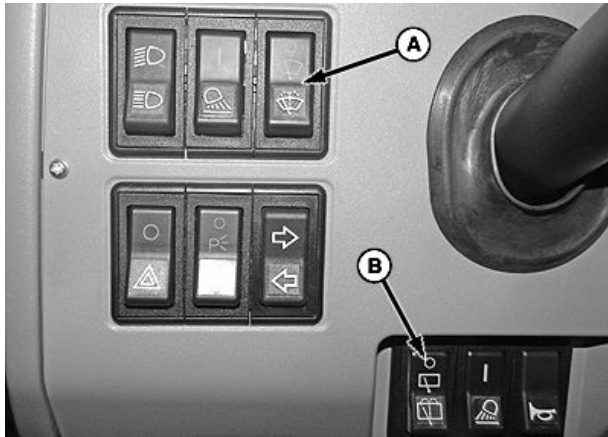


CPA0002416—UN—07DEC15

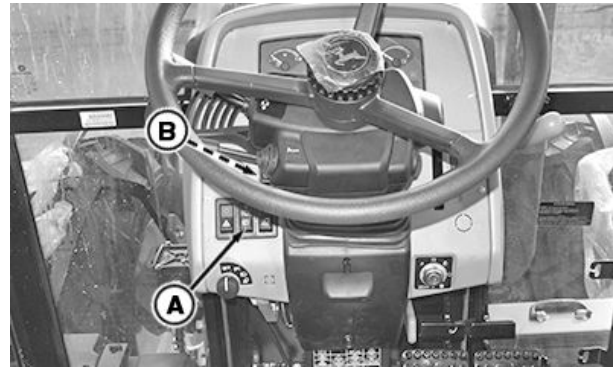
CPA0000176—UN—08JUN13

CP00613,00005A3 -19-07DEC15-1/1

Operating Windshield Wiper and Washer



CPA0002071 —UN—19OCT15



CPA0002989 —UN—19OCT16

Optional

Press the windshield wiper/washer switches (A and B) to move windshield wipers (Front and Rear) to OFF, ON, or Washer position.

Fill washer fluid reservoir (C) with non-freezing windshield washer fluid. Washer Fluid reservoir is located behind the cab on inside of left rear fender.

A—Windshield Wiper/Washer Switch (Front)
B—Windshield Wiper/Washer Switch (Rear)

C—Washer Fluid Reservoir



PY14925 —UN—18FEB13

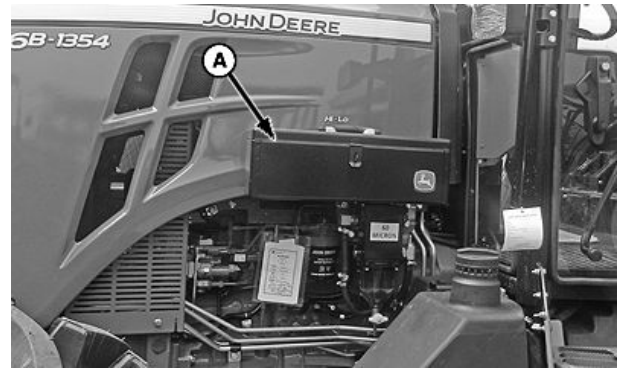
Rear, Left-Hand Side

N400041,0003714 -19-30MAR17-1/1

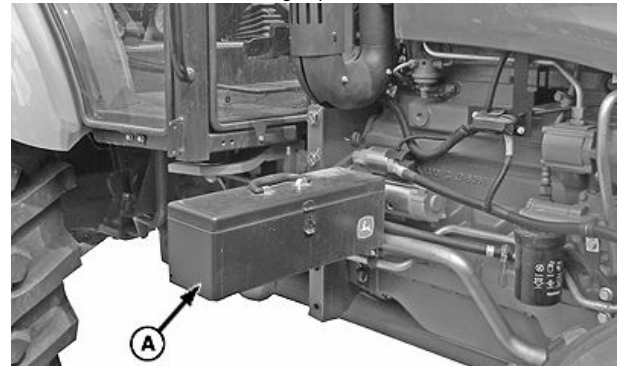
Toolbox Location

Toolbox (A) is on left side of hood or on right side front cab.

A—Toolbox



For JD1104, JD1204-A, JD1354-A, and JD1404-A (Deere engine) Tractors



For JD954 and JD1404-A (Deere engine) Tractors; JD1104, JD1204-A and JD1354-A (supplier engine) Tractors

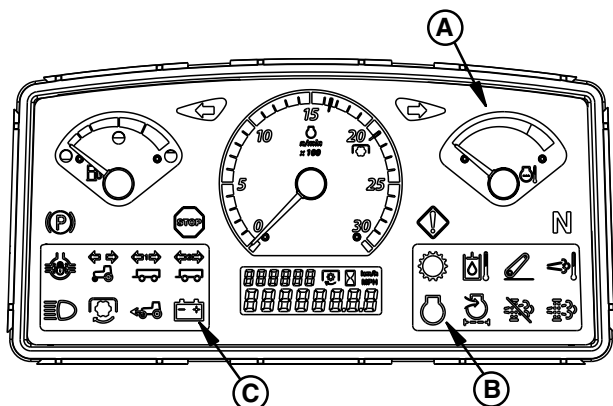
N400041,00035BA -19-12JAN17-1/1

CPA0002086 —UN—21OCT15

CPA0001691 —UN—24JUL15

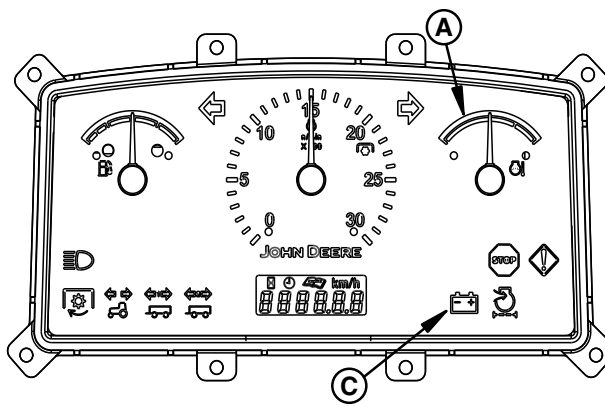
Break-In Period

Observe Engine Operation Closely



Instrument Cluster (wet clutch)

PY14900 —UN—31JAN13



Instrument Cluster (dry clutch)

PY14909 —UN—31JAN13

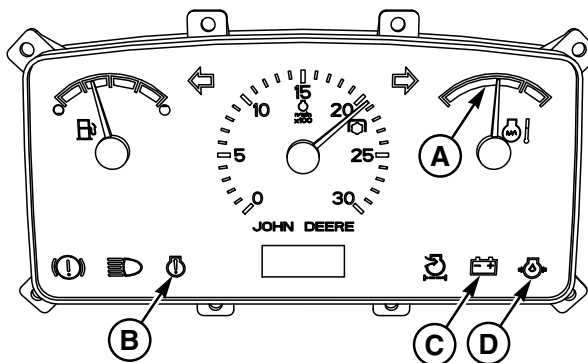
IMPORTANT: The engine is ready for normal operation. Be extra cautious during the first 100 hr, until you become thoroughly familiar with the sound and feel of your new tractor. Stay extra attentive and alert.

Warm up tractor carefully. Check charging system indicator (C), engine information indicator (B) or oil pressure alarm indicator (D), and coolant temperature gauge (A).

Avoid unnecessary engine idling (5 min).

Check engine oil, coolant, transmission/hydraulic, and mechanical front wheel drive fluid levels frequently. Watch for fluid leaks.

NOTE: If engine oil must be added, use seasonal viscosity grade oil. Use only lubricants meeting specifications given in the Fuels, Lubricants, and Coolant section.



Instrument Cluster (dry clutch, supplier engine)

CPA0002407 —UN—01JUN17

A—Coolant Temperature Gauge
B—Engine Information Indicator

C—Charging System Indicator
D—Oil Pressure Alarm Indicator

N400041,000361E -19-18JAN17-1/1

Break-In Service

IMPORTANT: Keep wheel hardware tight to avoid tractor damage. Check torque on wheel bolts before operating, twice during first 10 hours of operation, after 50 hours of operation, and periodically thereafter.

During the First 10 Hours of Operation:

Use engine oil meeting John Deere specifications. (See Diesel Engine Oil in Fuels, Lubricants, and Coolant section.)

Perform service listed for 10 hours in service interval chart. (See Maintenance and Service Intervals section.)

Tighten wheel bolts. (See Wheels, Tires, and Treads section.)

After the First 50 Hours of Operation:

Tighten wheel bolts. (See Wheels, Tires, and Treads section.)

Check alternator/fan belt tension.

Tighten air intake hose clamps. (See Check Air Intake System, in General Maintenance and Inspection section.)

Check cooling system hose clamps. (See Check Hoses and Hose Clamps for Tightness, in General Maintenance and Inspection section.)

Check brake linkage and brake pedal adjustment. (See Adjust Brake Pedal Free Play in General Maintenance and Inspection section.)

Check clutch linkage and clutch pedal adjustment. (See Adjust Clutch Pedal Free Play, in General Maintenance and Inspection section.)

Check PTO clutch linkage. (See Adjust PTO Clutch Operating Rod, in Drawbar and PTO section.)

Perform service listed for 50 hours and 10 hours in Service Interval Chart. (See Maintenance and Service Intervals section.)

After the First 100 Hours of Operation:

IMPORTANT: If tractor was used under light load conditions during first 100 hours, refill with only specified engine oil for an additional 100 hours to allow engine to break-in properly. (See Diesel Engine Oil in Fuels, Lubricants, and Coolant section.)

Replace transmission/hydraulic oil filter element. (See Replace Transmission/Hydraulic Oil Filter, in Lubrication section.)

Change engine oil and filter. (See Change Engine Oil and Filter, in Lubrication section.)

Change MFWD axle oil. (See Change MFWD Front Axle Housing Oil, in Lubrication section.)

Change MFWD wheel hub oil. (See Change MFWD Wheel Hub Oil, in Lubrication section.)

Perform 100 hours Service, 10 hours Service, and 50 hours Service.

JL31334,0000D61 -19-18FEB16-1/1

Prestarting Checks

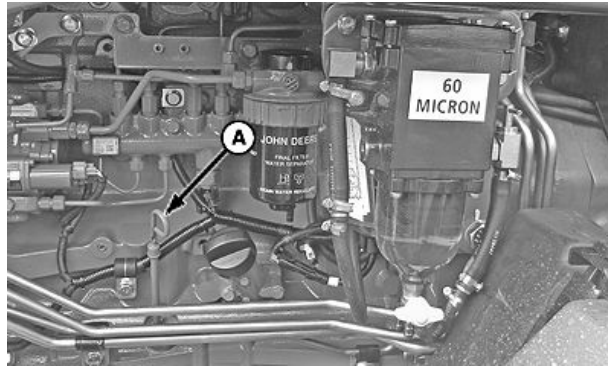
Service Daily Before Start-Up

NOTE: Park tractor on level ground before executing checks.

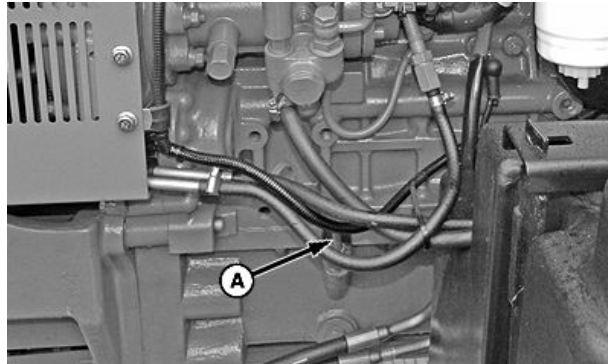
1. Check engine oil level. Remove and clean engine oil level dipstick (A) and reinsert fully. Remove it and check oil level. The safe operating range is between the upper and lower marks of the dipstick. (See Check Engine Oil Level, in Lubrication section.)

Do not operate the engine if oil level is below minimum mark. In this case, add recommended oil to maintain oil level. (See Fuels, Lubricants, and Coolant section.)

A—Engine Oil Level Dipstick



Deere Engine

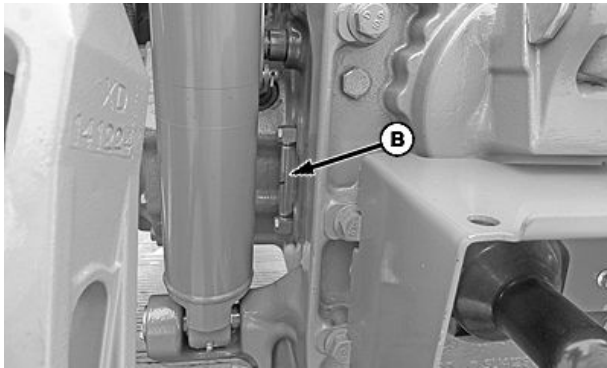


Supplier Engine

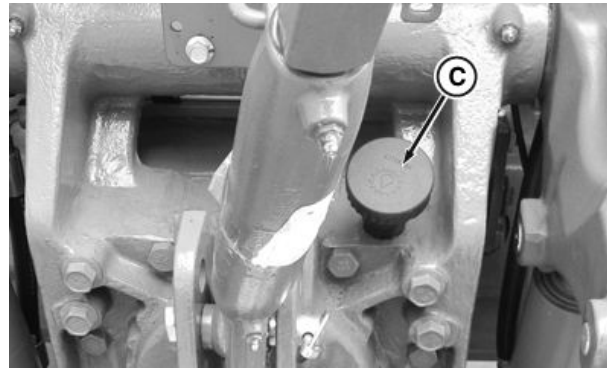
CPA0001704 —UN—24JUL15

CPA0002114 —UN—26OCT15

JL31334,0000DDB -19-16DEC16-1/3



CPA0001729 —UN—28JUL15



PY16727 —UN—17NOV12

B—Transmission/Hydraulic Oil Level Sight Glass

C—Transmission/Hydraulic Oil Fill Port

2. Check hydraulic oil level through transmission/hydraulic oil level sight glass (B). If oil level is low add oil through transmission/hydraulic oil fill port (C). (See

Check Transmission/Hydraulic System Oil Level, in Lubrication section.)

Continued on next page

JL31334,0000DDB -19-16DEC16-2/3

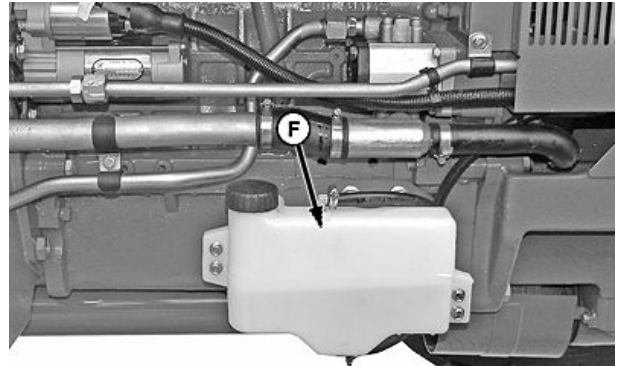
3. Check coolant level in surge tank (G). (See Check Coolant Level in Maintenance—Cooling System section.)

IMPORTANT: If operating in extremely wet or muddy conditions, lubricate several additional components daily as well. (See Lubricate MFWD Front Axle Pivot Pins, Lubricate Steering Spindles and MFWD Drive Shaft, in Lubrication section.)

G—Surge Tank



Deere Engine



Supplier Engine

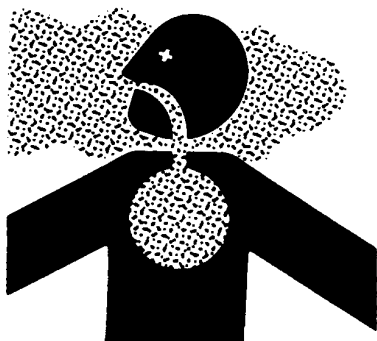
CPA0001719 —UN—27JUL15

CPA0002120 —UN—27OCT15

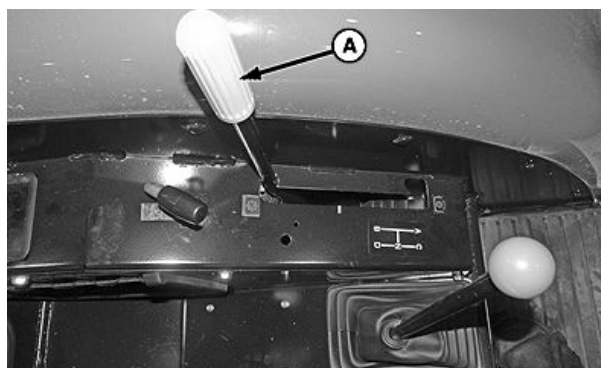
JL31334,0000DDB -19-16DEC16-3/3

Operating Engine

Before Starting Engine

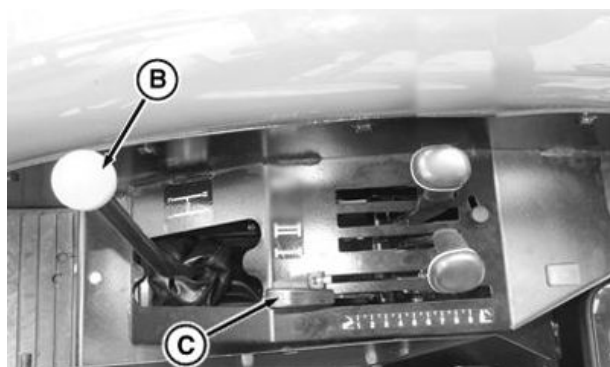


TS220 —UN—15APR13



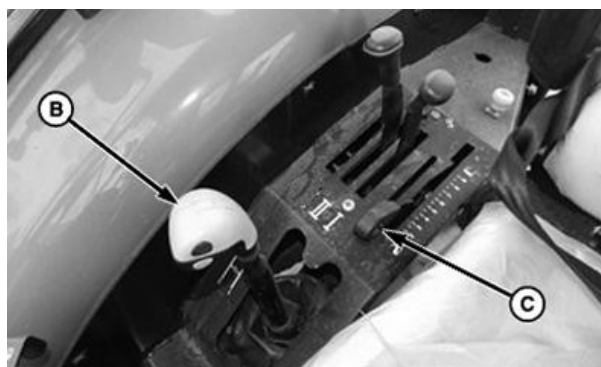
CPA0002055 —UN—22OCT15

Left-Hand Side (dry clutch)



CPA0001109 —UN—10NOV14

Right-Hand Side (12 x 4 transmission)



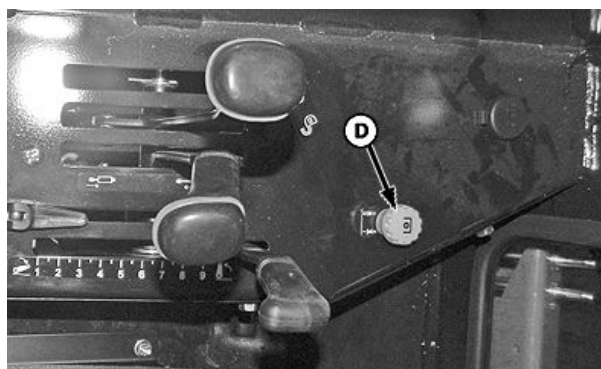
CPA0001110 —UN—10NOV14

Right-Hand Side (24 x 8/24 x 12 transmission)

CAUTION: Prevent asphyxiation. Engine exhaust fumes can cause sickness or death to you or someone else.

If you must operate engine in a building, be positive 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.

1. Check fuel gauge to be sure that tractor has plenty of fuel.
2. Place gearshift lever (B) in neutral, "N" position. PTO control lever (A) is in disengaged (rearmost) position or PTO switch (D) is raised. Starter does not operate if gearshift lever (B) and PTO control lever (A) /PTO switch (D) are not in these positions.
3. Place rockshaft position control lever (C) in lower (forward) position.
4. Check charging system indicator and engine information indicator on instrument cluster. They glow when ignition key is turned to ON position.



CPA0002038 —UN—15OCT15

Right-Hand Side (wet clutch)

A—PTO Control Lever (dry clutch)
B—Gearshift Lever

C—Rockshaft Position Control Lever
D—PTO Switch (wet clutch)

If any indicator does not function properly, see your John Deere dealer.

N400041,00035A8 -19-18JAN17-1/1

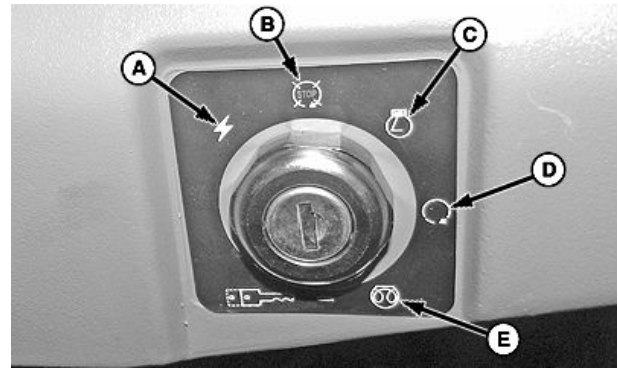
Key Switch Positions

Auxiliary Position (A) - Push key in and turn to Auxiliary position for accessory operation.

OFF Position (B) - Turn key to OFF position from auxiliary or ON positions to stop engine and turn off electrical accessories.

ON Position (C) - After turning key to Start position and releasing key, key returns to ON position. ON position enables ON circuit allowing engine to run.

Start Position (D) - Turn key to Start position when starting engine. Key returns to ON position when released. See procedure below for proper starting procedure.



A—Auxiliary Position
B—OFF Position
C—ON Position

D—Start Position
E—Cold-Weather Start Symbol

CPA0002040 —UN—16OCT15

CP00834,0001ED9 -19-16OCT15-1/1

Start Engine

CAUTION: Avoid possible injury or death from a machine runaway.

Machine starts in gear and move if normal circuitry is bypassed. **DO NOT** start engine by shorting across starter terminals.

CAUTION: Set the parking brake before starting engine.

Start engine only from operator's seat with transmission in neutral. Never start engine while standing on ground.

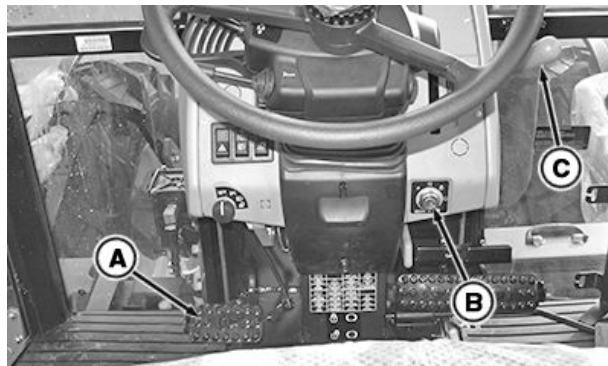
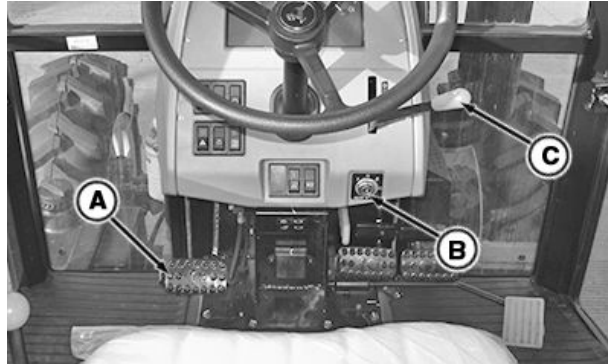
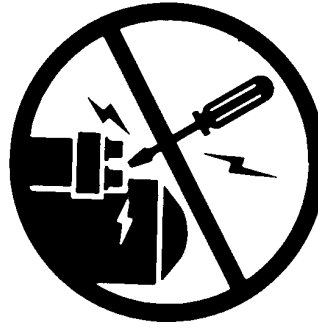
IMPORTANT: **DO NOT** run a cold engine at full throttle.

1. Push hand throttle (C) forward (1/3 of lever travel) to increase engine speed, as indicated by fast/slow indicator.
2. Make sure that gearshift lever is in neutral, "N" position. PTO control lever (dry clutch) in the disengaged position or PTO switch (wet clutch) is raised.
3. Depress clutch pedal (A) and turn ignition switch (B) fully clockwise to START position. Release key when engine starts.
4. If key is released before engine starts, wait until starter and engine stop turning before trying again. Check that all indicators are off after engine starts.

IMPORTANT: **DO NOT** operate starter more than 10 seconds at a time. If engine does not start, wait at least 2 minutes for the starter motor to cool before trying again. If engine does not start in three attempts, refer to Troubleshooting section.

A—Clutch Pedal
B—Ignition Switch

C—Hand Throttle



Optional

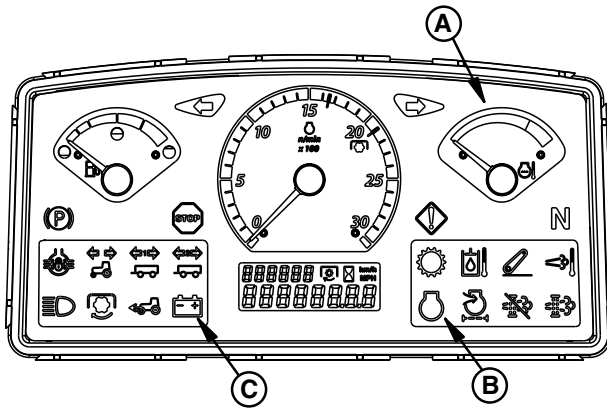
TS177 —UN—11JAN89

CPA0002993 —UN—18OCT16

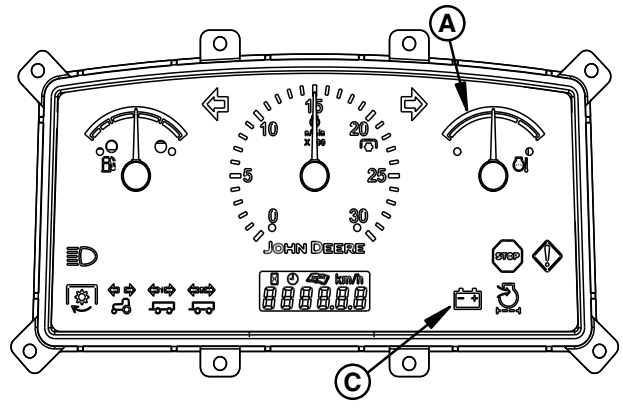
CPA0002990 —UN—18OCT16

N400041,00035A5 -19-12JAN17-1/1

Check Instruments After Starting



Instrument Cluster (wet clutch)

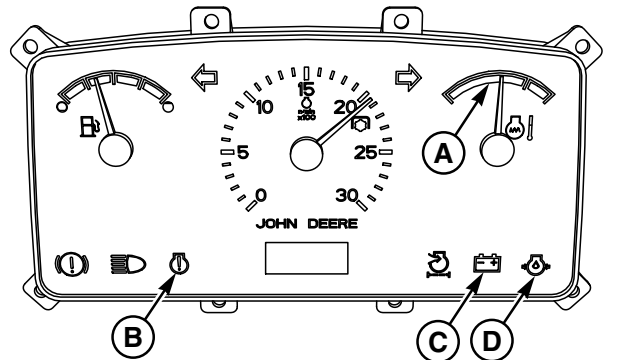


Instrument Cluster (dry clutch)

IMPORTANT: If charging system indicator (C), engine information indicator (B) or oil pressure alarm indicator (D) remains on, or if coolant temperature gauge (A) goes into the red zone, stop engine and determine the cause.

A—Coolant Temperature Gauge
B—Engine Information Indicator

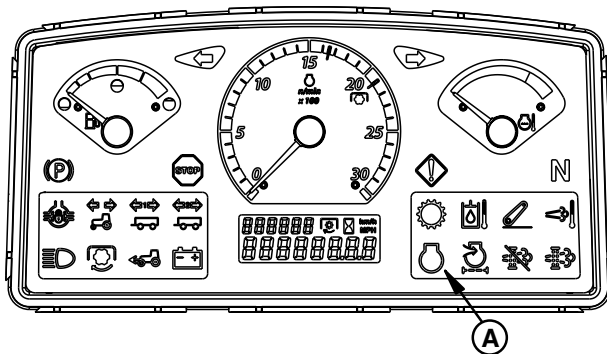
C—Charging System Indicator
D—Oil Pressure Alarm Indicator



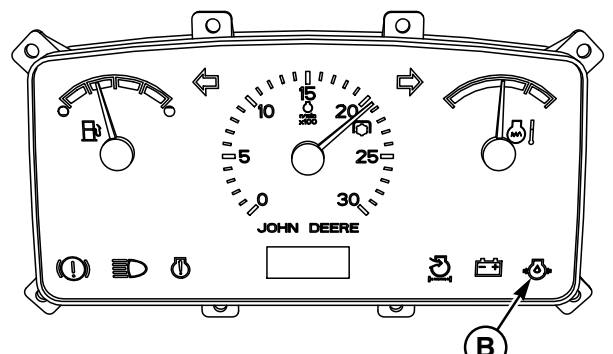
Instrument Cluster (dry clutch, supplier engine)

N400041,00035A9 -19-12JAN17-1/1

Engine Information Indicator



Instrument Cluster (wet clutch)



Instrument Cluster (dry clutch, supplier engine)

A—Engine Information Indicator B—Oil Pressure Alarm Indicator

Engine information indicator (A) or oil pressure alarm indicator (B) lights and stays lit if engine oil pressure falls below minimum.

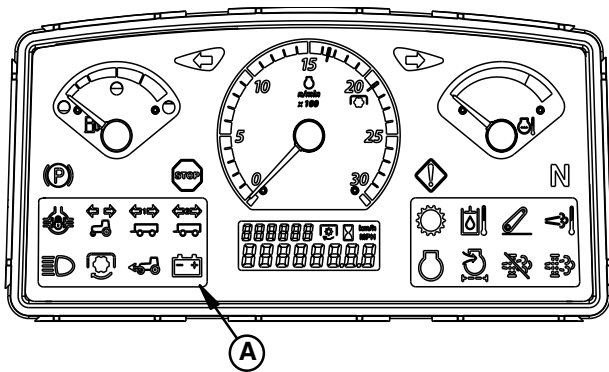
IMPORTANT: NEVER operate engine without sufficient oil pressure. If engine information

indicator lights and stays on for longer than 5 seconds under normal operating conditions, stop engine and check for cause.

If low oil level is not the cause, see your John Deere dealer.

N400041,00035AA -19-18JAN17-1/1

Charging System Indicator



Instrument Cluster (wet clutch)

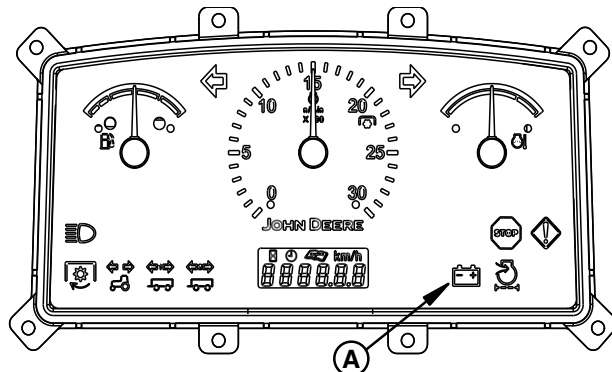
Charging system indicator (A) lights when alternator output is low. Indicator lights when key is turned to START position and go off when engine starts.

If charging system indicator stays lit for longer than 5 seconds in normal operation, stop engine and check for cause.

If loose or broken fan belt is not the cause, see your John Deere dealer.

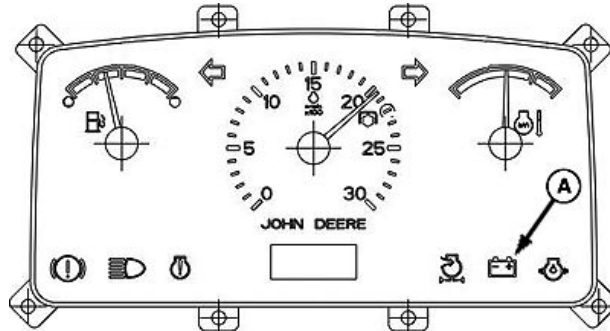
A—Charging System Indicator

PY14902 —UN—31JAN13



Instrument Cluster (dry clutch)

PY14910 —UN—31JAN13

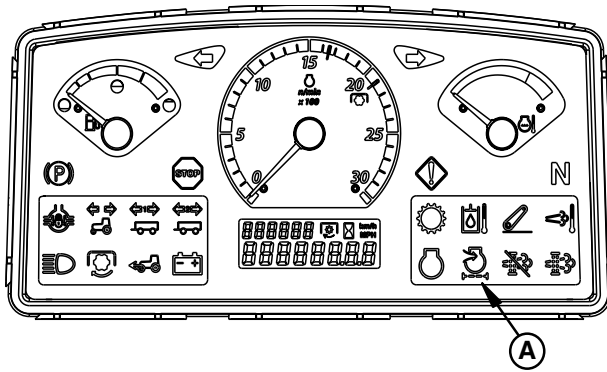


Instrument Cluster (dry clutch, supplier engine)

CPA0002122 —UN—27OCT15

N400041,00035AB -19-12JAN17-1/1

Air Restriction Indicator



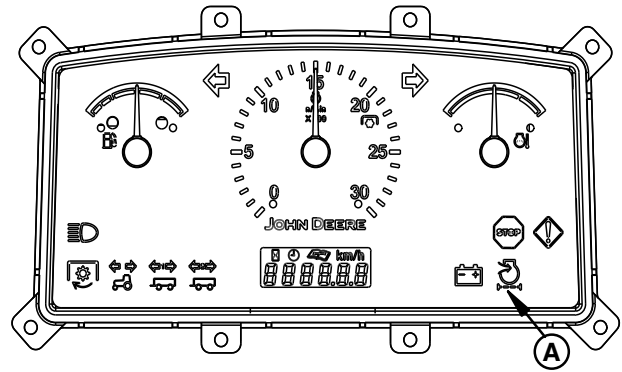
PY14903 —UN—31JAN13

Instrument Cluster (wet clutch)

Air restriction indicator (A) lights if air cleaner becomes plugged. Service air cleaner as soon as possible.

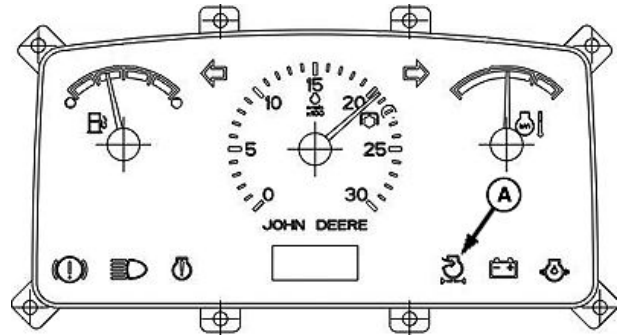
Air restriction indicator lights momentarily when key is turned to START position, and go off when engine starts.

A—Air Restriction Indicator



PY14917 —UN—01FEB13

Instrument Cluster (dry clutch)

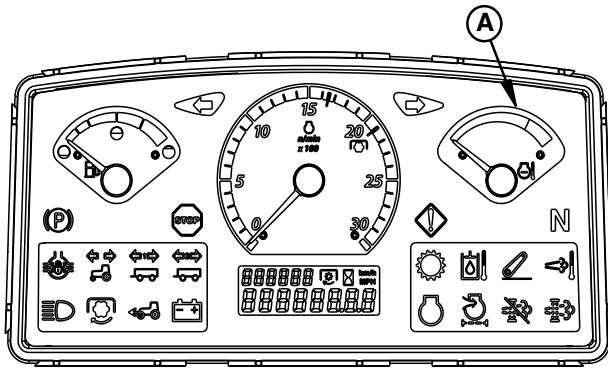


CPA0002123 —UN—27OCT15

Instrument Cluster (dry clutch, supplier engine)

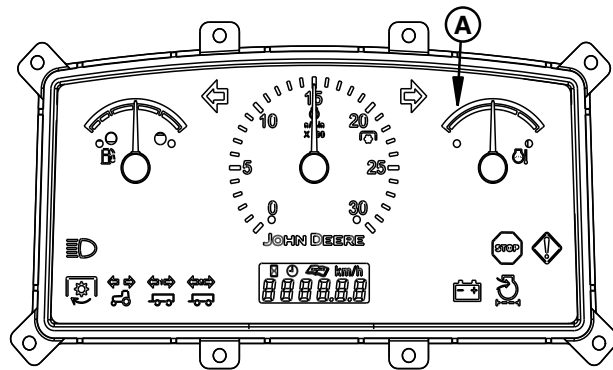
N400041,00035AC -19-12JAN17-1/1

Coolant Temperature Gauge



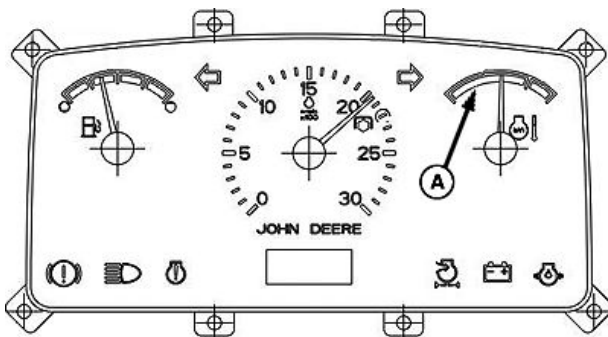
Instrument Cluster (wet clutch)

PY14904 —UN—31JAN13



Instrument Cluster (dry clutch)

PY14918 —UN—01FEB13



Instrument Cluster (dry clutch, supplier engine)

CPA0002124 —UN—27OCT15



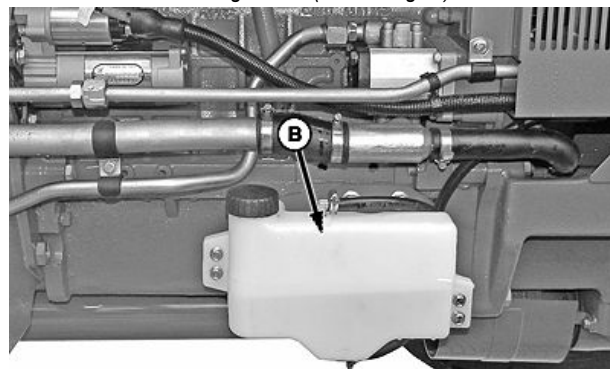
Surge Tank (Deere engine)

CPA0001720 —UN—27JUL15

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

CAUTION: DO NOT remove radiator cap until coolant has had a chance to cool down. Always loosen radiator cap slowly to relieve any excess pressure.

Check coolant level in surge tank (B) or surge tank (C) when engine cools. Also check front grille, radiator, and radiator side screens for plugging. Check fan belt tension. If problem is not corrected, see your John Deere dealer.



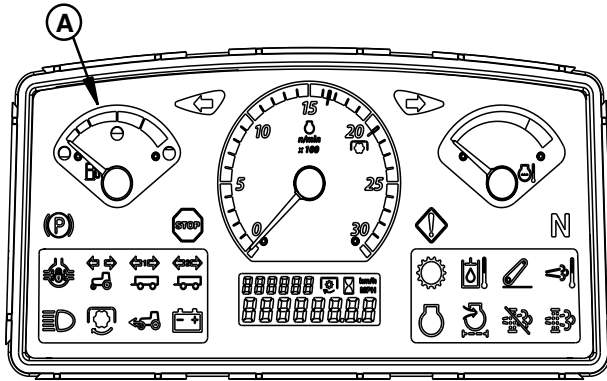
Surge Tank (supplier engine)

CPA0002125 —UN—27OCT15

- A—Coolant Temperature Gauge
- B—Surge Tank (supplier engine)
- C—Surge Tank

N400041,00035A6 -19-12JAN17-1/1

Watch Fuel Level



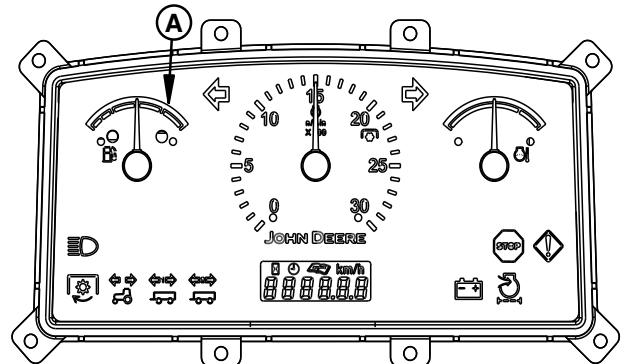
Instrument Cluster (wet clutch)

Stop to refuel before fuel level gauge (A) reaches empty mark.

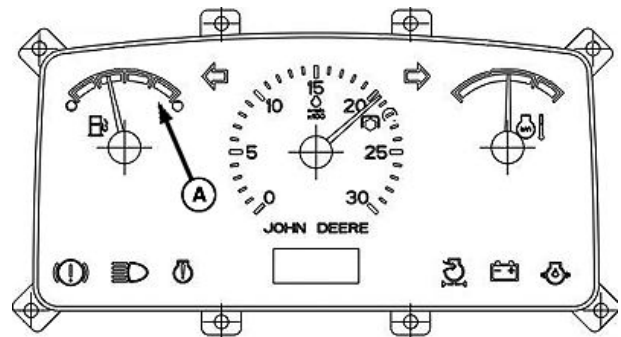
IMPORTANT: Use diesel fuel only. (See Fuels, Lubricants, and Coolant section for fuel specifications.)

If tractor runs out of fuel and does not start in several tries, air must be bled from fuel system. (See Bleed Fuel System, in Maintenance—Fuel System section.)

A—Fuel Level Gauge



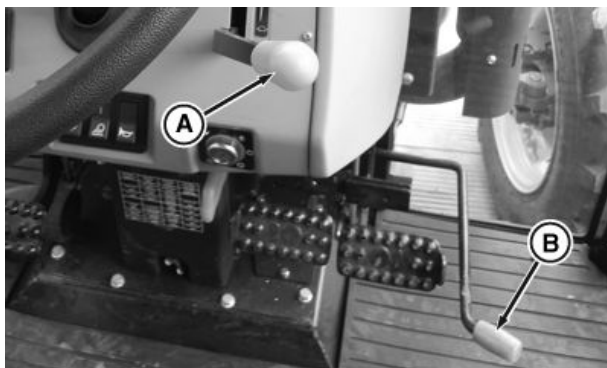
Instrument Cluster (dry clutch)



Instrument Cluster (dry clutch, supplier engine)

N400041,00035AD -19-12JAN17-1/1

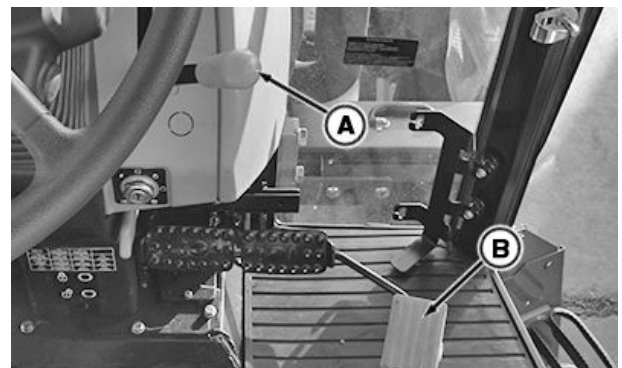
Change Engine Speeds



A—Hand Throttle

B—Foot Throttle

To increase or decrease engine speed, use hand throttle (A). Engine maintains set speed until hand throttle is moved again. Maximum speed is attained with lever all the way up, and minimum speed with lever all the way down, as indicated by the fast/slow decal on dashboard.



Optional

To increase engine speed temporarily, use foot throttle (B). Engine speed returns to the prior speed as soon as foot throttle lever is released.

N400041,00035A7 -19-12JAN17-1/1

Warm Up Engine

Do not place tractor under full load until it is properly warmed up.

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

CP00834,0001EE3 -19-16OCT15-1/1

Restart Stalled Engine

IMPORTANT: Be sure to observe the following, or damage to turbocharger and booster could occur.

If engine stalls when operating under load, depress clutch and restart it immediately to prevent abnormal heat buildup. Continue with normal operation or run engine at low idle for 1 or 2 minutes before stopping.

CP00834,0001EE2 -19-16OCT15-1/1

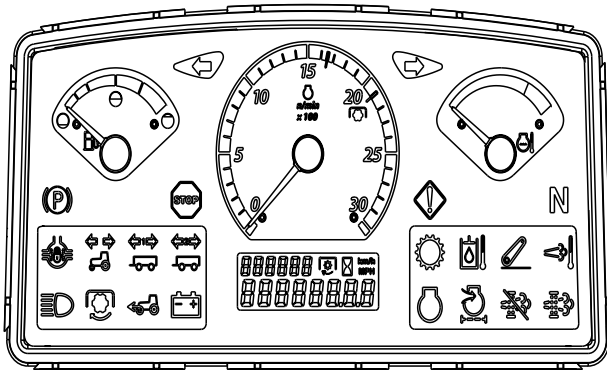
Avoid Idling Engine

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

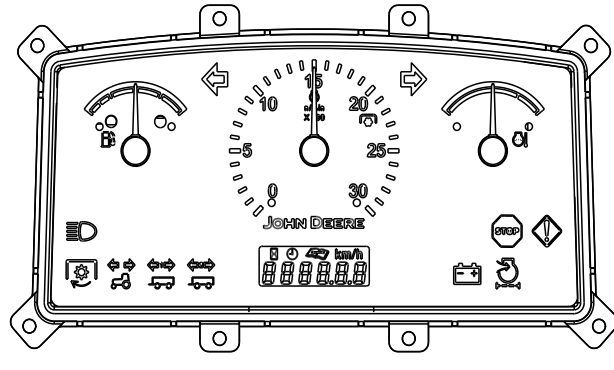
If tractor must be left with the engine running more than 3 or 4 minutes, minimum engine speed is 1200 rpm.

CP00834,0001EE4 -19-16OCT15-1/1

Observe Engine Work and Idle Speeds



Instrument Cluster (wet clutch)



Instrument Cluster (dry clutch)

Low idle speed is:

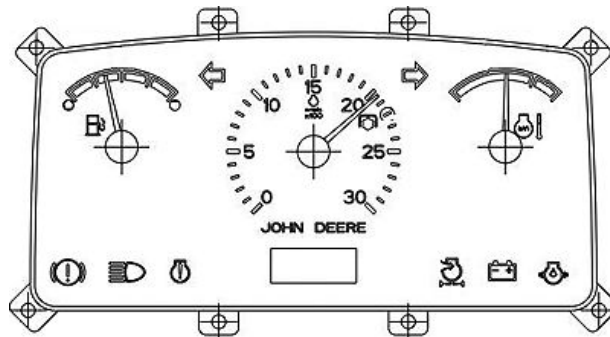
- 850 ~ 900 rpm (Deere engine)
- 800 ~ 850 rpm (supplier engine)

At light or no load, full throttle speed increases to:

- 2350 ~ 2400 rpm (for JD954 tractor)
- 2325 ~ 2375 rpm (for JD1104, JD1204-A, JD1354-A, and JD1404-A (6068 engine) Deere engine)
- 2360 ~ 2410 rpm (for JD1404-A (4045 engine) Deere engine)
- 2335 ~ 2395 rpm (for JD1104, JD1204-A, and JD1354-A, supplier engine)

Normal working speed is:

- 1400 ~ 2200 rpm (for JD1104, JD1204-A, and JD1354-A, supplier engine)



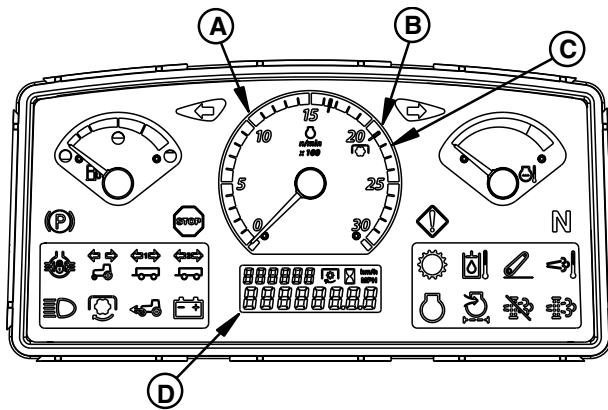
Instrument Cluster (dry clutch, supplier engine)

- 1600 ~ 2200 rpm (for JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A, Deere engine)

Within these limits, engine can be put under full load.

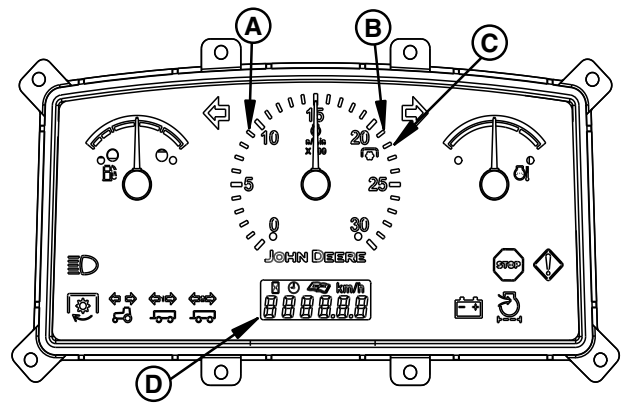
N400041,00035AE -19-13JAN17-1/1

Use Tachometer/Hour Meter



Instrument Cluster (wet clutch)

PY14906 —UN—31JAN13



Instrument Cluster (dry clutch)

PY14911 —UN—31JAN13

Tachometer (A) shows engine revolutions per minute, read in hundreds.

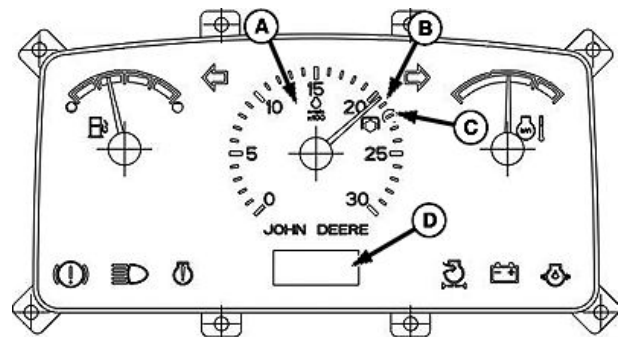
For **540 or 1000 rpm PTO speed**, increase engine speed until tachometer needle is aligned with 2100 rpm mark (B).

For **760 or 840 rpm PTO speed**, increase engine speed until tachometer needle is aligned with 2200 rpm mark (C).

Hour meter (D) shows operating hours of engine in full hours and tenths.

A—Tachometer
B—2100 rpm Mark

C—2200 rpm Mark
D—Hour Meter

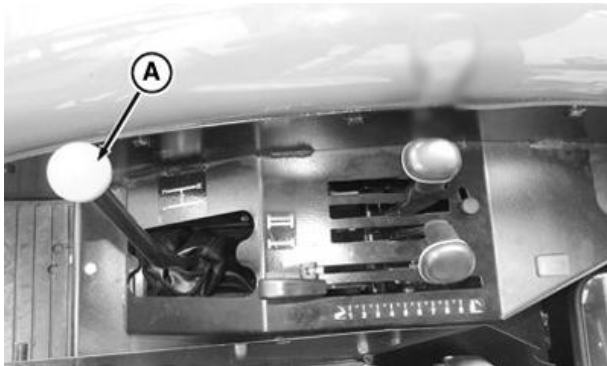


Instrument Cluster (dry clutch, supplier engine)

CPA0002128 —UN—27OCT15

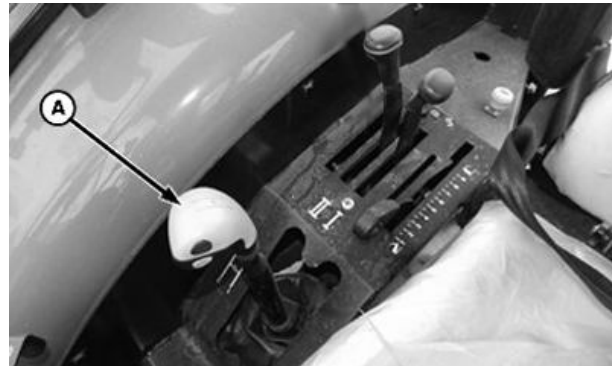
N400041,00035AF -19-12JAN17-1/1

Stop Engine



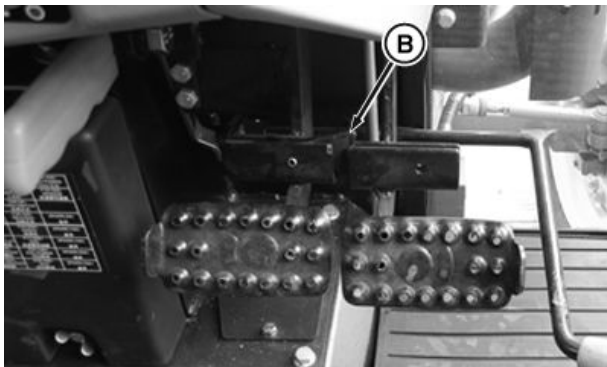
12 x 4 Transmission

CPA0001111 —UN—10NOV14

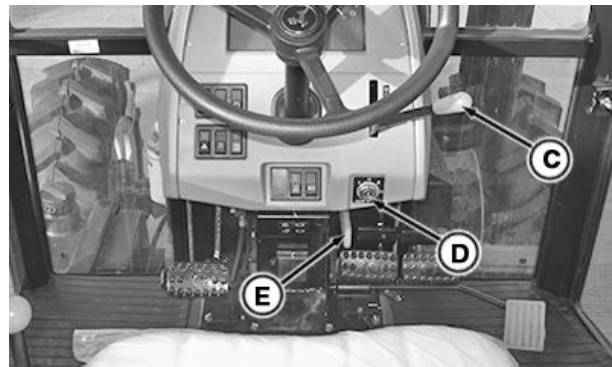


24 x 8/24 x 12 Transmission

CPA0001112 —UN—10NOV14



PY16736 —UN—19NOV12



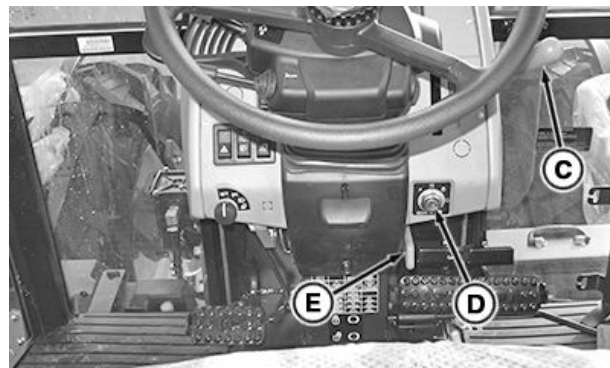
CPA0002994 —UN—18OCT16

1. Put gearshift lever (A) in neutral, "N".
2. Lock brake pedals together using brake pedals locking bar (B).
3. Set parking brake by pressing up brake pedals and pulling parking brake lever (E).

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

4. Reduce load, pull hand throttle lever (C) down to slow engine speed down to around 1200—1300 rpm. Run engine for another 3—5 minutes before stop engine.
5. Turn ignition key (D) to the STOP position.

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



Optional

CPA0002995 —UN—18OCT16

A—Gearshift Lever
B—Brake Pedals Locking Bar
C—Hand Throttle Lever

D—Ignition Key
E—Parking Brake Lever

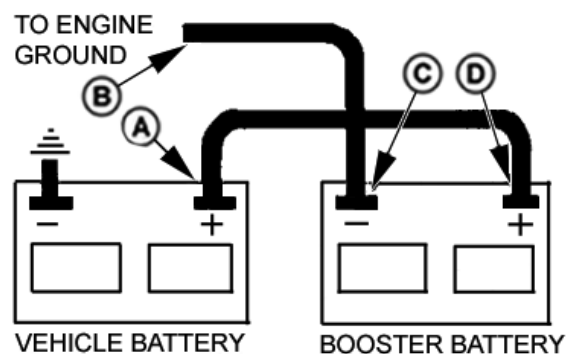
N400041,00035B0 -19-12JAN17-1/1

Use Booster Battery

CAUTION: Battery gas is explosive:

- DO NOT smoke while charging battery
- Keep all flames and sparks away
- DO NOT charge a frozen battery
- DO NOT connect booster battery negative cable to negative (-) terminal on vehicle you are trying to start. Instead, use clean ground spot on engine or tractor structural member.

1. Access battery. (See procedure in Battery Access, Maintenance - Electrical System section.)
2. Connect positive (+) booster cable to booster battery positive (+) post (D).
3. Connect the other end of positive (+) booster cable to tractor battery positive (+) post (A).
4. Connect negative (-) booster cable to booster battery negative (-) post (C).
5. Connect the other end of negative (-) booster cable to engine ground (B), away from battery and starter.



A—Tractor Battery Positive (+) Post
B—Engine Ground

C—Booster Battery Negative (-) Post
D—Booster Battery Positive (+) Post

PUC1572 —19—19FEB08

N400041,00035B1 -19-12JAN17-1/1

Driving Tractor

Operator Training Required

- Study Operating Engine section of this manual before operating tractor.
- Operate tractor in an open, unobstructed area under the direction of an experienced operator.
- Learn use of all controls.
- Operator experience is required to learn moving, stopping, turning, and other characteristics of tractor.

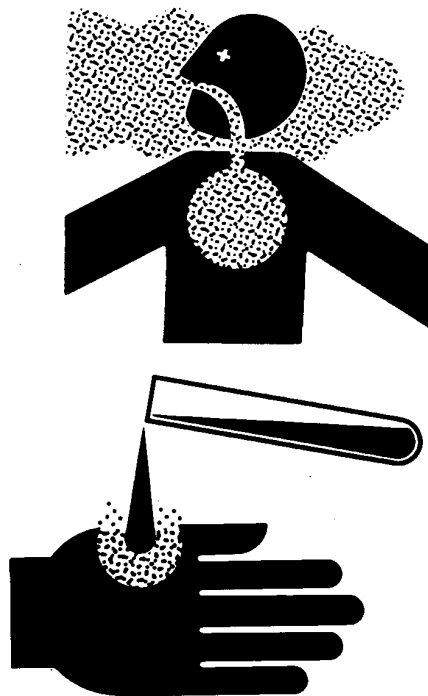
CP00834,0001EEA -19-16OCT15-1/1

Avoid Contact with Agricultural Chemicals

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.



TS220—UN—15APR13

TS272—UN—23AUG88

DX,CABS -19-25MAR09-1/1

Driving on Public Roads

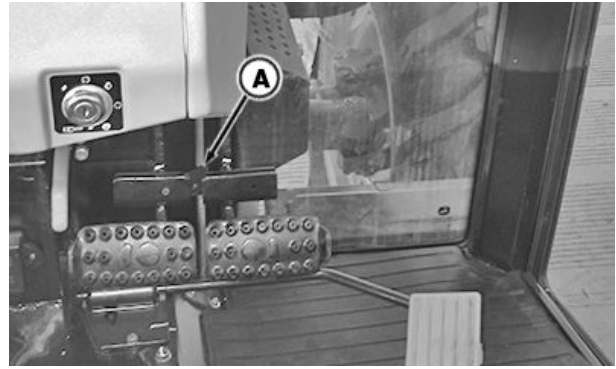
CAUTION: When transporting on a public road or highway, use accessory lights and devices for adequate warning to operators of other vehicles. Check local governmental regulations. Various safety devices are available from your John Deere dealer. Keep safety items in good condition. Replace missing or damaged items.

Observe the following precautions when operating the tractor on the road:

CAUTION: Before operating tractor on a road, lock brake pedals together. Use brakes lightly and cautiously at transport speeds.

1. Couple brake pedals together using brake pedal locking bar (A). Avoid hard application of brakes. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes. (Consult implement operator's manual for recommended transport speeds.)

Use additional caution when transporting towed loads under adverse surface conditions and when turning



A—Brake Pedal Locking Bar

or braking on inclines. Be sure that wheel tread is adjusted wide to provide maximum stability.

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

Continued on next page

N400041.00035B4 -19-12JAN17-1/2

CPA0002996—UN—18OCT16

2. Check local laws and regulations for lighting requirements. Be sure, warning lights (B) and tail lights (C) are clean and visible. If towed or rear-mounted equipment obstructs these safety devices, install warning lights on equipment. (See your John Deere dealer.)

3. Press light switch (E) to ROAD (down) position and high/low beam switch (D) to high beam position (down).

Always move high/low beam switch (D) to low beam position (up) when meeting another vehicle. Never use floodlights (if equipped) or any other lights which could blind or confuse other drivers.

4. For optional model, move light switch (H) to ROAD position and light handle (G) to high beam position (down).

Always move light handle (G) to low beam position (center) when meeting another vehicle. Never use floodlights (if equipped) or any other lights which could blind or confuse other drivers.

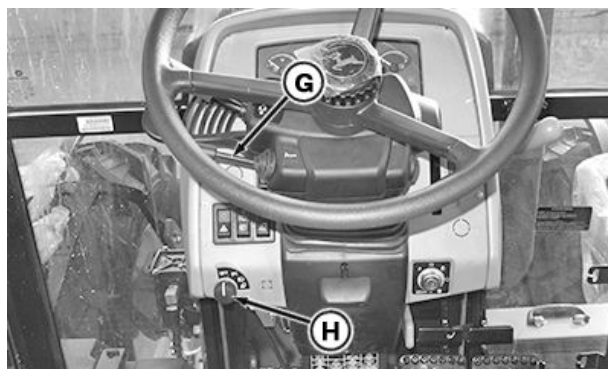
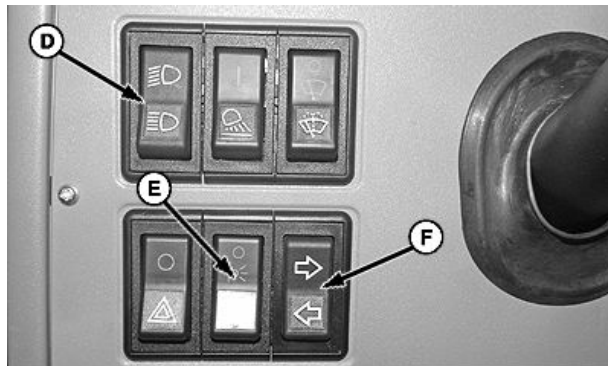
5. Use turn signal switch (F) or light handle (G) when turning. Be sure to return switch or handle to center position manually after turning.

6. Drive slow enough to maintain safe control at all times. Before descending a hill, shift to a gear low enough to control speed without using brakes. Slow down for rough ground and sharp turns, especially when transporting heavy, rear mounted equipment.

7. To reduce tire wear, be sure to disengage front-wheel drive.

B—Warning Lights (2 used)
C—Tail Lights (2 used)
D—High/Low Beam Switch
E—Light Switch

F—Turn Signal Switch
G—Light Handle
H—Light Switch



Optional

PY17034 —UN—06OCT12

CPA0002072 —UN—20OCT15

CPA0002997 —UN—18OCT16

N400041,00035B4 -19-12JAN17-2/2

Use Caution on Slopes, Uneven Terrain, and Rough Ground

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

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

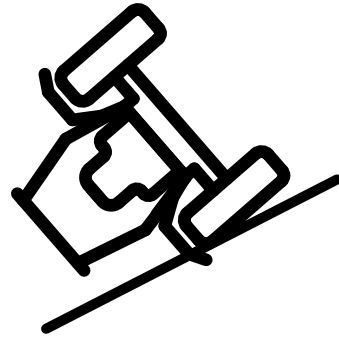
Danger of overturn increases greatly with narrow tread setting, at high speed.

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

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

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

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



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

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

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

DX,WW,SLOPE -19-28FEB17-1/1

RXA0103437 —UN—01JUL09

Operate Transmission

12 x 4 Transmission

Range shift lever (A) provides four forward speed ranges: A, B, C, and D.

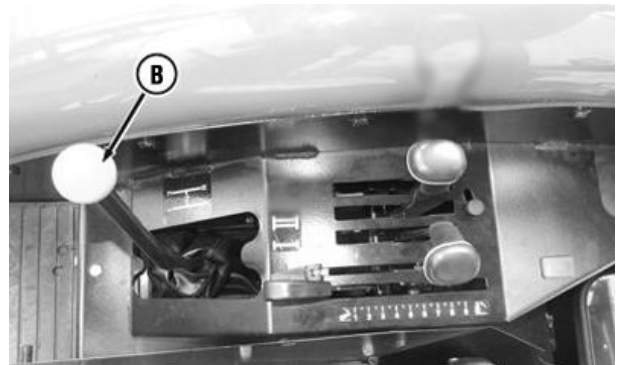
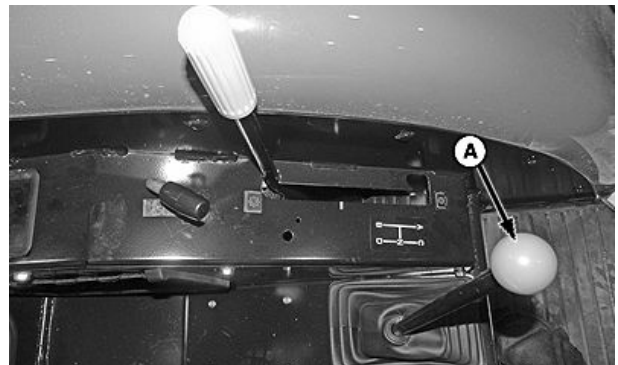
Speed shift lever (B) provides three forward speeds: 1st, 2nd, and 3rd, plus one reverse speed.

Using range and speed shift levers in different combinations, 12 forward speeds and 4 reverse speeds can be obtained.

Speed shift lever (B) must be in neutral, "N", for the engine to be started.

A—Range Shift Lever

B—Speed Shift Lever



Continued on next page

N400041,0003715 -19-31MAR17-1/3

CPA0002082 —UN—22OCT15

CPA0001113 —UN—10NOV14

24 x 8 Transmission

Range shift lever (A) provides four forward speed ranges: A, B, C, and D.

Speed shift lever (B) provides three forward speeds: 1st, 2nd, and 3rd, plus one reverse speed.

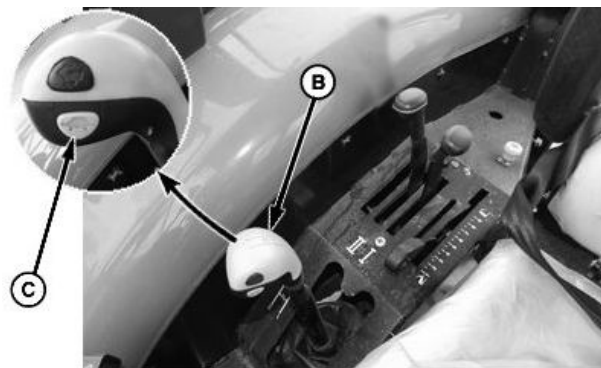
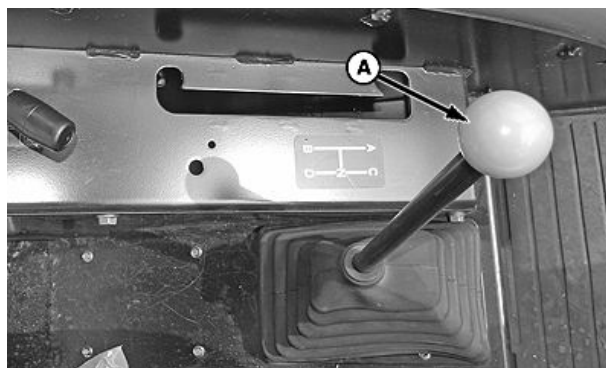
High/low speed shift button (C) is used to obtain the higher or lower ground speeds.

Using range shift lever, speed shift lever, and high/low speed shift lever in different combinations, 24 forward speeds and 8 reverse speeds can be obtained.

Speed shift lever (B) must be in neutral, "N", for the engine to be started.

A—Range Shift Lever
B—Speed Shift Lever

C—High/Low Speed Shift Button



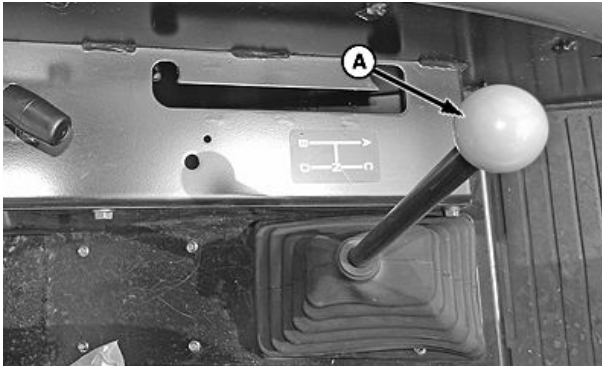
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N400041,0003715 -19-31MAR17-2/3

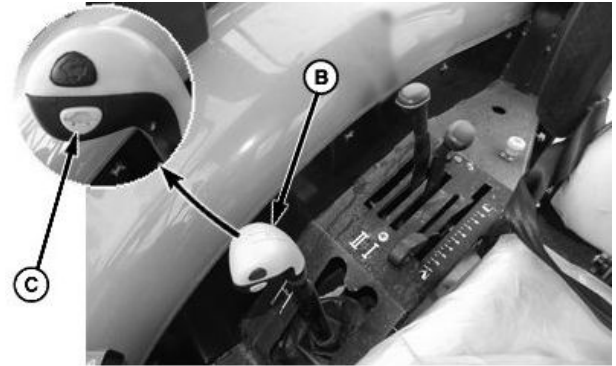
CPA0002054 —UN—19OCT15

CPA0001114 —UN—10NOV14

24 x 12 Transmission



CPA0002054 —UN—19OCT15



CPA0001114 —UN—10NOV14

Range shift lever (A) provides four forward speed ranges: A, B, C, and D.

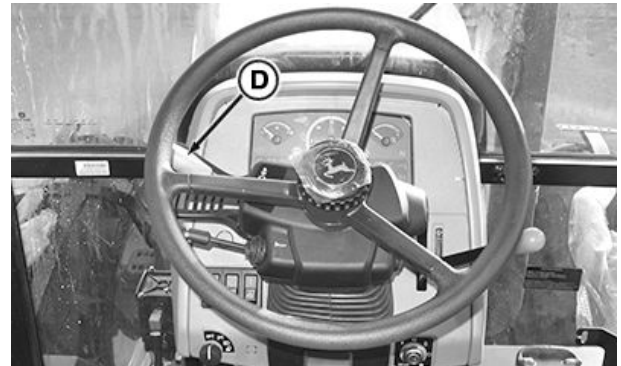
Speed shift lever (B) provides three forward speeds: 1st, 2nd, and 3rd.

High/low speed shift button (C) is used to obtain the higher or lower ground speeds.

PowerReverser lever (D) provides travel direction (forward or reverse).

Using range shift lever, speed shift lever, high/low speed shift lever and PowerReverse lever in different combinations, 24 forward speeds and 12 reverse speeds can be obtained.

Speed shift lever (B) must be in neutral, "N", for the engine to be started.



CPA0002998 —UN—18OCT16

A—Range Shift Lever
B—Speed Shift Lever

C—High/Low Speed Shift Button
D—PowerReverser Lever

N400041,0003715 -19-31MAR17-3/3

Shifting Transmission

12 x 4 Transmission

Range Shift: If tractor equips with collar shift transmission, it must come to a **complete stop** when shifting into any speed range.

If tractor equips with synchronizer gearshift transmission, when shifting into A or B speed range, tractor must come to a **complete stop**. If shifting into C or D speed range, **DO NOT** need to stop tractor.

1. Lower engine rpm to idle speed.
2. Depress clutch pedal FULLY.
3. Select desired speed range (A, B, C, and D).
4. Slowly release clutch pedal to take up load gradually.
5. Increase engine speed once shift is completed.

Gear (speed) Shift: If tractor equips with collar shift transmission, it must come to a **complete stop** when shifting gears.

If tractor equips with synchronizer gearshift transmission, changing gears can be made **on-the-go**, without stopping.



A—Clutch Pedal

1. Depress clutch pedal (A) FULLY.
2. Select desired speed (1, 2, 3, and R).
3. Slowly release clutch pedal to take up load gradually.

N400041,0003716 -19-31MAR17-1/3

CPA0002999—JUN—18OCT16

24 x 8 Transmission

High/Low Speed Shift: Select high or low ground speed configuration. High or Low ground speed can be selected without depressing the clutch pedal and can be made **on-the-go**, without stopping.

Range Shift: When shifting into A or B speed range, tractor must come to a **complete stop**. If shifting into C or D speed range, **DO NOT** need to stop tractor.

1. Lower engine rpm to idle speed.
2. Depress clutch pedal FULLY.
3. Select desired speed range (A, B, C, and D).
4. Slowly release clutch pedal to take up load gradually.
5. Increase engine speed once shift is completed.

Gear (speed) Shift: Changing gears can be made **on-the-go**, without stopping.

1. With tractor in motion, depress clutch pedal (A) FULLY.
2. Select desired speed (1, 2, 3), plus one reverse speed.



A—Clutch Pedal

3. Slowly release clutch pedal to take up load gradually.

Continued on next page

N400041,0003716 -19-31MAR17-2/3

CPA0002999—JUN—18OCT16

24 x 12 Transmission

High/Low Speed Shift: Select high or low ground speed configuration. High or Low ground speed can be selected without depressing the clutch pedal and can be made **on-the-go**, without stopping.

Range Shift: When shifting into A or B speed range, tractor must come to a **complete stop**. If shifting into C or D speed range, **DO NOT** need to stop tractor.

1. Lower engine rpm to idle speed.
2. Depress clutch pedal FULLY.
3. Select desired speed range (A, B, C, and D).
4. Slowly release clutch pedal to take up load gradually.
5. Increase engine speed once shift is completed.

Gear (speed) Shift: Changing gears can be made **on-the-go**, without stopping.

1. With tractor in motion, depress clutch pedal (A) FULLY.
2. Select desired speed (1, 2, 3).
3. Slowly release clutch pedal to take up load gradually.



A—Clutch Pedal

PowerReverser Lever: With tractor stopped, select desired travel direction (forward or reverse). Travel direction change can be done without depressing the clutch pedal.

N400041,0003716 -19-31MAR17-3/3

CPA0003000 —UN—18OCT16

Select a Gear

IMPORTANT: To extend drive 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.

Tractor may be operated in any gear with engine speeds from 1800 through 2200 rpm. Within these limits, engine can be put under full load. For light load operation, use a higher gear and lower engine speed. This saves fuel and reduces wear.

CP00834,0001EEE -19-16OCT15-1/1

Use Brakes

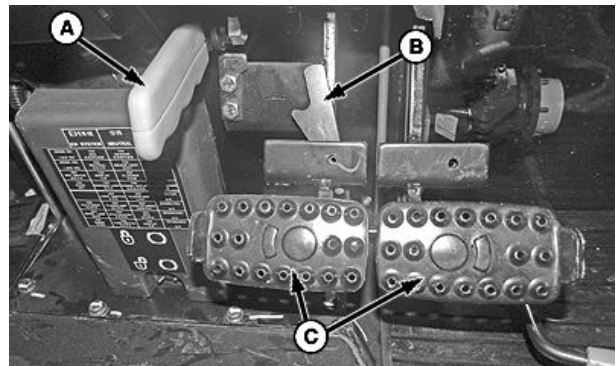
CAUTION: Before operating tractor on a road, lock pedals together with brake pedal locking bar (B). Use brakes lightly and cautiously at transport speeds.

For field work, brake pedals (C) should NOT be locked together. Instead, apply right brake pedal lightly to assist in making sharp right-hand turns and left pedal for left-hand turns.

To stop tractor completely, lock brake pedals together with brake pedal locking bar (B), depress brake pedals (C) and pull up parking brake lever (A), after coming to a complete stop. Parking brake lever (A) keeps brake pedals down. To release lever, push down briefly on brake pedals (C). Parking brake lever (A) will drop down on its own.

IMPORTANT: To prevent unnecessary wear, **NEVER** “ride” the brakes by resting a foot on the pedals.

Reduce speed if towed load is not equipped with brakes and weighs more than the tractor. Avoid hard braking



A—Parking Brake Lever
B—Brake Pedal Locking Bar

C—Brake Pedal (2 used)

applications. Consult implement operator's manual for recommended transport speeds.

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

CP00834,0001F49 -19-20OCT15-1/1

CPA0002083 —UN—20OCT15

Use Differential Lock

CAUTION: DO NOT operate tractor at high speed or attempt to turn with differential lock engaged.

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

When one wheel starts to lose traction, STOP tractor and engage differential lock by depressing differential lock pedal (A) down. Tractor wheels must be stopped or turning at the same speed before engaging differential lock. If possible, engage differential lock before entering conditions where tires may slip.

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



A—Differential Lock Pedal

If tires repeatedly slip, then get traction, and then slip again, hold differential lock pedal (A) in the engaged position.

PY16741 —UN—20NOV12

CP00834,0001F48 -19-19OCT15-1/1

Operate Mechanical Front-Wheel Drive

Use mechanical front-wheel drive (MFWD) as required for better traction.

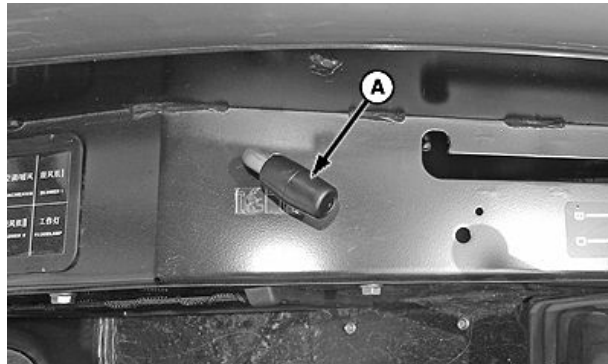
CAUTION: Mechanical front-wheel drive greatly increases traction. When using this option, extra caution is needed on slopes. Compared to two-wheel drive, front-wheel drive maintains traction on steeper slopes, increasing the possibility of a tip over.

When driving on icy, wet, or gravel surfaces, reduce speed and be sure that tractor is properly ballasted to avoid skidding and to prevent loss of steering control. Front-wheel drive provides better control under these road conditions.

IMPORTANT: To extend front tire life, engage front-wheel drive only when needed in the field. Front tires turn slightly faster than rear tires with MFWD engaged and will wear quickly if driven in MFWD mode on hard surface for an extended period. Unless absolutely necessary, do not engage MFWD when driving on hard surfaces.

DO NOT install tire chains on front wheels; chains will strike and damage tractor.

While towing an implement, pushing down on the MFWD lever to disengage front-wheel drive may not by itself achieve disengagement. If lever refuses to go down in attempting to disengage MFWD, this means that the load must first be relieved from the power train. See step 3 below.



A—MFWD Control Lever

MFWD can be engaged or disengaged while in motion.

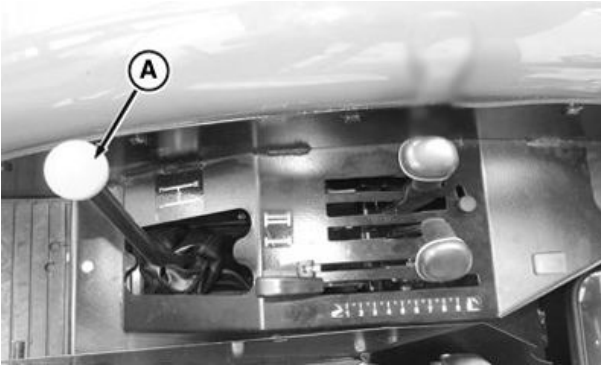
1. To engage, pull up MFWD control lever (A).
2. To disengage, push MFWD control lever down.
3. If lever will not go down easily, this means that the load must first be relieved from power train. Operator may have to perform one or more of the following in order to relieve load:

- Drive tractor straight ahead for few feet
- Stop tractor, then drive it briefly in reverse
- Raise implement slightly
- Disengage any ground-engaging tool in use

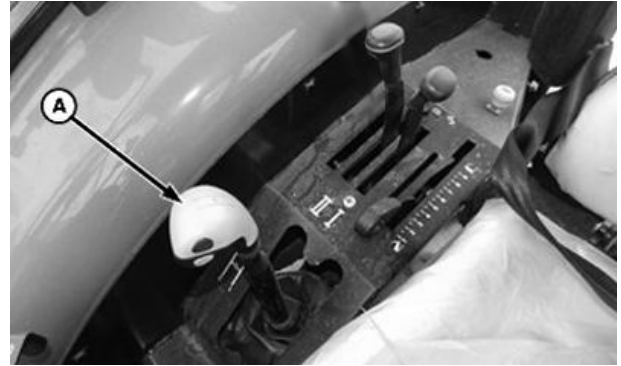
CPA0002053 —UN—19OCT15

CP00834,0001F47 -19-19OCT15-1/1

Stopping Tractor



12 x 4 Transmission



24 x 8/24 x 12 Transmission

CAUTION: Leaving transmission in gear with engine off may not prevent tractor from moving. Always set parking brake before dismounting.

1. Place speed shift lever (A) in neutral, "N", and depress brake pedals until tractor stops, and pull up parking brake lever (C).
2. Lower all implements to the ground. (See Retract Cylinder in Hydraulics and Selective Control Valves section.)

IMPORTANT: Cooling of parts such as engine, turbocharger is provided by engine oil. Stopping a hot engine suddenly could damage to these parts by overheating or lack of lubrication.

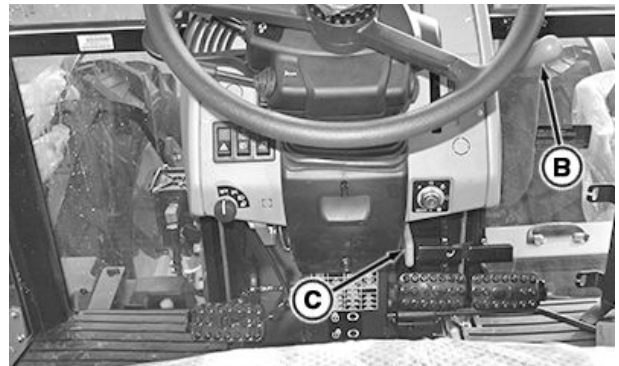
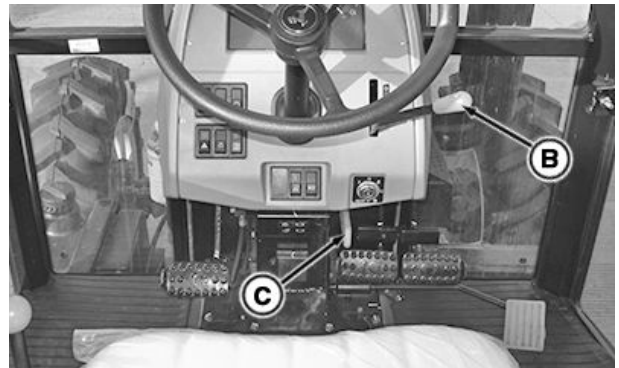
3. Pull hand throttle (B) down to low idle position. Allow engine to idle for 1 to 2 min.

CAUTION: Remove key from key switch to prevent operation by untrained personnel.

4. Turn key to OFF position and remove.

A—Speed Shift Lever
B—Hand Throttle

C—Parking Brake Lever



N400041,00035B5 -19-12JAN17-1/1

Rockshaft and 3-Point Hitch

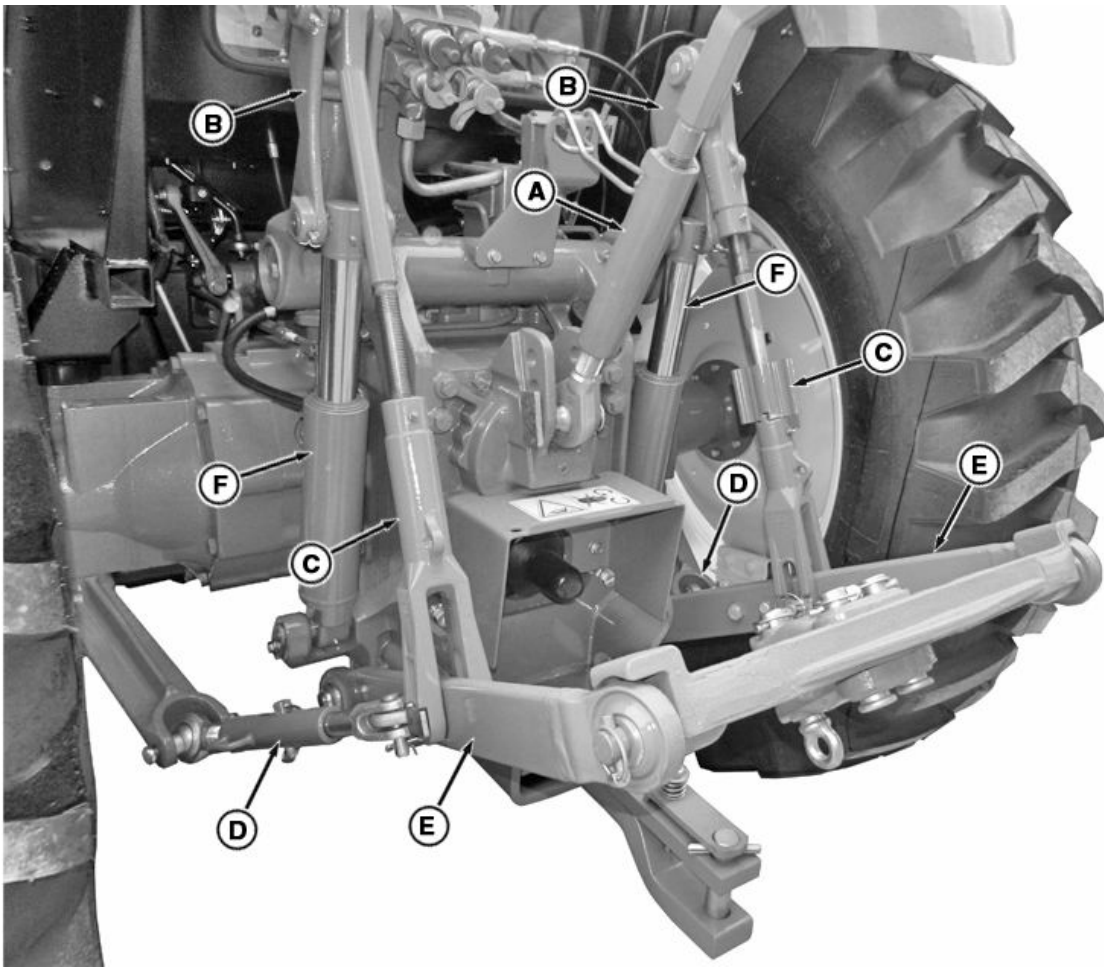
Match Tractor Power to Implement

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.)

JL31334,00008A1 -19-29APR15-1/1

3-Point Hitch Components



For JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors

A—Center Link
B—Lift Arms (2 used)
C—Lift Links (2 used)

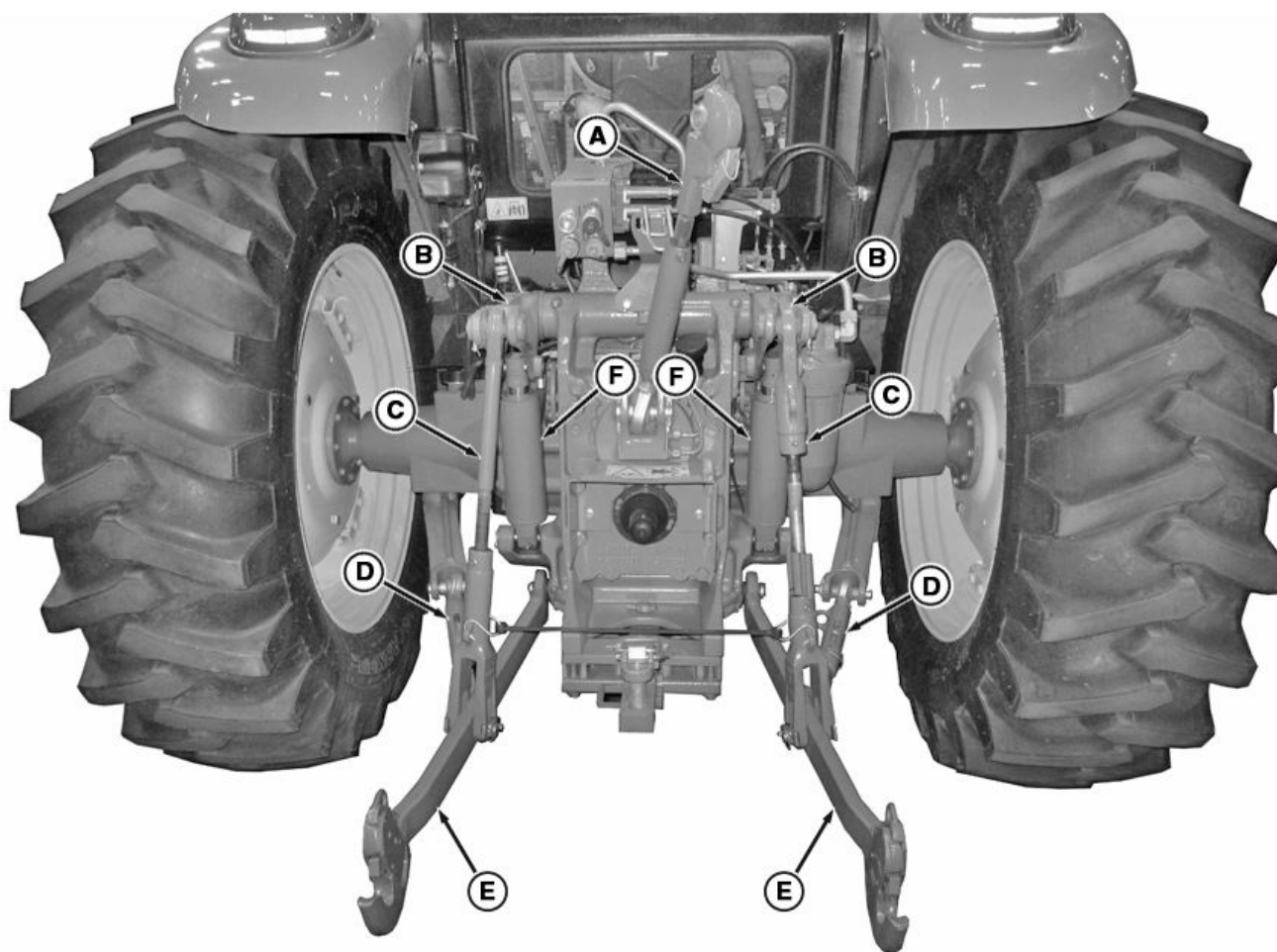
D—Sway Chains or Stabilizer
Bars (2 used)

E—Draft Links (2 used)
F—Hitch Cylinders (2 used)

Continued on next page

N400041,000361F -19-18JAN17-1/2

CPA0002306 —LUN—22NOV15



For JD1404-A (6068 engine) Tractor (optional)

A—Center Link (hook type)
B—Lift Arms (2 used)

C—Lift Links (2 used)
D—Stabilizer Bars (2 used)

E—Draft Links (hook type, 2 used)
F—Hitch Cylinders (2 used)

N400041,000361F -19-18JAN17-2/2

CPA0002307 —UN—22NOV15

Rockshaft Control Lever

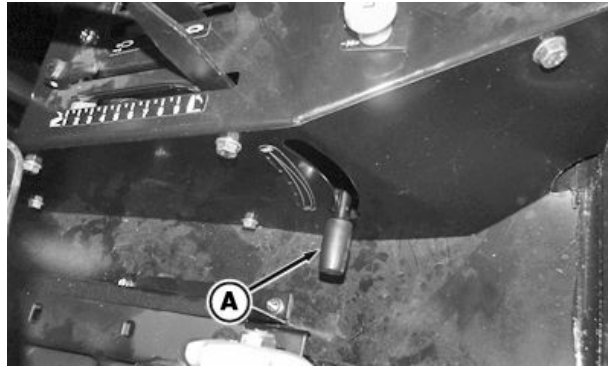
The rockshaft is controlled by position control lever (B) and draft control lever(A).

Position control lever (B) raises the hitch when pulled rearward, and lowers the hitch when moved forward. (See Use Rockshaft Position Control in this section for more information.)

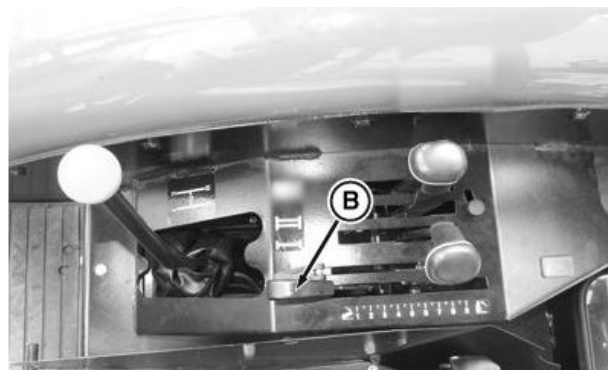
Draft control lever (A) controls hitch position relative to draft loads. (See Use Rockshaft Draft Control in this section for more information.)

**A—Draft Control Lever (only
for Deere engine)**

B—Position Control Lever



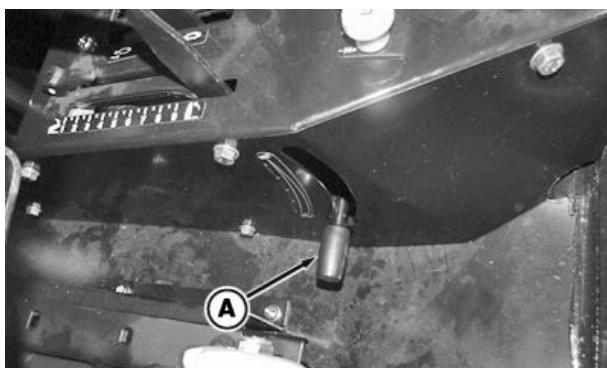
CPA0002311 —UN—23NOV15



CPA0001117 —UN—10NOV14

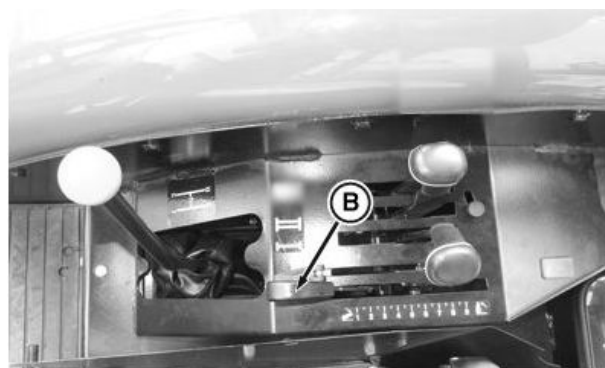
N400041,0003717 -19-31MAR17-1/1

Use Rockshaft Position Control



On Right-Rear Side of Seat

CPA0002311 —UN—23NOV15



On Right-Hand Side

CPA0001117 —UN—10NOV14

CAUTION: To prevent unexpected movement of rockshaft, pull draft control lever (A) all the way upward before attaching an implement.

Pull draft control lever (A) all the way upward when you do not want rockshaft to adjust automatically to draft load, such as when attaching implement to tractor.

Use position control lever (B) to control hitch movement and depth. Position control should be used for the following applications:

For **CONSTANT DEPTH USE** of implements on level terrain and for implements that do not engage the ground, such as spreaders or sprayers, place position control lever (B) at depth desired.

When **TRANSPORT** of implements and end of field turnaround, position control lever (B) should be moved fully rearward.

FLOAT OPERATION for implements with skids or depth gauge wheels designed to carry full implement weight. Push position control lever (B) all the way forward, and pull draft control lever (A) all the way upward so implement can follow the ground contour.

NOTE: Lift links can be adjusted for the implement float. (See *Adjust Implement Float* in this section.)



A—Draft Control lever

B—Position Control Lever

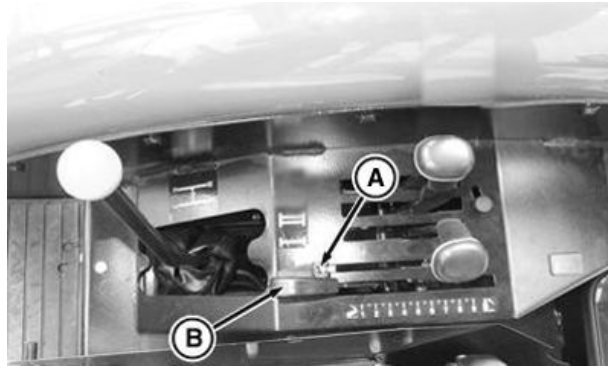
P9043 —UN—01AUG00

JL31334,0000CB4 -19-05APR17-1/1

Set Position Control Lever Stop

NOTE: Position control lever stop (A) is used when operating depth or height needs to be repeated often.

1. Operate implement for a few minutes to determine proper depth or height.
2. Raise position control lever stop (A), and slide against position control lever (B). Lock position control lever stop in position by pressing position control lever down. Rockshaft will now lower to same position each time position control lever is pushed forward to position control lever stop.



A—Position Control Lever Stop B—Position Control Lever

CPA0002052—JUN—19OCT15

CP00834,0001F44 -19-19OCT15-1/1

Use Rockshaft Draft Control

The rockshaft is equipped with the variable draft control system.

Use draft load sensing when one of the following conditions apply:

- Operating with a fully mounted implement in uneven terrain. The implement will rise 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 you do not have to shift to a lower gear.

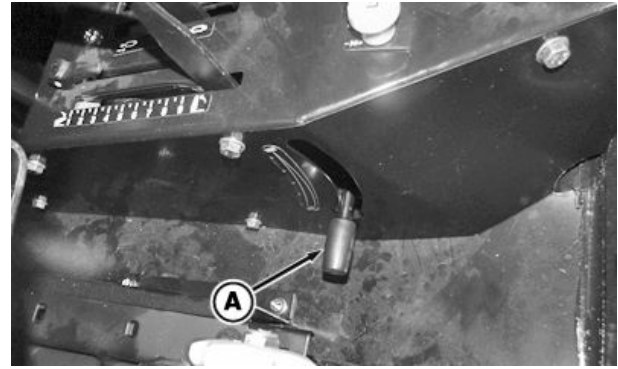
Draft control lever (A) controls amount of load required before hitch responds. With knob placed all the way top, there is no draft sensing. Push the knob down increases the amount of draft load required to override the position set by position control lever (B) and to raise the rockshaft.

For draft load sensing operation:

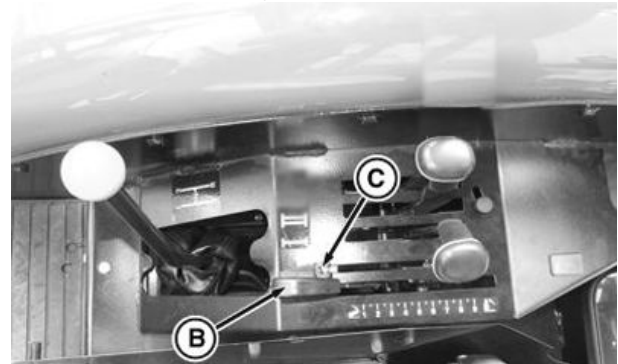
- Initially, place the position control lever (B) in its fully forward position and draft control lever (A) in the top (least draft) position.
- With tractor moving, pull position control lever (B) backward to set implement operating depth. Set position control lever stop (C) so control lever can be brought back to the same exact position. When the tractor begins to slip, push draft control lever (A) down until desired draft sensing level is obtained.
- Position control lever (B) can also be raised slightly to override the draft control setting, in order to help get through slippery spots without getting stuck.
- Position control lever (B) can be moved fully rearward to raise the hitch at the end of the field.

A—Draft Control lever
B—Position Control Lever

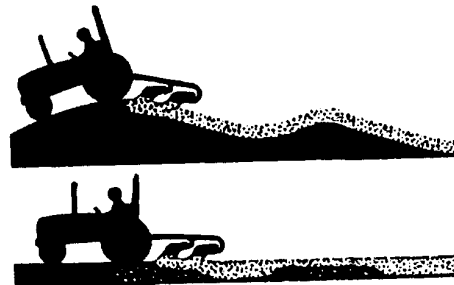
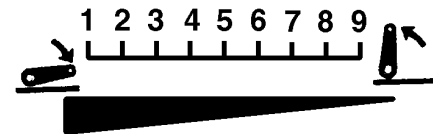
C—Position Control Lever Stop



On Right-Rear Side of Seat



On Right-Hand Side



CPA0002311 —UN—23NOV15

CPA0001132 —UN—10NOV14

P9066 —UN—11SEP00

CP00834,0001A69 -19-31MAR17-1/1

Adjust Rockshaft Rate-of-Drop

CAUTION: Excessive rate-of-drop may damage equipment or injury to machine operator. Fully lowering implement should require at least 2 sec.

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

Rockshaft rate-of-drop knob (A) is located behind the seat. Turn knob clockwise to slow rockshaft drop, and counterclockwise to speed up rate-of-drop.

To lock rockshaft in position, turn rate-of-drop knob (A) clockwise to the stop.

To unlock rockshaft, turn rate-of-drop knob (A) counterclockwise and reset rate of drop per instructions above.



On Left-Rear Side of Seat

A—Rate-of-Drop Knob

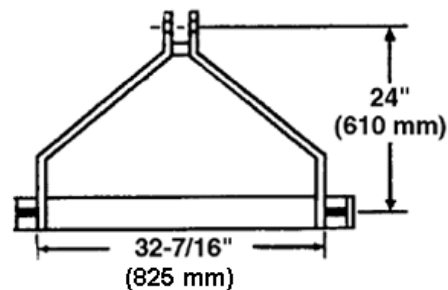
CPA0002050 —JUN—19OCT15

CP00834,0001F41 -19-19OCT15-1/1

Prepare Implement

Category II implements should have the top pin hole of the implement mast located 610 mm (24 in) above the lower pin holes. Drill another hole in top mast or extend top mast if necessary.

Mast Height	Width Between Lower Pins	Pin Size	
		Lower	Top
610 mm (24 in)	825 mm (32-7/16 in)	28 mm (1-1/8 in)	25.5 mm (1 in)



Implement Mast

PUC1571 —JUN—30NOV07

CP00834,0001F42 -19-19OCT15-1/1

Attach Implements to 3-Point Hitch

1. Be sure drawbar will not interfere. If necessary, move drawbar forward or remove it. Check for any other potential interference.

CAUTION: Prevent unexpected movement of rockshaft by placing draft sensing knob all the way top before attaching implement to hitch.

2. Back tractor up to implement so hitch points align. Place gear shift lever in neutral, "N". Lock and depress brake pedals, and pull up parking brake lever.
3. Pull hand throttle all the way down and allow engine to idle for 1—2 min, then turn engine off.

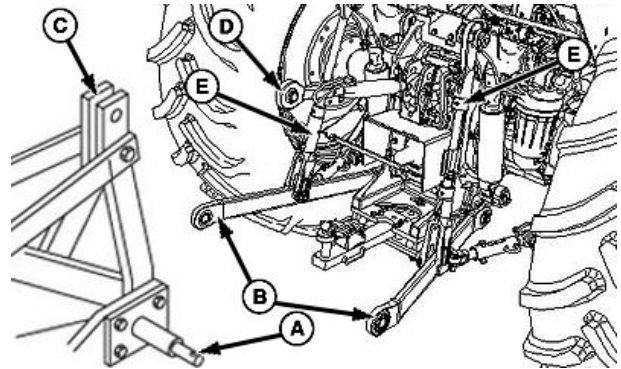
NOTE: For JD1404-A tractor (6068 engine, optional), balls (H and I) should not be on draft links (K) and automatic hook (J) when not using implement, should be assembled with implement.

4. Slip draft links (B or K) over implement hitch pins (A) on both sides and retain with locking pins.

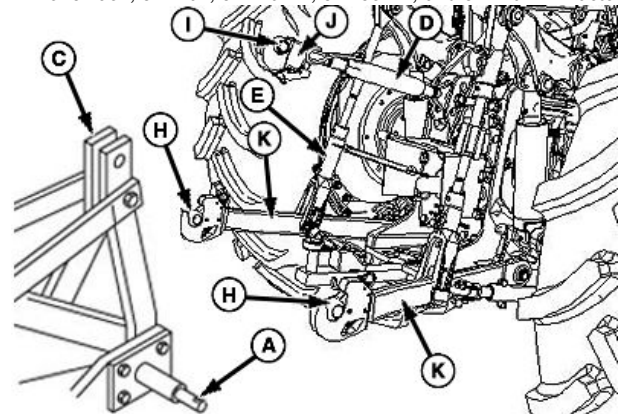
NOTE: Locking pins can be stored on draft links through holes in sway chain ears when not in use.

5. To remove center link (D) from transport hook, lift center link locking clip (F) and rotate tab (G) to rear of clip.
6. Attach center link (D) or automatic hook (J) to implement top mast (C). Retain with pin and locking pin.
7. Adjust center link (D) and lift links (E) as necessary. (See Leveling Hitch in this section.)

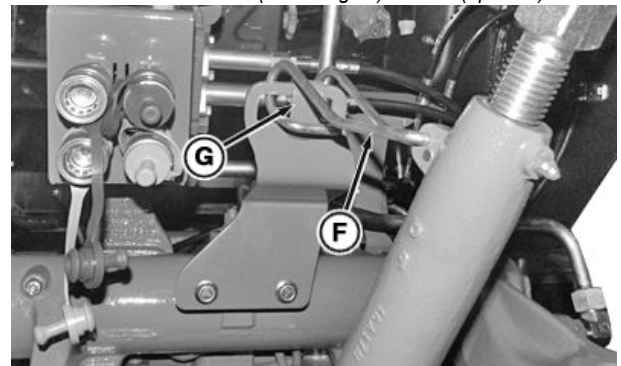
A—Implement Hitch Pin (2 used)	G—Tab
B—Draft Link (2 used)	H—Balls (2 used)
C—Implement Top Mast	I—Ball
D—Center Link	J—Automatic Hook
E—Lift Links (2 used)	K—Draft Links (hook type, 2 used)
F—Center Link Locking Clip	



For JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors



For JD1404-A (6068 engine) Tractor (optional)



Continued on next page

N400041,0003620 -19-18JAN17-1/2

CPA0001731—UN—29JUL15

CPA0001687—UN—20AUG15

CPA0002308—UN—23NOV15

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

8. Using rockshaft position control lever (A), lower or raise implement slowly and check for any interference.

A—Position Control Lever



Position Control Lever

CPA0001118 —UN—10NOV14

N400041,0003620 -19-18JAN17-2/2

Adjust Stabilizer Bar

The stabilizer bars are used to adjust the lateral sway of implements (draft links). Adjust length of stabilizer bars by routing stabilizer adjuster (B). Insert lock pin (D) into adjust holes (F and H) to set as position 1, then the stabilizer bar cannot sway. Insert lock pin into adjust holes (E and G) to set as position 2, then the stabilizer bar can sway in a certain range.

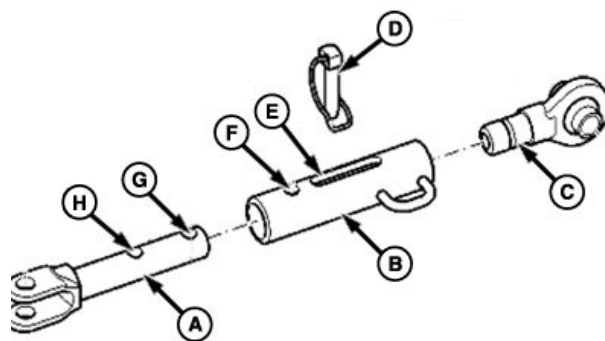
Select position 1 or position 2 on basis of work condition. Recommend setting as position 1 when road travel, or equips with rotary cultivator or hay mower. Recommend setting as position 2 when equips with plough or harrow, tractor will perform better performance.

Recommended adjustment method:

- Try to adjust dimension of bare thread of threaded rod (I) to 25 mm (0.98 in) by adjusting adjuster when equips with implement of category II.
- Try to adjust dimension of bare thread of threaded rod (I) to 0 mm (0 in) by adjusting adjuster when equips wider implement.

A—Rod
B—Adjuster
C—Threaded Rod
D—Lock Pin
E—Adjust Hole E

F—Adjust Hole F
G—Adjust Hole G
H—Adjust Hole H
I—Dimension of Bare Thread of Threaded Rod



Position 1



Position 2

CP00612,00006C9 -19-21APR17-1/1

CPA0003521 —UN—27MAR17

CPA0003520 —UN—27MAR17

CPA0003523 —UN—27MAR17

CPA0003524 —UN—27MAR17

Adjust Sway Chains (if equipped)

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

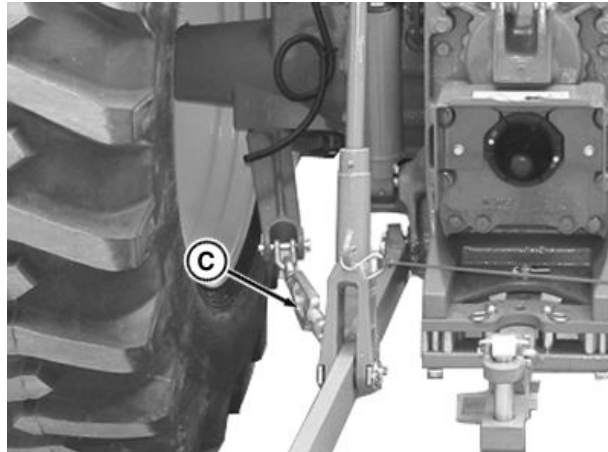
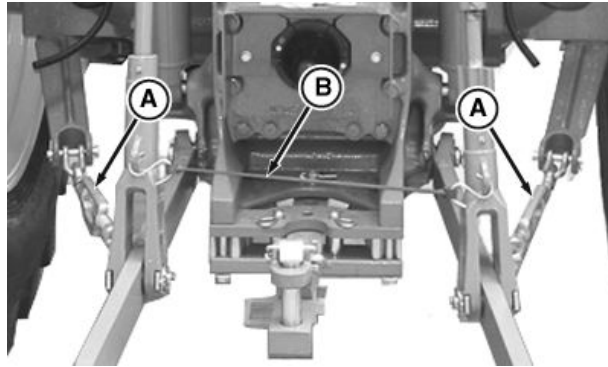
Use sway chain strainer (C) to take up chain slack as needed.

IMPORTANT: DO NOT shorten chains so short that they do not allow hitch to be raised completely. If chain prevents hitch from rising, hydraulic relief valve will open, causing excessive oil heating and pump or equipment damage.

NOTE: Use spring or rubber strap to keep draft links clear of rear tires when draft links are not attached to implement.

A—Sway Chains (2 used)
B—Rubber Strap

C—Sway Chain Strainer



PY16752 —UN—23NOV12

PY16753 —UN—23NOV12

JL31334,00008AB -19-31MAR17-1/1

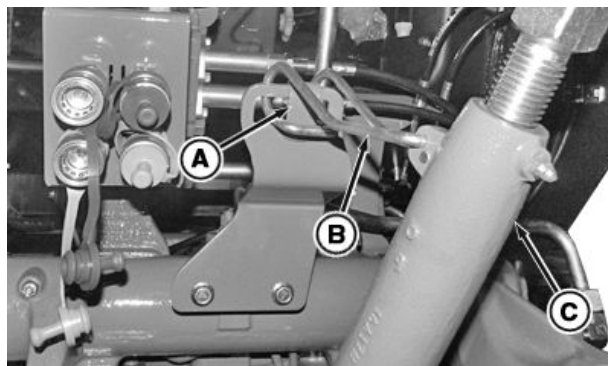
Leveling Hitch

1. Lower implement to take weight off hitch.

IMPORTANT: DO NOT attempt to extend center link beyond limits of locking clip or to raise lift links past the stops. Link body threads could be damaged.

NOTE: Maximum adjustment range of the center link can only be obtained if the ends are positioned equally within the body when attached to an implement.

2. Adjust center link to level implement front-to-rear. Unlatch locking clip (B). Rotate center link body (C) clockwise to lengthen center link or counterclockwise to shorten it. Minimum length is 655 mm (25.8 in) and maximum length, 800 mm (31.5 in). Be sure to latch locking clip (B) again after every adjustment.



A—Tab
B—Locking Clip

C—Center Link Body

CPA0002309 —UN—23NOV15

Continued on next page

N400041,0003621 -19-18JAN17-1/2

- Adjust right-hand lift link to level implement side-to-side. Lift locking handle (C) and turn 1/4 turn to engage slot onto roll pin (D) in center portion of lift link.

Turn locking handle (C) clockwise to raise draft link.

Turn locking handle (C) counterclockwise to lower draft link.

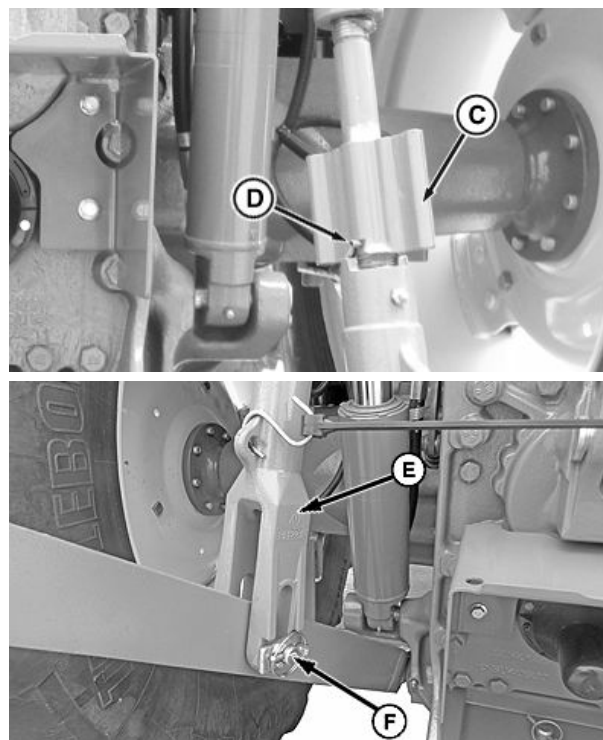
After adjustment, lift handle and turn it to engage slot onto lower body and to prevent change of adjustment during operation.

- The left-hand lift link is also adjustable in length. To change length, remove lower link pin (F) and rotate lower end assembly (E) clockwise to shorten, or counterclockwise to lengthen. Then reinstall pin and locking pin.

Adjust left-hand and right-hand lift links to accommodate various tire sizes or implement heights. For greatest range of up and down hitch motion, set lift links so that when fully lowered, draft link balls are approximately 178 mm (7 in) off the ground.

C—Locking Handle
D—Roll Pin

E—Lower End Assembly
F—Lower Link Pin



N400041,0003621 -19-18JAN17-2/2

PY16755 —UN—23NOV12

CPA0001695 —UN—27JUL15

Adjust Implement Float

To allow the draft link to raise slightly as implement follows ground contour, place head of pin and rectangular washer in vertical (float) position (A).

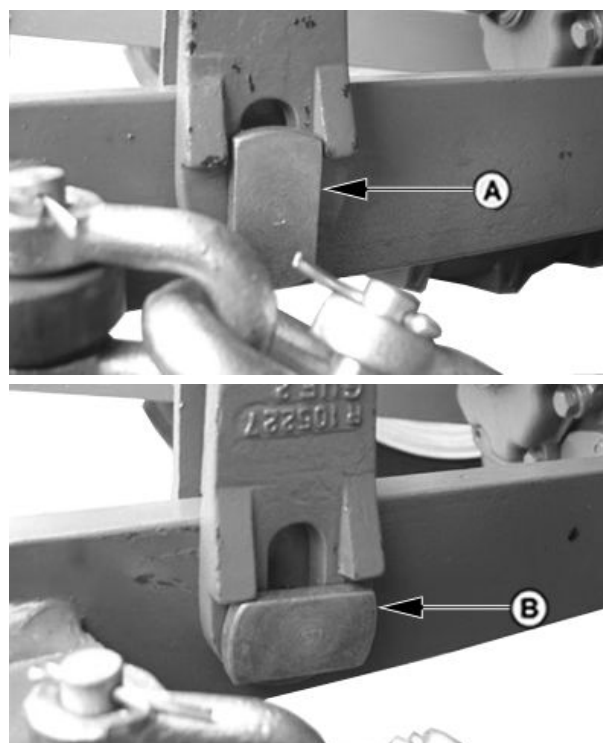
To hold implement rigid, place head of pin and rectangular washer in horizontal (rigid) position (B).

Use lift arm pins in the vertical (float) position for hitch-mounted implements such as a cultivator or mower, equipped with ground gauging skids or wheels which may cause the implement to twist relative to the tractor.

Use lift arm pins in the horizontal (rigid) position for implements such as plows and ground engaging implements that should not twist relative to the tractor.

A—Head of Pin and
Rectangular Washer in
Vertical (Float) Position

B—Head of Pin and
Rectangular Washer in
Horizontal (Rigid) Position



N400041,0003621 -19-18JAN17-1/1

PUC1157 —UN—10OCT07

PUC1156 —UN—10OCT07

Hydraulics and Selective Control Valves

Open Center Hydraulic System

IMPORTANT: Tractor hydraulic system design is known as an open center system. This type of hydraulic system is **NOT COMPATIBLE** with continuous hydraulic motor applications such as those used in: vacuum blower motors, centrifugal sprayer pumps, hydraulically driven rakes or other similar applications. In such cases, the use of a PTO-driven hydraulic pump

is strongly recommended. Anytime one of the above applications is considered, consult your nearest John Deere dealer or service facility.

Failure to observe this application information will likely cause serious damage to tractor hydraulic system.

CP00834,0001F6D -19-20OCT15-1/1

Warm Hydraulic System Oil

CAUTION: Overheating of hydraulic oil will cause malfunction of hydraulic components and possible personal injury. To prevent hydraulic oil from overheating, **DO NOT** hold the SCV or joystick in the extend or retract position for an extended period of time.

NOTE: Hydraulic oil filter (A) is located on the right-hand side for dry clutch machine, or at rear of machine for wet clutch machine.

Hydraulic system may be slow to function when tractor is started in cold weather. This is because cold oil will not flow as easily through hydraulic oil filter (A).

Steering may be slow until system warms up.

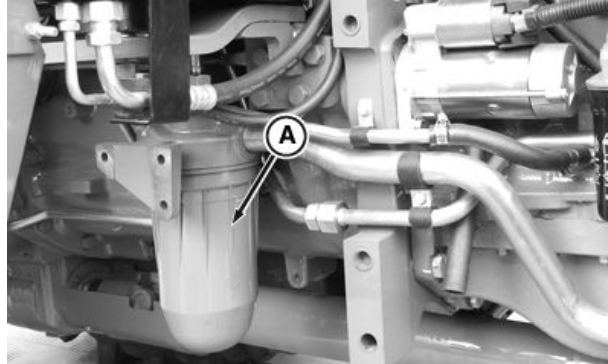
Hydraulic system will function normally when oil warms up.

To warm up the oil in the system, proceed as follows:

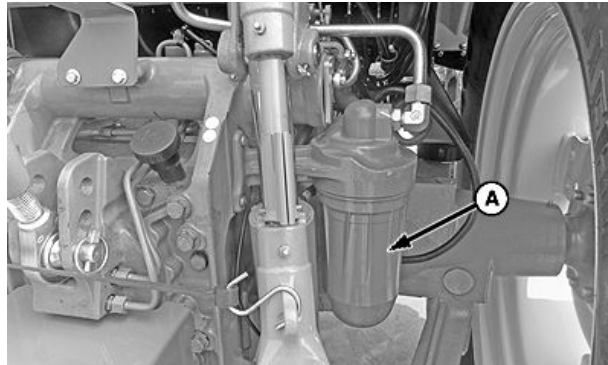
1. Depress clutch pedal, start engine and idle at about 1000 rpm.

IMPORTANT: To prevent damaging hydraulic pump or relief valve, **DO NOT** exceed 2—3 min warm-up time with steering wheel held in full left or full right turn position.

2. Turn and hold steering wheel in full left or full right turn, for no more than 3 min.



Right-Hand Side (dry clutch)



Rear of Tractor (wet clutch))

A—Hydraulic Oil Filter

PY16756 —UN—23NOV12

CPA0001700 —UN—27JUL15

N400041,00035B7 -19-18JAN17-1/1

Use Correct Hose Tips

Tractors are equipped with selective control valves (SCV). The coupler receptacles accept a standard hose tip

as recommended by ISO and SAE. Adapters to allow connecting older John Deere hose tips to the ISO couplers in your tractor are available from your John Deere dealer.

CP00834,0001F6F -19-20OCT15-1/1

SCV Control Levers and Couplers

SCV levers control oil flow to hydraulic hose couplers at the rear of tractor.

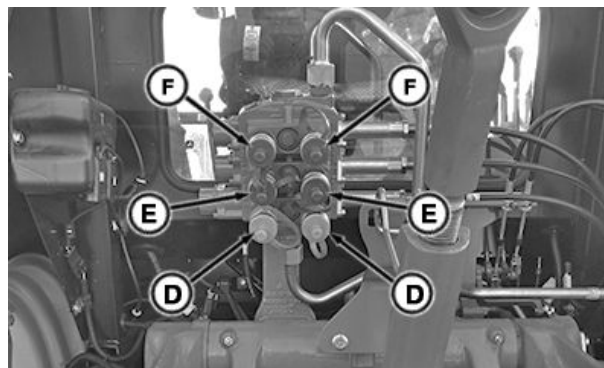
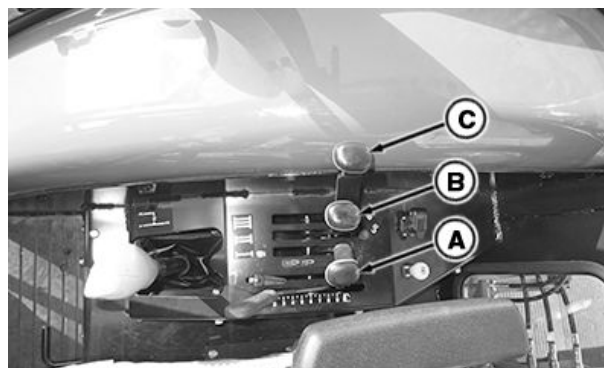
SCV I lever (A) operates SCV I couplers (D).

SCV II lever (B) operates SCV II couplers (E).

SCV III lever (C) operates SCV III couplers (F).

A—SCV I Lever
B—SCV II Lever
C—SCV III Lever

D—SCV I Coupler (2 used)
E—SCV II Coupler (2 used)
F—SCV III Coupler (2 used)



N400041,00035B8 -19-12JAN17-1/1

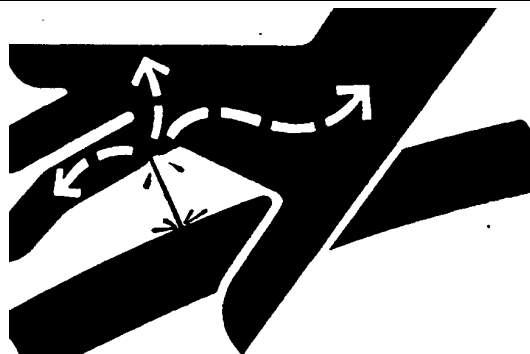
CPA0003003 —UN—18OCT16

CPA0003004 —UN—12JAN17

Connect Cylinder Hoses

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 placed under connections. 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 from Deere and Company Medical Department in Moline, Illinois, USA.



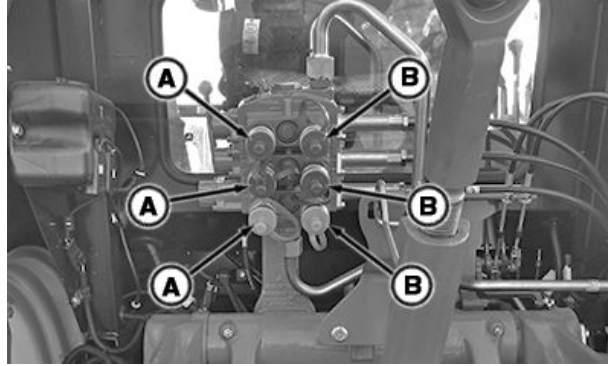
IMPORTANT: Hydraulic hoses can fail due to physical damage, kinks, age, and exposure to the elements. Check hoses regularly. Replace damaged hoses.

Continued on next page

CP00834,0001F71 -19-19DEC16-1/2

X9811 —UN—23AUG88

1. Remove dust cups (if equipped) from hose ends.
2. Pull dust plugs from couplers.
3. Make sure that hose ends and coupler receptacles are clean and dry.
4. Return hose couplers (B) receive cylinder return hose.
5. Supply hose couplers (A) receive cylinder supply hose.
6. To connect each hose, push the coupler sleeve forward and push hose tip firmly into coupler receptacle. Release the sleeve and pull lightly on hose to make sure that positive connection was made.



CPA0003005—JUN—18OCT16

CAUTION: Hoses that have been reversed when connecting pose a serious hazard. If SCV lever is pushed all the way forward to float or regenerate position, implement would drop suddenly, potentially causing serious injury or death. Therefore, never attempt to use float or regenerate position before you have performed the following verification step.

A—Supply Hose Coupler (3 used)

B—Return Hose Coupler (3 used)

center. This should raise implement. If implement lowers instead of rising, hoses are reversed and need to be connected correctly.

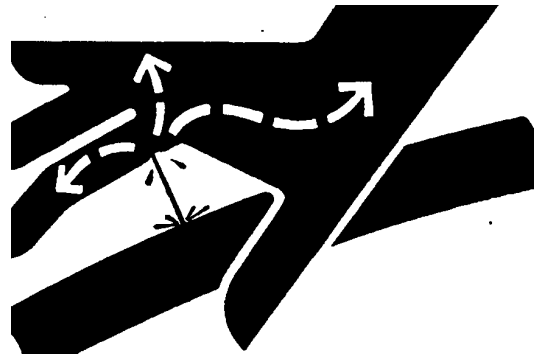
7. To make sure that hoses have been connected to correct receptacle, pull SCV I lever slightly back of

CP00834,0001F71 -19-19DEC16-2/2

Disconnect Cylinder Hoses

IMPORTANT: When disconnecting hoses, always grasp metal tip, never the hose itself. Pulling on the hose instead of the tip will eventually damage hose.

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Relieve hydraulic pressure by moving the control lever/joystick through all the positions. 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



X9811—JUN—23AUG88

reference a knowledgeable medical source. Such information is available from Deere & Company Medical Department in Moline, Illinois, U.S.A.

To disconnect hoses, push the coupler sleeve forward, grasp hose tip and give a firm pull.

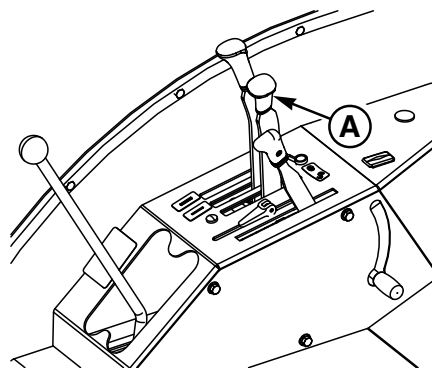
CP00834,0001F72 -19-20OCT15-1/1

Reconnect Hoses Under Pressure

If hoses pull from tractor accidentally during use, clean hose tips and coupler receptacles before proceeding to reconnect. Then use following procedure:

IMPORTANT: Implement must be raised slightly to reset coupler check valves, before it can be lowered.

1. Raise any attached implement slightly by pulling back SCV lever (A).
2. Push SCV lever (A) forward to lower implement and relieve line pressure.
3. Reconnect hoses as directed in Connect Cylinder Hoses in this section. Be sure to observe steps to connect each hose to correct coupler, and to verify correct connection.



A—SCV Lever

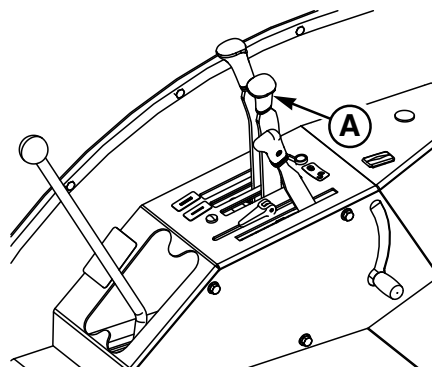
JL31334,0000CB7 -19-07DEC15-1/1

CPA0002313 —UN—07DEC15

Neutral Lever Position

Spring pressure returns lever to neutral position (unless lever is fully forward, in the “float” position). When lever is centered, the cylinder is hydraulically locked in neutral position.

A—SCV Lever (cylinder neutral position)



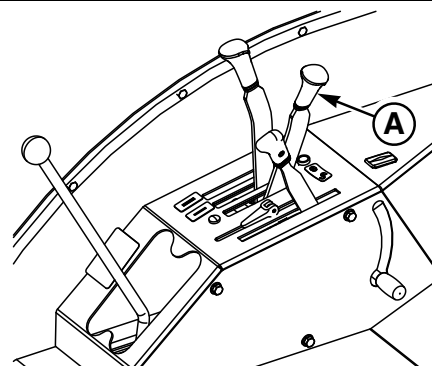
N400041,0003623 -19-18JAN17-1/1

CPA0002313 —UN—07DEC15

Extend Cylinder

Pull lever slightly to rear of neutral and hold it against spring pressure. This extends cylinder connected to SCV coupler and normally raises implement. Lever returns to neutral when released. When cylinder piston protrudes, oil supply port is connected to SCV quick coupler (supply coupler) for raising implement.

A—SCV Lever (cylinder extend position)



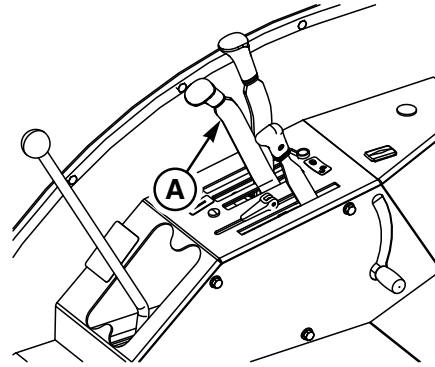
N400041,0003624 -19-18JAN17-1/1

CPA0002410 —UN—07DEC15

Retract Cylinder

Push lever slightly forward of neutral and hold it against spring pressure. This retracts cylinder connected to SCV couplers and normally lowers implement. Lever returns to neutral when released. When cylinder piston retracts, oil return port is connected to SCV quick coupler for descending the implement.

A—SCV Lever (cylinder retract position)



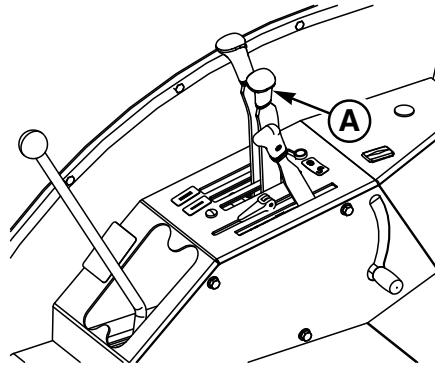
CPA0002409 —UN—07DEC15

N400041,0003625 -19-18JAN17-1/1

Cylinder Float Position

Push lever all the way forward, past detent. The detent will keep lever from going back to neutral position, until operator pulls lever back. When lever is in this position, known as “float”, cylinder pressure will allow attached implement to follow ground contour automatically without input from the operator. Cylinder float position is only available in tractors equipped with three SCV.

A—SCV Lever



CPA0002313 —UN—07DEC15

JL31334,0000CBB -19-07DEC15-1/1

SCV Selection Table

Table below indicates SCV operating options, depending on whether tractor is equipped with one, two or three SCV spools.

	Single SCV	Double SCV	Triple SCV
Spool # I			Float
Spool # II			Float
Spool # III			Float

Besides functions indicated in above table, each valve has raise, descend, and neutral functions.

N400041,00035BB -19-13JAN17-1/1

Drawbar and PTO

Observe Drawbar Load Limitations

IMPORTANT: Certain heavy equipment, such as a loaded single-axle trailer, can place excessive strain on drawbar. Strain is greatly increased by speed and rough ground.

Static vertical load on drawbar should not exceed specification.

Drive slowly with heavy loads.

Specification

Static Vertical Load, Short	
Position—Capacity.....	1900 kg (4189 lb)
Static Vertical	
Load, Extended	
Position—Capacity.....	800 kg (1764 lb)

CP00613,00005E3 -19-08JUN13-1/1

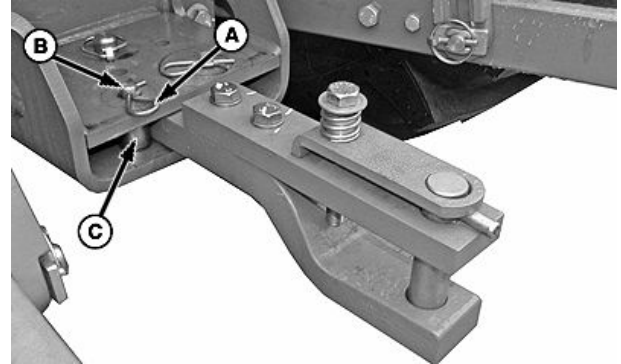
Use Swinging Drawbar

To allow drawbar to swing sideways, remove spring lock clip (A). Pull retaining pin (B) down and remove spacer (C). If full swing of drawbar is needed, remove opposite side pin and spacer.

This is helpful when turning under load.

IMPORTANT: Install spring lock clip, retaining pin, and spacer to prevent drawbar from swinging free during transport of towed loads.

Install spring lock clip, retaining pin, and spacer at all other times.



A—Spring Lock Clip
B—Retaining Pin

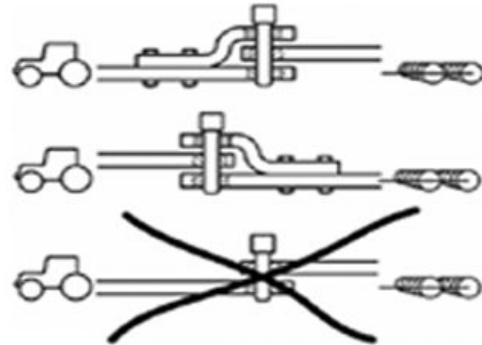
C—Spacer

CPA0002104 —UN—25OCT15

N400041,0003506 -19-12JAN17-1/1

Proper Use of Drawbar

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



PUC1443 —UN—24OCT07

CP00613,00005E6 -19-08JUN13-1/1

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

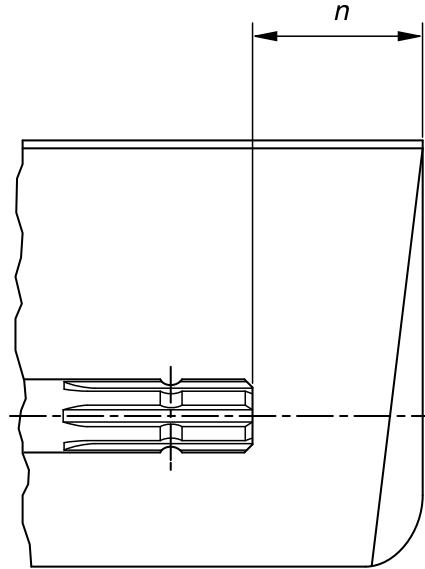
Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

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.

PTO Type	Diameter	Splines	$n \pm 5 \text{ mm (0.20 in)}$
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	38 mm (1.496 in)	8	85 mm (3.35 in)



TS1644—UN—22AUG95

H96219—UN—29APR10

N400041,0003565 -19-18JAN17-1/1

Reversible PTO Stub Shaft

Reversible PTO is standard on all tractors.

CAUTION: Avoid personal injury. PTO shaft may be hot from operation. Allow shaft to cool before handling it.

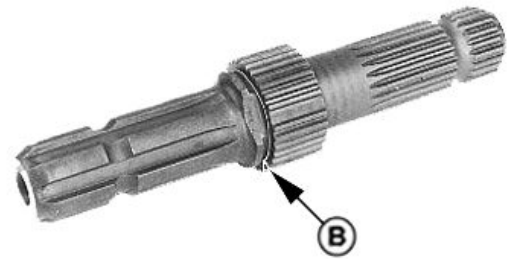
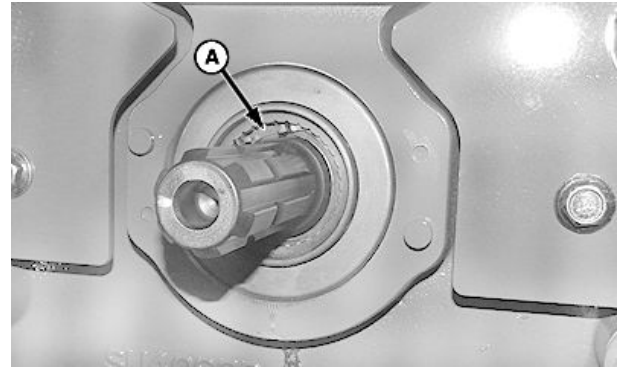
IMPORTANT: Implements can be operated at 540 rpm (end with 6 splines) only if the implement power requirement does not exceed 56 kW (75 hp). Operating PTO at lower speeds under heavy load could damage PTO. For implement power requirements of above 57 kW (76 hp) up to 110 kW (147 hp), PTO shaft must be switched to 1000 rpm end, as described below.

NOTE: The 1000 rpm shaft end has 21 splines and the 540 rpm shaft has 6 splines. Consult implement operator's manual to determine shaft suitability, depending on implement power requirement.

1. Rotate the ends of snap ring (A) until they are aligned with flat section on shaft. Remove snap ring (A) and pull out PTO stub shaft.
2. Clean stub shaft thoroughly. Coat splines with John Deere High-Temperature/Extreme-Pressure/Non-Clay grease, and install into housing.
3. For 540 rpm shaft: Rotate shaft back and forth while installing, to make sure that it is seated correctly in housing. Keep pushing shaft in while installing snap ring.
4. For 1000 rpm shaft: Rotate shaft back and forth while installing, until engagement is felt.

NOTE: Shaft is correctly engaged when strong effort is required to turn it.

5. Install snap ring in snap ring groove (B) to retain shaft in place. Align ends of ring with flat surface of shaft.



A—Snap Ring

B—Snap Ring Groove

IMPORTANT: Clean shaft center bore thoroughly when installing PTO shaft for 1000 rpm use. Damage to PTO may result if bore is not clean.

CP00834,0001F40 -19-28OCT15-1/1

CPA0002033 —UN—07MAR17

PUC1118 —UN—16JAN08

Attach PTO-Driven Implement

1. Attach implement to tractor before connecting PTO drive line. Raise hitch to upward position if it is not to be used.

CAUTION: To avoid injury, stop engine before attaching implement or working in area of implement hitch.

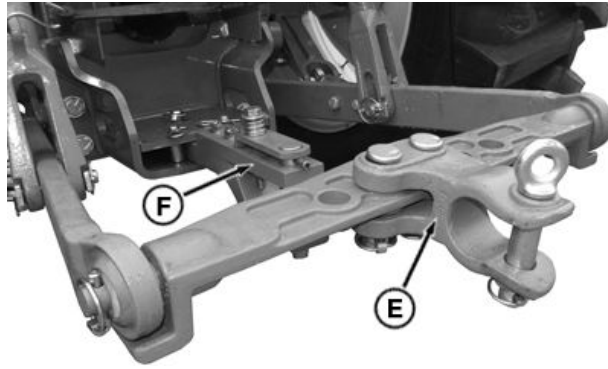
2. Put gearshift lever in neutral, "N". Lock and depress brake pedals, and set parking brake.
3. Pull down hand throttle all the way and allow engine to idle for 1 to 2 min.

IMPORTANT: Remove clevis assembly on drawbar when using PTO-driven equipment.

IMPORTANT: Short position hole should never be used to attach PTO-driven implement.

IMPORTANT: For drawn PTO-driven implements, drawbar must be in extended position hole (C). This will provide distance between drawbar hitch hole and end of PTO shaft 355 mm (14 in) for 540 rpm shaft or 407 mm (16 in) for 1000 rpm shaft.

CAUTION: Drawbar (E) only use for light load and low traction position implement.



E—Drawbar

F—Drawbar

4. Attach implement to drawbar (E or F).
5. If implement will be connected to 3-point hitch, be sure that drawbar will not interfere. Remove it if necessary.
6. With engine off, turn shaft slightly by hand if necessary to line up splines. Connect drive line to PTO shaft. Pull out on shaft to be sure that drive line is locked to PTO shaft.
7. Check carefully for any interference, and make sure that hitch is raised to the upper position if it will not be used.

CPA0002303—JUN—25NOV15

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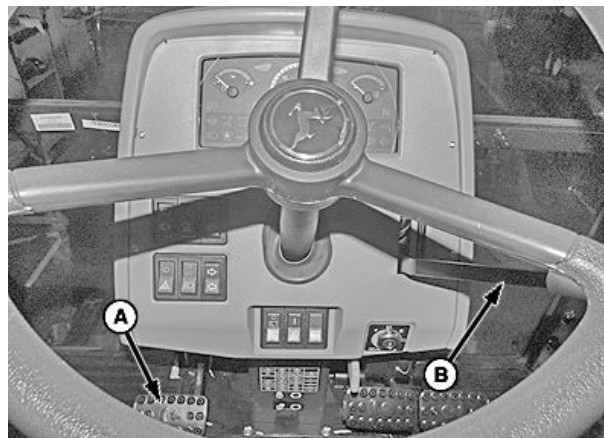
Operate Tractor PTO

NOTE: Engine will not start if PTO clutch lever or PTO switch is engaged.

1. Depress clutch pedal (A), start engine and push hand throttle lever (B) forward until engine speed is sufficient to start PTO implement.

A—Clutch Pedal

B—Hand Throttle Lever



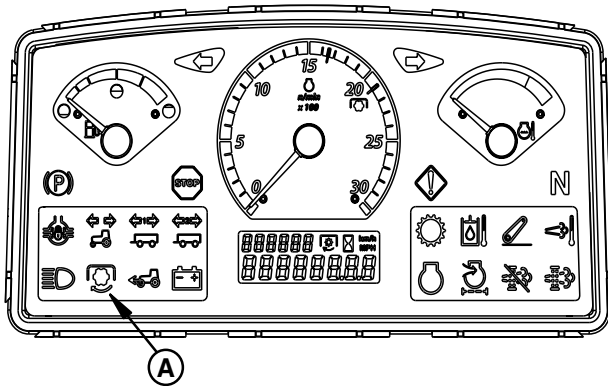
Optional

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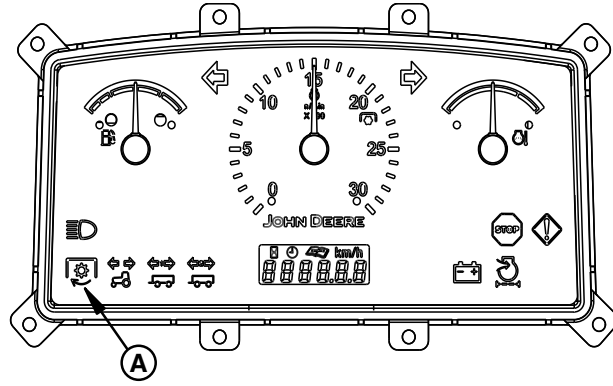
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CPA0003006 —UN—18OCT16



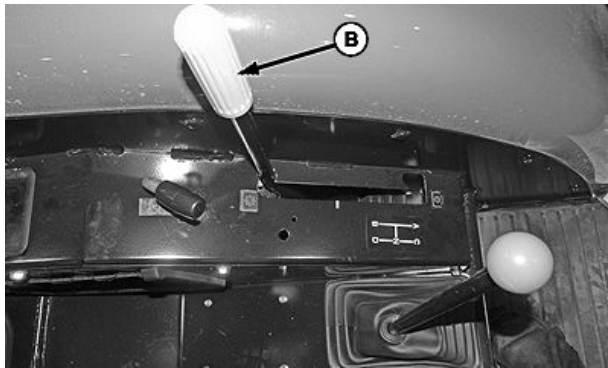
Instrument Cluster (wet clutch)

PY14914 —UN—31JAN13



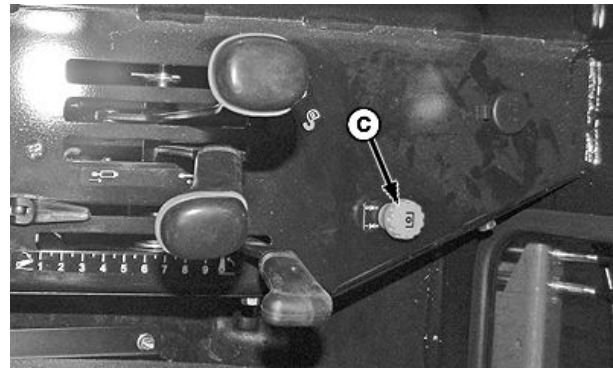
Instrument Cluster (dry clutch)

PY14912 —UN—31JAN13



PTO Control Lever (dry clutch)

CPA0002049 —UN—22OCT15



PTO Switch (wet clutch)

CPA0002037 —UN—15OCT15

A—PTO Indicator

B—PTO Control Lever

C—PTO switch

2. Move PTO control lever (B) forward or raise PTO switch (C) to engage PTO. PTO indicator (A) lights when PTO is engaged.
3. Increase engine speed to rated 2100 rpm for 540 rpm or 1000 rpm PTO operation and 2200 rpm for 760 rpm or 840 rpm PTO operation.
4. Pull PTO control lever back or press PTO switch to disengage PTO.

CAUTION: Turn key OFF to stop engine, set parking brake and make sure that all mechanisms have stopped before cleaning out machine or making any adjustments to PTO driven implement.

N400041,0003626 -19-31MAR17-2/2

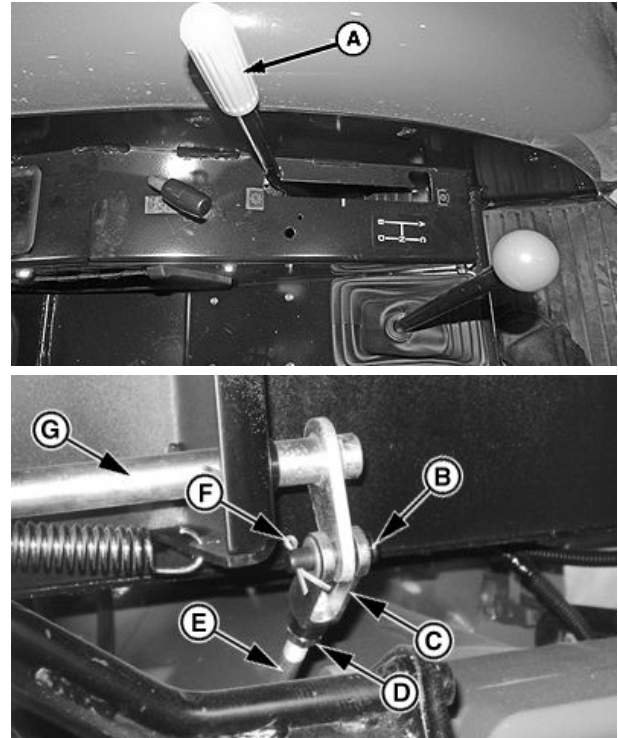
Adjust PTO Clutch Operating Rod

NOTE: The adjusting mechanism is at left-hand side, below cab.

1. Place PTO control lever (A) in disengaged position (rear position).
2. Remove cotter pin (F) and pin shaft (B).
3. Remove yoke (C) from PTO clutch operating rod (G).
4. Loosen lock nut (D). Turn yoke (C) (clockwise or counterclockwise as necessary) until its hole align with the hole of PTO clutch operating rod (G).
5. Turn yoke (C) half turn, counterclockwise, to make half turn free play.
6. Align holes on yoke (C) and PTO clutch operating rod (G), by pushing rod (E) forward.
7. Reinstall yoke (C) to PTO clutch operating rod (G), tighten up lock nut, and reinstall pin shaft (B) and cotter pin (F).

A—PTO Control Lever
B—Pin Shaft
C—Yoke
D—Lock Nut

E—Rod
F—Cotter Pin
G—PTO Clutch Operating Rod



CP00834,0001F3D -19-20OCT15-1/1

CPA0002046—UN—22OCT15

PUC2495—UN—06OCT09

Ballast

Plan for Maximum Productivity

Proper ballasting is an important factor in tractor performance. Maximum productivity can be achieved only if tractor weight is appropriate for the job.

John Deere FMO (fundamentals of machine operations) publications provide in-depth information on farming subjects.

TRACTORS discusses methods of determining correct tractor weight and ballast selection.

MACHINERY MANAGEMENT includes information on tractor and implement matching, and on ways to increase productivity.

Your John Deere dealer can assist you with information on these subjects.

N400041,0003627 -19-18JAN17-1/1

Select Ballast Carefully

Match amount of ballast needed for each job. What is right for one job may be wrong for another job. Ballast for traction and stability.

Factors determining amount of ballast:

- Soil surface—loose or firm.
- Type of implement—integral, semi-integral, or towed.
- Travel speed—slow or fast.
- Tractor power output—partial or full load.
- Tires—single, oversize, or dual.

CP00834,0001F7D -19-20OCT15-1/1

Match Ballast to Work Load

Use no more ballast than necessary, and remove ballast when it is no longer needed.

Rather than weighing tractor down to pull heavy loads, try to reduce load. Pulling a lighter load at a higher speed is more economical and more efficient.

Too Little Ballast		Too Much Ballast	
1.	Excessive wheel slip	1.	Increased load
2.	Power loss due to churning soil	2.	Shortens transmission life
3.	Excessive tire wear	3.	Power loss due to carrying extra weight
4.	Fuel waste	4.	Tire strain
5.	Lower productivity	5.	Soil compaction
		6.	Fuel waste
		7.	Lower productivity

CP00613,00005EE -19-08JUN13-1/1

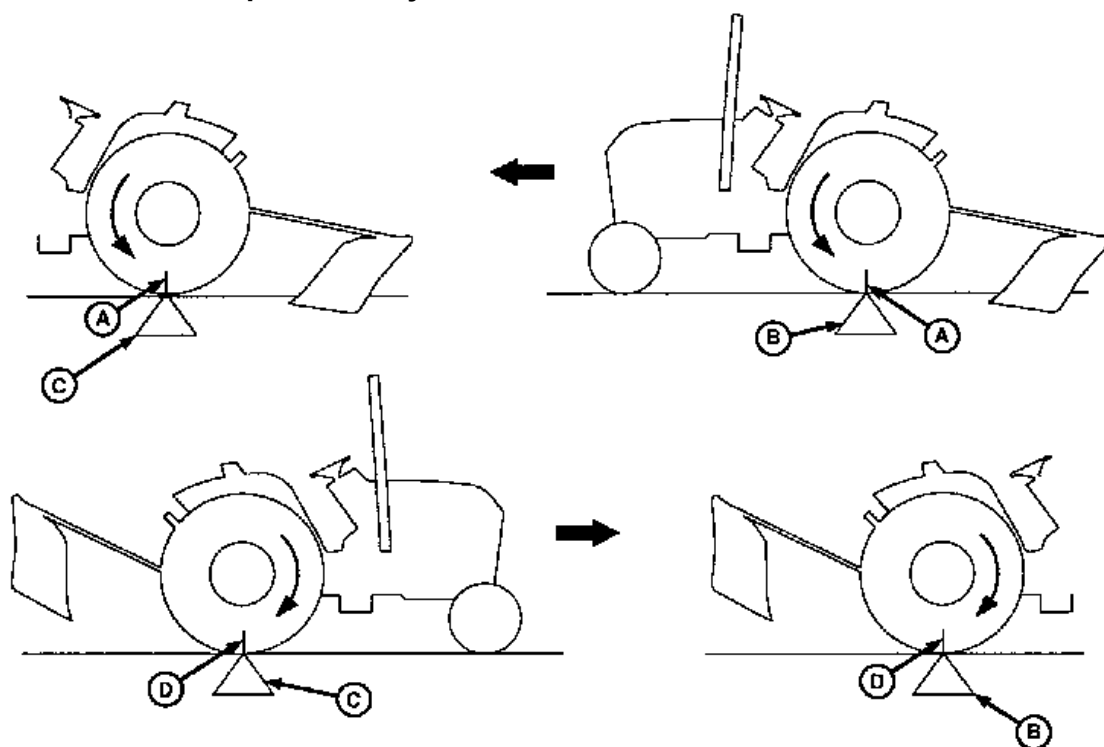
Check for Correct Ballast

The best way to check for correct ballast is to measure amount of travel reduction (slip) of the drive wheels. Under normal field conditions, travel reduction should be 8—12% for MFWD tractors.

Add more weight to drive wheels if slip is excessive. If the slip is less than the minimum requirement, weight should be removed appropriately.

CP00834,0001F7C -19-20OCT15-1/1

Measure Rear Wheel Slip—Manually



A—Initial Tire Mark
B—Ground Starting Point

C—10 Revolutions Ground Mark D—Second Tire Mark

1. Place initial tire mark (A) on a rear tire which is easily observed (a chalk mark is recommended).
2. With tractor working and implement lowered, mark ground starting point (B) on the ground at the place where initial tire mark (A) meets the ground.
3. Mark the ground again where initial tire mark (A) completes 10 revolutions ground remark (C).
4. With implement raised, return in the opposite direction. At the second mark on 10 revolutions ground remark (C), mark second tire mark (D).
5. While driving the tractor along the same path (implement raised), count the tire revolutions required to reach ground starting point (B).
6. Use the non-loaded wheel revolutions count in "Wheel Slippage Chart" below, to determine slippage.

NOTE: Ideal wheel slippage is 8-12 % for MFWD tractors.

7. Adjust ballast or load to give correct slippage.

NOTE: Available horsepower is greatly reduced when wheel slip drops below minimum percentage.

WHEEL SLIPPAGE CHART		
Non-Loaded Wheel Revolutions (Step 5)	Estimated % Slip	Recommended Action
10	0	Remove Ballast
9-1/2	5	Remove Ballast
9	10	CORRECT BALLAST
8-1/2	15	CORRECT BALLAST
8	20	Add Ballast
7-1/2	25	Add Ballast
7	30	Add Ballast

CP00834,0001F7E -19-20OCT15-1/1

Ballast Limitations

Ballast should be limited by either tire capacity or tractor capacity. Each tire has a recommended carrying capacity which should not be exceeded (see Wheels, Tires, and

Treads section). If a greater amount of weight is needed for traction, a larger tire should be considered.

Ballast can be added as either liquid or cast iron.

CP00834,0001F7F -19-20OCT15-1/1

Ballast Front End for Transport

CAUTION: Additional front ballast may be needed for transporting rear-mounted implements. When implement is raised, drive slowly over rough ground, regardless of how much ballast is used.

Weights are heavy. Use proper lifting equipment.

Item	Measurement	Specification
Additional Weight (JD954 Tractor)	Weight	40 kg (88.18 lb)
Additional Weight (JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors)	Weight	47 kg (103.61 lb)

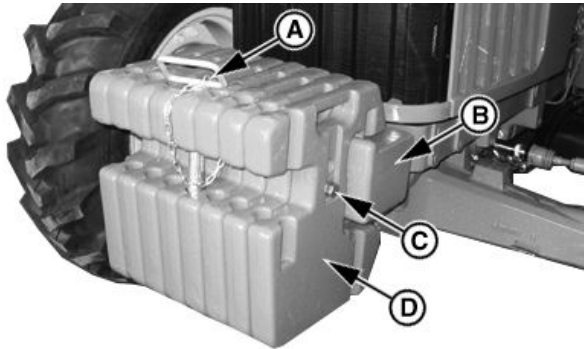
- One basic weight (front ballast bracket) and up to eight additional weights can be installed for JD954 tractor.
- One basic weight (front ballast bracket) and up to twelve additional weights can be installed for JD1104 tractor.
- One basic weight (front ballast bracket) and up to sixteen additional weights can be installed for JD1204-A, JD1354-A, and JD1404-A tractors.

1. Install weights in pairs, one on each side of ballast center (A).
2. To hold weights in place, run ballast retaining bolts (C) through holes from side-to-side. Tighten to specification.

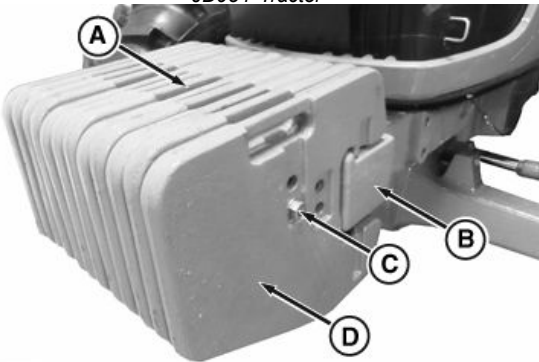
Specification

Ballast Retaining Bolt—Torque.....	230 N·m (170 lb-ft)
------------------------------------	---------------------

- A—Ballast Center
B—Front Ballast Bracket
C—Ballast Retaining Bolt (2 used)
D—Additional Weight



JD954 Tractor



JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors

PUC2846—UN—28JAN10

PY17065—UN—06OCT12

JL31334,0000DE9 -19-03JAN17-1/1

Add Ballast on Tractor

Add weight to front end if needed for stability. Heavy pulling and heavy rear-mounted implements tend to lift front wheels. Add enough ballast to maintain steering control and prevent tip-over.

Refer to the implement operator's manual to determine the minimum number of front weights required for your tractor model.

CP00613,00005F3 -19-08JUN13-1/1

Determine Maximum Rear Ballast

IMPORTANT: Do not overload tires. If maximum weight shown in chart is not enough for safety, reduce load or install heavier ply tires.

Too much ballast will cause excessive soil compaction and rolling resistance, and shorten drive train life. Ballast should never exceed the weight required to provide traction for continuous full power loads in third gear. Remove ballast if tractor engine labors when pulling heavy loads in the first three gears.

Rear wheel ballast should never be such that the engine cannot support full load at rated engine speed, while the tractor is moving at 7 km/h (4.3 mph). If the engine labors or stalls

below 7 km/h (4.3 mph), this indicates there is too much ballast on the rear wheels.

Chart shows carrying capacity per tire.

MAXIMUM LOAD PER WHEEL		
Tire Size Bias Ply Tires	Ply Rating	Capacity kg (lb)
16.9-34 PR-1	10	2605 (5743 lb)
16.9-34	10	2605 (5743 lb)
18.4-34	10	2990 (6592 lb)
18.4-38	10	3165 (6978 lb)
18.4-38 PR-2	10	3165 (6978 lb)

N400041,00035BC -19-13JAN17-1/1

Determine Maximum Front Ballast

Use appropriate front ballast for a particular operating condition. Remove ballast when it is no longer needed.

Chart shows carrying capacity per tire.

IMPORTANT: Do not overload tires. If maximum weight shown in chart is not enough for safety, reduce load or install tires with a higher load rating.

MAXIMUM LOAD PER WHEEL		
Tire Size	Ply Rating	Capacity kg (lb)
11.2-24 PR-1	6	1045 (2304 lb)
12.4-24	8	1415 (3120 lb)
13.6-24	8	1545 (3406 lb)
14.9-24	8	1760 (3880 lb)
14.9-24 PR-2	8	1760 (3880 lb)

N400041,00035BD -19-13JAN17-1/1

Use Cast Iron Weights

Cast iron weights are available for rear tires. They can be installed on the inside or outside of wheel. See your John Deere dealer for more information and recommendations on weight use and placement.

Specification

Cast Iron
Weights—Weight..... 55 kg (121 lb)

CP00834,0001F82 -19-20OCT15-1/1

Install Rear Cast Iron Weights

CAUTION: Rear weights weigh 55 kg (121 lb) each. Handle with care! Use appropriate equipment or have the job done by your John Deere dealer.

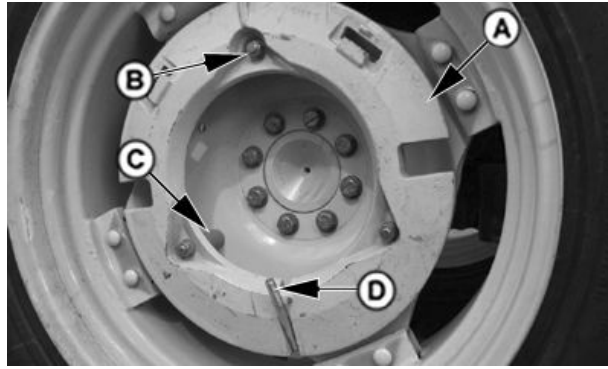
When installing or removing additional weights, always position wheels so that one retainer jaw is at the top. This prevents weights from falling when retaining bolt is removed.

IMPORTANT: For JD954, JD1104, JD1204-A and JD1354-A tractors, maximum number of weights that can be installed on rear is four on each side wheel.

For JD1404-A tractors, maximum number of weights that can be installed on rear is two on each side wheel.

NOTE: Spacers are required only when weights won't fit into rim's dish. If weights do fit, spacers are optional.

1. Attach first weight (A) to wheel disk, using three spacers (C) if necessary, with first weight retaining bolts, washers, and nuts (B). Note that bolts go through first weight and into the rim so that washers and nuts tighten onto the rim and not onto weights. This makes it easy to check regularly for tightness.
2. To install additional weights, position wheel such that one of the retainer jaws is at the top. Hang next weight in retainer jaw, secure with additional weight retaining



PUC1556 —UN—25NOV07

A—First Weight
B—First Weight Retaining Bolt, Washer, and Nut (3 sets used)
C—Spacer (3 used per weight)
D—Additional Weight Retaining Bolt, Washer, and Nut

bolt, washer, and nut (D) as shown. Proceed in similar fashion with any additional weights, up to maximum allowable limit.

3. Tighten all bolt retaining nuts to specification. Tighten again after a few hours of service. Check tightness regularly.

Specification

Retaining Bolts—Torque..... 230 N·m (170 lb-ft)

JL31334,0000E0D -19-31MAR16-1/1

Wheels, Tires, and Treads

Service Tires Safely

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

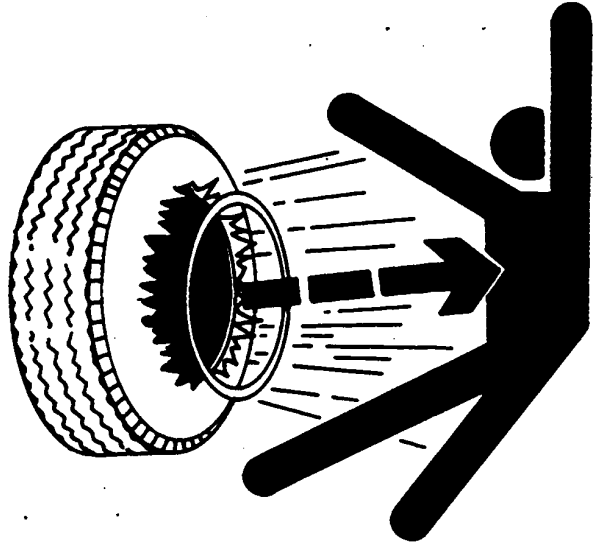
Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

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.



TS211 —UN—15APR13

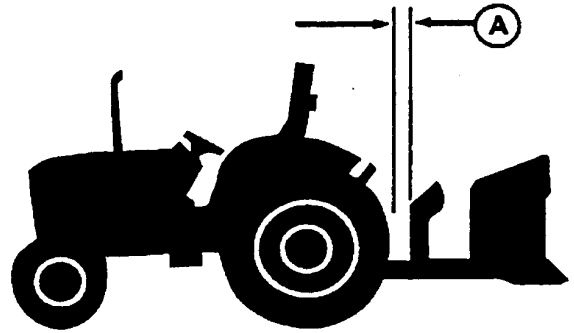
DX,RIM1 -19-27OCT08-1/1

Check Implement-to-Tire Clearance

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 may be required to provide adequate implement-to-tire clearance.

A—Clearance



M47177 —UN—31JAN92

CP00834,0001F2F -19-18OCT15-1/1

Check Tire Inflation Pressure

Check tires daily for damage or noticeably low pressure.

At least every 100 hours of operation, check inflation pressure with a gauge. Use an accurate gauge having 10 kPa (0.1 bar) (1 psi) graduations.

If tires contain liquid ballast, use a special air-water gauge and measure with valve stem at bottom.

NOTE: When furrow plowing or during hillside operation, tire pressure can be increased 28 kPa (0.28 bar) (4 psi) ABOVE maximum to prevent tire wrinkling or buckling.

IMPORTANT: Over-inflation reduces performance and increases strain on both tire and rim. Always check inflation pressure with an accurate tire gauge to prevent over-inflation.

NOTE: Following inflation information applies to both front and rear tires and Tire Inflation Pressure Chart.

1. All inflation pressures are calculated for 30 km/h (18.6 mph) or 40 km/h (24.8 mph) travel speeds.

2. Operation of tires at the inflation pressures listed on chart will result in optimum tractive performance of the tire/vehicle system.
3. Inflation pressures less than 80 kPa (12 psi) should be monitored regularly because of the increased risk of low pressure air leaks (especially due to leaking valve cores).
4. Tractors operating on steep side slopes should increase inflation pressures 28 kPa (4 psi) above the values listed to compensate for lateral weight transfer.
5. Tires run as singles in high traction conditions sometimes experience bead slip if the bead was not fully seated or if too much lubricant was used to mount the tire. Increasing the inflation pressure will compensate for this condition but will not cause reduced traction. Consult your tire dealer if this problem occurs.
6. If higher load capacities are needed, contact your John Deere dealer for tire manufacturer's load and inflation table information.

N400041,0003566 -19-12JAN17-1/1

Tire Inflation Pressure Chart

IMPORTANT: The pressures indicated in the charts are for reference and can vary depending on

the supplier of the tires. For more precise information, consult the supplier of the tires.

Front Tires	Pressure										
	psi	9	12	14	17	20	23	26	29	30	33
	Bar	0.6	0.8	1	1.2	1.4	1.6	1.8	2.0	2.1	2.3
	Maximum Load (kg)										
12.4-24		645	765	870	965	1060	1145	1225	1305	1340	1415
13.6-24		745	880	1000	1115	1220	1320	1415	1505	1545	/
14.9-24		925	1095	1250	1390	1520	1645	1760	/	/	/
11.2-24 PR-1		705	835	950	1055	1155	1250	1340	/	/	/
14.9-24 R-2		925	1095	1250	1390	1520	1645	1760	/	/	/
Rear Tires	Pressure										
	psi	9	12	14	17	20	23	26	29	30	33
	Bar	0.6	0.8	1	1.2	1.4	1.6	1.8	2.0	2.1	2.3
	Maximum Load (kg)										
16.9-34		1285	1525	1735	1930	2115	2285	2450	2605	/	/
18.4-34		1570	1860	2120	2355	2580	2790	2990	/	/	/
18.4-38		1665	1970	2245	2495	2730	2955	3165	/	/	/
16.9-34 PR-1		1585	1875	2135	2375	2600	2810	3010	/	/	/
18.4-38 R2		1665	1970	2245	2500	2735	2955	3165	/	/	/

N400041,0003567 -19-13JAN17-1/1

Tire Combinations—MFWD

Chart shows combinations of front and rear tires in an MFWD system:

Rear Tire Size	Front Tire Size	JD954	JD1104	JD1204-A	JD1354-A	JD1404-A
16.9-34	12.4-24	Optional				/
18.4-34	13.6-24	Standard		/		
18.4-38	14.9-24	/		Standard		
16.9-34 PR-1	11.2-24 PR-1	Optional				/
18.4-38 R-2	14.9-24 R-2	/		Optional		

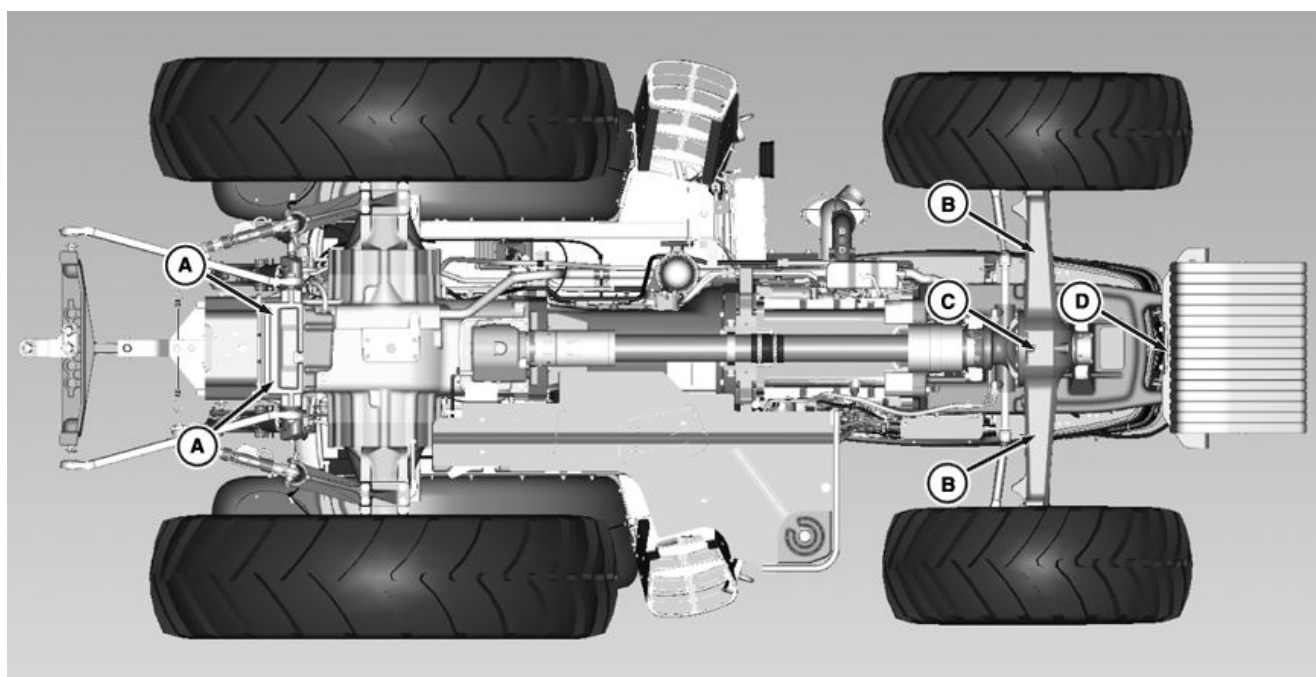
OUYC278,0000798 -19-07APR17-1/1

Jacking Up Tractor—Lifting Points

NOTE: Remove front ballast weights before lifting front end of tractor.

lifting force. See Machine Dimensions and Weights in Specifications section.

This illustration shows the recommended lifting points for jacking up the tractor. Use a stable jack with sufficient



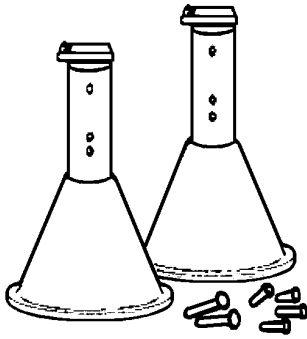
A—Rear of Tractor Lift Point
B—Front of Tractor Lift Point

C—Center of Axle Lift Point (use wooden wedges to prevent axle from tilting)
D—Front End of Tractor under the Basic Weight

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N400041,0003569 -19-03JAN17-1/2

CPA0003046—UN—22DEC16



JT07211

JT02043 and JT02044 Support Stands

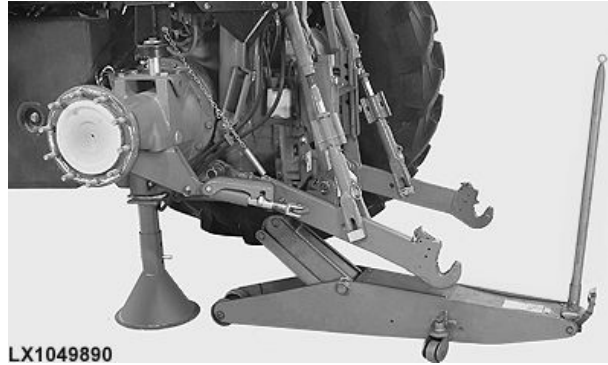
JT02043—Support Stand,
482—736 mm (19—29 in)

JT02044—Support Stand,
863—1117 mm (34—44 in)

CAUTION: Use approved lifting equipment only.

Jack up tractor on firm, level ground only.

Before doing any further work on the tractor,
first secure it using suitable support stands.



JT07211 —UN—14DEC06

LX1049890

Example

LX1049890 —UN—11FEB11

The special John Deere tools shown can be
used for this purpose. These support stands are
available from your John Deere dealer.

N400041,0003569 -19-03JAN17-2/2

Tighten Wheel/Axle Hardware Correctly

CAUTION: NEVER operate tractor with a loose
rim, wheel, hub, or axle.

Any time hardware is loosened, tighten to specified torque.

*NOTE: Follow checking procedure when a new tractor
is first used, or wheels have been off.*

1. After driving tractor about 100 m (109 yd), and before
placing it under load, tighten hardware to specified
torque.
2. Check hardware after working three hours and again
after 10 hours.
3. Check all hardware frequently and keep it tight.

N400041,000356A -19-03JAN17-1/1

Tighten Bolts—MFWD Axle

Tighten bolts to specifications in the following locations:

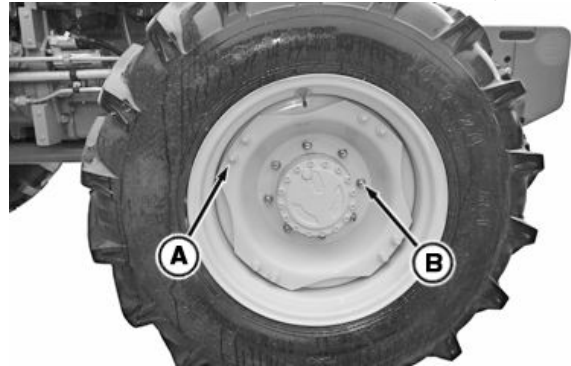
	Specification
Wheel Rim-to-Disk Bolts—Torque.....	245 N·m (180 lb·ft) (for JD954, and JD1104 tractors, Deere engine) (for JD1104, JD1204-A, and JD1354-A tractors, supplier engine) 310 N·m (229 lb·ft) (for JD1204-A, JD1354-A, and JD1404-A tractors, Deere engine)
Wheel Disk-to-Axle Flange Bolts—Torque.....	310 N·m (229 lb·ft)

**A—Wheel Rim-to-Disk Bolt (8
used)**

**B—Wheel Disk-to-Axle Flange
Bolt (8 used)**



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

N400041,000356B -19-13FEB17-1/1

PUC2497 —UN—06OCT09

CPA0002312 —UN—25NOV15

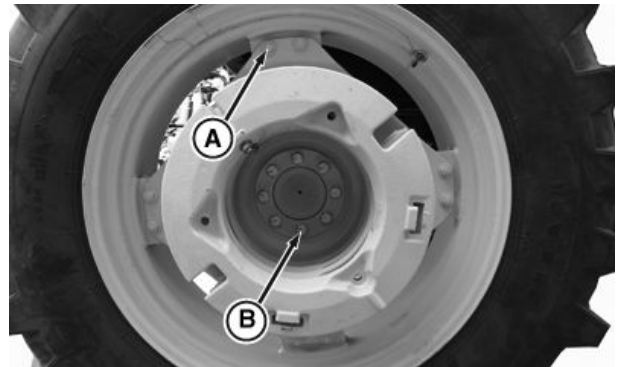
Tighten Bolts—Rear Axle

Tighten bolts in the following locations to specifications:

	Specification
Wheel Rim-to-Disk Bolts—Torque.....	310 N·m (229 lb·ft)
Wheel Disk-to-Flange Bolts (Steel Disk)—Torque.....	550 N·m (406 lb·ft)

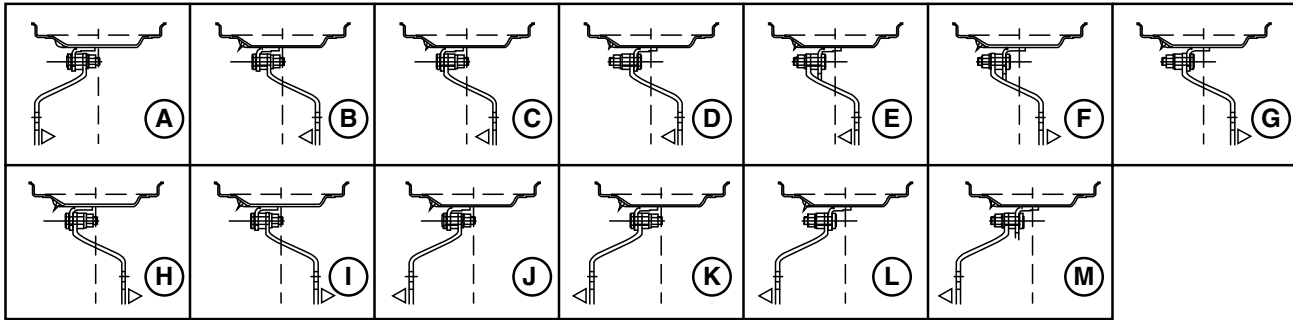
**A—Wheel Rim-to-Disk Bolt (8
used)**

**B—Wheel Disk-to-Axle Flange
Bolt (8 used)**



N400041,000356C -19-03JAN17-1/1

PY17068 —UN—05OCT12

Tread Settings — MFWD Axle**Tread Settings — MFWD Axle (Deere engine)**

CPA0001381 — JUN—19OCT17

CPA0001381

Wheel tread can be adjusted by replacing or reversing the wheel rims. In addition, the complete wheel can be installed on the other side of the tractor. In doing so, maintain the direction of tire rotation. Measure wheel tread as close as possible to the running surface of the wheels. Flanges are available in different widths, so select the appropriate table.

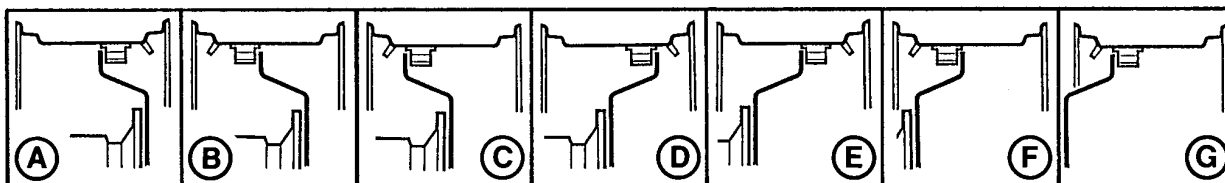
⚠ CAUTION: Driving with narrower wheel tread (B, C, D, and E) will greatly increase the possibility of roll-over.

TREAD WIDTH mm (in)													
Rims and Wheel Disk Positions													
Tire Size	A	B	C	D	E	F	G	H	I	J	K	L	M
11.2-24 PR-1	1421 (55.94) N/A	1533 (60.35) N/A	1563(61 .54) N/A	1595 (62.80) N/A	1625 (63.98)	1729 (68.07)	1759(6 9.25)	1791(7 0.51)	1821 (71.69)	1933 (76.10)	1963 (77.28)	1995 (78.54)	2025 (79.72)
12.4-24	1421 (55.94) N/A	1533 (60.35) N/A	1563(61 .54) N/A	1595 (62.80) N/A	1625 (63.98)	1729 (68.07)	1759(6 9.25)	1791(7 0.51)	1821 (71.69)	1933 (76.10)	1963 (77.28)	1995 (78.54)	2025 (79.72)
13.6-24	1432(56 .38) N/A	1544 (60.79) N/A	1574(61 .97) N/A	1606 (63.23) N/A	1636 (64.41) N/A	1740 (68.50)	1770(6 9.69)	1802(7 0.94)	1832 (72.13)	1944 (76.54)	1974 (77.72)	2006 (78.98)	2036 (80.16)
14.9-24	1432(56 .38) N/A	1544 (60.79) N/A	1574(61 .97) N/A	1606 (63.23) N/A	1636 (64.41) N/A	1740 (68.50)	1770(6 9.69)	1802(7 0.94)	1832 (72.13)	1944 (76.54)	1974 (77.72)	2006 (78.98)	2036 (80.16)
14.9-24 R-2	1432(56 .38) N/A	1544 (60.79) N/A	1574(61 .97) N/A	1606 (63.23) N/A	1636 (64.41) N/A	1740 (68.50)	1770(6 9.69)	1802(7 0.94)	1832 (72.13)	1944 (76.54)	1974 (77.72)	2006 (78.98)	2036 (80.16)

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CP00612,0000721 -19-19JUN17-1/2

Tread Settings — MFWD Axle (supplier engine)

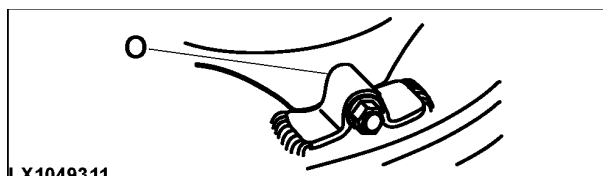


LX012555

Wheel tread can be adjusted by replacing or reversing the wheel rims. In addition, the complete wheel can be installed on the other side of the tractor. In doing so, maintain the direction of tire rotation. Measure wheel tread as close as possible to the running surface of the wheels. Lugs (O) are available in different widths, so select the appropriate table.

IMPORTANT: When tread adjustment has been completed, check adjustment of fenders and steering stops. Selecting tread widths that are not listed in the tables may result in damage to tractor components. Wheel tread on tractors equipped with a front loader must not exceed 1.80 m (71 in).

LX1049311 —UN—08JUL10



LX1049311

O—Lug

TREAD WIDTH mm (in)							
Rims and Wheel Disk Positions							
Tire Size	A	B	C	D	E	F	G
11.2-24 PR-1	-	1525 (60.0)	1625 (64.0)	1729 (68.1)	1829 (72.0)	1925 (75.8)	2025 (79.7)
12.4-24	-	1525 (60.0)	1625 (64.0)	1729 (68.1)	1829 (72.0)	1925 (75.8)	2025 (79.7)

CP00612,0000721 -19-19JUN17-2/2

LX012555 —UN—27JUN96

Tread Settings—Multi-Position Rear Wheels

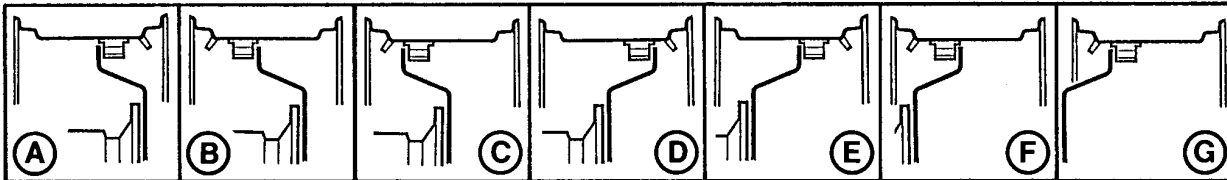
Wheel tread on rear axle with multi-position wheels can be adjusted by repositioning or exchanging the rims or by reversing the wheel disks.

Wheel tread can also be adjusted by exchanging the complete wheel to the opposite side of the tractor. (This maneuver permits the change from disk dished-in to disk dished-out operations without disassembling the wheel.) When changing rear wheels from one side to the other,

the arrow on side wall of tire should point in the direction of forward rotation.

The relationship of the wheel disk and rim in obtaining the different tread settings is shown in the diagrams on the following page.

A study of these diagrams before attempting to change tread settings will save unnecessary labor.



LX012555

LX012555—UN—27JUN96

IMPORTANT: After setting wheel spacing, tighten rim-to-disk and disk-to-flange bolts. Drive tractor 100 m and tighten again.

Multi-Position Rear
Wheels Disk-to-Flange
Bolts—Torque..... 550 N·m (406 lb·ft)

Specification

Multi-Position Rear
Wheels Rim-to-Disk
Bolts—Torque..... 310 N·m (229 lb·ft)

CAUTION: For JD954, JD1104, JD1204-A, and JD1354-A tractors, driving with wheel tread (B and C) will greatly increase the possibility of rollover.

For JD1404-A tractor, driving with wheel treads (B, C, and D) will greatly increase the possibility of rollover.

TREAD WIDTH (centerline-to-centerline) mm (in)		
Diagram	Tire Sizes	Tire Sizes
	16.9-34 PR-1, 16.9-34, 18.4-34	18.4-38, 18.4-38 R-2
A	N/A	N/A
B	1513 (59.57) N/A	1510 (59.45) N/A
C	1613 (63.50) N/A	1620 (63.78) N/A
D	1713 (67.44)	1710 (67.32)
E	1813 (71.38)	1820 (71.65)
F	1913 (75.31)	1910 (75.20)
G	2013 (79.25)	2020 (79.53)

CP00612,0000722 -19-19JUN17-1/1

Adjust Steering Stop

Front wheel steering angle must be kept within certain limits according to tire size and tread width. Refer to one of the tables below to set adjustment dimension (C) by turning adjusting screw (A), then tightening lock nut (B) to specification.

Specification

Lock Nut—Torque..... 200 N·m (150 lb·ft)

NOTE: Make sure adjustment dimension (C) is set to same value on right and left-hand wheels.

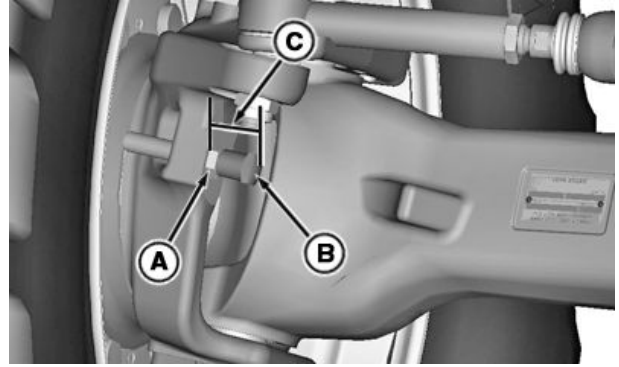
This adjustment applies only to tractors equipped with front-wheel drive (MFWD).

All these data are for the front wheel tread from factory setting.

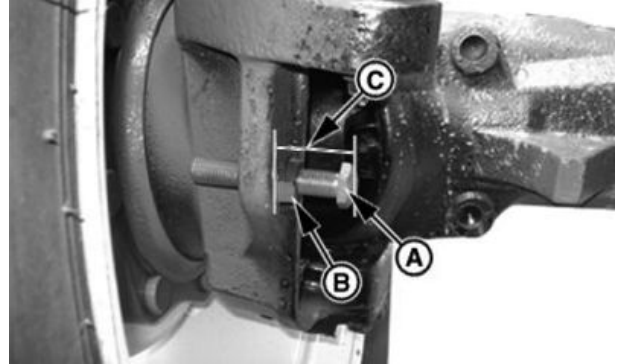
Adjust the dimension C for different wheel tread and make sure that there is no interference to all around when front wheel turning and front axle swaying

A—Adjusting Screw
B—Lock Nut

C—Adjustment Dimension



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

Rim and Wheel Disk Positions								
	JD954	JD1104 (supplier engine)	JD1104 (Deere engine)	JD1204-A (supplier engine)	JD1204-A (Deere engine)	JD1354-A (supplier engine)	JD1354-A (Deere engine)	JD1404-A
Tire Size	Adjustment dimension (C)							
11.2-24 PR-1	55 mm (2.16 in)	55 mm (2.16 in)		55 mm (2.16 in)		55 mm (2.16 in)		
12.4-24	55 mm (2.16 in)	55 mm (2.16 in)		55 mm (2.16 in)		55 mm (2.16 in)		
13.6-24	70 mm (2.75 in)	70 mm (2.75 in)	70 mm (2.75 in)	70 mm (2.75 in)		70 mm (2.75 in)		
14.9-24					25 mm (0.98 in)		25 mm (0.98 in)	25 mm (0.98 in)
14.9-24 R2					25 mm (0.98 in)		25 mm (0.98 in)	25 mm (0.98 in)

N400041,000356F -19-08FEB17-1/1

CPA0002314—UN—07FEB17

CPA0003056—UN—07FEB17

Check Toe-In

1. Disengage MFWD and park tractor on smooth, level surface. Steer front wheels straight ahead. Stop engine.
2. Measure distance (A) between centerline of tires at hub level in front of axle, using an outside bar of each tire or an inside bar of each tire. Record measurement and mark the tires.
3. Move tractor back about 1 m (3 ft), so mark is at hub level behind the axle. Again, measure distance between tires at same point on tire. Record measurement.
4. Determine the difference between front and rear measurements. The front measurement should be smaller than rear that is "toe in". Toe-in should be 0—7 mm. Adjust toe-in if necessary. (See Adjust Toe-In in this section.)



A—Distance

CPA0002085—UN—20OCT15

N400041,0003570 -19-03JAN17-1/1

Adjust Toe-In

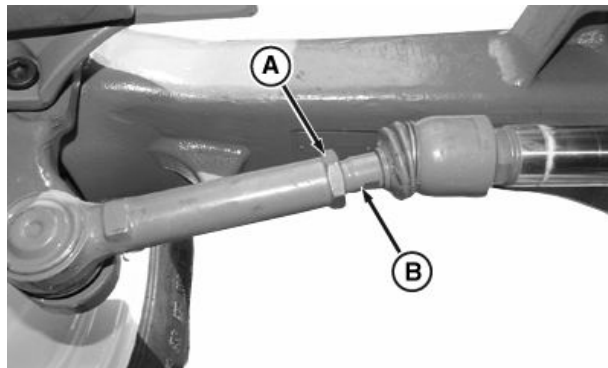
1. Loosen jam nuts (A) on right- and left-hand side tie rod.
2. Adjust each side by rotating inner rod (B) to lengthen or shorten tie rod as needed, to obtain toe-in of 0—7 mm (0—0.27 in).
3. Tighten jam nuts after adjustment.

Specification

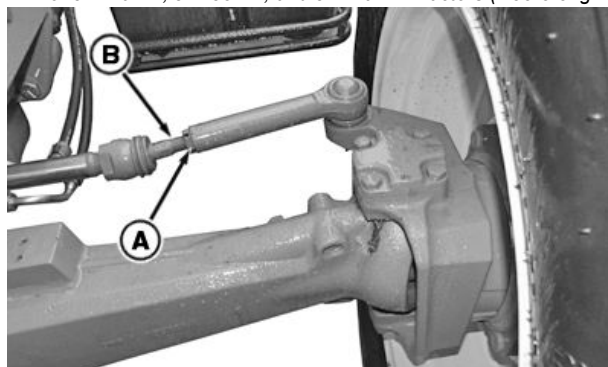
Tie Rod Jam
Nut—Torque.....120—150 N·m (88—110 lb-ft)

A—Jam Nut (2 used)

B—Inner Rod (2 used)



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

PY17071—UN—06OCT12

CPA0002315—UN—26NOV15

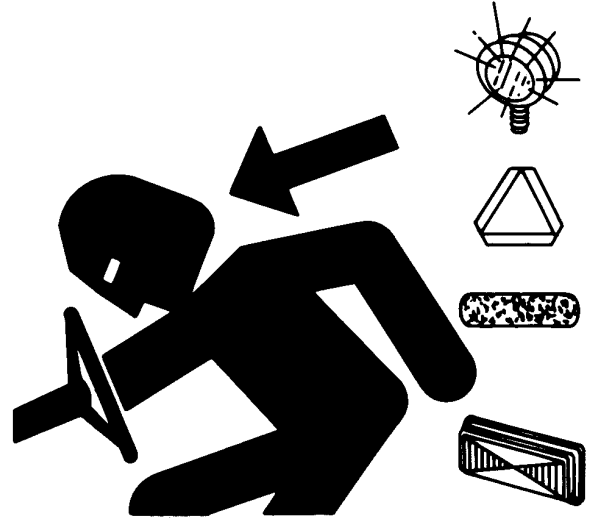
N400041,0003571 -19-13FEB17-1/1

Transporting

Use Safety Lights and Devices

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 -19-07JUL99-1/1

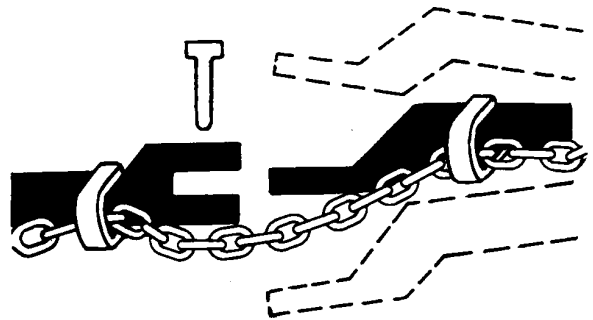
TS951 —UN—12APR90

Use a Safety Chain

A safety chain will help control drawn equipment should it accidentally separate from the drawbar.

Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.

See your John Deere dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine. Do not use safety chain for towing.



DX,CHAIN -19-03MAR93-1/1

TSS217 —UN—23AUG88

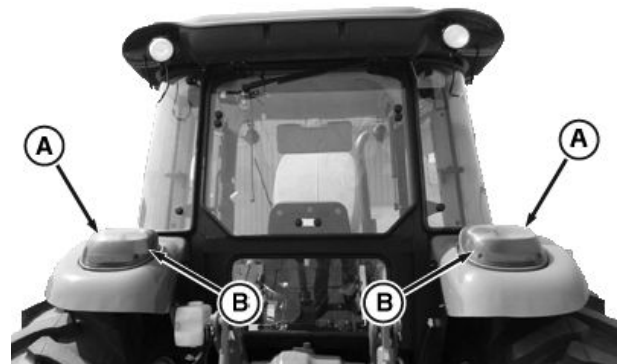
Driving Tractor on Roads

CAUTION: Observe the following precautions when operating on a road.

1. Before operating tractor on highway be sure tail lights (B) and warning lights (A) work properly. Install reflectors, and auxiliary lighting equipment as required for safety and by local regulations.

CAUTION: Never operate floodlights (if equipped) when transporting tractor. Clear bright lights at the rear of the tractor could confuse drivers of other vehicles as they approach from behind. Use only headlights for transporting.

IMPORTANT: Refer to Lights section for detailed description of lighting operations and functions.



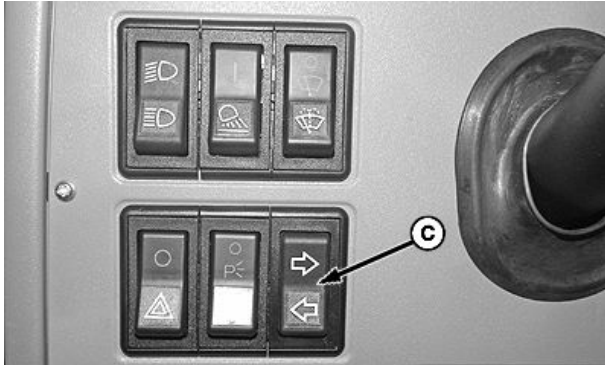
A—Warning Lights (2 used)

B—Tail Lights (2 used)

Continued on next page

JL31334,0000E20 -19-31MAR17-1/6

PY17021 —UN—05OCT12



CPA0002077 —UN—20OCT15



CPA0002985 —UN—18OCT16

Optional

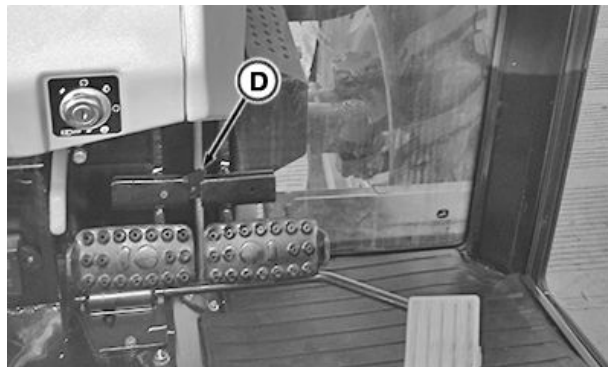
A—Light Handle **C—Turn Signal Switch**

2. Use turn signals when turning. Be sure to return turn signal switch (C) or light handle (A) to center position after turning.

JL31334,0000E20 -19-31MAR17-2/6

3. Before driving on a road, couple brake pedals together using brake pedal locking bar (D). Avoid hard applications of brakes.

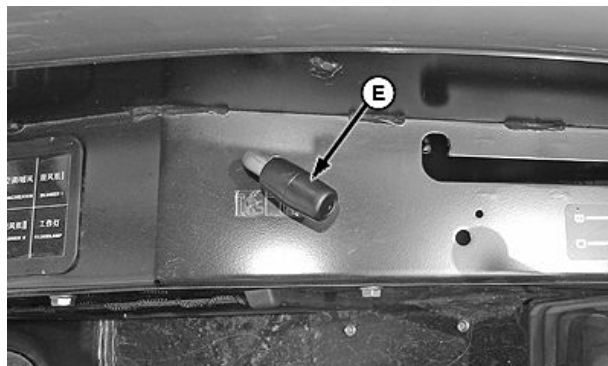
D—Brake Pedal Locking Bar



CPA0003011 —UN—18OCT16

JL31334,0000E20 -19-31MAR17-3/6

4. Disengage mechanical front wheel drive when transporting on hard surface. To disengage, press MFWD level (E).
5. Drive slow enough to maintain safe control at all times. Slow down for hillsides, rough ground, and sharp turns, especially when transporting heavy, rear-mounted equipment.
6. Before going down a hill, shift to a gear low enough to control speed without using brakes. Never coast down the hill with clutch disengaged. This can overspeed the clutch disk and cause severe clutch damage.
7. When transporting 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.



E—MFWD Lever

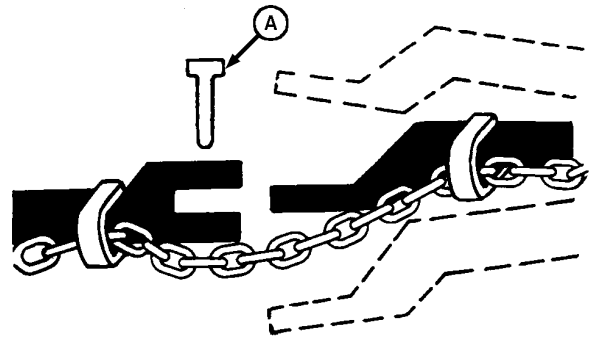
CPA0002078 —UN—20OCT15

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JL31334,0000E20 -19-31MAR17-4/6

CAUTION: A safety chain will help drawn equipment should it accidentally separate from the drawbar. Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning. See your John Deere dealer for a chain with a strength rating equal to or greater than the gross weight of the towed machine. Do not use safety chain for towing.

IMPORTANT: Safety chain is provided for transport only. It must not be used for pulling or towing implements or other items not attached to drawbar, or damage to your tractor may result.



A—Drawbar Pin

8. Transporting Towed Loads:

Lock drawbar pin (A) in place, and use safety chain to help control drawn equipment should it accidentally separate from drawbar while transporting.

JL31334,0000E20 -19-31MAR17-5/6

CAUTION: 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.

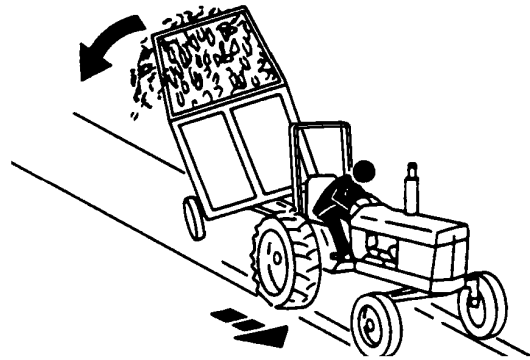
Observe these recommended maximum road speeds, or local speed limits which may be lower:

If towed equipment does not have brakes, do not go faster than 32 km/h (20 mph) and do not tow loads more than 1.5 times the tractor weight.

If towed equipment has brakes, do not go faster than 40 km/h (25 mph) and do not tow loads more than 4.5 times the tractor weight.

Make sure that the load does not exceed the recommended weight ratio. Add ballast to recommended maximum for tractor, lighten the load, or get a heavier towing unit. The tractor must be heavy and powerful enough with adequate braking power for the towed load. Use additional caution when towing loads under adverse surface conditions, when turning, and on inclines.

9. Use caution when operating tractor at transport speeds. Reduce speed if towed load weighs more



than tractor and is not equipped with brakes. (See towed equipment operator's manual for recommended transport speeds.)

10. Use additional caution when transporting towed loads under adverse surface conditions, when turning and on inclines.
11. Heavy towed or rear mounted implements may start swaying in transport. Excessive swaying will result in loss of steering control. Drive slowly and avoid quick turns of steering wheel. Refer to your implement operator's manual regarding maximum travel speed limitations.

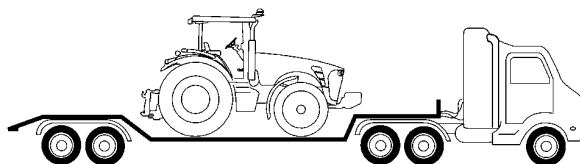
JL31334,0000E20 -19-31MAR17-6/6

Transport Tractor Safely

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.



RXA0103709 —UN—01JUL09

DX,WW,TRANSPORT -19-19AUG09-1/1

Tow Tractor

IMPORTANT: To avoid transmission and drive train component damage, **NEVER** attempt to start tractor by towing. Engine will not start.

- If possible, operate engine above 1250 rpm to provide lubrication, power steering, and power brakes. Have an operator steer and brake tractor.
- **DO NOT** tow a tractor faster than 8 km/h (5 mph). **DO NOT** exceed 3 km/h (2 mph) for the first 10 min in below freezing temperatures.
- Check transmission-hydraulic oil level. Add 1 L (1 qt) for each 90 mm (3-1/2 in) front wheels are raised off the ground. **DO NOT** raise wheels more than 305 mm (12 in). Drain excess oil after transporting.

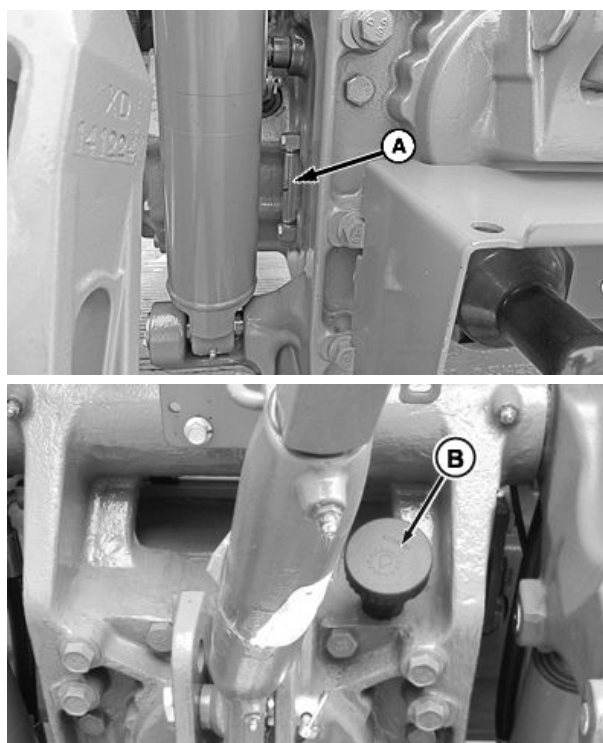
1. Be sure that transmission/hydraulic system oil is to the full level line on transmission/hydraulic system sight glass (A). If tractor is to be towed with front wheels raised, add 1 liter (1 qt) of oil to hydraulic oil fill port (B) for each 90 mm (3-1/2 in) the wheels are raised. **DO NOT** raise front wheels more than 305 mm (12 in) above ground.

NOTE: After transporting tractor, drain oil that was added for towing.

2. Tap brake pedals to make sure that differential lock is not engaged.
3. Make sure that PTO is disengaged.
4. Place gearshift lever in neutral.

After Towing

Drain excess transmission/hydraulic oil to lower level back to full.



A—Transmission/Hydraulic System Sight Glass

B—Hydraulic Oil Fill Port

CPA001698 —UN—27JUL15

PY14923 —UN—18FEB13

CP00834,0001F2C -19-18OCT15-1/1

Fuels, Lubricants, and Coolant

Handle Fuel Safely—Avoid Fires

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 -19-12OCT11-1/1

TS202 —UN—23AUG88

Handle Fluids Safely—Avoid Fires

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



DX,FLAME -19-29SEP98-1/1

TS227 —UN—15APR13

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.

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 -19-13JAN18-1/1

Cold Weather Operation

IMPORTANT: Viscosity grade selection is critical for cold weather operation of the transmission. Preheat procedures are required when operating transmission at temperatures lower than the oil's MINIMUM critical temperature.

NOTE: See TRANSMISSION AND HYDRAULIC OIL, in this section, for MINIMUM viscosity grade for a given transmission operating temperature.

Warm-Up Procedures

If preheating transmission with Auxiliary Source, preheat transmission oil to MINIMUM temperature before operating.

As an Alternate Procedure, operate tractor with transmission in neutral for approximately 20 minutes, or until oil has warmed to MINIMUM temperature as recommended above.

CP00613,0000610 -19-08JUN13-1/1

Hot Weather Operation

NOTE: See TRANSMISSION AND HYDRAULIC OIL, in this section, for correct viscosity grade for a given transmission operating temperature.

Use higher than normal viscosity grade under following conditions:

- Ambient temperatures consistently above 30° C (86° F).
- Frequent stop-and-go driving in hot weather.
- Repeated climbing of high grades in hot weather.

CP00613,0000611 -19-08JUN13-1/1

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).

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.**

¹See DX,ENOIL12,OEM, DX,ENOIL12,T2,STD, or DX,ENOIL12,T2,EXT for more information on Engine Oil and Filter Service Intervals.

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 -19-13JAN18-1/1

Diesel Fuel (supplier engine)

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 G252, 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, or ASTM D975 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 43 minimum. Cetane number greater than 47 is preferred, especially for temperatures below -20°C (-4°F) or elevations above 1500 m (5000 ft).

Cold Filter Plugging Point (CFPP) should be at least 5°C (9°F) below the expected lowest temperature or **Cloud Point** below the expected lowest ambient temperature.

Fuel lubricity should be measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

Sulfur content for Interim Tier 4, and Stage III B Engines

- Diesel fuel quality and sulfur content must comply with all existing emissions regulations for the area in which the engine operates.
- Use **ONLY** ultra low sulfur diesel (ULSD) fuel with a maximum of 0.0015% (15 ppm) sulfur content.

Sulfur Content for Other Engines

- Diesel fuel quality and sulfur content must comply with all existing emissions regulations for the area in which the engine operates.
- Use of diesel fuel with sulfur content less than 0.10% (1000 ppm) is **RECOMMENDED**.
- Use of diesel fuel with sulfur content 0.10% (1000 ppm) to 0.50% (5000 ppm) **REDUCES** the oil and filter change interval.
- Consult your local dealer before use of diesel fuel with sulfur content greater than 0.50% (5000 ppm).

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.

N400041,0003645 -19-18JAN17-1/1

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 -19-07FEB14-1/1

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 -19-13JAN18-1/1

Fill Fuel Tank

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

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

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

Fuel tank is filled through fuel tank filler cap (A). Fill fuel tank at end of each day's operation. This prevents condensation in tank as moist air cools.

Specification

Fuel Tank—Capacity.....	150 L (39.62 gal) for JD954 Tractor
	210 L (55.48 gal) for JD1104, JD1204-A, JD1354-A, and JD1404-A (4045 engine)
	Tractors (Deere engine)
	255 L (67.36 gal) for JD1404-A (6068 engine) Tractor (Deere engine)
	210 L (55.48 gal) for JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

NOTE: To reduce fuel gelling and control wax separation during cold weather, John Deere Fuel Flow Improver, or equivalent, may be added to fuel or bulk storage tank.



A—Fuel Tank Filler Cap

N400041,0003628 -19-18JAN17-1/1

TSS202 —UN—23AUG88

CPA0002351 —UN—29NOV15

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 -19-13JAN18-1/1

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 -19-11APR11-1/1

Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III

New engines are filled at the factory with either John Deere Break-In™ or John Deere Break-In Plus™ Engine Oil. During the break-in period, add John Deere Break-In™ or Break-In Plus™ Engine Oil, respectively, 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.

If John Deere Break-In™ Engine Oil is used during the initial operation of a new or rebuilt engine, change the oil and filter at a maximum of 100 hours.

If John Deere Break-In Plus™ Engine Oil is used, change the oil and filter at a minimum of 100 hours and a maximum equal to the interval specified for John Deere Plus-50™ II or Plus-50™ oil.

After engine overhaul, fill the engine with either John Deere Break-In™ or Break-In Plus™ Engine Oil.

If John Deere Break-In™ or Break-In Plus™ Engine Oil is not available, use an SAE 10W-30 viscosity grade diesel engine oil meeting one of the following and change the oil and filter at a maximum of 100 hours of operation:

- API Service Classification CE
- API Service Classification CD
- API Service Classification CC

*Break-In is a trademark of Deere & Company.
Break-In Plus is a trademark of Deere & Company
Plus-50 is a trademark of Deere & Company.*

- ACEA Oil Sequence E2
- ACEA Oil Sequence E1

IMPORTANT: Do not use Plus-50™ II, Plus-50™, or engine oils meeting any of the following for the initial break-in of a new or rebuilt engine:

API CK-4	ACEA E9
API CJ-4	ACEA E7
API CI-4 PLUS	ACEA E6
API CI-4	ACEA E5
API CH-4	ACEA E4
API CG-4	ACEA E3
API CF-4	
API CF-2	
API CF	

These oils do not allow the engine to break in properly.

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, John Deere Plus-50™, or other diesel engine oil as recommended in this manual.

DX,ENOIL4 -19-02NOV16-1/1

Diesel Engine Oil — Tier 3 and Stage III

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

Use oil viscosity based on the expected air temperature range during the period between oil changes.

John Deere Plus-50™ II oil is preferred.

John Deere Torq-Gard™ is also allowed.

John Deere Plus-50™ is also recommended.

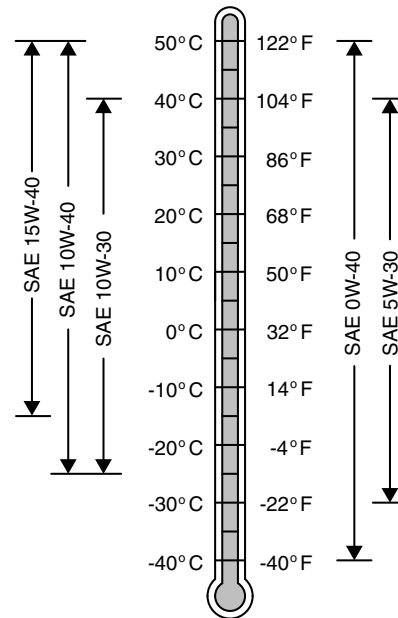
Other oils may be used if they meet one or more of the following standards:

- John Deere Torq-Gard™
- API Service Category CK-4
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4

Multi-viscosity diesel engine oils are preferred.

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

*Plus-50 is a trademark of Deere & Company
Torq-Gard is a trademark of Deere & Company*



Oil Viscosities for Air Temperature Ranges

DO NOT use diesel fuel with sulfur content greater than 10000 mg/kg (10000 ppm).

TSS1691 —UN—18JUL07

DX,ENOIL11 -19-13JAN18-1/1

Diesel Engine Oil (supplier engine)

Use oil viscosity based on the expected air temperature range during the period between oil changes.

gb11122 15w/40, CF-4 or better oil is preferred.

Oil is also recommended if they meet one of the following:

- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4

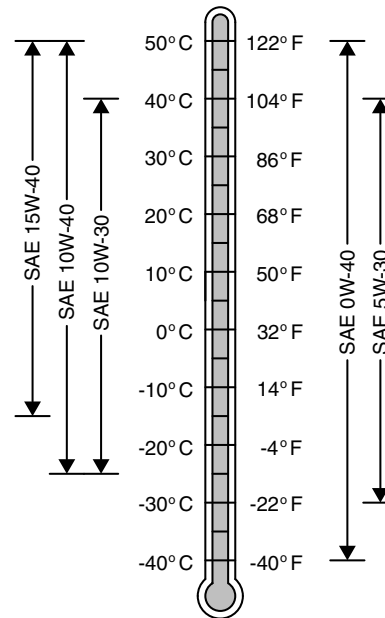
Other oils may be used if they meet one or more of the following:

- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- API Service Category CH-4
- ACEA Oil Sequence E3

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.

DO NOT use diesel fuel with sulfur content greater than 1.0% (10000 ppm).



Oil Viscosities for Air Temperature Ranges

TS1689—JUN—18JUL07

N400041,0003644 -19-18JAN17-1/1

Oil Filters

Filtration of oils is critical to proper operation and lubrication.

Always change filters regularly as specified in this manual.

Use filters meeting John Deere performance specifications.

CP00613,0000619 -19-08JUN13-1/1

Heavy Duty Diesel Engine Coolant

The engine cooling system is filled to provide year-round protection against corrosion and cylinder liner pitting, and winter freeze protection to -37°C (-34°F). If protection at lower temperatures is required, consult your John Deere dealer for recommendations.

IMPORTANT: Avoid machine damage, DO NOT mix different coolants. Replace all system coolant when seriously lack of coolant. Could add distilled, deionized, or demineralized water when coolant lack is less than 1 L (0.26 gal).

The following engine coolants are preferred:

- John Deere COOL-GARD™ II Premix
- John Deere COOL-GARD II PG Premix

Use John Deere COOL-GARD II PG Premix 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.

John Deere COOL-GARD II Premix, COOL-GARD II PG Premix, and COOL-GARD II Concentrate coolants do not require use of supplemental coolant additives.

Other Coolants

John Deere COOL-GARD II and COOL-GARD II PG coolants might not be available in the geographical area where service is performed.

If these coolants are unavailable, use a coolant concentrate or prediluted coolant intended for use with

heavy duty diesel engines and with a minimum of the following chemical and physical properties:

- Is formulated with a quality nitrite-free additive package.
- 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
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion

The additive package must be part of one of the following coolant mixtures:

- ethylene glycol or propylene glycol base prediluted (40–60%) heavy duty coolant
- ethylene glycol or propylene glycol base heavy duty coolant concentrate in a 40–60% mixture of concentrate with quality water

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.

COOL-GARD is a trademark of Deere & Company

JL31334,0000D5E -19-31MAY17-1/1

John Deere COOL-GARD™ II Coolant Extender

Some coolant additives gradually deplete during engine operation. For COOL-GARD™ II pre-mix and COOL-GARD II Concentrate, replenish coolant additives between drain intervals by adding COOL-GARD II Coolant Extender.

COOL-GARD II Coolant Extender should not be added unless indicated by COOL-GARD II Test Strips. These test strips provide a simple, effective method to check the freeze point, additive levels, and pH of your engine coolant.

Test the coolant solution at intervals of 12 months and whenever excessive coolant is lost through leaks or overheating.

IMPORTANT: Do not use COOL-GARD II Test Strips with COOL-GARD II PG.

COOL-GARD II Coolant Extender is a chemically matched additive system for use with all COOL-GARD II coolants.

COOL-GARD is a trademark of Deere & Company

COOL-GARD II Coolant Extender is not intended for use with nitrite-containing coolants.

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

The use of non-recommended supplemental coolant additives can result in additive drop-out, gelation of the coolant, or corrosion of cooling system components.

Add the recommended concentration of COOL-GARD II Coolant Extender. DO NOT add more than the recommended amount.

DX,COOL16 -19-15MAY13-1/1

Transmission and Hydraulic Oil

Use oil viscosity based on the expected air temperature range during the period between oil changes.

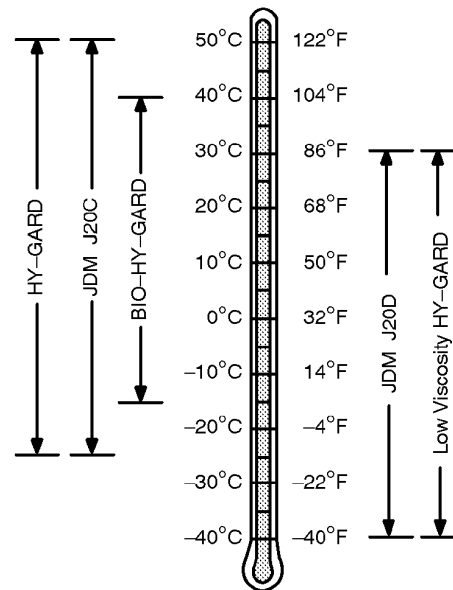
The following oils are preferred:

- John Deere HY-GARD™
- John Deere Low Viscosity HY-GARD™

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

Use John Deere BIO-HY-GARD™ oil when a biodegradable fluid is required.¹



TS1680 —UN—10OCT97

HY-GARD is a trademark of Deere & Company
BIO-HY-GARD is a trademark of Deere & Company

¹ BIO-HY-GARD meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. BIO-HY-GARD should not be mixed with mineral oils, because this reduces the biodegradability and makes proper oil recycling impossible.

CP00612,0002064 -19-31MAY17-1/1

Use Correct Transmission/Hydraulic Filter Element

To protect systems, replace transmission/hydraulic oil filter with a John Deere service filter element. Minimum and maximum performance specifications are printed on

John Deere filters. Other filters may be used if they meet these performance specifications.

See Lubrication and Maintenance section for recommended filter change intervals.

CP00613,000061C -19-08JUN13-1/1

MFWD Front Axle Housing Oil

Depending upon the expected air temperature range during the drain interval, use proper oil viscosity.

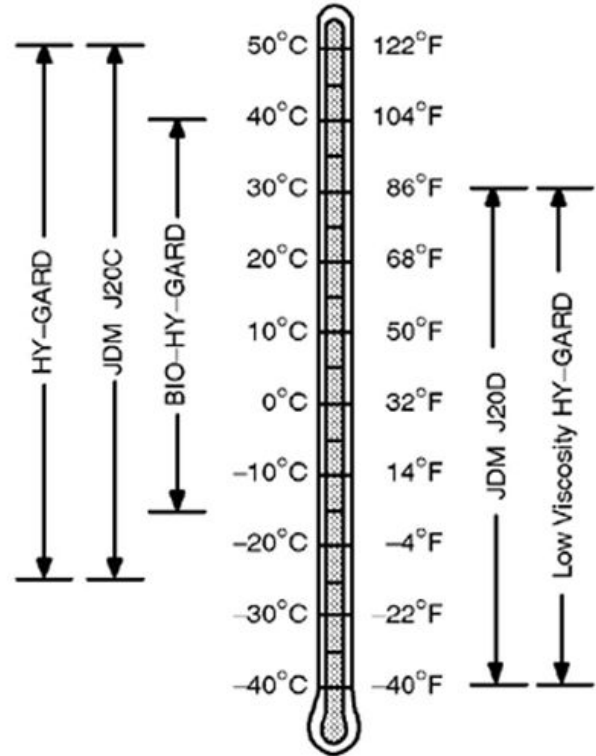
The following oils are recommended:

- John Deere HY-GARD
- John Deere HY-GARD - LOW VISCOSITY

Greatwall Hydraulic/Transmission/Braking.

Other oils may be used if they meet one of the following:

- John Deere JDM J20C
- John Deere JDM J20D



PUC1578 —19—26MAR08

CP00612,0002065 -19-31MAY17-1/1

MFWD Wheel Hub Oil

Depending upon the expected air temperature range during the drain interval, use proper oil viscosity.

The following oils are recommended:

- John Deere GL-5
- John Deere EXTREME-GARD

Other GL-5 Service Classification oils that comply with API may also be used.

CP00612,0002066 -19-31MAY17-1/1

Multipurpose Extreme Pressure (EP) Grease

IMPORTANT: For automated lubrication systems different ambient air temperatures need to be considered.

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

John Deere SD Polyurea Grease is preferred.

The following greases are also recommended:

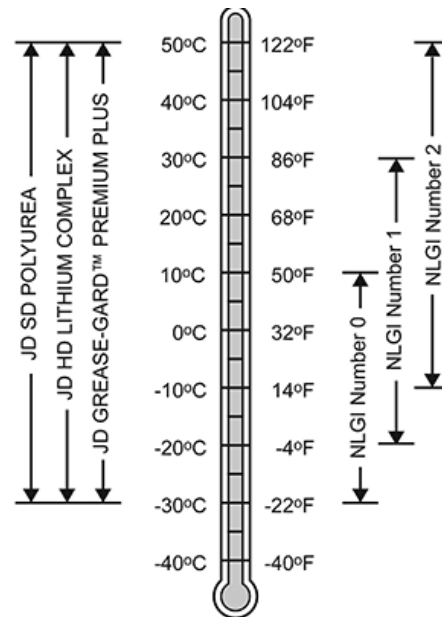
- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB
- ISO-L-X-BDHB 2 or DIN KP 2 N-10 Lithium Complex, Non-Synthetic Base Oil (100 to 220 mm²/s @ 40°C)

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.

Grease-Gard is a trademark of Deere & Company



Greases for Air Temperature Ranges

RG30199—JUN—08MAR18

DX,GRE1 -19-13JAN18-1/1

Maintenance and Service Intervals

Additional Service Information

This is not a detailed service manual. It contains only information needed for operation and routine maintenance.

If you want more detailed service information, order a Technical Manual through your John Deere dealer.

CP00613,0000620 -19-08JUN13-1/1

Service Tractor Safely

Disengage power to attachments and stop engine before making any repairs or adjustments.

Do not 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.

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 start engine unless gearshift lever is in neutral position.

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 performance and/or safety and affect machine life.



CPA0002099 —UN—22OCT15

CP00834,0001F95 -19-22OCT15-1/1

Service Interval Chart - Daily or 10 Hours - 50 Hours - 250 Hours

Item	Daily or 10 Hours	50 Hours	200 Hours	250 Hours	400 Hours
Clean outside area of engine, remove any dust, mud and greasy stain.	•				
Check and fasten bolts on engine, make sure engine is free from leakage of gas, water and oil.	•				
Identify abnormal noise and vibration, observe smoke, check and remove any failure	•				
Check engine oil level	•				
Check transmission/hydraulic system oil level	•				
Check coolant level	•				
Drain water and Sediment from fuel filters and water separator	•				
Loose hardware inspection		•			
Inspect tires		•			
Lubricate steering spindles ^a		•			
Lubricate MFWD front axle ^a		•			
Lubricate MFWD front axle pivot pins ^a		•			
Lubricate MFWD drive shaft		•			
Clean battery		•			
Lubricate 3-point hitch links ^a		•			
Adjust Alternator/Fan Belt (supplier engine)		•			
Change Engine Oil and Filter (supplier engine)			•		
Service air cleaner				•	
Adjust brake pedal free play				•	
Adjust clutch pedal free play				•	
Clean cab air filter ^b				•	
Check neutral start system				•	
Check MFWD axle housing oil level				•	
Check MFWD wheel hub oil level				•	
Drain water and sediment from fuel tank				•	
Inspect and clean fuel tank filler cap				•	
Inspect ROPS/Cab mounting hardware				•	
Trailer hitch - Check torque on attaching screws (if equipped)				•	
Front loader - Mounting frame, check torque on attaching screws (if equipped)				•	
Service EGR (supplier engine)					•

^a Necessary to perform daily or 10 hr in wet or muddy conditions.

^b Interval can vary according to operating conditions

N400041,000362B -19-18JAN17-1/1

Service Interval Chart - 500 Hours - 1000 Hours or Annually - 2 Years or 2000 Hours - 5000 Hours / Five Years

Item	500 Hours	1000 Hours or Annually	Two Years or 2000 Hours	5000 Hours / Five Years
Check engine idle speeds	•			
Check hoses and hose clamps for tightness	•			
Change engine oil and filter ^a	•			
Replace transmission/hydraulic oil filter ^b	•			
Lubricate rear axle bearings ^c	•			
Check cooling system for leaks	•			
Replace water separator	•			
Replace primary fuel filter	•			
Replace secondary fuel filter	•			
Replace Primary/Secondary Fuel Filter (supplier engine)	•			
Clean engine crankcase vent tube		•		
Change transmission/hydraulic system oil		•		
Change MFWD front axle housing oil ^b		•		
Change MFWD wheel hub oil ^b		•		
Replace primary and secondary elements ^d		•		
Check seat belt		•		
Flush cooling system ^{e,f}			•	
Adjust engine valve clearance ^g			•	
Test or replace thermostat ^g				•
Replace crankshaft vibration damper ^g				•

^aIf PLUS 50 oil and a John Deere filter are not used, lower this service interval to 250 hours.

^bInitial, first 100 hours

^cNecessary to perform 50 hr. in wet or muddy conditions.

^dInterval can vary according to operating conditions

^eCheck coolant every year as required, can be extended to 5000 hours or 5 years if John Deere COOL-GARD is used.

^fCheck coolant every year as required, can be extended to 6000 hours or 6 years if John Deere COOL-GARD II is used.

^gSee your John Deere dealer for service.

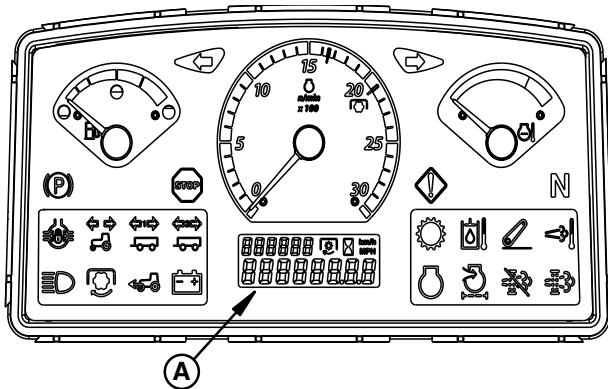
CP00834,0001EF4 -19-15SEP17-1/1

Service after First 100 Hours

For service after first 100 hours, see section 30 - Break-In Period.

CP00613,0000624 -19-08JUN13-1/1

Observe Service Intervals



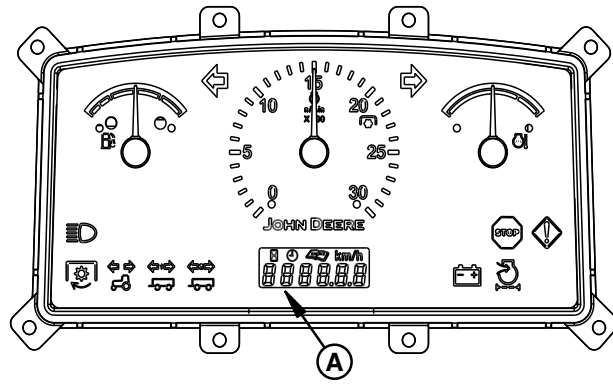
Instrument Cluster (wet clutch)

Using hour meter (A) as a guide, perform all services at the hourly intervals indicated on the following pages. Keep a service record on charts provided in the Lubrication and Maintenance Record Charts section.

IMPORTANT: Recommended service intervals are for average conditions. Service more often if tractor is operated under adverse conditions.

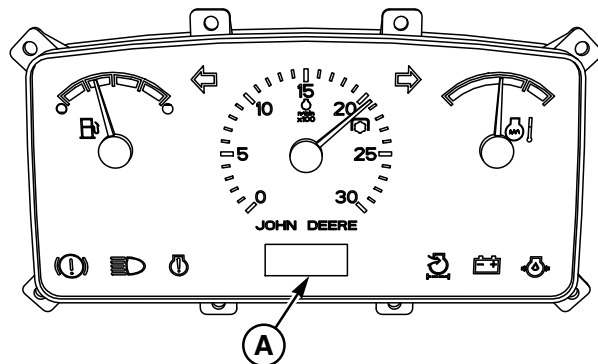
A—Hour Meter

PY14907 —UN—01FEB13



Instrument Cluster (dry clutch)

PY14913 —UN—31JAN13



Instrument Cluster (dry clutch, supplier engine)

CPA0002352 —UN—26NOV15

N400041,000362C -19-18JAN17-1/1

Use Correct Lubricant

IMPORTANT: Use only lubricants meeting specifications outlined in Fuels, Lubricants,

and Coolants section when performing tractor service.

CP00613,0000626 -19-08JUN13-1/1

General Maintenance and Inspection

Service Air Cleaner

Service Interval—250 Hours

A dual element air cleaner is standard. A dirty primary element is indicated when air restriction indicator on instrument panel illuminates. A dirty element can result in loss of power or excessive smoke.

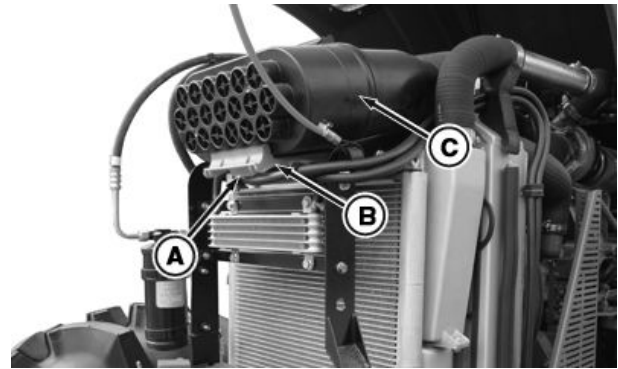
Clean primary element when indicator on instrument panel illuminates or every 250 hours.

Both elements should be replaced at the same time annually, regardless of condition.

1. Raise hood.
2. Pull lock (A) and push handle (B) downwards.
3. Push cover (C) upwards.

A—Lock
B—Handle

C—Cover



JL31334,0000E05 -19-31MAR16-1/4

CPA0002353 —UN—28NOV15

CQ274950 —UN—03JUL06

IMPORTANT: Do not use compressed air to clean filter, resulting in filter damage.

4. Pull out primary filter element. Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.
5. Clean primary element by tapping on palm of your hand.
6. Check rubber seal around filter element for cracks and holes. Replace if element shows any imperfections.

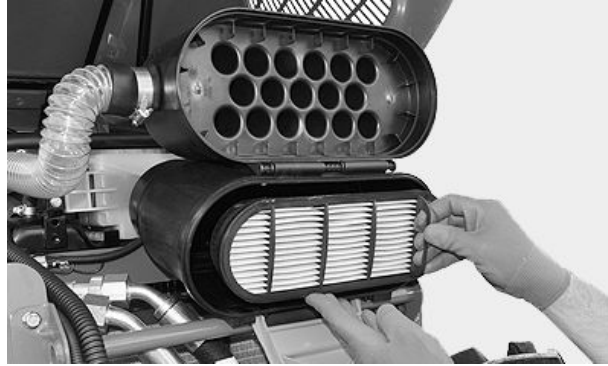


Continued on next page

JL31334,0000E05 -19-31MAR16-2/4

CQ294107 —UN—08AUG12

7. Secondary filter element should only be removed when being replaced. If it looks dirty or damaged do not attempt to clean, replace it.



CQ294106—UN—08AUG12

JL31334.0000E05 -19-31MAR16-3/4

8. Reinstall primary element with rubber seal first (arrows on label pointing into filter housing). Push in all the way.

IMPORTANT: If primary filter is not damaged and indicator on instrument panel remains illuminated, replace both filters.

9. Close cover and lock handle.
10. Lower hood.



CQ294107—UN—08AUG12

JL31334.0000E05 -19-31MAR16-4/4

Replace Primary and Secondary Elements

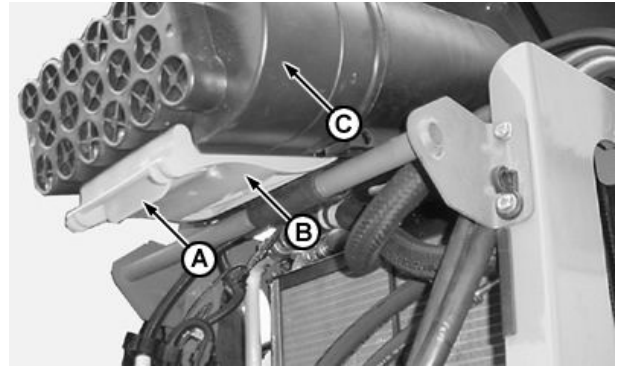
Service Interval—Annually*

** Interval can vary according to operating conditions*

1. Raise hood.
2. Pull lock (A) and push handle (B) downwards.
3. Push cover (C) upwards.

A—Lock
B—Handle

C—Cover



CQ228000 —UN—04NOV04

CQ274950 —UN—03JUL06

JL31334,0000E06 -19-31MAR16-1/4

4. Pull out primary filter element. Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.



CQ294107 —UN—08AUG12

Continued on next page

JL31334,0000E06 -19-31MAR16-2/4

5. Pull out secondary filter element using handle on filter's frame.
6. Install new secondary element. Push in all the way.



CQ294106—UN—08AUG12

JL31334,0000E06 -19-31MAR16-3/4

7. Install new primary element with rubber seal first (arrows on label pointing into filter housing). Push in all the way.
8. Close cover and lock handle.
9. Lower hood.

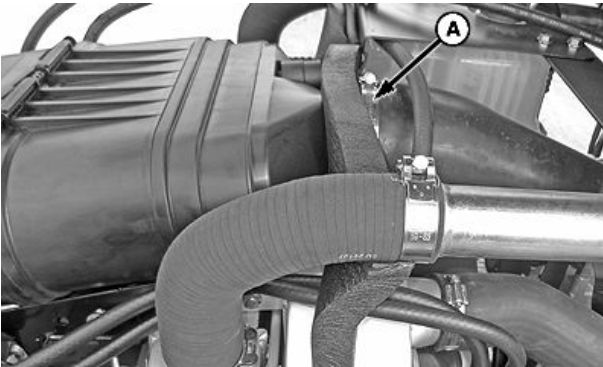


CQ294107—UN—08AUG12

JL31334,0000E06 -19-31MAR16-4/4

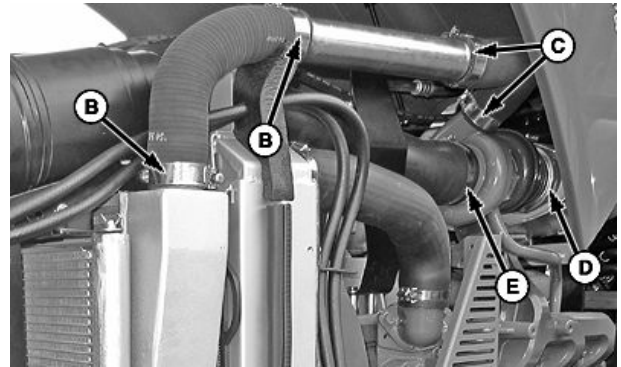
Check Air Intake System

Service Interval—As Required



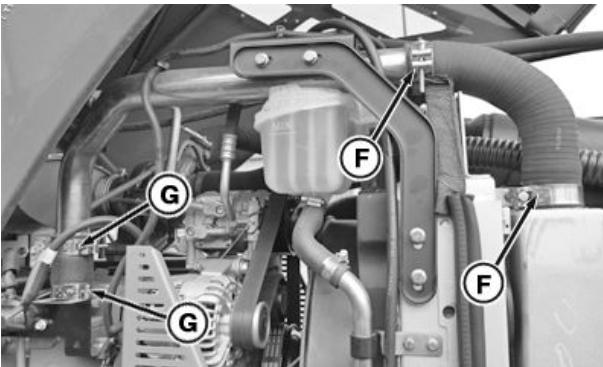
CPA0001724 —UN—28JUL15

JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors



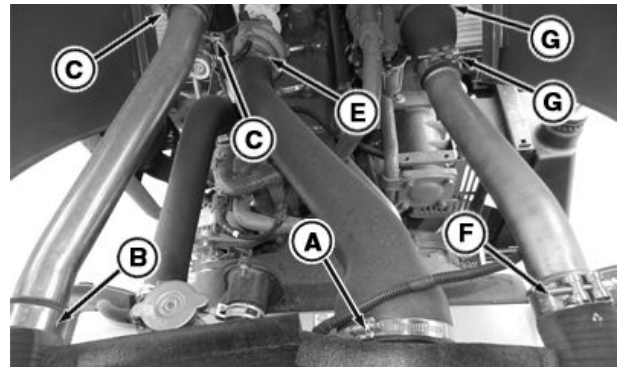
CPA0001725 —UN—28JUL15

JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors



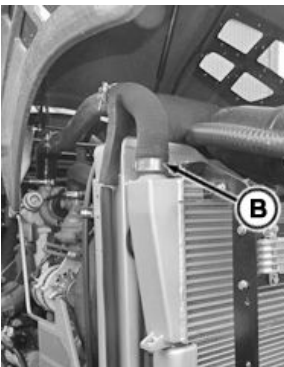
CPA0002355 —UN—29NOV15

JD954, JD1104, JD1204-A, JD1354-A, and JD1404-A Tractors



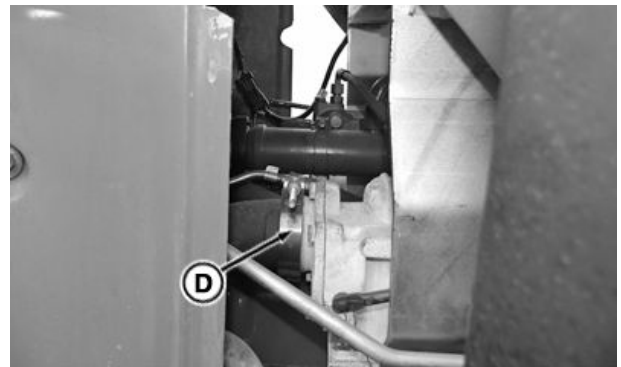
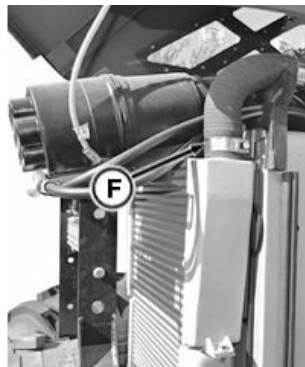
CPA0002356 —UN—30NOV15

JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



CPA0002357 —UN—30NOV15

JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



CPA0002358 —UN—30NOV15

JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

- | | | | |
|---|--|--|---|
| A —Air Cleaner Outlet Hose Clamp | C —Turbocharger Outlet Hose Clamps (2 used) | E —Turbocharger Inlet Hose Clamp | G —Engine Air Inlet Hose Clamps (2 used) |
| B —Charged Air Cooler Inlet Hose Clamps (2 used) | D —Turbine Outlet (exhaust gas) Clamp | F —Charged Air Cooler Outlet Hose Clamps (2 used) | |

Check air intake system clamps (A, B, C, D, E, F, and G) for tightness.

N400041,000362D -19-13FEB17-1/1

Check and Adjust Transmission

Service Interval—As Required

See local authorized dealer.

CP00834,0001F05 -19-13MAY16-1/1

Adjust Brake Pedal Free Play

Service Interval —250 Hours

1. Park tractor on level surface. Chock wheels to prevent machine movement.
2. Unlock brake pedals.
3. Applying approximately 10 kg (22 lb) force on one of the brake pedals, measure brake pedal free play (A) between the engaged pedal and the disengaged pedal.
4. Adjust brake linkage until brake pedal free play (A) is to specification.

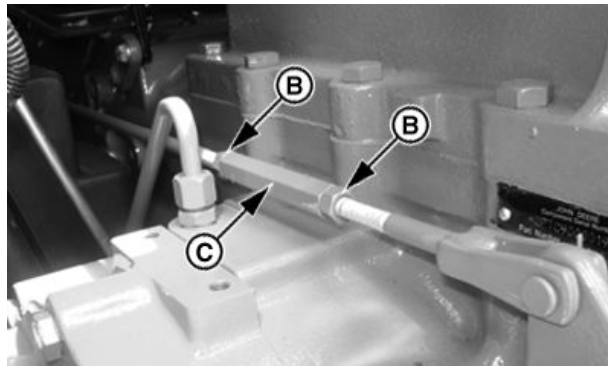
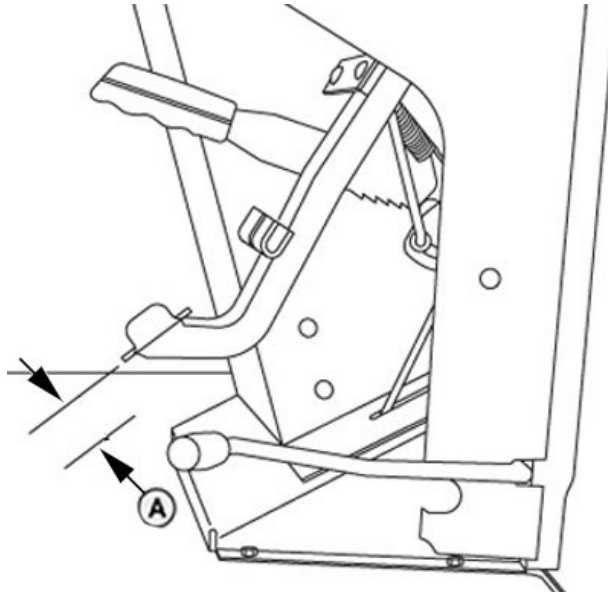
Specification

Brake Pedal Free
Play—Distance..... 67 — 73 mm (2.64 — 2.87 in)

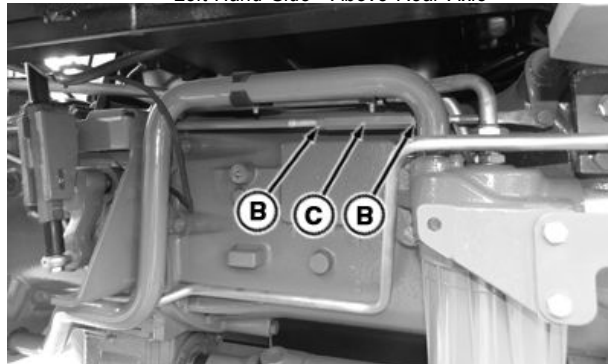
5. Each side of tractor has an adjustment rod with turnbuckle (C) and lock nuts (B), so each brake pedal should be adjusted separately. Adjustment mechanism is near the back end of the rod on the left side, and near the front end on the right side.
6. To adjust linkage, loosen lock nuts (B) on each side of turnbuckle (C). Rotate turnbuckle (C) as needed to increase or decrease tension on adjustment rod in order to obtain free travel specification.
7. After pedal travel is within specification, tighten lock nuts (B) on both sides of turnbuckle (C).

A—Brake Pedal Free Play
B—Lock Nuts (2 used)

C—Turnbuckle



Left-Hand Side—Above Rear Axle



Right-Hand Side

JL31334.0000CD4 -19-08APR16-1/1

PUC1121—UN—03OCT07

PUC2525—UN—07OCT09

CPA0002360—UN—30NOV15

Adjust Clutch Pedal Free Play

Service Interval —250 Hours

IMPORTANT: The adjustment of the cable attached to the clutch pedal has been set by the factory and does not require further adjustment during the life of the tractor, unless the cable is removed or disconnected.

Measure clutch pedal free play (C) before clutch engagement is felt. Adjust linkage to specification.

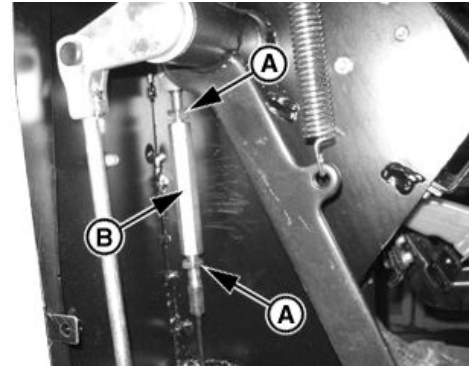
Specification

Clutch Pedal Free
Play—Distance.....25 — 40 mm
(0.98 — 1.57 in)

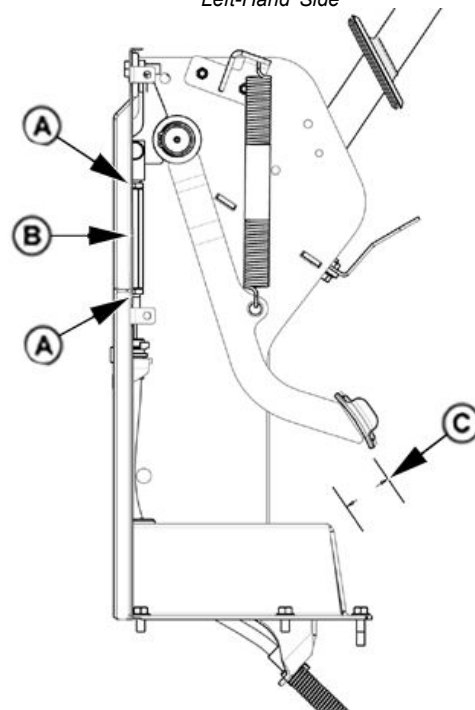
To adjust linkage, loosen both lock nuts (A) and rotate turnbuckle (B) to increase or decrease free travel. When free travel is correct, tighten lock nuts (A).

A—Lock Nuts (2 Used)
B—Turnbuckle

C—Clutch Pedal Free Play



Left-Hand Side



JL31334,0000D63 -19-08APR16-1/1

PUC2601 —UN—28OCT09

PUC1558 —UN—24MAR08

Check and Adjust Front, Rear Drive Axle

Service Interval—As Required

See local authorized dealer.

CP00834,0001F06 -19-13MAY16-1/1

Check and Adjust Differential

Service Interval—As Required

See local authorized dealer.

CP00834,0001F07 -19-13MAY16-1/1

Clean Cab Air Filters

Service Interval—250 Hours*

** Interval can vary according to operating conditions*

CAUTION: The air quality system air filters are not designed to filter out harmful chemicals. Follow the instructions in the implement operator's manual and those given by the chemical manufacturer when using agricultural chemicals.

Recirculation Filters (inside cab)

NOTE: There are filters on *BOTH* sides of cab. Left-hand side is shown.

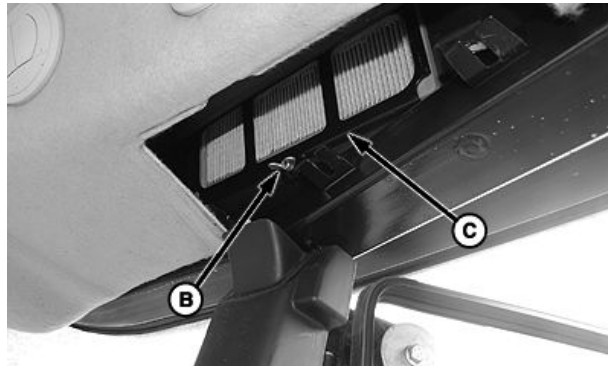
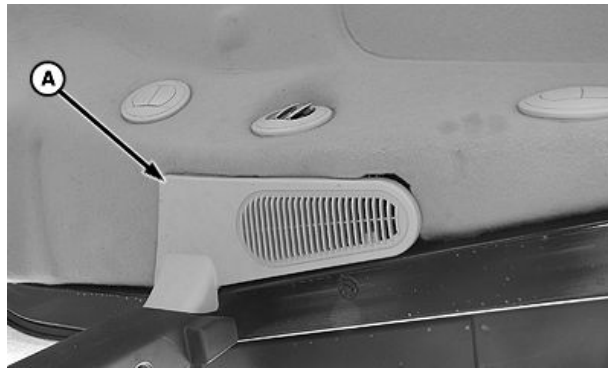
1. Pry off cover (A). (Pull down along window.)
2. Remove wing screw (B), filter retainer (C), and filter (D).
3. Inspect filter for holes or damage. Inspect rubber seal for cracks or wear. Replace as necessary.

NOTE: Do not clean filter with water or compressed air, replace it.

4. Replace filter when it becomes dirty. It may require replacing filter more often in dusty conditions.
5. Install filter with the rubber seal toward the filter retainer (C).
6. Install retainer, wing screw, and cover.
7. Repeat procedure on the opposite side.

A—Cover
B—Wing Screw

C—Filter Retainer
D—Filter



Continued on next page

N400041,000362E -19-14NOV17-1/2

CPA0000180—UN—20JUN13

CPA0000181—UN—20JUN13

CPA0000182—UN—20JUN13

Fresh Air Filters (outside cab)

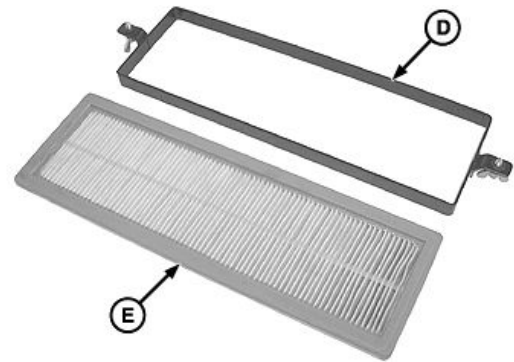
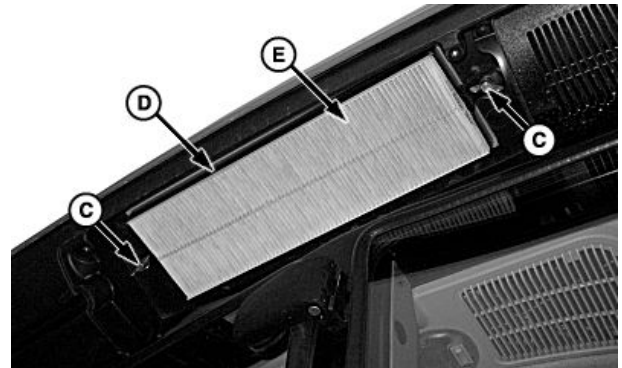


Under Roof, Above Cab Door

1. Remove two wing screws (A) and filter cover (B).
2. Remove wing screws (C), filter retainer (D), and filter (E).
3. Inspect filter for holes or damage. Inspect rubber seal for cracks or wear. Replace as necessary.

NOTE: Do not clean filter with water or compressed air, replace it

4. Replace filter when it becomes dirty. It may require replacing filter more often in dusty conditions.
5. Install filter with the rubber seal toward cab.
6. Install retainer and wing screws.
7. Install cover and wing screws.
8. Repeat procedure on the opposite side.



A—Wing Screws (2 used)
B—Filter Cover
C—Wing Screws (2 used)

D—Filter Retainer
E—Filter

N400041,000362E -19-14NOV17-2/2

Service Air Conditioner (cab)

Service Interval —As Required

CAUTION: Refrigerant is under pressure. Improper servicing causes refrigerant to penetrate eyes and skin or cause burns.

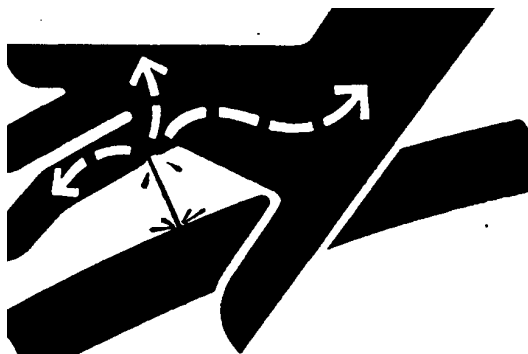
IMPORTANT: R134a refrigerant must be used. This operation requires special equipment and procedures. See your John Deere dealer.

NOTE: Some oil seepage from the compressor shaft seal is normal.

Check the following if air conditioner is not cool, or if cooling is intermittent:

- If clutch slips of air conditioner after tractor has been in storage, compressor may be stuck. Stop engine and turn key switch to OFF position. Remove three cap screws and clutch cover (A). Rotate clutch hub back and forth to free compressor.

A—Clutch Cover



X9811 —UN—23AUG88

CPA0001730 —UN—28JUL15

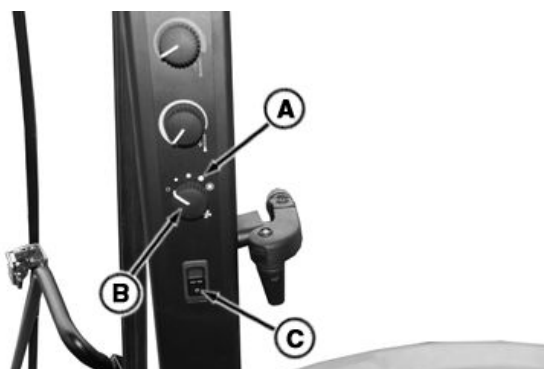
N400041,000362F -19-14NOV17-1/2

- Run engine at 2000 rpm. Push top half of A/C and defrost switch (C) and set blower control knob (B) to HIGH position (A). If air flow is not cool, system may be low on refrigerant. See your John Deere dealer.
- If cooling is intermittent, clean front grille, side vents, radiator, and condenser. If this problem is not solved, see your John Deere dealer.
- Inspect operator enclosure (cab) filters for restriction. (See Clean Cab Air Filters in this section). If this problem persists, see your John Deere dealer.

A—High Position

B—Blower Control Knob

C—A/C and Defrost Switch



CPA0002362 —UN—30NOV15

N400041,000362F -19-14NOV17-2/2

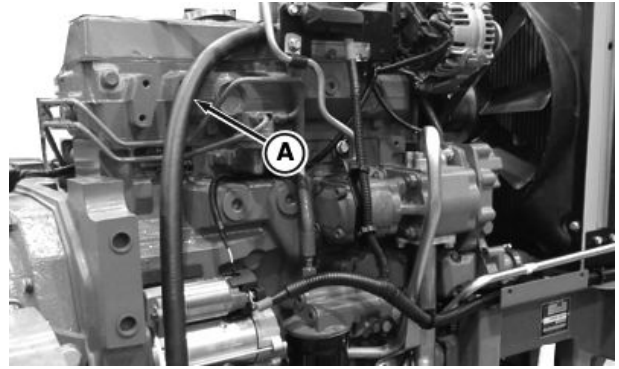
Clean Engine Crankcase Vent Tube

Service Interval—1000 Hours

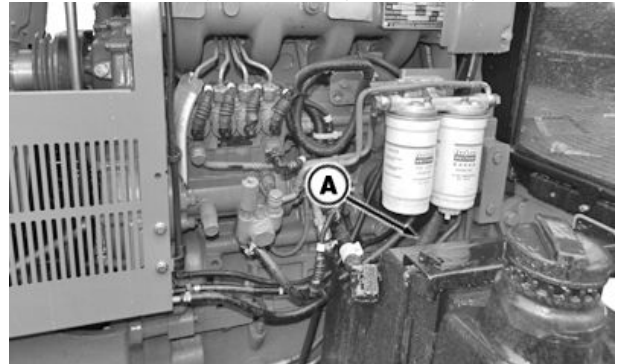
CAUTION: Reduce compressed air to less than 210 kPa (2 bar) (30 psi) when using for cleaning purposes. Clear area of bystanders, guard against flying chips, and wear personal protection equipment, including eye protection.

- Remove crankcase vent tube (A) from engine. Wash in solvent or blow clean with compressed air.
- Install vent tube breather cap to engine. Be sure that vent tube is not kinked or pinched.

A—Crankcase Vent Tube



Right-Hand Side (Deere engine)



Left-Hand Side (Supplier Engine)

JL31334,0000DEF -19-31MAR17-1/1

PY14872 —UN—07JAN13

CPA0002359 —UN—29NOV15

Check Engine Idle Speeds

Service Interval—500 Hours

Slow idle speed is attained with hand throttle all the way down.

Fast idle speed is attained with hand throttle all the way up.

If idle speeds are not correct, see your dealer.

Specification

Engine—Slow
Idle—Speed..... 850 ~ 900 rpm
800 ~ 850 rpm (supplier engine)

Engine—Fast Idle (with
no load)—Speed..... 2350 ~ 2400 rpm for JD954 tractor
2325 ~ 2375 rpm for JD1104, JD1204-A,
JD1354-A and JD1404-A (6068
engine) tractors
2360 ~ 2410 rpm for JD404-A (4045
engine) tractor
2335 ~ 2395 rpm for JD1104, JD1204-A, and
JD1354-A (supplier engine) tractors

N400041,0003630 -19-18JAN17-1/1

Service EGR (supplier engine)

Service Interval—400 Hours

Please contact with local dealer.

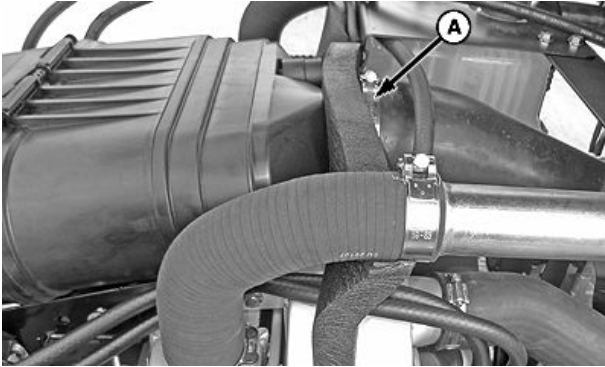
N400041,0003631 -19-18JAN17-1/1

Check Hoses and Hose Clamps for Tightness

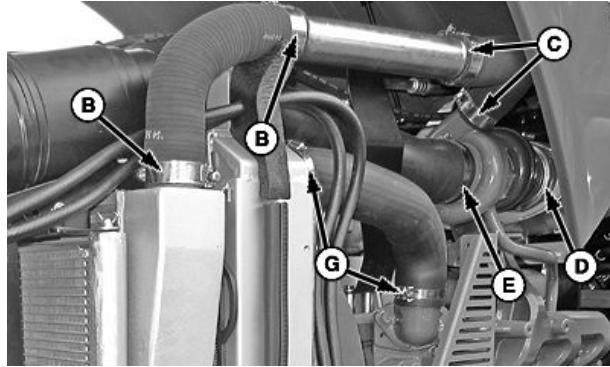
Service Interval—500 Hours

Check the following system hose clamps for tightness:

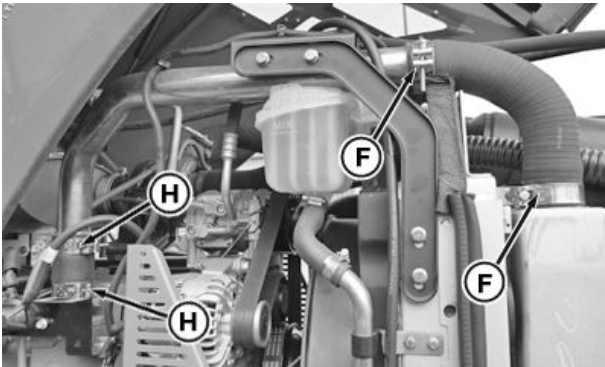
- Engine Air Induction System
- Engine Cooling System
- Hydraulic System
- Fuel System



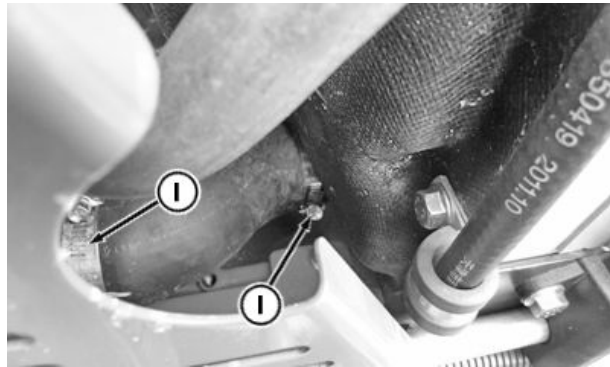
CPA0001724 —UN—28JUL15



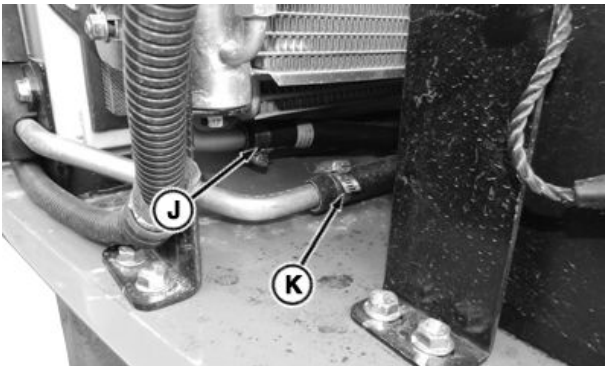
CPA0001727 —UN—28JUL15



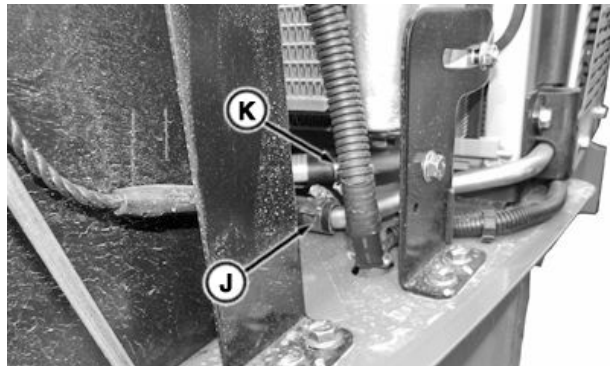
CPA0002366 —UN—01DEC15



CPA0002367 —UN—02DEC15



CPA0002368 —UN—01DEC15



CPA0002365 —UN—01DEC15

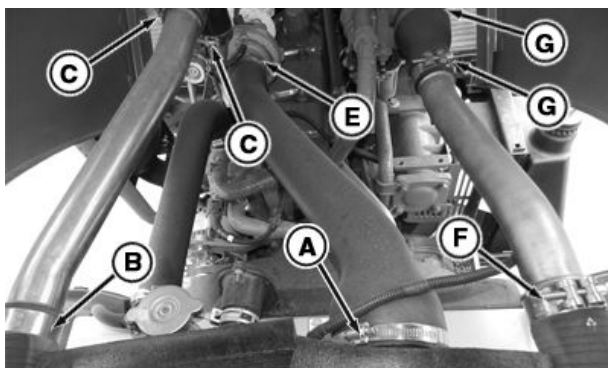
- | | | | |
|---|--|--|---|
| A—Air Cleaner Outlet Hose Clamp | D—Turbine Outlet (exhaust gas) Clamp | G—Radiator Inlet Hose Clamp (2 used) | J—Hydraulic Oil Cooler Outlet Clamps (2 used) |
| B—Charged Air Cooler Inlet Hose Clamps (2 used) | E—Turbocharger Inlet Hose Clamp | H—Engine Inlet Hose Clamps (2 used) | K—Hydraulic Oil Cooler Inlet Clamps (2 used) |
| C—Turbocharger Outlet Hose Clamp (2 used) | F—Charged Air Cooler Outlet Hose Clamps (2 used) | I—Radiator Outlet Hose Clamps (2 used) | |

Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

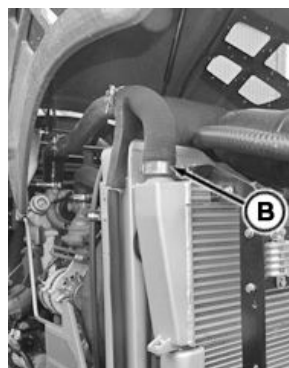
Continued on next page

N400041,0003632 -19-18JAN17-1/2

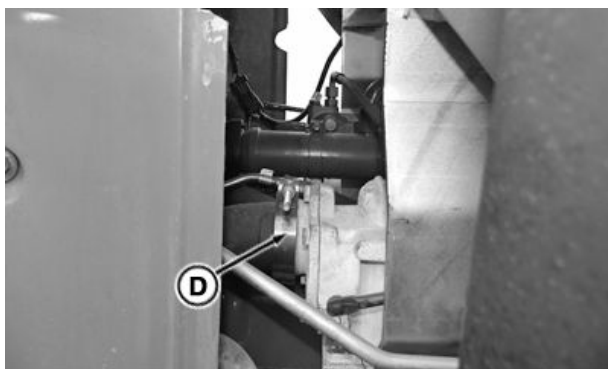
Supplier Engine



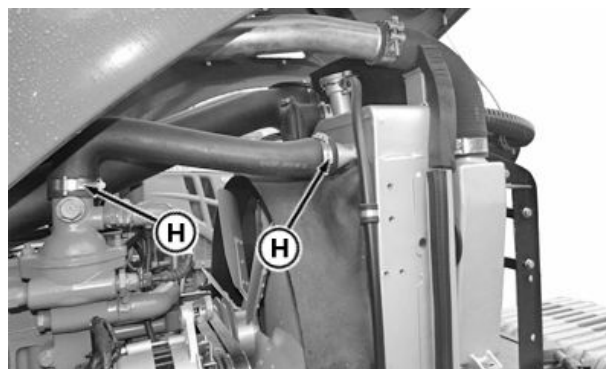
CPA0002356 —UN—30NOV15



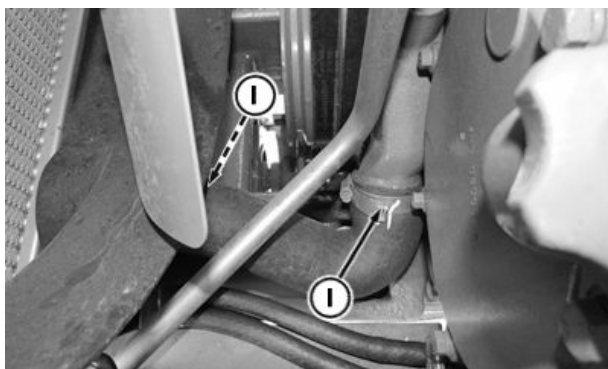
CPA0002357 —UN—30NOV15



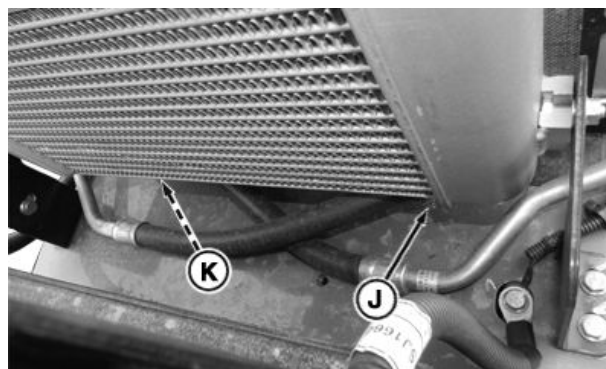
CPA0002358 —UN—30NOV15



CPA0002369 —UN—01DEC15



CPA0002374 —UN—01DEC15



CPA0002370 —UN—01DEC15

- | | | | |
|---|--|--|--------------------------------------|
| A—Air Cleaner Outlet Hose Clamp | D—Turbine Outlet (exhaust gas) Clamp | G—Engine Inlet Hose Clamps (2 used) | J—Hydraulic Oil Cooler Outlet Clamps |
| B—Charged Air Cooler Inlet Hose Clamps (2 used) | E—Turbocharger Inlet Hose Clamp | H—Radiator Inlet Hose Clamp (2 used) | K—Hydraulic Oil Cooler Inlet Clamps |
| C—Turbocharger Outlet Hose Clamp (2 used) | F—Charged Air Cooler Outlet Hose Clamps (2 used) | I—Radiator Outlet Hose Clamps (2 used) | |

Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

N400041.0003632 -19-18JAN17-2/2

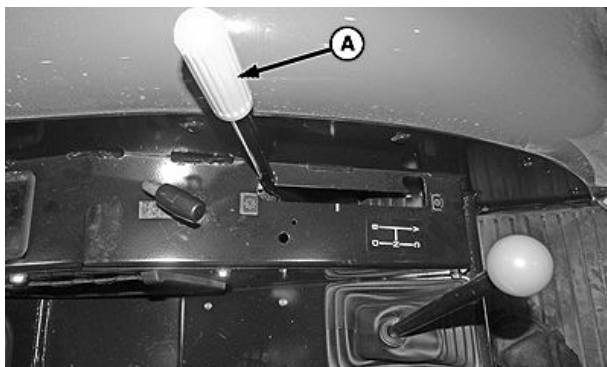
Loose Hardware Inspection**Service Interval—50 Hours**

Item	Measurement	Specification
Ballast Weight Retaining Bolts	Torque	230 N·m (170 lb·ft)
MFWD Axle Rim-to-Disk Bolts (for JD954, JD1104 Tractors (Deere engine) and JD 1104, JD1204-A, and JD1354 Tractors (supplier engine))	Torque	245 N·m (180 lb·ft)
MFWD Axle Rim-to-Disk Bolts (JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine))	Torque	310 N·m (229 lb·ft)
MFWD Axle Disk-to-Flange Bolts	Torque	310 N·m (229 lb·ft)
Multi-Position Rear Wheels Rim-to-Disk Bolts	Torque	310 N·m (229 lb·ft)
Multi-Position Rear Wheels Disk-to-Flange Bolts	Torque	610 N·m (450 lb·ft)
Cab Mounting Bolts	Torque	220 N·m (162 lb·ft)

N400041,0003633 -19-18JAN17-1/1

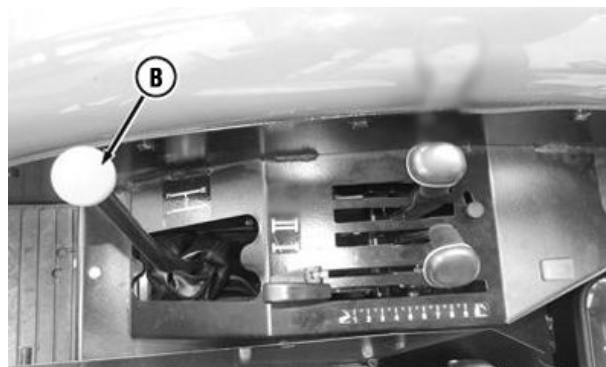
Check Neutral Start System

Service Interval—250 Hours



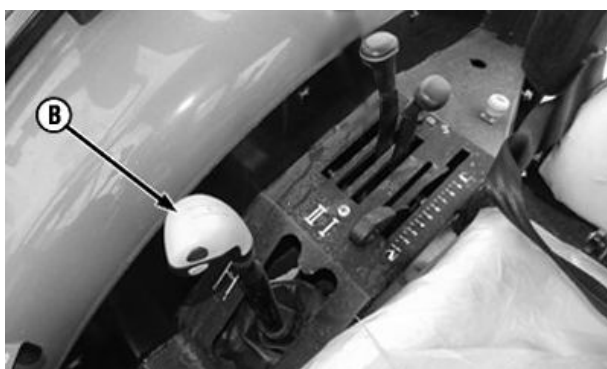
PTO Control Lever (dry clutch)

CPA0002046 —UN—22OCT15



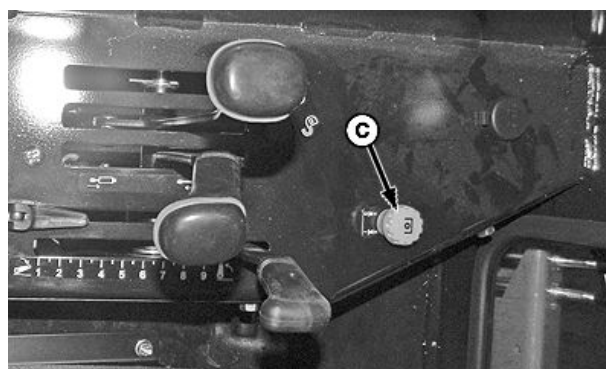
12 x 4 Transmission

CPA0001113 —UN—10NOV14



24 x 8 Transmission

CPA0001126 —UN—10NOV14



PTO Switch (wet clutch)

CPA0002037 —UN—15OCT15

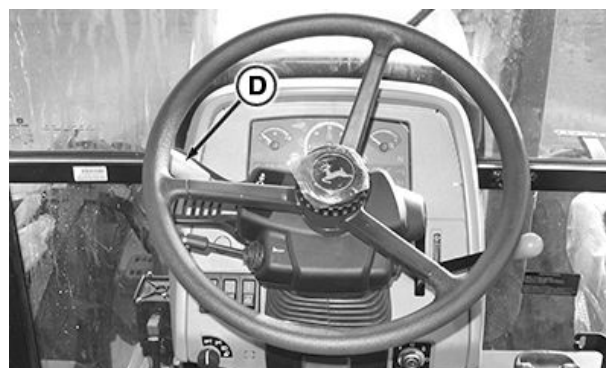
Your John Deere tractor is equipped with interlocks to prevent inadvertent movement when engine is started. Turning key switch with the clutch pedal depressed should start the engine if all of the following conditions exist:

- Speed shift lever (B) is in neutral, "N" position
- Power Reverser lever (D) is in neutral, "N" position
- PTO control lever (A) is in disengaged (rear) position or PTO switch (C) is raised

CAUTION: If the starter turns engine in either of the following steps, have the neutral start system repaired by your John Deere dealer.

Turning key switch to the start position should NOT start the engine, if either of the following conditions is present:

- Speed shift lever is in gear (not in neutral)
- PTO control lever is in engaged (forward) position or PTO switch is pressed



24 x 12 Transmission

CPA0002998 —UN—18OCT16

A—PTO Control Lever (dry clutch)
B—Speed Shift Lever

C—PTO Switch (wet clutch)
D—Power Reverser Lever

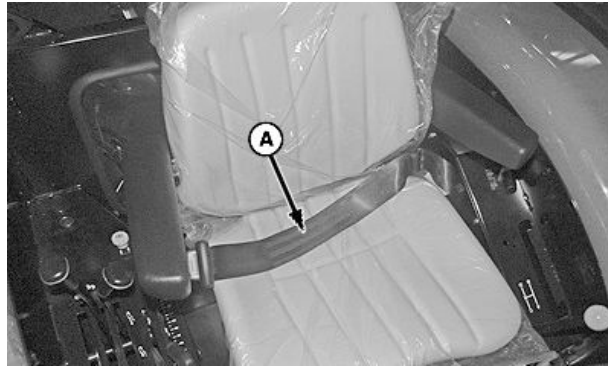
N400041,0003634 -19-31MAR17-1/1

Check Seat Belt

Service Interval—Annually

- Inspect seat belt and mounting hardware in your machine at least once a year.
- If the belt shows signs of cuts, fraying, extreme or unusual wear, discoloration, abrasion, damage to the buckle or retractor, the entire seat belt should be replaced immediately.
- For your safety, replace belt system only with replacement parts approved for your machine, obtained from your John Deere dealer.

A—Seat Belt



CPA0002048 —JUN—25/JAN18

CP00834,0001EF8 -19-13MAY16-1/1

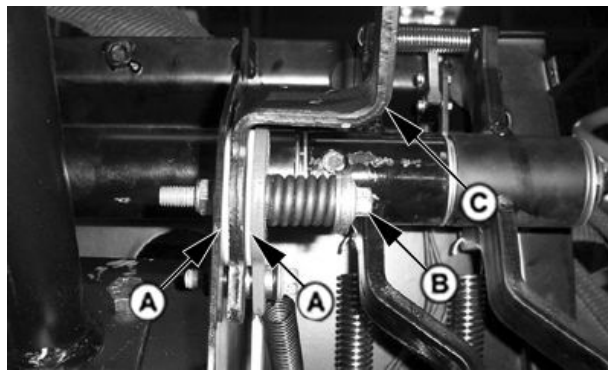
Adjust Hand Throttle Friction

Service Interval —As Required

- When throttle lever becomes too loose and fails to keep constant engine speed, friction plates (A) need to be adjusted.
- Tighten lock nut (B) until hand throttle lever (C) moves easily but stays in place throughout range of travel.
- Linkage is located under dashboard, just right of steering column.

A—Friction Plates
B—Lock Nut

C—Hand Throttle Lever



PUC1224 —JUN—17/JAN08

CP00834,0001F0C -19-13MAY16-1/1

Inspect Tires

Service Interval—50 Hours

1. Check tires daily for damage or noticeably low pressure.
2. Have any cuts or breaks repaired as soon as possible.
3. Protect tires from exposure to sunlight, petroleum products, and chemicals.
4. Drive carefully. Try to avoid rocks and sharp objects.
5. Check tires with an accurate gauge having 10 kPa (0.1 bar) (1 psi) graduations. If tires contain liquid ballast, use a special air-water gauge and measure with valve stem positioned toward bottom.

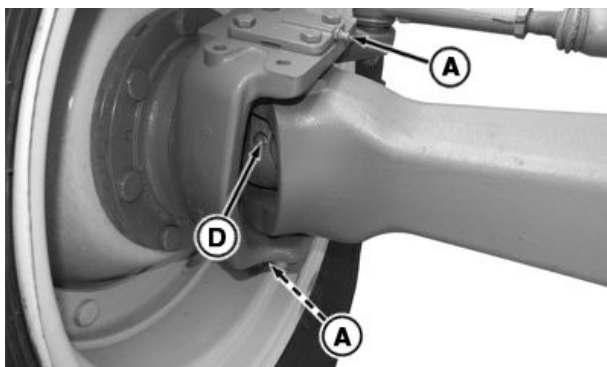
IMPORTANT: Minimum pressures may be used only for light loads and only if tractor has

no added weight. If you install ballast or mounted implements, or if you pull heavy loads, increase pressure.

Refer to Tire Inflation Pressure Chart in Wheels, Tires, and Treads section.

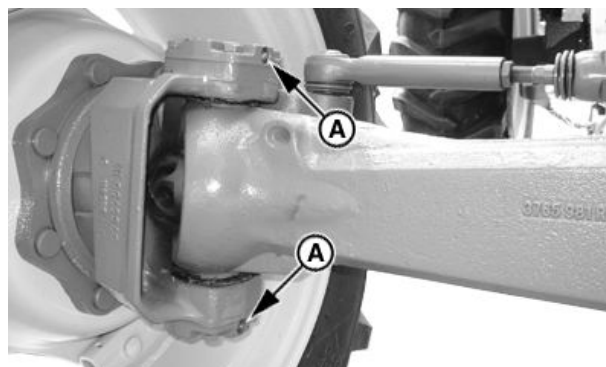
CP00834,0001F27 -19-18OCT15-1/1

Check Tractor Before Paddy Field Work Quarterly



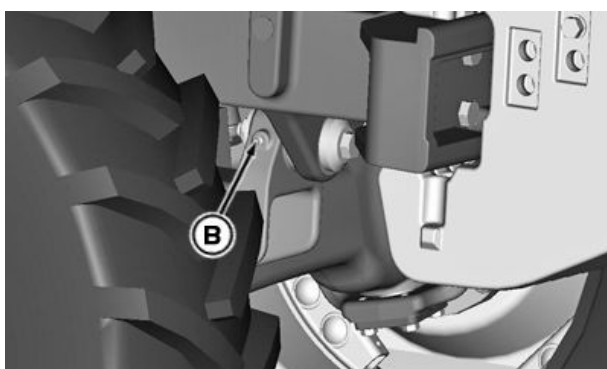
CPA0002378—UN—01DEC15

For JD1204, 1354-A, and JD1404-A Tractors (Deere engine)



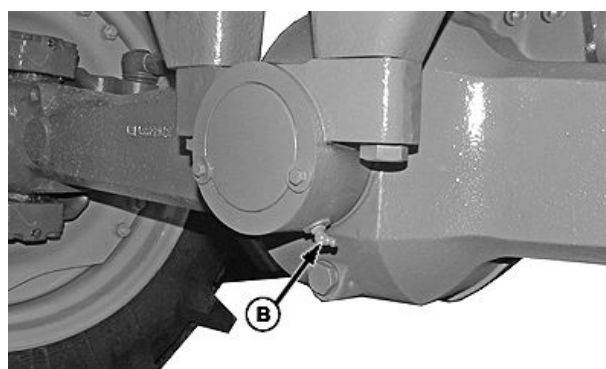
PUC2545—UN—08OCT09

For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



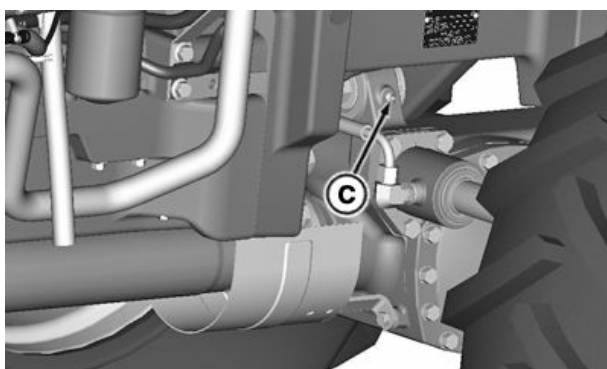
CPA0002376—UN—02DEC15

For JD1204, 1354-A, and JD1404-A Tractors (Deere engine)



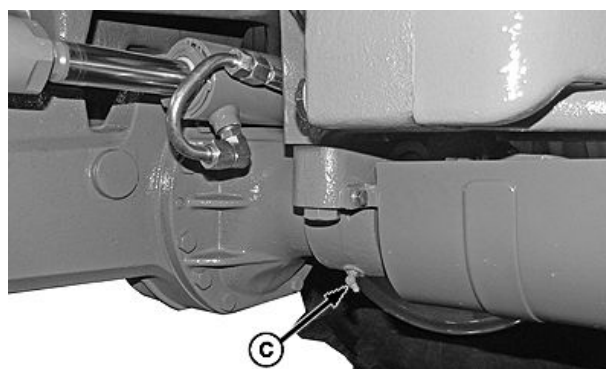
CPA0002097—UN—22OCT15

For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



CPA0002375—UN—02DEC15

For JD1204, 1354-A, and JD1404-A Tractors (Deere engine)



CPA0002098—UN—22OCT15

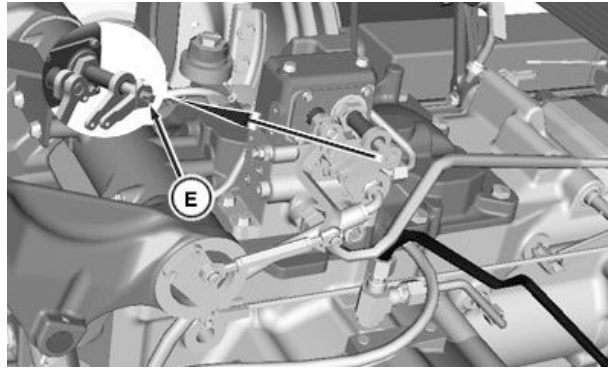
For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

Continued on next page

N400041.000364F -19-13FEB17-1/6

1. Check all oil seals and other washer sealing whether they are all right.

A—Front Axle Steering Spindle Lube Fittings (4 used)
 B—Front Axle Pivot Pin Front Lube Fitting
 C—Front Axle Pivot Pin Rear Lube Fitting
 D—Front Axle Universal Joint Lube Fitting (2 used)
 E—Hydraulic Control Level Lube Fitting



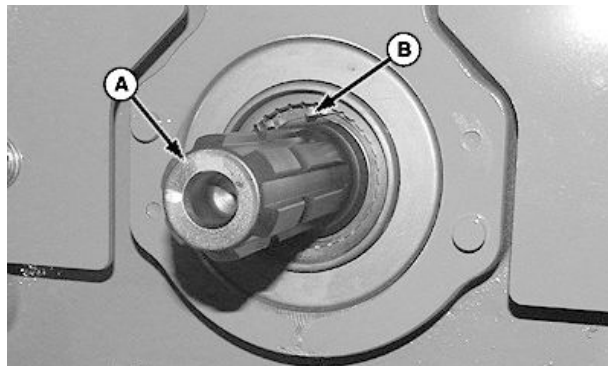
For Paddy Wheel

N400041,000364F -19-13FEB17-2/6

CPA0003047 —UN—25JAN18

2. Remove snap ring (B) and PTO (A). Apply appropriate grease inside. Install PTO (A) and snap ring (B).

A—PTO
 B—Snap Ring

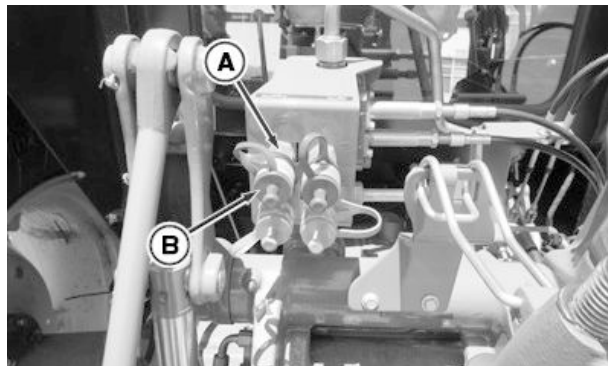


N400041,000364F -19-13FEB17-3/6

CPA0002061 —UN—25JAN18

3. Check dust plugs (B) of SCV quick coupler sockets (A) whether they are secure. Tie up quick coupler sockets to avoid mud and water.

A—Quick Coupler Socket (4 used)
 B—Dust Plug (4 used)



Continued on next page

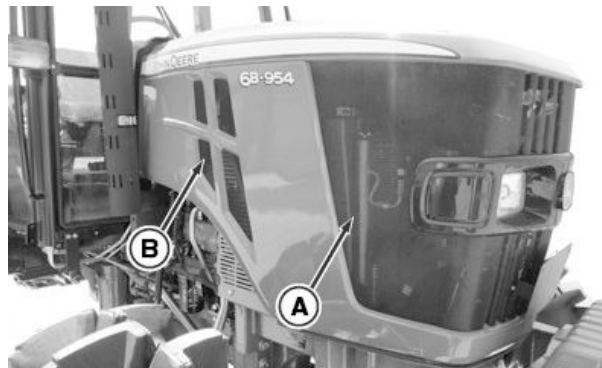
N400041,000364F -19-13FEB17-4/6

CPA0001679 —UN—25JAN18

4. No trash builds up on front grille (A) and side screens (B), and keep pore clear.

A—Front Grille

B—Side Screen (2 used)



CPA0001680 —UN—25JAN18

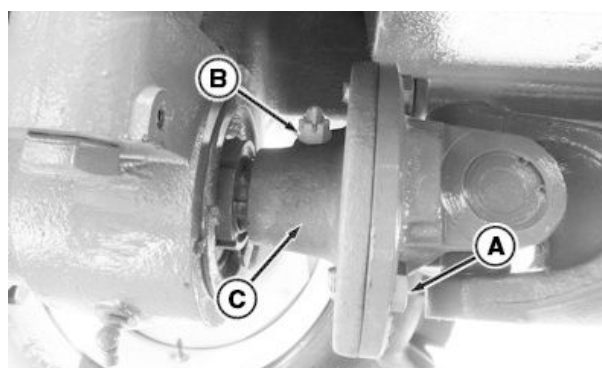
N400041,000364F -19-13FEB17-5/6

5. For JD1204/JD1354-A/JD1404-A tractors (Deere engine), remove front shield located front axle spline shaft, remove screws (A), nut (B), and spline cover (C). Apply appropriate grease to spline, and install them.
6. To keep possible corrosion during paddy field work, apply appropriate grease to some outside parts, mainly contain front axle cardan shaft, spline cover connecting screws, front axle pivot pin front screws, transfer case output shaft, front wheel locknut, and rear wheel locknut.

A—Screw (4 used)

B—Nut

C—Spline Cover



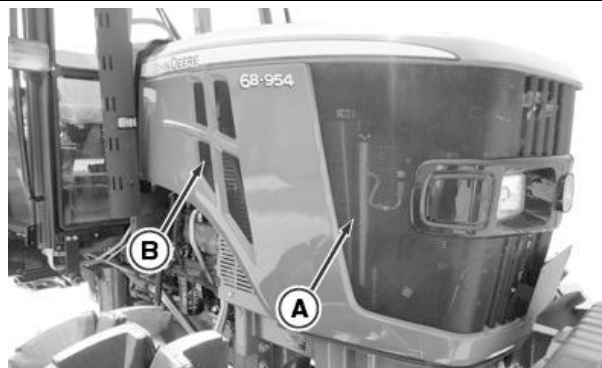
For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

CPA0001681 —UN—25JAN18

N400041,000364F -19-13FEB17-6/6

Maintenance Tractor during Paddy Field Work Quarterly

1. During paddy field work, avoid lifting engine hood, clean weeds, and mud on the front grille (A) and side screens (B) to keep pore clear. Incorrect use and untimely service effect cooling system's performance.
2. Clean sundries and mud on front axle steering spindle, driveshaft, driveshaft export and export point, and PTO to avoid washer sealing damage.
3. Apply appropriate grease to lube fittings timely. (Suggest performing 10 hr or after work.)
4. Remove rear ballast and lighten front ballast based on work load and application. Avoid muddy feet deeply when the tractor is equipped light load implements, such as rotary tiller, paddy harrow.



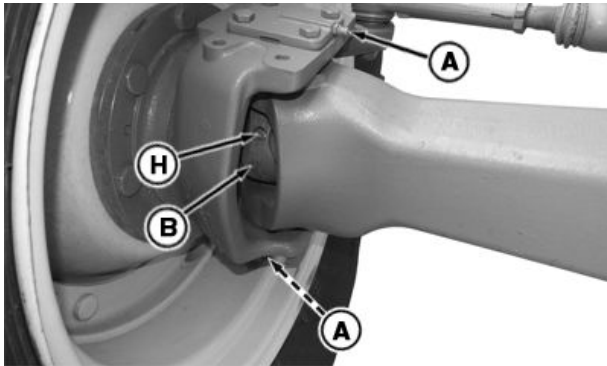
A—Front Grille

B—Side Screen (2 used)

CPA0001680 —UN—25JAN18

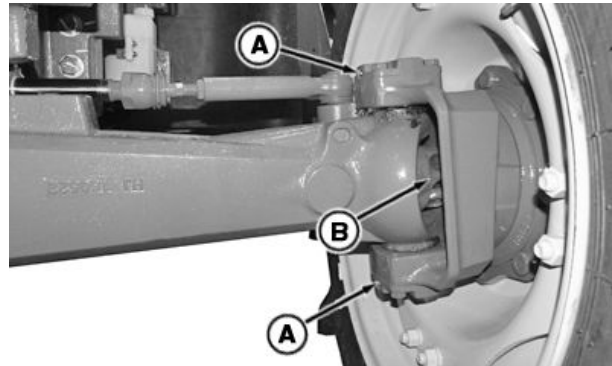
CP00834,0001F29 -19-14NOV17-1/1

Service Tractor after Paddy Field Work Quarterly



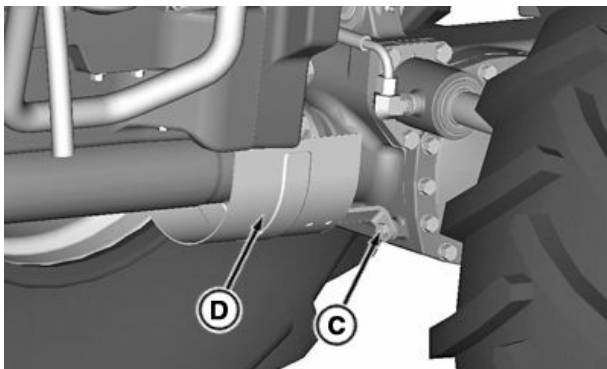
CPA0002380 —UN—01DEC15

For JD1204, 1354-A, and JD1404-A Tractors (Deere engine)



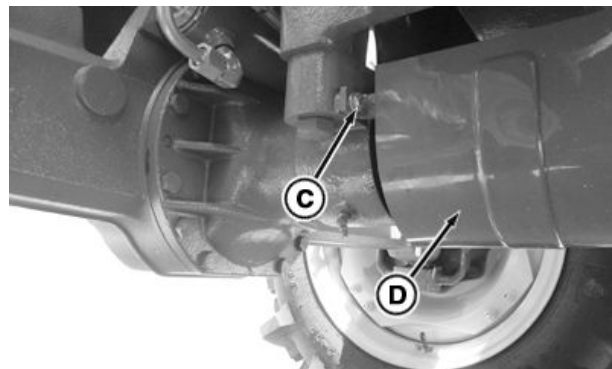
CPA0002379 —UN—01DEC15

For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



CPA0002377 —UN—01DEC15

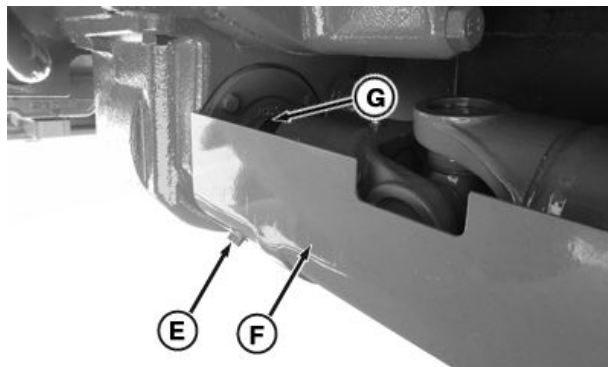
For JD1204, 1354-A, and JD1404-A Tractors (Deere engine)



CPA0001683 —UN—06JUL15

For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

1. After paddy field work ending quarterly, thoroughly clean water tank, front axle, transfer case output shaft, PTO, side screens, and so on, and do homologous service, and add homologous anti-rust measures.
2. Thoroughly clean front axle steering spindles (B), and apply appropriate grease to lube fittings (A and H), on both left and right sides.
3. Connecting cardan shaft and front axle, remove bolts (C), and front shield (D). Thoroughly clean front shield, apply appropriate grease, and carry on anti-rust protection to spline.
4. Remove bolts (E), and rear shield (F) located transfer case output shaft, thoroughly clean rear shield, and carry on anti-rust protection to transfer case output shaft (G).



CPA0001684 —UN—06JUL15

A—Lube Fittings (4 used)
B—Front Axle Steering Spindle
(2 used)
C—Bolt (2 used)
D—Front Shield

E—Bolt (2 used)
F—Rear Shield
G—Transfer Case Output Shaft
H—Lube Fitting (2 used)

N400041,000364E -19-13FEB17-1/1

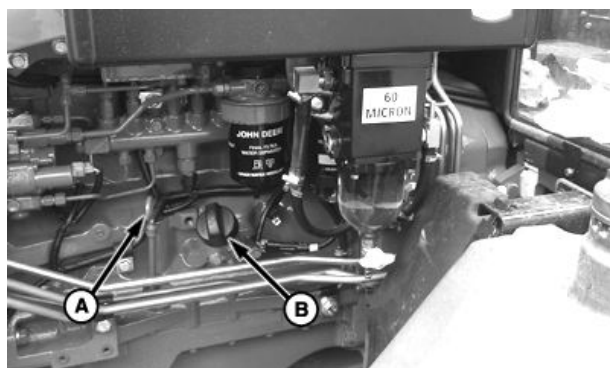
Lubrication

Use Lubricant Correctly

IMPORTANT: Use only lubricants meeting specifications outlined in Fuels, Lubricants, and Coolant section when performing tractor service.

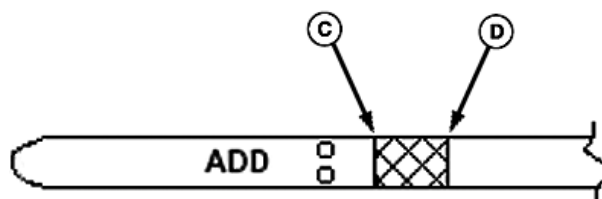
CP00834,0001F94 -19-22OCT15-1/1

Check Engine Oil Level



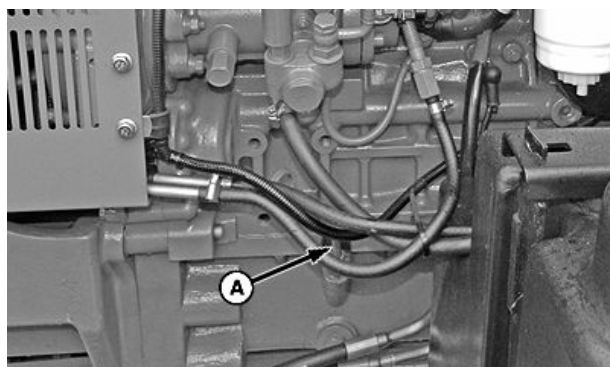
Deere Engine

CPA0001142 —UN—03DEC14



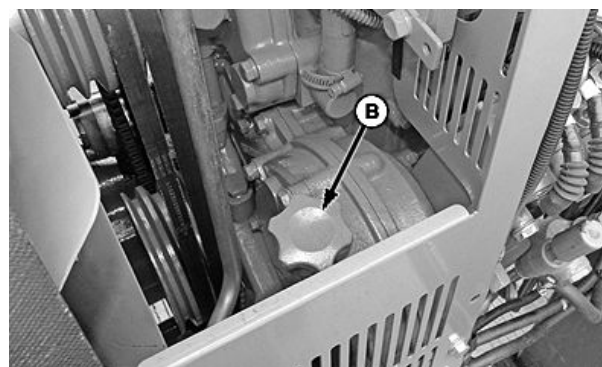
CPA0002115 —UN—26OCT15

Engine Oil Dipstick



Supplier Engine

CPA0002114 —UN—26OCT15



Supplier Engine

CPA0002113 —UN—26OCT15

Service Interval — Daily or 10 Hours

1. If engine has not been running, start engine and let it run at low idle for 2—3 min. Stop engine and wait 2—3 min for oil to drain back into the oil sump.
2. If engine has been running, turn down speed to low idle and let it run for 2—3 min. Stop engine and wait 2—3 min.
3. Check engine oil level. Remove and wipe off engine oil dipstick (A), and reinsert it fully. Remove and locate oil level.

NOTE: Remove left-hand side screen, if necessary.

4. Safe operating range is between the low-level mark (C) and high-level mark (D) on dipstick. Do not operate engine when oil level is below the low-level mark (C).
5. Add seasonal viscosity grade oil by removing engine oil filler cap (B). (See Fuels, Lubricants, and Coolant section for oil specifications.)



Engine Oil Dipstick

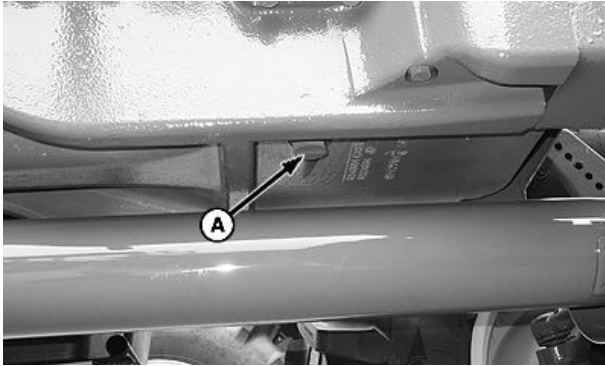
PUC1885 —UN—13FEB09

A—Engine Oil Dipstick
B—Engine Oil Filler Cap

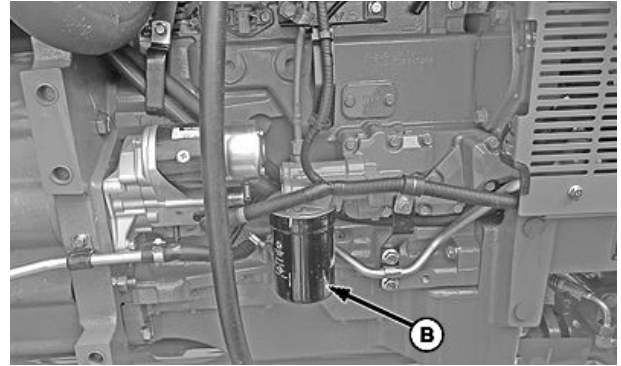
C—Low-Level Mark
D—High-Level Mark

N400041,0003636 -19-31MAR17-1/1

Change Engine Oil and Filter (Deere engine)



On The Bottom



Right Hand Side

A—Drain Plug

B—Engine Oil Filter

SERVICE INTERVAL

Initial — 100 Hours

Regular — 250 Hours*

Regular — 500 Hours

* If PLUS 50 oil and a John Deere filter are not used, lower this service interval to 250 hours

1. Run engine to heat oil. Turn engine off.
2. Remove drain plug (A) and drain oil.

NOTE: Oil filter gasket's embossment should match the groove of the filter seat.

3. Replace engine oil filter (B) when changing oil. Check oil filter gasket and replace it as necessary. Apply a

film of oil on the oil filter gasket and install filter. Hand tighten plus 1/2 turn.

4. Install and tighten drain plug (A).
5. Add seasonal viscosity grade oil. (See Fuels, Lubricants, and Coolant section.)

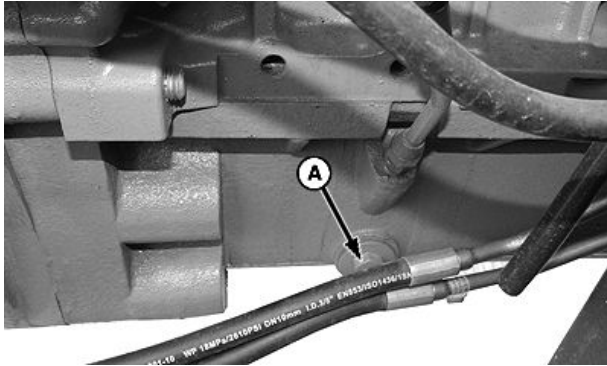
Specification

Engine Crankcase

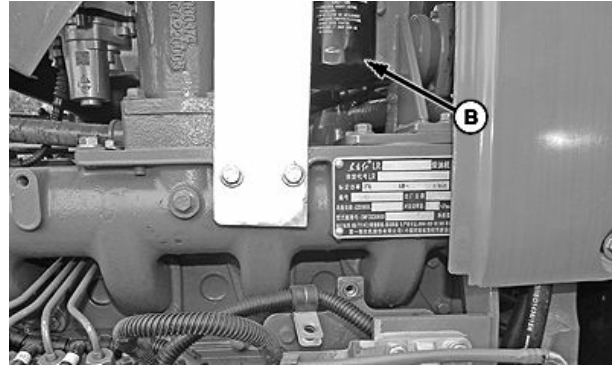
Oil—Capacity..... 15 L (3.96 gal) for
 JD954, JD1104, JD1204-A, JD1354-A, and
 JD1404-A (4045 engine) Tractors
 21.3 L (5.63 gal) for JD1404-A (6068
 engine) Tractor

N400041,0003637 -19-13FEB17-1/1

Change Engine Oil and Filter (supplier engine)



CPA0002116 —UN—26OCT15



CPA0002117 —UN—26OCT15

A—Drain Plug

B—Engine Oil Filter

SERVICE INTERVAL

Regular — 200 Hours

1. Run engine to heat oil. Turn engine off.
2. Remove drain plug (A) and drain oil.

NOTE: Oil filter gasket's embossment should match the groove of the filter seat.

3. Replace engine oil filter (B) when changing oil. Check oil filter gasket and replace it as necessary. Apply a

film of oil on the oil filter gasket and install filter. Hand tighten plus 1/2 turn.

4. Install and tighten drain plug (A).
5. Add seasonal viscosity grade oil. (See Fuels, Lubricants, and Coolant section.)

Specification

Engine Crankcase

Oil—Capacity..... 17 L (4.49 gal) For JD1104, JD1204-A and JD1354-A Tractors

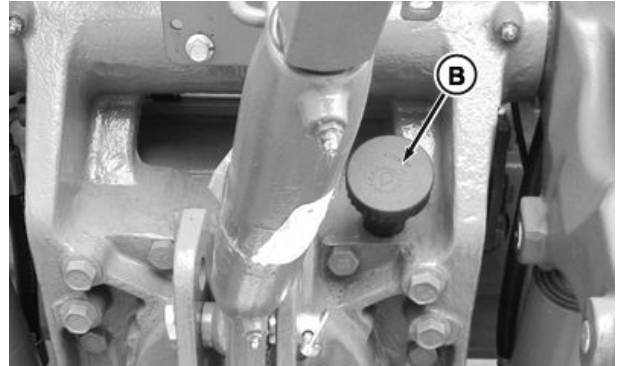
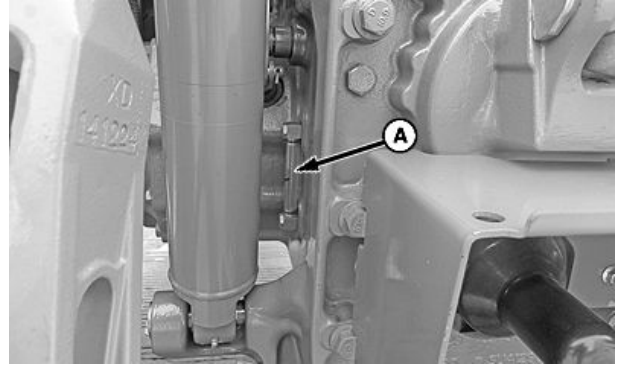
N400041,0003638 -19-18JAN17-1/1

Check Transmission/Hydraulic System Oil Level

Check oil level at sight glass, daily.

IMPORTANT: Routine checks prevent downtime. The operator can aid in preventive maintenance by documenting all leak and malfunction problems. Since the transmission operates in oil and by means of oil, it is important to keep oil clean and at the correct level at all times.

1. Park on level ground. Put gearshift lever in neutral "N", lock brake pedals together. Depress pedals and set park brake.
2. Make sure that rockshaft is positioned all the way down. (See Rockshaft Control Levers in Rockshaft and 3-Point Hitch section.)
3. Pull hand throttle all the way and allow engine to idle for 5 min. Turn off engine.
4. Wait a minimum of 5 min for oil to settle.
5. Check level at hydraulic oil sight glass (A). Level should be between upper and lower lines on the sight glass.
6. Add oil to the hydraulic oil fill port (B) if level is low. (See Transmission and Hydraulic Oil in Fuels, Lubricants, and Coolant section.)
7. Inspect and thoroughly clean fill port cap vents before installing cap.



A—Hydraulic Oil Sight Glass

B—Hydraulic Oil Fill Port

CP00834,0001C33 -19-15NOV17-1/1

CPA0001698 —UN—27JUL15

PY14923 —UN—18FEB13

Replace Transmission/Hydraulic Oil Filter

Service Interval—500 Hours
Initial, First 100 Hours

NOTE: Hydraulic oil filter is on the right-hand side or rear of tractor.

Replace hydraulic filter housing and filter as a complete assembly.

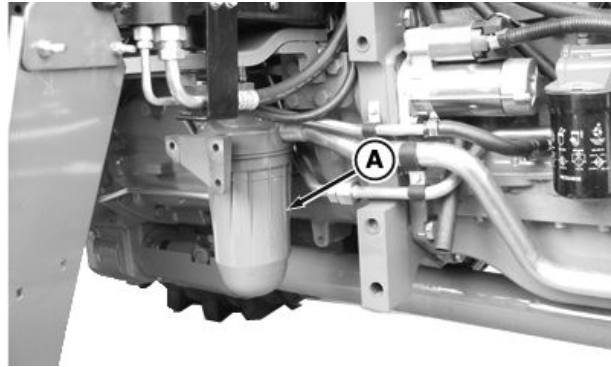
1. Remove filter housing assembly (A) and filter O-ring seal (B).
2. Discard filter housing assembly (A) and filter O-ring seal (B).
3. Inspect new filter housing assembly and filter O-ring seal for any possible damage.
4. Apply hydraulic oil to the new filter O-ring seal (B) and install on filter housing assembly.
5. Install new filter housing assembly and tighten to specification.

Specification

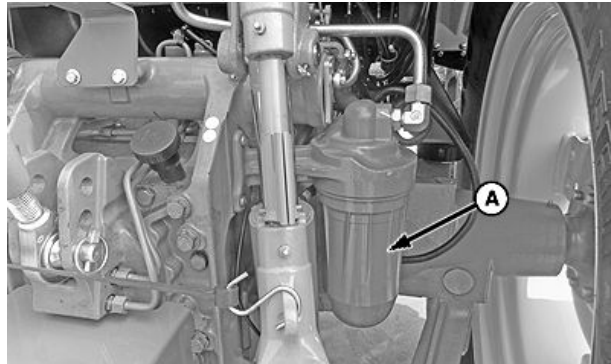
Filter Housing
Assembly—Torque.....24 N·m (212 lb-in)

6. Run engine for five minutes.
7. Shut off engine and check oil level. Add hydraulic oil as required. (See Check Transmission-Hydraulic Oil Level in this section.)

A—Filter Housing Assembly B—Filter O-Ring Seal



Right-Hand Side (dry clutch)



Rear of Tractor (wet clutch)



PY14843 —UN—03JAN13

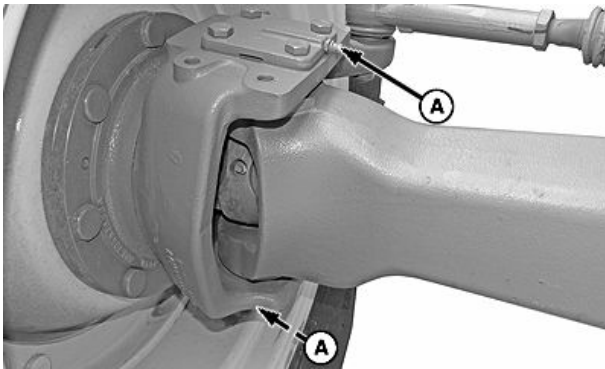
CPA0001700 —UN—27JUL15

P15271 —UN—07APR08

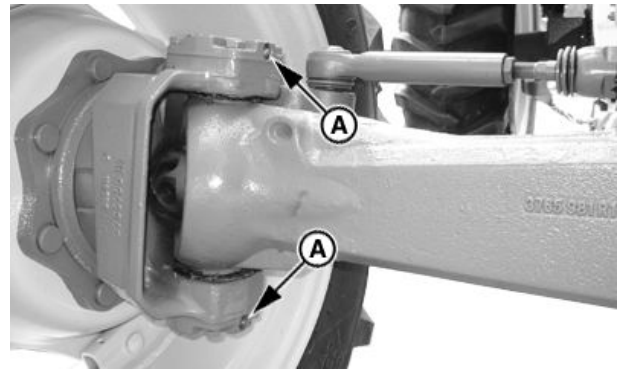
N400041,0003639 -19-27NOV17-1/1

Lubricate Steering Spindles

Service Interval—50 Hours
Extremely Wet or Muddy Conditions—10 Hours



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

A—Lube Fittings (4 used)

Apply several pumps of grease to steering spindle lube fittings (A), on both left and right sides.

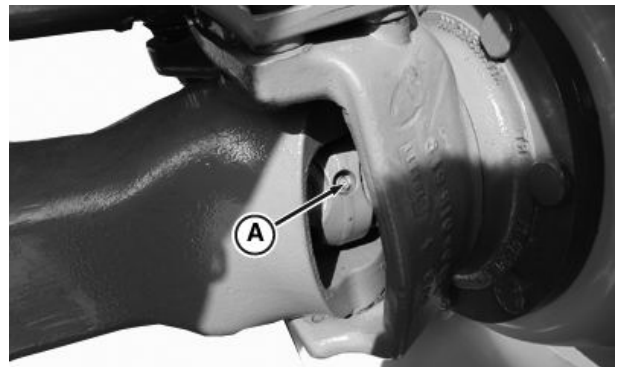
N400041,000363A -19-18JAN17-1/1

Lubricate MFWD Front Axle

Service Interval—50 Hours
Extremely Wet or Muddy Conditions—10 Hours

- Apply several pumps of grease to lube fittings (A) on front axle universal joint, both left and right sides.
- Each lube fitting can only be accessed from the front by turning wheels until fitting is exposed.
- When one fitting is exposed the opposite side fitting is not accessible, so after lubricating one side, wheels must be turned all the way opposite to access lube fitting on other side. (See Fuels, Lubricants, and Coolant section.)

A—Lube Fitting (2 used)

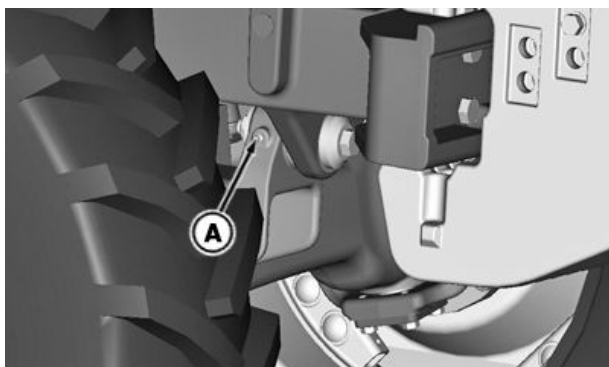


For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)

JL31334,0000E2C -19-13JAN17-1/1

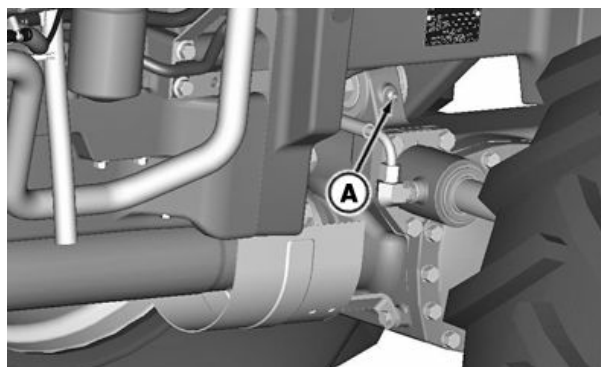
Lubricate MFWD Front Axle Pivot Pins

Service Interval—50 Hours
Extremely Wet or Muddy Conditions—10 Hours



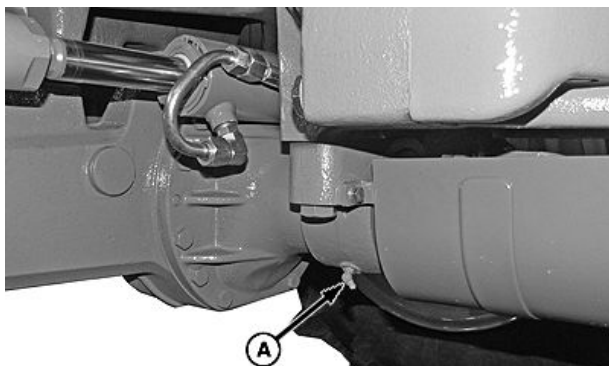
CPA0002381 —UN—02DEC15

For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



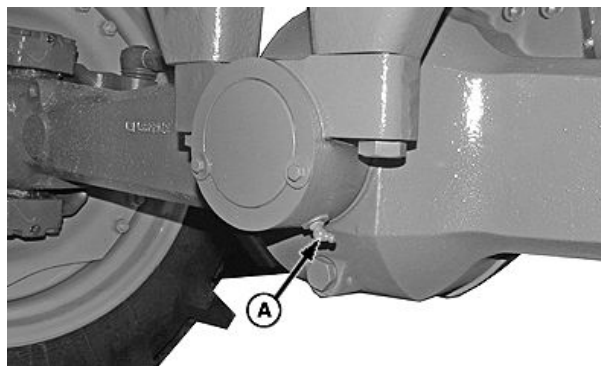
CPA0002382 —UN—02DEC15

For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



CPA0002092 —UN—22OCT15

For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



CPA0002093 —UN—22OCT15

For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

A—Lube Fitting (2 used)

MFWD front axle has two separate pivot pins. Use appropriate grease on lube fittings (A). (See Fuels, Lubricants, and Coolant section.)

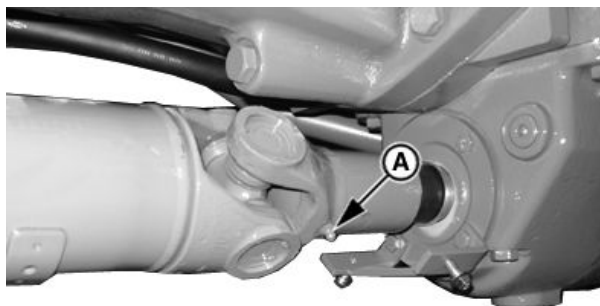
JL31334,0000E27 -19-13JAN17-1/1

Lubricate MFWD Drive Shaft

Service Interval—50 Hours

Apply several pumps of grease to lube fitting (A) on MFWD shaft U-joint.

A—Lube Fitting



PUC2549 —UN—08OCT09

Shield Removed

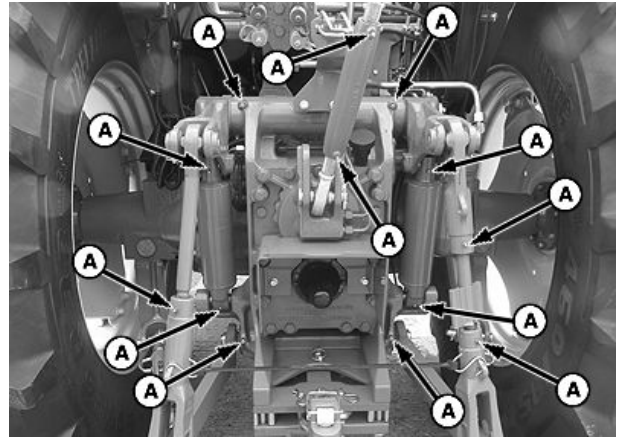
CP00613,0000642 -19-08JUN13-1/1

Lubricate 3-Point Hitch Links

Service Interval—50 Hours
Extremely Wet or Muddy Conditions—10 hours

Lubricate 3-Point Hitch Links at lube fittings (A) with several pumps of grease. (See Fuels, Lubricants, and Coolant section.)

A—Lube Fittings (13 used)



CPA0001690 —UN—24JUL15

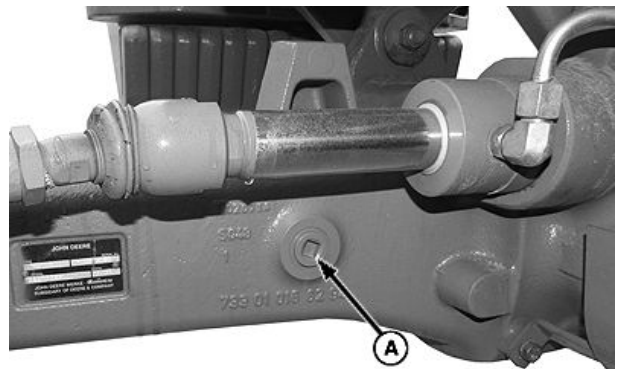
JL31334,0000CF3 -19-18JUL16-1/1

Check MFWD Axle Housing Oil Level

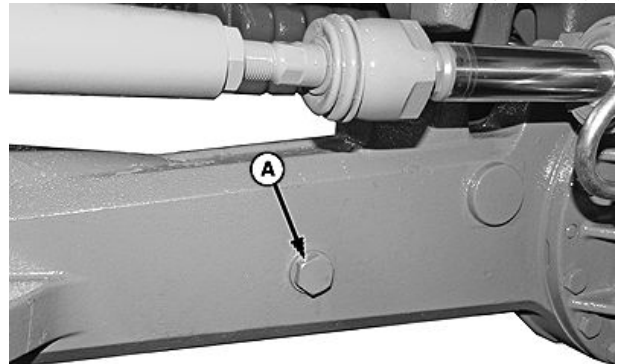
Service Interval—250 Hours

1. Park tractor on level surface.
2. Remove oil check plug (A) to check oil level in axle housing. Make sure that oil level is even with bottom of hole.
3. If oil level is low, add oil. (See Fuels, Lubricants, and Coolant section.)

A—Oil Check Plug



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

CPA0002088 —UN—21OCT15

CPA0002089 —UN—22OCT15

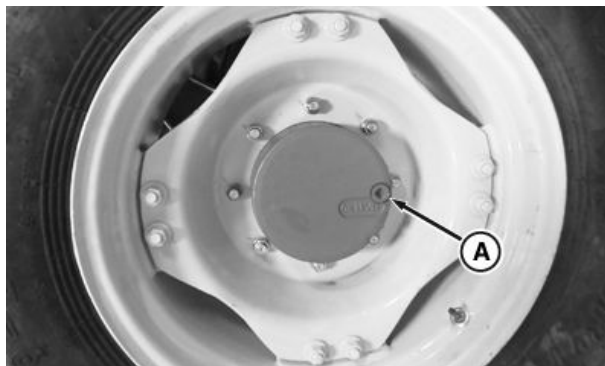
JL31334,0000E28 -19-13FEB17-1/1

Check MFWD Wheel Hub Oil Level

Service Interval—250 Hours

1. Move tractor to level surface.
2. Drive tractor forward until the words "OIL LEVEL" are parallel to ground.
3. Remove wheel hub oil plug (A). Make sure that oil level is even with edge of plug hole.
4. If oil level is low, add oil through same hole. (See MFWD Axle and Wheel Hub Oil in Fuels, Lubricants, and Coolant section.)

A—Wheel Hub Oil Plug



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

N400041,000364B -19-13FEB17-1/1

PY17109 —UN—09OCT12

CPA0002094 —UN—22OCT15

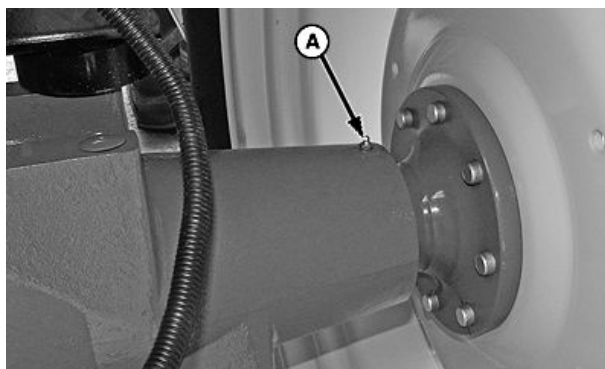
Lubricate Rear Axle Bearings

Service Interval—500 Hours

Extremely Wet or Muddy Conditions—50 Hours

Lubricate rear axle lube fittings (A), both sides, with several shots of grease. (See Fuels, Lubricants, and Coolant section.)

A—Rear Axle Lube Fitting (2 used)

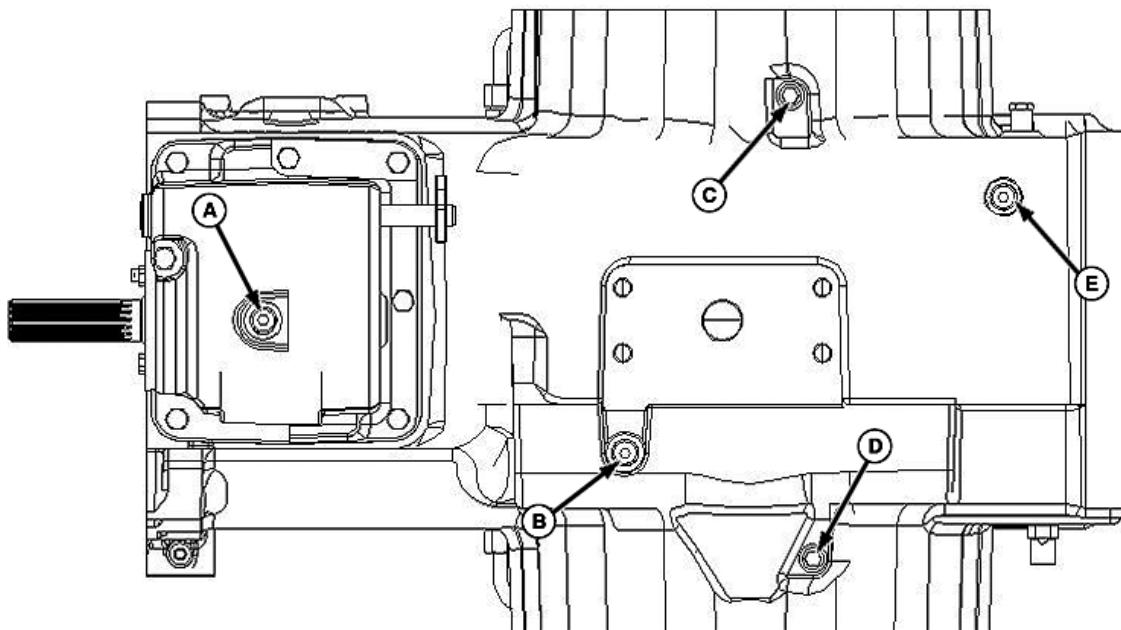


CP00834,0001F92 -19-22OCT15-1/1

CPA0002096 —UN—22OCT15

Change Transmission/Hydraulic System Oil

Service Interval—1000 Hours



View From Below

- | | | |
|--------------------------------------|-------------------------------------|-----------------------|
| A—MFWD Axle Drop Gear Box Drain Plug | C—Left-Side Final Drive Drain Plug | E—PTO Case Drain Plug |
| B—Transmission Main Case Drain Plug | D—Right-Side Final Drive Drain Plug | |

1. Move rockshaft lever full forward to lower hitch all the way down.
2. Remove drain plugs (A—E).
3. Replace transmission-hydraulic oil filter. (See Replace Transmission/Hydraulic Oil Filter section.)

NOTE: Always dispose of used oil in accordance with applicable laws and regulations.

4. Install all plugs.

Continued on next page

CP00834,0001F7A -19-05JAN16-1/2

CPA0001946 —UN—20SEP15

IMPORTANT: Do not overfill transmission.
This will cause overheating and result in
transmission damage.

5. Remove filler cap (B) and fill system with oil as specified in Fuels, Lubricants, and Coolant section.

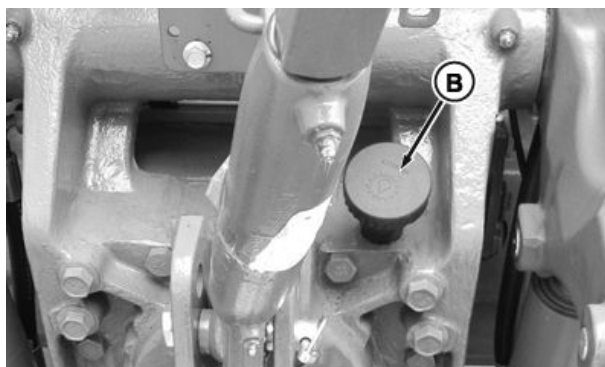
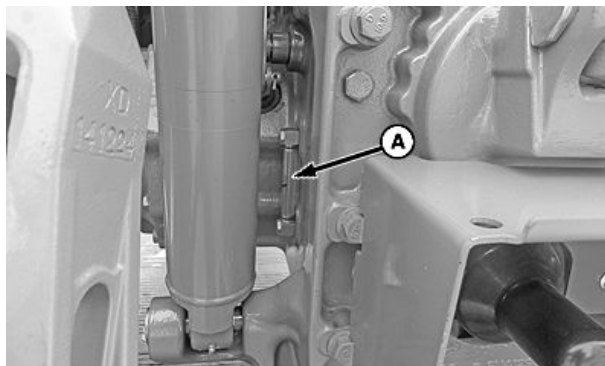
Specification

Transmission-Hydraulic
 Oil—Capacity..... 60 L
 (15.85 gal)

6. Check oil level at sight glass (A) after filling.
7. Install filler cap.
8. Start engine and operate for five minutes.
9. Shut off engine and check oil level. Add oil if necessary.

A—Sight Glass

B—Filler Cap



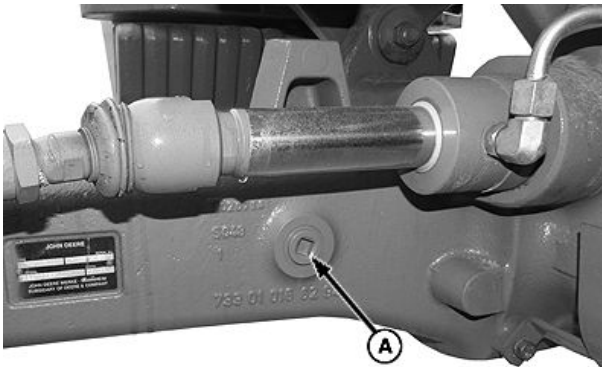
CPA0001688 —JUN—27JUL15

PY14923 —JUN—18FEB13

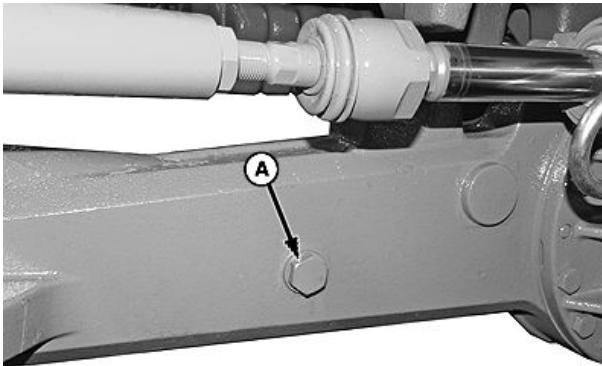
CP00834,0001F7A -19-05JAN16-2/2

Change MFWD Front Axle Housing Oil

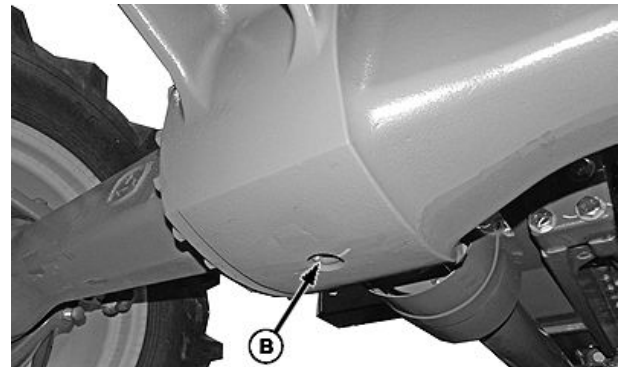
Service Interval—1000 Hours
Initial, First 100 Hours



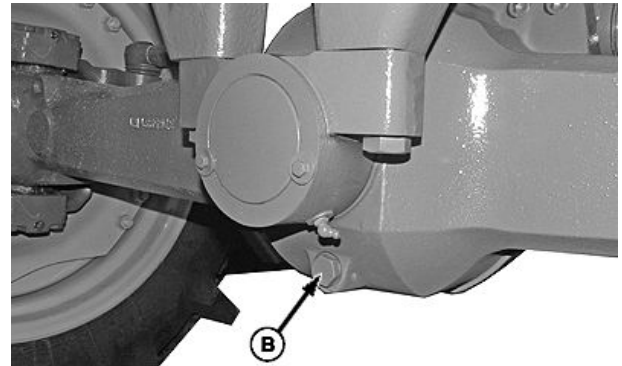
For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, and JD1104 Tractors (Deere engine); For JD1104, JD1204-A, and JD1354-A Tractors (supplier engine)

A—Inspection/Fill Plug

B—Drain Plug

1. Park tractor on level surface, lock brake pedals together. Depress brake pedals and set parking brake.
2. Remove housing drain plug (B). Allow oil to drain. Install drain plug and tighten to specification.
3. Remove inspection/fill plug (A).
4. Add MFWD axle oil through fill hole until oil level becomes even with lower edge of hole. (See Fuels, Lubricants, and Coolant section.)

5. Install fill plug and tighten to specification.

MFWD Axle—Specification

Oil—Capacity..... 5.5 L (1.45 gal)
 for JD954 and JD1104 Tractors
 5 L (1.32 gal) for JD1204-A, JD1354-A
 and JD1404-A Tractor

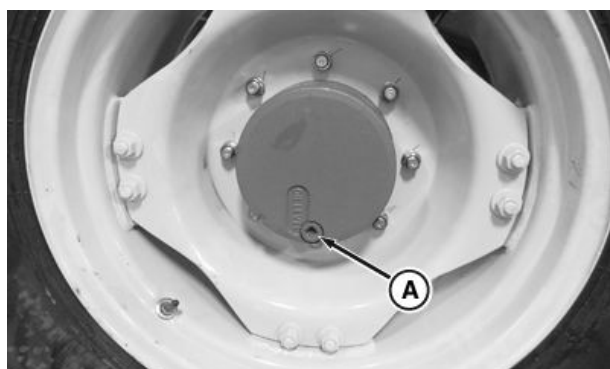
Fill and Drain

Plugs—Torque..... 150 N·m (110 lb·ft)

N400041,000364C -19-13FEB17-1/1

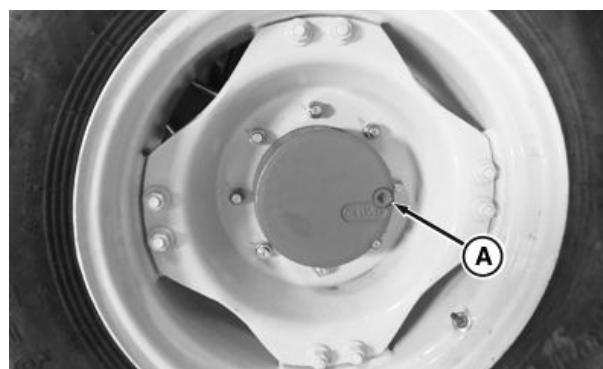
Change MFWD Wheel Hub Oil

Service Interval—1000 Hours
Initial, First 100 Hours



PY17108 —UN—09OCT12

Position to Drain (for JD1204-A, JD1354-A, and JD1404-A tractors - Deere engine)



PY17109 —UN—09OCT12

Position to Fill (for JD1204-A, JD1354-A, and JD1404-A tractors - Deere engine)



CPA0002095 —UN—22OCT15

Position to Drain (for JD954, and JD1104 tractors - Deere engine; for JD1104, JD1204-A, and JD1354-A tractors - supplier engine)



CPA0002094 —UN—22OCT15

Position to Fill (for JD954, and JD1104 tractors - Deere engine; for JD1104, JD1204-A, and JD1354-A tractors - supplier engine)

A—Drain/Fill Plug

1. Move tractor to level surface.
2. Drive tractor forward until drain/fill plug (A) is at lowest point (position to drain). Remove plug and allow hub oil to drain completely.
3. Drive tractor back until drain/fill plug (A) is positioned horizontally and words OIL LEVEL parallel to ground (position to fill).
4. Add MFWD wheel hub oil through fill hole until oil level is just below edge of hole. Install plug and tighten

to specification. (See Fuels, Lubricants and Coolant section.)

5. Repeat procedure on opposite wheel hub.

MFWD Wheel Hub—Specification

Oil—Capacity.....	1.1 L (37 oz) for JD954 and JD1104 Tractors
	0.8 L (27 oz) for JD1204-A, JD1354-A and JD1404-A Tractor
Drain/Fill Plug—Torque.....	150 N·m (110 lb-ft)

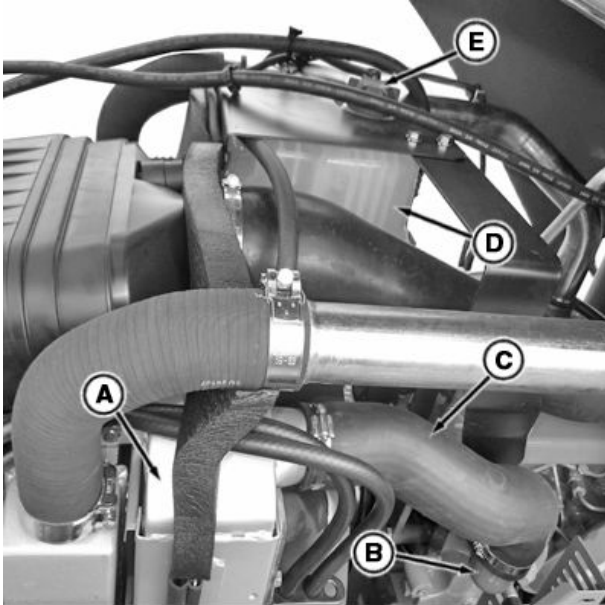
N400041,000364D -19-13FEB17-1/1

Maintenance—Cooling System

Engine Cooling System Components

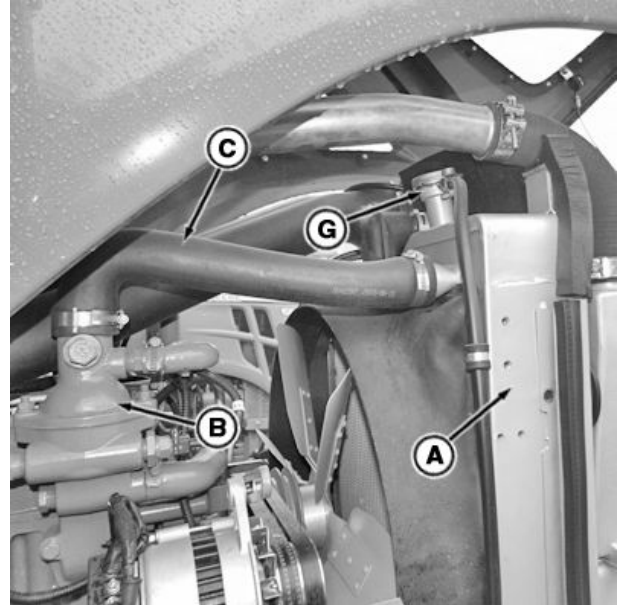
IMPORTANT: Never pour cold water into the cooling system of a hot engine, as it might crack cylinder block or head. **DO NOT** operate engine without coolant for even a few minutes.

If additional coolant is needed, it should be added to coolant surge tank (D) , and not directly to radiator. (See Check Coolant Level, in this section.)



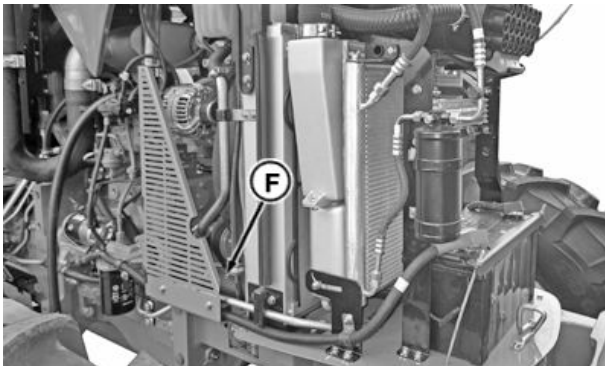
Deere Engine

CPA0002384 —UN—02DEC15



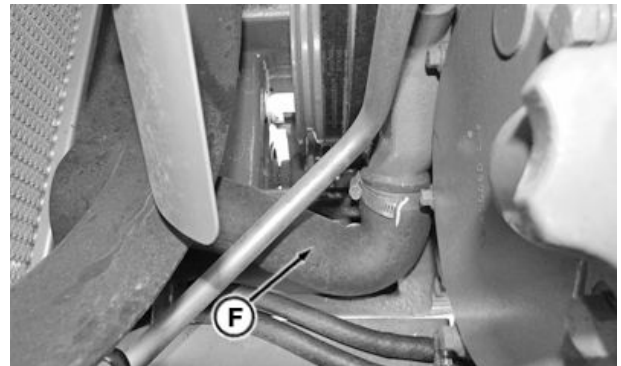
Supplier Engine

CPA0002386 —UN—03DEC15



Deere Engine

CPA0002385 —UN—03DEC15

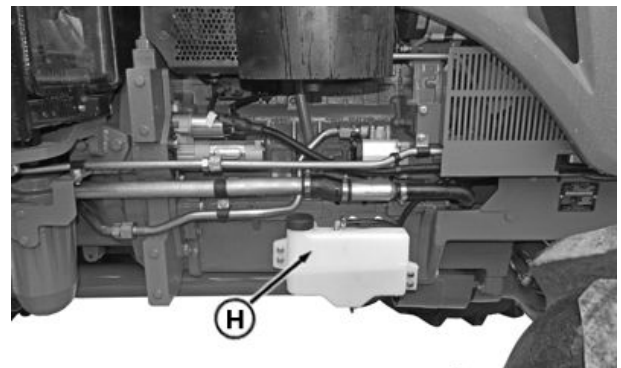


Supplier Engine

CPA0002387 —UN—03DEC15

A—Radiator
B—Thermostat Housing
C—Upper Radiator Hose
D—Surge Tank

E—Surge Tank Cap
F—Lower Radiator Hose
G—Radiator Cap
H—Surge Tank



Supplier Engine

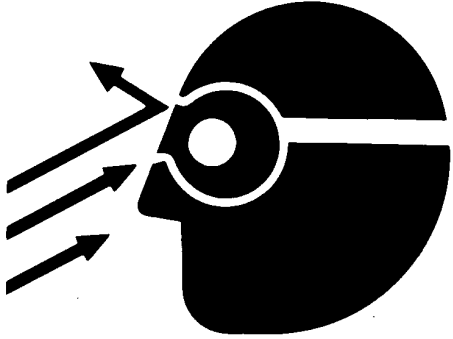
CPA0002388 —UN—03DEC15

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JL31334,0000DF6 -19-19DEC16-1/2

Front Grille, Side Screens, Radiator, and Oil Cooler Cleaning

Service Interval—As Required



TS286 —UN—23AUG88

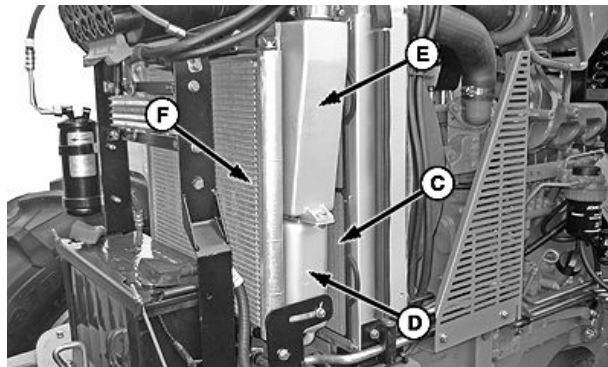


CPA0001141 —UN—27NOV14

1. Whenever trash builds up on front grille (A) or side screens (B), stop engine and brush clean.

CAUTION: Reduce compressed air 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.

2. Raise engine hood and see if trash has built up on radiator screen. If so, carefully remove and clean radiator cleaning screen (C) using a brush or compressed air.
3. Clean oil cooler (D) and intercooler (E) as necessary.
4. If a more thorough cleaning is necessary, clean radiator from behind with compressed air or water. Straighten any bent fins.



CPA0001732 —UN—29JUL15

A—Front Grille
B—Side Screen (2 used)
C—Radiator Cleaning Screen

D—Oil Cooler
E—Intercooler
F—Condenser

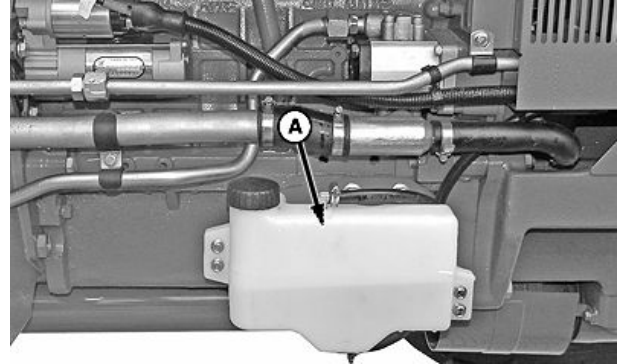
CP00834,0001F0A -19-13MAY16-1/1

Check Coolant Level

Service Interval—10 Hours



Surge Tank (Deere engine)



Surge Tank (supplier engine)

A—Surge Tank

B—Surge Tank

CAUTION: DO NOT remove tank cap until coolant is cold. Always remove tank cap slowly to relieve any excess pressure.

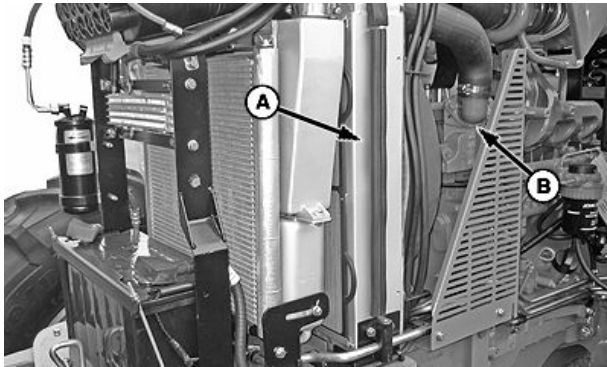
(MIN) mark, add coolant to surge tank (A) and (B) to bring level up to HIGH (MAX) mark. (See Fuels, Lubricants, and Coolant section.)

Check that coolant level is between HIGH (MAX) and LOW (MIN) marks on tank. If coolant level is below LOW

N400041,000363C -19-18JAN17-1/1

Check Cooling System for Leaks

Service Interval—500 Hours



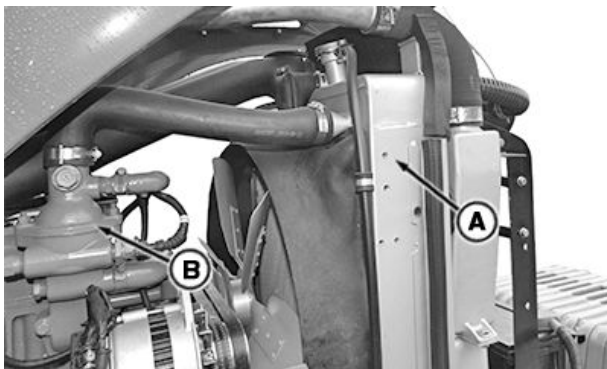
CPA0001733 —UN—29JUL15

Deere Engine



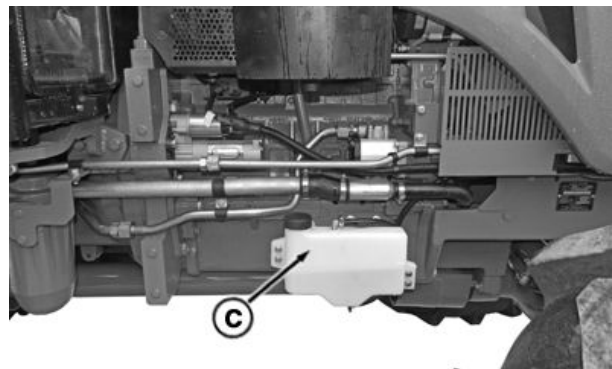
CPA0001722 —UN—27JUL15

Deere Engine



CPA0002401 —UN—04DEC15

Supplier Engine



CPA0002389 —UN—03DEC15

Supplier Engine

A—Radiator
B—Thermostat Housing Gasket
C—Surge Tank
D—Surge Tank

1. Check all around base of radiator (A) for pinholes or any area where coolant might be leaking.
2. Inspect area around thermostat housing gasket (B) for any sign of coolant leakage.
3. Inspect surge tank (C) and (D) for possible cracks or any sign of coolant leakage.

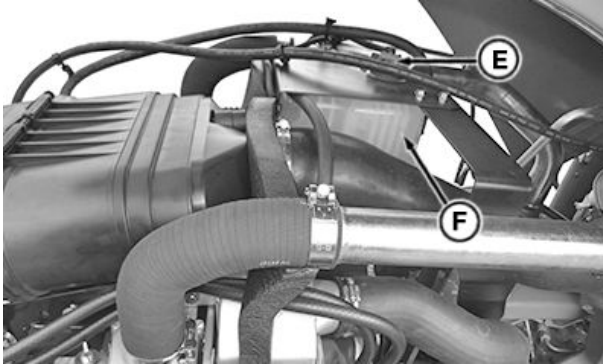
JL31334.0000DF8 -19-19DEC16-1/1

Flush Cooling System

Service Interval—Every 2 Years or 2000 Hours^{a,b}

^a Check coolant every year as required, can be extended to 5000 hours or 5 years if John Deere COOL-GARD is used.

^b Check coolant every year as required, can be extended to 6000 hours or 6 years if John Deere COOL-GARD II is used.



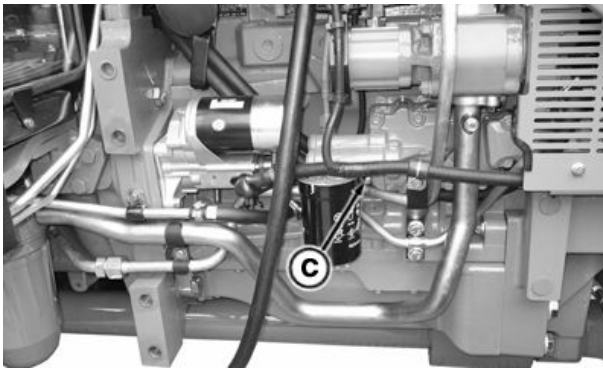
CPA0002404 —UN—03DEC15

Deere Engine



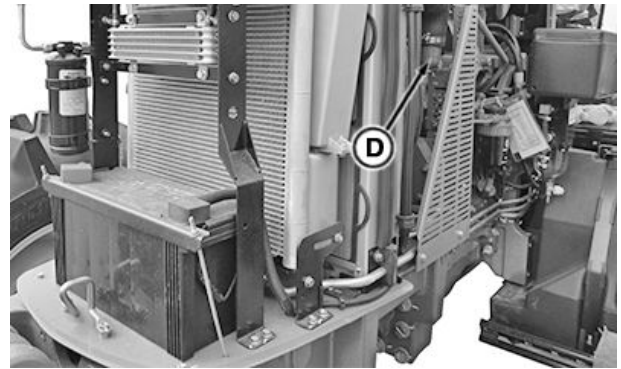
PY14854 —UN—07JAN13

Deere Engine



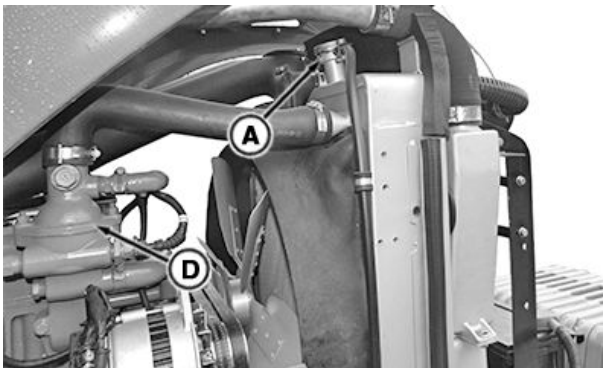
CPA0002402 —UN—03DEC15

Deere Engine



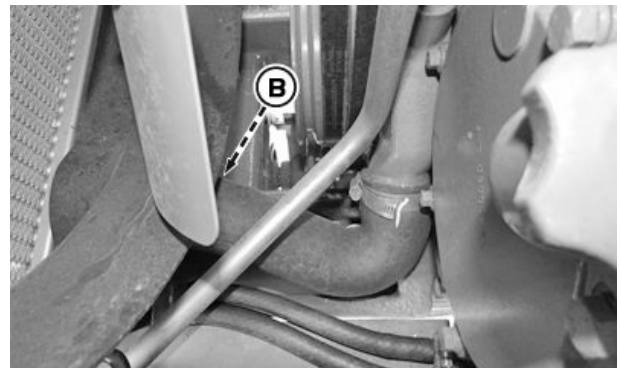
CPA0002403 —UN—03DEC15

Deere Engine



CPA0002405 —UN—04DEC15

Supplier Engine



CPA0002406 —UN—04DEC15

Supplier Engine

Continued on next page

CP00834,0001EF9 -19-03JAN17-1/2

For efficient operation, drain old coolant, flush the entire system, and fill with clean antifreeze solution at least once every 2 years.

CAUTION: DO NOT remove radiator cap or drain coolant until coolant is cold. Always loosen radiator cap slowly to relieve any excess pressure.

1. Drain coolant - Remove radiator cap (A) or surge tank cap (E). Open radiator drain cock (B) on radiator and attach a drain hose. Route hose to container and drain coolant from radiator. Drain coolant from engine block by opening engine block drain cock (C).

IMPORTANT: Thermostat must be removed to ensure a thorough flush.

2. Remove thermostat housing (D), remove thermostat and install thermostat housing (without thermostat). Tighten thermostat housing bolts to specification.

Specification

Thermostat Housing

Bolts—Torque..... 70 N·m (52 lb·ft)

3. Flush system with water - Close all drain valves/plugs and fill system with clean water. Run engine about 10 min to stir up possible rust or sediment. Stop engine and drain water from system before rust and sediment settle.
4. Flush system with radiator cleaner - Close all drain valve/plugs and fill the cooling system with a good commercial radiator cleaner and water. Follow instructions provided with cleaner. Stop engine and immediately drain system.
5. Flush system with water - Close all drain valves/plugs and fill with clean water to flush the system. Run the engine about 10 min, then drain out flushing water.
6. Remove thermostat housing and clean off the gasket material. Apply gasket sealant to new gasket and



Supplier Engine

A—Radiator Cap
B—Radiator Drain Cock
C—Engine Block Drain Cock
D—Thermostat Housing
E—Surge Tank Cap
F—Coolant Level

install thermostat housing. Tighten thermostat housing bolts to specification.

Specification

Thermostat Housing

Bolts—Torque..... 70 N·m (52 lb·ft)

7. Fill with fresh coolant - Close all drain valves/plugs and fill with a mixture of antifreeze, soft water, and coolant conditioner as specified in Fuels, Lubricants, and Coolant section.
8. Check coolant level - Fill radiator until coolant level (F) is between MAX and MIN marks on the surge tank. Run the engine until operating temperature is reached. Let the engine cool (preferably overnight) and recheck the coolant level. Coolant level with a cold engine should be at the MIN mark on the surge tank.
9. When filling the cooling system, it may require several operating/cooling periods to stabilize the coolant level in the system. Add additional coolant as needed to bring coolant to the correct level.

CP00834,0001EF9 -19-03JAN17-2/2

Deaerate Cooling System

Machine leads massive air into cooling system after user change coolant or open cooling system for reasons. It need to deaerate cooling system to protect engine as following instruction:

1. Fill system up to the max mark with prescribed coolant. (Coolant level at surge tank or overflow tank)
2. Start engine and run it for 5 minutes.
3. Shut off engine and check the coolant level, add coolant up to max level, if required.

4. Start engine and run coolant up to 98~100°C by using hydraulic or mechanic engine load. After reaching this temperature shut down the engine.
5. Let engine and cooling system cool until coolant temperature is equal to ambient temperature.
6. Check coolant level and fill up to the max mark if required.

CP00834,0001C4D -19-30JUL15-1/1

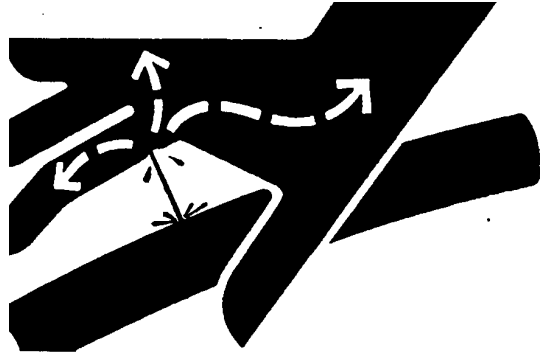
Maintenance—Fuel System

Bleed Fuel System

Service Interval—As Required

⚠ CAUTION: Escaping fluid under pressure can penetrate the skin, causing serious injury. Avoid the hazard by relieving system pressure before disconnecting pressurized lines. 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 from Deere & Company Medical Department in Moline, Illinois, U.S.A.



Any time the fuel system has been opened up for service (lines disconnected or filters removed), it will be necessary to bleed air from the system.

N400041,000363D -19-18JAN17-1/4

X9811 —UN—23AUG88

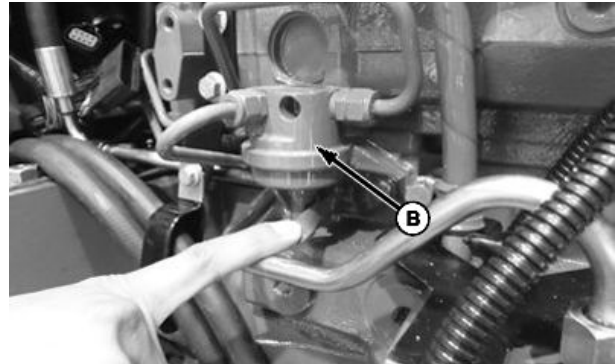
To Bleed the System at the Filter, Perform the Following Steps (Deere engine):

1. Loosen bleed vent screws (A) in filter two full turns by hand on fuel filter bases.
2. Operate hand primer (B) until fuel flow is free from bubbles.
3. Tighten bleed vent screws securely, continue operating hand primer until pumping action is not felt. Leave hand primer in the up position, away from the cylinder block.
4. Start engine and check for leaks.

A—Bleed Vent Screw (2 used) B—Hand Primer



Left-Hand Side



Right-Hand Side

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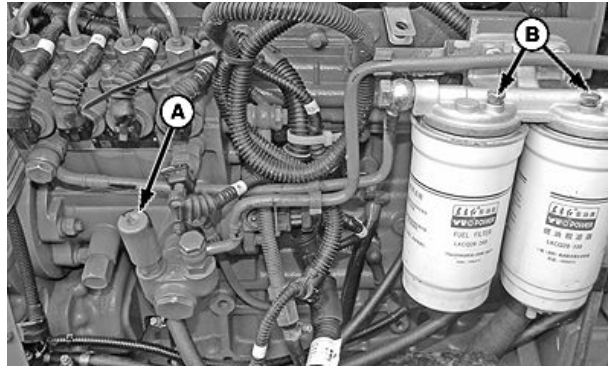
N400041,000363D -19-18JAN17-2/4

CPA0001713 —UN—28JUL15

CPA0002139 —UN—29OCT15

To Bleed the System at the Filter, Perform the Following Steps (supplier engine):

1. Loosen bleed vent screws (B) in filter two full turns by hand on fuel filter bases.
2. Operate hand primer (A) until fuel flow is free from bubbles. Continue operating hand primer, when oil is free from bubbles, tighten bleed vent screws.
3. Tighten bleed vent screws securely, Continue operating hand primer until pumping action is not felt. Continue operating hand primer and open bleed vent screw again.
4. Tighten bleed vent screw, operating hand primer at same time. Continue operating hand primer until pumping action is not felt.
5. Start engine and check for leaks.



Left-Hand Side

A—Hand Primer

B—Bleed Vent Screw (2 used)

CPA0002140—UN—29OCT15

N400041,000363D -19-18JAN17-3/4

To Bleed the System at the Pump, Perform the Following Steps (supplier engine):

1. Loosen oil inlet hose (A)
2. Loosen hand primer cap.
3. Operate hand primer (B) until fuel flow is free from bubbles. Tighten oil inlet hose as requirement.

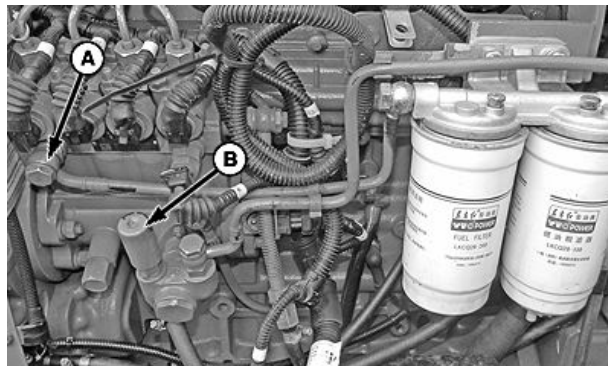
Specification

Tighten Oil Inlet
Hose—Torque..... 27 N·m (20 lb·ft)

4. Start engine and check for leaks.

A—Oil Inlet Hose

B—Hand Primer



Left-Hand Side

CPA0002108—UN—29OCT15

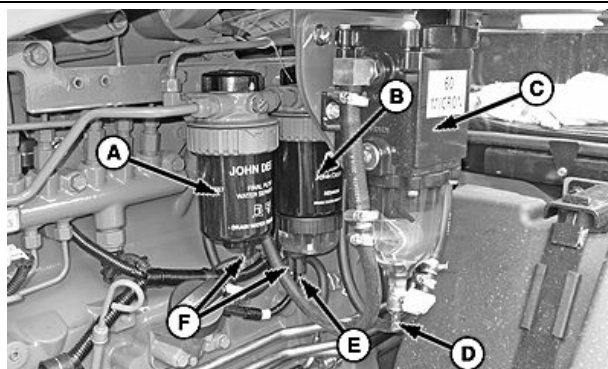
N400041,000363D -19-18JAN17-4/4

Drain Water and Sediment From Fuel Filters and Water Separator

Service Interval—Daily / 10 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Disconnect wiring harness (E).
2. Connect small hoses to end of drain ports (D and F).
3. Place a suitable container under drains.
4. Open drain ports to drain moisture and sediment.
5. Close drain ports when fuel runs clear.
6. Remove drain hoses and connect wiring harness.



Left- Hand Side of Engine

A—Secondary Fuel Filter
B—Primary Fuel Filter
C—Water Separator

D—Drain Port
E—Wiring Harness
F—Drain Port (2 used)

CPA0001718—UN—27JUL15

JL31334,0000E0B -19-31MAR16-1/1

Drain Water and Sediment from Fuel Tank

Service Interval—250 Hours

- Locate drain plug (A) in left front corner of fuel tank, at the bottom.
- Place suitable container under drain plug and loosen plug. When fuel starts to run clear, tighten drain plug.

A—Drain Plug



Bottom of Fuel Tank

CP00613,0000651 -19-08JUN13-1/1

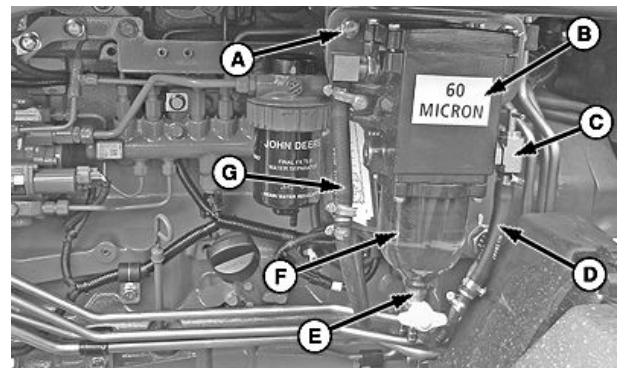
PY17087 —UN—09OCT12

Replace Water Separator

Service Interval—500 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Connect a drain line to drain valve (E) and place a suitable container under drain.
2. Open drain valve and drain fuel from water separator (B).
3. Close hose valve (C). Loosen fuel hoses (D and G), remove cap screws (A), and remove water separator (B).
4. Inspect fuel hoses for cracks, breaks, or other signs of leaking. Replace as necessary.
5. Remove, inspect, clean, and dry water separator bowl (F). Replace as necessary.
6. Discard old water separator.
7. Install water separator bowl to new water separator.
8. Install new water separator to machine. Tighten cap screws.



A—Cap Screw (2 used)
B—Water Separator
C—Hose Valve
D—Fuel Hose

E—Drain Valve
F—Water Separator Bowl
G—Fuel Hose

9. Connect fuel hoses. Open hose valve.
10. Bleed fuel system. (See Bleed Fuel System in this section.)

JL31334,0000E07 -19-31MAR16-1/1

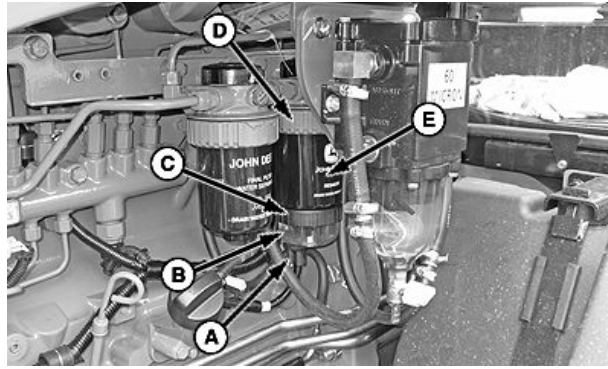
CPA0001703 —UN—24JUL15

Replace Primary Fuel Filter

Service Interval—500 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Connect a drain line to drain port (A) and place a suitable container under drain.
2. Open drain port and drain fuel from filter.
3. Loosen bottom retaining ring (C). Remove water separator bowl (B). Disconnect wiring harness.
4. Loosen top retaining ring (D) and remove primary fuel filter (E) and filter seal.
5. Discard old filter. Inspect filter seal for cracks, breaks, or other signs of leaking. Replace as necessary.
6. Clean and dry water separator bowl. Replace as necessary.
7. Install water separator bowl on new primary fuel filter. Tighten retaining ring until it snaps into place. Do not overtighten.
8. Install new primary fuel filter and filter seal to machine. Tighten retaining ring until it snaps into place. Do not overtighten.



A—Drain Port
B—Water Separator Bowl
C—Bottom Retaining Ring

D—Top Retaining Ring
E—Primary Fuel Filter

9. Connect wiring harness.
10. Bleed fuel system. (See Bleed Fuel System in this section.)

JL31334,0000E08 -19-31MAR16-1/1

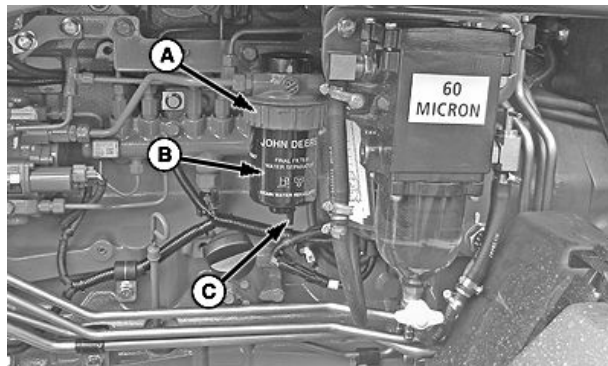
CPA0001712—UN—28JUL15

Replace Secondary Fuel Filter

Service Interval—500 Hours

NOTE: When loader is installed, servicing of fuel filter will be easier if fuel filter relocation kit is used.

1. Connect a drain line to drain port (C) and place a suitable container under drain.
2. Open drain port and drain fuel from filter.
3. Loosen retaining ring (A), remove secondary fuel filter (B) and filter seal.
4. Discard old filter. Inspect filter seal for cracks, breaks, or other signs of leaking. Replace as necessary.
5. Install new filter and seal. Tighten retaining ring until it snaps into place. Do not overtighten.
6. Bleed fuel system. (See Bleed Fuel System in this section.)



A—Retaining Ring
B—Secondary Fuel Filter

C—Drain Port

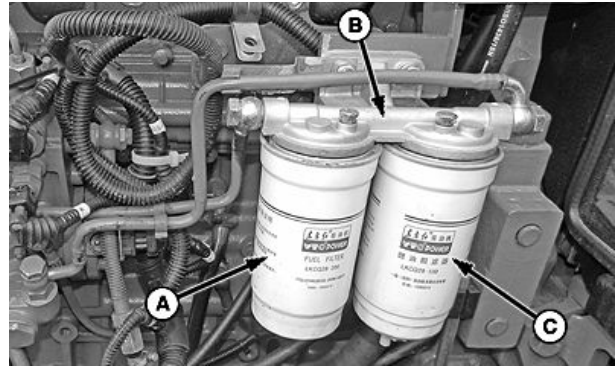
JL31334,0000E09 -19-31MAR16-1/1

CPA0001711—UN—24JUL15

Replace Primary/Secondary Fuel Filter (supplier engine)

Service Interval—500 Hours

1. Clean filter and support.
2. Remove primary fuel filter (C) and secondary fuel filter (A).
3. Check filter support (B) and clean it.
4. Check retaining ring, replace as necessary.
5. After replace new filters, fill new fuel into filters. Add some lubricating oil on retaining ring, install filters within 15 minutes.
6. Turn 1/2-3/4 circle after install filters.
7. Bleed fuel system. (See Bleed Fuel System in this section.)



A—Secondary Fuel Filter
B—Filter Support

C—Primary Fuel Filter

CPA0002141—UN—29OCT15

N400041,000363E -19-18JAN17-1/1

Do Not Modify Fuel System

IMPORTANT: Modification or alteration of the injection pump, the injection pump timing, or the fuel injectors in ways not recommended by the manufacturer will terminate the warranty obligation to the purchaser. (See warranty information inside front cover.)

DO NOT attempt to service injection pump or fuel injectors yourself. Special training and special tools are required. (See your John Deere dealer.)

CP00613,0000654 -19-08JUN13-1/1

Maintenance—Electrical System

Observe Electrical Service Precautions

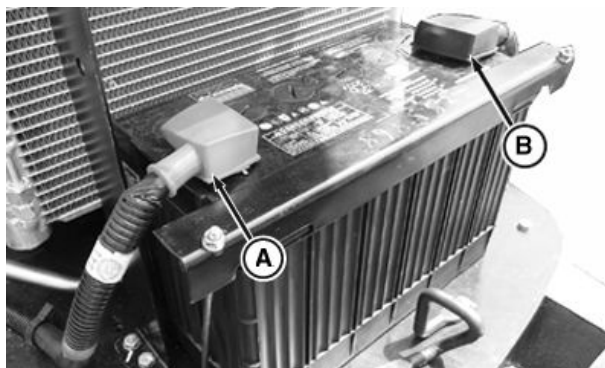
⚠ CAUTION: Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. When using a booster battery, follow instructions in Operating the Engine section.

To avoid shocks and burns, disconnect negative (-) battery cable (B) before servicing any part of the electrical system, then remove positive (+) battery cable (A) if removing battery.

Keep all electrical shields in place.

If need disconnect battery power for whole machine power-off protection or repair operation, need to wait for 30 seconds after key switch is turned off, to ensure the data storage of ECU.

A—Positive (+) Battery Cable B—Negative (-) Battery Cable



TS204 —UN—15APR13

PY17081 —UN—09OCT12

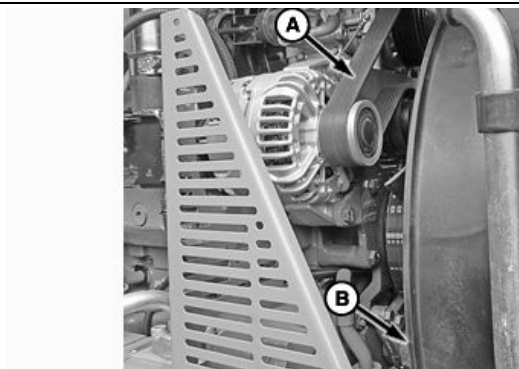
CP00834,0001F9A -19-08SEP16-1/1

Alternator/Fan Belt Replacement

1. Raise hood.
2. Disconnect negative (-) cable at battery.
3. Use a wrench to turn the tensioner (B) clockwise to loosen belt (A).
4. Remove belt from drive pulley. Belt can be pulled around the fan to remove.
5. Install new belt in reverse order of removal.

A—Belt

B—Tensioner

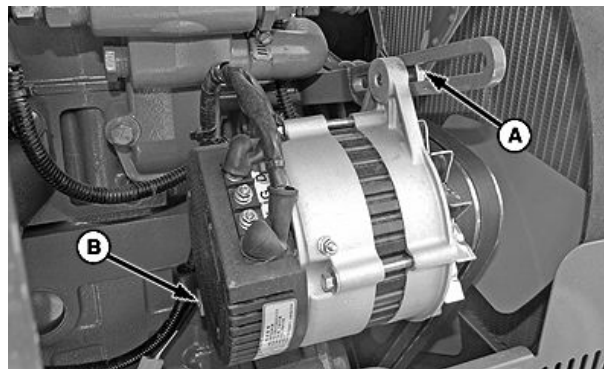


CPA0001809 —UN—25JAN18

N400041,00035BE -19-13JAN17-1/1

Alternator/Fan Belt Replacement (supplier engine)

1. Raise hood.
2. Disconnect negative (-) cable at battery.
3. Loosen screw (A) and nut (B). Turn Alternator, loosen belt.
4. Remove belt.
5. Install new belt in reverse order of removal.
6. Adjust belt tightening. (See “Adjust Alternator/Fan Belt” in this block.)



A—Screw

B—Nut

N400041,000363F -19-18JAN17-1/1

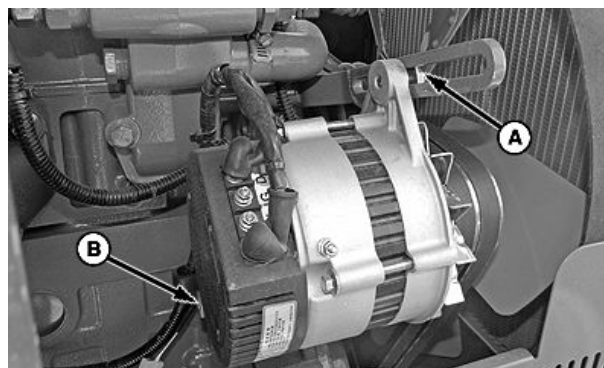
CPA0002118—UN—27OCT15

Adjust Alternator/Fan Belt (supplier engine)

Service Interval—50 Hours

CAUTION: Run engine 5 minutes for warm the cold belt. Cooling belt 15 minutes before adjustment.

1. If belt is worn or damaged, replace it as necessary. (See “Alternator/Fan Belt Replacement (supplier engine)” in this block.)
2. Press the middle of belt, check the degree of tension. The belt deflection is between 10-15 mm.
3. Loosen nut (B) and screw (A), adjust belt tightening.
4. Tighten screw (A), then tighten the nut (B).



A—Screw

B—Nut

N400041,0003640 -19-18JAN17-1/1

CPA0002118—UN—27OCT15

Battery Access

Battery is located in front of the radiator.

To gain access:

Pull latch (A) and lift the hood.

A—Latch



CPA0002043 —JUN—19OCT15

PY17082 —JUN—09OCT12

CP00834,0001F9C -19-27OCT15-1/1

Charge Battery

Service Interval—As Required

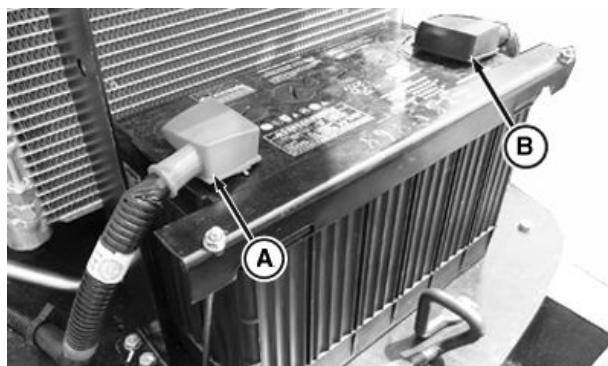
Keep battery fully charged, especially during cold weather.

CAUTION: Gas given off by battery is explosive. Keep sparks and flames away from battery. Before connecting or disconnecting a battery charger, turn charger off. Make last connection and disconnection at a point away from battery.

1. With charger OFF, attach positive battery charger lead to positive (+) battery terminal (A). Attach negative charger lead to tractor frame, away from the battery.
2. Turn charger ON and recharge the battery, following battery manufacturer's instructions for using charger. Check battery condition as described below.
3. To disconnect battery charger, turn charger OFF. Remove negative charger lead first, then positive lead.

A—Positive (+) Battery Terminal

B—Negative (-) Battery Terminal



TS204 —JUN—15APR13

PY17081 —JUN—09OCT12

CP00834,0001EFE -19-13MAY16-1/1

Clean Battery

Service Interval—50 Hours

To access battery, see procedure in this section.

Put gear shift lever in neutral, “N”, lock brake pedals together. Depress brake pedals and set parking brake.

Pull hand throttle all the way down and allow engine to idle for 1 to 2 min. Turn engine off.

Wipe battery with a damp cloth. Clean and tighten connections, if needed.



PY17082 —UN—09OCT12

CP00834,0001F9E -19-27OCT15-1/1

Check Battery Condition

Service Interval—50 Hours

CAUTION: 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 it last.

1. Use a battery hydrometer to check specific gravity of electrolyte in each cell. Charge battery if reading is below 1.215. Replace battery if difference between cells is more than 0.050 or if battery will not charge above 1.225.
2. Always correct specific gravity reading for electrolyte temperature variation. Add 0.004 to the reading obtained in step one for every 10 °F above 80 °F



TS204 —UN—15APR13

(add 0.007 to the reading for every 10° above 27 °C). Subtract at same rate if electrolyte temperature is below 80 °F (27 °C). Correct specific gravity of a fully charged battery is 1.265 to 1.280.

3. A battery is considered fully charged when three consecutive hydrometer readings taken at hourly intervals show no rise in specific gravity.

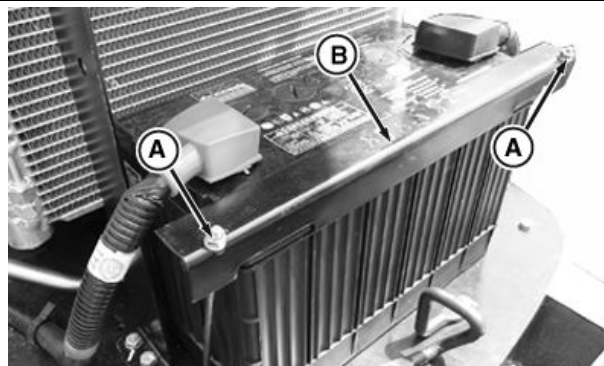
CP00834,0001F9F -19-27OCT15-1/1

Remove Battery

1. Gain access to battery.

CAUTION: To avoid sparks, disconnect negative (ground) cable first and connect it last.

2. Disconnect negative (-) battery cable, then positive (+) battery cable.
3. Loosen nuts (A) and rotate hold-down bracket (B) downward, freeing battery.
4. Lift and slide battery from machine.



PY17083 —UN—09OCT12

A—Nuts (2 used)

B—Hold-Down Bracket

CP00834,0001FA0 -19-23DEC15-1/1

Battery Replacement Specifications

When replacing battery, use John Deere battery or equivalent. See your John Deere dealer.

Specification

Battery—Volts..... 12 V
Cold Cranking Amps at
-18 °C (0 °F) 960 A

JL31334,0000DFB -19-31MAR16-1/1

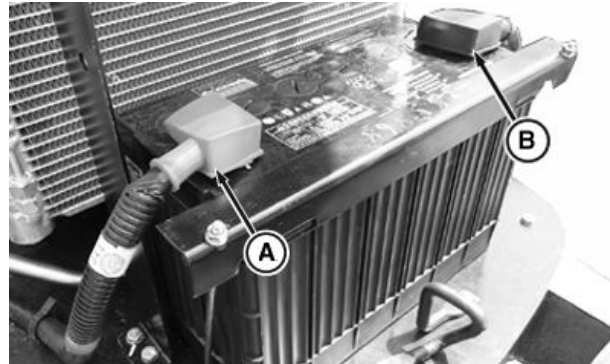
Service Battery

Service Interval—As Required

1. Keep battery clean by wiping with a damp cloth. Keep terminals (A and B) clean and tight. To remove any corrosion, wash terminals with a solution of four parts water to one part baking soda.

CAUTION: To avoid sparks, disconnect negative (ground) cable first and connect it last.

2. Keep battery fully charged, especially during cold weather. If a battery charger is connected, attach positive cable to positive (+) battery terminal (A). Connect the negative (-) battery charger cable to a good ground on tractor frame.
3. Coat terminals with a small amount of grease.



PY17081—UN—09OCT12

A—Positive (+) Battery Terminal

B—Negative (-) Battery Terminal

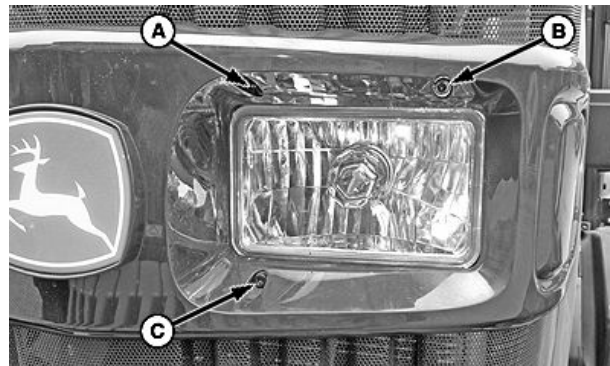
CP00834,0001EFF -19-13MAY16-1/1

Adjust Headlights

Service Interval—As Required

IMPORTANT: Apply penetrating spray lubricant to the threads of top and bottom adjusting screws before starting procedure. If this is not done, it will be hard to turn adjusting screws in either direction.

1. Turn headlight mounting screws (A and B) clockwise to lower beam or counterclockwise to raise beam.
2. To adjust beam in toward center of tractor, turn headlight mounting screw (B) clockwise and headlight mounting screws (A and C) counterclockwise an equal number of turns on each screw.
3. To adjust beam out from center of tractor, turn headlight mounting screws (A and C) clockwise and headlight mounting screw (B) counterclockwise an equal number of turns on each screw.



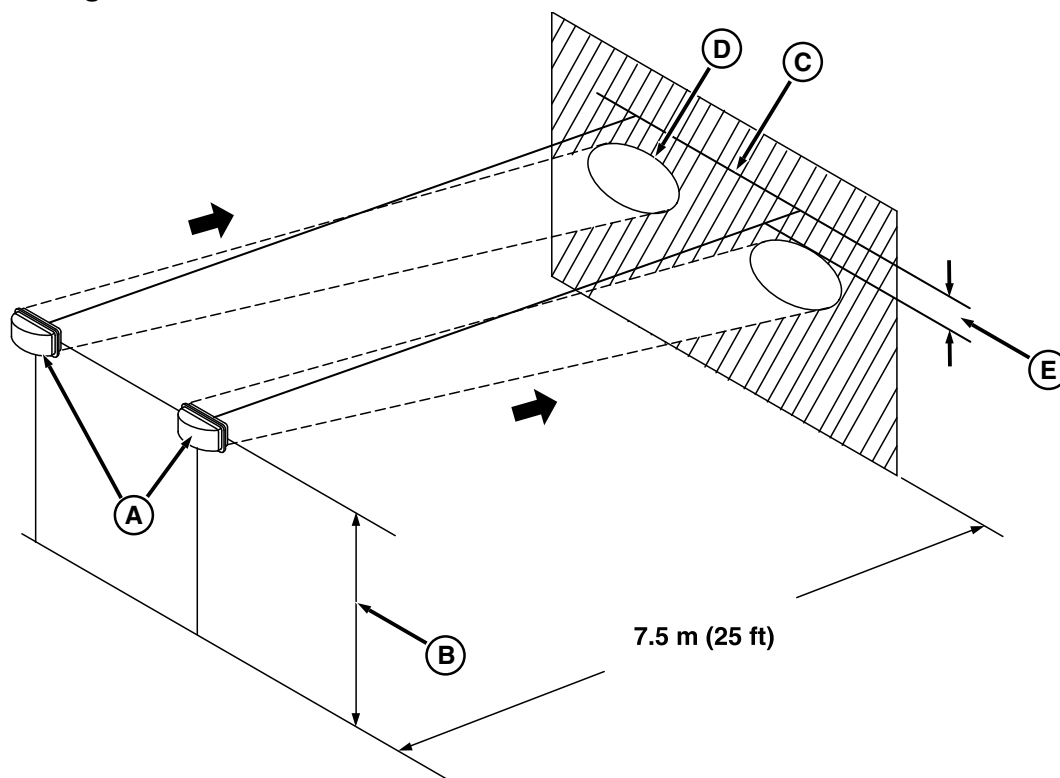
CPA0001723—UN—27JUL15

A—Headlight Mounting Screw
B—Headlight Mounting Screw

C—Headlight Mounting Screw

CP00834,0001F00 -19-13MAY16-1/1

Aiming Headlights



A— Headlight
B— Distance from Center of
Headlight to Ground

C— Horizontal Line on Wall
D— Border of Bright Area

E— 10% of Distance

1. Park tractor on a level surface with headlights (A) 7.5 meters (25 ft) from a vertical wall.
2. Measure the distance (B) from the center of a headlight to the ground.
3. Mark a horizontal line (C) on the wall, the same distance from the ground as (B).
4. Set headlights on low beam and observe bright areas on the wall.
5. Adjust headlights so the upper border of bright area (D) is at least 10% of distance (B) below line (C).
6. To adjust headlights, see Adjust Headlights in this section.

JL31334,0000D66 -19-18FEB16-1/1

RW26898 —UN—28MAR00

Replace Headlight Bulbs

Service Interval—As Required

CAUTION: A halogen bulb is pressurized and may shatter. Protect bulb against abrasions and scratches.

To guard against personal injury, wear protective eyeglasses and clothing when handling bulb. Turn power off when installing and before removing bulb. Dispose of bulb with care.

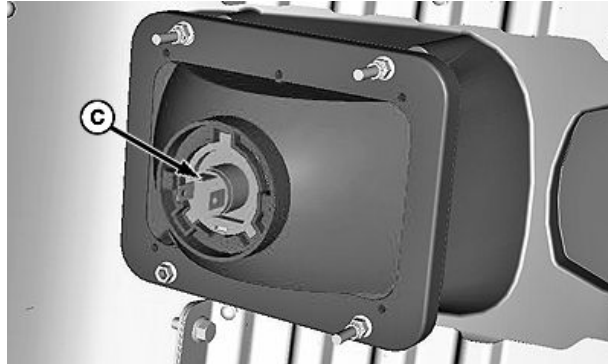
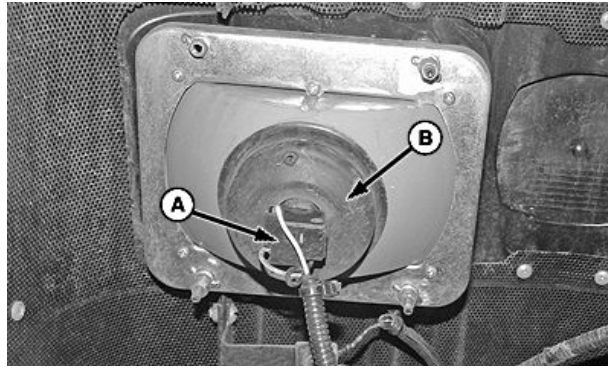
Allow bulb to cool before removing.

Read and follow all bulb manufacturer's installation instructions.

1. Open engine hood.
2. Disconnect connector (A).
3. Remove seal (B).
4. Remove bulb (C) and replace with new bulb.
5. Connect connector and close engine hood.

A—Connector
B—Seal

C—Bulb



CPA0002080 —UN—20OCT15

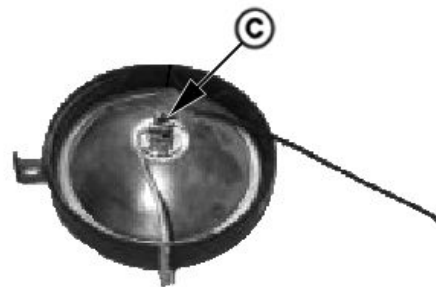
CPA0002081 —UN—20OCT15

CP00834,0001F01 -19-13MAY16-1/1

Replace Flood Light Bulb



CPA0002047 —UN—19OCT15



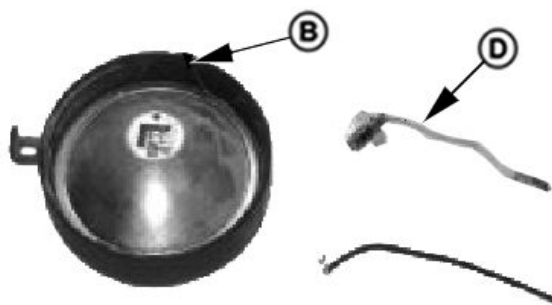
PUC1522 —UN—02NOV07

Service Interval—As Required

1. Remove screw (A).
2. Open retaining ring (B), disconnect connector and remove screw (C).
3. Remove bulb assembly (D), and install new bulb.
4. Reinstall in reverse order.

A—Screw
B—Retaining Ring

C—Screw
D—Bulb Assembly



PUC1523 —UN—02NOV07

CP00834,0001F02 -19-13MAY16-1/1

Replace Front Turn Signal Bulb

Service Interval—As Required

1. Remove screws (A) and light cover.
2. Remove bulbs from socket.
3. Mount new bulbs, as needed.
4. Mount light cover and tighten screws (A).

A—Screw (4 used)



CPA0002045 —UN—18OCT15

CP00834,0001F03 -19-13MAY16-1/1

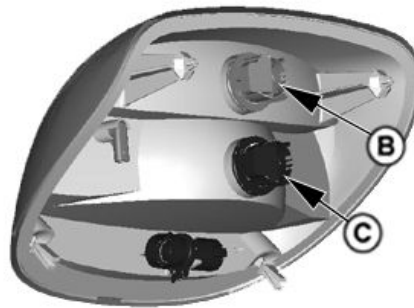
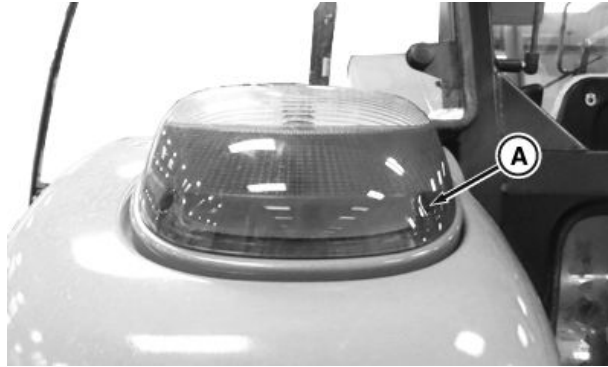
Replace Tail Light/Rear Turn Signal/Brake Light Bulbs

Service Interval—As Required

1. Remove screws (A) and lens.
2. Remove warning light bulb (B).
3. Remove tail light bulb (C).
4. Install new bulbs, as necessary.
5. Install lens and screws (A).

A—Screw (2 used)
B—Warning Light Bulb

C—Tail Light Bulb



PY17086 —UN—09OCT12

PUC1599 —UN—01APR08

CP00834,0001F04 -19-13MAY16-1/1

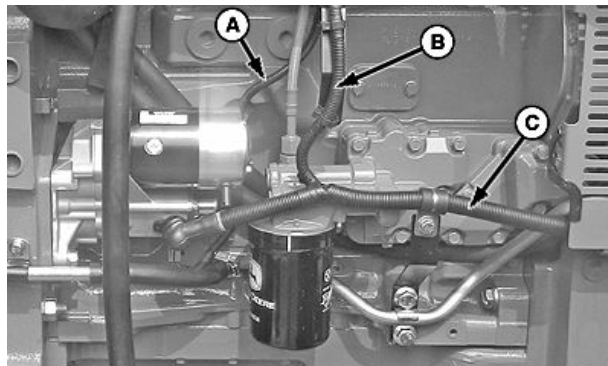
Starter Wiring Connections

IMPORTANT: Disconnect battery negative (ground) cable before servicing any part of electrical system. Make all other connections before connecting ground cable.

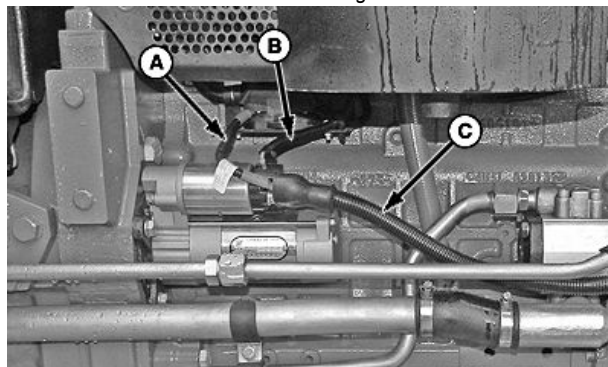
- Connect large battery cable (C) and alternator cable (B) to large solenoid post.
- Connect solenoid wire (A) to small solenoid terminal.

A—Solenoid Wire
B—Alternator Cable

C—Large Battery Cable



Deere Engine



Supplier Engine

CPA0001715 —UN—27JUL15

CPA0002112 —UN—26OCT15

JL31334,0000DFC -19-20DEC16-1/1

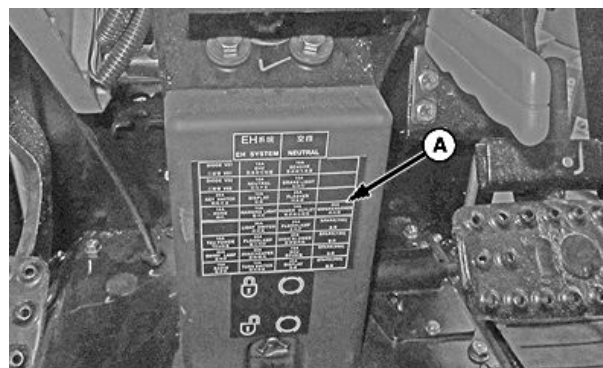
Locate Fuses

All electrical circuits are protected by fuses. Amperage rating is marked on each fuse, and fuses are color coded to make correct replacement easier.

Fuse Rating	Color
5 A	Brown
10 A	Red
15 A	Blue
20 A	Yellow
30 A	Green

IMPORTANT: DO NOT replace original fuse with higher rated fuse or machine damage may occur. If original size fuse will not carry electrical load and continues to blow, have the electrical system checked by your John Deere dealer.

A—Fuse Box



Deere Engine



Fuses 1 (supplier engine)



Fuses 2 (supplier engine)

N400041,0003641 -19-18JAN17-1/1

CPA0001801 —UN—02SEP15

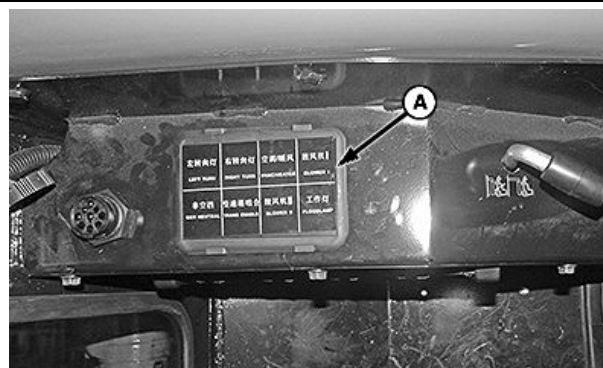
CPA0002188 —UN—09NOV15

CPA0002421 —UN—10DEC15

Locate Relays

Relays are under relay cover (A).

A—Relay Cover



JL31334,0000DFE -19-31MAR16-1/1

CPA0002419 —UN—10DEC15

Fuse Size and Function**Single Fuse Block**

20A KEY SWITCH 钥匙开关	10A DISPLAY 仪表	20A FLASHER 闪光器	15A BRAKE LIGHT 制动灯
10A HORN 喇叭	30A LIGHT SWITCH 灯开关	30A FLOODLAMP 工作灯	SPARE(10A) 备用
20A ENTRY LAMP 室内灯	20A WIPER 雨刮器	10A ECU ECU供电	SPARE(20A) 备用
DIODE V01 二极管 V01	10A DISPLAY 仪表	10A TURN SWITCH 转向开关	SPARE(30A) 备用

CPA0002041

Single Fuse Block

JL31334,0000DFF -19-31MAR16-1/2

CPA0002041—UN—25OCT17

Double Fuse Block

DIODE V01 二极管 V01	10A EHC 变速箱控制器	10A SENSOR 变速箱传感器	
DIODE V02 二极管 V02	10A NEUTRAL 空挡开关	15A BRAKE LIGHT 制动灯	
20A KEY SWITCH 钥匙开关	10A DISPLAY 仪表	20A FLASHER 闪光器	
10A HORN 喇叭	15A WARNING LIGHT 警示灯	15A POWER OUTLET 电源输出插座	20A WIPER&WASHER 雨刮器
	30A LIGHT SWITCH 灯开关	20A FLOODLAMP 工作灯	SPARE(10A) 备用
10A TCU POWER TCU供电	30A FOODLAMP 前工作灯	20A HVAC BLOWER 空调鼓风机	SPARE(15A) 备用
20A ENTRY LAMP 室内灯	30A HVAC/HEATER 空调/暖风	10A ECU ECU供电	SPARE(20A) 备用
10A RADIO 收音机	10A TURN SWITCH 转向开关	10A DISPLAY 仪表	SPARE(30A) 备用

CPA0002042

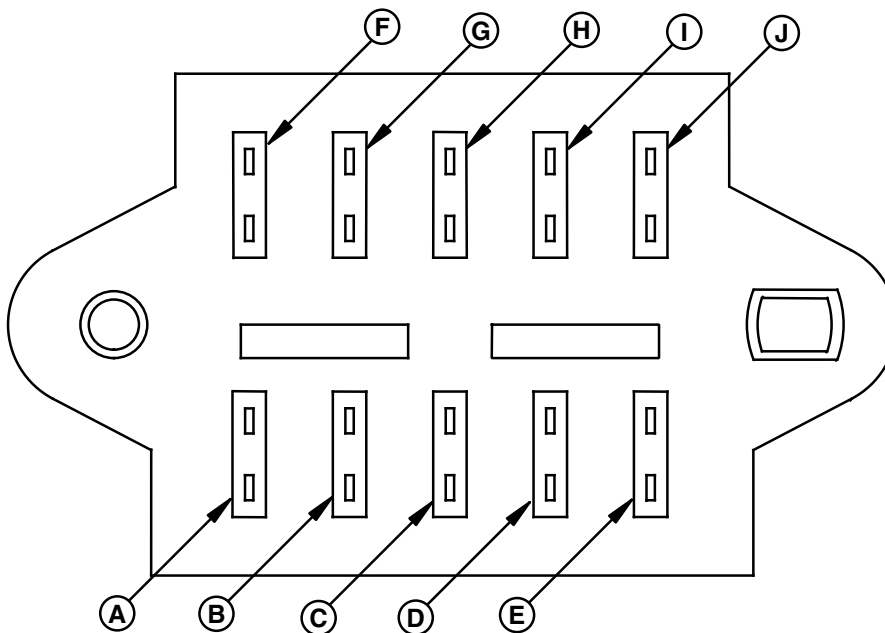
Double Fuse Block

JL31334,0000DFF -19-31MAR16-2/2

CPA0002042—UN—25OCT17

Fuse Size and Function (supplier engine)

Fuse 1



20A KEY SWITCH 钥匙开关	10A DISPLAY 仪表	20A FLASHER 闪光器	15A BRAKE LIGHT 制动灯
10A HORN 喇叭	30A LIGHT SWITCH 灯开关	30A FLOODLAMP 工作灯	SPARE(10A) 备用
20A ENTRY LAMP 室内灯	20A WIPER 雨刮器	10A ECU ECU供电	SPARE(20A) 备用
DIODE V01 二极管 V01	10A DISPLAY 仪表	10A TURN SWITCH 转向开关	SPARE(30A) 备用

CPA0002041

Single Fuse Block

A—Key Switch
B—Light/Front Light

C—Spare
D—Display
E—Spare
F—Entry Lamp/Horn

G—Power Outlet
H—Turn Switch
I— Floodlamp

10A	10A	5A	10A
Brake	Fan Wiper	Controller	Spare
F04	F08	F12	

Fuse 2

N400041,0003642 -19-18JAN17-1/1

PUC2595 —UN—25OCT09

CPA0002041 —UN—25OCT17

Relay Size and Function

左转向灯 LEFT TURN	右转向灯 RIGHT TURN	空调/暖风 HVAC/HEATER	鼓风机Ⅰ BLOWER I
非空挡 NOT NEUTRAL	变速箱啮合 TRANS ENABLE	鼓风机Ⅱ BLOWER II	工作灯 FLOODLAMP

CPA0002418 — UN — 10DEC15

JL31334,0000E00 -19-31MAR16-1/1

Troubleshooting

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 tank	Bleed fuel tank
	Fuel pump hand primer left raised	Push primer down
	Slow starter speed	See "Starter Cranks Slowly"
	Crankcase oil too heavy	Use oil of proper viscosity
	Improper type of fuel	Consult fuel supplier; use proper type 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
Engine knocks	Insufficient oil	Add oil
	Incorrect injection pump timing	See your John Deere dealer
	Low coolant temperature	See your John Deere dealer
	Engine overheating	See "Engine Overheats"
Engine runs irregularly or stalls frequently	Low coolant temperature	See your John Deere dealer
	Clogged fuel filter	Replace filter element
	Water, dirt, or air in fuel system	Drain, flush, fill, and bleed system
	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 and sender
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

Continued on next page

CP00613,0000667 -19-08JUN13-1/4

Symptom	Problem	Solution
	Improper type of fuel	Use proper fuel
	Overheated engine	See "Engine Overheats"
	Below normal engine temperature	See your John Deere dealer
	Improper valve clearance	See your John Deere dealer
	Dirty or faulty injectors	Have John Deere dealer check injectors
	Incorrect injection pump timing	See your John Deere dealer
	Turbocharger not functioning	See your John Deere dealer
	Restricted fuel line	See your John Deere dealer
	Restricted return line	See your John Deere dealer
	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
Engine emits black or gray exhaust smoke	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
	Defective turbocharger	See your John Deere dealer
	Incorrect engine timing	See your John Deere dealer
Engine emits white smoke	Improper type fuel	Use proper fuel
	Engine out of time	See your John Deere dealer
	Defective thermostat	Replace thermostat

Continued on next page

CP00613,0000667 -19-08JUN13-2/4

Symptom	Problem	Solution
Engine overheats	Defective injection nozzles	See your John Deere dealer
	Turbocharger not functioning	See your John Deere dealer
	Cold start advance or light load advance not functioning	See your John Deere dealer
	Cold engine	Bring engine to operating temperature
	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 and hoses for loose connection or leaks
	Faulty radiator cap	Replace cap
	Loose or defective fan belt	Adjust belt tension
High fuel consumption	Cooling system needs flushing	Flush cooling system
	Defective thermostat	See your John Deere dealer
	Defective temperature gauge or sender	See your John Deere dealer
	Improper type of fuel	Use proper fuel type
	Incorrect grade of fuel	Use correct grade of fuel
	Clogged or dirty air cleaner	Service air cleaner
	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
	Incorrect engine timing	See your John Deere dealer
	Implement improperly adjusted	See implement operator's manual
	Low engine temperature	See your John Deere dealer
	Excessive ballast	Adjust ballast to load
	Restricted air intake system	Check system

Continued on next page

CP00613,0000667 -19-08JUN13-3/4

Troubleshooting

Symptom	Problem	Solution
	Plugged crankcase vent tube	Clean vent tube
	Defective turbocharger	See your John Deere dealer

CP00613,0000667 -19-08JUN13-4/4

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
	Dirty or clogged oil cooler	Clean or flush oil cooler
Low transmission oil pressure	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic oil filter	Replace filter
	Failed pressure relief valve	Check valve, replace if necessary
Transmission stuck in neutral or it is hard to shift ant gear	Speed shift linkage stuck or rusty	Clean or lubricate the speed shift lever linkages
	Interlock cable misadjusted	Adjust interlock cable per technical repair manual

CP00613,0000668 -19-08JUN13-1/1

Hydraulic System Troubleshooting

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply	Fill system with correct oil
	Clogged transmission/hydraulic filter	Replace filter
	High-pressure internal leak	See your John Deere dealer
	Hydraulic pump not plumbed correctly	See your John Deere dealer
Hydraulic 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
	Dirty or clogged oil cooler	Clean or flush oil cooler

CP00613,0000669 -19-08JUN13-1/1

Brakes Troubleshooting

Symptom	Problem	Solution
No solid pedal feel	Pedals adjusted incorrectly	See your John Deere dealer
Pedal settles	Rear brake piston seal leaking	See your John Deere dealer
Excessive pedal travel	Pedals adjusted incorrectly	See your John Deere dealer
Brakes drag during transport	Brakes out of adjustment	See your John Deere dealer

CP00613,000066A -19-08JUN13-1/1

Rockshaft and 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
	Front of 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 control not properly set	Adjust rate-of-drop control knob
Hitch fails to lift or lifts slowly	Excessive load on hitch	Reduce load
	Low oil level	Fill system with proper oil
	Hydraulic oil too cold	Allow oil to warm
	Transmission/hydraulic oil filter clogged	Replace filter
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 limit stop	Reset limit stop
	Improper setting of draft control knob	See Rockshaft and 3-Point Hitch section
Insufficient or no hitch response to draft load	Front attachment of center link in upper holes	Move center link attachment to lower bracket holes
	Draft control knob in "Min" position	Push knob down
	Lift links too short	Adjust lift links
	Lack of penetration	See implement operator's manual
	Rate-of-drop too slow	Adjust rate-of-drop control knob
Hitch too responsive	Front attachment on center link in lower bracket holes	Move center link attachment to upper bracket holes
	Improper draft sensing adjustment	Pull knob upward

Continued on next page

JL31334,0000CB6 -19-24NOV15-1/2

Troubleshooting

Symptom	Problem	Solution
Hitch drops too fast	Rate-of-drop set too fast	Adjust rate-of-drop control knob
Rockshaft control levers “drift” Levers too loose.	Friction disks are loose	Adjust rockshaft control lever friction. See procedures in “Rockshaft and 3-Point Hitch” section or see your John Deere dealer

JL31334,0000CB6 -19-24NOV15-2/2

Hydraulic Cylinders Troubleshooting

Symptom	Problem	Solution
Direction of cylinder travel is reversed	Improper hose connections	Reverse hose connections
Hoses will not couple	Improper hose male tips	Replace tip with ISO standard tips
Cylinder will not lift load	Excessive load	Reduce load
	Hoses not completely installed	Attach hoses correctly
	Incorrect remote cylinder size	Use correct size cylinder
Direction of travel reverses on II SCV	SCV lever moved to regenerate position	Reverse hose couplings

CP00613,000066C -19-08JUN13-1/1

Electrical System Troubleshooting

Symptom	Problem	Solution
Battery will not charge	Loose or corroded connections	Clean and tighten connections
	Sulfated or worn-out battery	Check electrolyte level and specific gravity
	Loose or defective alternator/fan belt	Adjust belt tension or replace belt
Charging system indicator glows with engine running	Low engine speed	Increase speed
	Defective battery	Check electrolyte level and specific gravity
	Defective alternator	See your John Deere dealer
	Slipping alternator/fan belt	Adjust belt tension
Starter inoperative	Shift lever in gear	Move shift lever to neutral
	PTO lever in engaged position	Move PTO lever to disengaged position
	Low battery output	See your John Deere dealer
	Blown fuse	Replace fuse
Starter cranks slowly	Low battery output	Check electrolyte level and specific gravity
	Crankcase oil too heavy	Use proper viscosity oil
	Loose or corroded connections	Clean and tighten battery connection
Light system does not function; rest of electrical system functions Entire electrical system does not function	Blown fuse	Replace fuse
	Fusible link blown	See your John Deere dealer
	Faulty battery connections	Clean and tighten connections
	Sulfated or worn-out battery	Check electrolyte level and specific gravity
	Blown fuse	Replace fuse
Relays sticking or nonfunctional; repeated failures	Failed diodes	See your John Deere dealer

CP00613,000066D -19-08JUN13-1/1

Clutch Troubleshooting

Symptom	Problem	Solution
Clutch slipping	Oil on friction plate or pressure plate	Clean with fuel
	Friction plate wear	Replace friction plate
	Spring force reducing	Replace spring
	Clutch pedal free play is small or no free play	Adjust clutch pedal free play
Clutch separation is not completely, noise during shifting	Clutch pedal free play is too large.	Adjust clutch pedal free play
	End of the three clutch fingers are not at same plane	Adjust clutch fingers
	Clutch driven disc end play is large	Replace driven disc assembly

CP00612,000207E -19-04NOV14-1/1

Steering System Troubleshooting

Symptom	Problem	Solution
Oil Leakage	Cap screws at mounting surface are looseness	Tighten cap screws
	Seal rings wear	Replace seal rings
	Washers wear	Replace washers
Hard steering	Non-return flap valve in steering valve is locked by mass	Clean steering valve
	Air in steering system	Bleed air
	Steering cylinder leakage or steering system leakage	Check and repair leakage
Steering failures	Leaf springs wear	Replace leaf springs
	Pin or universal driving shaft opening wear	Replace pin or universal driving shaft
	Rotor and universal driving shaft relative position is wrong	Reassemble
No handed steering	Gap between rotor and stator is large	Replace rotor and stator

CP00612,000207F -19-04NOV14-1/1

Front and Rear Axle Troubleshooting

Symptom	Problem	Solution
Middle drive of front axle is noisy	Driving bevel gear bearing end play is too large	Adjust end play
	Gear engagement is abnormal	Adjust gear engagement
	Differential shaft wear	Replace differential shaft
	Planetary gears or washers wear	Replace planetary gears or washers
	Differential bearing wear	Replace differential bearing
Front drive axle final drive is noisy	Final drive gear engagement is not good	Adjust gear engagement
	Bearing wear	Replace bearing
Front drive axle leakage	Seal ring wear	Replace seal wear
Rear axle final drive is noisy	Gear surface wear	Replace gear
	Bearing wear	Replace bearing

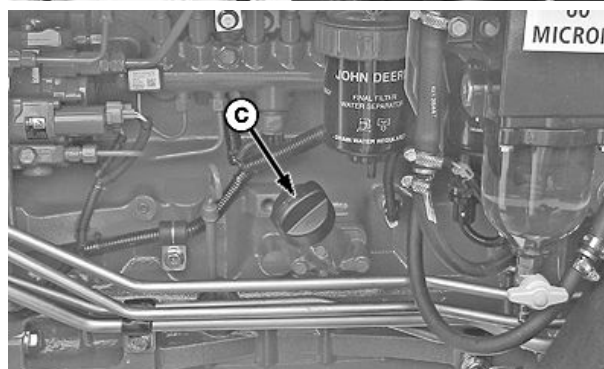
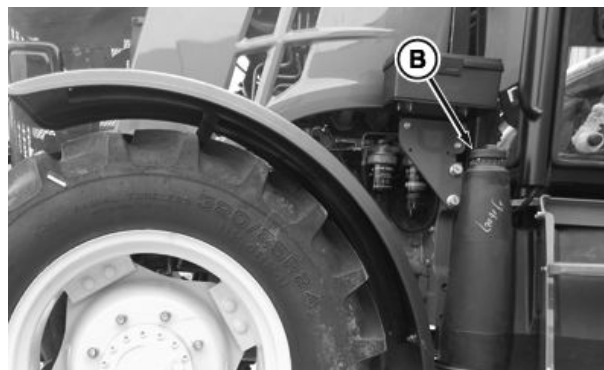
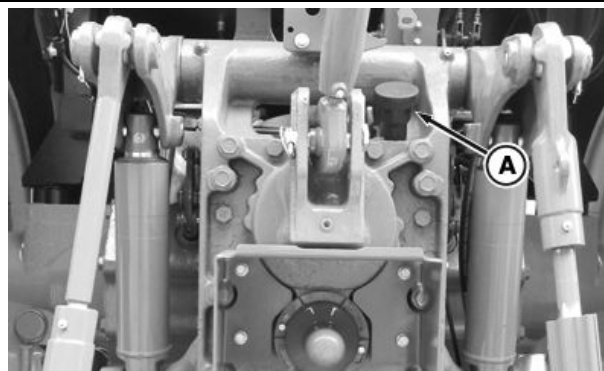
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Storage

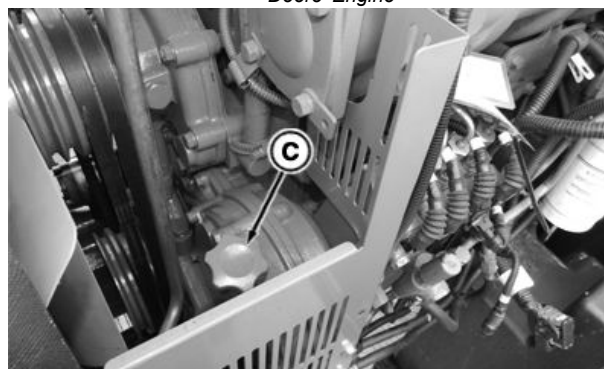
Tractor Storage

IMPORTANT: Any time tractor will not be used for several months, use this procedure to minimize corrosion and deterioration. Use an AR41785 Engine Storage Kit and an extra 0.95 L (1 qt) of AR41870 Corrosion Inhibitor.

1. Service air cleaner. (See Service Air Cleaner, in General Maintenance and Inspection section.)
2. If coolant has been in tractor for 2 years, flush cooling system. (See Flush Cooling System, in Maintenance - Cooling System section.) Add 50 percent antifreeze water mixture. Test coolant for adequate cold-weather protection.
3. Change engine oil and filter. (See Change Engine Oil and Filter, in Lubrication section.)
4. Drain fuel and add back 4 L (1 gal) of fuel. Then add 0.4 L (12 oz) of corrosion inhibitor.
5. Remove transmission oil filler cap (A) and add 0.25 L (8 oz) of corrosion inhibitor to transmission/hydraulic system.
6. Depress clutch and start engine. Run engine until it reaches operating temperature. Also raise and lower rockshaft several times. Shut off engine.
7. Remove fuel tank filler cap (B) and add 0.5 L (16 oz) inhibitor to fuel tank.
8. Remove engine oil filler cap (C) and add 0.5 L (16 oz) inhibitor to engine crankcase.
9. Remove air intake hose at manifold. Pour 0.1 L (3 oz) inhibitor into manifold and replace hose. Pull hand throttle back to low idle position. Crank engine only a few revolutions.
10. Loosen alternator/fan belt after it has cooled.
11. Remove and clean battery. Store in a cool, dry place. Keep it charged.¹
12. Tie or block clutch pedal in the disengaged position.
13. Coat exposed metal surfaces such as adjustable front axles, if they are extended, with grease or a corrosion inhibitor.
14. Use tape to seal dust unloader valve, exhaust pipe, crankcase filer/aspirator, fuel cap, and transmission/hydraulic system filler/cap.
15. Cover dash with opaque material to prevent gauges from fading.
16. Raise tires off ground. Protect them from heat and sunlight.
17. Thoroughly clean tractor. Touch up any painted surfaces that are scratched or chipped.
18. If tractor must be stored outside, cover it with a waterproof material.



Deere Engine



Supplier Engine

A—Transmission Oil Filler Cap C—Engine Oil Filler Cap
B—Fuel Tank Filler Cap

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JL31334,0000E02 -19-20DEC16-1/2

PY14834 —UN—01JAN13

PY14835 —UN—01JAN13

CPA0002044 —UN—18OCT15

CPA0002383 —UN—02DEC15

¹Disconnect battery ground cable for short-term storage periods (20 to 90 days).

JL31334,0000E02 -19-20DEC16-2/2

Remove Tractor from Storage

1. Lower tires to ground, check tire inflation pressure. (See Wheels, Tires, and Treads section.)
2. Unseal all openings sealed in Tractor Storage. (See Tractor Storage in this section.)
3. Install battery.
4. Remove ties or block which secured clutch pedal down.
5. Check levels of engine oil, transmission/hydraulic oil, and engine coolant. Add fluids as needed.
6. Drain a small amount of fuel from fuel tank to purge any moisture condensation that has collected.
7. Fill fuel tank.
8. Perform all appropriate services listed in Maintenance and Service Intervals section, as dictated by elapsed storage period.
9. Check instruments and indicators by turning key switch to RUN position.

IMPORTANT: DO NOT operate starter more than 20 seconds at a time, and wait at least 2 minutes for starter to cool before trying again.

10. Pull hand throttle (A) all the way down, depress clutch pedal, make sure that gearshift lever is in neutral, "N", and PTO control lever is in disengaged position.
11. Start engine. Operate engine at low idle for several minutes. Wait until engine reaches operating temperature and check all systems before placing tractor under load.



Optional

A—Hand Throttle

CPA0002079 —UN—20OCT15

CPA0003007 —UN—18OCT16

JL31334,0000E23 -19-20DEC16-1/1

Specifications

Machine Dimensions and Weights

NOTE: Specifications and design subject to change without notice.

NOTE: All dimensions are of a machine equipped with standard tires.

Main Technical Parameters						
Tractor Model		JD954	JD1104	JD1204-A	JD1354-A	JD1404-A
Type/Use		4WD/Agricultural				
Dimensions, mm (in)	Overall Length	4500 (177.17)	4790 (188.58)	4800 (188.98)	4800 (188.98)	4900 (192.91)
	Overall Width	1945-2445 (76.57-96.26)	1980-2480 (77.95-97.64)	2180-2480 (85.83-97.64)	2180-2480 (85.83-97.64)	2180-2480 (85.83-97.64)
	Overall Height (to Top of Cab)	2725 (107.28) (Use 16.9-34 Rear Wheel) 2760 (108.66) (Use 18.4-34 Rear Wheel)	2725 (107.28) (Use 16.9-34 Rear Wheel) 2760 (108.66) (Use 18.4-34 Rear Wheel)	2725 (107.28) (Use 16.9-34 Rear Wheel) 2760 (108.66) (Use 18.4-38 Rear Wheel)	2725 (107.28) (Use 16.9-34 Rear Wheel) 2760 (108.66) (Use 18.4-38 Rear Wheel)	2760 (108.66) (Use 18.4-38 Rear Wheel)
Wheelbase, mm (in)		2310 (90.94)	2560 (100.79) (Deere Engine) 2440 (96.06) (Supplier Engine)	2560 (100.79) (Deere Engine) 2440 (96.06) (Supplier Engine)	2560 (100.79) (Deere Engine) 2440 (96.06) (Supplier Engine)	2560 (100.79) (Four Cylinders) 2677 (105.40) (Six Cylinders)
Tread, mm (in)	Front Driving Wheel Factory State	1729 (68.07)	1729 (68.07)	1740 (68.50)	1740 (68.50)	1740 (68.50)
	Rear Driving Wheel Factory State	1713 (67.44)	1713 (67.44)	1710 (67.32)	1710 (67.32)	1710 (67.32)
Toe-in, mm (in)		0-7 (0-0.28)				
Ground Clearance, mm (in) ^a	MFWD Differential bottom	380 (14.96)	380 (14.96)	480 (18.90)	480 (18.90)	480 (18.90)
	MFWD Transfer Case Bottom	420 (16.54)	420 (16.54)	480 (18.90)	480 (18.90)	480 (18.90)
	Drawbar Pin Bottom	345 (13.58)	345 (13.58)	420 (16.54)	420 (16.54)	420 (16.54)
Minimum Operating Weight, kg (lb)		4414 (9731)	4592 (10124)	4640 (10229)	4820 (10626)	4860 (10714)
Maximum Ballasts	Front Ballasts, kg (lb)	8 x 40 (88.18)	12 x 47 (103.61)	16 x 47 (103.61)	16 x 47 (103.61)	16 x 47 (103.61)
	Rear Ballasts, kg (lb)	8 x 55 (121.25)				
Minimum Turning Radius without Brakes, m (ft)	4WD	≤ 4.5 (14.76)	≤ 5.5 (18.04)	≤ 5.5 (18.04)	≤ 5.5 (18.04)	≤ 5.5 (18.04) (Four Cylinders) ≤ 6 (19.69) (Six Cylinders)
	2WD	≤ 4 (13.12)	≤ 5 (16.4)	≤ 5 (16.4)	≤ 5 (16.4)	≤ 5 (16.4) (Four Cylinders) ≤ 5.5 (18.04) (Six Cylinders)
PTO Shaft Properties	PTO Output Power, kW	≥ 64	≥ 73	≥ 77	≥ 84.4	≥ 87.6
Traction Properties	Maximum Drawbar Force, kN	≥ 31	≥ 36	≥ 39	≥ 42	≥ 42
	Maximum Drawbar Power, kW	≥ 53	≥ 61	≥ 66.5	≥ 75	≥ 77.5

Continued on next page

CP00612,0000723 -19-19JUN17-1/2

Specifications

Main Technical Parameters						
Tractor Model		JD954	JD1104	JD1204-A	JD1354-A	JD1404-A
Hy-draulic Sus- pension System Proper- ties	Type	Open Center, Separated				
	Bore, mm (in)	70 (2.76)	80 (3.15) (Standard) 70 (2.76) (Optional)	80 (3.15) (Standard) 70 (2.76) (Optional)	80 (3.15) (Standard) 70 (2.76) (Optional)	80 (3.15) (Standard) 70 (2.76) (Optional)
	Maximum Lifting Force (at Lower Suspension Point 610 mm (24 in)), kN	≥ 24	≥ 30 (Standard) ≥ 24 (Optional)	≥ 30 (Standard) ≥ 24 (Optional)	≥ 30 (Standard) ≥ 24 (Optional)	≥ 30 (Standard) ≥ 24 (Optional)

^aGround clearance specifications are measured from machine which is equipped with biggest tires.

CP00612,0000723 -19-19JUN17-2/2

Machine Specifications

NOTE: Specifications and design subject to change without notice.

General Specifications										
Tractor Model		JD954	JD1104		JD1204-A		JD1354-A		JD1404-A	
Engine and Accessories	Engine Type	Inline, High-Pressure Common Rail	Inline, High-Pressure Common Rail	Inline, Electric Monomer Pump	Inline, High-Pressure Common Rail	Inline, Electric Monomer Pump	Inline, High-Pressure Common Rail	Inline, Electric Monomer Pump	Inline, High-Pressure Common Rail	Inline, High-Pressure Common Rail
	Engine Model	4045HC-P25	4045HC-P05	LR4M3L-U22/084 6E	4045HC-P10	LR4M5L-U22/092 0E	4045HC-P20	LR4M5L-U22/099 3E	4045HC-P23	6068HC-P01
	Air Inlet Type	Turbocharged Inter-cooled								
	Cooling Type	Circulating Water Cooling								
	Number of Cylinders	4	4	4	4	4	4	4	4	6
	Bore x Stroke, mm x mm (in x in)	106.5 x 127 (4.19 x 5)	106.5 x 127 (4.19 x 5)	110 x 125 (4.33 x 4.92)	106.5 x 127 (4.19 x 5)	110 x 135 (4.33 x 5.31)	106.5 x 127 (4.19 x 5)	110 x 135 (4.33 x 5.31)	106.5 x 127 (4.19 x 5)	106.5 x 127 (4.19 x 5)
	Displacement, L	4.5	4.5	4.75	4.5	5.13	4.5	5.13	4.5	6.8
	Engine Power at Rated Speed, kW (hp)	69.9 (95)	80.9 (110)	80.9 (110)	88.2 (120)	88.2 (120)	99.3 (135)	99.3 (135)	103.1 (140)	103.1 (140)
	Rated Speed, rpm	2200								
	Maximum Engine Torque, N·m (lb·ft)	405 (299)	504 (372)	474 (350)	548 (404)	515 (380)	556 (410)	534 (394)	556 (410)	602 (444)
	Speed at Maximum Torque, rpm	1400	1600	1400-1600	1600	1400-1600	1600	1400-1600	1600	1600
	Slow Idle, rpm	850-900	850-900	800-850	850-900	800-850	850-900	800-850	850-900	850-900
	Fast Idle, rpm	2325-2375								
	Air Cleaner Type	Dry-type Air Cleaner								
Fuel Tank	Cubage, L (gal)	150 (39.62)	220 (58.12)	210 (55.48)	220 (58.12)	210 (55.48)	220 (58.12)	210 (55.48)	220 (58.12)	265 (70.01)
Steering and Braking System	Steering System Type	Hydraulic Steering								
	Redirector Type	Open Center and Non-reaction								
	Braking System Type	Mechanical								
Safety Starting Device Type		Neutral Start								

Continued on next page

CP00612,0000724 -19-19JUN17-1/3

Specifications

General Specifications										
Tractor Model		JD954	JD1104		JD1204-A		JD1354-A		JD1404-A	
Transmission System	Clutch Type (opinion 1)	-	-	-	Wet	Wet	Wet	Wet	Wet	Wet
	Clutch Type (opinion 2)	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
	PTO Clutch Type (opinion 1)	-	-	-	Wet	Wet	Wet	Wet	Wet	Wet
	PTO Clutch Type (opinion 2)	Dry Detached	Dry Detached	Dry Detached	Dry Detached	Dry Detached	Dry Detached	Dry Detached	Dry Detached	Dry Detached
	Gears Forward x Gears Reverse (opinion 1)	-	-	-	24F/8R	24F/8R	24F/8R	24F/8R	24F/8R	24F/8R
	Gears Forward x Gears Reverse (opinion 2)	12F/4R	12F/4R	12F/4R	12F/4R	12F/4R	12F/4R	12F/4R	12F/4R	12F/4R
	Gears Forward x Gears Reverse (Optional 3)	-	-	-	24F/12R	24F/12R	24F/12R	24F/12R	24F/12R	24F/12R
	Gears Forward x Gears Reverse (Optional 4)	12F/4R (A gear adjusted)								
	Transmission Shift Mode	Synchronizer								
	Transmission Shift Mode (Optional)	Collar Shift								
	Auxiliary Transmission Shift Mode	A, B Gear: Collar Shift C, D Gear : Synchronizer Hi-lo: Power shift								
	Auxiliary Transmission Shift Mode (Optional)	A, B, C, and D Gear: Collar Shift								
	Central Drive Type (Front/Rear)	Spiral Bevel Gear / Spiral Bevel Gear								
	Differential Type (Front/Rear)	Planetary Gear / Planetary Gear								
	Differential Lock Type (Front/Rear)	Mechanical / Mechanical								
	Final Drive Type (Front/Rear)	Planetary Gear / Planetary Gear								
Walking System	Frame Type	Frameless								
Working Device	Hydraulic Suspension System	Type	Open Center , Separated							
		Suspension Type	Rear Three-point Hitch							
		Suspension Category	II							
		Tillage Depth Control Method	Position Control Draft Control , Composite Control (Optional)							
		Hydraulic Pump	Gear Pump							
		Hydraulic Pump Flow at Rated Speed, L/min	≥ 50							
		System Relief Valve Fully Open Pressure, MPa	19-20							
		Hydraulic Output Connector Specifications	12.5-A ISO724.1							
		Hydraulic Output Device	Three Pieces							
		Hydraulic Output Device (Optional)	One Piece or Two Pieces							

Continued on next page

CP00612,0000724 -19-19JUN17-2/3

Specifications

General Specifications						
Tractor Model		JD954	JD1104	JD1204-A	JD1354-A	JD1404-A
Working Device	Electrical System	Type	Negative Ground			
		Battery Voltage, V	12			
		Cold Start Current, A	960 (Deere Engine) 850 (Supplier Engine)			
		Alternator Output Current, A	90 (Deere Engine) 70 (Supplier Engine)			
		Starter Motor Power, kW	2.5 (Deere Engine) 3.8 (Supplier Engine)			
	PTO Shaft	Type	Independent			
		Outer Spline Specifications, mm (in)	6/21 Spline: $\phi 35$ (1.38)			
		Speed, rpm	540/1000			
		Transmission Ratio	(112 : 29) / (95 : 46)			
		Outer Spline Specifications, mm (in) (Optional 1)	8 Spline: $\phi 38$ (1.50)			
		Speed, rpm (Optional 1)	840			
		Transmission Ratio (Optional 1)	102 : 39			
		Outer Spline Specifications, mm (in) (Optional 2)	8 Spline: $\phi 38$ (1.50)			
		Speed, rpm (Optional 2)	760			
		Transmission Ratio (Optional 2)	55 : 19			
		Outer Spline Specifications, mm (in) (Optional 3)	8 Spline: $\phi 38$ (1.50)			
		Speed, rpm (Optional 3)	830			
		Transmission Ratio (Optional 3)	58 : 22			
	Draft Device	Type	Independent			
		Composition	Swing Rod Type			

CP00612,0000724 -19-19JUN17-3/3

Specifications

General Specifications							
Tractor Model			JD954	JD1104	JD1204-A	JD1354-A	JD1404-A
Main Container Re-fill Capacities and Oil Grade	Fuel Tank L (gal)	Ordinary Diesel (GB252-2011) Summer: No.0 Winter: No. -35	150 (39.62)	210 (55.48)	210 (55.48)	210 (55.48)	210 (55.48) (Four Cylinders) 255 (67.36) (Six Cylinders)
	Transmission Case, L (gal)	GreatWall Hydraulic/Transmission/Brake Three Functions Oil, John Deere HY-GARD or John Deere Low Viscosity HY-GARD	60 (15.85)				
	Crankcase, including Filter, L (gal)	John Deere PLUS-50 or John Deere TORQ-GARD SUPREME	15 (3.96)	15 (3.96) (Deere Engine) 17 (4.49) (Supplier Engine)	15 (3.96) (Deere Engine) 17 (4.49) (Supplier Engine)	15 (3.96) (Deere Engine) 17 (4.49) (Supplier Engine)	15 (3.96) (Four Cylinders) 23.1 (6.1) (Six Cylinders)
	MFWD Axle Housing, L (gal)	GreatWall Hydraulic/Transmission/Brake Three Functions Oil,	5.5 (1.45)	5.5 (1.45)	5 (1.32) (Deere Engine) 5.5 (1.45) (Supplier Engine)	5 (1.32) (Deere Engine) 5.5 (1.45) (Supplier Engine)	5 (1.32)
	MFWD Wheel Hub (Each Side), L (gal)	John Deere HY-GARD or John Deere Low Viscosity HY-GARD	1.1 (0.29)	1.1 (0.29)	0.8 (0.21) (Deere Engine) 1.1 (0.29) (Supplier Engine)	0.8 (0.21) (Deere Engine) 1.1 (0.29) (Supplier Engine)	0.8 (0.21)
	Cooling System, L (gal)	GreatWall No. -35 Antifreeze or John Deere COOL-GARD II Coolant	18 (4.76)	18 (4.76) (Deere Engine) 20 (5.28) (Supplier Engine)	18 (4.76) (Deere Engine) 20 (5.28) (Supplier Engine)	18 (4.76) (Deere Engine) 20 (5.28) (Supplier Engine)	18 (4.76) (Four Cylinders) 23 (6.08) (Six Cylinders)
	Air-conditioning System, g	R134a	1800				

CP00612,0000724 -19-19JUN17-4/3

Ground Speeds

NOTE: Ground speeds for engine speed at 2200 rpm.

12F X 4R		30K					
		16.9-34 Tires		18.4-34 Tires		18.4-38 Tires	
Range	Range	km/h	mph	km/h	mph	km/h	mph
A	1	2.7	1.68	2.9	1.80	3.1	1.93
A	2	3.9	2.42	4.2	2.61	4.4	2.73
A	3	5.2	3.23	5.6	3.48	5.8	3.60
B	1	5.6	3.48	6.0	3.73	6.3	3.91
B	2	7.9	4.91	8.6	5.34	9.0	5.59
B	3	10.6	6.59	11.4	7.08	12.0	7.46
C	1	9.4	5.84	10.1	6.28	10.6	6.59
C	2	13.4	8.33	14.4	8.95	15.2	9.44
C	3	17.8	11.06	19.2	11.93	20.2	12.55
D	1	14.4	8.95	15.5	9.63	16.3	10.13
D	2	20.5	12.74	22.1	13.73	23.2	14.42
D	3	27.3	16.96	29.4	18.27	30.9	19.20
A	R	-5.3	-3.29	-5.7	-3.54	-6.0	-3.73
B	R	-10.9	-6.77	-11.7	-7.27	-12.3	-7.64
C	R	-18.4	-11.43	-19.8	-12.30	-20.8	-12.92
D	R	-28.1	-17.46	-30.3	-18.83	-31.9	-19.82

24F X 8R		30K					
		16.9-34 Tires		18.4-34 Tires		18.4-38 Tires	
Range	Range	km/h	mph	km/h	mph	km/h	mph
A	1 L	2.3	1.43	2.4	1.49	2.6	1.62
A	1H	2.7	1.68	2.9	1.80	3.0	1.86
A	2 L	3.3	2.05	3.5	2.17	3.6	2.24
A	2H	3.9	2.42	4.2	2.61	4.2	2.61
A	3 L	4.4	2.73	4.6	2.86	4.8	2.98
A	3H	5.2	3.23	5.5	3.42	5.7	3.54
B	1 L	4.7	2.92	5.0	3.11	5.2	3.23
B	1H	5.6	3.48	5.9	3.67	6.2	3.85
B	2 L	6.7	4.16	7.1	4.41	7.4	4.60
B	2H	8.0	4.97	8.4	5.22	8.8	4.47
B	3 L	8.9	5.53	9.5	5.90	9.9	6.15
B	3H	10.6	6.59	11.2	6.96	11.7	7.27
C	1 L	7.9	4.91	8.4	5.22	8.8	5.47
C	1H	9.4	5.84	10.0	6.21	10.4	6.46
C	2 L	11.3	7.02	12.0	7.46	12.5	7.77
C	2H	13.4	8.33	14.3	8.89	14.9	9.26
C	3 L	15.0	9.32	16.0	9.94	16.7	10.38
C	3H	17.8	11.06	18.9	11.74	19.7	12.24
D	1 L	12.2	7.58	12.9	8.02	13.5	8.39
D	1H	14.4	8.95	15.3	9.51	16.0	9.94
D	2 L	17.4	10.81	18.4	11.43	19.2	11.93
D	2H	20.6	12.80	21.8	13.55	22.8	14.17
D	3 L	23.0	14.29	24.5	15.22	25.5	15.84
D	3H	27.3	16.96	29.0	18.02	30.2	18.77
A	RL	-4.5	-2.80	-4.8	-2.98	-5.0	-3.11
A	RH	-5.3	-3.29	-5.7	-3.54	-5.9	-3.67
B	RL	-9.2	-5.72	-9.8	-6.09	-10.2	-6.34

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N400041.00035C4-19-09FEB17-1/3

Specifications

24F X 8R		30K					
		16.9-34 Tires		18.4-34 Tires		18.4-38 Tires	
Range	Range	km/h	mph	km/h	mph	km/h	mph
B	RH	-10.9	-6.77	-11.6	-7.21	-12.1	-7.52
C	RL	-15.5	-9.63	-16.5	-10.25	-17.2	-10.69
C	RH	-18.4	-11.43	-19.5	-12.12	-20.4	-12.68
D	RL	-23.8	-14.79	-25.3	-15.72	-26.3	-16.34
D	RH	-28.2	-17.52	-29.9	-18.58	-31.2	-19.39

24F X 12R		30K					
		16.9-34 Tires		18.4-34 Tires		18.4-38 Tires	
Range	Range	km/h	mph	km/h	mph	km/h	mph
A	1 L	2.3	1.43	2.4	1.49	2.6	1.62
A	1H	2.7	1.68	2.9	1.80	3.0	1.86
A	2 L	3.3	2.05	3.5	2.17	3.6	2.24
A	2H	3.9	2.42	4.1	2.55	4.3	2.67
A	3 L	4.4	2.73	4.6	2.86	4.8	2.98
A	3H	5.2	3.23	5.5	3.42	5.7	3.54
B	1 L	4.7	2.92	5.0	3.11	5.2	3.23
B	1H	5.6	3.48	5.9	3.67	6.2	3.85
B	2 L	6.7	4.16	7.1	4.41	7.4	4.60
B	2H	7.9	4.91	8.5	5.28	8.8	4.47
B	3 L	8.9	5.53	9.5	5.90	9.9	6.15
B	3H	10.6	6.59	11.2	6.96	11.7	7.27
C	1 L	7.9	4.91	8.4	5.22	8.8	5.47
C	1H	9.4	5.84	10.0	6.21	10.4	6.46
C	2 L	11.3	7.02	12.0	7.46	12.5	7.77
C	2H	13.4	8.33	14.3	8.89	14.9	9.26
C	3 L	15.0	9.32	16.0	9.94	16.7	10.38
C	3H	17.8	11.06	18.9	11.74	19.7	12.24
D	1 L	12.1	7.52	12.9	8.02	13.5	8.39
D	1H	14.4	8.95	15.3	9.51	16.0	9.94
D	2 L	17.3	10.75	18.4	11.43	19.2	11.93
D	2H	20.5	12.74	21.8	13.55	22.8	14.17
D	3 L	23.0	14.29	24.5	15.22	25.5	15.84
D	3H	27.3	16.96	29.0	18.02	30.2	18.77
A	R1	-2.5	-1.55	-2.6	-1.62	-2.8	-1.74
A	R2	-3.5	-2.17	-3.8	-2.36	-4.0	-2.49
A	R3	-4.7	-2.92	-5.0	-3.11	-5.3	-3.29
B	R1	-5.1	-3.17	-5.4	-3.36	-5.8	-3.60
B	R2	-7.3	-4.54	-7.7	-4.78	-8.2	-5.10
B	R3	-9.6	-5.97	-10.2	-6.34	-10.9	-6.77
C	R1	-8.6	-5.34	-9.1	-5.65	-9.7	-6.03
C	R2	-12.2	-7.58	-13.0	-8.08	-13.8	-8.57
C	R3	-16.2	-10.07	-17.3	-10.75	-18.4	-11.43
D	R1	-13.1	-8.14	-14.0	-8.70	-14.9	-9.26
D	R2	-18.7	-11.62	-19.9	-12.37	-21.2	-13.17
D	R3	-24.9	-15.47	-26.5	-16.47	-28.2	-17.52

12F X 4R (A gear speed)		30K					
		16.9-34 Tires		18.4-34 Tires		18.4-38 Tires	
Range	Range	km/h	mph	km/h	mph	km/h	mph
A	1	3.5	2.17	3.7	2.30	3.9	2.42
A	2	4.9	3.04	5.3	3.29	5.6	3.47

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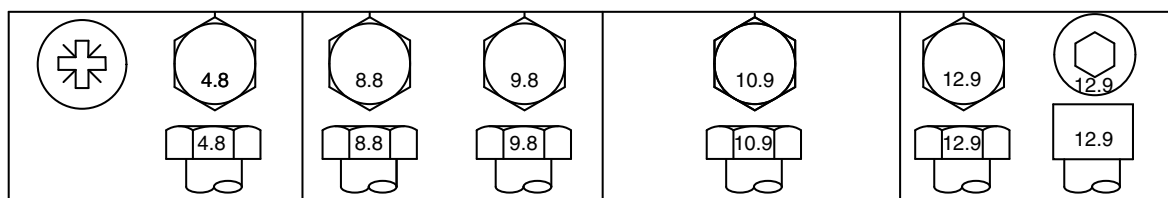
Specifications

12F X 4R (A gear speed)		30K					
		16.9-34 Tires		18.4-34 Tires		18.4-38 Tires	
Range	Range	km/h	mph	km/h	mph	km/h	mph
A	3	6.6	4.10	7.0	4.35	7.4	4.60
B	1	5.6	3.48	6.0	3.73	6.3	3.91
B	2	7.9	4.91	8.6	5.34	9.0	5.59
B	3	10.6	6.59	11.4	7.08	12.0	7.46
C	1	9.4	5.84	10.1	6.28	10.6	6.59
C	2	13.4	8.33	14.4	8.95	15.2	9.44
C	3	17.8	11.06	19.2	11.93	20.2	12.55
D	1	14.4	8.95	15.5	9.63	16.3	10.13
D	2	20.5	12.74	22.1	13.73	23.2	14.42
D	3	27.3	16.96	29.4	18.27	30.9	19.20
A	R	-6.8	-4.23	-7.2	-4.47	-7.7	-4.78
B	R	-10.9	-6.77	-11.7	-7.27	-12.3	-7.64
C	R	-18.4	-11.43	-19.8	-12.30	-20.8	-12.92
D	R	-28.1	-17.46	-30.3	-18.83	-31.9	-19.82

N400041,00035C4 -19-09FEB17-3/3

Metric Bolt and Screw Torque Values

TS1670 —UN—01MAY03



Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^b		Lubricated ^a		Dry ^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	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N·m	lb.-ft.														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. 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 fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

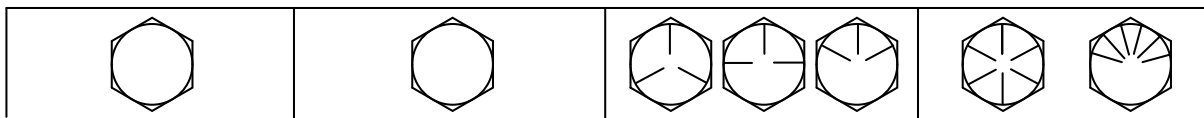
^a“Lubricated” means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.

^b“Dry” means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.

DX,TORQ2 -19-12JAN11-1/1

Unified Inch Bolt and Screw Torque Values

TS1671 —UN—01MAY03



Bolt or Screw Size	SAE Grade 1				SAE Grade 2 ^a				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c		Lubricated ^b		Dry ^c	
	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	3.7	33	4.7	42	6	53	7.5	66	9.5	84	12	106	13.5	120	17	150
													N·m	lb.-ft.	N·m	lb.-ft.
5/16	7.7	68	9.8	86	12	106	15.5	137	19.5	172	25	221	28	20.5	35	26
									N·m	lb.-ft.	N·m	lb.-ft.				
3/8	13.5	120	17.5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N·m	lb.-ft.	N·m	lb.-ft.	N·m	lb.-ft.								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N·m	lb.-ft.														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

^aGrade 2 applies for hex cap screws (not hex bolts) up to 6 in. (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

^b"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.

^c"Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B, F13E or F13H zinc flake coating.

DX,TORQ1 -19-12JAN11-1/1

Identification Numbers

Identification Plates

Each tractor has the identification plates shown on these pages. The letters and numbers stamped on the plates identify a component or assembly. ALL these characters are needed when ordering parts or identifying a tractor or

component for any John Deere product support program. They are also needed for law enforcement to trace your tractor if it is ever stolen. ACCURATELY record these characters in the spaces provided next to each of the following photographs.

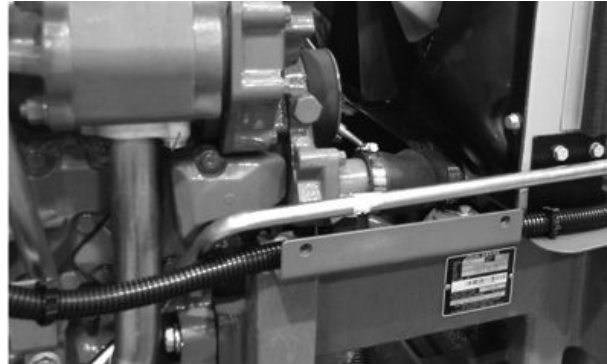
CP00613,0000675 -19-08JUN13-1/1

Record Tractor Serial Number

Serial number plate is located on the right side of front support member of the tractor.

Serial number is also stamped on the left-front side of front support, behind the serial number plate.

Tractor Serial Number:



PY14884 —UN—07JAN13



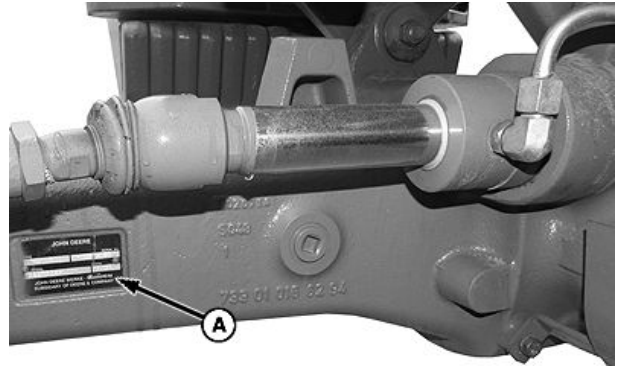
CPA0001140 —UN—27NOV14

CP00612,00020E8 -19-27NOV14-1/1

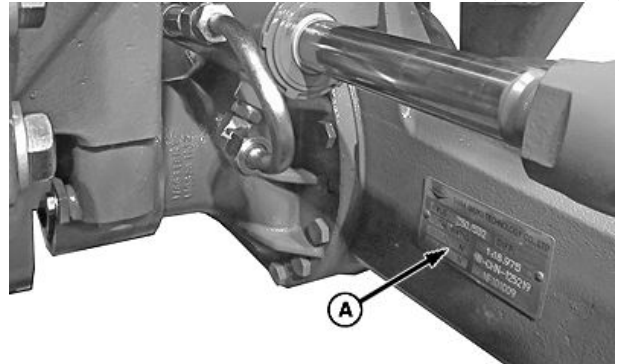
Record MFWD Front Axle Serial Number

The MFWD front-axle serial number plate is located on the right rear side of the axle housing.

Front Axle Serial Number:



For JD1204-A, JD1354-A, and JD1404-A Tractors (Deere engine)



For JD954, JD1104 Tractors (Deere engine) and JD1204-A, JD1354-A Tractors (supplier engine)

N400041.0003643 -19-18JAN17-1/1

CPA0002179 —UN—06NOV15

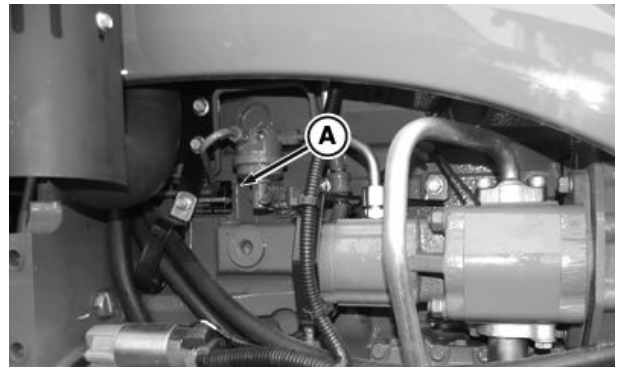
CPA0002180 —UN—06NOV15

Record Engine Serial Number

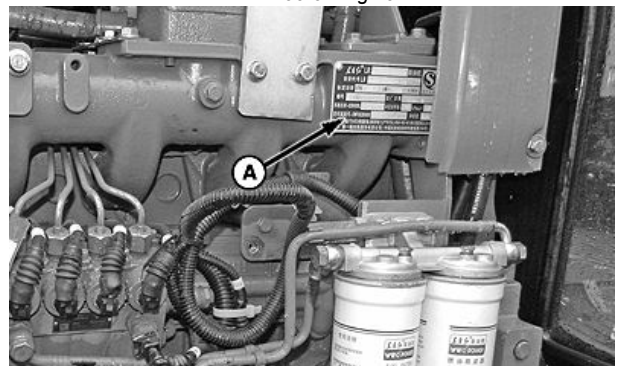
The engine serial number plate is located on the left-hand side of the engine, on air intake manifold.

Engine Serial Number:

A—Engine Serial Number Plate



Deere Engine



Supplier Engine

N400041.0003650 -19-13FEB17-1/1

PY14885 —UN—30JAN13

CPA0002178 —UN—06NOV15

Record Transmission Serial Number

Transmission serial number plate is located on the transmission housing, above left-hand side rear axle.

Transmission Serial Number:



PUC2455 —UN—01OCT09

CP00613,0000679 -19-08JUN13-1/1

Lubrication and Maintenance Record Charts

Daily or 10 Hour Service Chart

Daily or 10 Hours

- Clean outside area of engine, remove any dust, mud and greasy stain
- Check and fasten bolts on engine, make sure engine is free from leakage of gas, water and oil.

- Identify abnormal noise and vibration, observe smoke, check and remove any failure
- Check engine oil level
- Check transmission / hydraulic system oil level
- Check coolant level
- Drain water and Sediment from fuel filters and water separator

[illegible]

CP00834.0001EFD -19-13MAY16-1/1

50, 200, 250, 400, 500 Hour Service Chart**Every 50 Hours**

- Loose hardware inspection
- Inspect tires
- Lubricate steering spindles¹
- Lubricate MFWD front axle¹
- Lubricate MFWD front axle pivot pins¹
- Lubricate MFWD drive shaft
- Clean battery
- Check battery conditions
- Lubricate 3-point hitch links¹
- Adjust Alternator/Fan Belt (supplier engine)

Every 200 Hours

- Change Engine Oil and Filter (supplier engine)

Every 250 Hours

- Service air cleaner
- Adjust brake pedal free play
- Adjust clutch pedal free play
- Clean cab air filter²
- Check neutral start system
- Check MFWD axle housing oil level
- Check MFWD wheel hub oil level

- Drain water and sediment from fuel tank
- Inspect and clean fuel tank filler cap
- Inspect ROPS/Cab mounting hardware
- Trailer hitch - Check torque on attaching screws (if equipped)
- Front loader - mounting frame, check torque on attaching screws (if equipped)

Every 400 Hours

- Service EGR (supplier engine)

Every 500 Hours

- Check engine idle speeds
- Check hoses and hose clamps for tightness
- Change engine oil and filter³
- Replace transmission/hydraulic oil filter⁴
- Lubricate rear axle bearings⁴
- Check cooling system for leaks
- Replace water separator
- Replace primary fuel filter
- Replace secondary fuel filter
- Replace Primary/Secondary Fuel Filter (supplier engine)

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¹ Necessary to perform daily or 10 hr in wet or muddy conditions.² Interval can vary according to operating conditions³ If PLUS 50 oil and a John Deere filter are not used, lower this service interval to 250 hours⁴ Necessary to perform 50 hr in wet or muddy conditions

1000 Hour or Annual Service Chart

Every 1000 Hours or Annual

- Clean engine crankcase vent tube
- Change transmission/hydraulic system oil

- Change MFWD front axle housing oil¹
- Change MFWD wheel hub oil¹
- Replace primary and secondary elements²
- Check seat belt

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¹ Necessary to perform 50 hr in wet or muddy conditions.

² Interval can vary according to operating conditions

2000, 5000 Hour Service Chart

Every 2 Years or 2000 Hours (Whichever Comes First)

- Flush cooling system¹
- Adjust engine valve clearance²
- Test or replace thermostat²
- Replace crankshaft vibration damper²

Every 5 Years or 5000 Hours (Whichever Comes First)

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¹ Can be extended to 5000 hours or 5 years if John Deere COOL-GARD is used.

² See your John Deere dealer for service.

As Required Service Chart

Service as Required

- Check air intake system
- Service air conditioner (cab)
- Adjust hand throttle friction
- Front grille, side Screens, radiator and oil cooler cleaning
- Bleed fuel system
- Charge battery

- Service battery
- Adjust headlights
- Replace bulb: floodlights, headlights, turn signal lights, tail/warning lights
- Check and adjust transmission¹
- Check and adjust front, rear drive axle¹
- Check and adjust differential¹

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¹ See your John Deere dealer for service.

Index

	Page		Page
A			
Acid burns, battery		Before starting engine	40-1
Treatment.....	110-5	Bleed fuel system	105-1
Add ballast.....	65-3	Blower speed (cab), adjusting	25-4
Adjust Clutch Pedal Free Play		Bolt and screw torque values	
Clutch Pedal Free Play, Adjust	90-7	Metric	125-10
Adjust PTO clutch operating rod		Unified inch	125-11
PTO clutch operating rod, adjustment	60-7	Booster battery	40-12
Adjust seat-mechanical suspension seat	25-1	Brake pedal free travel	
Air conditioner, service	90-10	Check and adjust	90-6
Air conditioning		Brakes	
Performance, optimizing	25-6	Troubleshooting	115-5
Air filters, cab, clean	90-8	Brakes, use.....	45-8
Air induction system		Braking	45-8
Check hoses and clamps.....	90-12	Break-in engine oil	
Air intake filters		Non-Emissions certified and certified tier	
Inspect	90-1	1, tier 2, tier 3, stage I, stage II, and stage III.....	80-6
Replace.....	90-3	Break-in service	30-2
Air restriction indicator	40-6	Bulb replacement	
Alternator/fan belt		Floodlights.....	110-8
Replacement.....	110-1	Tail lights and warning lights	110-9
Avoid static electricity risk when fueling	05-4		
Axle, MFWD		C	
Check oil level.....	95-9	Cab	
Check wheel hub oil level	95-10	A/C and heater performance, optimizing	25-6
B		Air filters, clean	90-8
Ballast		Blower speed, adjusting.....	25-4
Front end for transport	65-3	Heater and A/C performance, optimizing.....	25-6
Limitations.....	65-2	Temperature, controlling	25-4
Matching to work load.....	65-1	Windshield, deicing, demisting or defrosting.....	25-5
Select.....	65-1	Wiper, operating	
Ballast, maximum front		Windshield.....	25-7
Determining.....	65-4	Cab light, use.....	20-8
Ballast, maximum rear		Cast iron weights	65-4
Determine	65-4	Cast iron weights, rear	
Ballasting		Install.....	65-5
For maximum productivity.....	65-1	Charging system	
Battery		Indicator	40-5
Access	110-3	Clutch	
Acid burn treatment.....	110-5	Troubleshooting	115-9
Booster.....	40-12	Cold weather operation	
Charge	110-3	Transmission.....	80-2
Checking condition		Controls	
Explosion danger.....	110-4	Tractor.....	15-1
Clean and check	110-4	Coolant	
Removal.....	110-4	Diesel engine	80-9
Replacement specifications	110-5	John deere COOL-GARD II coolant extender.....	80-10
Service	110-5	Coolant level	
Battery condition check	110-4	Check.....	100-3
Battery Handling, Safety		Coolant temperature gauge.....	40-7
Safety, Battery Handling	05-15	Cooling system	
Battery specifications.....	110-5	Check hoses and clamps.....	90-12
Bearings, rear axle		Components.....	100-1
Lubricate	95-10	Leaks	100-4
		Scheduled flushing.....	100-5
		Couplers, SCV.....	55-2

Continued on next page

	Page		Page
Crankcase vent tube		Engine informaton indicator.....	40-4
Clean.....	90-11	Engine oil	
Cylinder extend position	55-4	Break-In	
Cylinder float position	55-5	Non-Emissions certified and certified	
Cylinder hoses		tier 1, tier 2, tier 3, stage I, stage II,	
Connect.....	55-2	and stage III.....	80-6
Disconnect	55-3	Change interval.....	95-3, 95-4
Cylinder neutral position	55-4	Check level	95-2
Cylinder retract position.....	55-5	Diesel	
		Tier 3 and stage III	80-7, 80-8
D		Engine operation	
Daily service	35-1	Observe	30-1
Diesel engine oil		Engine serial number.....	130-2
Tier 3 and stage III	80-7, 80-8	Engine speed	
Diesel fuel.....	80-3, 80-4	Change	40-8
Diesel fuel, testing	80-4	Engine starting system	
Differential		Check neutral start.....	90-15
Check and Adjust.....	90-7	Exhaust Filter, Safety	
Differential lock		Safety, Exhaust Filter	05-18
Use.....	45-9		
Dimensions and weights		F	
Machine	125-1	Fan/alternator belt	
Door.....	25-2	Replacement.....	110-1
Draft control		Filters	
Use.....	50-6	Air	
Drawbar		Clean	90-8
Load limitations	60-1	Engine air intake	
Drawbar, swinging		Inspect.....	90-1
Use.....	60-1	Replace	90-3
Driving on public roads	45-2, 75-1	First 100 hours	
		Service	85-3
E		Floodlights	
Electrical service precautions	110-1	Bulb replacement.....	110-8
Electrical system		Floodlights, use	20-3
Troubleshooting	115-8	Flushing cooling system	100-5
Emergency exit, RH.....	25-3	Front and Rear Axle	
Engine		Troubleshooting	115-10
Avoid low speed idling	40-9	Front ballast, maximum	65-4
Before starting.....	40-1	Front end	
Change oil and filter	95-3, 95-4	Ballast for transport.....	65-3
Change speed.....	40-8	Front, Rear Drive Axle	
Check idle speeds.....	90-11	Check and Adjust.....	90-7
Clean crankcase vent tube	90-11	Fuel	
Cooling system components.....	100-1	Diesel	80-3, 80-4
Stalled	40-9	Handling and storing.....	80-1
Start	40-3	Lubricity.....	80-4
Stop.....	40-11	Fuel filter	
Troubleshooting	115-1	Replace	
Warming up.....	40-9	Primary	105-4
Work and idle speeds	40-9	Secondary	105-4, 105-5
Engine air intake filters		Fuel filters and water separator	
Inspect	90-1	Water and sediment	
Replace.....	90-3	Drain.....	105-2
Engine idle speeds		Fuel gauge.....	40-8
Check.....	90-11	Fuel system	
		Bleeding	105-1

Continued on next page

	Page		Page
Fuel tank		Retract	55-5
Drain water and sediment	105-3	Hydraulic Cylinders Troubleshooting	
Filling	80-5	Troubleshooting, Hydraulic Cylinders	115-7
Fuse		Hydraulic hose tips	
Size and function	110-11, 110-12	Correct use	55-1
Fuse panel	110-10	Hydraulic hoses	
Fuses		Connect	55-2
Locate	110-10	Disconnect	55-3
		Reconnect	55-4
G		Hydraulic oil	
Gauges		Check level	95-5
Coolant temperature	40-7	Drain	95-11
Fuel level	40-8	Hydraulic oil filter	80-11
Gear selection	45-4, 45-8	Replacement	95-6
Grease		Hydraulic system	
Multipurpose Extreme Pressure (EP)	80-12	Check hoses and clamps	90-12
Grille and side screens		Hydraulic system design	
Cleaning	100-2	Incompatibility, continuous hydraulic motor use	55-1
Ground speed estimates	125-7	Hydraulic system oil	
		Warm	55-1
		Hydraulic system troubleshooting	115-5
H		I	
Hardware torque values		Identification numbers	130-1
Metric	125-10	Implement	
Unified inch	125-11	Attachment to hitch	50-8
Hardware, loose		Match tractor power	50-1
Inspect and tighten	90-14	Implement float	
Headlights		Adjust	50-12
Adjust	110-5	Implement preparation	50-7
Aiming	110-6	Implement, PTO-driven	
Replace bulb	110-7	Attachment	60-4
Heater		Implement-to-tire clearance	70-1
Performance, optimizing	25-6	Indicator	
High beam indicator	20-4	Air restriction	40-6
Hitch		Charging system	40-5
Adjust side sway	50-11	Engine information	40-4
Components	50-1	Instrument check	
Leveling	50-11	After starting	40-4
Hitch links		J	
Lubricate	95-9	Jack up tractor	70-3
Hitch position control		L	
Set lever stop	50-5	Leakage, cooling system	100-4
Hitch side sway		Lifting points for jacking up	70-3
Adjustment	50-11	Light bulb replacement	
Hitch, 3-point		Floodlights	110-8
Attach implements to	50-8	Tail lights	110-9
Hose clamps		Warning lights	110-9
Check for tightness	90-12	Light switch positions	20-1, 20-2
Hoses, pressurized		Lightbulb replacement	
Reconnect	55-4	Headlights	110-7
Hot weather operation			
Transmission	80-2		
Hydraulic cylinder position			
Extend	55-4		
Float	55-5		
Neutral	55-4		

Continued on next page

	Page		Page
Lights		P	
Headlights, use	20-3	Position control lever	
Switch positions	20-1, 20-2	Use	50-4
Low speed idling	40-9	Position control lever stop	
Lubricant Storage		Set	50-5
Storage, Lubricant	80-5	Prestart checks	35-1, 95-2
Lubricants		Proper Use of Drawbar	
Correct use	95-1	Drawbar, Use	60-1
Lubricants, safety	80-5	PTO	
Lubricate MFWD Front Axle	95-7	Attach driven implement	60-4
Lubrication and maintenance record charts	135-2	Operate	60-5
Lubricity of diesel fuel	80-4	PTO stub shaft	
M		Reversing	60-3
Machine specifications	125-3	PTO-driven implement	
Mechanical front-wheel drive		Attach	60-4
Operate	45-9	Public roads	
Metric bolt and screw torque values	125-10	Driving	75-1
MFWD axle		Driving precautions	45-2
Change oil	95-13	Transport	75-1
Check oil level	95-9	R	
Check wheel hub oil level	95-10	Radiator cleaning	100-2
Serial number	130-2	Range, select	45-4
Tighten bolts	70-5	Range, shift	45-4
Tread settings	70-6	Rear axle bearings	
MFWD shaft		Lubricate	95-10
Lubricate	95-8	Rear axle bolts	
MFWD tractor		Tighten	70-5
Adjust toe-in	70-10	Torque values	70-5
MFWD wheel hub		Rear ballast, maximum	65-4
Change oil	95-14	Refueling, avoid static electricity risk	05-4
Multi-position rear wheels		Relay panel	110-10
Tread settings	70-8	Relays	
Multipurpose Extreme Pressure (EP) grease	80-12	Locate	110-10
N		Replace	
Neutral start system		Front turn signal bulb	110-8
Check	90-15	Restarting engine	40-9
O		RH emergency exit	25-3
Oil		Rockshaft	
Engine		Rate-of-drop adjustment	50-7
Tier 3 and stage III	80-7, 80-8	Rockshaft and 3-point hitch	
Oil cooler cleaning	100-2	troubleshooting	115-6
Oil filters	80-8	Rockshaft control	
Open Door	25-2	Draft control lever	50-3
Open Windows	25-2	Position control lever	50-3
Operate wipers	25-3	S	
Operator training	45-1	Safety	
		Protect against noise	05-2
		Safe maintenance, practice	05-17
		Tires, service safely	05-21
		Towed equipment, transport at safe speeds	05-11
		Tractor, operating safely	05-8

Continued on next page

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Continued on next page

	Page		Page
Tractor controls.....	15-1	Use	
Tractor power		Turn signal lights.....	20-6
Match to implement.....	50-1	Use cab light.....	20-8
Tractor PTO		Use headlights and floodlights.....	20-3
Operate.....	60-5	Use seat belt.....	25-1
Tractor serial number	130-1	Use tachometer/hour Meter.....	40-10
Tractor service		Use tail lights	20-5
Safety.....	85-1	Use turn signal lights	20-6
Tractor specifications.....	125-3	Use warning lights	20-5
Overall machine dimensions.....	125-1		
Tractor speeds			
By gear and range	125-7		
Tractor storage	120-1		
Tractor tow.....	75-4		
Tractor, operating safely	05-8		
Tractor, stopping.....	45-10		
Training requirements			
Operator.....	45-1		
Transmission			
Check and Adjust.....	90-5		
Cold weather operation.....	80-2		
Hot weather operation.....	80-2		
Operate.....	45-4		
Transmission oil			
Check level	95-5		
Transmission serial number	130-3		
Transmission troubleshooting.....	115-4		
Transmission, shifting			
Shifting transmission.....	45-7		
Transmission/Hydraulic filter element.....	80-11		
Transmission/hydraulic system			
Replace oil filter	95-6		
Transmission/Hydraulic system			
Check oil level.....	95-5		
Drain oil.....	95-11		
System drain plugs	95-11		
Transport			
Ballast front end	65-3		
Tread settings			
MFWD axle	70-6		
Multi-position rear wheels	70-8		
Troubleshooting			
3-point hitch	115-6		
Brakes.....	115-5		
Clutch.....	115-9		
Electrical system.....	115-8		
Engine.....	115-1		
Front and Rear Axle.....	115-10		
Hydraulic system.....	115-5		
Rockshaft.....	115-6		
Steering System.....	115-9		
Transmission.....	115-4		
TSS transmission			
Operate.....	45-4		
Turn signal lights use.....	20-6		

U

Unified inch bolt and screw torque values	125-11
---	--------

W

Warning lights	
Bulb replacement.....	110-9
Warning lights use.....	20-5
Water and sediment	
Drain from fuel tank.....	105-3
Water separator	
Replace.....	105-3
Weights	
Cast iron.....	65-4
Weights, rear, cast iron	
Install.....	65-5
Wheel bolts, tighten	
MFWD.....	70-5
Wheel hub, MFWD	
Change oil.....	95-14
Wheel slip	
Measure manually.....	65-2
Wheel/axle hardware	
Tighten	70-4
Wheels/axles	
Torque values.....	70-4
Windows.....	25-2
Windshield wiper	
Operating	25-7
Windshield, deicing, demisting or defrosting	25-5
Wipers, use.....	25-3
Work and idle engine speeds	40-9

John Deere Service Literature Available

Technical Information

Technical information can be purchased from John Deere. Publications are available in print or CD-ROM format.

Orders can be made using one of the following:

- John Deere Technical Information Store:
www.JohnDeere.com/TechInfoStore
- Call 1-800-522-7448
- Contact your John Deere dealer

Available information includes:

PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.



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OPERATOR'S MANUALS providing safety, operating, maintenance, and service information.



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TS191 —UN—02DEC88

TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in a separate component technical manual.



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TS224 —UN—17JAN89

EDUCATIONAL CURRICULUM including five comprehensive series of books detailing basic information regardless of manufacturer:

- Agricultural Primer series covers technology in farming and ranching.
- Farm Business Management series examines “real-world” problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
- Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
- Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.
- Fundamentals of Compact Equipment manuals provide instruction in servicing and maintaining equipment up to 40 PTO horsepower.



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John Deere Service Keeps You On The Job

John Deere Parts

We help minimize downtime by putting genuine John Deere parts in your hands in a hurry.

That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.



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TS100 —UN—23AUG88

The Right Tools

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.



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TS101 —UN—23AUG88

Well-Trained Technicians

School is never out for John Deere service technicians.

Training schools are held regularly to be sure our personnel know your equipment and how to maintain it.

Result?

Experience you can count on!



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TS102 —UN—23AUG88

John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

- Maintenance and service parts to support your equipment.
- Trained service technicians and the necessary diagnostic and repair tools to service your equipment.



TS201—UN—15APR13

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

- Machine model and product identification number
- Date of purchase
- Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance. Or contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at www.deere.com/en_US/ag/contactus/.

Company Address: No. 89, 13th Avenue, TEDA, Tianjin , China

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Service Hotline: 400-6576-555

Website: www.johndeere.com.cn

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