

# 3025D, 3035D and 3043D Tractors, Operator's Manual (North American Edition)



JOHN DEERE

## OPERATOR'S MANUAL

3025D, 3035D, and 3043D Tractor, Operator's  
Manual (North American Edition)

OMSJ32078 ISSUE F0 (ENGLISH)

### CALIFORNIA

#### Proposition 65 Warning

Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects, and other reproductive harm.

If this product contains a gasoline engine:

### **WARNING**

The engine exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

The State of California requires the above two warnings.

Additional Proposition 65 Warnings can be found in this manual.

**John Deere India Pvt. Ltd**

North America Edition  
PRINTED IN U.S.A.



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# Introduction

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## 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.

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 TRACTOR SERIAL (CHASSIS) NUMBER 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 pre-delivery inspection. After operating for the first 100 hours, schedule an after-sale inspection with your dealer to ensure best performance.

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

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



PY49644—UN—01AUG18  
*John Deere 3025E, 3035E and 3043E Tractors with ROPS*

*NOTE: Tractor shown may have optional equipment.*

DP97633,00003CA-19-22APR19

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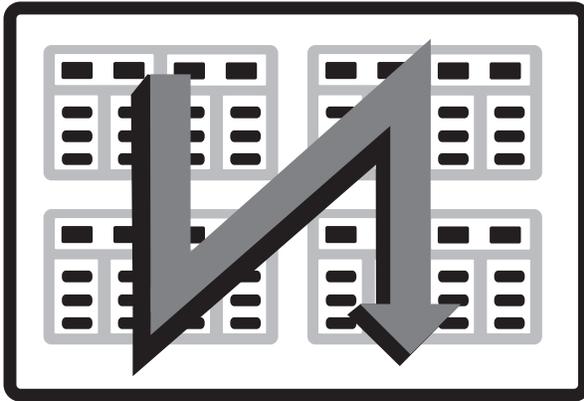
## Using this Manual

The information provided in this manual is divided into sections. The sections are organized by typical machine features or functional systems. These sections are identified at the top of each page. Specific information within each section is organized into modules. These modules are enclosed in boxes, and the main modules are identified by a heading at the top left. Page numbers identify the section, as well as the number of the page in the section.

By reviewing this manual frequently, you will learn which section to turn to for specific information. For example, the Safety information is covered at the beginning, and the Operation of all features and systems are covered in the first half of the manual. In addition, Maintenance Intervals are in the middle of the manual, the Maintenance of all the features and systems are covered in the second half of the manual, and the Specifications are covered at the end.

A detailed table of contents appears before Safety information, and there is an alphabetical index at the very end of the manual.

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



APY07755—UN—22APR19  
*Sequential Reading*

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*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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# Safety

## Recognize Safety Information



T81389—UN—28JUN13

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

Follow recommended precautions and safe operating practices.

DX,ALERT-19-29SEP98

## Follow Safety Instructions



TS201—UN—15APR13

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

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

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

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

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

DX,READ-19-16JUN09

## Understand Signal Words



**▲ WARNING**

**▲ CAUTION**

TS187—19—30SEP88

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

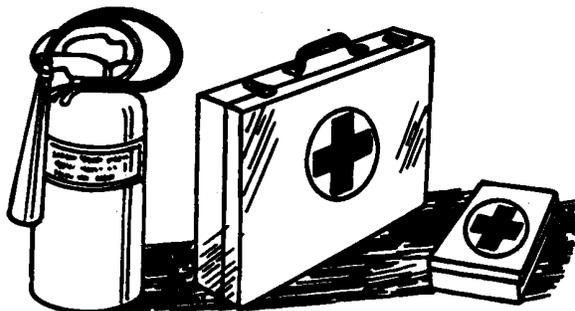
**WARNING;** The signal word WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

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

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

DX,SIGNAL-19-05OCT16

## Prepare for Emergencies



TS291—UN—15APR13

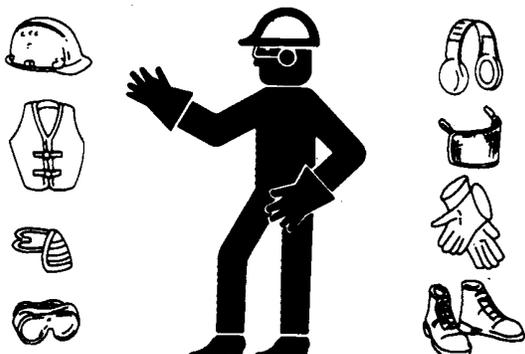
Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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

DX,FIRE2-19-03MAR93

## Wear Protective Clothing



TS206—UN—15APR13

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

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

DX.WEAR2-19-03MAR93

## Protect Against Noise



TS207—UN—23AUG88

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

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

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

DX.NOISE-19-03OCT17

## Handle Fuel Safely—Avoid Fires



TS202—UN—23AUG88

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

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

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

Use only an approved fuel container for transporting flammable liquids.

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

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

DX.FIRE1-19-12OCT11

## Handle Starting Fluid Safely



TS1356—UN—18MAR92

Starting fluid is highly flammable.

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

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

Do not incinerate or puncture a starting fluid container.

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

DX,FIRE3-19-14MAR14

## Fire Prevention

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

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

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

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

## In Case of Fire



TS227—UN—15APR13

### **CAUTION: Avoid personal injury.**

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

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

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

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

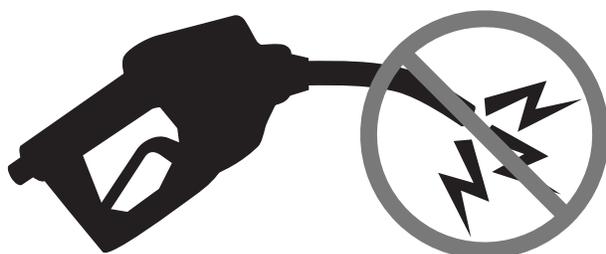
1. Pull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
2. Aim low. Point the extinguisher at the base of the fire.
3. Squeeze the lever slowly and evenly.
4. Sweep the nozzle from side-to-side.

DX,FIRE4-19-22AUG13

## Avoid Static Electricity Risk When Refueling



RG22142—UN—17MAR14



RG21992—UN—21AUG13

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

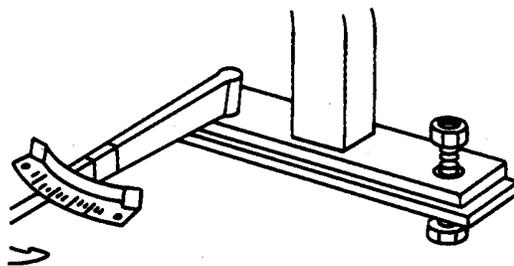
Refineries may have treated the fuel with a static dissipating additive. However, there are many factors that can reduce the effectiveness of the additive over time.

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

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

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

## Keep ROPS Installed Properly



TS212—UN—23AUG88

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

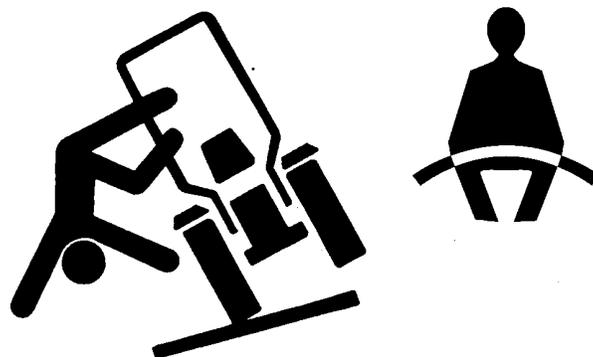
The protection offered by ROPS will be impaired if ROPS is subjected to structural damage, is involved in an overturn incident, or is in any way altered by welding, bending, drilling, or cutting. A damaged ROPS should be replaced, not reused.

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

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

DX,ROPS3-19-12OCT11

## Use Foldable ROPS and Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

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

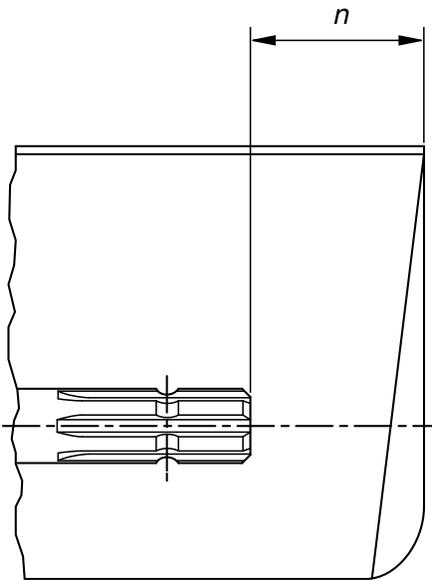
- Snug the seat belt across the hips.
- If this machine is operated with the ROPS folded (for example, to enter a low building), drive with extreme caution. **DO NOT USE** a seat belt with the ROPS folded.
- Return the ROPS to the raised, fully extended position as soon as the machine is operated under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

DX,FOLDROPS-19-22AUG13

## Stay Clear of Rotating Drivelines



TS1644—UN—22AUG95



H96219—UN—29APR10

Entanglement in rotating driveline can cause serious injury or death.

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

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

Wear close fitting clothing. Stop the engine and be sure that PTO driveline is stopped before making

adjustments, connections, or cleaning out PTO driven equipment.

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

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

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

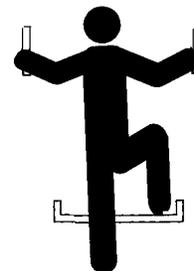
Do not raise implements high enough to damage the tractor master shield or guard of primary implement PTO driveshaft. Detach the PTO driveline shaft if it is necessary to increase implement height. (See Attching/ Detaching PTO Driveline)

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

PTO Type	Diameter	Splines	$n \pm 5 \text{ mm (0.20 in.)}$
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	57.5 mm (2.264 in.)	22	100 mm (4.00 in.)

DX,PTO-19-28FEB17

## Use Steps and Handholds Correctly



T133468—UN—15APR13

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

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

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

DX,WW,MOUNT-19-12OCT11

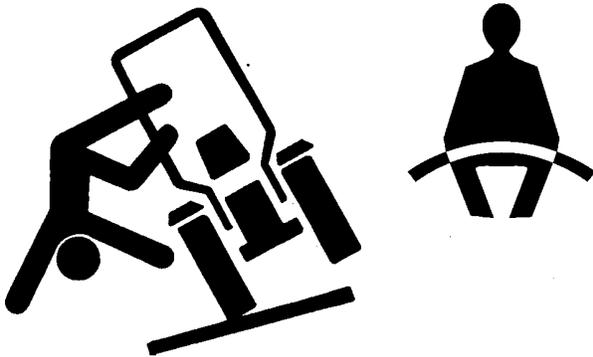
## Read Operator's Manuals for ISOBUS Controllers

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

*NOTE: ISOBUS refers to the ISO Standard 11783*

DX,WW,ISOBUS-19-15JUL15

## Use Seat Belt Properly



TS1729—UN—24MAY13

Avoid crushing injury or death during rollover.

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

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

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

Inspect seat belt and mounting hardware at least once a year. Look for signs of loose hardware or belt damage,

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such as cuts, fraying, extreme or unusual wear, discoloration, or abrasion. Replace only with replacement parts approved for your machine. See your John Deere dealer.

DX,ROPS1-19-22AUG13

## Operating the Tractor Safely

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

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

## Driving Concerns

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

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

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

#### Heated and Ventilated Operator's Seat

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

#### Towing Loads

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

#### Parking and Leaving the Tractor

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

#### Common Accidents

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

The most common accidents involving tractors are:

- Tractor rollover
- Collisions with motor vehicles
- Improper starting procedures
- Entanglement in PTO shafts
- Falling from tractor

- Crushing and pinching during hitching

DX,WW,TRACTOR-19-08MAY19

#### Avoid Backover Accidents



PC10857XW—UN—15APR13

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

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

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

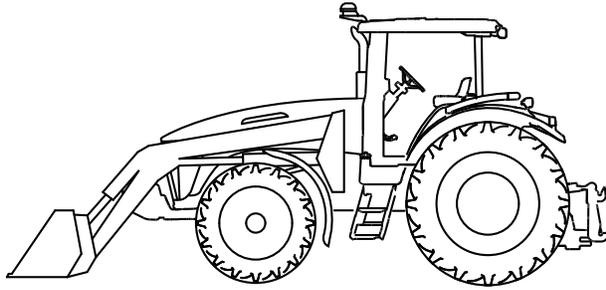
#### Limited Use in Forestry Operation

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

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

DX,WW,FORESTRY-19-12OCT11

## Operating the Loader Tractor Safely



TS1692—UN—09NOV09

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

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

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

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

Do not use loader as a work platform.

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

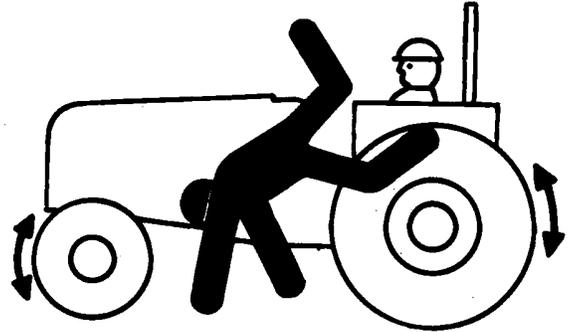
Lower loader to ground before leaving operators station.

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

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

DX,WW,LOADER-19-18SEP12

## Keep Riders Off Machine



TS290—UN—23AUG88

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

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

DX,RIDER-19-03MAR93

## Instructional Seat

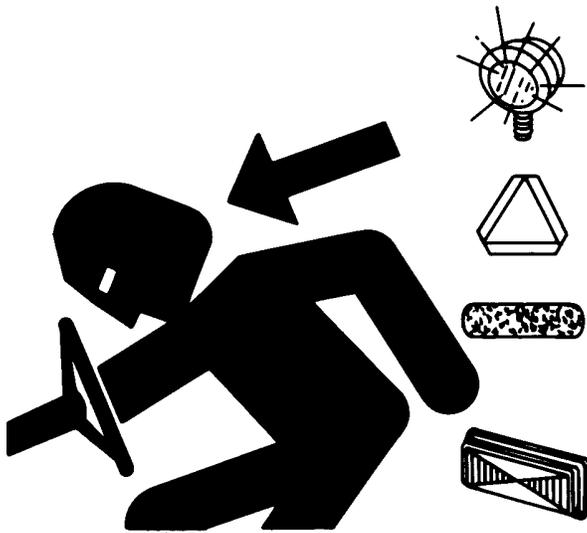


TS1730—UN—24MAY13

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

DX,SEAT,NA-19-22AUG13

## Use Safety Lights and Devices



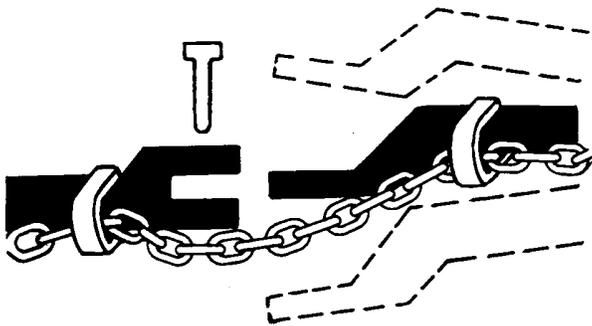
TS951—UN—12APR90

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

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.

DX.FLASH-19-07JUL99

## Use a Safety Chain



TS217—UN—23AUG88

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

## Transport Towed Equipment at Safe Speeds



TS1686—UN—27SEP06

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

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

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

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

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

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

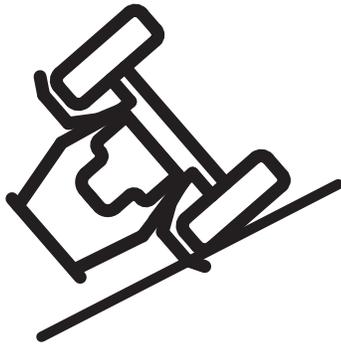
**Implements with brakes:**

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

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

DX,TOW1-19-28FEB17

### Use Caution on Slopes, Uneven Terrain, and Rough Ground



RXA0103437—UN—01JUL09

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

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

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

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

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

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

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

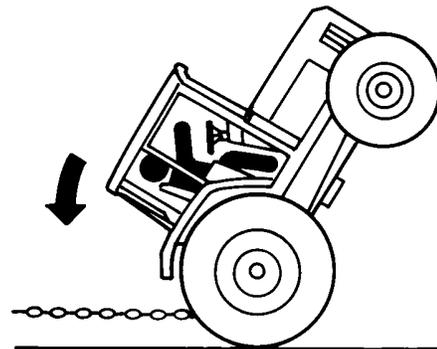
Choose a low ground speed so you will not have to stop or shift while on a slope.

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

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

DX,WW,SLOPE-19-28FEB17

### Freeing a Mired Machine



TS1645—UN—15SEP95



TS263—UN—23AUG88

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

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

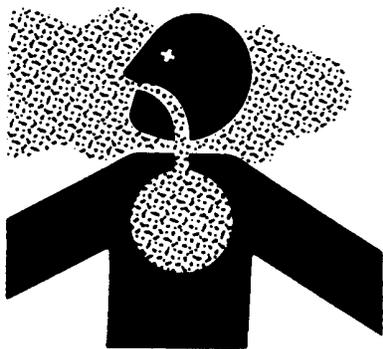
If necessary to tow with another unit, use a tow bar or a long chain (a cable is not recommended). Inspect the chain for flaws. Make sure all parts of towing devices are of adequate size and strong enough to handle the load.

Always hitch to the drawbar of the towing unit. Do not

hitch to the front pushbar attachment point. Before moving, clear the area of people. Apply power smoothly to take up the slack: a sudden pull could snap any towing device causing it to whip or recoil dangerously.

DX,MIRE-19-07,JUL99

## Avoid Contact with Agricultural Chemicals



TS220—UN—15APR13



TS272—UN—23AUG88

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

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

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

DX,CABS-19-25MAR09

## Handle Agricultural Chemicals Safely



TS220—UN—15APR13



A34471

A34471—UN—11OCT88

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

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

Reduce risk of exposure and injury:

- Wear appropriate personal protective equipment as recommended by the manufacturer. In the absence of manufacturer's instructions, follow these general guidelines:
  - Chemicals labeled **'Danger'**: Most toxic. Generally require use of goggles, respirator, gloves, and skin protection.
  - Chemicals labeled **'Warning'**: Less toxic. Generally require use of goggles, gloves, and skin protections.
  - Chemicals labeled **'Caution'**: Least toxic. Generally require use of gloves and skin protection.
- Avoid inhaling vapor, aerosol or dust.
- Always have soap, water, and towel available when working with chemicals. If chemical contacts skin, hands, or face, wash immediately with soap and water. If chemical gets into eyes, flush immediately with water.
- Wash hands and face after using chemicals and before eating, drinking, smoking, or urination.

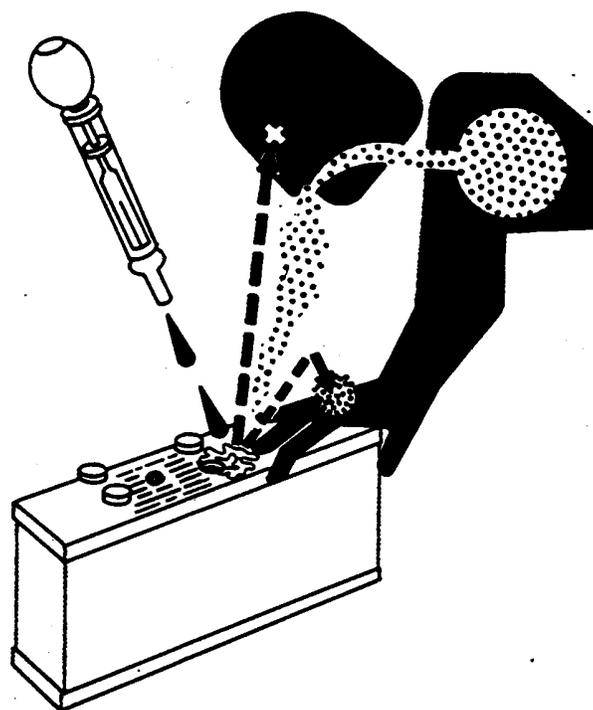
- Do not smoke or eat while applying chemicals.
- After handling chemicals, always bathe or shower and change clothes. Wash clothing before wearing again.
- Seek medical attention immediately if illness occurs during or shortly after use of chemicals.
- Keep chemicals in original containers. Do not transfer chemicals to unmarked containers or to containers used for food or drink.
- Store chemicals in a secure, locked area away from human or livestock food. Keep children away.
- Always dispose of containers properly. Triple rinse empty containers and puncture or crush containers and dispose of properly.

DX,WW,CHEM01-19-24AUG10

## Handling Batteries Safely



TS204—UN—15APR13



TS203—UN—23AUG88

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

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

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

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

### Avoid hazards by:

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

### If acid is spilled on skin or in eyes:

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

### If acid is swallowed:

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

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

DX,WW,BATTERIES-19-02DEC10

### Avoid Heating Near Pressurized Fluid Lines



TS953—UN—15MAY90

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

DX,TORCH-19-10DEC04

### Remove Paint Before Welding or Heating



TS220—UN—15APR13

Avoid potentially toxic fumes and dust.

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

Remove paint before heating:

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

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

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

Dispose of paint and solvent properly.

DX,PAINT-19-24JUL02

### Handle Electronic Components and Brackets Safely



TS249—UN—23AUG88

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

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

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

DX,WW,RECEIVER-19-24AUG10

## Practice Safe Maintenance



TS218—UN—23AUG88

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

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

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

Keep all parts in good condition and properly installed. Fix damage immediately. Replace worn or broken parts. Remove any buildup of grease, oil, or debris.

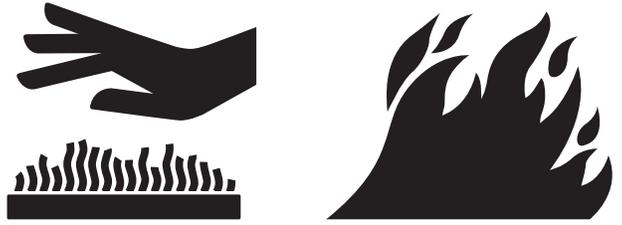
On self-propelled equipment, disconnect battery ground cable (-) before making adjustments on electrical systems or welding on machine.

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

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

DX,SERV-19-28FEB17

## Avoid Hot Exhaust



RG17488—UN—21AUG09

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

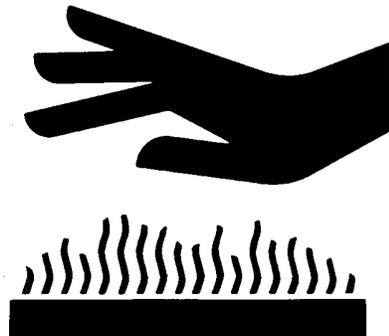
Exhaust parts and streams become very hot during operation. Exhaust gases and components reach temperatures hot enough to burn people, ignite, or melt common materials.

DX,EXHAUST-19-20AUG09

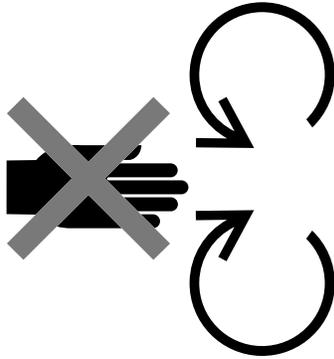
## Clean Exhaust Filter Safely



TS227—UN—15APR13



TS271—UN—23AUG88



TS1693—UN—09DEC09



TS1695—UN—07DEC09

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

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

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

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

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

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

Avoid contact with these components until cooled to safe temperatures.

If service procedure requires engine to be running:

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

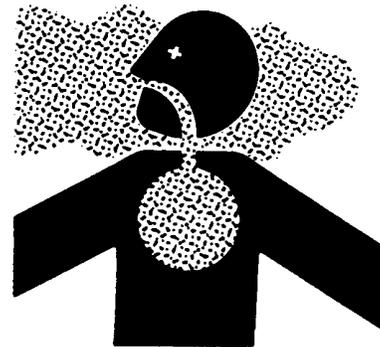
Keep hands, feet, and clothing away from power-driven parts.

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

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

DX,EXHAUST,FILTER-19-12JAN11

## Work In Ventilated Area



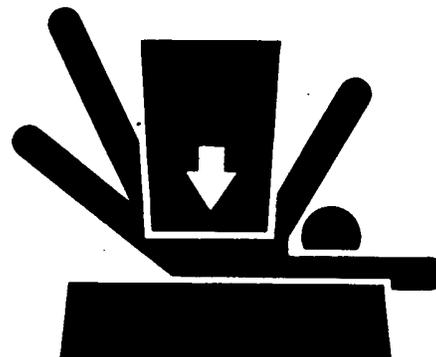
TS220—UN—15APR13

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

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

DX,AIR-19-17FEB99

## Support Machine Properly



TS229—UN—23AUG88

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

Do not support the machine on cinder blocks, hollow tiles, or props that may crumble under continuous load.

Do not work under a machine that is supported solely by a jack. Follow recommended procedures in this manual.

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

DX,LOWER-19-24FEB00

## Prevent Machine Runaway



TS177—UN—11JAN89

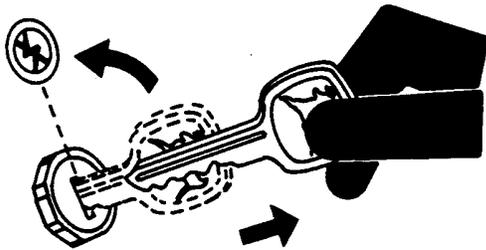
Avoid possible injury or death from machinery runaway.

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

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

DX,BYPAS1-19-29SEP98

## Park Machine Safely



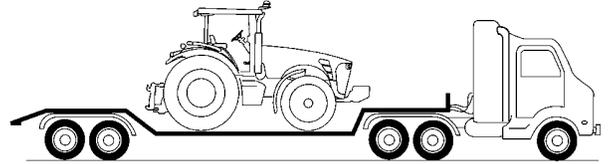
TS230—UN—24MAY89

Before working on the machine:

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

DX,PARK-19-04JUN90

## Transport Tractor Safely



RXA0103709—UN—01JUL09

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

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

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

DX,WW,TRANSPORT-19-19AUG09

## Service Cooling System Safely



TS281—UN—15APR13

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

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

DX,WW,COOLING-19-19AUG09

## Service Accumulator Systems Safely



TS281—UN—15APR13

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

Relieve pressure from the pressurized system before removing accumulator.

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

Accumulators cannot be repaired.

DX,WW,ACCLA2-19-22AUG03

## Service Tires Safely



RXA0103438—UN—11JUN09

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

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

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

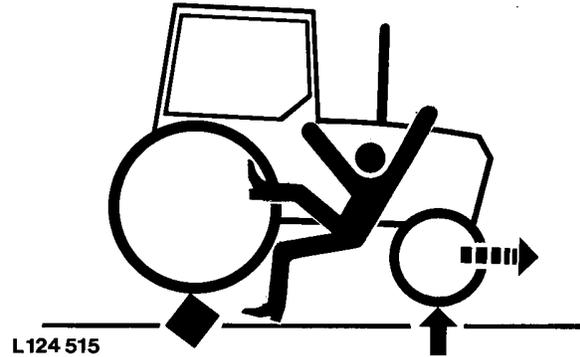
When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and NOT in front of or over the tire assembly. Use a safety cage if available.

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

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

DX,WW,RIMS-19-28FEB17

## Service Front-Wheel Drive Tractor Safely



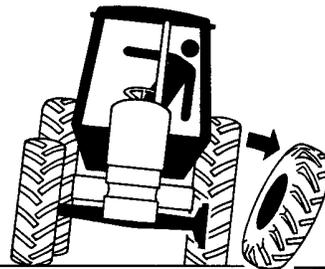
L124 515

L124515—UN—06AUG94

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

DX,WW,MFWD-19-19AUG09

## Tightening Wheel Retaining Bolts/Nuts



L124 516

L124516—UN—03JAN95

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

DX,WW,WHEEL-19-12OCT11

## Avoid High-Pressure Fluids



X9811—UN—23AUG88

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

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

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

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

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

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

DX,FLUID-19-12OCT11

## Do Not Open High-Pressure Fuel System



TS1343—UN—18MAR92

High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect or attempt repair of fuel

lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High Pressure Common Rail (HPCR) fuel system.

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

DX,WV,HPCR1-19-07JAN03

## Store Attachments Safely



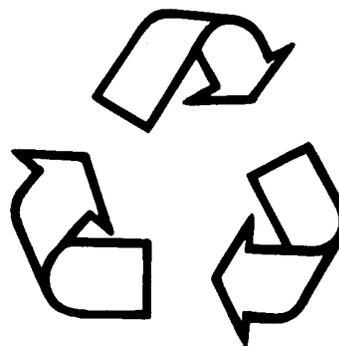
TS219—UN—23AUG88

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

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

DX,STORE-19-03MAR93

## Decommissioning — Proper Recycling and Disposal of Fluids and Components



TS1133—UN—15APR13

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

- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.

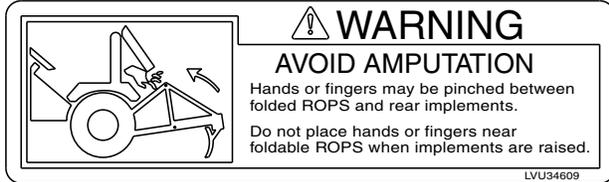
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.
- Minimize exposure to components which may have residue from agricultural chemicals,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

DX,DRAIN-19-01JUN15

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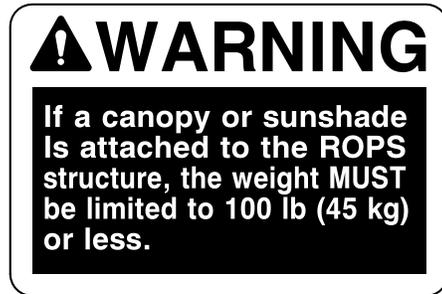
# Safety Signs

## ROPS—Rear Implements



P/N: LVU34609

APY07685—UN—31JUL18



P/N: R141735

APY02466—19—08FEB18



APY02454—UN—30JAN18

### AVOID AMPUTATION

Hands or fingers may be pinched between folded ROPS and rear implements.

Do not place hands or fingers near foldable ROPS when implements are raised.

DP97633,0000129-19-31JUL18

If a canopy or sunshade is attached to the ROPS structure, the weight **MUST** be limited to 100 lb (45 kg) or less.

DP97633,000012A-19-08FEB18

## PTO Shield

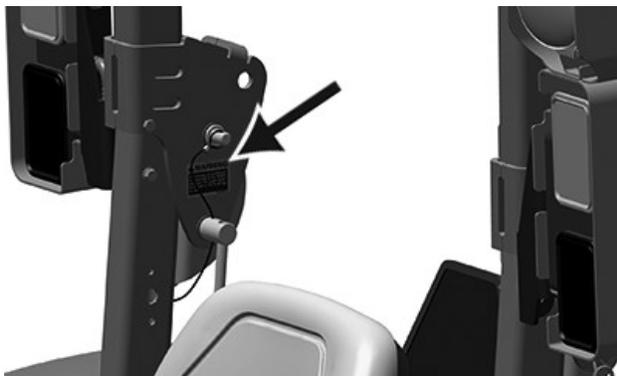


P/N: LVU34602

APY02471—19—08FEB18

## Warning Decal — ROPS

**WARNING**



On ROPS (Right Hand Side)

APY02462—UN—30JAN18



PTO Shield

APY08218—UN—27JUN18

### WARNING

### AVOID INJURY FROM PTO

- Keep all shields in place.

- Keep hands, feet and clothing away.

DP97633.000012B-19-18JUL18

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### Warning Decal — Avoid Crushing



APY02457—UN—30JAN18

*On Fender*



APY02469—19—08FEB18

*P/N: LVU34662*

### AVOID CRUSHING

- Keep Rollover Protective Structure fully extended.
- Do not jump if machine tips.
- Use seat belt.

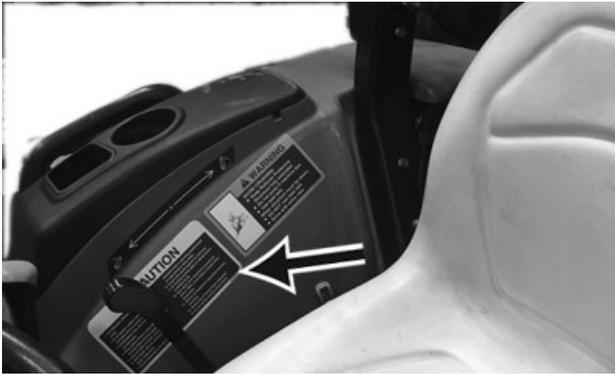
### When structure must be down:

- DO NOT use seat belt.
- Drive with extra care.

DP97633.000012D-19-18JUL18

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## Caution Decal — Safety Instructions



APY02456—UN—30JAN18

On Fender — Operator Station

13. Do not operate machine unless trained.

DP97633.000012E-19-27JUN18



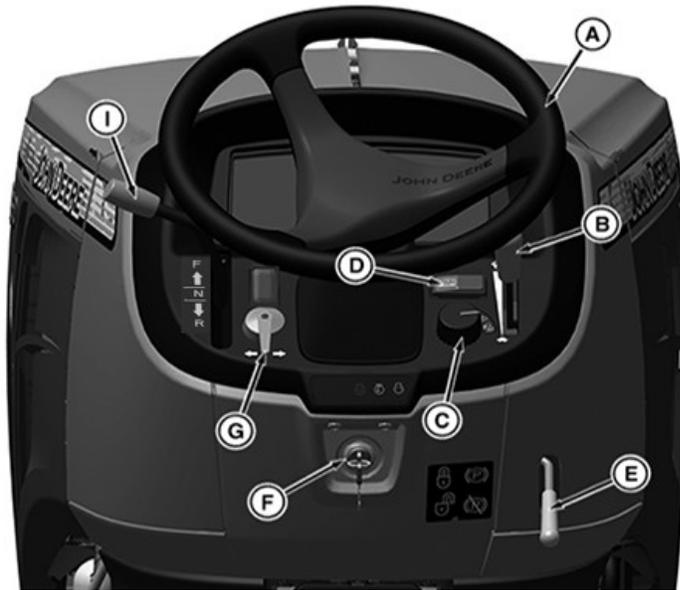
APY02470—19—21MAY18

P/N: LVU34665

1. Read Operator's Manual before operating this tractor.
2. Keep all shields in place.
3. Hitch towed loads only to drawbar to avoid rearward upset.
4. Make certain everyone is clear of machine before starting engine operation.
5. Keep all riders off tractor and equipment.
6. Keep hands, feet and clothing away from power-driven parts.
7. Reduce speed when turning or applying individual brakes or operating around hazards, on rough ground or steep slopes.
8. Couple brake pedals together for road travel.
9. Use flashing warning lights on highway unless prohibited by law.
10. Stop engine, lower equipment to ground and shift to "PARK" or set brakes securely before dismounting.
11. Wait for all movement to stop before servicing machinery.
12. Remove key if leaving tractor unattended.
13. Do not operate machine unless trained.

# Controls and Instruments

## Tractor Controls



For 3025D

APY08219—UN—31DEC18

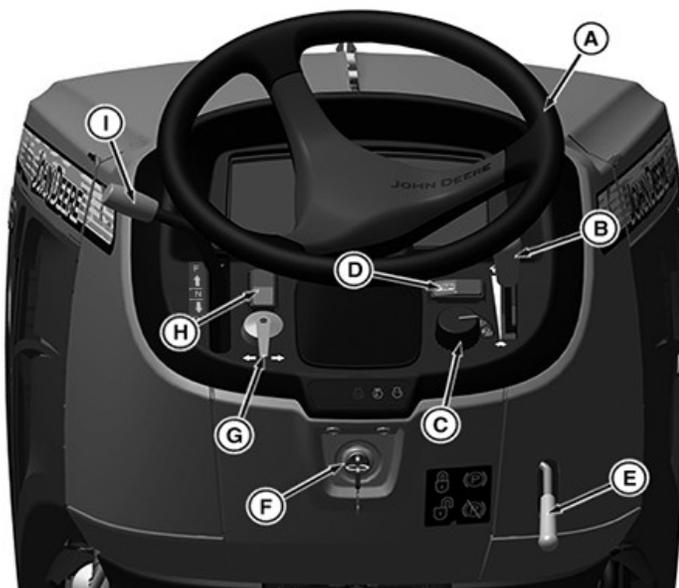


For 3025D

APY08220—UN—31DEC18

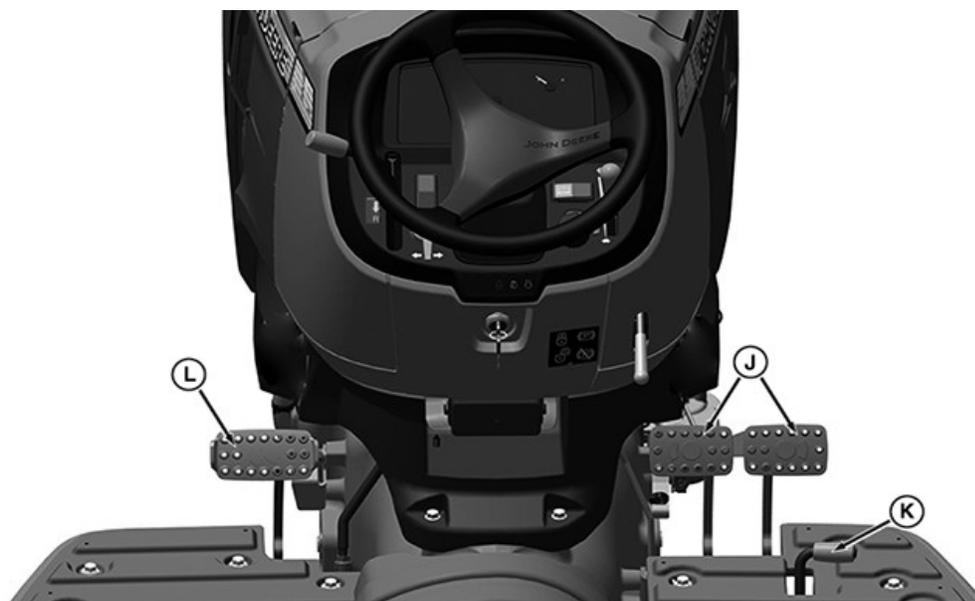
A—Steering Wheel  
B—Hand Throttle  
C—Light Switch  
D—Display Mode Switch  
E—Park Brake Lever  
F—Key Switch

G—Turn Signal and Hazard Switch  
I—Forward Reverse Lever  
J—Brake Pedals  
K—Foot Throttle  
L—Clutch Pedal



For 3035D and 3043D

APY08221—UN—31DEC18

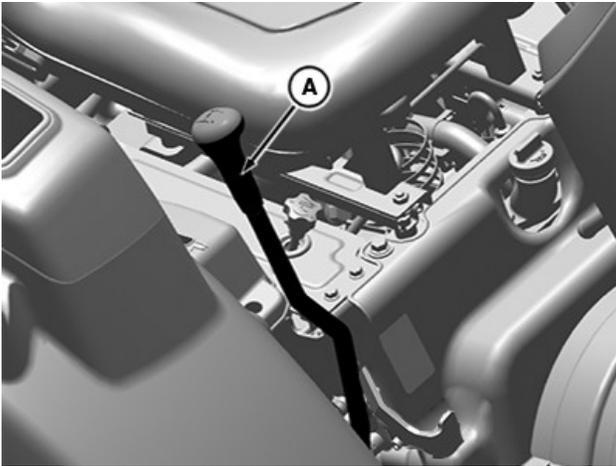


For 3035D and 3043D

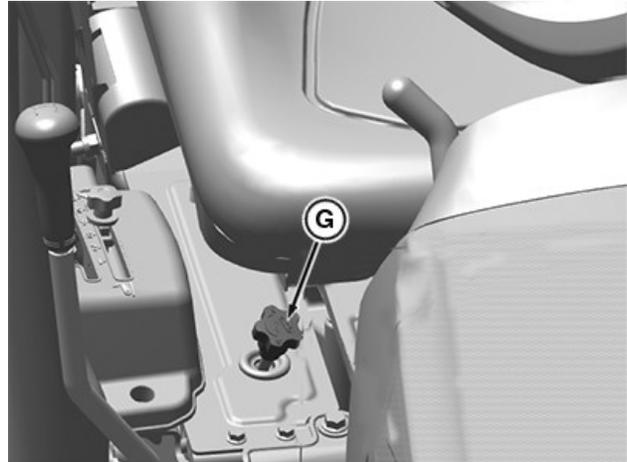
APY08222—UN—31DEC18

- A—Steering Wheel
- B—Hand Throttle
- C—Light Switch
- D—Display Mode Switch
- E—Park Brake Lever
- F—Key Switch

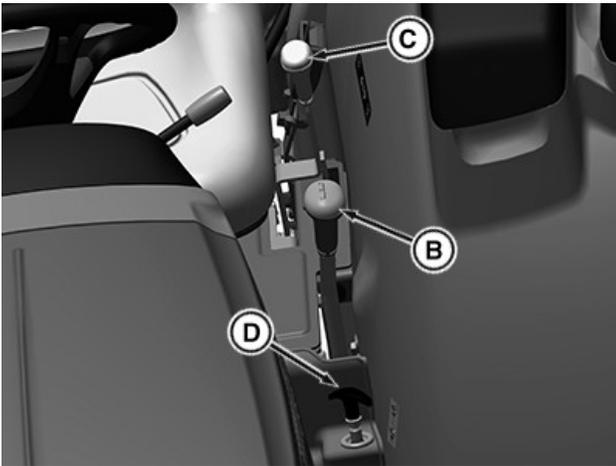
- G—Turn Signal and Hazard Switch
- H—DPF Regeneration Switch
- I—Forward Reverse Lever
- J—Brake Pedals
- K—Foot Throttle
- L—Clutch Pedal



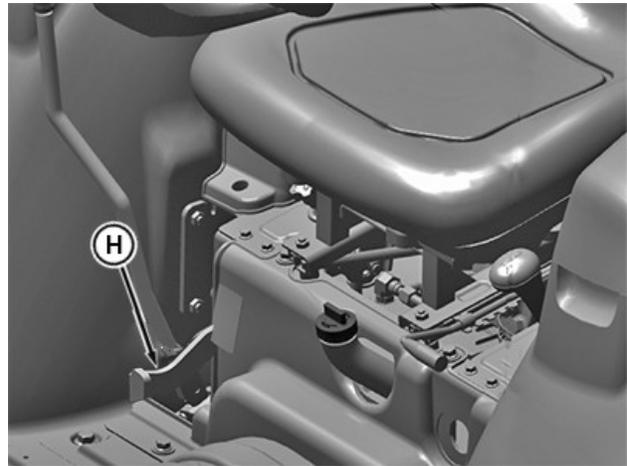
PY49652—UN—14NOV17



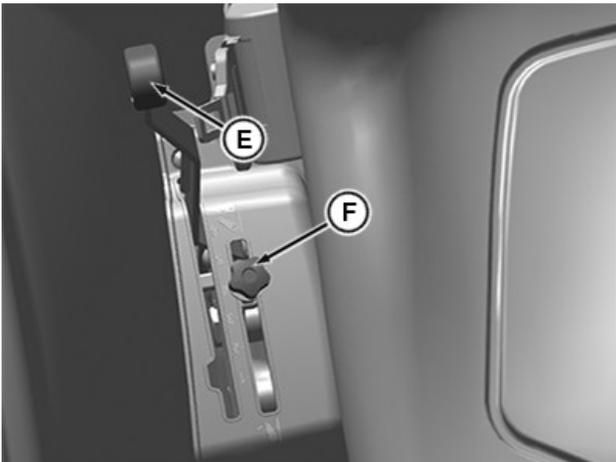
PY44490—UN—28AUG17



APY07744—UN—26FEB19



PY49653—UN—14NOV17

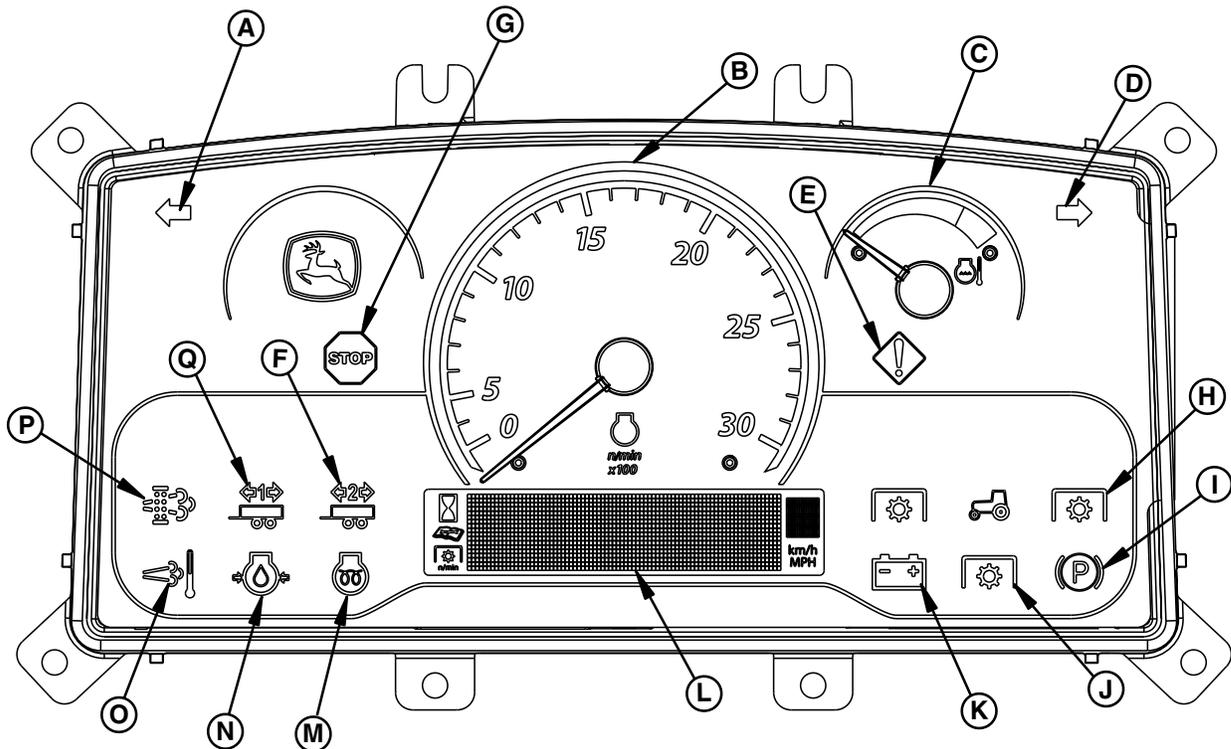


PY44489—UN—28AUG17

- A—Gear Shift Lever
- B—Range Shift Lever
- C—PTO Lever
- D—MFWD Lever
- E—Position Control Lever
- F—Position Control Lever Stop
- G—Rockshaft Rate-of-Drop Knob
- H—Differential Lock Pedal

DP97633.00003AF-19-26FEB19

## Instrument Control Panel



PY48361—UN—25JUN18

- A—Warning Indicator - Turn Left
- B—Tachometer
- C—Coolant Temperature Gauge
- D—Warning Indicator - Turn Right
- E—Service Alert Indicator
- F—Not Used
- G—Stop Indicator
- H—Not Used
- I—Parking Brake Light

- J—Rear PTO
- K—Alternator/Battery Charging Light
- L—Information Display
- M—Engine Glow Plug Indicator Light
- N—Engine Oil Pressure Light
- O—High Exhaust Temperature Indicator (if equipped)
- P—Exhaust Filter Indicator (if equipped)
- Q—Not Used

### A - Left Turn Signal/Warning Flasher Indicator Light

-Flashes when turn signal switch is moved to left turn position, or when light switch is turned to warning flasher lights ON or road position.

**B - Tachometer** - Shows engine speed. Engine speed is shown in 100 rpm. Example: If indicator is pointing at 20 (20 x 100 = 2000 rpm).

**C - Engine Coolant Temperature Gauge** - Indicates temperature of cooling system. If gauge needle reaches red range, engine is overheating and engine rpm derates.

If engine is overheated, remove load on the machine immediately. Reduce engine to idle speed and allow engine to cool. STOP engine. Check coolant level in overflow bottle and check for air flow blockage to radiator. If coolant level is correct and needle stays in red range after cleaning grille, STOP engine.

**D - Right Turn Signal/Warning Flasher Indicator Light** - Flashes when turn signal switch is moved to

right turn position, or when light switch is turned to warning flasher lights ON or road position.

**E - Service Alert Indicator** - Illuminates when a malfunction occurs (review error message in Information display). If necessary, get your John Deere dealer to diagnose the vehicle.

**F- Not Used.**

**G- Stop Indicator** - Illuminates when a serious malfunction occurs, shutoff engine IMMEDIATELY and determine cause (review error message in Information Display). If necessary, contact your nearest John Deere dealer.

**H - Not Used.**

**I - Parking Brake Light** - Illuminates when ignition key is in ON position and park brake is locked.

**J - Rear PTO**

**K - Alternator/Battery Charging Light** - Illuminates when the ignition key is in ON position and engine is not

running. If light turns on while engine is running, alternator is not charging battery. Move engine speed control lever to full throttle position. STOP engine if light remains on.

**L - Information Display** - Displays speedometer, hour meter, PTO hours, PTO speed, regeneration information, and diagnostic trouble codes (if active).

**M - Engine Glow Plug Indicator Light** - Illuminates when ignition key is in ON position and engine glow plug reaches temperature. Glow plugs are energized whenever starter is engaged.

**N - Engine Oil Pressure Light** - Illuminates when ignition key is in ON position and the engine is not running. If this light turns on while engine is running, engine oil pressure is too low. STOP engine.

**O - High Exhaust Temperature Indicator (If equipped)** - Illuminates when the temperatures are high enough inside the exhaust filter to allow active filter cleaning.

**P - Exhaust Filter Indicator (If equipped)** - Illuminates when soot levels in the filter are high and exhaust filter cleaning is needed.

**Q - Not Used.**

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DP97633,0000029-19-26JUL18

# Lights

## Light Switch Positions



APY02420—UN—22DEC17

- A—Zero - Lights Off
- B—Hazard/Warning Lights
- C—Low Beam Headlights, Hazard/Warning Lights
- D—Low Beam Headlights, Work Lamp

**⚠ CAUTION: Avoid injury! DO NOT operate on roads with the light switch in the field (work lamp) position. Rear work lights can blind or confuse operators of oncoming vehicles.**

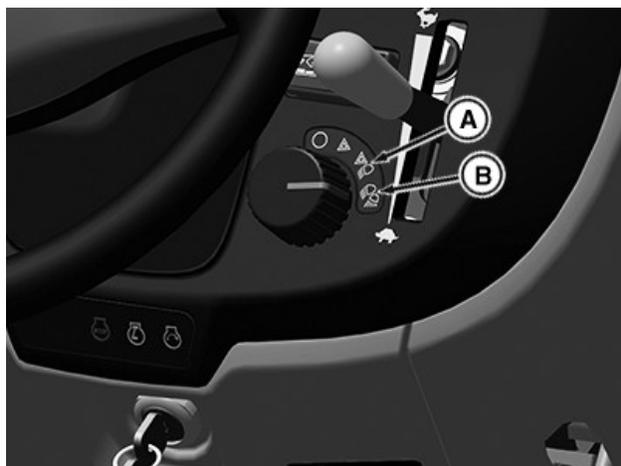
*NOTE: High beam option is not available.*

Tractor light switch has four positions:

- A—Turns off all lights.
- B—Turns on hazard/warning lights.
- C—Turns on the low beam headlights and hazard/warning lights.
- D—Turns on the low beam headlights and work lamp.

MD36154,0000315-19-21MAY18

## Use Headlights



APY02421—UN—22DEC17



APY02422—UN—22DEC17

- A—Low Beam Headlights, Hazard/Warning Lights
- B—Low Beam Headlights, Work Lamp
- C—Headlights

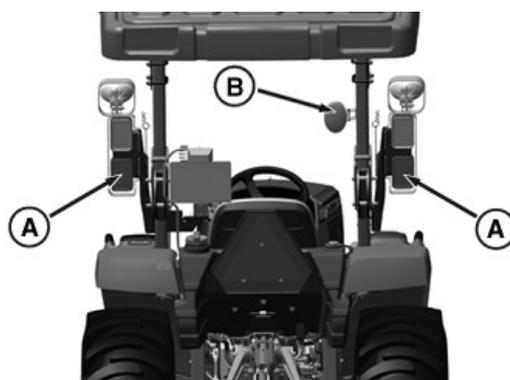
**⚠ CAUTION: Avoid injury! DO NOT operate on roads with the light switch in the field position. Rear work lights can confuse operators of oncoming vehicles.**

With the key switch in OFF position, you can view hour meter in the instrument panel by turning the headlights switch to hazard/warning lights (A) or work lamp (B) position.

Keep headlights (C) adjusted properly. See Service Adjust Headlights (section 140) in this manual.

DP97633,0000154-19-22MAY18

## Use Tail Lights



PY43078—UN—07AUG17

- A—Tail Lights
- B—Work Lamp

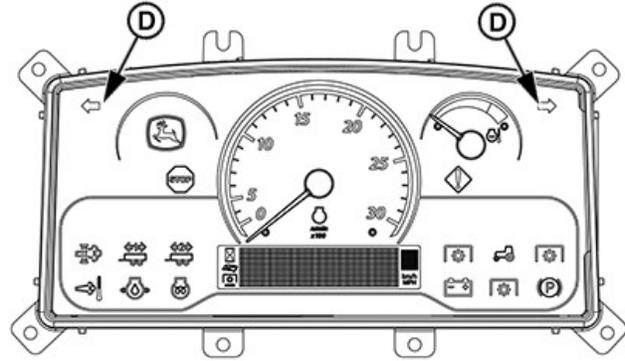
Red tail lights (A) are switched ON by headlight switch position.

Ensure that tail light lenses are clean before driving on a road, so other drivers can see it 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 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 and in good working order. Replace or repair lighting and marking that has been damaged or lost. A safety lighting kit for implement is available from your John Deere dealer.

DP97633.0000025-19-11FEB18



APY08223—UN—29JUN18

**D—Turn Indicator Lights**

Move turn signal lever (A) to the left to indicate left-hand turn or to the right side for right-hand turn. Turn indicator light (D) flashes to signal turn direction.

When the lever is right, front and rear facing lights on the right-hand side (C) flash while left-hand lights (B) glow steady. Left-hand lights (B) flash and right-hand lights (C) glow steady when lever is left.

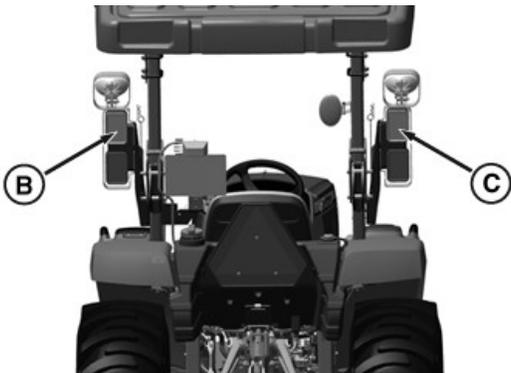
*NOTE: Be sure to return turn signal lever to center position after turning.*

DP97633.000007E-19-11JUL18

**Use Turn Signals**



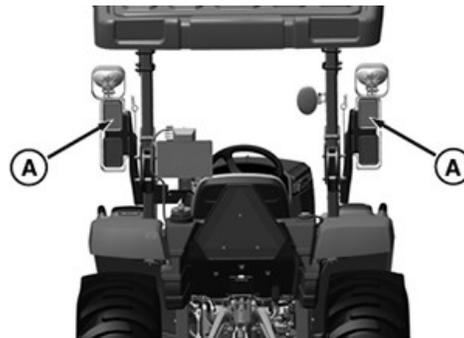
APY08224—UN—31DEC18



PY43079—UN—07AUG17

- A—Turn Signal Lever
- B—Left-Hand Lights
- C—Right-Hand Lights

**Use Hazard/Warning Lights**



APY08225—UN—02JUL18



APY08226—UN—02JUL18

- A—Turn Signal Lights
- B—Hazard/Warning Light

All turn signal lights (A) start to blink when the switch is moved to hazard/warning light position (B). When the tractor is stopped on the road, use hazard/warning lights to alert oncoming vehicles.

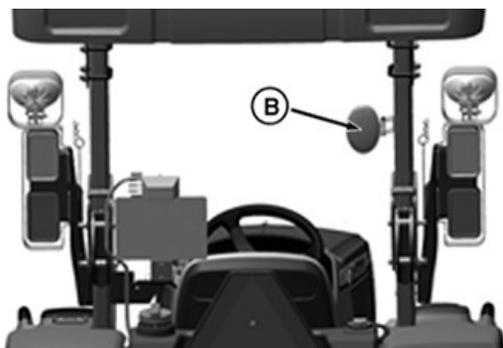
DP97633,0000155-19-02JUL18

### Use Rear Work Lamp

Work lamp (B) is switched on when the switch is moved to work lamp position (A).



APY08227—UN—02JUL18



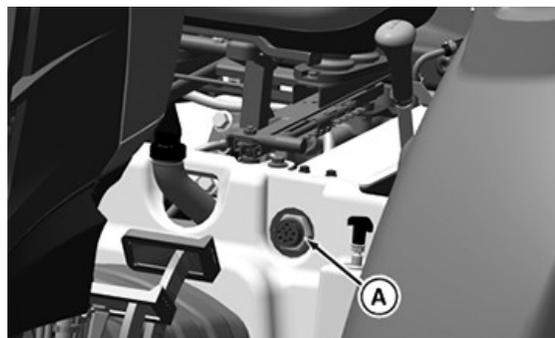
APY08228—UN—02JUL18

A—Low Beam Headlights/Work Lamp  
B—Work Lamp

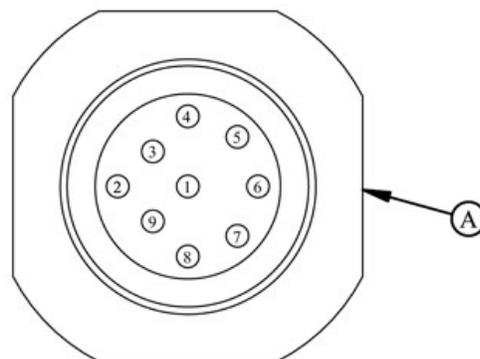
**CAUTION:** When operating on a road, move light switch to low head light position. Never use rear work light when transporting. A clear, bright light at the rear of the tractor could confuse drivers of other vehicles as they approach from the rear.

DP97633,0000080-19-02JUL18

### Service Advisor Connector



APY08229—UN—02JUL18



APY08230—UN—02JUL18

A—Service Advisor Connector

*NOTE: Matching plug is available at your John Deere dealer.*

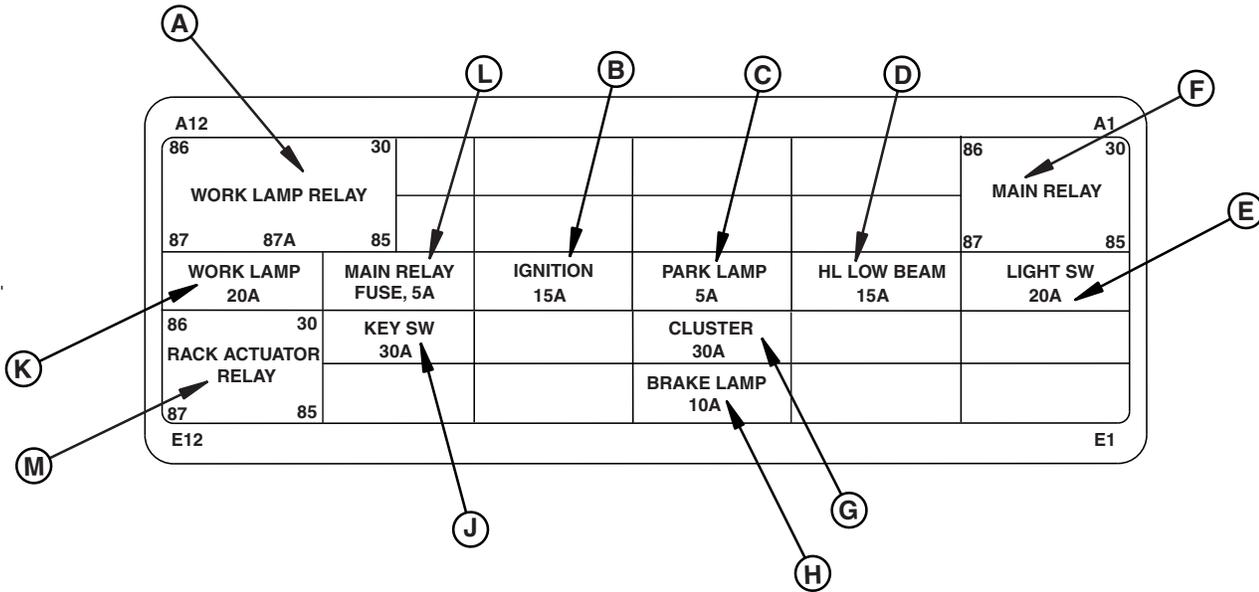
Terminal	Function	Wire Color
1	Ground	Black
2	12 V Input	Red
3	Tractor CAN Hi	Yellow
4	Tractor CAN Lo	Green
5	—	—
6	—	—
7	—	—
8	—	—
9	—	—

MD36154,0000313-19-02JUL18

**Fuse and Relay Size and Function (For 3025D)**



APY02442—UN—18JUL18



APY07753—UN—06MAR19

- A—Work Lamp Relay
- B—Ignition Fuse 15A
- C—Park Lamp Fuse 5A
- D—HL Low Beam Fuse 15A
- E—Light Switch 20A
- F—Main Relay
- G—Cluster 30A

- H—Brake Lamp Fuse 10A
- I—Fuse Box
- J—Key Switch Fuse 30A
- K—Work Lamp Fuse 20A
- L—Main Relay Fuse 5A
- M—Rack Actuator Relay

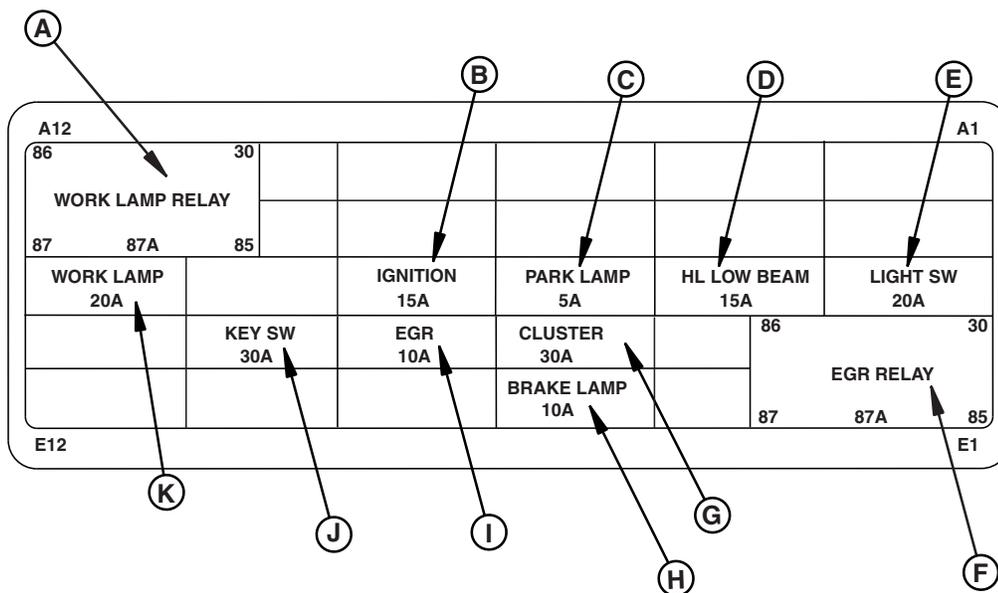
All electrical circuits are protected by fuses. Amperage rating is marked on each fuse, plus fuses are color coded to ensure proper replacement.

**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, contact your John Deere dealer.

## Fuse and Relay Size and Function (For 3035D and 3043D)



APY02426—UN—18JUL18



APY01405—UN—29DEC17

- A—Work Lamp Relay
- B—Ignition Fuse 15A
- C—Park Lamp Fuse 5A
- D—HL Low Beam Fuse 15A
- E—Light Switch 20A
- F—EGR Relay

- G—Cluster 30A
- H—Brake Lamp Fuse 10A
- I—EGR Fuse 10A
- J—Key Switch Fuse 30A
- K—Work Lamp Fuse 20A
- L—Fuse Box

All electrical circuits are protected by fuses. Amperage rating is marked on each fuse, plus fuses are color coded to ensure proper replacement.

**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, contact your John Deere dealer.

## Replacing Relays and Fuses

**IMPORTANT: Avoid damage! The electrical system can become damaged if incorrect fuses are used. Replace the bad fuse with a fuse of the same Ampere rating.**

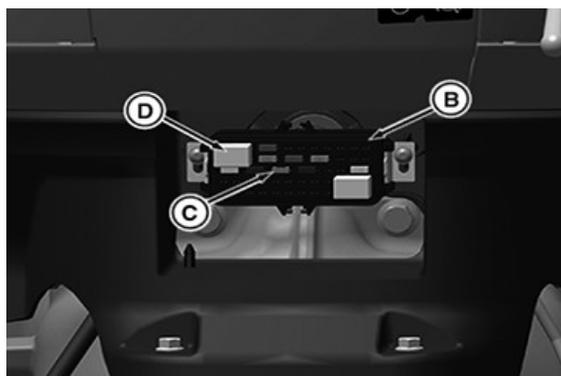
### Locating Fuses and Relays

Fuses (C) protect all the electrical circuits. Amperage rating is marked on each fuse, plus fuses are color coded to ensure proper replacement.

Sr. No.	Fuse Rating
1	5 A
2	10 A
3	15 A
4	25 A



APY08231—UN—03JUL18



APY08232—UN—03JUL18

**A—Load Center Access Panel**  
**B—Load Center**  
**C—Fuse**  
**D—Relay**

1. Park machine safely. See Park Machine (section 5) in this manual.
2. Remove load center access panel (A).
3. Remove load center cover.
4. Identify fuse or relay in load center (B).
5. Pull defective relay (D) or fuse (C) from load center.
6. Push new relay or fuse into load center.

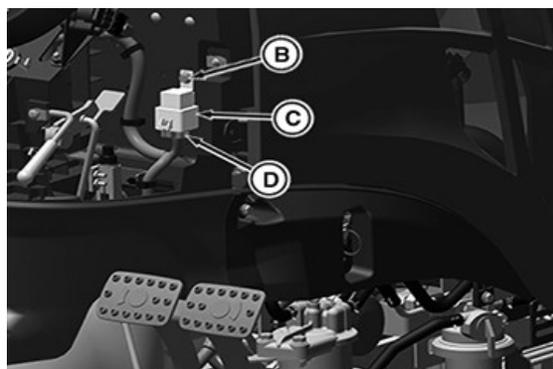
7. Install load center cover.
8. Install load center access panel.

SJ15074.000049B-19-03JUL18

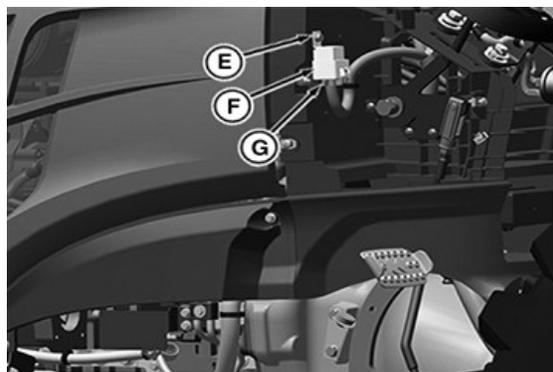
## Replacing Glow Plug Relay and Starter Engage Relay



APY08233—UN—03JUL18



APY08234—UN—03JUL18



APY08235—UN—03JUL18

**A—Side Cowl**  
**B—Bolt**  
**C—Glow Plug Relay**  
**D—Electrical Connector**  
**E—Bolt**  
**F—Starter Engage Relay**  
**G—Electrical Connector**

1. Park machine safely. See Park Machine Safely (section 5) in this manual.
2. Remove side cowl (A).

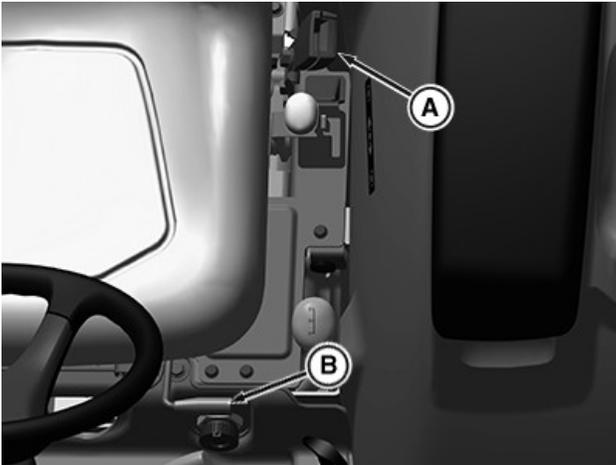
3. Identify glow plug relay (C) and starter engage relay (F) from front wiring harness.
4. Remove electrical connectors (D and G) from the glow plug relay (C) and starter engage relay (F) respectively.
5. Remove bolts (B and E).
6. Connect the electrical connectors (D and G) to the glow plug relay (C) and starter engage relay (F) respectively.
7. Tighten the bolts (B and E).
8. Install side cowl (A).

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DP97633,0000077-19-03JUL18

# Operator's Platform

## Select Seat Position



APY07745—UN—26FEB19

- A—Seat Belt
- B—Seat Adjustment Lever

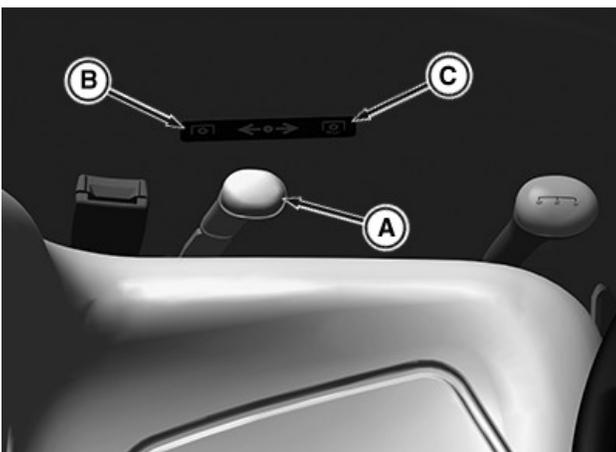
Seat can be moved forward or backward depending on operator's requirement. To move the seat on either side, lift seat adjustment lever (B) up as shown and push the seat forward or backward as per convenience.

Seat belt (A) must fit tightly across abdomen. Seat belt extends as necessary to fit comfortably.

**CAUTION:** Use a seat belt when you are operating with a roll-over protective structure (ROPS) to minimize chance of injury from an accident such as an overturn. **DO NOT** use seat belt when ROPS is folded down.

DP97633,00003B0-19-26FEB19

## Operate PTO Lever



APY07746—UN—26FEB19

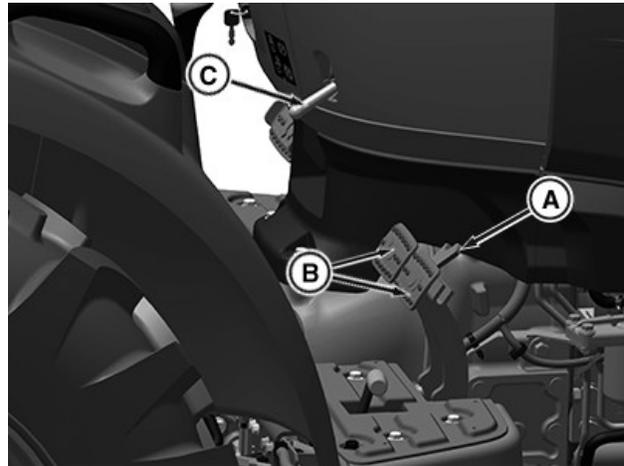
- A—PTO Lever
- B—PTO at Neutral Position
- C—Engage PTO at 540 rpm

Depress clutch pedal. To engage standard 540 rpm PTO, slide PTO lever (A) towards left and then forward

and set the engine at 2400 rpm for 3025D, 2800 rpm for 3035D and 3043D.

DP97633,00003B1-19-26FEB19

## Operate Park Brake Lever



APY02477—UN—19FEB18

- A—Brake Pedal Lock
- B—Brake Pedals
- C—Park Brake Lever

**CAUTION:** To prevent rapid brake wear, Do not drive tractor with park brake set.

To set park brake:

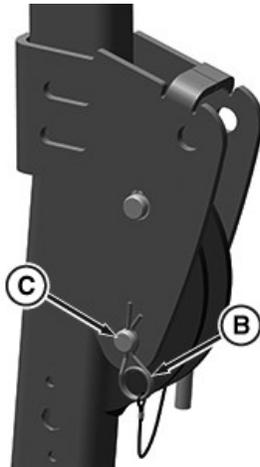
1. Engage brake pedal lock (A).
2. Press brake pedals (B).
3. Lift park brake lever (C) to top position. Parking brake light will illuminate.
4. Release brake pedals (B).

To release park brake:

1. Press brake pedals (B).
2. Lift park brake lever (C).
3. Release park brake pedals (B).
4. Release park brake lever (C).

DP97633,0000369-19-04FEB19

## Operate Foldable ROPS



B—Quick Lock Pins (2 Used)  
C—Headed Pins (2 Used)

PY49662—UN—16NOV17

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

Protection offered by ROPS is impaired if ROPS is subjected to structural damage, as in an overturn incident, or is in anyway altered by welding, bending, drilling, and cutting. A damaged ROPS must be replaced, not reused. Any alteration to the ROPS must be approved by the manufacturer.

Always keep upper part of ROPS pinned in vertical position (as shown) when operating tractor. If tractor is operated with ROPS folded (for example, to enter a low building) drive with extreme caution and **DO NOT** use seat belt.

Fold the ROPS up again as soon as the tractor is operated under normal conditions.



PY49661—UN—16NOV17

### To Lower ROPS Crossbar (A):

1. Remove quick-lock pins (B) and headed pins (C) on both sides of ROPS.
2. Lower crossbar (A) of ROPS onto stops.

### To Put ROPS in Operating Position:

1. Lift crossbar (A) of ROPS to position shown.
2. Reinstall quick lock pins (B) and headed pins (C) into bottom holes of ROPS to lock in position.

DP97633,0000053-19-02JUL18



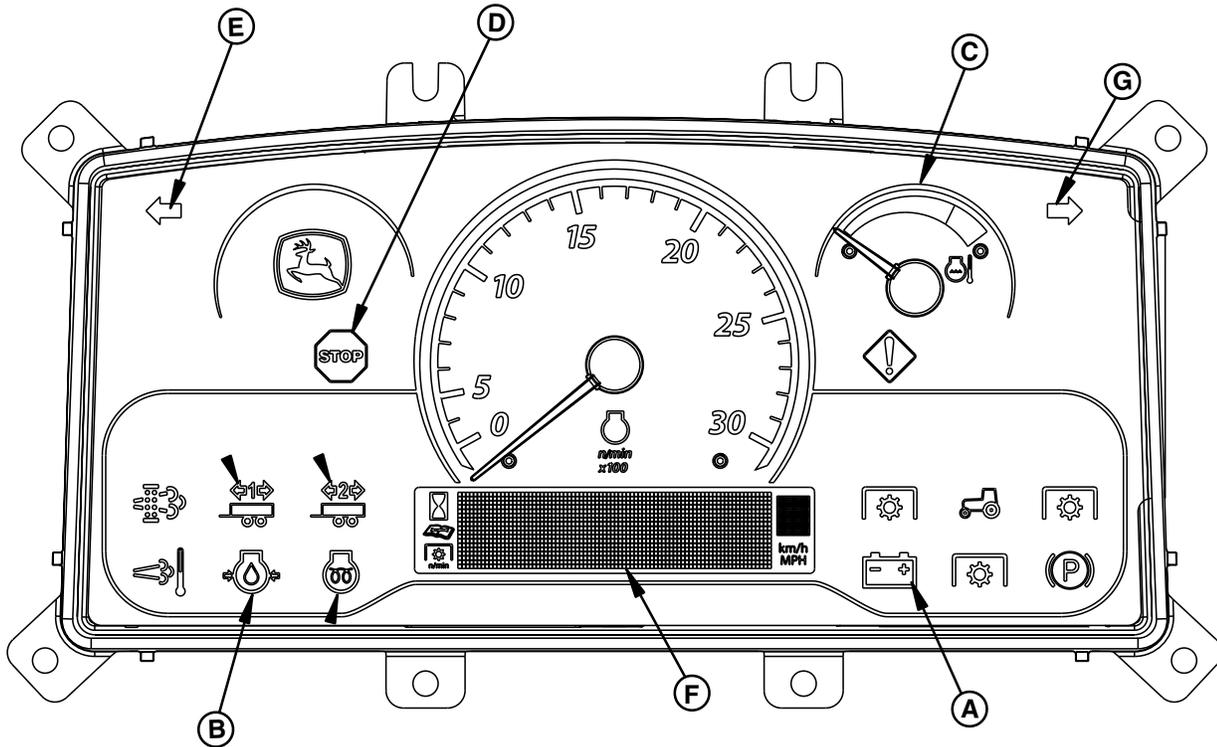
PY49663—UN—16NOV17

A—ROPS Crossbar  
C—Headed Pins (2 Used)

# Break-In Period

## Observe Engine Operation Closely

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



PY49482—UN—03MAY18

A—Alternator/Battery Charging Light  
B—Engine Oil Pressure Light  
C—Coolant Temperature Gauge  
D—Stop Indicator

E—Warning Indicator - Turn Left  
F—Information Display  
G—Warning Indicator - Turn Right

1. Warm up tractor carefully. Check battery charge indicator (A), engine oil pressure indicator (B), coolant temperature gauge (C), stop indicator (D), warning indicators (E and G), and information display (F).
2. Avoid unnecessary engine idling.
3. Check fluid levels of engine coolant, transmission/hydraulic system, and mechanical front wheel drive (if equipped) frequently. Check fluid levels for any fluid leakages.

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

MD36154,000031E-19-12FEB18

# Prestarting Checks

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## Daily Service Before Starting Engine

To prevent trouble from occurring, it is important to know the condition of the tractor well before starting the engine.

Walk around and start with a visual inspection of your tractor.



PY49644—UN—01AUG18

### Visual Checks:

*NOTE: Park tractor on level ground before executing checks.*

- Check and refill engine oil.
- Check and refill engine coolant.
- Check hydraulic-transmission oil level.
- Check and refill fuel tank.
- Check and drain water from separator.
- Check any leakages of engine oil, engine coolant, or fuel.
- Check and clean radiator fins, screen as necessary.
- Check cooling fan V-belt for wear and tension.
- Check battery and battery terminals.
- Check the electrical harnesses for cracks, abrasions, and damaged or corroded connectors.
- Check lights, turn indicators, gauges, and hour meter.
- Check hoses for cracks, abrasions, and damaged, loose, or corroded clamps.
- Check for any loose, missing, or damaged fasteners or missing parts.
- Check and adjust brake pedal.
- Check the tractor's tire pressure.
- Check seat belt and ROPS.

*NOTE: The necessary corrective action must be taken before you operate the engine, if any problem is acknowledged during the visual check.*

DP97633.0000014-19-12FEB18

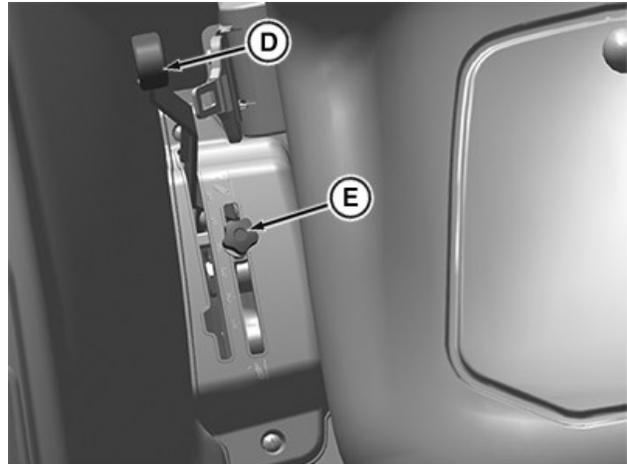
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# Operate the Engine

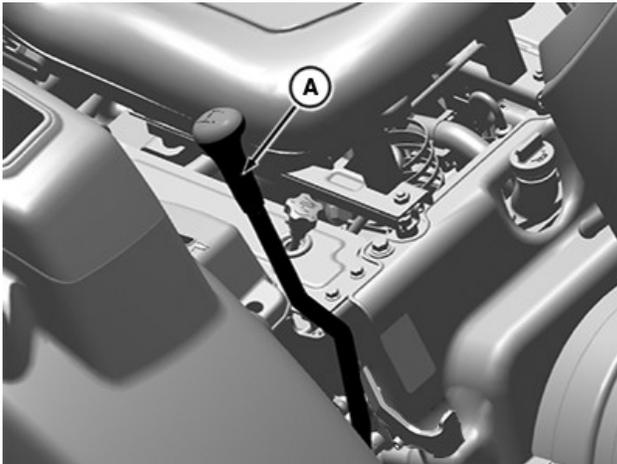
## Before Starting the Engine



TS220—UN—15APR13



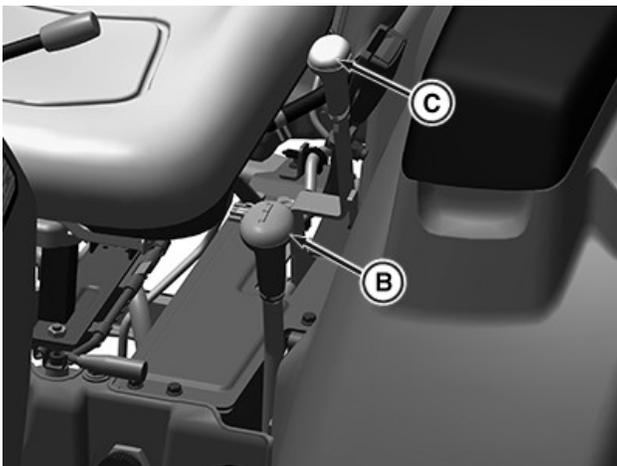
PY45736—UN—17AUG17



PY49652—UN—14NOV17



APY07752—UN—04MAR19



APY07748—UN—26FEB19

- A—Gear Shift Lever
- B—Range Shift Lever
- C—PTO Lever
- D—Position Control Lever
- E—Position Control Lever Stop
- F—Forward-Reverse Lever

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

**Always operate the engine in an area with proper ventilation.**

1. Check fuel gauge to ensure that tractor has enough fuel.
2. Place gear shift lever (A), range shift lever (B), and PTO lever (C) in NEUTRAL position.
3. Place position control lever (D) in lowered position.

*NOTE: Engine does not start if the forward-reverse lever, range lever and PTO lever are not in neutral position.*

4. Check indicator lights. Indicators illuminate when the key switch is turned to the ON position.

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

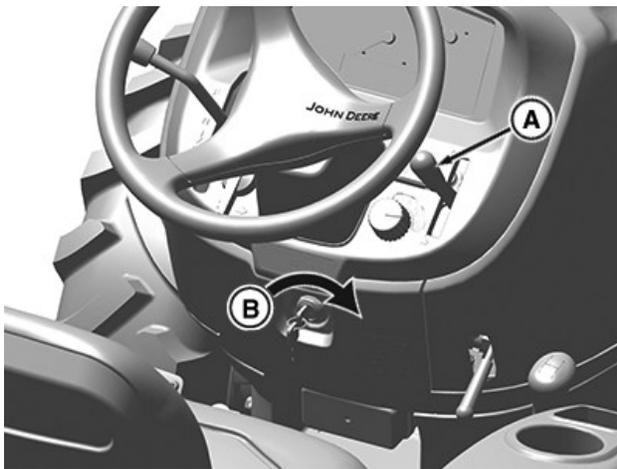
DP97633,0000346-19-04MAR19

## Start the Engine



TS177—UN—11JAN89

Machinery Runaway



PY49641—UN—13NOV17

- A—Hand Throttle
- B—Key Switch

1. Push hand throttle (A) forward to idle position (1/3 of full throttle).

**NOTE:** Engine may not start with the hand throttle in completely down position.

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

**DO NOT** start engine by shorting across starter terminals. Machine may start in gear and start moving, bypassing normal circuit.

Before starting the engine, place the range lever, PTO lever and forward-reverse lever in **NEUTRAL** position. Engine does not start if range lever, forward-reverse lever and PTO lever are not in **NEUTRAL** position.

Never start engine while standing on ground.

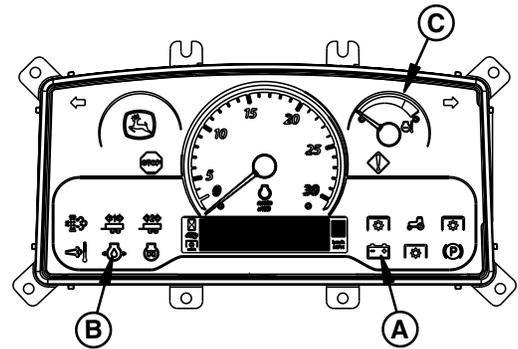
**IMPORTANT: DO NOT** run a cold engine at full throttle.

2. Turn the key switch (B) fully clockwise and then engage the starter. Release key when engine starts. If the key is released before the engine starts, wait until starter and engine stop turning before trying again.

**IMPORTANT: DO NOT** operate the starter longer than 20 seconds at a time. If engine does not start, wait at least two minutes for the starter motor to cool before trying again. If engine does not start in four attempts, refer to Troubleshooting section.

DP97633,0000347-19-10JAN19

## Check Instruments After Starting



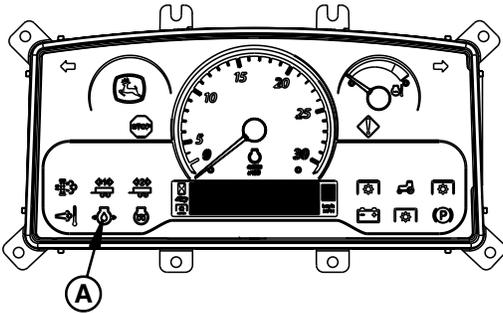
APY09884—UN—02JUL18

- A—Battery Charge Indicator
- B—Oil Pressure Indicator
- C—Coolant Temperature Gauge

**IMPORTANT:** If battery charge indicator (A) or oil pressure indicator (B) does not turn off, or coolant temperature gauge (C) indicates hot, **STOP** the engine and determine the cause.

DP97633,00000B7-19-02JUL18

## Oil Pressure Indicator



APY09885—UN—02JUL18

### A—Oil Pressure Indicator

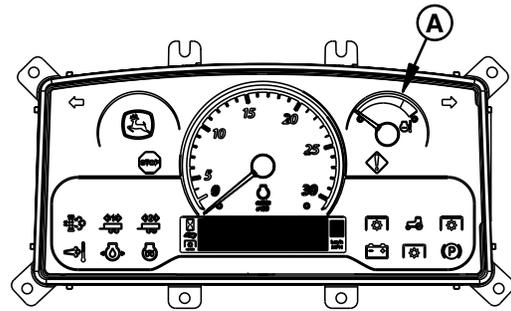
If engine oil pressure is low, oil pressure indicator (A) lights. Indicator light turns ON when key is turned to engage the starter and turns OFF when the engine starts.

**IMPORTANT: Operate engine with sufficient oil pressure. If indicator glows longer than 5 seconds under normal operating conditions, STOP the engine and check for the cause.**

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

DP97633,000001A-19-02JUL18

## Coolant Temperature Gauge



APY09887—UN—02JUL18

### A—Coolant Temperature Gauge

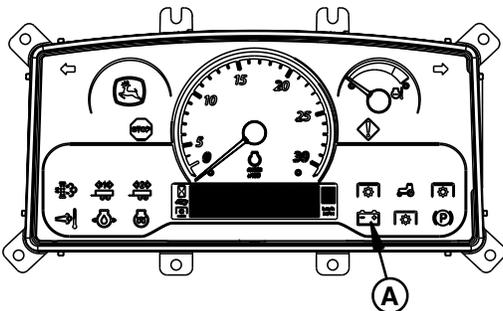
The needle on the coolant temperature gauge (A) rises as the engine warms up. If the needle reaches red zone, STOP the engine and determine the cause.

**CAUTION: DO NOT remove radiator cap or drain coolant until coolant is cold. Always loosen radiator cap slowly to relieve any excess pressure.**

Check coolant level in radiator when engine cools. Also check grille, radiator, and radiator front screens for clogging. Check fan belt tension. If the problem is not resolved, visit your John Deere dealer.

DP97633,000001B-19-02JUL18

## Battery Charge Indicator



APY09886—UN—02JUL18

### A—Battery Charge Indicator

Battery charge indicator (A) lights when alternator output is low. Indicator light turns ON when key is turned to engage starter, and turns OFF when engine starts.

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

DP97633,000002E-19-02JUL18

## Check Fuel Level



PY47316—UN—23AUG17

### A—Fuel Gauge

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

**IMPORTANT: Use diesel fuel only. See Fuel and Lubricants section for fuel specifications.**

If the tractor runs out of fuel and does not start in several

tries, air must be bled from the fuel system. See Priming the Fuel System (section 140) in this manual.

DP97633,00000BA-19-11JAN18

### Change Engine Speeds



PY49642—UN—13NOV17



APY02478—UN—19FEB18

A—Hand Throttle  
B—Foot Throttle

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

To increase tractor speed above the hand throttle setting, depress foot throttle (B).

DP97633,0000048-19-19FEB18

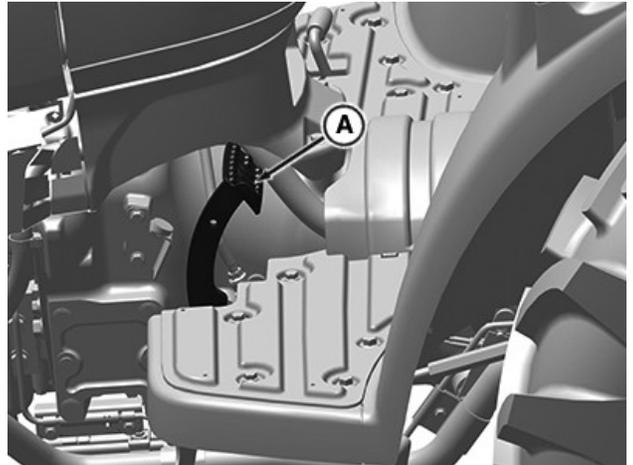
### Warm up the Engine

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

1. Idle engine at about 1200 rpm for 3025D, 950 rpm for 3035D and 3043D for several minutes.
2. Run engine at about 1680 rpm under light load until engine reaches the normal operation condition.

DP97633,00000BB-19-15MAY18

### Restart Stalled Engine



PY49665—UN—16NOV17

A—Clutch Pedal

If the engine stalls while operating under load, depress clutch pedal (A) and restart it immediately to prevent abnormal heat buildup.

Continue with normal operation or operate at low idle for one or two minutes before stopping.

DP97633,0000049-19-27DEC17

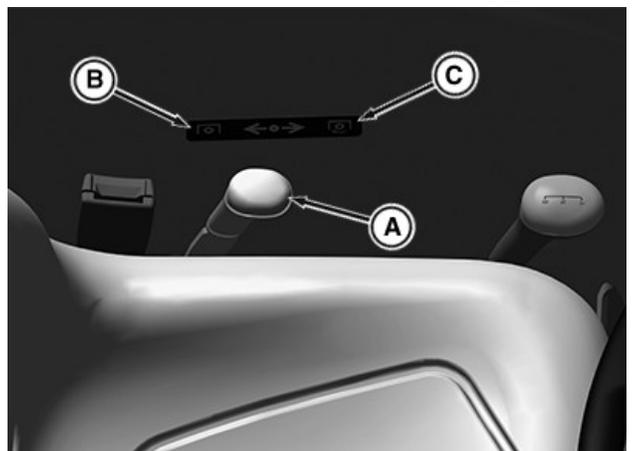
### Avoid Idling the Engine

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

If the tractor is left with the engine running for more than three or four minutes, minimum engine speed must be 1200 rpm for 3025D, 950 rpm for 3035D and 3043D.

DP97633,00000BC-19-15MAY18

### Observe Engine Work and Idle Speeds



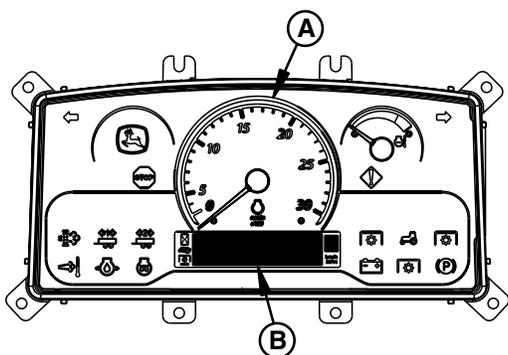
APY07746—UN—26FEB19

A—PTO Lever  
B—PTO at Neutral Position  
C—PTO at 540 rpm Position

1. Low idle speed must be  $1200 \pm 50$  rpm for 3025D,  $950 \pm 50$  rpm for 3035D and 3043D. At light or no load, full throttle speed reaches to 2550 rpm for 3025D, 2950 rpm for 3035D and 3043D.
2. Normal working speed is 2800 rpm rated speed and engine can be put under full load within these limits.
3. For correct PTO speed, run the engine at 2400 rpm for 3025D, 2800 rpm for 3035D and 3043D, engage PTO (A) at 540 rpm position (C) (load requires full engine power) for PTO operations.

DP97633,00003B2-19-26FEB19

## Working with Speed/Hour Meter



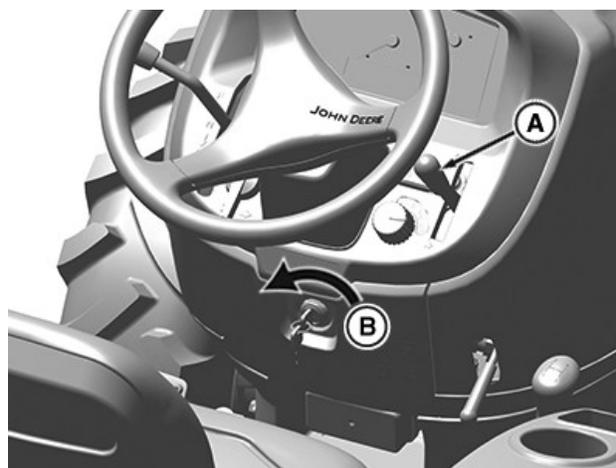
APY09888—UN—02JUL18

A—Tachometer  
B—Hour Meter

1. Tachometer (A) shows engine rpm, read in hundreds.
2. For 540 rpm PTO speed, increase engine speed until tachometer needle is aligned with 2400 rpm for 3025D, 2800 rpm for 3035D and 3043D mark PTO 540.
3. Hour meter (B) shows hours of operation in full hours and tenths.

DP97633,000001C-19-02JUL18

## Stop the Engine



PY49645—UN—14NOV17

A—Hand Throttle  
B—Off Position

1. Pull hand throttle (A) down to low idle position. Allow engine to idle for 1 to 2 minutes.
2. Put gearshift lever in NEUTRAL and set brakes.

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

3. Turn key switch to the OFF position (B).

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

DP97633,000001D-19-12FEB18

## Use Booster Battery



TS204—UN—15APR13

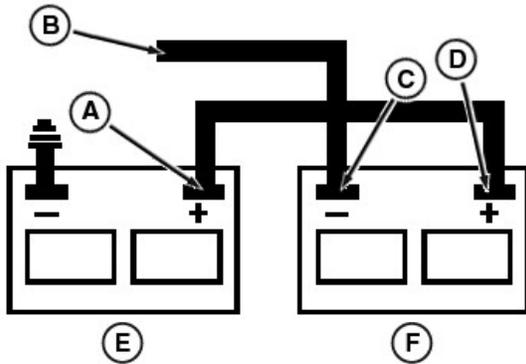
**CAUTION:** Battery gas is explosive. Keep sparks and flames away from battery. Make the last connection and first disconnection at a point away from booster batteries.

**IMPORTANT:** Be sure that polarity is correct before making connections. Reversed polarity can damage electrical system or possibly cause battery to explode.

When using two or more booster batteries, batteries must be connected in **PARALLEL**. **DO NOT** connect batteries in **SERIES**.

### Booster Battery

1. Access battery. (See procedure in Maintenance—Electrical System section.)



PY41854—UN—18AUG17

- A—Vehicle Battery Positive (+) Post
- B—Engine Ground
- C—Booster Battery Negative (—) Post
- D—Booster Battery Positive (+) Post
- E—Vehicle Battery
- F—Booster Battery

2. Connect red positive (+) booster cable to the booster battery positive (+) post (D) of the booster battery (F).
3. Connect other end of positive (+) booster cable to vehicle battery positive (+) post (A) of the vehicle battery (E).
4. Connect black negative (—) booster cable to booster battery negative (—) post (C) of the booster battery (F).
5. Connect other end of negative (—) booster cable to engine ground (B), away from the battery and starter.
6. Turn key to START position.
7. When engine starts, remove negative (—) cable first, then positive (+) cable.

### Battery Charger

1. With charger OFF, attach red positive lead to positive (+) battery terminal and negative charger lead to a good ground on the engine block, away from battery.

**IMPORTANT:** **DO NOT** set battery charger to higher than 12 Volts.

**Avoid damage!** Electric charge from the booster battery can damage machine components. **Do not** connect negative booster cable to the machine frame. Connect only to the engine block.

Install negative booster cable away from moving parts in the engine compartment, such as belts and fan blades

2. Switch charger ON and charge battery according to charger manufacturer instructions.
3. Switch charger OFF. Disconnect negative charger lead first, then positive lead.

DP97633,000001E-19-20FEB18

### Exhaust Filter System Overview



APY08236—UN—31DEC18

#### A—Exhaust Filter Disable Cleaning Switch

Your machine is equipped with an emission compliant engine, which cleans and filters the engine exhaust. Please read the Exhaust Filter Cleaning sections to understand when and where operator interaction is required.

**IMPORTANT:** Soot builds up during times when engine exhaust gas temperature is lower (lower engine speed, lower engine load). Performing extended operations at either low engine speed (below 1500 rpm) or low engine load (such as backhoe work), could result in needing a parked exhaust cleaning. Periodically monitor the machine display during these operations to determine if parked exhaust cleaning is required.

To avoid unnecessary buildup of diesel particulates or soot in the exhaust filter system:

- Utilize AUTO exhaust filter cleaning mode.
- Avoid unnecessary idling.
- Use proper engine oil.
- Use only ultra low sulfur fuel.

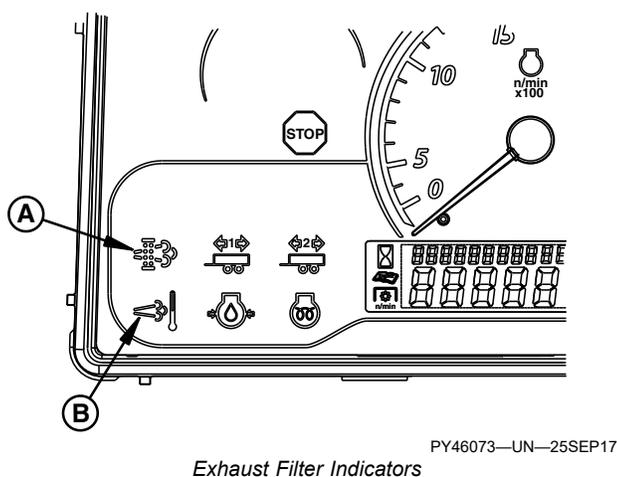
Under normal machine operation, the system is in automatic mode.

Use exhaust filter disable cleaning switch (A) to disable exhaust filter cleaning mode.

**IMPORTANT:** When machine use is not suited for higher temperatures created by exhaust filter cleaning, use the disable switch (A). Be sure to deactivate the disable switch as soon as possible to avoid unnecessary soot buildup in exhaust filter.

Remember to select disable switch (A) when temporarily connected to an indoor ducted exhaust system during vehicle diagnostic and repair activities.

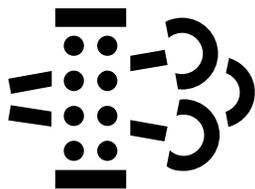
### Exhaust Filter Indicators



**Exhaust Filter Indicator (restriction) (A)** - Indicates that buildup in the exhaust filter requires cleaning.

**High Exhaust Temperature Indicator (B)** - Indicates temperature in the exhaust filter high enough to conduct cleaning.

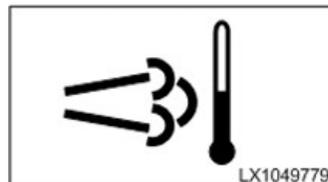
### Operator Information



H94828—UN—13OCT09

### 1. Exhaust Filter Indicator

Description	Recommended Procedure
High level of soot at exhaust filter, the exhaust filter requires cleaning. <i>NOTE: If no cleaning is carried out, engine power is reduced .</i>	Activate automatic filter cleaning; see <b>Automatic Exhaust Filter Cleaning</b> .



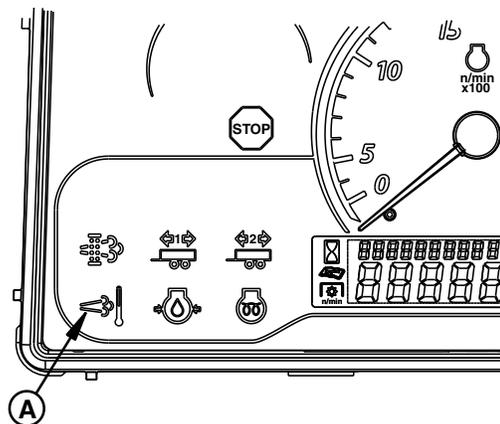
LX1049779—UN—22JUL10

### 2. High Exhaust Temperature Indicator

Description	Recommended Procedure
Exhaust filter cleaning is taking place. Exhaust temperatures are high.	Do not interrupt automatic exhaust filter cleaning unless absolutely necessary; see <b>Automatic Exhaust Filter Cleaning</b> .

DP97633,000014A-19-04JUL18

### Automatic (AUTO) Exhaust Filter Cleaning



PY46074—UN—25SEP17

High Exhaust System Temperature Indicator

#### A—High Exhaust Temperature Indicator

Automatic exhaust filter cleaning is started when soot in the exhaust filter reaches a certain level. This occurs less frequently if the engine is operated for long periods under conditions where passive exhaust filter cleaning takes place. Automatic exhaust filter cleaning is initiated and performed without any intervention on the part of the operator.

If the system determines that soot buildup in the exhaust filter requires cleaning, an automatic cleaning is initiated and performed without any intervention on the

part of the operator. High exhaust temperature indicator (A) remains illuminated during the exhaust filter cleaning.

Do not disable automatic exhaust filter cleaning unless it is absolutely necessary.

**CAUTION:** To prevent fires, be sure to routinely clear any combustible materials (crop debris, animal nests, etc.) from the area of the engine and exhaust filter. Exhaust filter cleaning uses extremely high temperature.

**IMPORTANT:** See also *Clean Exhaust Filter Safely in Safety Section.*

DP97633,0000149-19-18MAY18

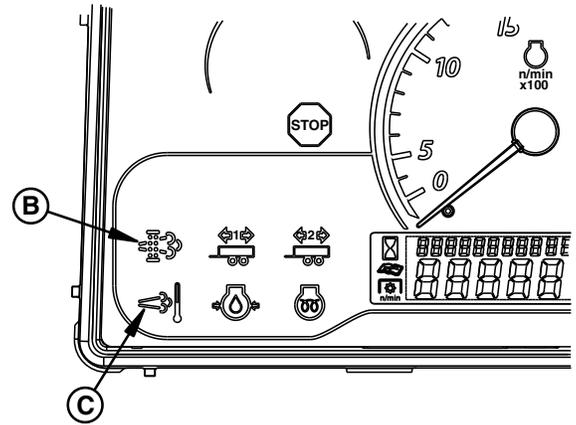
### Disabled Exhaust Filter Cleaning

**IMPORTANT:** Under normal machine operation, the system is in automatic mode and requires minimal operator interaction.

If your vehicle must be used in a situation not suited for higher temperatures created during exhaust filter cleaning, the system can be temporarily disabled. Press exhaust filter cleaning disable switch (A) to disable exhaust filter cleaning mode. The LED above the switch illuminates, indicating it is disabled. By pressing exhaust filter cleaning disable switch (A) again to avoid soot buildup in the exhaust filter.



APY08236—UN—31DEC18



PY46076—UN—25SEP17

**A—Exhaust Filter Cleaning Disable Switch**  
**B—Exhaust Filter Indicator - Restriction**  
**C—High Exhaust Temperature Indicator**

While in disabled mode, if the system determines that soot buildup in the exhaust filter requires cleaning, Exhaust Filter Indicator - Restriction (B) comes on. Press exhaust filter cleaning disable switch (A) to return to Automatic (AUTO) mode. High Exhaust Temperature Indicator (C) remains illuminated during the exhaust filter cleaning.

Do not disable automatic exhaust filter cleaning unless it is necessary. If disabled mode is used frequently, the system activates a parked exhaust filter cleaning. Meaning that the engine performance is reduced and will not return to normal until a park exhaust filter cleaning is performed.

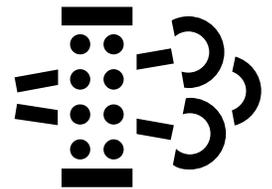
DP97633,000014B-19-04JUL18

### Parked Exhaust Filter Cleaning

**IMPORTANT:** If operator disregards indicators and continues to operate machine without allowing an automatic cleaning, engine performance is reduced. A parked exhaust filter cleaning procedure must be performed.



H94831—UN—13OCT09  
 Service Alert Indicator



H94828—UN—13OCT09  
 Exhaust Filter Cleaning Indicator

The following occurs when exhaust filter becomes restricted:

- Service alert and exhaust filter cleaning indicators (on dash) are illuminated.

- Engine power is reduced.
- Information display will show “Parked Regen Required”

At this time, a parked exhaust filter cleaning is required.

Before a parked exhaust filter cleaning can be completed, the following criteria must be met:

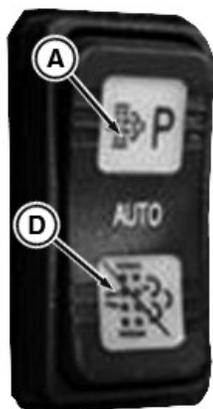
- Set engine rpm at low idle.
- Coolant temperature **must** be above 60 deg°C (140° F).
- Transmission **must** be in neutral.
- Zero ground speed commanded.
- Park brake **must** be engaged.
- PTO **must** be turned off.

**IMPORTANT:** Select a suitable space to park the machine and lower all implements to the ground.

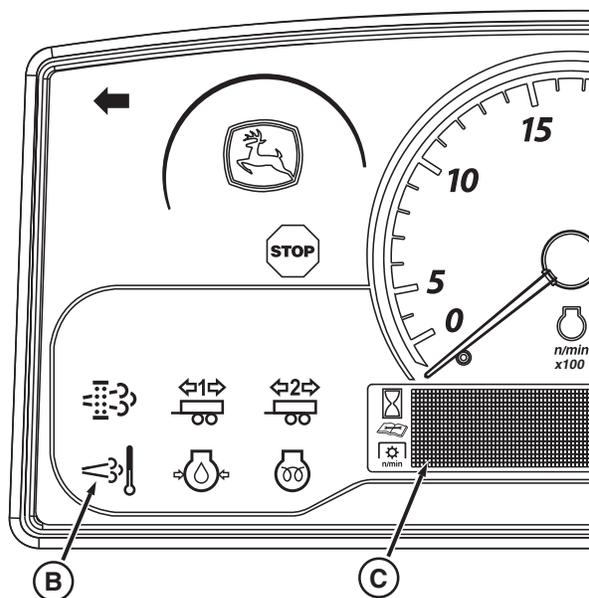
No other machine functions can be used while exhaust filter cleaning is taking place with the machine parked. Excluded from this are functions that are required for an emergency shutdown of the machine.

Make sure the low fuel indicator is not displayed and there is at least 1/8 of a tank of fuel before starting regeneration.

Only stop engine if absolutely necessary due to heat build up in the engine compartment.



APY35473—UN—03JUN20



LV29918—UN—22JAN18

- A—Parked Cleaning Position
- B—Exhaust Filter Temperature Indicator
- C—Information Display
- D—Filter Cleaning Disable Switch

1. Press and hold the exhaust filter cleaning switch (A) in the parked cleaning position for 5 seconds; LED above the switch will start blinking if all conditions are met. Release, then push for another 3 seconds; the icon should remain lit. The following prompt messages may appear on the information display (C) before the filter cleaning will start:

**NOTE:** If cancellation of a parked exhaust filter cleaning process is necessary, push filter cleaning disable switch (D).

Parked regeneration is aborted if any messages appear. The process must be repeated by holding the Parked Regen button for 5 seconds.

Exhaust Filter Messages	
Apply Park Brake	Engage the park brake.
Filter Hours	Not enough time has elapsed since last regeneration.
Engine Cold	The engine is too cold. The engine must be at operating temperature before a parked regeneration is performed.
Shift To Neutral	Shift the transmission range selector to neutral.
Shut PTO Off	Turn off the PTO.
Reduce Engine Speed	Reduce engine speed to low idle.

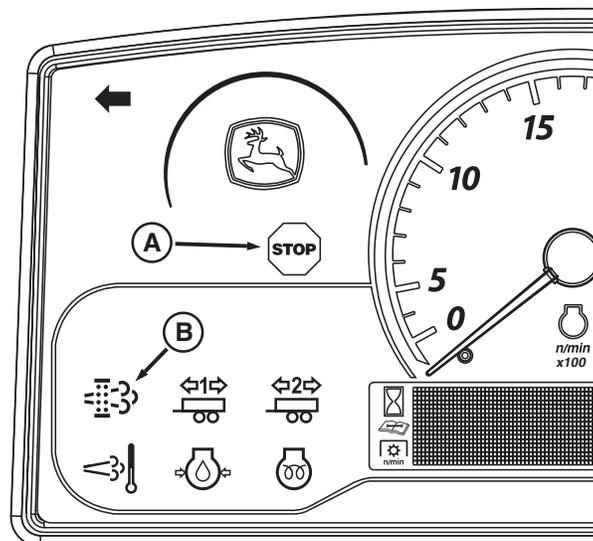
2. During the parked cleaning process, the high exhaust temperature indicator (B) and the LED above the Exhaust Filter Cleaning Switch (A) illuminate.

3. Soot Level will be displayed and engine speed will slowly increase.
4. When the parked cleaning process is complete, the LED above the Exhaust Filter Cleaning Switch turns off. High exhaust temperature indicator (B) remains on for 30 seconds after completion and the engine speed returns to low idle.

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

5. After high exhaust temperature indicator (B) turns off, the system defaults to automatic exhaust filter cleaning mode and machine can be operated as normal.

LGCKF7U.00005C1-19-25MAY20



## Service Exhaust Filter Cleaning

**IMPORTANT: Repeated cancellation or ignoring indicators to perform a parked exhaust filter cleaning causes additional engine power limitations which eventually lead to a dealer required service.**

**When STOP indicator (A) and exhaust filter cleaning indicator - restriction (B) are illuminated at the same time; contact your John Deere dealer.**



LX1049776—UN—22JUL10

LV29919—UN—22JAN18

- A—Stop Indicator
- B—Exhaust Filter Cleaning Indicator - Restriction

If level of soot at exhaust filter is extreme, the icon shown opposite appears and engine power is reduced. In this case, contact your John Deere dealer to service and clean the exhaust filter.

Automatic exhaust filter cleaning and filter cleaning with machine parked are no longer possible at this time.

*NOTE: If the tractor is switched off after this icon appears, it will not reappear immediately if the engine is restarted, and the tractor is **briefly** capable of operating, albeit with reduced power. This action is intentional, the intention being to allow the dealer to perform service-cleaning.*

Tips for avoiding service-cleaning:

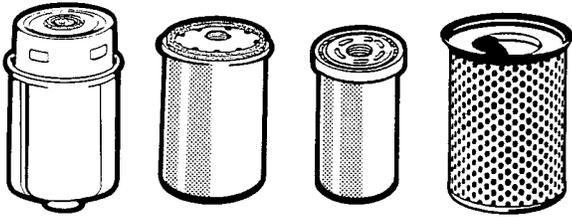
- Do not disable exhaust filter cleaning unless absolutely necessary.
- Avoid unnecessary idling.
- Do not interrupt cleaning process unless absolutely necessary.
- If possible, do not shutoff the engine while the indicator light for exhaust filter cleaning is on.
- Take note of information displayed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

LGCKF7U.00005C2-19-25MAY20

# Operating the Tractor

## Reduce Fuel Consumption

### Service Correctly

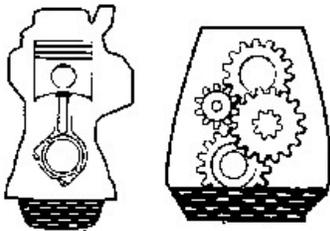


LX007829

LX007829—UN—15AUG94

Replace air cleaner element and fuel, engine oil, and transmission / hydraulic filter elements at specified service intervals (see Service section).

Use only John Deere filters.

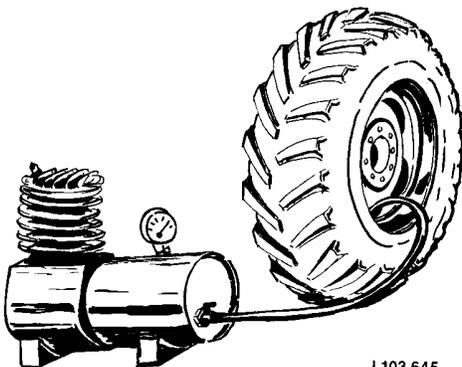


PY16886—UN—28MAY13

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

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

### Drive with Correct Tire Pressure



L103 645  
L103645—UN—15AUG94

Adapt tire pressures to type of work and ground

conditions (consult your John Deere dealer or local tire agent).

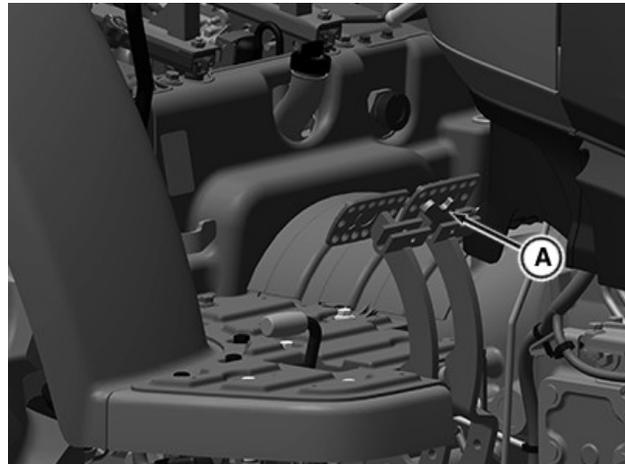
DP97633,00000C3-19-01AUG18

## Operator Training Required

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

DP97633,00000C4-19-29DEC17

## Driving on Public Roads



APY02479—UN—19FEB18

### A—Brake Pedal Locking Bar

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

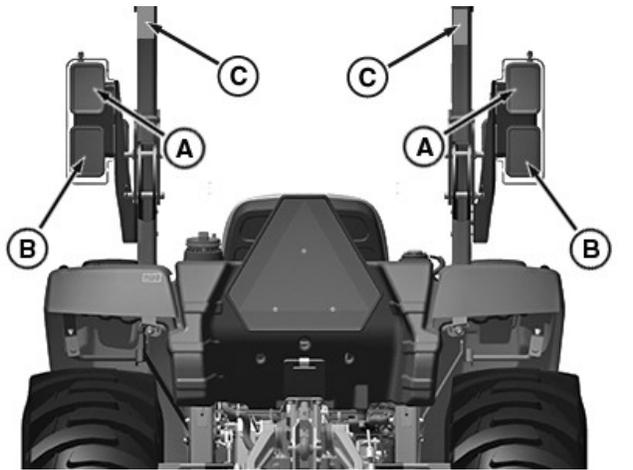
Observe the following precautions when operating the tractor on the road:

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

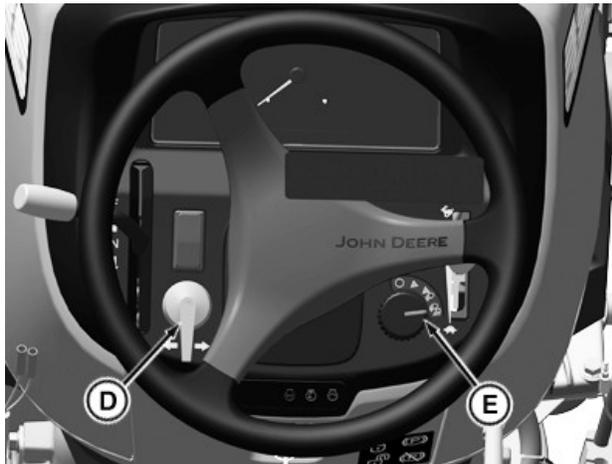
1. Couple brake pedals together using brake pedal locking bar (A) to avoid hard applications of brakes. Reduce speed if towed load weighs more than the tractor and is not equipped with brakes.

**IMPORTANT:** To prevent unnecessary wear, never rest your foot on the brake pedals while riding the tractor.

- Use additional caution when transporting towed loads under adverse surface conditions and when turning or braking on inclines. Be sure that wheel tread is adjusted wide to provide maximum stability.



APY02441—UN—17JAN18



PY49470—UN—31DEC18

- A—Turn Signal Lights
- B—Warning Lights
- C—Reflex Reflector
- D—Turn Signal Lever
- E—Low Beam Headlight Switch Position

- Check local laws and regulations for lighting requirements. Be sure reflex reflector (C) and warning lights (B) are clean and visible. If towed or rear-mounted equipment obstructs these safety devices, install warning lights on equipment. (Contact your John Deere dealer).
- Turn light switch to low beam headlight position (E).  
Always turn the light switch to low beam lights position (E) while crossing another vehicle. Never use worklights or any other lights which can obstruct the visibility of other drivers.
- Use turn signal lever (D) while turning and ensure that the lever is returned to center position after the turn is completed.
- Drive slowly enough to maintain 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 while transporting heavy, rear mounted equipment.

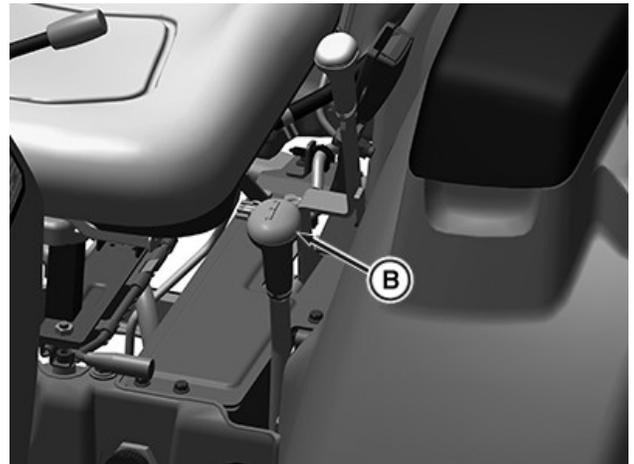
DP97633,000001F-19-01AUG18

## Operating Transmission



PY49471—UN—31DEC18

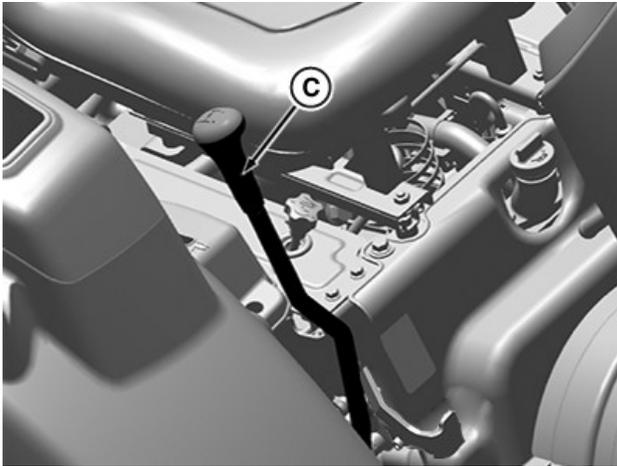
Forward-Reverse Lever



APY07749—UN—26FEB19

Range Shift Lever

- A—Forward-Reverse Lever
- B—Range Shift Lever



PY49655—UN—18JAN18

Gear Shift Lever

**C—Gear Shift Lever**

- Forward and reverse speed directions can be obtained through forward-reverse lever (A).
- Range shift lever (B) provides two range speeds (range A and range B).
- Gear shift lever (C) provides four forward travel speeds with range A selected and provides four forward travel speeds with range B selected.
- Using forward-reverse, range and gear shift levers in different combinations, eight forward speeds, and eight reverse speeds can be obtained.
- Forward-reverse lever, Range lever and PTO lever must be in neutral for the engine to be started.

**Forward-Reverse Lever:** With tractor at rest, select desired travel direction (forward or reverse). Travel direction can be changed by depressing the clutch pedal and shifting forward-reverse lever to F or R as required.

**⚠ CAUTION:** To change direction, tractor must be at rest while shifting forward-reverse lever to any direction.

1. After the tractor is stopped, lower engine rpm to idle speed.
2. Depress clutch pedal fully.
3. Select desired direction (forward or reverse).

**Range Shift:** Select desired speed range (A and B).

**Gear (speed) Shift:**

1. Select desired speed (1).
2. Slowly release the clutch pedal to gradually take up the load.
3. Increase engine speed once shifting is complete.
4. With tractor in motion, depress clutch pedal fully to

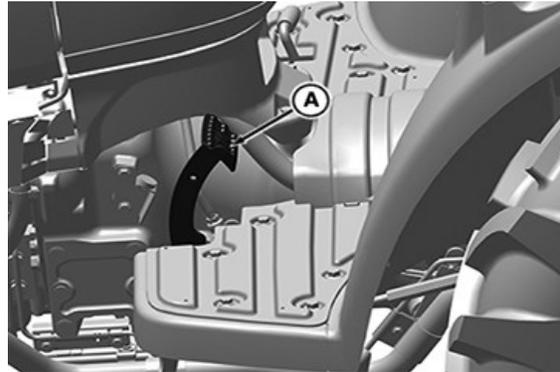
select the desired speeds (1, 2, 3, 4) and slowly release the clutch pedal to gradually take up load.

**NOTE:** 1. Change range shift and gear shift lever by depressing clutch and select the respective gears.

2. When the tractor is started with speed gear engaged (forward-reverse lever is in neutral), the tractor does not move until forward-reverse lever is set to forward or reverse and range shift is in A or B.

DP97633.00003B3-19-26FEB19

## Shifting Transmission



APY08237—UN—04JUL18

A—Clutch Pedal

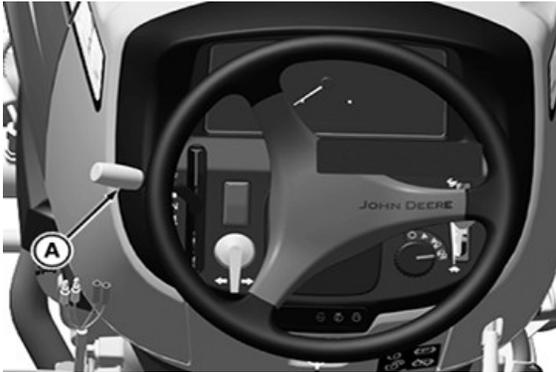
**⚠ CAUTION:** To prevent transmission damage, DO NOT use forward-reverse lever on-the-go. To prevent unnecessary wear, DO NOT rest your foot on clutch pedal while driving the tractor.

Depress clutch pedal (A) and stop the tractor before shifting either range shift lever or gearshift lever or forward-reverse lever. Release the clutch pedal gradually to take up the load smoothly.

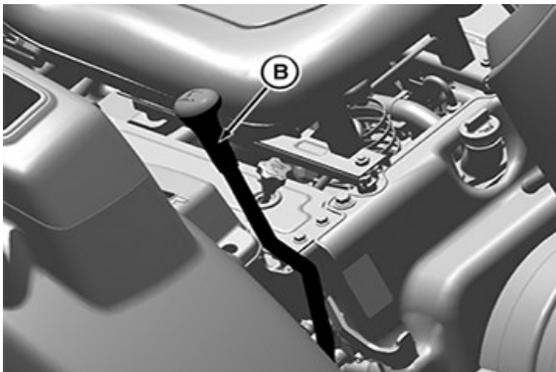
DP97633.00000C8-19-04JUL18

## Stopping Tractor

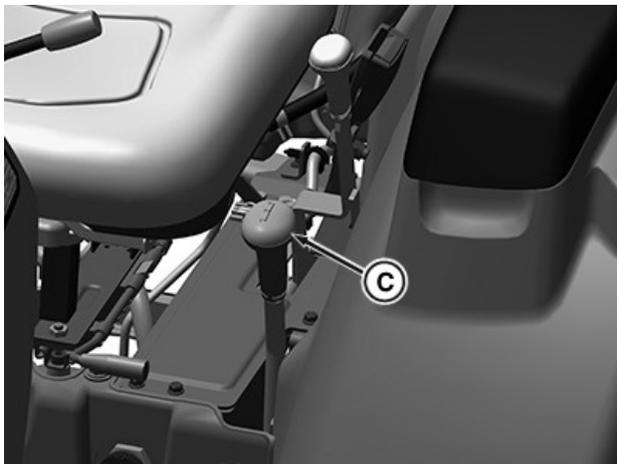
**⚠ CAUTION:** Always place the forward-reverse lever, gearshift lever, and range shift lever in NEUTRAL and set park brakes before dismounting. Leaving transmission in gear with engine off MAY NOT prevent tractor from moving.



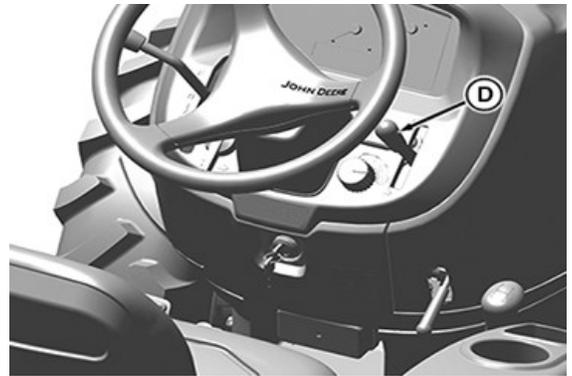
APY08238—UN—06JUL18



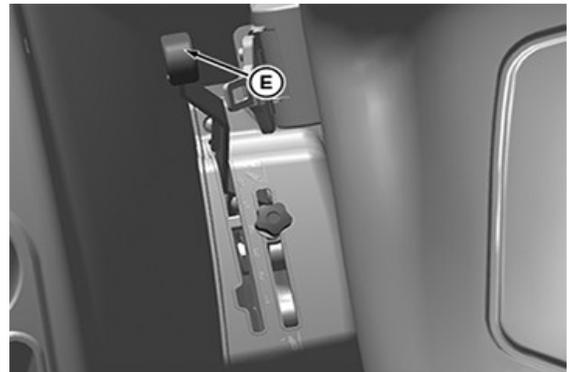
APY08239—UN—04JUL18



APY07750—UN—26FEB19



APY08241—UN—04JUL18



APY08242—UN—04JUL18

- A—Forward-Reverse Lever
- B—Gear Shift Lever
- C—Range Shift Lever
- D—Hand Throttle Lever
- E—Position Control Lever

1. Stop the tractor and place forward-reverse lever (A), gear shift lever (B), and range shift lever (C) in NEUTRAL position.
2. Lower all equipment to ground using rockshaft position control lever (E).
3. Pull hand throttle lever (D) down to low idle position. Allow engine to idle for 1—2 minutes.

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

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



APY08243—UN—04JUL18



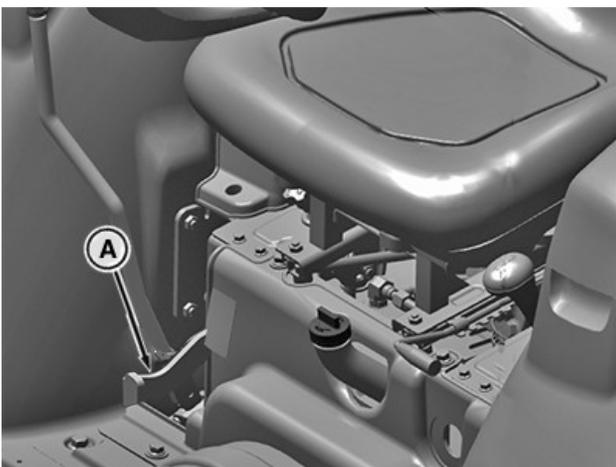
APY08244—UN—04JUL18

F—Key Switch-off Position  
G—Park Brake Lever

4. Turn key switch to OFF position (F).
5. Press both the brake pedals (brake pedal lock must be in engaged) and move park brake lever (G) upwards to apply park brake. See Operate Park Brake Lever in Operator Platform section.

DP97633.00003B4-19-26FEB19

## Using Differential Lock



PY49654—UN—14NOV17

A—Differential Lock Pedal

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

**IMPORTANT:** To prevent damage to drivetrain, do not engage differential lock when one wheel is spinning and the other is at rest.

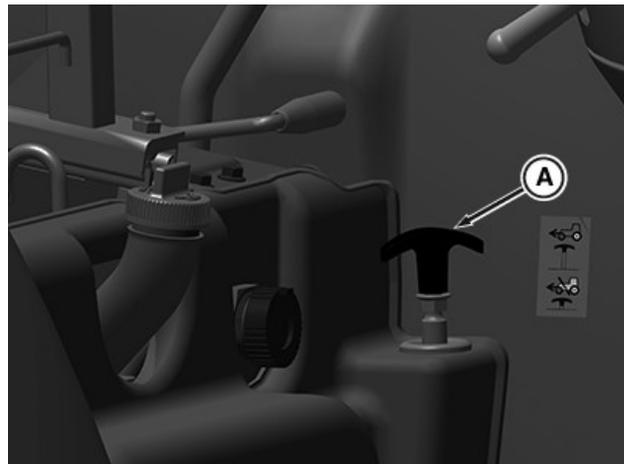
When one wheel starts to lose traction, engage differential lock by pressing differential lock pedal (A) down. Tractor wheels must be turning before engaging differential lock. If possible, engage differential lock before entering conditions where tires can slip.

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

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

DP97633.0000022-19-12FEB18

## Operating Mechanical Front-Wheel Drive (MFWD)



APY07605—UN—02MAY18

A—MFWD Lever

Use front-wheel drive as required for better traction.

**⚠ CAUTION:** Front-wheel drive greatly increases traction. When using this option, extra caution is needed on slopes. Compared to 2WD, 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 wear quickly if driven in MFWD mode on hard surface for an extended period. Unless necessary, **DO NOT** engage MFWD when driving on hard surfaces.

**DO NOT** install tire chains on front wheels, chains can strike and damage the tractor.

While towing an implement and pushing MFWD lever to disengage, lever can resist disengagement of MFWD. When this condition occurs the load must first be relieved from the power train. See step 3.

Front-wheel drive can be engaged and disengaged while in motion.

1. To engage, pull up on MFWD lever (A).
2. To disengage, push lever back down.
3. If the lever does not go down easily, it means that the load must first be relieved from the power train. Operator can push down on lever while doing one of the following in order to relieve load:
  - Reduce speed and drive tractor straight ahead for few feet.
  - Stop tractor, then operate in reverse direction for a short distance, if changing from a forward direction.

DP97633,0000023-19-02MAY18

## Using the Power Take-Off (PTO) Safely



LVAL38277—UN—21AUG12

**CAUTION:** Avoid injury. Stay clear of rotating drivelines:

- Entanglement in rotating driveline can cause serious injury or death.
- Keep hands, feet, and clothing away.
- Make sure that all shields are installed and used properly.
- Stop the engine and be sure that PTO

driveline is stopped and in **NEUTRAL** before approaching it.

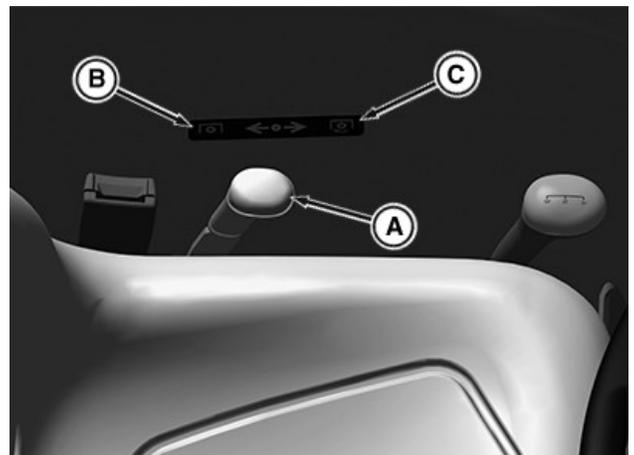
DP97633,0000024-19-12FEB18

## Using Rear Power Take-Off (PTO)

**IMPORTANT:** Avoid damage. Use rear mounted equipment rated for 540 rpm. Do not operate PTO over the rated rpm mark on the tachometer.

*NOTE: DO NOT* operate the PTO when the operator is not seated on the seat.

## Engaging the PTO



APY07746—UN—26FEB19

A—PTO Lever  
B—PTO at Neutral Position  
C—PTO at 540 rpm

1. Sit on the operator seat.
2. Stop machine in motion.
3. Depress the clutch pedal.
4. Reduce throttle setting to low idle speed.
5. To engage PTO at 540 rpm (C) position, slide PTO lever (A) toward right and then rearward and set the engine rpm to 2400 rpm for 3025D, 2800 rpm for 3035D and 3043D.
6. Release the clutch pedal to begin PTO operation.

## Disengaging the PTO

1. Depress the clutch pedal.
2. To disengage PTO, move PTO lever (A) to **NEUTRAL** position (B) from forward or rearward PTO engaged position.

DP97633,00003B5-19-26FEB19

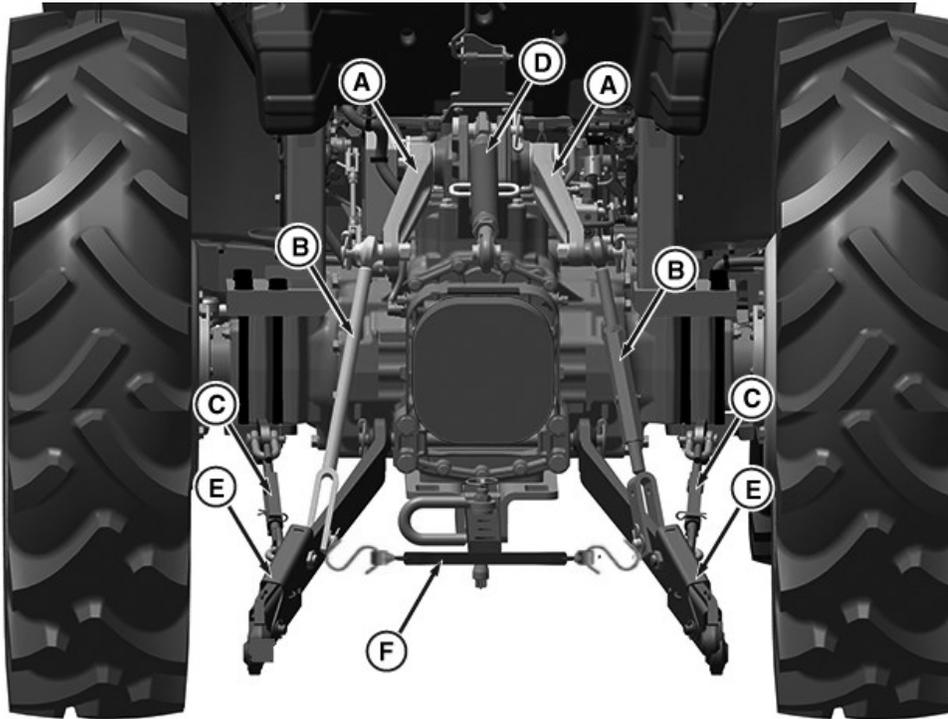
# Rockshaft and 3-Point Hitch

## 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 implement can damage the tractor. (Refer to your implement operator's manual for minimum and maximum power requirement before attaching an implement.)

MD36154,0000316-19-29DEC17

## 3-Point Hitch Components



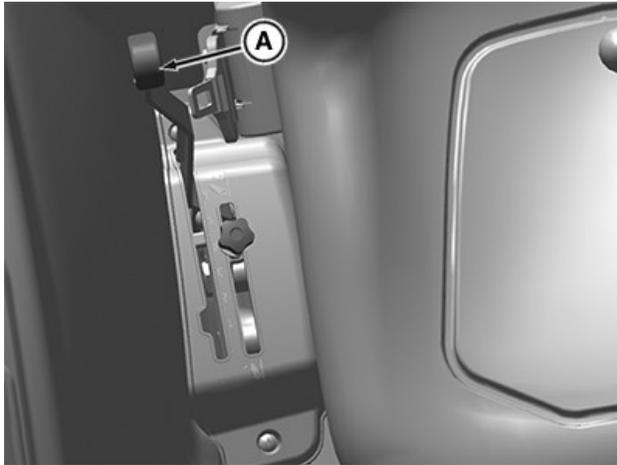
A—Lift Arms  
B—Lift Links  
C—Sway Chains

D—Center Link  
E—Draft Links  
F—Tie-Down Strap

PY49667—UN—16NOV17

DP97633,0000057-19-17NOV17

## Rockshaft Control Levers



PY45750—UN—21AUG17

### A— Position Control Lever

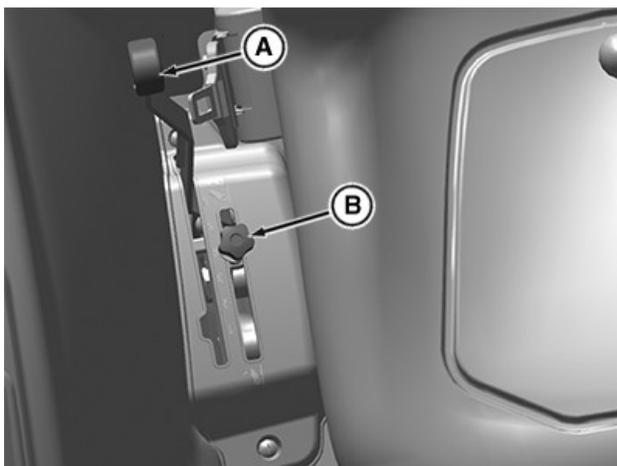
1. The position is controlled by the position control lever (A).
2. The position control lever (A) raises the hitch when pulled rearward, and lowers the hitch when moved forward. (See Use Position Control in this section for more information.)

*NOTE: The implement rate-of-drop control knob should be in center position of raising/lowering hitch.*

HY01057,000029A-19-12FEB18

## Set Position Control Lever Stop

*NOTE: Position control lever stop is used when operating depth or height needs to be repeated.*



PY45751—UN—21AUG17

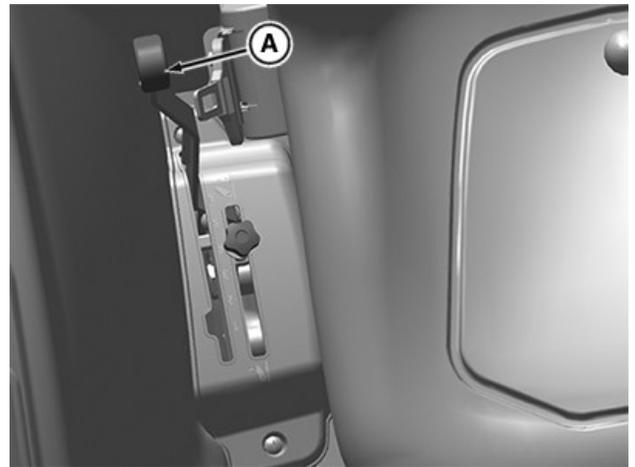
### A—Position Control Lever B—Position Control Lever Stop

1. Operate implement for a few minutes to determine proper depth or height.

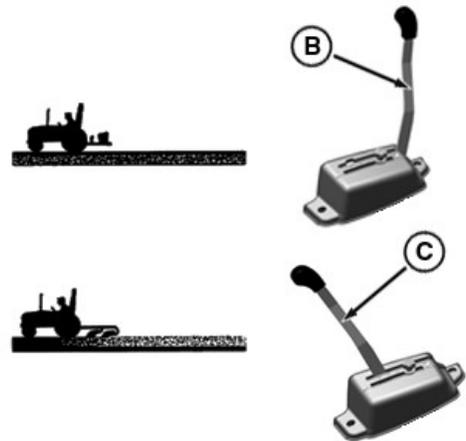
2. Raise position control lever (A), and slide against the position control lever (B). Hand-tighten the lever stop by rotating clockwise direction.
3. Rockshaft will now lower to same position each time control lever is pushed forward to the stop.

MD36154,0000317-19-12FEB18

## Use Position Control



PY45750—UN—21AUG17



PY47329—UN—18AUG17

### A—Position Control Lever B—Position Control Lever in Rearward Position C—Position Control Lever in Desired Depth Position

*NOTE: The implement rate-of-drop control knob should be in center position of raising/lowering hitch.*

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

For transporting of implements and at the end of field turn-around, place position control lever in fully rearward position (B) while transporting.

For constant depth of implements on level terrain and for non-ground engaging implements such as rotary

tiller, place position control lever at desired depth position (C).

MD36154.0000318-19-12FEB18

### Adjust Rockshaft Rate-of-Drop and Implement Lock

**CAUTION:** Excessive rate-of-drop may cause damage or injury. Fully lowering implement should require at least two seconds.



PY47325—UN—18AUG17

Rate-of-Drop / Implement Lock

#### A—Rate-of-Drop Knob / Implement Lock

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

Turn rate-of-drop knob (A), located under the seat, clockwise to slow rockshaft drop.

Turn knob anti-clockwise to increase rate-of-drop.

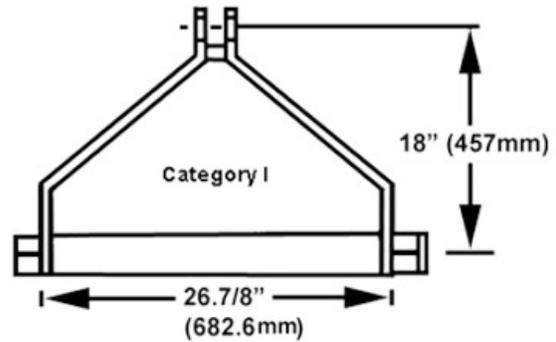
Turn the rate-of-drop knob completely until stop is reached; this will result in implement lock.

**NOTE:** Use implement lock while transporting implement.

MD36154.0000319-19-12FEB18

### Prepare Implement

**IMPORTANT:** When attaching Category I implements to the tractor, sway chains may need lengthening to prevent binding and limiting full raise of the hitch. (See Adjust Hitch Side Sway in this section.)



PY23270—UN—06FEB15

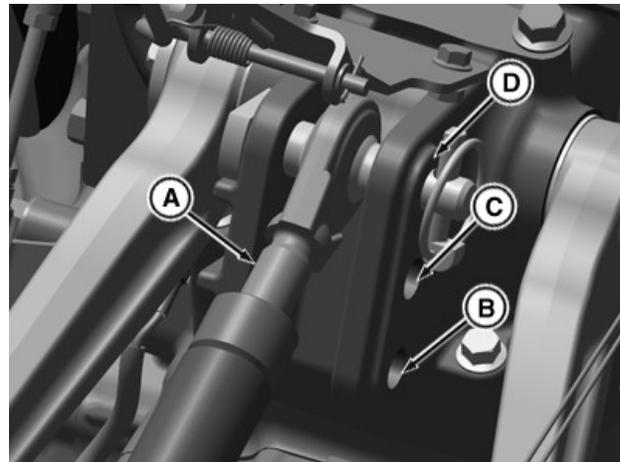
Category I 3-Point Hitch is narrower and is used on smaller implements than category II implements. Refer to the chart below to identify implement category.

Category I implements should have the top hole of the implement mast located 457 mm (18 in.) above the lower pin.

Category I	Mast Height	Width Between Lower Pins	Pin Size	
			Lower	Upper
I	457 mm (18 in.)	682.6 mm (26-7/8 in.)	22 mm (7/8 in.)	19 mm (3/4 in.)

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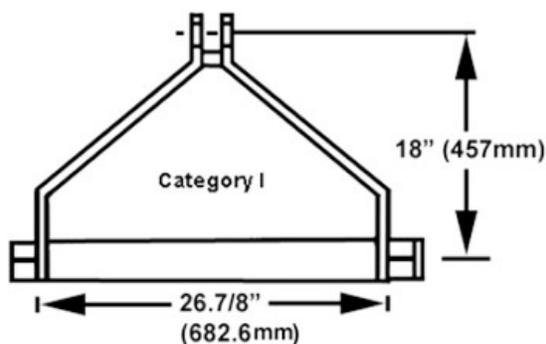
### Position Center Link



PY49472—UN—16MAY18

Center Link

A—Center Link  
B—Bottom Hole  
C—Middle Hole  
D—Top Hole



PY23270—UN—06FEB15

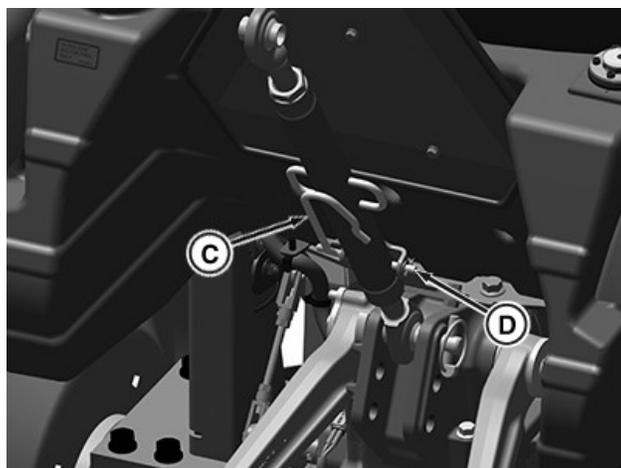
Implement (Mast Height)

1. Selection of hole (B,C or D) will help in adjustment of implement mast inclination as per application requirement.
2. During transport, if maximum ground clearance is required, then the bottom hole "B" should be used along with shortest length of the center link.

Standard position is Middle Hole (C).

**NOTE:** Implements with Category I, mast height 457 mm (18 in.) will use the upper two holes.

MD36154.0000306-19-01AUG18

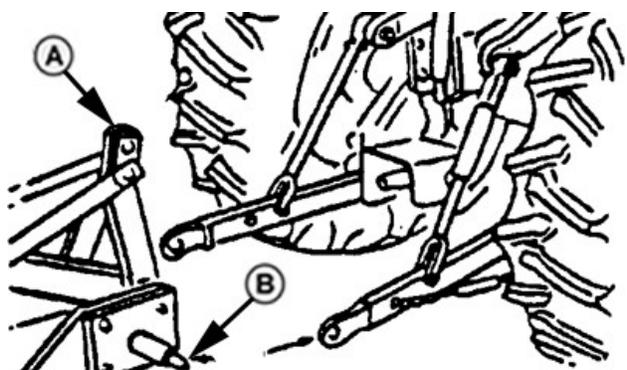


APY07619—UN—16MAY18



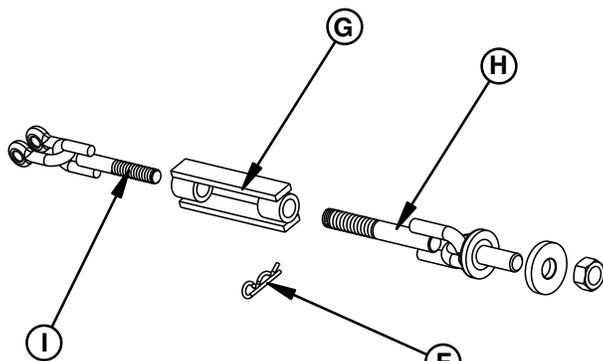
PY47327—UN—18AUG17

### Attach Implements to 3-Point Hitch



PY5374—UN—09DEC05

- A—Implement
- B—Implement Hitch Pins
- C—Center Link Support
- D—Latch
- E—Position Control Lever



PY23301—UN—24FEB15

- F—R-Pin
- G—Turnbuckle
- H—Threaded Rod, Right-hand
- I—Threaded Rod, Left hand

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

**NOTE:** A typical hitch & implement is illustrated.

2. Back tractor up to implement (A) so hitch points (B) align. Place transmission in NEUTRAL, stop the engine and engage park brake before leaving the tractor seat.
3. Slip draft links over implement hitch pins (B), and retain with quick-lock pins.
4. To rotate and remove the center link from the center link support (C).
5. Attach center link to implement top mast.
6. Adjust center link and lift links as necessary. See Level the Hitch in this section.

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

7. Using position control lever (E) to lower or raise the implement slowly and check for any point of interference.

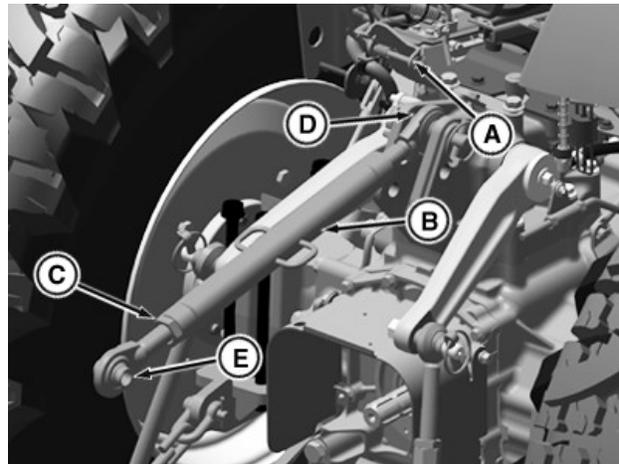
**IMPORTANT:** DO NOT shorten chains so short that it does not allow the hitch to rise fully. If chain prevents hitch from rising, this can cause the chain to break. The hydraulic valve opens and may cause excessive oil heating, or damage to pump or equipment.

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

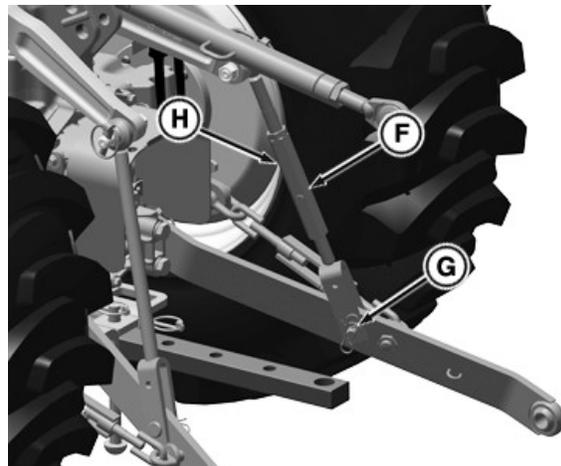
Implement side sway should be adjusted when the rockshaft is raised for transport. Remove R-Pin (F) from the threaded rod (H) prior to adjustment. Rotate the turnbuckle (G) to get the right length and then reinstall the R-pin (F) to lock the adjusted length.

MD36154.000031B-19-09JUL18

## Leveling the Hitch



PY49474—UN—16MAY18



PY49475—UN—21DEC17

- A—Self-Locking Spring
- B—Center Link Body
- C—Counter Nut
- D—Eye Bolt
- E—Eye Bolt
- F—Grease Nipple
- G—Pin
- H—Turnbuckle

1. Lower implement to take weight off hitch.

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

*NOTE:* Maximum adjustment range of the center link can be only 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 self-locking spring (A). Rotate center link body (B) clockwise to lengthen center link or counterclockwise to shorten it. Be sure to latch the self-locking spring.

*NOTE: Unlock center link with the help of counter-nut (C) to shorten or lengthen center link body (B) and lock once the center link body length adjusted.*

3. The right-hand lift link is also adjustable in length to accommodate different tire sizes.

To change the right-hand lift link length, loose the nut and rotate the turnbuckle (H) assembly clockwise to shorten or counterclockwise to lengthen, and then tighten the nut.

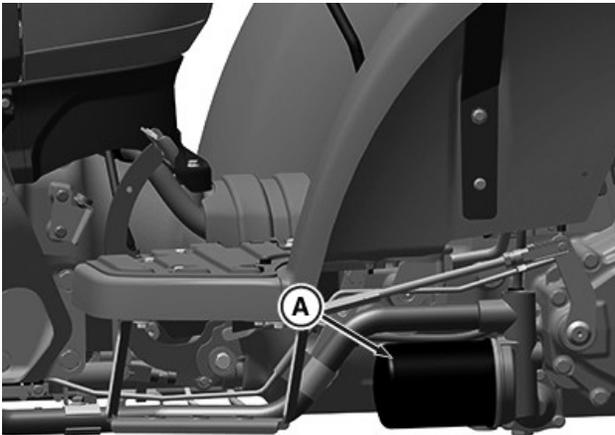
*NOTE: Pin position should be always vertically downwards.*

4. Adjust left and right lift links to accommodate various tire sizes. Set the lift links to have fully lowered draft link balls approximately seven inches off the ground for greatest range of usable hitch motion.

MD36154.0000308-19-13FEB18

## Warm Transmission-Hydraulic System Oil

**⚠ CAUTION: Overheated hydraulic oil can cause personal injury and component malfunction. To prevent hydraulic oil from overheating, DO NOT hold SCV in operating position for an extended period.**



APY02428—UN—22DEC17

### A—Hydraulic Oil Filter

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

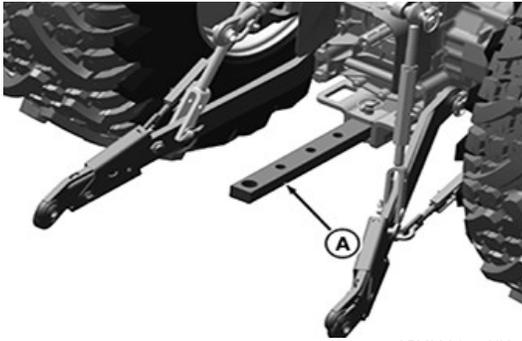
Hydraulic system functions normally when oil warms up.

**IMPORTANT: To avoid damaging the hydraulic pump or relief valve, DO NOT exceed two to three minutes warm-up time with steering wheel held in full left or full right turn position.**

MD36154.000031C-19-13FEB18

# Drawbar and PTO

## Observe Drawbar Load Limitations



A—Drawbar

APY08245—UN—10JUL18

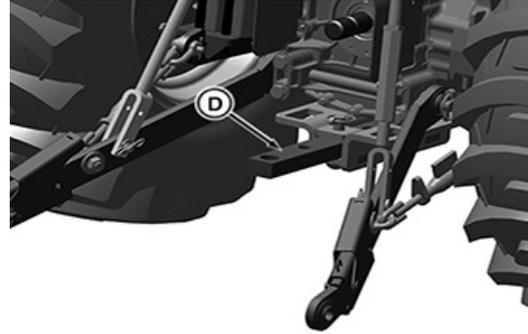
**IMPORTANT:** Certain heavy equipment, such as a loaded single-axle trailer, can place excessive strain on drawbar (A). Strain increases with speed and rough ground.

Static vertical load on drawbar (A) must not exceed 500 kg (1102 lb).

Drive slowly with heavy loads.

### Specification

Drawbar Static Vertical Load—Capacity. . . . .	500 kg (1102 lb) Maximum
NM61126,0000550-19-10JUL18	



APY08247—UN—10JUL18  
Drawbar At Normal Position

D—Drawbar

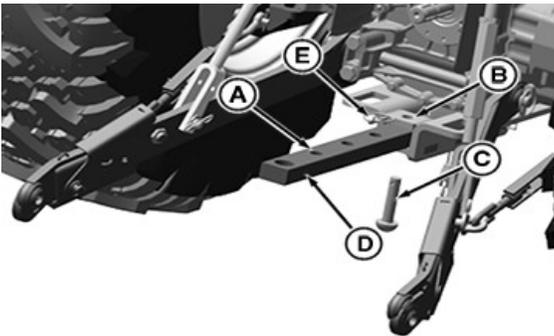
**Hole (A):** Short position

**Hole (B):** Extended position

1. Remove quick lock pin (E) and retaining pin (C) from the drawbar (D).
2. Slide drawbar (D) forward or rearward to desired position.
3. Align either of four holes and install the retaining pin.

DP97633,0000150-19-10JUL18

## Adjusting Drawbar Length



APY08246—UN—01AUG18

- A—Hole, RETRACTED (short) Drawbar Position
- B—Hole, EXTENDED Drawbar Position
- C—Retaining Pin
- D—Drawbar
- E—Quick Lock Pin

## Stay Clear of Rotating Drivelines



TS1644—UN—22AUG95

Entanglement in the rotating driveline can cause serious injury or death.

Keep all shields in place at all times. Make sure rotating shields turn freely.

Wear close-fitting clothing. Stop the engine and be sure that all rotating parts and drivelines are stopped before adjustments, connections, or performing any type of service on engine or machine-driven equipment.

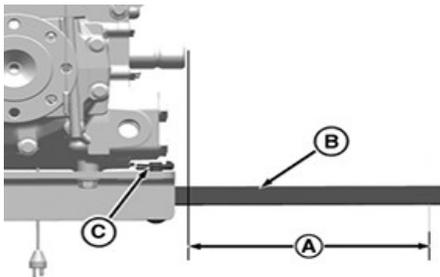
HY01057,00002A6-19-13FEB18

## Attach PTO-Driven Implement

**⚠ CAUTION: STOP engine before attaching implement or working in the area of the implement hitch.**

*NOTE: If PTO-driven implement is attached to drawbar (B), the drawbar must be positioned such that there is appropriate distance between end of PTO shaft and center of the drawbar pin hole.*

*There are two holes at the front of the drawbar (B). Place the drawbar pin (C) in the second hole for the proper 350 mm length (A).*



APY08248—UN—10JUL18

**A—PTO Shaft to Pin Hole Distance**  
**B—Drawbar**  
**C—Pin**

1. Attach implement to tractor before connecting PTO drive line. Raise hitch to upward position if it is not to be used.
2. Shift gear lever in NEUTRAL, key to OFF position and set brakes.
3. Make sure that drawbar locking pins and spring pins are in place. If implement is connected to 3-point hitch, be sure that drawbar does not interfere. Remove it if necessary.
4. Rotate PTO shield upward for clearance. With engine OFF, turn shaft slightly by hand if necessary to line up splines. Connect drive line to PTO shaft. Pull out on shaft to be sure that drive line is locked to PTO shaft. Place PTO shield in downward position.
5. Be sure that all shields are in place and in good condition. Operate PTO only if master shield is properly installed.
6. With engine stopped, check integral shields on the driveline by making sure that they rotate freely on shaft. Lubricate or repair as necessary.
7. Check carefully for any interference, make sure that hitch is raised to the upper position if it is not used.

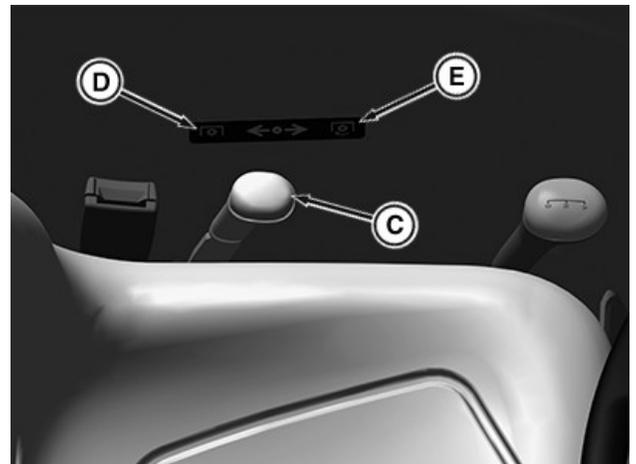
DP97633,000014F-19-10JUL18

## Operate Tractor PTO

1. Start the engine. Depress the clutch pedal and push hand throttle lever (A) forward until engine speed is sufficient to start PTO implement. Engine speed must be less than 2700 rpm.



APY08249—UN—10JUL18



APY07747—UN—26FEB19

**A—Hand Throttle Lever**  
**C—PTO Control Lever**  
**D—PTO at Neutral Position**  
**E—Engage PTO at 540 rpm**

2. To engage standard 540 rpm PTO, slide PTO control lever (C) towards right and then rearward (E).
3. Set engine speed to 2400 rpm for 3025D, 2800 rpm for 3035D and 3043D for 540 PTO operation.
4. Release the clutch pedal to begin PTO operation.
5. To disengage PTO, depress the clutch pedal, and move PTO control lever (C) to NEUTRAL position (D) as shown.

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

DP97633,000036B-19-26FEB19

# 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) Tractors, discusses methods of determining correct tractor weight and ballast selection. FMO machinery management includes information on tractor and implement matching and increasing productivity.

For further information and details, contact your John Deere dealer.

DP97633,00000E6-19-13FEB18

## Use Proper Ballast

The amount of ballast required and especially the locations of ballast weights depend very much on type of implement being used and operating speed. Ballasting is required to:

1. Assure front axle carries sufficient weight for steering security and stability with the field draft loads as well as transport in field and on road.
2. Provide sufficient traction to pull efficiently high draft loads.
3. Provide proper fore/aft balance to minimize occurrence of a power hop in MFWD tractors.
4. Assure rear axle carries sufficient weight for traction, braking, and stability when a loader or other front implement is attached to front of tractor.
5. When changing from one implement or attachment to another it is necessary to reconfigure ballast on tractor.

SD74272,0000215-19-17MAR20

## Select Ballast Carefully

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

**CAUTION:** When determining front and rear axle ballast, ensure that permissible axle loads and maximum permissible machine weight (including mounted implements) are not exceeded. See Specifications section of this manual. Comply with local regulations regarding installation and maximum permissible number of weights. In order to maintain steerability, at least 20% of unladen mass must be on front axle. Unladen mass is mass of tractor without special equipment, attachments, and trailer ballast but with hydraulic oil and lubricants, a full fuel tank, and an operator weighing 75 kg (165 lb).

**CAUTION:** Use suitable lifting tackle/hoists when handling weights. Safety and performance of your tractor depend on correct ballasting of front axle (front weights) and rear axle (wheel weights, filling tires with liquid ballast, pick-up weight).

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

DP97633,00000E7-19-09JAN18

## Match Ballast to Load Work

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.

RA84036,0000417-19-02JAN15

## Check for Correct Ballast

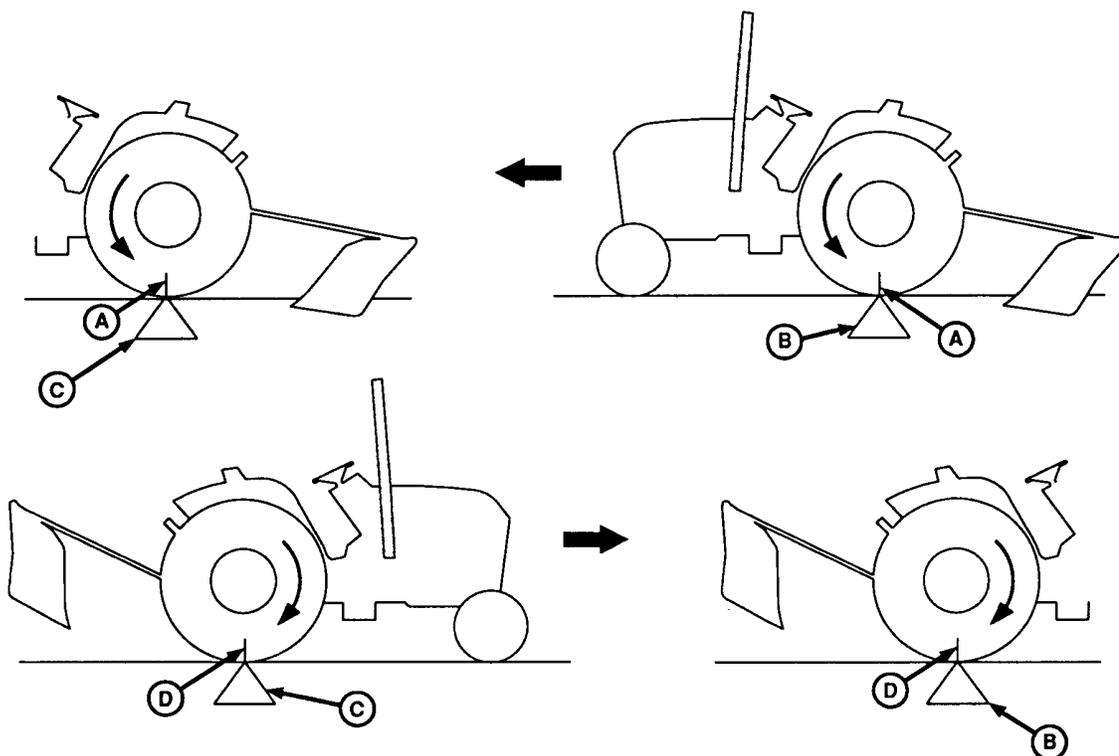
The best way to check for correct ballast is to measure amount of travel reduction (% slip) of the drive wheels. Under normal field conditions, travel reduction must be 10—15 %.

Add more weight for driving wheels if slip is excessive. If there is less than 10 % slip, weight must be removed.

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

DP97633,00000E8-19-09JAN18

## Measure Wheel Slip—Manually



A—Tire Mark  
B—Starting Point

- Place a mark (A) on a rear tire which is easily observed (a chalk mark is recommended).
- With tractor working and implement lowered, mark a starting point (B) on the ground at the place where the tire mark (A) meets the ground.
- Mark the ground again where the tire mark (A) completes 10 full revolutions (C).
- With implement raised return in the opposite direction. At the second mark on the ground (C) remark the tire (D).
- While driving the tractor along the same path (implement raised), count the tire revolutions required to reach the starting point (B).
- Use the return tire revolutions count and wheel slippage chart to determine slippage. 10—15 % is ideal.
- Adjust ballast or load to give correct slippage.

**NOTE:** Available horsepower is greatly reduced when wheel slip drops below 10 %.

LV733—UN—25JUN94

C—Marking After 10 Revolutions  
D—Marking in Opposite Direction

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	Proper Ballast
8-1/2	15	Proper Ballast
8	20	Add Ballast
7-1/2	25	Add Ballast
7	30	Add Ballast

DP97633,00000E9-19-18JAN18

### Ballast Limitations

Ballast must be limited by either tire capacity or tractor capacity. Each tire has a recommended carrying capacity which must not be exceeded. See Wheels, Tires, and Treads section in this manual. If a greater amount of weight is needed for traction, a larger tire can be used.

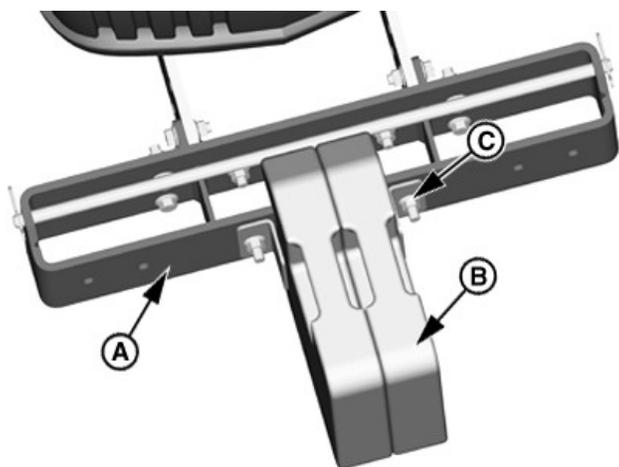
Ballast can be added as either liquid or cast iron.

DP97633,00000EA-19-09JAN18

## Ballast Front End for Transport

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

**CAUTION:** Weights are heavy. Use proper lifting equipment. Approximate weight of Front Bumper (A) is : 13.5 kg (29.76 lb). Approximate weight of each Ballast weight (B) is 32 kg (70.54 lb).



PY22512—UN—03MAR15

A—Front Weight Bracket

**B**—Ballast Weight  
**C**—Screw and Flange Nut (12 used)

Installing Weights: Up to 10 weights can be installed on the front bumper of the tractor as per requirement.

1. Install weights (B) in pairs, on front weight bracket (A).
2. To hold weights (B) in place, tighten the screw, and flange nut (C) to the specification.

### Specification

Front Bumper—Weight. . . . .	13.5 kg (29.76 lb).
Ballast Weight —Weight. . . . .	32 kg (70.54 lb).
Ballast Weights Screw—Torque. . . . .	198 N·m (146 lb-ft)

DP97633,00000EB-19-03AUG18

## Ballast 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, along with Using Implement Codes in this section, to determine the minimum number of front weights that are required for your tractor model.

DP97633,00000EC-19-09JAN18

## 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.

Item	Measurement	Specification
Maximum Load Per Wheel	1460 kg (3220 lbs).	

HY01057,000030A-19-01AUG18

## Determine Maximum Front Ballast

Use appropriate front ballast for a particular operating condition. MFWD tractors should only have enough ballast to maintain safe steering control. Remove ballast when it is no longer needed.

Chart shows carrying capacity per tire.

Item	Measurement	Specification
Maximum Load Per Wheel	880 kg (1760 lbs).	

HY01057,000030B-19-01AUG18

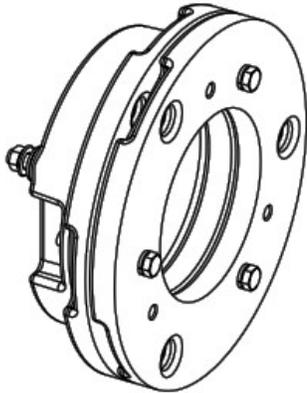
To extend drive train life, avoid excessive soil compaction and rolling resistance, avoid adding too much ballast. Ballast should never exceed the weight required to provide traction for continuous full power loads in 3rd gear. Remove ballast if tractor engine labors when pulling heavy loads in the first three gears.

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

## Use Cast Iron Weights

Tube-type tires may be filled to any level below 90%.

DP97633,0000329-19-19NOV18



Rear Weight

PY22513—UN—02JAN15

Cast iron weights are available in a 64 kg (142 lb.) size. Weights can be installed on the outside of wheel. See your authorized John Deere dealer or distributor for more information and recommendations on weight use and placement.

### Specification

Cast Iron Weights—Weight. . . . . 64 kg (142 lb.)

RA84036,000041F-19-03MAR15

## Use Liquid Weight in Tires

**⚠ CAUTION: Avoid injury! Installing liquid ballast requires special equipment and training. Injury will occur from the exploding tire. Have the job done by your John Deere dealer or a tire service store.**

**IMPORTANT: Avoid Damage! Cover rim completely with solution to avoid corrosion, but never more than 90 percent full. More solution would leave too little air space to absorb shocks. Damage to tire could occur.**

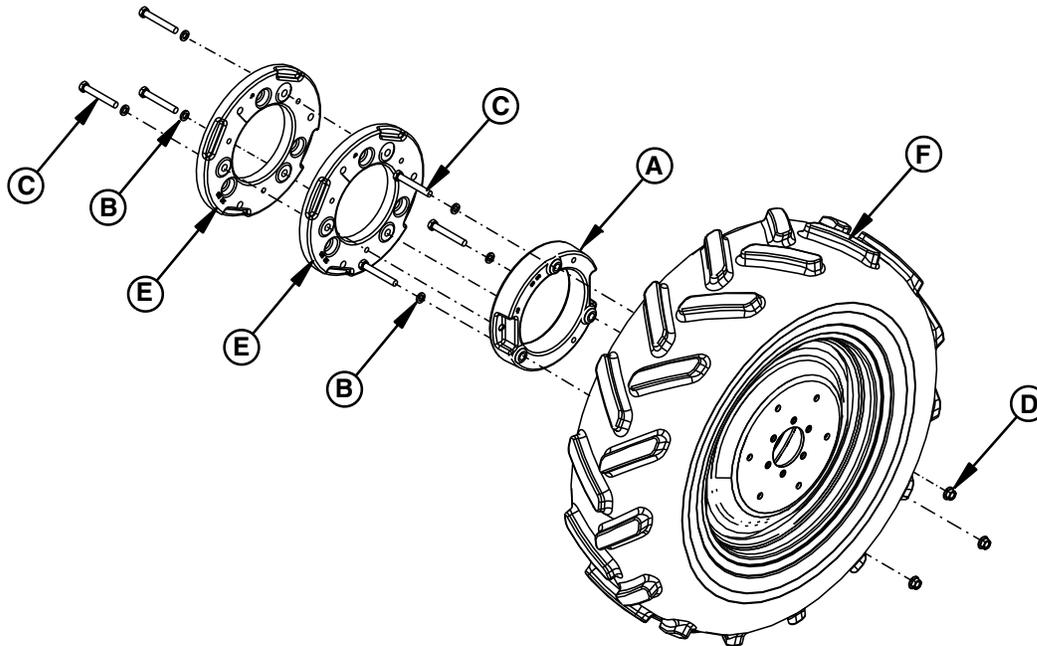
*NOTE: Use of alcohol as ballast is not recommended. Calcium chloride solution is heavier and more economical.*

A solution of water and calcium chloride provides safe economical ballast, and prevents freezing. If used properly, it will not damage tires, tubes, or rims.

A mixture of 0.4 kg of calcium chloride per liter of water (3.5 lb per gallon), does not freeze solid above -45°C (-50°F).

Fill tubeless tires at least to the valve stem level (minimum 75% full). Less solution would expose part of rim, possibly causing corrosion.

## Install Rear Wheel Weights



A—Starter Weight (2 used)  
 B—Lock Washer (12 used)  
 C—Cap Screw (12 used)

D—Flange Nut (6 used)  
 E—Rear Weight (4 used)  
 F—Rear Wheel (2 used)

PY22514—UN—04MAR15

**CAUTION:** Weights are heavy. Use proper lifting equipment. Approximate weight of starter weight (A) is 20 kg and additional rear weight (E) is 22 kg.

1. Install starter weight (A) on rear wheel with the help of cap screw (C), lock washer (B), and flange nut (D).
2. To install rear wheel weights (E) and rotate to align cap screw (C) with holes on starter weight (A) holes.
3. Tighten all the attaching cap screw (C) and lock washer (B) securely as per the specification.

### Specification

Starter Weight Mounting Cap  
 Screw—Torque. . . . . 320 N·m (236 lb·ft)  
 Rear Weight Mounting Cap  
 Screw—Torque. . . . . 320 N·m (236 lb·ft)

**NOTE:** Check the tightness of weight mounting nuts every day..

DP97633,000032A-19-20NOV18

## Use Implement Codes

**⚠ CAUTION: DO NOT attempt to transport an implement without adequate front ballast, result must be lack of steering control.**

John Deere engineers have developed a code to determine how much front ballast is needed for stability and steering control.

1. Find implement code in implement operator's manual.
2. Use the following chart to determine how many iMatch™ front weights are required on your tractor model.

To use chart, find the implement code range in the left column into which your implement code fits. Then move to the right until you are beneath the column which identifies your tractor configuration. The number you find at this point in the chart is the number of iMatch™ weights needed.

**Example:** An implement with a code 37 to be used on an MFWD tractor with a quick-coupler, but minimum number of 19 kg (42 lb) weights, requires 3 front weights.

With maximum front ballast, do not attempt to transport an implement whose code exceeds:

- 71 for MFWD Tractor

57	10	Not Recommended	6	7
59	Not Recommended	Not Recommended	7	8
61	Not Recommended	Not Recommended	7	8
63	Not Recommended	Not Recommended	7	Not Recommended
65	Not Recommended	Not Recommended	7	Not Recommended
66	Not Recommended	Not Recommended	7	Not Recommended
67	Not Recommended	Not Recommended	7	Not Recommended
69	Not Recommended	Not Recommended	8	Not Recommended
71	Not Recommended	Not Recommended	Not Recommended	Not Recommended

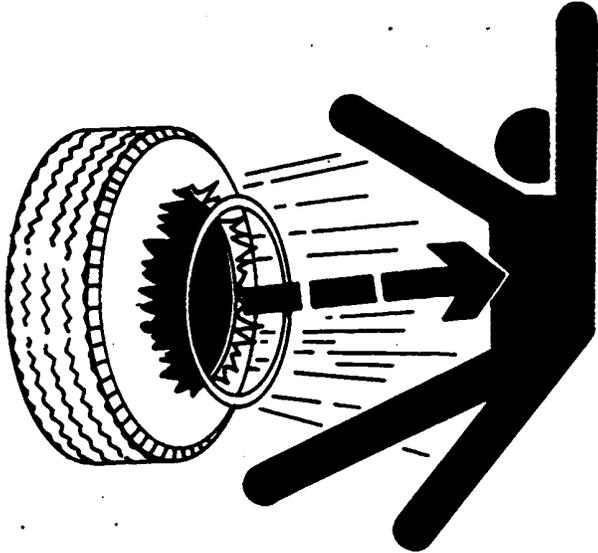
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Implement Code	Minimum Number of 19 kg (42 lb) Weights	Minimum Number of 19 kg (42 lb) Weights When Using iMatch	Minimum Number of 32 kg (70 lb) Weights	Minimum Number of 32 kg (70 lb) Weights When Using iMatch
25	0	0	0	0
27	0	1	0	1
29	0	2	0	1
31	1	2	1	2
33	2	3	1	2
35	2	4	2	3
37	3	5	2	3
39	4	5	2	3
41	4	6	3	4
43	5	7	3	4
45	6	8	4	5
47	6	8	4	5
49	7	9	4	6
51	8	10	5	6
53	9	Not Recommended	5	6
55	9	Not Recommended	6	7

iMatch is a trademark of Deere & Company

# Wheels, Tires and Treads

## Service Tires Safely



TS211—UN—15APR13

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.

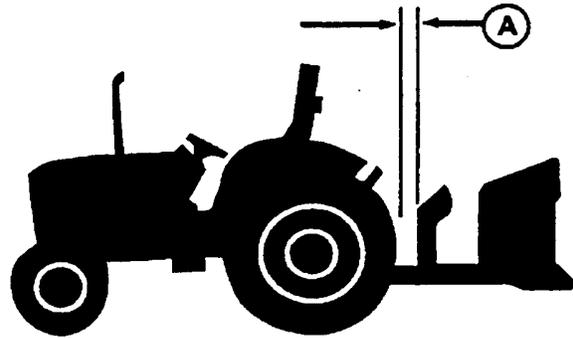
Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure. Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

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.

DX,RIM-19-24AUG90

## Check Implement-to-Tire Clearance



M47177—UN—31JAN92

A—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.

RM87422,0000182-19-14JAN15

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

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

1. All inflation pressures are calculated for 29 km/h (18 mph) travel speeds for both diagonal (bias) ply and radial ply tires.
2. Operation of tires at the inflation pressures listed on chart will result in optimum tractive performance of the tire/vehicle system. Correctly inflated radial tires will show a large deflection of the sidewall or

“cheeks”. This is normal and will not damage the tire if the inflation pressure is maintained.

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 manufacturers load and inflation table information.

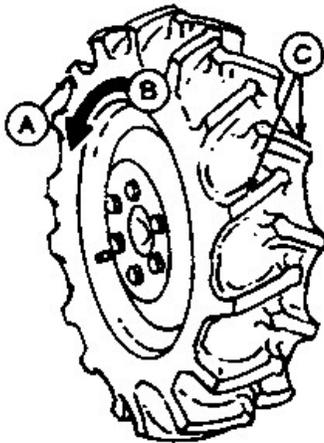
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### Front and Rear Tire Combinations

	Tread	Tire Size	Load Index	Speed Category	Factory Inflation (kPa)	Factory Inflation (psi)
Rear	R4	15.00-19.5 4PR	130	A6	138	20
Front	R4	25x8.50-14 4PR	97	A6	241	35
Rear	R3	41x14.00-20 4PR	120	A6	165	24
Front	R3	27x8.50-15 4PR	100	A6	207	30
Rear	R1	11.2-24 4PR	110	A6	124	18
Front	R1	7.00-14 6PR	97	A6	165	24

DP97633.00003A7-19-04DEC19

### Selecting Front Tire Rolling Direction



PY23069—UN—22JAN15

Left Tire (Viewed From Rear)

- A—Front Tires (viewed from rear)
- B—Rolling Direction of Tire
- C—Tire Lugs

(1)—Under most conditions, front tires (A) should be mounted with the direction of tire lugs (C) the same as the tire rolling direction (B).

DP97633.00000FC-19-15JAN18

### 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.

RM87422.00000B6-19-10NOV14

### Tighten Bolts— Front Axle



PY47358—UN—23AUG17

**A—Disk-to-Flange Bolts**

Tighten disk-to-flange bolts (A) in the following locations to specifications:

	Specification
Front Axle—Disk-to-Flange Bolts—Torque. . . . .	140 N·m (103 lb·ft)
DP97633,0000254-19-03AUG18	

### Tighten Bolts—Rear Axle



PY47357—UN—23AUG17

**A—Disk-to-Flange Bolts**

Tighten disk-to-flange bolts (A) in the following locations to specifications:

	Specification
Rear Axle Disk-to-Flange (Steel Disk)—Torque. . . . .	220 N·m (162 lb·ft)
DP97633,0000255-19-03AUG18	

### Check Toe-In—MFWD Axle



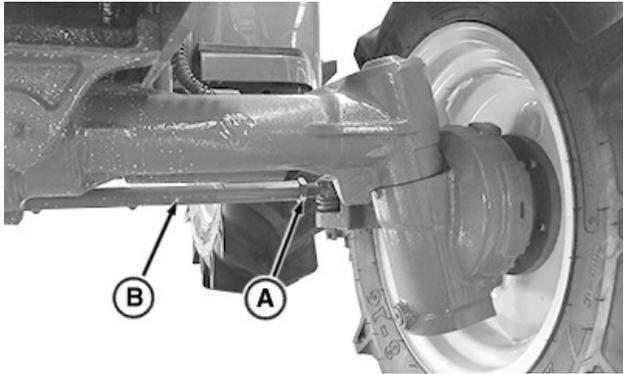
APY08250—UN—10JUL18

1. Park machine on a flat, level surface.
2. Turn steering wheel such that the front wheels are in the straight-ahead position and then stop engine.
3. Measure center to center distance between front tires at the hub level in front of the axle. Record measurement and mark the tires.
4. Move tractor back about 1 m (3 ft), such that mark is at the hub level behind the axle. Again, measure distance between tires at same point on tire. Record measurement.
5. Determine the difference between front and rear measurements. If the front measurement is smaller, toe is “in”. If the rear is smaller, toe is “out”.
6. The difference may be in either direction (toe-in or toe-out), but must be less than 3 mm (1/8 in). Adjust toe-in if necessary. (See procedure in this section.)

Toe-In Value Chart	
Make	Toe-In Value
Front Axle	0-3 mm

DP97633,0000058-19-10JUL18

### Adjust Toe-In—MFWD Axle



PY22406—UN—04MAR15

Light-Duty Powered Axle

- A—Tie Rod Jam Nut
- B—Tie Rod Tube

1. Loosen tie rod lock nut (A) on both ball joints.
2. Rotate tie rod tube (B) clockwise or counterclockwise to adjust the amount of toe-in. Adjust tie rod until the toe-in is set to 0—3 mm.
  - Rotating threaded rod in 1/2 turn increments equals 1.5 mm (1/16 in)
3. Tighten tie rod lock nut (A) to specification. Do not overtighten, it damages the tube.

**Specification**

Tie Rod Jam Nut (light-duty front axle)—Torque. . . . . 115 - 130 N·m (85 - 96 lb·ft)

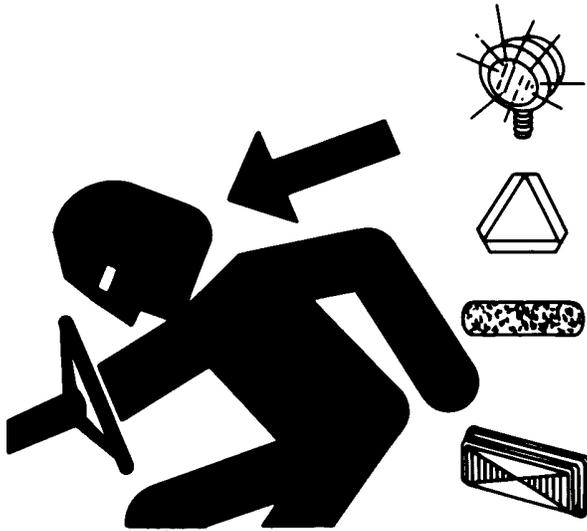
4. Check toe-in setting. Repeat procedure if further adjustment is required.

Toe-In Value Chart	
Make	Toe-In Value
Front Axle	0-3 mm

SJ15074.00004A5-19-11JUL18

# Transporting

## Use Safety Lights and Devices



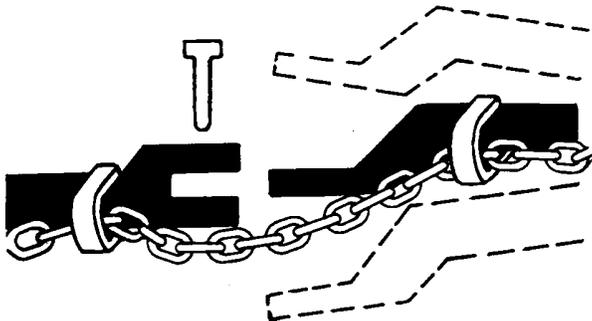
TS951—UN—12APR90

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

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean, and in good working order. Replace or repair lighting and marking that has been damaged or lost. An implement safety lighting kit is available from your John Deere dealer.

DX.FLASH-19-07JUL99

## Use a Safety Chain



TS217—UN—23AUG88

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

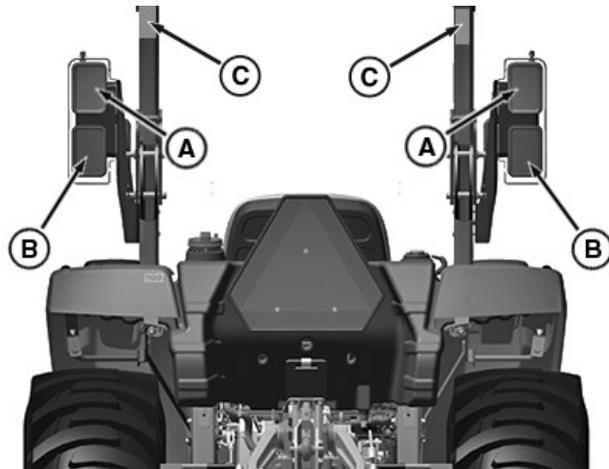
Using the appropriate adapter parts, attach the chain to the tractor drawbar support or other specified anchor location. Provide only enough slack in the chain to permit turning.

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

## Driving Tractor on Roads



APY02441—UN—17JAN18

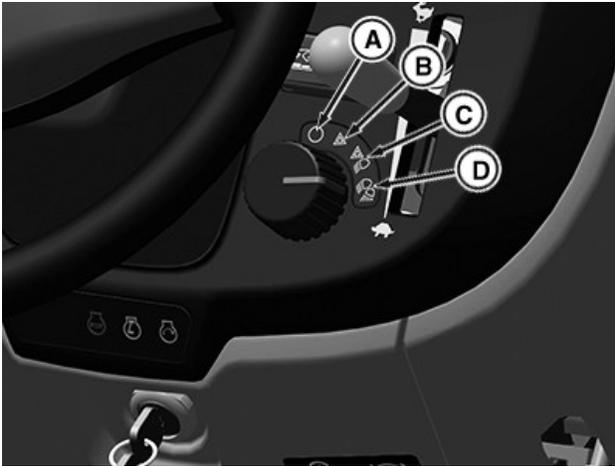
A—Warning Lights  
B—Tail Lights  
C—Reflex Reflector

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

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

**CAUTION:** NEVER operate worklight while transporting tractor. Clear bright light at the rear of the tractor could confuse drivers of other vehicles.

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



APY02420—UN—22DEC17

- A—Lights OFF
- B—Hazard Lights
- C—Low Beam Headlights
- D—Work Lamp

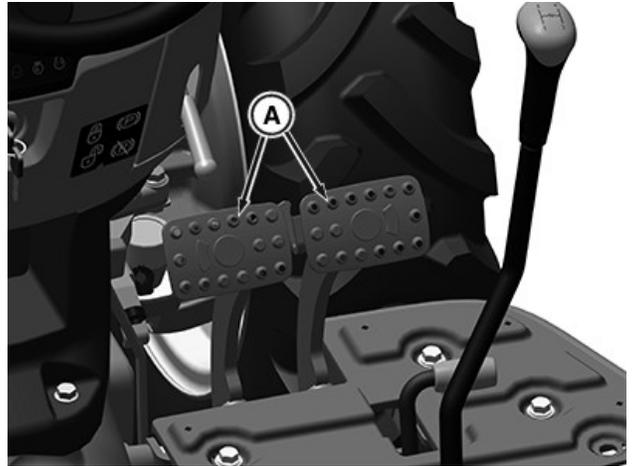
2. Turn light switch to low beam headlights (C) position. Always use low beam headlights before meeting another vehicle. Keep headlights properly adjusted.



PY45733—UN—31DEC18

- A—Turn Signal Lever

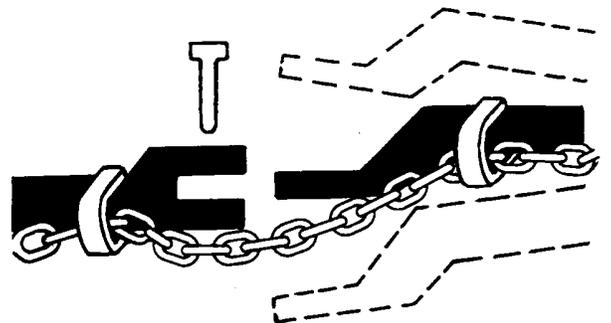
3. Use turn signals while turning. Be sure to return turn signal lever (A) to center position after turning.



APY02480—UN—19FEB18

- A—Brake Pedals

4. Couple brake pedals (A) together before driving on a road. Avoid hard application of brakes.
5. Drive slowly enough to maintain safe control at all times. Slow down for hillsides, rough ground, and sharp turns, especially while 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 hill.
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.



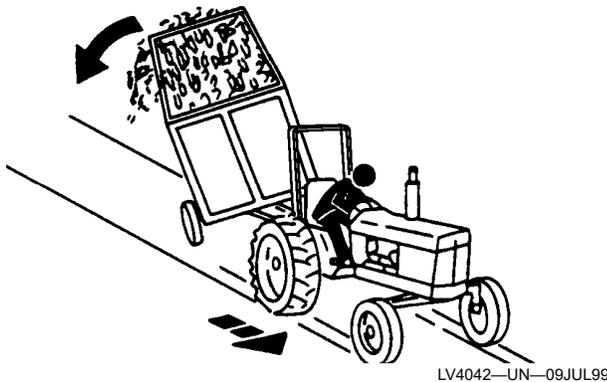
TS217—UN—23AUG88

**CAUTION:** 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.

**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 may damage your tractor.**

8. Transporting Towed Loads:

Lock drawbar pin in place, and use safety chain to help control drawn equipment. It may accidentally separate from drawbar while transporting.



**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 can be lower.

If towed equipment does not have brakes, do not travel more than 32 km/h (20 mph) and do not tow loads more than 1 ton.

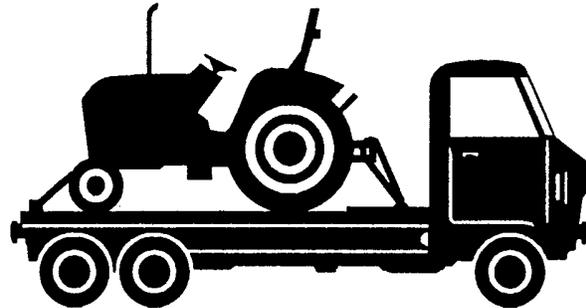
Ensure that the load does not exceed the recommended weight ratio. Add ballast to recommended maximum for tractor, lighten the load, or get a heavier towing unit. The tractor must be heavy and powerful enough with adequate braking power for the towed load. Use additional caution when towing loads under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

9. Use caution while operating tractor at transport speeds. Reduce speed if towed load weighs more than tractor and is not equipped with brakes. See Transport Towed Equipment at Safe Speeds in Safety section.
10. Use additional caution while 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 results 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.

DP97633,00000D0-19-19FEB18

**Transport on Carrier**



LV610—UN—22APR94

**CAUTION:** Chain tractor to carrier securely. Drive carrier slowly.

A disabled tractor is best transported on a flatbed carrier.

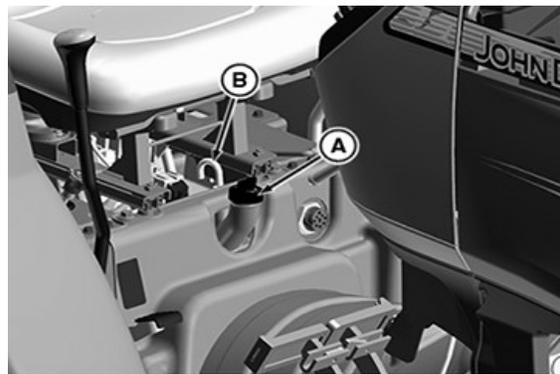
**IMPORTANT:** Seal exhaust to prevent dirt from entering and damaging engine.

DP97633,00000D1-19-02JAN18

**Tow Tractor**

**IMPORTANT:** NEVER tow the tractor faster than 16 km/h (10 mph). Have an operator steer and brake tractor.

**IMPORTANT:** To avoid damaging transmission-hydraulic system, observe the following precautions:



APY08251—UN—10JUL18

A—Transmission-Hydraulic Oil Filler Cap  
B—Dipstick, Transmission-Hydraulic Oil

1. Be sure that transmission-hydraulic system oil is to

the full level line on dipstick (B). If the tractor is towed with the front wheels raised, add 1 liter of oil to port by removing transmission-hydraulic oil filler cap (A) for each 90 mm (3-1/2 in), raising of the wheels. 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. Make sure that the gearshift lever, range shift lever, forward-reverse lever, and PTO lever are in neutral.

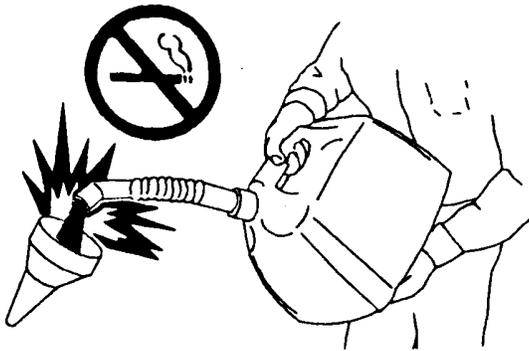
Also MFWD lever is disengaged.

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DP97633,00000D2-19-10JUL18

# Fuels, Lubricants, and Coolant

## Handle Fuel Safely—Avoid Fires



M73115—UN—09MAR90

Use only diesel fuel.

Handle fuel with care, it is highly flammable.

DO NOT refuel machine:

- While you smoke.
- When machine is near open flame or sparks.
- When engine is running. STOP engine.

Fill fuel tank outdoors.

Help prevent fires:

- Clean oil, grease and dirt from machine.
- Clean up spilled fuel immediately.

Do not store machine with fuel in tank in a building where fumes may reach an open flame or spark.

MX,FIRE,5A1-19-22,JUL94

## Handle Fluids Safely—Avoid Fires



TS227—UN—15APR13

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

## Fuel Storage

Buy good quality, clean fuel from a reputable supplier.

Proper fuel storage is critically important. Use clean storage and transfer tanks. Periodically drain water and sediment from bottom.

Avoid storing fuel over long periods of time.

Store fuel in a convenient place away from buildings.

PY80265,05GO897-19-10SEP05

## Diesel Fuel

Use the proper diesel fuel to help prevent decreased engine performance and increased exhaust emissions. Failure to follow the fuel requirements listed below can void your engine warranty.

Consult a local fuel distributor for properties of the diesel fuel available in the 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 ISO EN 590 or ASTM D975 are recommended.

### Required fuel properties

In all cases, the fuel shall meet the following properties:

**Cetane number of 45 minimum.** Cetane number greater than 50 is preferred, especially when temperatures are below  $-20^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$ ) or elevations above 1500 m (5000 ft).

**Cold Filter Plugging Point (CFPP)** should be at least  $5^{\circ}\text{C}$  ( $9^{\circ}\text{F}$ ) below the expected lowest temperature or **Cloud Point** below the lowest ambient temperature.

**Fuel lubricity** should comply with ISO EN 590 or ASTM D975.

**IMPORTANT: Avoid damage! Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.**

If a fuel of low or unknown lubricity is used, addition of John Deere PREMIUM DIESEL FUEL CONDITIONER at the specified concentration is recommended.

### Sulfur Content

- 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% (15mg/kg) sulfur content.

**IMPORTANT: Avoid damage! Do not mix diesel engine oil or any other type of lubricating oil with diesel fuel.**

### Using Biodiesel Fuel

Biodiesel fuels may be used only if the biodiesel fuel properties meet the latest edition of ASTM D6751, ASTM D7467, EN14214, or equivalent specification.

The current maximum allowable biodiesel concentration is a 20% blend (also known as B20) in petroleum diesel fuel.

Use of B6-B20 fuel will require special procedures for the fuel handling and machine storage.

To learn of any changes to the recommendations for biodiesel usage with your diesel engine, ask your John Deere dealer.

### Handling and Storing Diesel Fuel

**⚠ CAUTION: Avoid injury! 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.**

**IMPORTANT: Avoid damage! Do not use galvanized containers—diesel fuel stored in galvanized containers reacts with zinc coating in the container to form zinc flakes. If fuel contains water, a zinc gel will also form. The gel and flakes will quickly plug fuel filters and damage fuel injectors and fuel pumps.**

- Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.
- 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 and to prevent water condensation. Contact your fuel supplier for recommendations.

DP97633,0000016-19-30OCT17

## Diesel Engine Coolant

### Preferred coolants:

The following pre-mix engine coolants are preferred:

- John Deere Cool-Gard™ II
- John Deere Cool-Gard™ II PG

Not all Cool-Gard™ II pre-mix products are available in all countries.

*Cool-Gard is a trademark of Deere & Company*

Use COOL-GARD™ II PG when a non-toxic coolant formulation is required.

### Additional Recommended Coolants

The following engine coolant is also recommended:

- John Deere COOL-GARD™ II Concentrate in a 50—50% mixture of concentrate with quality water.

**IMPORTANT: Avoid damage! When mixing coolant concentrate with water, do not use less than 50% or greater than 50% concentration of coolant. Less than 50% gives inadequate additives for corrosion protection. Greater than 50% can result in coolant gelation and cooling system problems.**

### Other Coolants

Other ethylene glycol or propylene glycol base coolants may be used if they meet one of the following specifications:

- Pre-mix coolant meeting ASTM D6210 requirements.
- Coolant concentrates meeting ASTM D6210 requirements in a 50% to 50% mixture of concentrate with quality water.
- Pre-mix coolant meeting ASTM D3306 requirements.
- Coolant concentrates meeting ASTM D3306 requirements in a 50% to 50% mixture of concentrate with quality water.

If coolant meeting one of these specifications is unavailable, use a coolant concentrate or pre-mix coolant that has a minimum of the following chemical and physical properties:

- Is formulated with a quality nitrite-free additive package.
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion.

### Water Quality

Water quality is important to the performance of the cooling system. Distilled, deionized, or demineralized water is recommended for mixing with ethylene glycol base engine coolant concentrate.

### Coolant Drain Intervals

Drain and flush the cooling system and refill with fresh coolant at the indicated interval, which varies with the coolant used.

When Cool-Gard™ II or Cool-Gard™ II PG is used, the drain interval is six years or 6000 operating hours.

If a coolant other than Cool-Gard™ II or Cool-Gard™ II PG is used, reduce the drain interval to two years or 2000 operating hours.

**IMPORTANT: Avoid damage!**

- 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.

HY01057,0000265-19-15MAY18

**Operating in Warm Temperature Climates**

John Deere engines are designed to operate using recommended engine coolants.

Always use a recommended engine coolant, even when operating in geographical areas where freeze protection is not required.

**IMPORTANT: Water may be used as coolant in emergency situations only.**

**Foaming, hot surface aluminum and iron corrosion, scaling, and cavitation occur when water is used as the coolant, even when coolant conditioners are added.**

**Drain cooling system and refill with recommended engine coolant as soon as possible.**

DX,COOL6-19-17FEB20

**Additional Information About Diesel Engine Coolants and John Deere COOL-GARD™ II Coolant Extender**

Engine coolants are a combination of three chemical components: ethylene glycol (EG) or propylene glycol (PG) antifreeze, inhibiting coolant additives, and quality water.

**Coolant Specifications**

John Deere COOL-GARD™ II Premix either EG or PG, are fully formulated coolants that contain all three components in their correct concentrations. DO NOT add an initial charge of John Deere COOL-GARD II Coolant Extender to COOL-GARD II Premix. DO NOT add any other supplemental coolant additive or water to COOL-GARD II Premix.

John Deere COOL-GARD II Concentrate contains both ethylene glycol and inhibiting coolant additives. Mix this product with quality water, but DO NOT add an initial charge of John Deere COOL-GARD II Coolant Extender or any other supplemental coolant additive.

**Replenish Coolant Additives**

Some coolant additives will gradually deplete during

engine operation. Periodic replenishment of inhibitors is required, even when John Deere COOL-GARD II Premix or COOL-GARD II Concentrate is used. Follow the recommendations in this manual for the use of John Deere COOL-GARD II Coolant Extender.

**Why use John Deere COOL-GARD II Coolant Extender?**

Operating without proper coolant additives will result in increased corrosion, cylinder liner erosion and pitting, and other damage to the engine and cooling system. A simple mixture of ethylene glycol or propylene glycol and water will not give adequate protection.

John Deere COOL-GARD II Coolant Extender is a chemically matched additive system designed to fortify the proprietary additives used in John Deere COOL-GARD II Premix and COOL-GARD II Concentrate and to provide optimum protection for up to six years or 6000 hours of operation.

**Avoid Automotive-type Coolants**

Never use automotive-type coolants (such as those meeting ASTM D3306). These coolants do not contain the correct additives to protect heavy-duty diesel engines. Do not treat an automotive engine coolant with supplemental coolant additives because the high concentration of additives can result in additive fallout.

**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. All water used in the cooling system should meet the following minimum specifications for quality:

Chlorides	<40 mg/L
Sulfates	<100 mg/L
Total dissolved solids	<340 mg/L
Total hardness	<170 mg/L
pH	5.5 to 9.0

**Freeze Protection**

The relative concentrations of glycol and water in the engine coolant determine its freeze protection limit.

Ethylene Glycol	Freeze Protection Limit
40%	-24°C (-12°F)
50%	-37°C (-34°F)
60%	-52°C (-62°F)
Propylene Glycol	Freeze Protection Limit
40%	-21°C (-6°F)
50%	-33°C (-27°F)
60%	-49°C (-56°F)

COOL-GARD is a trademark of Deere & Company

DO NOT use a coolant-water mixture greater than 60% ethylene glycol or 60% propylene glycol.

DX,COOL17-19-20APR11

## Testing Diesel Engine Coolant

Maintaining adequate concentrations of glycol and inhibiting additives in the coolant is critical to protect the engine and cooling system against freezing, corrosion, and cylinder liner erosion and pitting.

Test the coolant solution at intervals of 12 months or less and whenever excessive coolant is lost through leaks or overheating.

### Coolant Test Strips

Coolant test strips are available from your John Deere dealer. These test strips provide a simple, effective method to check the freeze point and additive levels of your engine coolant.

### When Using John Deere COOL-GARD II

John Deere COOL-GARD II Premix™, COOL-GARD II PG Premix and COOL-GARD II Concentrate are maintenance free coolants for up to six years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix or COOL-GARD II PG premix. Test the coolant condition annually with coolant test strips designed for use with John Deere COOL-GARD II coolants. If the test strip chart indicates that additive is required, add John Deere COOL-GARD II Coolant Extender as directed.

Add only the recommended concentration of John Deere COOL-GARD II Coolant Extender. DO NOT add more than the recommended amount.

### When Using Nitrite-Containing Coolants

Compare the test strip results to the supplemental coolant additive (SCA) chart to determine the amount of inhibiting additives in your coolant and whether more John Deere Liquid Coolant Conditioner should be added.

Add only the recommended concentration of John Deere Liquid Coolant Conditioner. DO NOT add more than the recommended amount.

### Coolant Analysis

For a more thorough evaluation of your coolant, perform a coolant analysis. The coolant analysis can provide critical data such as freezing point, antifreeze level, pH, alkalinity, nitrite content (cavitation control additive), molybdate content (rust inhibitor additive), silicate content, corrosion metals, and visual assessment.

Contact your John Deere dealer for more information on coolant analysis.

DX,COOL9-19-11APR11

COOL-GARD is a trademark of Deere & Company

## Checking and Cleaning Fuel Filter Sediment Bowl and Replacing Filters

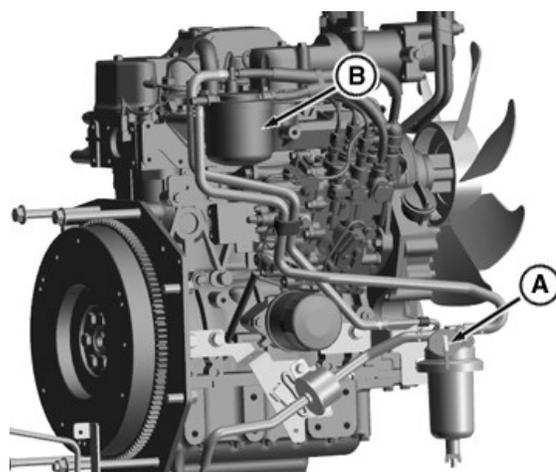
**CAUTION:** Avoid injury! Fuel vapors are explosive and flammable:

- Do not smoke while handling fuel.
- Keep fuel away from flames or sparks.
- Shut off engine before servicing.
- Cool engine before servicing.
- Work in a well-ventilated area.
- Clean up spilled fuel immediately.

### Checking Sediment Bowl

1. Park machine safely. Allow engine to cool.
2. Check fuel sediment bowl. If water and deposits are detected, drain water.
  - a. Place drain pan under sediment bowl.
  - b. Turn drain valve to open position.
  - c. Drain water until the orange indicator ring reseats back on the bottom of bowl.
  - d. Turn drain valve to closed position.

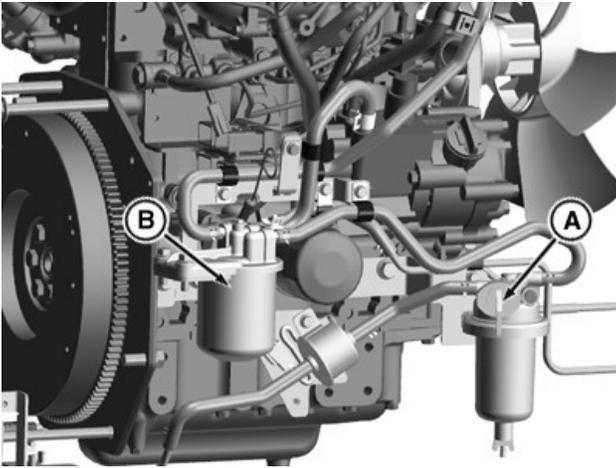
### Cleaning Sediment Bowl and Replacing Fuel Filter



For 3025D

PY45732—UN—17AUG17

A—Fuel Shutoff Valve  
B—Secondary Fuel Filter



PY45731—UN—17AUG17

For 3035D and 3043D

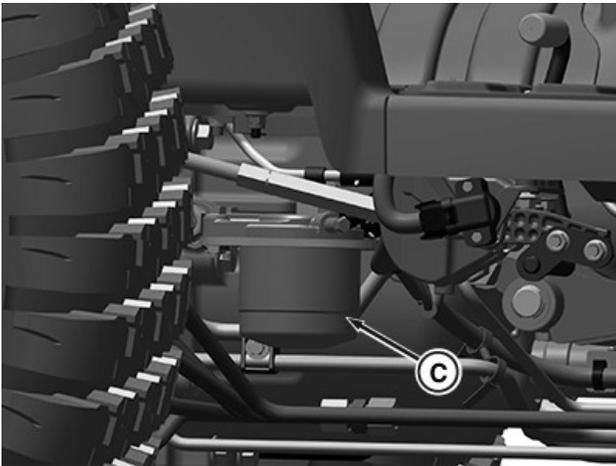
3. Position drain pan under primary fuel filter (C) and secondary fuel filter (B) to catch fuel spillage.
4. Turn primary fuel filter (C) and secondary fuel filter (B) counterclockwise to remove and discard.
5. Apply fuel to surface of new filters gasket.
6. Install new primary fuel filter (C) and secondary fuel filter (B) to filter head. Tighten by one complete turn after filter contacts head.
7. Open fuel shutoff valve (A).

HY01057,0000266-19-10JUL18

### Fill Fuel Tank

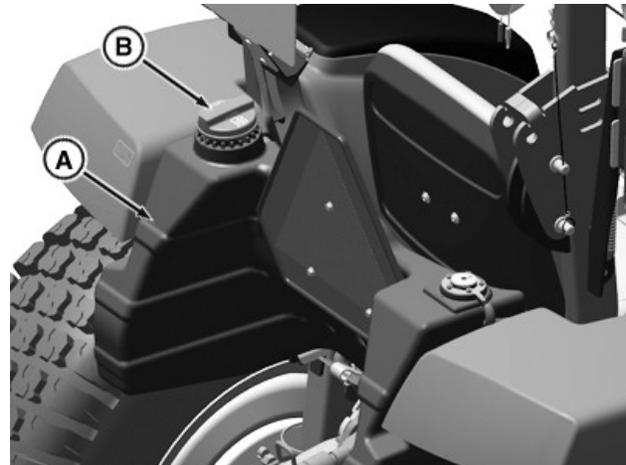


TS202—UN—23AUG88



APY07647—UN—08JUN18

For 3035D and 3043D



PY45730—UN—17AUG17

A—Fuel Tank  
B—Fuel Tank Filler Cap

- A—Fuel Shutoff Valve
- B—Secondary Fuel Filter
- C—Primary Fuel Filter

1. Move the fuel shutoff valve (A) to closed position.
2. Position drain pan under fuel filter sediment bowl.
3. Turn sediment bowl counterclockwise to remove.
4. Clean the filter screen and bowl.
5. Install sediment bowl.
6. Open fuel shutoff valve (A).

*NOTE: Fuel system is self-bleeding.*

7. Turn key to the ON position for 10—15 seconds before attempting to start, electric pump purges air from sediment bowl.

### Replacing Fuel Filter

1. Park machine safely. Allow engine to cool.
2. Close fuel shutoff valve (A).

**⚠ 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.**

Open fuel tank filler cap (B) and fill fuel tank (A). Fill fuel

tank at end of operation each day to prevent water condensation and freezing during cold weather.

**Specification**

Fuel Tank—Capacity . . . . . 38 L (10.03 gal)  
DP97633,0000086-19-10MAY18

**Lubricant Storage**

Your equipment can operate at top efficiency only when clean lubricants are used.

Use clean containers to handle all lubricants.

Whenever possible, 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.

PY80265,05GO902-19-10SEP05

**Minimizing the Effect of Cold Weather on Diesel Engines**

John Deere diesel engines are designed to operate effectively in cold weather.

However, for effective starting and cold-weather operation, a little extra care is necessary. The following information outlines steps that can minimize the effect that cold weather may have on starting and operation of your engine. See your John Deere dealer for additional information and local availability of cold-weather aids.

**Use Winter Grade Fuel**

When temperatures fall below 0°C (32°F), winter grade fuel (No. 1-D in North America) is best suited for cold-weather operation. Winter grade fuel has a lower cloud point and a lower pour point.

**Cloud point** is the temperature at which wax begins to form in the fuel. This wax causes fuel filters to plug.

**Pour point** is the lowest temperature at which movement of the fuel is observed.

*NOTE: On average, winter grade diesel fuel has a lower Btu (heat content) rating. Using winter grade fuel may reduce power and fuel efficiency, but should not cause any other engine performance effects. Check the grade of fuel being used before troubleshooting for low-power complaints in cold-weather operation.*

**Air Intake Heater**

An air intake heater is an available option for some engines to aid cold weather starting.

**Ether**

An ether port on the intake is available to aid cold weather starting.

**⚠ CAUTION: Ether is highly flammable. Do not use ether when starting an engine equipped with glow plugs or an air intake heater.**

**Coolant Heater**

An engine block heater (coolant heater) is an available option to aid cold weather starting.

**Seasonal Viscosity Oil and Proper Coolant Concentration**

Use seasonal grade viscosity engine oil based on the expected air temperature range between oil changes and a proper concentration of low silicate antifreeze as recommended. (See DIESEL ENGINE OIL and ENGINE COOLANT requirements in this section.)

**Diesel Fuel Cold Flow Additive**

Use John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula), which contains anti-gel chemistry, or equivalent fuel conditioner to treat non-winter grade fuel (No. 2-D in North America) during the cold-weather season. This generally extends operability to about 10° C (18°F) below the fuel cloud point. For operability at even lower temperatures, use winter grade fuel.

**IMPORTANT: Treat fuel when outside temperature drops below 0°C (32°F). For best results, use with untreated fuel. Follow all recommended instructions on label.**

**Biodiesel**

When operating with biodiesel blends, wax formation can occur at warmer temperatures. Begin using John Deere Fuel-Protect Diesel Fuel Conditioner (winter formula) or equivalent at 5°C (41°F) to treat biodiesel fuels during the cold-weather season. Use B5 or lower blends at temperatures below 0°C (32°F). Use only winter grade petroleum diesel fuel at temperatures below -10°C (14°F).

**Winterfronts**

Use of fabric, cardboard, or solid winterfronts is not recommended with any John Deere engine. Their use can result in excessive engine coolant, oil, and charge air temperatures. This can lead to reduced engine life, loss of power and poor fuel economy. Winterfronts may also put abnormal stress on fan and fan drive components potentially causing premature failures.

If winterfronts are used, they should never totally close off the grill frontal area. Approximately 25% area in the

center of the grill should remain open at all times. At no time should the air blockage device be applied directly to the radiator core.

### Radiator Shutters

If equipped with a thermostatically controlled radiator shutter system, this system should be regulated in such a way that the shutters are completely open by the time the coolant reaches 93°C (200°F) to prevent excessive intake manifold temperatures. Manually controlled systems are not recommended.

If air-to-air aftercooling is used, the shutters must be completely open by the time the intake manifold air temperature reaches the maximum allowable temperature out of the charge air cooler.

For more information, see your John Deere dealer.

DX,FUEL10-19-13JAN18

### 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.

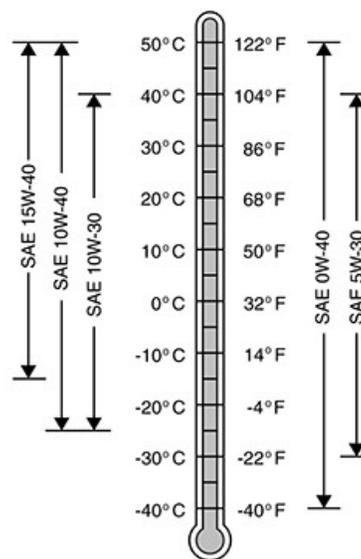
Synthetic lubricants may be used if they meet the performance requirements as shown in this manual.

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

### Engine Oil (For 3025D)



APY08252—UN—10JUL18

Oil Viscosities for Air Temperature Ranges

Use oil viscosity based on the expected air temperature range during the period between oil changes.

#### The following John Deere oils are preferred:

- John Deere Plus-50™ II
- John Deere Torq-Gard™ Supreme

#### Other oils may be used if above John Deere oils are not available, provided they meet the following specification:

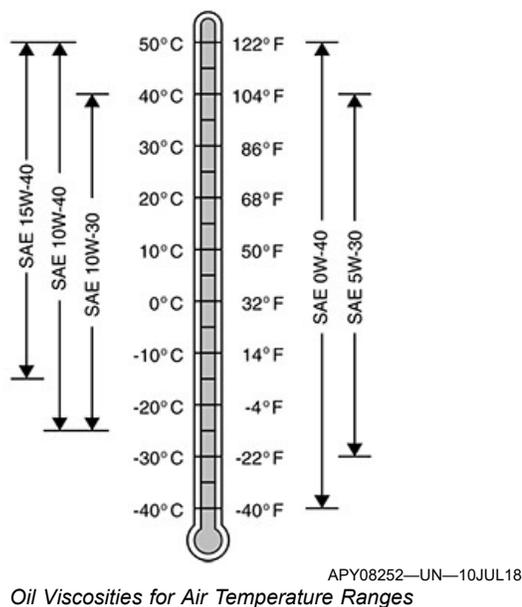
- API Service Classification CD, CF, CF-4, CI-4, CJ-4, or CK-4
- ACEA Specification E-3, E-4, E-5 or E-6
- JASO Specification DH-1 or DH-2

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

DP97633,00001F7-19-10JUL18

Plus-50 is a trademark of Deere & Company  
Torq-Gard is a trademark of Deere & Company

## Engine Oil (For 3035D and 3043D)



Use oil viscosity based on the expected air temperature range during the period between oil changes.

### The following John Deere oils are preferred:

- John Deere Plus-50™ II
- John Deere Torq-Gard™ Supreme

Other oils may be used if above John Deere oils are not available, provided they meet the following specification:

- API Service Classification CJ-4, or CK-4
- ACEA Specification E6 or E9
- JASO Specification DH-2

Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.

DP97633,00001F8-19-10JUL18

## Use Correct Transmission-Hydraulic Filter Element

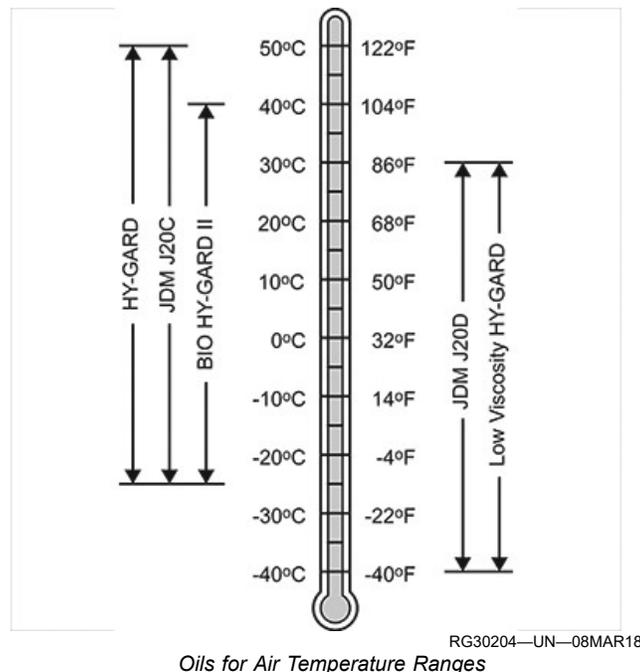
To protect systems, replace transmission-hydraulic oil filter with a John Deere service filter element. Minimum and maximum performance specifications are printed on John Deere filters. Other filters may be used if they meet these performance specifications.

(See Lubrication and Maintenance section for recommended filter change intervals.)

SA61034,00001C8-19-11FEB08

Plus-50 is a trademark of Deere & Company  
Torq-Gard is a trademark of Deere & Company

## 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™ II oil when a biodegradable fluid is required.<sup>1</sup>

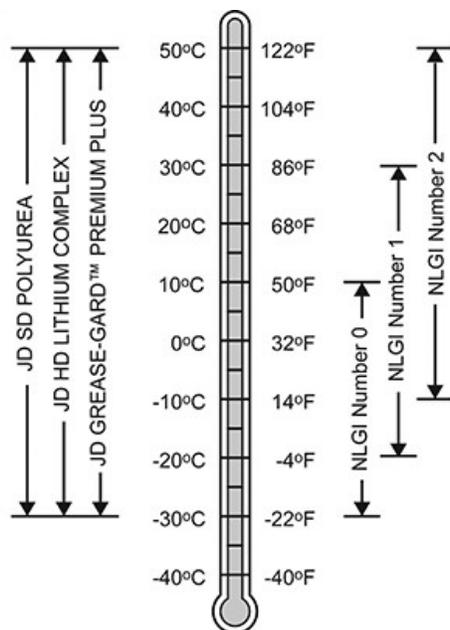
DX,ANTI-19-01JAN18

## Multipurpose Extreme Pressure (EP) Grease

**IMPORTANT:** For automated lubrication systems different ambient air temperatures need to be considered.

Hy-Gard is a trademark of Deere & Company  
Bio Hy-Gard is a trademark of Deere & Company

<sup>1</sup> Bio Hy-Gard II meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. Bio Hy-Gard II should not be mixed with mineral oils, because this reduces the biodegradability and makes proper oil recycling impossible.



RG30199—UN—08MAR18

Greases for Air Temperature Ranges

Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

**John Deere SD Polyurea Grease is preferred.**

The following greases are also recommended:

- John Deere HD Lithium Complex Grease
- John Deere Grease-Gard™ Premium Plus

Other greases may be used if they meet the following:

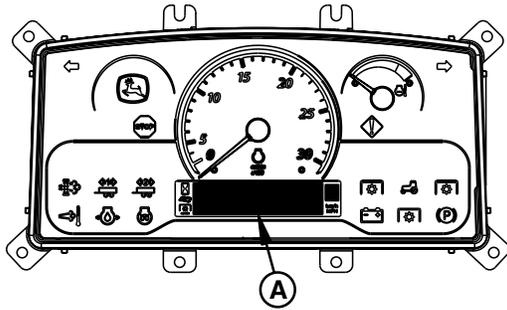
- NLGI Performance Classification GC-LB
- ISO-L-X-BDHB 2 or DIN KP 2 N-10 Lithium Complex, Non-Synthetic Base Oil (100 to 220 mm<sup>2</sup>/s @ 40°C)

**IMPORTANT: Some types of thickeners, base oils, and additives used in greases are not compatible with others. Mixing greases should be avoided. Consult your grease supplier before mixing different types of grease.**

DX,GRE1-19-13JAN18

# Service and Maintenance

## Observe Service Intervals



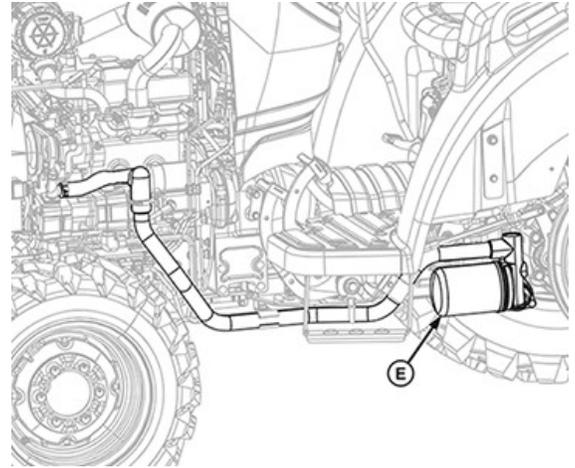
**A— Hour Meter**

APY09889—UN—02JUL18

Using hour meter (A) as a guide, perform all services at the hourly intervals indicated in 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.**

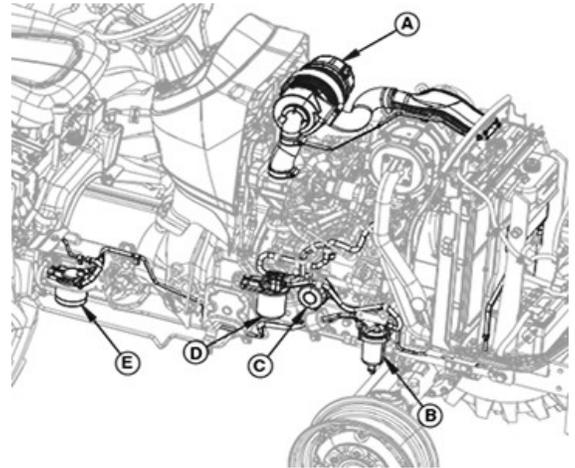
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APY08254—UN—11JUL18  
3025D, Left-Hand Side

**E—Hydraulic-Transmission Oil Filter**

### For 3035D

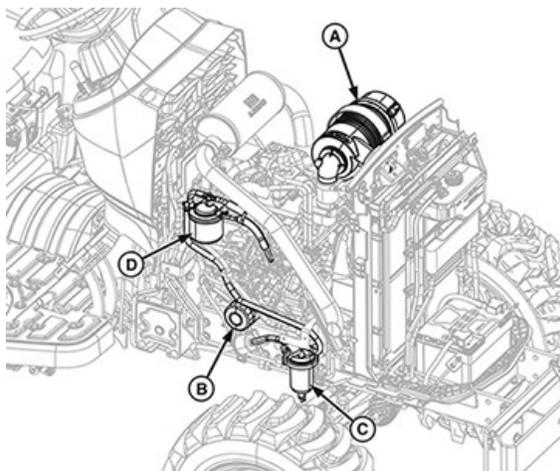


APY03041—UN—11JUL18  
3035D, Right-Hand Side

- A—Engine Air Intake Filter**
- B—Water Separator**
- C—Engine Oil Filter**
- D—Secondary Fuel Filter**
- E—Primary Fuel Filter**
- F—Hydraulic-Transmission Oil Filter**

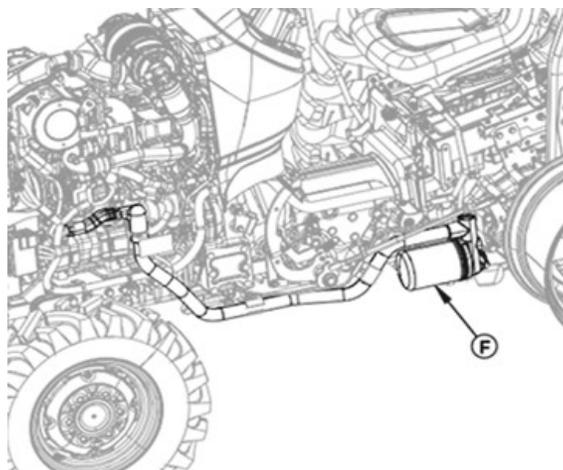
## Filter Overview

### For 3025D



APY08253—UN—11JUL18  
3025D, Right-Hand Side

- A—Engine Air Intake Filter**
- B—Engine Oil Filter**
- C—Water Separator**
- D—Fuel Filter**



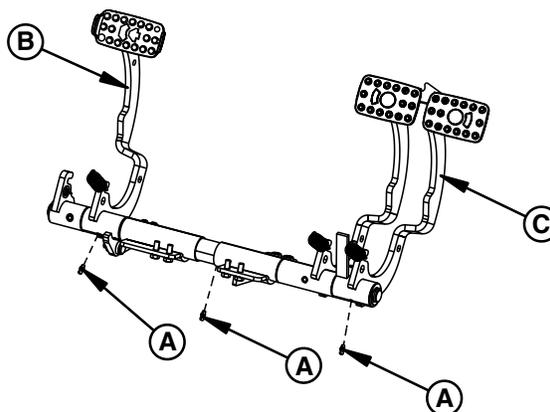
APY03042—UN—11JUL18

3035D, Left-Hand Side

- C—Engine Oil Filter
- D—Secondary Fuel Filter
- E—Primary Fuel Filter
- F—Hydraulic-Transmission Oil Filter

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### Tractor Lubrication Points

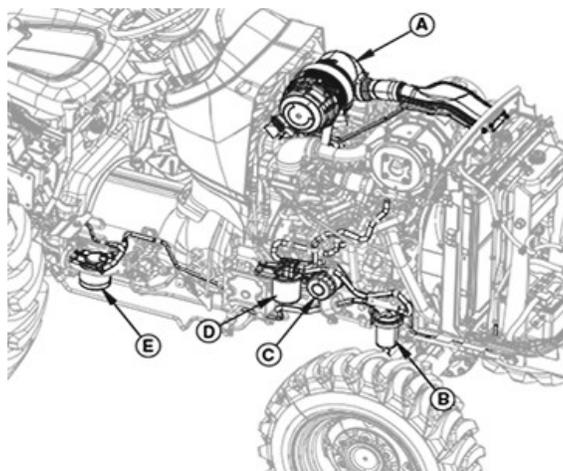


APY07624—UN—21MAY18

Clutch and Brake Pedal

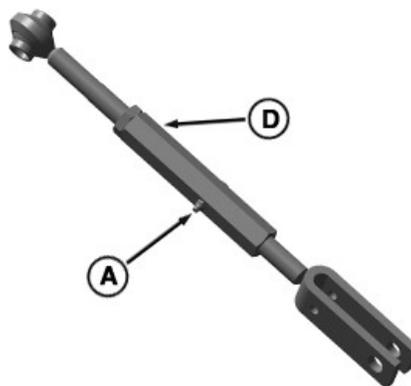
F—Hydraulic-Transmission Oil Filter

For 3043D



APY03039—UN—11JUL18

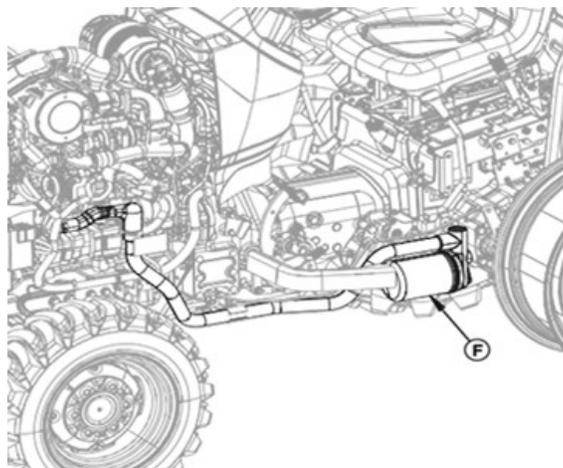
3043D, Right-Hand Side



PY49479—UN—21DEC17

Center Link

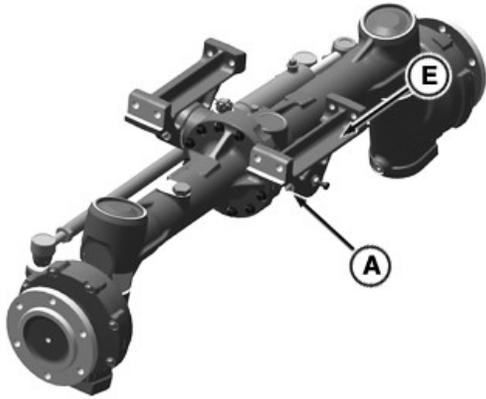
- A—Greasing Point
- B—Clutch Pedal
- C—Brake Pedal
- D—Center Link



APY03040—UN—11JUL18

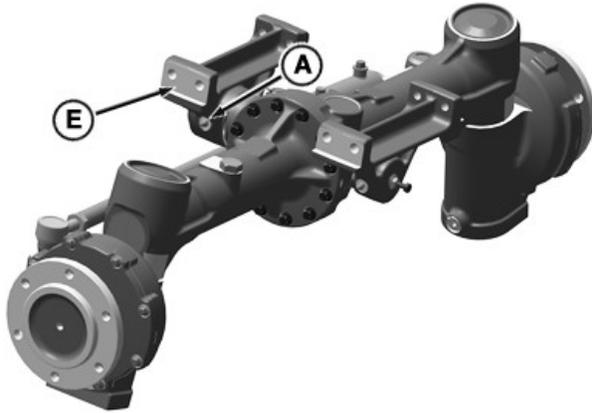
3043D, Left-Hand Side

- A—Engine Air Intake Filter
- B—Water Separator



PY49480—UN—22DEC17

Light-Duty Front Trunnion, MFWD Axle



PY49481—UN—21DEC17

Light-Duty Rear Trunnion, MFWD Axle

A—Greasing Point  
E—Front & Rear Trunnion, MFWD Axle

DP97633,0000151-19-03AUG18

### Periodic Maintenance Schedule

**Service Interval Chart—After Initial 10, Every 10, 50, 200, 400, 500, 600, Yearly, 1200, 1500, 2000, 6000 Hours and whenever required.**

Periodic maintenance is important to keep the machine in good operating condition. The following is a summary of maintenance items by periodic maintenance intervals.

Periodic maintenance intervals vary depending on engine application, loads, diesel fuel, and engine oil used and are hard to establish definitively.

The following must be treated only as a general guideline.

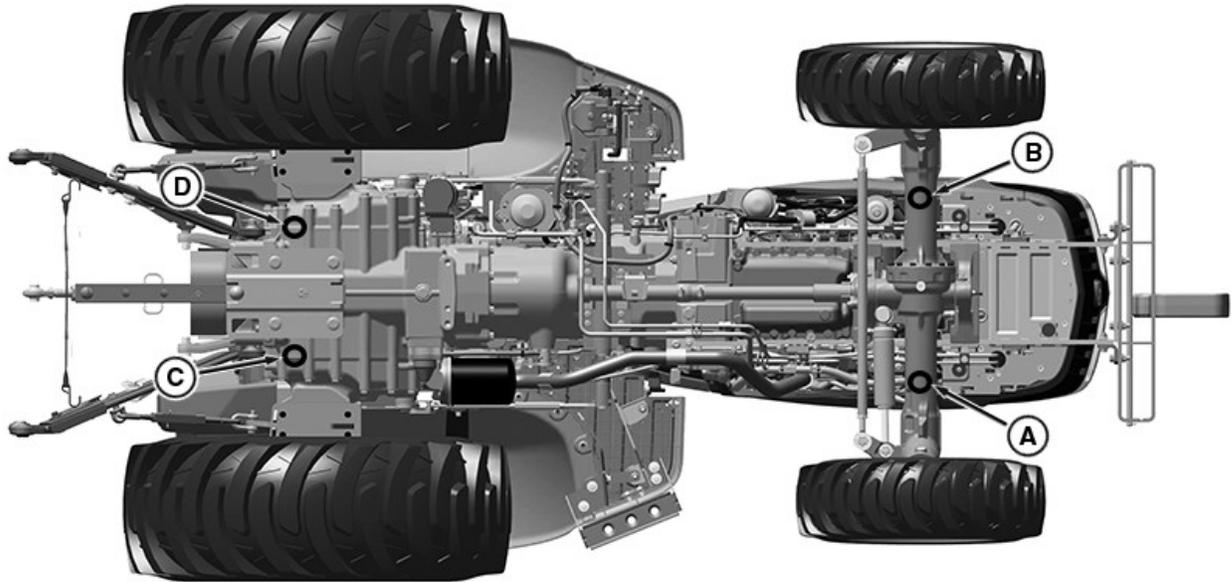
Item	After Initial 10 Hours	Every 10 Hours	Every 50 Hours	Every 200 Hours	Every 400 Hours	Every 600 Hours	Every Year or 1000 Hours	Every 1200 Hours	Two years or every 2000 hours	Every 6000 Hours	Whenever required
Check wheel nut torque.	•			•							
Test safety systems.		•									
Check engine oil level.		•									
Check transmission-hydraulic oil level.		•									
Check coolant level.		•									
Check and clean grille and side screens.		•									
Check MFWD axle oil level.			•								
Lubricate machine.			•								
Clutch pedal free play check/adjustment.			•								
Check and adjust brake pedal free play.			•								
MFWD front and rear trunnion greasing.			•								
Inspect alternator belt.				•							

*Service and Maintenance*

Item	After Initial 10 Hours	Every 10 Hours	Every 50 Hours	Every 200 Hours	Every 400 Hours	Every 600 Hours	Every Year or 1000 Hours	Every 1200 Hours	Two years or every 2000 hours	Every 6000 Hours	When-ever required
Check air filter intake hoses and clamps.						•					
Service air filter elements.						•					
Replace engine oil and engine oil filter.					•						
Change transmission-hydraulic oil filter.					•						
Replace fuel filter.					•						
Drain fuel from fuel tank and clean fuel tank strainer.					•						
Change MFWD axle oil.						•					
Check MFWD axle front trunnion thrust bolt torque.				•							
Check all hoses and clamps.							•				
Cleaning MFWD axle vent filter							•				
Check intake and exhaust valve clearance. See your John Deere dealer.								•			
Change transmission-hydraulic oil. (Transmission oil can be changed every 1200 hours or 3 years if the specific requirements are met, See transmission maintenance for additional information.)								•			
Flush and replace factory coolant. Flush cooling system and replace coolant with John Deere COOL-GARD engine coolant.									•	•	
Inspect, clean, and test fuel injectors, if necessary.									•		
Replace light bulbs.											•
Replace fuses.											•
Service battery.											•
Check tire air pressure.											•
Drain water and sediment from water separator.											•
Check and adjust front wheel toe-in.											•
Check and clean radiator cooling screen.											•

NM61126,0000546-19-27JUN19

## Lifting Points for Jacking up the Tractor



PY48616—UN—11DEC17

**A— Left Front Wheel Lift Point**  
**B— Right Front Wheel Lift Point**

**C— Left Rear Wheel Lift Point**  
**D— Right Rear Wheel Lift Point**

The illustrations show the recommended lifting points for jacking up the tractor. Use a stable jack with sufficient lifting force.

- A - Raise left end of the axle at this point to remove left front wheel.
- B - Raise right end of the axle at this point to remove right front wheel.
- C - Raise left rear of the tractor at this point to remove left rear wheel.
- D - Raise right rear of the tractor at this point to remove the right rear wheel.

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

DP97633,000024C-19-03AUG18

# After Initial 10 Hours

## Check Wheel Nut Torque



Rear Wheel

PY47360—UN—23AUG17



Front Wheel

PY47361—UN—23AUG17

- A—Rear Wheel
- B—Front Wheel
- C—Rear Wheel Nut (6 Used)
- D—Front Wheel Nut (6 Used)

**CAUTION:** Avoid injury! To avoid injury from possible tractor roll-over, NEVER operate tractor with a loose rim, hub, or axle.

1. Anytime hardware is loosened, it must be retightened to specified torque:

### Specification

Front Wheel Nuts—Torque. . . . . 140 N·m (103 lb·ft)  
Rear Wheel Nuts—Torque. . . . . 220 N·m (162 lb·ft)

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

2. After driving tractor about 100 m (109 yd), and before placing it under load, retighten wheel nuts (C and D) to specified torque.

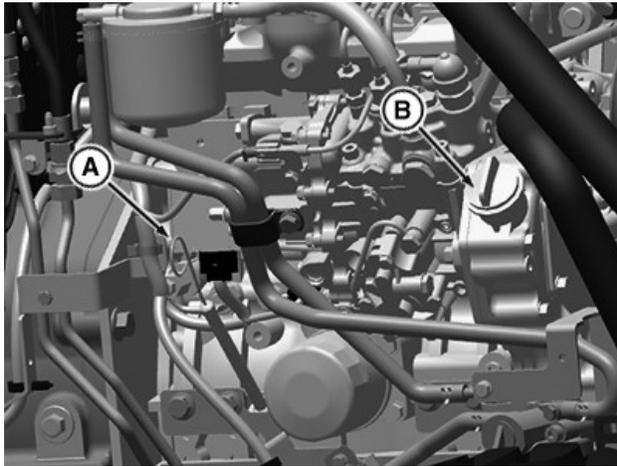
3. Check hardware after operating tractor for 3 hours and again after 10 hours.
4. Check all hardware frequently for every 50 hours and keep it tight.

DP97633,00001A4-19-03AUG18

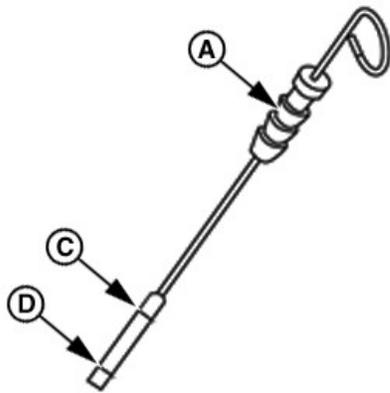
# Service—Every 10 Hours

## Check Engine Oil Level

1. Park tractor on a level ground before checking engine oil level.



PY45761—UN—24AUG17



PY22023—UN—25FEB15

- A—Engine Oil Dipstick
- B—Engine Oil Filler Port
- C—Upper Mark
- D—Lower Mark

2. Remove engine oil dipstick (A) wipe with clean cloth and reinsert fully. Once again remove the dipstick and check oil level.
3. Engine operation is safe when the oil level is between the upper and lower marks (C and D) on dipstick.

**IMPORTANT: DO NOT operate engine, when oil level is below lower mark on dipstick.**

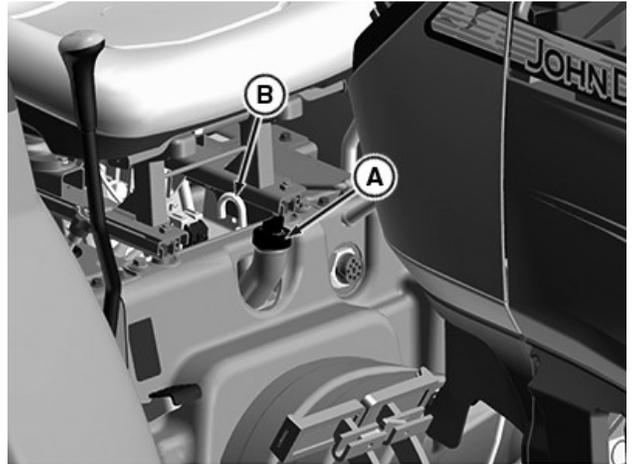
4. In this case add specified oil through oil filler port (B). See Engine Oil in section 85 for more information.

DP97633,0000028-19-13FEB18

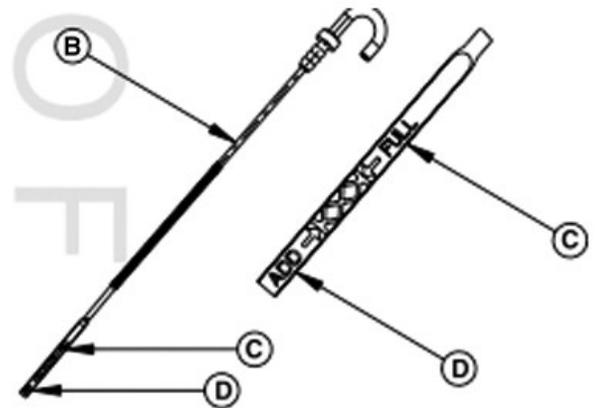
## Check Transmission-Hydraulic Oil Level

**IMPORTANT: Check oil level when oil is cold. If possible, check the oil level after tractor has not been used for hours.**

1. Park tractor on level ground.
2. Apply park brake.



PY47304—UN—16AUG17



APY02444—UN—15JAN18

- A—Transmission Oil Filler Cap
- B—Dipstick, Transmission-Hydraulic Oil
- C—Full Mark
- D—Add Mark

3. Lower implement to the ground.
4. Remove dipstick (B) located below the operator seat and wipe clean. Fully insert the dipstick and remove again.

**IMPORTANT: Avoid damage! DO NOT overfill transmission. Oil expands during operation and could overflow.**

5. Oil level must be in between full mark (C) and add mark (D) mark as shown on dipstick.
6. If oil level is below the add mark (D), add oil through transmission oil filler cap (A) until the full mark (C).

*NOTE: Add Low Viscosity Hy-Gard™ or equivalent.*

DP97633,000002A-19-13FEB18

## Check Coolant Level

**⚠ CAUTION: Remove radiator cap (A) only when engine is cold. Slowly loosen cap to first stop to relieve pressure before removing completely.**

*NOTE: Clean radiator in most dusty conditions. Failure to clean leads to improper flow of coolants through radiator which leads to a temperature increase of coolants.*

1. Park tractor on level ground before checking coolant level.
2. Raise hood.

*NOTE: ALWAYS check engine coolant level by observing the coolant recovery tank (E).*



TS281—UN—15APR13

- If engine is warm, coolant level must be between the hot full mark (C) and the cold full mark (D) on coolant recovery tank (E).
- If engine is cold, coolant level must be at the cold full (D) on the coolant recovery tank (E).

4. If coolant is low, remove cap (B) to add coolant. Add specified ratio of antifreeze and water.

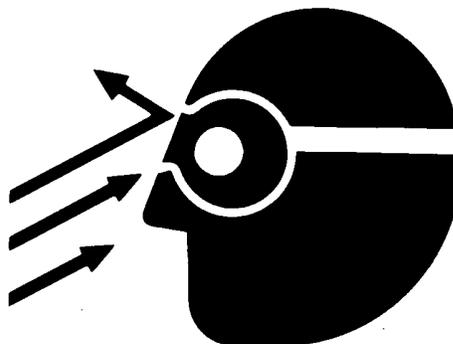
**IMPORTANT: Avoid damage! To prevent engine damage:**

- **DO NOT** operate engine without coolant.
- **DO NOT** pour coolant into the radiator when the engine is hot.
- **To prevent engine overheating, never exceed more than 50% antifreeze in cooling system.**

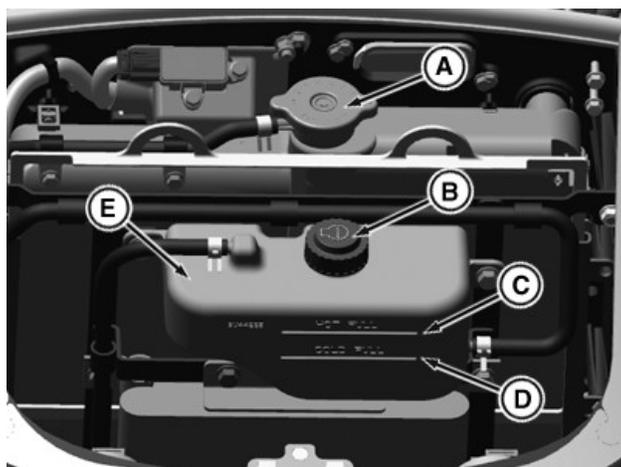
5. Install and tighten the coolant recovery tank cap (B).

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## Clean Grille, Screens, and Radiator



TS266—UN—23AUG88



PY45757—UN—24AUG17

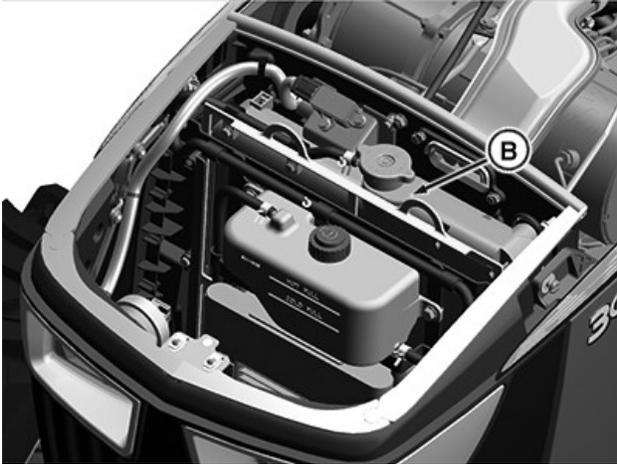


PY45771—UN—23AUG17

- A—Radiator Cap
- B—Cap, Coolant Recovery Tank
- C—Hot Full
- D—Cold Full
- E—Coolant Recovery Tank

- A—Grille

3. Check coolant level:



PY45772—UN—23AUG17

**B—Radiator**

1. Whenever trash builds up on front grille (A), stop the engine.
2. Raise hood and see if trash has built up on radiator (B). If so, remove it using a brush or compressed air.

**⚠ 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.**

3. If a more thorough cleaning is necessary, clean radiator from behind with compressed air or water. Straighten any bent fins.

DP97633.00001D1-19-10JUL18

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# Service—Every 50 Hours

## Clutch Pedal Free Play Adjustment

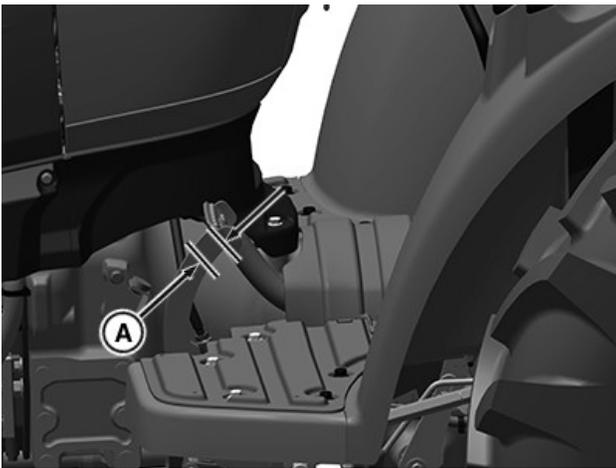
Make sure that the traction clutch is fully engaged, when the clutch pedal is released and fully disengaged, when the pedal is depressed.

1. To know how far the pedal travels before resistance is felt, depress clutch pedal.
2. Measure clutch pedal free play distance (A).
3. If free play distance not within specifications, loosen lock nut (B) and adjust clutch linkage (C) as necessary.

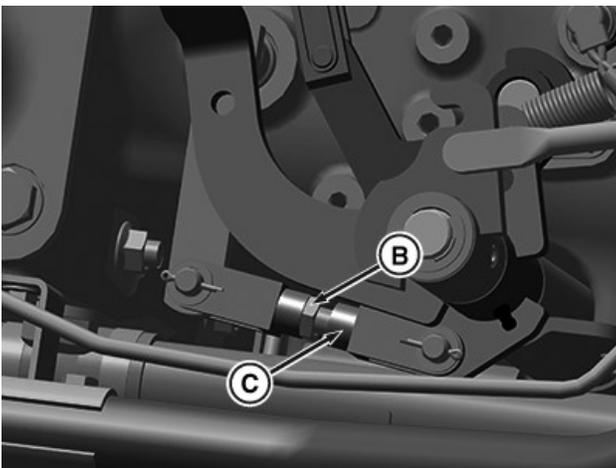
### Specification

Clutch Pedal—Free Play . . . . . 15 - 20 mm (0.6-0.8 in)

4. Make sure that clutch pedal free play distance (A) is correct.
5. Tighten the lock nut (B) once clutch pedal adjustment is complete.



APY02481—UN—19FEB18

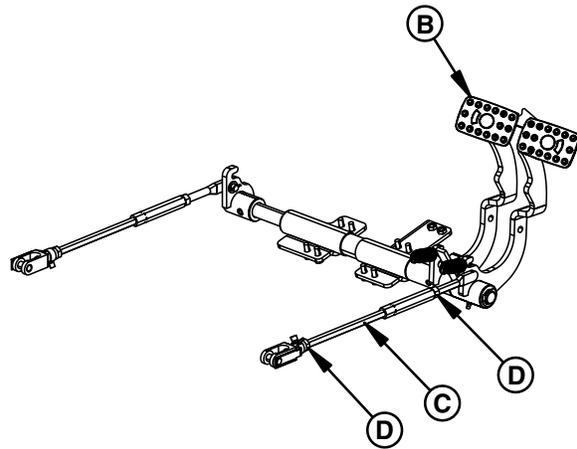


APY02448—UN—17JAN18

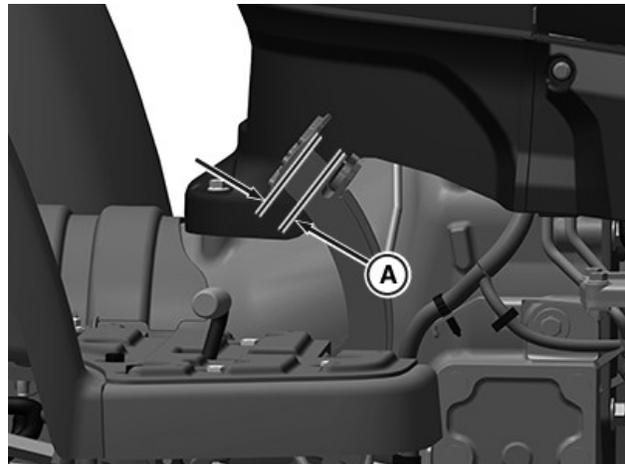
- A—Clutch Pedal Free Play
- B—Lock Nut
- C—Clutch Linkage

DP97633,00003AB-19-25FEB19

## Check and Adjust Brake Pedal Free Play



APY07625—UN—22MAY18



APY02483—UN—20FEB18

- A—Brake Pedal Free Play
- B—Brake Pedal
- C—Turnbuckle
- D—Nut (2 used)

1. Park on a level surface. Chock wheels to prevent machine movement.
2. Unlock brake pedals (B).
3. Check free play (A) of each brake pedal at top of stroke.
4. Linkage must be as per specification.

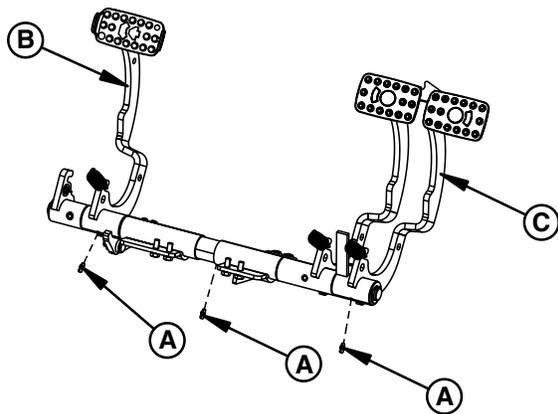
### Specification

Brake Pedal—Free Play . . . . . 35-40 mm (1.3-1.5 in)

5. To adjust linkage, loosen nuts (D).
6. Adjust the turnbuckle (C) until free play is to the specification.
7. Tighten nuts (D).

DP97633,00003AC-19-10APR19

## Lubricate Clutch and Brake Pedal



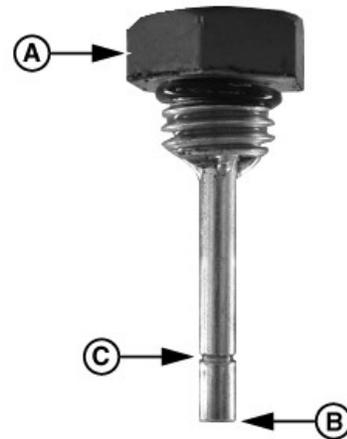
APY07624—UN—21MAY18

**A**—Greasing Point  
**B**—Clutch Pedal  
**C**—Brake Pedal

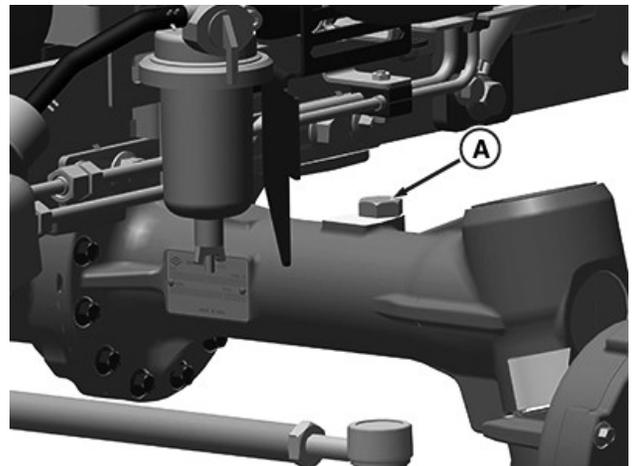
1. Park the tractor on a level surface. Engage park brake.
2. Lubricate clutch pedal (B), brake pedals (C) with multi-purpose grease.
3. Apply several shots of multi-purpose grease at the greasing points (A). See Fuels, Lubricants, and Coolant section.

DP97633,0000152-19-22MAY18

## Check MFWD Axle Oil Level



PY23259—UN—03FEB15



APY02429—UN—22DEC17

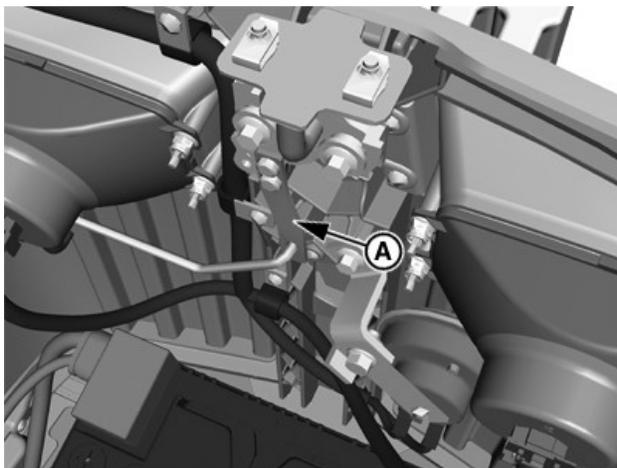
**A**—Oil Inspection/Fill Plug  
**B**—MIN level  
**C**—MAX level

1. Park the tractor on a level surface. Engage park brake.
2. Allow axle oil to settle for 1 hour before checking level to ensure accurate dipstick reading.
3. Remove fill plug (A) and verify that the oil level is between the MIN level (B) and MAX level (C) on the dipstick.
4. If oil level is low, add oil into the dipstick opening. Use John Deere J20C oil or its equivalent. For more details see Fuels, Lubricants and Coolant section.
5. Install oil fill plug (A) and tighten as per specifications.

### Specification

Plug-to-Axle Housing—Torque. . . . . 5-10 N·m  
 (3.7-7.4 lb·ft)

## Lubricate Hood Latch



PY22057—UN—18NOV14

**A**—Hood Latch

**NOTE:** This procedure is only necessary after pressure washing.

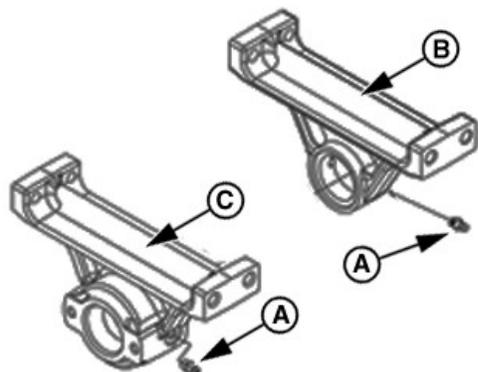
HY01057,00002DB-19-21AUG17

DP97633,0000087-19-12JAN18

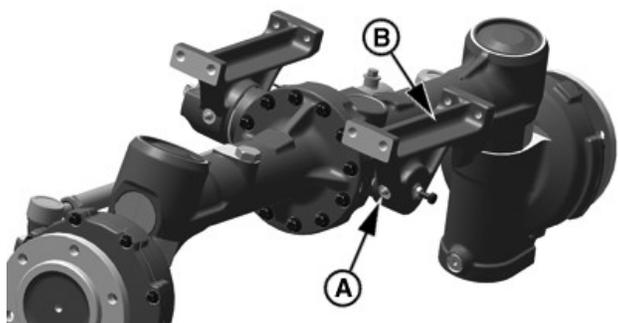
## Lubricate Front Axle Grease Fitting Locations

greasing point (A) on front and rear trunnion (B and C) respectively.

HY01057,00002DD-19-12JAN18

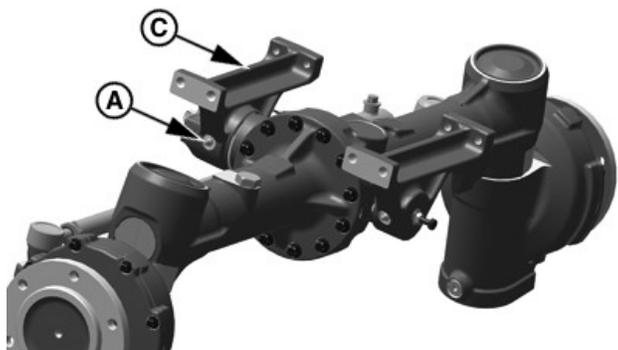


PY23260—UN—09JUL15



PY22058—UN—09JUL15

*Light-Duty Front Trunnion, MFWD Axle*



PY22059—UN—09JUL15

*Light-Duty Rear Trunnion, MFWD Axle*

**A—Greasing Point**  
**B—Front Trunnion**  
**C—Rear Trunnion**

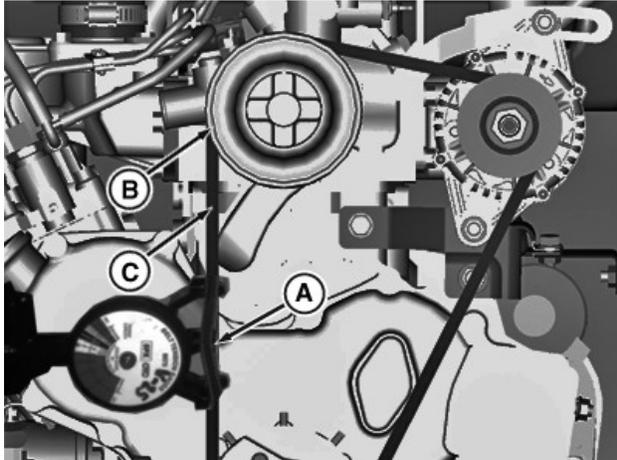
1. Park the tractor on a level surface. Engage park brake.
2. Apply several shots of multipurpose grease to the

# Service—Every 200 Hours

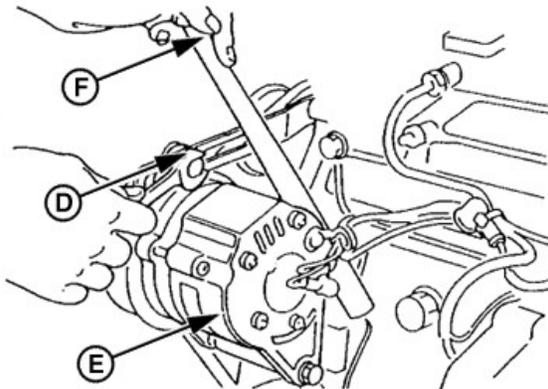
## Check and Adjust Cooling Fan V-Belt

*NOTE: The V-belt slips when it is not tensioned properly. It prevents the alternator from generating sufficient power. Also, the engine overheats due to the slippage of engine coolant pump pulley.*

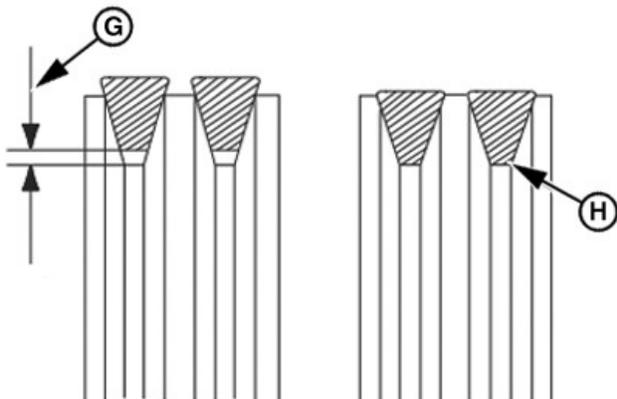
1. Check the tension in V-belt (C) by using belt tension checking gauge (A).



PY31314—UN—08AUG16



PY22080—UN—09FEB15



PY22081—UN—09FEB15

A—Belt Tension Checking Gauge

- B—Fan Belt Mounting Pulley
- C—V-Belt
- D—Adjusting Bolt
- E—Alternator
- F—Pry Bar
- G—Position G
- H—Position H

2. Tension in belt must be as per specification.

*NOTE: A Used V-Belt refers to a V-belt which has been used on a running engine for five minutes or more.*

3. If necessary, adjust the V-belt tension. Loosen the adjusting bolt (D) and related bolts and nuts, then move the alternator with a pry bar (F) for tightening the V-belt to the desired tension. Then tighten the adjusting bolts (D) and nuts respectively.
4. Tighten the V-belt (C) to the proper tension. There must be clearance between the V-belt and the bottom of the pulley groove position (G). If there is no clearance between the V-belt and the bottom of the pulley groove position (H), replace the V-belt.
5. Check the V-belt for cracks, oil, or wear. If any of these conditions exist, replace the V-belt.
6. Install the new V-belt. Check the tension using belt tension checking gauge (A) as per specification.
7. After adjusting, run the engine for 5 minutes or more. Check the tension again using the belt tension checking gauge (A) as per specification V-Belt Tension for a used V-belt.

### Specification

V-Belt Tension—Tension. . . . . 401 – 535 N (90 – 120.2 lb)

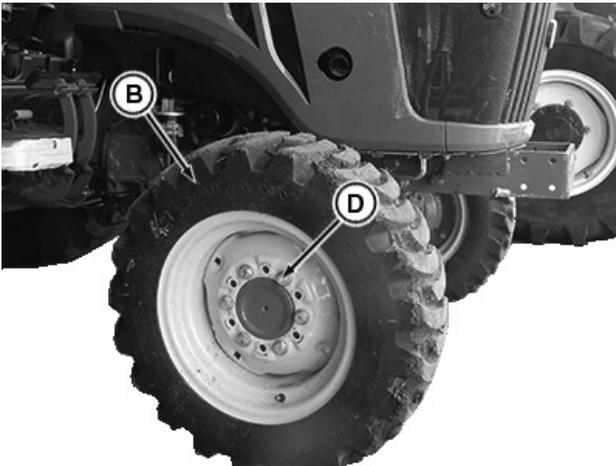
DP97633,00000E1-19-01AUG18

## Check Wheel Nut Torque



Rear Wheel

PY47360—UN—23AUG17



Front Wheel

PY47361—UN—23AUG17

- A—Rear Wheel
- B—Front Wheel
- C—Rear Wheel Nut (6 Used)
- D—Front Wheel Nut (6 Used)

**CAUTION:** Avoid injury! To avoid injury from possible tractor roll-over, NEVER operate tractor with a loose rim, hub, or axle.

- Anytime hardware is loosened, it must be retightened to specified torque:

### Specification

Front Wheel Nuts—Torque. . . . . 140 N·m (103 lb-ft)  
 Rear Wheel Nuts—Torque. . . . . 220 N·m (162 lb-ft)

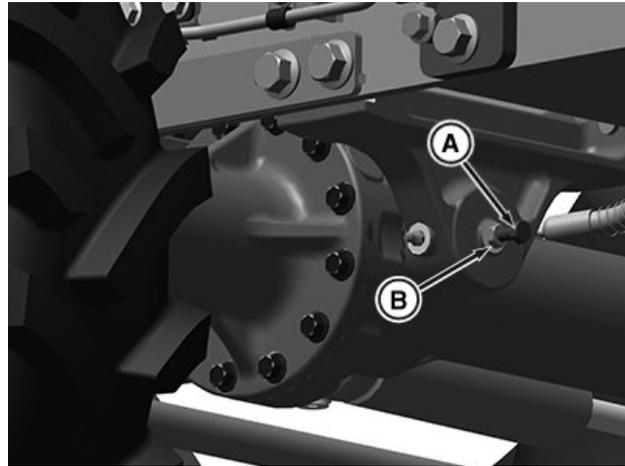
**NOTE:** Follow checking procedure when a new tractor is first used, or when wheels have been removed.

- After driving tractor about 100 m (109 yd), and before placing it under load, retighten wheel nuts (C and D) to specified torque.

- Check hardware after operating tractor for 3 hours and again after 10 hours.
- Check all hardware frequently for every 50 hours and keep it tight.

DP97633,000024D-19-03AUG18

## Check MFWD Axle Front Trunnion Thrust Bolt



APY07659—UN—29JUN18

- A—Thrust Bolt
- B—Lock Nut

Axle must be free to float in the trunnions while tightening the thrust bolt (A) and lock nut (B).

Tighten front trunnion thrust bolt (A) and lock nut (B) in the following location to specifications:

### Specification

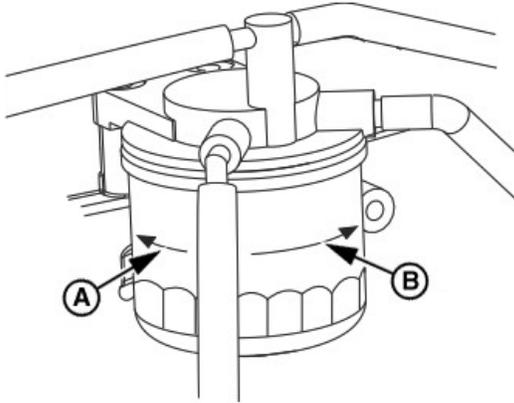
MFWD Axle—Front Trunnion  
 Thrust Bolt—Torque. . . . . 13-15 N·m (10-11 lb-ft)  
 MFWD Axle—Front Trunnion  
 Lock Nut—Torque. . . . . 30-35 N·m (22-26 lb-ft)

DP97633,0000213-19-29JUN18

# Service—Every 400 Hours

## Replace Fuel Filter

Replace the fuel filter at specified intervals to prevent contaminants from adversely affecting the diesel fuel flow.



PY22090—UN—08DEC14

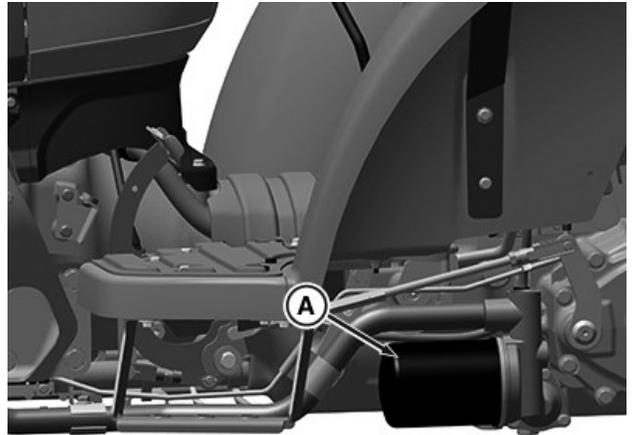
**A—Clockwise**  
**B—Counterclockwise**

1. Stop the engine and allow it to cool.
2. Close the fuel cock of the fuel filter.
3. Remove the fuel filter using a filter wrench to turn it to the left clockwise (A) as shown. When removing the fuel filter, carefully hold it to prevent the fuel from spilling. Wipe up all spilled fuel.
4. Clean the filter mounting surface and apply a small amount of diesel fuel to the gasket of the new fuel filter.
5. Install the new fuel filter. Hand tighten it to the right counterclockwise (B) until it comes in contact with the mounting surface. Use a filter wrench and tighten to 19.6 - 23.5 N·m (14 - 17 lb·ft , 2.0 - 2.4 kgf/m) or one additional turn using the filter wrench.
6. Open the fuel cock of the fuel filter.
7. Prime the fuel system.
8. Check for fuel leaks.

DP97633.000002E-19-13FEB18

## Change Transmission-Hydraulic Oil Filter

**IMPORTANT: Change transmission-hydraulic oil filter every 400 hours of operation thereafter.**



APY02428—UN—22DEC17

### A—Transmission-Hydraulic Oil Filter

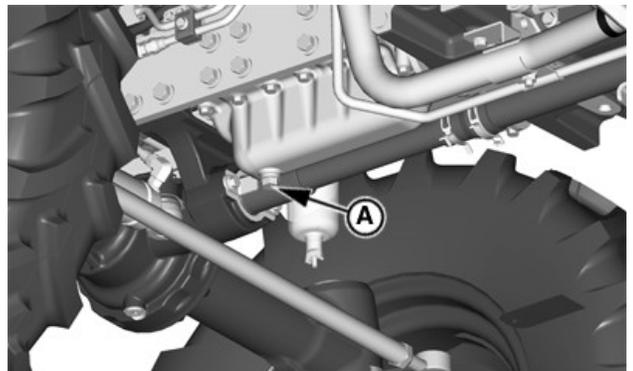
1. Park the tractor on a level surface with the engine shut off and apply the park brake.
2. Remove transmission-hydraulic oil filter (A) with the help of oil filter wrench.
3. Apply a film of oil to new O-ring and install new filter. Hand tighten plus 1/2 turn with the oil filter wrench.
4. Run engine several seconds and recheck transmission-hydraulic oil level.
5. Add transmission-hydraulic oil if necessary. See Fuels, Lubricants, and Coolant section.

*NOTE: Add Low Viscosity Hy-Gard™ or equivalent.*

DP97633.00000F9-19-18JUL18

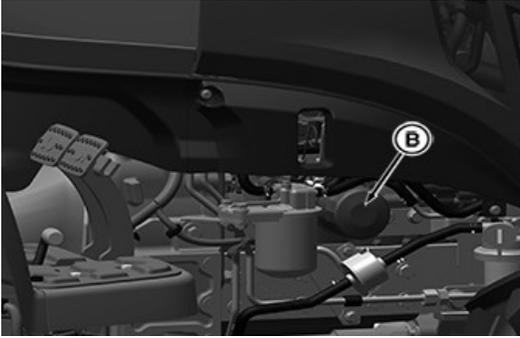
## Replace Engine Oil and Engine Oil Filter

**IMPORTANT: Change engine oil after every 400 hours of operation. Replace the engine oil filter at the same time.**



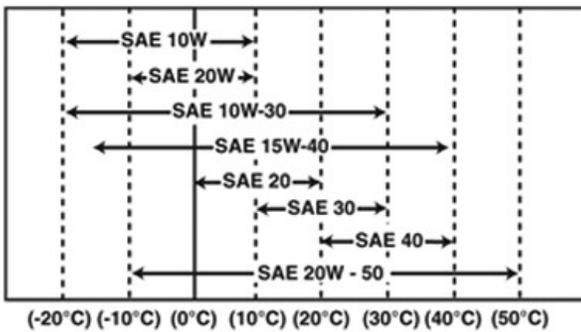
PY22047—UN—04MAR15

### A— Engine Oil Drain Plug



B—Engine Oil Filter

APY02482—UN—01AUG18



PY22046—UN—14NOV14

1. Run engine for few minutes to warm engine oil.
2. Park the tractor on a level surface with engine shut off. Apply the park brake with implement lowered to the ground.
3. Remove engine oil drain plug (A) and drain oil.
4. Remove engine oil filter (B). Turn filter counterclockwise to remove.
5. Apply a film of clean engine oil on rubber gasket of the new filter. Install new engine oil filter (B). Turn filter to the right until gasket contacts with the mounting surface. Tighten 1/2 to 3/4 turn after gasket contact.
6. Install and tighten engine oil drain plug (A) as per specification.

**Specification**

Drain Plug—Torque. . . . . 54 N·m to 64 N·m

7. Add seasonal viscosity grade oil by removing oil filler cap. For detailed information see Fuels, Lubricants and Coolant section.

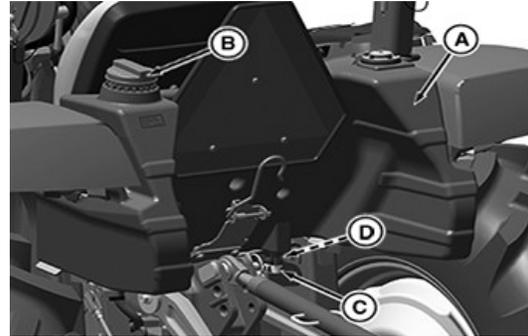
**Specification**

Engine Oil Pan  
 Capacity—Capacity—Dipstick  
 Upper Limit / Dipstick Lower  
 Limit. . . . . 4.3 L (4.54 qt)  
 2.3 L (2.43 qt)

8. Start engine and run at a slow speed and check for leaks.
9. Stop engine and check engine oil level. For detailed information, refer to Check Engine Oil Level in section Service - Daily/Every 10 Hours.

DP97633,00001A6-19-11JUL18

**Drain Fuel Tank**



APY02430—UN—01AUG18

- A— Fuel Tank
- B— Fuel Cap
- C—Fuel Hose Connection
- D—Fuel Tank Strainer

**CAUTION:** Diesel fuel is flammable and explosive under certain conditions.

*NOTE: NEVER use a shop rag to catch the fuel. Vapors from the rag are flammable and explosive.*

1. Position an approved container under the diesel fuel tank (A) to collect the contaminants.
2. Remove the fuel cap (B).
3. Remove the fuel hose connection (C) to drain the contaminants (water, dirt, and so on) from the bottom of the fuel tank (A).
4. Drain the tank until clean diesel fuel with no water or dirt flows out, Clean the fuel tank strainer (D). Reinstall and tighten the fuel hose connection (C) firmly.

*NOTE: Wipe up any spills immediately.*

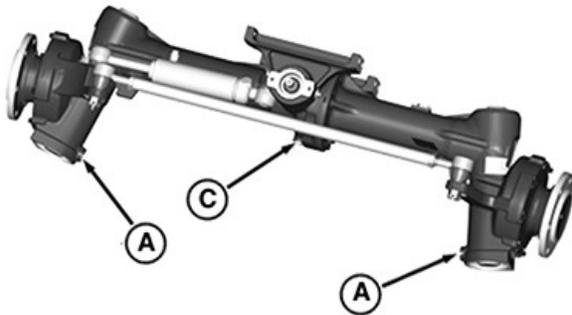
5. Reinstall the fuel cap (B).
6. Check for any fuel leakage.

**IMPORTANT:** Wear eye protection. The fuel system is under pressure and fuel could spray out when you remove any fuel system component.

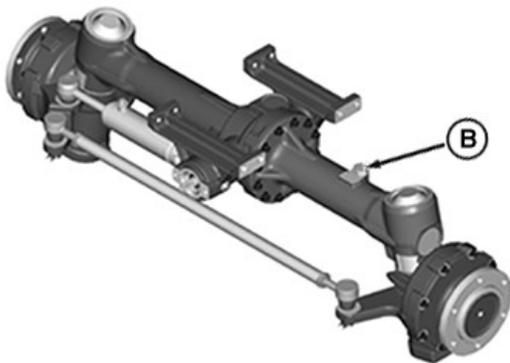
DP97633,00001D0-19-31MAY18

# Service—Every 600 Hours

## Change MFWD Axle Oil



PY35739—UN—04JAN17  
Light-Duty Front Axle Drain Plug



PY35746—UN—04JAN17  
Light-Duty Front Axle Fill Plug

- A—Knuckle Oil Drain Plug (2 used)
- B—Oil Inspection/Fill Plug
- C—Trumpet Oil Drain Plug

**IMPORTANT: Change MFWD axle oil after the first 100 hours of operation and then at every 600 hours of operation thereafter.**

1. Park the tractor on a level surface. Apply the park brake.
2. Remove knuckle oil drain plugs (A).

### Specification

Light-Duty MFWD Assembly  
Axle Oil - DANA—Capacity. . . . . 3.8 L (1.0 gal)

3. After oil has drained, apply pipe sealant with teflon, or equivalent, to threads of knuckle oil drain plugs (A).
4. Install plugs (A) and (C) and tighten to specifications.

### Specification

Light-Duty Knuckle Plug-to-Axle  
Housing —Torque. . . . . 16-20 N·m  
(12-15 lb·ft)

### Specification

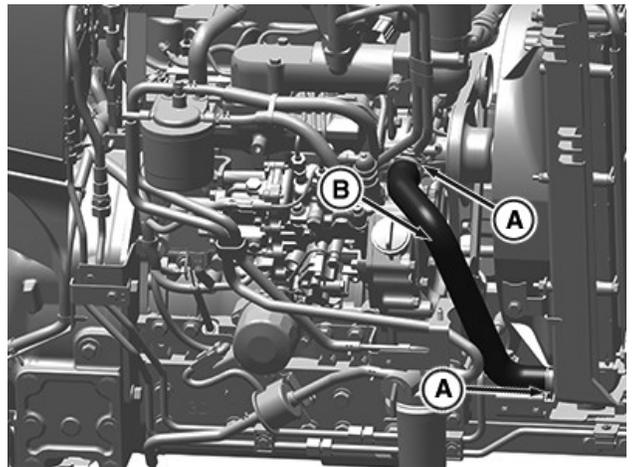
Light-Duty Trumpet Plug-to-Axle  
Housing —Torque. . . . . 16-20 N·m  
(12-15 lb·ft)

5. Add oil through the oil fill plug (B). Use John Deere J20C oil or its equivalent. For more details see Fuels, Lubricants and Coolant section.

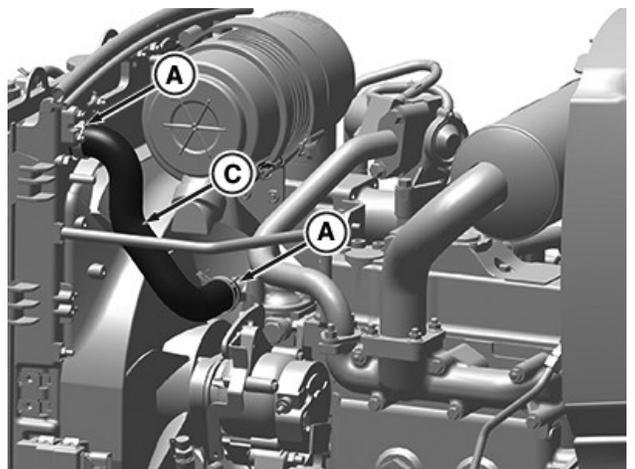
DP97633,00000D7-19-16JAN18

## Check Tightness of Hoses & Clamps (Fuel, Air & Cooling System)

### For 3025D



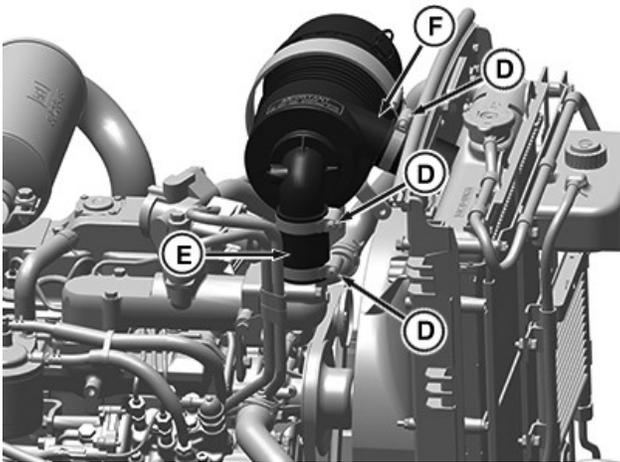
PY49617—UN—03NOV17  
Radiator Hose, Bottom



PY49618—UN—03NOV17  
Radiator Hose, Top

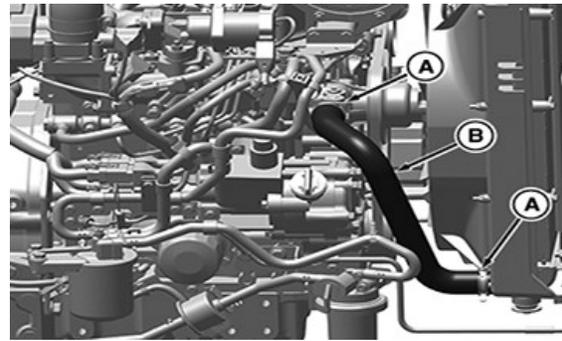
- A—Hose Clamp (4 used)
- B—Radiator Hose, Bottom
- C—Radiator Hose, Top

For 3035D



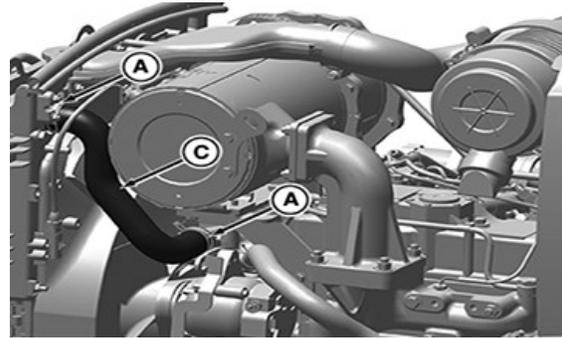
Air Filter-to-Intake Manifold

PY49619—UN—03NOV17



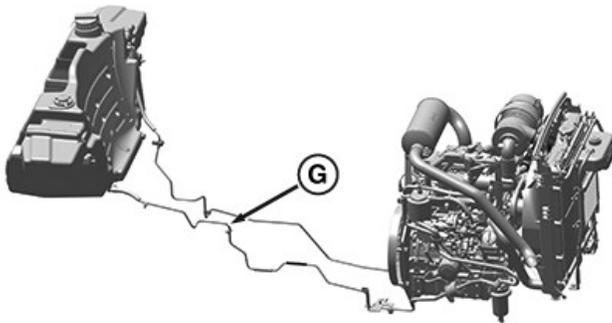
Radiator Hose, Bottom

APY08255—UN—12JUL18



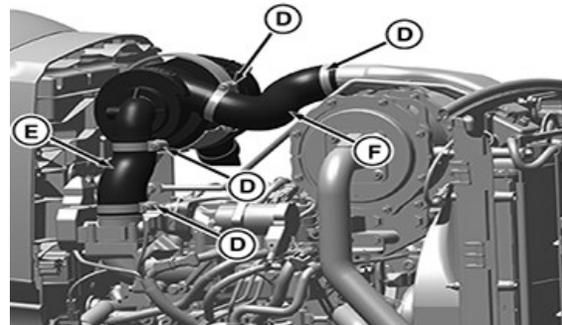
Radiator Hose, Top

APY08256—UN—12JUL18



Fuel System

PY49620—UN—03NOV17



Air Filter-to-Intake Manifold

APY08257—UN—12JUL18

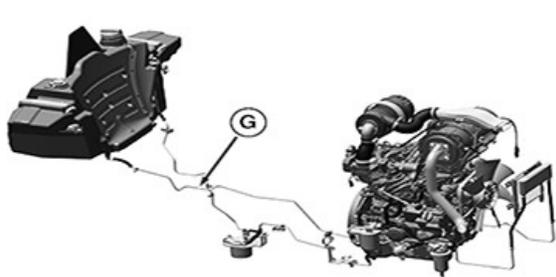
- D—Hose Clamp (3 used)
- E—Hose, Air Cleaner Inlet
- F—Hose, Air Cleaner Outlet
- G—Metal Line, Fuel System

Check the following hose clamps for tightness:

- Engine Cooling System
- Air Cleaner (to engine intake)
- Fuel System

Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

- A—Hose Clamp (4 used)
- B—Radiator Hose, Bottom
- C—Radiator Hose, Top
- D—Hose Clamp (4 used)
- E—Hose, Air Cleaner Inlet
- F—Hose, Air Cleaner Outlet



APY08258—UN—12JUL18

Fuel System

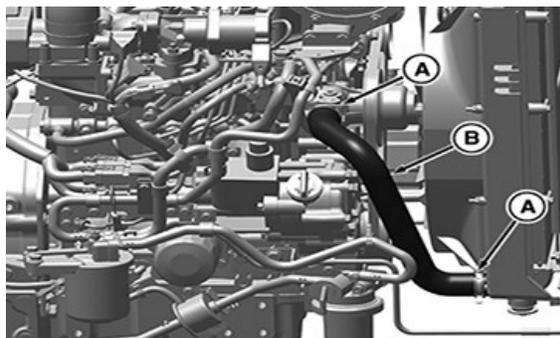
**G—Metal Line, Fuel System**

Check the following hose clamps for tightness:

- **Engine Cooling System**
- **Air Cleaner (to engine intake)**
- **Fuel System**

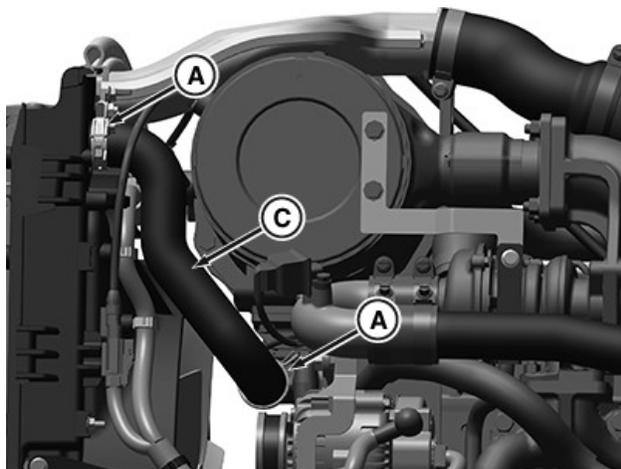
Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

**For 3043D**



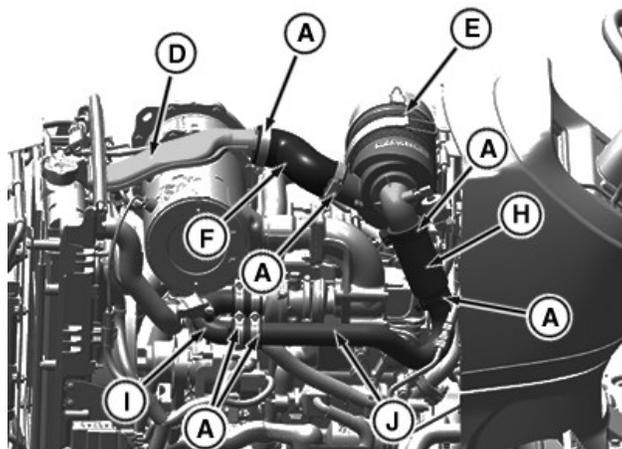
APY08255—UN—12JUL18

Radiator Hose, Bottom



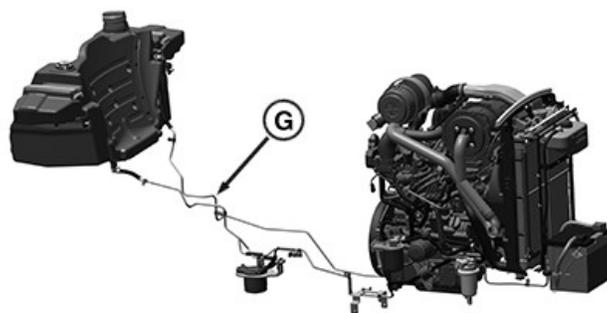
APY07663—UN—29JUN18

Radiator Hose, Top



APY02432—UN—22DEC17

Air Filter-to-Intake Manifold



APY07664—UN—29JUN18

Fuel System

- A—Hose Clamp (10 used)
- B—Radiator Hose, Bottom
- C—Radiator Hose, Top
- D—Air Intake Duct
- E—Air Cleaner Assembly
- F—Hose
- G—Metal Line, Fuel System
- H—Hose
- I—Air Duct to Turbocharger Input
- J—Hose

Check the following system (A to J) for tightness.

- **Engine Cooling System**
- **Air Cleaner (to engine intake)**
- **Fuel System**

Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

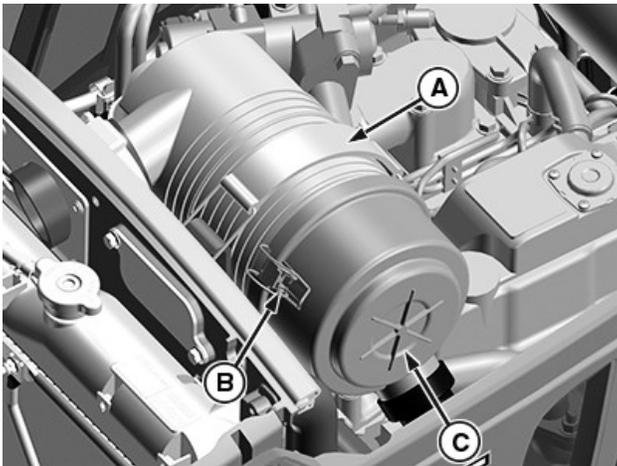
DP97633.00001CE-19-12JUL18

## Service Air Filter Elements

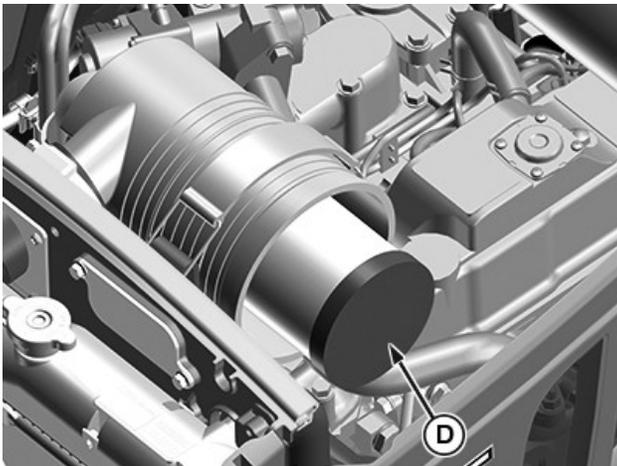
**⚠ CAUTION:** Avoid injury! Touching hot surfaces can burn skin. The engine, components, and fluids are hot if the engine has been running. Allow the engine to cool before servicing or working near the engine and components.

**IMPORTANT:** Avoid damage! Dirt and debris can enter the engine through a damaged filter element.

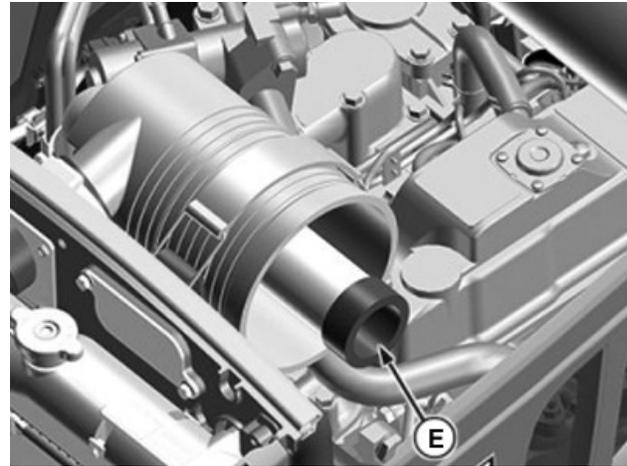
For 3025D



PY38976—UN—17JUL17



PY38977—UN—17JUL17



APY02446—UN—17JAN18

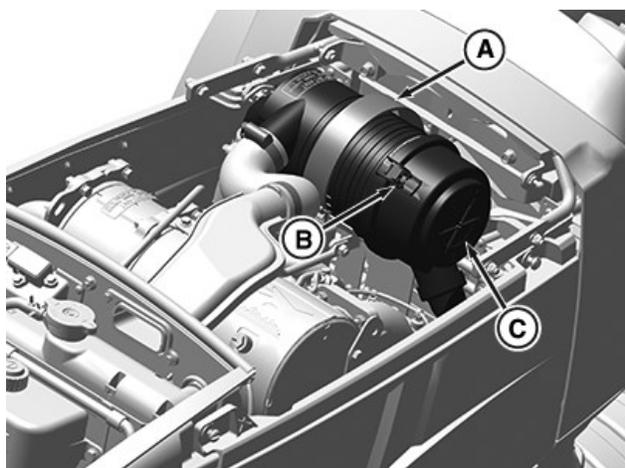
A—Hold Down Strap  
B—Latch  
C—Air Filter Canister Cover  
D—Primary Filter Element  
E—Secondary Filter Element

1. Park machine safely.
2. Allow engine to cool.
3. Raise hood.
4. Remove hold down strap (A).
5. Tilt up canister and release latches (B) and remove air filter canister cover (C).

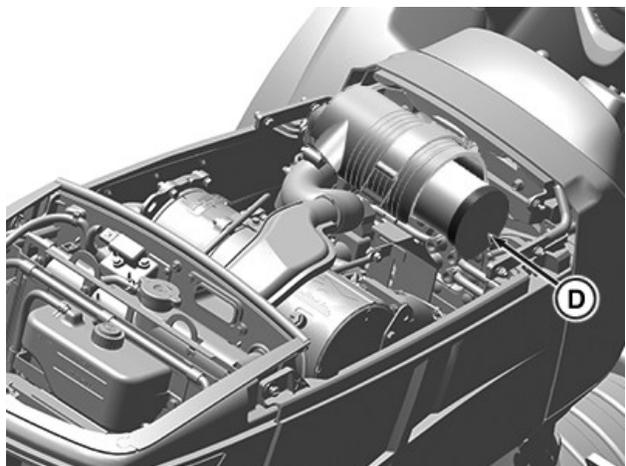
**IMPORTANT:** Avoid damage! Secondary filter element does not need routine replacement. Visually inspect it without removing from canister. Do not attempt to clean secondary filter element. If secondary filter element is replaced, install new primary and secondary filter element immediately to prevent dust from entering the air intake system.

6. Remove and discard primary filter element (D).
7. Remove and discard secondary filter element (E). Replace with a new secondary filter element.
8. Install new primary filter element (D).
9. Install air filter canister cover (C).
10. Position canister back in place and install hold down strap (A).
11. Lower hood.

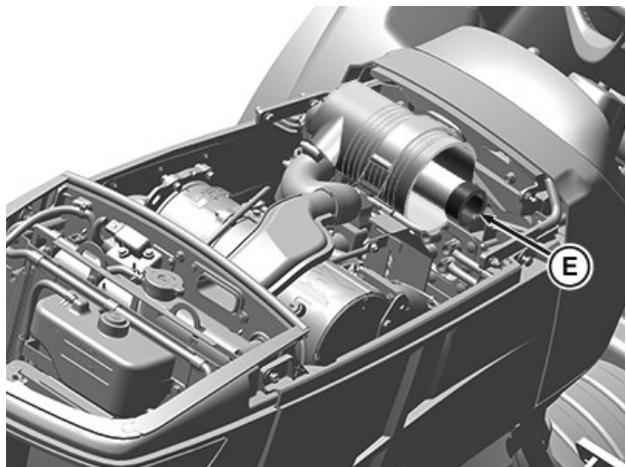
**For 3035D**



PY49611—UN—02NOV17



PY49615—UN—03NOV17



APY02447—UN—17JAN18

- A—Hold Down Strap
- B—Latch
- C—Air Filter Canister Cover
- D—Primary Filter Element
- E—Secondary Filter Element

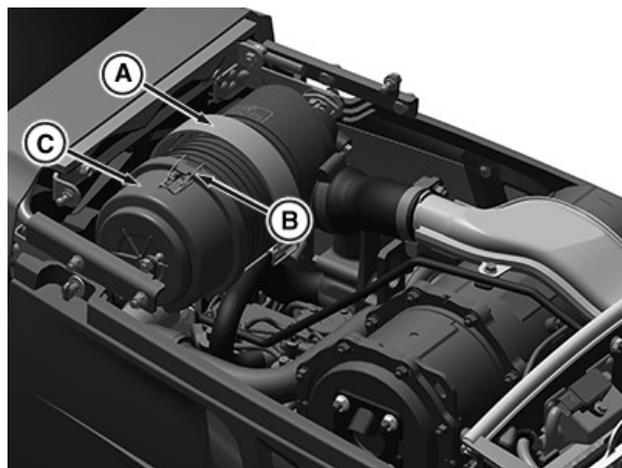
1. Park machine safely.
2. Allow engine to cool.
3. Raise hood.

4. Remove hold down strap (A).
5. Tilt up canister and release latches (B) and remove air filter canister cover (C).

**IMPORTANT: Avoid damage! Secondary filter element does not need routine replacement. Visually inspect it without removing from canister. Do not attempt to clean secondary filter element. If secondary primary and secondary filter element is replaced, install new primary and secondary filter element immediately to prevent dust from entering the air intake system.**

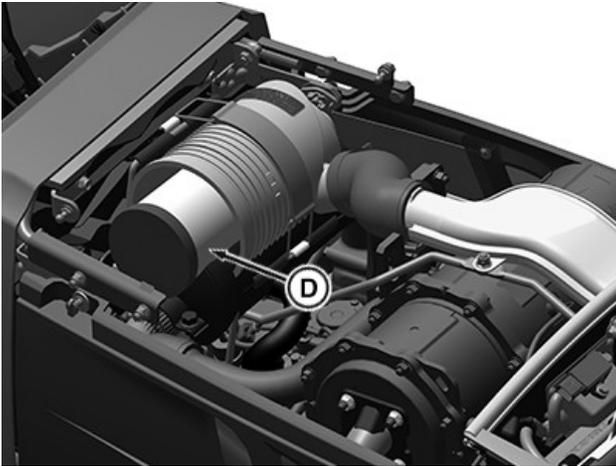
6. Remove and discard primary filter element (D).
7. Remove and discard secondary filter element (E). Replace with a new secondary filter element.
8. Install new primary filter element (D).
9. Install air filter canister cover (C).
10. Position canister back in place and install hold down strap (A).
11. Lower hood.

**For 3043D**

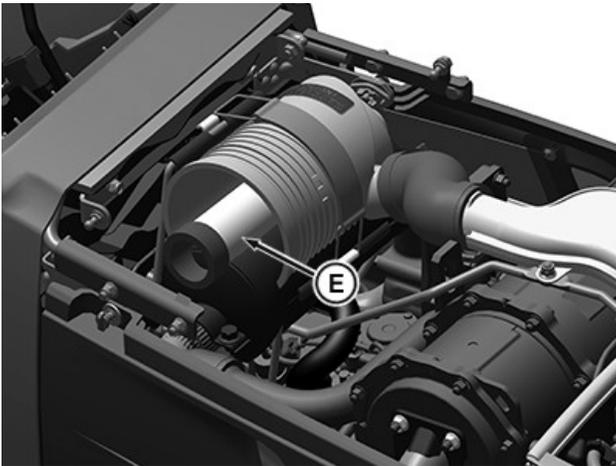


APY07660—UN—29JUN18

- A—Hold Down Strap
- B—Latch
- C—Air Filter Canister Cover



APY07661—UN—29JUN18



APY07662—UN—29JUN18

10. Position canister back in place and install hold down strap (A).
11. Lower hood.

DP97633.00001CF-19-12JUL18

D—Primary Filter Element  
E—Secondary Filter Element

1. Park machine safely.
2. Allow engine to cool.
3. Raise hood.
4. Remove hold down strap (A).
5. Tilt up canister and release latches (B) and remove air filter canister cover (C).

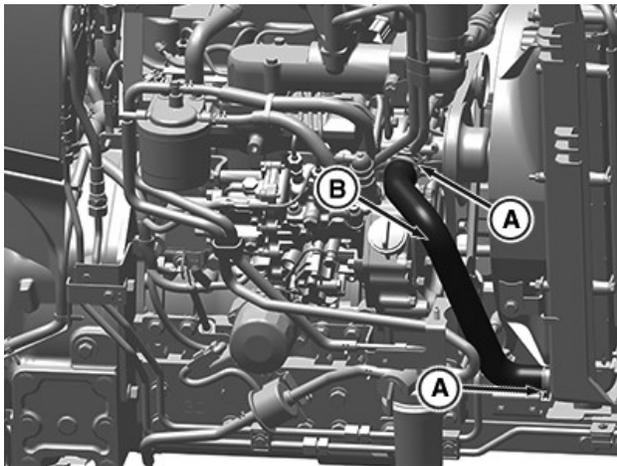
**IMPORTANT: Avoid damage! Secondary filter element does not need routine replacement. Visually inspect it without removing from canister. Do not attempt to clean secondary filter element. If secondary filter element is replaced, install new primary and secondary filter element immediately to prevent dust from entering the air intake system.**

6. Remove and discard primary filter element (D).
7. Remove and discard secondary filter element (E). Replace with a new secondary filter element.
8. Install new primary filter element (D).
9. Install air filter canister cover (C).

# Service—Every Year or 1000 Hours

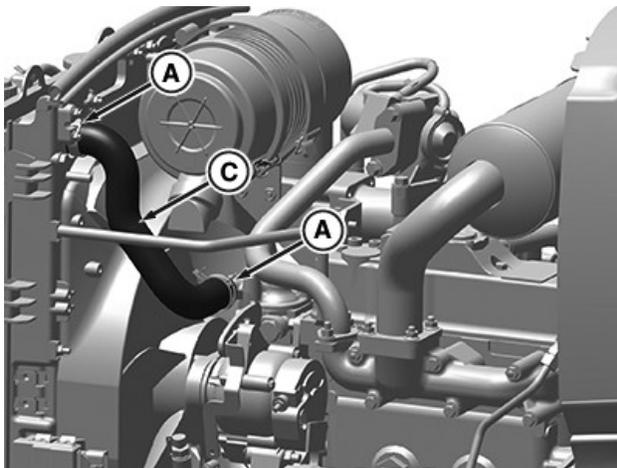
## Check Tightness of Hoses & Clamps (Fuel, Air & Cooling System)

For 3025D



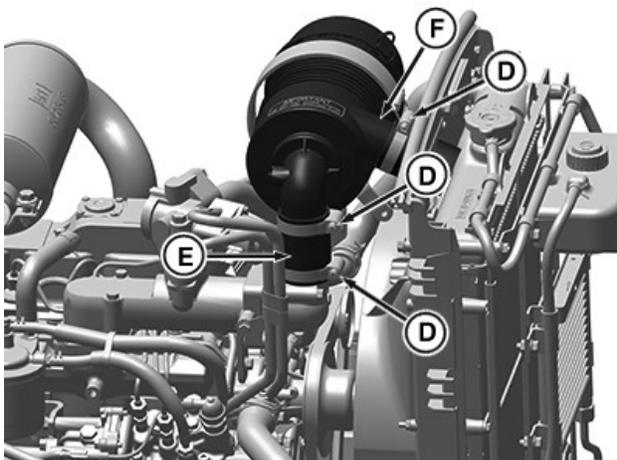
Radiator Hose, Bottom

PY49617—UN—03NOV17



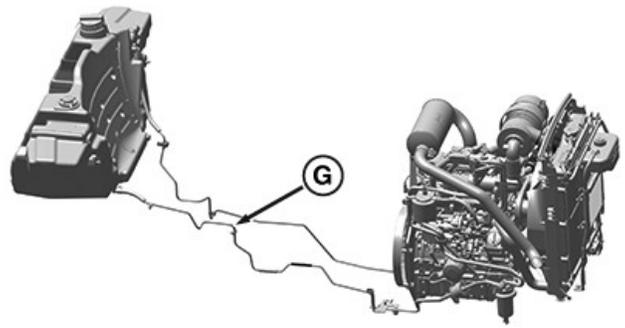
Radiator Hose, Top

PY49618—UN—03NOV17



Air Filter-to-Intake Manifold

PY49619—UN—03NOV17



Fuel System

PY49620—UN—03NOV17

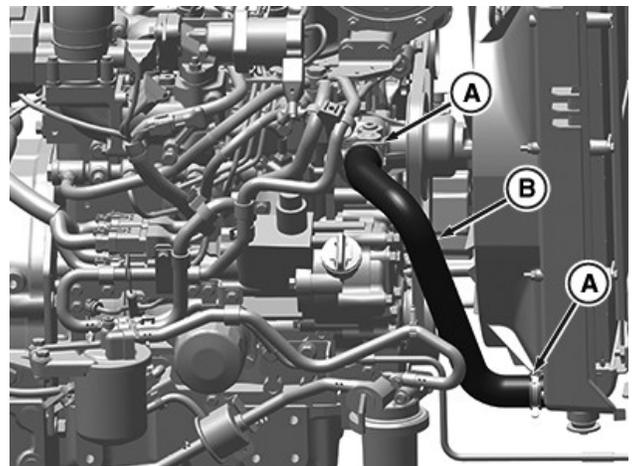
- A—Hose Clamp (4 used)
- B—Radiator Hose, Bottom
- C—Radiator Hose, Top
- D—Hose Clamp (3 used)
- E—Hose, Air Cleaner Inlet
- F—Hose, Air Cleaner Outlet
- G—Metal Line, Fuel System

Check the following hose clamps for tightness:

- Engine Cooling System
- Air Cleaner (to engine intake)
- Fuel System

Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

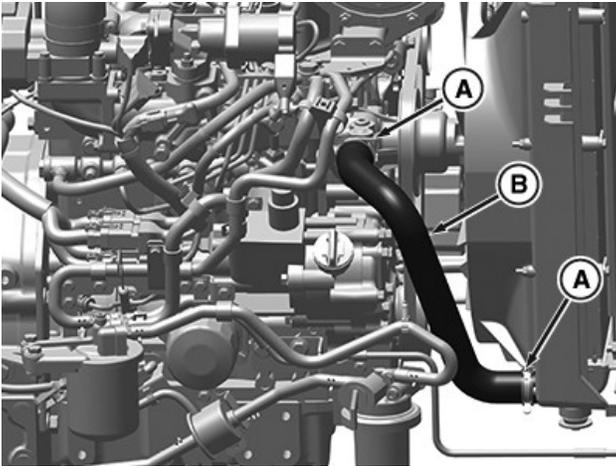
For 3035D



Radiator Hose, Bottom

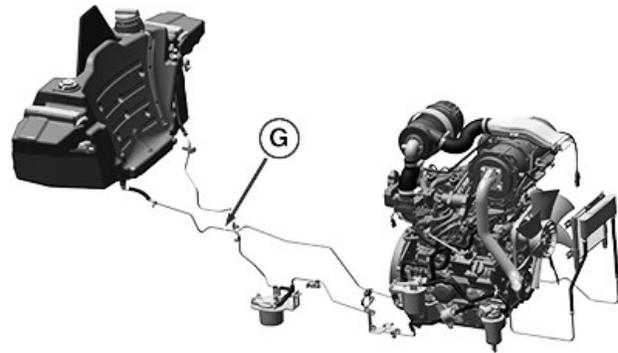
PY49621—UN—03NOV17

- A—Hose Clamp (4 used)
- B—Radiator Hose, Bottom



PY49621—UN—03NOV17

Radiator Hose, Bottom



PY49624—UN—06NOV17

Fuel System

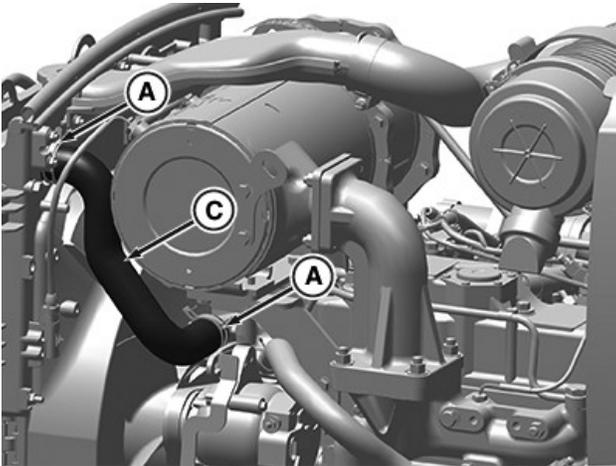
- A—Hose Clamp (4 used)
- C—Radiator Hose, Top
- D—Hose Clamp (4 used)
- E—Hose, Air Cleaner Inlet
- F—Hose, Air Cleaner Outlet
- G—Metal Line, Fuel System

Check the following hose clamps for tightness:

- Engine Cooling System
- Air Cleaner (to engine intake)
- Fuel System

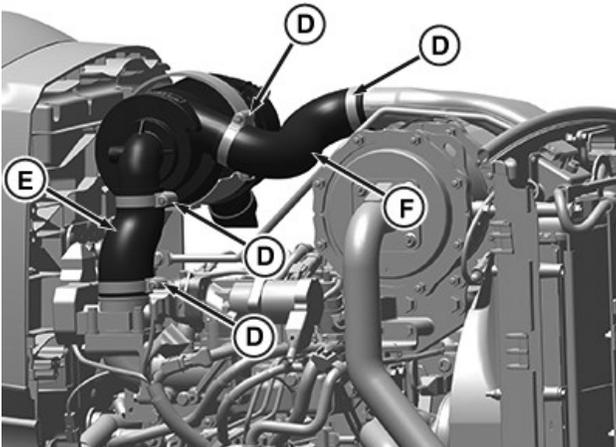
Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

**For 3043D**



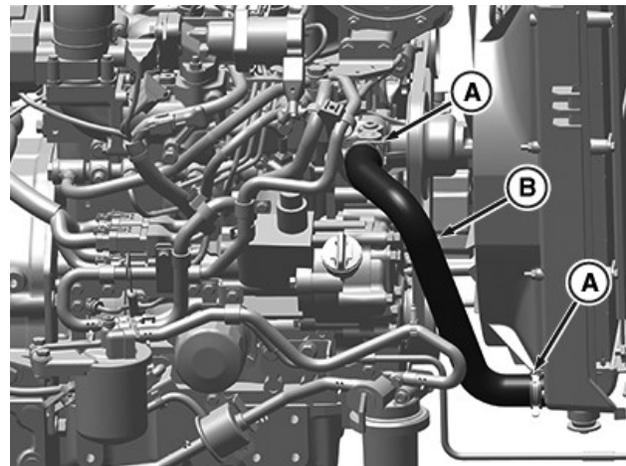
PY49622—UN—03NOV17

Radiator Hose, Top



PY49623—UN—03NOV17

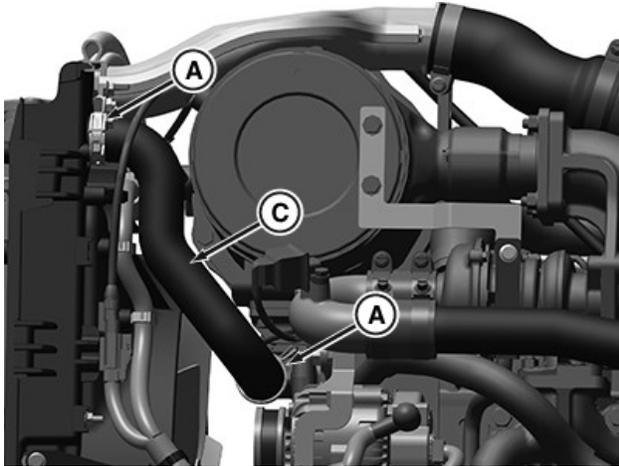
Air Filter-to-Intake Manifold



PY49621—UN—03NOV17

Radiator Hose, Bottom

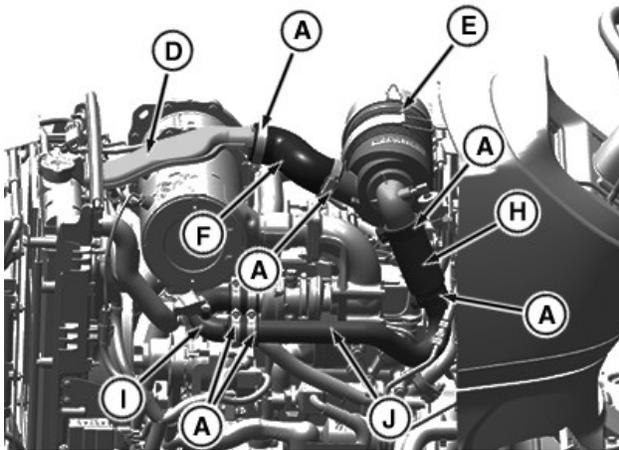
- A—Hose Clamp (10 used)
- B—Radiator Hose, Bottom



APY07663—UN—29JUN18

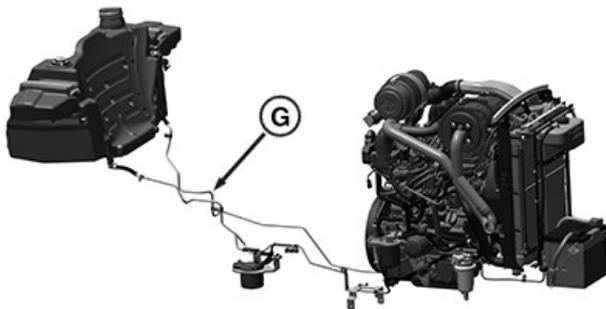
Radiator Hose, Top

A—Hose Clamp (10 used)  
C—Radiator Hose, Top



APY02432—UN—22DEC17

Air Filter-to-Intake Manifold



APY07664—UN—29JUN18

Fuel System

A—Hose Clamp (10 used)  
D—Air Intake Duct  
E—Air Cleaner Assembly

F—Hose  
G—Metal Line, Fuel System  
H—Hose  
I—Air Duct to Turbocharger Input  
J—Hose

Check the following system (A to J) for tightness.

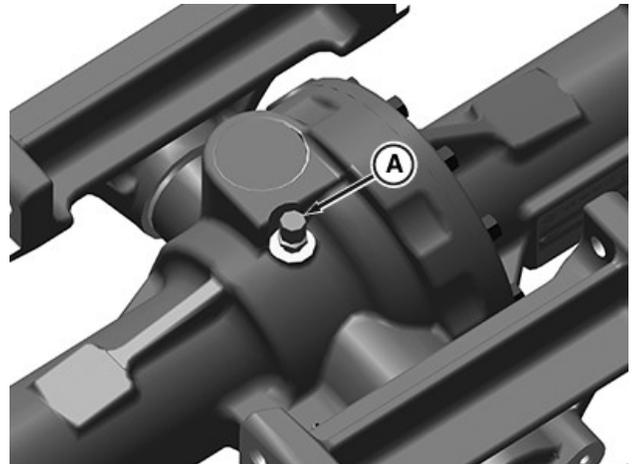
- Engine Cooling System
- Air Cleaner (to engine intake)
- Fuel System

Check all hoses for cracks which could cause leaks or possible failure. Replace as necessary.

DP97633,00001AD-19-03AUG18

### Cleaning MFWD Axle Breather

*NOTE: If the axle breather is packed with dirt, soak in solvent before blowing air through breather vent. Interval must vary according to operation conditions.*



APY07658—UN—29JUN18

A— MFWD Axle Breather

**IMPORTANT: Allowing excess dirt and foreign material to build up in the breather may cause damage to axle seals.**

Remove MFWD axle breather (A). Clean by blowing air through the breather (bottom to top).

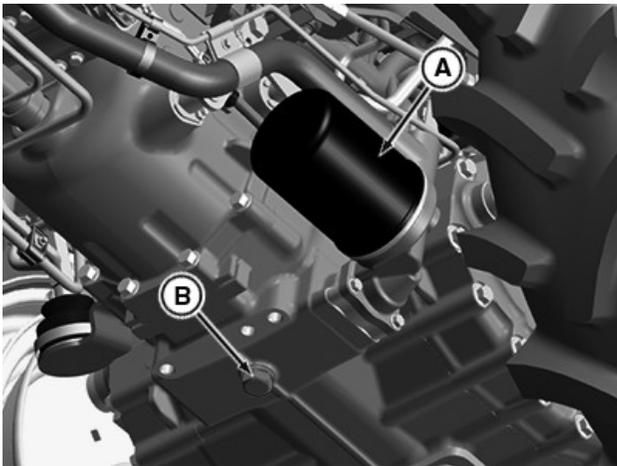
DP97633,0000211-19-27JUN18

# Service—Every 1200 Hours

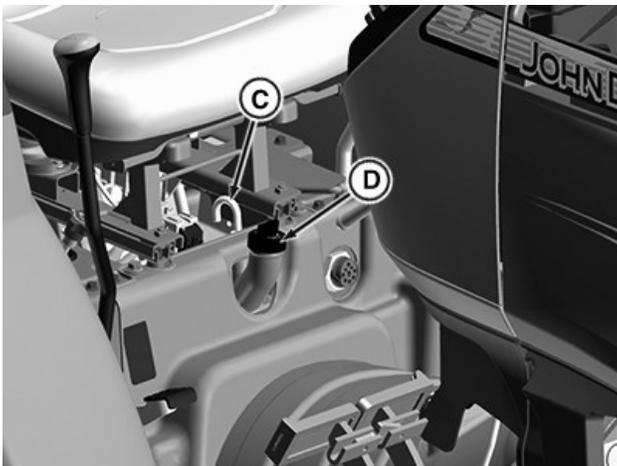
## Change Transmission-Hydraulic Oil and Filter

**IMPORTANT:** Change transmission oil every 1200 hours or 3 years of operation, whichever is earlier. Replace the transmission-hydraulic oil filter at the same time.

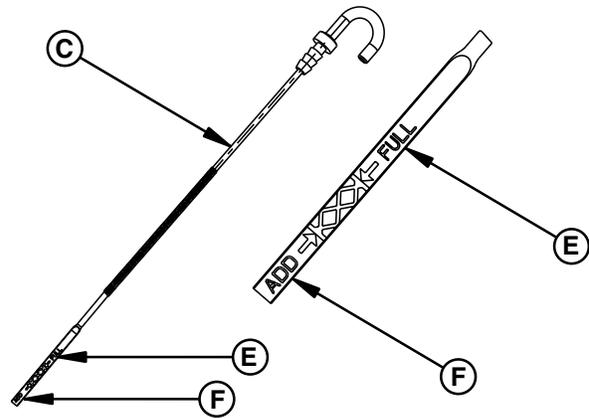
1. Park the tractor on a level surface with the engine shut off and the park brake ON.
2. Lower the implement to the ground to remove trapped oil.



PY47345—UN—21AUG17



APY02445—UN—16JAN18



PY23303—UN—25FEB15

- A—Transmission-Hydraulic Oil Filter
- B—Drain Plug, Transmission Case
- C—Dipstick, Transmission-Hydraulic Oil
- D—Transmission Oil Filler Cap
- E—Full Mark
- F—Add Mark

3. Remove transmission case drain plug (B) and drain oil into the suitable container.
4. Reinstall drain plug (B) as per specification.

### Specification

Torque. . . . . 50±10 N·m (36.87 lb.ft.)

**NOTE:** Always replace transmission-hydraulic oil filter (A) while changing transmission-hydraulic oil.

5. Remove transmission-hydraulic oil filter (A) with the help of oil filter wrench.
6. Apply a film of oil to new filter O-ring and install new transmission-hydraulic oil filter (A). Hand tighten plus 1/2 turn with the oil filter wrench.
7. Open transmission oil filler cap (D) and fill system with transmission-hydraulic oil. See Fuels, Lubricants and Coolant section.
8. Check oil level on dipstick (C) after filling oil. Oil level should be up to full level mark (E) as shown. Add transmission-hydraulic oil if necessary.

**IMPORTANT:** Avoid damage! DO NOT overfill oil in transmission. Oil expands during operation and could overflow.

**NOTE:** Transmission oil can be changed every 1200 hours or 3 years if the following requirements are met:

- Use John Deere Hy-Gard™ or Lo-Vis Hy-Gard oil.
- Suction and transmission filter are both changed every 400 hours.

- *Perform oil-scan of transmission oil every 400 hours or once per year.*

DP97633,0000146-19-01AUG18

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## **Adjust Intake and Exhaust Valve Clearance**

**IMPORTANT:** Proper adjustment is necessary to maintain the correct timing for opening and closing the valves. Improper adjustment will cause the engine to run noisily, resulting in poor engine performance and engine damage.

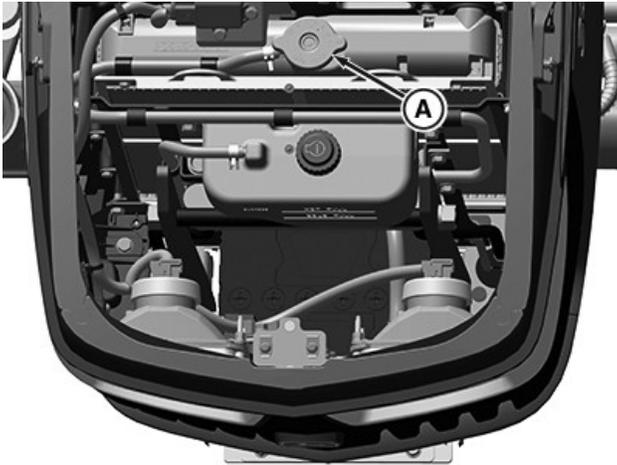
*NOTE: See your authorized John Deere dealer or distributor to adjust the intake/exhaust valve clearance.*

DP97633,00001AE-19-29MAY18

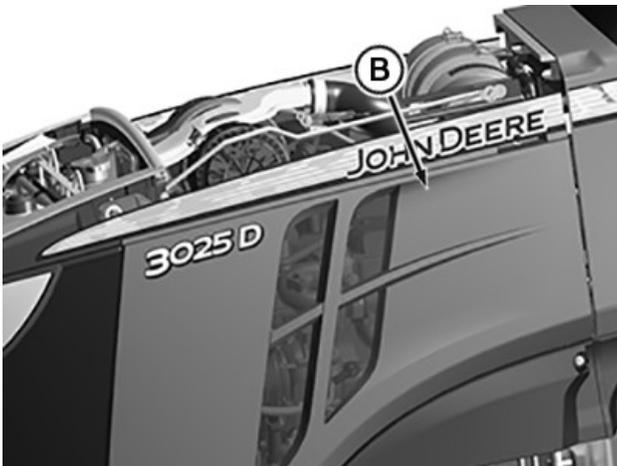
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# Service—Every Two Years or 2000 Hours

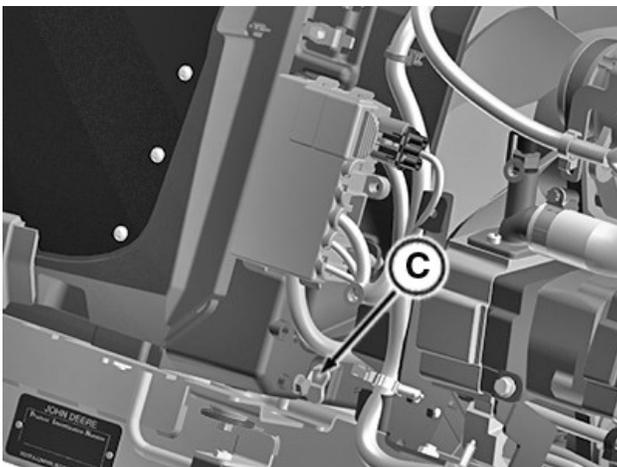
## Drain Cooling System



APY02407—UN—19DEC17



PY47348—UN—21AUG17



PY47350—UN—21AUG17

- A—Radiator Cap
- B—Hood Side Panel
- C—Drain Valve, Radiator

**CAUTION:** Avoid injury! **DO NOT** remove the radiator cap unless the engine is cool. Slowly loosen cap to the first stop. Release all pressure before removing cap. When the engine is hot the explosive release of fluids from the pressurized cooling system could cause serious burns.

Antifreeze is hazardous to the environment. Dispose of antifreeze in a proper container.

1. Park the tractor on a level surface with the engine shut off and the park brake ON and implement lowered to the ground.
2. Raise and latch the hood in open position.
3. Slowly remove the radiator cap (A).
4. Remove hood side panel (B) of tractor.
5. Open radiator drain valve (C). Drain coolant into a pan.  
After all coolant has drained, close radiator drain valve (C).
6. Flush cooling system. See Flush Cooling System in this section.

DP97633.0000100-19-16JAN18

## Flush Cooling System

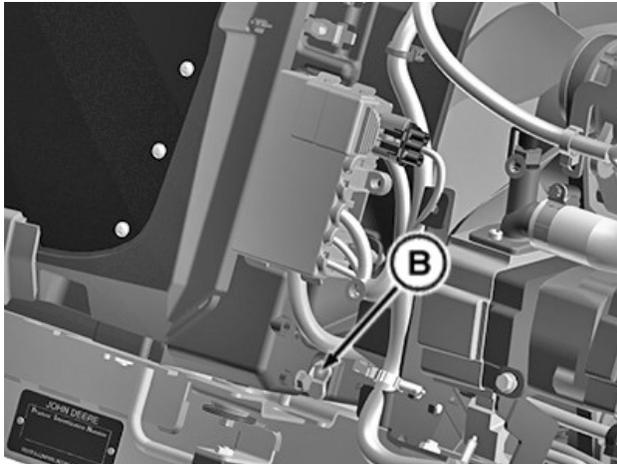
For efficient operation, drain engine coolant, flush the entire system, and fill with clean antifreeze solution at least once a year.

**CAUTION:** NEVER remove the radiator cap if the engine is hot. Steam and hot engine coolant will spurt out and can burn skin. Allow the engine to cool down before you attempt to remove the radiator cap.

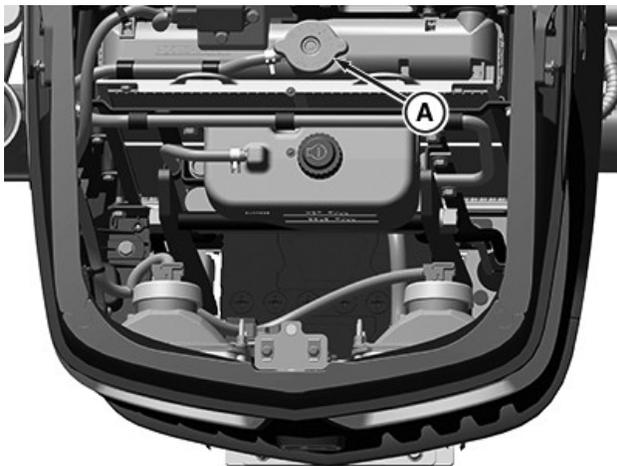
Tighten the radiator cap securely after you check the radiator. Steam can spurt out during engine operation if the cap is loose.

*NOTE: Clean radiator if conditions are very dusty. Failure to clean leads to improper flow of coolants through radiator which leads to a temperature increase of coolants.*

*NOTE: ALWAYS check the level of the engine coolant by observing the recovery tank.*



APY02411—UN—19DEC17



APY02407—UN—19DEC17

- A—Radiator Cap
- B—Drain Valve

**CAUTION: COOLANT HAZARD!**  
 Wear eye protection and rubber gloves when you handle long life or extended life engine coolant. If contact with the eyes or skin occur, flush eyes and wash immediately with clean water.

1. After draining the coolant system, close all drain valves/plugs and fill system with clean water.
2. Install and tighten radiator cap (A).
3. Start and run engine until it reaches operating temperature.
4. Open radiator drain valve (B) and drain cooling system immediately before rust and dirt settle.
5. After all the flushing solution has drained, close the radiator drain valve (B).
6. Fill the cooling system with a mixture of antifreeze, soft water, and coolant conditioner as specified in the Fuels, Lubricants and Coolant section.
7. Check the coolant level. For more details, see Check

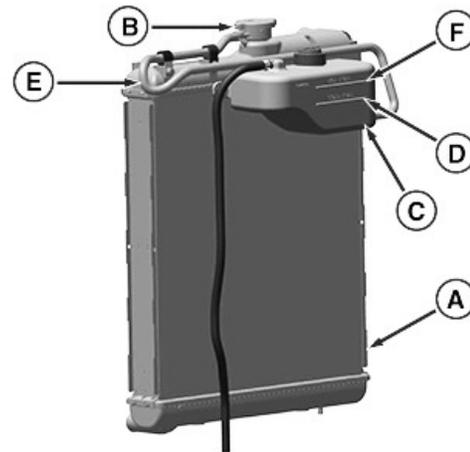
Coolant Level in section Service-Daily/Every 10 Hours.

DP97633,0000030-19-13FEB18

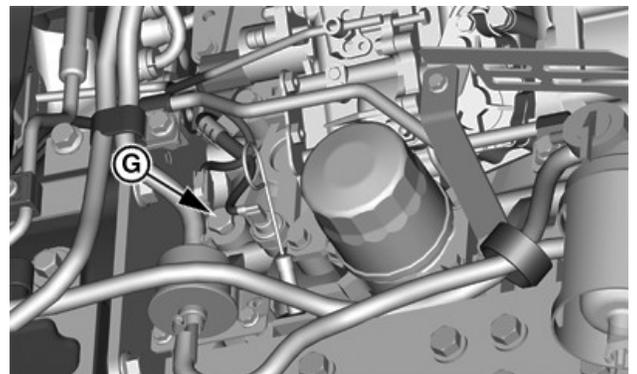
### Refill Cooling System with New Coolant

Fill the radiator and reserve tank as follows. This procedure is for filling the radiator for the first time or refilling it after it is flushed.

*NOTE: Typical radiator is illustrated.*



PY49613—UN—02NOV17



PY23237—UN—04MAR15

- A—Radiator Drain Plug
- B—Radiator Cap
- C—Reserve Tank
- D—Cold Full
- E—Hose
- F—Hot Full
- G—Coolant Drain Plug

1. Check to be sure the radiator drain plug (A) is installed and tightened.
2. Also make sure the coolant drain plug (G) in the cylinder block is closed.
3. Remove the radiator cap (B) by turning it counterclockwise about 1/3 of a turn.

**CAUTION: DO NOT open radiator cap in hot condition.**

4. Pour the engine coolant slowly into the radiator until it is even with the lip of the engine coolant filler port. Make sure that air bubbles do not develop as you fill the radiator.
5. Reinstall the radiator cap (B). Align the tabs on the back side of the radiator cap with the notches on the engine coolant filler port. Press down and turn the cap clockwise about 1/3 of a turn.
6. Remove the cap on the reserve tank (C) and fill it to the cold full mark (D) with engine coolant. Reinstall the cap.
7. Check the hose (E) that connects the reserve tank (C) to the radiator. Make sure it is securely connected and there are no cracks or damage. If the hose is damaged, the engine coolant leaks out instead of going into the reserve tank.
8. Run the engine until it is at operating temperature. Check the level of engine coolant in the reserve tank. When the engine is running and the engine coolant is at normal temperature, the coolant level in the tank should be at the hot full mark (F).

DP97633.0000031-19-13FEB18

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## Inspect, Clean and Test Fuel Injectors, if necessary

 **CAUTION: Avoid skin contact with the high-pressure diesel fuel spray caused by a fuel system leak such as a broken fuel injection line. High-pressure fuel can penetrate your skin and result in serious injury. If you are exposed to high-pressure fuel spray, obtain prompt medical treatment.**

**IMPORTANT: NEVER check for a fuel leak with your hands. ALWAYS use a piece of wood or cardboard. Have your authorized John Deere dealer or distributor repair the damage.**

Proper operation of the fuel injectors is required to obtain the optimum injection pattern for full engine performance.

It is recommended to have the injectors inspected, cleaned and tested every 1500 hours. See your authorized John Deere dealer or distributor.

DP97633.00001B1-19-29MAY18

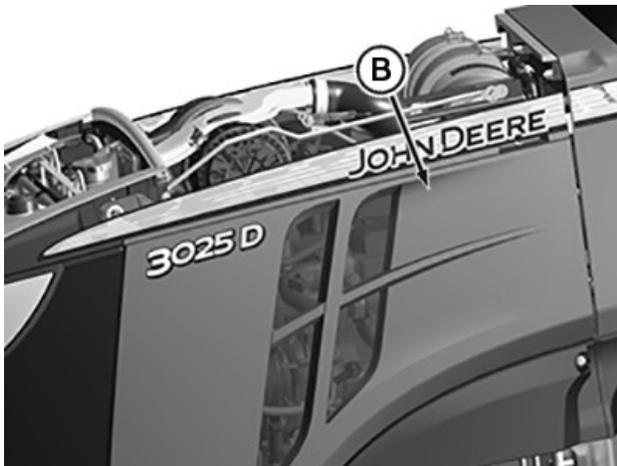
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# Service—Every 6000 Hours

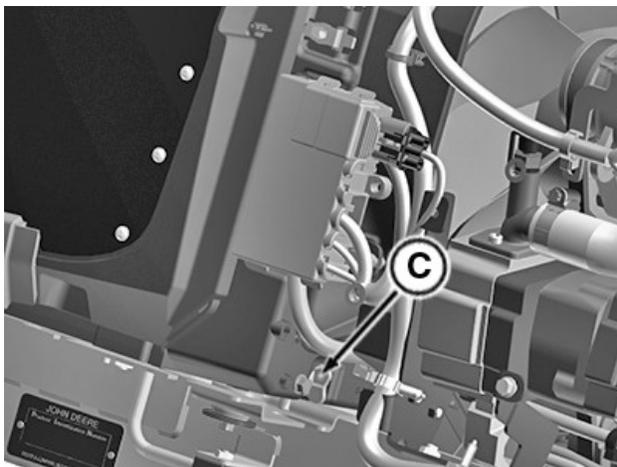
## Drain Cooling System



APY02407—UN—19DEC17



PY47348—UN—21AUG17



PY47350—UN—21AUG17

- A—Radiator Cap
- B—Hood Side Panel
- C—Drain Valve, Radiator

**⚠ CAUTION: Avoid injury! DO NOT remove the radiator cap unless the engine is cool. Slowly loosen cap to the first stop. Release all pressure before removing cap. When the engine is hot the explosive release of fluids from the pressurized cooling system could cause serious burns.**

**Antifreeze is hazardous to the environment. Dispose of antifreeze in a proper container.**

1. Park the tractor on a level surface with the engine shut off and the park brake ON and implement lowered to the ground.
2. Raise and latch the hood in open position.
3. Slowly remove the radiator cap (A).
4. Remove hood side panel (B) of tractor.
5. Open radiator drain valve (C). Drain coolant into a pan.  
After all coolant has drained, close radiator drain valve (C).
6. Flush cooling system. See Flush Cooling System in this section.

SJ15074.0000549-19-08AUG18

## Flush Cooling System

For efficient operation, drain engine coolant, flush the entire system, and fill with clean antifreeze solution at least once a year.

**⚠ CAUTION: NEVER remove the radiator cap if the engine is hot. Steam and hot engine coolant will spurt out and can burn skin. Allow the engine to cool down before you attempt to remove the radiator cap.**

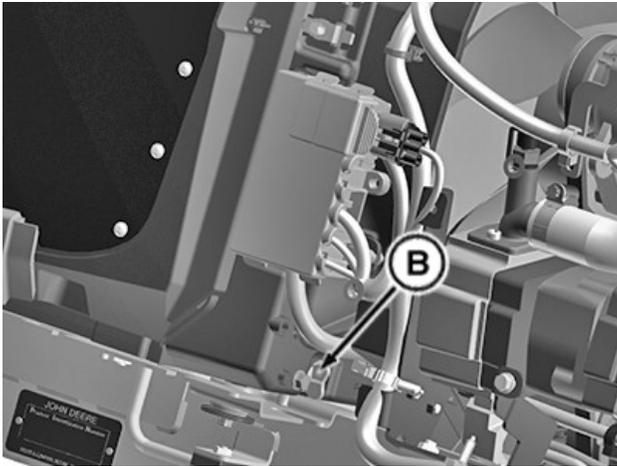
**Tighten the radiator cap securely after you check the radiator. Steam can spurt out during engine operation if the cap is loose.**

*NOTE: Clean radiator if conditions are very dusty. Failure to clean leads to improper flow of coolants through radiator which leads to a temperature increase of coolants.*

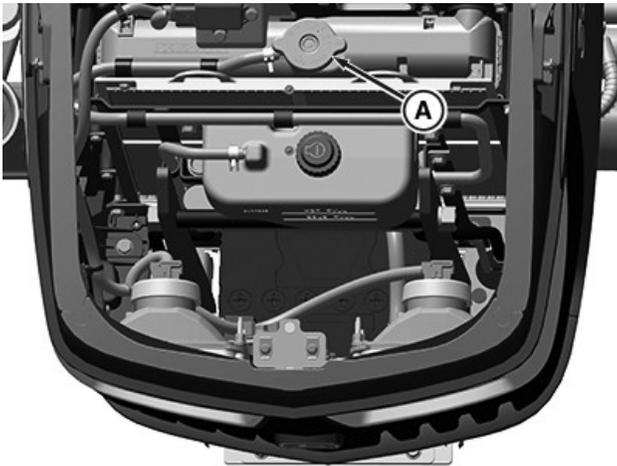
*NOTE: ALWAYS check the level of the engine coolant by observing the recovery tank.*

Coolant Level in section Service-Daily/Every 10 Hours.

SJ15074,000054A-19-08AUG18



APY02411—UN—19DEC17



APY02407—UN—19DEC17

A—Radiator Cap  
B—Drain Valve

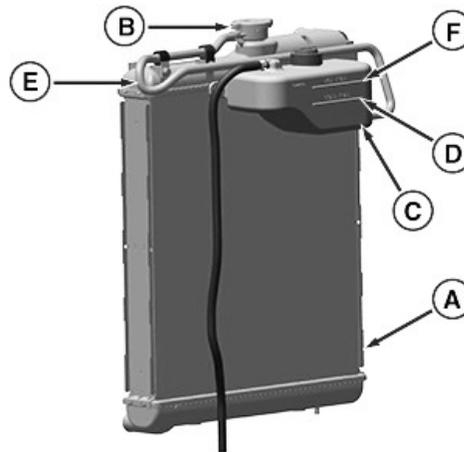
**CAUTION: COOLANT HAZARD!**  
Wear eye protection and rubber gloves when you handle long life or extended life engine coolant. If contact with the eyes or skin occur, flush eyes and wash immediately with clean water.

1. After draining the coolant system, close all drain valves/plugs and fill system with clean water.
2. Install and tighten radiator cap (A).
3. Start and run engine until it reaches operating temperature.
4. Open radiator drain valve (B) and drain cooling system immediately before rust and dirt settle.
5. After all the flushing solution has drained, close the radiator drain valve (B).
6. Fill the cooling system with a mixture of antifreeze, soft water, and coolant conditioner as specified in the Fuels, Lubricants and Coolant section.
7. Check the coolant level. For more details, see Check

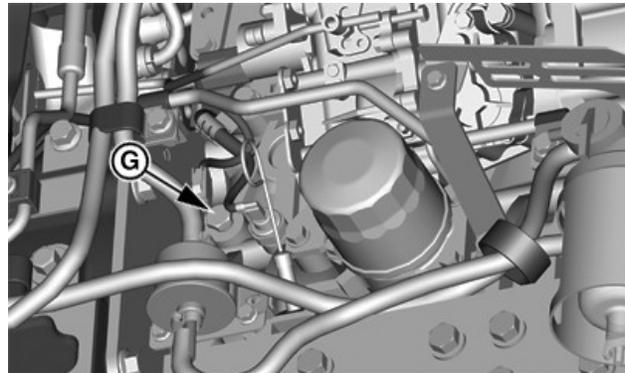
### Refill Cooling System with New Coolant

Fill the radiator and reserve tank as follows. This procedure is for filling the radiator for the first time or refilling it after it is flushed.

*NOTE: Typical radiator is illustrated.*



PY49613—UN—02NOV17



PY23237—UN—04MAR15

A—Radiator Drain Plug  
B—Radiator Cap  
C—Reserve Tank  
D—Cold Full  
E—Hose  
F—Hot Full  
G—Coolant Drain Plug

1. Check to be sure the radiator drain plug (A) is installed and tightened.
2. Also make sure the coolant drain plug (G) in the cylinder block is closed.
3. Remove the radiator cap (B) by turning it counterclockwise about 1/3 of a turn.

**CAUTION: DO NOT open radiator cap in hot condition.**

4. Pour the engine coolant slowly into the radiator until it is even with the lip of the engine coolant filler port. Make sure that air bubbles do not develop as you fill the radiator.
5. Reinstall the radiator cap (B). Align the tabs on the back side of the radiator cap with the notches on the engine coolant filler port. Press down and turn the cap clockwise about 1/3 of a turn.
6. Remove the cap on the reserve tank (C) and fill it to the cold full mark (D) with engine coolant. Reinstall the cap.
7. Check the hose (E) that connects the reserve tank (C) to the radiator. Make sure it is securely connected and there are no cracks or damage. If the hose is damaged, the engine coolant leaks out instead of going into the reserve tank.
8. Run the engine until it is at operating temperature. Check the level of engine coolant in the reserve tank. When the engine is running and the engine coolant is at normal temperature, the coolant level in the tank should be at the hot full mark (F).

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SJ15074,000054B-19-08AUG18

# Service—As Required

## Clean Radiator Screen (If Equipped)



A—Radiator Screen  
B—Radiator

1. Open hood.
2. Lift and remove radiator screen (A) on top of radiator.

**⚠ CAUTION: Avoid injury! Compressed air can cause debris to fly a long distance. Wear eye protection when using compressed air for cleaning purposes. Reduce compressed air pressure to 210 kPa (30 psi)**

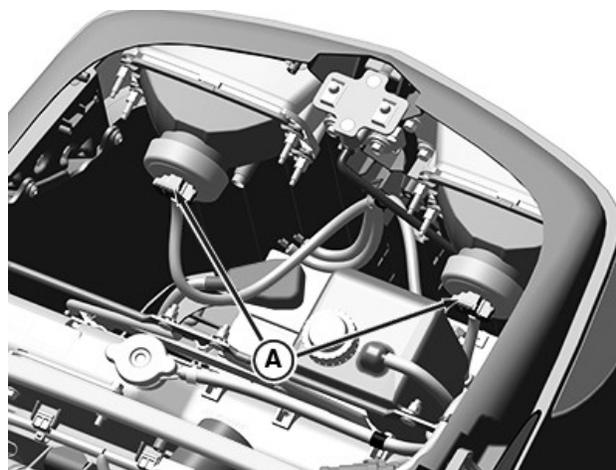
3. Clean radiator screen (A) with a brush, compressed air, or water from a hose as necessary.

DP97633,0000210-19-27JUN18

## Replace Headlight Bulb

**IMPORTANT: Avoid damage! Do not touch glass headlight bulb with bare skin. Contact with bare skin could cause bulb to fail prematurely. Use gloves or a cloth when inspecting or replacing the bulb.**

1. Park machine safely.
2. Raise hood.



PY38991—UN—17JUL17

A—Headlight Bulbs

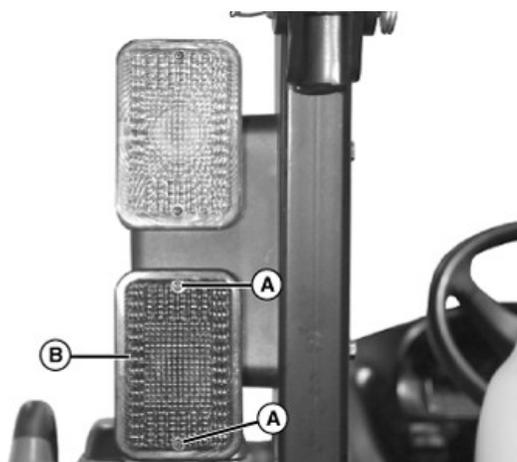
3. Remove connector from the base of headlight bulbs (A).
4. Rotate base counterclockwise to remove bulb assembly from the housing.
5. Insert new bulbs in the housing and turn clockwise to secure.
6. Insert connector into the base of bulb.
7. Lower hood.
8. Check operation of headlights.

DP97633,00001B3-19-29MAY18

## Replace Tail/Turn Light Bulb

*NOTE: Tail light can be serviced by removing the rear assembly lens only.*

1. Park the machine safely.



LVAL38748—UN—05OCT12

A—Screws  
B—Lens

2. Remove two screws (A) and red lens (B).



LVAL38749—UN—05OCT12

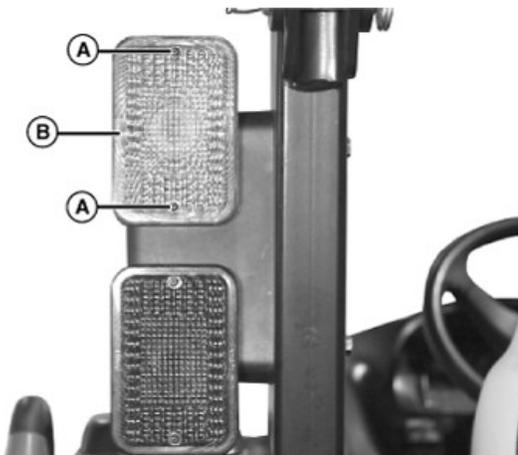
**C—Bulb**

3. Push down and rotate bulb (C) to remove. Do not twist bulb.
4. Push down and rotate new bulb into socket.
5. Check operation of taillights and turn signals.
6. Install lens and screws.

DP97633,00001B4-19-29MAY18

### Replace Warning Light Bulb

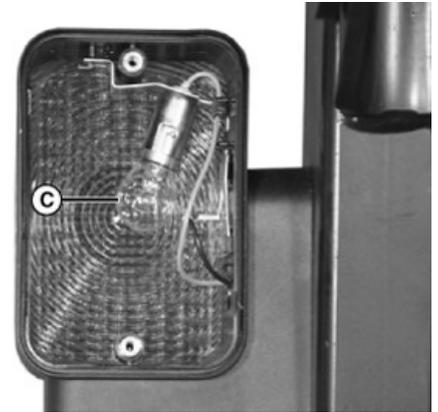
1. Park machine safely.



LVAL38750—UN—05OCT12

- A—Screw
- B—Lens

2. Remove two screws (A) and amber lens (B).



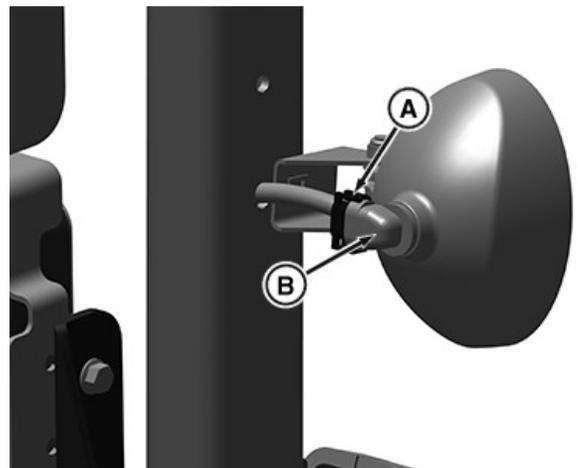
LVAL38751—UN—05OCT12

**C—Bulb**

3. Push up and rotate bulb (C) to remove. Do not twist bulb.
4. Push up and rotate new bulb into socket.
5. Check operation of turn signal and warning lights.
6. Install lens and screws.

DP97633,00001B5-19-29MAY18

### Replace Work Lamp Bulb



APY07606—UN—02MAY18

- A—Electrical Connector
- B—Work Lamp Connector

1. Remove electrical connector (A) from work lamp connector (B).
2. Remove old bulb by removing work lamp connector (B) and replace with a new bulb.
3. Connect electrical connector (A) to the work lamp connector (B).

DP97633,00001B6-19-29MAY18

## Service Battery

**⚠ CAUTION:** To avoid sparks, connect negative (ground) (—) cable last and disconnect it first.

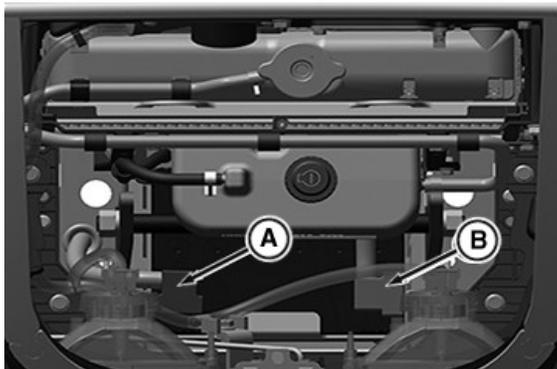
1. Keep battery clean by wiping with a damp cloth. Keep all connections (A and B) clean and tight. To remove any corrosion, wash terminals with a solution of four parts water to one part baking soda.
2. Keep battery fully charged, especially during cold weather. If a battery charger is connected, attach a positive cable to the positive battery terminal (B). Connect the negative battery charger lead to a good ground on the tractor frame.

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

Avoid the hazard by:



PY23272—UN—09FEB15



APY02475—UN—01AUG18

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

1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when the electrolyte is added.
4. Avoiding spilling or dripping electrolyte.

5. Use proper jump-start procedure.

**If you spill acid on yourself:**

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

**If acid is swallowed:**

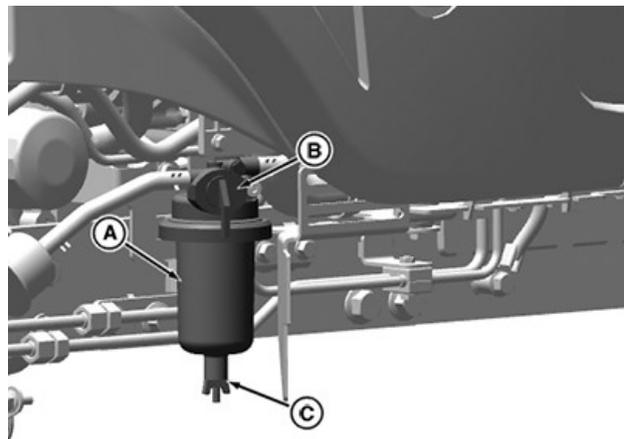
1. Do not induce vomiting.
2. Drink large amounts of water or milk, but do not exceed 2 L (2 quarts).
3. Get medical attention immediately.

**IMPORTANT:** DO NOT add water in freezing weather unless the tractor will be run at least 30 minutes to assure thorough mixing.

3. Check level of an electrolyte in each cell at least every 250 hours. If low, fill to bottom of filler necks with CLEAN, SOFT water. DO NOT OVERFILL.
4. Coat terminals with a small amount of grease.

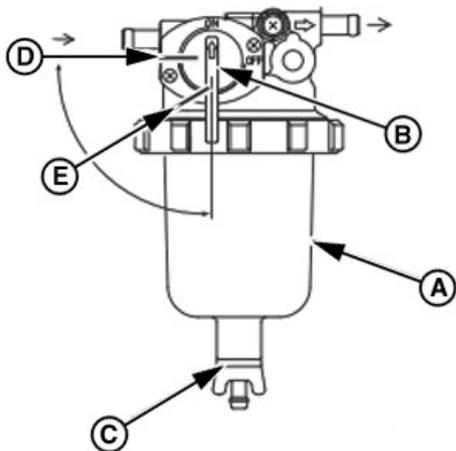
DP97633,00001B7-19-29MAY18

## Drain Water Separator



PY45763—UN—24AUG17

**A—Water Separator**  
**B—Fuel Cock**  
**C—Drain Cock**



PY22082—UN—04DEC14

- A—Water Separator
- B—Fuel Cock
- C—Drain Cock
- D—Fuel Cock-OFF
- E—Fuel Cock-ON

1. Place an approved container under the water separator (A) to collect the contaminants.
2. Close the fuel cock (B) to OFF position (D).
3. Loosen the drain cock (C) given at the bottom of the water separator (A). Drain any water collected inside.
4. Hand tighten the drain cock (C).
5. Open the fuel cock (B) to ON position (E).

DP97633,00001B9-19-12JUL18

**IMPORTANT:** Minimum pressures may be used only for light loads and only if the tractor has no added weight. If you install ballast or mounted implements, or if you pull heavy loads, increase tire pressure.

5. Check tires with an accurate gauge having 10 kPa (0.1 bar) (1 psi) graduations.

*NOTE:* If tires contain liquid ballast, use a special air-water gauge and measure with valve stem positioned toward bottom.

For Tire Inflation Pressure Chart refer to Wheels, Tires and Treads section.

DP97633,00001BC-19-29MAY18

## Inspect Tires



PY49657—UN—12JUL18

- A—Front Tire
- B—Rear Tire

1. Check tires daily for damage or noticeably low pressure.
2. Have any cuts or breaks contact your nearest authorised John eere dealer.
3. Protect tires from exposure to sunlight, petroleum products, and chemicals.
4. Drive carefully. Try to avoid rocks and sharp objects.

# Service

## Additional Service Information

This manual 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.

HY01057,00002A9-19-28DEC17

## Service Tractor Safely



PY49644—UN—01AUG18

*NOTE: Tractors shown may have optional equipment.*

Disconnect power to attachments and stop engine before making any repairs or adjustments.

Do not change engine governor setting or overspeed the 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.

Be careful to prevent clothing, jewelry, or long hair from getting caught in the fan blades, drive belts, or any other moving engine parts.

Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

DP97633,00000EF-19-10JAN18

## Work In Ventilated Area



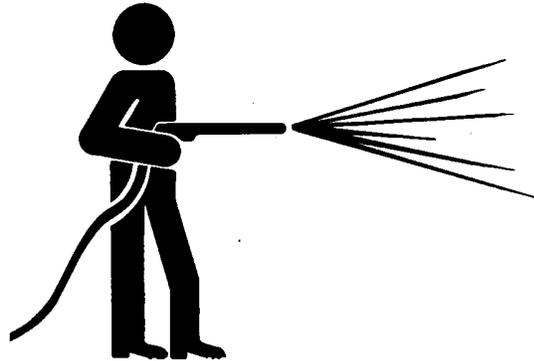
TS220—UN—15APR13

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

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

DX,AIR-19-17FEB99

## Using High-Pressure Washers

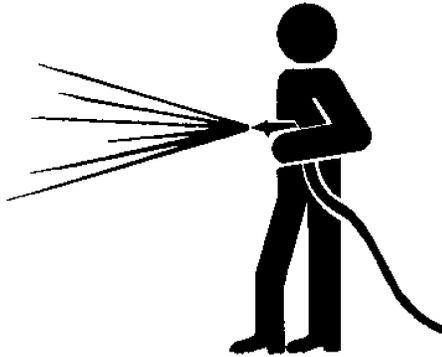


T6642EJ—UN—18OCT88

**IMPORTANT: Directing pressurized water at electronic/electrical components or connectors, bearings and hydraulic seals, fuel injection pumps or other sensitive parts and components may cause product malfunctions. Reduce pressure, and spray at a 45 to 90 degree angle.**

HY01057,00002AB-19-19AUG17

## Using Compressed Air



RW56455—UN—30JUN97

**IMPORTANT:** Directing pressurized air at electronic/ electrical components or connectors, may cause buildup of static electricity and product malfunctions.

HY01057,00002AC-19-28DEC17

### C—Hood Stay Rod

1. Park machine safely.
2. Push hood latch release (A) button to unlock hood.
3. Raise hood (B) which is supported by the hood stay rod (C).

DP97633,000014E-19-06JUL18

## Remove Hood

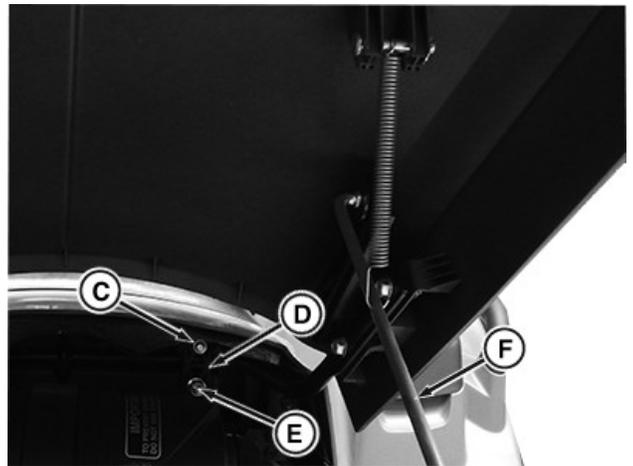


PY44498—UN—11AUG17

## Open Hood



PY44498—UN—11AUG17



APY07665—UN—03JUL18



APY07666—UN—04JUL18

A—Hood Latch Release  
B—Hood

A—Hood Latch Release  
B—Hood  
C—Lock Nut (4 Used)  
D—Hood Pivot (2 Used)  
E—U- Bolt (2 Used)  
F—Hood Stay Rod

1. Push hood latch release (A) button to unlock hood.
2. Raise hood (B) which is supported by the hood stay rod (F).
3. Remove lock nuts (C), hood pivots (D) and U-bolts (E).
4. Remove hood stay rod (F).
5. Remove complete hood assembly from tractor.

**IMPORTANT:** To prevent the U-bolts from falling into the front console, hand tighten the lock nuts (C) to the U-bolt (E) after removal of hood assembly.

DP97633,000014D-19-06JUL18

Turning the key switch to the start position must NOT start the engine, if either of the following exist:

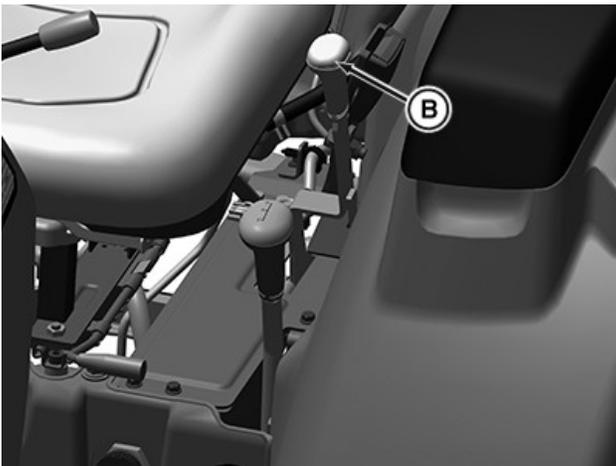
- Forward/Reverse Lever (A) not in NEUTRAL position
- Range Lever (A) in NEUTRAL position
- PTO Lever (B) in engaged position

DP97633,0000349-19-26FEB19

## Check Neutral Start System



APY02433—UN—31DEC18



APY07751—UN—26FEB19

A—Forward/Reverse Lever  
B—PTO Lever

Your John Deere tractor is equipped with interlocks to prevent inadvertent movement when the engine is started. Turning the key switch with the clutch pedal depressed must start the engine if all of the following conditions exist:

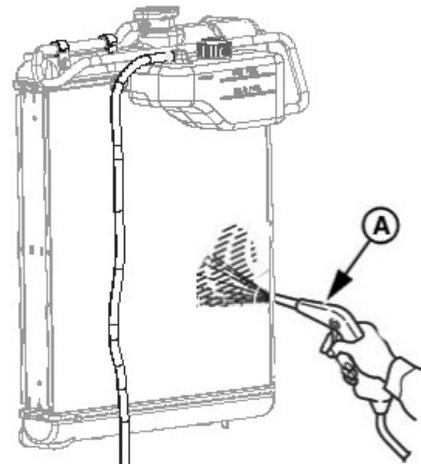
- Forward/Reverse Lever (A) in NEUTRAL position
- Range Lever (A) in NEUTRAL position
- PTO Lever (B) in disengaged position

**CAUTION:** If the starter turns engine in any of the following steps, have the neutral start system repaired by your John Deere dealer.

## Check and Clean Radiator Fins

**CAUTION:** Always wear eye protection when servicing the engine and when using compressed air or high-pressure water. Dust, flying debris, compressed air, pressurized water, or steam can injure your eyes.

**CAUTION:** Avoid injury! Compressed air can cause debris to fly a long distance. Wear eye protection when using compressed air for cleaning purposes. Reduce compressed air pressure to 210 kPa (30 psi).



PY49614—UN—02NOV17

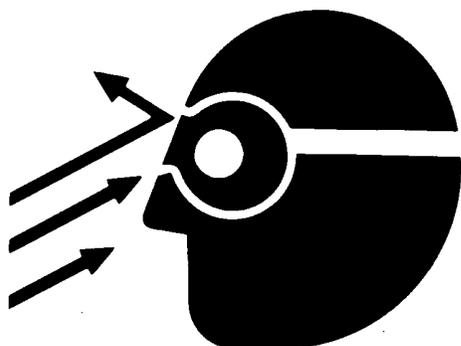
A— Compressed Air

1. Be careful not to damage the fins with the compressed air (A).
2. If there is a large amount of contamination on the fins, apply detergent, thoroughly clean, and rinse with tap water.

**NOTE:** Never use high-pressure water or compressed air at greater than 210 kPa (30 psi) or a wire brush to clean the radiator fins. Radiator fins damage easily.

DP97633,00001BD-19-29MAY18

## Clean Grille, Screens, and Radiator



TS266—UN—23AUG88



PY45771—UN—23AUG17



PY45772—UN—23AUG17

A—Grille  
B—Radiator

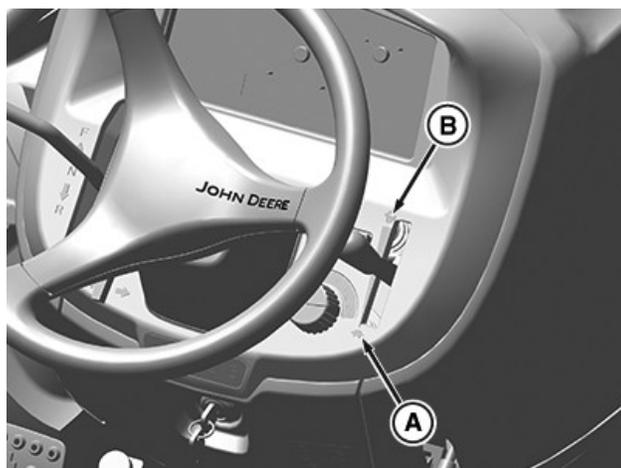
1. Whenever trash builds up on front grille (A), stop the engine.
2. Raise hood and see if trash has built up on radiator (B). If so, remove it using a brush or compressed air.

**⚠ 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.

3. If a more thorough cleaning is necessary, clean radiator from behind with compressed air or water. Straighten any bent fins.

DP97633.00000F2-19-10JAN18

## Check Engine Idle Speeds



PY49649—UN—14NOV17

A—Low (turtle) Idle Speed  
B—High (rabbit) Idle Speed

Low (turtle) idle speed (A) is attained with the hand throttle all the way down.

High (rabbit) idle speed (B) is attained with the hand throttle all the way up.

### Specification

Engine—Low Idle (For 3025D)—Speed. . . . .	1200 ± 50 rpm
Engine—High Idle (with No Load) (For 3025D)—Speed. . . . .	2550 ± 50 rpm
Engine—Low Idle (For 3035D and 3043D)—Speed. . . . .	950 ± 50 rpm
Engine—High Idle (For 3035D and 3043D)—Speed. . . . .	2950 ± 50 rpm

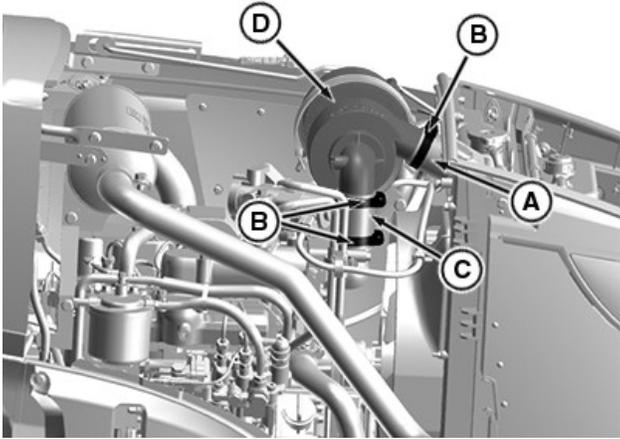
**NOTE:** Hand throttle position corresponds directly to the label on the right-hand side of the instrument panel.

If idle speeds are not correct, see your authorized John Deere dealer or distributor.

DP97633.00000F3-19-01AUG18

## Air Intake System Components

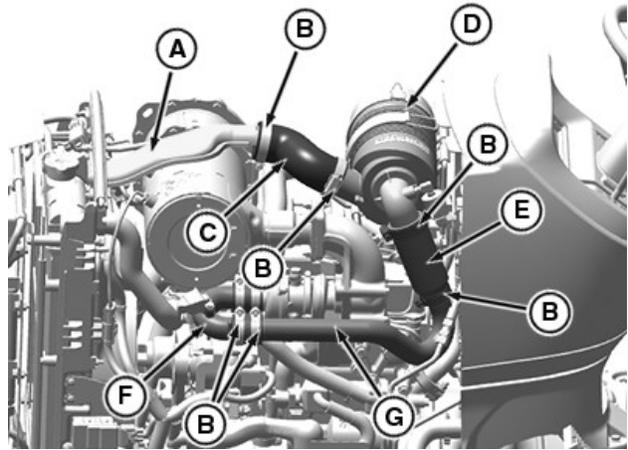
For 3025D



PY47369—UN—24AUG17

- A—Air Inlet Hose
- B—Clamp (3 used)
- C—Hose
- D—Air Filter Assembly

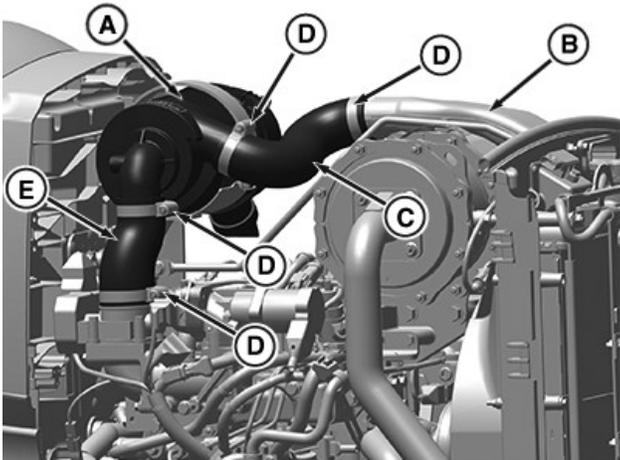
For 3043D



PY47342—UN—24AUG17

- A—Air Intake Duct
- B—Clamp (4 used)
- C—Hose
- D—Air Filter Assembly
- E—Hose
- F—Air Duct to Turbocharger Input
- G—Pipe

For 3035D

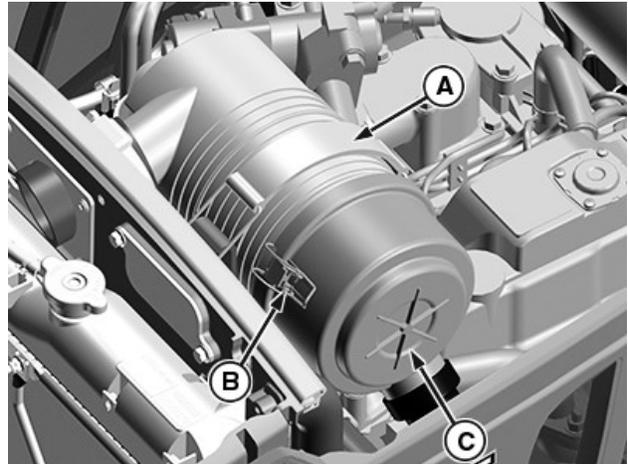


APY07646—UN—05JUN18

- A—Air Filter Assembly
- B—Air Intake Duct
- C—Hose
- D—Clamp (4 used)
- E—Hose

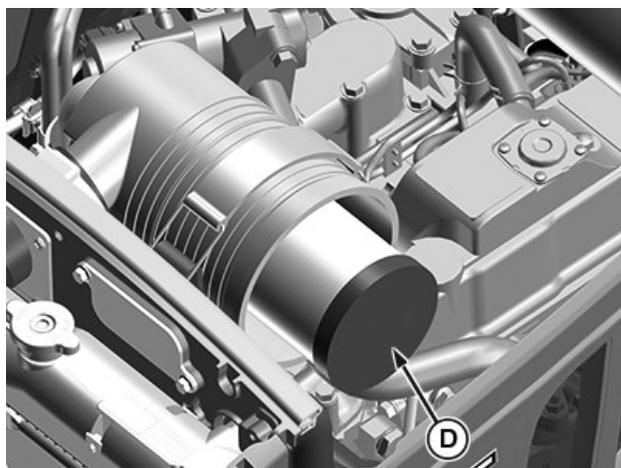
## Clean Air Cleaner Element

For 3025D



PY38976—UN—17JUL17

- A—Hold Down Strap
- B—Latch
- C—Cover



PY38977—UN—17JUL17



PY22086—UN—08DEC14

**D—Primary Filter Element**

The engine performance is adversely affected when the air cleaner element is clogged with dust. Be sure to clean the air filter element periodically.

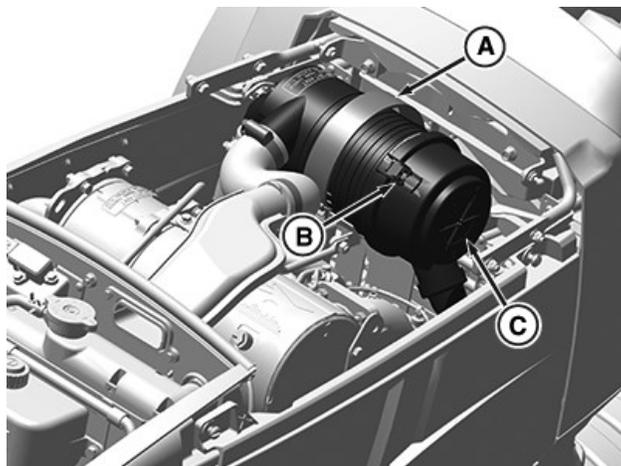
1. Open hood.
2. Remove hold down strap (A).
3. Release latches (B) and remove cover (C) from the side.
4. Rotate the primary filter (D) counterclockwise by ¼ turn to remove. Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.

**⚠ CAUTION:** Always wear eye protection when servicing the engine and when using compressed air or high-pressure water. Dust, flying debris, compressed air, pressurized water, or steam can injure your eyes.

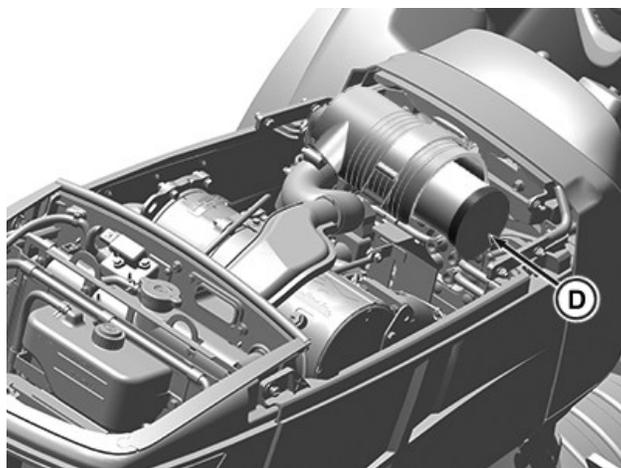
**⚠ CAUTION:** Avoid injury! Compressed air can cause debris to fly a long distance. Wear eye protection when using compressed air for cleaning purposes. Reduce compressed air pressure to 210 kPa (30 psi).

5. Remove the dust without damaging the primary filter element (D).
6. Clean inner side of the air cleaner cover (C).
7. Reinstall the primary filter element (D) into the air cleaner case.
8. Reinstall the air cleaner cover (C).
9. Secure the latches (B) on the air cleaner cover (C).
10. Reinstall hold down strap (A).

**For 3035D**



PY49611—UN—02NOV17



PY49615—UN—03NOV17

- A—Hold Down Strap
- B—Latch
- C—Cover
- D—Primary Filter Element

For 3043D



PY22086—UN—08DEC14

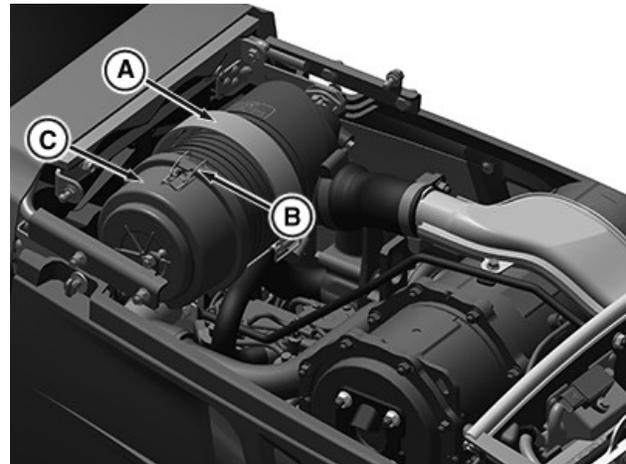
The engine performance is adversely affected when the air cleaner element is clogged with dust. Be sure to clean the air filter element periodically.

1. Open hood.
2. Remove hold down strap (A).
3. Release latches (B) and remove cover (C) from the side.
4. Rotate the primary filter element (D) counterclockwise by ¼ turn to remove. Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.

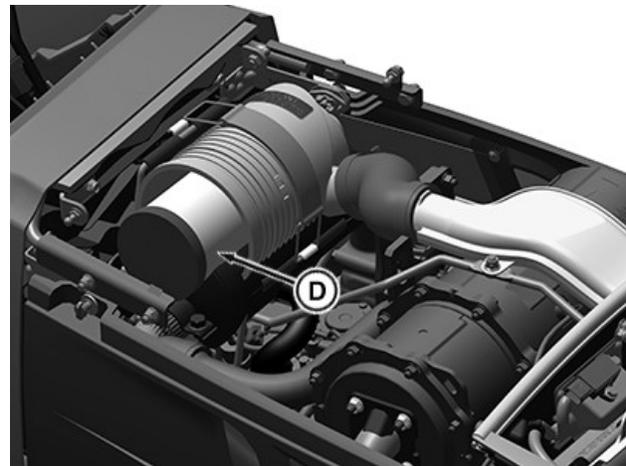
**⚠ CAUTION:** Always wear eye protection when servicing the engine and when using compressed air or high-pressure water. Dust, flying debris, compressed air, pressurized water, or steam can injure your eyes.

**⚠ CAUTION:** Avoid injury! Compressed air can cause debris to fly a long distance. Wear eye protection when using compressed air for cleaning purposes. Reduce compressed air pressure to 210 kPa (30 psi).

5. Remove the dust without damaging the primary filter element (D).
6. Clean inner side of the air cleaner cover (C).
7. Reinstall the primary filter element (D) into the air cleaner case.
8. Reinstall the air cleaner cover (C).
9. Secure the latches (B) on the air cleaner cover (C).
10. Reinstall hold down strap (A).



APY07660—UN—29JUN18



APY07661—UN—29JUN18



**A—Hold Down Strap**  
**B—Latch**  
**C—Air Filter Canister Cover**  
**D—Primary Filter Element**

PY22086—UN—08DEC14

1. Open hood.
2. Remove hold down strap (A).
3. Release latches (B) and remove air filter canister cover (C) from the side.

- Rotate the primary filter element (D) counterclockwise by  $\frac{1}{4}$  turn to remove. Do not use excessive force. If filter does not pull out with ease, move side-to-side to remove safely.

**CAUTION:** Always wear eye protection when servicing the engine and when using compressed air or high-pressure water. Dust, flying debris, compressed air, pressurized water, or steam can injure your eyes.

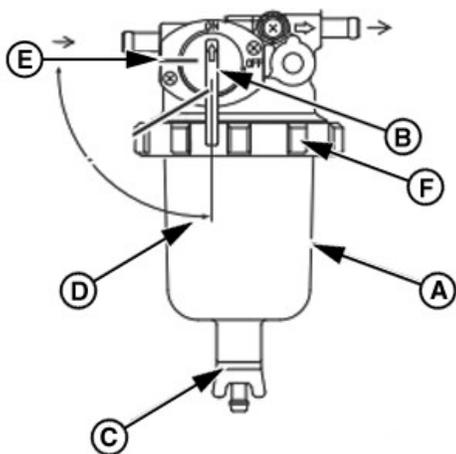
**CAUTION:** Avoid injury! Compressed air can cause debris to fly a long distance. Wear eye protection when using compressed air for cleaning purposes. Reduce compressed air pressure to 210 kPa (30 psi).

- Remove the dust without damaging the primary filter element (D).
- Clean inner side of the air cleaner cover (C).
- Reinstall the primary filter element (D) into the air cleaner case.
- Reinstall the air filter canister cover (C).
- Secure the latches (B) on the air filter canister cover (C).
- Reinstall hold down strap (A).

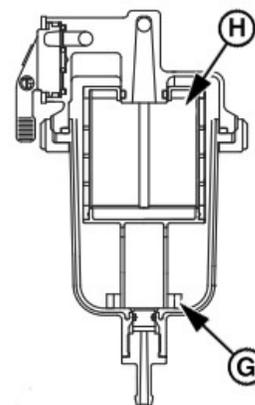
DP97633,00001BF-19-03AUG18

### Clean Water Separator

Periodically clean the water separator element and also inside the cup.



PY22091—UN—09DEC14



PY22092—UN—09DEC14

A—Cup, Water Separator  
 B—Fuel Cock  
 C—Drain Cock  
 D—Fuel Cock-ON  
 E—Fuel Cock-OFF  
 F—Retaining Ring  
 G—Float Ring  
 H—Element, Cup

- Position an approved container under the cup of water separator (A) to collect the contaminants.
- Turn the fuel cock (B) from ON position (D) to OFF position (E).
- Loosen the drain cock (C) and drain the contaminants.
- Turn the retaining ring (F) to the left and remove the cup.
- Carefully hold the cup of water separator (A) to prevent fuel from spilling. If you spill any fuel, clean up the spill completely.
- Remove the float ring from the cup. Pour the contaminants into the container and dispose of it properly.
- Clean the element (H) and inside cup of water separator (A). Replace the element (H) if it is damaged.
- Install the element (H) and O-ring in the bracket.
- Position the float ring (G) in the cup of water separator (A).
- Check the condition of the O-ring. Replace if necessary.
- Install the cup to the bracket by tightening the retaining ring (F) to the right to 15 - 20 N·m (11 - 15 lb-ft, 1.5 - 2.0 kgf/m).
- Close the drain cock (C).
- Open the fuel cock (B).

DP97633,00001C0-19-29MAY18

## Service Cooling System Safely



TS281—UN—15APR13

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

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

DX,WW,COOLING-19-19AUG09

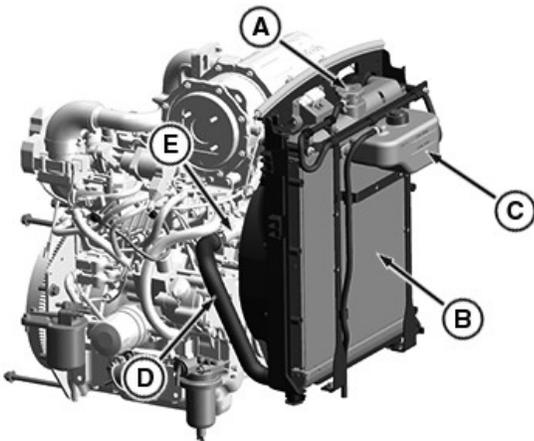
## Winterize Cooling System

**IMPORTANT: Draining cooling system will not protect against freezing if antifreeze is weak, since system does not drain completely.**

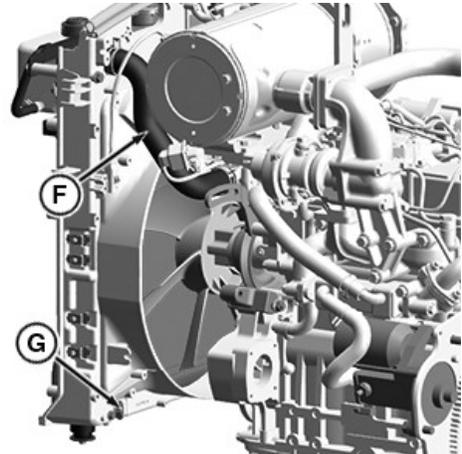
1. Before weather turns cold, make sure cooling system contains 50 to 67 percent antifreeze. For more details see Engine Coolant in Fuels, Lubricants and Coolant section.
2. After adding antifreeze, run engine until it reaches operating temperature. This mixes solution uniformly and circulates it through the entire system.

DP97633.00000F5-19-17JAN18

## Engine Cooling System



PY47370—UN—24AUG17



PY47371—UN—24AUG17

- A—Radiator Cap
- B—Radiator
- C—Coolant Recovery Tank
- D—Lower Radiator Hose
- E—Engine Coolant Pump
- F—Upper Radiator Hose
- G—Radiator Drain Plug

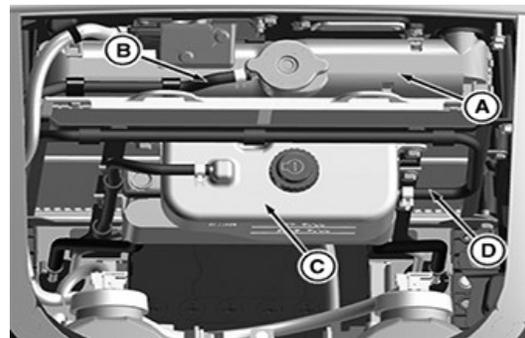
Coolant is added in a coolant recovery tank and not in radiator directly. For efficient operation, drain old coolant, flush entire cooling system at least once in a year.

**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.**

*NOTE: Clean radiator if conditions are very dusty. Failure to clean leads to improper flow of coolants through radiator which leads to a temperature increase of coolants.*

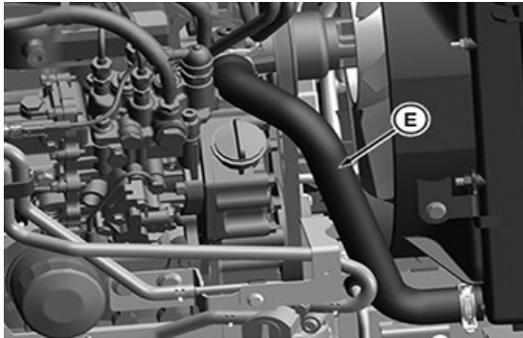
DP97633.00000F6-19-10JAN18

## Check Cooling System for Leaks

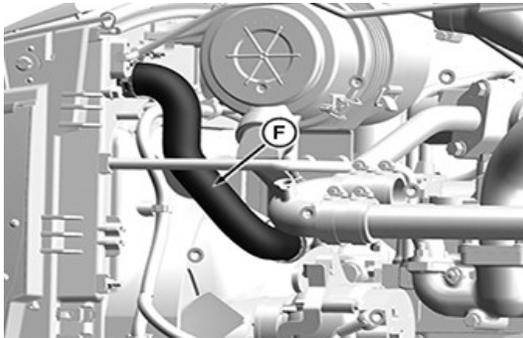


PY45779—UN—12JUL18

- A—Radiator
- B—Hose, Radiator
- C—Coolant Recovery Tank
- D—Hose, Coolant Recovery Tank



PY45777—UN—12JUL18



PY45778—UN—12JUL18

**E**—Radiator Hose  
**F**—Radiator Hose

1. Check around base of radiator (A) for pinholes, cracks or any sign of coolant leakage.
2. Inspect coolant recovery tank (C) for holes, cracks or any sign of coolant leakage.
3. Check the condition of radiator hoses (E and F) and coolant recovery tank hoses (D) for cracks, abrasions, cuts or other damage. Replace as necessary.
4. Check for leaks or loose connections.

*NOTE: If any problem is noted during the visual check, the necessary corrective action must be taken before you operate the engine.*

HY01057,00002B5-19-01AUG18

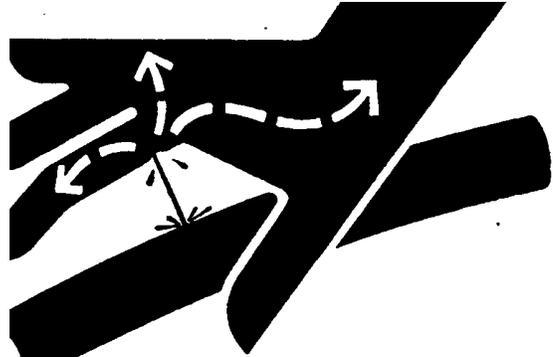
### Check Hoses for Damage

Hydraulic hoses can fail due to physical damage, kinks, age and exposure.

Check hoses regularly. Replace damaged hoses if necessary. (Refer to Lubrication and Maintenance section.)

DX,WW,LOADER16-19-18SEP12

### Do Not Modify Fuel System



X9811—UN—23AUG88

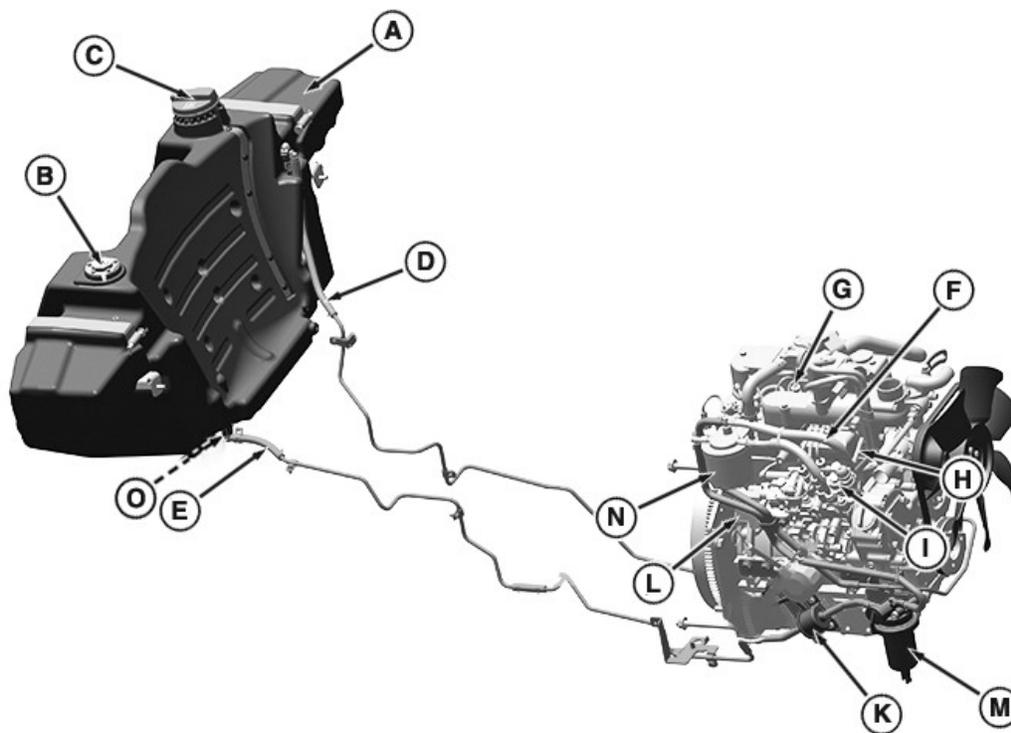
**⚠ CAUTION:** Escaping fluid under pressure can penetrate the skin, causing serious injury. Avoid the hazard by relieving system pressure before disconnecting pressurized lines. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

**IMPORTANT:** Modification or alteration of the injection pump, the injection pump timing, or the fuel injectors in ways not recommended by the manufacturer can 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.)

HY01057,00002B6-19-28DEC17

## Fuel System Components (For 3025D)



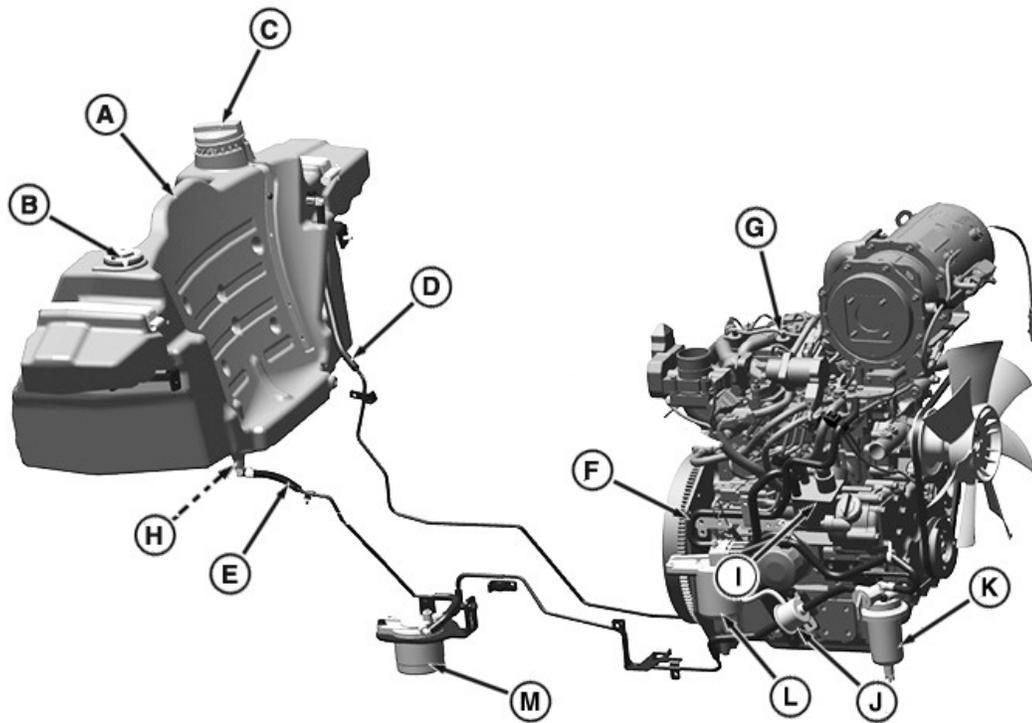
- A—Fuel Tank
- B—Fuel Level Sensor
- C—Fuel Filler Cap
- D—Return Fuel Line Hose
- E—Tank to Filter Inlet Hose
- F—Fuel Filter to Injector Pump Hose
- G—Injector Nozzle (3 used)

- H—Cold Start Advance Hose to Water Pump
- I—Injector Pump
- K—Fuel Transfer Pump
- L—Rack Actuator
- M—Water Separator
- N—Fuel Filter
- O—Fuel Tank Strainer

APY02485—UN—05JUN18

DP97633.00000F7-19-05JUN18

## Fuel System Components (For 3035D and 3043D)



- A—Fuel Tank
- B—Fuel Level Sensor
- C—Fuel Filler Cap
- D—Return Fuel Line Hose
- E—Tank to Filter Inlet Hose
- F—Fuel Filter to Injector Pump Hose
- G—Injector Nozzle (3 used)

- H—Fuel Tank Strainer
- I—High Pressure Injection Pump
- J—Fuel Transfer Pump
- K—Water Separator
- L—Secondary Fuel Filter
- M—Primary Fuel Filter

APY02486—UN—05JUN18

DP97633,0000098-19-05JUN18

## Priming the Fuel System

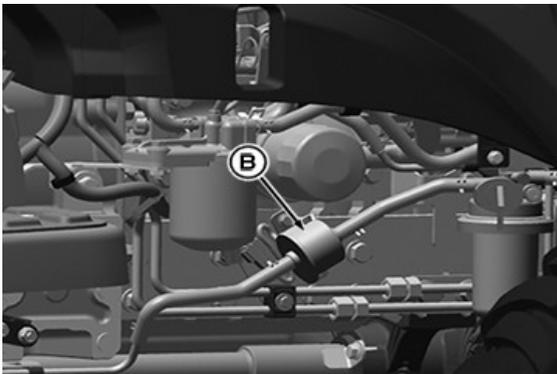
The fuel system needs to be primed under certain conditions:

- Before starting the engine for the first time.
- After running out of fuel and fuel has been added to the fuel tank
- After fuel system maintenance such as changing the fuel filter and draining the water separator, or replacing a fuel system component.

To prime the fuel system:



PY45774—UN—24AUG17



PY45775—UN—01AUG18

A—Switch, Key Ignition  
B—Electric Fuel Pump

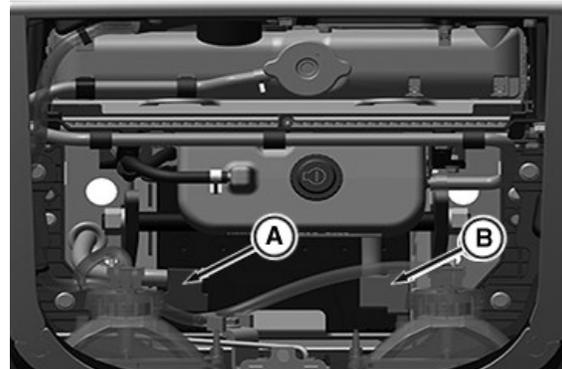
1. Turn the key to the ON position for 10 to 15 seconds. This allows the electric fuel pump to prime the fuel system.
2. NEVER use the starter motor to start the engine in order to prime the fuel system. This may cause the starter motor to overheat and damage the coils, pinion and/or ring gear.

DP97633,000024E-19-03AUG18

## Electrical Service Precautions



TS204—UN—15APR13



APY02475—UN—01AUG18

A— Negative (−) Battery Cable  
B— Positive (+) Battery Cable

**⚠ 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 (-) cable (A) before servicing any part of the electrical system.

Keep battery cover (not shown) and all electrical shields in place.

HY01057,00002B9-19-19FEB18

## Prevent Battery Explosions



TS204—UN—15APR13

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

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DX,SPARKS-19-03MAR93

## Remove and Install Battery

**⚠ CAUTION:** Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. To avoid sparks, connect ground cable last and disconnect it first.

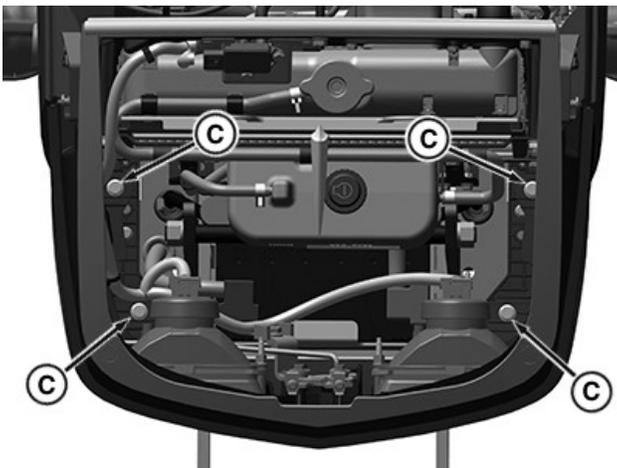
To avoid shocks and burns, disconnect battery ground cable before servicing any part of the electrical system.



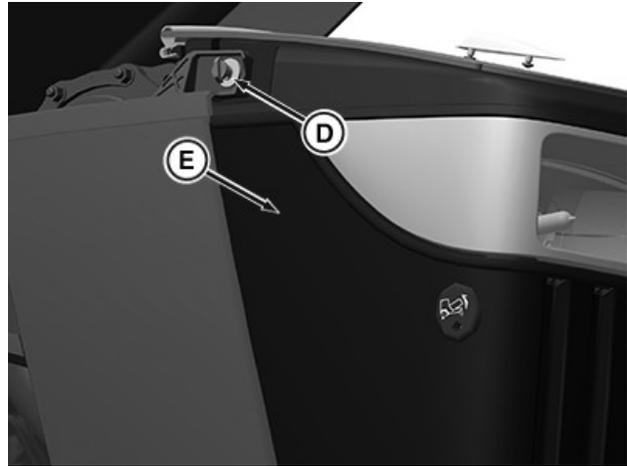
TS204—UN—15APR13



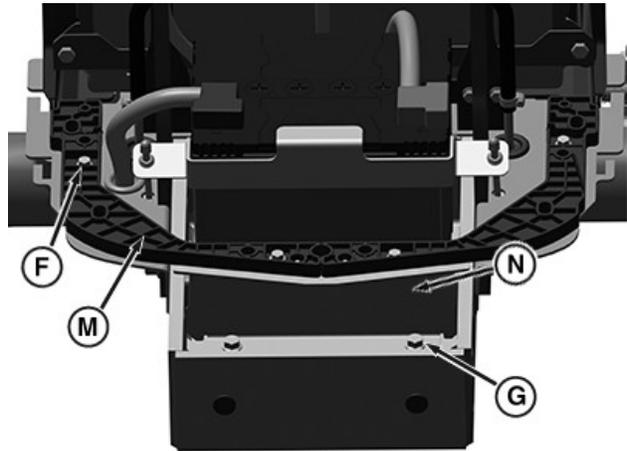
APY07688—UN—03AUG18



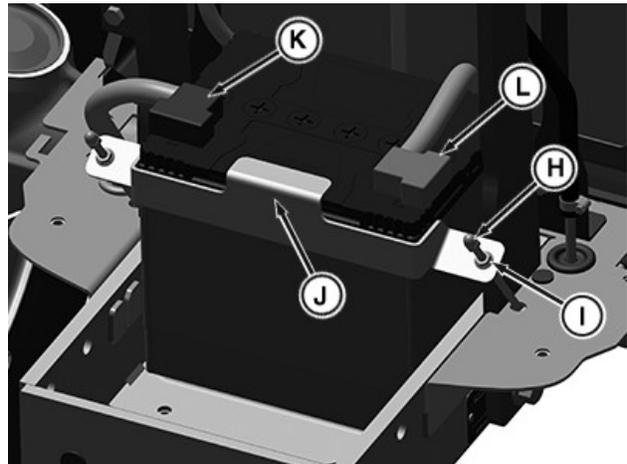
APY07667—UN—03JUL18



APY07668—UN—03JUL18



APY07669—UN—04JUL18



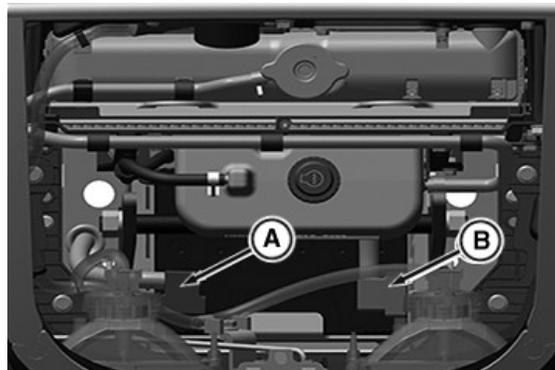
APY07670—UN—03JUL18

- A—Hood Latch Release
- B—Hood Top Panel
- C—Bolts
- D—Lock Pin (2 used)
- E—Front Grille
- F—Bolt (4 used)
- G—Bolt (2 used)
- H—Nut (2 used)
- I—Nut (2 used)
- J—Clamp
- K—Negative (—) Battery Terminal
- L—Positive (+) Battery Terminal
- M—Spacer (2 used)

**N—Cover**

1. Push hood latch release (A) button to unlock hood.
2. Raise hood top panel (B).
3. Remove lock pins (D) on each side.
4. Remove side panels.
5. Remove bolts (C).
6. Lift the front grill (E).
7. Remove bolts (F) and spacers (M).
8. Remove bolts (G) and cover (N).
9. Disconnect negative (—) terminal (K) first, then positive (+) terminal (L).
10. Loosen nuts (H and I) securing battery hold-down and remove the clamp (J).
11. Pull the battery in the front side and lift the battery from the battery tray.

DP97633,000024F-19-03AUG18



APY02475—UN—01AUG18

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

1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when the electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump-start procedure.

**If you spill acid on yourself:**

1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your 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 quarts).
3. Get medical attention immediately.

**IMPORTANT: DO NOT add water in freezing weather unless the tractor will be run at least 30 minutes to assure thorough mixing.**

3. Check level of an electrolyte in each cell at least every 250 hours. If low, fill to bottom of filler necks with CLEAN, SOFT water. DO NOT OVERFILL.
4. Coat terminals with a small amount of grease.

DP97633,0000032-19-01AUG18

**Service Battery**

**⚠ CAUTION: To avoid sparks, connect negative (ground) (—) cable last and disconnect it first.**

1. Keep battery clean by wiping with a damp cloth. Keep all connections (A and B) clean and tight. To remove any corrosion, wash terminals with a solution of four parts water to one part baking soda.
2. Keep battery fully charged, especially during cold weather. If a battery charger is connected, attach a positive cable to the positive battery terminal (B). Connect the negative battery charger lead to a good ground on the tractor frame.

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

**Avoid the hazard by:**



APY07686—UN—01AUG18

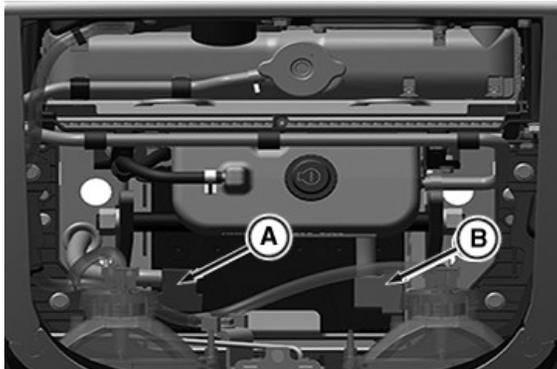
## Charge Battery

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 off the charger. Make last connection and disconnection at a point away from battery.**



TS204—UN—15APR13



APY02475—UN—01AUG18

- A— Negative (−) Battery Terminal**  
**B— Positive (+) Battery Terminal**

1. With charger off, attach positive battery charger lead to positive (+) battery terminal (B). Attach negative charger lead to the tractor frame away from the battery.
2. Turn on the charger and recharge the battery following battery manufacturer's instructions for using charger. Check battery condition as described.
3. To disconnect the battery charger, turn off the charger. Remove negative charger lead first, followed by positive charger lead.

*NOTE: If the electrolyte is frozen, slowly warm the battery before you recharge it.*

4. If the engine cranking speed is so slow that the engine does not start, recharge the battery.
5. If the engine still will not start after charging, have

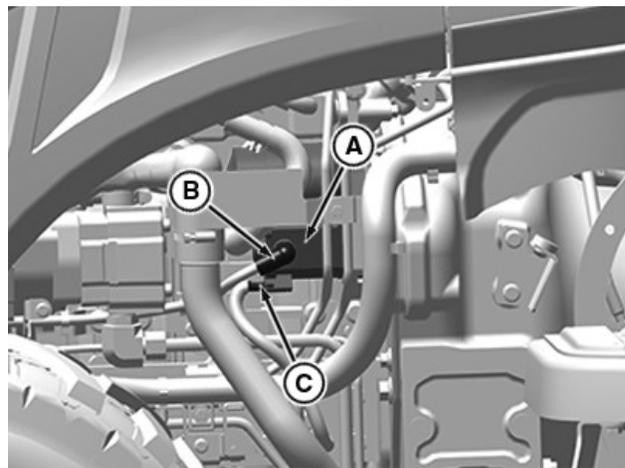
your authorized dealer check the battery and the engine starting system.

DP97633,0000250-19-03AUG18

## Connect Starter Wiring

**IMPORTANT: Disconnect battery negative (ground) cable before servicing any part of the electrical system. Make all other connections before connecting ground cable.**

Connect ring terminal on battery positive cable (B) to starter motor (A) and front wiring harness single pole connector to starter solenoid.



PY47366—UN—24AUG17

- A—Starter Motor**  
**B—Positive Battery Cable**  
**C—Solenoid Terminal**

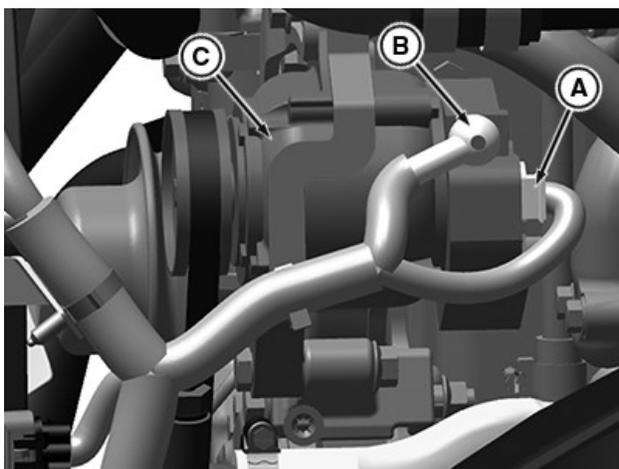
HY01057,00002BD-19-10JAN18

## Connect Alternator Wiring

**IMPORTANT: Disconnect battery negative (ground) cable before servicing any part of the electrical system. Make all other connections before connecting ground cable.**

To prevent damage to the electrical system, disconnect the alternator before making any electrical weld repairs. If an attached implement needs weld repair, disconnect it from tractor before welding, to prevent damage to the tractor electrical system.

If the alternator is disconnected for any reason, connect wires (A), (B) and (C) as shown at right.

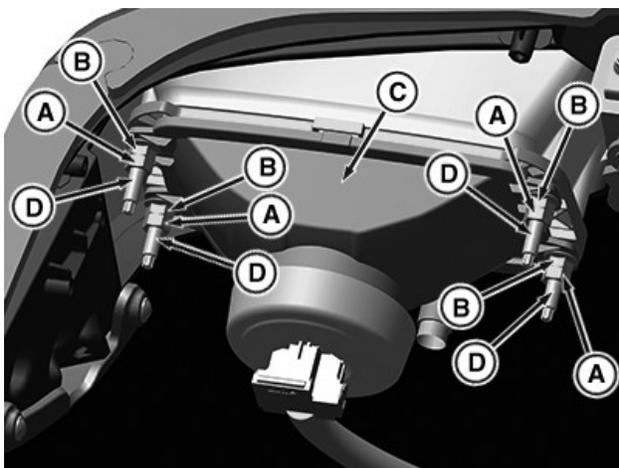


PY47365—UN—24AUG17

A—Battery Terminal  
B—Electrical Connector  
C—Alternator

DP97633,0000251-19-03AUG18

## Adjust Headlights



APY02435—UN—22DEC17

A—Lock Nut  
B—Lock Nut  
C—Headlight  
D—Head Lamp Adjusting Screw

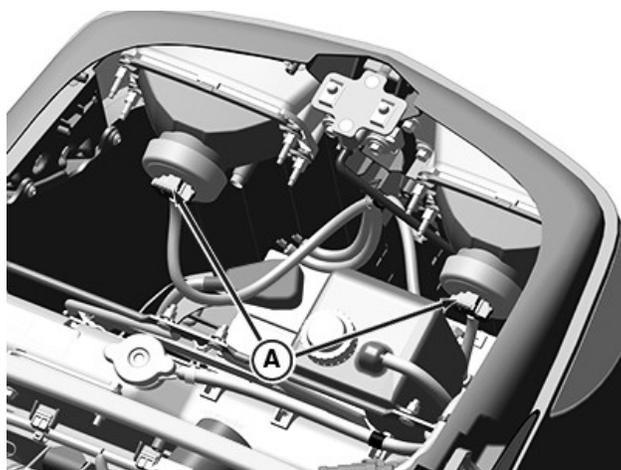
1. Open hood.
2. Tighten upper two screws (D) counterclockwise and loosen lower two screws (D) clockwise to lower beam.
3. Tighten lower two screws (D) counterclockwise and loosen upper two screws (D) clockwise to raise beam.
4. To adjust beam in toward center of tractor, adjust all screws (D). (See Aim Headlight in this section.)

DP97633,000008E-19-10JAN18

## Replace Headlight Bulb

**IMPORTANT: Avoid damage! Do not touch glass headlight bulb with bare skin. Contact with bare skin could cause bulb to fail prematurely. Use gloves or a cloth when inspecting or replacing the bulb.**

1. Park machine safely.
2. Raise hood.



PY38991—UN—17JUL17

A—Headlight Bulbs

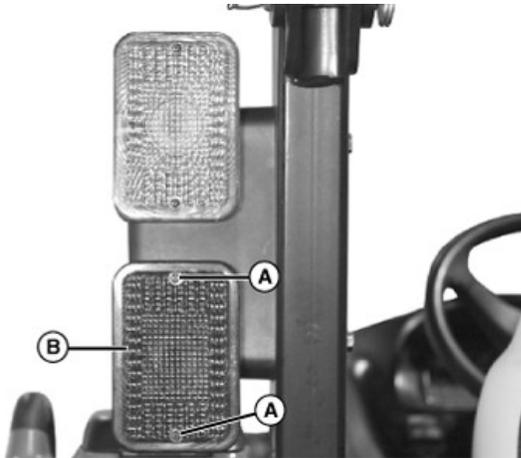
3. Remove connector from the base of headlight bulbs (A).
4. Rotate base counterclockwise to remove bulb assembly from the housing.
5. Insert new bulbs in the housing and turn clockwise to secure.
6. Insert connector into the base of bulb.
7. Lower hood.
8. Check operation of headlights.

HY01057,0000313-19-17JAN18

## Replace Tail/Turn Light Bulb

**NOTE:** Tail light can be serviced by removing the rear assembly lens only.

1. Park the machine safely.



**A—Screws**  
**B—Lens**

LVAL38748—UN—05OCT12

2. Remove two screws (A) and red lens (B).

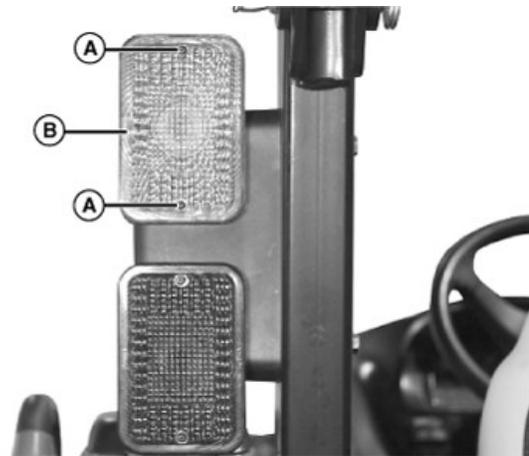


**C—Bulb**

LVAL38749—UN—05OCT12

3. Push down and rotate bulb (C) to remove. Do not twist bulb.
4. Push down and rotate new bulb into socket.
5. Check operation of taillights and turn signals.
6. Install lens and screws.

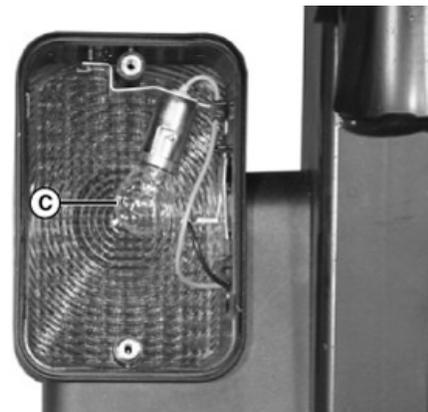
HY01057,0000314-19-17JAN18



LVAL38750—UN—05OCT12

**A—Screw**  
**B—Lens**

2. Remove two screws (A) and amber lens (B).



LVAL38751—UN—05OCT12

**C—Bulb**

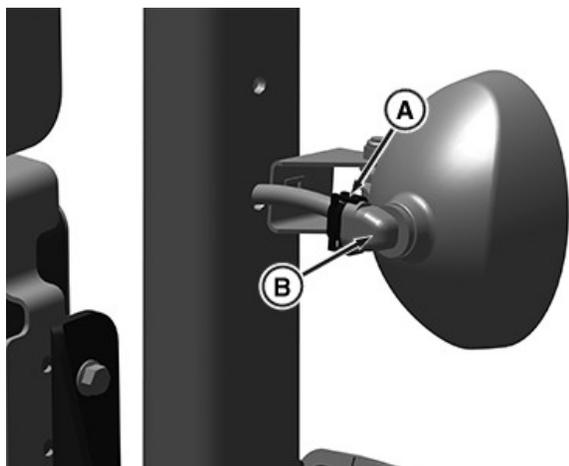
3. Push up and rotate bulb (C) to remove. Do not twist bulb.
4. Push up and rotate new bulb into socket.
5. Check operation of turn signal and warning lights.
6. Install lens and screws.

HY01057,0000315-19-24AUG17

## Replace Warning Light Bulb

1. Park machine safely.

## Replace Work Lamp Bulb



APY07606—UN—02MAY18

A—Electrical Connector  
B—Work Lamp Connector

1. Remove electrical connector (A) from work lamp connector (B).
2. Remove old bulb by removing work lamp connector (B) and replace with a new bulb.
3. Connect electrical connector (A) to the work lamp connector (B).

DP97633,0000130-19-02MAY18

## Service Tires Safely



RXA0103438—UN—11JUN09

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

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

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

When inflating tires, use a clip-on chuck and extension hose long enough to allow you to stand to one side and

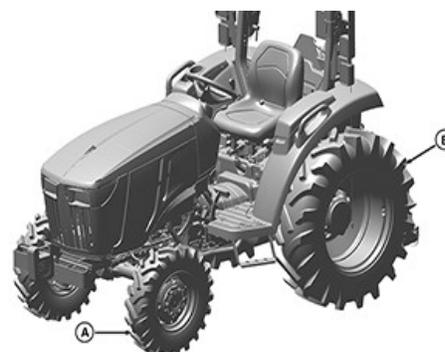
NOT in front of or over the tire assembly. Use a safety cage if available.

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

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

DX,WW,RIMS-19-28FEB17

## Inspect Tires



PY49657—UN—12JUL18

A—Front Tire  
B—Rear Tire

1. Check tires daily for damage or noticeably low pressure.
2. Have any cuts or breaks contact your nearest authorised John eere dealer.
3. Protect tires from exposure to sunlight, petroleum products, and chemicals.
4. Drive carefully. Try to avoid rocks and sharp objects.

**IMPORTANT:** Minimum pressures may be used only for light loads and only if the tractor has no added weight. If you install ballast or mounted implements, or if you pull heavy loads, increase tire pressure.

5. Check tires with an accurate gauge having 10 kPa (0.1 bar) (1 psi) graduations.

*NOTE:* If tires contain liquid ballast, use a special air-water gauge and measure with valve stem positioned toward bottom.

For Tire Inflation Pressure Chart refer to Wheels, Tires and Treads section.

DP97633,0000051-19-17JAN18

## Inspect Seat Belt



APY02473—UN—19FEB18

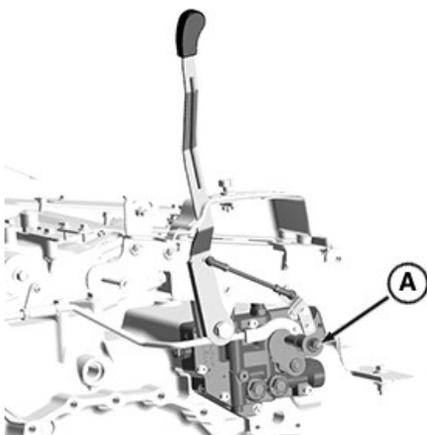
A— Seat Belt

**⚠ CAUTION:** If the seat belt system, including the mounting hardware, buckle, belt or retractor show any sign of damage such as cuts, fraying, extreme or unusual wear, discoloration or abrasion, the entire seat belt system should be replaced immediately. Replace the belt system only with replacement parts approved for your machine.

Inspect seat belt (A) and mounting hardware. If seat belt needs to be replaced, see your John Deere dealer.

DP97633,0000034-19-19FEB18

## Adjust PC Lever Operating Efforts



PY45770—UN—23AUG17

A—Nut

In order to increase the PC Lever efforts, rotate the nut (A) clockwise and to decrease the PC Lever efforts rotate the nut counterclockwise.

DP97633,00001C1-19-29MAY18

# Troubleshooting

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## Engine Troubleshooting

Symptom	Problem	Solution
<b>Engine Will Not Start Or Is Hard To Start.</b>	Transmission gearshift lever is not in neutral position.	Place range shift lever to Neutral.
	Engine throttle lever not pushed forward.	Move throttle to half throttle.
	Fuel shutoff valve CLOSED (OFF).	Open fuel shutoff valve at the water separator.
	Stale fuel/improper fuel/fuel level.	Drain stale or improper fuel and fill to capacity.
	Wrong engine oil viscosity.	Change engine oil and fill with correct viscosity oil for conditions.
	Cold start system not being used, or malfunctioning.	Verify that cold start system is utilized during required temperatures or see your John Deere dealer.
	Plugged fuel filter.	Replace fuel filter.
	Plugged air intake filter.	Clean or replace air filter elements.
	Dirty or faulty fuel injectors.	See your John Deere dealer.
	Blown fuse.	Check and replace any faulty fuses.
<b>Engine Runs Rough Or Stalls.</b>	Clogged fuel tank strainer.	Clean or replace fuel tank strainer in case of any damage.
	Fuel shutoff valve partially closed.	Open fuel shutoff valve at the water separator.
	Plugged fuel filter.	Replace fuel filter.
	Plugged air intake system.	Clean or replace air filter elements.
	Stale or improper fuel/fuel level.	Drain stale or improper fuel and fill to capacity.
	Dirty or faulty fuel injectors.	See your John Deere dealer.
	Low coolant temperature.	See your John Deere dealer.
<b>Engine Overheats.</b>	Fuel pump not functioning properly.	See your John Deere dealer.
	Dirt or debris accumulation on hood screen or radiator fins.	Clean debris and dirt from the front screen and radiator fins.
	Coolant level is below specification.	Add coolant as specified.

## Troubleshooting

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Symptom	Problem	Solution
	Leak in the coolant system.	Check for leaks and repair or see your John Deere dealer.
	Improperly adjusted or broken fan belt.	Tighten or replace fan belt.
	Cooling system needs flushing.	See your John Deere dealer.
	Defective radiator cap.	Replace radiator cap.
	Defective thermostat.	See your John Deere dealer.
	Defective water temperature indicator or sensor.	See your John Deere dealer.
	Loose or defective alternator belt.	Tighten or replace belt.
	Engine speed too low for load. Do not operate at low idle.	Raise engine speed to match load requirements.
	Operating at too fast ground speed for conditions.	Reduce speed to match operating conditions.
<b>Engine Knocks.</b>	Fuel shutoff valve partially closed.	Open fuel shutoff valve at the water separator.
	Plugged fuel filter.	Replace fuel filter.
	Plugged air intake system.	Clean or replace air filter elements.
	Stale or improper fuel/fuel level.	Drain stale or improper fuel and fill to capacity.
	Dirty or faulty fuel injectors.	See your John Deere dealer.
	Low coolant temperature.	See your John Deere dealer.
	Fuel pump not functioning properly.	See your John Deere dealer.
<b>Low Oil Pressure.</b>	Engine oil level low.	Add oil to specification.
	Plugged engine oil filter.	Replace oil filter.
	Improper type of engine oil	Verify correct engine oil. Drain system and fill with the correct oil type.
	Oil leaks.	Check for leaks and repair or see your John Deere dealer.
<b>Engine Uses Too Much Oil.</b>	Oil leaks.	Check for leaks and repair or see your John Deere dealer.

## Troubleshooting

Symptom	Problem	Solution
	Improper type of engine oil.	Verify correct engine oil. Drain system and fill with the correct oil type.
<b>Engine Emits White Smoke.</b>	Stale or improper fuel/fuel level.	Drain stale or improper fuel and fill to capacity.
	Internal coolant leak.	See your John Deere dealer.
<b>Engine Emits Black or Gray Exhaust Smoke.</b>	Stale or improper fuel/fuel level.	Drain stale or improper fuel and fill to capacity.
	Dirty or faulty fuel injectors.	See your John Deere dealer.
	Fuel pump not functioning properly.	See your John Deere dealer.
<b>High Fuel Consumption.</b>	Stale or improper fuel/fuel level.	Drain stale or improper fuel and fill to capacity.
	Dirty or faulty fuel injectors.	See your John Deere dealer.
	Fuel pump not functioning properly.	See your John Deere dealer.
	Operating at too fast ground speed for conditions.	Reduce speed to match operating conditions.
	Improper valve clearance.	See your John Deere dealer.
	Plugged air intake system.	Clean or replace air filter elements.

HY01057,00002FD-19-05JUN18

## Transmission Troubleshooting

Symptom	Probable Cause	Action
<b>Transmission oil overheats.</b>	Low oil supply/level.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.
	Internal hydraulic leakage.	See your authorized John Deere dealer or distributor.
	Hitch feedback linkage improperly adjusted.	Reset linkage. See your authorized John Deere dealer or distributor.
<b>Low transmission pressure.</b>	Hydraulic motor not plumbed correctly.	See your authorized John Deere dealer or distributor.
	Low oil supply/level.	Fill system with correct oil.
<b>Transmission stuck in neutral or it is hard to shift any gear.</b>	Clogged transmission-hydraulic oil filter.	Replace filter.
	Speed shift linkage stuck or rusty.	Clean or lubricate the speed shift lever linkages.

HY01057,00002FE-19-01AUG18

## Hydraulic System Troubleshooting

Symptom	Probable Cause	Action
Entire hydraulic system fails to function.	Low oil supply/level.	Fill system with correct oil.
	Clogged transmission-hydraulic filter.	Replace filter.
	Clogged transmission-hydraulic pickup screen.	Clean pickup screen.
	High-pressure internal leak.	See your authorized John Deere dealer or distributor.
Hydraulic oil overheats.	Low oil supply/level.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.
	Internal hydraulic leak.	See your authorized John Deere dealer or distributor.
	Hitch feedback linkage improperly adjusted.	Reset linkage or see your authorized John Deere dealer or distributor.
	Hydraulic motor not plumbed correctly.	See your authorized John Deere dealer or distributor.

HY01057,00002FF-19-03AUG18

## Brakes Troubleshooting

Symptom	Probable Cause	Action
Pedals do not feel solid.	Pedals adjusted incorrectly.	See your authorized John Deere dealer or distributor.
Excessive pedal travel.	Pedals adjusted incorrectly.	See your authorized John Deere dealer or distributor.
Brakes drag during transport.	Brakes out of adjustment.	See your authorized John Deere dealer or distributor.

HY01057,0000300-19-03AUG18

## Rockshaft and 3-Point Hitch Troubleshooting

Symptom	Probable Cause	Action
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 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.	Transmission-hydraulic pickup screen clogged.	Clean or replace pickup screen.
	Lift links too short.	Adjust lift links.
	Lack of penetration.	See implement operator's manual.
	Improper setting of limit stop.	Reset position limit.
Hitch too responsive.	Front attachment on center link in lower bracket holes.	Move center link attachment to upper bracket holes.
	Improper draft sensing adjustment.	Move lever forward.
Hitch drops too fast.	Rate-of-drop set too fast.	Adjust rate-of-drop.

**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 authorized John Deere dealer or distributor.

HY01057,0000301-19-03AUG18

## Electrical System Troubleshooting

Symptom	Probable Cause	Action
<b>Unable to Charge Battery.</b>	Loose or corroded connections. Sulfated or worn-out battery. Loose or defective alternator/fan belt.	Clean and tighten connections. Check electrolyte level and specific gravity. Adjust belt tension or replace belt.
<b>Battery charge indicator glows with engine running.</b>	Low engine speed.  Defective battery. Defective alternator.	Increase speed.  Check electrolyte level and specific gravity. See your authorized John Deere dealer or distributor.
<b>Starter inoperative.</b>	Slipping alternator/fan belt. Forward-reverse lever not in neutral. PTO lever in engaged position. Low battery output.	Adjust belt tension. Move forward-reverse lever to neutral. Move PTO lever to disengaged position. See your authorized John Deere dealer or distributor.
<b>Starter cranks slowly.</b>	Blown fuse. Low battery output. Crankcase oil too heavy. Loose or corroded connections.	Replace fuse. Check electrolyte level and specific gravity. Use proper viscosity oil. Clean and tighten loose connections.
<b>Light system does not function; rest of the electrical system functions.</b>	Blown fuse.	Replace fuse.
<b>Entire electrical system does not function.</b>	Faulty battery connections. Sulfated or worn-out battery. Blown fuse.	Clean and tighten connections. Check electrolyte level and specific gravity. Replace fuse.
<b>Relays sticking or nonfunctional; repeated failures.</b>	Check & replace the relay.	See your authorized John Deere dealer or distributor.

HY01057,0000302-19-03AUG18

# Tractor Storage

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## Store Safety

**⚠ CAUTION: Avoid injury! Fuel vapors are explosive and flammable. Engine exhaust contains carbon monoxide and can cause serious illness or death:**

- Run the engine only long enough to move the machine to or from storage.
- Do not store vehicle with fuel in the tank inside a building where fumes may reach an open flame or spark.
- Allow the engine to cool before storing the machine in any enclosure.

HY01057,0000316-19-13FEB18

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## Prepare Machine for Storage

1. Repair any worn or damaged parts. Replace parts if necessary. Tighten loose hardware.
2. Repair scratched or chipped metal surfaces to prevent rust.
3. Wash the machine and apply wax to metal and plastic surfaces.
4. Run machine for five minutes to dry belts and pulleys.
5. Apply light coat of engine oil to pivot and wear points to prevent rust.
6. Lubricate grease points.
7. Check tire pressure.

HY01057,0000317-19-24AUG17

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## Prepare Fuel and Engine for Storage

### Fuel:

If you have been using stabilized fuel, add stabilized fuel to the tank until the tank is full.

*NOTE: Filling the fuel tank reduces the amount of air in the fuel tank and helps reduce deterioration of fuel.*

If you are not using stabilized fuel:

1. Park machine safely in a well-ventilated area.

*NOTE: Try to anticipate the last time the machine is used for the season so little fuel is left in the fuel tank.*

2. Turn on engine and allow to run until it runs out of fuel.
3. Turn key to OFF position.

**IMPORTANT: Avoid damage! Stale fuel can produce varnish and plug injector components and affect engine performance.**

- Add fuel conditioner or stabilizer to fresh fuel before filling tank.

4. Mix fresh fuel and fuel stabilizer in a separate container. Follow stabilizer instructions for mixing.
5. Fill fuel tank with stabilized fuel.
6. Run engine for a few minutes to allow fuel mixture to circulate through the fuel system.
7. Turn key to OFF position.

### Engine:

Use engine storage procedure when vehicle is not to be used for longer than 60 days.

1. Change engine oil and filter while engine is warm.
2. Service air filter if necessary.
3. Clean debris from the air intake screen.
4. Clean the engine and engine compartment.
5. Remove the battery.
6. Clean the battery and battery posts.
7. Close fuel shutoff valve, if your machine is equipped with one.
8. Store the battery in a cool, dry place to avoid freezing.

*NOTE: Recharge the stored battery every 90 days.*

9. Charge the battery.
10. Store the vehicle in a dry, protected place. If vehicle is stored outside, put a waterproof cover over it.

HY01057,0000318-19-13FEB18

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## Remove Machine from Storage

1. Check tire pressure.
2. Check engine oil level.
3. Charge battery if necessary.
4. Install battery.
5. Lubricate all grease points.
6. Open fuel shutoff valve, if your machine is equipped with one.
7. Run the engine 5 minutes without any attachments running to allow oil to be distributed throughout engine.

8. Be sure all shields and guards or deflectors are in place.

HY01057,0000319-19-13FEB18

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## Paint Finish Care

Washing tractor regularly will preserve the finish. Wash tractor in indirect sunlight. All cleaning agents should be flushed promptly and not allowed to dry on the paint surface.

**IMPORTANT: Do not use hot water, strong soaps or chemical detergents. Use liquid hand, dish or car washing (non detergent) soaps. Cleaning agents containing acid or abrasives should not be used.**

Waxing tractor occasionally may be necessary to remove residue from paint finish. Do not use waxes containing abrasive compounds.

Inspect paint surface, during washing or waxing, for chips and scratches. Repaint any areas where paint has been removed. Paint materials are available from your John Deere dealer.

AG,RX15494,1914-19-06SEP99

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# Specification

## General Specifications

Tractor Model		3025D	3035D	3043D
<b>Engine &amp; Engine Auxiliary</b>				
Engine		Yanmar - 3TNV88F-EPJT	Yanmar - 3TNV88C-KJPT	Yanmar - 3TNV86CT-KJPT
Emission		FT4	FT4	FT4
Engine Type		4 Cycle, Inline, Water-Cooled Diesel	4 Cycle, Inline, Water-Cooled Diesel	4 Cycle, Inline, Water-Cooled Diesel
Aspiration		Natural Aspirated	Natural Aspirated	Turbo Charged
Combustion Type		Direct Injection		
Engine Torque @ Rated RPM		87.8 N·m	105 N·m	127 N·m
Cylinders		3		
Displacement		1.64 L	1.64 L	1.64 L
Compression Ratio		19:1		
Firing Order		1 - 3 - 2		
Engine RPM	Rated	2400	2800	2800
	High Idle	2550	2950	2950
	Low Idle	1200	950	950
Engines Power (Gross)		18.2 kW/24.4 HP/24.7 PS	25.5 kW/34.2 HP/34.7 PS	31.0 kW/41.6 HP/42.2 PS
Air Cleaner		Dry		
<b>PTO</b>				
Engine Power (at PTO)		80% of Engine (Gross) Power		
Rear PTO Speed		540 PTO rpm @ 2400 Engine rpm	540 PTO rpm @ 2800 Engine rpm	
No Of Splines		6		
<b>Hydraulic System - 2100 Engine rpm</b>				
System Type (Open/Closed Center)		Open center system		
Pump Type (Dual/Single Gear)		Two single section external gear pump mounted either side of engine TG cover		
Gear Ratio (Engine/Transmission Input To Pump)		0.9		
Pump with a drive ratio		0.9:1		
<b>Tractor Performance</b>				
PTO Power		15.4 kw / 20.7 hp / 20.9 ps	22.6 kw / 30.4 hp / 30.8 ps	27.1 kw / 36.3 hp / 36.8 ps
<b>Electrical</b>				
Battery		12 V, CCA-600		
Alternator		12 V, 55 A		
Cold Start Aid		Yes		
Hazard Flasher Module		Yes		
Operator Alert On Instrument Cluster		No		
<b>Transmission</b>				
Clutch type		Single Dry traction Clutch		
Gear Shift		Collar / Slide 'H' Pattern		
Range Shift		Collar shift		
MFWD Shift		Collar shift		
Reverser		Synchro, Mechanical		
No. of forward gears		8		
No. of reverse gears		8		
<b>Brakes</b>				
Type		Wet Disc Brakes		
Actuation		Mechanical		
<b>Hydraulics</b>				
Pump output - Hydraulic		18.1 L/min		
Pump output - Steering		13.6 L/min		
Tractor Model		3025D	3035D	3043D
<b>Filling Capacities</b>				

## Specification

Fuel Tank	38 L		
Engine Oil	4.3 L		
Transmission And Hydraulics	35 L		
Front Axle	3.8 L		
Coolant (Overall)	5 L	5.5 L	5.5 L
<b>Loader</b>			
Loader Type	D160		
<b>Front Axle and Steering</b>			
MFWD	Yes		
Steering	Power		
Steering Pump output ,lpm @ rated engine speed	13.6		
<b>Implement Lift</b>			
Position / Draft Control	Only Position control		
Number of SCV's	1. Loader Mast Mounted SCV - Optional 2. 4th / 5th SCV - Optional 3. No SCV - Standard		
Lift Capacity @ Hitch Ball	750		
Hitch Pump output, lpm @ rated engine speed	18.1	18.1	18.8
<b>Wheel &amp; Tires</b>			
Front, MFWD	7.00 - 14 6PR 27 x 8.50 - 15 4PR 25 x 8.50 - 14 4PR		
Rear, MFWD	11.2 - 24 4PR 41 x 14.00 - 20 4PR 15.00 -19.5 4PR		
Rear Wheel Fixing Arrangements	8 Bolts		

DP97633,00003A8-19-04DEC19

## Ballast Recommendations

<b>Ballast</b>		
<b>Specification</b>	<b>Unit</b>	<b>3025D, 3035D, and 3043D</b>
Ballast Requirements	—	Yes (Optional)
Front Axle Ballast (Base weight + QT weights)	kg	Optional
Front Ballast	kg	13.5 + (64/128/192/256/320) kg (1 Mtg Bkt + 2, 4, 6, 8, 10 nos. of weights option)
Rear Ballast	kg	90 kg (20+20 both side, 25+25 both side option)

DP97633,0000252-19-03AUG18

## Specification

### Machine Dimension

NOTE: R1: For Region 1 ; R3: For Region 3 ; R4: For Region 4

Machine Dimension					
Specification / Unit		3025D	3035D	3043D	
Wheelbase (mm)		1590	1590	1590	
Front Tread Range with incremental steps (mm)		1085 (R4) 1058 (R3) 1060 (R1)	1085 (R4) 1058 (R3) 1060 (R1)	1085 (R4) 1058 (R3) 1060 (R1)	
Rear Tread Range with incremental steps (mm)		1150 (R4) 1120 (R3) 1100 (R1)	1150 (R4) 1120 (R3) 1100 (R1)	1150 (R4) 1120 (R3) 1100 (R1)	
Tractor Weight (kg)	Unballasted Operating Weight	1355	1436	1436	
	Weight Distribution	35:65	35:65	35:65	
	Maximum Ballasted Weight	2100	2100	2100	
Total Length (mm)		2825	2825	2825	
Total Width (mm)		1456 (at 1130 rear tread)	1456 (at 1130 rear tread)	1456 (at 1130 rear tread)	
Total Height at Stg. Wheel (mm)		1508	1508	1508	
Turning Radius (with brakes-inner radius-clockwise) (m)		2.1	2.1	2.1	
Ground Clearance under drain plug transmission (mm)		330	330	330	

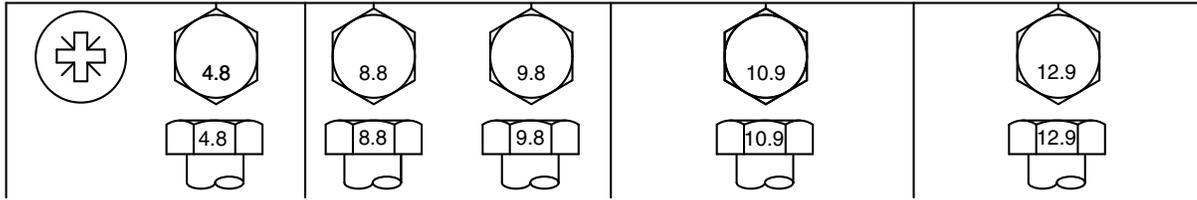
DP97633,0000253-19-03AUG18

### Ground Speed at Rated Engine Speed

Ground Speeds (km/hr, @ 15 x 19.5 rear tire)				
Gear	3025D	3035D	3043D	
A1	1.5	1.7	1.7	
A2	1.9	2.2	2.2	
A3	3.7	4.4	4.4	
A4	4.9	5.7	5.7	
B1	5.3	6.2	6.2	
B2	7.0	8.2	8.2	
B3	13.6	15.8	15.8	
B4	17.8	20.8	20.8	
RA1	1.5	1.8	1.8	
RA2	2.0	2.3	2.3	
RA3	3.9	4.5	4.5	
RA4	5.1	6.0	6.0	
RB1	5.5	6.4	6.4	
RB2	7.3	8.5	8.5	
RB3	14.1	16.5	16.5	
RB4	18.6	21.8	21.8	

SB57389,00004BD-19-03MAY18

## Metric Bolt and Screw Torque Values



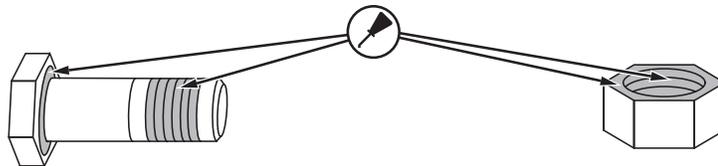
TS1742—UN—31MAY18

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head <sup>a</sup>		Flange Head <sup>b</sup>		Hex Head <sup>a</sup>		Flange Head <sup>b</sup>		Hex Head <sup>a</sup>		Flange Head <sup>b</sup>		Hex Head <sup>a</sup>		Flange Head <sup>b</sup>	
	N·m	lb·in	N·m	lb·in												
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



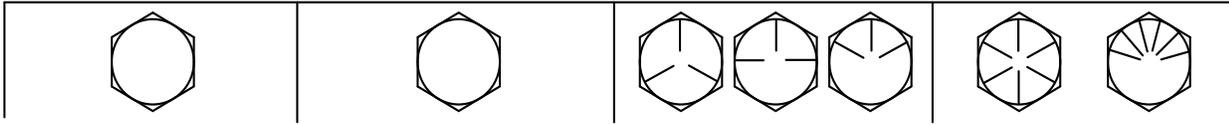
TS1741—UN—22MAY18

<sup>a</sup>Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.

<sup>b</sup>Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ2-19-30MAY18

Unified Inch Bolt and Screw Torque Values



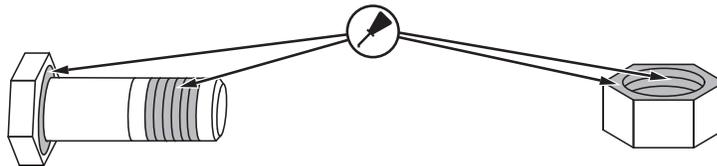
TS1671—UN—01MAY03

Bolt or Screw Size	SAE Grade 1 <sup>a</sup>				SAE Grade 2 <sup>b</sup>				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head <sup>c</sup>		Flange Head <sup>d</sup>		Hex Head <sup>c</sup>		Flange Head <sup>d</sup>		Hex Head <sup>c</sup>		Flange Head <sup>d</sup>		Hex Head <sup>c</sup>		Flange Head <sup>d</sup>	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
1/4	3.1	27.3	3.2	28.4	5.1	45.5	5.3	47.3	7.9	70.2	8.3	73.1	11.2	99.2	11.6	103
													N·m	lb·ft	N·m	lb·ft
5/16	6.1	54.1	6.5	57.7	10.2	90.2	10.9	96.2	15.7	139	16.8	149	22.2	16.4	23.7	17.5
									N·m	lb·ft	N·m	lb·ft				
3/8	10.5	93.6	11.5	102	17.6	156	19.2	170	27.3	20.1	29.7	21.9	38.5	28.4	41.9	30.9
					N·m	lb·ft	N·m	lb·ft								
7/16	16.7	148	18.4	163	27.8	20.5	30.6	22.6	43	31.7	47.3	34.9	60.6	44.7	66.8	49.3
	N·m	lb·ft	N·m	lb·ft												
1/2	25.9	19.1	28.2	20.8	43.1	31.8	47	34.7	66.6	49.1	72.8	53.7	94	69.3	103	75.8
9/16	36.7	27.1	40.5	29.9	61.1	45.1	67.5	49.8	94.6	69.8	104	77	134	98.5	148	109
5/8	51	37.6	55.9	41.2	85	62.7	93.1	68.7	131	96.9	144	106	186	137	203	150
3/4	89.5	66	98	72.3	149	110	164	121	230	170	252	186	325	240	357	263
7/8	144	106	157	116	144	106	157	116	370	273	405	299	522	385	572	422
1	216	159	236	174	216	159	236	174	556	410	609	449	785	579	860	634
1-1/8	305	225	335	247	305	225	335	247	685	505	751	554	1110	819	1218	898
1-1/4	427	315	469	346	427	315	469	346	957	706	1051	775	1552	1145	1703	1256
1-3/8	564	416	618	456	564	416	618	456	1264	932	1386	1022	2050	1512	2248	1658
1-1/2	743	548	815	601	743	548	815	601	1665	1228	1826	1347	2699	1991	2962	2185

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



TS1741—UN—22MAY18

<sup>a</sup>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.

<sup>b</sup>Grade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.

<sup>c</sup>Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.

<sup>d</sup>Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

**Applications**

	Loader	Box Blade	Plow/Ripper	Angle Blade	Front Blade	Towing	Tiller	Rotary Cutter	S/Blower	Aerator	Trencher	Transport
<b>SCV</b>	Y	N	N	N	Y	N	N	N	N	N	N	N
<b>Rear PTO</b>	N	N	N	N	N	N	Y	Y	Y	N	N	N
<b>Mounting</b>	F	R	R	R	F	R	R	R	R	F	R	Not Applicable

NM61126,000053F-19-27DEC17

# Identification Numbers

## Identification Plates

Each tractor has the identification plates shown on these pages. The letters and numbers stamped on the identification plate has the following information:

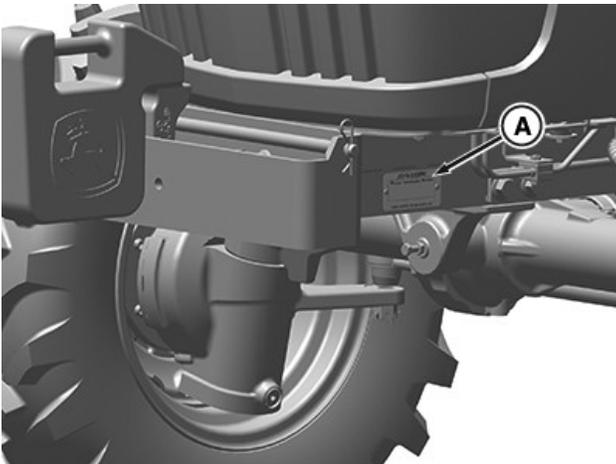
- Chassis Identification Number
- Front Axle Serial Number
- Engine Serial Number.
- Transmission Serial Number
- ROPS Certificate and Serial Number

All of these characters are needed when ordering parts or identifying a component. They are also needed for law enforcement to trace the machine if it is ever stolen.

Accurately record these characters in the spaces provided and have available when contacting your John Deere dealer.

HY01057,0000303-19-17JAN18

## Record Chassis Identification Number



PY49650—UN—14NOV17

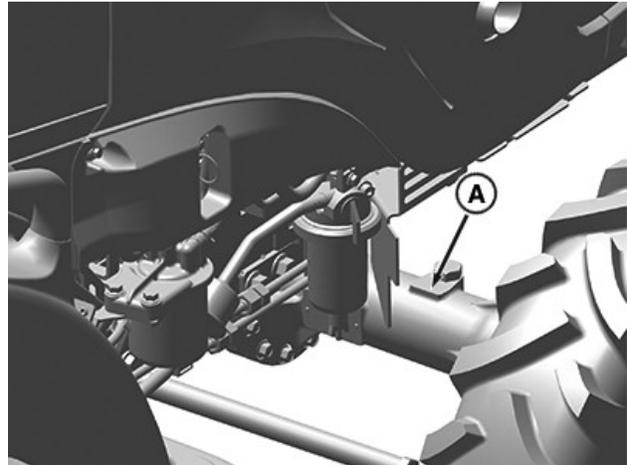
### A—Chassis Identification Number Plate

Chassis identification number plate (A) is located on the left-hand side of the front support.

Chassis Identification Number \_\_\_\_\_

DP97633,000004F-19-27DEC17

## Record Front Axle Serial Number



PY49651—UN—14NOV17

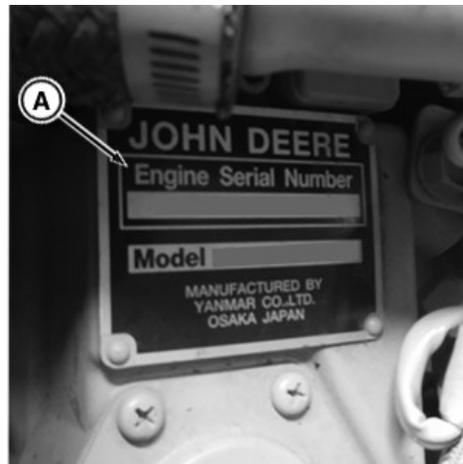
### A—Front Axle Serial Number

The front axle serial number (A) is located on right-hand side of the front axle housing.

Front Axle Serial Number \_\_\_\_\_

DP97633,0000050-19-27DEC17

## Record Engine Serial Number



APY02474—UN—19FEB18

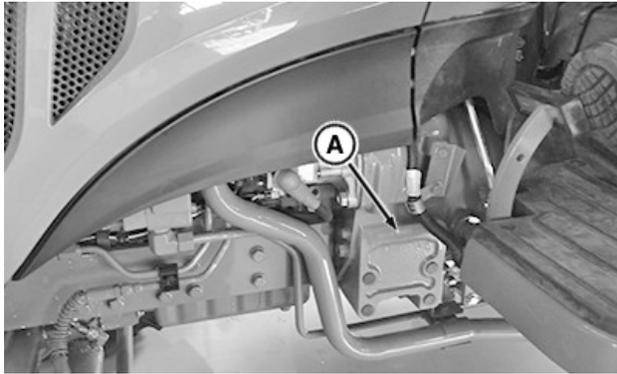
### A—Engine Serial Number Plate

Engine Serial number plate (A) is located on top of the engine cover.

Engine Serial Number \_\_\_\_\_

DP97633,0000035-19-19FEB18

## Record Transmission Serial Number



PY22436—UN—31DEC14

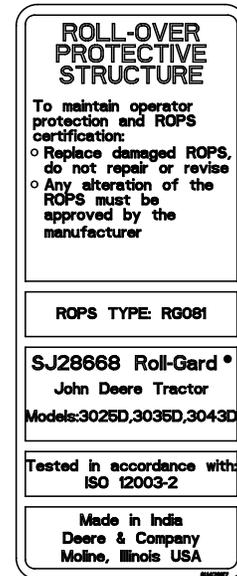
Transmission Serial number

### A—Transmission Serial Number

Transmission serial number (A) is stamped on the lower left-hand corner of the front transmission case.

Transmission Serial Number \_\_\_\_\_

HY01057.0000307-19-27DEC17



APY02465—19—13FEB18

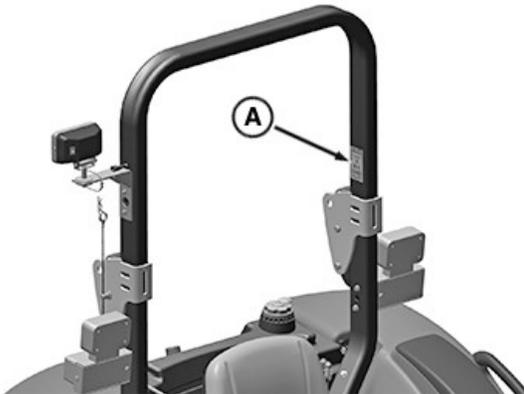
P/N: SU47657

### A—ROPS Certification Label

SJ15074.0000489-19-27JUL18

## ROPS Certification Label

ROPS certification label (A) is located below dual rear SCV line bracket as shown in graphic.



APY07683—UN—27JUL18

ROPS Certificate Location

## Keep Proof of Ownership

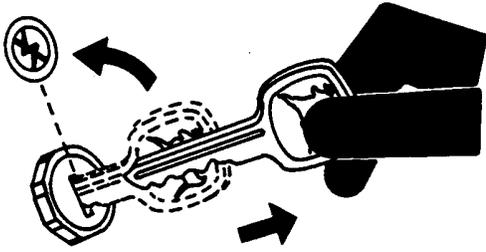


PY23083—UN—10FEB15

1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
  - Mark your machine with your own numbering system
  - Take color photographs from several angles of each machine

MD36154.0000311-19-21DEC17

## Keep Machines Secure



TS230—UN—24MAY89

1. Install vandal-proof devices.
2. When machine is in storage:
  - Lower equipment to the ground
  - Set wheels to widest position to make loading more difficult
  - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.
6. Notify your John Deere dealer of any losses.

DX, SECURE2-19-18NOV03

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# Lubrication Maintenance Record Charts

**Service—After Initial 10 Hours of Operation  
Service Chart**

- Check Wheel Nut Torque

Perform the following maintenance After Initial 10 hours of operation.

Hours					Hours				
Date					Date				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

DP97633,00001D9-19-31MAY18

**Service—Every 10 Hours of Operation  
Service Chart**

- Check Transmission-Hydraulic Oil Level
- Test Safety Systems
- Check Coolant Level
- Check and Clean Grille and Side Screens

Perform the following maintenance Every 10 hours of operation.

- Check Engine Oil Level

Hours					Hours				
Date					Date				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

**Every 50 Hours of Operation Service Chart**

Perform the following procedures after every 50 hours of operation.

- Lubricate Machine
- Check and Adjust Brake Pedal Free Play
- Check MFWD Axle Oil Level

- Clutch Pedal Free Play Adjustment

Hours					Hours				
Date					Date				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

**Every 200 Hours of Operation Service Chart**

Perform the following maintenance after every 200 hours of operation.

- Check Wheel Nut Torque
- Check MFWD Axle Front Trunion Thrust Bolt Torque

- Check and Adjust Cooling Fan V-Belt

Hours					Hours				
Date					Date				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

*Lubrication Maintenance Record Charts*

Date					Date				
Hours					Hours				
Date					Date				

DP97633,00001D3-19-31MAY18

**Every 400 Hours of Operation Service Chart**

Perform the following maintenance after every 400 hours of operation.

- Replace Fuel Filter

- Change Transmission-Hydraulic Oil Filter
- Replace Engine Oil and Engine Oil Filter
- Drain Fuel Tank

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
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Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

DP97633,00001D5-19-31MAY18

**Every 600 Hours of Operation Service Chart**

Perform the following maintenance after every 600 hours of operation.

- Change MFWD Axle Oil

- Check Tightness of Hoses & Clamps (Fuel, Air & Cooling System)
- Service Air Filter Elements

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				
Hours					Hours				



*Lubrication Maintenance Record Charts*

Date					Date				
Hours					Hours				
Date					Date				

DP97633.00001C8-19-27JUN18

**Every 1200 Hours of Operation Service Chart**

- Change Transmission-Hydraulic Oil and Filter
- Adjust Intake and Exhaust Valve Clearance

Perform the following maintenance after every 1200 hours of operation.

Hours					Hours				
Date					Date				
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DP97633.00001C9-19-30MAY18

**Every 2000 Hours of Operation Service Chart**

- Flush Cooling System
- Refill Cooling System with New Coolant
- Inspect, Clean and Test Fuel Injectors, if necessary

Perform the following maintenance after every 2000 hours of operation.

- Drain Cooling System

Hours					Hours				
Date					Date				
Hours					Hours				
Date					Date				

*Lubrication Maintenance Record Charts*

Hours					Hours				
Date					Date				
Hours					Hours				
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Hours					Hours				
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DP97633,00001D6-19-31MAY18

**Every 6000 Hours of Operation Service Chart**

Perform the following maintenance after every 6000 hours of operation.

- Drain Cooling System
- Flush Cooling System
- Refill Cooling System with New Coolant

Hours					Hours				
Date					Date				
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**Service—As Required Chart**

Perform the following maintenance as and when required.

- Clean Radiator Screen
- Replace Headlight Bulb
- Replace Tail/Turn Light Bulb
- Replace Warning Light Bulb
- Replace Work Lamp Bulb
- Replace Fuses
- Service Battery
- Drain Water Separator
- Inspect Tires
- Check and Adjust Front Wheel Toe-in

Hours					Hours				
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# John Deere Service

## John Deere Parts



TS100—UN—23AUG88

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.

DX,IBC,A-19-04JUN90

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!

DX,IBC,C-19-04JUN90

## Prompt Service



TS103—UN—23AUG88

Our goal is to provide prompt, efficient care when you want it and where you want it.

We can make repairs at your place or at ours, depending on the circumstances: see us, depend on us.

**JOHN DEERE SERVICE SUPERIORITY:** We'll be around when you need us.

DX,IBC,D-19-04JUN90

## The Right Tools



TS101—UN—23AUG88

Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.

DX,IBC,B-19-04JUN90

## Well-Trained Technicians



TS102—UN—23AUG88



