5225, 5325, 5425, 5525 and 5625 Tractors

OPERATOR'S GUIDE

5225, 5325, 5425, 5525 and 5625 Tractors

OMRE260579 ISSUE I0 (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 Augusta Works
PRINTED IN U.S.A.

Introduction

Foreword

READ THIS OPERATOR'S MANUAL carefully to learn how to operate 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 OPERATOR'S MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

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

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

WRITE PRODUCT IDENTIFICATION NUMBERS (P.I.N.) in the 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.

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

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

THE TIRE MANUFACTURER'S warranty supplied with your machine may not apply outside the U.S.

Supplemental Information

Additional information for your tractor is available on the Internet at **www.JohnDeere.com/Tips**.

OUO1023,00027BC -19-23JAN09-1/1

Identification Views

LV09156 —UN—12NOV04

Straddle Mount

LV09177 —UN—12NOV04

Isolated Open Operator Station (IOOS)

LV09222 —UN—23JUL04

Cab

LV9486 —UN—29JUL04

Hi-Crop (5525 Only)

NOTE: Isolated Open Operator Station is abbreviated as IOOS throughout this manual.

OUMX005,00018A6 -19-14SEP06-1/1

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Continued on next page

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

Continued on next page

Page

Recognize Safety Information

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

Follow recommended precautions and safe operating practices.

T81389 —UN—28JUN13

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

Understand Signal Words

TS187 —19—30SEP88

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

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

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

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

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

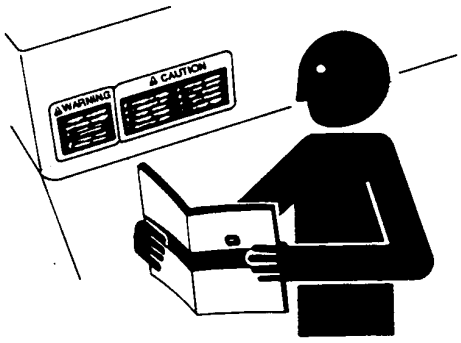
Follow Safety Instructions

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

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

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

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



TS201 —UN—15APR13

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

DX,READ -19-16JUN09-1/1

Prevent Machine Runaway

Avoid possible injury or death from machinery runaway.

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

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

TS177 —UN—11JAN89

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

Use Seat Belt Properly

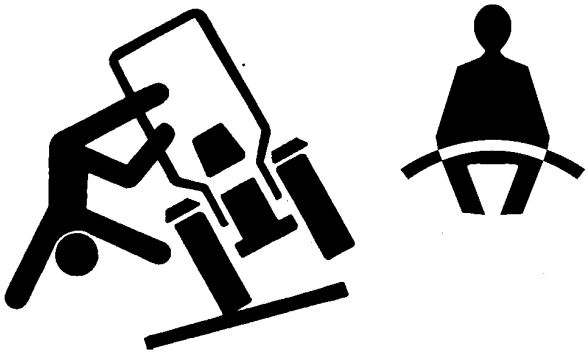
Avoid crushing injury or death during rollover.

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

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

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

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



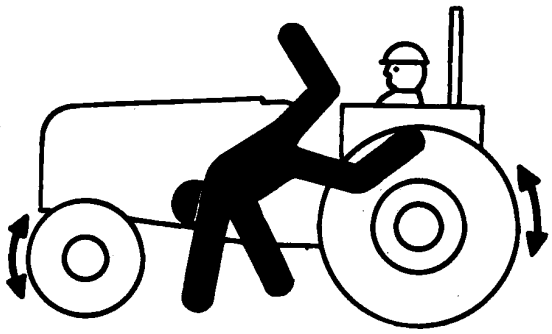
TS1729 —UN—24MAY13

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

Keep Riders Off Machine

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

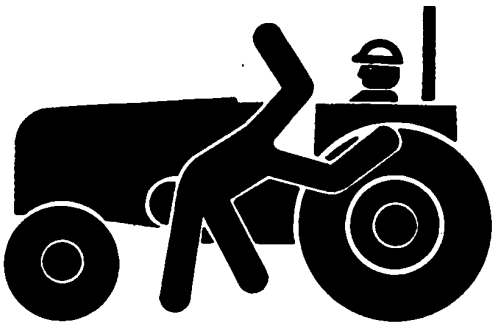
Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.



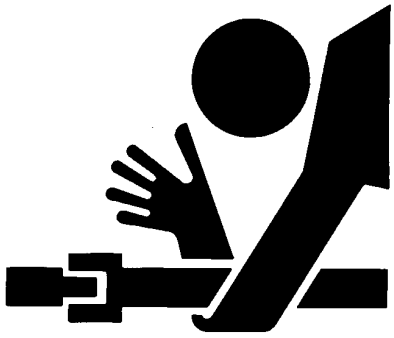
TS290 —UN—23AUG88

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

Operating the Tractor Safely



TS213 —UN—23AUG88



TS276 —UN—23AUG88

Careless use of the tractor can result in unnecessary accidents. Be alert to hazards of tractor operation. Understand causes of accidents and take every precaution to avoid them. Most common accidents are caused from:

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

Avoid accidents by taking the following precautions:

- Put transmission in PARK before dismounting. Leaving transmission in gear with engine off will NOT prevent the tractor from moving.
- Be sure everyone is clear of tractor and attached equipment before starting engine.
- Never try to get on or off a moving tractor.
- When tractor is left unattended, place in PARK, lower implements to the ground, stop the engine, and remove the key.
- Never go near an operating PTO or an operating implement.
- Always fasten your seat belt in a ROPS equipped tractor.

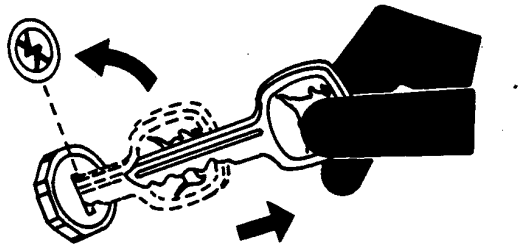
OUO1023,000289D -19-13APR06-1/1

Stopping and Parking Tractor

Tractor roll-over, collisions, runaway tractors, and people being crushed under machines and implements can happen when operators ignore safety.

To avoid these accidents, take some precautions:

- Signal before stopping, turning, or slowing down on public roads
- Move to side of road before stopping
- Slow down before braking
- Pump brakes when stopping on slippery surfaces
- Be careful when towing and stopping heavy loads
- Shift to PARK or apply parking brake
- Lower all equipment when leaving tractor
- Shut off all SCVs
- Disengage PTO



TS230 —UN—24MAY89

- Remove key

AG,RX15494,2943 -19-08NOV07-1/1

Use Caution on Hillsides

- To improve braking on sloped, icy, wet or graveled surfaces, engage the MFWD. Add ballast to the tractor and travel at a reduced speed to avoid skidding and loss of steering control.
- Hitch towed loads only to drawbar. When using a chain, take up the slack slowly.
- Shift to a low gear before descending a steep hill to improve your control with little or no braking.
- Use engine braking to reduce speed before applying tractor brakes.
- Avoid holes, ditches, and obstructions that could cause the tractor to over turn.
- Avoid sharp, uphill turns.
- Drive up and down a hill—not across.
- Avoid starting, stopping or turning on a slope. If the tires lose traction, disengage PTO and proceed slowly, straight down the slope.
- Back out of a ditch or steep slop, if possible. Drive forward from such situations could cause the tractor to tip over rearward.

RW13093 —UN—07DEC88

TS216 —UN—23AUG88

OUO1023,00027FD -19-14MAR06-1/1

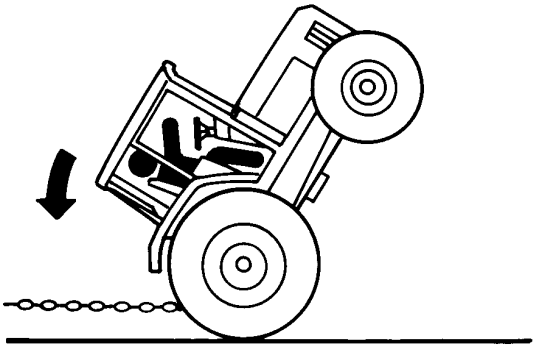
Freeing a Mired Machine

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

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

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

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



TS1645 —UN—15SEP95

TS263 —UN—23AUG88

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

Handle Fuel Safely—Avoid Fires

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

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

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

Use only an approved fuel container for transporting flammable liquids.

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

TS202 —UN—23AUG88

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

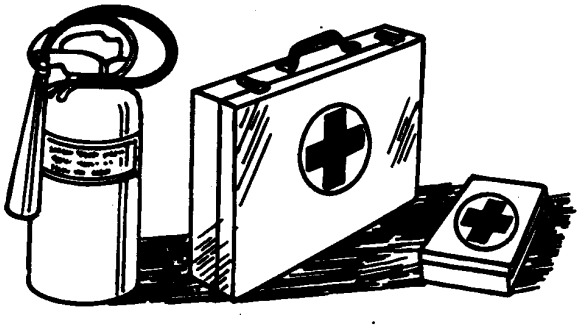
DX,FIRE1 -19-12OCT11-1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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



TS291 —UN—15APR13

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

Handle Starting Fluid Safely

Starting fluid is highly flammable.

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

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

Do not incinerate or puncture a starting fluid container.

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

TS1356 —UN—18MAR92

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

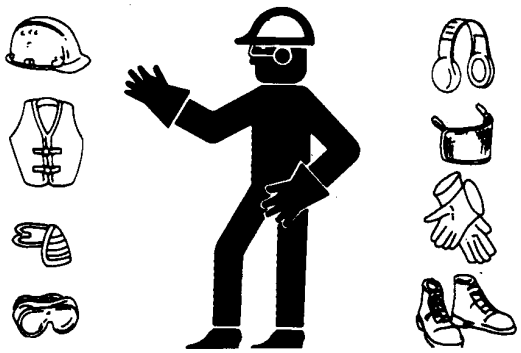
Wear Protective Clothing

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

Prolonged exposure to loud noise can cause impairment or loss of hearing.

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

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



TS206 —UN—15APR13

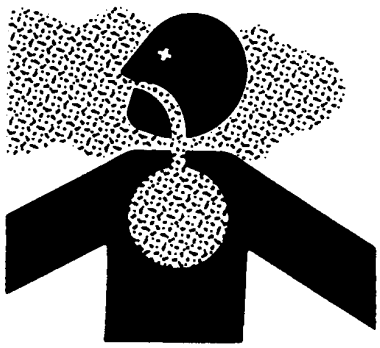
DX,WEAR -19-10SEP90-1/1

Avoid Contact with Agricultural Chemicals

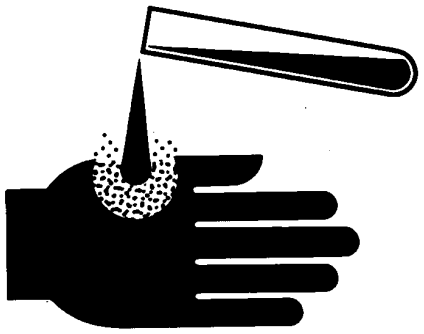
This enclosed cab does not protect against inhaling vapor, aerosol or dust. If pesticide use instructions require respiratory protection, wear an appropriate respirator inside the cab.

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

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



TS220 —UN—15APR13



TS272 —UN—23AUG88

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

Do Not Use Starting Fluid

DO NOT use starting fluid in tractors equipped with a starting aid.

5225 and 5325 Tractors are equipped with glow plugs as a standard equipment starting aid.

5425, 5525 and 5625 Tractors can be equipped with an optional intake air heater system. An electric heating element warms the intake air.

LV611 —UN—22APR94

OUMX005,000199A -19-15SEP06-1/1

Prevent Acid Burns

Sulfuric acid in 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:

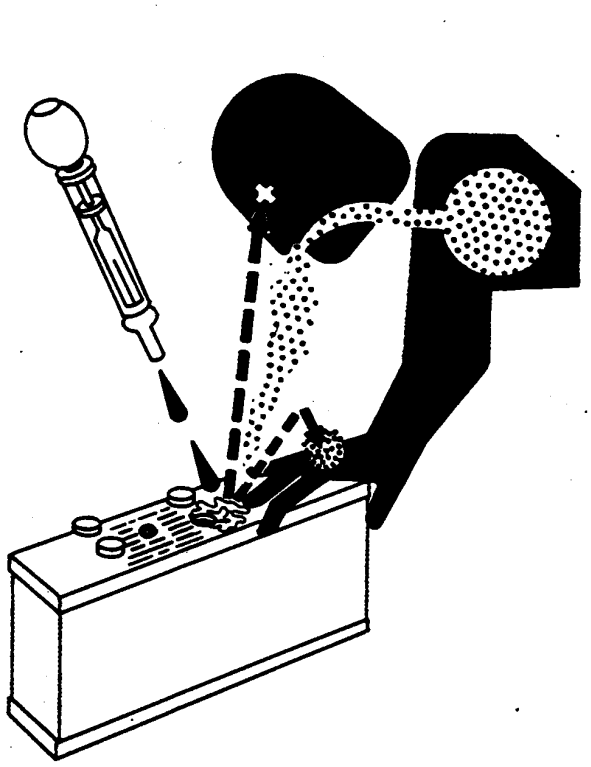
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

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.



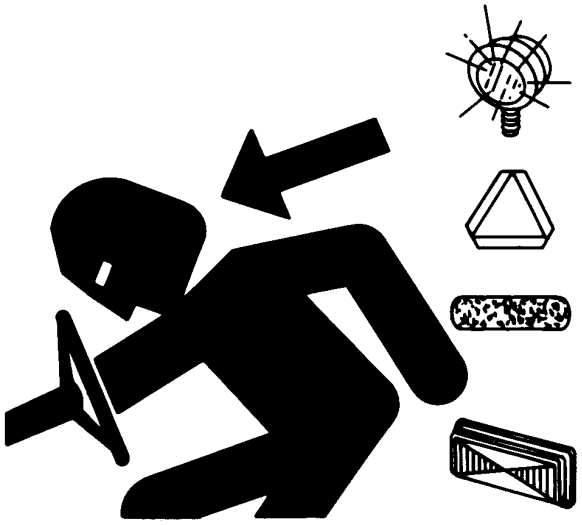
TS203 —UN—23AUG88

DX,POISON -19-21APR93-1/1

Use Safety Lights and Devices

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

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



TS951 —UN—12APR90

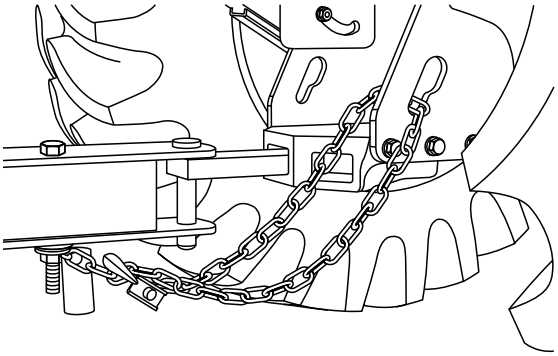
DX,FLASH -19-07JUL99-1/1

Use a Safety Chain

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

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

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



LV12791 —UN—08MAR06

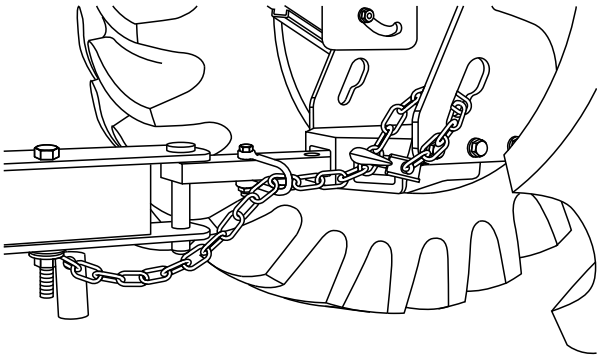
Safety Chain with Draw Bar Retracted

OUO1023,00029BE -19-17OCT06-1/2

Draw Bar Extended

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.



LV12795 —UN—20SEP06

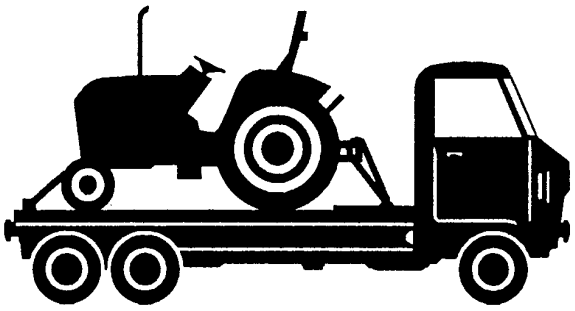
Safety Chain with Draw Bar Extended

OUO1023,00029BE -19-17OCT06-2/2

Transporting on Carrier

The best method of transporting a disabled tractor is to haul it on a flatbed carrier:

- Chain tractor to carrier securely. DO NOT chain around mechanical front wheel-drive (MFWD) shaft or axle housing. Drive carrier slowly.
- Seal exhaust to prevent dirt from entering and damaging engine and/or turbocharger.



LV610 —UN—22APR94

OUO1023,000289E -19-13APR06-1/1

Store Attachments Safely

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

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

TS219 —UN—23AUG88

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

Transport Towed Equipment at Safe Speeds

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

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

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

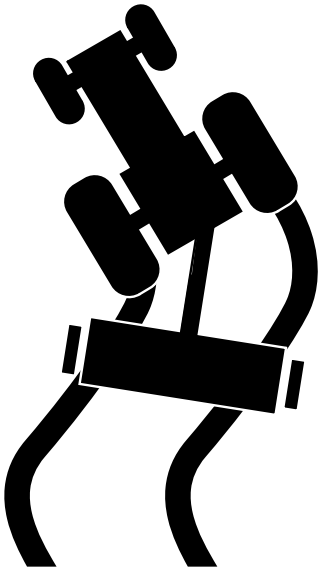
Implements shall be equipped with brakes if the maximum fully loaded weight is greater than 1500 kg (3307 lbs) and greater than 1.5 times the weight of the towing unit.

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

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

Implements with brakes:

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



TS1686 —UN—27SEP06

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

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

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

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

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

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

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

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

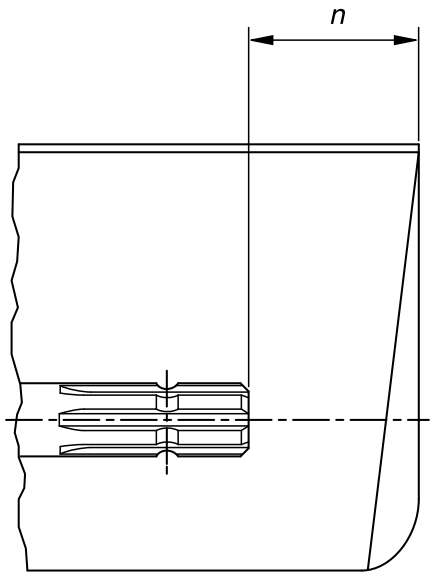
Do not install any adapter device that results in a portion of the rotating implement shaft, tractor shaft, or the adapter to be unguarded. The tractor master shield shall overlap the end of the splined shaft and the added adaptor device as outlined in the table.

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

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

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

TS1644 —UN—22AUG95



H96219 —UN—29APR10

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

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

Practice Safe Maintenance

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

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

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

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

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

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

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

TS218 —UN—23AUG88

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

Replace Damaged or Missing Safety Signs

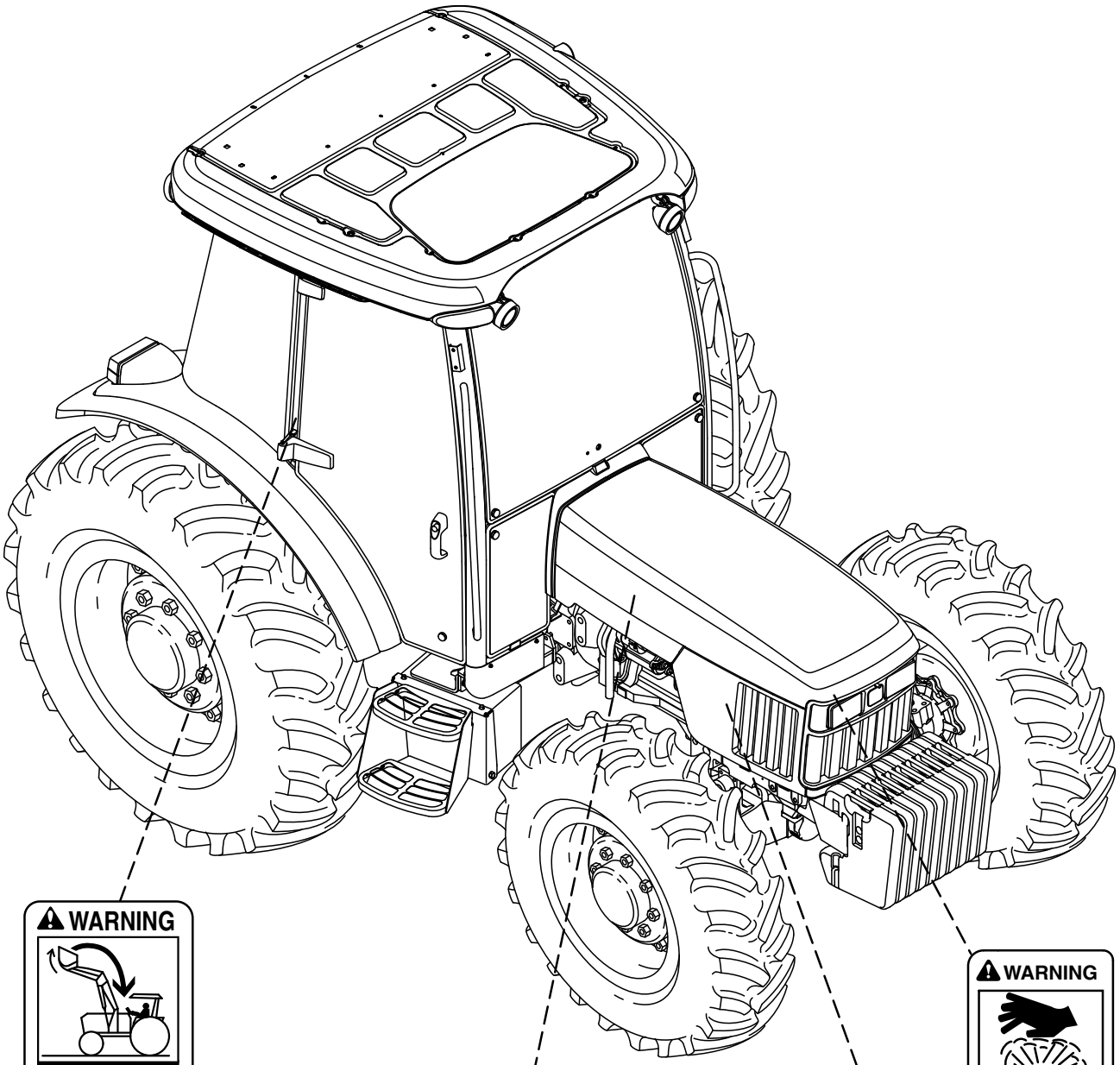
IMPORTANT: Install new safety signs if old signs are damaged, lost or cannot be read. Install a new safety sign when replacing any part that previously had a safety sign.

Keep safety signs clean and in good condition. Replacement signs are available from your John Deere dealer.

TS231 —19—07OCT88

OUMX005,00015FD -19-23APR03-1/1

Safety Signs



WARNING

AVOID INJURY OR DEATH CAUSED BY FALLING LOADS

When using loader ALWAYS put SCV selector knobs in loader position.

If you do not, loader will continue to move after controls are released.

See operator's manual for use of other knob positions.

CAB

CAUTION

Pressurized refrigerant may penetrate eyes or cause burns. Wear goggles and protect skin.

CAB ONLY

DANGER

Start only from seat in park or neutral.

Starting in gear kills.

4-CYLINDER

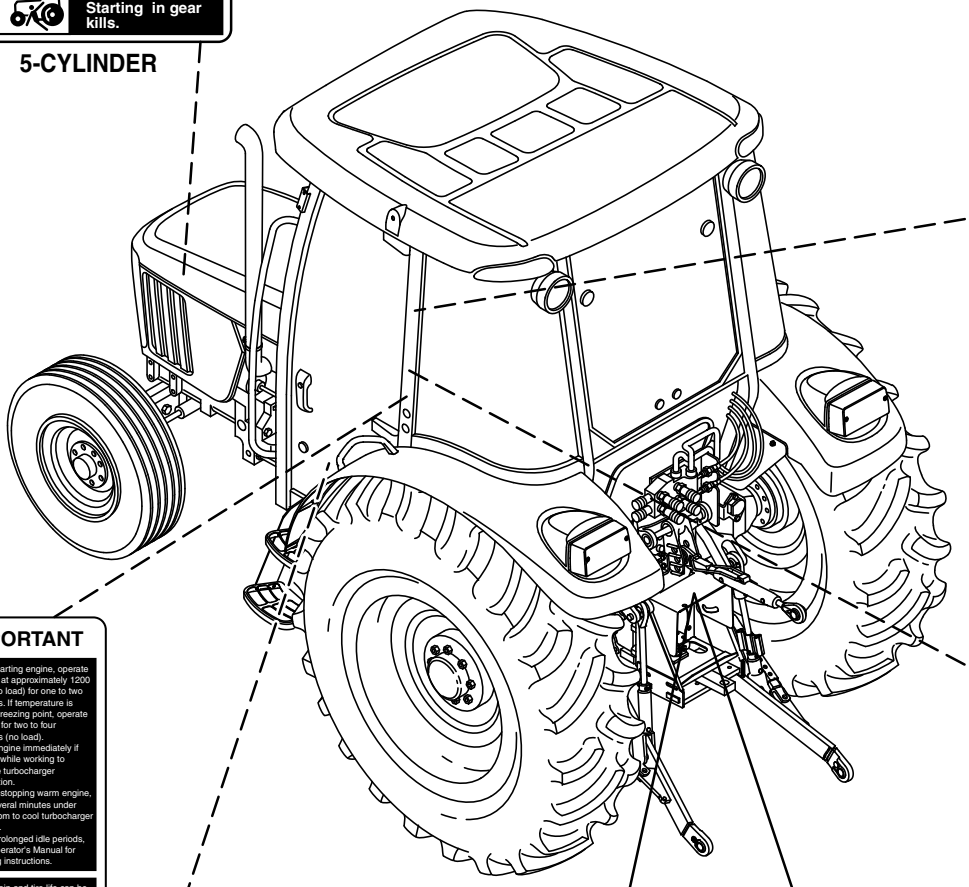
WARNING

Pressurized cooling system.
To prevent burn injury due to uncontrolled release of steam and hot coolant:
1. Wait until radiator has cooled to the touch.
2. Remove radiator cap slowly.

LV12455 —19—26SEP06

Continued on next page

OUO1023,0002811 -19-20SEP06-1/3



DANGER

Start only from seat in park or neutral.

Starting in gear kills.

5-CYLINDER

WARNING

Avoid serious injury or death resulting from loss of control during transport or braking of a towed implement.

This tractor is capable of operating at transport speeds that may exceed the maximum allowable transport speed for towed implements. If implement manufacturer does not specify maximum transport speed, observe these transport speed limits:

-Implements without brakes: 32 km/h (20 mph)
-Implements with brakes: 40 km/h (25 mph)

Do not exceed the implement's maximum transport speed.

WARNING

AVOID CRUSHING:
- Do not jump if machine tips.

USE SEAT BELT

- Pull belt fully from retractors and adjust for best protection.

To maintain unimpaired operator protection and manutacturer's ROPS certification:
- Damaged ROPS structures must be replaced, not repaired or revised.
- Any alteration to the ROPS must be approved by the manufacturer.

IMPORTANT

1. After starting engine, operate engine at approximately 1200 rmp (no load) for one to two minutes. If temperature is below freezing point, operate engine for two to four minutes (no load).
2. Start engine immediately if stalled while working to provide turbocharger lubrication.
3. Before stopping warm engine, idle several minutes under 1000 rpm to cool turbocharger turbine.
4. After prolonged idle periods, see Operator's Manual for starting instructions.

1. Drive train and tire life can be extended by avoiding high loads at travel speeds below 4.0 mph (6.4 km/h).
2. Refer to Operator's manual prior to towing tractor.

CAUTION

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 or 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 implement to ground and shift to "PARK" or set handbrake securely before dismounting.
11. Wait for all movement to stop before servicing machinery.
12. Remove key if leaving tractor unattended.

CAUTION

This instructional seat has been provided only for training operators or diagnosing machine problems.

Keep all other riders off the tractor and equipment.

Always wear your seat belt.

WARNING

AVOID INJURY FROM PTO
- Keep hands, feet and clothing away
- Operate only with 540 RPM

STANDARD 540 RPM PTO

WARNING

TO AVOID BODILY INJURY:
1. Keep PTO master shield and all power drive system safety shields in place.
2. When operating PTO driven implements, install drawbar in the down position if offset, and use the following drawbar instructions:

PTO Shaft	PTO Shaft End to Hitch Pin Hole
540 rpm - 6 spline	14.00 in. (356 mm)
1000 rpm - 21 spline	16.00 in. (407 mm)

OPTIONAL 540/1000 RPM PTO

LV12457 —19—26SEP06

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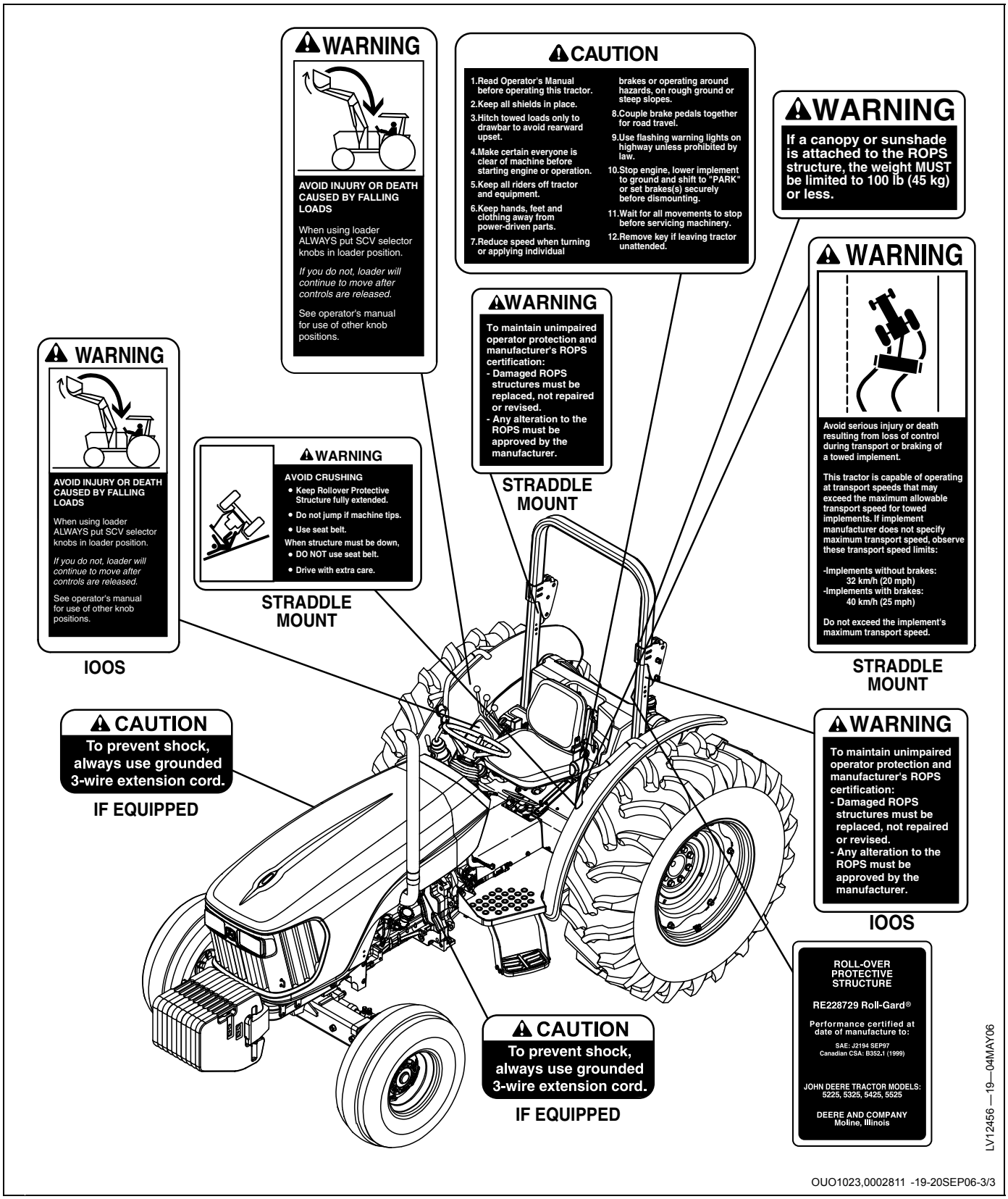
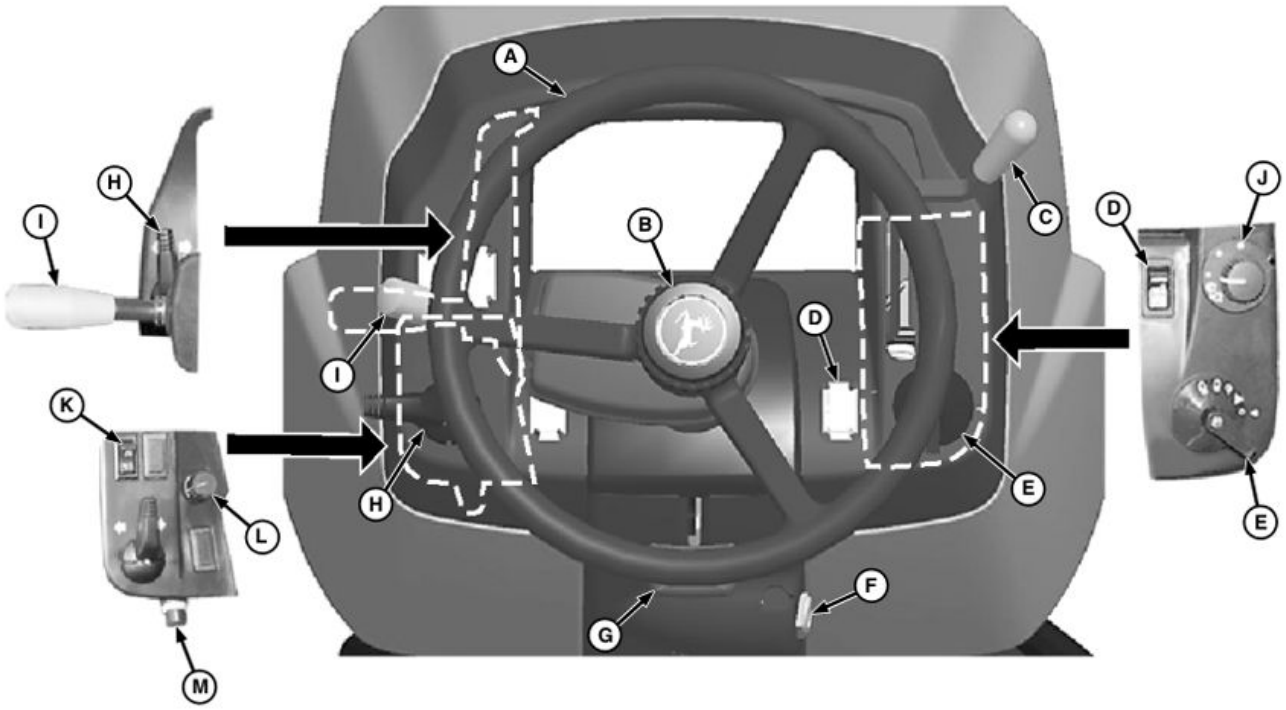
OUO1023,0002811 -19-20SEP06-2/3



OUO1023,0002811 -19-20SEP06-3/3

Front Console Switches and Controls



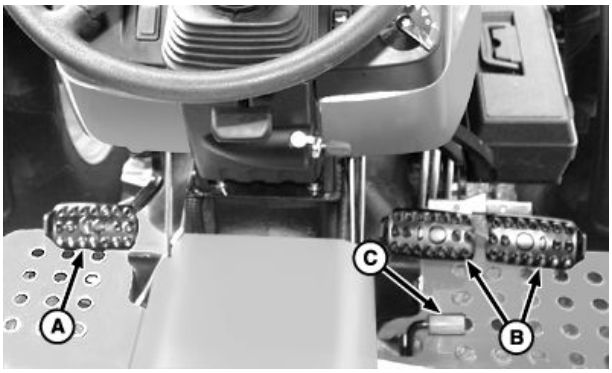
LV12670 —UN—26APR05

A—Steering Wheel
B—Steering Wheel Telescope Release (If Equipped)
C—Hand Throttle
D—MFWD Switch (If Equipped)
E—Light Switch
F—Ignition Switch
G—Steering Wheel Tilt Release (If Equipped)
H—Turn Signal Lever
I— Electro-Hydraulic Directional Reverser (If Equipped)
J— Windshield Wiper/Washer Control (Cab Only)
K—Loader Light Switch (If Equipped)
L— Infinitely Variable Shuttle (If Equipped)
M—Horn (If Equipped)

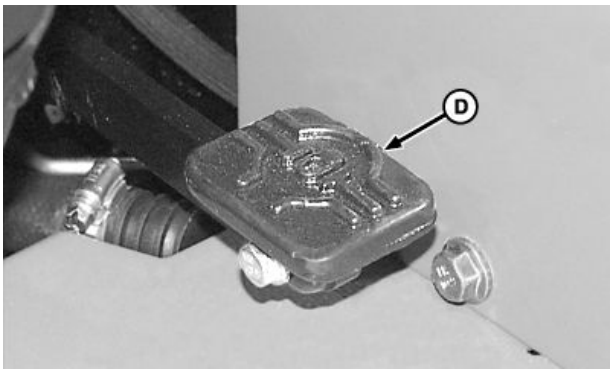
NOTE: Depending on optional items ordered, other switches and controls may be installed on front console.

OUO1032,00016D3 -19-22APR05-1/1

Foot-Operated Controls



LV09188 —UN—22JUL04



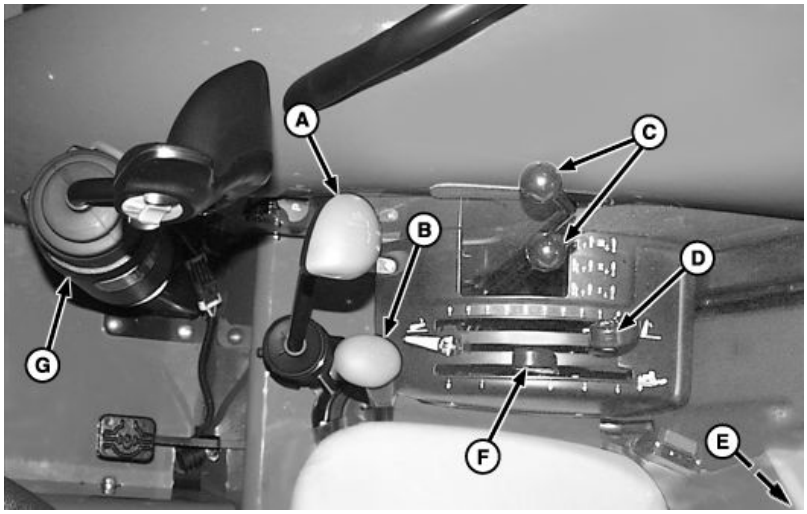
LV09189 —UN—22JUL04

A—Clutch Pedal
B—Brake Pedals
C—Foot Throttle
D—Differential Lock Pedal

NOTE: Straddle Mount and Hi-Crop shown. Cab and IOOS are similar.

OUO1032,00016D4 -19-22APR05-1/1

Operator Station Side Controls—Straddle Mount and Hi-Crop



LV09190 —UN—22JUL04

Right Side

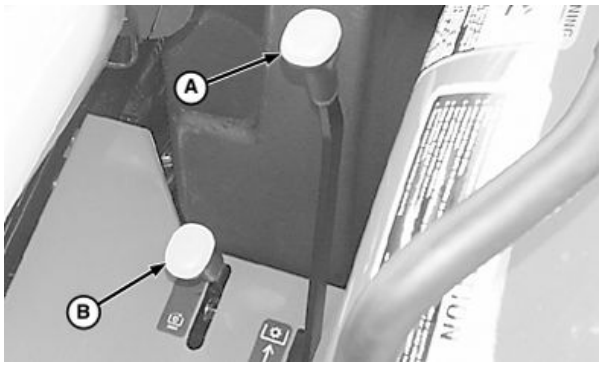
A—Gear Shift Lever
B—Range Shift Lever
C—SCV Lever(s)
D—Rockshaft Position Control Lever
E—Rockshaft Rate-of-Drop Valve (Located on Floor Behind Seat)
F—Rockshaft Draft Control Lever
G—Multi-Function Control Lever (If Equipped)

Continued on next page

OUO1032,00016D6 -19-22APR05-1/2

A—PTO Clutch Lever

B—PTO 540/540E Shift Lever (If Equipped)

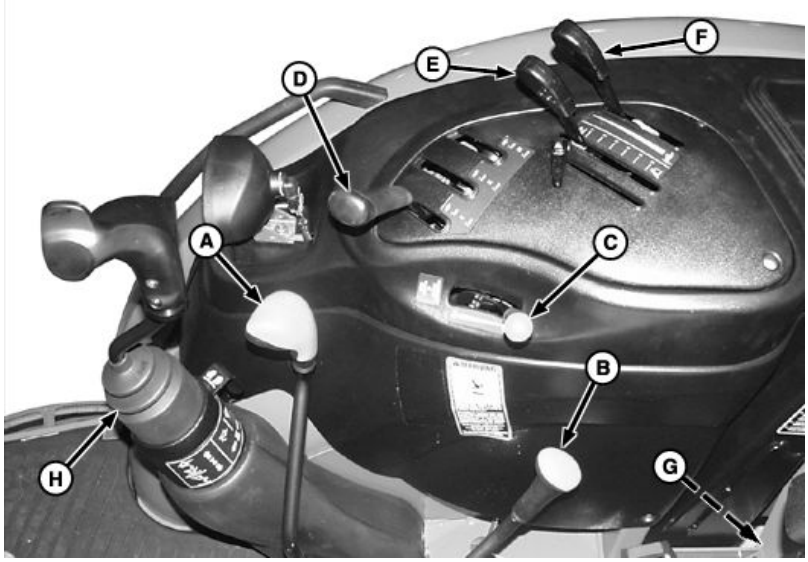


LV12672 —UN—26APR05

Left Side

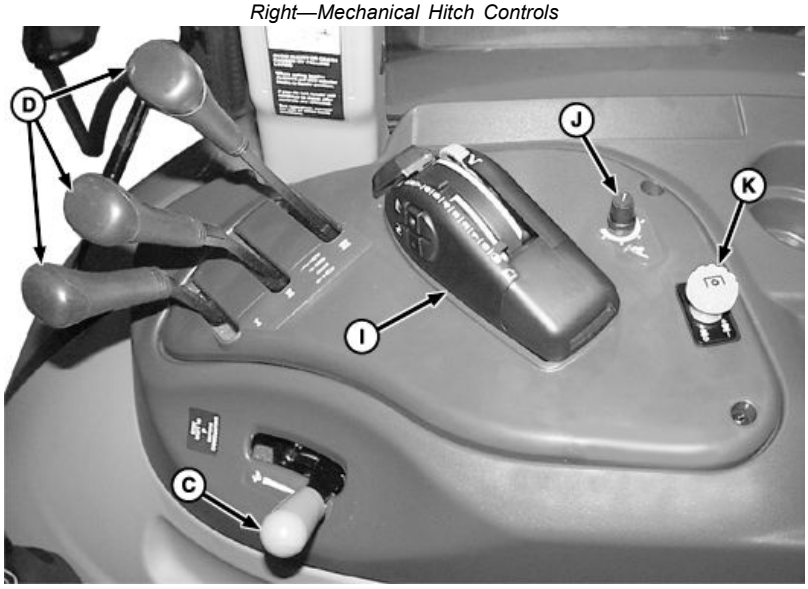
OUO1032,00016D6 -19-22APR05-2/2

Operator Station Side Controls—Cab and IOOS



LV09195 —UN—22JUL04

Right—Mechanical Hitch Controls



LV09196 —UN—22JUL04

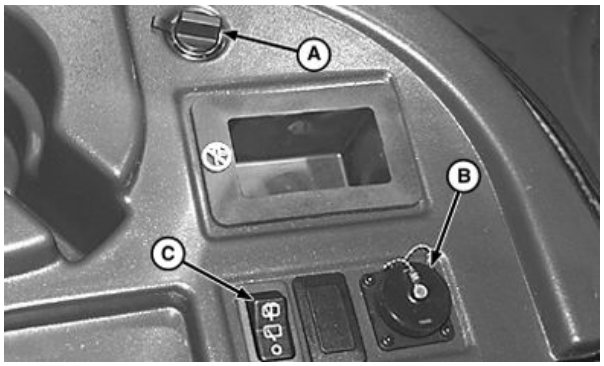
Right Side Electro-Hydraulic Hitch and PTO Controls

A—Gear Shift Lever
B—Range Shift Lever
C—Hand Throttle
D—SCV Lever(s)
E—Rockshaft Position Control Lever
F—Rockshaft Draft Control Lever
G—Rockshaft Rate-of-Drop Valve—Mechanical Hitch Controls (Located on Floor Behind Seat)
H—Multi-Function Control Lever (If Equipped)
I—EH Hitch Control (If Equipped) (Refer to Rockshaft Controls Section)
J—EH Draft Control (If Equipped)
K—EH PTO Control (If Equipped)

NOTE: Depending on optional items ordered, other switches and controls may be installed on side console.

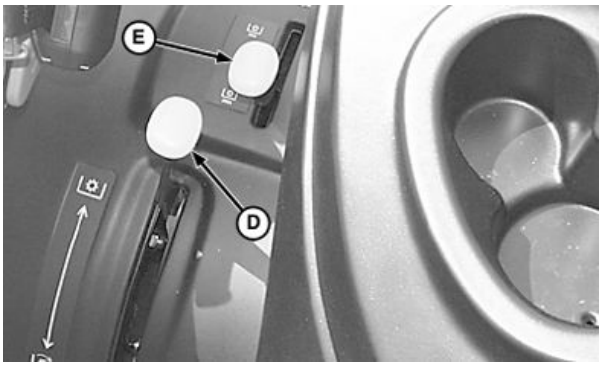
Continued on next page

OUO1032,00016D7 -19-22APR05-1/2



Rear Console—Cab Shown

LV12673 —UN—26APR05



Left Side

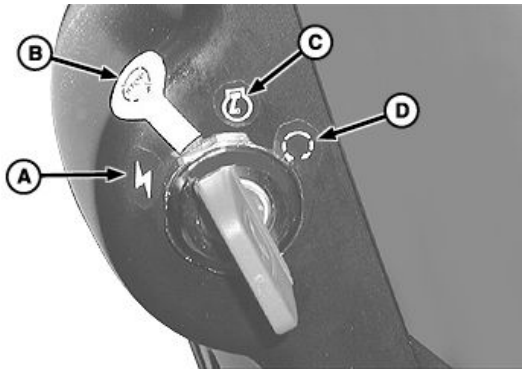
LV12674 —UN—26APR05

A—Power Plug
B—Convenience Electrical Outlet
C—Rear Window Wiper/Washer Switch (If Equipped)
D—PTO Clutch Lever
E—PTO 540/540E Shift Lever (If Equipped)

OUO1032,00016D7 -19-22APR05-2/2

Ignition Switch

A—Accessory
B—STOP
C—Run
D—Start

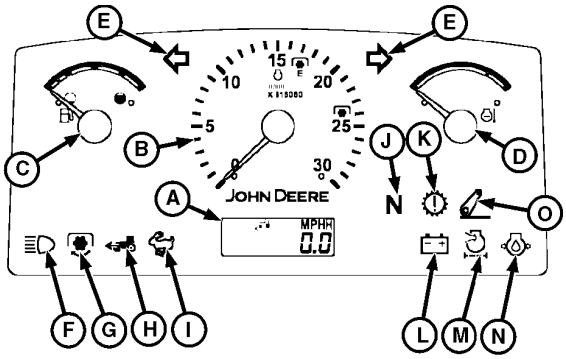


LV09199 —UN—22JUL04

OUMX005,00018E0 -19-20JUL04-1/1

Gauges and Indicator Lights

A—Speedometer/Hour Meter
B—Tachometer
C—Fuel Level Gauge
D—Coolant Temperature Gauge
E—Warning/Turn Signal Indicators
F—High Beam Indicator
G—PTO Engaged Indicator
H—MFWD Engaged Indicator (If Equipped)
I—Hi/Lo Indicator (If Equipped)
J—Neutral Indicator (If Equipped)
K—PowrReverser™ Information Indicator (If Equipped)
L—Charging System Indicator
M—Air Cleaner Restriction Indicator
N—Engine Oil Pressure Indicator
O—EH Hitch Indicator (If Equipped)

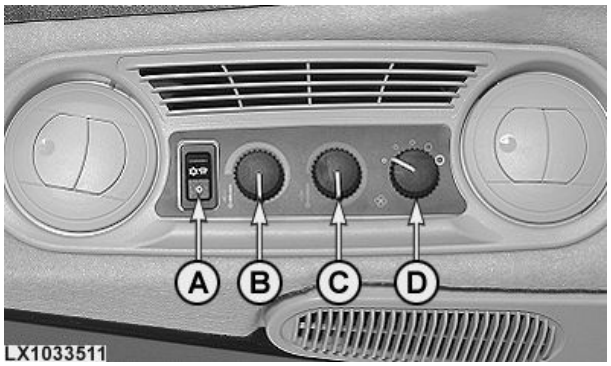


LV12458 —UN—12APR05

OUO1032,0001674 -19-06APR05-1/1

Heater and Air Conditioning Controls (Cab)

A—Air Conditioning/Defrost Switch
B—Air Conditioning Temperature Control
C—Heater Temperature Control
D—Blower Speed Switch



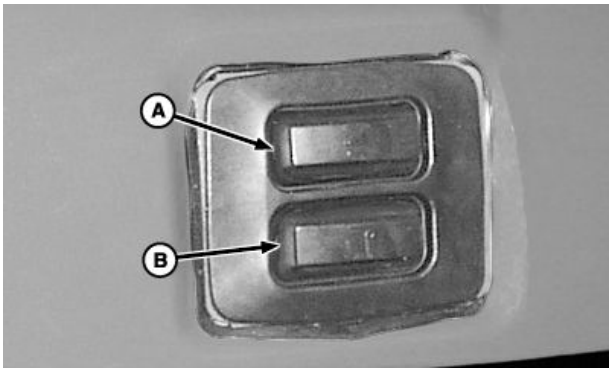
LX1033511 —UN—19NOV03

OUMX005,00018E2 -19-20JUL04-1/1

External EH Hitch Raise/Lower Switches—If Equipped

NOTE: Fender-mounted switches on left side are part of electro-hydraulic hitch package. Switches on right side are available as an option.

A—Hitch Raise Switch
B—Hitch Lower Switch



Left Side Shown

LV09200 —UN—22JUL04

OUO1032,00016CC -19-14APR05-1/1

Operating Lights

NOTE: If equipped with loader lights (attached to loader mounting frames), see Operating Loader Lights—If Equipped in this section.

⚠ CAUTION: To alert drivers of other vehicles to your movements, use flashing warning lights whenever you travel on public roads. Flashing lights come ON in Warning, Transport 1 and Transport 2 positions.

Light switch has four operating positions:

Warning position (B): Use when transporting on public roads during daylight hours.

⚠ CAUTION: Do not use work lights when transporting on public roads. Bright clear lights can blind or confuse drivers of other vehicles as they approach from the front or rear.

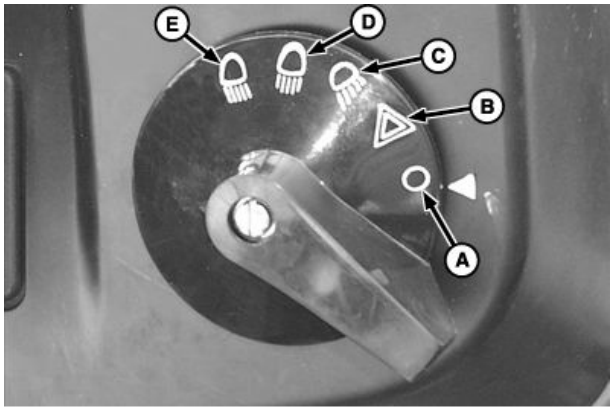
NOTE: Indicator (F) will light whenever high beam headlights are ON.

Work light position (C): Use to activate front and rear facing work lights, high beam headlights and auxiliary work lights (cab—if equipped).

Transport 1 position (D): Use when traveling on public roads at night or during daylight hours when visibility is limited.

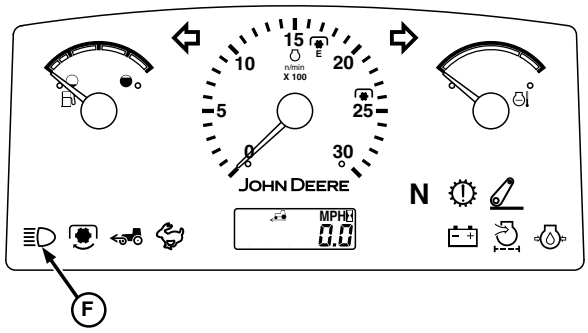
Transport 2 position (E): Use to dim headlights to low beams when meeting other vehicles as they approach from the front.

IMPORTANT: Keep lighting in good working order. Repair or replace damaged lighting immediately.



LV09152 —UN—12JUL04

Light Switch



LV09155 —UN—12JUL04

A—Off Position
B—Warning Position
C—Work Light Position
D—Transport 1 Position
E—Transport 2 Position
F—High Beam Indicator Light

Keep headlights properly adjusted. (See your Maintenance Guide.)

Switch Position	Warning Lights Amber[a]	Taillights Red[b]	Work Light(s)[c] Rear Facing	Work Lights[d] Front Facing	Headlights Front Grille	Auxiliary Front Work Lights (Optional—Cab)[e]
A—Off	Off	Off	Off	Off	Off	Off
B—Warning	On Flashing	Off	Off	Off	Off	Off
C—Work Light	Off	Off	On	On	On—High Beams	On
D—Transport 1	On Flashing	On Steady	Off	Off	On—High Beams	Off
E—Transport 2	On Flashing	On Steady	Off	Off	On—Low Beams	Off

[a]When turn signal is activated, amber and red lights on turn-side flash, while opposite-side lights shine steady.
[b]When turn signal is activated, amber and red lights on turn-side flash, while opposite- side lights shine steady.
[c]Standard equipment. Straddle Mount, Hi-Crop and IOOS have a single work light mounted to ROPS. Cab tractors have two work lights mounted to the roof.
[d]Two work lights are standard equipment on Cab and IOOS tractors. Work lights are roof mounted on Cab tractors and fender mounted on IOOS tractors. Additional lighting is available as an attachment. See your John Deere dealer.
[e]Roof mounted.

OUO1023,00028F4 -19-08MAY06-1/1

Operating Loader Lights—If Equipped

Loader lights (A) are dual beam headlights attached to loader mounting frames and used in place of standard front grille headlights which are obstructed by the loader.

Rotate light assemblies (A) to front-facing, operating position (shown).

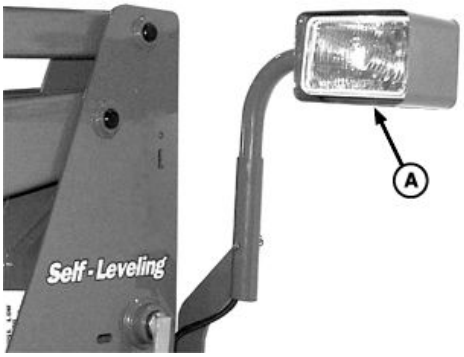
To activate loader light circuit, depress top of switch (B).

Loader lights will now operate in place of front grille headlights, when light switch is placed in Work Lights (C), Transport 1 (D) or Transport 2 (E) positions.

NOTE: High beams are ON in Work Light and Transport 1 positions. Low beams are ON in Transport 2 position.

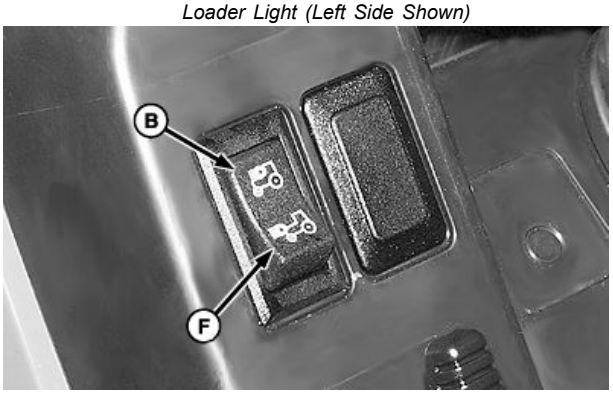
If loader is removed, depress bottom of switch (F) to restore front grille headlights to normal operation. Turn loader light assemblies toward tractor for storage.

A—Loader Light Assembly
B—Loader Lights
C—Work Light Position
D—Transport 1 Position
E—Transport 2 Position
F—Front Grille Headlights



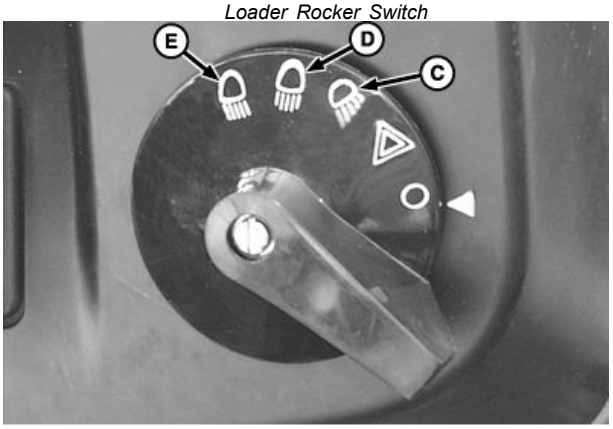
LV9465 —UN—03SEP04

Loader Light (Left Side Shown)



LV9466 —UN—26JUL04

Loader Rocker Switch



LV9484 —UN—26JUL04

Tractor Light Switch

OUO1023,00027EF -19-14MAR06-1/1

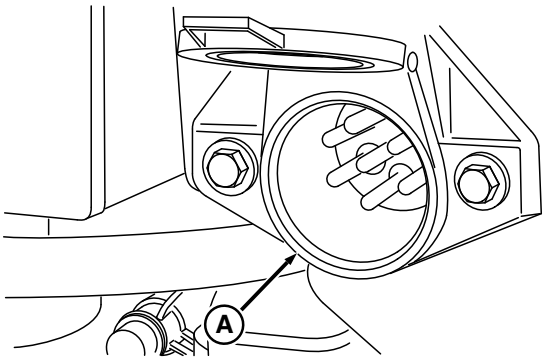
Using Seven-Terminal Outlet

Outlet (A) is used to connect lights, turn signals, and remote electrical equipment on trailers or implements. Always use auxiliary light on towed implement when tractor lights are obscured.

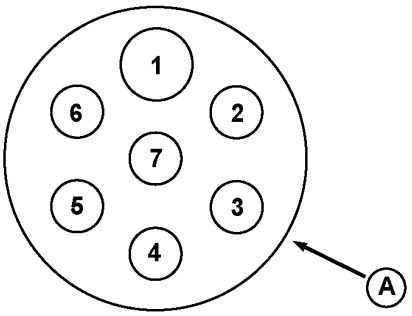
If implement harness is properly wired and connected to outlet, implement lighting operates in conjunction with tractor warning and signal lights.

NOTE: Matching plug is available through your John Deere dealer.

Terminal	Function
1	Ground
2	Work Light
3	Left Turn
4	Accessory
5	Right Turn
6	Taillight
7	Accessory



RXA0068234 —UN—27JUN03



RW21249A —UN—29APR99

A—Seven-Terminal Outlet

OUMX005,00018B0 -19-12JUL04-1/1

Operating Rotating Beacon Light—If Equipped

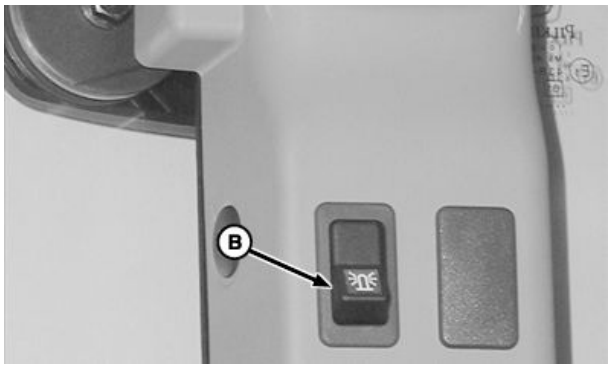
Depress switch (B) to activate light (A).

To remove light for storage or clearance:

1. Loosen wing nut and lift light from tube.
2. Install cap on tube end to protect light socket.

A—Light **B—Switch**

LV9687 —UN—19AUG04



LV9688 —UN—19AUG04

OUMX005,000199F -19-19AUG04-1/1

Operating Foldable ROPS

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

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

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

Lift the ROPS up again and pin in vertical position as soon as the tractor is operated under normal conditions.

NOTE: Straddle Mount and Hi-Crop shown. IOOS is similar.

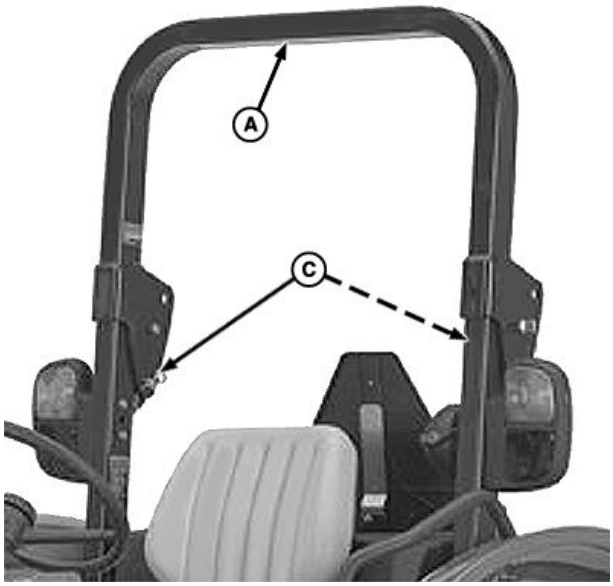
Lower ROPS Crossbar (A):

1. Remove quick-lock pins (B) and headed pins (C).
2. Lower crossbar (A) of ROPS onto stops.
3. Reinstall pins (C and B) into holes in ROPS to lock crossbar down.

Put ROPS in Operating Position:

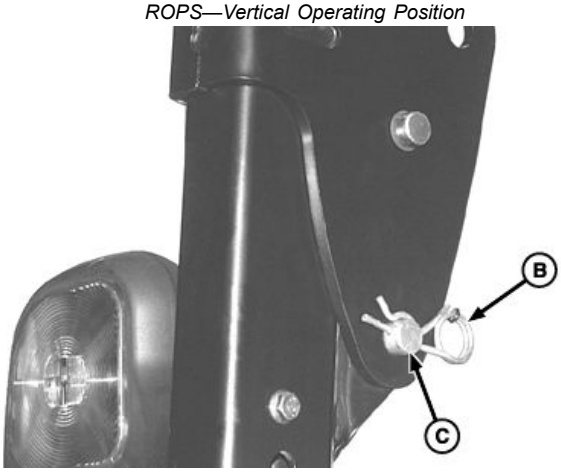
1. Remove headed pins (C) and quick-lock pins (B).
2. Lift crossbar (A) of ROPS to vertical position.
3. Reinstall pins (C and B) into holes in ROPS to lock in position.

A—ROPS Crossbar
B—Quick-Lock Pins
C—Headed Pins



LV09202 —UN—22JUL04

ROPS—Vertical Operating Position



LV09203 —UN—22JUL04

LV09204 —UN—22JUL04

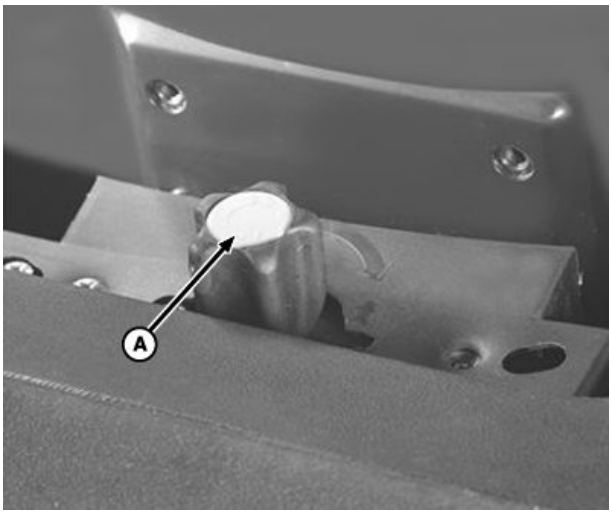
ROPS—Folded

OUMX005,000186C -19-28JUN04-1/1

Adjusting Operator Seat

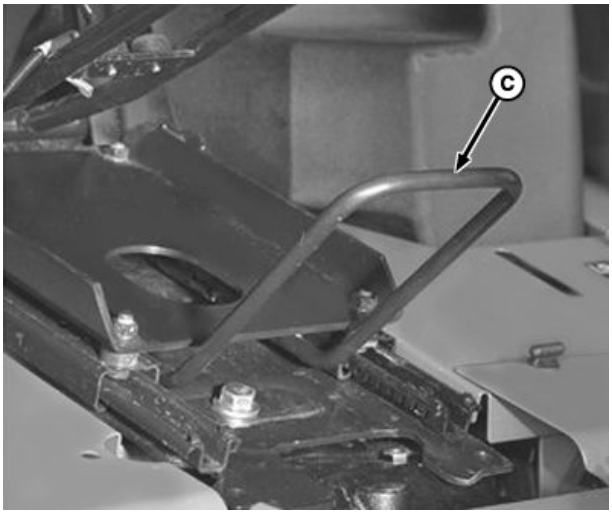
Operator Seat

LV09206 —UN—22JUL04



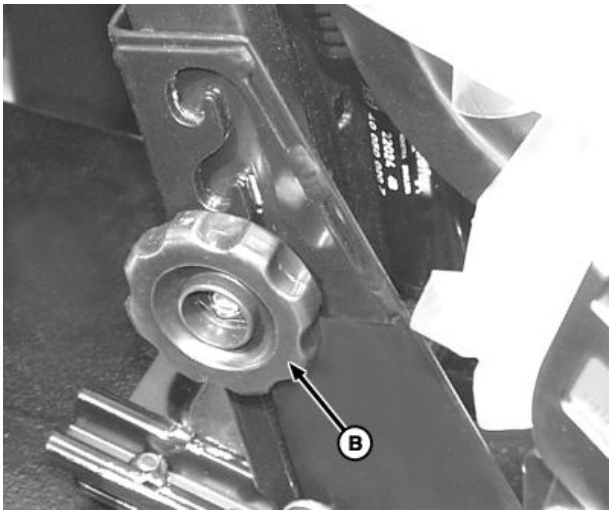
Ride Comfort

LV09209 —UN—22JUL04



Fore/Aft Position

LV09207 —UN—22JUL04



Seat Height Position

LV09208 —UN—22JUL04

A—Ride Comfort Knob **B—Seat Height Knobs** **C—Fore/Aft Bar**

⚠ CAUTION: To avoid accidents, adjust seat before driving.

For operator comfort, three seat adjustments are available:

Ride Comfort: Turn knob (A) to adjust seat suspension for firm or soft ride.

Seat Height: Loosen knobs (B) on both sides, lift seat from hooked slots and move to desired height. Tighten knobs after adjustment.

Fore/Aft: Pull up on bar (C) and slide seat forward or back to desired position. Release bar to lock seat in place.

OUO1023,00027F0 -19-14MAR06-1/1

Adjusting Seat (Mechanical Suspension)

CAUTION: To avoid accidents, adjust seat before driving.

Adjust to each operator's personal preference; there are five available seat adjustments:

Forward or Backward: Lift forward/backward adjustment lever (E), move seat to desired position.

Height: While seated, move height adjustment lever (C) to one of four positions:

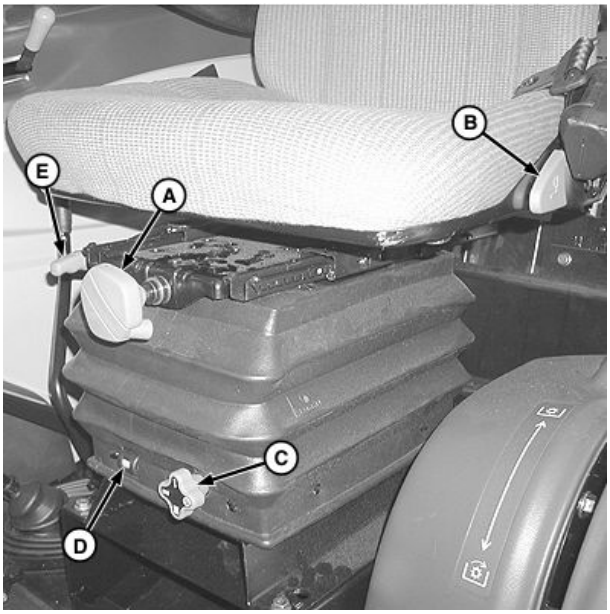
- III—Highest Position
- II—Medium High Position
- I—Medium Low Position
- O—Lowest Position

NOTE: If height adjustment lever (C) is locked and will not rotate, turn weight adjustment lever (A) to a lighter setting or force seat lower.

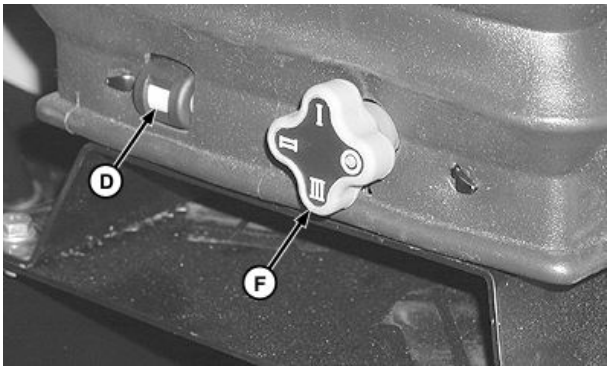
Weight: While seated, turn weight adjustment lever (A) CLOCKWISE to increase load and COUNTERCLOCKWISE to decrease load.

Backrest: Lift backrest adjustment lever (B) and move backrest to desired position.

A—Weight Adjustment Lever
B—Backrest Adjustment Lever
C—Height Adjustment Lever
D—Display Window
E—Forward/Backward Adjustment Lever
F—Indicated Height Setting



LV8459 —UN—22JUL03



LV8460 —UN—17SEP03

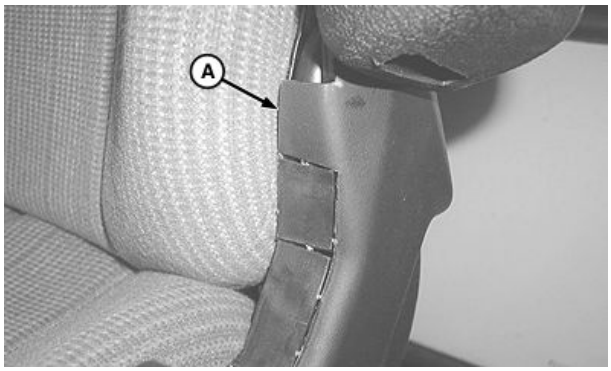
Cab Shown; IOOS Similar

OUO1023,000289F -19-13APR06-1/1

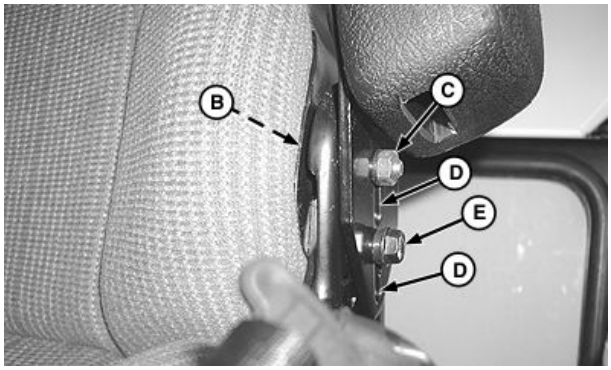
Adjusting Seat Arm Rests

1. Pry plastic cover (A) away from seat.
2. Loosen cap screws (B and E).
3. Slide arm rest up or down to desired height, and tighten hardware.

A—Plastic Cover
B—Cap Screw
C—Nut
D—Adjustment Slot
E—Cap Screw



LV9044 —UN—17NOV03



LV9045 —UN—17NOV03

OUO1023,00028A1 -19-13APR06-1/1

Using Seat Belt

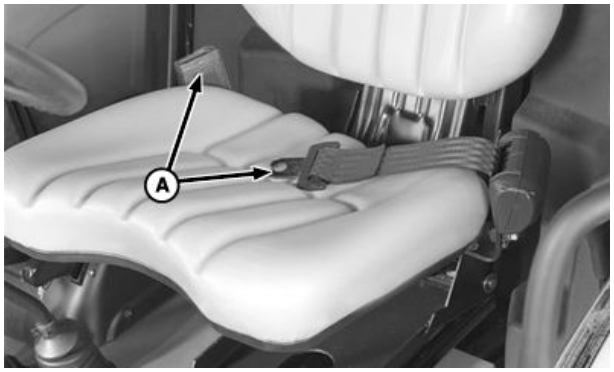
CAUTION: Use the seat belt when operating with a Roll-Over Protective Structure (ROPS). DO NOT use seat belt when ROPS is folded down.

NOTE: Straddle Mount and Hi-Crop shown. IOOS is similar.

Fit seat belt snugly across abdomen.

Inspect seat belt and mounting hardware annually.

A—Seat Belt



LV09205 —UN—22JUL04

OUO1023,00028A0 -19-13APR06-1/1

Adjusting Steering Wheel Tilt and Height—If Equipped

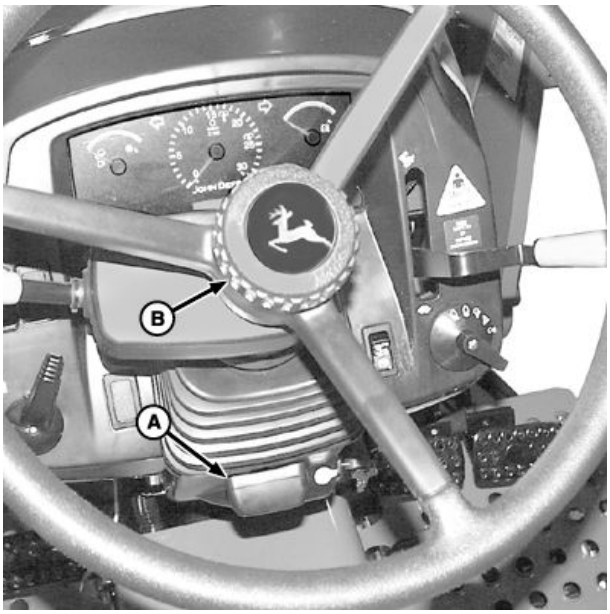
NOTE: Straddle Mount and Hi-Crop shown. IOOS is similar.

Tilt: Lift lever (A) and move steering column to desired angle.

Height: Loosen telescope release ring (B) and adjust steering wheel to desired height. Tighten ring to lock into position.

A—Steering Wheel Tilt Lever

B—Steering Wheel Telescope Release Ring



LV09210 —UN—22AUG04

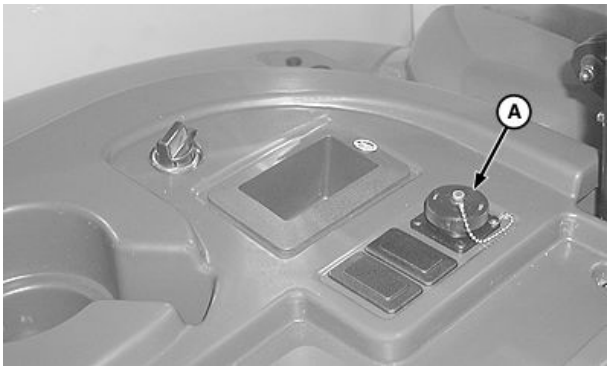
OUO1023,00028A2 -19-13APR06-1/1

Accessory Electrical Outlet—If Equipped

Accessory 12-volt electrical outlet (A) is used when connecting auxiliary equipment.

NOTE: Outlet is protected by two fuses, one 30-amp and one 20-amp.

A—12-Volt Electrical Outlet



LV8417 —UN—14JUL03

OUO1043,00002BA -19-28JUN04-1/1

Opening Windows

Side Window Latch

Rear Window Latch

LV12459 —UN—14MAR06

LV12460 —UN—12APR05

Side and rear windows can be opened. Release latch and push window out to open.

Rear window provides a large exit path if cab doors are blocked in an emergency situation.

OUO1023,0002886 -19-04APR06-1/1

Adjusting Seat—Air Suspension (Optional)

⚠ CAUTION: To avoid accidents, adjust seat before driving.

Adjust to each operator's personal preference; there are five available seat adjustments:

Forward or Backward Adjustment: Lift forward/backward adjustment lever (A), move seat to desired position and release lever to lock in position.

Forward or Backward Suspension: Move lever (B) sideways to allow forward/backward suspension or to lock seat in position.

Air Suspension (Height): Pull adjustment knob (C) out to raise seat. Push adjustment knob to lower seat. Release knob to lock seat in position.

Backrest: Lift lever (D) and tilt backrest forward or rearward as desired. Release lever to lock backrest into position.

Lumbar Support: Turn knob (E) to increase or decrease support to lower back.

LV6289 —UN—17SEP03

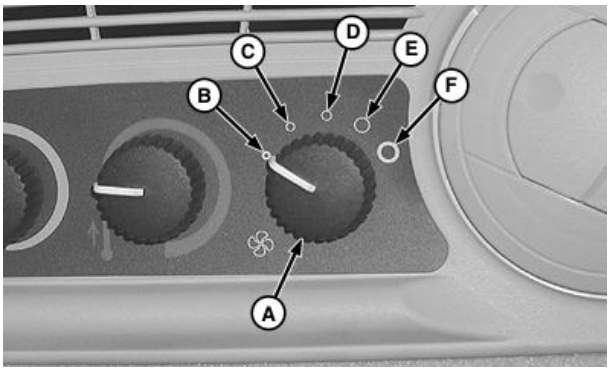
A—Forward/Backward Adjustment Lever
B—Forward/Backward Suspension Lock
C—Air Suspension Adjustment Knob
D—Backrest Tilt Adjustment Lever
E—Lumbar Support Adjustment Knob

OUMX005,000186E -19-28JUN04-1/1

Adjusting Blower Speed

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

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



LV8414 —UN—14JUL03

OUO1043,00002B7 -19-28JUN04-1/1

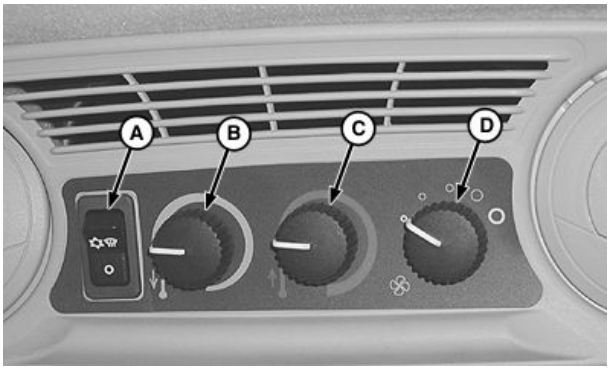
Controlling Temperature

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

Turn control knob (B) to adjust air conditioning temperature.

Turn control knob (C) to adjust heater temperature.

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



LV8415 —UN—14JUL03

OUO1032,00016CE -19-14APR05-1/1

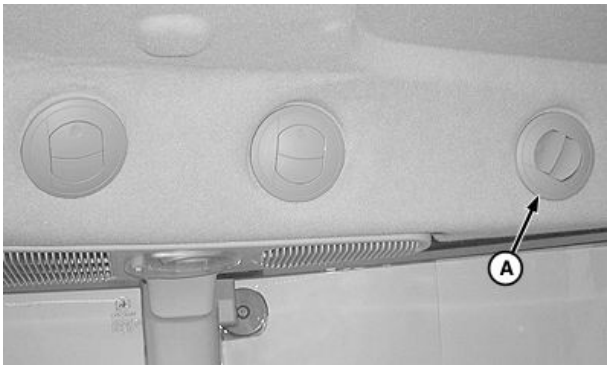
Deicing, Demisting or Defrosting Windshield

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

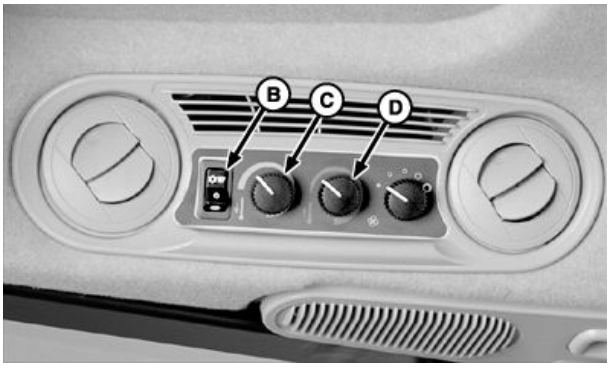
NOTE: Closing middle and rear vents will help clear windshield faster.

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

A—Front Vent
B—Deicing Switch
C—A/C Temperature Control Knob
D—Heater Temperature Control Knob



LV8596 —UN—14AUG03



LV10324 —UN—21SEP04

OUO1023,00027F1 -19-14MAR06-1/1

Optimizing A/C and Heater Performance

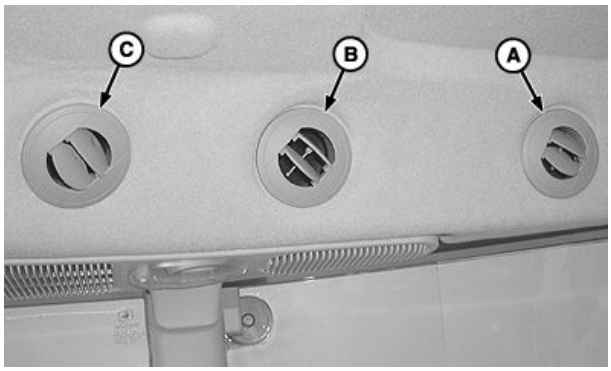
Adjust individual vents to target heating or cooling:

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

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

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

A—Front Vent
B—Middle Vent
C—Rear Vent
D—Heater Temperature Control Knob



LV10325 —UN—21SEP04

LV10326 —UN—21SEP04

OUO1080,00002AB -19-26MAR08-1/1

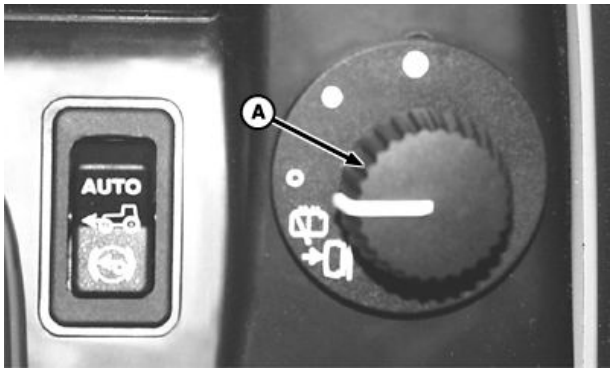
Operating Windshield Wiper and Washer

Rotate wiper switch (A) to move windshield wipers to OFF, SLOW, or FAST position.

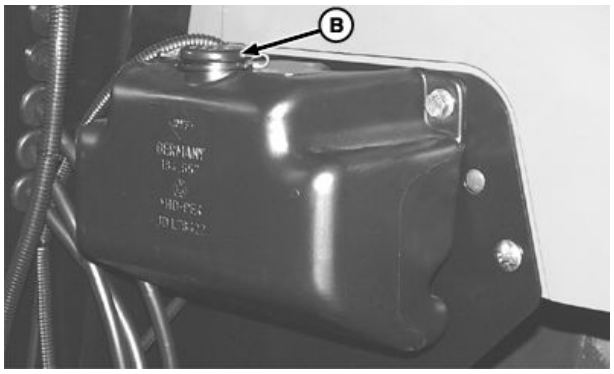
Push switch to activate windshield washer.

Fill reservoir (B) with non-freezing windshield washer fluid. Reservoir is located behind cab on inside of right rear fender.

A—Windshield Wiper/Washer Switch
B—Washer Fluid Reservoir



LV09214 —UN—22JUL04



LV09215 —UN—22JUL04

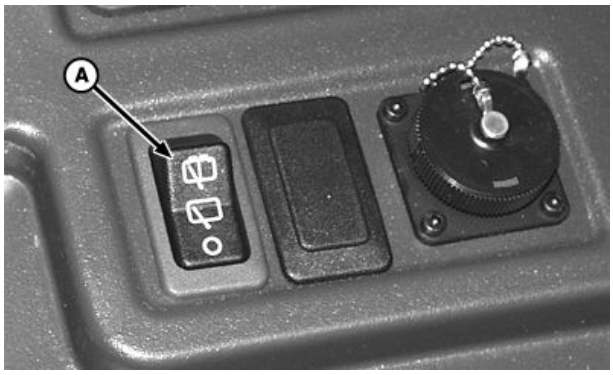
OUO1023,00027F2 -19-14MAR06-1/1

Operating Rear Window Wiper and Washer—If Equipped

Switch (A) has three positions:

- Top WASH position—Hold switch down to activate washer.
- Center ON position—Rear window wiper is activated.
- Bottom OFF position.

A—Rear Window Wiper/Washer Switch



LV09216 —UN—22JUL04

OUO1032,00016CF -19-14APR05-1/1

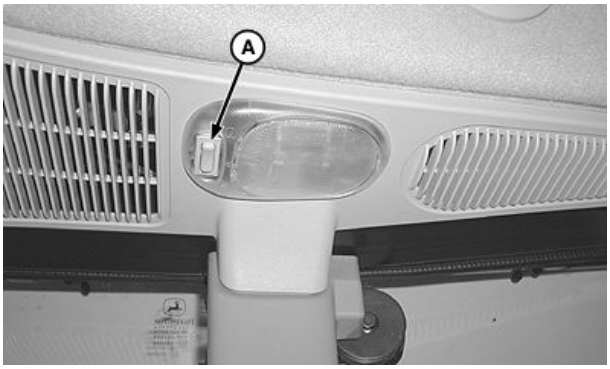
Using Dome Light

Dome light switch (A) has three positions:

- ON turns the dome light on.
- Dome light comes on when left-hand door is opened and off when left-hand door is closed.
- OFF turns the dome light off.

IMPORTANT: Before exiting cab, turn dome light to OFF or DOOR position to avoid causing battery to lose its charge.

A—Dome Light Switch



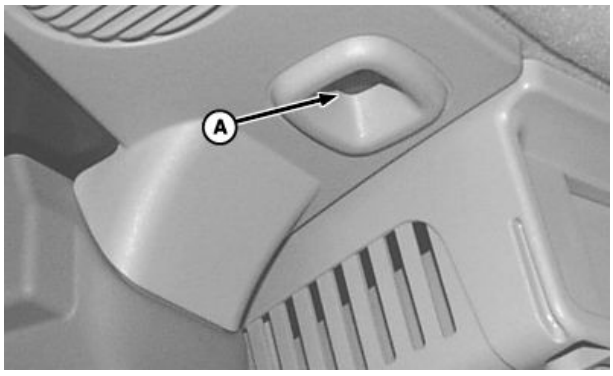
LV8418 —UN—14JUL03

OUO1023,00028C5 -19-25MAR08-1/1

Using Control Illumination Light

Control illumination light (A) comes on with front grille headlights when light switch is placed in Work Light, Transport 1 or Transport 2 position.

A—Control Illumination Light



LV09217 —UN—22JUL04

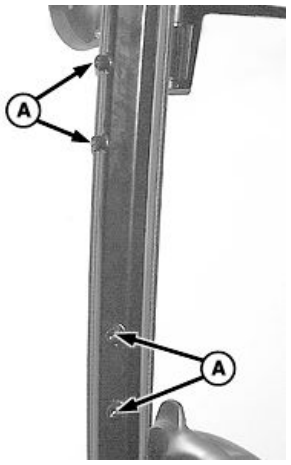
OUO1023,00027F3 -19-14MAR06-1/1

Installing a Monitor

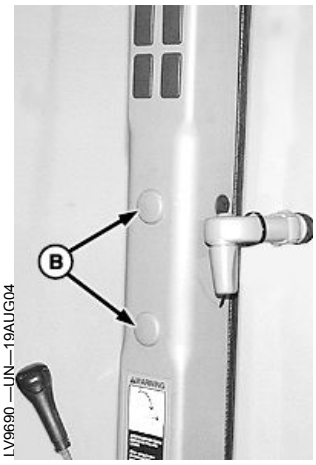
There are two locations to attach monitors and controls in the cab:

- Front right post (A).
- Right center post (remove plugs [B]).

A—Mounting Locations **B—Plugs (Mounting Locations)**



Front Post



Center Post

OUO1023,00028A4 -19-13APR06-1/1

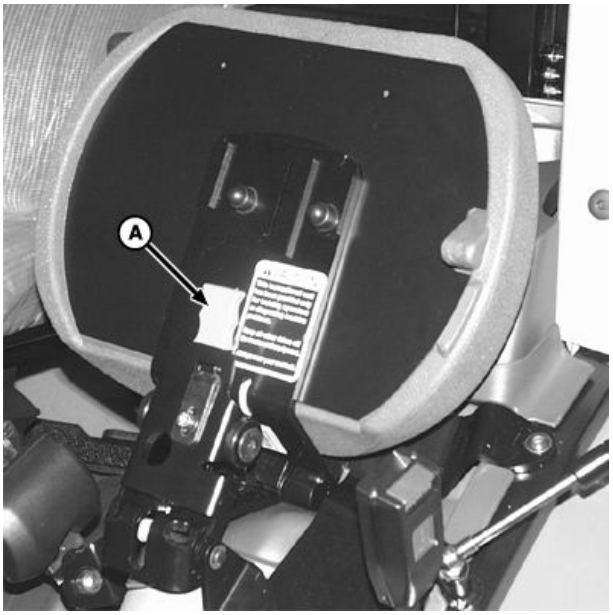
Using Instructional Seat—If Equipped

⚠ CAUTION: The instructional seat is for training operators or diagnosing machine problems.

Release lock lever (A) and fold down seat bottom.

NOTE: Only tractors equipped with the electro-hydraulic switch operated PTO will accommodate the instructional seat. It is not compatible with the lever operated PTO.

A—Lock Lever



OUO1023,00028A6 -19-13APR06-1/1

Using Auxiliary Power Strip—If Equipped

IMPORTANT: Power strip is not a surge suppressor. Electrical equipment with program memory requires protection from electrical surges and spikes.

The power strip provides six outlets of 12-volt power with grounds to connect auxiliary equipment. This power is 30-amp switched and 30-amp unswitched.

Adapters plug directly into power strip as unswitched power. To change to switched power on power plug adapter or standard adapter (three wires), remove small tab at end of slot on plug and rotate plug 180°.

*NOTE: The small white dot on adapter plug face next to cap hinge indicates circuit is **unswitched**. If dot is opposite cap hinge, circuit is **switched**.*

Adapters are available from your John Deere dealer:

LV9485 —UN—28JUL04

Top of Right Console

- Power plug adapters
- Three-way convenience adapters
- Standard adapters

OUO1023,00028A7 -19-13APR06-1/1

Using Field Office—If Equipped

CAUTION: Do not use the Field Office as a seat. The contents of the briefcase should not exceed 10 kg (22 lb). Never drive the tractor with an open briefcase.

Press handle (A) down until it “clicks” into the rack to secure a portable “Field Office” briefcase to the storage rack.

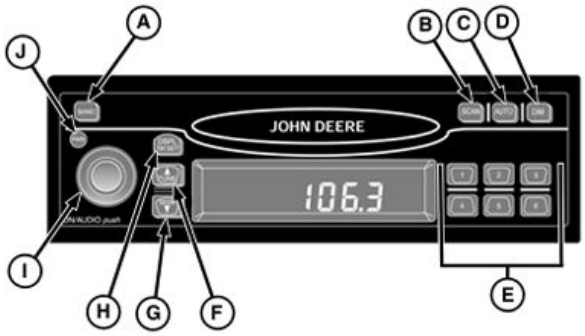
A—Handle

LX1030708 —UN—13JAN03

OUO1023,00028A8 -19-13APR06-1/1

Operating Radio

1. Press BAND (A) to select FM1, FM2, AM, SAT, or WX (Weather).
2. Press TUNE (F) once to turn to the next higher station. Press SEEK (G) once to turn to the next lower station.
3. Press and hold both TUNE (F) and BAND (A) to switch between manual tune mode and “seek” mode.
4. Holding SEEK longer than half a second begins the “seek” function. When a station with a strong enough signal is found, “seek” function will stop at that station.
5. Press SCAN (B) to scan all stations. When a strong enough signal is found, the station will play for 5 seconds then continue to scan until SCAN is pressed again.
6. Adjust volume, bass, treble, fade, and balance by pressing and releasing ON/AUDIO knob (I) repeatedly until desired function appears on display. Rotate ON/AUDIO knob for adjustment.
7. Adjust brightness of display by pressing (D) until “DIM” appears on display. Rotate ON/AUDIO knob to adjust.



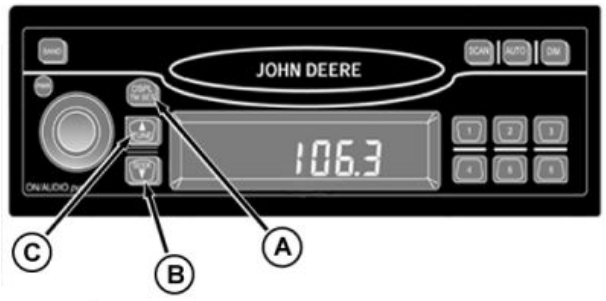
LV12461 —UN—12APR05

A—Band
B—Scan
C—Auto Preset
D—Dim
E—Preset Stations
F—Tune
G—Seek
H—Display/Time Set
I— On/Audio/Volume
J— Power

OUO1023,00027DD -19-09MAR06-1/1

Setting Clock (If Equipped)

1. Switch ignition to ON position.
2. Press and hold DSPL/TM SET (A) button until the “hours” digits flash.
3. Press SEEK (B) or TUNE (C) to set the correct hour.
4. Press and hold DSPL/TM SET until the “minutes” digits flash.
5. Press SEEK or TUNE to set correct minute. The seconds are reset to zero when minute setting is changed.

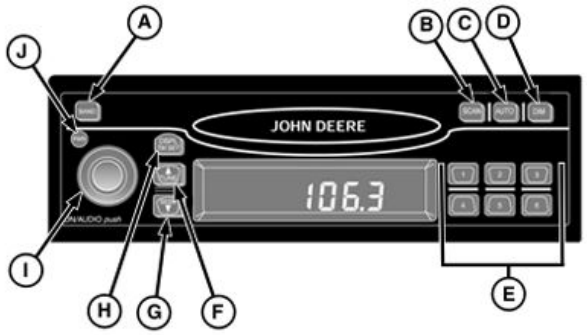


RW26907 —UN—05APR00

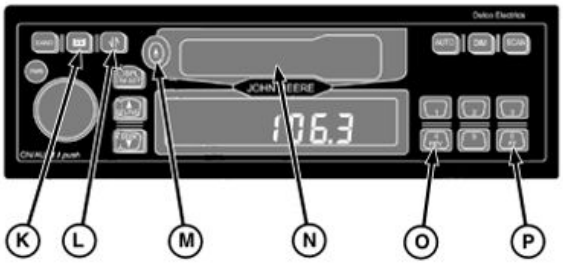
A—DSPL/TM SET
B—SEEK
C—TUNE

OUO1023,00028A9 -19-13APR06-1/1

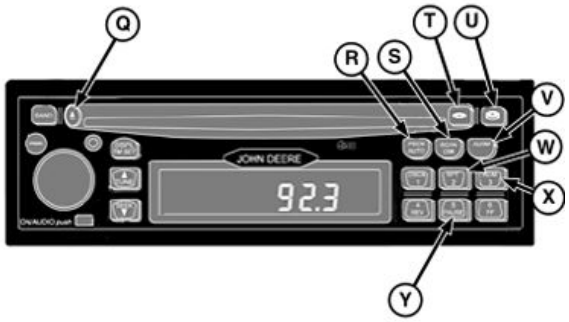
Operating Cassette Tape or Compact Disc Player—If Equipped



LV12461 —UN—12APR05



LV12462 —UN—12APR05



LV12463 —UN—12APR05

A—Band
B—Scan
C—Auto Preset
D—Dim
E—Preset Stations
F—Tune
G—Seek
H—Display/Time Set
I— On/Audio/Volume
J— Power
K—Tape
L—Tape Reverse
M—Eject Tape
N—Tape Slot
O—Rewind Tape
P—Fast Forward Tape
Q—Eject CD
R—Pre-Scan/Auto
S—Scan/Dim
T—CD Mode
U—CD Changer Mode
V—Alarm
W—CD Repeat
X—CD Random
Y—CD Pause

Operating cassette tape player

1. Turn receiver ON.
2. Insert cassette into slot (N). If radio is playing, press (K) to play the cassette.
3. Press (L) to play the opposite side of the tape.
4. Press (O) to rewind.
5. Press (P) to fast forward.
6. Press (M) to eject tape.
7. If receiver detects a defective cassette, “BAD TAPE” will appear on the display and the tape will be ejected.

Operating compact disc player

1. Turn ignition and receiver ON.
2. Insert compact disc into slot, label side up.
3. Press (F) to forward to the next track. Press (G) to reverse to the beginning of the track.
4. Press (W) to repeat the current track. Press (X) for random track selection.
5. Press and hold (O) to fast reverse. Release to play at normal speed.
6. Press (Y) to pause the CD. Press (Y) again to resume play.
7. Press and hold (P) to fast forward. Release button to play at normal speed.
8. Press (Q) to eject CD.
9. Press (S) to advance to the next track on the CD. The CD will play 10 seconds of that track and then play each successive track for 10 seconds. Press again to cancel.

OUO1023,00027F5 -19-14MAR06-1/1

Break-In Period

Observe Engine Operation Closely

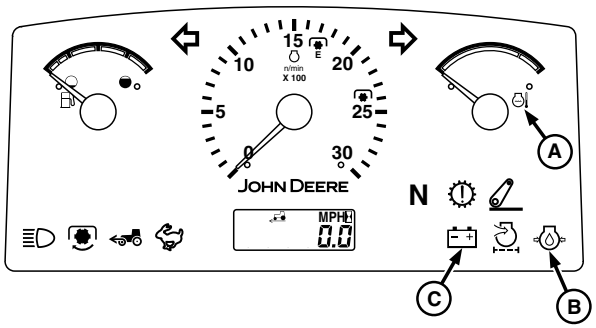
IMPORTANT: The engine is ready for normal operation. Use extra caution during the first 100 hours to become thoroughly familiar with the sound and feel of your new tractor.

Warm up tractor and check coolant temperature gauge (A), oil pressure (B), charging (C), and warning indicators.

Avoid unnecessary engine idling.

Check fluid levels frequently for engine oil, coolant, transmission-hydraulic, and mechanical front wheel drive (if equipped). Watch for fluid leaks.

NOTE: If engine oil is added, use seasonal viscosity grade oil.



LV9611 —UN—10AUG04

A—Coolant Temperature Gauge
B—Oil Pressure Indicator
C—Charging Indicator

OUO1023,00028AA -19-13APR06-1/1

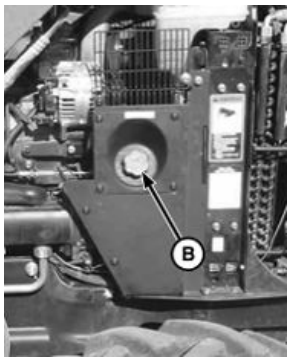
Service Daily Before Start-Up

IMPORTANT: For models 5425, 5525 and 5625, during the first 100 hours of operation, fill with John Deere Diesel Engine Break-In Oil.

1. Check engine oil level. Wipe dipstick (A) off and reinsert it fully. Remove and locate oil level. Do not operate when oil level is below lower mark on dipstick. Add seasonal viscosity grade oil through filler hole (B).
2. If operating in extremely wet or muddy conditions, lubricate with multipurpose grease the following at the 10-hour service interval:
   - Front axle pivot pin
   - Steering spindles and cylinder ends (adjustable front axle)
   - King pins (MFWD)
   - Rear axle bearings
3. Lubricate with multipurpose grease. (If necessary, clean first with a pressure washer):
   - Hood latch
   - Operator's seat slide rails (Straddle Mount, Hi-Crop and IOOS)

A—Engine Oil Dipstick **B—Engine Oil Filler Cap**

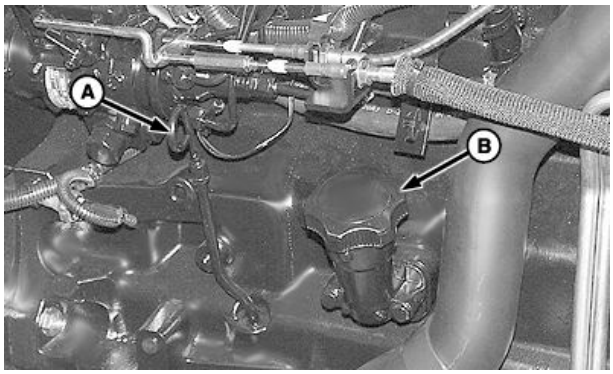
LV9602 —UN—09AUG04



LV9603 —UN—15OCT04

5225 and 5325

5225 and 5325



LV9601 —UN—09AUG04

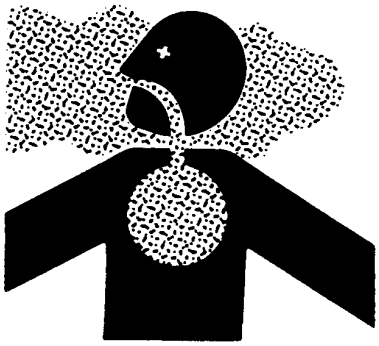
5425, 5525 and 5625

OUO1023,00028AB -19-15SEP06-1/1

Before Starting the Engine

CAUTION: Prevent asphyxiation by providing adequate ventilation. If operating indoors, use an exhaust pipe extension to remove the exhaust fumes or open doors and windows to thoroughly ventilate the area.

1. Check fuel gauge.



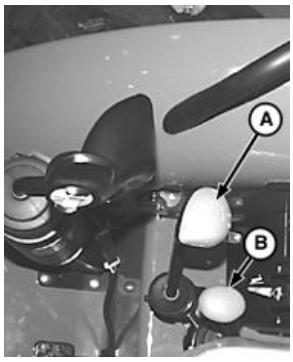
TS220 —UN—15APR13

OUO1023,00028AC -19-13APR06-1/4

2. **Transmission Controls:** Put gear shift lever (A) in NEUTRAL or PARK and range shift lever (B) in NEUTRAL.

   PowrReverser™ Transmission: Put electro-hydraulic (EH) directional reverser lever (C) in NEUTRAL.

A—Gear Shift Lever
B—Range Shift Lever
C—EH Directional Reverser Lever



LV12467 —UN—12APR05

Straddle Mount and Hi-Crop

LV12466 —UN—12APR05

EH Directional Reverser Lever

PowrReverser is a trademark of Deere & Company.

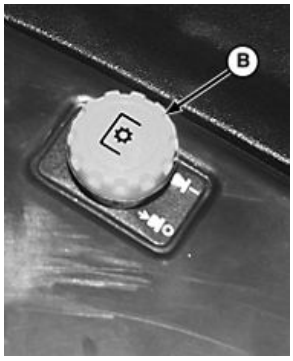
OUO1023,00028AC -19-13APR06-2/4

3. Disengage PTO:
   - **Lever Operated:** Pull PTO lever (A) back to disengage.
   - **EH Switch Operated:** Push PTO switch knob (B) down to disengage.

A—PTO Lever
B—PTO Switch

LV12469 —UN—12APR05

Straddle Mount and Hi-Crop



LV12468 —UN—12APR05

EH Switch

Continued on next page

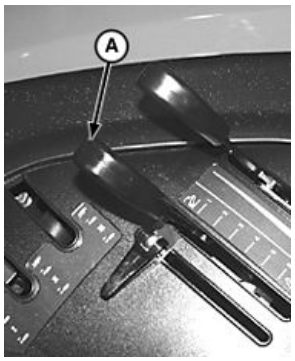
OUO1023,00028AC -19-13APR06-3/4

4. Push hitch control lever (A) forward to lower equipment to the ground.

NOTE: If equipped with EH hitch controls, bottom half of raise/lower switch (B) can also be used to lower equipment to the ground. Switch will only operate when engine is running.

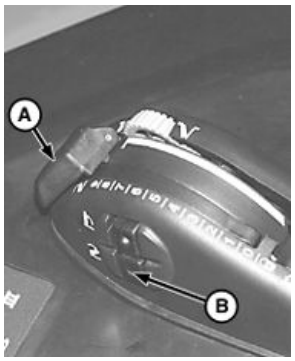
5. Turn key to RUN position and check to see if all indicator bulbs light. (If any indicator does not light, see your John Deere dealer.)

A—Hitch Control Lever **B—Raise/Lower Switch**



LV12484 —UN—12APR05

Cab and IOOS Shown



LV12465 —UN—12APR05

EH Switch Control

OUO1023,00028AC -19-13APR06-4/4

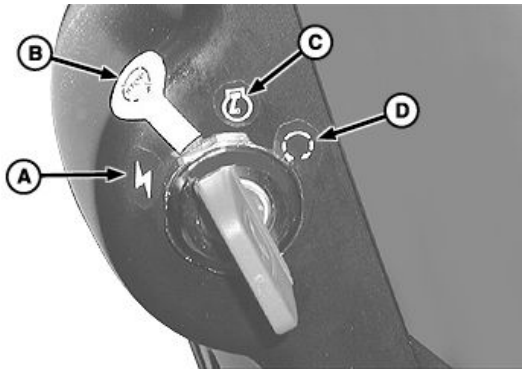
Operating Ignition Switch

Accessory Position (A): Turn key to ACCESSORY position to power electrical functions.

Stop Position (B): Turn key to STOP position to turn off electrical accessories and to shut down engine.

Run Position (C): Turn key to RUN position and check to see if all indicator bulbs light before advancing to START position. Also use RUN position to activate cold weather starting devices. If temperature is below 5°C (41°F), refer to Cold Weather Starting procedure in this section.

Start Position (D): Turn key to START position to crank and start engine. Key returns to RUN position when released.



LV09199 —UN—22JUL04

A—Accessory Position
B—Stop Position
C—Run Position
D—Start Position

OUO1023,00028AD -19-13APR06-1/1

Starting the Engine

CAUTION: NEVER start engine while standing on ground. Do not start engine by shorting across starter terminals. Machine will start in gear and move if normal circuitry is bypassed.

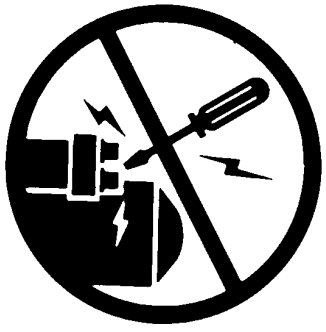
IMPORTANT: DO NOT run a cold engine at full throttle. Idle engine at 1200 rpm until it warms to operating temperature.

1. Start from operator's seat with transmission in neutral or park. For PowrReverser Transmission, put EH directional reverser lever in neutral.
2. Push hand throttle (A) forward from idle position (approximately 1/3 of full throttle). Engine may not start with throttle pulled completely down.

IMPORTANT: DO NOT operate starter more than 20 seconds at a time. If engine does not start, wait at least 2 minutes for the starter motor to cool before trying again.

3. Depress clutch pedal and turn key (B) to START position. Release key when engine starts. If key is released before engine starts, wait until starter and engine stop turning before trying again.
4. Warm up tractor carefully. Charging and oil pressure warning indicators should go off and stay off. Coolant temperature gauge should begin to move into normal range.
5. Avoid unnecessary engine idling. Check fluid levels frequently for engine oil, coolant, transmission-hydraulic, and mechanical front wheel drive (if equipped). Watch for fluid leaks.

A—Hand Throttle **B—Key**



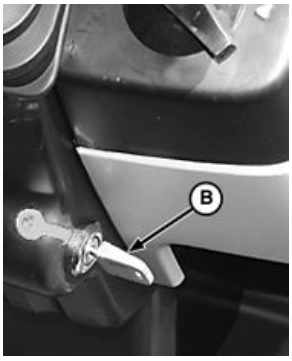
TS177 —UN—11JAN89

Straddle Mount and Hi-Crop

LV12485 —UN—12APR05

IOOS Shown, Cab Similar

LV12486 —UN—12APR05



Keyswitch

LV12487 —UN—12APR05

OUO1023,00028AE -19-13APR06-1/1

Cold Weather Starting

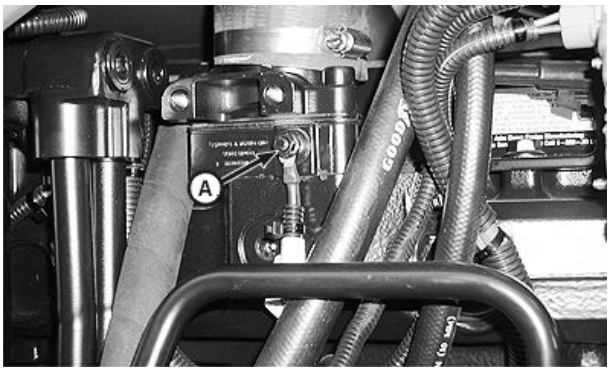
CAUTION: DO NOT use starting fluid in tractor equipped with a cold weather starting device.

Model 5225 and 5325 Tractors are equipped with glow plugs as a standard equipment starting aid.

Model 5425, 5525 and 5625 Tractors can be equipped with an optional intake air heater system. An electric heating element (A) warms the intake air.

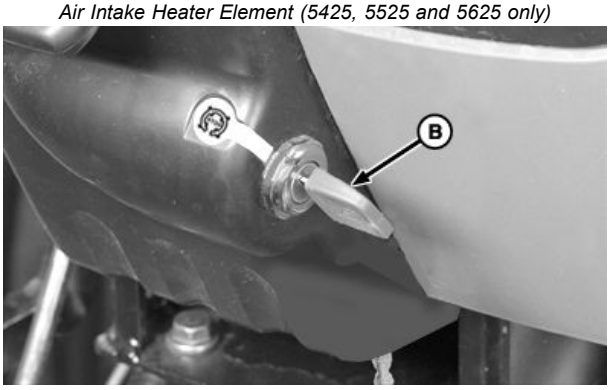
1. To activate cold weather starting device, turn key (B) to RUN position, push in and hold:
   - 10 or 15 seconds for temperatures above 0°C (32°F)
   - 30 seconds for temperatures below 0°C (32°F)
2. Depress clutch pedal and turn key to START position.
3. If engine runs rough, press in on key to reactivate cold weather starting device until engine runs smoothly.
4. Idle engine at 1200 rpm until it warms to operating temperature.

A—Electric Heating Element B—Key



Air Intake Heater Element (5425, 5525 and 5625 only)

LV5471 —UN—21NOV00



LV9552 —UN—13AUG04

OUO1023,00028AF -19-15SEP06-1/1

Using Engine Coolant Heater

CAUTION: To avoid shock or hazardous operation, always use a three-wire heavy-duty electrical cord (minimum gauge 10 AWG and no longer than 7.6 m [25 ft]) equipped with three connectors. If a two-to-three contact adapter is used at the wall receptacle, connect green wire to a good ground.

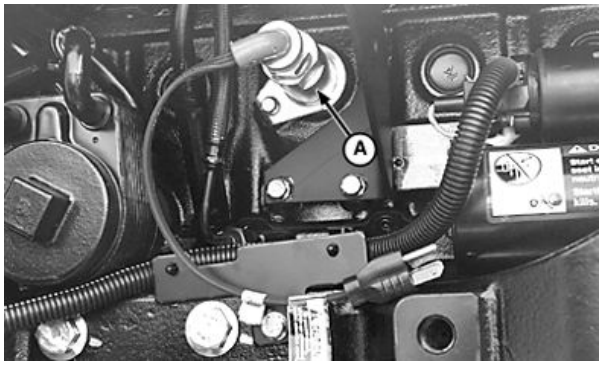
Immerse element in coolant before connecting heater to power source. NEVER energize heater in air.

Located on side of the engine, the 110-volt coolant heater (A) warms the engine coolant, reduces oil drag, eases starting, and shortens warm-up time.

Connect heater plug to a ground fault protected 110-volt electrical outlet.

A—Coolant Heater

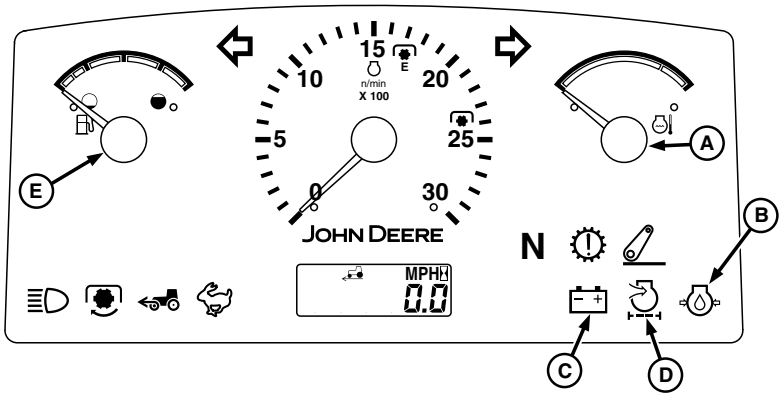
TS210 —UN—23AUG88



LV12671 —UN—26APR05

OUO1023,00028B0 -19-13APR06-1/1

Checking Engine Indicators and Gauges



LV9541 —UN—04AUG04

A—Coolant Temperature Gauge
B—Oil Pressure Indicator
C—Charging System Indicator
D—Air Restriction Indicator
E—Fuel Level Gauge

IMPORTANT: If temperature gauge (A) indicates hot (red zone), or either charging system or oil pressure indicators (B or C) fail to go out, stop engine and determine the cause.

Coolant Temperature Gauge (A)

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

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

Oil Pressure Indicator (B)

Oil pressure indicator will light if engine oil pressure is low. Indicator should light when key is turned to RUN position and go out when engine starts.

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

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

Charging System Indicator (C)

Charging system indicator will light when alternator output is low. Indicator should light when key is turned to RUN position, and go out when engine starts.

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

Air Restriction Indicator (D)

Air restriction indicator will light if air cleaner becomes plugged. Service air cleaner as soon as possible.

Fuel Level Gauge (E)

Stop to refuel before fuel gauge reaches empty mark.

IMPORTANT: Use diesel fuel only.

If tractor runs out of fuel and will not start in several tries, bleed air from fuel system.

OUO1023,00028B1 -19-13APR06-1/1

Changing Engine Speeds

Push hand throttle (A) forward to increase speed.

Depress foot throttle (B) to temporarily increase engine speed above hand throttle setting.

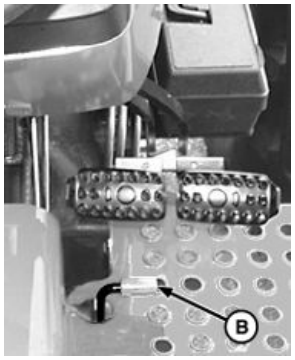
A—Hand Throttle **B—Foot Throttle**

Straddle Mount and Hi-Crop

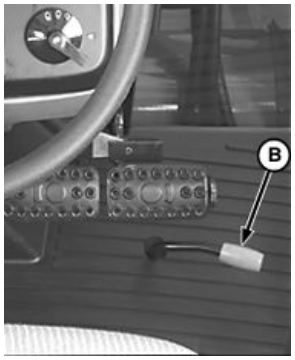
LV12485 —UN—12APR05

LV12486 —UN—12APR05

Cab and IOOS



Straddle Mount and Hi-Crop



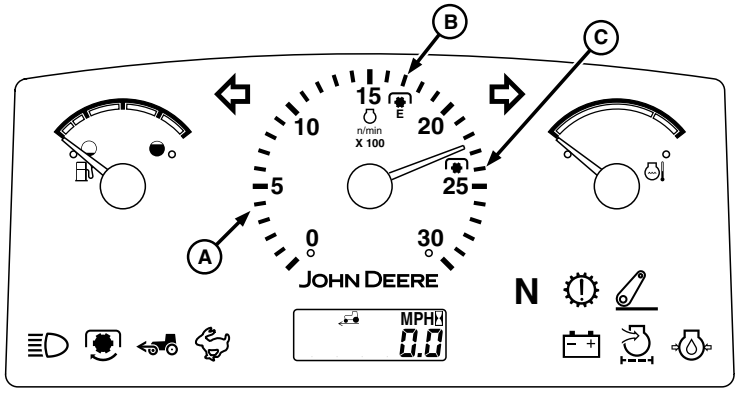
LV12488 —UN—12APR05

LV12489 —UN—12APR05

Cab and IOOS

OUO1023,00028B2 -19-13APR06-1/1

Recommended Engine Speeds and Operating Procedures



LV9542 —UN—04AUG04

A—Tachometer
B—1700 RPM Mark (540E)
C—2400 RPM Mark (540)

Tachometer (A) shows engine rpm, read in hundreds.

Warming Up Engine

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

1. Idle engine at 1200—1500 rpm for several minutes.
2. Run engine at about 1900 rpm and under light load until engine reaches normal operation condition.

NOTE: If hydraulic functions operate slowly, warm the transmission-hydraulic system oil.

Avoid Idling Engine

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

If tractor must be left with the engine running more than three or four minutes, minimum engine speed should be 1200 rpm.

Observe Engine Work and Idle Speeds

5225 and 5325: Slow idle speed should be 900 ±50 rpm. At light or no load, full throttle speed will increase to 2625 ±50 rpm.

5425, 5525 and 5625: Slow idle speed should be 825 ±25 rpm. At light or no load, full throttle speed will increase to 2625 ±25 rpm.

Normal working speed is 1600—2400 rpm rated speed. Within these limits engine can be put under full load.

NOTE: With PTO shift lever in 540E position, engine fast idle speed is limited to 1700 rpm.

For correct PTO speed, run engine at:

- **Economical 540E PTO (B) operation (lighter load):** Increase engine speed until tachometer needle is aligned with 1700 rpm mark (B).
- **Standard 540 rpm or 1000 rpm (if equipped) PTO (C) operation (load requiring full engine power):** Increase engine speed until tachometer needle is aligned with 2400 rpm mark (C).

Restarting Stalled Engine

Should the engine stall when operating under load, depress clutch and restart it immediately to prevent abnormal heat buildup and continue with normal operation, or operate at slow idle for one or two minutes before stopping.

OUO1023,00027F9 -19-14SEP06-1/1

Stopping the Engine

IMPORTANT: Certain engine parts are cooled by engine oil. Stopping a hot engine could cause damage by overheating or lack of lubrication.

1. Pull hand throttle (A) back to slow idle.
2. Put gear shift lever in PARK, and allow engine to idle for 2—5 minutes.
3. **PowrReverser™ Transmission:** Put EH directional reverser lever in NEUTRAL.
4. Lower all equipment to the ground, put all SCV levers in NEUTRAL, and disengage PTO.
5. Turn key (B) to STOP and remove from switch.

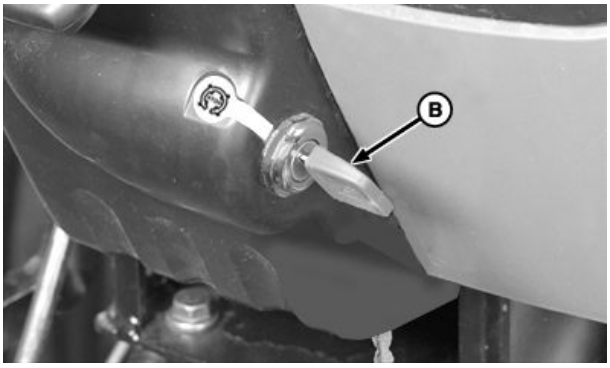
A—Hand Throttle **B—Key**

LV12485 —UN—12APR05

Straddle Mount and Hi-Crop

LV12486 —UN—12APR05

IOOS Shown, Cab Similar



LV9552 —UN—13AUG04

OUO1023,00028B3 -19-13APR06-1/1

Using a Booster Battery or Charger

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

IMPORTANT: Reversed polarity may damage electrical system or cause battery to explode.

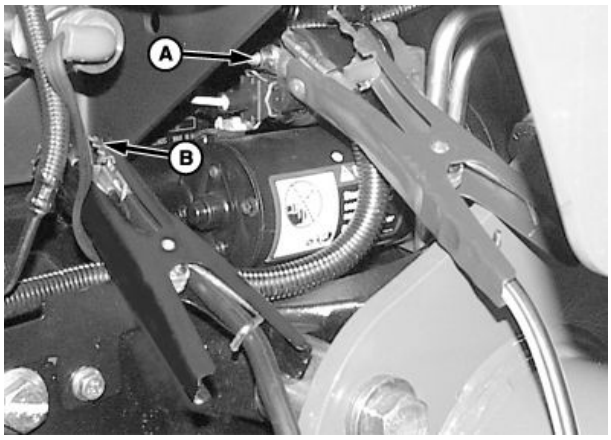
Booster Battery

1. Attach red power cable to starter positive terminal (A) and positive terminal of booster battery.
2. Attach black ground cable to negative terminal of booster battery and to a good ground (B) on the engine block.
3. Turn key to START position.
4. When engine starts, remove ground cable (B) first, then power 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.
2. Charge battery according to charger manufacturer's instructions.
3. Disconnect negative charger lead first, then positive lead.

TS204 —UN—15APR13



LV9557 —UN—04AUG04

5225 and 5325 Shown (Left Side)

A—Starter Positive Terminal **B—Ground Connection**

OUO1023,00028B4 -19-13APR06-1/1

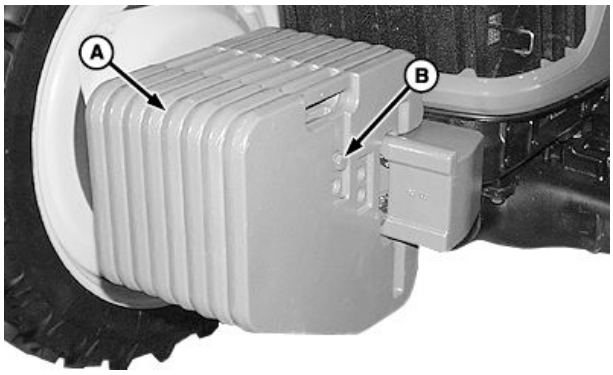
Ballasting Front End for Transport

CAUTION: Additional front ballast may be needed for transporting rear-mounted implements. Heavy pulling and heavy rear-mounted implements tend to lift front wheels. When handling weights, use proper lifting equipment. Approximate weight of QUIK-TATCH weights is 47 kg (104 lb). Drive slowly over rough ground when implement is raised.

NOTE: Determine the minimum number of front weights required from implement code in implement operator's manual.

Up to 10 Quik-Tatch™ weights can be installed on the front of the tractor.

1. Add weight to front end to maintain stability and steering control. Install weights in pairs, one on each side of center (A).
2. To hold weights in place, insert retaining bolts (B) through holes from side-to-side. Tighten to specification.



LV9683 —UN—17AUG04

A—Ballast Center **B—Ballast Retaining Bolt**

Specification	
Ballast Weights Retaining Bolts—Torque	215 N·m (159 lb-ft)

NOTE: Additional information for ballasting your tractor is available on the internet at **www.JohnDeere.com/Tips**

Quik-Tatch is a trademark of Deere & Company

OUO1023,0002905 -19-17MAY06-1/1

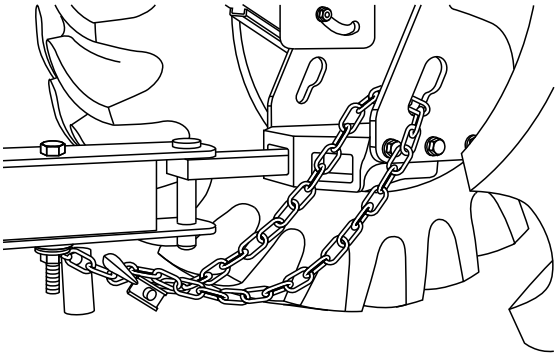
Using Safety Chain

CAUTION: Avoid possible accident and injury by using a safety chain on drawn equipment. Use a safety chain with a strength rating equal to or greater than the gross weight of equipment. Provide only enough slack in the chain to permit turning.

Attach the safety chain to the drawbar support or other specified anchor locations.

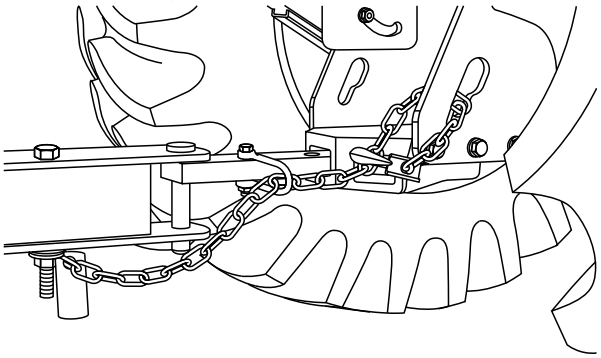
IMPORTANT: DO NOT use safety chain for towing, or possible damage to tractor, implement and drawbar may result. Safety chain is provided only for transport.

SLOW DOWN when transporting heavy implements.



LV12791 —UN—08MAR06

Safety Chain with Draw Bar Retracted



LV12795 —UN—20SEP06

Safety Chain with Draw Bar Extended

OUO1023,00029BF -19-17OCT06-1/1

Driving on Public Roads

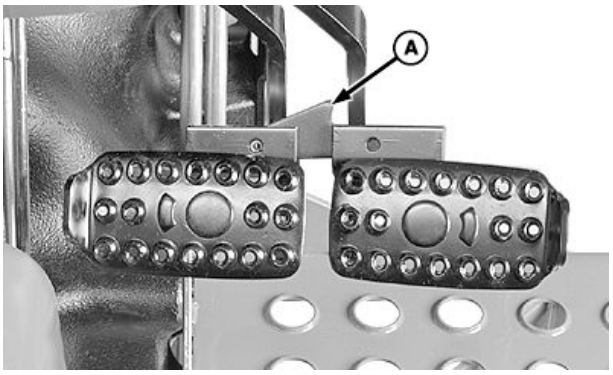
CAUTION: Slow-moving tractors with attachments or towed equipment are difficult to see on public roads. Frequently check for traffic from the rear, especially in turns. Use your turn signals.

1. When driving tractor on roads:
   - Ballast tractor correctly.
   - Clean windows and adjust rear-view mirrors.
   - Use foot throttle instead of hand throttle.

CAUTION: Use brakes lightly and cautiously when slowing from transport speed.

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

2. Tap brake pedal to ensure differential lock is NOT engaged. Couple brake pedals together using brake locking bar (A). Avoid hard braking application.



LV9594 —UN—07AUG04

Brake Locking Bar

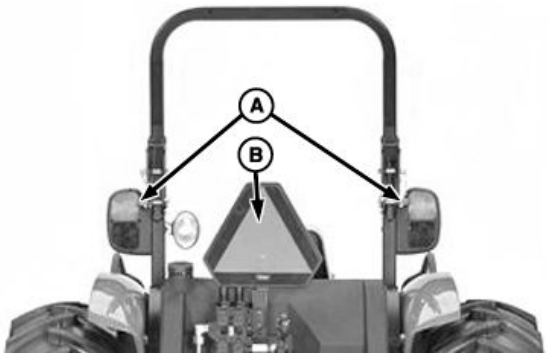
A—Brake Locking Bar

Continued on next page

OUO1023,00028B6 -19-13APR06-1/2

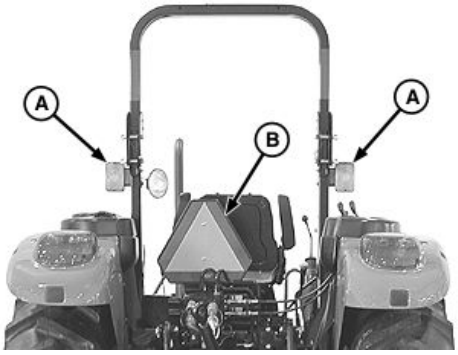
3. Check local laws and regulations for lighting requirements. Clean Slow Moving Vehicle (SMV) emblem (B) and warning lights (A). If towed or rear-mounted equipment obstructs view of safety devices, install SMV emblem and warning lights on equipment.
4. **MFWD (if equipped):** Disengage front wheel drive when transporting tractor. When driving on roads, engage BRAKE ASSIST position of MFWD switch to provide four-wheel braking.
5. **Loader Cylinders (if equipped):** Engage transport lock to eliminate possibility of loader movement during transport by inadvertently bumping the multi-function control lever.
6. **Rear Hitch:** Lock hitch in transport position to eliminate the possibility of lowering an implement during transport by inadvertently bumping the raise/lower lever.
7. Drive slowly to maintain safe control. Before descending a hill, shift to a lower gear to control speed without using brakes. Slow down for rough ground and sharp turns, especially when transporting heavy, rear-mounted equipment.

A—Warning Lights **B—SMV Emblem**



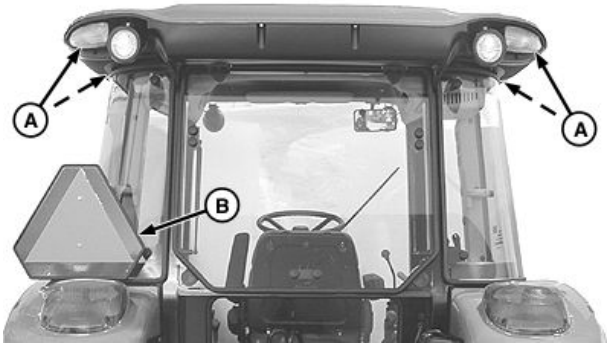
LV9544 —UN—03AUG04

Straddle Mount and Hi-Crop



LV8506 —UN—24JUL03

IOOS



LV8507 —UN—24JUL03

Cab

OUO1023,00028B6 -19-13APR06-2/2

Operating SyncShuttle™ Transmission

Gear shift lever (A) provides three forward travel speeds (1, 2, 3) and reverse:

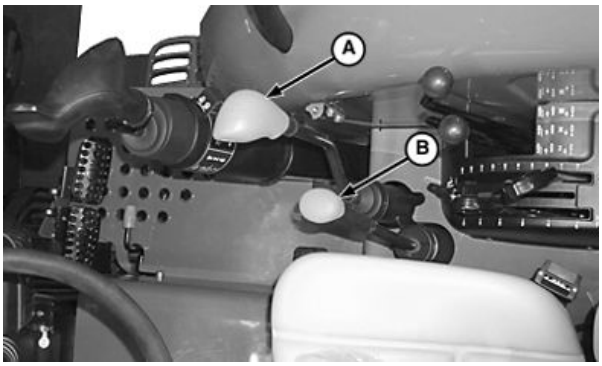
- Nine forward speeds are available when using range and gear shift levers.
- Three reverse speeds are available when using the range shift lever (B).

NOTE: Slow speed gearing (creeper) is available as an option. It provides a fourth speed range.

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

Gear (1, 2, 3) and direction shifts (forward and reverse) can be made on-the-go, without stopping. Release clutch pedal gradually to take up load smoothly.

A—Gear Shift Lever
B—Range Shift Lever
C—Clutch Pedal



LV12661 —UN—22APR05

LV9563 —UN—13AUG04

OUO1023,00028B7 -19-13APR06-1/1

Ground Speed Estimates—SyncShuttle™ Transmission

Speeds are calculated using 16.9-30, R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30, R1 tires, see CORRECTION FACTORS FOR OTHER TIRE SIZES in this section.

FORWARD	
Range-Gear	**1600 / 2400 RPM km/h (mph)**
A-1	1.55 / 2.33 (0.96 / 1.45)
A-2	2.24 / 3.36 (1.39 /2.09)
A-3	3.30 / 4.95 (2.05 / 3.08)
B-1	3.92 / 5.88 (2.44 / 3.65)
B-2	5.67 / 8.51 (3.52 /5.29)
B-3	8.35 / 12.52 (5.50 / 7.78)
C-1	9.99 / 14.99 (6.21 / 9.31)
C-2	14.45 / 21.67 (8.98 / 13.47)
C-3	21.27 / 31.90 (13.22 / 19.82)

REVERSE	
Range-Gear	**1600 / 2400 RPM km/h (mph)**
A-R	2.56 / 3.83 (1.59 / 2.38)
B-R	6.46 / 9.69 (4.03 / 6.02)
C-R	16.46 / 24.69 (10.23 / 15.34)

OUO1023,0002901 -19-12MAY06-1/1

Operating PowrReverser™ Transmission

CAUTION: Leaving transmission in gear with engine stopped WILL NOT prevent tractor from moving. Put transmission gear shift lever in PARK and electro-hydraulic directional reverser lever in NEUTRAL before dismounting.

Gear shift lever (A) provides four forward travel speeds (1, 2, 3, 4) and reverse.

Range shift lever (B) provides three speed ranges (A, B, C).

Electro-hydraulic (EH) directional reverser lever (C) provides travel direction (forward or reverse).

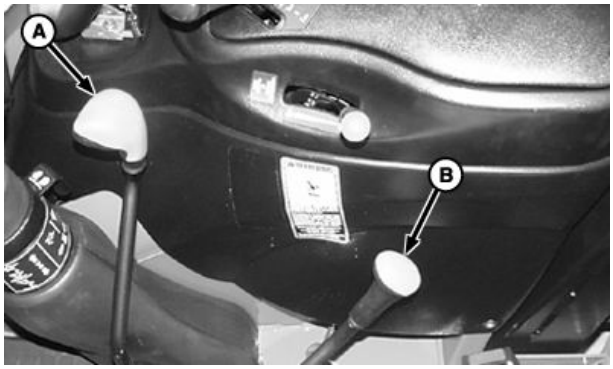
When using range and gear shift levers in different combinations, 12 forward and reverse speeds are available.

NOTE: Slow speed gearing (creeper) is available as an option.

1. When starting tractor, put EH directional reverser lever in neutral and cycle clutch pedal one time to disengage the engagement override valve.

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

2. Depress clutch pedal and stop tractor before shifting range shift lever.
3. Use EH directional reverser lever to select travel direction. You can change travel direction without depressing the clutch pedal.
4. Depress clutch pedal when shifting gears. Gear shifts (1, 2, 3, 4) can be made on-the-go, without stopping. Release clutch pedal gradually to take up load smoothly.



IOOS Shown, Other Tractors Similar

LV9536 —UN—04AUG04

EH Directional Reverser Lever

LV9537 —UN—04AUG04

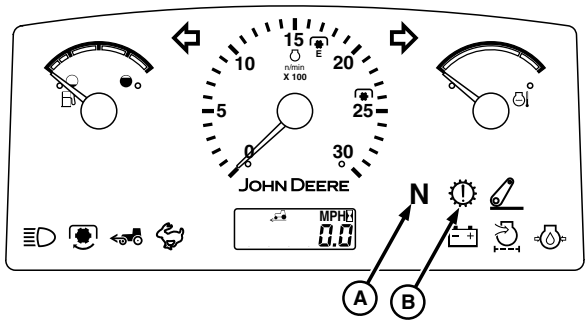
A—Gear Shift Lever
B—Range Shift Lever
C—EH Directional Reverser Lever

OUO1023,00028B8 -19-13APR06-1/2

The Neutral Indicator (A) lights when gear shift lever and EH directional reverser lever are both in neutral. The indicator light will go out when the gear shift lever is put in PARK. The indicator light will flash if the gear shift lever is in Neutral and EH directional reverser lever is in forward or reverse.

The Information Indicator (B) lights if a malfunction is detected in the transmission. If this indicator comes on, contact your John Deere dealer.

A—Neutral Indicator
B—Information Indicator



LV9588 —UN—06AUG04

OUO1023,00028B8 -19-13APR06-2/2

Ground Speed Estimates—PowrReverser™ Transmission

Speeds are calculated using 16.9-30, R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30, R1 tires, see CORRECTION FACTORS FOR OTHER TIRE SIZES in this section.

FORWARD		REVERSE	
Range-Gear	1600 / 2400 RPM km/h (mph)	Range-Gear	1600 / 2400 RPM km/h (mph)
A-1	1.16 / 1.73 (0.72 / 1.07)	A-1	1.26 / 1.89 (0.78 / 1.17)
A-2	1.57 / 2.36 (0.98 / 1.47)	A-2	1.72 / 2.58 (1.07 / 1.60)
A-3	2.15 / 3.22 (1.34 / 2.00)	A-3	2.34 / 3.52 (1.45 / 2.19)
A-4	2.88 / 4.32 (1.79 / 2.63)	A-4	3.14 / 4.71 (1.95 / 2.93)
B-1	3.33 / 5.00 (2.07 / 3.11)	B-1	3.64 / 5.45 (2.26 / 3.39)
B-2	4.54 / 6.80 (2.82 / 4.23)	B-2	4.95 / 7.42 (3.08 / 4. 61)
B-3	6.19 / 9.29 (3.85 / 5.77)	B-3	6.76 / 10.13 (4.20 / 6.29)
B-4	8.30 / 12.44 (5.16 / 7.73)	B-4	9.05 / 13.57 (5.62 / 8. 43)
C-1	9.64 / 14.45 (5.99 / 8.98)	C-1	10.51 / 15.77 (6.53 / 9.80)
C-2	13.12 / 19.67 (8.15 / 12.22)	C-2	14.31 / 21.46 (8.98 / 13.33)
C-3	17.90 / 26.86 (11.12 / 16.69)	C-3	19.53 / 29.30 (12.14 / 18.21)
C-4	23.98 / 35.97 (14.90 / 22.35)	C-4	26.16 / 39.24 (16.26 / 24.38)

OUO1023,0002900 -19-12MAY06-1/1

Operating PowrReverser™ Transmission with Hi/Lo—If Equipped

PowrReverser™ transmission is available with push-button Hi/Lo split-shift feature, where each range and gear combination is split for more exact speed control.

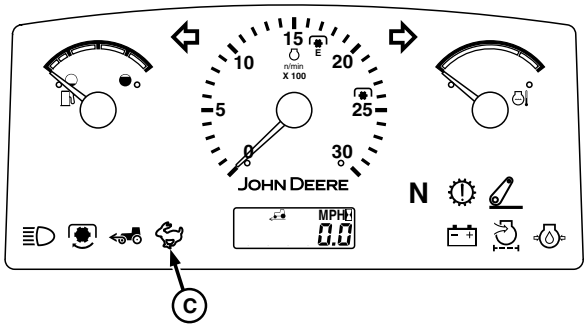
Using range and gear shift levers and Hi/Lo split-shift feature, 24 forward and reverse speeds are available.

Use the Hi/Lo switches to up-shift and down-shift within the selected range and gear. The hi-speed (Rabbit) indicator (C) lights when high speed is selected.

A—Hi Speed
B—Lo Speed
C—Hi-Speed Indicator

LV9564 —UN—13AUG04

Hi/Lo Switches



LV9565 —UN—06AUG04

Hi Speed Indicator

OUO1023,00028B9 -19-13APR06-1/1

Ground Speed Estimates—PowrReverser™ Transmission with Hi/Lo

Speeds are calculated using 16.9-30, R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30, R1 tires, see CORRECTION FACTORS FOR OTHER TIRE SIZES in this section.

FORWARD		REVERSE	
Range-Gear Hi/Lo	1600 / 2400 RPM km/h (mph)	Range-Gear Hi/Lo	1600 / 2400 RPM km/h (mph)
A-1L	1.00 / 1.50 (0.62 / 0.93)	A-1L	1.10 / 1.65 (0.68 / 1.03)
A-1H	1.21 / 1.81 (0.75 / 1.12)	A-1H	1.32 / 1.98 (0.82 / 1.23)
A-2L	1.37 / 2.05 (0.85 / 1.27)	A-2L	1.49 / 2.24 (0.93 / 1.39)
A-2H	1.64 / 2.46 (1.02 / 1.53)	A-2H	1.80 / 2.69 (1.12 / 1.67)
A-3L	1.86 / 2.80 (1.16 / 1.74)	A-3L	2.04 / 3.06 (1.27 / 1.90)
A-3H	2.24 / 3.36 (1.39 / 2.09)	A-3H	2.45 / 3.68 (1.52 / 2.29)
A-4L	2.50 / 3.75 (1.55 / 2.33)	A-4L	2.73 / 4.10 (1.70 / 2.55)
A-4H	3.00 / 4.50 (1.86 / 2.80)	A-4H	3.28 / 4.92 (2.04 / 3.06)
B-1L	2.89 / 4.34 (1.80 / 2.70)	B-1L	3.17 / 4.75 (1.97 / 2.95)
B-1H	3.47 / 5.21 (2.16 / 3.24)	B-1H	3.80 / 5.70 (2.36 / 3.54)
B-2L	3.94 / 5.90 (2.45 / 3.67)	B-2L	4.31 / 6.46 (2.68 / 4.01)
B-2H	4.73 / 7.09 (2.94 / 4.41)	B-2H	5.17 / 7.76 (3.21 / 4.82)
B-3L	5.37 / 8.06 (3.34 / 5.01)	B-3L	5.88 / 8.82 (3.65 / 5.48)
B-3H	6.45 / 9.68 (4.01 / 6.01)	B-3H	7.06 / 10.60 (4.39 / 6.59)
B-4L	7.20 / 10.80 (4.47 / 6.71)	B-4L	7.88 / 11.82 (4.90 / 7.34)
B-4H	8.64 / 12.97 (5.37 / 8.06)	B-4H	9.46 / 14.19 (5.88 / 8.82)
C-1L	8.36 / 12.54 (5.19 / 7.79)	C-1L	9.15 / 13.73 (5.69 / 8.53)
C-1H	10.04 / 15.06 (6.24 / 9.36)	C-1H	10.99 / 16.49 (6.83 / 10.25)
C-2L	11.38 / 17.07 (7.07 / 10.61)	C-2L	12.46 / 18.68 (7.74 / 11.61)
C-2H	13.67 / 20.50 (8.49 / 12.74)	C-2H	14.96 / 22.44 (9.30 / 13.94)
C-3L	15.53 / 23.30 (9.65 / 14.48)	C-3L	17.00 / 25.50 (10.56 / 15.84)
C-3H	18.66 / 27.99 (11.59 / 17.39)	C-3H	20.42 / 30.64 (12.69 / 19.04)
C-4L	20.81 / 31.21 (12.93 / 8.21)	C-4L	22.78 / 34.16 (14.15 / 21.23)
C-4H	24.99 / 37.49 (15.53 / 23.30)	C-4H	27.36 / 41.04 (17.00 / 25.50)

OUO1023,00028FF -19-12MAY06-1/1

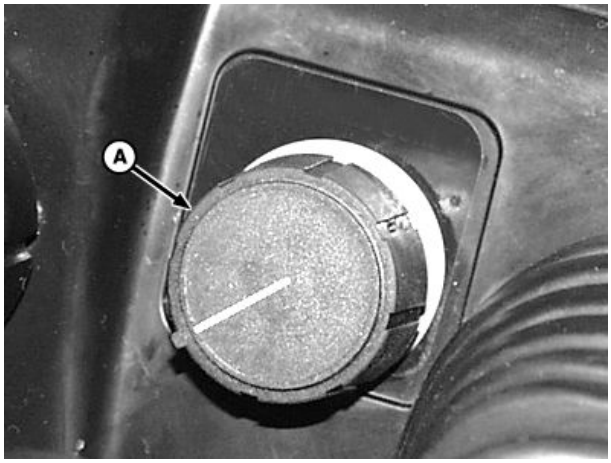
Using Infinitely Variable Shuttle—If Equipped

The Infinitely Variable Shuttle (A) adjusts load take-up and acceleration when making directional changes with EH directional reverser lever, during repetitive cycle work such as loader operation:

1. In full left (counterclockwise) position (as shown), load take-up and acceleration ramp-up are slow to respond.
2. When operating with high load and ballast, turn control knob clockwise to acceleration and load take-up response.

IMPORTANT: Premature tire wear can occur when operating in full right (clockwise) position on concrete or paved surfaces.

A—Infinitely Variable Shuttle



LV9566 —UN—29SEP04

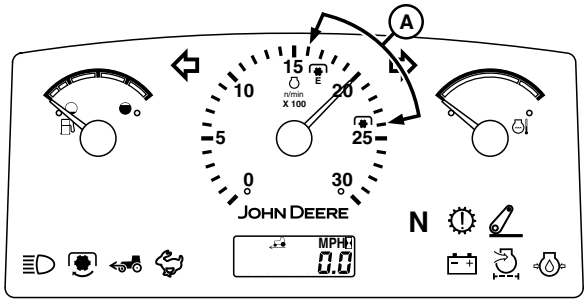
OUO1023,00028BA -19-13APR06-1/1

Selecting a Gear

IMPORTANT: Operate one gear lower than normal to extend drive train life and avoid excessive soil compaction and rolling resistance when using ballast.

The tractor may be operated in any gear with engine speeds between 1600—2400 rated engine rpm (A). Within these limits the engine can be put under full load. For light load operation, use a higher gear and lower engine speed. This saves fuel and reduces wear.

A—1600—2400 Rated Engine RPM



LV9567 —UN—06AUG04

OUO1023,00028BB -19-13APR06-1/1

Correction Factors for Other Tire Sizes

To calculate ground speeds for tractors equipped with rear tires other than 16.9-30 R1 tires, multiply speeds shown in GROUND SPEED ESTIMATES by the correction factor for the appropriate tire size found in the table.

Be sure to use correct ground speed estimate for your transmission type (SyncShuttle™, PowrReverser™ or PowrReverser™ with Hi/Lo). Use creeper transmission ground speed estimates, if so equipped.

Example: Forward B-2 (SyncShuttle™ Transmission) at 2400 engine rpm with 16.9-24 R1 tires.

8.51 km/h (5.29 mph) x 0.90 = 7.66 km/h (4.76 mph)

Tire Size	Correction Factor
21.5L-16.1 R3	0.74
22.5LL-16.1 Turf Special	0.70
16.9-24 R4	0.87
16.9-24 R3	0.88
19.5L-24 R4	0.88
16.9-24 R1	0.90
13.6-28 R1	0.90
14.9-28 R1	0.92
16.9-28 R1	0.97
420/90R30 R1 16.9-30 R1	1.00
230/95R40 R1 (Hi-Crop)	1.01
480/80R30 R1W 18.4R30	1.04
15.5R38 R1	1.07
13.6-38 R2 (Hi-Crop)	1.09
9.5R48 R1 (Veggie)	1.17

NOTE: Speed and correction factor information above is based on rolling circumference information from Firestone Farm Tire Data Book. Rolling circumference dimensions for "like" size tires vary by manufacturer.

OUO1023,00028FE -19-29SEP09-1/1

Creeper Gear Operation—If Equipped

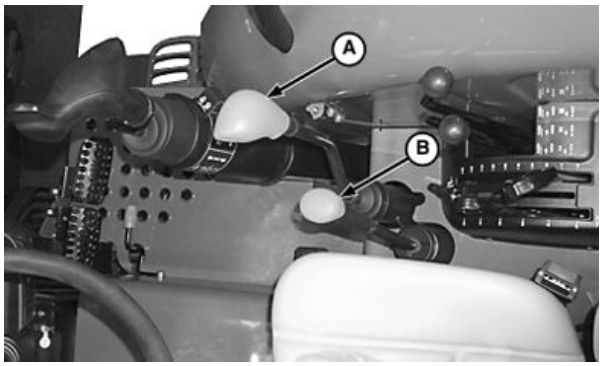
A slow-speed creeper gear is available as an option and provides slowest speed range.

Moving the range shift lever (B) to optional creeper (Snail) range (C) provides greatly reduced ground speeds for special operations.

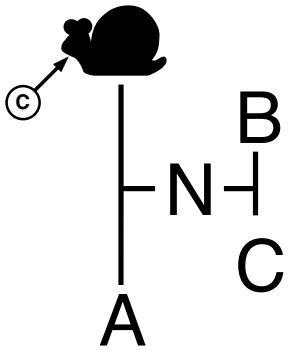
SyncShuttle™ transmission: Gear shift lever (A) provides three forward travel speeds and reverse in the creeper range.

PowrReverser™ transmission: Gear shift lever (A) provides four travel speeds in forward and reverse in the creeper range.

A—Gear Shift Lever
B—Range Shift Lever
C—Creeper Range (Snail Symbol)



LV12661 —UN—22APR05



Creeper (Snail) Range

LV9559 —UN—06AUG04

OUO1023,00027C2 -19-07MAR06-1/1

Ground Speed Estimates—Creeper Transmission

Speeds are calculated using 16.9-30, R1 rear tires. To calculate ground speeds for tractors equipped with rear tires other than 16.9-30, R1 tires, see CORRECTION FACTORS FOR OTHER TIRE SIZES in this section.

SyncShuttle™ Transmission			
Creeper			
FORWARD		REVERSE	
Range-Gear	1600 / 2400 RPM km/h (mph)	Range-Gear	1600 / 2400 RPM km/h (mph)
Cr-1	0.27 / 0.40 (0.17 / 0.25)	Cr-R	0.44 / 0.67 (0.27 / 0.42)
Cr-2	0.39 / 0.58 (0.24 / 0.36)		
Cr-3	0.57 / 0.86 (0.35 / 0.53)		
Hi-Speed Creeper			
HiSCr-1	0.65 / 0.97 (0.40 / 0.60)	HiSCr-R	1.06 / 1.60 (0.66 / 0.99)
HiSCr-2	0.93 / 0.1.40 (0.58 / 0.87)		
HiSCr-3	1.38 / 2.06 (0.86 / 1.28)		

PowrReverser™ Transmission			
Creeper			
FORWARD		REVERSE	
Range-Gear	1600 / 2400 RPM km/h (mph)	Range-Gear	1600 / 2400 RPM km/h (mph)
Cr-1	0.20 / 0.30 (0.12 / 0.19)	Cr-1	0.22 / 0.33 (0.14 / 0.21)
Cr-2	0.27 / 0.41 (0.17 / 0.25)	Cr-2	0.30 / 0.45 (0.19 / 0.28)
Cr-3	0.37 / 0.56 (0.23 / 0.35)	Cr-3	0.41 / 0.61 (0.25 / 0.38)
Cr-4	0.50 / 0.75 (0.31 / 0.47)	Cr-4	0.55 / 0.82 (0.34 / 0.51)
Hi-Speed Creeper			
HiSCr-1	0.48 / 0.72 (0.30 / 0.45)	HiSCr-1	0.53 / 0.79 (0.33 / 0.49)
HiSCr-2	0.66 / 0.98 (0.41 / 0.61)	HiSCr-2	0.72 / 1.07 (0.45 / 0.66)
HiSCr-3	0.90 / 1.34 (0.56 / 0.83)	HiSCr-3	0.98 / 1.46 (0.61 / 0.91)
HiSCr-4	1.20 / 1.80 (0.75 / 1.12)	HiSCr-4	1.31 / 1.96 (0.81 / 1.22)

PowrReverser™ Transmission with Hi/Lo			
Creeper			
FORWARD		REVERSE	
Range-Gear	1600 / 2400 RPM km/h (mph)	Range-Gear	1600 / 2400 RPM km/h (mph)
Cr-1L	0.17 / 0.26 (0.11 / 0.16)	Cr-1L	0.19 / 0.29 (0.12 / 0.18)
Cr-1H	0.21 / 0.31 (0.13 / 0.19)	Cr-1H	0.23 / 0.34 (0.14 / 0.21)
Cr-2L	1.00 / 1.49 (0.62 / 0.93)	Cr-2L	1.09 / 1.63 (0.68 / 1.01)
Cr-2H	5.02 / 7.53 (3.12 / 4.68)	Cr-2H	5.50 / 8.25 (3.42 / 5.13)
Cr-3L	0.32 / 0.49 (0.20 / 0.30)	Cr-3L	0.35 / 0.53 (0.22 / 0.33)
Cr-3H	0.39 / 0.58 (0.24 / 0.36)	Cr-3H	0.43 / 0.64 (0.27 / 0.40)
Cr-4L	0.43 / 0.65 (0.27 / 0.40)	Cr-4L	0.47 / 0.71 (0.29 / 0.44)
Cr-4H	0.52 / 0.78 (0.32 / 0.48)	Cr-4H	0.57 / 0.85 (0.35 / 0.53)
Hi-Speed Creeper			

Continued on next page

PowrReverser™ Transmission with Hi/Lo			
Creeper			
FORWARD		REVERSE	
Range-Gear	1600 / 2400 RPM km/h (mph)	Range-Gear	1600 / 2400 RPM km/h (mph)
HiSCr-1L	0.42 / 0.63 (0.26 / 0.39)	HiSCr-1L	0.46 / 0.69 (0.29 / 0.43)
HiSCr-1H	0.50 / 0.75 (0.31 / 0.47)	HiSCr-1H	0.55 / 0.82 (0.34 / 0.51)
HiSCr-2L	0.57/ 0.85 (0.35 / 0.53)	HiSCr-2L	0.62 / 0.93 (0.39 / 0.58)
HiSCr-2H	0.68 / 1.03 (0.42 / 0.64)	HiSCr-2H	0.75 / 1.12 (0.47 / 0.70)
HiSCr-3L	0.78 / 1.16 (0.48 / 0.72)	HiSCr-3L	0.85 / 1.28 (0.53 / 0.80)
HiSCr-3H	0.93 / 1.40 (0.58 / 0.87)	HiSCr-3H	1.02 / 1.53 (0.63 / 0.95)
HiSCr-4L	1.04 / 1.56 (0.65 / 0.97)	HiSCr-4L	1.14 / 1.71 (0.71 / 1.06)
HiSCr-4H	1.25 / 1.87 (0.78 / 1.16)	HiSCr-4H	1.37 / 2.05 (0.85 / 1.27)

OUO1023,00028FD -19-12MAY06-2/2

Operating Brakes

CAUTION: Before operating tractor on a road, lock brake pedals together with locking bar (A). Use brakes lightly and cautiously when slowing from transport speed.

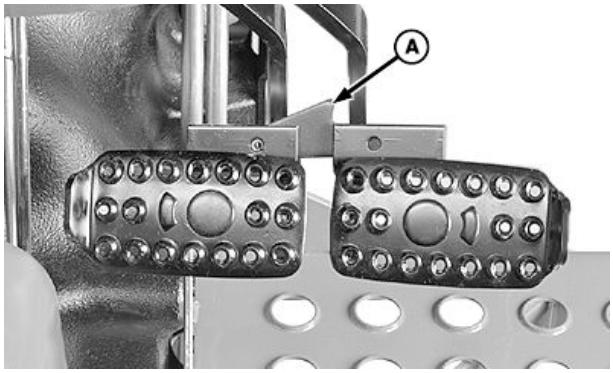
NOTE: Brake pedals shown in locked position.

Use individual brakes to assist in making sharp turns. Disengage brake pedal locking bar (A) and depress only one brake pedal.

To stop tractor, depress both brake pedals.

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

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



LV9594 —UN—07AUG04

A—Brake Pedal Locking Bar

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

OUO1023,00027C3 -19-07MAR06-1/1

Using Differential Lock

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

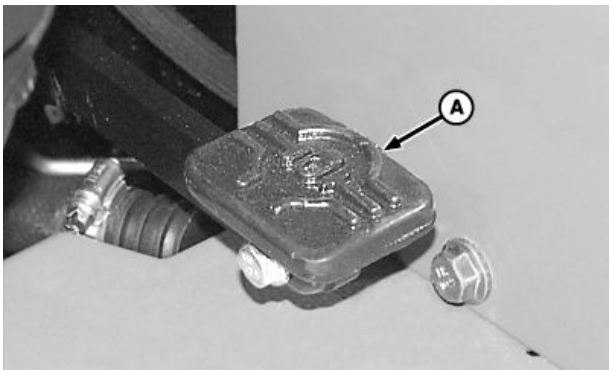
IMPORTANT: To prevent damage to drive train, DO NOT engage differential lock when one wheel is spinning and the other is completely stopped.

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

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

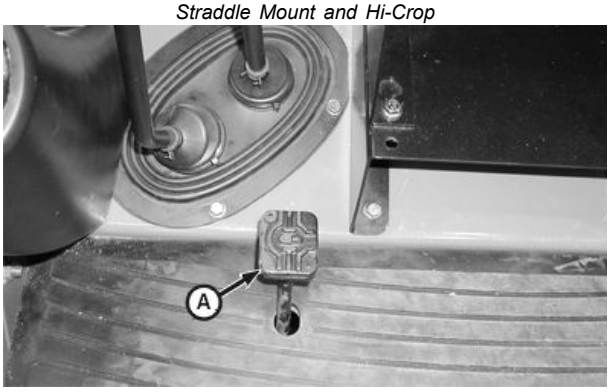
If tires repeatedly slip, then get traction, then slip again, hold pedal down in the engaged position.

A—Differential Lock Pedal



LV9568 —UN—06AUG04

Straddle Mount and Hi-Crop



LV6061 —UN—19JAN01

Cab and IOOS

OUMX005,0001977 -19-05AUG04-1/1

Operating Mechanical Front Wheel Drive—Electro-Hydraulic Control—If Equipped

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

CAUTION: Mechanical front wheel drive greatly increases traction, it does not increase the stability of the tractor. With MFWD engaged, the tractor can climb steeper slopes but it does not become more stable. The possibility of a tip-over increases with MFWD. Use extra caution on slopes.

When driving on icy, wet, or graveled surfaces, reduce speed and properly ballast tractor to avoid skidding and loss of steering control. For best control under adverse conditions, engage mechanical front wheel drive (if equipped).

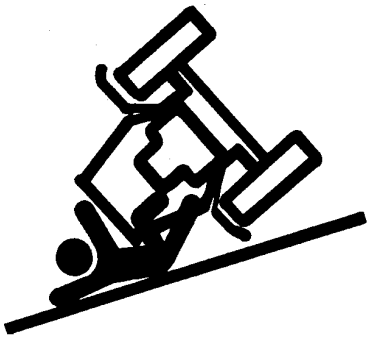
IMPORTANT: To extend tire life, engage mechanical front wheel drive only when needed. DO NOT engage when driving on hard surfaces.

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

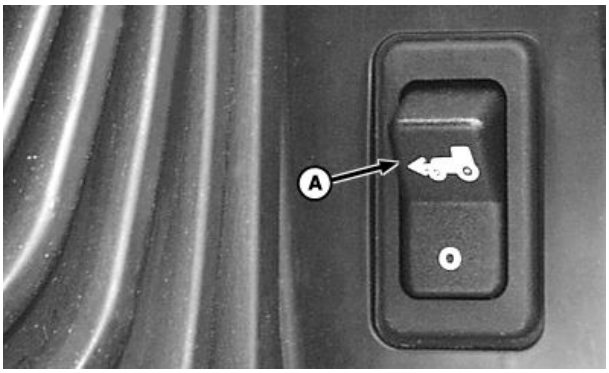
MFWD can be engaged and disengaged in all ranges and gears (forward and reverse) during operation, and under full load.

- Depress top end of switch to engage MFWD. Indicator (B) will light when MFWD is engaged.
- Depress bottom end of switch to disengage MFWD.

A—MFWD Switch **B—MFWD Indicator**

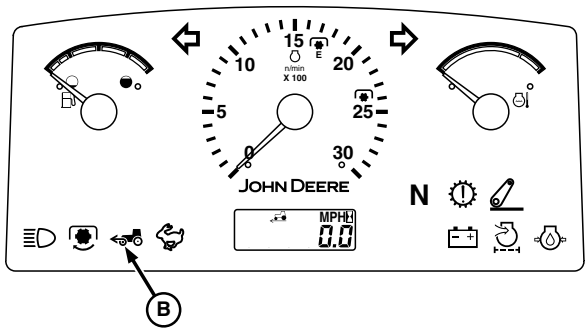


RW13093 —UN—07DEC88



LV9487 —UN—13AUG04

MFWD Switch



LV9488 —UN—05AUG04

MFWD Indicator

OUO1023,00028BC -19-13APR06-1/1

Using Mechanical Front Wheel Drive—Electro-Hydraulic Control with Auto Engage and Brake Assist—If Equipped

CAUTION: Mechanical front wheel drive greatly increases traction, it does not increase the stability of the tractor. With MFWD engaged, the tractor can climb steeper slopes but it does not become more stable. The possibility of a tip-over increases with MFWD. Use extra caution on slopes.

When driving on icy, wet, or graveled surfaces, reduce speed and properly ballast tractor to avoid skidding and loss of steering control. For best control under adverse conditions, engage mechanical front wheel drive (if equipped).

IMPORTANT: Use AUTO or BRAKE ASSIST positions when transporting tractor, not full time ON mode.

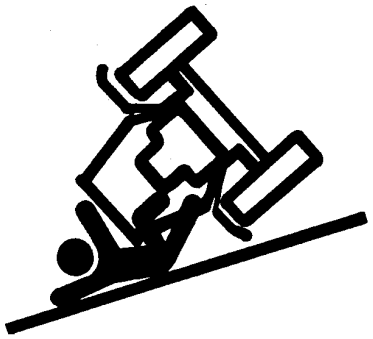
NOTE: MFWD indicator (B) lights whenever front wheel drive is engaged.

MFWD can be engaged and disengaged in all gears (forward and reverse) during operation and under full load. Switch (A) has three operating positions:

- Center **ON** position engages MFWD full time.
- Top **AUTO** position disengages MFWD automatically when either brake pedal is pressed or if speed exceeds 14 km/h (8.6 mph). MFWD automatically *re-engages* when brakes are released and speed is below 14 km/h (8.6 mph).
- Bottom **BRAKE ASSIST** position engages MFWD when BOTH brake pedals are depressed.

A—MFWD Switch with Auto Engage and Brake Assist

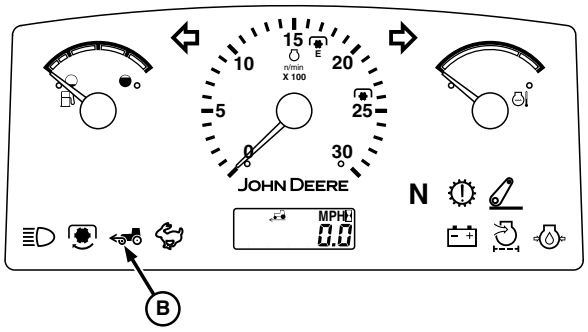
B—MFWD Indicator



RW13093 —UN—07DEC88

MFWD Switch with Auto Engage and Brake Assist

LV9489 —UN—13AUG04



MFWD Indicator

LV9488 —UN—05AUG04

OUO1023,00028BD -19-13APR06-1/1

Stopping the Tractor

1. Stop tractor travel with brakes.

CAUTION: Leaving transmission in gear with engine off WILL NOT prevent tractor from moving.

IMPORTANT: Stop tractor before moving gear shift lever to PARK. Park pawl will not engage, and transmission may be damaged if tractor is moving.

2. Move gear shift lever to PARK.
3. **PowrReverser™ Transmission:** Move EH directional reverser lever to NEUTRAL.
4. Lower all equipment to the ground.
5. Put all SCV levers in NEUTRAL.
6. Disengage PTO.

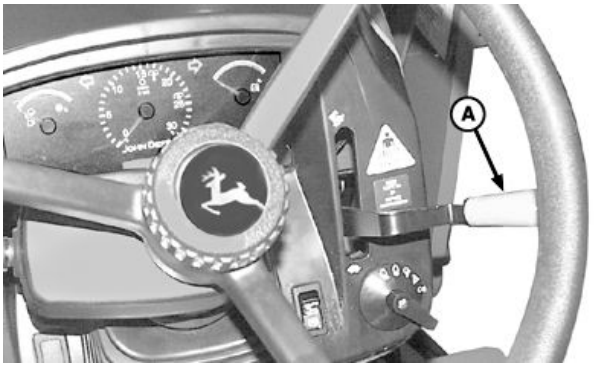
IMPORTANT: Cooling of certain engine parts is provided by engine oil. Stopping a hot engine suddenly could cause damage to these parts by overheating or lack of lubrication.

7. Pull hand throttle (A) back to slow idle position. Allow engine to idle for 2—5 minutes.

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

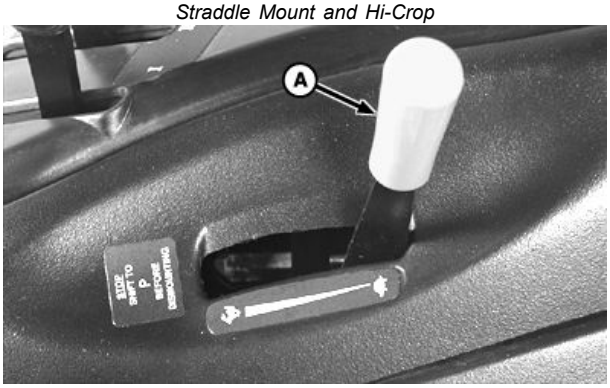
8. Turn key (B) to STOP position and remove from switch.

A—Hand Throttle **B—Key**



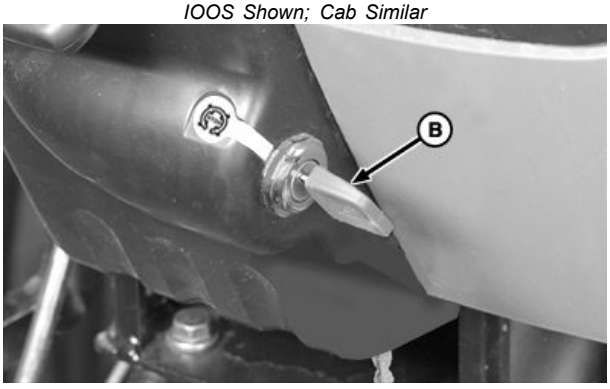
LV9551 —UN—22AUG04

Straddle Mount and Hi-Crop



LV9558 —UN—13AUG04

IOOS Shown; Cab Similar



LV9552 —UN—13AUG04

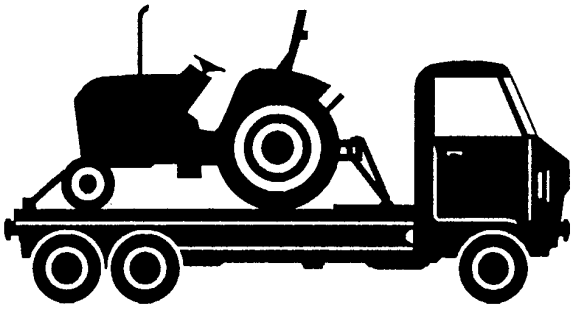
OUO1023,0002801 -19-14MAR06-1/1

Transporting on Carrier

CAUTION: Avoid personal injury from unexpected machine movement. Chain tractor to carrier securely. DO NOT chain around mechanical front wheel-drive (MFWD) shaft or axle housing. Drive carrier slowly.

A disabled tractor is best transported on a flatbed carrier. Use chains to secure the tractor to the carrier.

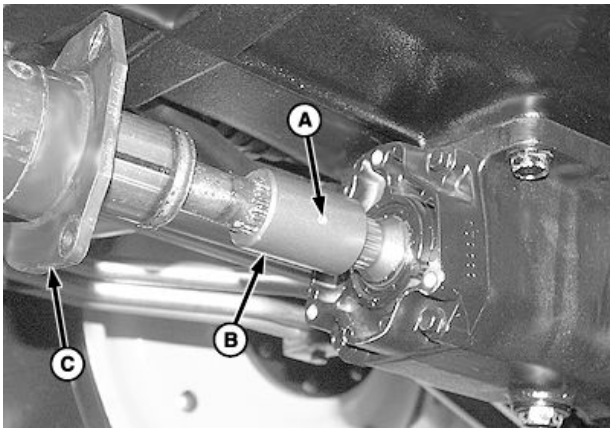
IMPORTANT: Seal exhaust to prevent dirt from entering and damaging engine and/or turbocharger.



LV610 —UN—22APR94

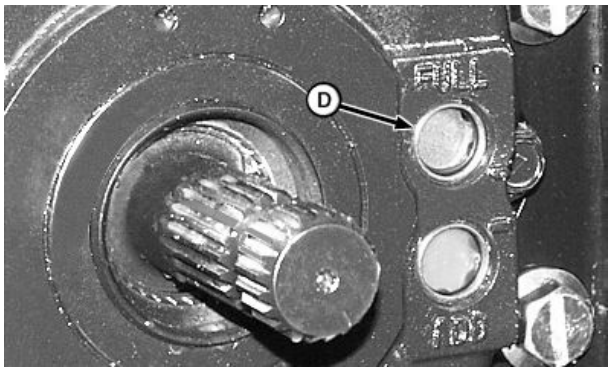
OUO1023,00028BE -19-13APR06-1/1

Towing Tractor



LV9702 —UN—24AUG04

MFWD Drive Shaft-to-Drop Housing



LV12796 —UN—20SEP06

Rear of Tractor

A—Spring Pin
B—Coupler
C—Drive Shaft Shield
D—Sight Glass

CAUTION: Remove MFWD drive shaft if towing tractor with front wheels on a carrier. Loss of electrical power or transmission-hydraulic system pressure will engage the MFWD and pull tractor off the carrier, even with switch in the DISENGAGED position.

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

1. If equipped with MFWD and towing tractor with front wheels on a carrier, remove drive shaft:
   a. Remove three cap screws and slide drive shaft shield (C) away from drop housing. Repeat on opposite end.
   b. Remove spring pin (A) using a punch and hammer.
   c. Support drive shaft and slide coupler (B) toward drop housing.
   d. Remove drive shaft, shields and couplers.
2. Check transmission-hydraulic oil level (it must be visible in the top sight glass (D)). Add 1 L (1 qt) for each 90 mm (3-1/2 in.) front wheels are raised off the ground. DO NOT raise wheels more than 305 mm (12 in.). Drain excess oil after transporting.
3. Tap brake pedals to make sure differential lock is not engaged.
4. Disengage PTO and move range and gear shift levers to NEUTRAL.
5. **PowrReverser™ Transmission:** Move EH directional reverser lever to NEUTRAL.
6. If possible, operate engine above 1250 rpm to provide lubrication, power steering, and power brakes. Have an operator steer and brake tractor.
7. Do not tow a tractor faster than 8 km/h (5 mph). Do not exceed 3 km/h (2 mph) for the first 10 minutes in below freezing temperatures.

After Towing

If equipped with MFWD, apply multipurpose grease to couplers and shaft splines, and install drive shaft assembly.

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

OUO1023,0002925 -19-14SEP06-1/1

Using Mechanical Rockshaft Position Control

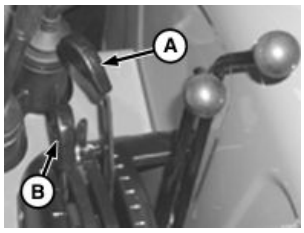
CAUTION: Prevent unexpected movement of rockshaft. Put draft control lever (B) in full forward position before attaching implement.

Push draft control lever (B) fully forward when you DO NOT want rockshaft to adjust automatically to draft load, such as when attaching an implement to the tractor.

Use position control lever (A) to control hitch movement and depth:

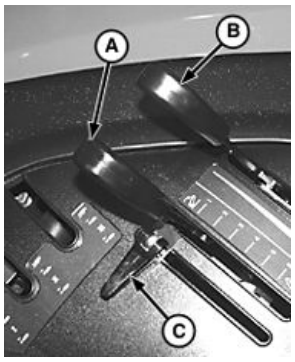
Transport

For transport of implements and end of field turn-around, pull control lever (A) fully rearward for both load and non-load sensing usage.



LV12491 —UN—14MAR06

Straddle Mount and Hi-Crop



LV12492 —UN—20APR05

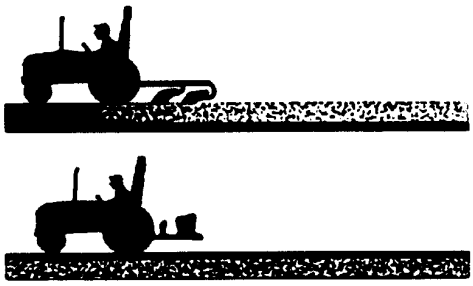
IOOS Shown; Cab Similar

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

OUO1023,00029C0 -19-17OCT06-1/3

Constant Depth

1. For constant depth of implements on level terrain and for non-ground engaging implements such as spreaders or sprayers, put position control lever (A) at desired depth.
2. Operate implement for a few minutes to determine proper depth or height.
3. Lift tab and slide stop against position control lever. Turn tab to tighten and press down to lock stop in place. Rockshaft will return to the same position each time control lever contacts the stop.



LV09233 —UN—26JUL04

OUO1023,00029C0 -19-17OCT06-2/3

Float

For float operation for implements with skids or depth gauge wheels designed to carry full implement weight, push both position and draft control levers (A and B) all the way forward, so implement can follow ground contour.

NOTE: Lift links can be adjusted for lateral float. (See Adjusting Lateral Float in Section 65.)

LV9457 —UN—26JUL04

OUO1023,00029C0 -19-17OCT06-3/3

Using Mechanical Draft Control—If Equipped

The rockshaft is equipped with variable draft control system:

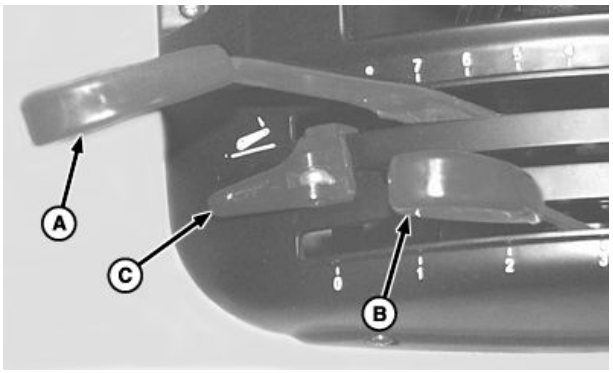
- Operating with a fully mounted implement in hill and swale terrain, the implement will rise and lower to follow the ground contours while maintaining a nearly constant depth.
- Operating in varying soil conditions, the implement is raised slightly to get through tough spots so you do not have to shift to a lower gear.

Change draft sensitivity ranges by repositioning the center link.

For draft load sensing operation:

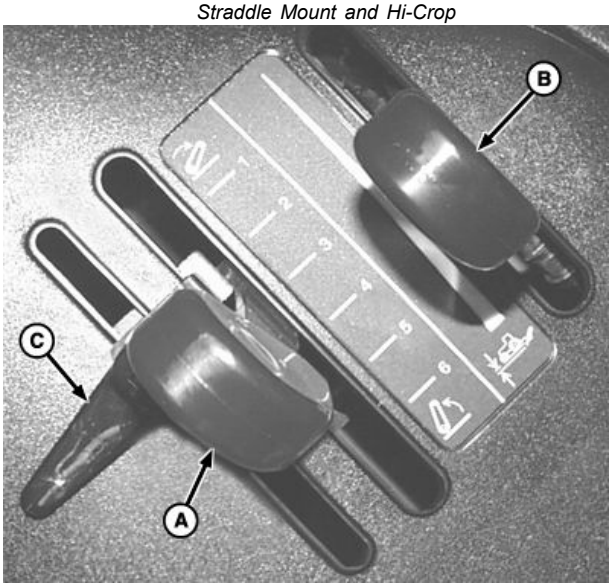
1. Pull control lever (A) to its fully rearward position and push the draft control lever (B) to the fully forward (least draft) position.
2. With tractor moving, push control lever (A) forward to set implement operating depth.
3. Set position control lever stop (C). The operating depth set up will prevent the rockshaft from lowering all the way when the tractor begins to slip.
4. Pull draft sensing lever (B) rearward until desired draft sensing sensitivity is obtained.
5. To slightly raise implement (for getting through slippery spots in a field), push control lever (A) past the draft control setting.
6. Pull control lever (A) fully rearward to raise the hitch at the end of the field.

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



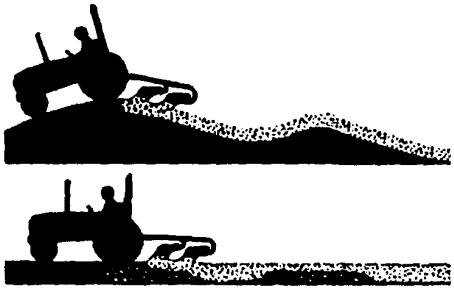
LV9460 —UN—26JUL04

Straddle Mount and Hi-Crop



LV9459 —UN—26JUL04

IOOS Shown; Cab Similar



LV9458 —UN—26JUL04

OUO1032,00016BA -19-13APR05-1/1

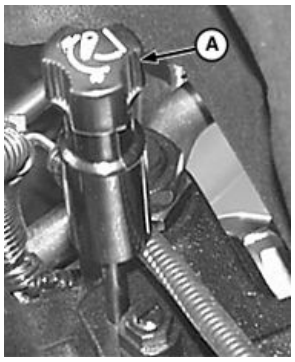
Adjusting Mechanical Rockshaft Rate-of-Drop

CAUTION: To avoid injury from hitch movement, only adjust rate-of-drop from operator station.

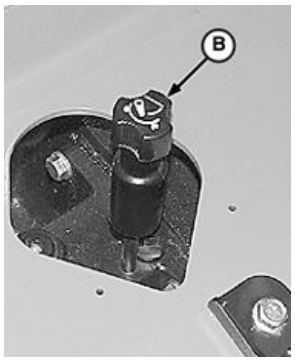
Fully lowering implement should take at least 2 seconds. Since the rockshaft drops faster when a heavy implement is attached, adjust so that it is slow enough to be safe and prevent implement damage.

Turn rockshaft rate-of-drop knob (A), located under right rear of seat:

- To slow rockshaft drop, turn CLOCKWISE.
- To increase rate-of-drop, turn COUNTERCLOCKWISE.



LV12568 —UN—20APR05



LV12569 —UN—20APR05

A—Rockshaft Rate-of-Drop Knob—Straddle Mount and Hi-Crop

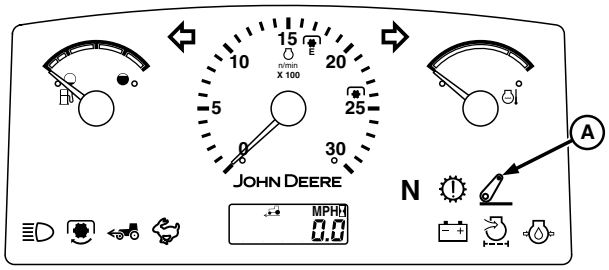
B—Rockshaft Rate-of-Drop Knob—IOOS Shown, Cab Similar

OUO1023,00028C6 -19-18APR06-1/1

EH Hitch Indicator—If Equipped

EH hitch indicator (A) warns of a malfunction in the hitch control system. (See your John Deere dealer.)

A—EH Hitch Indicator



LV9612 —UN—10AUG04

OUO1023,0002803 -19-14MAR06-1/1

Using EH External Raise and Lower Switches—If Equipped

CAUTION: Avoid possible injury or death from tractor movement. Put transmission in PARK before using external raise and lower switches. Stay clear of rotating drivelines and interference points.

NOTE: When using the fender mounted switches, the rockshaft raises and lowers at a slower rate, and the height and depth settings are ignored. Fender switches are disabled when hitch is in transport position.

Press and hold switch to move rockshaft:

- RAISE implement with top switch.
- LOWER implement with bottom switch.

Once either switch is activated, the rockshaft is prevented from moving accidentally. To reactivate the rockshaft, return to the operator station:

- Move hitch control lever (A) to position that corresponds to position of the draft links.
- Actuate raise/lower switch (B).

Adjusting Raise Height

Control the implement height with knob (C):

- For minimum height, turn COUNTERCLOCKWISE.
- For maximum height, turn CLOCKWISE.

Adjusting Rate-of Drop

CAUTION: Excessive drop speed may cause personal injury or damage to tractor and implement.

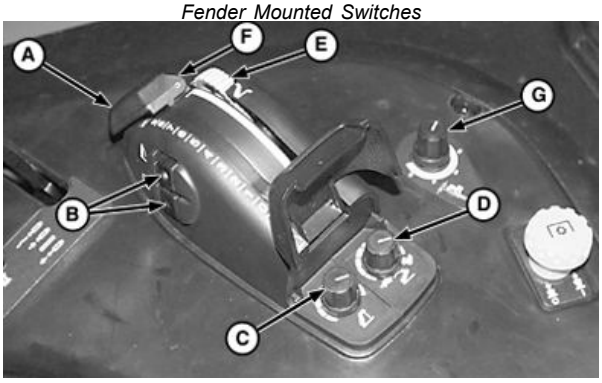
Fully lowering implement should take at least 2 seconds.

Control the speed the rockshaft and mounted implement lowers with knob (D):

- To slow rate-of-drop, turn knob COUNTERCLOCK-WISE.

RXA0061558 —UN—26AUG02

Fender Mounted Switches



LV12566 —UN—20APR05

A—Hitch Control Lever
B—Raise/Lower Switch
C—Height-Limit Control
D—Rate-of-Drop Control Knob
E—Depth Stop Wheel
F—Hitch Control Lever
G—Load/Depth Control Knob

- For faster rate-of-drop, turn knob CLOCKWISE.

Adjusting Depth Stop

Push down and rotate wheel (E) to set stop to the desired working depth.

Push control lever (F) forward to contact the stop to return the implement to the indicated working depth.

To lower hitch below the preset depth, lift and push the control lever past the stop.

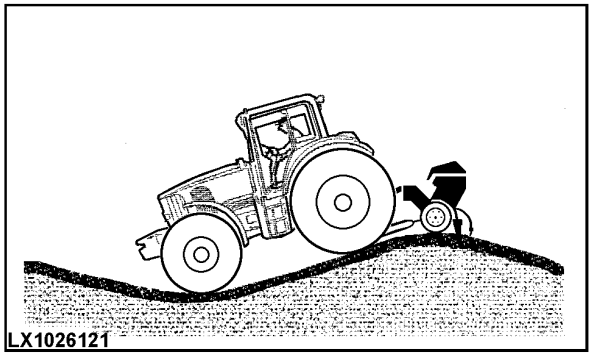
Continued on next page

OUO1023,00028C7 -19-17OCT06-1/2

Using Float Control

For rockshaft-controlled implements with a gauge wheel, implements can move freely up and down to follow ground contours independent of the tractor. Turn control knob (G) to position control detent and push hitch control lever (F) as far forward as it will go.

Adjust lift links for lateral float. (See Adjusting Lateral Float in Section 65.)



LX1026121 —UN—10MAY01

OUO1023,00028C7 -19-17OCT06-2/2

Transporting Implements

CAUTION: To avoid injury and equipment damage while transporting, set hitch control lever in the transport lock position to prevent hitch from lowering.

NOTE: Raise/lower switches are disabled when the control lever is in the transport lock position. Hitch will rise when starting tractor with hitch control lever in the transport lock position.

Pull hitch control lever (A) as far to the rear as it will go, and put in transport lock slot (bold arrow).

A—Hitch Control Lever

LV09164 —UN—13JUL04

OUMX005,000188C -19-08JUL04-1/1

Adjusting Load/Depth EH Controls—If Equipped

CAUTION: Before connecting implement to 3-point hitch, prevent unintentional raising or lowering of the rockshaft by turning load/depth control knob (A) to detent position (B).

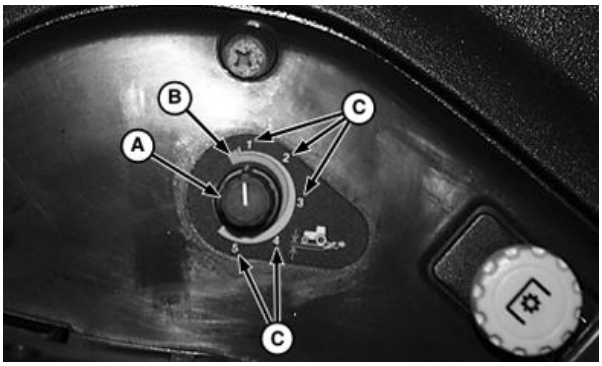
Hitch has two operating modes:

- Detent control position (B)
- Draft control positions (C)

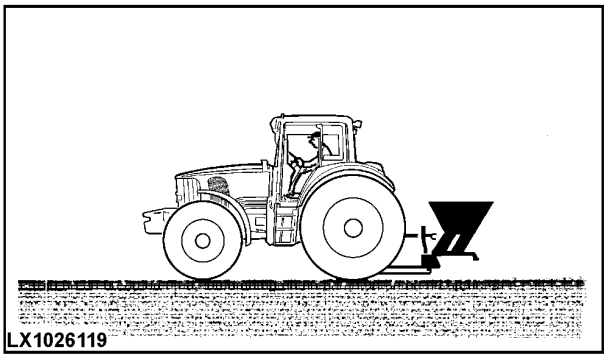
Position Control Setting

With load/depth knob in detent control position (B), the implement is held at the selected position.

A—Load/Depth Control
B—Position Control Detent
C—Draft Control Settings



LV12567 —UN—20APR05



LX1026119 —UN—10MAY01

OUO1032,00016B8 -19-13APR05-1/2

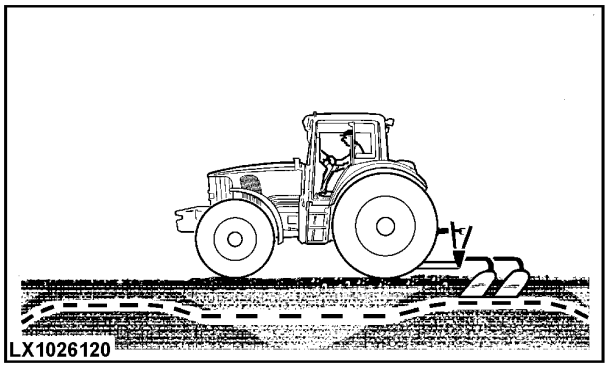
Using Draft Control

Turn load/depth knob to one of five draft settings (C), to control depth and load, depending on implement and field or soil conditions:

- Turn COUNTERCLOCKWISE to reduce draft response.
- Turn CLOCKWISE to increase draft response.

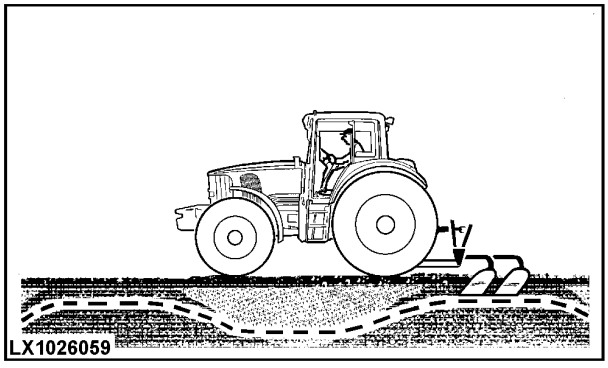
With the control turned to a higher number, the implement is raised as resistance (soil density) increases and lowered as resistance decreases; typical settings:

Implement	Draft Control Setting
Integral Ripper/Subsoiler	1—3
Integral Chisel Plow	2—4
Semi-Integral Moldboard Plow	2—4
Integral Moldboard Plow	3—5
Integral Field Cultivator	4—5



LX1026120 —UN—10MAY01

Low-to-Mid Settings



LX1026059 —UN—18MAY01

Mid-to-High Settings

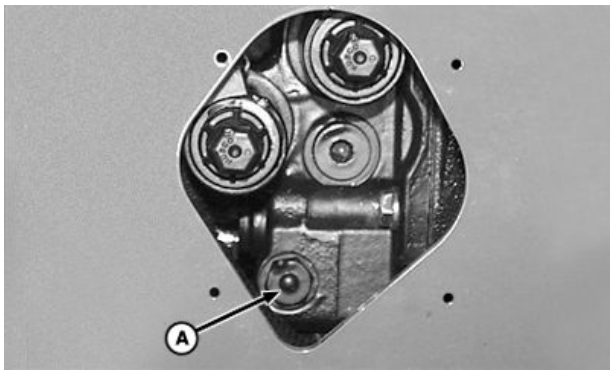
OUO1032,00016B8 -19-13APR05-2/2

Manually Lowering Hitch

CAUTION: Avoid possible injury or death from tractor movement. Perform this procedure from operator station.

If engine or electrical power is not available, hitch can be lowered manually. The manual override screw is located behind the operator seat, under the cover plate.

1. Remove cover plate (not shown).
2. Remove protective cap (A) to access set screw.
3. Turn set screw COUNTERCLOCKWISE to lower hitch.
4. With hitch lowered, turn set screw CLOCKWISE and install cap.
5. See your John Deere dealer for repairs.



LV09172 —UN—13JUL04

A—Protective Cap

OUO1023,0002804 -19-14MAR06-1/1

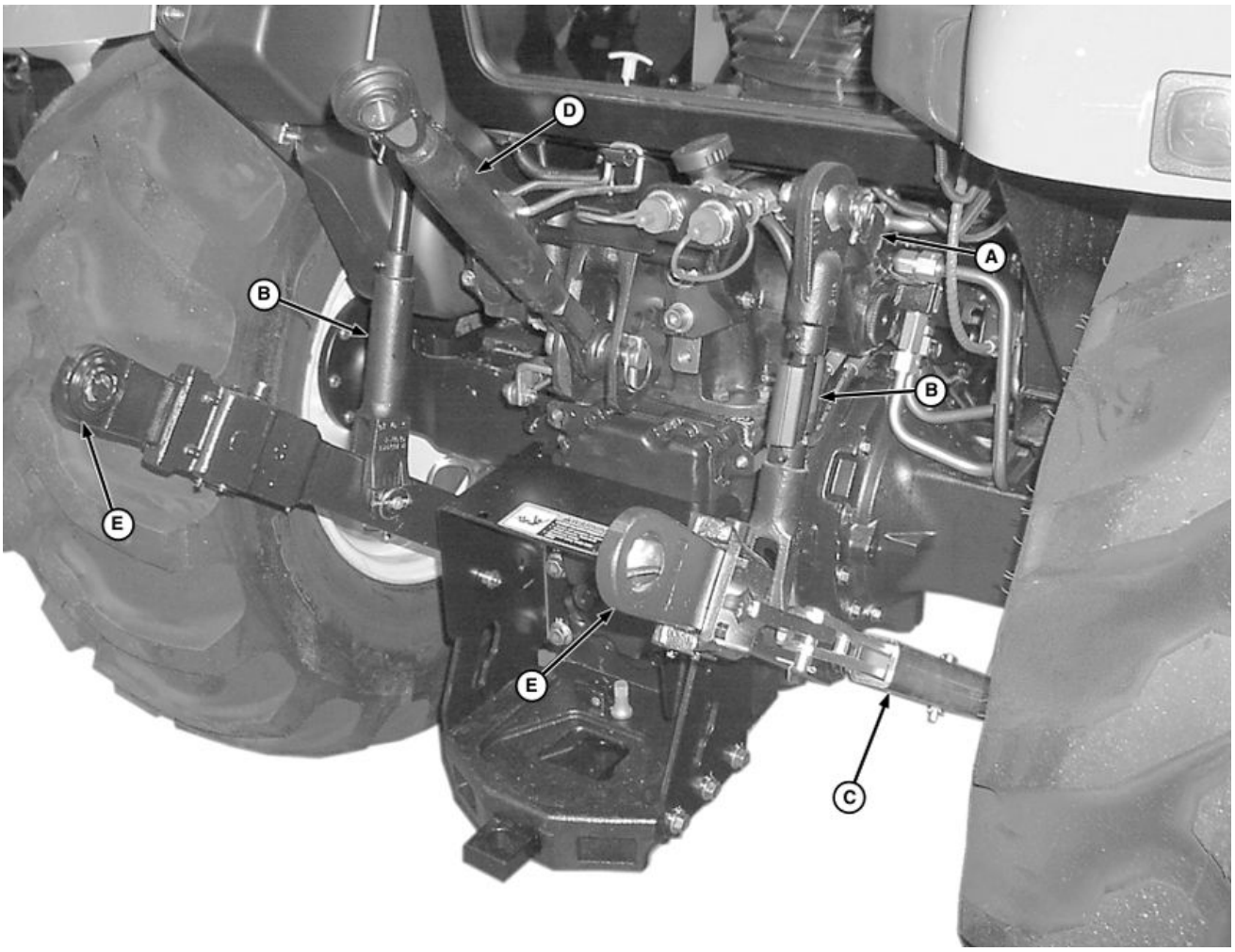
Match Tractor Power to Implement

IMPORTANT: Match tractor power to the size of the implement. Excessive power can damage an implement, and too large of an implement can damage the tractor.

Refer to your implement operator's manual for minimum and maximum power requirements before attaching implement to tractor.

MX,PMIP,A -19-11AUG04-1/1

3-Point Hitch Components



LV12913 —UN—07DEC06

A—Lift Arms
B—Lift Links
C—Sway Bars
D—Center Link
E—Draft Links

NOTE: Optional telescoping draft links shown.

OUO1023,0002A54 -19-06DEC06-1/1

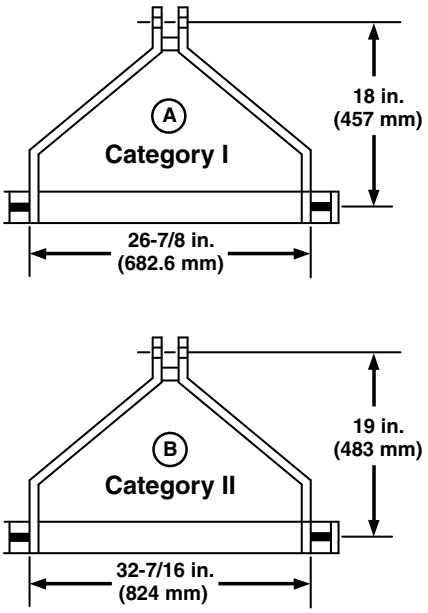
Preparing Implement

When attaching Category I implements to the tractor, sway bars may need adjustment to prevent binding and limiting full raise of the hitch. (See Adjusting Hitch Side Sway in this section.)

Category I (A), 3-Point Hitch is narrower and is used for smaller implements than Category II (B) implements. (See chart below to identify implement category.)

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

Category	Mast Height	Width Between Lower Pins	Pin Size	
			Lower	Upper
I (A)	457 mm (18 in.)	682.6 mm (26-7/8 in.)	22 mm (7/8 in.)	19 mm (3/4 in.)
II (B)	483 mm (19 in.)	824 mm (32-7/16 in.)	28 mm (1-1/8 in.)	25.4 mm (1 in.)



LV9639 —UN—11AUG04

A—Category I **B—Category II**

OUMX005,00019A5 -19-19AUG04-1/1

Converting Category II Hitch to Category I

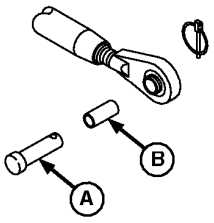
Center link end is sized for Category II implement attaching pin.

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

1. Insert reducer bushing (B) in center link end. Smaller implement mast pin (A) is also needed when bushing is installed.
2. Rotate balls (C) in draft link ends to fit over implement pins.

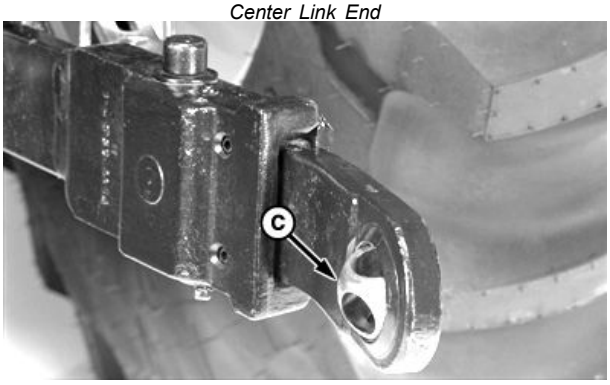
See your John Deere dealer for parts.

A—Mast Pin
B—Center Link Bushing
C—Draft Link Balls



LV9640 —UN—11AUG04

Center Link End



LV9641 —UN—11AUG04

Draft Link End

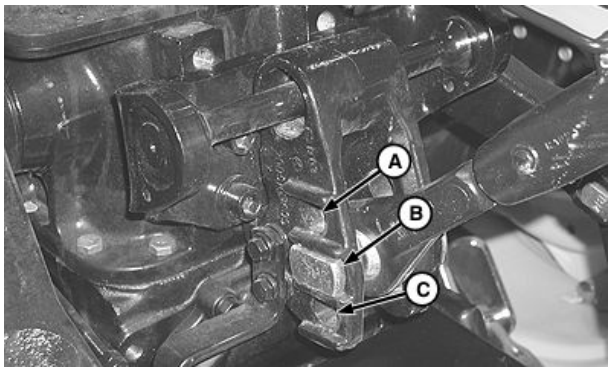
OUMX005,0001897 -19-08JUL04-1/1

Positioning Center Link

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

Should the following conditions occur, move center link to indicated holes to correct.

Condition	Use Holes
Excessive hitch activity or hunting occurs in draft control operation.	A or B
Rear of implement rises too much when lifted. The implement weight which can be lifted is reduced slightly with center link attachment in lower holes.	A or B
Rear of implement drags the ground.	B or C
Draft control lever range is too small.	B or C
Hitch seems unresponsive in draft control operation and allows engine speed to drop too far before raising rockshaft.	B or C



LV8512 —UN—24JUL03

A—Upper Hole
B—Middle Hole
C—Lower Hole

NOTE: Implements with Category I mast height 457 mm (18 in.) will normally use the lower two attaching holes and implement with Category II mast height 483 mm (19 in.) will use the upper two holes.

OUMX005,0001AB7 -19-22SEP04-1/1

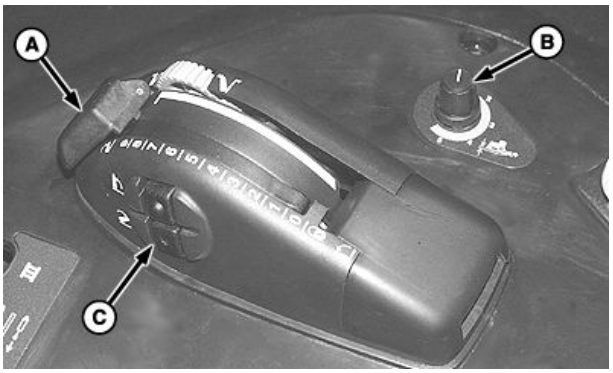
Attaching Implements to 3-Point Hitch

⚠ CAUTION: Hitch movement can cause injury or death.

NOTE: Engine must be running for EH control to work.

Before attaching or detaching implement, position control detent by turning load/depth control (B) fully COUNTERCLOCKWISE. (See Adjusting Load/Depth EH Controls in Section 60.)

Use switch control lever (A) to raise or lower implement. DO NOT use EH raise/lower switch (C).



LV9701 —UN—20AUG04

A—Hitch Control Lever
B—Load/Depth Control
C—Raise/Lower Switch

Continued on next page

OUO1023,00029C1 -19-17OCT06-1/4

Fixed Draft Links

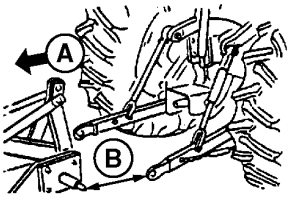
1. Be sure drawbar will not interfere. If necessary, move drawbar to fully retracted position or remove it. Check for any other potential interference.

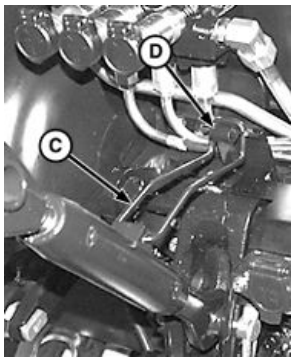
CAUTION: To prevent unexpected movement of rockshaft, place draft sensing control in OFF position before attaching implement to hitch.

2. Back tractor up to implement (A) so hitch points align. Place transmission in PARK and stop engine.
3. Slip draft links over implement hitch pins (B) and retain with quick-lock pins.

NOTE: Locking clips can be stored on draft links when not in use.

4. Lift locking clip (C), and rotate tab (D) to rear to release center link from transport hook.
5. Attach center link to implement top mast.
6. Adjust center link and lift links as necessary. See Leveling the Hitch in this section.





LV12574 —UN—21APR05

LV12573 —UN—21APR05

Cab Tractor Shown

A—Implement
B—Implement Hitch Pins
C—Center Link Locking Clip
D—Tab

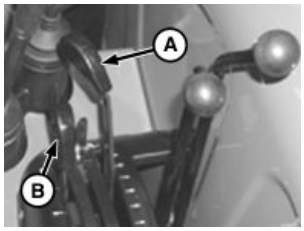
OUO1023,00029C1 -19-17OCT06-2/4

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.

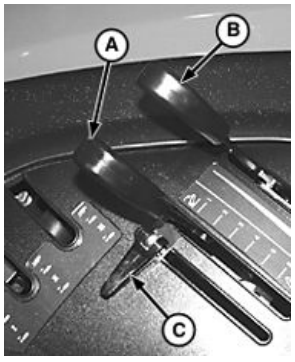
7. Start engine. Using hitch control lever (A), slowly raise and lower implement and check for interference.

NOTE: If equipped with EH hitch controls, switch (B) or fender-mounted switches can also be used to raise and lower implement and check for interference.

A—Hitch Control Lever
B—Raise/Lower Switches
C—Control Lever Stop



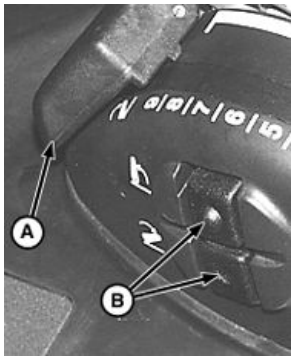
Straddle Mount and Hi-Crop



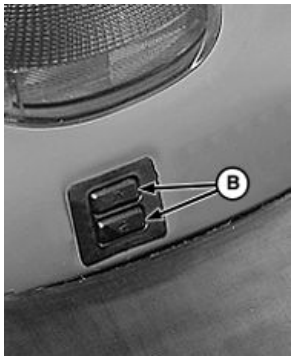
LV12491 —UN—14MAR06

LV12492 —UN—20APR05

Cab and IOOS



EH Hitch Controls



LV12575 —UN—21APR05

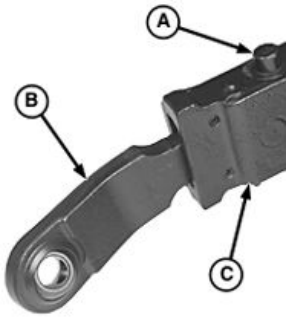
LV12576 —UN—21APR05

Fender-Mounted Switches

Continued on next page

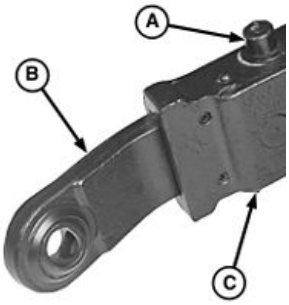
OUO1023,00029C1 -19-17OCT06-3/4

Telescoping Draft Links



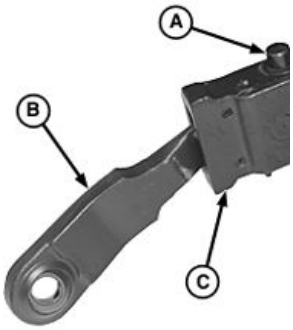
Mid-Point

LV12578 —UN—21APR05



Full In

LV12577 —UN—21APR05



Full Out

LV12579 —UN—21APR05

A—Button
B—Draft Link End
C—Draft Arm

1. Position tractor in line with hitch points. Back tractor up close to implement. Place transmission in PARK and stop engine.
2. Move button (A) toward center of tractor and pull out draft link end (B). Slip draft link end over implement hitch pin. Retain with quick-lock pin. Repeat on other side.
3. Raise or lower draft arms (C) to align ends (B) with arms, then slowly back up tractor to lock ends in place.
4. Perform steps 4—7 from fixed draft links procedure.

OUO1023,00029C1 -19-17OCT06-4/4

Adjusting Hitch Side Sway

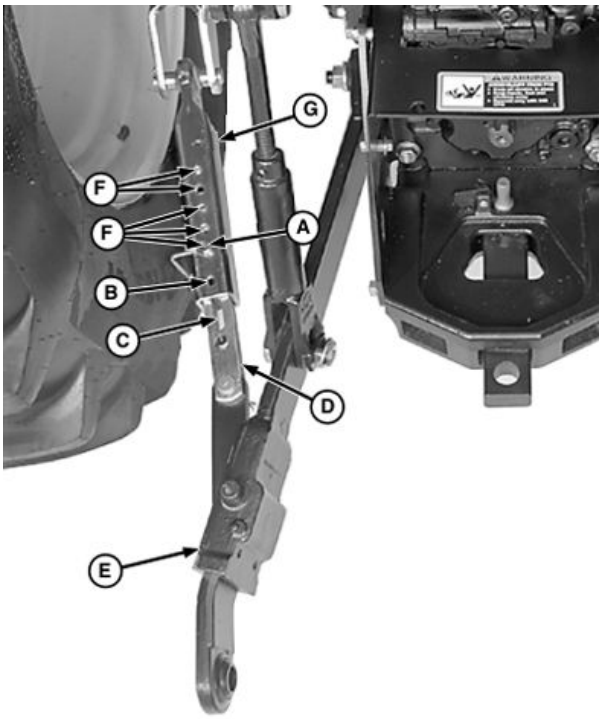
NOTE: Check implement operator's manual for instruction on whether to allow side sway.

If sway is desired, install pin (A) in outer hole (B), ensuring it goes through slot (C) of inner sliding member (D).

If sway is not desired, move draft link (E) to desired position. Install pin in one of five fixed position holes (F) that lines up with one of the holes (not slot) of the inner member.

Adjust opposite side sway bar to same position.

A—Pin
B—Sway Position Hole
C—Slot
D—Inner Sliding Member
E—Draft Link
F—Fixed Position Holes
G—Outer Fixed Member

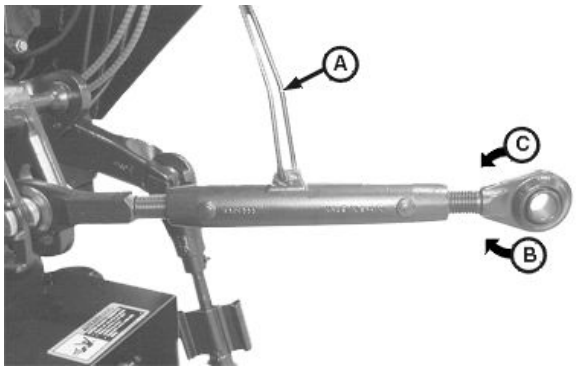


LV12915 —UN—07DEC06

Sway Bar Pinned in Fixed Position

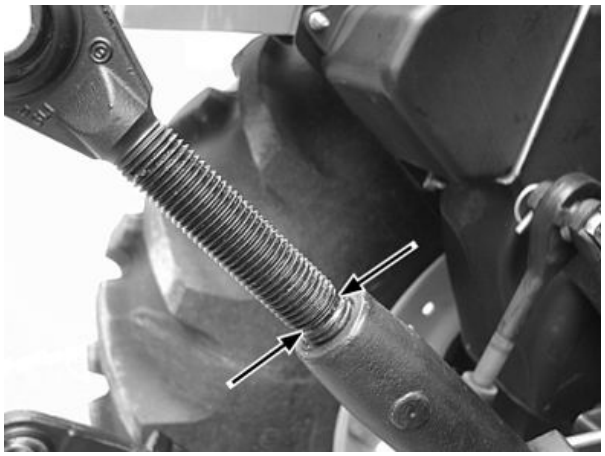
OUO1023,0002A56 -19-06DEC06-1/1

Leveling the Hitch



Center Link

LV6093 —UN—01FEB01



LV13102 —UN—14FEB08

Extension Limit Groove

A—Locking Clip
B—Center Link Clockwise Rotation
C—Center Link Counterclockwise Rotation

1. Lower implement to take weight off hitch and adjust center link to level implement front-to-rear.

IMPORTANT: DO NOT attempt to overextend 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 only be obtained if the ends are positioned equally within the body when attached to an implement.

NOTE: On later model tractors make sure the center link does not unscrew past the extension limit groove cut into threads as shown in photo.

a. Unlatch locking clip (A). Rotate center link body:

- CLOCKWISE (B) to lengthen center link.
- COUNTERCLOCKWISE (C) to shorten center link.

b. Latch locking clip.

Continued on next page

OUO1023,0002A6B -19-19FEB08-1/2

2. Adjust right link to level implement side-to-side.

   a. Lift locking handle (D) and rotate 90° to engage slot (E) onto roll pin (G). Turn locking handle (D):

      • CLOCKWISE to raise draft link.
      • COUNTERCLOCKWISE to lower draft link.

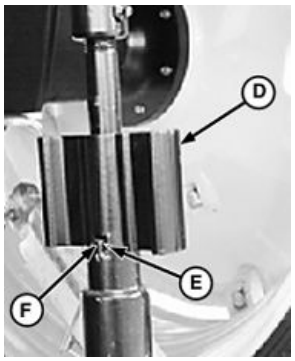
   b. Lift handle (D) and rotate 90° to engage slot (E) onto locking tab (F) of lower body to prevent change of adjustment during operation.

3. Left lift link is also adjustable in length to accommodate two different length right lift link assemblies used, depending on tire size. The following adjustments will provide optimum hitch leveling:

   • **Right lift link, center threaded section measures 316 mm (12-7/16 in.) long:** Adjust the left lift link to 550 mm (21-5/8 in.) from pin-to-pin (lateral float locked out).
   • **Right lift link, center threaded section measures 266 mm (10-1/2 in.) long:** Shorten the left lift link to 450 mm (17-7/16 in.).

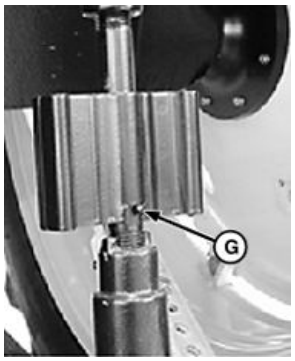
   To change the left lift link length:

   a. Remove upper lift link pin. Rotate the upper end assembly:



LV12580 —UN—21APR05

Storage/Lock Position



LV12581 —UN—21APR05

Adjusting Position

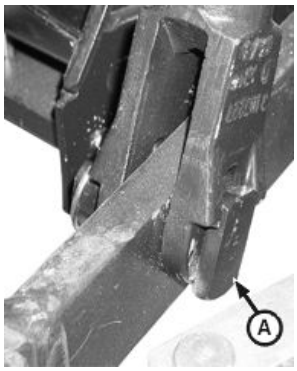
D—Locking Handle
E—Slot
F—Locking Tab
G—Roll Pin

      • CLOCKWISE to shorten.
      • COUNTERCLOCKWISE to lengthen.

   b. Install upper pin and locking pin.

OUO1023,0002A6B -19-19FEB08-2/2

Adjusting Lateral Float

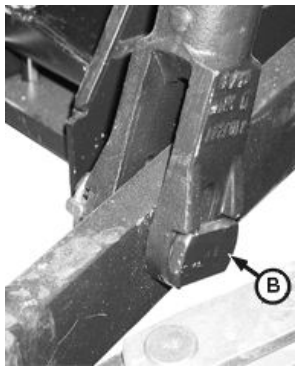


LV6103 —UN—07FEB01

To allow draft link to rise slightly as implement follows ground contour, put pin head and rectangular washer in vertical position (A).

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

- **Float position:** Hitch-mounted implements (cultivator or mower), which have ground gauging skids or wheels which may cause the implement to twist relative to the tractor.
- **Rigid position:** Plows and ground engaging implements that should not twist relative to the tractor.



LV6102 —UN—07FEB01

A—Pin in Float Position (Vertical)

B—Pin in Fixed Position (Horizontal)

OUO1043,0000289 -19-30JUN04-1/1

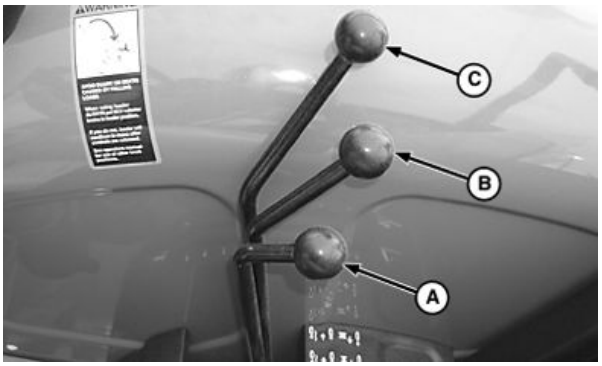
SCV Control Lever and Coupler Identification—If Equipped

NOTE: Additional information listed below for your tractor is available on the internet at **www.JohnDeere.com/Tips**

- Hydraulic Valves
- Mid-Mount Valve

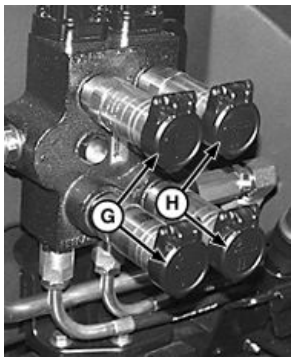
Levers (A—C or D—F) control oil flow to corresponding SCV couplers, located at the rear of tractor. Top couplers are extend; bottom couplers retract.

A—SCV I Control Lever—Straddle Mount and Hi-Crop
B—SCV II Control Lever—Straddle Mount and Hi-Crop
C—SCV III Control Lever—Straddle Mount and Hi-Crop
D—SCV I Control Lever—Cab and IOOS
E—SCV II Control Lever—Cab and IOOS
F—SCV III Control Lever—Cab and IOOS
G—SCV I Couplers
H—SCV II Couplers
I— SCV III Couplers—If Equipped

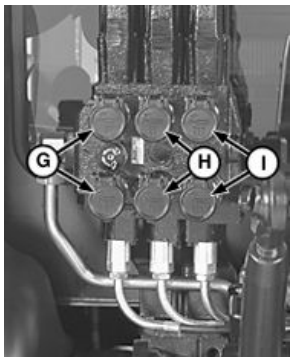


LV12626 —UN—22APR05

LV12585 —UN—21APR05



LV12586 —UN—21APR05

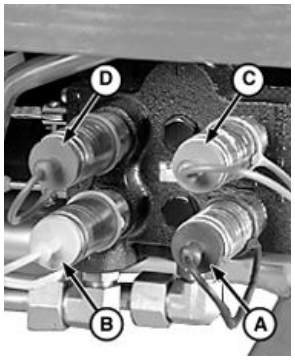


LV12587 —UN—21APR05

OUO1023,00027C5 -19-07MAR06-1/1

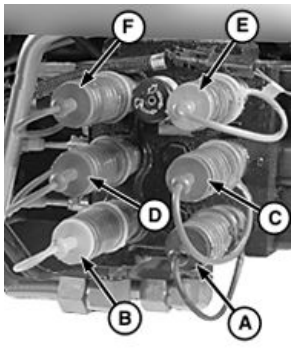
Mid-Mount Valve Coupler Identification—If Equipped

A—Bucket Cylinder—Rod End (Black)
B—Bucket Cylinder—Head End (Yellow)
C—Boom Cylinder—Head End (Blue)
D—Boom Cylinder—Rod End (Red)
E—Third-Function Cylinder—Head End (Orange)
F—Third-Function Cylinder—Rod End (Green)



LV12582 —UN—21APR05

Two-Function



LV12583 —UN—21APR05

Three-Function

OUO1032,00016C0 -19-13APR05-1/1

Use Correct Hose Tips

Selective control valve (SCV) couplers accept a standard hose tip as recommended by ISO[1] and SAE[2]. Adapters are available to update older hose tips to the ISO couplers on this tractor.

[1]*International Standards Organization*
[2]*Society of Automotive Engineers*

MX,RHIP,AA -19-13AUG04-1/1

Connecting or Disconnecting High-Pressure Hoses

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high-pressure fluids.

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

1. If possible, retract remote cylinder as much as possible to protect rod from damage.

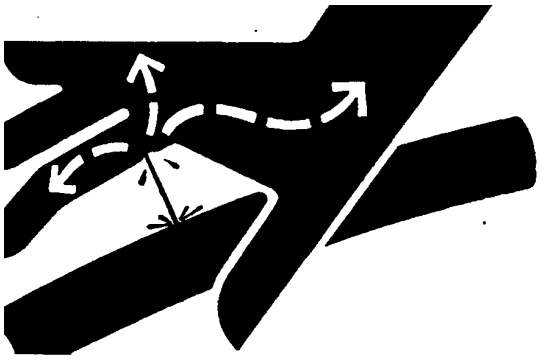
IMPORTANT: Implement must be raised slightly, by pulling back on lever to reset coupler check valves, before it can be lowered.

   a. If hose accidentally pulls from tractor during use, clean hose tip and coupler before reconnecting. Hoses can be reinstalled with minimal loss of oil.

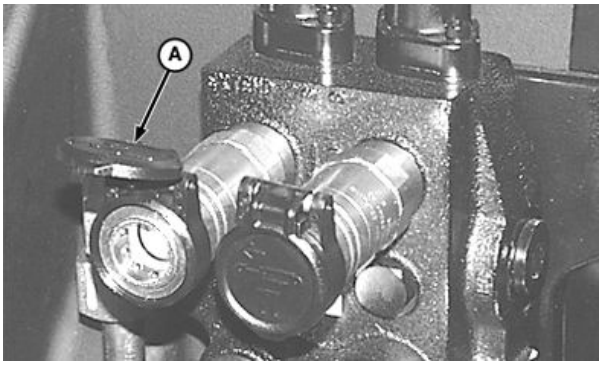
   b. After reinstalling hose, extend and retract cylinder to properly seat connector and reset check valve.

2. With as much hydraulic pressure relieved as possible from hoses, pull hoses from couplers.

3. **Rear SCV:** Wipe clean, then close coupler cover (A). Install dust caps on hose ends.



X9811 —UN—23AUG88



LV12598 —UN—21APR05

Rear SCV Shown

A—Coupler Cover

Mid-Mount Valve: Make sure coupler dust plugs and hose end dust caps are clean, then install.

OUO1023,00027C6 -19-07MAR06-1/1

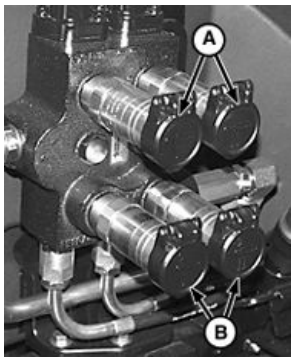
Connecting Cylinder Hoses—Rear SCV

1. Identify extend and retract hoses. Extend hoses should be connected to top couplers (A); retract hoses to bottom couplers (B).
2. Remove dust caps (if equipped) from hose end.
3. Open coupler covers (C).

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

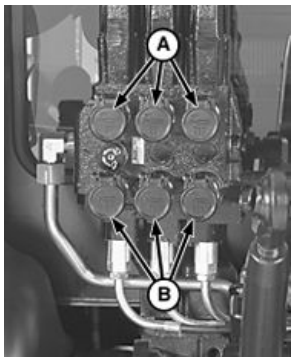
4. Making sure hose end and coupler are clean, push hose tip firmly into coupler. Pull on hose to make sure positive connection was made.

A—Top (Extend) Couplers
B—Bottom (Retract) Couplers
C—Coupler Covers



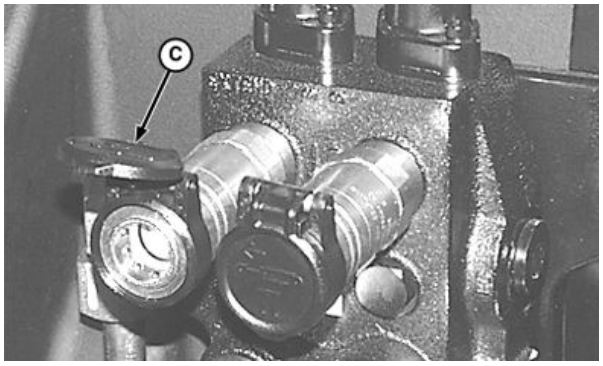
LV12588 —UN—21APR05

Two Section



LV12589 —UN—21APR05

Three-Section



LV12590 —UN—21APR05

OUO1032,00016C1 -19-13APR05-1/1

Connecting Cylinder Hoses—Mid-Mount Valve—If Equipped

CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure fluids.

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

NOTE: Hose connections at mid-mount valve are color-coded.

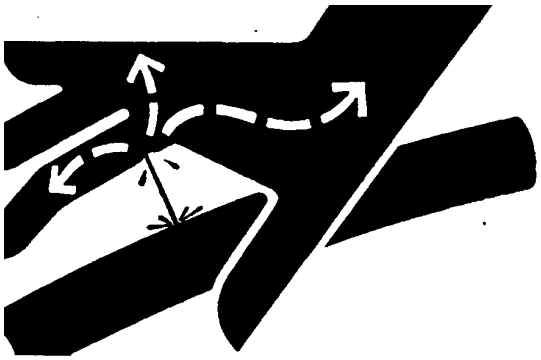
1. Match hoses to couplers using color-coded dust caps/plugs.

Key	Tie Band/Plug/Cap Color	Hydraulic Function
A	Black	Bucket Cylinder—Rod End
B	Yellow	Bucket Cylinder—Head End
C	Blue	Lift Cylinder—Head End
D	Red	Lift Cylinder—Rod End
E	Orange	Attachment Cylinder—Head End
F	Green	Attachment Cylinder—Rod End

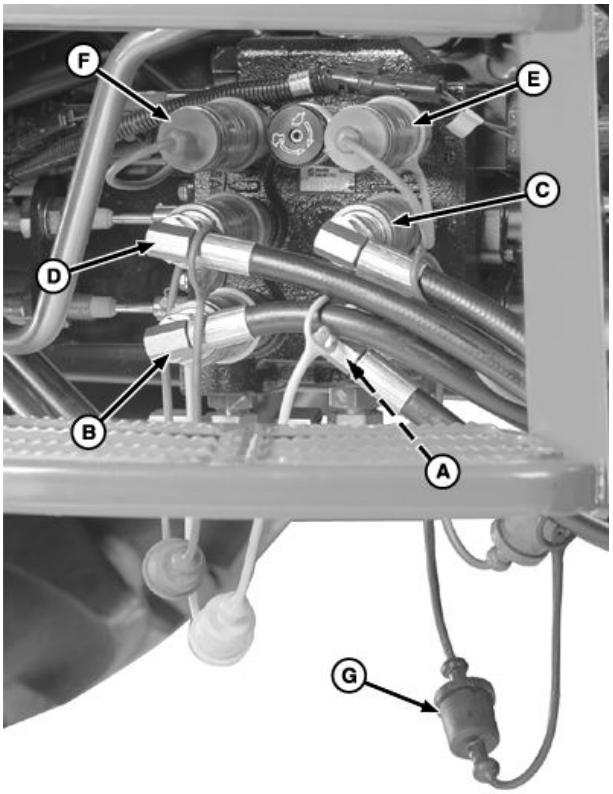
2. Remove dust caps from hose ends.
3. Pull dust plugs from valve couplers.

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

4. Making sure hose end and couplers are clean, push hose tip firmly into coupler. Pull on hose to make sure positive connection was made.



X9811 —UN—23AUG88



LV9678 —UN—16AUG04

Three-Function Valve Shown

5. Connect mating (color-coded) plugs and caps (G) together.

OUMX005,000189C -19-08JUL04-1/1

Connecting and Operating Single-Acting Cylinder

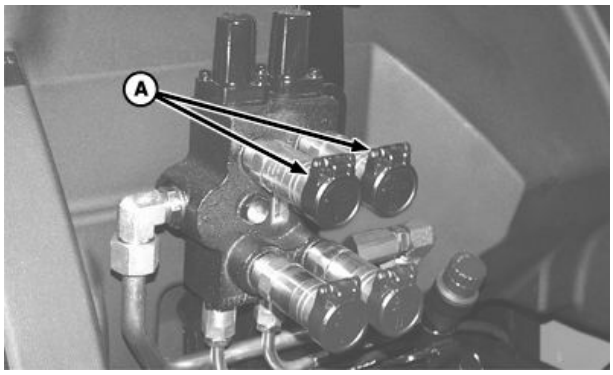
Single-acting cylinder should only be connected to extend coupler (A).

IMPORTANT: Volume of oil required to extend cylinder will lower transmission-hydraulic oil level. With cylinder fully extended, check oil level and fill to proper level (visible at the bottom of the top sight glass). (See Checking Transmission-Hydraulic Oil Level in your Maintenance Guide.)

Pull SCV control lever back to pressurize and extend single acting cylinder.

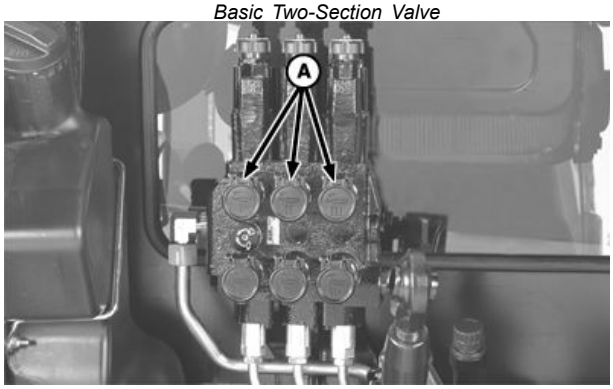
Push SCV control lever full forward to “float” position to retract cylinder.

A—Extend Coupler



LV9670 —UN—16AUG04

Basic Two-Section Valve



LV9671 —UN—16AUG04

Deluxe Three-Section Valve

OUO1023,0002806 -19-14MAR06-1/1

Operating SCV Control Levers—Basic Valves—If Equipped

CAUTION: Overheated hydraulic oil can cause personal injury and component malfunctions. To prevent hydraulic oil from overheating, DO NOT hold SCV control lever in operating position for an extended period of time.

Extend and Retract Cylinders

With hoses properly connected to couplers, pull lever back against spring pressure to extend remote cylinder. Spring pressure returns lever to neutral when released. With lever in neutral, remote cylinder is hydraulically locked in position. Push lever forward against spring pressure to retract cylinder.

Float Position

Push lever forward, through retract, into detent to operate “float” feature.

“Float” operation allows cylinder to extend and retract freely, such as when an implement follows ground contour.

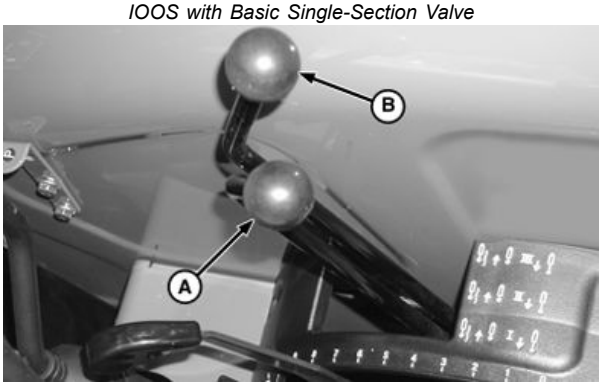
Manually return lever to neutral when “float” is no longer required.

Hydraulic Motor Operations

See Using Rear SCV to Operate Hydraulic Motor in this section.

LV9698 —UN—20AUG04

IOOS with Basic Single-Section Valve



LV12664 —UN—02MAY05

Straddle Mount and Hi-Crop with Basic Two-Section Valve

A—SCV I Lever **B—SCV II Lever**

OUO1023,00029C2 -19-17OCT06-1/1

Setting Detents and Operating SCV Control Levers—Deluxe Valve—If Equipped

Setting Control Lever Detents

Each section of the deluxe SCV has selectable detents, used to change control lever operations to meet operating requirements of different implements. Detent settings only affect extend and retract lever positions, not “float”.

NOTE: Read operator's manual symbol (A) is for reference only and is not a selectable setting.

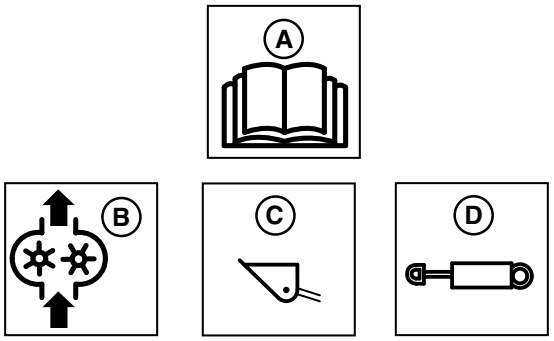
The three settings are:

- (B)—Continuous Detent (Motor)
- (C)—No Detent (Loader)
- (D)—Automatic Detent (Cylinder)

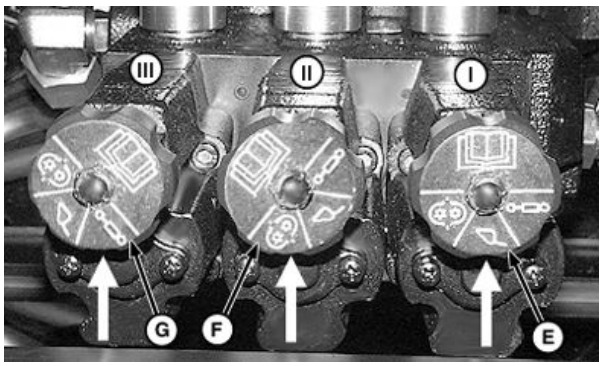
NOTE: Knob setting stop is in the front, center position (bold arrows).

SCV Section/Knob Position/Operation	Control Lever Detent
SCV I—Centered (E) for loader operation	(E)—No Detent—Lever returns to neutral when released
SCV II—Turned counterclockwise (F) for motor operation	(F)—Continuous Detent—Holds lever in operating position until manually returned to neutral
SCV III—Turned clockwise (G) for cylinder operation	(G)—Automatic Detent—Lever automatically returns to neutral when cylinder reaches end of stroke

IMPORTANT: To avoid overheating hydraulic oil and damage to tractor, use SCV I when long duration “continuous” (motor) operation is required. Section I of the deluxe SCV has a flow control valve which, when properly adjusted, provides flow to operate an implement at required speed while maintaining oil temperature within normal operating range.



LV9660 —UN—19AUG04



LV12591 —UN—21APR05

A—Read Operator's Manual
B—Continuous Detent (Motor)
C—No Detent (Loader)
D—Automatic Detent (Cylinder)
E—No Detent
F—Continuous Detent
G—Automatic Detent

Valve sections II and III can be set to “continuous” (motor) detent, but should only be used for intermittent applications (not exceeding 10 min/hr maximum) or hydraulic oil will overheat and damage tractor.

Continued on next page

OUO1023,00029C3 -19-17OCT06-1/2

Operating Control Levers

Extend and Retract Cylinders: With hoses properly connected to couplers, pull lever back to extend remote cylinder or push forward to retract.

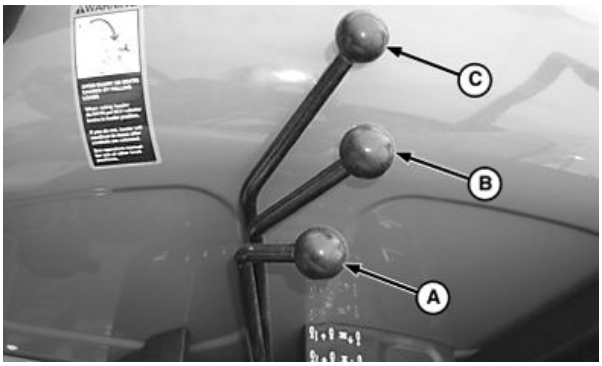
- When selector knob is set to **No Detent (Loader)** position, lever returns to neutral when released.
- When selector knob is set to **Automatic Detent (Cylinder)** position, lever automatically returns to neutral when cylinder reaches the end of stroke.
- When selector knob is set to **Continuous Detent (Motor)** position, lever must be manually returned to neutral.

With lever in neutral, remote cylinder is hydraulically locked in position.

Float Position: Push lever forward, through retract, into detent to operate “float” feature. “Float” operation allows cylinder to extend and retract freely, such as when an implement follows ground contour. Manually return lever to neutral when “float” is no longer required.

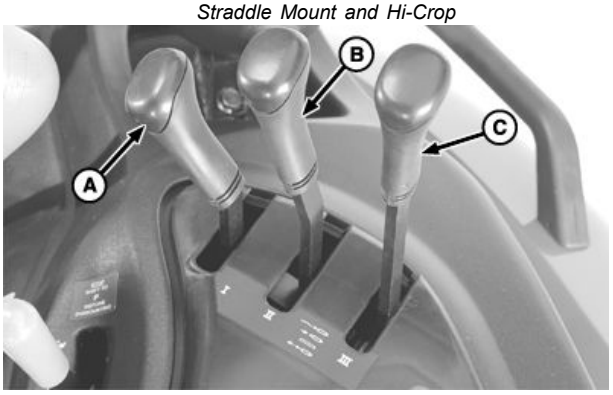
Hydraulic Motor Operations

See Using Rear SCV to Operate Hydraulic Motor in this section.



LV12626 —UN—22APR05

Straddle Mount and Hi-Crop



LV9655 —UN—13AUG04

IOOS Shown; Cab Similar

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

OUO1023,00029C3 -19-17OCT06-2/2

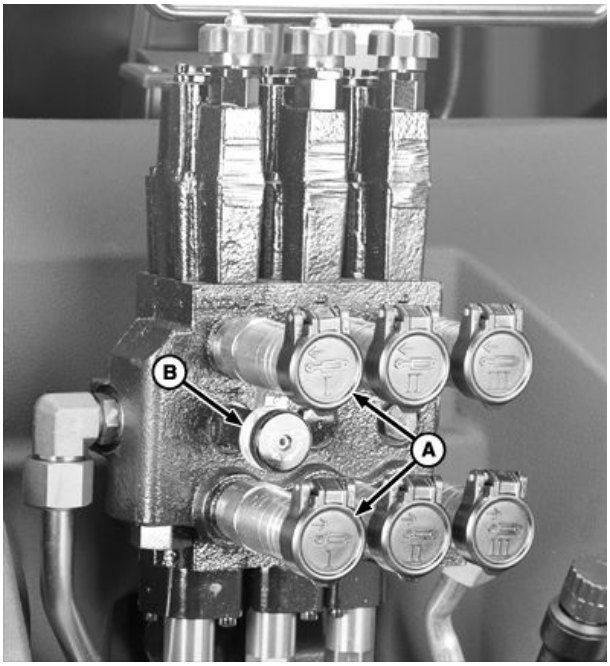
Using Rear SCV to Operate Hydraulic Motor

Deluxe Valve Section I Only

IMPORTANT: Use SCV I (A), with adjustable (internal) flow control valve (B) for hydraulic motor operations. Never regulate SCV I oil flow with an external flow control valve. Having two flow control valves in the same hydraulic circuit can overheat oil causing component malfunctions and damage.

Basic Valves and Deluxe Valve Sections II or III

Use external flow control valve to regulate oil flow when operating a hydraulic motor with any basic valve or deluxe valve sections II or III, without internal flow control.



LV9840 —UN—09SEP04

Deluxe Valve Section I

A—SCV I
B—Adjustable Flow Control Valve

Continued on next page

OUO1023,00029C4 -19-17OCT06-1/2

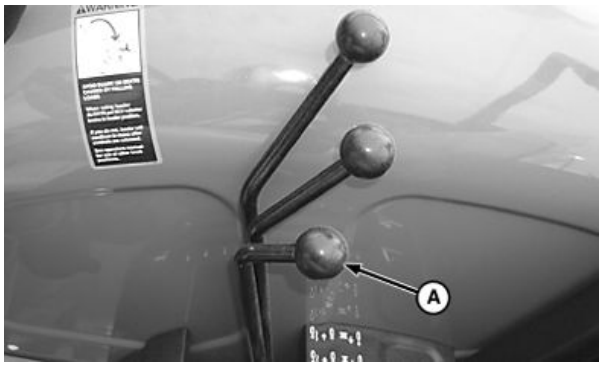
Hydraulic Motor Hose Connections and Control Lever Operations

1. Shut off engine.
2. Move SCV control lever full forward, into “float” detent. With deluxe valve, use SCV I control lever (A).
3. Connect hydraulic motor hoses to SCV couplers that correspond to selected control lever. With deluxe valve, use SCV I couplers.
4. **Deluxe Valve:** Set control lever detent for continuous “motor” operation. See Setting Detents and Operating SCV Control Levers—Deluxe Valve—If Equipped in this section.
5. Start engine.
6. To activate hydraulic motor, move control lever back to “retract” position.

IMPORTANT: Do not use “neutral” lever position to stop hydraulic motor; use “float”. Neutral standby pressure may cause back-pressure damage to hydraulic motor or hoses.

7. To stop hydraulic motor, move control lever full forward into “float” detent.
8. Shut off engine and disconnect hoses from couplers.

A—SCV I Control Lever



LV12665 —UN—25APR05

Straddle Mount and Hi-Crop with Deluxe Valve

LV9669 —UN—27AUG04

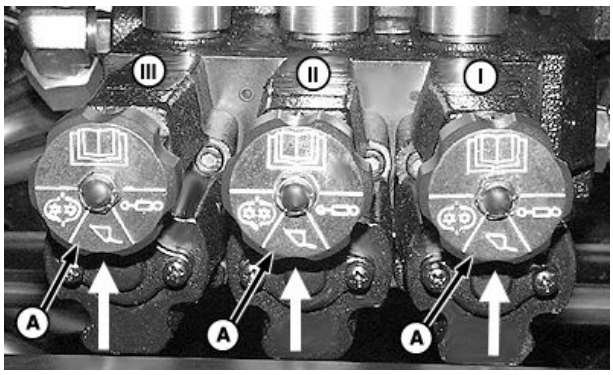
Cab and IOOS with Deluxe Valve

OUO1023,00029C4 -19-17OCT06-2/2

Using Deluxe SCV to Operate Loader

CAUTION: Avoid injury or death caused by falling loads. When using Deluxe SCV to operate loader, detents must be set in No Detent (Loader) positions (A), for loader movement to stop when control lever is released. Moving control lever to a detented position would cause the loader to unexpectedly rise to full height and the load to fall back on the operator or suddenly lower to the ground causing crushing injury.

When using loader, always put SCV selector knobs in loader position to prevent unexpected machine movement.



LV9663 —UN—28AUG04

No Detent (Loader) Position

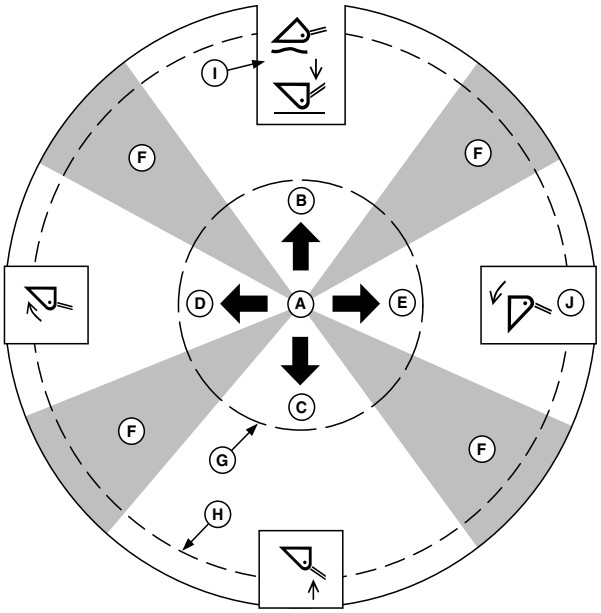
A—No Detent (Loader) Position

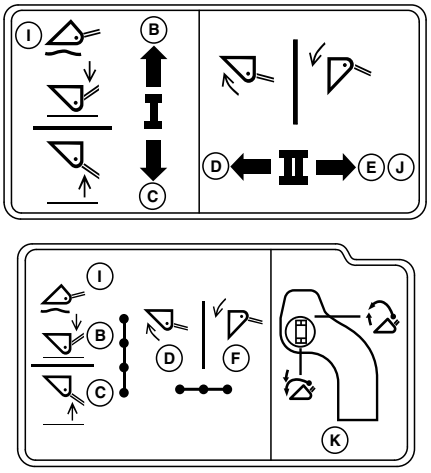
OUO1023,00028C8 -19-18APR06-1/1

Operating Multi-Function Control Lever—If Equipped

⚠ CAUTION: Overheated hydraulic oil can cause personal injury and component malfunctions. To prevent hydraulic oil from overheating, DO NOT hold multi-function control lever in operating position for an extended period of time.

LV12592 —UN—21APR05





LV12593 —UN—22SEP06

A—Multi-Function Control Lever
B—Front—Boom Lower
C—Back—Boom Raise
D—Left—Bucket Rollback (Curl)
E—Right—Bucket Tilt (Dump)
F—Two-Function Zone
G—Slow Speed
H—Fast Speed
I—Detented "Float" Position
J—Fast Dump Position (Two-Function Control Lever only)
K—Third-Function Operations

While multi-function control lever (A) can be used to operate other hydraulically driven devices, it is most commonly used to operate a loader attachment.

Lever controls lifting and lowering of the boom as well as tilting (dump) and rollback (curl) of the bucket.

Both two-function and three-function control levers use full forward detented position, for "FLOAT" operation.

Two-function control lever has a momentarily detented position (full right) used to fast dump the bucket.

Additional third-functions are controlled by handle-mounted switch.

NOTE: Roman numerals do not apply to this application.

Continued on next page

1. A single function operates when control lever (A) is moved straight away from center, in one-of-four primary directions (front, back, left or right).
   - Front—Boom Lower (B)
     - Full-front (I) is a detented position used for “float” operations.
   - Back—Boom Raise (C)
   - Left—Bucket Rollback (Curl) (D)
   - Right—Bucket Tilt (Dump) (E)
     - **Two-Function Control Lever:** Full-right (J) is a momentarily detented regenerative position where return oil is used to fast dump the bucket.
2. Two functions operate simultaneously when lever is moved at 45° angles from primary directions, into a two-function zone (F). Two-function zones are: Boom Lower/Bucket Dump, Bucket Dump/Boom Raise, Boom Raise/Bucket Curl, Bucket Curl/Boom Lower.
3. When lever is released to spring-centered neutral position, mid-mount valve holds boom and bucket in position.
4. Cylinder operating speed depends on how far from center the control lever is moved. When lever is first moved from center, hydraulic functions operate slowly (G), then move progressively faster as lever is moved further away from center, out to fast speed operating position (H).

“Float”: Push lever full forward into detent when “float” is desired. “Float” position (I) allows loader boom to move up and down freely while traveling over rough ground. Manually return lever to neutral when “float” is no longer needed.

OUO1023,00027CD -19-20SEP06-2/5

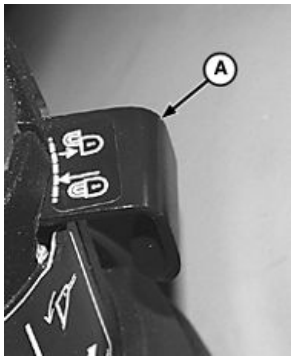
Transport Lock

CAUTION: To prevent loader movement, engage control lever transport lock (A) before dismounting tractor. Control lever must be in center (neutral) position for lock to engage.

Transport lock does not lock out switch operated third-function hydraulics, which are active anytime the key is ON.

- Push IN to lock
- Pull OUT to unlock

NOTE: Lock is engaged when dashed line is in against body and lever does not move.



LV12594 —UN—21APR05

Locked

LV12595 —UN—21APR05

Unlocked

A—Transport Lock

OUO1023,00027CD -19-20SEP06-3/5

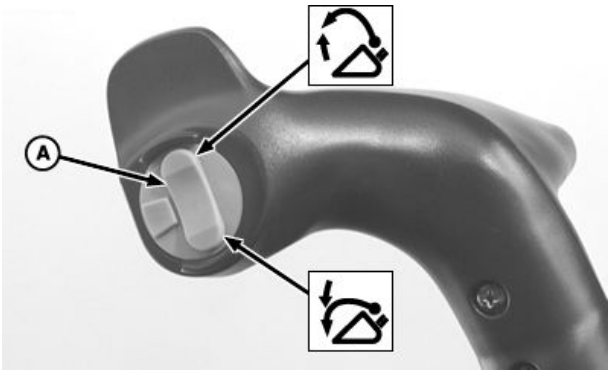
Third-Function (Electro-Hydraulic)

Switch (A) controls third-function hydraulics connected to three-function mid-mount valve. Third-function hydraulics are active anytime the key is ON.

- Top half pressed: Attachment retract/raise (grapple open).
- Bottom half pressed: Attachment extend/lower (grapple close).

NOTE: Front switch is not operational in this application.

A—Switch



LV9662 —UN—20AUG04

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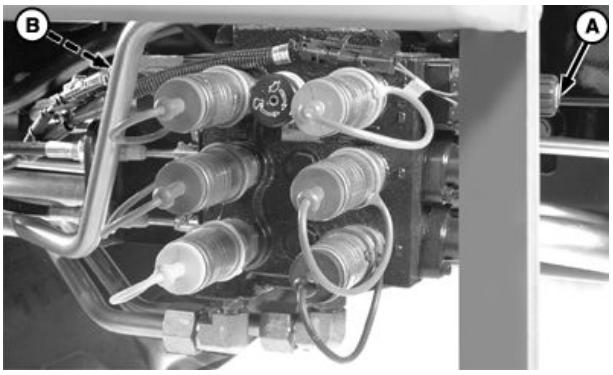
OUO1023,00027CD -19-20SEP06-4/5

Manually Operating Third-Function (Electro-Hydraulic) Valve Section

Third-function (grapple) valve section can be manually operated if an electrical malfunction occurs.

Insert a small diameter punch through access hole (A or B) and push spool to either extend or retract cylinders as needed to release load.

A—Access Hole (Extend) **B—Access Hole (Retract)**



LV10323 —UN—20SEP04

OUO1023,00027CD -19-20SEP06-5/5

Adjusting Flow Control—Deluxe SCV and Three-Function Mid-Mount Valve—If Equipped

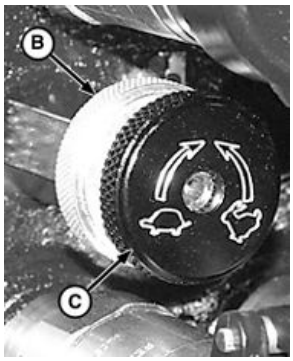
CAUTION: Excessive operating speed may cause injury or machine damage.

Decrease flow rate if hydraulic oil overheats, remote cylinder moves too quickly or if hydraulic motor turns too fast.

Flow control adjustment only affects the number I section of rear SCV and the electro-hydraulic (grapple) section of the three-function mid-mount control valve. Other valve sections are not affected by this adjustment.

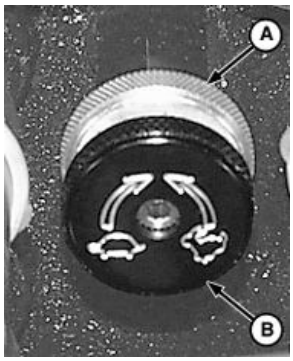
To adjust flow rate and operating speed, loosen lock nut (A) and turn flow control knob (B):

- To increase flow rate and speed, turn COUNTER-CLOCKWISE (Rabbit).
- To decrease flow rate and speed, turn CLOCKWISE (Turtle).



LV12596 —UN—21APR05

Deluxe SCV



LV12597 —UN—21APR05

Three-Function Valve

A—Lock Nut **B—Flow Control Knob**

NOTE: Rear SCV: If detent kicks out before end of cycle, use SCV I and adjust flow control.

OUO1023,00028C9 -19-18APR06-1/1

Correcting Reversed Cylinder Response

CAUTION: If cylinder response is opposite of control lever, extending when it should retract, reverse hose connections at couplers.

MX,RHIP,IA1 -19-24JUL95-1/1

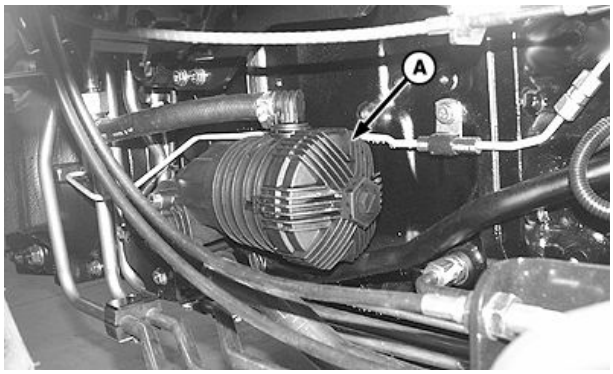
Warming Transmission-Hydraulic System Oil

CAUTION: Overheated hydraulic oil can cause personal injury and component malfunctions. To prevent hydraulic oil from overheating, DO NOT hold SCV or multi-function control lever in operating position for an extended period of time.

Hydraulic system may be slow to function when tractor is started in cold weather. Cold oil will not flow easily through the filter screen or hydraulic system filter (A).

Steering will be slow until system warms up.

Hydraulic system will function normally when oil warms up.



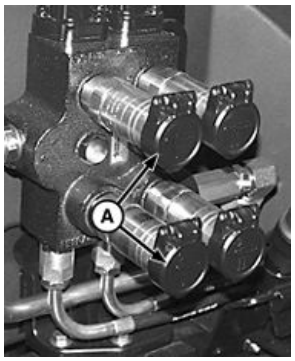
LV9609 —UN—10AUG04

A—Hydraulic Oil Filter

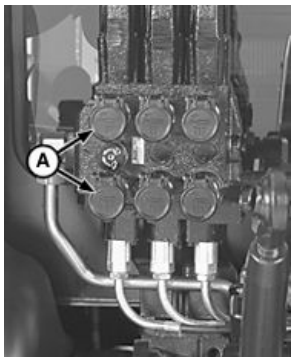
OUO1023,00027CA -19-07MAR06-1/4

1. Connect jumper hose to SCV I couplers (A).

A—SCV I Couplers



LV12599 —UN—21APR05



LV12600 —UN—21APR05

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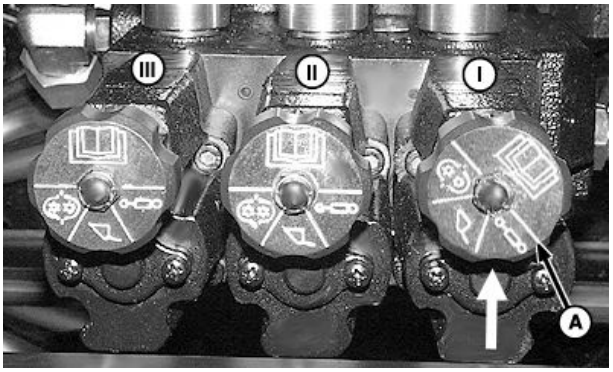
OUO1023,00027CA -19-07MAR06-2/4

NOTE: Knob setting stop is in the front, center position (bold arrow).

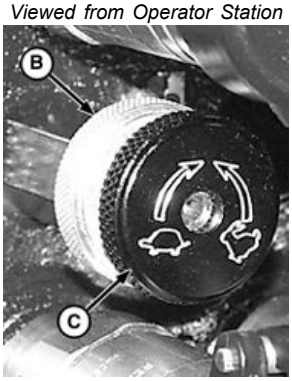
2. **Deluxe SCV:** Turn SCV I selector knob to cylinder (automatic) detent position (A).
3. Loosen lock nut (B) and turn flow control knob (C) fully counterclockwise (open).

A—Automatic Detent Position
B—Lock Nut
C—Flow Control Knob



LV9667 —UN—28AUG04

Viewed from Operator Station



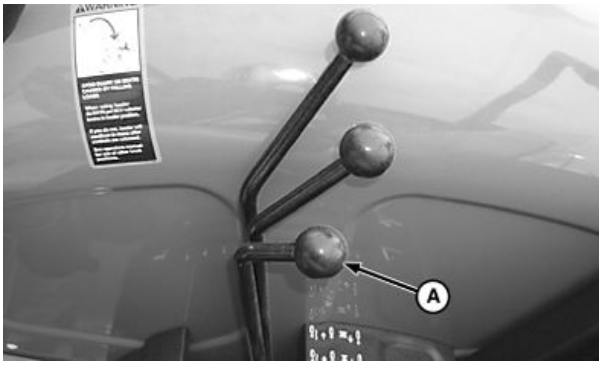
LV12596 —UN—21APR05

Flow Control Knob

OUO1023,00027CA -19-07MAR06-3/4

4. Depress clutch pedal, start engine and idle at 1200 rpm.
5. Move SCV I control lever (A or B) forward or rearward until hydraulic oil warms to operating temperature.
6. Turn steering wheel side-to-side to check warm-up progress. When wheel turns smoothly without hesitation, oil has warmed to operating temperature. After transmission-hydraulic oil has warmed to operating temperature:
   - Return SCV lever to neutral.
   - **Deluxe SCV:** Return detent selector and flow control knobs to original positions and setting.
   - Remove jumper hose.

A—SCV I Control Lever



LV12665 —UN—25APR05

Straddle Mount and Hi-Crop

LV12602 —UN—21APR05

Cab and IOOS

OUO1023,00027CA -19-07MAR06-4/4

Using Power Beyond Attachment (If Equipped)

IMPORTANT: Only hydraulic motors requiring high flow at low pressure can be used on open center hydraulic systems. Do not use with motors requiring low flow at high pressure, oil will overheat and cause damage to hydraulic system. See your nearest John Deere dealer for more information on hydraulic motor applications.

Power Beyond is used as a pressure/flow source for auxiliary functions equipped with independent flow control valves. Use Power Beyond when:

- Tractor SCV control is not needed
- No other SCV outlet is available

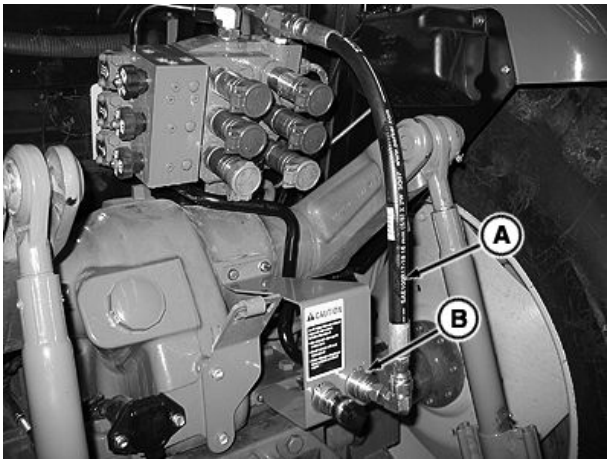
Power beyond is designed for operations where continuous high volume, low pressure oil flow is needed.

IMPORTANT: Power beyond must either be kept in the storage position as shown (return hose plugged into coupler) or attached to implement pressure and return circuit. Not connecting in this manner will cause tractor to overheat.

To use power beyond feature, push in on hose (A) to remove from coupler (B) and attach to implement's "return" port. To complete the hydraulic circuit, attach implement's "pressure" hose to open coupler (B).

When not in use, plug hose end into coupler for storage.

Power Beyond Kit is available from your John Deere dealer.



P15308 —UN—26MAR08

Power Beyond (In Storage Position)

A—Power Beyond Hose **B—Hose Coupler**

OUMX005,0001A03 -19-23JUN08-1/1

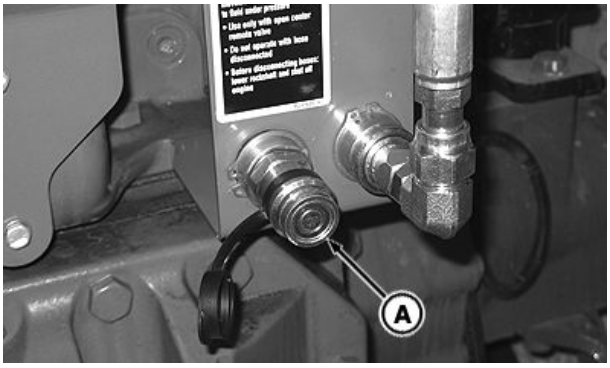
Using Hydraulic Motor Case Drain Connection (If Equipped)

Some implement motors have a case drain line used to bleed oil off the motor case and protect the shaft seal.

If implement motor is equipped with a case drain hose, attach it to flat-faced drain connector (A). Make sure hose coupler and drain connector are clean before attaching.

Install protective dust cap when connector is not in use.

Parts for this attachment are available from your John Deere dealer.



P15312 —UN—26MAR08

A—Flat-Faced Drain Connector

OUMX005,0001A05 -19-15APR08-1/1

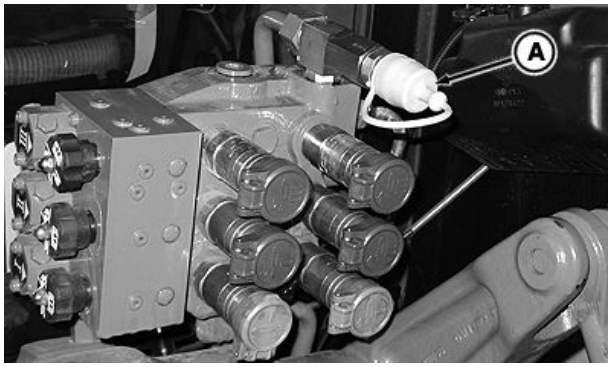
Using Hydraulic Motor Return Connection (If Equipped)

Some implements, such as a post pounder, require use of a high flow or fast return-to-sump connection.

If a high flow return connection is needed, remove cap (A) on valve stack housing and attach hose fitting to connector.

Motor return parts are available from your John Deere dealer.

A—Motor Return Connector Cap



P15309 —UN—26MAR08

OUMX005,0001A04 -19-15APR08-1/1

Match Tractor Power to Implement

IMPORTANT: Tractor power should be matched to the size of the implement. Excessive power can damage an implement, and too large an implement can damage the tractor.

Refer to your implement operator's manual for minimum and maximum power requirements before attaching implement to tractor.

MX,PMIP,A -19-16MAY08-1/1

Observing Drawbar Load Limitations

IMPORTANT: Certain heavy equipment, such as a loaded single-axle trailer, can place excessive strain on drawbar. Strain is greatly increased by speed and rough terrain. Do not exceed maximum static vertical load on drawbar.

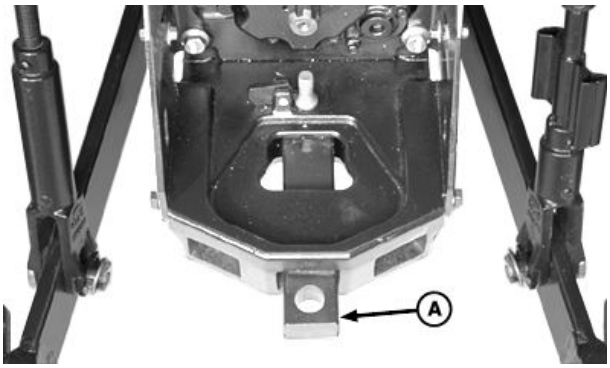
Drive slowly with heavy loads.

Drawbar Maximum Static Vertical Load—Specification

Fully Extended Position—Static Vertical Load	760 kg (1675 lb)
Fully Retracted Position—Static Vertical Load	1120 kg (2470 lb)

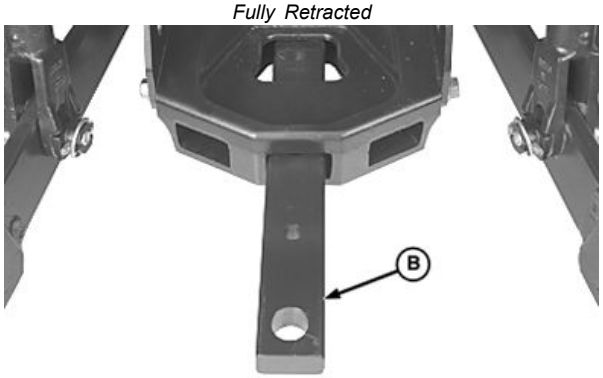
NOTE: Offset and heavy duty drawbars are available as an option. See your John Deere dealer for detailed information on optional drawbars.

A—Drawbar—Fully Retracted **B—Drawbar—Fully Extended**



LV9614 —UN—13AUG04

Fully Retracted



LV12603 —UN—22APR05

Fully Extended

OUO1032,00016C8 -19-16MAY08-1/1

Selecting Drawbar Position

CAUTION: Avoid injury from unexpected equipment movement. 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.

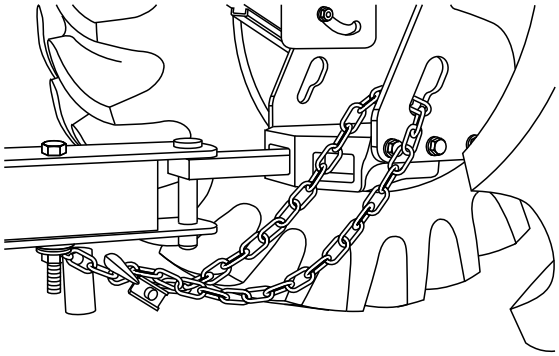
For maximum traction and efficiency, drawbar (A) should be positioned in the center, fully retracted position. (See implement operator's manual for more information.)

If needed, drawbar can be offset from center using slots provided in the drawbar support.

IMPORTANT: For drawn PTO-driven implements, drawbar must be extended to proper position.

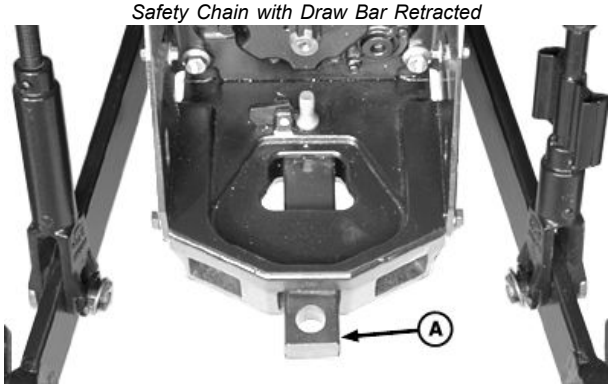
Drawbar Positions	
PTO Shaft	**PTO Shaft End-to-Hitch Pin Hole (B)**
540 rpm (6 spline)	356 mm (14 in.)
1000 rpm (21 spline)	407 mm (16 in.)

A—Drawbar **B—Measure From/To**



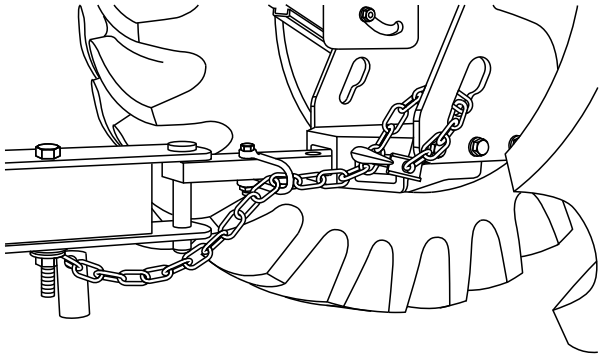
LV12791 —UN—08MAR06

Safety Chain with Draw Bar Retracted



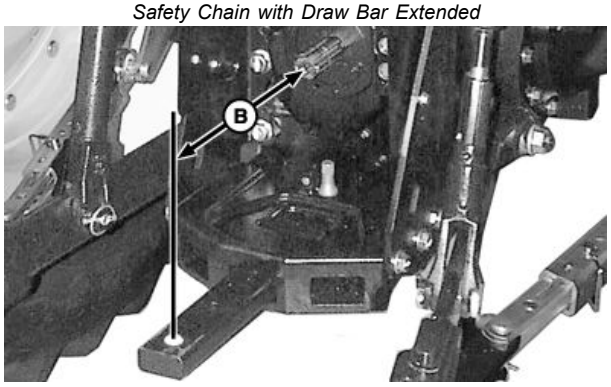
LV9614 —UN—13AUG04

Fully Retracted



LV12795 —UN—20SEP06

Safety Chain with Draw Bar Extended



LV9685 —UN—19AUG04

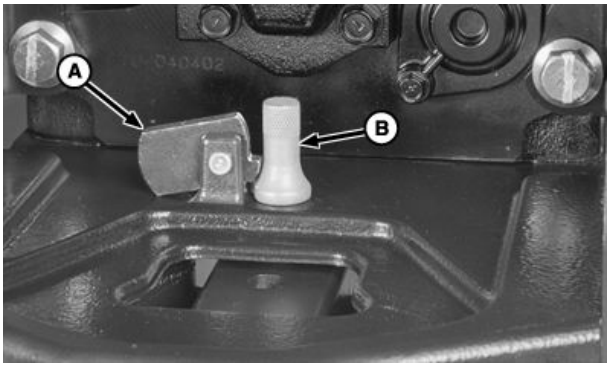
OUO1023,00027CB -19-17OCT06-1/1

Adjusting Drawbar Length and Offset

1. Lift retaining latch (A).
2. Remove drawbar pin (B).
3. Slide drawbar to desired position.

   If moving from centered to offset position, remove drawbar and slide through offset slots in support.
4. Install drawbar pin and rotate latch to retain in-place.

A—Retaining Latch **B—Drawbar Pin**



LV9615 —UN—13AUG04

OUMX005,00018B8 -19-16MAY08-1/1

Reversing 540/1000 RPM PTO Stub Shaft—If Equipped

CAUTION: Entanglement in rotating driveline can cause serious injury or death.

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

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

Avoid personal injury. PTO shaft may be hot from operation. Wear gloves and allow shaft to cool before changing.

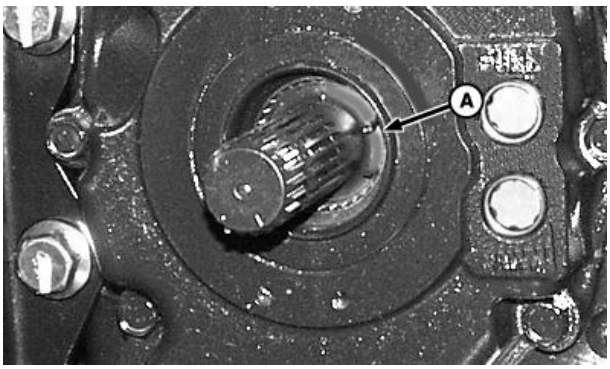
TS1644 —UN—22AUG95

PTO stub shaft has six splines for operating 540-rpm implements and 21 splines for 1000-rpm implements.

NOTE: A flattened area on the stub shaft facilitates snap ring removal and installation.

1. Align snap ring ends with access flat. Remove snap ring (A) and pull out stub shaft (B).
2. Clean stub shaft thoroughly and coat with grease. Be sure end bore (C) is clean when installing shaft for 1000-rpm operation.
3. Turn stub shaft end-for-end and insert in PTO housing until snap ring groove is visible.
4. Install snap ring.
5. Move shift lever to agree with stub shaft position. See Selecting Correct PTO Speeds—If Equipped in this section.

A—Snap Ring **C—Bore**
B—Stub Shaft



LV9616 —UN—13AUG04

LV12604 —UN—26APR05

OUO1023,00029C5 -19-17OCT06-1/1

Attaching PTO-Driven Implement

CAUTION: Entanglement in rotating driveline can cause serious injury or death.

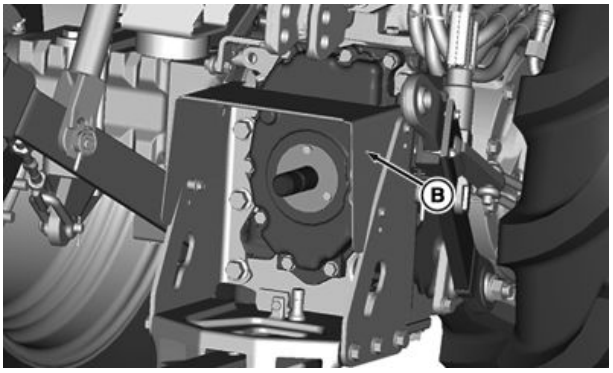
Keep tractor master shield and driveline shields in place at all times. Make sure rotating shields turn freely.

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

1. Turn key to STOP position to shut off engine.
2. Put drawbar (A) in extended position. If implement will be connected to 3-point hitch, be sure drawbar will not interfere. Fully retract drawbar or remove it if necessary. (See Selecting Drawbar Position in this section.)
3. Install drawbar lock pin.
4. Attach implement to tractor (drawbar or 3-point hitch) before connecting PTO driveline. Raise hitch to full-up (transport) position if it is not to be used.
5. Rotate PTO shield (B) up for clearance. With engine off, turn PTO shaft by hand to line up splines. Connect driveline to PTO shaft. Pull out on shaft to be sure driveline is locked to PTO shaft. Return PTO shield to down position.
6. Check that all shields are in place and in good condition. Never operate PTO unless master shield is properly installed. WITH ENGINE STOPPED, check integral shields on driveline by making sure they rotate freely on shaft. Lubricate or repair as necessary.
7. Check for interference.

TS1644 —UN—22AUG95

LV12605 —UN—22APR05



PULV006938 —UN—22JUN10

A—Drawbar **B—PTO Shield**

OUO1023,0002807 -19-22JUN10-1/1

Selecting Correct PTO Speeds—If Equipped

540/540E Operation

For standard 540 PTO operation (load requiring full engine power), pull lever (A) back to 540 position.

For economical PTO operation (lighter load), push lever forward to 540E position. In economical mode, engine is run at lower rpm to conserve fuel and reduce overall operating noise while still turning PTO shaft at 540 rpm.

NOTE: With PTO shift lever in 540E position, engine fast idle speed is limited to 1700 rpm.

Same shift lever design is used for both 540/540E PTO and 540/1000 PTO. 540/540E is shown; 540/1000 is similar.

540/1000 Operation—If Equipped

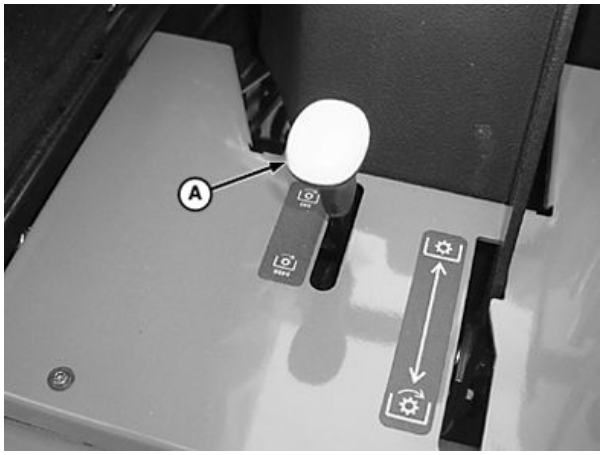
NOTE: PTO conversion kits are available for most tractors. See your John Deere dealer for details and kit applications.

For 540 rpm PTO operation pull lever (A) back to 540 position. When PTO stub shaft is installed for 540 rpm implement, a mechanical interlock prevents shifting from 540 rpm to 1000 rpm setting.

IMPORTANT: Stub shaft must be reversed from 540 to 1000 rpm position before moving shift lever to 1000 rpm position. (See Reversing 540/1000 RPM PTO Stub Shaft—If Equipped in this section).

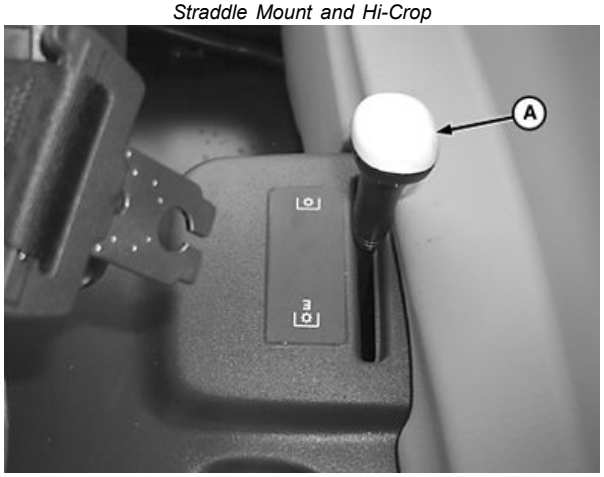
For 1000 rpm PTO operation, push lever forward to 1000 position.

A—PTO Shift Lever



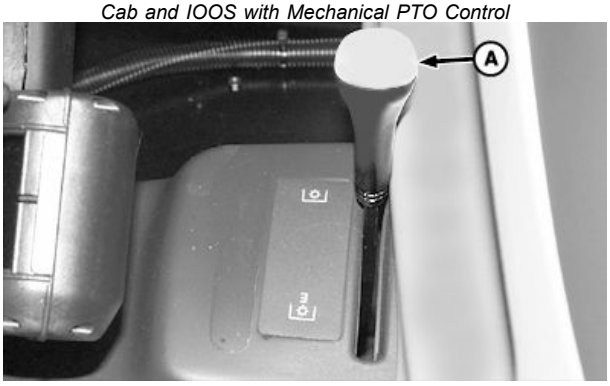
LV12627 —UN—22APR05

Straddle Mount and Hi-Crop



LV12628 —UN—22APR05

Cab and IOOS with Mechanical PTO Control



LV9619 —UN—13AUG04

Cab and IOOS with Electro-Hydraulic (EH) PTO Control

OUO1023,00029C6 -19-17OCT06-1/1

Operating Tractor PTO

NOTE: Engine will not start if PTO lever is engaged. If equipped with EH PTO switch, engine will start with switch up (engaged), but PTO shaft will not rotate until switch is reset.

1. Depress clutch pedal, start engine and push hand throttle lever (A) forward until tachometer indicates PTO rated speed:

PTO Rated Speed	
PTO	**Engine RPM Speed**
540E	1700
540	2400 (full power)
1000	2400 (full power)

NOTE: When in 540E position, engine speed is mechanically limited to a maximum of 1700 rpm. 540E operation will not engage if engine speed is above 1700 rpm.

Both 540 rpm and 1000 rpm PTOs operate at same engine speed: 2400 rpm.

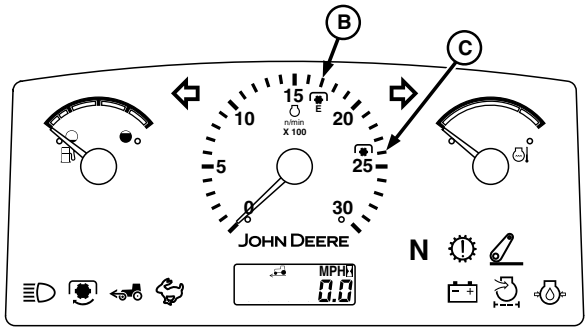
A—Hand Throttle Lever
B—540E Operation Speed
C—540 Operation Speed

Straddle Mount and Hi-Crop

LV12485 —UN—12APR05

LV12486 —UN—12APR05

IOOS Shown; Cab Similar



LV9620 —UN—11AUG04

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OUO1023,0002808 -19-14MAR06-1/3

NOTE: PTO is engaged or disengaged without depressing clutch pedal.

2. Engage PTO:

   - **Lever Operated:** Move control lever (A) inward and forward to engage PTO.
   - **EH Switch Operated:** Lift switch knob (B) up to "I" position to engage PTO.

   PTO indicator (C) will light when PTO is engaged.

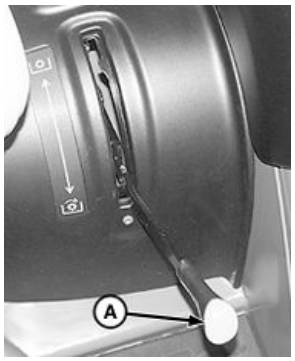
IMPORTANT: A warning alarm will sound if operator leaves seat with PTO engaged.

NOTE: If engine is stopped while PTO is engaged:

- *Lever Operated PTO: Disengage PTO, restart engine and engage PTO.*
- *EH Switch Operated PTO: Restart engine, depress and lift switch knob to reset and engage PTO.*

A—PTO Control Lever
B—EH PTO Switch—If Equipped
C—PTO Indicator

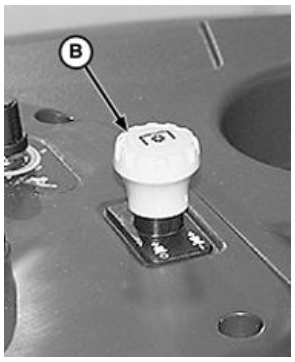
Straddle Mount and Hi-Crop



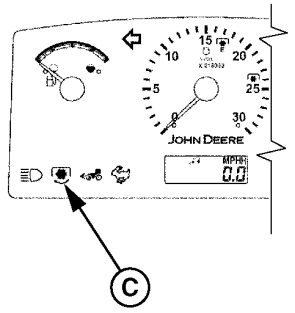
LV12506 —UN—13APR05

LV12507 —UN—13APR05

IOOS Shown



Cab Shown; IOOS Similar



LV12606 —UN—22APR05

LV12607 —UN—22APR05

Continued on next page

OUO1023,0002808 -19-14MAR06-2/3

CAUTION: Avoid personal injury. Stop engine and allow PTO driveline to stop before adjusting, connecting or cleaning PTO driven equipment.

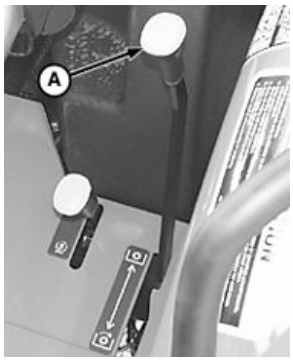
To avoid entanglement with rotating shaft, always disengage PTO when not in use.

3. Disengage PTO:
   - **Lever Operated:** Pull lever (A) back to latch stop position to disengage PTO.
     Lever latch stop prevents accidental engagement of the PTO.
   - **EH Switch Operated (if equipped):** Push switch knob (B) down to “O” position to disengage PTO.

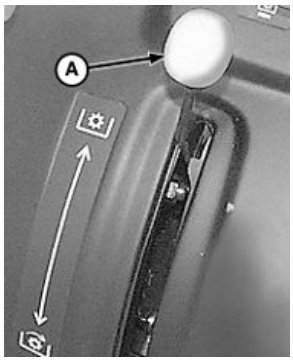
   PTO brake automatically engages when PTO is disengaged.

A—PTO Control Lever

B—EH PTO Switch—If Equipped



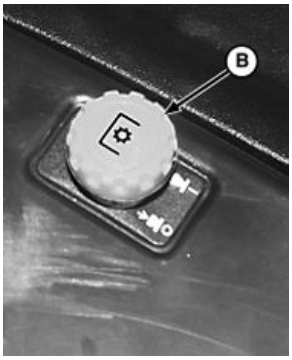
Straddle Mount and Hi-Crop



LV12608 —UN—22APR05

LV12609 —UN—22APR05

Cab and IOOS



EH PTO Switch

LV12468 —UN—12APR05

OUO1023,0002808 -19-14MAR06-3/3

Performance Ballasting

Planning 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 provides additional information on performance ballasting in two of the manuals in the series "Fundamentals of Machine Operations".

(See John Deere Service Literature Available in this manual.):

- "Tractors" provides information on determining correct tractor weight and ballast selection.
- "Machinery Management" provides information on implement matching and increasing productivity.
- Your John Deere dealer can assist you with information on these subjects.

OUO1023,00028F5 -19-28MAR08-1/1

Selecting Ballast Carefully

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

Factors determining amount of ballast:
- Soil surface—loose or firm
- Type of implement—integral/semi-integral or towed
- Travel speed—slow or fast
- Tractor power output—partial or full load
- Tire size

Ballasting MFWD-Equipped Tractors

Ideal tire slippage for MFWD-equipped tractors is 8—12%. To reduce wheel slip to this level, more weight is needed on the front than with two-wheel-drive tractors. The ideal weight split is 40% front, 60% rear, of total tractor weight. In some cases liquid ballast will be needed in front tires to obtain this weight split.

If equipped with a loader, provide adequate ballast to rear wheels.

NOTE: Implement codes are used to determine proper ballast for stability and steering control. Refer to the implement code in your 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. In some cases, additional front ballast is required for optimum field performance. If more assistance is needed, see your John Deere dealer.

Matching Ballast to Work Load

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

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

Too Little Ballast		Too Much Ballast	
1.	Excessive wheel slip	1.	Increased load
2.	Power loss due to churning soil	2.	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

Ballast Limitations

Ballast should be limited by either tire capacity or tractor capacity. Each tire has a recommended carrying capacity which should not be exceeded (see Wheels, Tires and Treads section). If a greater amount of weight is needed for traction, a larger single tire should be considered.

Ballast can be added as either liquid or cast iron.

Checking for Correct Ballast

The best way to check for correct ballast is to measure amount of travel reduction (% slip) of the drive wheels. Under normal field conditions, travel reduction should be 10—15% (8— 12% for MFWD tractors)..

Add more weight to drive wheels if slip is excessive. If there is less than minimum recommended slip, weight should be removed.

OUO1023,00028D7 -19-27MAY09-1/1

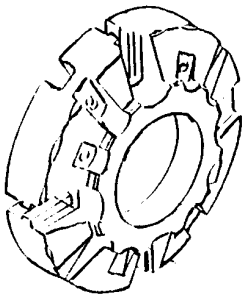
Using Cast Iron Weights

Cast iron weights are available in a 43 kg (95 lb) size. Weights can be installed on the inside or outside of wheel.

Rear wheel weights can be installed for improved traction and/or ballast. See Sales Manual for corresponding bundle numbers.

IMPORTANT: Maximum of two weights can be added per side.

See your John Deere dealer for more information and recommendations on weight use and placement.



M47215 —UN—29JAN92

OUMX005,0001998 -19-15FEB08-1/1

Installing Rear Cast Iron Weights

CAUTION: Optional cast iron weight weighs 43 kg (95 lb). Handle with care! Use appropriate equipment or have the job done by your John Deere dealer.

NOTE: DO NOT install rear wheel weights on a Hi-Crop tractor.

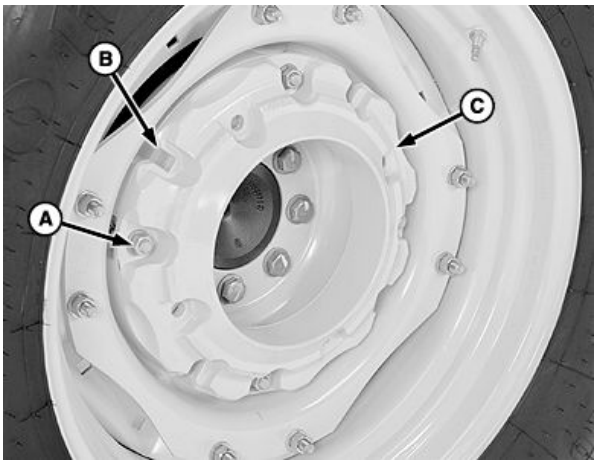
1. Remove wheel.
2. Attach weight (C) to wheel disks using four special round head bolts, washers and nuts (A). Tighten nuts to specifications.

Specification	
Wheel Weight-to-Disk Nuts—Torque	215 N·m (159 lb-ft)

3. Install additional weights:
   a. Insert four round head bolts (D) through slots (B) of first weight. Install bolts with square neck in slot (as shown).
   b. Align mounting holes of second weight with round head bolts and install weight. Fasten with washers and nuts. Tighten nuts to specifications.

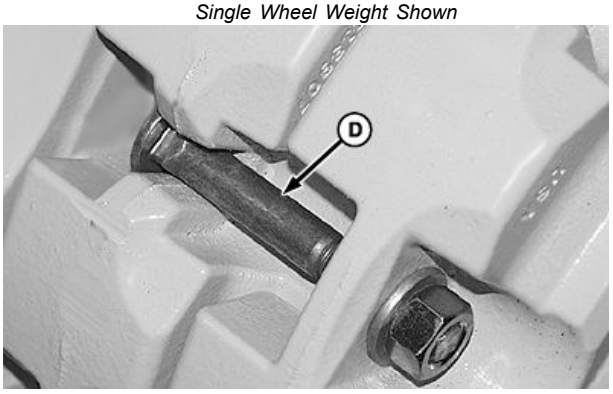
Specification	
Wheel Weight-to-Weight Nuts—Torque	215 N·m (159 lb-ft)

4. Install wheel and tighten mounting hardware. (See Tighten Bolts—Rear Axle in Wheels, Tires and Treads section.)
5. Tighten wheel weights and mounting hardware again after a few hours service. Check regularly.



Single Wheel Weight Shown

LV9684 —UN—17AUG04



Install Bolt in Slot (Additional Weight)

LV9692 —UN—19AUG04

A—Nut, 5/8-11 (4 used)
B—Slot (4 locations)
C—Wheel Weight
D—Round Head Bolt (4 used)

OUO1023,0002809 -19-14MAR06-1/1

Using Implement Codes

CAUTION: DO NOT attempt to transport an implement without adequate front ballast. Lack of steering control may result.

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 QUIK-TATCH™ 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 QUIK-TATCH™ weights needed.

   Example: An implement with a code 100 to be used on an MFWD tractor with a quick-coupler, but without liquid in the front tires, requires 4 front weights.

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

   - 115 for 2-WD Tractor
   - 137 for MFWD Tractor

NUMBER OF QUIK-TATCH™ WEIGHTS NEEDED		
2-WD		
Implement Code	**Without Liquid in Front Tires**	**With Liquid in Front Tires**
0—65	0	—
66—75	2	0
76—85	4	2
86—95	6	4
96—105	8	6
106—115	—	8
MFWD		
Implement Code	**Without Liquid in Front Tires**	**With Liquid in Front Tires**
0—87	0	—
88—97	2	0
98—107	4	2
108—117	6	4
118—127	8	6
128—137	—	8

QUIK-TATCH is a trademark of Deere & Company.

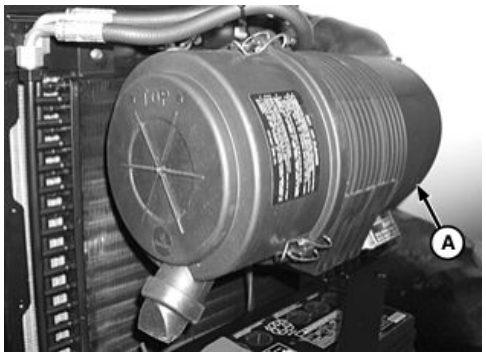
MX,BAIP,ZA3 -19-20JAN96-1/1

Storing Tractor

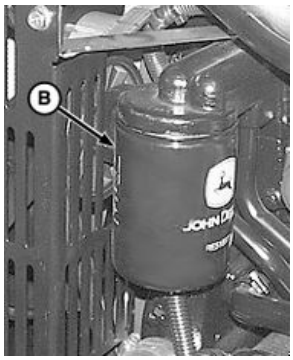
IMPORTANT: Any time tractor will not be used for several months, use this procedure to minimize corrosion and deterioration. Use an AR41785 Engine Storage Kit and an extra 0.95 L (1 pt) of AR41870 Corrosion Inhibitor.

1. Service air cleaner (A). (See Replacing Air Cleaner Elements in section 55. of your Maintenance Guide.)
2. If coolant has been in tractor for two years, flush cooling system. (See your John Deere dealer.) Add 50 percent antifreeze water mixture. Test coolant for adequate cold weather protection.
3. Change engine oil and filter (B). (See Changing Engine Oil and Filter—5425, 5525 and 5625 in section 30.) or Changing Engine Oil and Filter—5225 and 5325 in section 40.)
4. Drain fuel and add back 4 L (1 gal) of fuel. Then add 0.4 L (12 oz) of corrosion inhibitor.
5. Add 0.25 L (9 oz) of corrosion inhibitor to transmission-hydraulic system fill port (C).
6. Depress clutch and start engine. Run engine until it reaches operating temperature. Also raise and lower rockshaft several times. Shut off engine.
7. Add 0.5 L (16 oz) more inhibitor to fuel tank at filler/cap (D).

A—Air Cleaner
B—Engine Oil Filter
C—Transmission-Hydraulic System Fill Port
D—Fuel Tank Filler/Cap



LV9467 —UN—15MAR06

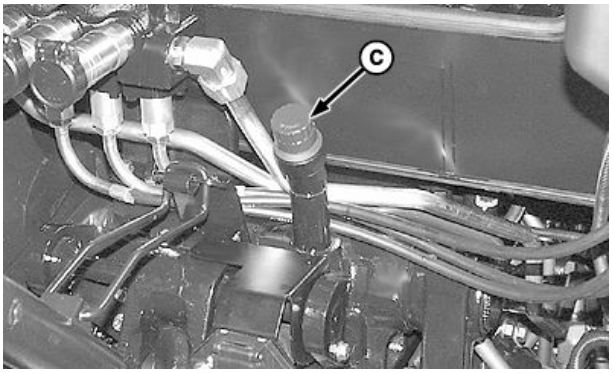


LV12537 —UN—13APR05

5225 and 5325

LV12538 —UN—13APR05

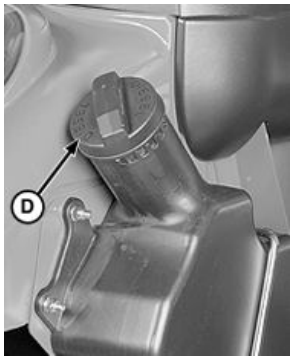
5425, 5525 and 5625



LV9475 —UN—25JUL04

LV12539 —UN—13APR05

Straddle Mount



LV12540 —UN—13APR05

Cab and IOOS

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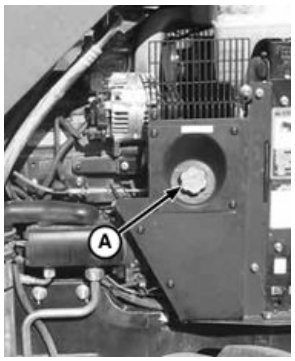
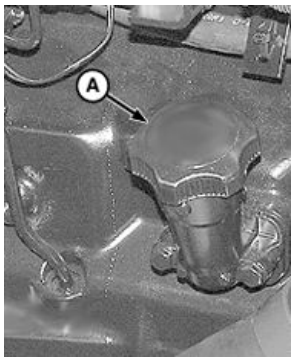
8. Add 0.5 L (16 oz) inhibitor to engine crankcase at filler (A).
9. Disconnect fuel shut-off solenoid wiring lead/connector (B). (This will prevent engine from starting while cranking.)
10. Remove air intake hose at manifold. Pour 0.1 L (3 oz) inhibitor into manifold and replace hose. Pull hand throttle back to slow idle position. Crank engine only a few revolutions.
11. Remove fan belt after it has cooled.
12. Remove and clean battery. Store in a cool, dry place. Keep battery charged.[1]
13. Block clutch pedal in the disengaged position.
14. Coat exposed metal surfaces, such as adjustable front axles, if extended, with grease or a corrosion inhibitor.
15. Use tape to seal air cleaner inlet hole (C), dust unloader valve (D), exhaust pipe, crankcase filler, fuel cap, coolant recovery tank, and transmission-hydraulic system filler/cap.
16. Cover dash with opaque material to prevent gauges from fading.
17. Raise tires off ground. Protect them from heat and sunlight.
18. Thoroughly clean tractor. Touch up any painted surfaces that are scratched or chipped.
19. If tractor must be stored outside, cover it with a waterproof material.
20. **Cab:** Rotate A/C compressor pulley (E) several turns once a month to prevent seizure of compressor.

A—Crankcase Filler
B—Fuel Shut-Off Solenoid Wiring Lead/Connector
C—Air Cleaner Inlet Hole
D—Dust Unloader Valve
E—A/C Compressor Pulley



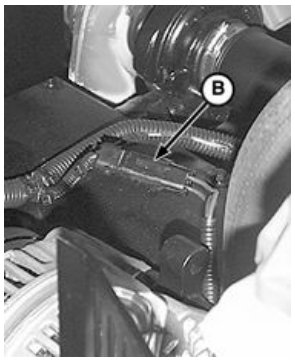
5225 and 5325



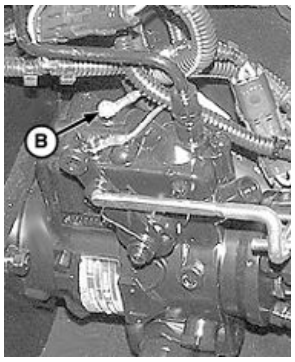
LV12541 —UN—13APR05

LV12542 —UN—13APR05

5425, 5525 and 5625



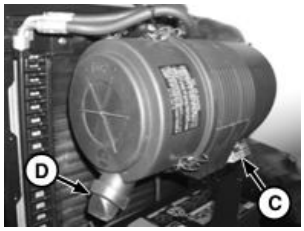
5225 and 5325



LV12543 —UN—13APR05

LV12544 —UN—13APR05

5425, 5525 and 5625



LV12545 —UN—15MAR06

LV12546 —UN—13APR05

[1]*Disconnect battery ground cable for short-term storage periods (30 to 90 days).*

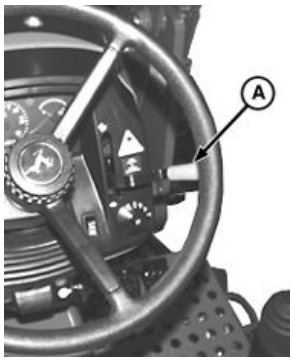
OUO1023,000280D -19-11JUN07-2/2

Removing Tractor from Storage

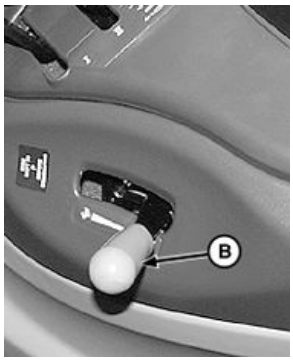
1. Check tire pressure. (See Tire Inflation Pressure Charts in your Maintenance Guide. Lower tires to ground.
2. Unseal all openings sealed in Storing Tractor in this section.
3. Install battery.

IMPORTANT: Cab tractors: If air conditioning compressor is seized, engine operation with compressor clutch engaged will damage belt or compressor.

4. **Cab**: Check that A/C compressor pulley moves freely and is not seized.
5. Install fan belt.
6. Remove ties or block which secured clutch pedal down.
7. Check levels of engine oil, transmission-hydraulic oil, and engine coolant. Add if necessary.
8. Drain a small amount of fuel from fuel tank to purge any moisture condensation that has collected.
9. Fill fuel tank.
10. Perform all appropriate 10-hour, weekly or 50-hour, 100-hour, 300-hour, 500-hour, and 600-hour services as instructed in Maintenance and Service Intervals of your Maintenance Guide.
11. Check all instruments and indicators by turning ignition switch to ON position.



LV12547 —UN—13APR05



LV12548 —UN—13APR05

A—Hand Throttle—Straddle Mount and Hi-Crop

B—Hand Throttle—Cab and IOOS

IMPORTANT: DO NOT operate starter more than 20 seconds at a time, and wait at least two minutes for starter to cool before trying again.

12. Pull hand throttle (A) all the way back, depress clutch pedal, and crank engine until oil pressure rises.
13. Connect fuel shut-off solenoid wiring lead/connector.
14. Depress clutch pedal and start engine. Operate engine at slow idle for several minutes. Warm up carefully and check all systems before placing tractor under load.

OUO1023,00029C7 -19-17OCT06-1/1

Engine Troubleshooting

Symptom	Problem	Solution
Engine hard to start or will not start	Improper starting procedure.	Review starting procedure.
	No fuel.	Check fuel tank.
	Air in fuel tank.	Bleed fuel tank.
	Cold weather.	Use cold weather starting procedure.
	Slow starter speed.	See Starter Cranks Slowly in Electrical System Troubleshooting.
	Crankcase oil too heavy.	Use oil of proper viscosity.
	Improper type of fuel.	Consult fuel supplier; use proper type fuel for operating conditions.
	Water, dirt, or air in fuel system.	Drain, flush, fill and bleed system.
	Clogged fuel filter.	Replace filter element.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
	Injection pump shutoff not reset.	Turn ignition switch to STOP, then to ON.
	Fuel transfer pump not running (5625 only).	Check for plow fuse F6.
	Defective fuel transfer pump (5625 only).	See your John Deere dealer.
Engine knocks	Insufficient oil.	Add oil.
	Injection pump out of time.	See your John Deere dealer.
	Low coolant temperature.	See your John Deere dealer.
Engine runs irregularly or stalls frequently	Low coolant temperature.	See your John Deere dealer.
	Clogged fuel filter.	Replace filter element.
	Water, dirt, or air in fuel system.	Drain, flush, fill, and bleed system.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.

Continued on next page

Symptom	Problem	Solution
Below normal engine temperature	Defective temperature gauge or sender.	Check gauge, sender, and conditions.
Lack of power	Engine overloaded.	Reduce load or shift to lower gear.
	Low fast idle speed.	See your John Deere dealer.
	Intake air restriction.	Service air cleaner.
	Clogged fuel filter.	Replace filter element.
	Improper type of fuel.	Use proper fuel.
	Overheated engine.	Check coolant level, fan belt and debris in radiator fins.
	Below normal engine temperature.	See your John Deere dealer.
	Improper valve clearance (5425, 5525 and 5625).	See your John Deere dealer.
	Dirty or faulty injectors.	Have John Deere dealer check injectors.
	Injection pump out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.
	Leaking exhaust manifold gasket.	See your John Deere dealer.
	Implement improperly adjusted.	See implement operator's manual.
	Restricted fuel line.	See your John Deere dealer.
	Restricted return line.	See your John Deere dealer.
	Improper ballast.	Adjust ballast to load.
Low oil pressure	Low oil level.	Add oil.
	Improper type of oil.	Drain; fill crankcase with oil of proper viscosity and quality.
High oil consumption	Crankcase oil too light.	Use proper viscosity oil.
	Oil leaks.	Check for leaks in lines, around gaskets and drain plugs.

Continued on next page

Symptom	Problem	Solution
	Restricted crankcase vent tube.	Clean vent tube.
	Defective turbocharger.	See your John Deere dealer.
Engine emits white smoke	Improper type fuel.	Use proper fuel.
	Low engine temperature.	Warm up engine to normal operating temperature.
	Defective injection nozzles.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Cold start advance or light load advance not functioning.	See your John Deere dealer.
Engine emits black or gray exhaust smoke	Improper type of fuel.	Use proper fuel.
	Clogged or dirty air cleaner.	Service air cleaner.
	Engine overloaded.	Reduce load or shift to a low gear.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.
Engine overheats	Dirty radiator core or grille screen.	Remove all trash.
	Low engine oil level.	Check oil level. Add oil as required.
	Low coolant level.	Fill radiator to proper level. Check radiator, coolant recovery tank, and hoses for loose connection or leaks.
	Faulty radiator cap.	Replace cap.
	Loose or defective fan belt.	Check belt tension. Replace if necessary.
	Cooling system needs flushing.	See your John Deere dealer.
	Defective thermostat.	See your John Deere dealer.
	Defective temperature gauge or sender.	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
	Incorrect grade of fuel.	Use proper fuel.
High fuel consumption	Improper type of fuel.	Use proper fuel.
	Clogged or dirty air cleaner.	Service air cleaner.
	Engine overloaded.	Reduce load or shift to a lower gear.
	Fuel leakage.	Check fuel supply and return line for leaks. Check fuel tank for leaks and tighten clamps.
	Improper valve clearance (5425, 5525 and 5625).	See your John Deere dealer.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Implement improperly adjusted.	See implement operator's manual.
	Low engine temperature.	See your John Deere dealer.
	Excessive ballast.	Adjust ballast to load.
	Defective turbocharger.	See your John Deere dealer.
	Restricted air intake system.	Check system.
	Plugged crankcase vent tube.	Clean vent tube.

OUO1023,000284B -19-14SEP06-4/4

Transmission Troubleshooting

Symptom	Problem	Solution
Transmission oil overheats	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.
	Internal hydraulic leak.	See your John Deere dealer.
	Hitch feedback linkage improperly adjusted.	Reset linkage. See your John Deere dealer.
	Implement mounted hydraulic motor not plumbed correctly or matched to circuit.	See your John Deere dealer.
	SCV lever held in extend or retract position.	Return SCV lever to neutral position.
Low transmission pressure	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.

MX,TSIP,BA2 -19-24JUL95-1/1

Hydraulic System Troubleshooting

Symptom	Problem	Solution
Entire hydraulic system fails to function	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.
	Clogged transmission-hydraulic oil pickup screen.	Clean pickup screen.
	High-pressure internal leak.	See your John Deere dealer.
Hydraulic oil overheats	Low oil supply.	Fill system with correct oil.
	Clogged transmission-hydraulic oil filter.	Replace filter.
	Internal hydraulic leak.	See your John Deere dealer.
	Hitch feedback linkage improperly adjusted.	Reset linkage. See your John Deere dealer.
	Implement mounted hydraulic motor not plumbed correctly or matched to circuit.	See your John Deere dealer.
	Basic Valve: SCV lever held in extend or retract position.	Return SCV lever to neutral position.
	Deluxe Valve: Flow control or detent setting incorrect.	Adjust flow control and/or detent setting.

OUMX005,0001AB8 -19-29SEP04-1/1

Brakes Troubleshooting

Symptom	Problem	Solution
No solid pedal feel	Air in system.	See your John Deere dealer.
Pedal settles	Rear brake piston seal leaking.	See your John Deere dealer.
Excessive pedal travel	Air in system.	See your John Deere dealer.
Brakes drag during transport	Brakes out of adjustment.	See your John Deere dealer.

MX,TSIP,DA1 -19-24JUL95-1/1

Rockshaft and Quick-Coupler/3-Point Hitch Troubleshooting

Symptom	Problem	Solution
Insufficient transport clearance	Center link too short.	Adjust center link.
	Lift links too short.	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 bars too short.	Adjust sway bars.
	Electro-hydraulic controls: Raise height limit not correctly set.	Adjust raise height limit.
Electro-hydraulic controls: hitch fails to follow lever	Malfunction in lever position sensor circuit or hitch position sensor.	See your John Deere dealer.
Electro-hydraulic controls: poor position control	Load/depth mix control in wrong position.	Turn load/depth mix control to “position” control detent.
	System is reset.	Enable system.
	Malfunction in lever position sensor circuit or hitch position sensor.	See your John Deere dealer.
Hitch drops slowly	Rockshaft rate-of-drop control not properly set.	Adjust rate-of-drop.
Hitch fails to lift or lifts slowly	Excessive load on hitch.	Reduce load.
	Center link in wrong position.	Adjust center link.
	Low oil level.	Fill system with proper oil.
	Hydraulic oil too cold.	Allow oil to warm.
	Transmission-hydraulic oil filter clogged.	Replace filter.
	Transmission-hydraulic oil pickup screen clogged.	Clean or replace pickup screen.
Implement will not operate at desired depth	Lift links too short.	Adjust lift links.
	Lack of penetration.	See implement operator's manual.
	Electro-hydraulic controls: draft sensor failed.	See your John Deere dealer.
	Improper setting of hitch control stop.	Readjust position.

Continued on next page

Symptom	Problem	Solution
	Improper setting of draft (mechanical) or load/depth (electro-hydraulic) control.	(See Rockshaft Controls in section 60.)
Insufficient or no hitch response to draft load	Front attachment of center link in upper holes.	Move center link attachment to lower bracket holes.
	Mechanical controls: draft control lever in OFF position.	Move lever to desired position.
	Electro-hydraulic controls: load/depth control in position 1.	Turn load/depth mix control to higher setting.
	Lift links too short.	Adjust lift links.
	Lack of penetration.	See implement operator's manual.
	Electro-hydraulic controls: system is reset.	Enable system.
	Rate-of-drop too slow.	Adjust rate-of-drop.
Hitch too responsive	Front attachment on center link in lower bracket holes.	Move center link attachment to upper bracket holes.
	Mechanical controls: improper draft control setting.	Adjust.
	Electro-hydraulic controls: load/depth mix control not correctly set.	Turn load/depth mix control to lower setting.
Hitch drops too fast	Rate-of-drop set too fast.	Adjust rate-of-drop.
Mechanical controls: rockshaft levers “drift”, levers too loose	Friction disks are loose.	Adjust rockshaft control lever friction. See your John Deere dealer.
Hitch settles too fast after tractor is parked and engine shut off	Internal system leakage.	See your John Deere dealer.
Electro-hydraulic controls: hitch will not move (controls not working, including external raise/lower switch)	Fuse(s) blown.	Replace fuses.
Electro-hydraulic controls: external raise/lower switch will not move hitch	Failure of raise/lower switch, connector or wiring harness.	See your John Deere dealer.
Electro-hydraulic controls: hitch indicator lights	One or more hitch component failures.	See your John Deere dealer.

OUO1023,000284C -19-17MAR06-2/2

Deluxe Selective Control Valve Troubleshooting (If Equipped)

Symptom	Problem	Solution
Flow control knob will not turn	Dirt build-up.	Clean dirt from flow control knob and shaft.
Remote cylinder rate-of-travel too fast or too slow	Incorrect flow control adjustment.	Adjust flow control.
Detent does not hold SCV lever or releases too soon	Detent selector in wrong position.	Turn selector to correct position.
	Pressure restriction with some implements.	Reduce oil flow by changing flow control setting.
	Flow control or detent setting incorrect.	Adjust flow control and/or detent setting.
SCV lever does not release	Detent selector not in automatic detent position.	Turn selector to correct position.
	Built-in pressure leakage with some implements.	Increase oil flow by changing flow control setting.
	Flow control or detent setting incorrect.	Adjust flow control and/or detent setting.

OUMX005,0001AB9 -19-29SEP04-1/1

Remote Hydraulic Cylinder Troubleshooting

Symptom	Problem	Solution
Direction of remote cylinder travel is reversed	Improper hose connections.	Reverse hose connections.
Hoses will not couple	Improper hose male tips.	Replace tip with ISO standard tips.
Remote cylinder will not lift load	Excessive load.	Reduce load.
	Hoses not completely installed.	Attach hoses correctly.
	Incorrect remote cylinder size.	Use correct size cylinder.

OUMX005,0001ABA -19-29SEP04-1/1

Electrical System Troubleshooting

Symptom	Problem	Solution
Battery will not charge	Loose or corroded connections.	Clean and tighten connections.
	Sulfated or worn-out battery.	Check electrolyte level and specific gravity.
	Loose or defective fan belt.	Check belt tension. Replace belt if necessary.
Charging system indicator glows with engine running	Low engine speed.	Increase speed.
	Defective battery.	Check electrolyte level and specific gravity.
	Defective alternator.	See your John Deere dealer.
	Slipping fan belt.	Check belt tension. Replace belt if necessary.
Starter inoperative	Gear shift lever not in PARK.	Move lever to PARK.
	PowrReverser™ Transmission: EH directional reverser lever in forward or reverse.	Move lever to NEUTRAL.
	Mechanical PTO lever engaged.	Disengage PTO.
	Low battery output.	See your John Deere dealer.
	Blown fuse.	Replace fuse.
Starter cranks slowly	Low battery output.	Check electrolyte level and specific gravity.
	Crankcase oil too heavy.	Use proper viscosity oil.
	Loose or corroded connections.	Clean and tighten loose connections.
Light system does not function; rest of electrical system functions	Blown fuse.	Replace fuse.
Entire electrical system does not function	Faulty battery connections.	Clean and tighten connections.
	Sulfated or worn-out battery.	Check electrolyte level and specific gravity.

Continued on next page

Symptom	Problem	Solution
	Blown fuse.	Replace fuse.
Relay(s) sticking or nonfunctional; repeated failures	Diode to protect circuit from arcing has failed.	See your John Deere dealer.

OUMX005,00018FB -19-21JUL04-2/2

Heater and A/C System Troubleshooting (Cab)

Symptom	Problem	Solution
All cab electrical switches do not work	Loose, defective or blown fusible link.	See your John Deere dealer.
Blower malfunctioning	Blower does not work.	Check both blower fuses.
Blower operates only in purge position	One of two fuses blown.	Replace fuse.
	Blown blower resistance assembly.	See your John Deere dealer.
Heater does not work	Low coolant level.	Check coolant level; add if necessary.
	Faulty thermostat.	See your John Deere dealer.
	Heater control valve not functioning properly.	See your John Deere dealer.
	Heater core or hoses clogged or damaged.	Flush cooling system. (See your John Deere dealer.)
		Replace heater core or hoses. (See your John Deere dealer.)
Air conditioning does not work	Fan belt loose or slipping.	Check belt tension. Replace belt if necessary.
	Blown fuse.	Replace fuse.
	Defective switch.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
	Defective compressor clutch.	See your John Deere dealer.
Drafts	Poor air distribution	Adjust directional air louvers.
		Set blower switch to medium or low position.
Inadequate air flow	Clogged air filters.	Clean filters.
	Evaporator core air flow restricted.	Clean evaporator and housing with compressed air.
	Faulty blower fan motors.	See your John Deere dealer.
	Defective blower switch.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
Water leaking or dripping from evaporator core compartment	Loose hose clamp.	Tighten clamp.
	A/C drip pan dirty.	Clean evaporator pan and outlet with compressed air.
	A/C drain tubes plugged.	Clean drain tubes.
Strange odors inside operator cab	Dirty air filters.	Clean filters.
	Evaporator condenser pan dirty.	Clean pan and outlet with compressed air.
	Drain tubes plugged.	Clean drain tubes.
	Tobacco smoke and tar on evaporator exterior.	Clean filters.
Partial frosting and sweating of lines combined with poor cooling	Fan belt slipping.	Check belt tension. Replace belt if necessary.
	Loss of refrigerant.	Check system for leaks. See your John Deere dealer.
	Restricted or clogged liquid line.	See your John Deere dealer.
	Expansion valve malfunctioning.	See your John Deere dealer.
Ice flecks blowing from evaporator	Control dial set too low.	Adjust the temperature control to a warmer position.
Failure to cool	Insufficient blower speed.	Increase blower speed.
	Dirty air filters.	Clean filters.
	Debris on front grille.	Clean front grille.
	Lint or dirt on condenser fins.	Blow out condenser fins with compressed air.
	Refrigerant is lost or extremely low.	See your John Deere dealer.
	Loose fan belt.	Check belt tension. Replace belt if necessary.
	Compressor clutch not engaging.	See your John Deere dealer.
	Expansion valve not functioning.	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
	Restriction in refrigerant system.	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
	Defective temperature control switch.	See your John Deere dealer.
	Outside temperature too low, below 21°C (70°F).	Wait until day gets warmer. If there is a malfunction in system, see your John Deere dealer.
	Condenser is overheating.	Clean condenser screens, cores and fins of condenser and radiator.
	Severe restriction in high side.	See your John Deere dealer.
	Burned out clutch field or faulty field.	See your John Deere dealer.
	Short circuit in control circuit or failure of a switch in circuit.	See your John Deere dealer.
Hissing noise at expansion valve	Loss of refrigerant.	Check system for leaks. See your John Deere dealer.
	Restriction in refrigerant system.	Check for kinks in hoses. Check receiver-dryer for uniformity of temperature. See your John Deere dealer.

OUO1023,000284D -19-17MAR06-3/3

Wipers, Work Lights, Dome Light and Radio Troubleshooting (Cab)

Symptom	Problem	Solution
All cab electrical switches do not work	Loose, defective or blown fusible link.	See your John Deere dealer.
Window wiper(s) and washer will not run	Blown fuse.	Replace fuse.
	Defective switch(es).	See your John Deere dealer.
	Defective motor(s).	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Work lights do not work	Blown fuse.	Replace fuse.
	Defective bulb or switch.	Replace bulb or see your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Dome light does not work	Blown fuse.	Replace fuse.
	Defective bulb or switch.	Replace bulb or see your John Deere dealer.
	Defective door switch(es).	See your John Deere dealer.
	Faulty wiring or loose connections.	See your John Deere dealer.
Radio does not work	Blown fuse.	Replace fuse.

OUMX005,00018FD -19-21JUL04-1/1

Specifications

Machine Specifications

	5225	5325	5425	5525	5625
POWER					
SAE Gross Engine Horsepower	42 kW (56 hp)	50 kW (67 hp)	60.5 kW (81 hp)	68 kW (91 hp)	74 kW(99 hp)
PTO Horsepower (Factory Observed)	34 kW (45 hp)	41 kW (55 hp)	49 kW (65 hp)	56 kW (75 hp)	61 kW (82 hp)
Rated Speed	2400 rpm	2400 rpm	2400 rpm	2400 rpm	2400 rpm
ENGINE					
Slow Idle Speed	900 ±50 rpm	900 ±50 rpm	825 ±25 rpm	825 ±25 rpm	825 ±25 rpm
Fast Idle Speed	2625 ±50 rpm	2625 ±50 rpm	2625 ±25 rpm	2625 ±25 rpm	2625 ±25 rpm
ELECTRICAL SYSTEM					
Battery Voltage	12 volt				
Battery Cold Cranking Amps	950 5-Cyl.	950 5-Cyl.	750 4-Cyl.	750 4-Cyl.	750 4-Cyl.
Reserve Capacity (minutes)	180				
Battery BCI Group Size	31				
Alternator	Straddle Mount and IOOS: 70 amp Cab: 90 amp		Straddle Mount and IOOS: 70 amp Cab: 90 amp Optional: 120 amp	Straddle Mount, Hi-Crop and IOOS: 70 amp Cab: 90 amp Optional: 120 amp	Straddle Mount, Hi-Crop and IOOS: 70 amp Cab: 90 amp Optional: 120 amp
POWER TAKE-OFF (PTO)					
Speed—540E Speed—540 or 1000	1700 engine rpm 2400 engine rpm				

OUO1023,00028F6 -19-17OCT06-1/1

Machine Weights—Straddle Mount, Isolated Open Operator Station (IOOS), Cab and Hi-Crop

Tractor—Straddle Mount, Isolated Open Operator Station (IOOS) and Cab								
Dimension	**5225**		**5325**		**5425**		**5525 and 5625**	
	2WD mm (in.)	**MFWD mm (in.)**	**2WD mm (in.)**	**MFWD mm (in.)**	**2WD mm (in.)**	**MFWD mm (in.)**	**2WD mm (in.)**	**MFWD mm (in.)**
Straddle Mount Tractor Approximate Shipping Weight	2427 kg (5350 lb)	2692 kg (5935 lb)	2427 kg (5350 lb)	2692 kg (5935 lb)	2619 kg (5775 lb)	2835 kg (6250 lb)	2619 kg (5775 lb)	2835 kg (6250 lb)
Isolated Open Operator Station (IOOS) Tractor Approximate Shipping Weight	2488 kg (5485 lb)	2735 kg (6030 lb)	2488 kg (5485 lb)	2735 kg (6030 lb)	2669 kg (5885 lb)	2935 kg (6470 lb)	2669 kg (5885 lb)	2935 kg (6470 lb)
Cab Tractor Approximate Shipping Weight	2719 kg (5995 lb)	2985 kg (6580 lb)	2719 kg (5995 lb)	2985 kg (6580 lb)	3084 kg (6800 lb)	3350 kg (7385 lb)	3084 kg (6800 lb)	3350 kg (7385 lb)

Machine Weight—Hi-Crop (5525)

5525 Tractor—Hi-Crop	
5525 Hi-Crop Tractor Approximate Shipping Weight	3241 kg (7145 lb)

OUO1023,0002904 -19-15SEP06-1/1

Drain and Refill Capacities

FUEL TANK	
Straddle Mount and Hi-Crop	94.6 L (25 gal)
Cab and IOOS	126.8 L (33.5 gal)
COOLING SYSTEM	
5225 and 5325	9.5 L (2.5 gal)
5425, 5525 and 5625	11.4 L (3 gal)
CRANKCASE WITH FILTER	
5225 and 5325	10 L (11 qt)
5425, 5525 and 5625	8.5 L (9 qt)
TRANSMISSION-HYDRAULIC SYSTEM	
9/3 SyncShuttle™	39 L (10.3 gal)
12/12 PowrReverser™	43.5 L (11.5 gal)
24/24 PowrReverser™	45.4 L (12.0 gal)
MECHANICAL FRONT WHEEL DRIVE (MFWD) AXLE	
Differential Housing	4.5 L (4.8 qt)
Wheel Hub (Each)	0.7 L (0.74 qt)

OUO1023,00027ED -19-15SEP06-1/1

Permissible Load Specifications

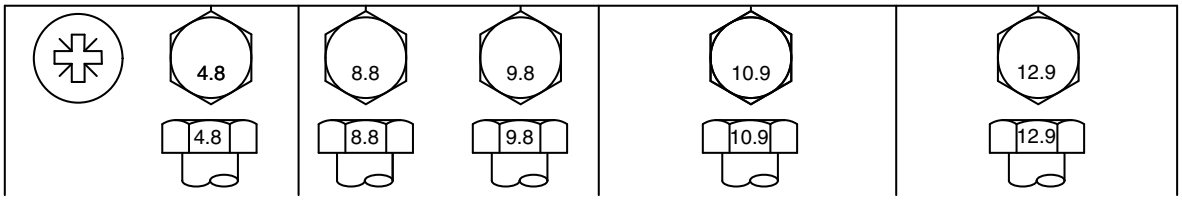
IMPORTANT: Maximum permissible travel is 8 km/h (5 mph). Maximum front wheel tread is 1.80 m (71 in.).

Description	Specification kg (lb)
Maximum Permissible Static Vertical Load	
Drawbar Fully Extended (PTO)	760 (1675)
Drawbar Short Position	1120 (2470)
Maximum Permissible Axle Loads—2-Wheel Drive, WITHOUT Loader	
Front Tires: 6.50-16 6PR	1240 (2720)
Front Tires: 7.50-16 6PR	1500 (3300)
Front Tires: 9.5L-15 6PR	1540 (3400)
Front Tires: 27/9.5-15 6PR	1490 (3285)
Front Tires: 11L-15 8PR	2140 (4700)
Maximum Permissible Axle Loads—2-Wheel Drive, WITH Loader	
Front Tires: 9.5L-15 6PR	2310 (5100)
Front Tires: 11L-15 8PR	3210 (7050)
Maximum Permissible Axle Loads—2-Wheel Drive and Mechanical Front Wheel Drive	
Rear Tires: 14.9-28 6PR	3230 (7120)
Rear Tires: 15.5R38 125A8	3302 (7280)
Rear Tires: 16.9-24 6PR	3450 (7600)
Rear Tires: 16.9-28 6PR	3680 (8100)
Rear Tires: 16.9-30 6PR	3790 (8360)
Rear Tires: 420/90R30 142A8 Rear Tires: 16.9-30 R1	5804 (12800)
Rear Tires: 480/80R30 145A8 Rear Tires: 18.4R30	5804 (12800)
Maximum Permissible Front Axle Loads—Mechanical Front Wheel Drive WITHOUT Loader	
Front Tires: 9.5-16 6PR	1603 (3534)
Front Tires: 8.3-24 4PR	1260 (2760)
Front Tires: 9.5-24 6PR	1880 (4140)
Front Tires: 12.5/80-18 10PR	1260 (2760)
Front Tires: 11.2-24 6PR	2095 (4620)
Maximum Permissible Front Axle Loads—Mechanical Front Wheel Drive WITH Loader	
Front Tires: 9.5L-15 6PR	2405 (5300)
Front Tires: 9.5-24 6PR	2817 (6210)

OUO1023,00028F7 -19-29SEP09-1/1

Metric Bolt and Screw Torque Values

TS1742 —UN—31MAY18



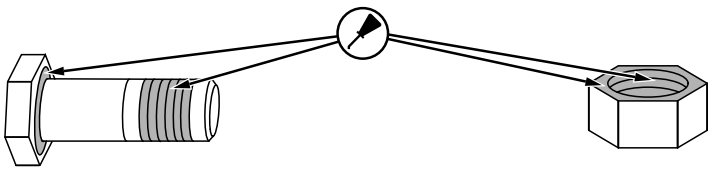
Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]		Hex Head[a]		Flange Head[b]	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112
									N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
			N·m	lb·ft	N·m	lb·ft	N·m	lb·ft								
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
	N·m	lb·ft														
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench.
DO NOT use these values if a different torque value or tightening procedure is given for a specific application.
For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.

TS1741 —UN—22MAY18

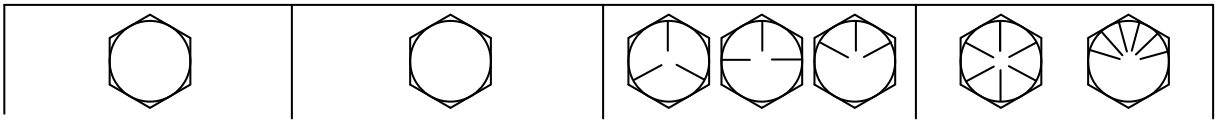


[a]Hex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.
[b]Hex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ2 -19-30MAY18-1/1

Unified Inch Bolt and Screw Torque Values

TS1671 —UN—01MAY03



Bolt or	SAE Grade 1				SAE Grade 2[a]				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
Screw	Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]		Lubricated[b]		Dry[c]	
Size	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in	N·m	lb-in
1/4	3,7	33	4,7	42	6	53	7,5	66	9,5	84	12	106	13,5	120	17	150
													N·m	**lb-ft**	**N·m**	**lb-ft**
5/16	7,7	68	9,8	86	12	106	15,5	137	19,5	172	25	221	28	20.5	35	26
									N·m	**lb-ft**	**N·m**	**lb-ft**				
3/8	13,5	120	17,5	155	22	194	27	240	35	26	44	32.5	49	36	63	46
			N·m	**lb-ft**	**N·m**	**lb-ft**	**N·m**	**lb-ft**								
7/16	22	194	28	20.5	35	26	44	32.5	56	41	70	52	80	59	100	74
	N·m	**lb-ft**														
1/2	34	25	42	31	53	39	67	49	85	63	110	80	120	88	155	115
9/16	48	35.5	60	45	76	56	95	70	125	92	155	115	175	130	220	165
5/8	67	49	85	63	105	77	135	100	170	125	215	160	240	175	305	225
3/4	120	88	150	110	190	140	240	175	300	220	380	280	425	315	540	400
7/8	190	140	240	175	190	140	240	175	490	360	615	455	690	510	870	640
1	285	210	360	265	285	210	360	265	730	540	920	680	1030	760	1300	960
1-1/8	400	300	510	375	400	300	510	375	910	670	1150	850	1450	1075	1850	1350
1-1/4	570	420	725	535	570	420	725	535	1280	945	1630	1200	2050	1500	2600	1920
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2140	1580	2700	2000	3400	2500
1-1/2	990	730	1250	930	990	730	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For plastic insert or crimped steel type lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application. Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Replace fasteners with the same or higher grade. If higher grade fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

[a] Grade 2 applies for hex cap screws (not hex bolts) up to 6. in (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

[b] "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

[c] "Dry" means plain or zinc plated without any lubrication, or 1/4 to 3/4 in. fasteners with JDM F13B zinc flake coating.

TORQ1 -19-24APR03-1/1

Limited Battery Warranty

NOTE: Applicable in North America only. For complete machine warranty, reference a copy of the John Deere warranty statement. Contact your John Deere dealer to obtain a copy.

To Secure Warranty Service

The purchaser must request warranty service from a John Deere dealer authorized to sell John Deere batteries, and present the battery to the dealer with the top cover plate codes intact.

Free Replacement

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship within 90 days of purchase will be replaced free of charge. Installation costs will be covered by warranty if (1) the unserviceable battery was installed by a John Deere factory or dealer, (2) failure occurs within 90 days of purchase, and (3) the replacement battery is installed by a John Deere dealer.

Pro Rata Adjustment

Any new battery which becomes unserviceable (not merely discharged) due to defects in material or workmanship more than 90 days after purchase, but before the expiration of the applicable adjustment period, will be replaced upon payment of the battery's current list price less a pro rata credit for unused months of service. The applicable adjustment period is determined from the Warranty Code printed at the top of the battery and chart below. Installation costs are not covered by warranty after 90 days from the date of purchase.

This Warranty Does Not Cover

Breakage of the container, cover, or terminals.

Depreciation or damage caused by lack of reasonable and necessary maintenance or by improper maintenance.

Transportation, mailing, or service call charges for warranty service.

Limitation of Implied Warranties and Purchaser's Remedies

To the extent permitted by law, neither John Deere nor any company affiliated with it makes any warranties, representations or promises as to the quality, performance or freedom from defect of the products covered by this warranty. IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, TO THE EXTENT APPLICABLE, SHALL BE LIMITED IN DURATION TO THE APPLICABLE ADJUSTMENT PERIOD SET FORTH HERE. THE PURCHASER'S ONLY REMEDIES IN CONNECTION WITH THE BREACH OR PERFORMANCE OF ANY WARRANTY ON JOHN DEERE BATTERIES ARE THOSE SET FORTH HERE. IN NO EVENT WILL THE DEALER, JOHN DEERE OR ANY COMPANY AFFILIATED WITH JOHN DEERE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES. (Note: Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of incidental or consequential damages. So these limitations and exclusions may not apply to you.) This warranty gives you specific legal rights, and you may also have some rights which vary from state to state.

No Dealer Warranty

The selling dealer makes no warranty of it's own and the dealer has no authority to make any representation or promise on behalf of John Deere, or to modify the terms or limitations of this warranty in any way.

Pro Rata Months of Adjustment

Warranty Code	Warranty Period
A	40 Months
B	36 Months
C	24 Months

NOTE: If your battery is not labeled with a warranty code, it is a warranty code "B".

DX,BATWAR,NA -19-16APR92-1/1

Identification Numbers

Identification Numbers

Each tractor has identification plates shown on these pages. Letters and numbers stamped on plates identify a component or assembly. ALL characters are needed when ordering parts or identifying a tractor or component for any John Deere™ dealer or product support program.

Also, identification numbers are needed for law enforcement to trace your tractor if it is ever stolen.

ACCURATELY record these characters in the spaces provided in each following photograph. Additionally, in a separate and secure location, maintain an up-to-date-inventory of all product and component serial numbers.

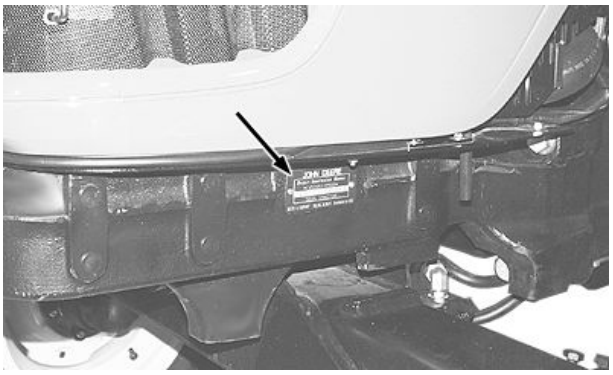
John Deere is a trademark of Deere & Company

AG,RX15494,3602 -19-01NOV13-1/1

Record Tractor Identification Number

Identification number plate is located on left front support member of the tractor.

Tractor Identification Number_____



LV09181 —UN—19JUL04

OUMX005,00018D6 -19-19JUL04-1/1

Record Front Axle Serial Number

Serial number plate is located on rear side of right axle housing.

Front Axle Serial Number_____

LV09186 —UN—19JUL04

MFWD Axle Shown

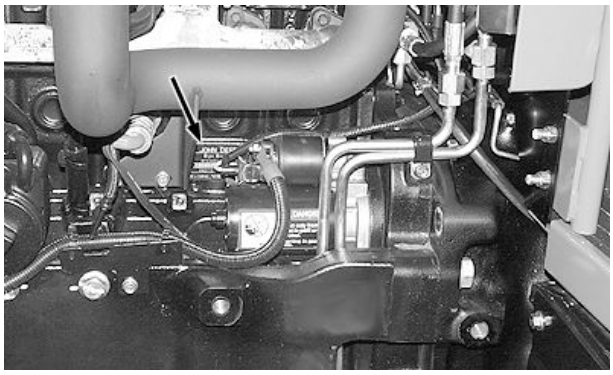
OUMX005,00018D7 -19-19JUL04-1/1

Record Engine Serial Number

Model 5225 and 5325: Serial number plate is located on left side of engine block near starter solenoid.

Model 5425, 5525 and 5625: Serial number plate is located on right side of engine block between fuel and oil filters.

Engine Serial Number_____



LV09182 —UN—19JUL04

Model 5225 and 5325

LV09183 —UN—19JUL04

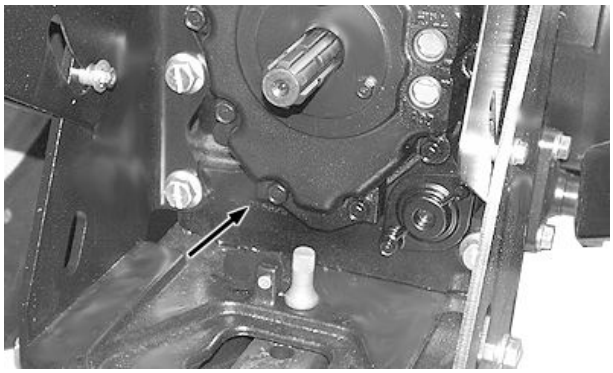
Model 5425, 5525 and 5625

OUMX005,00018D8 -19-15SEP06-1/1

Record Transmission Serial Number

Serial number is stamped into lower left corner of rear housing.

Transmission Serial Number_____



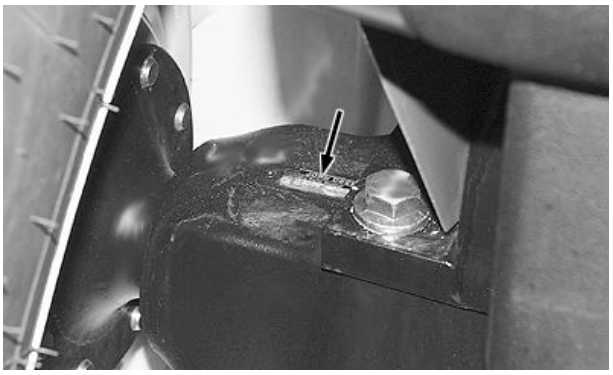
LV09184 —UN—19JUL04

OUMX005,00018D9 -19-19JUL04-1/1

Record Final Drive Serial Number

Serial number plate is located on top of BOTH final drive housings.

Final Drive Serial Number_____



LV9462 —UN—24JUL04

Left Side Shown

OUMX005,000190A -19-24JUL04-1/1

Record Cab Serial Number

Serial number label is located on inside of rear left post.

Cab Serial Number_____

LV09185 —UN—19JUL04

OUMX005,00018D5 -19-16JUL04-1/1

Keep Proof of Ownership

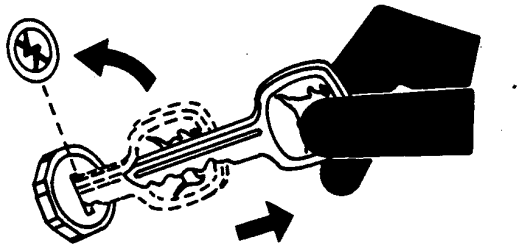
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your machine with your own numbering system
   - Take color photographs from several angles of each machine

TS1680 —UN—09DEC03

DX,SECURE1 -19-18NOV03-1/1

Keep Machines Secure

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.



TS230 —UN—24MAY89

DX,SECURE2 -19-18NOV03-1/1

Maintenance and Service Intervals

Service Interval Chart

Item	Daily or 10 Hours	Weekly or 50 Hours	First 100 Hours	Every 300 Hours
Check Engine Oil Level	•			
Drain Water and Sediment from Fuel Filter [a]	•			
Check Engine Coolant Level		•		
Check Transmission-Hydraulic System Oil Level		•		
Check MFWD Axle Housing and Wheel Hub Oil Level		•		
Inspect Tires and Check Inflation Pressure		•		
Lubricate Adjustable Front (2WD) Axle Steering Spindles and Cylinder Ends		•		
Lubricate MFWD Steering Kingpins		•		
Inspect Tractor for Loose Hardware		•		
Change Engine Oil and Filter (5425, 5525 and 5625) [b]			•	
Replace Transmission-Hydraulic Filter			•	
Check Clutch Pedal Free Play (SyncShuttle™ Transmission)			•	
Inspect Engine Air Cleaner [c]				•
Change Engine Oil and Filter [b]				•
Lubricate Hitch Components				•
Check Neutral Start System				•
Check Clutch Pedal Free Play (SyncShuttle™ Transmission)				•
Clean Cab Air Filters [c]				•
Adjust PTO Clutch Lever Linkage				•
Replace Fuel Filter				•

[a]The fuel filter must be drained when water or debris is evident in the sediment bowl. If this reoccurs more than three days in a row, then drain the sediment from the fuel tank.
[b]For Models 5225 and 5325, INITIAL engine oil and filter change is 300 hours maximum of operation. SCHEDULED engine oil and filter change interval (300 hours) can be extended to 450 hours if John Deere PLUS-50 oil and John Deere filter are used. For Models 5425, 5525 and 5625, INITIAL engine oil and filter change is 100 hours maximum of operation. SCHEDULED engine oil and filter change interval (300 hours) can be extended to 450 hours if John Deere PLUS-50 oil and John Deere filter are used.
[c]Service more often if operated in extremely dusty conditions.

OUO1023,00028EC -19-15SEP06-1/1

Service Interval Chart

Item	Every 600 Hours	Every 1200 Hours	Every 1800 Hours or Annual	Every 2100 Hours/Two Years
Replace Transmission-Hydraulic Oil Filter	•			
Change MFWD Hub and Axle Housing Oil	•			
Clean Engine Crankcase Vent Tube	•			
Clean and Repack Adjustable Front (2WD) Axle Wheel Bearings	•			
Check Cooling System for Leaks	•			
Lubricate Rear Axle Bearings	•			
Check Engine Idle Speeds	•			
Check Front Axle Pivot Pin End Play [a]	•			
Change Transmission-Hydraulic Oil and Filter		•		
Clean Transmission-Hydraulic Oil Pick-Up Screen		•		
Replace Engine Air Cleaner Elements [b]			•	
Inspect Seat Belt(s)			•	
Drain, Flush and Refill Engine Cooling System [a]				•
Test or Replace Thermostat[a]				•
Adjust Engine Valve Clearance (5425, 5525 and 5625) [a]				•

[a] See your John Deere dealer for service.
[b] Service more often if operated in extremely dusty conditions.

OUO1023,00028ED -19-15SEP06-1/1

Service—As Required

- Service Air Cleaner[1]
- Clean Cab Air Filters[1]
- Adjust Hand Throttle Friction
- Adjust 540/540E PTO Lever and Linkage
- Service Air-Conditioning System[2]
- Inspect Fuel Injectors (5425, 5525 and 5625)[2]
- Replace In-Line Fuel Strainer/Filter
- Clean and Check Battery
- Lubricate Front Axle Pivot Pin[3]
- Lubricate Steering Spindles[3]
- Lubricate Rear Axle Bearings[3]
- Check Brake Pedal Adjustment[2]
- Lubricate Operator Seat Slide Rails (Straddle Mount and IOOS)[4]
- Lubricate Hood Latch[4]

[1] Service more often if operated in extremely dusty conditions.
[2] See your John Deere dealer for service.
[3] Only necessary when operating in extremely wet and muddy conditions. Greasing too frequently can cause seal fatigue.
[4] Only necessary after pressure washing.

OUO1023,0002818 -19-15SEP06-1/1

Index

Continued on next page

Continued on next page

John Deere Service Literature Available

Technical Information

TS224 —UN—17JAN89

TS1663 —UN—10OCT97

Technical information can be purchased from John Deere. Some of this information is available in electronic media, such as CD-ROM, and in printed form. There are many ways to order. Contact your John Deere dealer or call **1-800-522-7448** to order using a credit card. Search online from www.JohnDeere.com. Please have available the model number, serial number, and name of the product.

Available information includes:

- PARTS CATALOGS list service parts available for your machine with exploded view illustrations to help you identify the correct parts. It is also useful in assembling and disassembling.
- OPERATOR'S GUIDES providing safety and operating information. These guides and safety signs on your machine may also be available in other languages.
- MAINTENANCE GUIDES provide recommended fuels, lubricants, fluids, maintenance, and service information.
- TIPS AND TROUBLESHOOTING information is also available on the Internet from www.johndeere.com/tips.
- TECHNICAL MANUALS outlining service information for your machine. Included are specifications, illustrated assembly and disassembly procedures, hydraulic oil flow diagrams, and wiring diagrams. Some products have separate manuals for repair and diagnostic information. Some components, such as engines, are available in separate component technical manuals
- FUNDAMENTAL MANUALS detailing basic information regardless of manufacturer:
  - Agricultural Primer series covers technology in farming and ranching, featuring subjects like computers, the Internet, and precision farming.
  - Farm Business Management series examines "real-world" problems and offers practical solutions in the areas of marketing, financing, equipment selection, and compliance.
  - Fundamentals of Services manuals show you how to repair and maintain off-road equipment.
  - Fundamentals of Machine Operation manuals explain machine capacities and adjustments, how to improve machine performance, and how to eliminate unnecessary field operations.

OUO1023,00029C8 -19-17OCT06-1/1

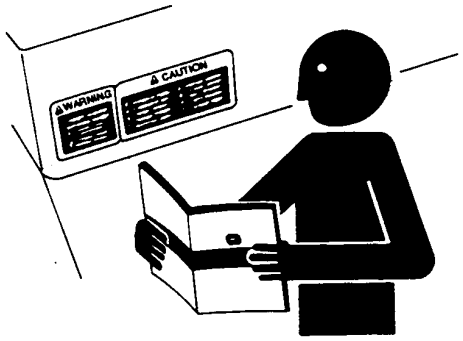
John Deere Is At Your Service

CUSTOMER SATISFACTION is important to John Deere.

Our dealers strive to provide you with prompt, efficient parts and service:

–Maintenance and service parts to support your equipment.

–Trained service technicians and the necessary diagnostic and repair tools to service your equipment.



TS201 —UN—15APR13

CUSTOMER SATISFACTION PROBLEM RESOLUTION PROCESS

Your John Deere dealer is dedicated to supporting your equipment and resolving any problem you may experience.

1. When contacting your dealer, be prepared with the following information:

–Machine model and product identification number

–Date of purchase

–Nature of problem

2. Discuss problem with dealer service manager.

3. If unable to resolve, explain problem to dealership manager and request assistance.

4. If you have a persistent problem your dealership is unable to resolve, ask your dealer to contact John Deere for assistance. Or contact the Ag Customer Assistance Center at 1-866-99DEERE (866-993-3373) or e-mail us at www.deere.com/en_US/ag/contactus/.

DX,IBC,2 -19-02APR02-1/1