A400
Self-Propelled Windrower
(Serial No. 360001 -)

OPERATOR'S MANUAL
A400 Self-Propelled Windrower
OMFH310757 ISSUE L9 (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.

John Deere Ottumwa Works
Export
LITHO IN U.S.A.

DCY

OMFH310757

Introduction

Foreward

E57969 —UN—08SEP09

A400 Windrower with 896 Platform

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

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

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

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

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

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.

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

OUO6085,000029D -19-06NOV09-1/1

Dealer's Record

Owner's Name_____ Date Sold_____

Address_____ Model_____

City_____ Serial Number_____

State_____ Zip_____

OUO1078,000142F -19-05NOV01-1/1

Predelivery

After the windrower has been completely set up, inspect it to be sure it is in good running condition before delivering it to the customer. The following checklist is a reminder of important points to inspect. Check off each item as it is found satisfactory after proper adjustment has been made.

□ Windrower has been assembled correctly.

□ Check all hydraulic hoses and connections for oil leaks.

□ Machine lubricated and cutterbar and gear case oil levels checked. (See Lubrication and Maintenance section.)

□ Check tension of all belts. Adjust if necessary.

□ All hardware tight.

□ Tire pressures checked.

□ Hydraulic cylinders operate properly.

□ Adjust platform float. (See procedure in Operating Windrower section.)

□ Decals intact and legible.

□ All moving parts are working freely.

□ Check operating functions of any optional equipment installed.

□ Check that shipping cover on SMV sign has been removed and sign is properly displayed.

(Date set up)_____

(Signature)_____

OUO1078,0001430 -19-05NOV01-1/1

Delivery

The following checklist is a reminder of very important information which should be conveyed to the customer at the time the machine is delivered. Check off each item as it is fully explained to the customer.

□ John Deere warranty.

□ Safe and correct operation and service.

□ Demonstrate the operation and features of the windrower.

□ Daily and periodic inspections.

□ Servicing machine regularly and correctly.

□ Advise customer that the life expectancy of the windrower, like any other machine, is dependent upon regular lubrication and maintenance as described in the Operator's manual.

□ Advise customer to check wheel lug nuts after one hour of operation and then every 50 hours thereafter.

□ Advise customer of optional attachments that are available for specific crop and operating conditions.

□ Advise customer of safety precautions that must be observed while using this machine.

□ Recommended transporting information. (See Transporting Windrower section.)

□ When windrower is transported on a road or highway, lights and devices should be used for adequate warning to operators of other vehicles. In this regard, tell customers to check local governmental regulations.

□ Review all special operating conditions. (See Operating Windrower section.)

□ Make customer aware of all optional equipment offered for this machine. (See Attachments section.)

□ Review recommended lubricants, service intervals and lubrication points. (See Lubrication and Maintenance section.)

□ Correct fuel and lubricants.

□ Review all adjustments.

□ Recommended machine storage. (See Storage section.)

□ Have customer record machine serial number in the Specifications section.

□ John Deere parts and service.

□ Remove and file this page.

□ Give the Operator's Manual to the customer and encourage customer to read entire manual.

(Date Delivered)_____

(Signature)_____

OUO1078,0001431 -19-05NOV01-1/1

After Sale

It is suggested the following items be checked sometime during the first season of operation.

□ Inspect entire machine for loose or missing hardware.

□ All shields in place and fastened.

□ Drive belts properly tensioned.

□ Decals intact and legible.

□ Check for broken or damaged parts.

□ If possible, run the windrower to see if it is functioning properly.

□ Check operating adjustments.

□ Review the entire Operator's manual with the customer and stress the importance of safety precautions, special operating conditions, and proper and regular lubrication.

(Date Delivered)_____

(Signature)_____

OUO1078,0001432 -19-05NOV01-1/1

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A John Deere ILLUSTRUCTION ® Manual

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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—07DEC88

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

Understand Signal Words

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.

TS187 —19—30SEP88

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

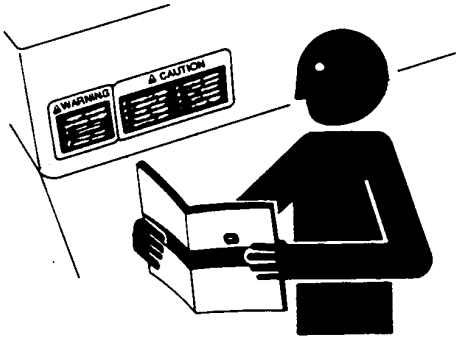
Follow Safety Instructions

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.



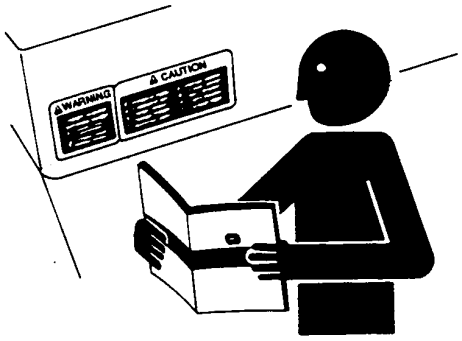
TS201 —UN—23AUG88

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

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

Spanish Safety Signs and Operator's Manual

Spanish versions of the operator's manual and safety signs are available for this machine through authorized John Deere dealers. See your John Deere dealer.



TS201 —UN—23AUG88

OUO6085,00008DC -19-30MAY08-1/1

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.

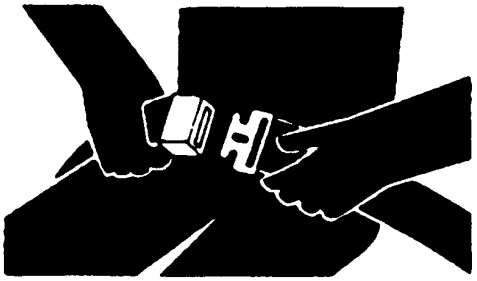
NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.

TS177 —UN—11JAN89

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

Use Seat Belts

Use the seat belt whenever you operate the windrower or ride as an observer.



H47137

H47137 —UN—25OCT95

AG,OUO6038,1003 -19-28JUN04-1/1

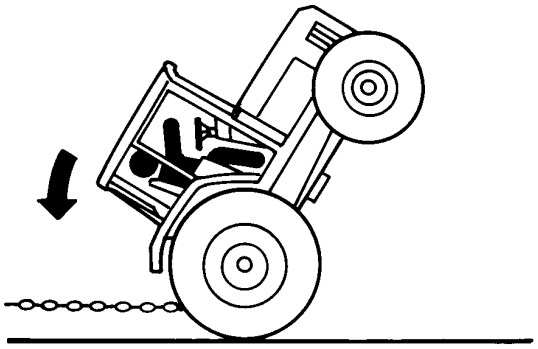
Freeing a Mired Machine

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

Removing a Machine From Mud

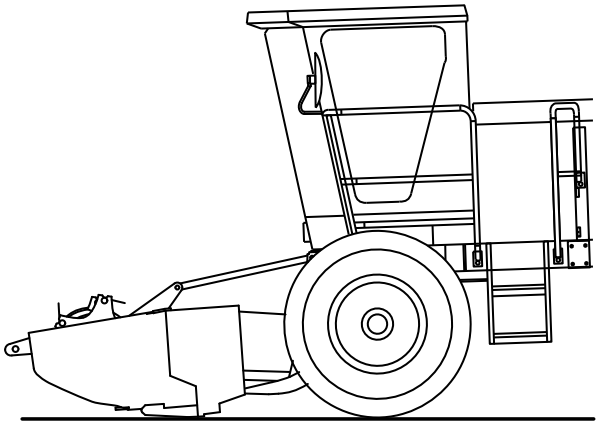
To remove a machine from mud, See “Pulling Windrower Out of Mud” in OPERATING WINDROWER section.

OUO6085,0000852 -19-19FEB08-1/1

Park Windrower Safely

Before leaving the operator's station:

- Park windrower on level surface.
- Put hydrostatic drive lever in neutral park.
- Disengage platform drive.
- Wait until all moving parts have stopped.
- Lower the platform to the ground.
- Idle hot engine for two minutes prior to shut down.
- Turn off engine and remove key.
- Check to see steering wheel is locked.
- Lock cab door.



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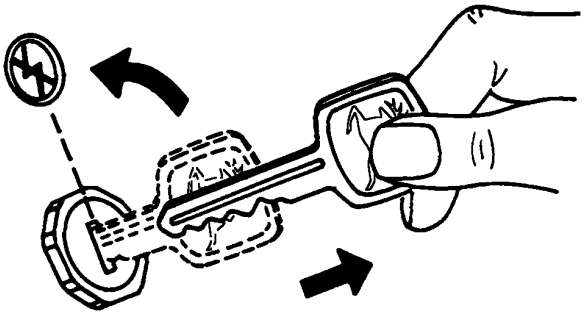


E50093 —UN—08AUG01

OUO6085,0000187 -19-20MAY09-1/1

Before Operating

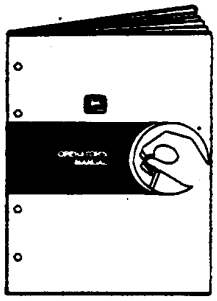
Become familiar with operator's manual, machine decals, and Safety section of this manual.

Remove foreign objects from machine.

Become familiar with all controls effecting machine functions.

Make sure everyone is clear of the machine. Never allow riders on machine or near machine while it is running.

Be sure shields and guards are in place and in good condition before starting.



E23482 —UN—08MAY89

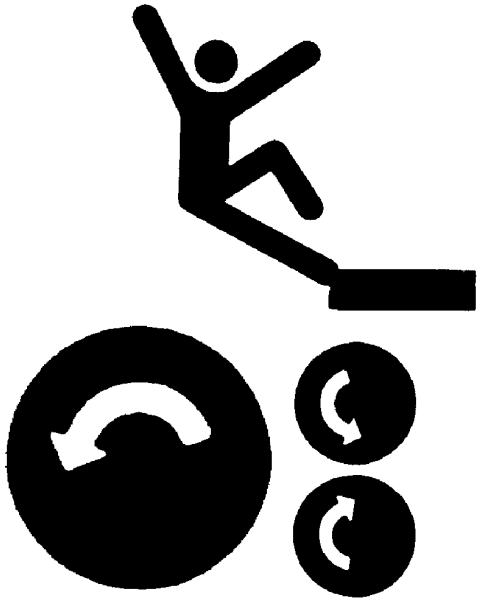
OME,890AP,OPER -19-28JUN04-1/1

Keep Riders Off Machine

Keep riders off the machine.

Riders are subject to injury from being thrown off the machine into the platform or under the wheels.

Anyone riding must be in the training seat with seat belt fastened.



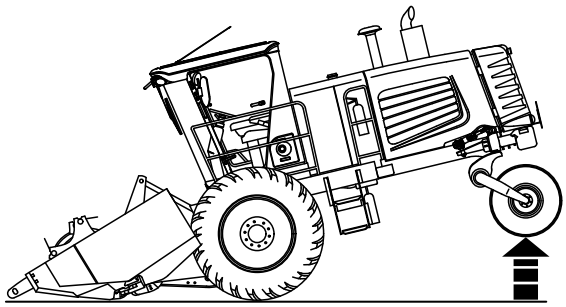
E41748 —UN—15NOV96

AG,OUO6038,1004 -19-08OCT99-1/1

Ballast for Safe Ground Contact

Operating, steering and braking performance of windrower can be considerably affected by the size of the platform used which alters the center of gravity of the windrower.

To maintain the proper ground contact, add ballast to the rear of the windrower as recommended for the platform in use.



E57637 —UN—16JUL09

OUO6085,0000188 -19-14JUL09-1/1

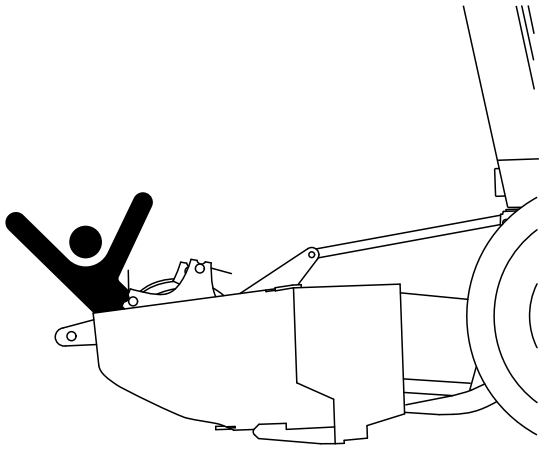
Stay Clear of Platform

Many moving parts such as the platform reel, cutterbar, conditioner rolls and augers cannot be completely shielded due to their function.

Stay clear of these moving parts during operation!

Before servicing or manually unplugging the platform:

1. Park windrower on level surface.
2. Put hydrostatic drive lever in neutral park.
3. Check to see that the steering wheel is locked.
4. Always disengage platform drive.
5. Wait until all moving parts have stopped.
6. Lower platform to the ground, or raise platform fully and engage platform lift lockout lever to prevent accidental lowering.
7. Idle hot engine for two minutes prior to shut down.
8. Turn off engine and remove key.



E57209 —UN—20MAY09

9. Block both sides of front tires or rear tires as required.

OUO6085,0000189 -19-05AUG09-1/1

Stay Clear of Rotating Driveline

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

Keep shields covering the conditioner and engine drivelines in place at all times.

Wear close fitting clothing. Stop the engine, remove the keys and be sure driveline has stopped before servicing or making any adjustments to the drivelines or in the general area of the drivelines.

TS1644 —UN—22AUG95

AG,OUO6038,1007 -19-08OCT99-1/1

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.

TS202 —UN—23AUG88

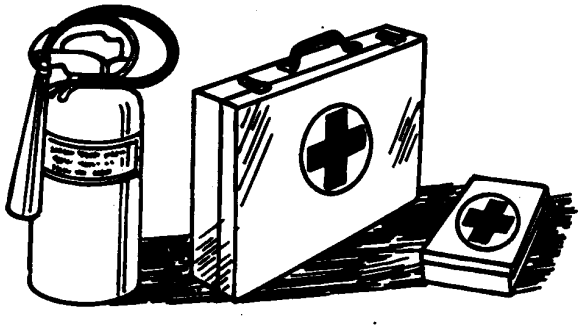
DX,FIRE1 -19-03MAR93-1/1

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—23AUG88

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.

TS1356 —UN—18MAR92

DX,FIRE3 -19-16APR92-1/1

Do Not Open High-Pressure Fuel System

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

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

TS1343 —UN—18MAR92

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

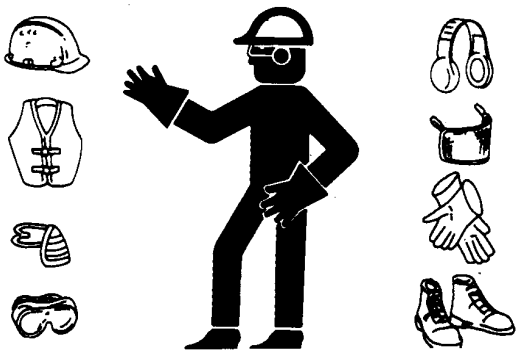
Wear Protective Clothing

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.



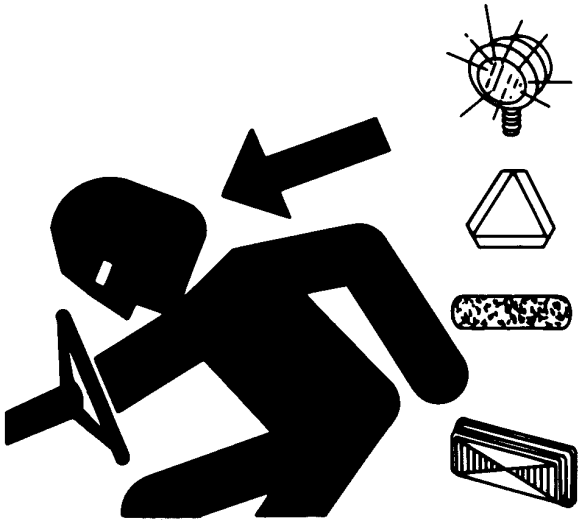
TS206 —UN—23AUG88

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

Use Safety Lights and Devices

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

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



TS951 —UN—12APR90

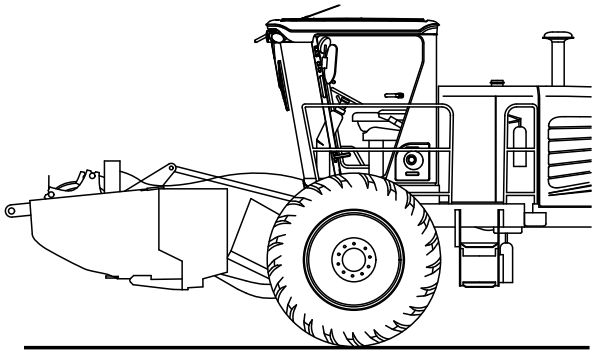
DX,FLASH -19-07JUL99-1/1

Transport Windrower with Platform Attached

For proper ballast and steering control, always drive the windrower with the platform attached.

Raise the platform and engage platform lift lockout lever before transporting windrower.

Before moving the windrower, check surrounding area by machine for bystanders or obstructions. Use the horn as a warning immediately before driving away.



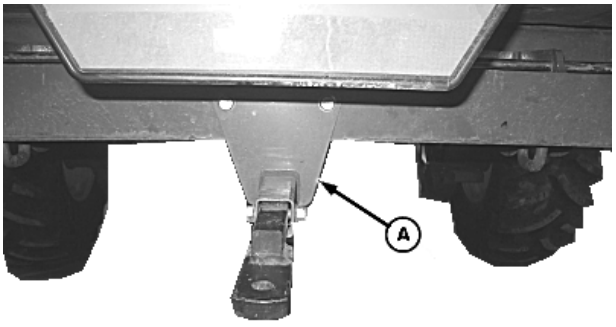
E57638 —UN—16JUL09

OUO6085,000018A -19-14JUL09-1/1

Transport of a Cannola Roller

If this machine is equipped with a rear hitch (A), it should only be used to tow a cannola roller. Do not exceed the rated hitch capacity.

If a cannola roller is used with this machine, ensure that the rear lights and reflectors are not obscured.



E58154 —UN—30OCT09

OUO6085,00002C9 -19-30OCT09-1/1

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 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.

TS218 —UN—23AUG88

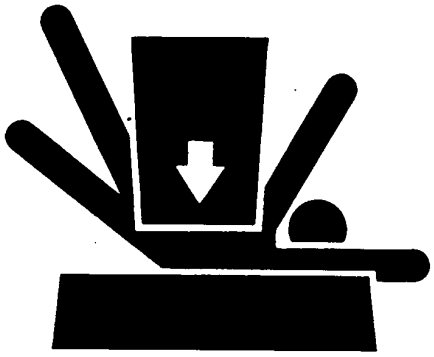
DX,SERV -19-17FEB99-1/1

Support Machine Properly

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

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

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



TS229 —UN—23AUG88

DX,LOWER -19-24FEB00-1/1

Remove Paint Before Welding or Heating

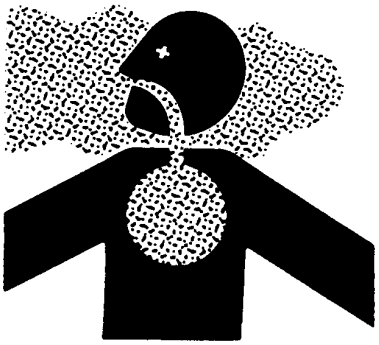
Avoid potentially toxic fumes and dust.

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

Remove paint before heating:

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

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



TS220 —UN—23AUG88

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

Dispose of paint and solvent properly.

DX,PAINT -19-24JUL02-1/1

Avoid Heating Near Pressurized Fluid Lines

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

TS953 —UN—15MAY90

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

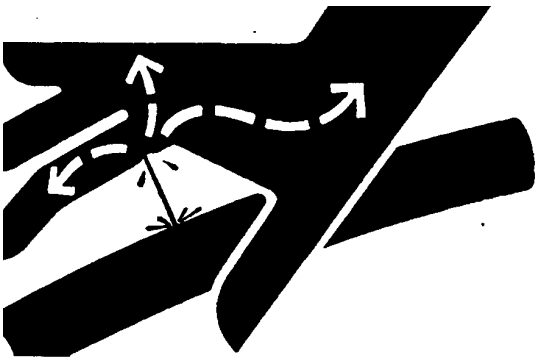
Avoid High-Pressure Fluids

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., by calling 1-800-822-8262 or +1 309-748-5636.



X9811 —UN—23AUG88

DX,FLUID,NA -19-29JUL09-1/1

Service Accumulator Systems Safely

Escaping fluid or gas from pressurized hydraulic accumulator systems can cause serious injury. Extreme heat can cause the accumulator to burst, and pressurized lines can be accidentally cut. Do not weld or use a torch near a pressurized accumulator or pressurized line.

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

Accumulators cannot be repaired.

TS281 —UN—23AUG88

DX,WW,ACCLA -19-15APR03-1/1

Use Proper Tools

Use tools appropriate to the work. Makeshift tools and procedures can create safety hazards.

Use power tools only to loosen threaded parts and fasteners.

For loosening and tightening hardware, use the correct size tools. DO NOT use U.S. measurement tools on metric fasteners. Avoid bodily injury caused by slipping wrenches.

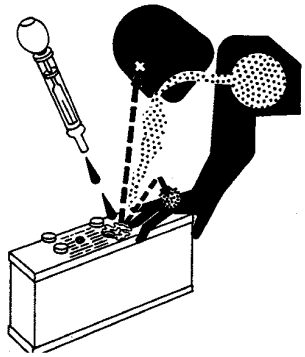
Use only service parts meeting John Deere specifications.

TS779 —UN—08NOV89

DX,REPAIR -19-17FEB99-1/1

Handling Battery Safely

TS204 —UN—23AUG88



E51727 —UN—15JUL02

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

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

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

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

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 battery 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.**

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

OUO1078,0000610 -19-28JUN04-1/1

Service Cooling System Safely

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

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

TS281 —UN—23AUG88

OUO6085,0000214 -19-09JUL09-1/1

Handle Global Positioning Receivers and Brackets Safely

Falling while installing or removing a global positioning receiver can cause serious injury. Use a ladder or platform to easily reach a mounting location.

Use sturdy and secure footholds and handholds. Do not install or remove the receiver in wet or icy conditions.

The receiver mast used on implements is heavy and can be awkward to handle. Two people are required when mounting locations are not accessible from the ground or from a service platform. Use proper lifting techniques and wear proper protective equipment.

TS249 —UN—23AUG88

DX,WW,RECEIVER -19-08JAN08-1/1

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

Dispose of Waste Properly

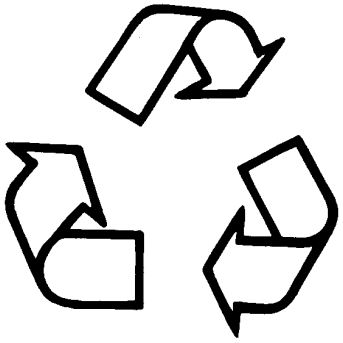
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

Use leakproof containers when draining fluids. Do not use food or beverage containers that may mislead someone into drinking from them.

Do not pour waste onto the ground, down a drain, or into any water source.

Air conditioning refrigerants escaping into the air can damage the Earth's atmosphere. Government regulations may require a certified air conditioning service center to recover and recycle used air conditioning refrigerants.

Inquire on the proper way to recycle or dispose of waste from your local environmental or recycling center, or from your John Deere dealer.



TS1133 —UN—26NOV90

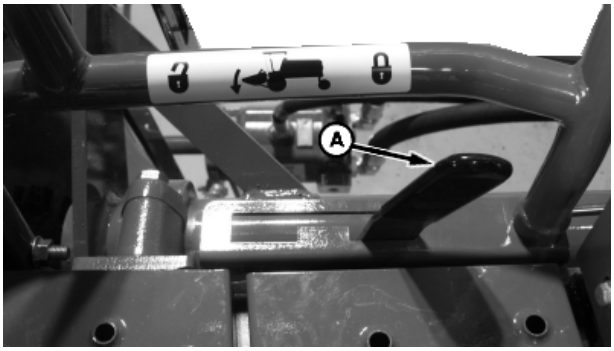
DX,DRAIN -19-03MAR93-1/1

Practice Safe Service Procedures

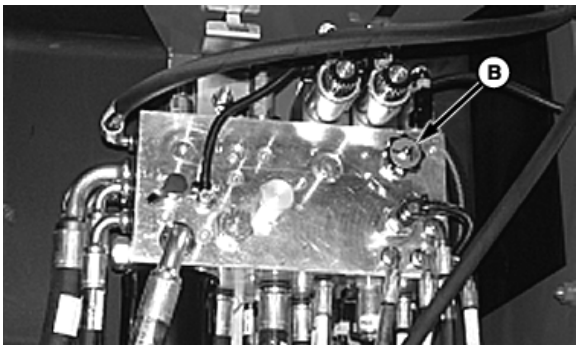
CAUTION: To prevent bodily injury or damage to machine, do the following before servicing or repairing the windrower:

- **Park on level surface.**
- **Put hydrostatic drive in neutral park.**
- **Check to ensure steering wheel is locked.**
- **Disengage platform drive.**
- **Wait until all moving parts have stopped.**
- **Lower the platform to the ground. If it is necessary to work underneath the platform, fully raise platform and engage platform lift lockout lever (A) to prevent accidental lowering.**
- **If platform is on the ground, release float pressure until float pressure display monitor reads ZERO.**
- **Idle hot engine for two minutes prior to shut down.**
- **Turn off engine and remove key.**
- **If the platform is on the ground, open manual float release valve (B).**
- **Block both sides of drive tires or rear tires as required.**
- **Disconnect the battery ground cable as required.**

IMPORTANT: Reset float pressure before lowering or raising platform.



E57139 —UN—12MAY09

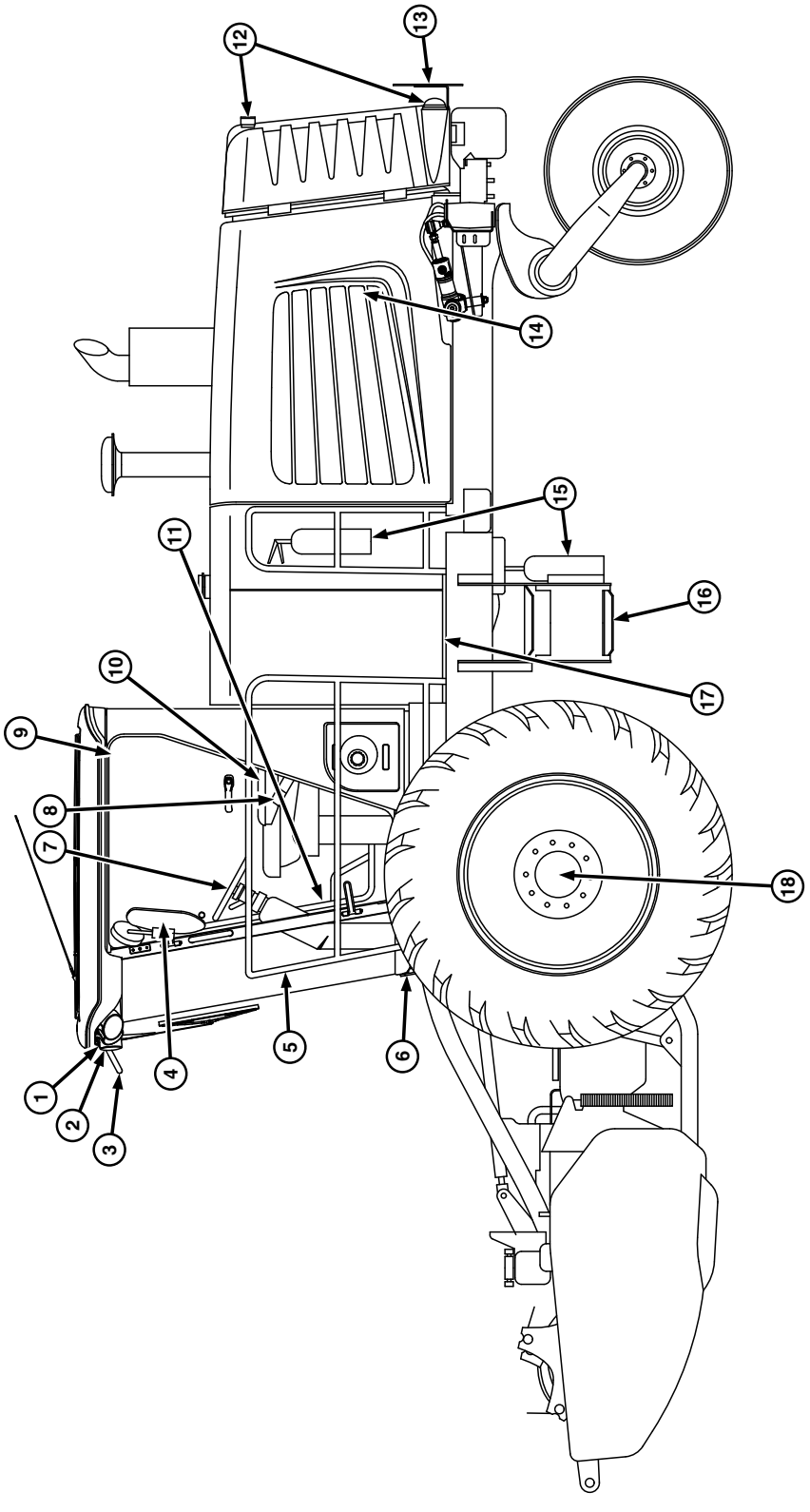


E56462 —UN—12JAN09

A—Platform Lift Lockout Lever B—Manual Float Release Valve

OUO6085,000005E -19-31JUL09-1/1

Safety Features



E57211 —UN—20MAY09

Continued on next page

OUO6085,00002E1 -19-17NOV09-1/2

SAFETY FEATURES OF THE A400 SELF-PROPELLED WINDROWER In addition to the safety features shown here, other components and systems, safety signs on the machine, and safety messages and instructions in the Operator's manual contribute to the safe operation of this machine when combined with the care and concern of a capable operator.

The construction of this machine may not meet all local or national requirements for operation on a public roadway. In regions or countries that have national certification requirements for roadway operation, it may be impossible for this machine to be approved for such roadway operation. The customer is responsible for understanding and complying with all local, regional, and national requirements regarding roadway operation.

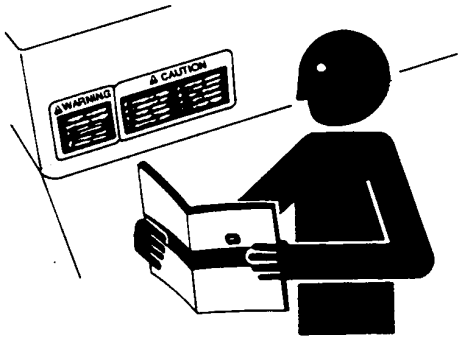
1. **Work lighting includes six headlights and two rear floodlights** for visibility of the work area during night time filed operation. **Optional sidelights** provide additional field illumination to the sides of the machine.
2. **Headlights and flashing warning lights** come on automatically in transport speed range with platform turned off.
3. **Front handhold** makes windshield cleaning easier.
4. **Interior and two exterior wide angle rear view mirrors** offer the operator a view of traffic and work activity to the rear.
5. **Handrails** above steps and around cab landing facilitate access and egress.
6. **Platform lift lockout lever** provides convenient means to lock platfrom in raised position for service or transport.
7. **Steering wheel interlock** locks the steering wheel when the speed control is in park and steering wheel is turned to neutral position. Prevents inadvertent turning of a stationary machine.
8. **Seat belts** are provided for both the operator and trainer. **Automatic retractors** help keep belts clean and convenient to use.
9. **Pressurized cab** provides a dust-free and cool working environment to help reduce operator fatigue. Built-in air distribution vents assure good air flow to the windshield to reduce fogging.
10. **Operator presence sensing system** disengages platform drive if operator leaves the seat with the platform running, or if engine is started with platform engaged.
11. **Neutral start interlock** prevents engine start-up if the steering wheel is turned, or speed control lever is out of park.
12. **Enhanced turn signals**. When a turn is signaled, red tail lamp flashes in unison with the amber warning lamps to increase awareness of a pending turn.
13. **Slow moving vehicle (SMV) emblem and reflectors** enhance visibility during road transport.
14. **Bypass start protection.** Shield over starter terminals helps prevent dangerous bypass starts.
15. **Fire extinguishers (optional)**. One located on the cab platform and one mounted on the side of the platform steps.
16. **Wide, skid-resistant steps** to cab landing help prevent slips and falls when getting on or off the machine.
17. **Large cab landing** provides easy access to cab as well as a good place to stand when filling fuel and hydraulic oil tanks.
18. **Park brake** automatically engages when the machine is stopped or the engine is shut off.

OUO6085,00002E1 -19-17NOV09-2/2

Replace Safety Signs

Replace missing or damaged safety signs. Use this operator's manual for correct safety sign placement.

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



TS201 —UN—23AUG88

DX,SIGNS -19-18AUG09-1/1

Safety Signs

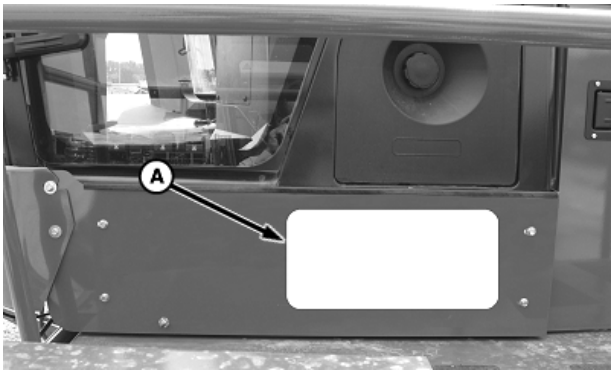
(A) — Danger Avoid serious crushing injury. Raise platform completely and engage lift lockout lever before working under raised platform.

Warning Help prevent injury from unexpected movement of lift system and platform from float system hydraulic pressure. Always relieve float system pressure before removing platform or servicing float system.

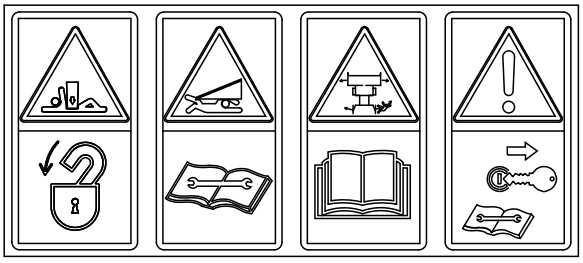
1. Lower platform to ground.
2. Reduce float system pressure until float pressure monitor is at zero.
3. Open float system accumulator bleed-off valve.

Warning Machine will move sideways if steering wheel is turned while engine is running, even though ground speed control lever is in neutral. Be sure everyone is clear of machine before turning wheel. Steering is opposite to normal when backing up (turn bottom of steering wheel in direction you want to go).

Caution Keep all shields in place. Disengage and shut off all engine and/or motor power before servicing or unclogging machine. Keep hands, feet and clothing away from power-driven parts.



E55982 —UN—17SEP08



SSE307446 —UN—17SEP08

A—Danger/Warning/Warning/Caution

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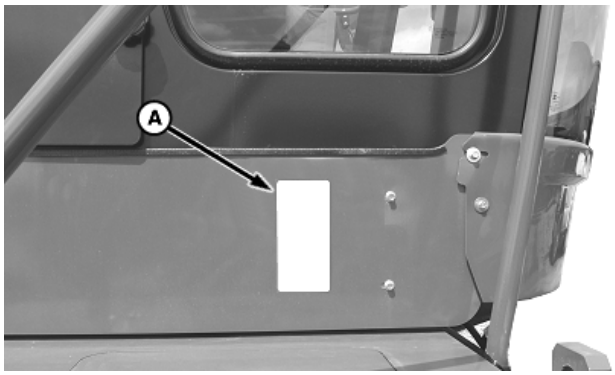
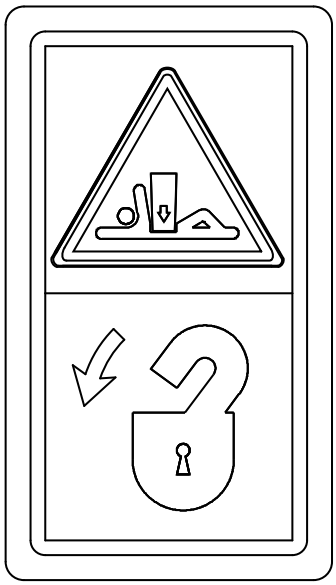
OUO6085,000029A -19-19NOV09-1/8



E55983 —UN—19SEP08

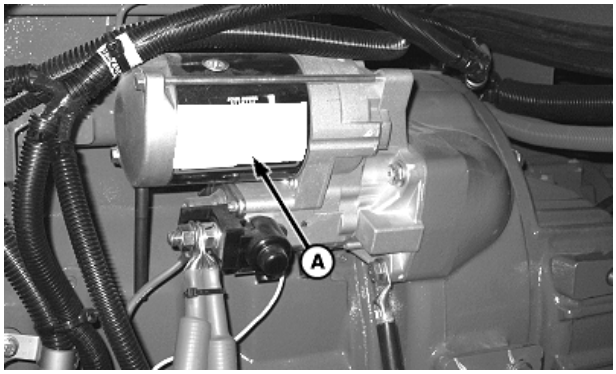


SSE307436 —UN—17SEP08

A—Danger

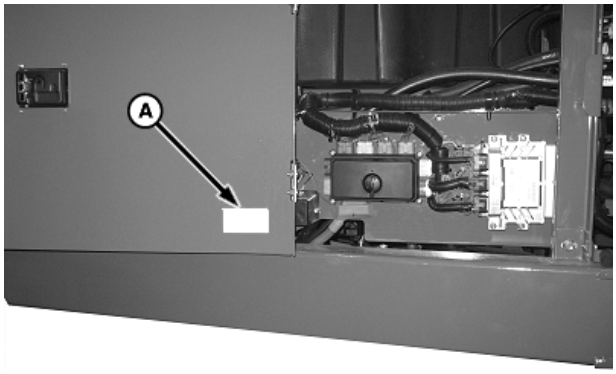
(A) — Danger Avoid serious crushing injury. Raise platform completely and engage lift lockout lever before working under raised platform.

OUO6085,000029A -19-19NOV09-2/8



E58009 —UN—22SEP09

Starter, Right-Hand Side

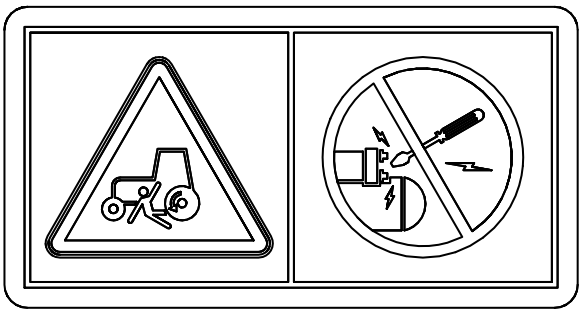


E58010 —UN—22SEP09

Inside of Door, Right- Hand Side

(A)—Danger Start only from seat in park or neutral.

Starting in gear kills.



E55991 —UN—16SEP08

A—Danger

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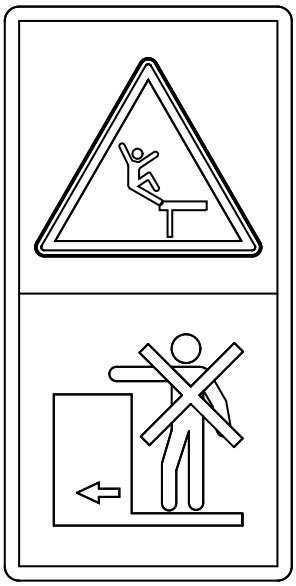
OUO6085,000029A -19-19NOV09-3/8

E55985 —UN—17SEP08



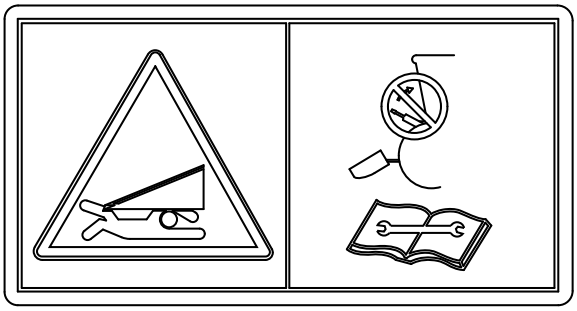
SSE307441 —UN—17SEP08

(A)—Warning Do not ride ladder or platform while windrower is moving.

OUO6085,000029A -19-19NOV09-4/8

Tilt Cylinder

E58011 —UN—22SEP09



SSE307455 —UN—17SEP08

(A) — Warning Do not operate or service this machine without tilt cylinder and cylinder straps properly installed.

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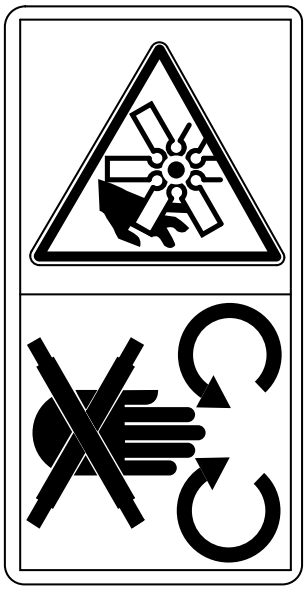
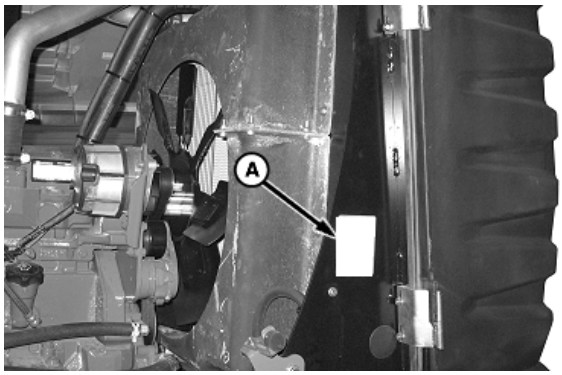
OUO6085,000029A -19-19NOV09-5/8



SSL64994 —UN—17SEP08

NOTE: Decal (A) is located on left- and right-hand sides of machine.

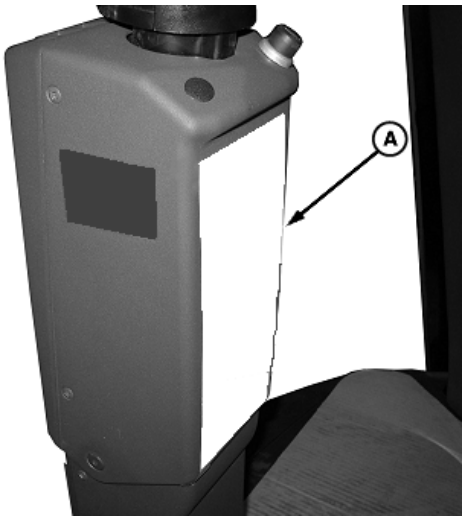


E58012 —UN—23SEP09

Left-Hand Side Shown

A— Warning Keep all shields in place. Keep hands and clothing away from rotating fan.

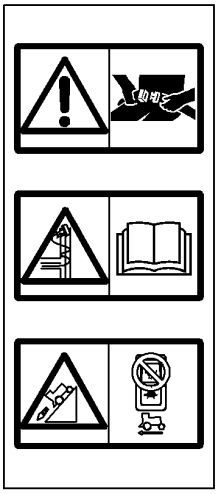
OUO6085,000029A -19-19NOV09-6/8



E58015 —UN—22SEP09

Caution The instructional seat is for training operators or diagnosing machine problems. Keep other rider and children off. Use the seat belt whenever operating the machine or riding as an observer.

Warning Avoid serious injury or death. Do not rapidly accelerate while turning. Do not make abrupt changes in steering direction.



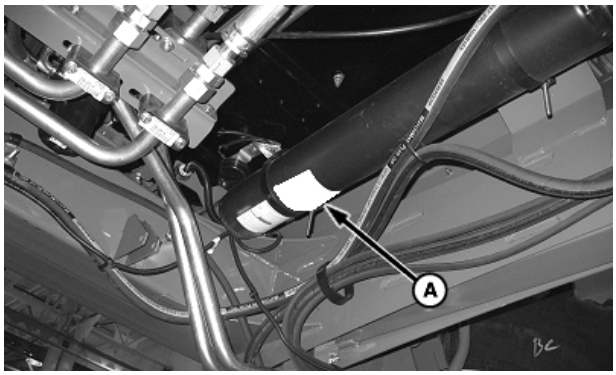
E58072 —UN—23OCT09

A—Caution/Warning On Front of Steering Column

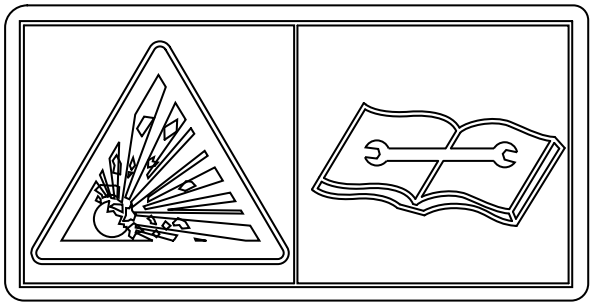
Warning Stop and shift to field range before driving down steep slopes. If control of machine is lost, immediately pull multifunction control handle to neutral.

Continued on next page

OUO6085,000029A -19-19NOV09-7/8



E58013 —UN—22SEP09



SSE307454 —UN—17SEP08

(A) — Caution To prevent the risk of injury, as well as possible damage to the accumulator or hydraulic system, maintain recommended nitrogen gas pressure. See Operator's manual for additional information. Charge only with dry nitrogen. Rated working pressure is 21,511 kPa (215 bar) (3120 psi).

OUO6085,000029A -19-19NOV09-8/8

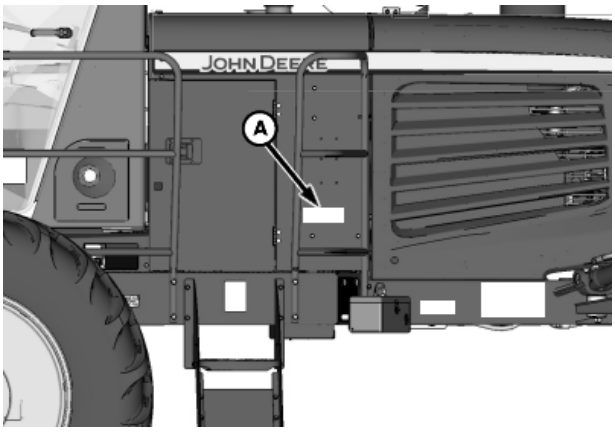
Fire Extinguisher Decal (if equipped)

Fire extinguisher decal (A) shows the recommended method to extinguish a fire. Always aim towards base of fire.

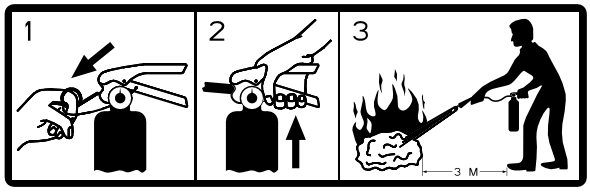
The following are basic steps for the use of a fire extinguisher:

1. Remove fire extinguisher from bracket and carry to area of fire.
2. Approach area of fire with wind to your back.
3. Pull safety pin from top of extinguisher.
4. Hold extinguisher upright by handles and aim hose at **base** of flames.
5. Squeeze handles to discharge fire extinguisher.
6. Move nozzle back and forth, covering flames with a cloud of powder.

A—Fire Extinguisher Decal



E58252 —UN—23NOV09



SSH204596 —UN—23SEP08

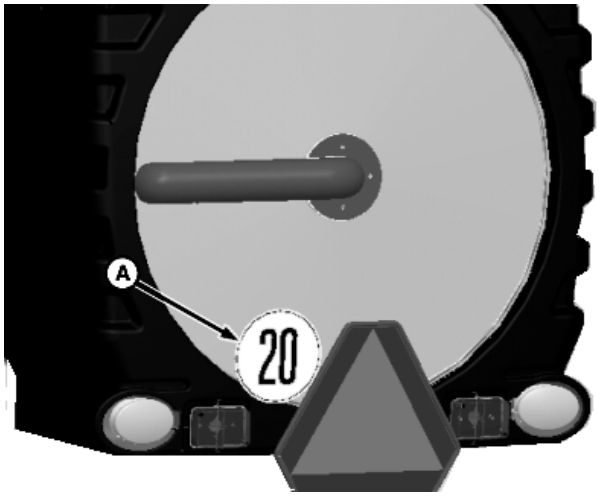
Fire Extinguisher Decal

OUO6085,00002EE -19-19NOV09-1/1

Speed Limit Decal (if equipped)

In accordance with national speed regulations, the machine must have speed limit decal (A) showing its top speed limit.

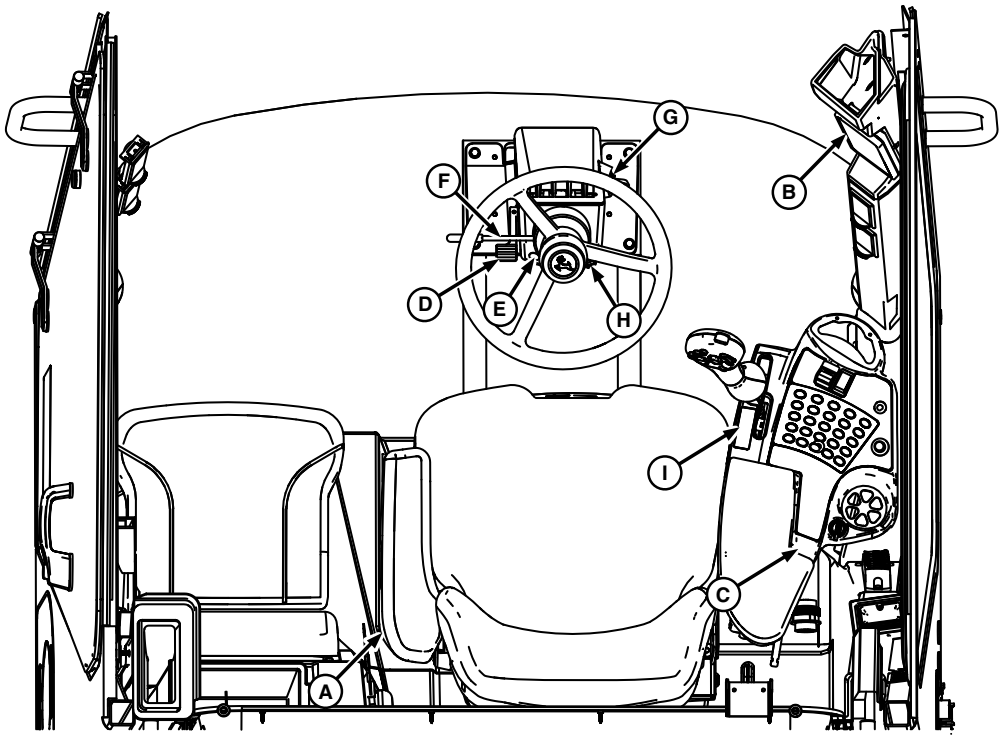
A—Speed Limit Decal



Speed Limit Decal

OUO6085,00002EF -19-19NOV09-1/1

Instruments and Controls



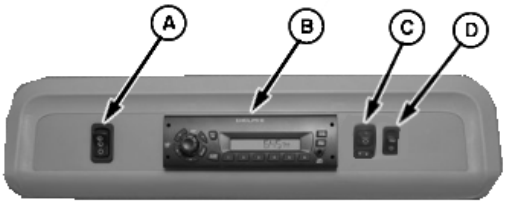
E56707 —UN—03FEB09

A—Seat Controls
B—Corner Post Monitors
C—Armrest Control Panel
D—Steering Column Tilt Pedal
E—Steering Wheel Lock Knob
F—Turn Signal Lever
G—Start Switch
H—Horn Button
I— Hydrostatic Guide

OUO6085,0000080 -19-03FEB09-1/1

Overhead Instruments and Controls

A—Windshield Wiper Control
B—AM/FM Weatherband Radio (Optional)
C—Power Mirror Adjustment (Optional)
D—Power Mirror Heater Switch (Optional)



E57759 —UN—23JUL09

OUO6085,0000081 -19-23JUL09-1/1

Control and Switch Colors

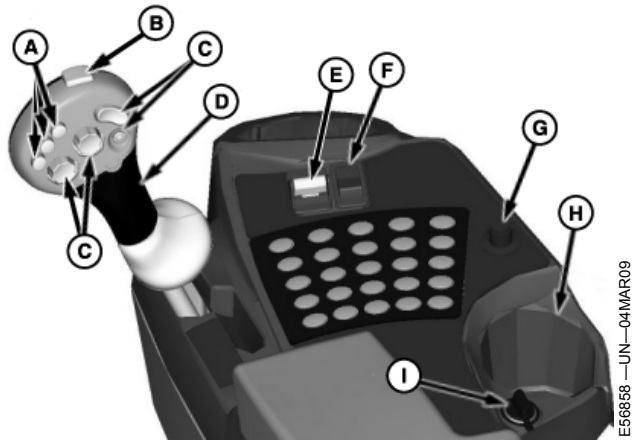
Before operating the self-propelled windrower for the first time, become familiar with the controls and switches. These controls and switches are color "coded" to help you quickly locate them when operating the self-propelled windrower.

- **ORANGE** Ground Drive and Engine Speed
- **GREEN** Diagnostics and Calibrations
- **BLACK** Operating Adjustments and Controls
- **YELLOW** Header Engage Switch

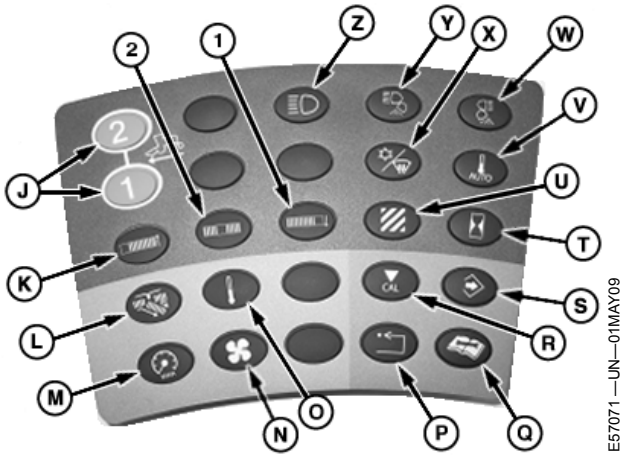
E57252 —UN—17JUN09

OUO6085,0000082 -19-05AUG09-1/1

Armrest Control Panel



E56858 —UN—04MAR09

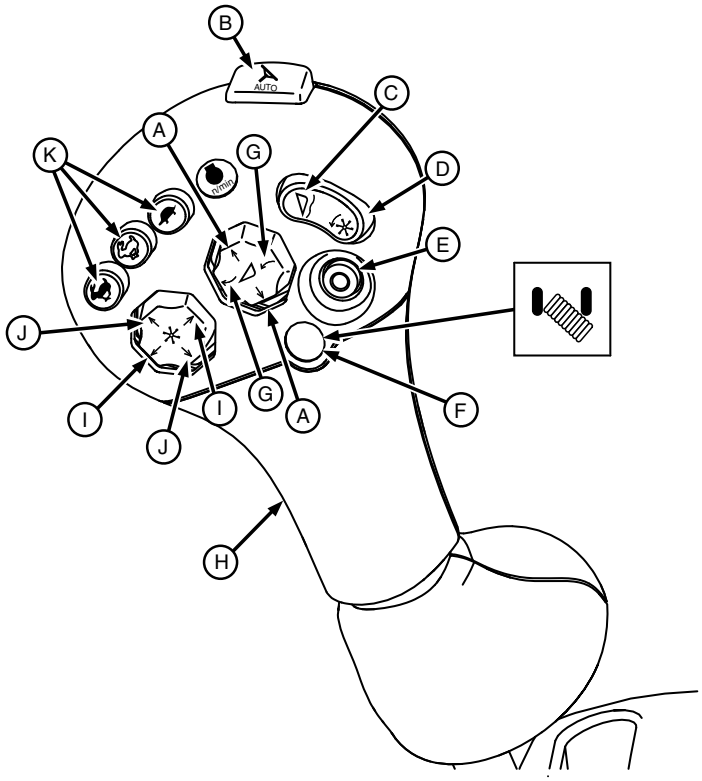


E57071 —UN—01MAY09

A—High, Variable and Low Idle Controls
B—AutoTrac Resume Switch
C—Platform Float/Speed Switches
D—Multifunction Control Handle
E—Platform Drive Engage
F—Hazard Lights
G—Selection Dial
H—Beverage Holder
I— Power Port
J— High Speed (Road Switch) (2), Low Speed (Field Switch) (1)
K—HB Deck Shift Left—WMA Belt Raise (Option Only)
L—HB or WMA Belt Speed Adjust (Option Only)
M—Backlighting Setpoint Adjust
N—HVAC Blower Motor Setpoint Adjust
O—HVAC Temperature Setpoint Adjust
P—Diagnostics Return
Q—Diagnostics Enable
R—Diagnostics Calibration
S—Diagnostics Enter
T—Hour Meter Display
U—Area Counter Enable/Disable
V—Auto Temperature Control
W—Work Lights Enable
X—A/C On/Off and Defog On/Off
Y—Field Lights Enable
Z—Road Lights Enable
1—HB Deck Shift Right—WMA Belt Lower (Option Only)
2—HB Deck Shift Center (Option Only)

OUO6085,0000085 -19-10NOV09-1/1

Platform Function Controls



E57283 —UN—04AUG09

A—Platform Raise and Lower
B—AutoTrac Resume Switch
C—Float Pressure Display Enable (First Detent)
Float Pressure Setpoint Adjust (Second Detent)
D—Platform Speed Display Enable (First Detent)
Platform Speed Setpoint Adjust (Second Detent)
E—WMA Enable (WMA Option Only)
F—Sticker Position for: WMA Enable
G—Platform Tilt Forward and Backward
H—Multifunction Control Handle
I—Honey Bee Draper Reel Fore and Aft (HB Option Only), WMA Left and Right-Hand Side Discharge
J—Honey Bee Draper Reel Raise and Lower (HB Option Only), WMA Deflector Raise and Lower
K—High Idle (Left Rabbit), Variable Idle Setpoint Adjust (Center Rabbit), Low Idle (Turtle)

Multifunction control handle (H) has three rocker switches designed in the handle to allow finger tip control of platform functions.

Engine must be running to perform any of the following functions:

Rocker switch (A) raises and lowers platform. (See RAISING AND LOWERING THE PLATFORM in Operating Windrower section.)

Rocker switch (C) sets float pressure display as well as adjust float pressure. (See ADJUSTING PLATFORM FLOAT in Operating Windrower section.)

Rocker switch (D) adjusts platform speed or hydraulic reel drive speed. (See OPERATING HYDRAULIC REEL (OPTIONAL) in Operating Windrower section.)

Rocker switch (G) adjusts platform tilt angle. (See ADJUSTING PLATFORM GUARD ANGLE in Operating Windrower section.)

All other buttons are single function.

OUO6085,00000E1 -19-13NOV09-1/1

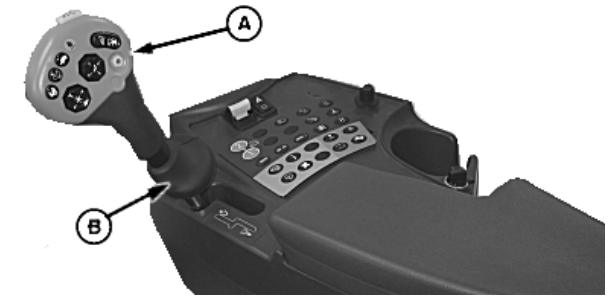
Multifunction Control Handle

IMPORTANT: If the hydrostatic charge pressure light comes on in the warning display panel when the lever is moved, check hydrostatic/hydraulic oil level or replace filter. If this doesn't correct the problem, see your John Deere dealer.

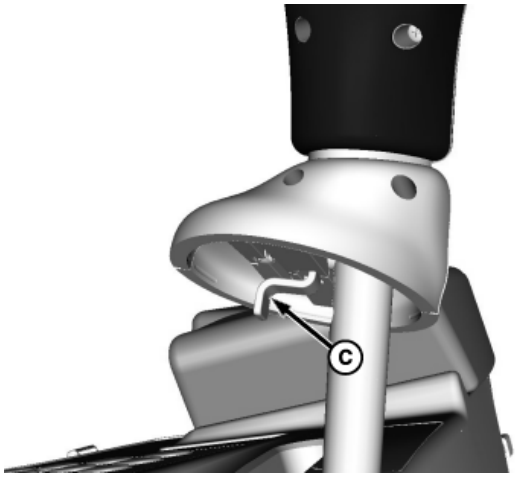
Move lever forward to go forward.

Move lever to the right and rearward to go backward.

To adjust hand rest/collar up or down, push spring loaded lever (C) on bottom of collar.



E57253 —UN—17JUN09



E56548 —UN—14JAN09

A—Handle
B—Hand Rest/Collar
C—Spring Loaded Lever

OUO6085,00000E2 -19-29MAY09-1/1

Platform Drive Engage Switch (Forward)

NOTE: Operator must be in the seat to engage platform drive. Platform drive will disengage if operator leaves the seat.

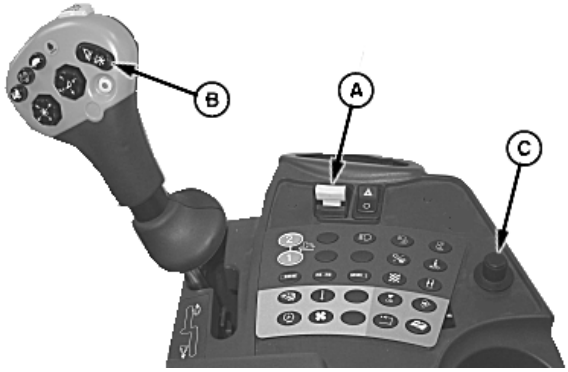
Engine will not start with platform switch engaged.

To operate the platform drive in forward, push down on the switch (A) and push forward to engage platform drive.

Pull switch back to the OFF position to disengage platform drive.

See ENGAGING PLATFORM DRIVE in Operating Windrower section.

To set platform speed, press "platform speed setpoint adjust" (B) to second detent, use selection dial (C) to set desired speed.



E57254 —UN—19JUN09

A—Platform Drive Engage
B—Platform Speed Setpoint Adjust
C—Selection Dial

OUO6085,00001A1 -19-03AUG09-1/1

Platform Drive Switch (Reverse)

NOTE: Operator must be in the seat to engage platform drive. Platform drive will disengage if operator leaves the seat.

Engine will not start with platform switch engaged.

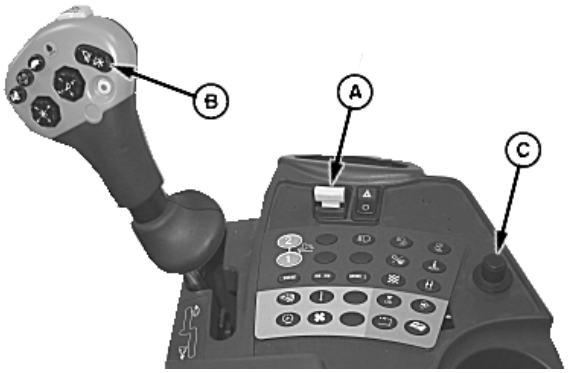
To operate the platform drive in reverse, push down on the switch (A) and pull rearward to engage platform drive.

Push switch forward to the OFF position to disengage platform drive.

Pull switch to rear to reverse reel direction on sickle platform.

See ENGAGING PLATFORM DRIVE in Operating Windrower section.

To set platform speed, press "platform speed setpoint adjust" (B) to second detent, use selection dial (C) to set desired speed.



E57254 —UN—19JUN09

A—Platform Drive Engage
B—Platform Speed Setpoint Adjust
C—Selection Dial

OUO6085,00001A0 -19-03AUG09-1/1

Platform Float Pressure Adjust

IMPORTANT: When there is no pressure in the float system, the platform will drop suddenly when the platform lower switch is activated.

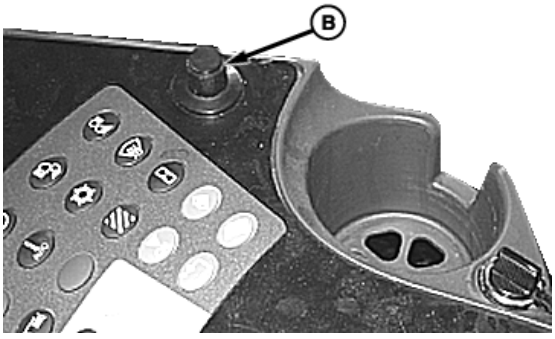
Platform float pressure display enable (A) first detent, will show display on monitor. Second detent allows adjustment with the slection dial.

- Turn selection dial (B) clockwise (+) to increase pressure (lighter platform).
- Turn selection dial (B) counterclockwise (—) to decrease pressure (heavier platform).

Monitor float pressure on the corner post monitor.

See Adjusting Platform Float in Operating Windrower section.

E57255 —UN—29MAY09



E56538 —UN—14JAN09

A—Float Pressure Display Enable
B—Selection Dial

OUO6085,0000086 -19-24JUL09-1/1

Engine Speed Adjust

Press low engine idle (turtle) switch (A) to set engine to low engine idle.

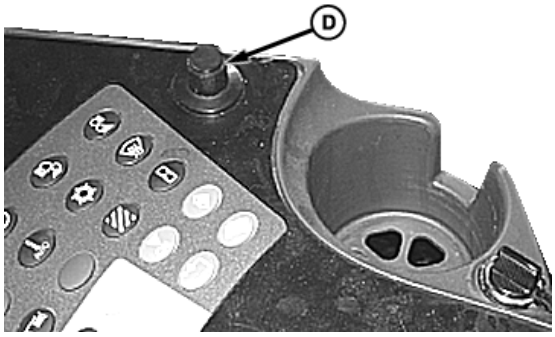
Press high engine idle (rabbit) switch (B) to set engine to high engine idle.

Press variable engine idle (outlined rabbit) switch (C) to enable variable engine idle.

When machine is in variable engine idle, speed may be adjusted with the selection dial (D).

A—Low Engine Idle (turtle)
B—High Engine Idle (rabbit)
C—Variable Engine Idle (outlined rabbit)
D—Selection Dial

E57256 —UN—29MAY09



E56540 —UN—14JAN09

OUO6085,000009E -19-18JUN09-1/1

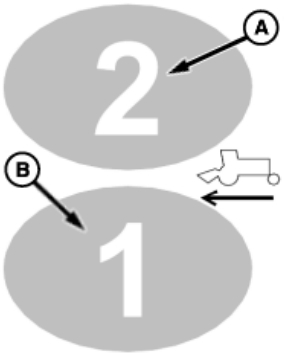
Low Speed/High Speed Switch

⚠ CAUTION: Always stop and shift to the slower (button No. 1) field operation speed when going down a steep slope.

Ground speed adjust switch (A) (No. 2) selects a higher speed for transporting the windrower, or lower speed switch (B) (No. 1) for field operations. Engine speed will change when each switch is pressed. Engine rpm is 2450 (button 1), engine rpm is 2600 (or 2450 with platform on) (button 2)

The unit can be shifted from lower field operation speed (B) (No. 1) to the higher transport speed (A) (No. 2) while machine is in motion.

The unit must be stopped, and the multifunction control handle returned to the neutral position to shift from higher transport speed to lower field operation speed.



E56708 —UN—03FEB09

A—Transport (high speed) Button No. 2
B—Field Operation (low speed) Button No. 1

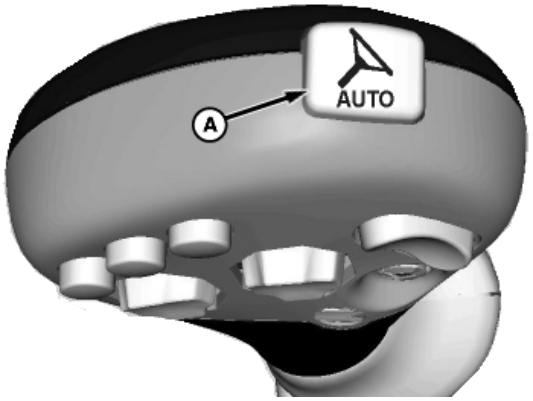
OUO6085,0000088 -19-04AUG09-1/1

AutoTrac Resume Switch

AutoTrac resume switch (A) will only be used if machine is equipped with AutoTrac universal.

AutoTrac resume switch (A) engages AutoTrac, and serves as an operator's presence indicator while AutoTrac is engaged.

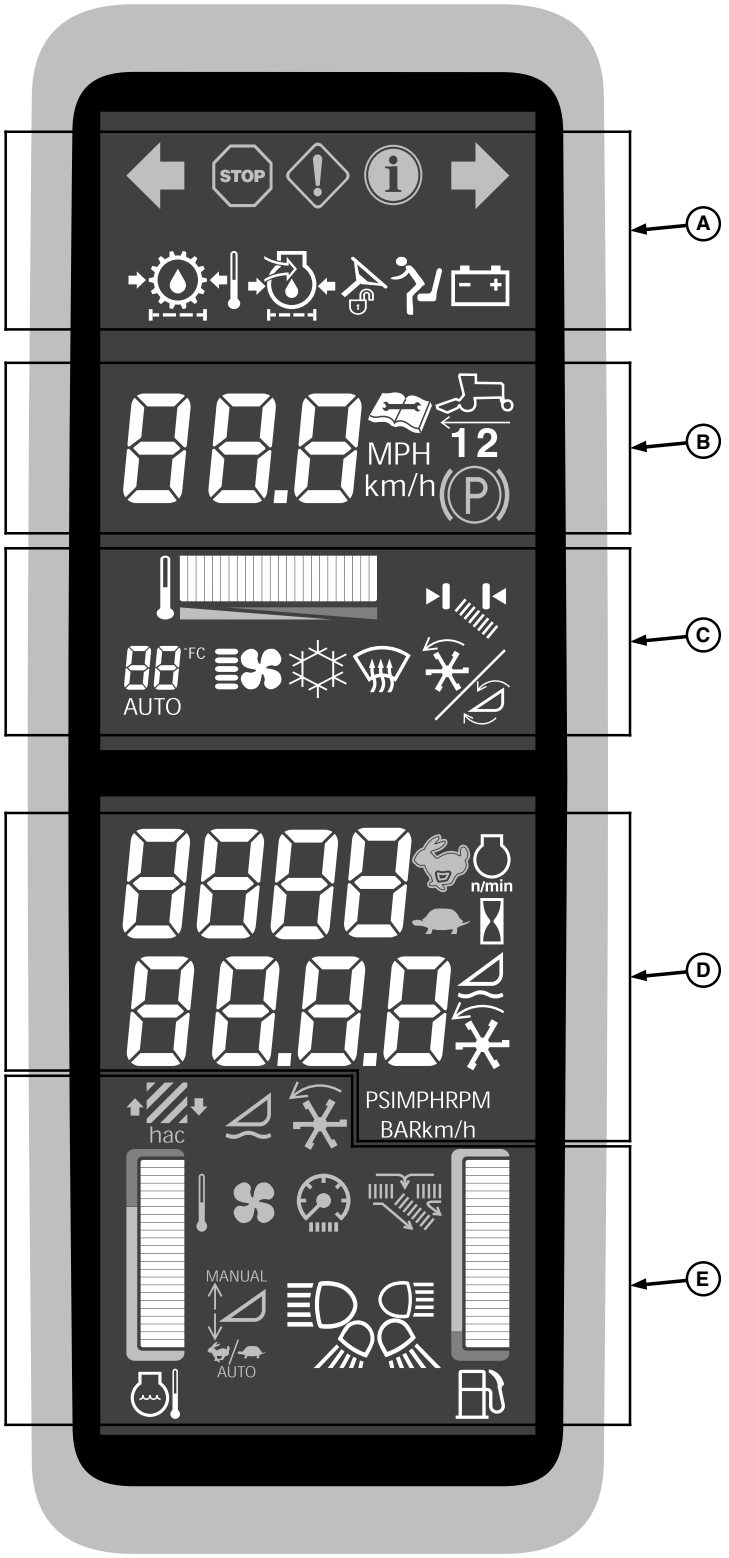
A—AutoTrac Resume Switch



E56541 —UN—14JAN09

OUO6085,0000089 -19-10JUN09-1/1

Primary Display Unit (PDU)



E57798 —UN—04AUG09

A—Warnings and Alarms
B—Vehicle Propulsion and Diagnostics
C—HVAC and Miscellaneous
D—Vehicle Functions
E—Indicators, Gauge, and Lights

Continued on next page

OUO6085,0000092 -19-04AUG09-1/2

Warning Display Panel (A)

Ten displays with colors indicating existing condition and an audible alarm for when a serious condition exists. See WARNING DISPLAY PANEL in this section.

Vehicle Propulsion and Diagnostics (B)

Displays vehicle speed in mph or Km/h for road or field mode. Also displays when park brake is engaged. Displays vehicle diagnostics.

Heating, Ventilation, Air Conditioning and Miscellaneous (C)

Indicates HVAC temperature, windrow merging attachment (WMA) enabled and active, automatic temperature control, air conditioner enabled, defog enabled, and blower speed.

Vehicle Functions (D)

Numeric display one displays engine speed, total vehicle hours, whole value of area counter, diagnostics and service information.

Numeric display two displays platform speed, platform float, platform hours, decimal value of area counter, diagnostics, and service information.

Indicators, Gauges, and Lights (E)

Indicates low platform reel speed as well as engine not at harvesting speed.

Indicates setpoint adjustments for: float pressure, platform/reel speed, temperature adjust, blower speed, and backlighting, and honeybee/windrow merging attachment (WMA) belt speed.

Indicates area counter enable/active, engine temperature, road, field and work lights turned on, and fuel gauge.

OUO6085,0000092 -19-04AUG09-2/2

Warning Display Panel

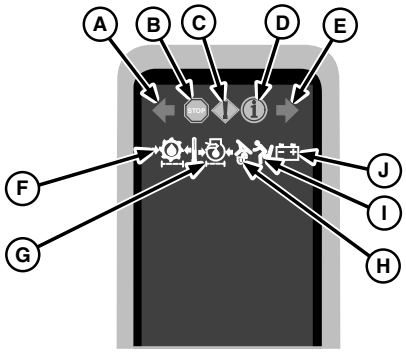
The display shows a red, yellow or blue light and may sound an audible alarm for the specific condition.

- **RED LIGHT**—Engine emergency stop. Check and correct problem.
- **YELLOW LIGHT**—Operator alert. Service or correct problem. Stop engine as required.
- **BLUE LIGHT**—Information indicator.

Listed below is the keyed designation of the warning lamp, color displayed and if an audible alarm is present;

NOTE: Decal on the inside storage lid of the right-hand armrest identifies symbols used on panel.

KEY	FUNCTION	COLOR	ALARM
(A)	Left Turn Signal	Green	No
(B)	Engine Emergency Stop. Alarm will sound continuously	Red	Yes
(C)	Operator Service Alert. Alarm will sound five times in 2.5 seconds	Yellow	Yes
(D)	Information. Alarm will sound continuously for 2 seconds	Blue	Yes
(E)	Right Turn Signal	Green	No
(F)	Hydraulic Charge Pressure, Hydraulic Oil Filter Restrict, Hydraulic Oil Temperature	Yellow	Yes
(G)	Engine Oil Pressure, Engine Air Filter restrict	Yellow	Yes
(H)	Steering Not Centered	Yellow	Yes
(I)	Operator Not Present	Yellow	Yes
(J)	Low Battery Voltage. Battery not charging or Alternator Failed (will flash when battery is not charging or alternator has failed)	Yellow	Yes



E56351 —UN—16JAN09

OUO6085,0000093 -19-02NOV09-1/1

Fuel Gauge

With key on, red and green bars will always be displayed. Bar graph will move up and down according to fuel level reading.

If fuel level is below red/green line, bars and icon will flash at the same rate as the operator alert icon.

A—Fuel Gauge

E56687 —UN—30JAN09

OUO6085,00000EB -19-15MAY09-1/1

Engine Coolant Temperature Gauge

With key on, red and green bars will always be displayed. Bar graph will move up and down according to the temperature reading of the engine.

If engine temperature reaches red/green line, bars and icon will flash at the same rate as the operator alert icon.

If engine temperature is above the red/green line, bars and icon will flash and alarm will sound at the same rate as the emergency stop icon.

E56688 —UN—30JAN09

A—Temperature Gauge

OUO6085,00000EA -19-15MAY09-1/1

Vehicle Functions

Numeric Display One (A):

- Displays engine speed as default.
- Engine speed will flash when variable speed setpoint adjust has been entered and will change based on selection dial while flashing.
- Displays total vehicle hours when hours icon is pressed on operator console panel.
- Displays whole value of area counter in acres/hectares when area counter is enabled and active.
- Displays service information when service interval has been reached.
- Displays diagnostic information when diagnostics is enabled.

Numeric Display Two (B):

- Displays platform speed when platform speed button is pressed on multifunction control handle.
- Platform speed will flash and display platform speed when platform speed button is pressed on multifunction control handle and when adjusting selection dial. Platform speed will increase/decrease depending on direction selection dial is turned.
- Displays float pressure when float pressure button is pressed on multifunction control handle.
- Float pressure will flash and display float pressure when float pressure button is pressed on multifunction control handle and when adjusting selection dial. Float pressure will increase/decrease depending on direction selection dial is turned.
- Will display platform hours when hours icon is pressed on armrest panel.
- Will display decimal value of area counter in acres/hectares when area counter is enabled.
- Will display service information when service interval has been reached.
- Will display diagnostic information when diagnostics is enabled.

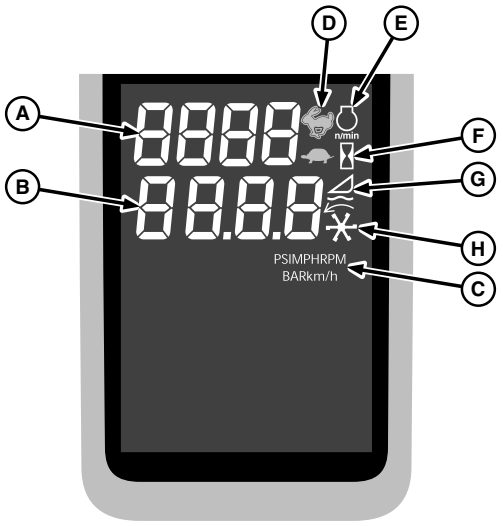
Units of Platform/Reel Speed or Float Pressure (C):

- Displays PSI when float pressure is displayed in Numeric Display Two (B), and when English units are enabled.
- Displays BAR when float pressure is displayed in Numeric Display Two (B), and when Metric units are enabled.
- Displays RPM when platform speed is displayed in Numeric display Two (B).

High, Mid, and Low Engine Idle (D):

- Top icon (D) (rabbit filled in) will be illuminated when machine is in high idle.
- Top icon (D) (outline of rabbit) will be illuminated when machine is in variable idle (speed adjusted with seclection dial).
- Bottom icon (D) (turtle) will be illuminated when machine is in low idle.

Engine RPM (E):



E57800 —UN—04AUG09

A—Numeric Display One
B—Numeric Display Two
C—Units of Platform/Reel Speed or Float Pressure
D—High, Variable, Low Engine Idle
E—Engine RPM
F—Engine and Platform Hours
G—Platform Float Pressure
H—Platform/Reel Speed

- Illuminates when Numeric Display One (A) is showing engine speed or engine hours.
- Will not be illuminated when Numeric Display One (A) is showing area counter, service information or diagnostics.

Engine and Platform Hours (F):

- Will be illuminated anytime hours button is pressed on armrest panel and engine hours and platform hours are displayed on Numeric Display one (A) and two (B).

Platform Float Pressure (G):

- Will be illuminated anytime platform float is displayed on Numeric Display Two (B).

Platform Speed: (H)

- Will be illuminated anytime platform speed is being displayed on Numeric Display Two (B).

Low Float Pressure Alarm (B and G):

- Will flash float pressure on numeric display two and flash float pressure symbol when float pressure is below 750 psi.

Engine Not At Harvesting Speed Alarm (A and D):

- Will flash numeric display one and low idle icon when header is engaged and engine speed is in low idle (900 rpm) and park brake is in park brake not set.

Low Platform/Reel Speed Alarm (B and H):

Continued on next page

- Will flash reel speed on numeric display two and flash platform speed symbol when speed is in low idle (900 rpm) and park brake is not set.

OUO6085,0000097 -19-10NOV09-2/2

Vehicle Propulsion and Diagnostics

Numeric display three (A) will display ground speed in default mode.

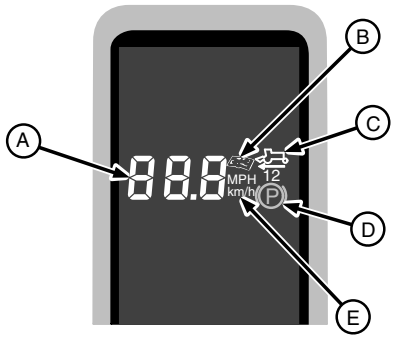
Numeric display three (A) will display diagnostic information when diagnostics are enabled.

Diagnostics Enabled icon (B) will be illuminated when diagnostics are enabled.

Ground speed gear (C) will display "1" when in field mode, and "2" when in transport mode.

If vehicle units (E) are set to English, mph shall be displayed. If vehicle units (E) are set to Metric, km/h shall be displayed.

Park indicator (D) will show RED when machine is stopped and park is enabled.



E56352 —UN—16JAN09

A—Numeric Display Three
B—Diagnostics Enabled
C—Ground Speed (1 or 2)
D—Park Indicator
E—Vehicle Units (MPH or km/h)

OUO6085,0000094 -19-05AUG09-1/1

Heating, Ventilation, Air Conditioning (HVAC) and Miscellaneous

HVAC Temperature (A): Temperature gauge icon and red/blue will only show when ATC is not enabled. Temperature line will move right/left when temperature setpoint adjust button is pressed and selection dial is moved right/left. Temperature setpoint adjust icon (blue) will be illuminated when adjusting temperature line.

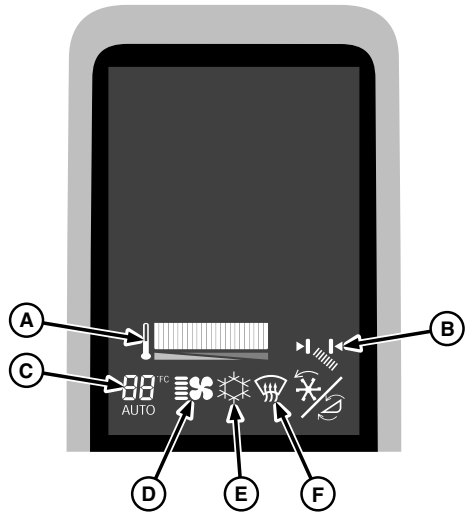
WMA Enabled and Active (B). WMA icon will only show when optional WMA is installed.

Automatic Temperature Control (ATC) (C): When ATC is enabled, "AUTO" will be illuminated and temperature setpoint will be displayed. If units selected are metric, °C will be displayed, otherwise °F will be displayed.

Blower Speed (D): Blower icons will always be on. Press blower speed setpoint adjust button on armrest console and turn selection dial up/down. Number of bars next to blower icon will increase/decrease and blower speed will increase/decrease. When blower setpoint adjust button is pressed, blue setpoint adjust icon will be displayed.

Air Conditioning Enabled (E): Display will be illuminated when the air conditioning/defog button is pressed on armrest console. Display will go out when air conditioning button is pressed again.

Defog Enabled (F): Will be illuminated when air conditioning/defog button is pressed.

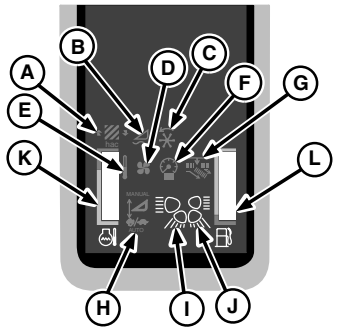


E57801 —UN—04AUG09

A—HVAC Temperature
B—Windrow Merging Attachment (WMA) Enabled and Active
C—Automatic Temperature Control (ATC)
D—Blower Speed
E,F— Air Conditioning and Defog Enabled

OUO6085,0000095 -19-14OCT09-1/1

Indicators, Gauges, and Lights



E56355 —UN—16JAN09

A—Area Counter Enabled
B—Float Pressure Setpoint Adjust
C—Reel/Platform Speed Setpoint Adjust
D—Blower Speed Setpoint Adjust
E—Temperature Setpoint Adjust
F—Backlighting Setpoint Adjust
G—Honeybee/WMA Belt Speed Setpoint Adjust
H—Rate and Sensitivity Setpoint Adjust
I— Road and Field Lights Turned On
J— Work Lights One and Two Turned On
K—Engine Temperature
L—Fuel Level

Area Counter Enabled/Active (A): Displayed anytime area counter has been enabled by pressing area counter button on armrest control panel. Display will remain on until disabled by pressing and holding area counter button for 5 seconds. Area counts in acres (English) or hectares (Metric).

Float Pressure Setpoint Adjust (B): Displayed anytime float pressure setpoint adjust has been enabled and will remain on for 5 seconds after last selection dial adjustment to adjust float pressure.

Reel/Platform Speed Setpoint Adjust (C): Displayed anytime reel/platform speed setpoint adjust is enabled and will remain on for 5 seconds after last selection dial adjustment for reel/platform speed.

Blower Speed Setpoint Adjust (D): Displayed anytime blower button has been pressed on armrest panel and will remain on for 5 seconds after last selection dial adjustment.

Temperature Setpoint Adjust (E): Displayed anytime temperature button has been pressed on armrest panel and will remain on for 5 seconds after last selection dial adjustment.

Backlighting Setpoint Adjust (F): Displayed anytime backlight adjust button has been pressed on armrest panel and will remain on for 5 seconds after last selection dial adjustment.

Rate and Sensitivity Setpoint Adjust (H): Not used.

Road and Field Lights Turned On (I): Top left icon will display when road lights button is pressed on armrest panel or when road lights are turned on after field lights were turned on and machine entered road mode. Top left and bottom left icon will display for field lights.

Work Lights One and Two Turned On (J): Top right icon is displayed when work lights button has been pressed on armrest panel. If work lights Two option is not enabled for optional work lights, the icon shall turn off when work lights button on armrest is pressed again. If work lights two option is enabled and top right icon is displayed, bottom right icon will display when work lights button on armrest is pressed twice. Top right and bottom right icons will not be displayed if work lights button is pressed on armrest.

Engine Temperature (K): Red and green bars will always be displayed. Bar graph will move up and down according to temperature reading of engine. If engine temperature reaches red/green line, bars and icon shall flash at same rate as the operator alert icon. If engine temperature is above red/green line, bars and icon will flash at same rate as the emergency stop icon.

Fuel Level (L): Red and green bars will always be displayed. Bar graph will move up and down according to fuel level. If fuel level is below red/green line, bars and icon will flash the same rate as operator alert icon.

OUO6085,0000098 -19-30OCT09-1/1

Heater and Air Conditioning Controls

The recirculating fan controls air flow through louvers in cab corner posts. Setpoint adjust knob controls fan speed and temperature. Indicators in the corner post monitor show fan speed.

Temperature Control

To set auto temperature and manual temperature setpoint, press temperature setpoint adjust button (E) on armrest control panel then turn selection dial to set temperature that is shown on the corner post monitor. Press ATC enable button (B) to turn on automatic temperature control. Blower will start on high, then gradually slow down as the preset temperature is reached.

To manually set the temperature and blower, the ATC enable button must be turned off. Press the temperature setpoint adjust button (E), press the blower motor setpoint adjust button (A) and turn selection dial to set blower speed. Blower speed is shown on corner post monitor.

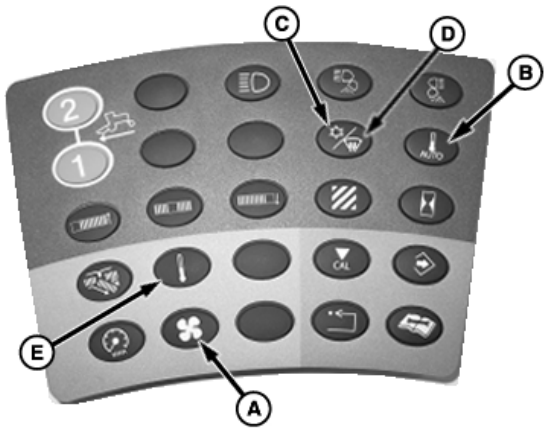
Heater

To increase air temperature, press temperature control button (E) on armrest control panel. Turn setpoint adjust knob to set temperature. Temperature setting is shown on corner post monitor.

Air Conditioning

If maximum cold air is needed, press HVAC temperature setpoint adjust button (E) on armrest control panel. turn selection dial to maximum position in the blue area, and press blower motor setpoint adjust button (A), and turn selection dial clockwise for maximum blower speed. Lower the blower speed as the cab cools. Wait 3 to 4 minutes between adjustments, allowing air temperature to stabilize.

To turn air off, press blower motor setpoint adjust button (A), turn selection dial counterclockwise to minimum, press HVAC setpoint adjust button (E) and turn selection dial to minimum blue setting.



E56549 —UN—15JAN09

A—Blower Speed
B—Auto Temperature Control
C—A/C Enable
D—Defog Enable
E—Temperature Control

Defogging

To defog windshield, press blower motor setpoint adjust button (A) on armrest control panel, press HVAC setpoint adjust button (D). Press HVAC setpoint adjust button (E), turn selection dial clockwise to a warmer (red) setting on corner post monitor. Wait 3 to 4 minutes, allowing air temperature to stabilize. Repeat procedure if needed.

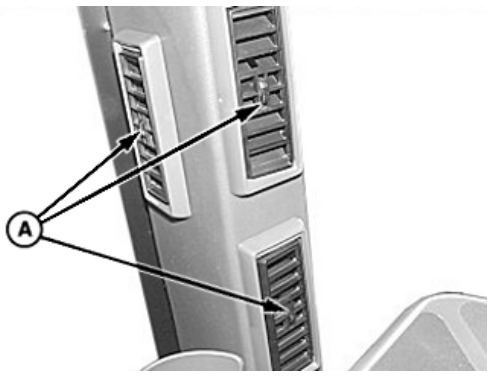
If the A/C compressor stays off 3 to 4 minutes and air smells musty, press temperature control button (E), turn setpoint adjust knob toward red indicator. Press blower button (A), turn setpoint adjust knob to increase blower speed one or two settings.

OUO6085,000008B -19-14OCT09-1/1

Air Louver Adjustment

Adjust air louvers with tab (A) to prevent damage to louvers.

A—Tab



E45005 —UN—08OCT99

OUO6085,00000F4 -19-04FEB09-1/1

Windshield Wiper Switch

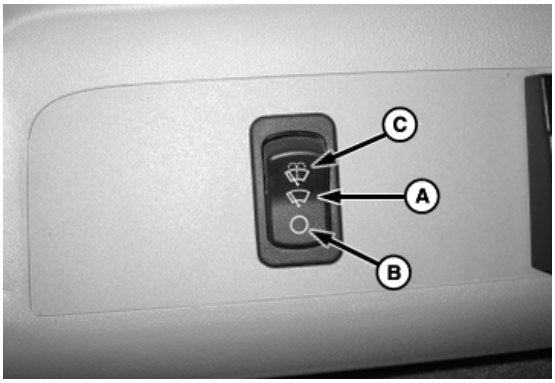
To operate the wiper, press the switch to the ON position (A).

The windshield wiper will stop on the left-hand side of the machine, when the switch is returned to the OFF position (B).

To operate the optional windshield washer (C), depress and hold the top section of the switch. To stop the washer from releasing fluid, release switch.

A—ON Position
B—OFF Position
C—Windshield Washer

E54308 —UN—16JUN05



E56566 —UN—16JAN09

OUO6085,000008C -19-04AUG09-1/1

Start Switch

⚠ CAUTION: Sound horn before starting engine to clear people away from the windrower.

Start switch (E) is located on right side of steering column.

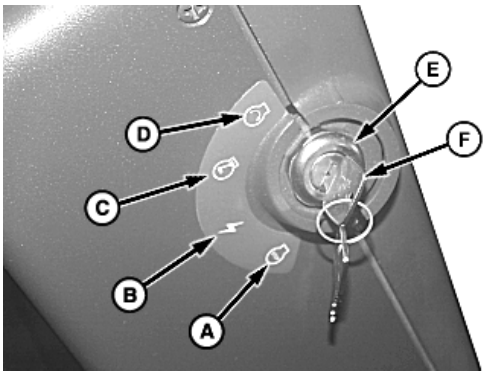
Turn key (F) from off position (A) to position (D) to start.

When released, it will return to run position (C).

If engine will not crank, check for:

- Hydrostatic lever in neutral park
- Steering wheel centered and locked
- Header engage switch is OFF.
- Operator is in seat.

If accessories are to be operated, turn key to accessories position (B).



E50168 —UN—14SEP01

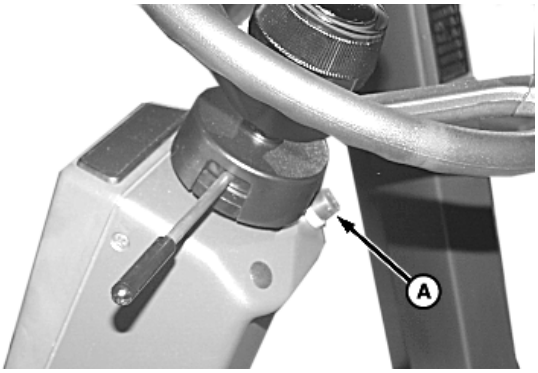
A—Off
B—Accessories
C—Accessories and Run
D—Start
E—Switch
F—Key

PP98408,00001B6 -19-04AUG09-1/1

Horn

Press button (A) to sound horn.

A—Button



E50172 —UN—14SEP01

OUO1078,0001446 -19-05NOV01-1/1

Turn Signals

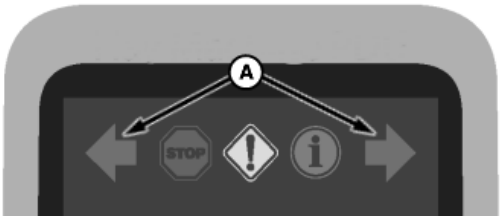
NOTE: The turn signals are not self cancelling. Right and left turn indicator lights (A) blink individually in direction of indicated turn.

Turn signals are operable whenever ignition key is in the RUN position.

When operating the windrower on the road or highway, use the turn signals when turning the windrower.

Amber lights on platform and amber lights on machine will flash in direction of indicated turn.

Corresponding lights on the opposite side of the machine will remain on (not flashing).



E56600 —UN—22JAN09

A—Turn Indicators

OUO6085,000009A -19-04AUG09-1/1

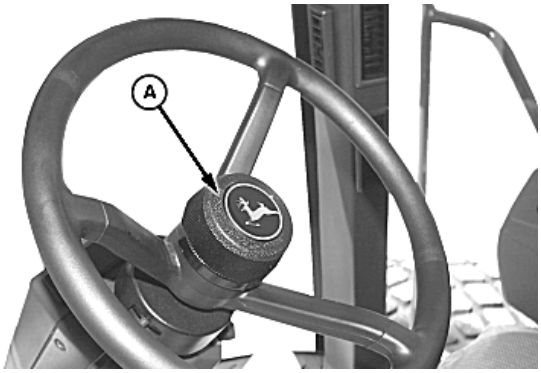
Steering Wheel Height Adjust

CAUTION: To prevent loss of control, adjust steering wheel only when windrower is stopped.

NOTE: Only a slight tightening of the hub (A) is needed to hold steering wheel in position.

Loosen hub (A). Push or pull wheel to position. Tighten hub to lock.

A—Hub



E51361 —UN—11APR02

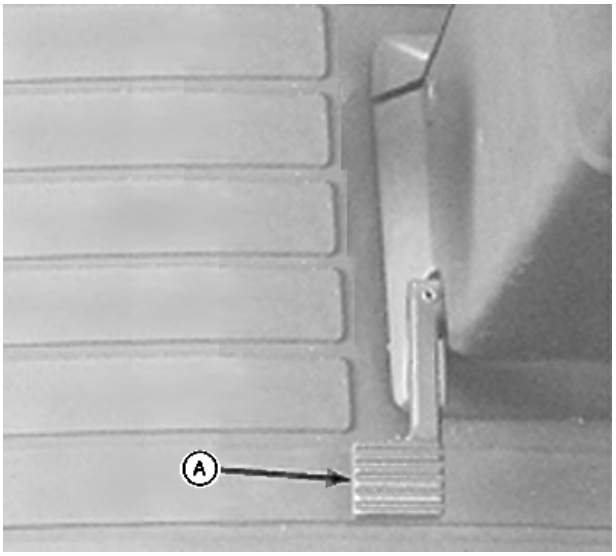
OUO1078,0001448 -19-05NOV01-1/1

Steering Column Tilt Adjust

CAUTION: To prevent loss of control, adjust steering wheel only when windrower is stopped. Column is spring loaded to the upward position. Do not step on pedal without holding the steering wheel in both hands.

Press pedal (A) to release lock on steering column. Put column in desired position. Column locks when pedal is released.

A—Pedal



E39782 —UN—22FEB96

OUO1078,0001449 -19-05NOV01-1/1

Storage Tray/Cab Air Filter

A tray is located in left rear corner of cab. Remove tray for access to the cab recirculating air filter.

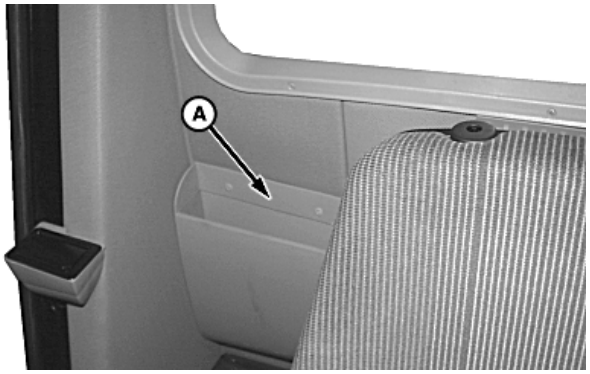
E50177 —UN—14SEP01

OUO1078,000144A -19-05NOV01-1/1

Manual Storage

Keep your manuals in the holder (A) at rear of cab.

A—Holder



E50178 —UN—14SEP01

OUO1078,00013A5 -19-09AUG01-1/1

Cab Storage Box

The arm rest lid lifts for storage.

The decal (A) shows the following information:

- Identifies function of lights in warning display panel.
- Tachometer service interval reset procedure.
- Operator presence information and platform drive reset procedure.

A—Decal

E57753 —UN—30JUL09

OUO6085,00001A2 -19-22JUL09-1/1

Cab Door Lock

This lock uses the start key.

E57336 —UN—12JUN09

OUO1078,000144C -19-05NOV01-1/1

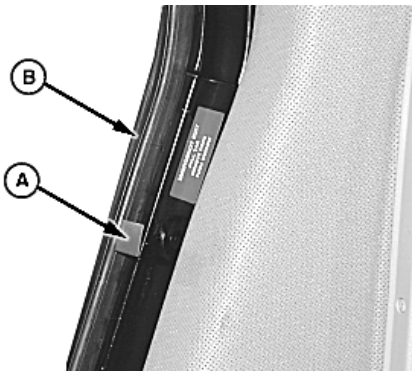
Emergency Exit (Right-Hand Cab Window)

Pull tab (A) to begin removal of rubber rope (B).

Continue to pull until rope is removed from around right-hand cab window. The window can now be pushed out and allowed to fall free.

See your John Deere dealer for window replacement.

A—Tab **B—Rope**



E50175 —UN—14SEP01

OUO1078,000144D -19-05NOV01-1/1

Cup Holder

The cup holder (A) is big enough to accommodate large beverage cans or cups.

A—Cup Holder

E57267 —UN—19JUN09

OUO6085,000009C -19-22JAN09-1/1

COMFORT COMMAND™ Operator's Seat

The COMFORT COMMAND™ operator's seat has an air suspension system for added operator comfort. The seat has a self-contained electric compressor to adjust the seat suspension to match the operator's height and weight. Seat adjustments are as follows:

- Vertical Shock Dampener
- Height Adjustment
- Fore/Aft Adjustment
- Fore/Aft Attenuator Lock-Out
- Seat Bottom Tilt
- Seat Bottom Fore/Aft Adjustment
- Seat Back Tilt
- Seat Back Lumbar Support
- Left-Hand Armrest Height
- Left-Hand Armrest Tension

H67068 —UN—02APR01

COMFORT COMMAND is a trademark of Deere & Company

OUO6085,0000426 -19-04NOV05-1/1

Seat Suspension and Forward and Rearward Adjustment

Vertical shock dampener handle (A) allows the operator to limit the amount of "upward motion" the seat suspension provides.

Push the control forward for the softest ride. Move the handle back for the firmest ride. Between these two positions is the medium firmness position.

Height adjustment is made with handle (B). To raise the seat, pull up on the handle. To lower the seat, push down on the handle.

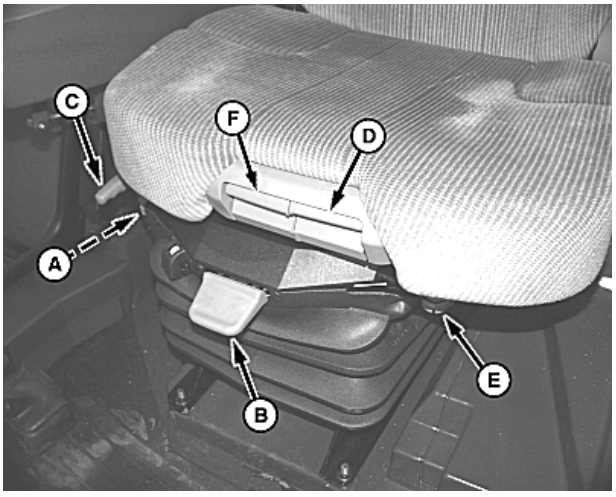
NOTE: The suspension can be adjusted to reach limits in the minimum and maximum heights which, in effect, locks out the suspension system, making it rigid. The suspension height control will also hit the limits if adjusted too close to the extremes.

The forward/rearward adjustment handle (C) allows the seat to slide forward or rearward for best working position.

Seat bottom tilt control handle (D), allows the front of the seat cushion to be raised or lowered for the best working position.

Attenuator lockout lever (E) locks out or releases the forward or rearward movement. Pull up on the handle to lock; push down on the handle to release.

The forward/rearward adjustment handle (F) allows the seat bottom to slide forward or rearward for the best working position.



H67071 —UN—12SEP01

A—Vertical Shock Dampener Control
B—Height Adjustment Knob
C—Forward/Rearward Adjustment Handle
D—Seat Bottom Tilt Control Handle
E—Forward/Rearward Attenuator Lock-Out Lever
F—Seat Bottom Forward/Rearward Adjustment Handle

NOTE: If the seat does not float or "pump" up, see your John Deere dealer.

The air seat also has the operator's presence system.

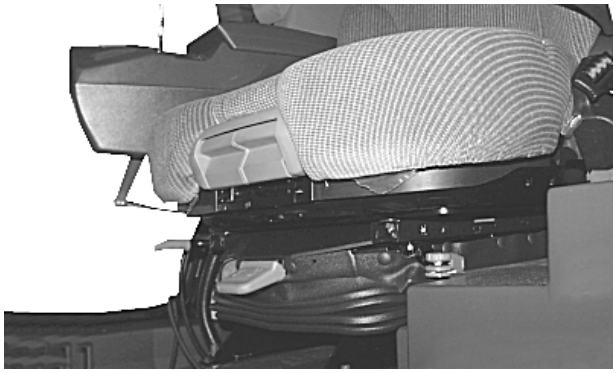
OUO6075,00015A9 -19-02APR01-1/1

Checking Operator Presence System

IMPORTANT: If the operator presence fails to function properly, see your John Deere dealer.

To check the function of the operator presence, start windrower and engage platform switch. With platform operating, proceed as follows:

- Raise up out of the seat for 3 seconds, then sit down again. The platform should continue to operate normally.
- Raise up out of the seat for 5—6 seconds. The platform should stop operating. If platform stops, operator presence is functioning properly. If the platform does not stop, see your John Deere dealer.



E50367 —UN—14SEP01

AG,OUO6038,1997 -19-18JUL00-1/1

Adjusting Left-Hand Armrest and Seat Back

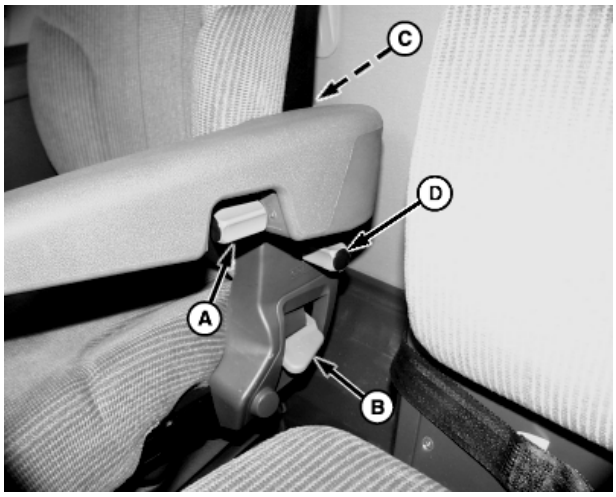
To adjust the left-hand armrest up or down, use knob (A). Rotate the knob clockwise to lower and counter clockwise to raise.

Pull up on handle (B) to adjust seat back angle. Release handle when seat back is in desired position.

Turn knob (C) clockwise or counter clockwise to adjust lumbar back support.

Turn knob (D) clockwise or counter clockwise to adjust left-hand armrest tension.

A—Left-Hand Armrest Height Adjustment Knob
B—Seat Back Angle Adjustment Handle
C—Lumbar Back Support Adjustment Knob
D—Left-Hand Armrest Tension Adjust Knob



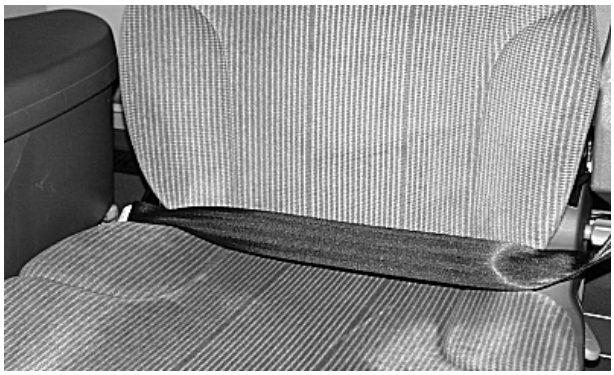
E50481 —UN—14SEP01

OUO6075,00015AB -19-02APR01-1/1

Seat Belts

Seat belts are standard equipment on both the operator and instructional seats. The lap type seat belts have push button quick release and automatic belt retraction to allow unrestricted exiting and entering of the seats.

CAUTION: Inspect the seat belt and mounting hardware on your machine at least once a year. If the seat belt system, including mounting hardware, buckle, belt or retractor, shows any sign of damage such as cuts, fraying, extreme or unusual wear, discoloration or abrasion, the entire seat belt system should be replaced immediately. For your safety, replace the belt system only with replacement parts approved for your machine. See your John Deere dealer.



H67084 —UN—02APR01

OUO6075,00015AD -19-21MAR06-1/1

Fire Extinguisher Recommendations

A-B-C type fire extinguisher(s) should be mounted on the windrower.

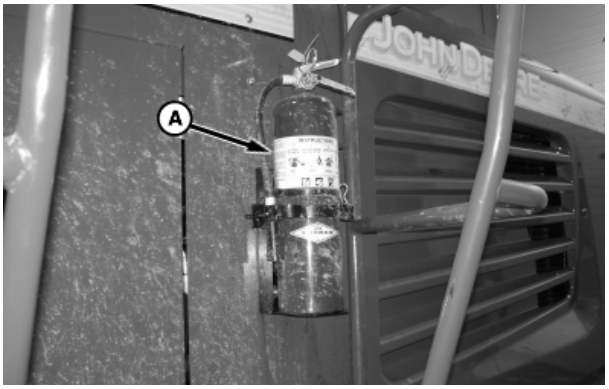
It is recommended to install fire extinguisher(s) in locations (A) and (B) on the left-hand landing, inside the safety rail and on side of the platform steps.

See your John Deere dealer for an approved fire extinguisher and mounting bracket.

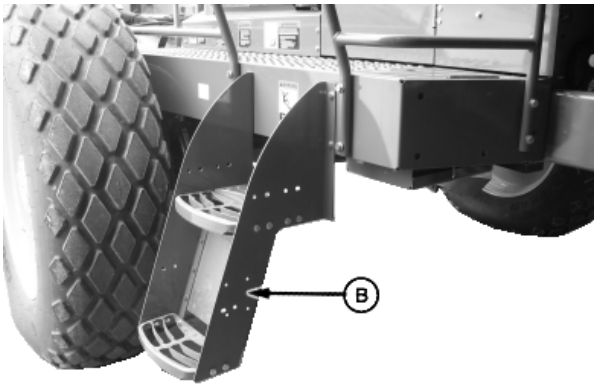
Read the manual provided with the extinguisher for operating instructions. Once the extinguisher is discharged, no matter for how long, it must be recharged.

A—Fire Extinguisher Location **B—Fire Extinguisher Location**

H39760 —UN—11OCT88



E56794 —UN—13FEB09



E57337 —UN—23SEP09

OUO6085,0000116 -19-15JUN09-1/1

Lights and Signals

The windrower has a combination of work and warning lights.

- Cab Interior Light
- Warning and Monitor Display Lights
- Field and Road Lights
- Rear Tail Lights
- Hazard (Warning) Lights
- Turn Signals
- Rear Red and Amber Side Marker Lights
- Rear Field Work Lights
- Optional Field Work Lights

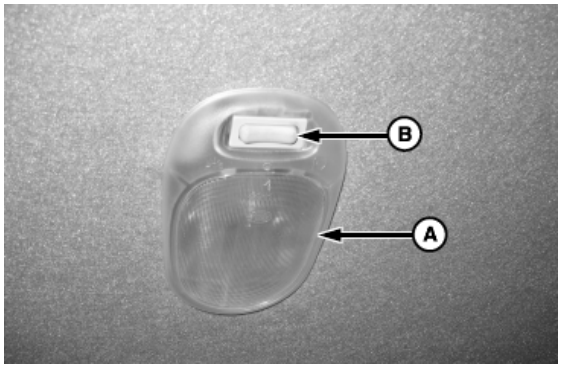
OUO6085,000036B -19-21JUN05-1/1

Cab Interior Lights

Place switch in right or left position to activate dome light.

Place switch in center position to turn light off.

A—Dome Light **B—Dome Light On/Off Switch**



E56577 —UN—03FEB09

OUO6085,000009F -19-23JAN09-1/1

Light Control Switches

⚠ CAUTION: Hazard lights are not intended for transport. Use ROAD lights for transport.

A—Hazard (Flashing)

- Amber lamps on platform and at rear of machine are flashing.

NOTE: Rear work lights, upper and lower work lights (optional) are automatically turned off when the road light switch is on.

B—Road

- Four head lights
- Flashing ambers on platform and at rear of machine
- Rear Red Tail Lights

C—Field

- Six head lights
- Tail lights

D—Work

- First position: Rear work lights and lower work lights (optional) are on.

E56613 —UN—23JAN09

A—Hazard Lights **C—Field Lights**
B—Road Lights **D—Work Lights (Optional)**

- Second position: Rear, lower (optional), and upper work lights (optional) are on.

OUO6085,00000A1 -19-21SEP09-1/1

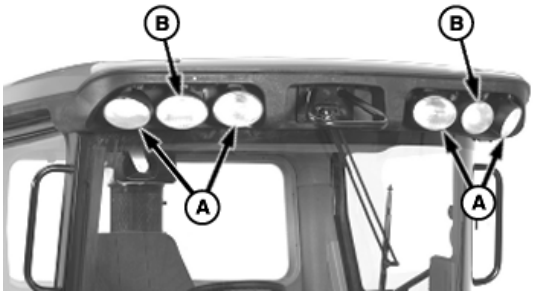
Field Lights

NOTE: The red rear tail lights, and amber marker lights, are on both sides of the machine.

Field work lights (B) are disabled when road light switch is on.

When the field light switch is on, all six headlights (A) and (B), and red rear tail lights (C) are on.

A—Road Lights
B—Field Work Lights
C—Red Rear Tail Light (one each side)



E54309 —UN—16JUN05

E57028 —UN—14OCT09

Right-Hand Side Shown

OUO6085,0000151 -19-04AUG09-1/1

Work Lights

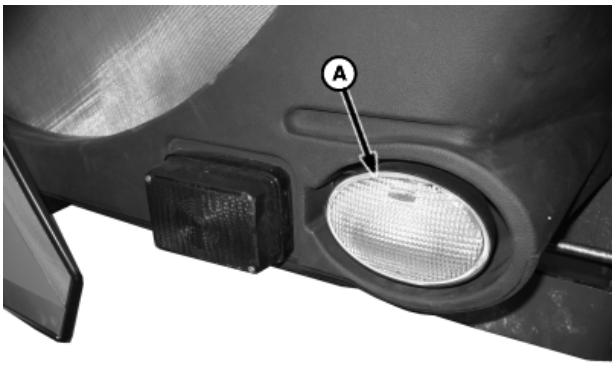
NOTE: Rear and optional upper and lower work lights are located on both sides of machine.

Rear and optional upper and lower work lights are disabled when road light switch is on.

When work light switch is in the first position, rear work lights (A), and lower work lights (B) (optional) are on.

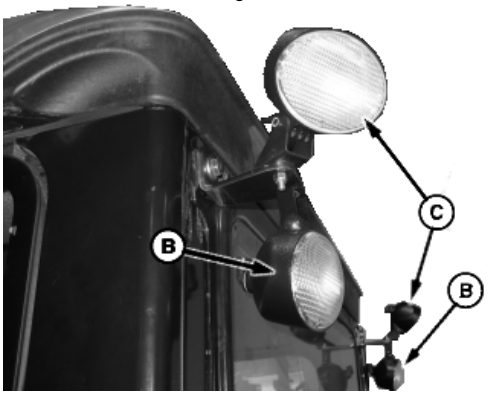
When work light switch is in the second position, the rear work lights (A), lower work lights (B) (optional), and upper work lights (C) (optional) are on.

A—Rear Work Lights
B—Lower Work Lights
C—Upper Work Lights



E57029 —UN—16APR09

Right-Hand Side Shown



E58057 —UN—07OCT09

OUO6085,0000152 -19-14OCT09-1/1

Turn Signal Lights

NOTE: Turn signals function whenever the ignition key is in the RUN position.

Turn signals are not self-cancelling.

Indicator lights on corner post monitor glow and each will blink on the direction of turn.

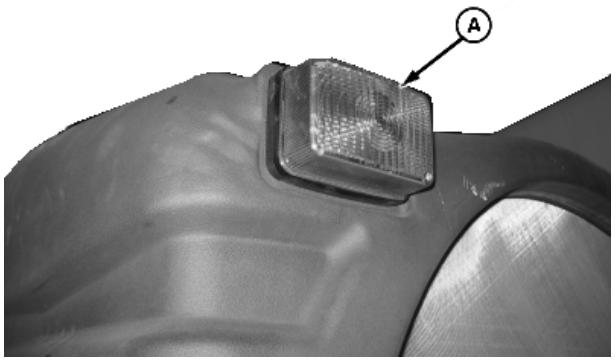
When transporting the windrower, road light control switch should be on, and hazard lights operating. The turn signal function will override the hazard function until the turn signal is cancelled.

The platform turn signal lights are for oncoming vehicles. Do not transport the windrower without the platform attached.

The high side element, in both brake lights, is activated when the turn signal is applied.

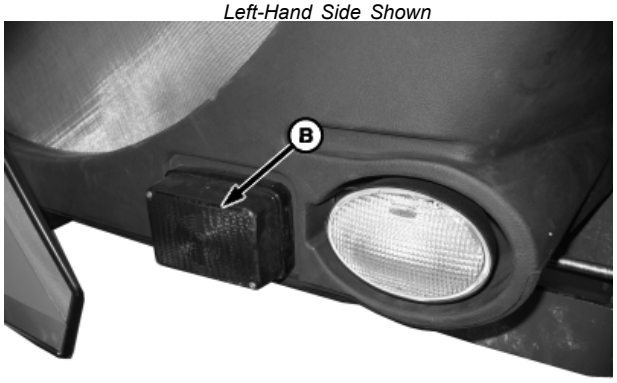
When the right turn signal is applied, the high element of the right amber light (A), right brake light (B) and the right platform turn/hazard light (C) will flash. The high element of the left amber light, left brake light and left platform turn/hazard light will burn continuously. The opposite occurs when the left turn signal is applied.

A—Amber Light
B—Brake Light
C—Platform Turn/Hazard Light



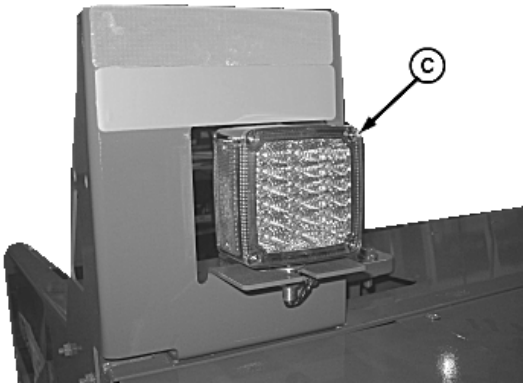
E57030 —UN—16APR09

Left-Hand Side Shown



E57035 —UN—14OCT09

Right-Hand Side Shown



E57032 —UN—16APR09

Left-Hand Side Shown

OUO6085,0000153 -19-10NOV09-1/1

Hazard Lights

NOTE: The hazard lights only operate in the hazard and road light positions.

The turn signal function will override the hazard function until the turn signal is cancelled.

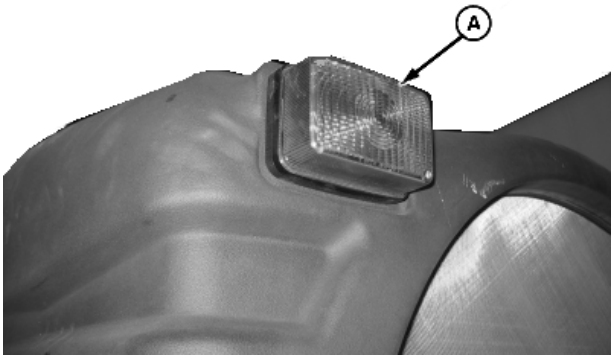
The platform hazard lights are for oncoming vehicles. Do not transport the windrower without the platform attached.

When transporting on a road, activate the high speed gear lights or turn on ROAD light switch. The flashing hazard lights give warning to the operators of other vehicles. These lights are located on the rear of the windrower (A) and on the platform (B).

When the windrower is disabled on the roadside, use the HAZARD light switch to enable hazard lights.

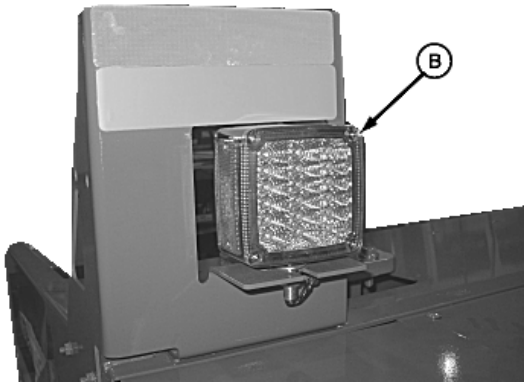
A—Amber Light

B—Platform Turn/Hazard Light



E57030 —UN—16APR09

Left-Hand Side Shown

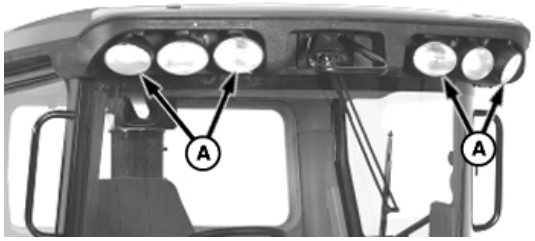


E57034 —UN—16APR09

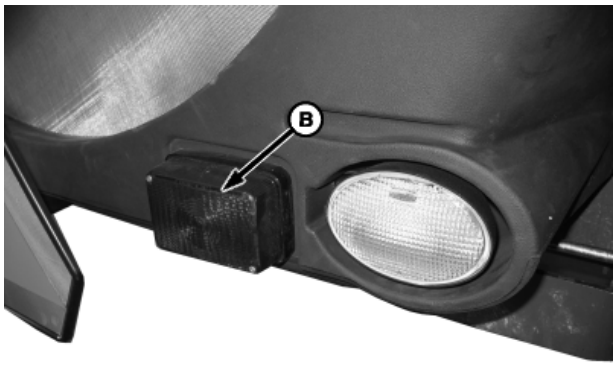
Left-Hand Side Shown

OUO6085,0000154 -19-14OCT09-1/1

Road Lights

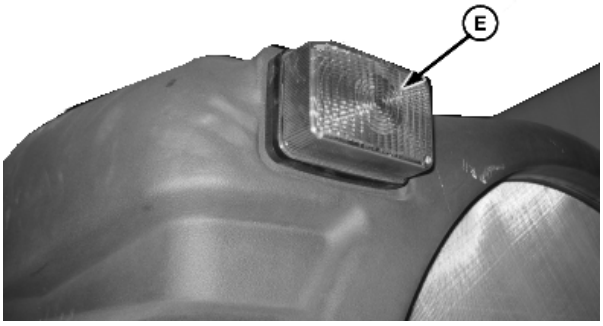


E54310 —UN—16JUN05



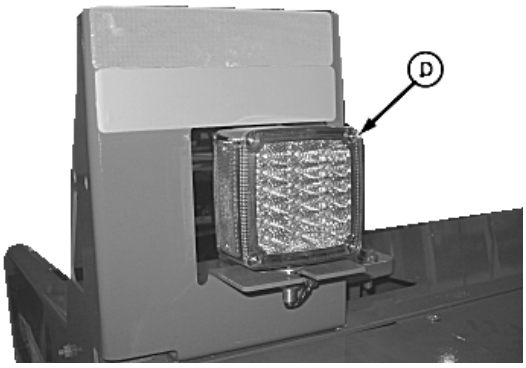
E57035 —UN—14OCT09

Right-Hand Side Shown

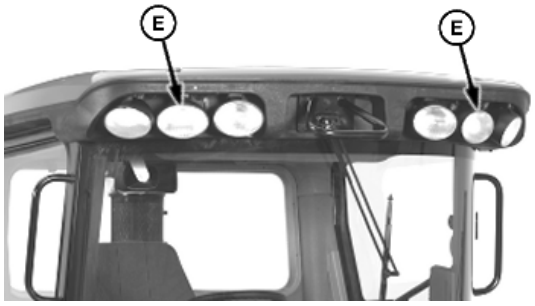


E57036 —UN—14OCT09

Left-Hand Side Shown



E57037 —UN—14OCT09



E58087 —UN—23OCT09

E58088 —UN—23OCT09

A—Head Lights
B—Tail/Brake Light
C—Amber Flashers Light
D—Platform Turn/Hazard Lights
E—Field Work Lights
F—Work Lights

When the ROAD light switch is on, the four head lights (A), tail lights (B), amber flasher lights (C), and platform turn/hazard lights (D) are on. The turn signals are functional with the key in RUN position.

NOTE: The field work lights (E), and optional side work lights (F) are disabled when ROAD lights are on.

OUO6085,0000155 -19-23SEP09-1/1

Machine Break-In

The engine is ready for normal operation. However, you should use extra care during the first 100 hours of operation.

IMPORTANT: Do not let fuel tank run dry. Check fuel gauge (A) frequently.

During the first 20 hours, avoid sustained maximum load operation.

1. Promote good ring seating and prevent cylinder wall glazing, put the engine to work as soon as possible. Avoid unnecessary idling. Turn off engine if windrower must be idled longer than 5 minutes.
2. Watch coolant temperature gauge (B) closely. If gauge goes into the RED zone, slow ground speed to reduce load.

E56614 —UN—03FEB09

A—Fuel Gauge **B—Temperature Gauge**

Continued on next page

OUO6085,00000A2 -19-20OCT09-1/3

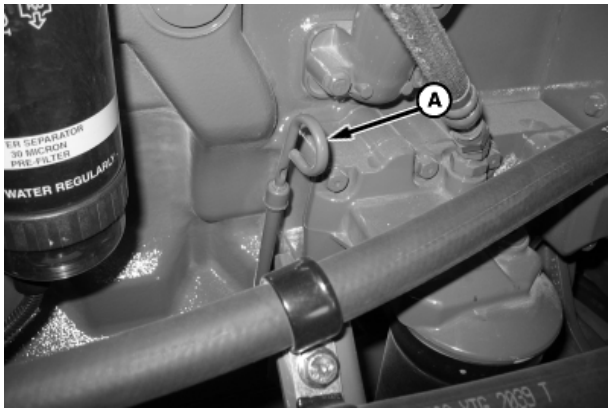
IMPORTANT: Check engine oil and coolant levels frequently. After starting the engine, do not accelerate or apply load until the engine oil pressure warning light is out. Turn off engine by idling at least 1—3 minutes before stopping engine. Refer to Fuel, Coolant and Lubricants section for types of fluids and oils to use.

3. This engine is factory-filled with John Deere engine break-in oil. Operate the engine at heavy loads with minimal idling during the break-in period.

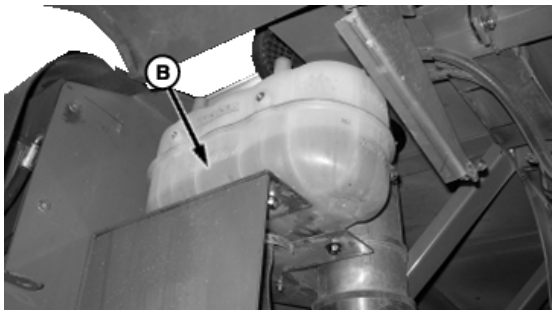
IMPORTANT: DO NOT add makeup oil until the oil level is BELOW the ADD mark on the dipstick. John Deere Engine Break-In Oil (TY22041) should be used to make up any oil consumed during the break-in period. DO NOT use Plus-50™ II engine oil during the break-in period of a new engine or engine that has had a major overhaul. Plus-50™ II oil will not allow a new or overhauled engine to properly wear during the break in period. DO NOT fill above the cross hatch pattern on the dipstick. Oil levels anywhere within the cross hatch are considered in the acceptable operating range.

NOTE: Some increase in oil consumption may be expected when low viscosity oils are used. Check oil levels more frequently.

4. Check engine oil level with dipstick (A) more frequently during engine break-in period. If oil must be added during this period, John Deere Engine Break-In Oil is preferred. (See ENGINE BREAK-IN OIL in Fuel, Coolant, and Lubricants section.)
5. After the first 100 hours (maximum), change engine oil and replace the oil filter. (See CHANGING THE OIL FILTER in Engine section.) Fill crankcase with seasonal viscosity grade oil. (See DIESEL ENGINE OIL in Fuel, Coolant, and Lubricants section.)
6. Check coolant level in reservoir (B). Level must be between the MIN COLD and MAX COLD marks.
7. Follow fluid recommendations in Fuel, Coolant, and Lubricants section very closely.



E56503 —UN—11MAY09



E56501 —UN—12JAN09

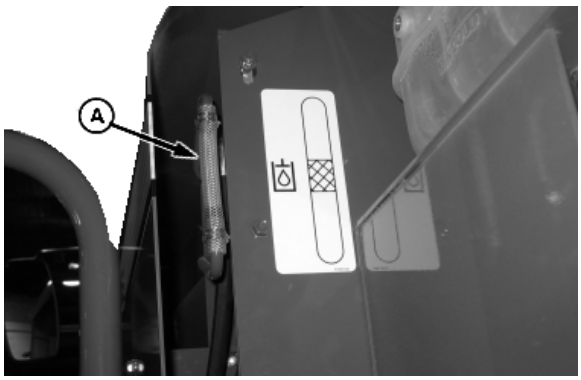
A—Dipstick **B—Coolant Reservoir**

Plus-50 is a trademark of Deere & Company

OUO6085,00000A2 -19-20OCT09-2/3

8. Check hydraulic oil level in sight tube (A). Open engine compartment door on left-hand side, sight tube is in the upper left-hand side. Investigate cause for any loss of hydraulic fluid.
9. Follow fluid recommendations in Fuel, Coolant, and Lubricants section very closely.

A—Sight Tube



E57119 —UN—12MAY09

OUO6085,00000A2 -19-20OCT09-3/3

After One Hour of Operation

IMPORTANT: Check torque on front wheel nuts and rear wheel cap screws.

Tighten after first hour of operation. Check and tighten every 4 hours of operation thereafter until the specified torque level is maintained.

Check torque after every 50 hours of operation.

Specification	
Front Wheel Nuts—Torque	780 N·m (575 lb-ft)

E57113 —UN—11MAY09

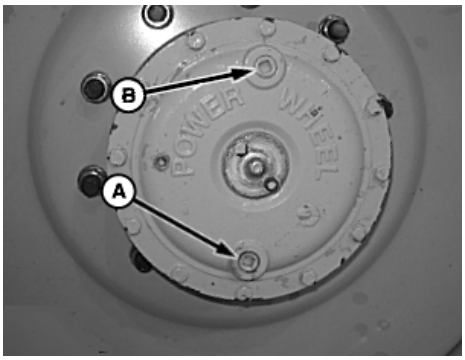
OUO6085,00000A3 -19-03AUG09-1/1

After 50 Hours of Operation

IMPORTANT: See EVERY 50 HOURS service requirements in Lubrication and Maintenance section. Perform all maintenance required at this service interval.

Drain gear oil from final drives and refill. Remove drain plug (A) and loosen or remove fill plug (B) so oil will drain freely. (See CHECKING, DRAINING AND FILLING FINAL DRIVE in Wheels, Steering, Brakes, and Rear Axle section.)

A—Drain Plug **B—Fill Plug**



E57797 —UN—07AUG09

OUO6085,000007E -19-03AUG09-1/1

After 100 Hours of Operation

Change engine oil and filter.

IMPORTANT: See the EVERY 100 HOURS service requirements in the Lubrication and Maintenance section for required service intervals. Perform all maintenance required at each of the specified service intervals when due.

OUO6085,0000377 -19-21JUN05-1/1

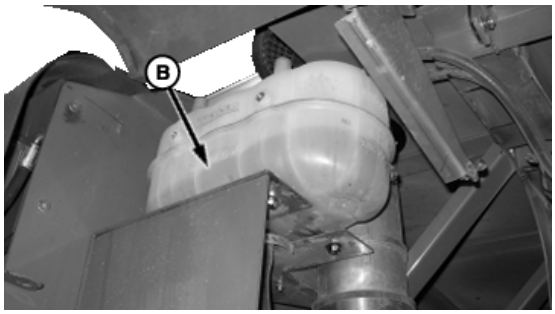
Daily Prestarting Checks

1. Before starting the engine check the engine oil level. Do not operate engine when oil level is below the low mark on dipstick (A).

IMPORTANT: Do not operate the engine when coolant level is below the COLD mark on the overflow tank.

2. Check coolant level (B). It must be visible on the surge tank between the MAX COLD and MIN COLD marks.
3. Do a visual walk around the machine, check for obvious defects, leaks, etc.

E57038 —UN—12JUN09



E56501 —UN—12JAN09

A—Dipstick **B—Coolant Level**

OUO6085,00000A5 -19-20NOV09-1/4

4. Be sure windrower has plenty of fuel. Do not allow a diesel engine to run out of fuel.

A—Fuel Gauge

E56616 —UN—03FEB09

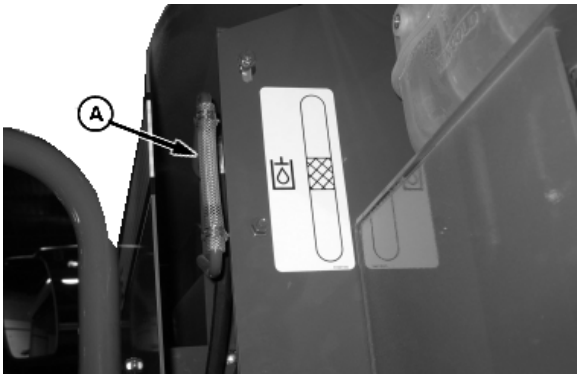
Continued on next page

OUO6085,00000A5 -19-20NOV09-2/4

NOTE: Check hydraulic oil level with windrower on level ground and the platform on the ground.

5. Check the hydraulic oil level at sight tube (A). Oil level should be between the low and high mark.

A—Sight Tube

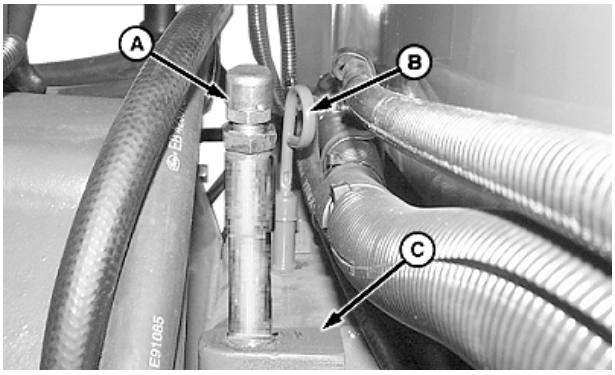


E57119 —UN—12MAY09

OUO6085,00000A5 -19-20NOV09-3/4

6. Check oil level in hydraulic pump gear case (C) using dipstick (B).
7. If it is necessary to add oil, remove vent (A) on right-hand side of gear case to add oil. (See Fuel, Coolant, and Lubricants section.)
8. Install vent after adding oil.

A—Vent
B—Dipstick
C—Gear Case



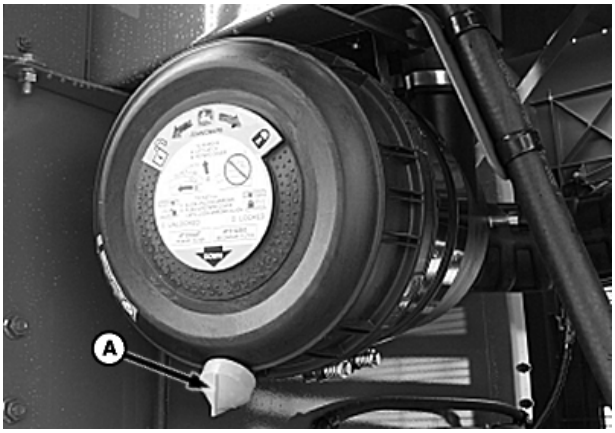
E45374 —UN—13JAN00

OUO6085,00000A5 -19-20NOV09-4/4

Air Pre-cleaner Flapper Valve

Squeeze to open bottom of flapper valve (A) to release any dirt/dust in air cleaner.

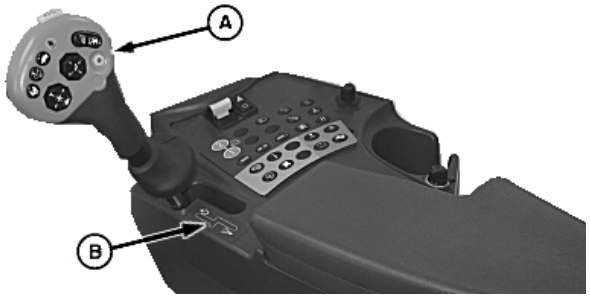
A—Flapper Valve



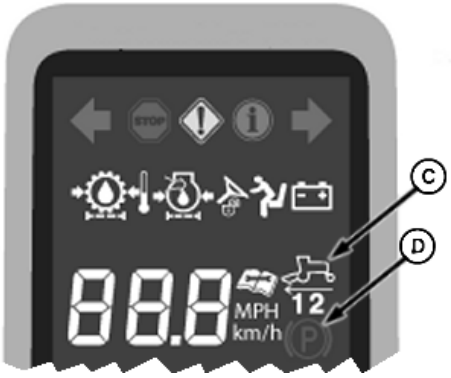
E58157 —UN—02NOV09

OUO6085,00002CB -19-02NOV09-1/1

Checking Warning Lights



E57258 —UN—14OCT09



E56620 —UN—14OCT09

Turn ignition switch to run position.

- When in run position, only (C), (D), (E), and (F) will come on.
- (A) and (B) will come on if lights are on.
- All other warning lights will come on if there is a problem.

A—Multifunction Control Handle
B—Neutral Park Switch
C—Ground Speed
D—Park Brake Indicator
E—Low Fuel
F—Engine Coolant Temperature

E56621 —UN—14OCT09

OUO6085,00000A6 -19-14OCT09-1/1

Starting the Engine

CAUTION: Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter or starter solenoid terminals. Machine will start and move with multifunction control handle in forward or reverse drive position, or with the steering wheel not centered, if normal starting circuitry is bypassed.

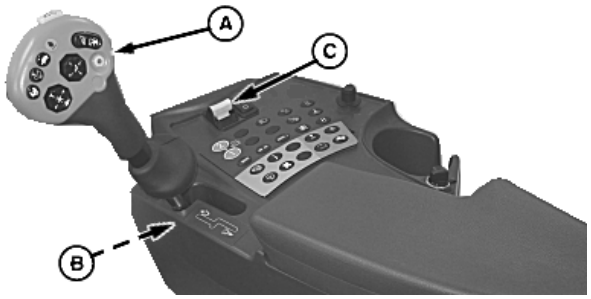
IMPORTANT: If steering is not centered with engine off, place key in key switch and turn to run position. This will allow the steering wheel to move with less friction to place steering wheel in the center position. Use steering wheel position indicator on steering wheel column to determine direction in which steering wheel has to turn in order to place steering wheel in centered position.

NEVER start engine, other than in the operator's seat, with the multifunction control handle in neutral park position and platform drive switch disengaged.

Before starting engine, be sure area is well ventilated.

NOTE: The multifunction control handle (A) must be at rest to the left in the neutral park position. This will engage the neutral start switch (B), allowing the unit to start. Steering must be manually centered for engine to start.

The parking brake will be applied while the neutral park switch is engaged.



E57259 —UN—19JUN09

A—Multifunction Control Handle
B—Neutral Park Switch
C—Platform Drive Switch

1. Move multifunction control handle (A) to neutral park.
2. Disengage platform drive (C).
3. Make sure steering wheel is in center position.
4. Make sure operator is in operator's seat.

IMPORTANT: Do not operate starter more than 30 seconds at a time. If engine does not start, wait at least two minutes before trying again.

If engine does not start in four attempts, refer to Troubleshooting section.

5. Turn ignition switch to the start position until engine starts. Release switch.

OUO6085,00000A7 -19-13NOV09-1/1

Engine Warm-Up Period

Do not run engine at top rpm or place windrower under full load until engine is properly warmed up.

To warm up the engine, set engine speed at mid-range until operating temperature has been reached.

OUO1078,0001458 -19-05NOV01-1/1

After Engine Starts

1. Check engine oil pressure lamp (A) as soon as engine starts. If warning lamp is on, stop the engine and determine the cause.

IMPORTANT: Avoid engine speeds of less than 1200 rpm. Prolonged operation at low rpm may cause the engine coolant temperature to fall below the normal operating temperature. This will cause an accumulation of engine sludge and unburned fuel in the exhaust system.

2. Increase engine speed to 1650—1750 rpm.
3. Check hydrostatic charge pressure lamp (B) and low battery voltage and battery not charging or alternator failed (symbol will flash) indicator (C). If warning lamps are on, stop the engine and determine the cause.
4. Leave engine speed at mid-range, allowing the engine to warm up.
5. Check all warning lamps with engine running. If any lamp is on or if the audible alarm is on, stop the engine and determine the cause.

E56625 —UN—26JAN09

A—Oil Pressure Lamp
B—Hydrostatic Pressure Lamp
C—Low Battery Voltage and Battery Not Charging or Alternator Failed Indicator

OUO6085,00000A8 -19-14OCT09-1/1

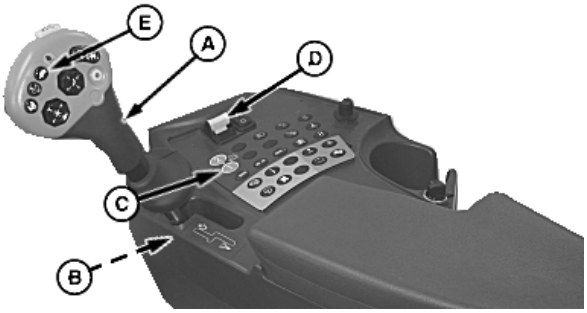
Stopping Engine

NOTE: Multifunction control handle (A) must be at rest, to the left, in neutral park position. This will engage neutral start switch (B).

Park brake is spring applied while neutral start switch is engaged.

1. Move multifunction control handle (A) to neutral park.
2. Center steering wheel. Be sure it is locked.
3. Place low speed/high speed switch (C) to low speed position.
4. Disengage platform drive (D).
5. Place engine speed switch (E) to low speed. Allow engine to operate at low rpm for 1—3 minutes.
6. Lower platform to the ground.

IMPORTANT: After engine has stopped, remove the key to prevent unauthorized operation or tampering.



E57260 —UN—19JUN09

A—Multifunction Control Handle
B—Neutral Start Switch
C—Low Speed Switch (1)
D—Platform Drive Switch
E—Engine Speed Button

Key can not be removed unless switch is in OFF position, preventing accidental battery discharge.

7. Turn ignition switch OFF and remove key.

OUO6085,00000A9 -19-03AUG09-1/1

Battery

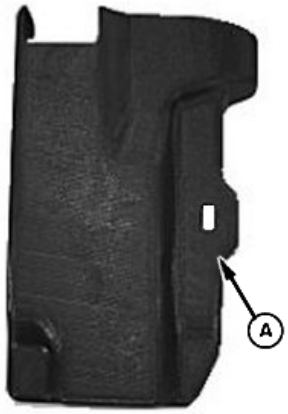
CAUTION: If a booster battery is required, see Electrical Section.

When temperatures drop below freezing, keep battery fully charged.

Always keep cover (A) on battery when operating windrower.

A—Battery Cover

E57805 —UN—05AUG09



E58023 —UN—01OCT09

OUO6085,00000AA -19-23SEP09-1/1

Starting Fluid

CAUTION: Ether starting fluid is highly flammable. Do not use near fire, sparks, or flames. Read cautionary information on the container.

Ether starting fluid may be used in the engine air pre-cleaner above the hood.

Inject ether only while engine is cranking, since a large concentration into the engine can cause engine damage.

OUO1078,000145C -19-05NOV01-1/1

Hot Weather Operation

IMPORTANT: Liquid Coolant Conditioner is NOT an antifreeze or a cooling system sealer.

Protect the Engine cooling system against corrosive action by using 50% antifreeze (ethylene-glycol type without a stop-leak additive) and 50% clean, soft water.

DO NOT use a high silicate automotive grade antifreeze.

Refer to Fuel, Coolant, and Lubricants section for additional information.

OUO1078,000145D -19-05NOV01-1/1

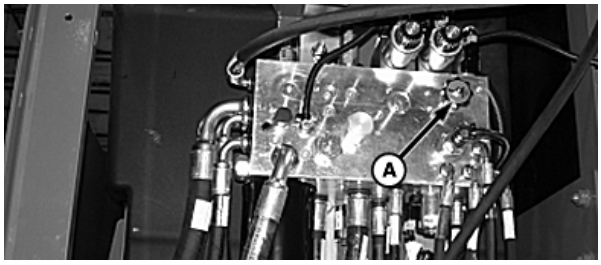
Attaching Platform

CAUTION: When attaching a platform to the windrower, check windrower ballast to insure proper ballast weight is used for the platform. (See ADDING BALLAST TO THE WINDROWER in the Operating Windrower section.)

To prevent bodily injury, it is necessary to read this manual and the 896 Platform Operator's manual to familiarize yourself with the operation of the John Deere A400 Self-Propelled Windrower and 896 Platform.

IMPORTANT: To prevent machine damage and insure a properly operating platform, it is necessary to read this manual and the 896 Platform manual to familiarize yourself with the operation of the John Deere A400 Self-Propelled Windrower and 896 Platform.

Float pressure must read ZERO. Turn knob (A) on accumulator float pressure valve counterclockwise to release float pressure in the accumulator.



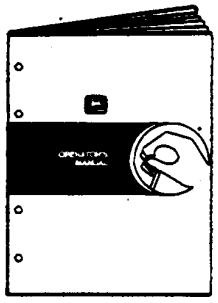
E56647 —UN—28JAN09

OUO6085,00000F5 -19-02NOV09-1/5

To attach the platform to the windrower, reverse Steps 1—28 in DETACHING PLATFORM in this section with the following special instructions:

NOTE: To completely lower the lift links, it may be necessary to stand on the lift links when lowering.

1. Attach platform to windrower on a level surface.
2. Move windrower forward to within approximately 762 mm (30 in.) of the platform.



E23482 —UN—08MAY89

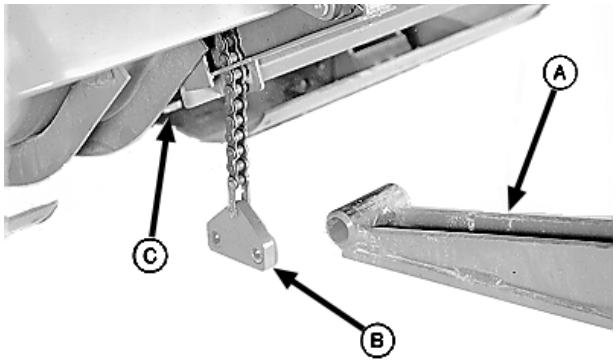
OUO6085,00000F5 -19-02NOV09-2/5

IMPORTANT: Prevent lift arms (A) interference with the roll separation chains (B).

3. Pull windrower forward and align lift arms (A) just inside the roll separation chains (B) with the platform sockets (C).
4. Shut off engine and remove key.

NOTE: If previous location of the washers is unknown, see BALANCING PLATFORM SIDE-TO-SIDE in this section.

5. Install washers (if any) on pivot pins in the same location they were removed.



E40710 —UN—06AUG96

A—Arm
B—Chain
C—Socket

Continued on next page

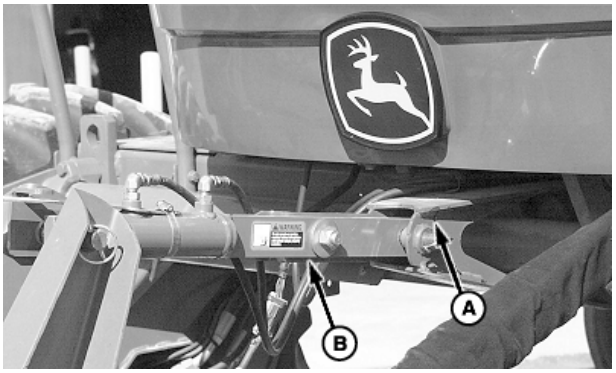
OUO6085,00000F5 -19-02NOV09-3/5

CAUTION: To prevent bodily injury. Do not operate or service machine without tilt cylinder and cylinder strap properly installed.

6. Connect tilt cylinder (B) using the following special instructions:

   a. Remove **M10 X 120** cap screw (A) from upper hole.

A—Upper Hole **B—Tilt Cylinder**



E53379 —UN—30JUN04

OUO6085,00000F5 -19-02NOV09-4/5

   b. Position strap over bushing on platform bracket.

   c. Position tilt cylinder (B) in platform bracket and install pin (A).

   d. Secure pin (A) with quick lock pin (C).

   e. Ensure tilt indicator gauge does not rub on strap. Bend indicator down if necessary.

   f. Tighten cylinder strap bolt (D) to specification.

Specification

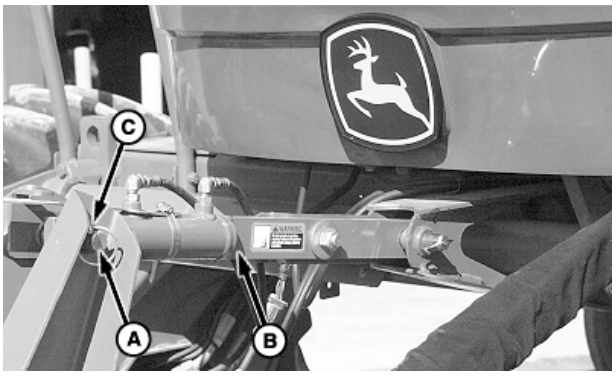
Cylinder Strap Bolt—Torque	542 N·m (400 lb.-ft.)

7. Apply NEVER-SEEZ® to the end of the splined shaft on the motor and each end of the splined coupler when installing.

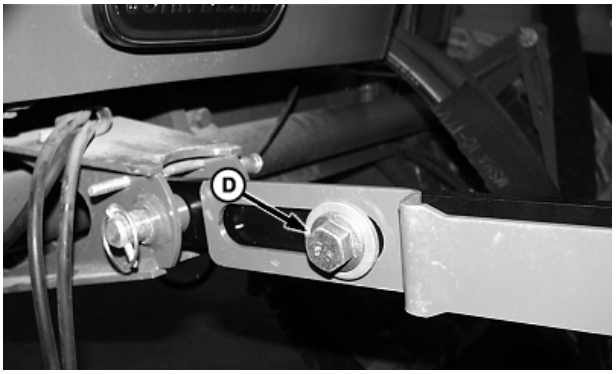
8. After platform installation is complete, close accumulator—platform float valve by turning clockwise.

9. Check platform balance. (See BALANCING PLATFORM SIDE-TO-SIDE in this section.)

IMPORTANT: Reset platform float before raising platform. (See Adjusting Platform Float in the Operating Windrower section.)



E53378 —UN—30JUN04



E53211 —UN—29MAR04

A—Pin **C—Quick Lock Pin**
B—Tilt Cylinder **D—Strap Bolt**

NEVER-SEEZ is a registered trademark of the Emhart Chemical Group.

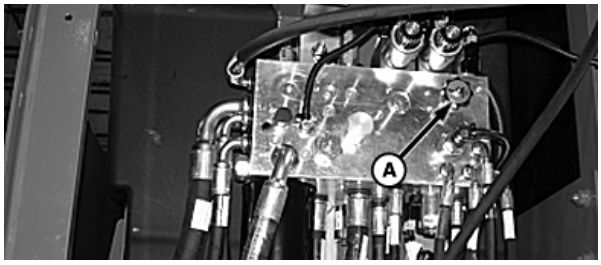
OUO6085,00000F5 -19-02NOV09-5/5

Balancing Platform Side-to-Side

CAUTION: To prevent bodily injury or damage to machine, do the following before servicing or repairing windrower:

- **Park on level surface.**
- **Put hydrostatic drive in neutral park.**
- **Disengage platform drive.**
- **Wait until all moving parts have stopped.**
- **Lower the platform to the ground.**
- **Release float pressure until float pressure display monitor reads ZERO.**
- **Idle hot engine for two minutes prior to shut down.**
- **Turn off engine and remove key.**
- **Check to ensure steering wheel is locked.**
- **Open manual float release valve (A).**
- **Block both sides of drive tires or rear tires as required.**
- **Disconnect the battery ground cable as required.**

IMPORTANT: Make sure platform in balanced side-to-side. If platform is not balanced, it may cause excessive wear to gauge shoe and cutterbar.



E56647 —UN—28JAN09

A—Manual Float Release Valve

1. Start windrower, lower platform to the ground and leave engine at idle rpm.

OUO6085,00001A3 -19-02NOV09-1/10

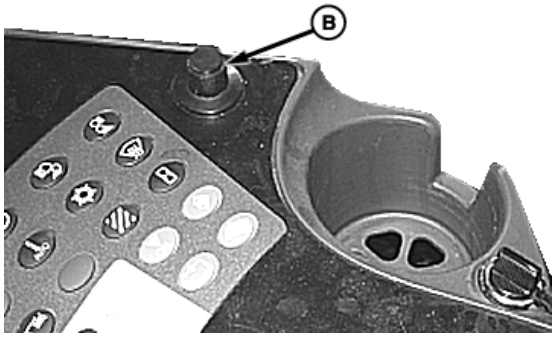
2. Press float pressure adjust switch (second detent) (A) on multifunction control handle.
3. Turn the selection dial until platform starts to raise upward.
4. Note which end of the platform has raised off the ground. If both ends are off the ground, note the end that is highest off the ground.
5. Bring engine up to operating speed.
6. Turn selection dial until pressure reading is ’0’ on the Primary Display Unit (PDU).

NOTE: If left-hand side was higher, bring platform forward. Steer windrower to the right (shifting platform to the left).

If right-hand side is higher, steer windrower to the left (shifting platform to the right).

7. Move windrower a short distance forward while turning in the desired direction.

E57243 —UN—28MAY09



E56538 —UN—14JAN09

A—Float Pressure Adjust Switch (Second Detent)

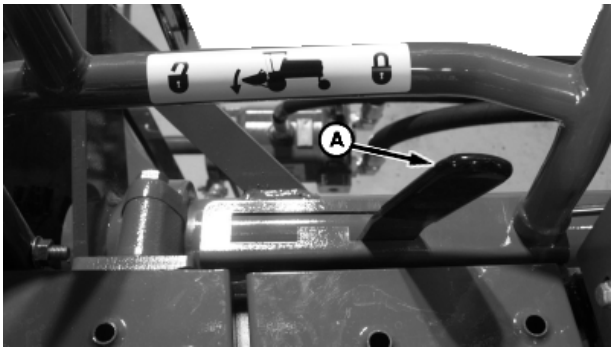
B—Selection dial

Continued on next page

OUO6085,00001A3 -19-02NOV09-2/10

8. Turn the selection dial until pressure reading is 12 psi. Raise platform and engage platform lockout lever (A). Turn off engine and remove key.

A—Lockout Lever

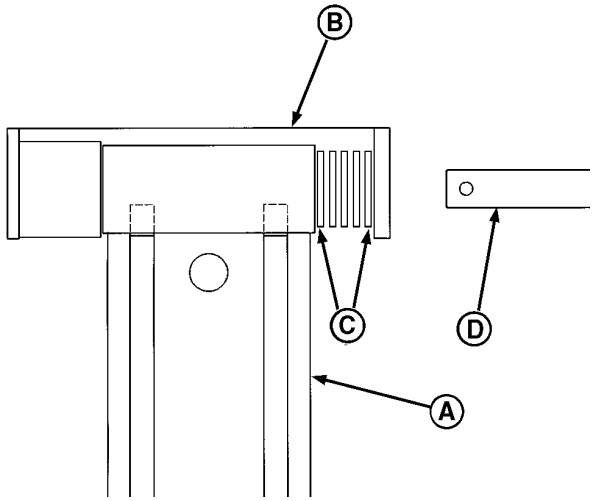


E57139 —UN—12MAY09

OUO6085,00001A3 -19-02NOV09-3/10

9. Remove cotter pins and lift arm retaining pins (D) from both sides of the platform.
10. Install 1-1/2 x 13/16 x 0.060 in. washers (C) per side as needed to fill gap between lift arm (A) and side of lift bracket (B).
11. Install lift arm retaining pins and cotter pins.
12. Start windrower. Release platform lockout lever and lower platform to the ground.
13. Turn selection dial clockwise to start platform upward. If platform is still not balanced, proceed to CHECKING PLATFORM BALANCE in this section.

A—Lift Arm
B—Lift Bracket
C—Washer, 1-1/2 x 13/16 x 0.060 in. (2 used)



E44025 —UN—13AUG97

Left-Hand Side Shown

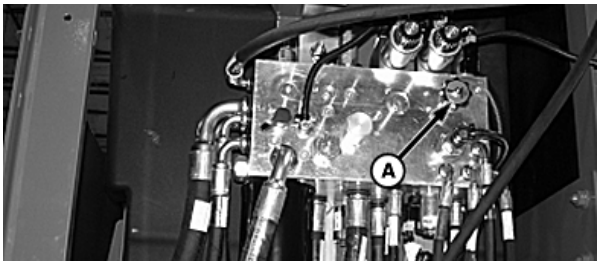
OUO6085,00001A3 -19-02NOV09-4/10

Checking Platform Balance

1. Start windrower engine, park on level surface, and lower platform to ground.
2. Reduce float pressure until float pressure display monitor is zero.
3. Shut off engine and remove key.

CAUTION: To prevent personal injury or machine damage, reduce float pressure to 0 psi before adjusting platform balance.

4. To obtain zero float pressure, turn knob (A) counterclockwise until it stops.



E56647 —UN—28JAN09

Left-Hand Side of windrower

A—Knob

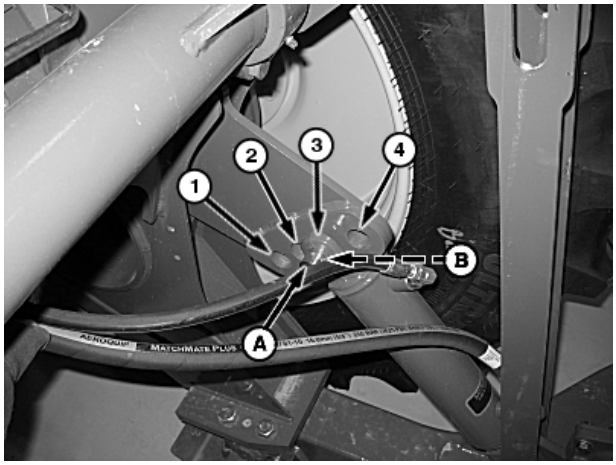
Continued on next page

OUO6085,00001A3 -19-02NOV09-5/10

NOTE: Balance on each side of platform is adjusted by moving float cylinder to different holes in mounting brackets.

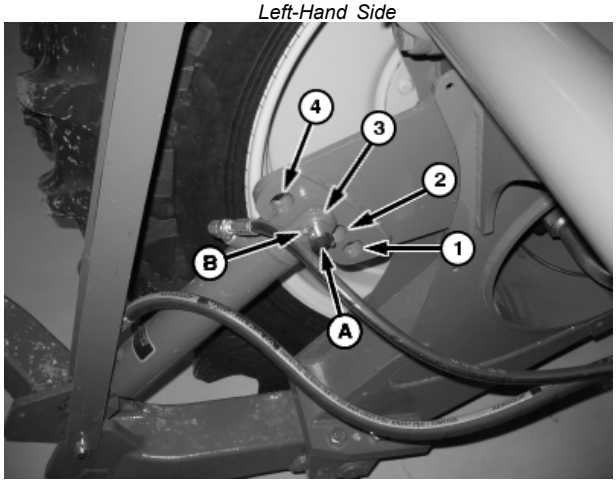
If the two sides differ in weight more than 27 kg (60 lb.), readjust float cylinder location on the side that is lighter. Move float cylinder down one hole.

5. Suggested starting locations. Holes are listed in order from bracket weld: 1, 2, 3, and 4.



E57233 —UN—27MAY09

Left-Hand Side



E57234 —UN—27MAY09

Right-Hand Side

A—Roll Pin
B—Pin
1— Hole
2— Hole
3— Hole
4— Hole

Platform Balance - Left-Hand Float Cylinder Position			
896 Platform	**4 m (14 ft.) - Hole**	**5 m (16 ft.) - Hole**	**5.5 m (18 ft.) - Hole**
Steel Roll	1	1	1
Urethane Roll	1	1	1

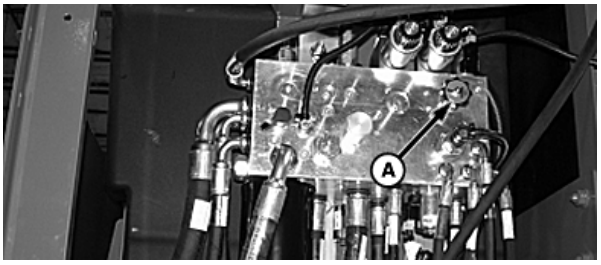
Platform Balance - Right-Hand Float Cylinder Position			
896 Platform	**4 m (14 ft.) - Hole**	**5 m (16 ft.) - Hole**	**5.5 m (18 ft.) - Hole**
Steel Roll	1	1	1
Urethane Roll	1	1	1

6. Remove roll pin (A) and pull out pin (B).
7. Position float cylinder at proper hole (1, 2, 3, or 4) on left-hand side for platform being installed (as listed in table), and install pin (B) and roll pin (A).
8. Repeat on right-hand side.

Continued on next page

9. Close accumulator float valve by turning knob (A) clockwise.
10. Start windrower engine.

A—Knob



E56647 —UN—28JAN09

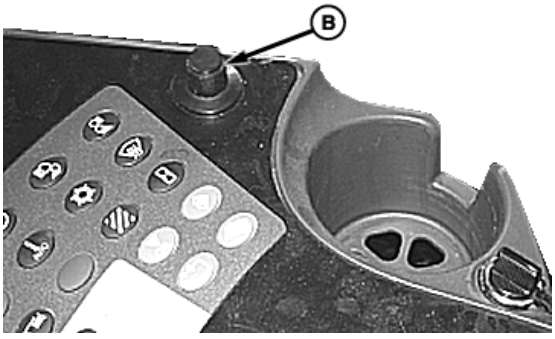
OUO6085,00001A3 -19-02NOV09-7/10

11. Press float pressure adjust switch (second detent) (A) on multifunction control handle.
12. Turn selection dial (B) clockwise until platform starts to rise upward. Note which end of platform is highest off the ground.
13. Lower platform back to the ground by turning selection dial counterclockwise. Keep turning dial until float pressure reads 'O' psi. If platform is balanced (both sides raise and lower evenly) proceed to Step 19.

A—Float Pressure Adjust Switch (Second Detent)

B—Selection dial

E57243 —UN—28MAY09

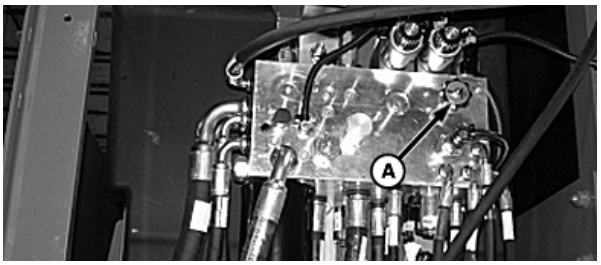


E56538 —UN—14JAN09

OUO6085,00001A3 -19-02NOV09-8/10

14. If platform is NOT balanced, perform the following:
    - Turn off engine and remove key.
    - Obtain zero pressure by turning knob (A) counterclockwise.
    - Place cylinder on high side into a lower hole.
    - Start windrower engine.
15. Start windrower engine.

A—Knob



E56647 —UN—28JAN09

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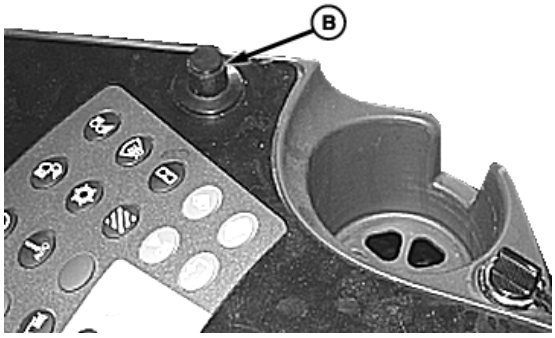
OUO6085,00001A3 -19-02NOV09-9/10

16. Press float pressure adjust switch (second detent) (A) on multifunction control handle.
17. Turn selection dial (B) clockwise until platform starts to rise upward. Note which end of platform is highest off the ground.
18. Repeat process until both sides of platform raise and lower evenly.
19. Set platform float. (See ADJUSTING PLATFORM FLOAT in operating the windrower section.)

A—Float Pressure Adjust Switch (Second Detent)

B—Selection dial

E57243 —UN—28MAY09



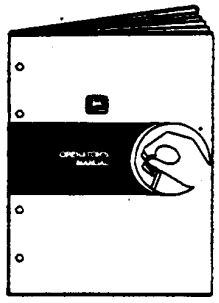
E56538 —UN—14JAN09

OUO6085,00001A3 -19-02NOV09-10/10

Detaching Platform

CAUTION: To prevent bodily injury, it is necessary to read this manual and the 896 Platform Operator's manual to familiarize yourself with the operation of the John Deere A400 Self-Propelled Windrower and 896 Platform.

IMPORTANT: To prevent machine damage and insure a properly operating platform, it is necessary to read this manual and the 896 Platform Operator's manual to familiarize yourself with the operation of the John Deere A400 Self-Propelled Windrower and 896 Platform.



E23462 —UN—08MAY89

CAUTION: To prevent bodily injury or damage to machine, do the following before servicing or repairing the windrower:

- **Park on level surface.**
- **Put hydrostatic drive in neutral park.**
- **Disengage platform drive.**
- **Wait until all moving parts have stopped.**
- **Idle hot engine for two minutes prior to shut down.**
- **Turn off engine and remove key.**
- **Check to ensure steering wheel is locked.**
- **Block both sides of drive tires or rear tires as required.**
- **Disconnect the battery ground cable as required.**

Continued on next page

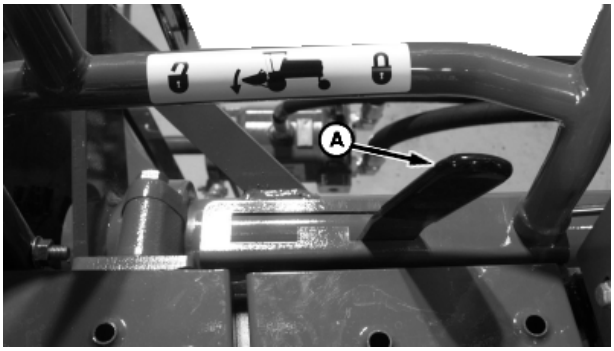
OUO6085,000017C -19-15JUN09-1/12

1. Start engine.

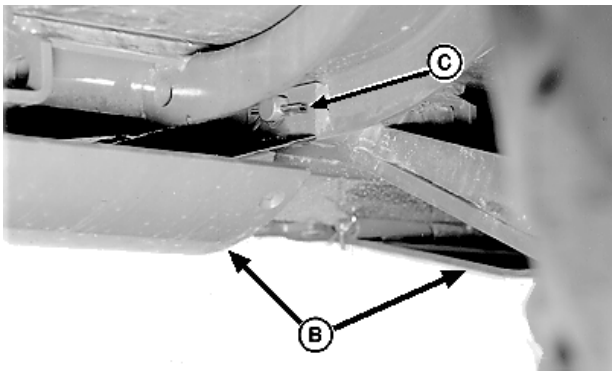
CAUTION: To prevent bodily injury, do not work under or around a raised platform without engaging the platform lift lockout lever (A).

2. Raise platform and engage platform lift lockout lever (A). Turn off engine and remove key.
3. Raise all gauge shoes (B) to lowest cutting height and remove cotter pins (C) from right-hand and left-hand lift arm retaining pins.
4. Start windrower, disengage lift lockout lever, lower platform to the ground. Release float pressure until float pressure display monitor reads ZERO. Turn off engine and remove key.

A—Lock Lever
B—Gauge Shoes
C—Pin



E57139 —UN—12MAY09



E40699 —UN—02FEB97

OUO6085,000017C -19-15JUN09-2/12

5. Disconnect electrical wiring harness (A) from windrower.
6. Open left-hand compartment door behind cab.

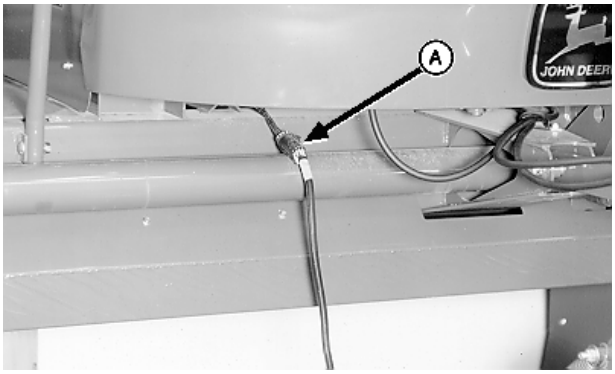
CAUTION: To prevent bodily injury, open manual float release valve (B) to release float pressure.

7. Turn knob (B) on accumulator float pressure valve counterclockwise to release float pressure in the accumulator.

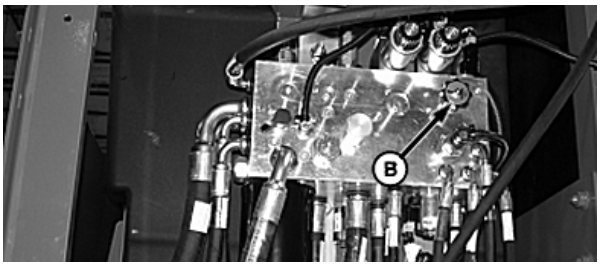
NOTE: Components removed should be placed in the storage box mounted on left-hand side of cab platform.

8. Components needed may be found in the storage box.

A—Wiring Harness
B—Knob



E40700 —UN—06AUG96



E57158 —UN—19MAY09

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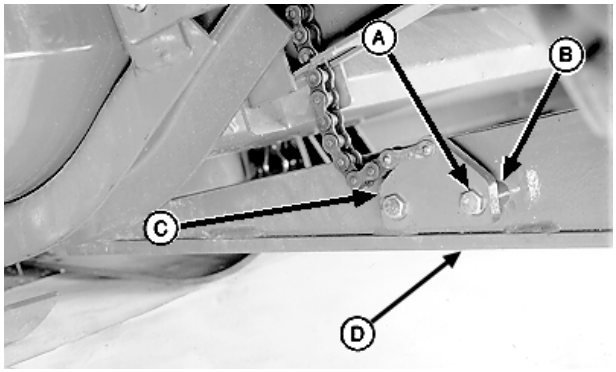
OUO6085,000017C -19-15JUN09-3/12

NOTE: Do not remove roll opener assembly from the platform or the bracket (C) from the chain.

9. Remove both cap screws (A), spacers (B) and bracket (C) from lower lift arm (D) on both sides.

A—Cap Screw (2 used)
B—Spacer (2 used)
C—Bracket
D—Lower Lift Arm



E40702 —UN—02SEP97

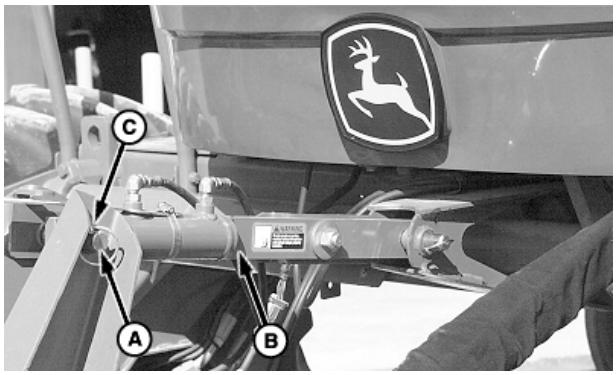
OUO6085,000017C -19-15JUN09-4/12

IMPORTANT: With engine running, check platform float pressure. If pressure does not read ZERO, repeat Steps 6 and 7 in this procedure.

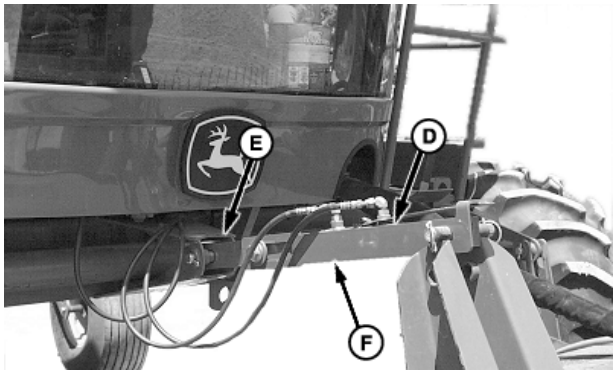
⚠ CAUTION: To prevent bodily injury, do not operate or service machine without tilt cylinder and cylinder strap properly installed.

10. Start windrower engine and bump platform tilt switch on multifunction control handle until pin (A) moves freely. Turn off engine and remove key.
11. Remove quick-lock pin (C) and pin (A).
12. Remove cylinder strap (D) from bushing on platform mounting bracket.
13. Remove cylinder (B) from platform mounting bracket.
14. Remove M10 x 20 cap screw from storage box. Raise upper link assembly (F) and position cap screw in upper hole (E) in the pivot bracket on the windrower.
15. Install pin through cylinder end. Secure with quick-lock pin.

A—Pin
B—Tilt Cylinder
C—Quick Lock Pin
D—Cylinder Strap
E—Upper Hole
F—Upper Link Assembly



E53378 —UN—30JUN04



E53380 —UN—30JUN04

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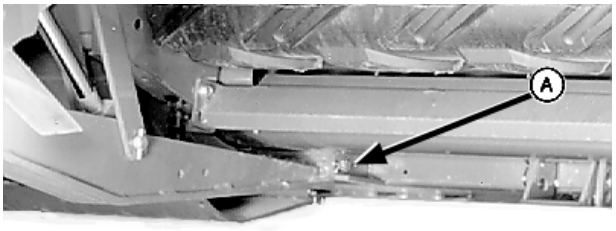
OUO6085,000017C -19-15JUN09-5/12

IMPORTANT: Note the quantity and location of washers (if any), on pivot pins (A), used to position the lift arms in the platform.

NOTE: It may be necessary to gently rock the platform to release any pressure on pivot pins (A) or place jack under each end of knockdown bar.

16. Remove pivot pins (A) and washers (if any) from both sides of platform.

A—Pin (2 used)



E40704 —UN—06AUG96

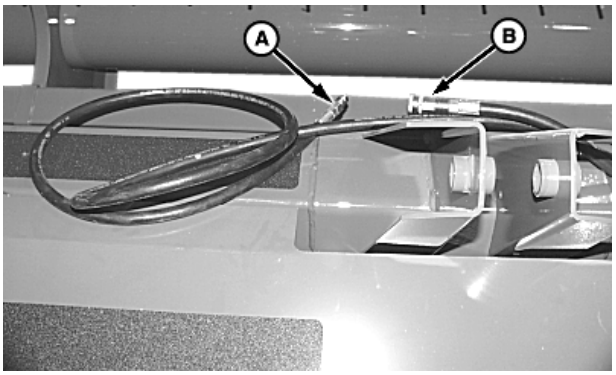
OUO6085,000017C -19-15JUN09-6/12

17. If equipped, disconnect hydraulic reel drive hoses (A and B).

NOTE: When backing the unit, watch the hydraulic hoses connected to the hydraulic motor on the platform.

The hydraulic hoses are the same length so the 16 ft. and 18 ft. platforms can not move back as far as the 14 ft. platform.

18. Start windrower, lower lift arms and backup windrower the distances listed below, for different platform widths, from the platform. Turn off windrower and remove key.
    - 14 ft. platform—762 mm (30 in.)
    - 16 ft. platform—510 mm (20 in.)
    - 18 ft. platform—255 mm (10 in.)
19. Install pivot pins, washers (if any) and cotter pins, removed in Step 14, back on platform for safe keeping.



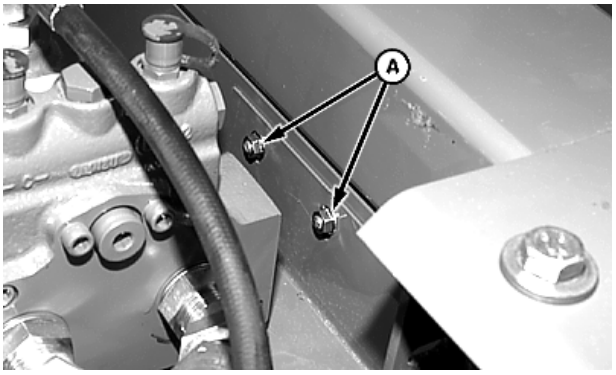
E50691 —UN—12OCT01

A—Hydraulic Return Hose **B—Hydraulic Charge Hose**

OUO6085,000017C -19-15JUN09-7/12

20. Remove two round-head bolts and flange nuts (A).
21. Lower conditioner drive shield.

A—Bolts and Nuts



E45009 —UN—15OCT99

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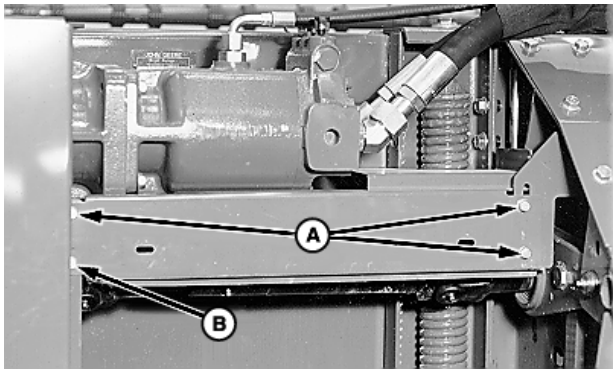
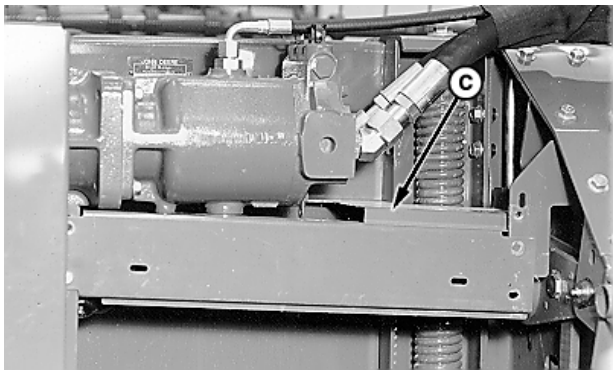
OUO6085,000017C -19-15JUN09-8/12

22. Remove flange head cap screws (A) and loosen flange head cap screw (B).
23. Pivot shield (C) downward enough for hydraulic motor to clear top of shield.

A—Cap Screws
B—Cap Screw
C—Shield



E40705 —UN—20NOV00



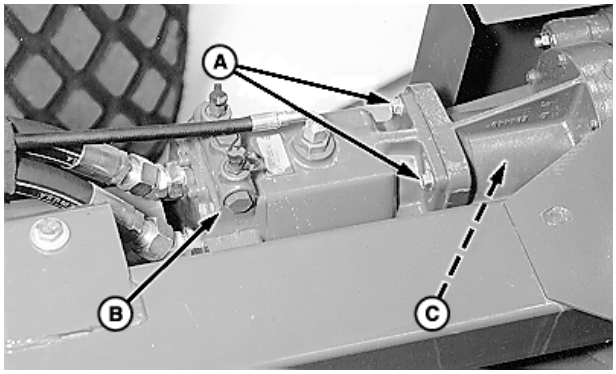
E40706 —UN—20NOV00

OUO6085,000017C -19-15JUN09-9/12

24. Remove two upper cap screws (A) and two lower cap screws holding the motor in position.

CAUTION: Use extreme care when removing the hydraulic motor (B). The hydraulic motor weighs 38.5 kg (85 lb.) plus the hydraulic hoses may add additional force to the motor.

25. Move hydraulic motor horizontally away from the gear case, disengaging the splined coupler, allowing it to rest on the ground.
26. Remove splined coupler (C), connecting motor shaft and gearbox shaft, and store in the storage box provided.



E40707 —UN—20NOV00

A—Cap Screws
B—Motor
C—Coupler

Continued on next page

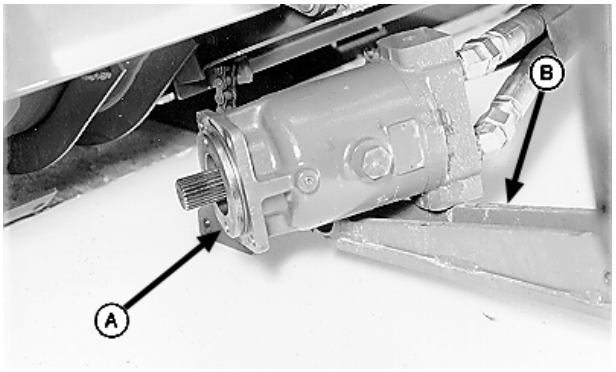
OUO6085,000017C -19-15JUN09-10/12

IMPORTANT: Do not allow hydraulic motor to drop when moving windrower.

Windrower is not designed to be transported without the platform attached. To do so may cause rear axle damage and possible loss of steering control.

27. If moving the windrower a short distance on a smooth surface, position hydraulic motor (A) on the left front lift arm (B) and hold motor in position with a piece of wire.

A—Motor **B—Arm**

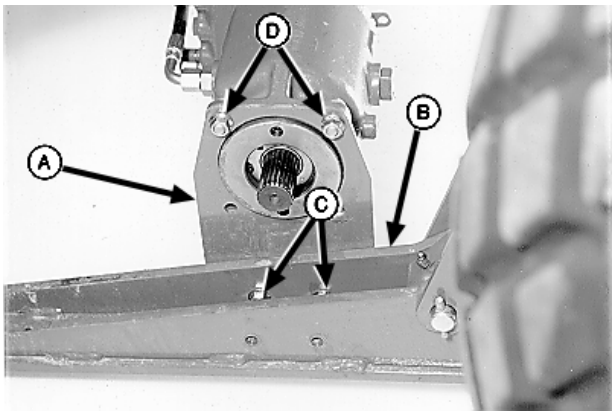


E40708 —UN—15OCT01

OUO6085,000017C -19-15JUN09-11/12

28. If moving the windrower a long distance on an uneven surface:
    - Install shipping bracket (A) on the left-hand lift arm (B) with flange head cap screws (C) and flange nuts.
    - Install hydraulic motor in shipping bracket with flange head cap screws (D) and flange nuts.

A—Bracket **C—Cap Screws**
B—Arm **D—Cap Screws**



E40709 —UN—06AUG96

OUO6085,000017C -19-15JUN09-12/12

Preparing for the Field

1. Seat is adjusted and comfortable. (See Operator's Station section.)
2. Steering column tilt and height are adjusted and in a comfortable position. (See Operator's Station section.)
3. Set windrower swath flaps for desired windrow width. (See ADJUSTING SWATH FLAPS in this section.)
4. Set caster wheel width as needed. (See ADJUSTING CASTER WHEEL WIDTH in the Wheels, Steering, Brakes, and Rear Axle section.)

IMPORTANT: If the multifunction control handle and steering are locked out, to prevent damage to linkage and mechanism, do not try to move them or apply any force against the linkage and mechanism.

NOTE: The multifunction control handle (A) must be at rest, to the left, in the neutral park position. Handle in this position engages the neutral start switch (B), allowing the unit to start.

- *When the unit is running, the steering wheel is locked and parking brake is applied when the multifunction control handle is at rest in the neutral park position.*
- *When the unit is running, moving the multifunction control handle to the right, will release steering and brakes. Turning the steering wheel at this time will cause windrower to pivot (spin turn) between drive wheels. Moving multifunction control handle forward while turning, will increase turning radius.*

NOTE: Rear steer assist sensitivity increases and becomes active as ground speed increases. Rear steer assist becomes active and inactive based on increasing or decreasing ground speed.

Machine is in Park and Steering Wheel is Centered:

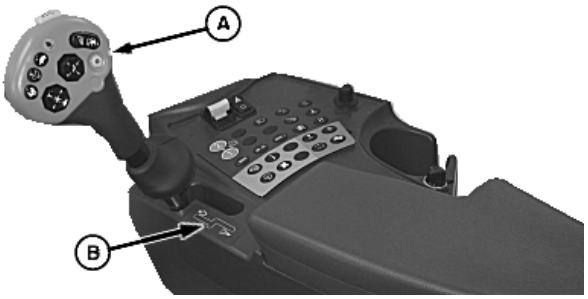
- *0 mph: Rear steer is inactive*

Increasing Ground Speed:

- *0.5 mph—2.5 mph: Rear steer is inactive (wheel casters are free to move)*
- *3.5 mph—8.5 mph: Rear steer is slightly active (considered field mode and wheel casters are less free to move)*
- *8.5 mph and greater: Rear steer is active (considered transport mode and wheel casters will resist free caster movement)*

Decreasing Ground Speed:

- *7.5 mph and greater: Rear steer is active (considered transport mode and wheel casters will resist free caster movement)*
- *7.5 mph—2.5 mph: Rear steer is slightly active (considered field mode and wheel casters are less free to move)*
- *2.5 mph—0.5 mph: Rear steer is inactive (wheel casters are free to move)*



E57258 —UN—14OCT09

A—Multifunction Control Handle **B—Neutral Park Switch**

5. See PARKING WINDROWER in this section.

IMPORTANT: If steering is not centered with engine off, place key in key switch and turn to run position. This will allow the steering wheel to move with less friction to place steering wheel in the center position. Use steering wheel position indicator on steering wheel column to determine direction in which steering wheel has to turn in order to place steering wheel in centered position.

6. See PARKING WINDROWER in this section.
7. Start the engine. (See STARTING THE ENGINE in Operating the Engine section.)
8. Raise and lock out the platform. (See RAISING AND LOWERING PLATFORM in this section.)
9. Turn off engine and remove key. Set platform gauge shoe height. (See ADJUSTING GAUGE SHOES in the 896 auger platform Operator's Manual.)
10. Pressing specific buttons (first detent) on multifunction control handle will turn on an illuminated display on the primary display unit (PDU).
    - High Engine Idle
    - Variable Engine Idle
    - Low Engine Idle
    - Float Pressure Display
    - Platform Reel Speed Display
    - WMA Enable (WMA Option)
11. Pressing specific buttons (first detent) on multifunction control handle will allow machine platform adjustments.
    - Platform Tilt Forward and Backward
    - Platform Raise and Lower
    - HB Reel Fore and Aft (option Only)
    - HB Reel Raise and Lower (Option Only)
    - WMA Discharge Left and Right (Option Only)
    - WMA Deflector Raise and Lower (Option Only)

Continued on next page

12. Pressing specific buttons (first detent) on multifunction control handle will allow resume mode.
    - ATU Resume (Option Only)
13. Pressing specific buttons (first detent) on multifunction control handle will allow adjustments to be made using the selection dial.
    - Variable Engine Idle Adjust
14. Pressing specific buttons (second detent) on multifunction control handle will allow machine platform adjustments.
    - Platform Raise and Lower
15. Pressing specific buttons (second detent) on multifunction control handle will allow adjustments to be made using the selection dial.
    - Reel/Platform Speed Adjust
    - Float Pressure Adjust

NOTE: Steering is accomplished by turning the wheel right or left, except when backing.

Steering is reversed when backing the machine.

Place hand on bottom half of steering wheel and rotate in direction of desired turn.

16. Move multifunction control handle forward for forward travel and rearward for reverse travel.

OUO6085,00002CC -19-13NOV09-2/2

Raising and Lowering Platform

CAUTION: When raising the platform for service or transporting, always engage the platform lift lockout lever (B).

NOTE: To raise and lower the platform, select the raise or lower position on the rocker switch (A) on the multifunction control handle.

Rocker switch (A) controls the platform raise and lower.

To raise the platform, press and hold the switch until desired height is reached.

The platform lower function operates differently when in LOW (FIELD) SPEED or HIGH (TRANSPORT) SPEED position:

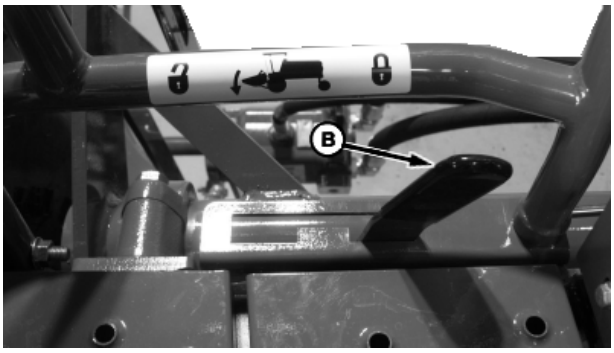
Manual Lower

- Low Idle: Will lower to first and second detent.
- High or Variable Idle: Will lower with first and second detent, if in high speed gear, with header off.

Automatic Platform Lower

- High or Low Idle: Will atuo lower when in low speed gear and second detent transitions from ON to OFF.
- Will auto lower in high speed gear, platform ON, and second detend for lower transitions to OFF.

E57261 —UN—29MAY09



E57159 —UN—19MAY09

A—Switch **B—Lockout Lever**

OUO6085,00000C4 -19-24JUL09-1/1

Adjusting Platform Float

NOTE: At light float settings, if the platform has been in the raised position for any length of time, when lowered, the platform may lower slowly or may not lower all the way to the ground. This is due to the temperature difference in the accumulator. Once platform has lowered and operation has begun, float function will operate normally.

To avoid platform lowering slowly, lower platform to the ground when windrower operation is stopped for any length of time.

Use highest pressure setting, which will allow the platform to remain firmly on the ground without bouncing and follow uneven ground without gouging or scraping.

NOTE: Once platform float has been set, the system will keep the setting after windrower has been stopped. Platform float pressure is displayed (C) in increments of 10 psi.

1. With platform on the ground, start windrower. This allows engine to operate at idle speed.
2. Press float pressure adjust switch (second detent) (A), this allows pressure to be set using the selection dial. Indicator (B) will light up indicating that setpoint adjustments can be made.

NOTE: The higher the float pressure, the lighter the platform. Use highest pressure float setting that allows platform to remain firmly on the ground without bouncing. Platform should follow uneven ground without gouging or scraping.

IMPORTANT: To minimize damage or excessive wear to knives, guards, gauge shoes, and other ground contact components, use increased float pressure in loose/sandy soils or rough/rocky fields.

Specification

14 ft. Platform
Float—Pressure.....
16 ft. Platform
Float—Pressure.....
18 ft. Platform
Float—Pressure.....(Starting Point)—7584 kPa (75.8 bar) (Starting Point)—1100 psi)

3. Press float pressure adjust switch (A) to second detent, this allows pressure to be set using the selection dial. Indicator (B) will light up indicating that setpoint adjustments can be made.

IMPORTANT: To minimize damage or excessive wear to knives, guards, gauge shoes, and other ground contact components, use increased float pressure in loose/sandy soils or rough/rocky fields.

E57243 —UN—28MAY09

E56653 —UN—28JAN09

A—Float Pressure Adjust Switch (Second Detent)
B—Float Function Indicator
C—Float Pressure Display

IMPORTANT: Platform float, at each end of the knockdown bar, should never exceed 1112 N (250 lb. force).

4. Check platform float by lifting at each end of the knockdown bar.
5. Adjust float pressure as needed to attain the desired platform float.

NOTE: Float pressure warning level has been preset at the factory to 5.2 kPa (52 bar) (750 psi).

OUO6085,00001B5 -19-10NOV09-1/1

Operating Hydraulic Reel (Optional)

Reel Speed Display

After windrower has been started, but before starting in the field, set reel speed digital display as follows:

- Turn on digital display by pressing reel speed switch (A) on multifunction control handle to the first detent.
- Press the reel speed switch (A) to the second detent:
- Blue indicator (B) on the primary display unit (PDU) will light up.
- Numeric display number two (C) will light up and will show reel speed.

E57263 —UN—29MAY09

E56738 —UN—06JUL09

A—Reel Speed Switch
B—Reel Speed Display Indicator
C—Numeric Display Number Two

OUO6085,00000F7 -19-10NOV09-1/3

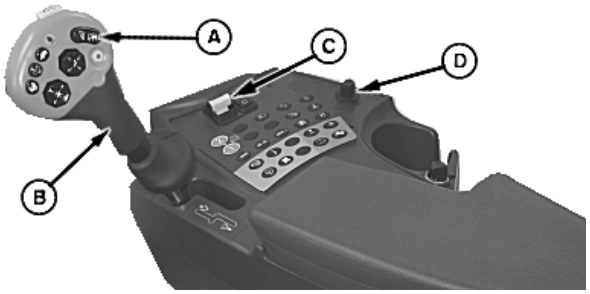
Adjusting Reel Speed

1. Press platform engage switch (C) forward to engage platform.
2. Press reel speed switch (A) on multifunction control handle (B) to the second detent, will show reel speed.

To set reel speed, turn selection dial (D). Reel rpm will show on numeric display on the PDU.

Recommended Reel Speeds for Desired Ground Speed

Ground Speeds	Reel Speeds 10% Faster Than Ground Speed	Reel Speeds 25% Faster Than Ground Speed
MPH	RPM	RPM
3	27	32
4	35	43
5	44	57
6	53	64
7	62	75



E57268 —UN—19JUN09

A—Reel Speed Switch
B—Multifunction Control Handle
C—Platform Engage Switch
D—Selection Dial

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OUO6085,00000F7 -19-10NOV09-2/3

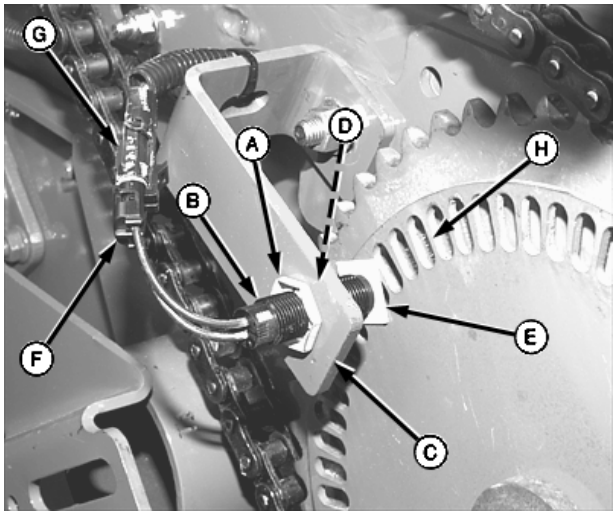
Adjusting Reel Speed Magnetic Pickup

IMPORTANT: The end of the magnetic pickup (B) must be over the center of the slots (H) on the slotted disk.

It may be necessary to adjust the position of the bracket (C).

The end of the magnetic pickup (B) must be within 1—3 mm (0.039—0.118 in.) of slotted disk. Use a piece of cardboard (E) as a spacer to aid in setting this distance.

1. Raise platform and engage platform lift lockout. Turn off engine and remove key.
2. Loosen lock nuts (A and D).
3. Position a piece of cardboard (E), 2 mm (3/32 in.) thick, between magnetic pickup and slotted disk.
4. Adjust lock nuts (A and D) holding the magnetic pickup in position. Remove cardboard (E).
5. Using a feeler gauge, check clearance between the magnetic pickup and slotted disk. Adjust if needed.



E47035 —UN—26OCT99

Reel Speed Magnetic Pickup

A—Lock nut
B—Magnetic Pickup
C—Bracket
D—Lock nut
E—Spacer - 2 mm (3/32 in.)
F—Connector
G—Wiring Harness
H—Slot

OUO6085,00000F7 -19-10NOV09-3/3

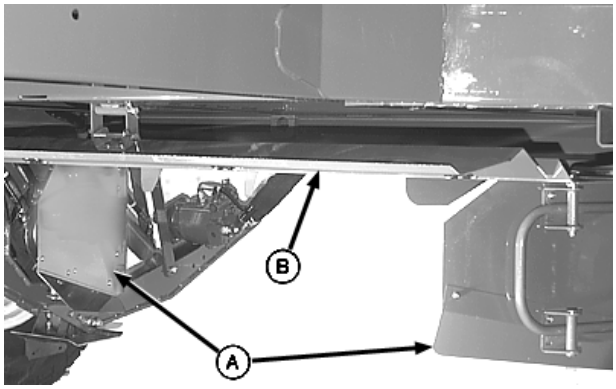
Adjusting Swath Flaps

1. Park windrower on level ground, lower platform, turn off engine and remove key.

IMPORTANT: Do not set the swath flaps too narrow, preventing the volume of hay being cut to flow through the swath flaps.

NOTE: The two side swath flaps are adjusted independently of each other.

2. The two side swath flaps (A) are used to set the width of swaths for less than 1.7 m (66 in.). For swaths wider than 1.7 m (66 in.), use the swath flap on 896 auger platform. (See 896 Auger Platform Operator's manual.)
3. The top swath flap (B) is used to form a more rectangular and fluffier swath.



E44591 —UN—10DEC97

A—Side Flaps
B—Top Flap

Continued on next page

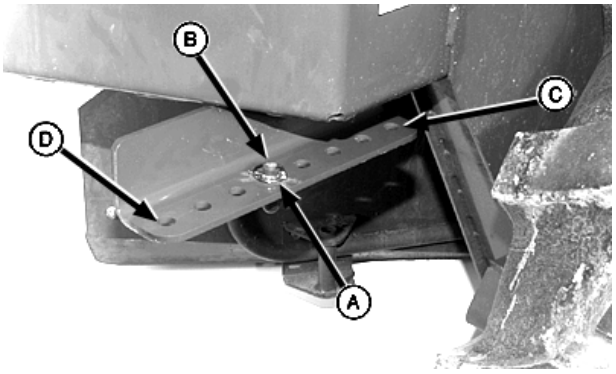
OUO6085,0000409 -19-18FEB08-1/3

4. Remove latch pin (A).
   - Move linkage (B) forward, toward position (C), to decrease windrow width.
   - Move linkage (B) rearward, toward position (D), to increase windrow width.

IMPORTANT: Failure to secure the latch pin in position will allow the linkage to drop out of position, possibly damaging the windrower.

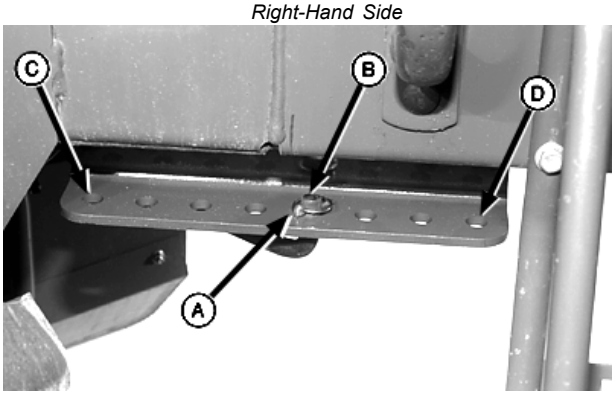
5. Install latch pin (A).
6. Adjust swath flap on opposite side.

A—Latch Pin
B—Linkage
C—Narrow Position
D—Wide Position



E44078 —UN—07OCT97

Right-Hand Side



E44079 —UN—07OCT97

Left-Hand Side

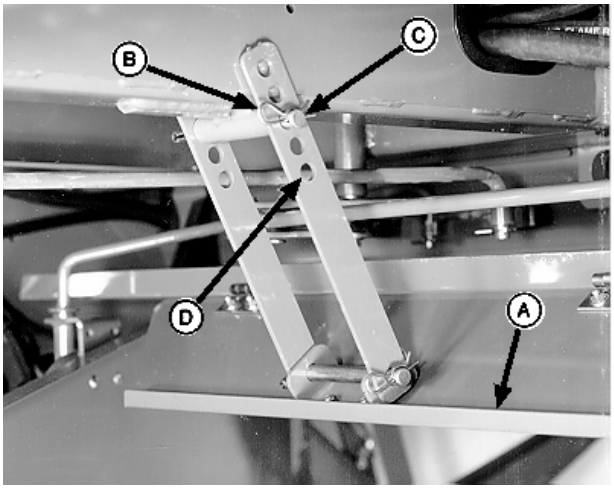
OUO6085,0000409 -19-18FEB08-2/3

7. Remove spring pin (B).

CAUTION: Swath flap (A) is heavy. The swath flap and both adjusting links (D) will swing downward when pin (C) is removed.

8. Support swath flap (A), adjusting links (D) and remove pin (C).
9. Move swath flap and adjusting links (D) to desired setting. Install pin (C) and spring pin (B).

A—Swath Flap
B—Spring Pin
C—Pin
D—Adjusting Link



E40064 —UN—10JUN96

OUO6085,0000409 -19-18FEB08-3/3

Adjusting Platform Guard Angle

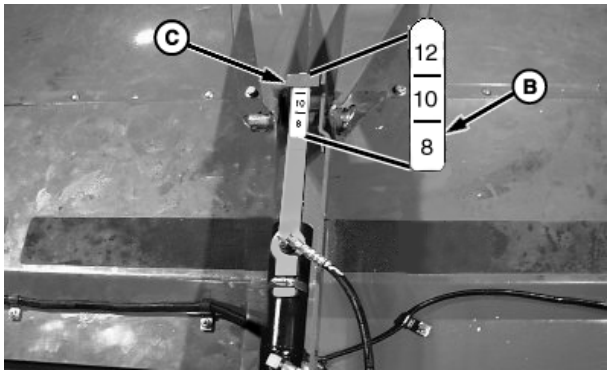
Set the guard angle and gauge shoe height to optimize the cutting performance of the platform, at the same time using care to protect the guards and platform from obstacles in the field.

NOTE: It is not necessary to engage the platform drive to set guard angle.

Changing the guard angle will affect the platform cutting height.

1. Start engine and lower platform to the ground.
2. Press the right portion of the switch (A) to increase the guard angle.
3. Press the left portion of the switch to decrease the guard angle.
4. The decal (B) on gauge (C) shows the approximate number of degrees the guard angle is below horizontal (zero).
5. Check and adjust the gauge shoe height. (See ADJUSTING GAUGE SHOE HEIGHT in the platform Operator's Manual.)
6. Check and adjust the platform float. (See Adjusting Platform Float in this section.)

E57262 —UN—29MAY09



E53377 —UN—01JUL04

A—Switch
B—Decal
C—Gauge

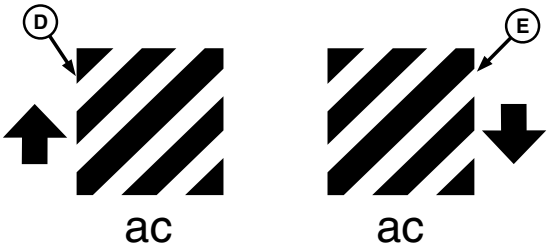
OUO6085,00000F8 -19-29MAY09-1/1

Adjusting Area Counter Display

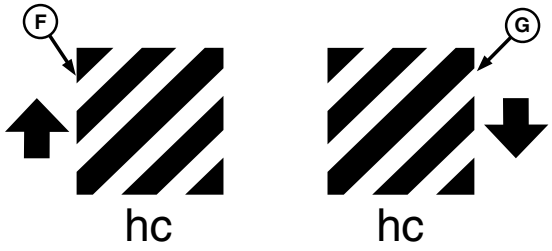
IMPORTANT: Operator needs to select correct platform from diagnostics in order to select correct header size. Area counter display will not read properly if correct header is not setup in diagnostics. (See ACCESSING DIAGNOSTIC ADDRESS MENU in Diagnostic Addresses section.)

1. To enable area counter, press area counter button on armrest control panel. Primary display unit (PDU) will show area counter symbol (C) and up arrow will be ON. Down arrow will be OFF.
   - If acres (English) is set up, “ac” and up arrow (E) will show in primary display unit (PDU).
   - If hectares (Metric) is set up, “ha” and up arrow (G) will show in primary display unit (PDU).
   - Units will only show when viewing the Acre/Hectre count, otherwise units will turn off when viewing another display.
2. Activating area counter when area counter is enabled:
   - Windrower must be running, header engaged, and automatic platform lower has to be on. Automatic platform lower happens when in variable or high idle and pressing the second detent (platform lower fast) on the hydro handle and windrower must be in field mode (low speed gear).
   - If acres (English) is set up, “ac” and down arrow (D) will show in primary display unit (PDU).
   - If hectares (Metric) is set up, “ha” and down arrow (F) will show in primary display unit (PDU).
3. To reset area counter to zero, ensure area counter is enabled and area count is displayed on PDU, adjust encoder in either direction. Area counter will be reset.
4. To display area counter, ensure area counter is enabled or active. Push area counter button on armrest control panel.
   - Numeric display one (A) will display whole numbers of acres (English) or hectares (Metric).
   - Numeric display two (B) will display decimal numbers of acres (English) or hectares (Metric).
5. To remove area counter from display, operator can manually display another function such as float pressure display or reel speed display or wait five seconds until display returns to previous display.
6. To disable area counter, hold area counter button on armrest control panel for 5 seconds. Area counter symbols will turn off on primary display unit (PDU).

E57863 —UN—14AUG09



E57861 —UN—14AUG09



E57862 —UN—14AUG09

A—Numeric Display One
B—Numeric Display Two
C—Area Counter Enable/Active
D—Area Counter Enabled—Acres (English)
E—Area Counter Active—Acres (English)
F—Area Counter Enabled—Hectares (Metric)
G—Area Counter Active—Hectares (Metric)

PP98408,00001C9 -19-14AUG09-1/1

Engaging Platform Drive

Disengage platform before starting engine.

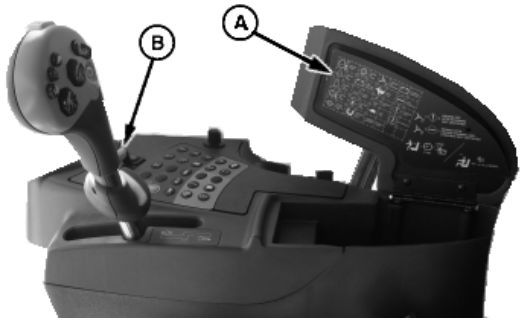
Platform will not engage if platform engage switch is on when engine is started. Cycle switch to OFF/ON position to engage platform.

NOTE: Operator presence and resetting platform drive information is on the decal (A) under the lid of the right-hand armrest.

If the operator is not present in the seat, platform drive will engage, but will disengage after five seconds.

If the operator leaves the seat for more than 5 seconds, platform drive will disengage. Once platform drive disengages, it will need to be reset.

To engage platform drive, push down and forward on the yellow switch (B).



E57754 —UN—30JUL09

A—Decal **B—Switch**

Pull back on switch to neutral position to turn off platform drive.

OUO6085,00000F9 -19-22JUL09-1/1

Reversing Platform

IMPORTANT: Do not reverse the platform while the engine is at operating speed.

1. Disengage the platform drive and decrease engine speed to idle.
2. Raise platform to the upper limit, to open conditioner rolls.
3. Push down and rearward on yellow switch. Hold until platform has been cleared.
4. Lower platform, shut off engine and remove key.
5. Check platform to be sure it is completely cleared.

E57270 —UN—19JUN09

OUO6085,00001A4 -19-02NOV09-1/1

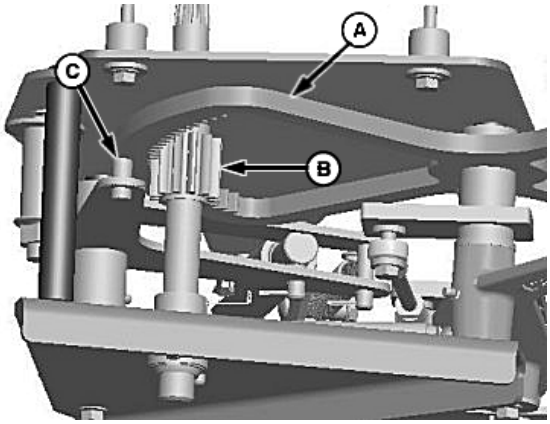
Centering Steering

Windrower engine will not start unless steering column is centered.

If lining up the arrow (without AutoTrac) or lining up the John Deere Logo Hooves (with AutoTrac), shut off ignition and remove key.

Go underneath front of machine on left-hand side and check the primary steering gear (A). Check steering gear, ensure it is facing the right-hand side. If so, ensure the locking pin (C) is in the notch on steering gear. If the pin is not in the notch, turn steeering column (B) until pin falls into the notch.

A—Primary Steering Gear **C—Locking Pin**
B—Steering Column

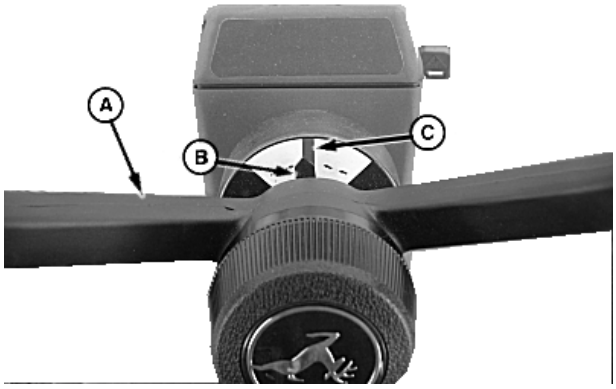


E58158 —UN—09NOV09

OUO6085,00002CD -19-12NOV09-1/1

Parking Windrower

IMPORTANT: To prevent damage to linkage and controls, do not force multifunction control handle or steering wheel while in the locked position.



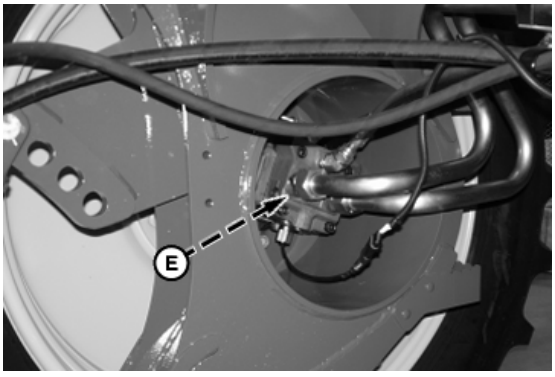
E57322 —UN—29OCT09

- Steering wheel (A) must be turned so alignment needle (B) on the steering post is centered in the green area (C) of the decal that is on the front of the steering column.
- Steering wheel must be locked in this position whenever the multifunction control handle (D) is in neutral park position or the engine is turned off. Park brakes (E) are set at this time.
- Steering wheel must be locked in this position to start the windrower. If not, make sure the multifunction control handle is in neutral. Gently turn steering wheel from left-to-right to engage steering lock.

A—Steering Wheel
B—Alignment Needle
C—Green Area on Decal
D—Multifunction Control Handle
E—Internal Park Brake (Inside Final Drive)

Steering Wheel Without AutoTrac

E57294 —UN—05JUN09



E56663 —UN—21APR09

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OUO6085,000015E -19-09NOV09-1/2

Steering Wheel With AutoTrac

- With AutoTrac (A) installed, steering wheel must be turned so hooves on John Deere emblem (B) are in a horizontal position (C). This allows the steering to be centered and locked.
- Steering wheel must be locked in this position whenever the multifunction control handle (D) is in neutral park position or the engine is turned off. Park brakes (E) are set at this time.
- Steering wheel must be locked in this position to start the windrower. If not, make sure the multifunction control handle is in neutral. Gently turn steering wheel from left-to-right to engage steering lock.

Multifunction Control Handle

Multifunction control handle (D) is locked in neutral position whenever the engine is off.

Multifunction control handle must be locked in neutral to start the engine. If not in neutral, gently move the lever to the neutral park position.

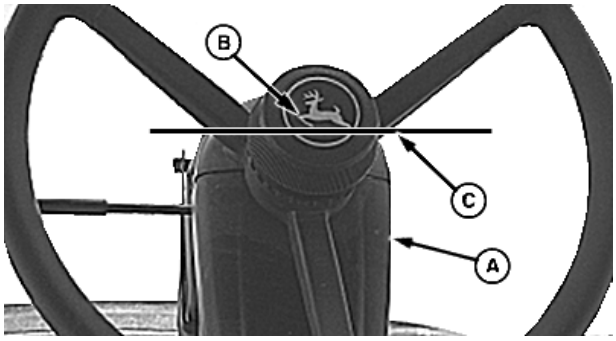
Park Brakes

Internal park brakes (E) are applied when:

- Windrower is turned off
- There is a drop in hydraulic fluid or pressure
- Multifunction control handle is in neutral park

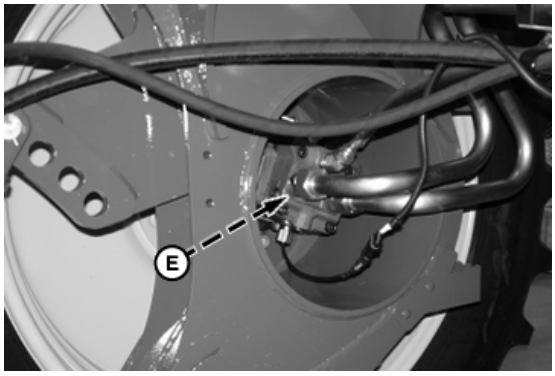
When windrower is started and multifunction control handle is moved out of neutral park, hydraulic pressure releases the internal park brakes.

A—AutoTrac System
B—John Deere Emblem
C—Horizontal Line (Reference line)
D—Multifunction Control Handle
E—Internal Park Brake (Inside Final Drive)



E57052 —UN—01MAY09

E57294 —UN—05JUN09



E56663 —UN—21APR09

OUO6085,000015E -19-09NOV09-2/2

Adding Ballast to Windrower

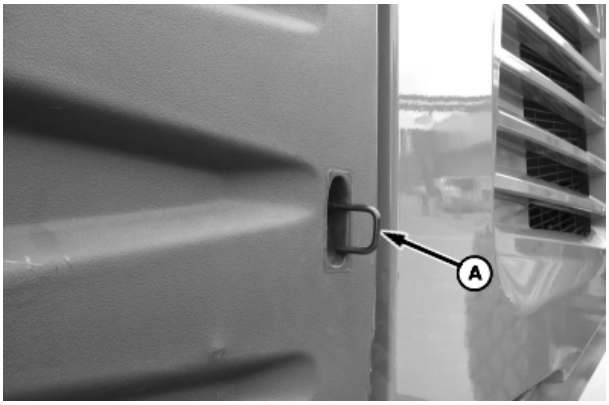
CAUTION: Failure to properly ballast the windrower could cause loss of control.

1. Pull out on latch (A) then pull to the rear to open door.

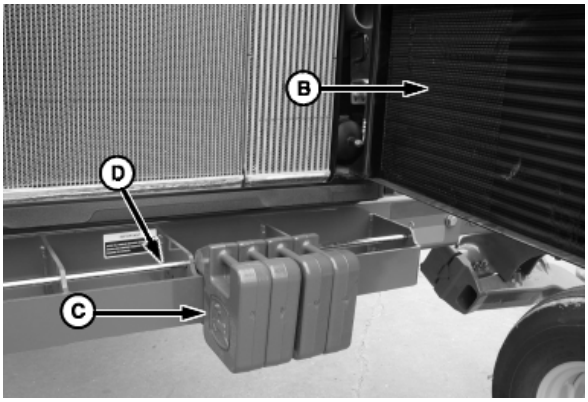
IMPORTANT: Always open combination cooler before installing or removing ballast weights. Failure to open the cooler may cause damage to cooler fins when adding or removing weights.

2. Lift up latch on left-hand side of combination cooler (B) and pull to open.
3. Remove metal rod (D) by removing a cotter pin from right-hand side of weight frame and pulling rod out from left-hand side.
4. Install correct number of suitcase weights (C) according to platform installed. See table below for correct number of weights.
5. After installing weights, install rod (D) through holes in frame to prevent weights from coming off. Fasten rod with cotter pin removed earlier.

WINDROWER BALLAST	
4.3 m (14 Ft.) 896 Sickle Platform	0—19 kg (42 lb.) Weights
4.9 m (16 Ft.) 896 Sickle Platform	4—19 kg (42 lb.) Weights
5.5 m (18 Ft.) 896 Sickle Platform	8—19 kg (42 lb.) Weights



E57116 —UN—11MAY09

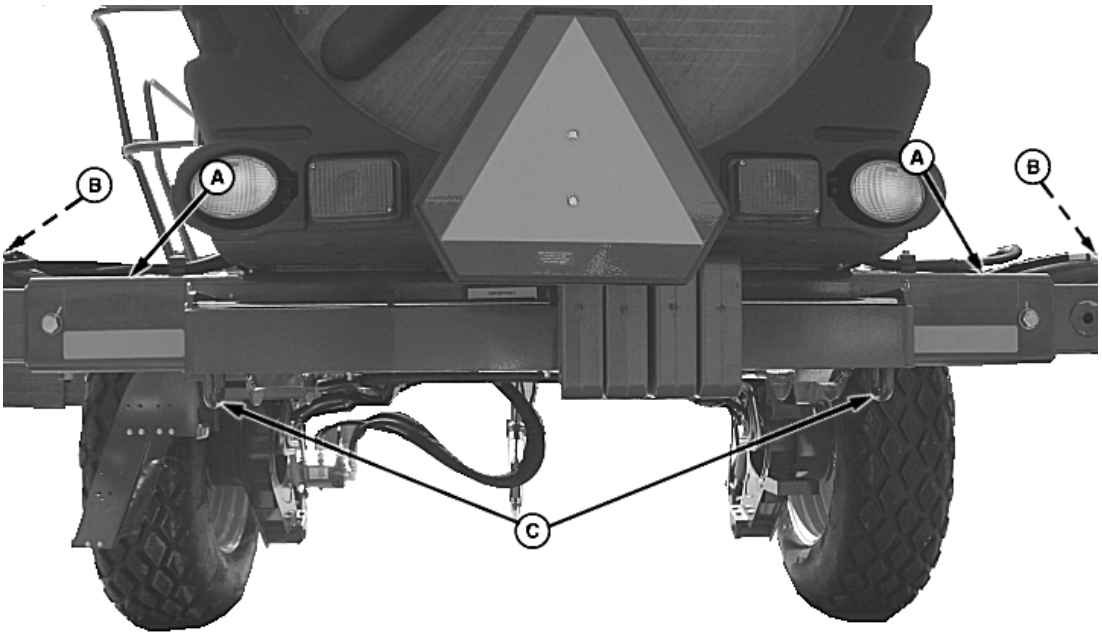


E57117 —UN—11MAY09

A—Latch
B—Combination Cooler
C—Suitcase Weights
D—Rod

OUO6085,0000156 -19-05AUG09-1/1

Pulling Windrower Out of Mud



E57121 —UN—11MAY09

A—Axles **B—Wheels** **C—Chain Attachment Points**

CAUTION: Do not use a rope or cable. Energy stored in a rope or cable, if it should break, could cause bodily injury. Always use a suitable chain.

IMPORTANT: Do not attach chains to the rear axles (A) or the caster wheels (B). Hook chains to both locations (C) on the underside of the ballast frame, putting an even load on the windrower frame.

OUO6085,0000168 -19-11MAY09-1/1

Fire Extinguishers (Optional)

Optional fire extinguishers may be added to the windrower. One is installed on the left-hand side of the machine near the operators platform. The other extinguisher is mounted on the right-hand side of the operators platform steps. Extinguishers may be ordered through your John Deere dealer.

OUO1073,00001E9 -19-27JUL09-1/1

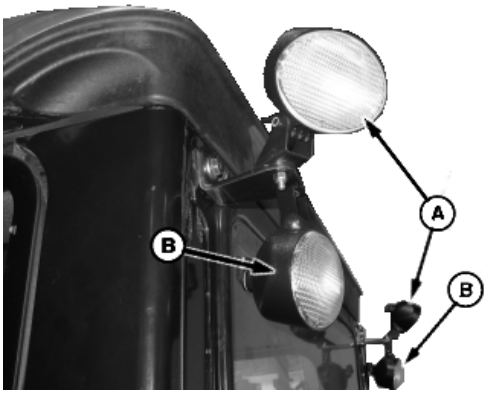
Upper and Lower Field Work Lights (Optional)

NOTE: Optional upper field work lights (A) and (B) are on both sides of the roof of the cab.

- Lower field work lights (B) are on when work light switch is in the first position.
- Both upper (A) and lower (B) field work lights are on when work light switch is in the second position.

Upper and lower field work lights are available through your John Deere dealer.

A—Upper Work Lights **B—Lower Work Lights**



E58003 —UN—07OCT09

OUO6085,000016D -19-14OCT09-1/1

Large Windshield Wiper (Optional)

Available through your John Deere dealer.

E54308 —UN—16JUN05

Standard Windshield Wiper Shown

OUO6085,0000161 -19-05AUG09-1/1

Windshield Washer (Optional)

A windshield washer kit is available through your John Deere dealer.

OUO6085,0000180 -19-19MAY09-1/1

Deere-Delco Radio (Optional)

The R450 and A400 self-propelled windrowers are radio ready. Wire harness, antenna, and speakers are installed in the cab.

There are two choices for the optional Deere-Delco Radio:

1. AM/FM/Weatherband
2. AM/FM/Weatherband/CD/Satelite Radio (Satelite radio requires a subscription for XM/SIRIUS radio)

To inquire about radio choices and installation, contact your John Deere dealer.

OUO6085,0000143 -19-02NOV09-1/1

Outside Power Mirrors (Optional)

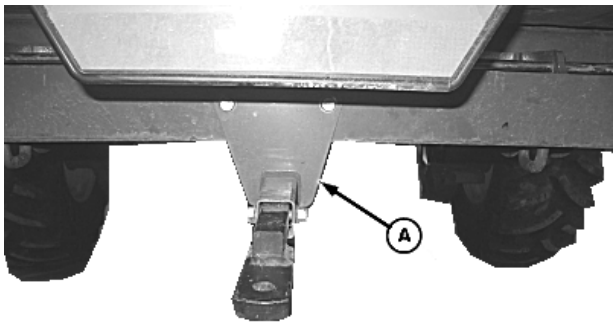
Optional outside power mirrors allow the operator to rotate mirrors left-to-right and tilt up and down. Powered mirrors are also heated.

Power mirror kit may be ordered through your John Deere dealer.

OUO6085,000014C -19-11JUN09-1/1

Canola Roller Hitch (Optional)

An optional hitch (A) is available from your John Deere dealer to be mounted on the rear of the windrower for towing a canola roller only. Do not exceed the rated hitch capacity.



E58154 —UN—30OCT09

OUO6085,00002CA -19-02NOV09-1/1

Wiring Harness Adapter

When connecting an A400 Self-Propelled Windrower to an older 890, 895, or 896 platform, an adaptor harness is required to make each wire harness compatible. Order part No. AFH204337 adapter harness, see your John Deere dealer.

This adapter harness is also required when connecting a new 896 platform to an older model 4895 Self-Propelled Windrower.

OUO6085,000018C -19-02NOV09-1/1

Transporting Windrower

CAUTION: To avoid serious injury or death from loss of steering control:

- **Do not rapidly accelerate while turning.**
- **Do not make abrupt changes in steering direction.**
- **Stop and shift to field range before driving down steep slopes**

If control of machine is lost, immediately pull multifunction control handle to neutral.

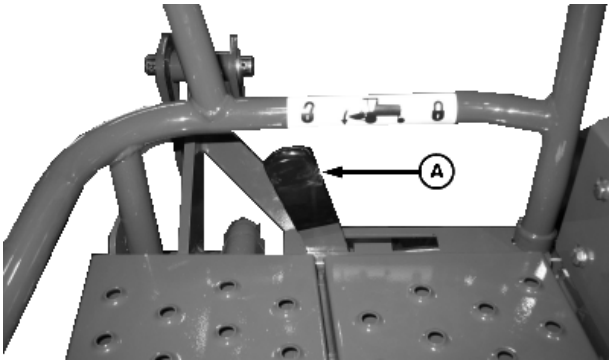
Check local government regulations regarding driving or towing equipment on public roads.

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

Road and warning lights will come on automatically when the machine is operating in the road range and platform is disengaged. Use the ROAD light switch if machine is being transported in the field range.

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 hand signals or turn signal lights.

CAUTION: To avoid high voltage lines and electrical shock, maintain a minimum clearance of 4.27 m (14 ft). Lower radio antenna and make sure no portion of the windrower exceeds this height.



E57120 —UN—12MAY09

A—Lockout Lever

Always raise the platform and engage platform lift lockout lever (A) before transporting.

IMPORTANT: If transporting the windrower on a truck, cover the exhaust to prevent the turbocharger from rotating.

Whenever possible, the windrower should be moved on roadways under its own power. If towing the windrower, the front drive wheels MUST be disengaged. (See TOWING WINDROWER in this section.)

NOTE: To prevent the spread of weed seeds, clean the windrower before moving to a new location. Some laws required a certain cleaning procedure before the machine can be brought into the area. Check local government regulations regarding this matter.

OUO1078,0001470 -19-18JUN09-1/1

Driving Windrower

CAUTION: Never operate machine in the road position without a platform.

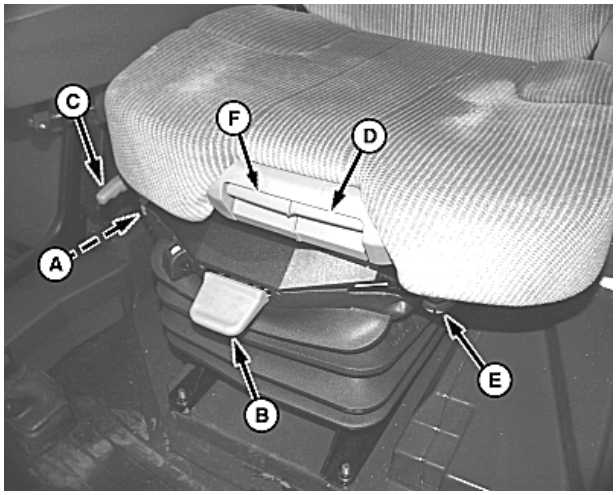
Sound horn before starting and moving the windrower, alerting everyone near the machine.

IMPORTANT: Check local width laws before driving windrower on a public road.

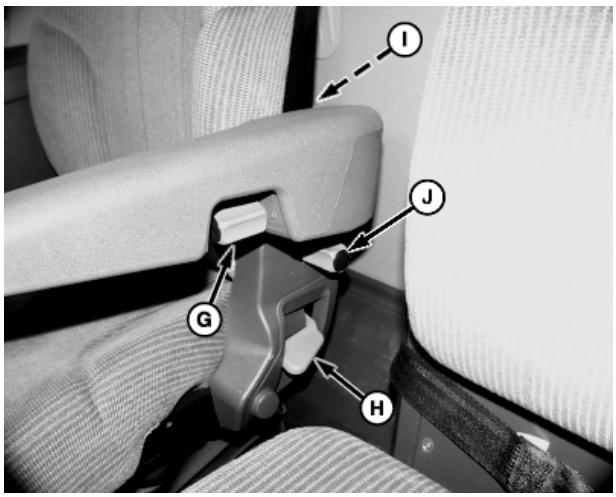
Before starting engine be sure:

1. Seat is adjusted (A—J) and is in a comfortable position. (See SEAT SUSPENSION AND FORWARD AND REARWARD ADJUSTMENT and ADJUSTING LEFT-HAND ARMREST AND SEAT BACK in Operator's Station section.)

A—Vertical Shock Dampener Control
B—Height Adjustment Knob
C—Forward/Rearward Adjustment Handle
D—Seat Bottom Tilt Control Handle
E—Forward/Rearward Attenuator Lock-Out Lever
F—Seat Bottom Forward/Rearward Adjustment Handle
G—Left-Hand Armrest Height Adjustment Knob
H—Seat Back Angle Adjustment Handle
I— Lumbar Back Support Adjustment Knob
J—Left-Hand Armrest Tension Adjust Knob



H67071 —UN—12SEP01



E50795 —UN—30OCT01

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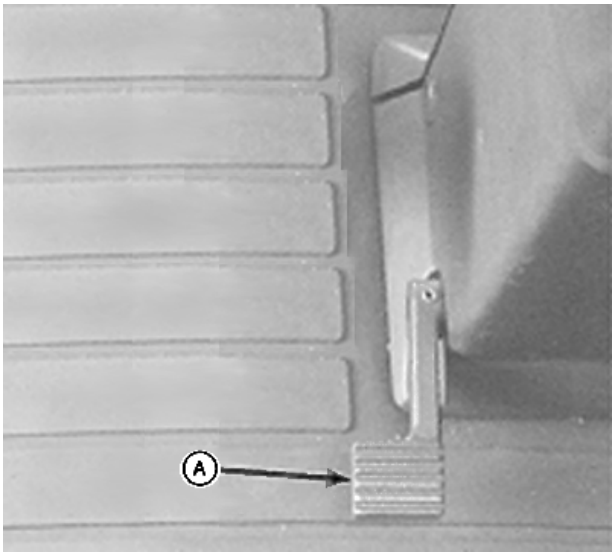
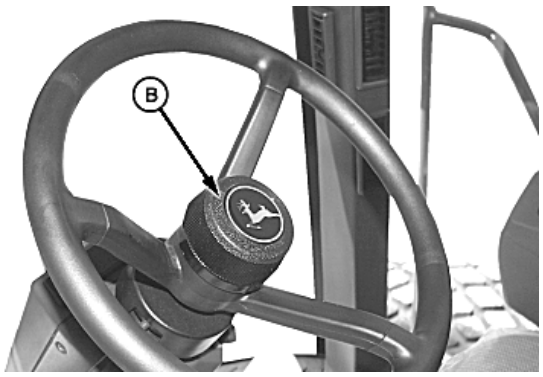
OUO6085,00000CB -19-02NOV09-1/7

2. Steering column tilt (A) and height (B) are adjusted and in a comfortable position. (See Operator's Station section for adjusting steering column tilt and steering wheel height.)

A—Tilt Adjustment Pedal **B—Height Adjustment Hub**



E39782 —UN—22FEB96



E51373 —UN—11APR02

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OUO6085,00000CB -19-02NOV09-2/7

NOTE: The Multifunction control handle must be at rest to the left in the neutral park position. This will engage the neutral start switch (B), allowing the unit to start.

3. Place multifunction control handle (A) in neutral park position. Make sure steering wheel is locked in the centered position.

NOTE: The steering, when returned to center, is locked and the parking brake is applied anytime the multifunction control handle is at rest in the neutral park position.

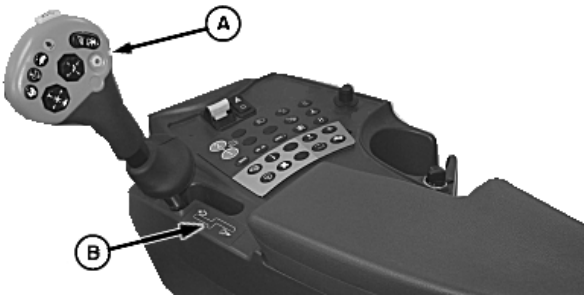
Moving the multifunction control handle to the right, still in neutral position, will release the steering and brakes. Turning the steering wheel at this time will cause the windrower to pivot (spin turn) between the drive wheels. Moving the multifunction control handle forward while turning, will increase the turning radius.

4. Start engine. (See STARTING ENGINE in Operating Engine section.)
5. System defaults to field speed when engine is shut off. Press high speed switch (C) on operator's console panel.
6. Press far left button (rabbit), high engine idle speed on multifunction control handle, or press center (outlined) rabbit for variable engine idle speed.

NOTE: If using center rabbit (variable) setting, use selection dial to adjust speed.

7. Engine idle speed (G) (Rabbit), and rpm (H) will be shown on corner monitor

A—Multifunction Control Handle
B—Neutral Start Switch
C—High Speed Switch
D—Function Digital Display
E—Field/Road Speed Indicator (1 lights up for field, 2 for road speed)
F—Ground Speed Display (Shows actual ground speed)
G—Engine Idle Speed Indicator (Rabbit-High, Outlined Rabbit-Variable)
H—RPM



E57258 —UN—14OCT09

E56666 —UN—28JAN09

E56667 —UN—28JAN09

E56669 —UN—28JAN09

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OUO6085,00000CB -19-02NOV09-3/7

IMPORTANT: When transporting the windrower, be sure the platform is completely raised to prevent the platform from bouncing.

8. Raise platform (A) to highest position and engage platform lift lockout lever.

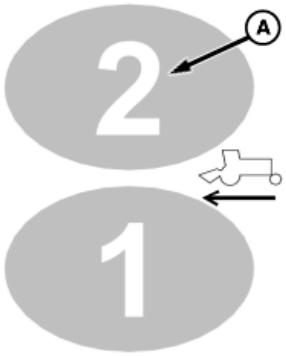
A—Platform Height Adjustment Switch

E57261 —UN—29MAY09

OUO6085,00000CB -19-02NOV09-4/7

9. Press road range switch (A) on armrest.

A—Road Range Switch



E56671 —UN—28JAN09

OUO6085,00000CB -19-02NOV09-5/7

10. Press high engine idle speed switch (A) to full throttle.

NOTE: Steering is accomplished by turning the steering wheel right or left.

Steering is reversed when backing machine. Place hand on bottom half of steering wheel and rotate in direction of desired turn.

11. Move multifunction control handle forward for forward travel and rearward for reverse.

A—High Idle Speed

E57264 —UN—29MAY09

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OUO6085,00000CB -19-02NOV09-6/7

CAUTION: When transporting on a road or highway, flashing warning lights and tail lights on each side of the rear of the windrower provide a warning to operators of vehicles approaching from the rear.

Flashing warning lights on each side of the platform provide a warning to operators of vehicles approaching from the front.

Lights must be turned on when driving the windrower on a public road.

NOTE: Road lights and hazard lights are automatically activated when transporting in road position with platform is disengaged.

12. Engage ROAD lights switch (B) when transporting in field range. Hazard lights automatically operate when ROAD lights are on.

NOTE: Turn signals are not self-cancelling.

13. When operating windrower on road or highway, use turn signals when turning windrower.
14. Travel at reasonable speed for road conditions.

CAUTION: Never dismount from windrower or leave the windrower parked without shutting off engine.

E56613 —UN—23JAN09

A—Hazard Lights
B—Road Lights
C—Field Lights
D—Work Lights (Optional)

15. Before shutting off turbocharged engine, idle at least 1—3 minutes.

OUO6085,00000CB -19-02NOV09-7/7

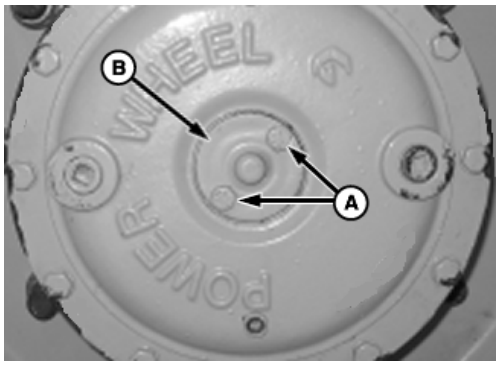
Towing Windrower

CAUTION: Windrower is free to move and the parking brakes are inoperative when the final drive wheel hubs are disengaged.

Do not exceed a maximum speed of 25 km/h (16 mph) while towing the windrower.

IMPORTANT: If it is necessary to tow the windrower, the front final drive wheel hubs MUST be disengaged.

1. Park the windrower on flat, level ground and lower the platform.
2. Shut off engine and remove key.
3. Block drive wheels (block in the front and in the rear of wheels).
4. Remove two cap screws (A) and cover (B).



E56498 —UN—12JAN09

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OUO6085,00000CC -19-30OCT09-1/2

IMPORTANT: The pin is spring loaded, and the lobe on the cover will push the pin in.

Pin spring is very stiff, so tighten cap screws (B) evenly, until cover is installed. Binding can cause severe damage.

NOTE: Pin (A) disengages the input shaft from the sun gear in the final drive. If pin is in a bind and hard to move, it may be necessary to push (rock) the drive wheel to free pin (A).

5. Install cover (C) with lobe facing inward.
6. Repeat Steps 3—5 on opposite side.

CAUTION: The drive wheels are now disengaged and parking brakes are inoperative.

IMPORTANT: With key switch off, turn hazard lights switch to ON. This will release the rear steer system allowing caster wheels to move freely. Amber flashers will also be turned on for towing.

7. **After Towing Windrower:**

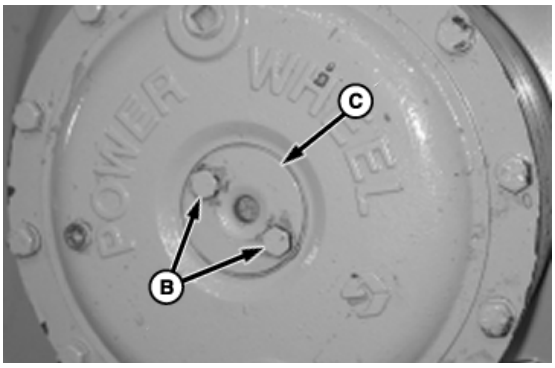
IMPORTANT: Pin (A) is spring loaded and may be ejected unexpectedly when cover (C) is removed.

a. After towing, block the front and rear of drive wheels. Remove the cover and install with the lobe facing outward on both wheels.

NOTE: The slight movement of the hydrostatic drive motor will cause the spring loaded pin to move in position.

b. Start windrower, set engine speed at low rpm, barely move hydrostatic control lever forward and then rearward.

E56499 —UN—12JAN09



E56500 —UN—12JAN09

A—Pin
B—Cap Screws
C—Cover

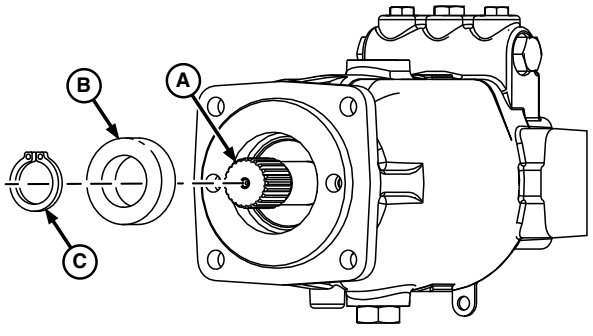
c. Turn off engine, remove key and remove blocks.

OUO6085,00000CC -19-30OCT09-2/2

Machine Jacking Point and Tie Down Location Decal (if equipped)

Jacking point and tie down location decal (A) is located on right-hand and left-hand sides of machine. This decal shows the correct locations for jacking the machine and for fastening the machine with chains.

A—Jacking Point and Tie Down Location Decal

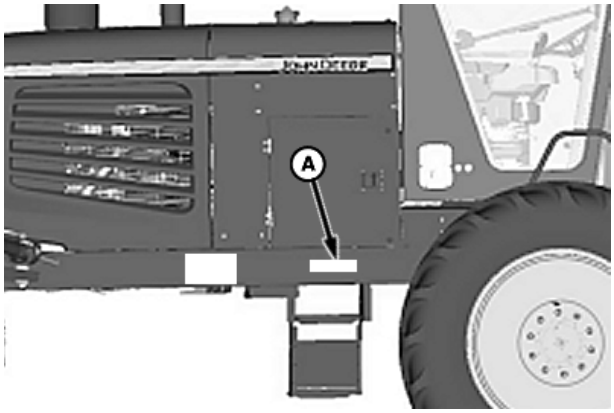


E58151 —UN—04NOV09

OUO6085,00002EC -19-19NOV09-1/1

Machine Lift Point Decal (if equipped)

Lift point decal (A) is located on right-hand and left-hand sides of machine. This decal shows the proper lifting points for lifting the machine.



Lift Point Decal

OUO6085,00002ED -19-19NOV09-1/1

Diesel Fuel

Consult your local fuel distributor for properties of the diesel fuel available in your area.

In general, diesel fuels are blended to satisfy the low temperature requirements of the geographical area in which they are marketed.

Diesel fuels specified to EN 590 or ASTM D975 are recommended. Renewable diesel fuel produced by hydrotreating animal fats and vegetable oils is basically identical to petroleum diesel fuel. Renewable diesel that meets EN 590 or ASTM D975 is acceptable for use at all percentage mixture levels.

Required Fuel Properties

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

Cetane number of 43 minimum. Cetane number greater than 47 is preferred, especially for temperatures below –20°C (–4°F) or elevations above 1500 m (5000 ft).

Cold Filter Plugging Point (CFPP) should be at least 5°C (9°F) below the expected lowest temperature or **Cloud Point** below the expected lowest ambient temperature.

Fuel lubricity should pass a maximum scar diameter of 0.45 mm as measured by ASTM D6079 or ISO 12156-1.

Sulfur Content for Interim Tier 4 and EU Stage IIIB Engines

- Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.
- Use ONLY ultra low sulfur diesel (ULSD) fuel with a maximum of 0.0015% (15 mg/kg) sulfur content.

Sulfur Content for Other Engines

- Diesel fuel quality and fuel sulfur content must comply with all existing emissions regulations for the area in which the engine operates.
- Use of diesel fuel with sulfur content less than 0.10% (1000 mg/kg) is STRONGLY recommended.
- Use of diesel fuel with sulfur content 0.10% (1000 mg/kg) to 0.50% (5000 mg/kg) may result in REDUCED oil and filter change intervals. Refer to table in Diesel Engine Oil and Filter Service Intervals.
- BEFORE using diesel fuel with sulfur content greater than 0.50% (5000 mg/kg), contact your John Deere dealer.

IMPORTANT: Do not mix used diesel engine oil or any other type of lubricating oil with diesel fuel.

Improper fuel additive usage may cause damage on fuel injection equipment of diesel engines.

DX,FUEL1 -19-03AUG09-1/1

Lubricity of Diesel Fuel

Most diesel fuels manufactured in the United States, Canada, and the European Union have adequate lubricity to ensure proper operation and durability of fuel injection system components. However, diesel fuels manufactured in some areas of the world may lack the necessary lubricity.

IMPORTANT: Make sure the diesel fuel used in your machine demonstrates good lubricity characteristics.

Fuel lubricity should pass a maximum scar diameter of 0.45 mm as measured by ASTM D6079 or ISO 12156-1.

If fuel of low or unknown lubricity is used, add John Deere PREMIUM DIESEL FUEL CONDITIONER (or equivalent) at the specified concentration.

Lubricity of Biodiesel Fuel

Significant improvement in lubricity can occur with biodiesel blends up to B20. The gain in lubricity above a 20% blend is limited.

DX,FUEL5 -19-05OCT07-1/1

Filling Fuel Tank

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

Always turn off 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.

Do Not overfill fuel tank. Fill fuel tank within 25 mm (1 in.) from top of fuel tank. Bodily injury can result from fuel splash back. Leakage can result from expansion of fuel. If the tank is filled too full, then left in direct sunlight or if temperature gets too hot, the tank will overflow.

The fuel tank is vented through a fuel tank vent filter located on the upper right-hand corner of the fuel tank.

TS202 —UN—23AUG88

Fill fuel tank at end of each day. This prevents condensation in tank as moist air cools.

OUO6085,0000255 -19-05AUG09-1/1

Diesel Fuel Storage

IMPORTANT: Buy good quality, clean fuel from a reputable supplier.

Proper fuel storage is critically important. Use clean storage and transfer tanks. Periodically drain water and sediment from bottom of tank. Store fuel in a convenient place away from buildings.

DO NOT store diesel fuel in galvanized containers. Diesel fuel stored in galvanized containers reacts with zinc coating on container to form zinc flakes. If fuel contains water, a zinc gel will also form. The gel and flakes will quickly plug fuel filters, damage injection nozzles and injection pump.

DO NOT use brass-coated containers for fuel storage. Brass is an alloy of copper and zinc.

Proper fuel storage is critically important. Use clean storage and transfer tanks. Periodically drain water and sediment from bottom of tank. Store fuel in a convenient place away from buildings.

Store diesel fuel in plastic, aluminum, and steel containers specially coated for diesel fuel storage.

Avoid storing fuel over long periods of time. If fuel is stored for more than a month prior to use, or there is a slow turnover in fuel tank or supply tank, add a fuel conditioner such as John Deere PREMIUM DIESEL FUEL CONDITIONER or equivalent to stabilize the fuel and prevent water condensation. John Deere PREMIUM DIESEL FUEL CONDITIONER is available in winter and summer formulas. Fuel conditioner also reduces fuel gelling and controls wax separation during cold weather.

Consult your John Deere dealer for recommendations and local availability. Always follow manufacturers directions on label.

OUO1078,0001474 -19-05NOV01-1/1

Heavy Duty Diesel Engine Coolant

The engine cooling system is filled to provide year-round protection against corrosion and cylinder liner pitting, and winter freeze protection to -37°C (-34°F). If protection at lower temperatures is required, consult your John Deere dealer for recommendations.

John Deere COOL-GARD™ II Premix Coolant is preferred.

John Deere COOL-GARD II Premix is available in a concentration of 50% ethylene glycol.

Additional Recommended Coolants

The following engine coolants are also recommended:

- John Deere COOL-GARD II Concentrate in a 40% to 60% mixture of concentrate with quality water.
- John Deere COOL-GARD Premix (available in a concentration of 50% ethylene glycol).
- John Deere COOL-GARD Concentrate in a 40% to 60% mixture of concentrate with quality water.
- John Deere COOL-GARD PG Premix (available in a concentration of 55% propylene glycol).

John Deere COOL-GARD II Premix and COOL-GARD II Concentrate coolants do not require use of supplemental coolant additives.

John Deere COOL-GARD Premix, COOL-GARD Concentrate, and COOL-GARD PG Premix do not require use of supplemental coolant additives, except for periodic replenishment of additives during the drain interval.

Use John Deere COOL-GARD PG Premix when a non-toxic coolant formulation is required.

Other Coolants

It is possible that John Deere COOL-GARD II, COOL-GARD, and COOL-GARD PG coolants are unavailable in the geographical area where service is performed.

If these coolants are unavailable, use a coolant concentrate or prediluted coolant intended for use with heavy duty diesel engines and with a minimum of the following chemical and physical properties:

- Is formulated with a quality nitrite-free additive package.
- Provides cylinder liner cavitation protection according to either the John Deere Cavitation Test Method or a fleet study run at or above 60% load capacity.
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion.

The additive package must be part of one of the following coolant mixtures:

- ethylene glycol or propylene glycol base prediluted (40% to 60%) heavy duty coolant
- ethylene glycol or propylene glycol base heavy duty coolant concentrate in a 40% to 60% mixture of concentrate with quality water

Water Quality

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

IMPORTANT: Do not use cooling system sealing additives or antifreeze that contains sealing additives.

Do not mix ethylene glycol and propylene glycol base coolants.

Do not use coolants that contain nitrites.

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DX,COOL3 -19-03NOV08-1/1

Supplemental Coolant Additives

Some coolant additives will gradually deplete during engine operation. For John Deere COOL-GARD™ Premix, COOL-GARD Concentrate, or John Deere COOL-GARD PG Premix, replenish coolant additives between drain intervals by adding a supplemental coolant additive as determined necessary by coolant testing.

John Deere LIQUID COOLANT CONDITIONER is recommended as a supplemental coolant additive for John Deere COOL-GARD Premix, COOL-GARD Concentrate, and COOL-GARD PG Premix.

John Deere LIQUID COOLANT CONDITIONER is not designed for use with COOL-GARD II Premix or COOL-GARD II Concentrate.

IMPORTANT: Do not add a supplemental coolant additive when the cooling system is drained and refilled with any of the following:

- **John Deere COOL-GARD II**
- **John Deere COOL-GARD**
- **John Deere COOL-GARD PG**

If other coolants are used, consult the coolant supplier and follow the manufacturer's recommendation for use of supplemental coolant additives.

The use of non-recommended supplemental coolant additives may result in additive drop-out and gelation of the coolant.

Add the manufacturer's recommended concentration of supplemental coolant additive. DO NOT add more than the recommended amount.

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DX,COOL4 -19-03NOV08-1/1

Additional Information About Diesel Engine Coolants and John Deere COOL-GARD™ II COOLANT EXTENDER

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

Coolant Specifications

John Deere COOL-GARD™ II Premix is a fully formulated coolant that contains all three components in their correct concentrations. DO NOT add an initial charge of John Deere COOL-GARD II COOLANT EXTENDER to COOL-GARD II Premix. DO NOT add any other supplemental coolant additive or water to COOL-GARD II Premix.

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

Replenish Coolant Additives

Some coolant additives will gradually deplete during engine operation. Periodic replenishment of inhibitors is required, even when John Deere COOL-GARD II Premix or COOL-GARD II Concentrate is used. Follow the recommendations in this manual for the use of John Deere COOL-GARD II COOLANT EXTENDER.

Why use John Deere COOL-GARD II COOLANT EXTENDER?

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

John Deere COOL-GARD II COOLANT EXTENDER is a chemically matched additive system designed to fortify the proprietary additives used in John Deere COOL-GARD II Premix and COOL-GARD II Concentrate and to provide optimum protection for up to 6 years or 6000 hours of operation.

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Avoid Automotive-type Coolants

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

Water Quality

Water quality is important to the performance of the cooling system. Distilled, deionized, or demineralized water is recommended for mixing with ethylene glycol and propylene glycol base engine coolant concentrate. All water used in the cooling system should meet the following minimum specifications for quality:

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

Freeze Protection

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

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

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

DX,COOL17 -19-03NOV08-1/1

Operating in Warm Temperature Climates

John Deere engines are designed to operate using glycol base engine coolants.

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

John Deere COOL-GARD™ II Premix is available in a concentration of 50% ethylene glycol. However, there are situations in warm temperature climates where a coolant with lower glycol concentration (approximately 20% ethylene glycol) has been approved. In these cases, the low glycol formulation has been modified to provide the same level of corrosion inhibitor as John Deere COOL-GARD II Premix (50/50).

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

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

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

DX,COOL6 -19-03NOV08-1/1

Testing Diesel Engine Coolant

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

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

Coolant Test Strips

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

When Using John Deere COOL-GARD II

John Deere COOL-GARD™ II Premix and COOL-GARD II Concentrate are maintenance free coolants for up to 6 years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix coolant. Test the coolant condition annually with coolant test strips designed for use with John Deere COOL-GARD II coolants. If the test strip chart indicates that additive is required, add John Deere COOL-GARD II COOLANT EXTENDER as directed.

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

When Using John Deere COOL-GARD

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

Add only the recommended concentration of John Deere LIQUID COOLANT CONDITIONER. DO NOT add more than the recommended amount.

CoolScan and CoolScan PLUS

For a more thorough evaluation of your coolant, perform a CoolScan™ or CoolScan PLUS™ analysis, where available. See your John Deere dealer for information.

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CoolScan is a trademark of Deere & Company
CoolScan PLUS is a trademark of Deere & Company

DX,COOL9 -19-03NOV08-1/1

Drain Intervals for Diesel Engine Coolant

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

John Deere COOL-GARD™ II Premix and COOL-GARD II Concentrate are maintenance free coolants for up to 6 years or 6000 hours of operation, provided that the cooling system is topped off using only John Deere COOL-GARD II Premix. Test the coolant condition annually with Coolant Test Strips designed for use with John Deere COOL-GARD II coolants. If the test strip chart indicates that additive is required, add John Deere COOL-GARD II COOLANT EXTENDER as directed.

When John Deere COOL-GARD Premix, COOL-GARD Concentrate or John Deere COOL-GARD PG Premix coolants are used, the drain interval may be extended to 5 years or 5000 hours of operation, provided that the coolant is tested annually AND additives are replenished, as needed, by adding a supplemental coolant additive.

If John Deere COOL-GARD II Premix or COOL-GARD II Concentrate is used, but the coolant is not tested OR additives are not replenished by adding John Deere COOL-GARD II COOLANT EXTENDER, the drain interval is 4 years or 4000 hours of operation. This drain interval only applies to COOL-GARD II coolants that have been maintained within a 40% to 60% mixture of concentrate with quality water.

If John Deere COOL-GARD Premix, COOL-GARD Concentrate, or COOL-GARD PG Premix is used, but the coolant is not tested OR additives are not replenished by adding a supplemental coolant additive, the drain interval is 3 years or 3000 hours of operation. This drain interval only applies to COOL-GARD Premix, COOL-GARD Concentrate, and COOL-GARD PG Premix that have been maintained within a 40% to 60% mixture of concentrate with quality water.

If a coolant other than COOL-GARD II, COOL-GARD, or COOL-GARD PG is used, reduce the drain interval to 2 years or 2000 hours of operation.

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DX,COOL11 -19-08JAN09-1/1

John Deere COOL-GARD™ II COOLANT EXTENDER

Some coolant additives will gradually deplete during engine operation. For John Deere COOL-GARD™ II Premix and COOL-GARD II Concentrate, replenish coolant additives between drain intervals by adding John Deere COOL-GARD II COOLANT EXTENDER.

John Deere COOL-GARD II COOLANT EXTENDER should not be added unless indicated by coolant testing.

John Deere COOL-GARD II COOLANT EXTENDER is a chemically matched additive system approved for use with John Deere COOL-GARD II coolants in all John Deere engines.

John Deere COOL-GARD II COOLANT EXTENDER is not designed for use with John Deere COOL-GARD coolants.

IMPORTANT: Do not add a supplemental coolant additive when the cooling system is drained and refilled with any of the following:

- **John Deere COOL-GARD II**
- **John Deere COOL-GARD**
- **John Deere COOL-GARD PG**

The use of non-recommended supplemental coolant additives may result in additive drop-out, gelation of the coolant, or corrosion of cooling system components.

Add the recommended concentration of John Deere COOL-GARD II COOLANT EXTENDER. DO NOT add more than the recommended amount.

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DX,COOL16 -19-03NOV08-1/1

Diesel Engine Oil

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

John Deere Plus-50™ II oil is preferred.

John Deere Plus-50™ is also recommended.

Other oils may be used if they meet one or more of the following:

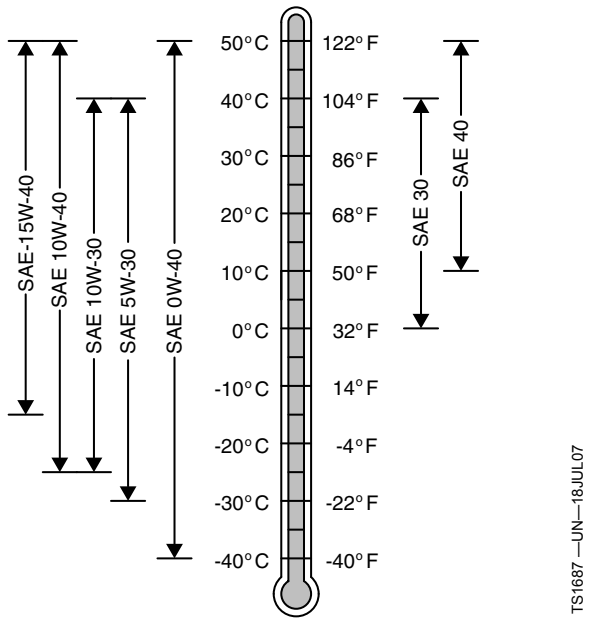
- John Deere Torq-Gard Supreme™
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- API Service Category CH-4
- API Service Category CG-4
- API Service Category CF-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4
- ACEA Oil Sequence E3
- ACEA Oil Sequence E2

If oils meeting API CG-4, API CF-4, or ACEA E2 are used, reduce the service interval by 50%.

Multi-viscosity diesel engine oils are preferred.

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

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



Oil Viscosities for Air Temperature Ranges

If diesel fuel with sulfur content greater than 0.50% (5000 mg/kg) is used, reduce the service interval by 50%.

DO NOT use diesel fuel with sulfur content greater than 1.00% (10 000 mg/kg).

DX,ENOIL -19-03AUG09-1/1

Oil Filters

Filtration of oils is critical to proper operation and lubrication.

Always change filters regularly as specified in this manual.

Use filters meeting John Deere performance specifications.

DX,FILT -19-18MAR96-1/1

Diesel Engine Break-In Oil

New engines are filled at the factory with either John Deere Break-In™ or Break-In™ Plus Engine Oil. During the break-in period, add John Deere Break-In™ or Break-In™ Plus Engine Oil, respectively, as needed to maintain the specified oil level.

Operate the engine under various conditions, particularly heavy loads with minimal idling, to help seat engine components properly.

Change the oil and filter at 100 hours maximum for Break-In™ Oil or 500 hours maximum for Break-In™ Plus Oil during the initial operation of a new or rebuilt engine.

After engine overhaul, fill the engine with either John Deere Break-In™ or Break-In™ Plus Engine Oil.

If John Deere Break-In™ or Break-In™ Plus Engine Oil is not available, use a 10W-30 diesel engine oil meeting one of the following during the first 100 hours of operation:

- API Service Classification CE
- API Service Classification CD
- API Service Classification CC
- ACEA Oil Sequence E2
- ACEA Oil Sequence E1

Break-In is a trademark of Deere & Company.
Plus-50 is a trademark of Deere & Company.

IMPORTANT: Do not use Plus-50™ II, Plus-50 or engine oils meeting any of the following for the initial break-in of a new or rebuilt engine:

API CJ-4	**ACEA E9**
API CI-4 PLUS	**ACEA E7**
API CI-4	**ACEA E6**
API CH-4	**ACEA E5**
API CG-4	**ACEA E4**
API CF-4	**ACEA E3**
API CF-2	
API CF	

These oils will not allow the engine to break in properly.

John Deere Break-In™ Plus Engine Oil can be used for all John Deere diesel engines at all emission certification levels.

After the break-in period, use John Deere Plus-50 ™ II, John Deere Plus-50, or other diesel engine oil as recommended in this manual.

DX,ENOIL4 -19-03AUG09-1/1

Final Drive Oil

John Deere SAE 85W-140 API-GL5 Gear Lubricant is recommended. If other oils are used, they must meet requirements of:

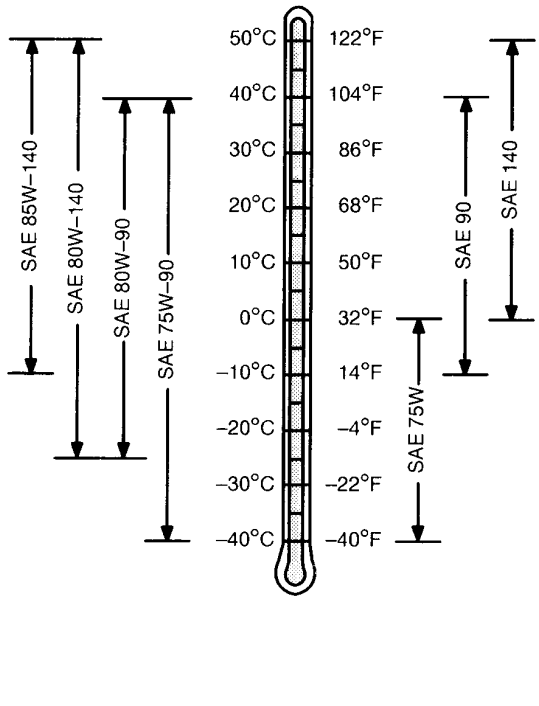
- API Service Classification GL-5
- Military Specification MIL-L-2105B
- Military Specification MIL-L-2105C

Depending on the expected prevailing temperature for the fill period, use oil of viscosity as shown in the chart.

Product Number	Description	Size
TY6256	85W/140 GL5 Gear Lube	18.9 L (5 gal)
TY6385	85W/140 GL5 Gear Lube	3.8 L (1 gal)

In Canada use:

Product Number	Description	Size
TY6276	85W/140 GL5 Gear Lube	20 L pail



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Hydraulic Pump Drive Gear Case, Hydrostatic Drive and Main Hydraulic Systems Oil

IMPORTANT: Do not mix hydraulic oils. Using only specified oil is recommended.

DO NOT use low viscosity oil.

The windrower comes from the factory with J20C HY-GARD™ oil.

Use only **J20C** HY-GARD™ oil.

OUO6085,00002B1 -19-22OCT09-1/1

Mixing of Lubricants

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

DX,LUBMIX -19-18MAR96-1/1

Grease

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

The following grease is preferred:

- John Deere SD POLYUREA GREASE

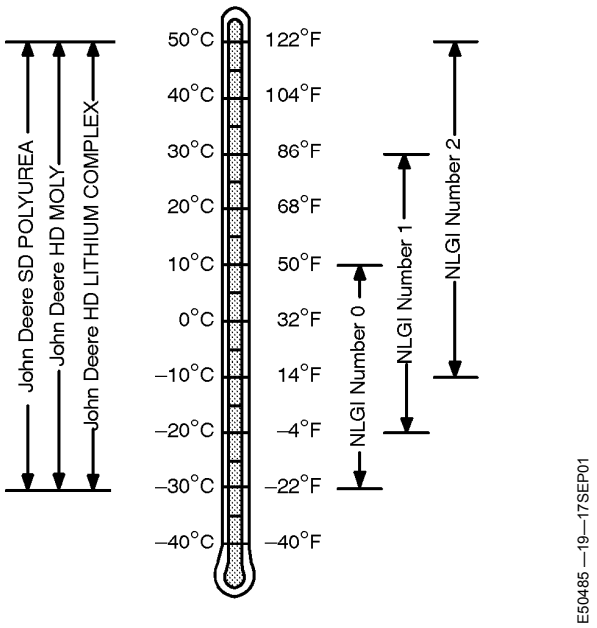
The following greases are also recommended:

- John Deere HD MOLY GREASE
- John Deere HD LITHIUM COMPLEX GREASE

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB

IMPORTANT: Some types of grease thickener are not compatible with others. Consult your grease supplier before mixing different types of grease.



OUO1078,00013BC -19-13SEP01-1/1

Capacities

Fuel Tank	477 L (126 U.S. gal)
Cooling System w/Heater	29.3 L (7.75 U.S. gal)
Engine Crankcase w/Filters	12.3 L (13 qts)
Final Drives (Each) Planetary	1.5—1.6 L (3.2—3.25 U.S. pts)
Hydraulic/Hydrostatic Reservoir	94 L (25 U.S. gal)
Hydraulic Pump Drive Gear Case	3.8 L (4 U.S. qt)

OUO6085,0000141 -19-20NOV09-1/1

Lubricant Storage

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

Use clean containers to handle all lubricants.

Whenever possible, store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

DX,LUBST -19-18MAR96-1/1

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

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

The temperature limits and service intervals shown in this manual apply to both conventional and synthetic oils.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER -19-15JUN00-1/1

Perform Lubrication and Maintenance

CAUTION: To prevent injury, never lubricate or service windrower or engine while it is running. Lower platform to the ground or raise platform and engage platform lift lock out. Engine must be off and key removed.

IMPORTANT: The service times are for average conditions. Service more often if windrower is used in extreme conditions.

Perform each lubrication and service illustrated in this section both at the beginning of the season, and at the end of the season.

Clean grease fittings before using grease gun. Replace any lost or broken fittings immediately. If a new fitting fails to take grease, remove and check for failure of adjoining parts.

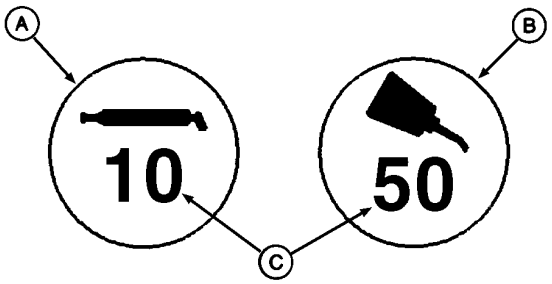
OUO1078,0001479 -19-05NOV01-1/1

Observe Lubrication Symbols

Follow hourly (C) intervals on lubrication symbols (A) and (B).

LUBRICATION SYMBOL (A) Lubricate with John Deere SD POLYUREA grease or equivalent SAE multipurpose grease (unless otherwise specified). See Grease in FUEL, COOLANT, AND LUBRICANTS section.

OIL SYMBOL (B) Lubricate with SAE 30 or heavier oil.



E44517 —UN—29OCT97

A—Lubrication Symbol
B—Oil Symbol
C—Hourly Interval

OUO6085,000024E -19-03AUG09-1/1

Service Interval Display

- Use operating hours as a guide when performing the required service interval on the windrower.
- Service interval starts at 50 hours and counts down to zero hours when engine is running.
- The only time the operator will see **SErc** on numeric display one (A) is when the service interval 50 hours is required.
- If required service interval hours have been passed, numeric display two (B) will show a minus symbol in front of hours. It will then show number of hours past required service interval until service interval display is reset.
- If operator was in diagnostics or adjusting settings which effect the display, and service interval was trying to display due to service hours passing, displaying will wait 30 seconds before trying to display again. Process will continue until it is able to display. Then hour timer will start again before it displays.
- To stop displaying service interval with no reset entering diagnostics, pressing platform speed switch, float pressure switch, area counter switch, hour meter switch, or waiting 60 seconds will turn service interval number off.
- To reset service interval display, service interval must be displayed. With service interval displayed, adjust setpoint encoder in either direction. Service reset indicator **rESt** will show in numeric display one (A) as well as hours past required service will show in numeric display two (B), this will remain on for 5 seconds before turning off and resetting.
- Operator can view service intervals through diagnostics as well as reset service intervals through diagnostics.

E57821 —UN—06AUG09

Service Interval Display Shown

E57822 —UN—06AUG09

Service Reset Indicator Shown

A—Numeric Display One **B—Numeric Display Two**

OUO6085,00000CD -19-06AUG09-1/1

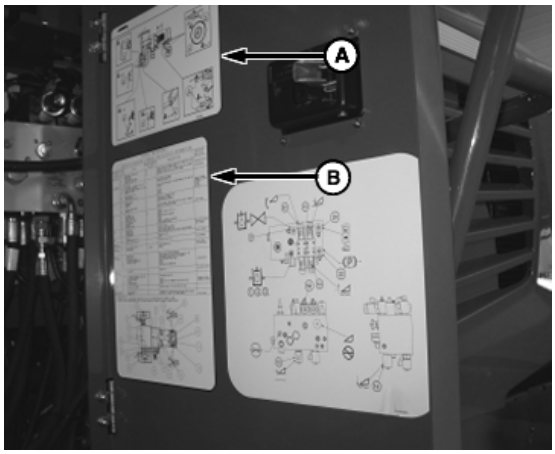
Periodic Maintenance and Lubrication Labels

Periodic maintenance label (B) and lubrication label (A) are mounted on the inside of the left-hand compartment door behind the cab.

They are intended as convenient reference guides.

Refer to the appropriate section in this manual for instructions concerning the performance of the required maintenance.

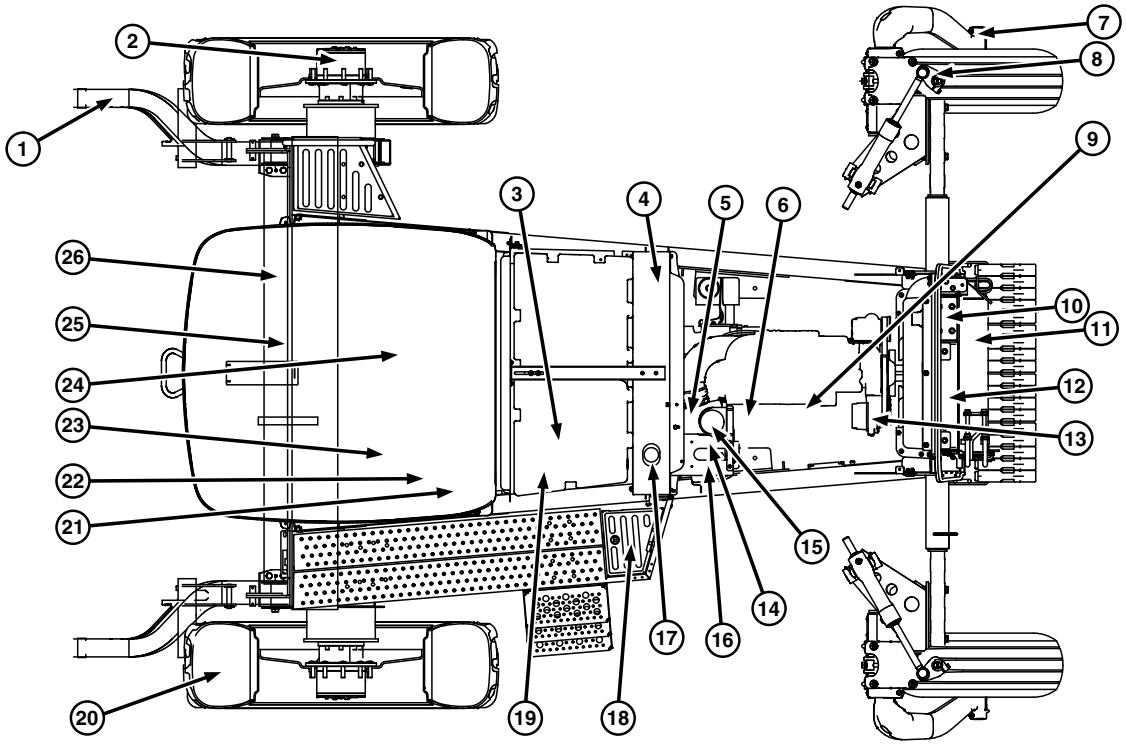
A—Periodic Lubrication Label **B—Periodic Maintenance Label**



E57133 —UN—12MAY09

OUO6085,0000175 -19-16JUN09-1/1

Break-In

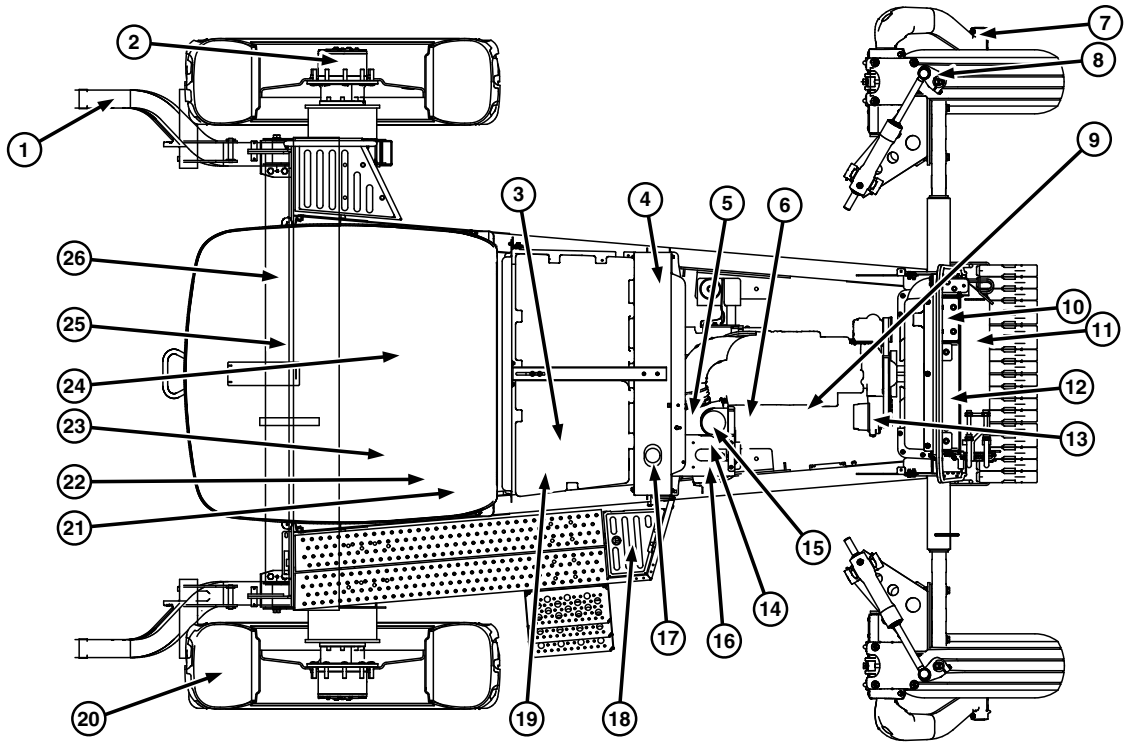


E57799 —UN—04AUG09

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION / MAINTENANCE DESCRIPTION	APPROVED MATERIAL
2	Final Drives	2	Replace Oil (after first 50 hours)	SAE 85W-140 API-GL5
2	Final Drive Cover Cap Screws	2	Tighten to 75 N·m (55 lb-ft) (after first 50 hours)	
2	Front Wheel Nuts	16	Tighten after first hour and then every 4 hours until tight	
7	Rear Wheel Cap Screws	12	Tighten after first hour and then every 4 hours until tight	
9	Engine Oil and Filter	2	Replace oil and filter (after first 100 hours)	Filter -RE504836

OUO6085,0000133 -19-20NOV09-1/1

As Required



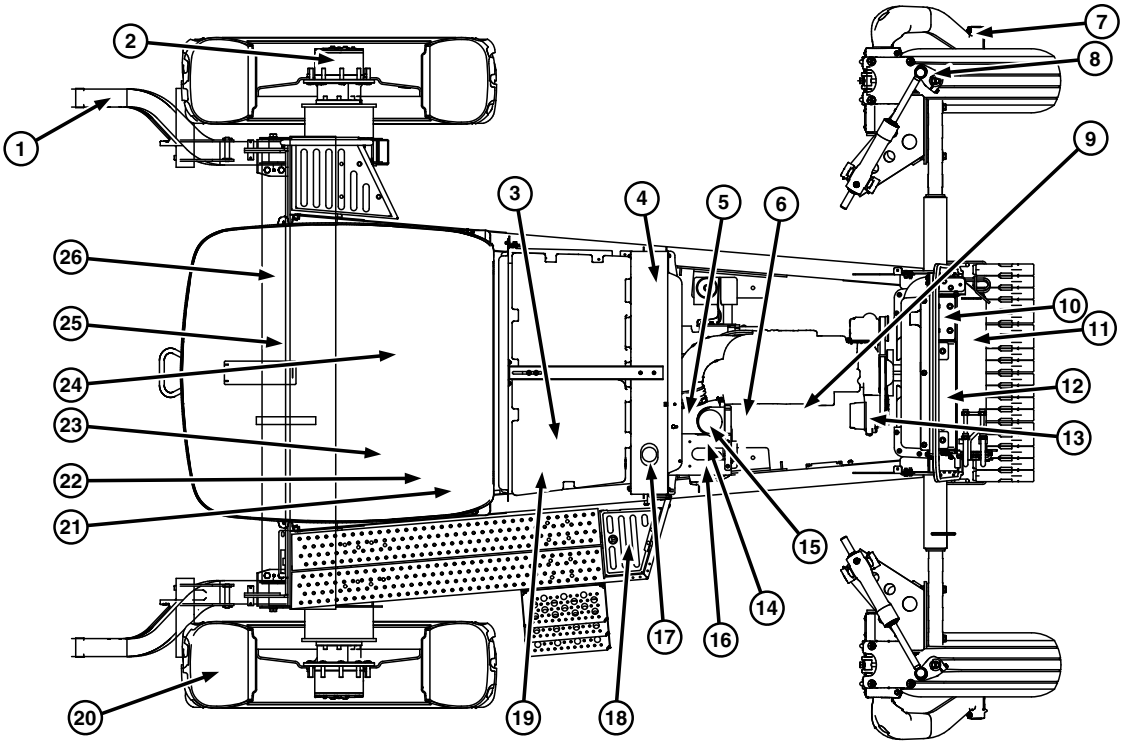
E57799 —UN—04AUG09

NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
3	Fuel Tank	1	Drain water and sediment	
10, 11,12	Charge Air Cooler, Combination Cooler, Radiator	3	Clean debris from fins	
15, 16	Engine rain cap or primary air filter	2	Clean rain cap screen or primary filter when warning light comes on	
16	Engine air filters	2	Replace	Primary- AT300487 Secondary - AT314583
3	Fuel tank inlet strainer	1	Check for sediment and clean	
21	Cab Fresh Air Filter	1	Replace	AH115833
21	Cab Pre-Cleaner	1	Clean	
22	Cab Recirculating Filter	1	Replace	H220870

OUO6085,0000134 -19-07AUG09-1/1

Every 10 Hours



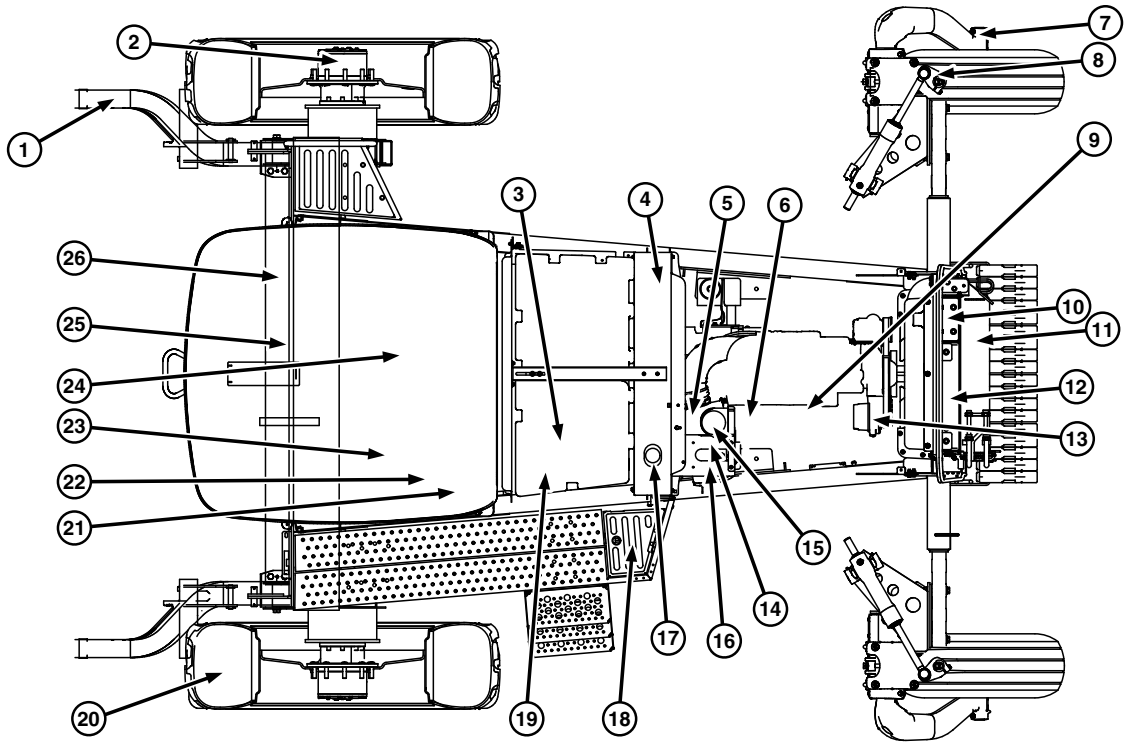
E57799 —UN—04AUG09

NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
14	Engine Coolant	1	Check level at coolant overflow tank	
13	Alternator	1	Clean debris off screen	
9	Engine Oil	1	Check oil level on dipstick	
15	Engine air pre-cleaners	2	Check rain cap screen and dust unloader valve (A400 an D400 only)	
6	Engine fuel filter	2	Drain water from water separator and secondary fuel filter	
17	Hydrostatic Oil	1	Check level at tank sight tube	J20C HY-GARD®

OUO6085,0000135 -19-23APR09-1/1

Every 50 Hours



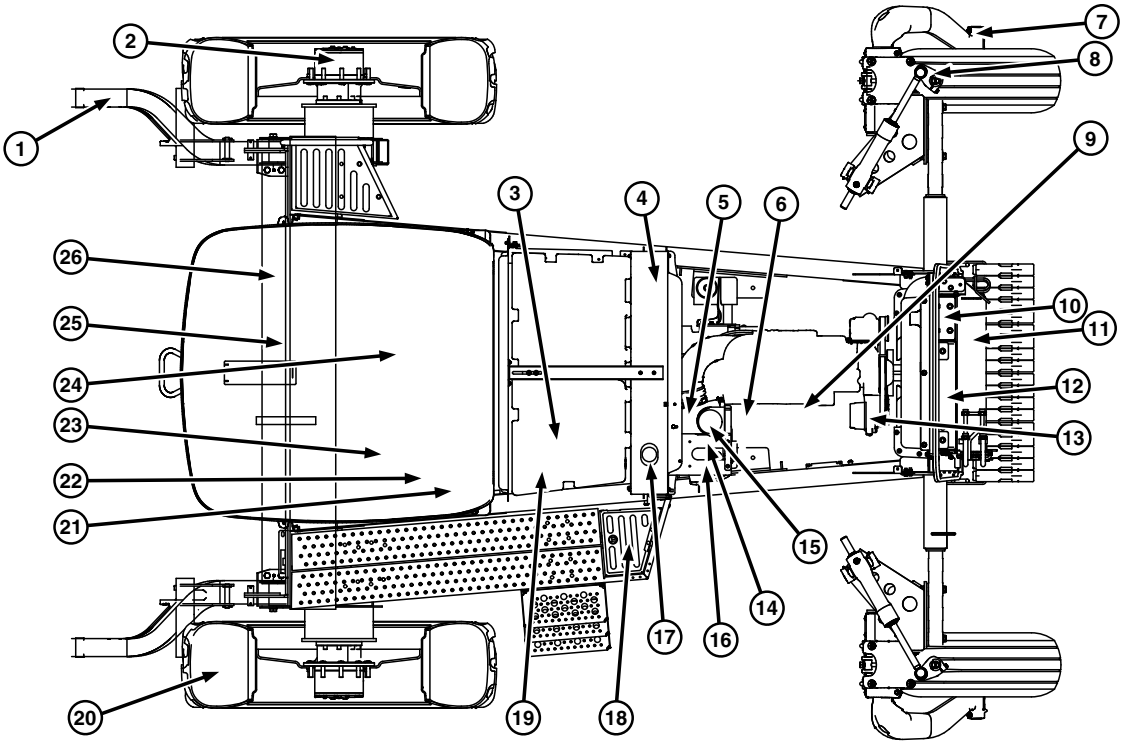
E57799 —UN—04AUG09

NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION / MAINTENANCE DESCRIPTION	APPROVED MATERIAL
1	Lift Arm	4	Grease	
2	Front Wheel Nuts	24	Tighten to 780 N·m (575 lb-ft)	
8	Rear axle	10	Grease	
6	Engine Fuel Filter	1	Check for water and sediment	
21	Cab Fresh Air Filter	1	Clean	
21	Cab Precleaner	1	Clean	
26	Rockshaft	5	Grease (2 Rockshaft, 3 Bearings)	
24	Operator Presence	1	Check Operator Presence	

OUO6085,0000136 -19-24JUL09-1/1

Every 100 Hours



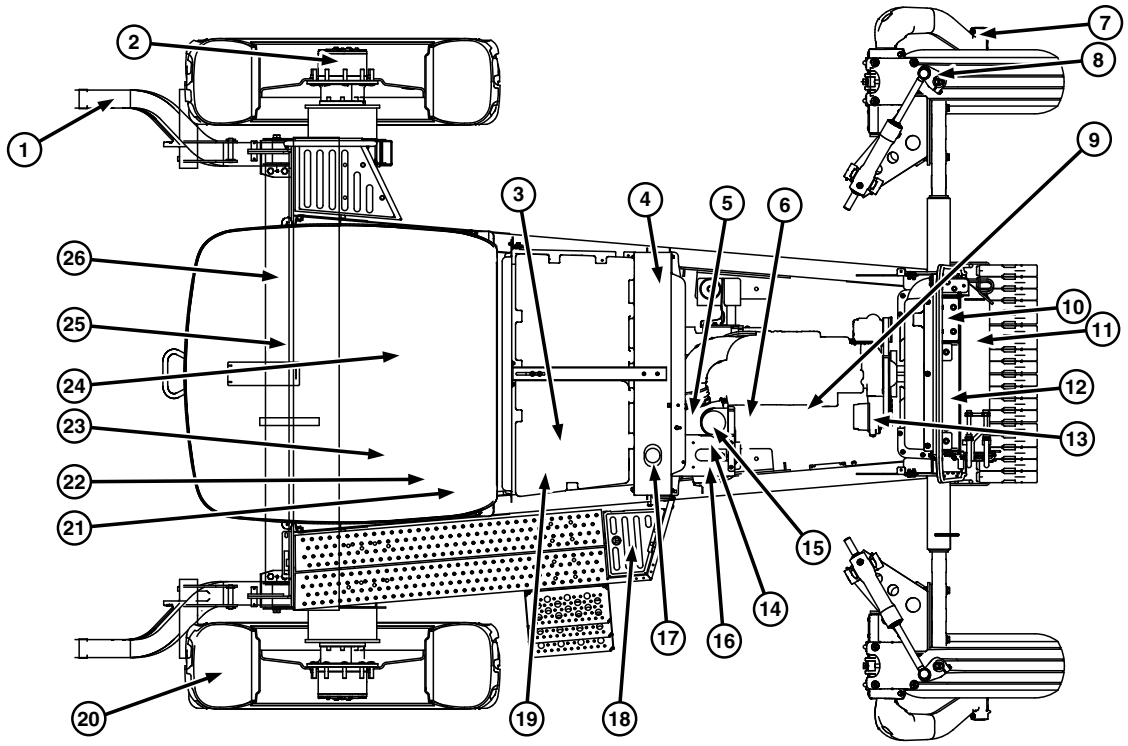
E57799 —UN—04AUG09

NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
2	Final Drives	2	Check Oil Level	SAE 85W-140 API-GL5
5	Pump Drive Gear Case	1	Check oil level on dipstick	J20C Hy-Gard
7	Rear Wheel Hub	2	Check bearings, grease hub	
20	Tire pressures	4	Check pressure (See “Tire inflation Pressures” in Wheels, Steering, Brakes, and Rear Axle section)	

OUO6085,0000137 -19-05NOV09-1/1

Every 250 Hours or Each Season[1]



NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
16	Battery	1	Check water level	Distilled water
20	Cab Recirculating Filter	1	Clean	
3	Fuel tank	1	Drain fuel tank sump	
9	Engine oil and filter[a]	2	Replace oil and filter	Filter RE504836

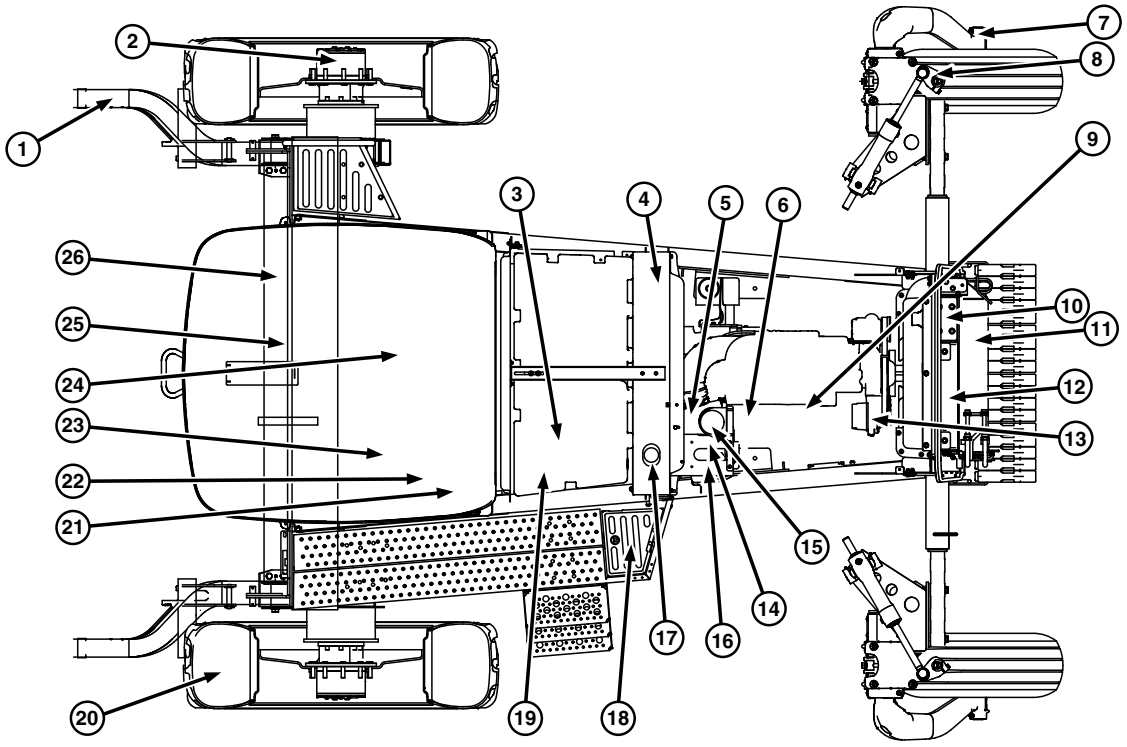
[a]If John Deere PLUS-50™ II oil is used along with a John Deere oil filter, oil chang interval may be extended by 250 hours. If diesel fuel sulfur content is greater than 0.1%, see Operators manual for oil change interval.

[1]Whichever occurs first

OUO6085,0000138 -19-09OCT09-1/1

Every 400 Hours or Each Season[1]

NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.



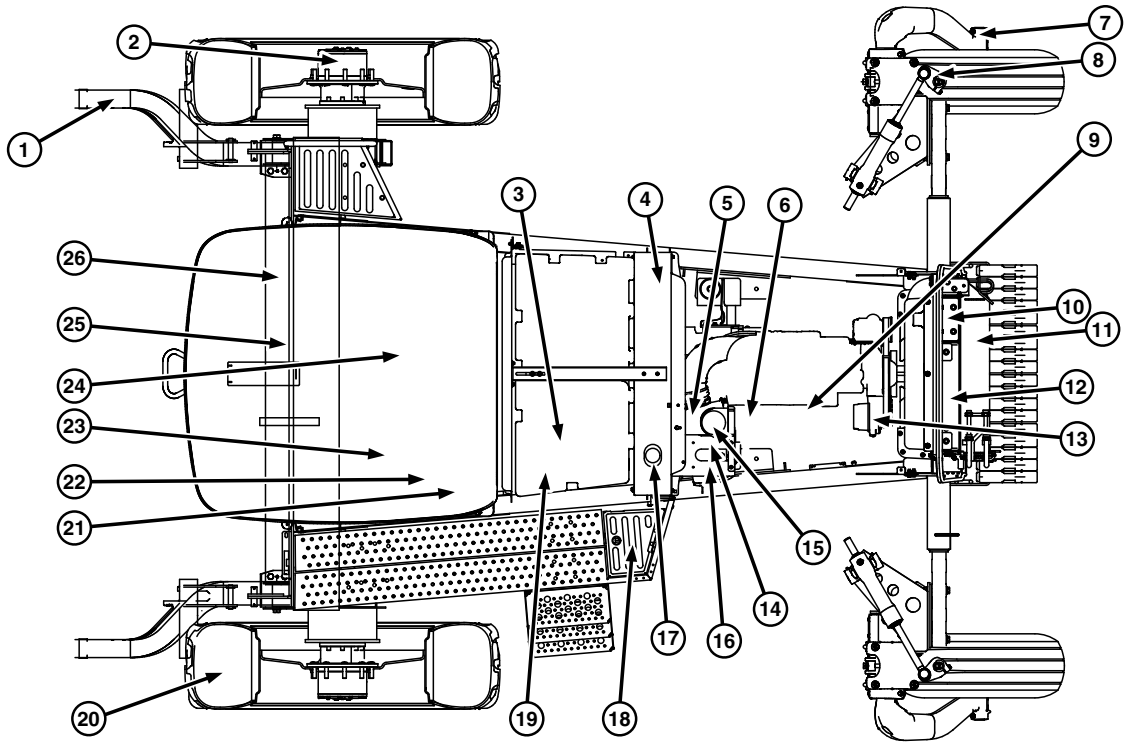
E57799 —UN—04AUG09

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
5	Pump drive gear case	1	Drain and refill oil	J20C Hy-Gard
19	Hydrostat filter	1	Replace	Filter AH128449

[1]*Whichever comes first.*

OUO6085,000024F -19-26OCT09-1/1

Every 500 Hours or Each Season[1]



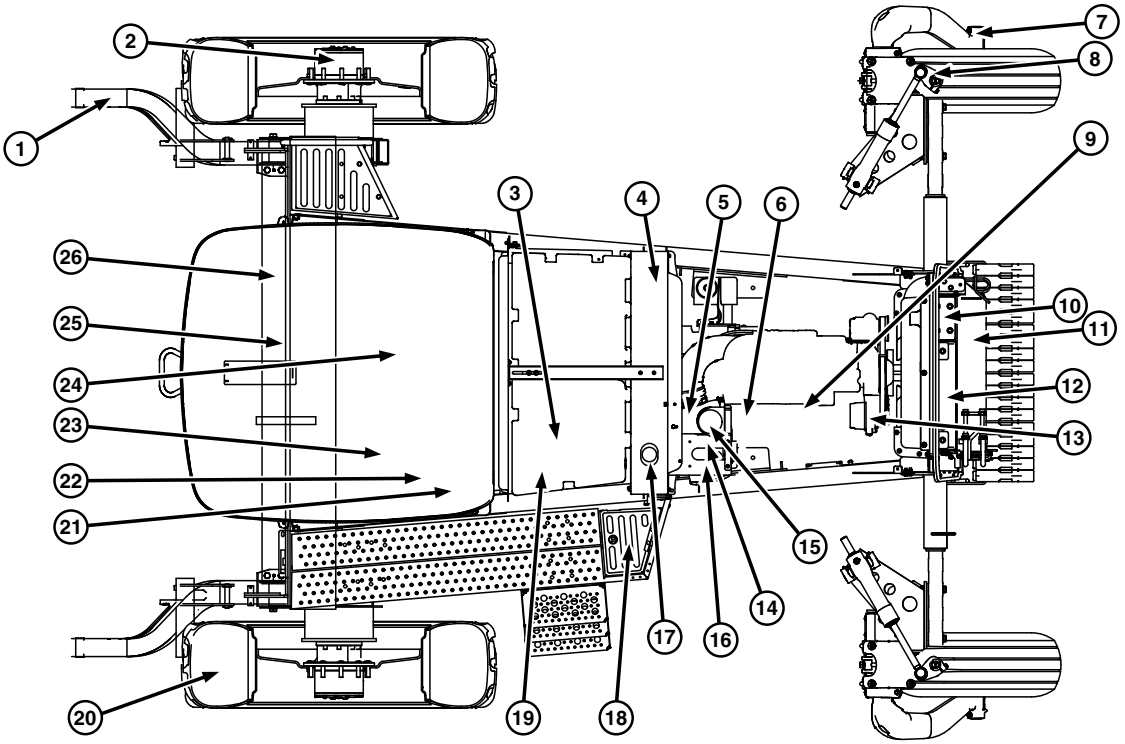
NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
4	Fuel Tank Vent Filter	1	Clean in Soapy Water and Blow Dry	Filter H216169
14	Engine Coolant	1	See Fuel, Coolant and Lubricants section for coolant replacement	
13	Engine fan belt	1	Check tensioner and belt wear	
6	Engine mounts	4	Check mounts	
6	Primary fuel filter, final fuel filter	2	Replace	Primary RE529643 Secondary RE522878
6	Crank case vent tube	1	Clean	
15, 16	Engine air intake system	1	Check hoses and connections	

[1]*Whichever comes first.*

OUO6085,000013A -19-16JUN09-1/1

Every 800 Hours or Each Season[1]



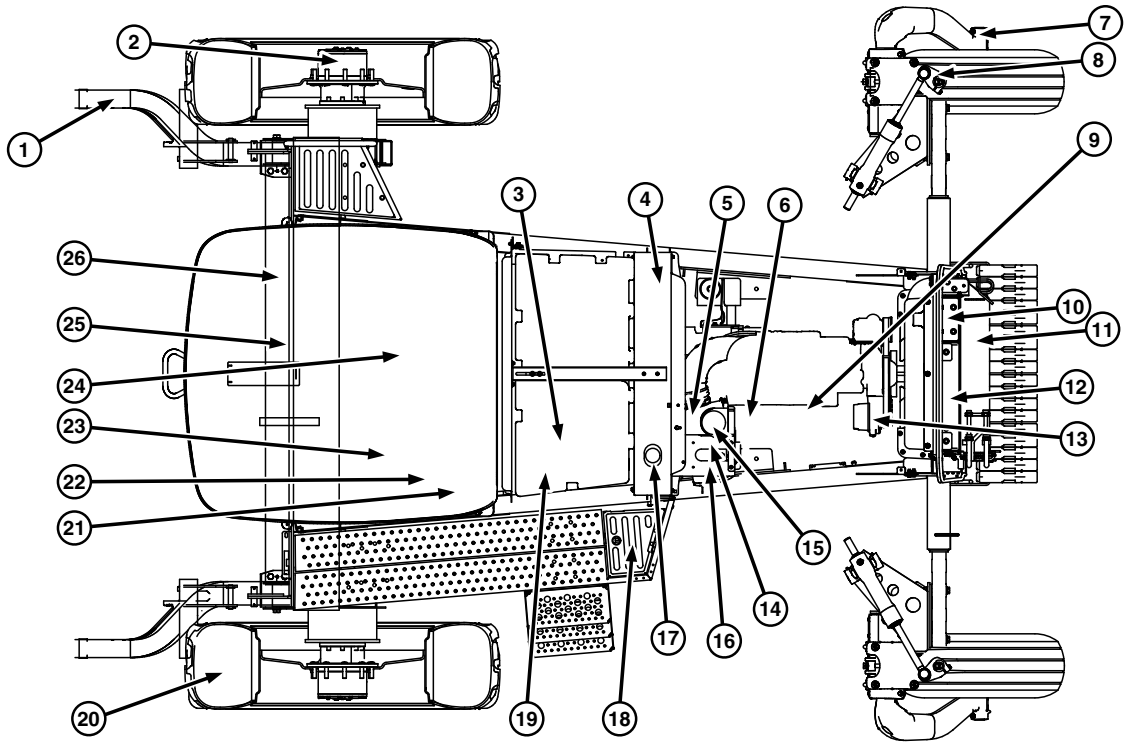
NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
2	Final Drives	2	Replace oil	SAE 85W-140 API-GL5

[1]*Whichever comes first.*

OUO6085,000013C -19-24MAR09-1/1

Each Season



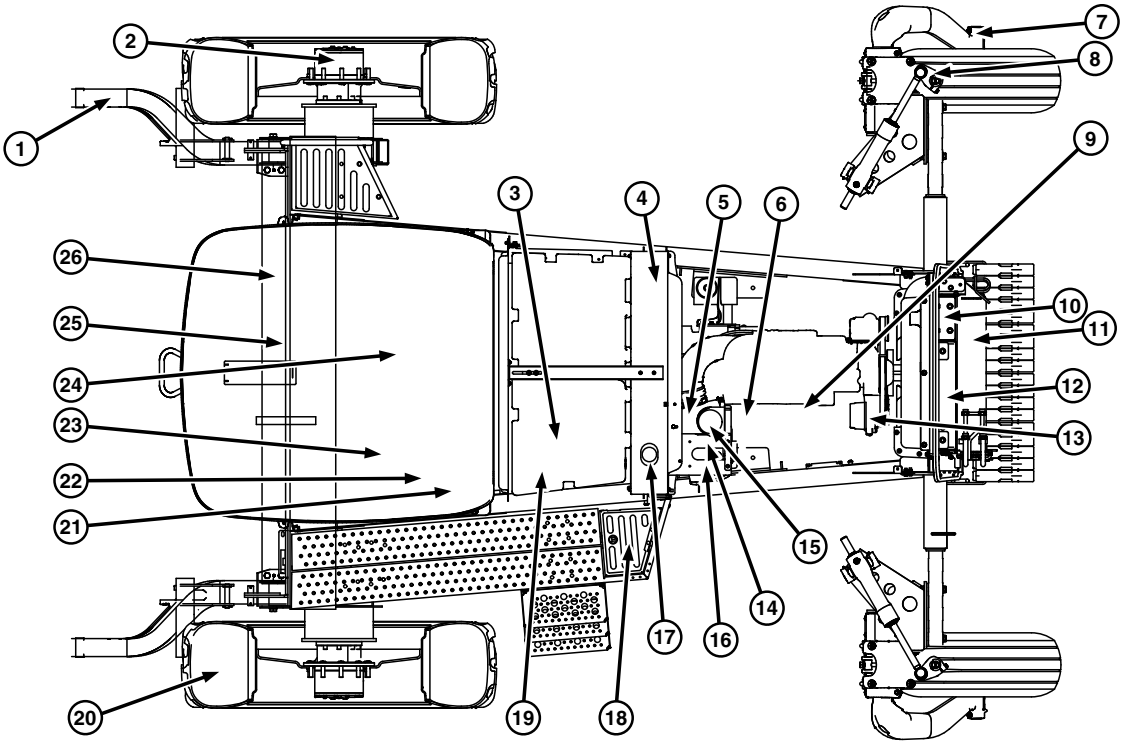
E57799 —UN—04AUG09

NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
10, 11, 12,	Charge Air Cooler, Combination Cooler, Radiator	3	Clean debris from fins	
16	Engine Air Filters	2	Replace	Primary AT300487 Secondary AT314583
23, 24	Seat Belt	2	Inspect seat belts components for excessive wear	
25	Steering Components	3	Grease	

OUO6085,000013D -19-14APR09-1/1

Every 2000 Hours or Every Other Season[1]



NOTE: Operating conditions may vary. Under certain conditions it may be necessary to check and service the unit more frequently than recommended.

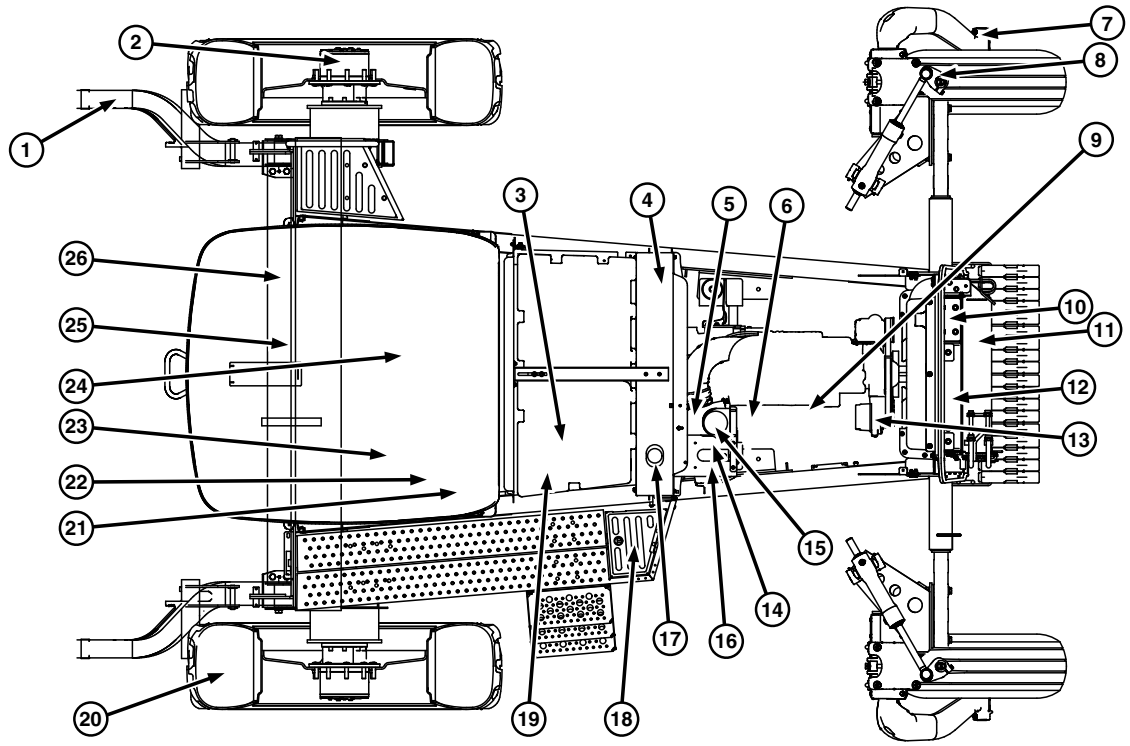
ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
9	**Engine Valve Clearance**	**1**	**Check and adjust. See you John Deere dealer**	
14	Engine Coolant[a]	1	Pressure test, flush cooling system and replace coolant. (See Fuel, Coolant and Lubricants section)	
17	Hydrostat Oil	1	Replace oil. Clean fill cap and strainer.	J20C HY-GARD®

[a]Initial change interval is 6 years or 6000 hours provided cooling system is topped off using only John Deere Cool Guard II premix and coolant is tested ar recommended intervals. After initial service, next scheduled interval (2 years or 2000 hours) can be extended up to 6 years or 6000 hours depeding on coolant used and if coolant is tested at recommended intervals. See Operators manual.

[1]Whichever comes first.

OUO6085,000013F -19-16JUN09-1/1

4500 Hours or 5 Years[1]



ITEM	ITEM DESCRIPTION	POINTS	LUBRICATION/MAINTENANCE DESCRIPTION	APPROVED MATERIAL
6	Crankshaft vibration damper	1	Replace damper (See your John Deere dealer.)	

[1]*Whichever comes first.*

OUO6085,0000250 -19-04AUG09-1/1

Displaying of Diagnostic Trouble Codes (DTCs)

SPN/FMI Codes

Warning indicators (A) will light up when a trouble is sensed. Trouble codes will then show up on the corner post monitor when you access the DTCs.

Stored and active diagnostic trouble codes are output on the corner post monitor according to the J1939 standard as a two-part code as shown on corner post monitor in numeric display number one and number two.

The first part is a Suspect Parameter Number (SPN) followed by a Failure Mode Identifier (FMI) code.

The SPN identifies the system or component that has a failure; for example SPN 110 indicates a failure in the engine coolant temperature circuit.

The FMI identifies the type of failure that has occurred; for example FMI 03 indicates value above normal. Combining the SPN with FMI yields a fault code. See procedure below for checking codes.

E57000 —UN—29OCT09

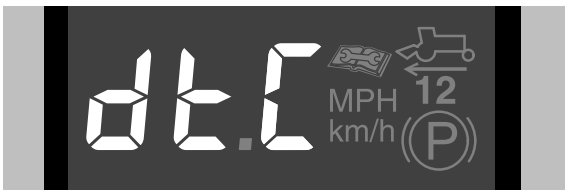
Write down all blinking codes and contact your servicing dealer. Give them the codes, they will check the diagnostics and test manual and advise on corrective action.

Always contact your servicing dealer for help in correcting diagnostic trouble codes which are displayed for your machine.

Continued on next page

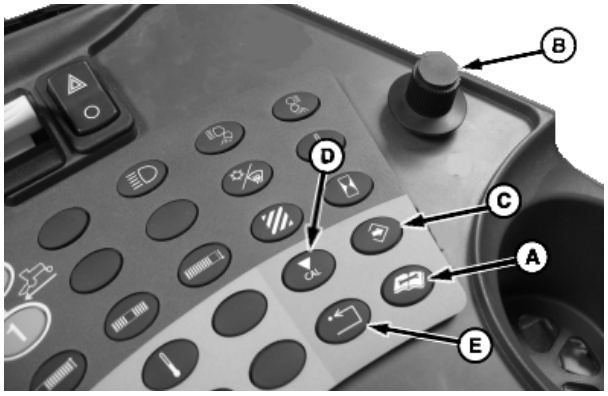
OUO6085,0000147 -19-10NOV09-1/19

Accessing Diagnostic Trouble Code Menu



E58099 —UN—16OCT09

Numeric Display Three



E58136 —UN—29OCT09

1. Press diagnostic mode switch (A) and rotate selection dial (B) until “dtC “ is displayed on Numeric Display Three.
2. Pressing diagnostic enter switch (C) enters the diagnostic trouble code menu. “SEL - tLA” will be displayed on Numeric display three and one if there is a code. To return to a previous code, press diagnostic return switch (E).

A—Diagnostic Mode Switch
B—Selection dial
C—Diagnostic Enter Switch
D—Diagnostic Calibration Switch
E—Diagnostic Return Switch

E58182 —UN—10NOV09

Continued on next page

OUO6085,0000147 -19-10NOV09-2/19

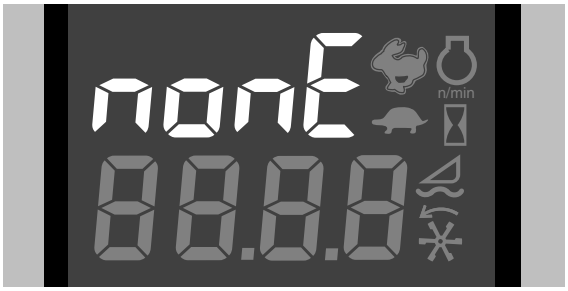
3. Rotate selection dial clockwise or counterclockwise to scroll through the controller list. Example: If the “three letter acronym”, (example-CAb), has a diagnostic trouble code, it will show on the monitor as CAb CodE.

   If the CAb has no diagnostic trouble code, it will show on the monitor as CAb nonE.

4. Rotate the selection dial until desired controller (example- CAb or PDU) is displayed on Numeric Display three and press the diagnostic enter switch.

E58101 —UN—16OCT09

CAb CodE



E58102 —UN—16OCT09

CAb nonE

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NOTE: It may be necessary to rotate selection dial to scroll through trouble codes if multiple codes are displayed.

5. Screen will display the following:

   - Controller (three letter deffinition in Numeric Display Three)
   - Trouble Code (7 or 8 digit number in displays one and two.

   An active trouble code will be flashing. An inactive trouble code will be solid.

E58103 —UN—16OCT09

Continued on next page

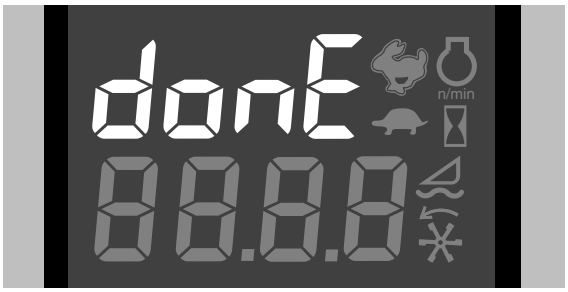
OUO6085,0000147 -19-10NOV09-4/19

To clear inactive trouble codes within a controller, rotate selection dial until “CLr” displays on Numeric Display One. Press the diagnostic enter switch to clear the diagnostic trouble codes. To know when DTCs are cleared, “donE” will show.

To return to previous screens, press the diagnostic return switch

Press the diagnostic mode switch to exit diagnostics and return to the home page.

E58104 —UN—16OCT09



E58105 —UN—16OCT09

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OUO6085,0000147 -19-10NOV09-5/19

Accessing Diagnostic Address Menu

NOTE: If equipped with optional GreenStar display, do not attempt to access diagnostic address information on both displays at the same time.

1. Press diagnostic mode switch on console and rotate selection dial until “dIA” is displayed on Numeric Display Three.
2. Press the diagnostic enter switch on the console to enter diagnostic addresses.
3. Rotate selection dial clockwise or counterclockwise to scroll through the controller list.

E58106 —UN—16OCT09

Numeric Display Three

OUO6085,0000147 -19-10NOV09-6/19

4. Rotate selection dial until desired controller is displayed on Numeric Display Three and press the diagnostic enter switch. “dIA” will show in Numeric Display One.

Screen allows operator to select a desired controller and make modification/changes or view addresses (see your John Deere dealer).

E58107 —UN—16OCT09

Display Three and One

Continued on next page

OUO6085,0000147 -19-10NOV09-7/19

Screen will display the following:

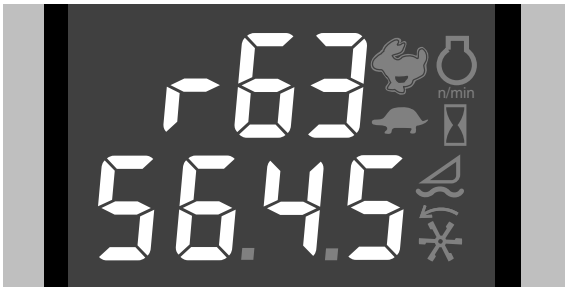
- Diagnostic Address
- Diagnostic Address Value

Few diagnostic addresses will be available for modification by the operator.

There are diagnostic values from various inputs, outputs and sensors. There are also interactive calibrations indicated by “CAL” on Numeric Display One. There are data input calibrations indicated by “InP” on Numeric Display One.

E58108 —UN—16OCT09

Numeric Display Three and Two



E58109 —UN—16OCT09

Numeric Display Three, One and Two

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OUO6085,0000147 -19-10NOV09-8/19

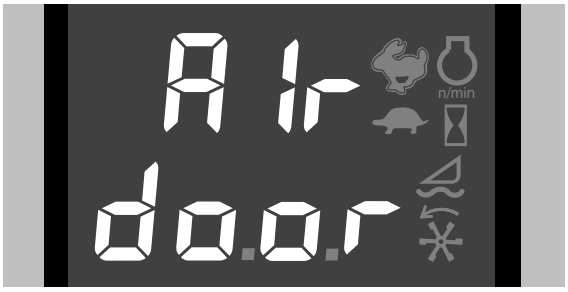
There should be no need for operators to perform any interactive calibration procedures, however, the display will look like: CAL in Numeric Display One will alternate with diagnostic address (DA).

For an “InP” calibration procedure:

Example: Diagnostic Address 071 Windrower Platform Type. 071 and InP will alternate (diagnostic address and InP will alternate, value will show (example-104).

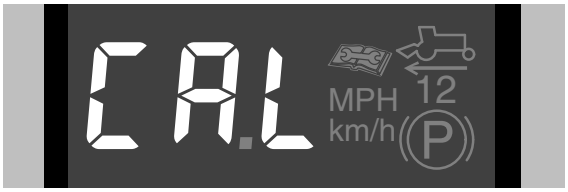
To change the value:

Press diagnostic enter switch, the far left value will flash which means this value can be changed. Rotate selection dial to change value, press diagnostic calibration switch to move to next value to the right and use selection dial to change value as well. Press diagnostic enter switch to save value.



E58110 —UN—16OCT09

Numeric Display Three, One, and Two



E58111 —UN—16OCT09

Numeric Display Three and Two

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OUO6085,0000147 -19-10NOV09-9/19

Example of how an InP will Look:

E58112 —UN—16OCT09

Numeric Display Three and Two

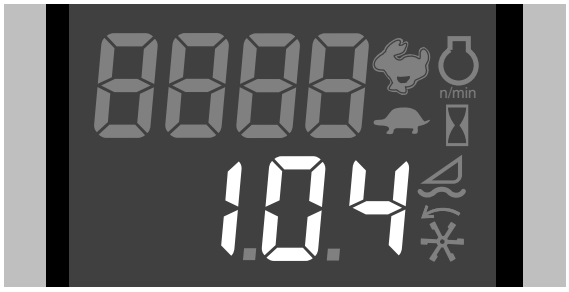
E58113 —UN—16OCT09

Numeric Display Three and Two

Continued on next page

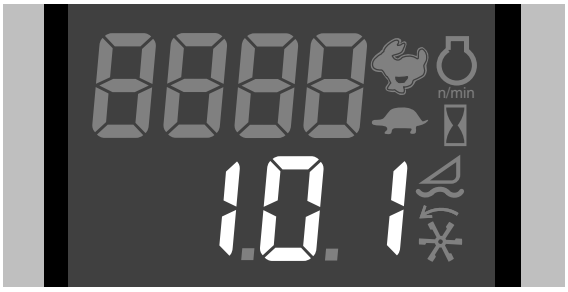
OUO6085,0000147 -19-10NOV09-10/19

Example of flashing:



E58114 —UN—16OCT09

Rotary Header



E58115 —UN—16OCT09

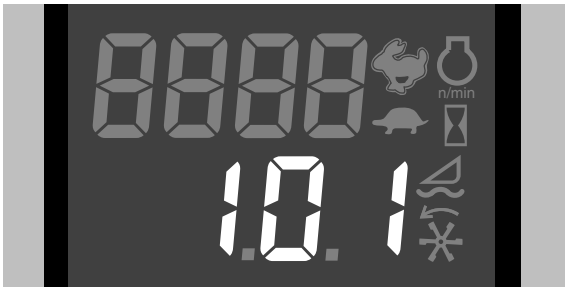
Sickle Header

Above, went from a rotary header to a sickle header.

To return to previous screens, press the diagnostic return switch.

Press the diagnostic mode switch to exit diagnostics and return to the home page.

Diagnostic Addresses Modifiable by Operator - CAB - Control Unit CAB



E58116 —UN—16OCT09

Sickle Header

TLA	DA	Description	Description and Input Values	
CAB	071	Windrower Platform Type	Header Description	Header Number
			Sickle - 14 Foot	100
			Sickle - 16 Foot	101
			Sickle - 18 Foot	102
			Rotary Platform - 4 Meter	103
			Rotary Platform - 4.5 Meter	104
			Rotary Platform - 5 Meter	105
			HoneyBee Draper - 21 Foot	110
			HoneyBee Draper - 25 Foot	111

Continued on next page

			HoneyBee Draper - 30 Foot	112
			HoneyBee Draper - 36 Foot	113
			Other	114
CAB	072	Units of Measure	Units	Value
			Metric	0
			English	1

Diagnostic Trouble Code Priorities

IMPORTANT: These diagnostic trouble codes are listed for reference only. Go to the diagnostic group of the problem system for specific diagnostic information.

Each diagnostic trouble code (DTC) has a priority. The priority of the DTC is indicated in the way the DTC is displayed to the operator:

- Stop—Indicated a problem that requires the machine be stopped, the engine turned OFF immediately and the problem corrected. DTC is shown until problem is resolved.
- Service Alert—Indicates a problem and should be checked immediately.
- Information—DTC is stored, but in not indicated to the operator.

To check diagnostic trouble codes for the following, see Diagnostic Trouble Code tables in this section.

- Primary Display Unit (PDU)
- Control Unit CAB and Cab Power Module (CAB)
- Engine Control Unit (ECU)

Diagnostic Trouble Codes

Diagnostic trouble codes for the PDU, ECU, and CAB are listed in the following tables.

The Cab codes will give a cab alarm. Check the table below. For failed items, see your John Deere dealer.

Cab Alarms				
DTC Variable	**SPN[a]**	**FMI[b]**	**Warining Light**	**Problem**
Hydraulic Oil Temperature	1638	0	Stop	Hydraulic oil temperature high
Hydraulic Oil Pressure Switch	1762	0	Stop	Hydraulic oil pressure switch failed or pressure too high
Hydraulic Oil Filter Restriction Switch	1713	0	Service alert	Hydraulic oil filter is restricted.
Fuel Level Low	96	17	Service alert	Fuel lever sensor reads less than 10% fuel remaining
Alternator Regulator	167	3	Service alert	Charging system putting out more that 16 volts. Regulator failed
Alternator	167	4	Service alert	Charging system putting out less than 12.5 volts. Alternator failed or alternator not charging.
Low System Voltage	168	1	Service alert	Battery voltage low, putting out less than 10.5 volts. Recharge or replace battery
Low Cutting Speed	520200	4	Information	Engine speed too low to cut crop. Increase speed.
Low Float Pressure	522139	01	Service alert	Float pressure below 7500 psi while in automatic lower.
Steering Linkage Neutral Switch	520270	1, 4	Service alert	Steering not centered.

[a] *Suspect Parameter Number (SPN)*
[b] *Failure Mode Identifier (FMI)*

Diagnostic Trouble Codes - PDU - Primary Display Unit				
Control Unit	SPN	FMI	Priority	Description
PDU	628	02	Service Alert	Control Unit malfunction: EEPROM check sum invalid. Clear code. Replace control unit PDU if condition persists.
PDU	629	12	Service Alert	Control Unit PDU has reset itself due to watchdog timer
PDU	639	12	Service Alert	CAN Bus 1 message not arriving on time or missing
PDU	639	14	Service Alert	No CAN Bus messages arriving

Continued on next page

Diagnostic Trouble Codes - ECU - Engine Control Unit				
Control Unit	SPN	FMI	Priority	Description
ECU	28	03	Service Alert	Thottle #3 votlage out of range high
ECU	28	04	Service Alert	Thottle #3 votlage out of range low
ECU	28	14	Service Alert	Throttle #3 voltage out of range
ECU	29	03	Service Alert	Throttle #2 voltage out of range high
ECU	29	04	Service Alert	Throttle #2 voltage out of range low
ECU	29	14	Service Alert	Throttle #2 voltage out of range
ECU	91	03	Service Alert	Throttle voltage out of range high
ECU	91	04	Service Alert	Throttle voltage out of range low
ECU	91	09	Service Alert	Missing or late CAN throttle message
ECU	91	14	Service Alert	Throttle voltage out of range
ECU	94	03	Service Alert	Fuel pressure voltage out of range high
ECU	94	04	Service Alert	Fuel pressure voltage out of range low
ECU	94	17	Service Alert	Fuel pressure low – least severe level
ECU	97	03	Service Alert	Water in fuel voltage out of range high
ECU	97	04	Service Alert	Water in fuel voltage out of range low
ECU	97	16	Stop	Water in fuel detected
ECU	100	01	Stop	Oil pressure low - most severe level
ECU	100	03	Service Alert	Oil pressure voltage out of range high
ECU	100	04	Service Alert	Oil pressure voltage out of range low
ECU	100	18	Service Alert	Oil pressure low – moderately severe level
ECU	100	31	Service Alert	Oil pressure detected at zero engine speed
ECU	105	00	Stop	Manifold air temperature high - most severe level
ECU	105	03	Service Alert	Manifold air temperature voltage out of range high
ECU	105	04	Service Alert	Manifold air temperature voltage out of range low
ECU	105	15	Service Alert	Manifold air temperature high - least severe level
ECU	105	16	Service Alert	Manifold air temperature high - moderately severe level
ECU	107	00	Service Alert	Air filter differential pressure high – most severe level
ECU	108	02	Service Alert	Barometric pressure invalid
ECU	110	00	Stop	Coolant temperature high - most severe level
ECU	110	03	Service Alert	Coolant temperature voltage out of range high
ECU	110	04	Service Alert	Coolant temperature voltage out of range low
ECU	110	15	Service Alert	Coolant temperature high - least severe level
ECU	110	16	Service Alert	Coolant temperature high - moderately severe level
ECU	110	17	Service Alert	Coolant temperature low - least severe level
ECU	111	01	Stop	Coolant level low – most severe level
ECU	157	01	Stop	Fuel pressure too low - most severe level
ECU	157	03	Stop	Rail pressure sensor voltage out of range high
ECU	157	03	Service Alert	Fuel pressure sensor voltage out of range high
ECU	157	04	Stop	Rail pressure sensor voltage out of range low
ECU	157	04	Service Alert	Fuel pressure sensor voltage out of range low
ECU	157	10	Service Alert	Rail pressure drops too fast when engine is motoring and high pressure pump is off
ECU	157	16	Service Alert	Fuel pressure high - moderately sever level
ECU	157	17	Service Alert	Rail pressure is beloe 10 mPa during starting
ECU	157	18	Service Alert	Fuel pressure low - moderately severe level
ECU	158	17	Service Alert	Controller not powered down properly. Battery voltage does not go to 0 VDC
ECU	160	02	Service Alert	Main shaft speed - data erratic, intermittent or incorrect
ECU	174	00	Stop	Fuel temperature high - most severe level
ECU	174	03	Service Alert	Fuel temperature sensor voltage out of range high

Diagnostic Trouble Codes - ECU - Engine Control Unit				
ECU	174	04	Service Alert	Fuel temperature sensor voltage out of range low

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ECU	174	16	Service Alert	Fuel temperature high - moderately severe level
ECU	189	00	Stop	Engine speed derated
ECU	190	00	Stop	Engine speed high – most severe level
ECU	523	09	Service Alert	Current gear message not received or timeout
ECU	611	03	Stop	The injector driver has detected a short to voltage in the injector wiring
ECU	611	04	Stop	The injector driver has detected a short to ground in the injector wiring
ECU	627	01	Service Alert	Injector pull-in current too low or hold current incorrect
ECU	627	18	Service Alert	Battery voltage below normal - moderately severe level
ECU	629	13	Stop	Control unit ECU has not been programmed
ECU	636	02	Service Alert	Electrical noise is detected on the engine position signal
ECU	636	05	Service Alert	Engine position signal current too low
ECU	636	06	Service Alert	Engine position signal current too high
ECU	636	08	Service Alert	Engine position signal signal is missing
ECU	636	10	Service Alert	Engine position signal signal has incorrect pulse pattern
ECU	637	02	Service Alert	Electrical noise detected on the engine timing signal
ECU	637	05	Service Alert	Engine timing signal current too low
ECU	637	06	Service Alert	Engine timing signal current too high
ECU	637	07	Service Alert	Position relationship between engine timing signal and engine position signal is not correct
ECU	637	08	Service Alert	Engine timing signal signal is missing
ECU	637	10	Service Alert	Engine timing signal signal has incorrect pulse pattern
ECU	651	02	Stop	Injector #1 part number invalid
ECU	651	05	Service Alert	Current to injector #1 is less than expected
ECU	651	06	Service Alert	Current to injector #1 increases too rapidly
ECU	651	07	Service Alert	The fuel flow to cylinder #1 is lower than expected
ECU	651	13	Service Alert	Injector #1 part number is correct but calibration string is not what is expected
ECU	652	02	Stop	Injector #2 part number invalid
ECU	652	05	Service Alert	Current to injector #2 is less than expected
ECU	652	06	Service Alert	Current to injector #2 increases too rapidly
ECU	652	07	Service Alert	The fuel flow to cylinder #2 is lower than expected
ECU	652	13	Service Alert	Injector #2 part number is correct but calibration string is not what is expected
ECU	653	02	Stop	Injector #3 part number invalid
ECU	653	05	Service Alert	Current to injector #3 is less than expected
ECU	653	06	Service Alert	Current to injector #3 increases too rapidly
ECU	653	07	Service Alert	The fuel flow to cylinder #3 is lower than expected
ECU	653	13	Service Alert	Injector #3 part number is correct but calibration string is not what is expected
ECU	654	02	Stop	Injector #4 part number invalid
ECU	654	05	Service Alert	Current to injector #4 is less than expected
ECU	654	06	Service Alert	Current to injector #4 increases too rapidly
ECU	654	07	Service Alert	The fuel flow to cylinder #4 is lower than expected
ECU	654	13	Service Alert	Injector #4 part number is correct but calibration string is not what is expected
ECU	655	02	Stop	Injector #5 part number invalid
ECU	655	05	Service Alert	Current to injector #5 is less than expected
ECU	655	06	Service Alert	Current to injector #5 increases too rapidly
ECU	655	07	Service Alert	The fuel flow to cylinder #5 is lower than expected
ECU	655	13	Service Alert	Injector #5 part number is correct but calibration string is not what is expected
ECU	666	02	Stop	Injector #6 part number invalid
ECU	666	05	Service Alert	Current to injector #6 is less than expected
ECU	666	06	Service Alert	Current to injector #6 increases too rapidly

Diagnostic Trouble Codes - ECU - Engine Control Unit				
ECU	666	07	Service Alert	The fuel flow to cylinder #6 is lower than expected
ECU	666	13	Service Alert	Injector #6 part number is correct but calibration string is not what is expected
ECU	666	05	Service Alert	Current to injector #6 is less than expected

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ECU	666	06	Service Alert	Current to injector #6 increases too rapidly
ECU	666	07	Service Alert	The fuel flow to cylinder #6 is lower than expected
ECU	666	13	Service Alert	Injector #6 part number is correct but calibration string is not what is expected
ECU	647	05	Service Alert	Fan forward coil output device driver failure or open connection in harness
ECU	647	30	Service Alert	Fan clutch output device driver - manual purge mode switch active to long.
ECU	676	03	Service Alert	Glow plug relay output high when relay not active.
ECU	676	05	Service Alert	Glow plug relay output low when relay active.
ECU	898	09	Stop	TSC1 message not received or timeout
ECU	1075	05	Service Alert	Electric fuel pump current is too low
ECU	1075	06	Service Alert	Electric fuel pump current is too high
ECU	1075	12	Service Alert	Electric fuel pump failed
ECU	1110	31	Service Alert	Engine protection system has shutdown - engine not available or condition exists
ECU	1136	00	Stop	Control unit ECU temperature too high - most severe level
ECU	1136	16	Service Alert	Control unit ECU temperature too high - moderately severe level
ECU	1172	03	Service Alert	Turbocharger compressor inlet temperature out of range high
ECU	1172	04	Service Alert	Turbocharger compressor inlet temperature out of range low
ECU	1180	00	Stop	Turbocharger turbine inlet temperature too high - most severe level. This value calculated from turbocharger speed.
ECU	1180	16	Service Alert	Turbocharger turbine inlet temperature too high - moderately severe level. This value calculated from turbocharger speed.
ECU	1347	03	Stop	Rail pressure solenoid is forced closed due to a short to a high source. Detected only during harness diagnostics
ECU	1347	05	Stop	The circuit to pump solenoid #1 is open, shorted to ground, or overloaded
ECU	1347	07	Service Alert	Rail pressure control is unable to match required rail pressure. It may be either too high or too low.
ECU	1568	02	Service Alert	Torque curve selection data intermittent or incorrect
ECU	1569	31	Service Alert	Engine protection - power derated due to other faults. This code occurs in conjunction with other codes that indicate faults
ECU	1639	01	Service Alert	Fan speed low - most severe level
ECU	1639	16	Service Alert	Fan speed high - moderately severe level
ECU	1639	18	Service Alert	Fan speed low - moderately severe level
ECU	2000	13	Stop	Control unit ECU security violation
ECU	2630	00	Stop	Exhaust gas recirculation fresh air temperature high - most severe level. Engine will derate
ECU	2630	03	Service Alert	Exhaust gas recirculation fresh air temperature signal out of range high
ECU	2630	04	Service Alert	Exhaust gas recirculation fresh air temperature signal out of range low
ECU	2630	15	Service Alert	Exhaust gas recirculation fresh air temperature high - least severe level
ECU	2630	16	Service Alert	Exhaust gas recirculation fresh air temperature high - moderately severe level. Engine will derate
ECU	2790	16	Service Alert	Turbocharger compressor outlet temperature high - moderately severe level. Engine will derate. This is a value calculated from compressor inlet temperature and turbocharger speed
ECU	2883	03	Service Alert	Alternate low idle switch voltage out of range high
ECU	2883	04	Service Alert	Alternate low idle switch voltage out of range low
ECU	3509	03	Stop	Sensor supply voltage #1 out of range high
ECU	3509	04	Stop	Sensor supply voltage #1 out of range low
ECU	3510	03	Service Alert	Sensor supply voltage #2 out of range high
ECU	3510	04	Service Alert	Sensor supply voltage #2 out of range low

Diagnostic Trouble Codes - CAB - Control Unit CAB and Cab Power Module				
ECU	3511	03	Service Alert	Sensor supply voltage #3 out of range high
ECU	3511	04	Service Alert	Sensor supply voltage #3 out of range low
Control Unit	SPN	FMI	Priority	Description
CAB	96	17	Service Alert	Fuel level sensor reads less than 10% fuel remaining
CAB	167	04	Service Alert	The electrical charging system is putting out less than 12.5 volts. Alternator issue.

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CAB	167	03	Service Alert	The electrical charging system is putting out more than 16 volts. Most likely a failed regulator.
CAB	168	01	Service Alert	System voltage is too low with the engine not running
CAB	168	04	Service Alert	Battery 1 Voltage is less than 4.0 Volts.
CAB	170	03	Service Alert	Cab air temperature sensor output is out of range - greater than 4.93 VDC.
CAB	170	04	Service Alert	Cab air temperature sensor output is out of range - less than 0.10 VDC.
CAB	171	03	Service Alert	Cab inlet air temperature sensor output is out of range - greater than 4.93 VDC.
CAB	171	04	Service Alert	Cab inlet air temperature sensor output is out of range - less than 0.10 VDC.
CAB	444	04	Service Alert	Battery 2 Voltage is less than 4.0 Volts.
CAB	629	12	Service Alert	Control unit CAB has reset itself due to watchdog timer.
CAB	639	14	Service Alert	No CAN Bus messages are arriving.
CAB	639	12	Service Alert	CAN Bus 1 message is not arriving on time or missing.
CAB	677	03	Service Alert	Start relay signal is ON when commanded OFF by control unit CAB.
CAB	677	06	Service Alert	Start relay signal has no voltage present when control unit CAB has turned driver OFF.
CAB	875	04	Service Alert	HVAC low pressure switch is open.
CAB	1231	14	Service Alert	No messages are arriving on local CAN Bus between the control unit RCU and right power module.
CAB	1231	12	Service Alert	Local CAN Bus message is not arriving on time or missing.
CAB	1503	11	Service Alert	A column of switches in the armrest switch matrix is shorted to ground.
CAB	1503	05	Service Alert	Armrest matrix connection status voltage too low.
CAB	1503	03	Service Alert	A row of switches in the armrest switch matrix is shorted to High
CAB	1503	04	Service Alert	A row of switches in the armrest switch matrix is shorted to low
CAB	1504	14	Service Alert	Seat switch is not closed
CAB	1504	04	Service Alert	Seat switch has remained closed for 8 continuous hours of operation.
CAB	1531	03	Service Alert	Reel Speed Adjust Motor Increase is ON when commanded OFF from CAB
CAB	1531	04	Service Alert	Reel Speed Adjust Motor Increase is OFF when commanded ON from CAB
CAB	1532	03	Service Alert	Reel Speed Adjust Motor Decrease is ON when commanded OFF from CAB
CAB	1532	04	Service Alert	Reel Speed Adjust Motor Decrease is OFF when commanded ON from CAB
CAB	1541	01	Service Alert	Reel/Platform speed alarm system is armed and is less than 20 RPM
CAB	1544	11	Service Alert	A column of switches in the multifunction control handle is shorted to ground.
CAB	1544	03	Service Alert	A row of switches in the multifunction control handle is shorted to voltage.
CAB	1547	03	Service Alert	Core temperature sensor output is out of range - greater than 4.93 VDC.
CAB	1547	04	Service Alert	Core temperature sensor output is out of range - less than 0.10 VDC.
CAB	1549	03	Service Alert	HVAC temperature door position Sensor voltage is out of range - greater than 4.5 VDC.
CAB	1549	04	Service Alert	HVAC temperature door position sensor voltage is out of range - less than 0.1 VDC.
CAB	1549	06	Service Alert	Temperature door actuator high is OFF when commanded ON by control unit CAB.
CAB	1549	12	Service Alert	Temperature door has not completed the movement requested by the control unit CAB.
CAB	1549	13	Information	Temperature door has not been calibrated
CAB	1638	00	Stop	Hydraulic oil temperature is High
CAB	1638	12	Stop	Hydraulic oil temperature switch failed

Diagnostic Trouble Codes - CAB - Control Unit CAB and Cab Power Module				
CAB	1675	31	No Lamp	Engine Start failed due to any of the following reasons, No Faults/ A fault is detected on the driver/ Platform Engage Switch is Engaged Forward or Engaged Reverse/ Hydro Handle Park Switch is closed/ Steering Centered Switch is open/Engine is Already Run
CAB	1713	00	Service Alert	Hydraulic oil filter restriction sensor open
CAB	1713	12	Stop	Hydraulic oil filter differential pressure switch failed
CAB	1762	00	Stop	Hydraulic Pressure is High
CAB	1762	12	Stop	Hydro charge pressure switch failed
CAB	1865	11	Service Alert	One of the following conditions occurred:?Key switch run is ON when key switch accessory and key switch start is OFF. Key switch start is ON when key switch run is OFF. Key switch start is ON when key switch accessory is ON.

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CAB	2372	03	Service Alert	Left Rear Brake Light is ON when commanded OFF from CAB
CAB	2372	04	Service Alert	Left Rear Brake Light is OFF when commanded ON from CAB
CAB	2372	05	Service Alert	Left Rear Brake Light is open circuit
CAB	2372	12	Service Alert	Left Rear Brake Light is failed
CAB	2374	03	Service Alert	Right Rear Brake Light is ON when commanded OFF from CAB
CAB	2374	04	Service Alert	Right Rear Brake Light is OFF when commanded ON from CAB
CAB	2374	05	Service Alert	Right Rear Brake Light is open circuit
CAB	2374	12	Service Alert	Right Rear Brake Light is failed
CAB	2876	11	Service Alert	Right turn signal and left turn signal are ON at the same time.
CAB	3509	03	Service Alert	Control unit CAB sensor supply 1 is out of range - greater than 5.5 VDC.
CAB	3509	04	Service Alert	Control unit CAB sensor supply 1 is out of range - less than 4.5 VDC.
CAB	3510	03	Service Alert	Control unit CAB sensor supply 2 is out of range - greater than 5.5 VDC.
CAB	3510	04	Service Alert	Control unit CAB sensor supply 2 is out of range - less than 4.5 VDC.
CAB	3597	06	Information	CAB PTC power is out of range - less than 4.0 VDC.
CAB	520642	03	Service Alert	Spare Sensor Input 1 voltage is greater than 2.50 V
CAB	520642	04	Service Alert	Spare Sensor Input 1 voltage is less than 0.25 V
CAB	520643	03	Service Alert	Spare Sensor Input 2 voltage is greater than 2.50 V
CAB	520643	04	Service Alert	Spare Sensor Input 2 voltage is less than 0.25 V
CAB	520644	03	Service Alert	Spare Sensor Input 3 voltage is greater than 2.50 V
CAB	520644	04	Service Alert	Spare Sensor Input 3 voltage is less than 0.25 V
CAB	520645	03	Service Alert	Spare Sensor Input 4 voltage is greater than 2.50 V
CAB	520645	04	Service Alert	Spare Sensor Input 4 voltage is less than 0.25 V
CAB	520646	03	Service Alert	Spare Sensor Input 5 voltage is greater than 2.50 V
CAB	520646	04	Service Alert	Spare Sensor Input 5 voltage is less than 0.25 V
CAB	520689	11	Information	Both the HB and DWA header options are set.
CAB	520690	11	Service Alert	EPM0 Power line One Missing
CAB	520691	11	Service Alert	EPM0 Power Two Missing
CAB	520692	11	Service Alert	EPM0 Power line Three Missing
CAB	520693	11	Service Alert	EPM0 Power line Four Missing
CAB	520694	11	Service Alert	EPM0 Power line Five Missing
CAB	520825	03	Service Alert	Air Screen Motor is ON when commanded OFF by control unit CAB.
CAB	520825	05	Service Alert	Air Screen Motor is open circuit.
CAB	520825	06	Service Alert	Air Screen Motor is OFF when commanded ON by control unit CAB.
CAB	520836	03	Service Alert	Cab backlighting is ON when commanded OFF by control unit CAB.
CAB	520836	05	Service Alert	Cab backlighting is open circuit
CAB	520836	06	Service Alert	Cab backlighting is OFF when commanded ON by control unit CAB.
CAB	520870	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 1 failed due to checksum failure
CAB	520871	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 2 failed due to checksum failure
CAB	520872	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 3 failed due to checksum failure
CAB	520873	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 4 failed due to checksum failure

Diagnostic Trouble Codes - CAB - Control Unit CAB and Cab Power Module				
CAB	520874	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 5 failed due to checksum failure
CAB	520875	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 6 failed due to checksum failure
CAB	520876	31	Service Alert	EEPROM Banking - Write/Read Data in the Zone 7 failed due to checksum failure
CAB	520892	31	Service Alert	EEPROM Banking - Write/Read Data in the Copy 1 failed due to checksum failure
CAB	520893	31	Service Alert	EEPROM Banking - Write/Read Data in the Copy 2 failed due to checksum failure
CAB	520894	31	Service Alert	EEPROM Banking - Write/Read Data in the Copy 3 failed due to checksum failure
CAB	520895	31	Service Alert	EEPROM Banking - Write/Read Data in the Copy 4 failed due to checksum failure
CAB	520896	31	Service Alert	EEPROM Banking - Write/Read Data in the Copy 5 failed due to checksum failure
CAB	520897	31	Service Alert	EEPROM Banking - Write/Read Data in the Copy 6 failed due to checksum failure
CAB	521730	00	Service Alert	Float pressure sensor voltage is out of range - greater than 4.70 volt
CAB	521730	03	Service Alert	Float pressure sensor voltage is shorted high

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CAB	521730	04	Service Alert	Float pressure sensor voltage is out of range low - less than 0.40 volt
CAB	521730	06	Service Alert	Float pressure sensor voltage is shorted to ground
CAB	520200	04	Service Alert	The engine is not at harvesting speed
CAB	522133	03	Service Alert	Rear Steer 2D is ON when commanded OFF from CAB
CAB	522133	04	Service Alert	Rear Steer 2D is OFF when commanded ON from CAB
CAB	522134	03	Service Alert	Rear Steer 2C is ON when commanded OFF from CAB
CAB	522134	04	Service Alert	Rear Steer 2C is OFF when commanded ON from CAB
CAB	522135	03	Service Alert	Rear Steer 2B is ON when commanded OFF from CAB
CAB	522135	04	Service Alert	Rear Steer 2B is OFF when commanded ON from CAB
CAB	522136	03	Service Alert	Rear Steer 2A is ON when commanded OFF from CAB
CAB	522136	04	Service Alert	Rear Steer 2A is OFF when commanded ON from CAB
CAB	522137	03	Service Alert	Platform Raise Valve is ON when commanded OFF from CAB
CAB	522137	04	Service Alert	Platform Raise Valve is OFF when commanded ON from CAB
CAB	522138	03	Service Alert	Platform Tilt Backward Valve is ON when commanded OFF from CAB
CAB	522138	04	Service Alert	Platform Tilt Backward Valve is OFF when commanded ON from CAB
CAB	522139	01	Stop	Float pressure is too low
CAB	522183	03	Service Alert	Platform Speed Adjust Motor Decrease is ON when commanded OFF from CAB
CAB	522183	04	Service Alert	Platform Speed Adjust Motor Decrease is OFF when commanded ON from CAB
CAB	522184	03	Service Alert	Platform Speed Adjust Motor Increase is ON when commanded OFF from CAB
CAB	522184	04	Service Alert	Platform Speed Adjust Motor Increase is OFF when commanded ON from CAB
CAB	522185	03	Service Alert	Float Pressure Decrease Valve is ON when commanded OFF from CAB
CAB	522185	04	Service Alert	Float Pressure Decrease Valve is OFF when commanded ON from CAB
CAB	522186	03	Service Alert	Float Pressure Increase Valve is ON when commanded OFF from CAB
CAB	522186	04	Service Alert	Float Pressure Increase Valve is OFF when commanded ON from CAB
CAB	523319	03	Stop	CAB switched power is ON when commanded OFF by control unit CAB.
CAB	523319	06	Service Alert	CAB switched power is OFF when commanded ON by control unit CAB.
CAB	523620	03	Service Alert	Resistive fuel level 1 sensor is out of range - greater than 4.5 VDC.
CAB	523620	04	Service Alert	Resistive fuel level 1 sensor is out of range - less than 0.2 VDC.
CAB	523629	03	Service Alert	Left amber lights is ON when commanded OFF by control unit CAB.
CAB	523629	05	Service Alert	Left amber lights is OFF when commanded ON by control unit CAB.
CAB	523629	06	Service Alert	Left amber lights is open circuit.
CAB	523629	12	Service Alert	Left amber light failed.
CAB	523633	03	Service Alert	Right amber lights is ON when commanded OFF by control unit CAB.
CAB	523633	05	Service Alert	Right amber lights is open circuit.
CAB	523633	06	Service Alert	Right amber lights is OFF when commanded ON by control unit CAB.
CAB	523633	12	Service Alert	Right amber light failed.

Diagnostic Trouble Codes - CAB - Control Unit CAB and Cab Power Module				
CAB	523639	03	Service Alert	Right rear red light is ON when commanded OFF by control unit CAB.
CAB	523639	05	Service Alert	Right rear red light is open circuit.
CAB	523639	06	Service Alert	Right rear red light is OFF when commanded ON by control unit CAB.
CAB	523639	12	Service Alert	Right Red Rear Light failed
CAB	523640	03	Service Alert	Left Red Rear Lights is ON when commanded OFF by control unit CAB.
CAB	523640	05	Service Alert	Left Red Rear Lights is open circuit.
CAB	523640	06	Service Alert	Left Red Rear Lights is OFF when commanded ON by control unit CAB.
CAB	523640	12	Service Alert	Left Red Rear Lights failed
CAB	523642	03	Service Alert	CAN Bus message from control unit RCU that HVAC high Pressure switch is open.
CAB	523643	03	Service Alert	Handle position 1 is out of range - greater than 2.5 VDC.
CAB	523643	04	Service Alert	Handle position 1 is out of range - less than 0.5 VDC.
CAB	523643	13	Service Alert	Multifunction control handle calibration was not performed successfully
CAB	523645	11	Service Alert	One of the following conditions occurred: Header engage switch is ON when both header forward switch and header reverse switch are OFF. Header engage switch is OFF when either header forward switch or header reverse switch is ON. Header engage switch is

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CAB	523646	03	Service Alert	Outlet air temperature sensor output is out of range - greater than 4.93 VDC.
CAB	523646	04	Service Alert	Outlet air temperature sensor output is out of range - less than 0.10 VDC.
CAB	523647	06	Service Alert	Temperature door actuator low is OFF when commanded ON by control unit CAB.
CAB	523647	03	Service Alert	Temperature door actuator high and/or Temperature door actuator low is ON when commanded OFF by control unit CAB.
CAB	523673	05	Service Alert	Chassis ground not connected to ground.
CAB	523746	03	Service Alert	System wakeup power is ON when commanded OFF by control unit CAB.
CAB	523746	04	Service Alert	System wakeup power is out of range - less than 0.10 VDC.
CAB	523746	06	Service Alert	System wakeup power is OFF when commanded ON by control unit CAB.
CAB	520270	01	Service Alert	Steering linkage is not centered while engine is not running.
CAB	520270	04	Service Alert	Steering linkage is not centered while engine is running.

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Engine

Symptom	Problem	Solution
Engine Will Not Crank	Multifunction control handle not in neutral	Move control handle to neutral and center steering wheel.
	Steering wheel not locked	Turn wheel slowly until it locks.
	Steering wheel is still not locked	Check to see if steering wheel is a full revolution out of lock.
	Neutral start switches inoperative	Check switches and wire connections. Replace switches if necessary.
	Low battery output	Check battery electrolyte level.
		Have battery tested.
	Fuse blown	Check fuse F22. Replace as necessary.
Engine Hard to Start or Will Not Start	No fuel	Fill tank with correct fuel.
	Water, dirt, or air in fuel system	Drain, flush, fill and bleed system.
	Incorrect grade of fuel	Consult fuel suppler; use correct fuel for operating conditions.
	Fuel pump hand primer lowered	Pull lever up.
	Cold weather	Use cold weather starting aids.
	Low compression	See your John Deere dealer.
	Low battery output	Have battery tested. Check battery electrolyte level.
	Faulty starter	See your John Deere dealer.
	Wiring shorted, open fuse	Check continuity of wiring and fuse.
	Poor connection in starting circuit	Clean and tighten all connections on battery and starter.
	Injection pump fuel shutoff valve	See your John Deere dealer.
	Dirty or faulty injectors	See your John Deere dealer.
	Fuel filter plugged or full of water	Replace filter element or drain water.
	Crankcase oil of too heavy viscosity	Drain and fill crankcase with oil of proper viscosity and quality.

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Symptom	Problem	Solution
	Exhaust restricted	Check and correct exhaust restriction.
Engine Knocks	Insufficient oil	Add oil.
	Fuel injection pump out of time	See your John Deere dealer.
	Low coolant temperature	Remove and check thermostat. (See “Engine Overheats” in this section.)
	Incorrect grade of fuel	Use correct fuel.
	Injection nozzle valve sticking	See your John Deere dealer.
	Loose or failed main bearings or connecting rod bearings, worn pistons and cylinders	See your John Deere dealer.
	Air in fuel system	Bleed fuel system.
	Engine overheating	See “Engine Overheats” in this section.
Engine Runs Irregularly or Stalls Frequently	Low coolant temperature	Run engine until sufficiently warm; also check thermostat.
	Clogged fuel filter	Replace filter element and bleed system.
	Water, dirt, or air in fuel system	Drain, flush, fill, and bleed system.
	Dirty or faulty injectors	See your John Deere dealer.
	Vent on fuel tank obstructed	Clean vent in soapy water and blow dry.
Lack of Power	Overheated engine	See “Engine Overheats” in this section.
	Intake air restriction	Service air cleaner/precleaner screen.
	Clogged fuel filter	Replace filter element and bleed system.
	Dirty or faulty injectors	See your John Deere dealer.
	Engine overloaded	Reduce load.
	Incorrect grade of fuel	Use correct fuel.
	Below normal engine temperature	Remove and check thermostat.
	Incorrect valve clearance	See your John Deere dealer.

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Symptom	Problem	Solution
	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.
	Restricted fuel line	Clean or replace fuel line.
Below Normal Engine Temperature	Defective thermostat	Remove and check thermostat.
	Defective temperature gauge or sender	Check gauge, sender, and connections.
Engine Overheats	Low coolant level	Fill radiator surge tank to proper level. Check radiator and hoses for loose connections and leaks.
	Engine overloaded	Reduce load.
	Defective overflow tank	Replace tank.
	Loose or defective fan belt	Check belt tension. Replace belt if necessary.
		Check automatic belt tensioner.
	Dirty radiator core, oil cooler, air conditioner condenser or grill screen	Remove trash and dirt. (See REAR DOOR AIR SCREEN CLEANER in this section.
	Low engine oil level	Check oil level. Add oil as required.
	Cooling system needs flushing	Flush cooling system.
	Defective thermostat	Remove and check thermostat.
	Defective temperature sender	Check water temperature with thermometer and replace gauge or sender, if necessary.
	Incorrect grade of fuel	Use correct fuel.
	Defective water pump	See your John Deere dealer.
Low Oil Pressure	Low oil level	Add oil.
	Incorrect type of oil	Drain, fill crankcase with correct oil.
High Oil Consumption	Crankcase oil too light	Drain and refill with proper viscosity oil.

Continued on next page

Symptom	Problem	Solution
	Oil leaks	Check for leaks in lines, around gaskets, and drain plug.
	Restricted crankcase vent tube	Clean vent tube.
	Defective turbocharger	See your John Deere dealer.
High Fuel Consumption	Incorrect grade of fuel	Use correct fuel.
	Clogged or dirty air cleaner	Service air cleaner screen.
	Engine overloaded	Reduce load.
	Incorrect valve clearance	See your John Deere dealer.
	Defective turbocharger	See your John Deere dealer.
	Low engine temperature	Check thermostat.
	Injection nozzles dirty or damaged	See your John Deere dealer.
Engine Emits White Smoke	Incorrect grade of fuel	Use correct fuel.
	Cold temperature	Warm up engine to normal operating temperature.
	Clogged or dirty air cleaner	Service air cleaner screen.
	Engine overloaded	Reduce load.
	Injection nozzles dirty	See your John Deere dealer.
	Turbocharger not functioning	See your John Deere dealer.
	Defective thermostat	Remove and check thermostat.
Engine Emits Black or Gray Exhaust Smoke	Incorrect grade of fuel	Use correct fuel.
	Restricted air cleaner	Service air cleaner screen.
	Fuel injection nozzles dirty or damaged	Have your John Deere dealer check the injectors.
	Engine overloaded	Reduce load.
	Engine out of time	See your John Deere dealer.
	Turbocharger not functioning	See your John Deere dealer.

OUO6085,00001BC -19-29OCT09-4/4

Air Conditioning

Symptom	Problem	Solution
System Will Not Produce Sufficient Cooling	Fan speed switch off	Press blower setpoint adjust switch on armrest console and turn selection dial up or down according to desired blower speed.
	Compressor not functioning (both the large and small air-conditioning hoses, exiting right-hand rear corner of cab, are at the same temperature)	See your John Deere dealer.
	High-pressure switch open. Insufficient air flow across condenser	Clean condenser. Check rotary wand duct for obstruction.
		Clean air screen.
		See your John Deere dealer.
	Low-pressure switch open. Insufficient air flow across evaporator	Clean cab filters. Check cab fan operation.
		See your John Deere dealer.
	Low-pressure switch open. Low outside air temperature	Move temperature control to warmer setting.
	Low-pressure switch open. Insufficient refrigerant level	See your John Deere dealer.
	Heater core door partially open	See your John Deere dealer.
	Insufficient blower speed	Increase blower speed.
	Debris on radiator screen	Clean screen.
	Compressor clutch not engaging	See your John Deere dealer.
	Condenser is overheating	Clean screens, cores and fins of condenser, oil cooler, and radiator.
	Burned out clutch field or faulty field	See your John Deere dealer.
	Faulty high pressure or low pressure switches	Replace switches.
	Faulty A/C evaporator thermostat sensor	Replace A/C evaporator thermostat sensor.
	Recirculating fan disconnected	Check connectors at fan switch.
	Compressor partially or completely seized	Remove compressor for service or replacement.
	Dirty filters	Clean filters.

Continued on next page

Symptom	Problem	Solution
	Broken or disconnected electrical wire	Check all terminals for loose connections; check wiring for hidden breaks.
	Broken or disconnected cab ground wire	Check ground wire to see if loose, broken, or disconnected.
	Expansion valve stuck in open position	Replace expansion valve.
	Expansion valve stuck shut	Replace expansion valve.
	Broken refrigerant line	Examine all lines for evidence of breakage by external stress of rubbing wear.
	Leak in system	Evacuate system, apply static charge, leak test system, and repair leak as necessary.
	Restriction in refrigerant system	Check for kinked hoses.
	Restriction in receiver/dryer	See your John Deere dealer.
	Restriction in expansion valve	See your John Deere dealer.
	Compressor shaft seal leaking	Replace the compressor.
	Excessive moisture in system, causing expansion valve freeze up	Drain and recharge. Replace receiver-dryer.
	Clogged cab roof inlet panel	Remove and clean.
	Evaporator fins clogged	Blow out evaporator fins with compressed air.
	Too little refrigerant in system	Recharge system.
	Clogged screen in receiver-dryer	Discharge system; replace receiver-dryer. Then evacuate and charge system.
	Excessive moisture in system	Discharge system; replace receiver-dryer. Then evacuate and charge system.
	Air in system	Discharge, evacuate, and charge system.
Hissing Noise At Expansion Valve	Loss of refrigerant	See your John Deere dealer.
	Restriction in refrigerant system	Check for kinks in hoses.

Continued on next page

Symptom	Problem	Solution
		Check receiver-dryer for uniformity of temperature. If temperature is not uniform, see your John Deere dealer.
Partial Frosting and Sweating of Lines Combined With Poor Cooling	Loss of refrigerant	Check sight glass for bubbles and 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.
Air Conditioning System Too Noisy	Loose or excessively worn drive belt.	Tighten or replace as necessary.
	Noisy clutch	Remove clutch for service or replacement as necessary.
	Compressor noisy	Check mountings and repair; remove compressor for service or replacement.
	Excessive charge in system	Discharge excess refrigerant until high-pressure gauge drops within specifications.
	Low charge in system	Check system for leaks; charge system.
	Excessive moisture in system	Replace receiver-dryer; evacuate and charge system.
Air Conditioning System Cools Intermittently	Compressor clutch slipping	Slippage over a prolonged period will require that clutch be removed for service; may require adjustment for proper spacing.
	Unit icing up may be caused by excessive moisture in system, inoperative expansion valve, or faulty evaporator temperature sensor	Replace expansion valve; replace receiver-dryer if excess moisture is present; replace thermostat.
	Evaporator Temperature sensor defective	Replace sensor.
	Defective blower switch or blower motor	Remove defective part for service or replacement.
	Partially open, improper ground, or loose connection in compressor clutch coil or solenoid	Check connections or remove clutch coil or solenoid for service or replacement.
Compressor clutch cycles excessively or compressor stays off up to 15 minutes	Evaporator icing	Adjust controls correctly. (See Operator's Station section.) Open louvers. Clean filters. Move knob to warmer setting.

OUO6085,00001BD -19-04AUG09-3/3

Symptom	Problem	Solution
Bad smell (foul odor) in cab	Plugged drain tube. Dirty filters. Dirty cab	Blow out condensate tube. Clean filters. Vacuum out cab.
		Be certain weep valve in condensate drain tube is installed.

OUO6085,00001BD -19-04AUG09-4/3

Heater

Symptom	Problem	Solution
Heater Not Heating	Dirty recirculating filter	Clean filter.
	No thermostat in engine water outlet manifold	Install thermostat.
	Defective thermostat in engine water outlet manifold	Replace thermostat.
	Temperature control not functioning	See your John Deere dealer.
	Kinked heater hose. Defective heater valve	Straighten or replace. Replace valve.

OUO1078,000148B -19-07AUG09-1/1

Drive System

Symptom	Problem	Solution
Both Wheels Lack Pulling Ability On Grade or Pulling Out Of Ditch	Loose or worn controls	Check controls.
	Machine in transport speed (2)	Set switch to field speed (1) position.
	Internal park brakes dragging	See your John Deere dealer.
	Faulty or improperly set relief valves	See your John Deere dealer.
	Failed motors/pumps	See your John Deere dealer.
	Low charge pressure	See "Low Charge Pressure" in this section.
	Improper tire inflation	See tire inflation pressures
	Hydraulic oil overheated	See "Hydraulic Oil Overheats" in this section.
	Grade too steep	
Both Wheels Will Not Pull In Forward or Reverse	Low on oil	Check hydrostatic oil level and final drives.
	Tow disconnects still out	Engage final drives.
	Steering controls worn or loose	Check control lever and steering for loose, worn, or broken ball joints and ball joint rods.
	Internal park brakes dragging	See your John Deere dealer.
	Faulty relief valves	See your John Deere dealer.
	Low charge pressure	See "Low Charge Pressure" in this section.
	Failed pump	See your John Deere dealer.
	Failed pump drive gearbox	See your John Deere dealer.
	Failed pump drive shaft	See your John Deere dealer.
One Wheel Does Not Pull in Forward or Reverse	Tow disconnect still out	Engage final drive.
	Steering controls worn or loose	Check control lever and steering for loose, worn, or broken ball joints and ball joint rods.
	Internal park brakes dragging	See your John Deere dealer.
	Failed pump, motor, or final drive	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
	Faulty relief valve	See your John Deere dealer.
Excessive Noise From Drive System	Low Engine Idle/High Engine Idle switch in transport range	Set switch to Low Engine Idle range
	Brakes noisy	See “Dragging Or Overheating” in BRAKES, in this section.
	Faulty pump or motor	See your John Deere dealer.
	Cab mounts defective	See your John Deere dealer.
Windrower Will Not Run Full Speed in Low Engine Idle or High Engine Idle	Low charge pressure	See “Low Charge Pressure” in this section.
Leaking Seals or Covers On Pumps or Motors	Case pressure too high	Check for kinked hose or other restrictions in drain lines.
Low Charge Pressure	Low on oil	Check for leaks and correct. Fill reservoir.
	Malfunctioning charge pressure control valve	See your John Deere dealer.
	Worn charge pump	Replace.
	Plugged filter	Replace filter.
	Malfunctioning shuttle valve in platform drive motor	Check motor for sticking valve spools or broken springs.
	Worn drive pump or motor	See your John Deere dealer.
Hydraulic Oil Overheats	Low oil supply	Fill system with correct oil.
	Operating in High Engine Idle range over non-flat terrain	Set ground drive switch to Low Engine Idle range.
	Oil cooler air passages clogged	Clean oil cooler.
		Clean air screen.
	Clogged hydrostatic filter	Replace filter.
	Platform drive motor shuttle spool sticking	See your John Deere dealer.
	Faulty temperature switch	Replace.
Hydraulic Oil Leak	Loose fitting	Tighten fitting.
	Damaged O-ring on fitting or hose	Replace O-ring. Tighten right-angle fittings by hand, then back out to required orientation.

Continued on next page

Symptom	Problem	Solution
	Fitting seal surface scratched or nicked	Replace fitting.
Platform Continues To Run When Disengaged	Neutral out of adjustment on drive pump	See your John Deere dealer.
	Faulty valve cartridge	See your John Deere dealer.
Platform Drive Will Not Engage	Faulty switch, solenoid, or valve cartridge	See your John Deere dealer.
	Faulty operator presence relay	Replace relay.
Platform Drive Stops	Faulty operator presence seat switch	Replace switch.
	Faulty operator presence relay	Replace relay.
Platform drive speed too slow.	Low charge pressure	See “Low Charge Pressure” in this section.

OUO6085,00001B8 -19-10NOV09-3/3

Lift and Float System

Symptom	Problem	Solution
Platform Does Not Follow Ground Contour	Platform float hydraulic pressure too high	Adjust float pressure. (See Adjusting Platform Float in Operating the Windrow section.)
	Faulty platform float or platform run power relay	Replace power relay. (See your John Deere dealer.)
	Accumulator gas precharge pressure too low or high	See your John Deere dealer.
Platform Digs Into Ground and Pushes Hard	Guards digging into ground	Adjust guard angle. (See ADJUSTING PLATFORM GUARD ANGLE in Operating Windrower section.)
	Platform float hydraulic pressure too low	Adjust float pressure. (See ADJUSTING PLATFORM FLOAT in Operating Windrower section.)
	Accumulator gas precharge pressure too high or low	See your John Deere dealer.
	Platform float hydraulic pressure release valve open.	Close valve on valve block.
Platform Drops Too Fast Or Does Not Lower Smoothly	Platform float set too heavy	Adjust platform float. (See Adjusting Platform Float in Operating Windrower section.)
	Accumulator gas precharge pressure too high or low	See your John Deere dealer.
Platform Will Not Lift Or Lifts Too Slow	Binding lift linkage	Replace bent or worn parts.
	Platform float set too heavy	Adjust platform float. (See Adjusting Platform Float in Operating Windrower section.)
	Worn auxiliary pump	See your John Deere dealer.
	Low relief valve setting	See your John Deere dealer.
	Platform full of dirt	Clean platform.
	Malfunctioning priority valve	See your John Deere dealer.
	Faulty switch or relay	Replace switch or relay.
	Faulty solenoid or valve cartridge	Replace solenoid or valve cartridge.

OUO1078,000148D -19-10NOV09-1/1

Electrical

Symptom	Problem	Solution
Low Voltage and/or Battery Will Not Charge	Defective battery (possibly due to low water level.)	Replace battery. Maintain water level.
	Low engine speed	Increase speed.
	Wet or dirty battery	Keep clean and dry.
	Loose or corroded connections	Clean and tighten battery connections.
	Dirty or defective alternator, defective voltage regulator, or high resistance in circuit	See your John Deere dealer.
	Loose or defective fan belt	Check automatic belt tensioner. Replace worn belt.
	Alternator or voltage regulator not functioning properly	See your John Deere dealer.
Starter Cranks Slowly or Will Not Operate	Relay not functioning	Check relay and wire connections.
	Starter solenoid not functioning	Check solenoid and wire connections.
	Loose or corroded battery connections	Clean and tighten loose connections.
	Steering wheel or multifunction control handle not in neutral	Put multifunction control handle in neutral and center steering wheel.
	Key switch worn or terminals loose	Check switch and terminals.
	Too high viscosity crankcase oil	Drain and fill crankcase with oil of proper viscosity and quality.
	Faulty starter	Replace starter.
	Neutral interlocks not set or defective	Check switches at multifunction control handle neutral park position and at steering assembly under the cab.
	Defective neutral start relay	Replace relay.
Lights Dim	High resistance in circuit or poor ground on lights	Check the wiring circuit for a break in a wire or a poor ground.
	Defective light switch	Replace switch.
	Poor ground	Check ground cable under cab, and between engine and mainframe, for loose connection or corrosion.
Lights Will Not Light	Defective light switch	Replace switch.

Continued on next page

Symptom	Problem	Solution
	Open wiring, circuit breaker, or fuse	Check wiring for broken wire or shorts. Check circuit breaker or fuse.
	Defective light	Replace.
	Poor ground	Check ground cable under cab, and between engine and mainframe, for loose connection or corrosion.
Turn Signals Do Not Operate	Controller faulty	Replace warning light display.
	Defective light	Replace light.
	Open wiring	Check wiring.
	Poor ground	Check ground cable under cab, and between engine and mainframe, for loose connection or corrosion.
Warning Lights Do Not Operate	Controller faulty	Replace warning light display.
	Open wiring	Check wiring.
	Defective light	Replace light.
	Faulty light switch	Replace switch.
	Poor ground	Check ground cable under cab, and between engine and mainframe, for loose connection or corrosion.
No Current to Cab	Wiring or fuse open	Check for blown fuse.
		Check wiring for a broken or shorted wire.
	Poor ground	Check ground cable under cab, and between engine and mainframe, for loose connection or corrosion.

OUO6085,00001B9 -19-13AUG09-2/2

Rear Door Air Screen Cleaner

Symptom	Problem	Solution
Air Screen Cleaner Wand Will Not Rotate	Open wiring	Check wiring.
	Engine not running	Start engine.
	Wand motor shaft nut loose	Tighten nut.
	Motor overloaded	Check fuse.
	Air screen wand pushing debris	Trash duct plugged. Clean out duct.
	Motor sluggish or will not operate	Replace motor.
Wand Fails to Clean Screen	Clogged trash duct	Clean duct.
Air Screen Cleaneer Door Will Not Latch	Latch out of adjustment	Adjust latch.
Compartment Is Dirty	Door seal damaged	Replace seal.
	Leaks in screen compartment	Seal all holes with silicone gasket material. Replace damaged seals.

OUO6085,0000252 -19-04AUG09-1/1

Steering and Ground Speed Controls

Symptom	Problem	Solution
Machine Will Not Steer Straight, Tends to Wander When Steering is Held Still	Inspect steering linkages for wear or looseness	Replace worn parts. (If ball joints or special bushings have 0.76 mm (0.030 in.) free play, it will affect steering control.) Tighten any loose hardware, especially ball joint cap screws and jam nuts on the ball joint rods.
	Lack of charge pressure or flow	See DRIVE SYSTEM, “Low Charge Pressure” in this section.
Steering wheel does not turn freely during operation	Binding linkage(s)	Check linkage(s) for interference or bent parts.
	Steering binding in steering column when tilted	See your John Deere dealer.
	Improper steering assist relief setting	See your John Deere dealer.
	Worn or damaged steering pump	See your John Deere dealer.
Windrower Moves on Flat Ground With Multifunction Control Handle in Neutral and Steering Wheel Centered	Ground drive controls out of adjustment	See your John Deere dealer.
Internal park brakes dragging or overheating	Low charge pressure	See DRIVE SYSTEM, "Low Charge Pressure" in this section.
	Electro-hydraulic valve malfunctioning	See your John Deere dealer.
	Park lock switch malfunction	See your John Deere dealer.
	Binding brake piston	See your John Deere Dealer.

OUO6085,00001BA -19-10NOV09-1/1

Throttle

Symptom	Problem	Solution
Throttle Does Not Work or Engine High Idle Speed Too Low	Faulty switch	Replace.
	Engine derate code	See your John Deere dealer

OUO6085,00001BE -19-22JUN09-1/1

Tires

Symptom	Problem	Solution
Windrower Raising and Lowering Rhythmically Near Maximum Transport Speed	Tire pressure too low or too high	Check tire air pressure in front and rear tires.

OUO1078,0001492 -19-05NOV01-1/1

Internal Park Brakes

Symptom	Problem	Solution
Loss of Brake Capacity	Worn brake disks	See your John Deere dealer.
Brakes dragging or overheating	Low charge pressure	See DRIVE SYSTEM, "Low Charge Pressure" in this section.
	Electro-hydraulic valve malfunctioning	See your John Deere dealer.

OUO1078,0001493 -19-02AUG04-1/1

Seat

Symptom	Problem	Solution
Excessively Rough Ride	Seat suspension not adjusted	Adjust to operator’s weight.
	High air pressure in tires	Inflate to proper pressure.

OUO1078,0001494 -19-05NOV01-1/1

Digital Display and Speed Monitoring System

Symptom	Problem	Solution
Number Not Displayed For any One Function	Sensor not properly adjusted	Adjust sensor.
	Defective sensor	Replace sensor.
Display Shows Erratic or Incorrect Reel Speed	Reel speed magnetic pickup out of adjustment	Adjust reel magnetic pickup. (See “Adjusting Reel Speed Magnetic Pickup” in OPERATING HYDRAULIC REEL in Operating Windrower section.)
Display Shows Erratic or Incorrect Ground Speed	Incorrectly inflated tires	Correctly inflate tires.
	Defective wiring or loose or corroded connections	Repair wiring. Clean and tighten connections.
	Defective display unit	See your John Deere dealer.

OUO6085,0000253 -19-11AUG09-1/1

Radio

Symptom	Problem	Solution
Radio Not Operating	Start switch in "OFF" position	Turn key to "ON" or "ACCESSORY".
	Open fuse	Replace fuse.
	Poor connection to radio	Check wiring harness.
	Poor connection to speakers	Check wiring harness.
Poor Reception	Station improperly tuned in	Tune station with tuning control.
	Push button improperly set	Set push button to correct frequency.
	Antenna in improper position	Place antenna in upright position.
	Poor antenna connection	Check antenna cable connection.
	Uneven speaker balance	Set balance control.
	Faulty suppression capacitor in alternator.	Replace capacitor.
	Faulty antenna	Replace antenna.
	Faulty speaker	Replace speaker.
Interference from business band/CB radio.	Business band/CB radio antenna improperly installed.	Change antenna location. Left-hand side is ideal location.
		Ground antenna base and shield in antenna cable. Minimize cable length.

OUO1078,0001496 -19-01APR04-1/1

Engine Compartment Door

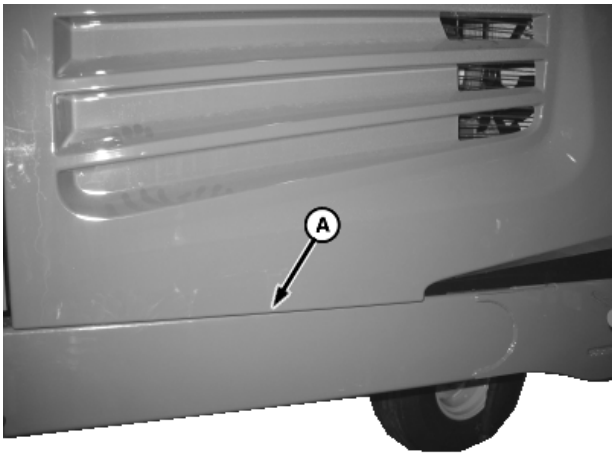
IMPORTANT: Always hold door when opening. Door is tensioned to raise up abruptly once it is past center. Door will also tend to go shut until it is lowered past center.

Engine compartment is accessible from both sides of the windrower. Raise compartment door using the hand hold position (A), always keeping a firm grip on the door.

The compartment door is held open by a gas cylinder in the center of the door.

Close engine compartment doors when not servicing the engine.

A—Hand Hold Position

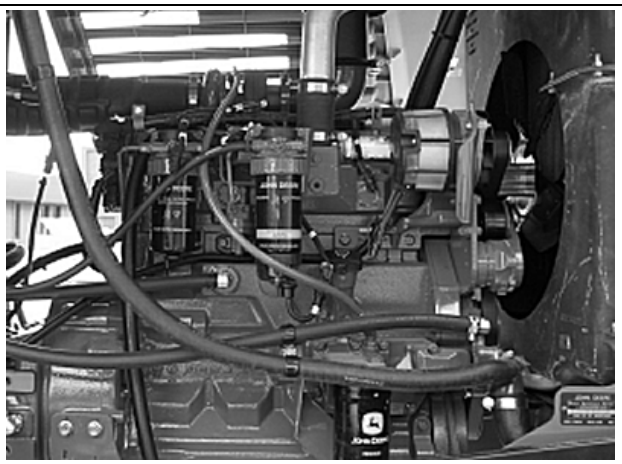


E57125 —UN—11MAY09

OUO6085,000005F -19-04AUG09-1/1

Cleaning Engine Compartment

CAUTION: A combination of dirt, oil and chaff in the engine compartment is a fire hazard. Do not clean engine compartment with engine running.



E58117 —UN—15OCT09

OUO6085,0000060 -19-08JAN09-1/1

Fuel Tank, Cap and Breather

CAUTION: Handle fuel carefully. Do not refuel the machine while smoking. Turn off engine and remove key before refueling windrower.

Do Not overfill fuel tank. Bodily injury can result from fuel splash back. Leakage can result from expansion of fuel. If the tank is filled too full, then left in direct sunlight or if temperature gets too hot, the tank will overflow.

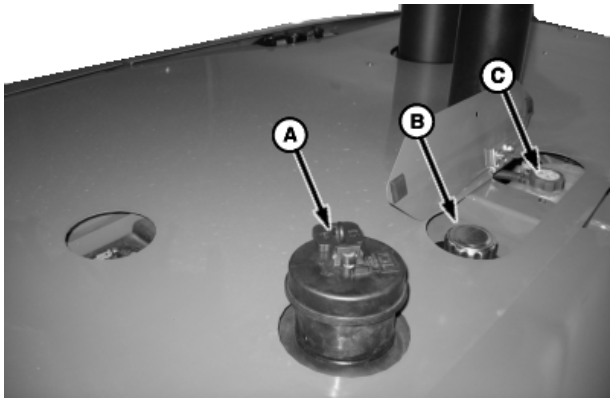
IMPORTANT: The filler cap (B) for the hydraulic system is located under a cover plate. The diesel fuel cap (A) is black and located towards the cab.

Wipe dirt and chaff from area before removing diesel fuel cap (A).

The fuel tank is located behind the cab and easily accessed from the operator's platform on the left-hand side of windrower.

The diesel fuel cap (A) is not vented. The fuel tank is vented from the top by a breather located off to the right-hand side of machine.

IMPORTANT: Wipe dirt and chaff from area before removing breather



E57136 —UN—06AUG09

A—Fuel Cap
B—Hydraulic Oil Filler Cap
C—Radiator Overflow Tank

A light tap against breather body will normally knock out dirt. If screen is plugged, remove breather from tank for cleaning in soapy water.

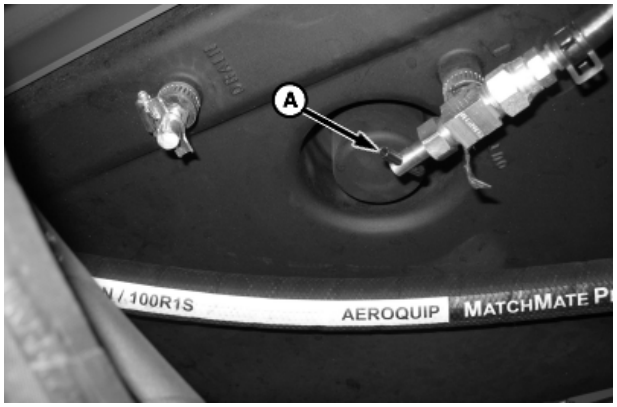
OUO6085,0000061 -19-07AUG09-1/1

Shutting Off Fuel Supply

The fuel shutoff valve (A) is located just left of center on the underside of the fuel tank.

Close fuel shutoff valve before servicing the fuel delivery system.

A—Fuel Shutoff Valve



E57126 —UN—11MAY09

OUO6085,00000CF -19-03JUN09-1/1

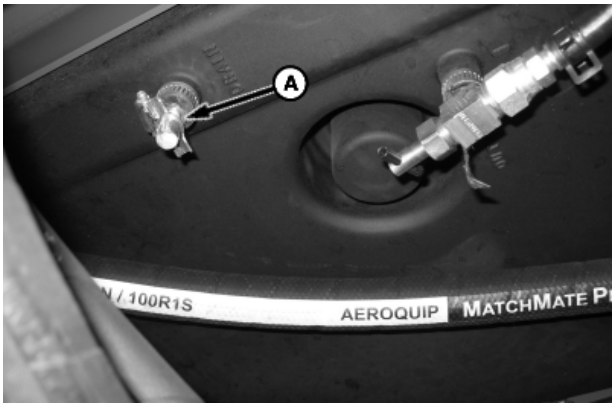
Draining Fuel Tank

CAUTION: Dispose of contaminated fuels properly. Handle fuel carefully. Do not smoke while handling fuels. Keep trouble lights away from fuels. Turn off engine and remove key before draining fuel.

As petcock (A) is opened, fuel will slowly escape. Prevent fuel from running down arm as petcock is opened. Fuel contact with skin will irritate the skin causing blistering.

Petcock (A) at bottom of fuel tank is used for draining. Close finger tight.

Use a clean container when draining fuel to see if fuel is contaminated.



E57127 —UN—11MAY09

A—Petcock

OUO6085,00000D0 -19-11MAY09-1/1

Do Not Modify Fuel System

CAUTION: Do not open high-pressure lines.

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

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

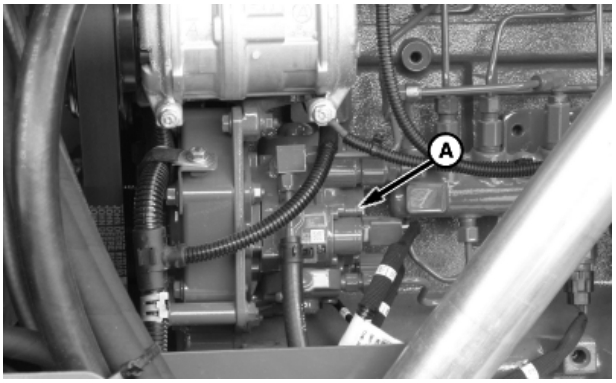
IMPORTANT: Never steam clean or pour cold water on a warm high pressure pump. To do so may cause seizure of pump parts.

Modification or alteration of the high pressure fuel pump (A), injection timing, or fuel injectors not recommended by the manufacturer will terminate the warranty obligation to the purchaser.

In addition, tampering with fuel system which alters emission-related equipment on engines may result in fines or other penalties, per EPA regulations or other local emission laws.

Do not attempt to service high pressure pump or fuel injectors yourself. Special training and tools are required. (See your authorized servicing dealer or engine distributor.)

TS1343 —UN—18MAR92



E57295 —UN—05JUN09

Fuel System

OUO6085,00001A8 -19-05AUG09-1/1

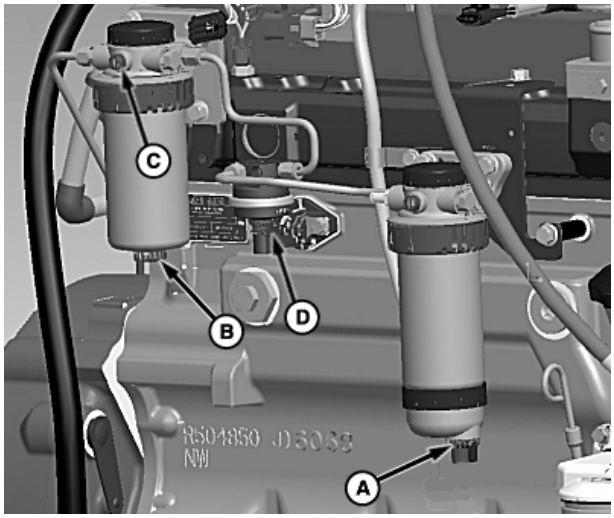
Draining Water from Fuel Filter

IMPORTANT: Drain water as needed based on daily visual inspection.

NOTE: Drain water into a suitable container and dispose of properly.

Engine is equipped with two fuel filters Water must be drained in the proper sequence shown.

1. Primary fuel filter has a water bowl on the bottom. Open the filter drain (A) and drain until fuel starts running out. Close filter drain.
2. Loosen secondary fuel filter drain (B). Loosen bleed screw (C). Pump primer lever (D) on fuel transfer pump until fuel flows out of filter drain. Leave pump primer lever down and close filter drain.



E56678 —UN—03FEB09

A—Filter Drain
B—Filter Drain
C—Air Bleed Vent Screw
D—Primer Lever

OUO6085,00000D2 -19-15OCT09-1/1

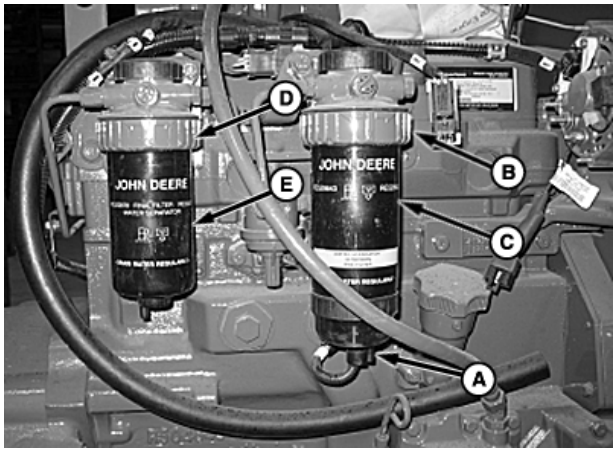
Changing Fuel Filter

Check for presence of water by first draining the fuel filter into a small container. (See DRAINING WATER FROM FUEL FILTER in this section.) This may make changing the fuel filter unnecessary.

How often this filter is changed depends on how clean the fuel is and how it is stored.

IMPORTANT: Clean area thoroughly before removing filter. Any dirt allowed to enter the fuel system when changing the filter can be washed into the injection system and will result in damage to injection pump and nozzles.

1. Remove sensor plug (A). Loosen collar (B) and primary filter (C). Remove collar and filter.
2. Install new primary filter. Open drain plug and see that fuel runs out, close plug. Reinstall sensor plug.
3. Loosen collar (D) and secondary filter (E). Remove collar and filter.
4. Install new filter and collar and bleed air from fuel filter. (See BLEEDING FUEL SYSTEM in this section.)



E56744 —UN—05FEB09

A—Sensor Plug and Drain Plug
B—Collar
C—Primary Fuel Filter
D—Collar
E—Secondary Fuel Filter

OUO6085,00000FE -19-07AUG09-1/1

Bleeding Fuel System

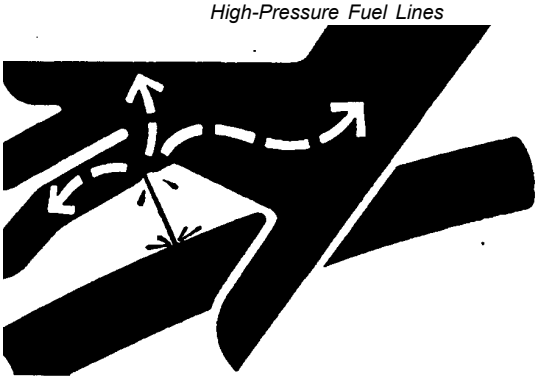
CAUTION: High-pressure fluid remaining in fuel lines can cause serious injury. Do not disconnect or attempt repair of fuel lines, sensors, or any other components between the high-pressure fuel pump and nozzles on engines with High Pressure Common Rail (HPCR) fuel system. Only technicians familiar with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

Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid hazards 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 may call the Deere & Company Medical Department in Moline, Illinois, or other knowledgeable medical source.

TS1343 —UN—18MAR92

High-Pressure Fuel Lines



X9811 —UN—23AUG88

High Pressure Fluids

Any time the fuel system has been opened up for service (lines disconnected or filters removed), it will be necessary to bleed air from the system.

IMPORTANT: Prevent fuel contamination. Do not crack any fuel lines to bleed the fuel system.

OUO6085,000014F -19-04AUG09-1/3

1. Loosen the air bleed vent screw (A) two full turns by hand on fuel filter base.

A—Bleed Vent Screw

RG12220 —UN—24MAY02

Final Fuel Filter Bleed Vent Screw

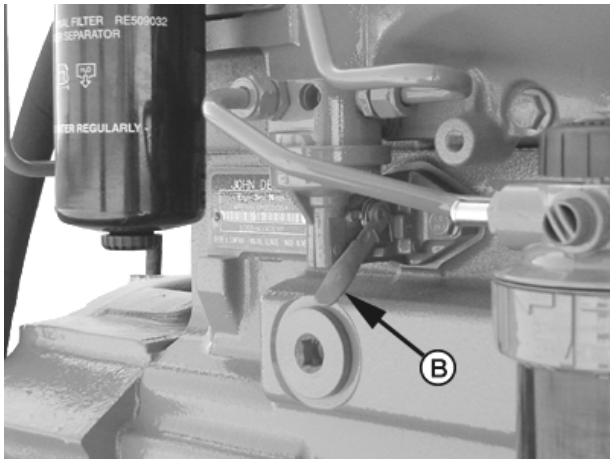
Continued on next page

OUO6085,000014F -19-04AUG09-2/3

2. Operate fuel supply pump primer lever (B) until fuel flows out of bleed vent screw.
3. Tighten bleed vent screw securely. Continue operating primer until pumping action is not felt.
4. Start engine and check for leaks.

   If engine will not start, repeat steps 1-4.

B—Primer Lever



RG12221 —UN—24MAY02

Fuel Supply Pump Primer Lever

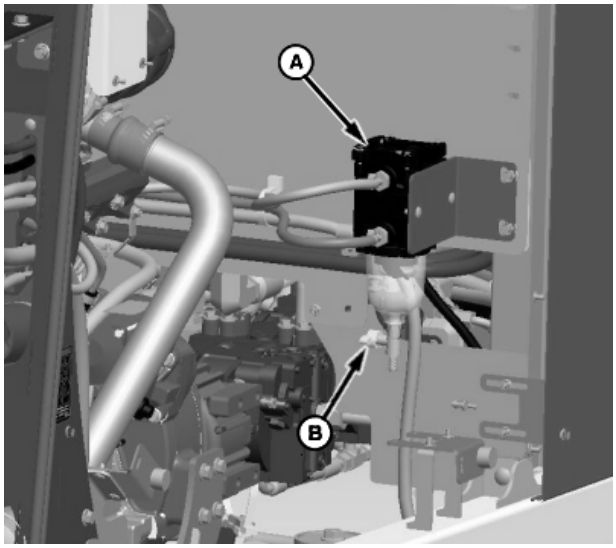
OUO6085,000014F -19-04AUG09-3/3

Water Separator (If Equipped)

Water separator (A) is located on the right-hand side of engine compartment.

Drain valve (B) is used to remove water and dirt from fuel.

A—Water Separator **B—Drain Valve**



E58254 —UN—19NOV09

OUO6085,00002E2 -19-19NOV09-1/1

Backflushing Water Separator (If Equipped)

NOTE: Service is to be performed when bowl is half (1/2) full of water.

1. Fuel shut off valve (A) is located just left of center on underside of the fuel tank.

   Close fuel shut off valve before servicing fuel delivery system.

2. Open bleed screw (C) on top of water separator lid. Allow water and dirt to be released from the filter element and settle in the bottom of bowl.

3. Push in on drain valve (B) and turn COUNTERCLOCKWISE to drain out water and dirt from bowl.

NOTE: As fuel, water, and dirt is drained from bowl in Step 3, more water and dirt will be flushed from the filter element and collect in bottom of the bowl.

4. Close drain valve (B) and allow water and dirt to settle again.

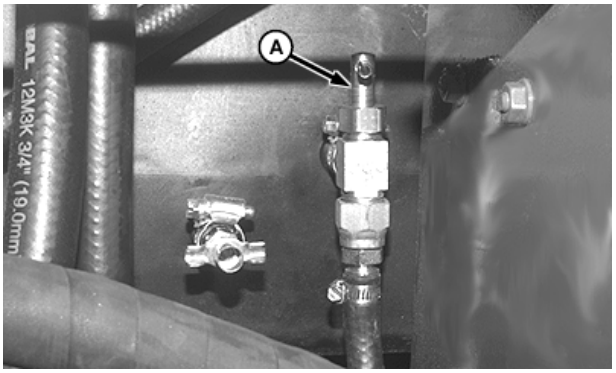
5. Repeat Steps 3 and 4 until all dirt and water is removed.

6. Close bleed screw (C) and open fuel shutoff valve (A).

7. Start and run engine at fast idle for two minutes. If engine will not start or dies, see Bleeding Fuel Lines to Injectors in this section.

NOTE: Filter element in water separator can be backflushed up to five times before being replaced.

A—Valve
B—Drain Valve
C—Bleed Screw



E45019 —UN—07FEB00

E56019 —UN—22SEP08

E56020 —UN—22SEP08

OUO6085,00002E4 -19-17NOV09-1/1

Checking Fuel Injection Nozzles

IMPORTANT: Do not attempt to remove and disassemble fuel injection nozzles, as special tools are required. See your John Deere dealer.

Have fuel injection nozzles checked by your John Deere dealer.

OUO6085,000006B -19-08JAN09-1/1

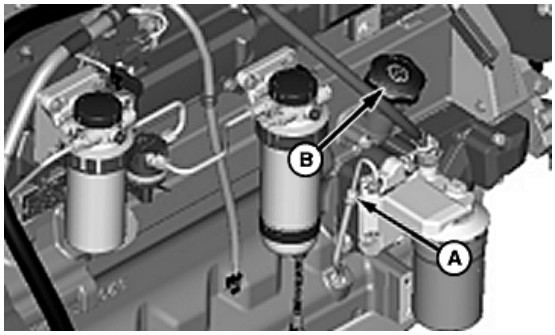
Checking Oil Level and Adding Oil

IMPORTANT: Do not overfill engine crankcase.

Check engine oil level with dipstick (A) located on the left-hand side of the engine.

Add oil to the engine through the oil fill tube (B) located on the left-hand side of the engine.

A—Dipstick **B—Fill Tube**



E57043 —UN—17APR09

OUO6085,0000159 -19-17APR09-1/1

Changing Engine Oil

IMPORTANT: Change engine oil at recommended intervals. See Lubrication and Maintenance section.

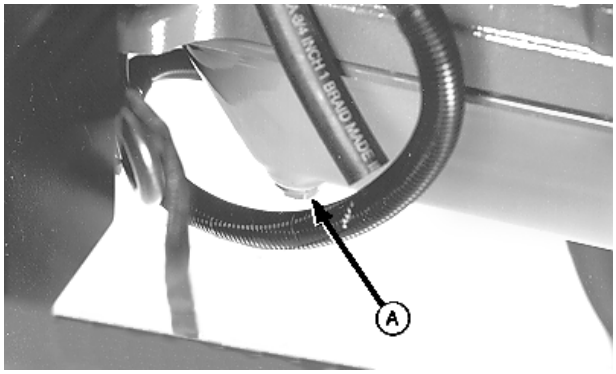
Park windrower on level surface.

Remove the oil drain plug (A) in the front most left-hand corner of the oil pan to drain the engine oil and dispose of properly.

IMPORTANT: Do not overtighten drain plug. Tighten drain plug until it is snug against the oil pan.

After oil has drained from engine, clean and install drain plug.

IMPORTANT: Do not overfill engine crankcase. Engine oil capacity with filter is 13.0 L (13.7 US qts).



E40587 —UN—27JUN96

A—Plug

Add oil to engine and check oil level. (See CHECKING OIL LEVEL AND ADDING OIL in this section.)

OUO6085,000006D -19-08JAN09-1/1

Changing Oil Filter

IMPORTANT: Change oil filter at recommended intervals. (See Lubrication and Maintenance section.)

Remove oil filter (A) and dispose of properly.

Clean the oil filter base (B) with a clean, lint-free rag.

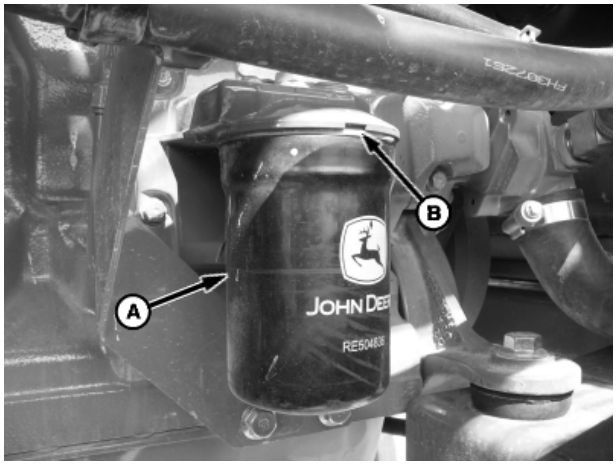
IMPORTANT: Apply a thin film of clean engine oil to filter gasket and mating surface of oil filter base (B).

Do not overtighten oil filter. Tighten filter by hand approximately 1 turn after gasket contacts base.

Install new filter onto oil filter base.

Add oil to engine. (See CHECKING OIL LEVEL AND ADDING OIL in this section.)

After filling the engine with oil, operate the engine for a few minutes, allowing the oil filter to fill up, before checking the oil level.



E57296 —UN—03JUN09

A—Filter **B—Base**

OUO6085,000015A -19-04JUN09-1/1

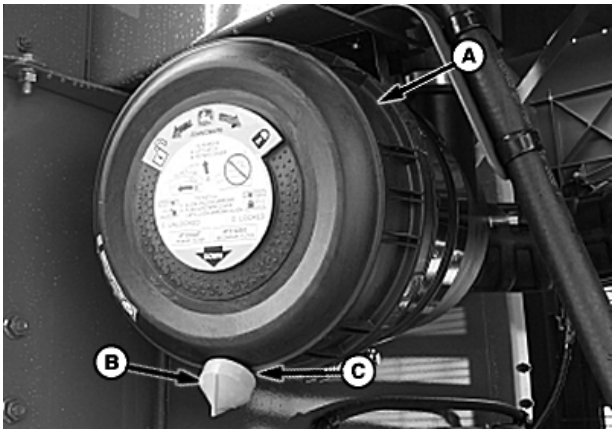
Cleaning Air Precleaner

NOTE: Air precleaner rubber flap (B) should be cleaned at least once a day or more often if conditions make it necessary.

Air filter housing (A) causes intake air to swirl in a cyclonic motion, causing the larger particles to accumulate in a neck (C) on bottom of front cover.

NOTE: Rubber flap (B) may be removed to facilitate cleaning. Do not operate engine with rubber flap removed.

1. Remove debris from air filter by squeezing edges of rubber flap (B), causing the flap to open.
2. With flap open, tap on the bottom front of the filter cover to allow debris to fall out.



E57154 —UN—12JUN09

A—Air Filter Housing
B—Rubber Flap
C—Neck

OUO6085,0000071 -19-12JUN09-1/1

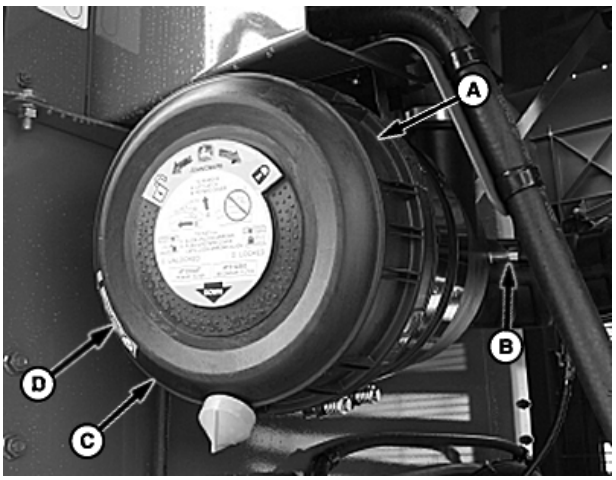
Removing and Installing Air Filters

NOTE: Clean only primary filter and/or precleaner screen when engine air filter restriction warning light in the cab comes on. (See WARNING DISPLAY PANEL in the Operator's Station section.)

Primary and secondary air filters are located in air filter housing (A).

Air flow vacuum sensor (B) is located behind air filter housing.

1. Open release latch (D).
2. Turn cover (C) counterclockwise and remove.

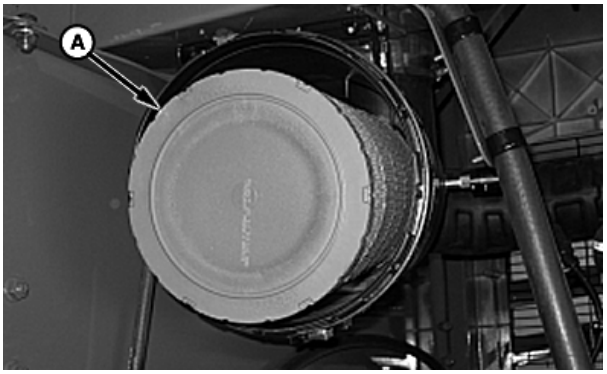


E57151 —UN—15OCT09

A—Housing
B—Vacuum Sensor
C—Filter Cover
D—Release Latch

OUO6085,0000072 -19-05AUG09-1/3

3. Pull primary air filter (A) out of air filter housing.
4. Clean and inspect primary air filter. (See CLEAN AND INSPECT PRIMARY AIR FILTER in this section.)
5. Remove any debris from inside housing.



E57152 —UN—13MAY09

A—Primary Air Filter

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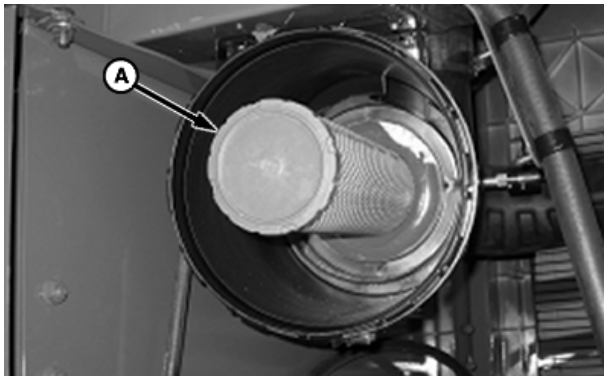
OUO6085,0000072 -19-05AUG09-2/3

IMPORTANT: When removing or installing secondary air filter, do not damage the seal.

NOTE: Secondary air filter pulls out of the housing.

6. Remove secondary air filter (A).
7. Inspect secondary air filter. If filter is dirty or seal is damaged, replace the filter.
8. Install air filters in reverse order.
9. Install cover and lock release latch.

A—Secondary Air Filter



E57153 —UN—13MAY09

OUO6085,0000072 -19-05AUG09-3/3

Clean and Inspect Primary Air Filter

E46587 —UN—30JUL99

A—Primary Air Filter **B—Secondary Air Filter**

IMPORTANT: Do not attempt to clean secondary filter (B). The secondary air filter should be replaced every second or third primary air filter change.

Cleaning Dusty Filter

Tap sides of primary air filter (A) *gently* by hand to loosen dirt. Do not tap filter against a hard surface.

IMPORTANT: Compressed air can be used to clean primary air filter; however, only a special air cleaning gun should be used. See your John Deere dealer. An ordinary air nozzle may severely damage air filter due to concentrated air pressure.

If tapping filter does not remove dust, clean filter with compressed air. Hold nozzle next to inner surface and move up and down pleats.

IMPORTANT: Do not direct air against outside of filter, as it might force dirt through to inside.

Repeat procedure to remove additional dirt.

Inspect air filter before reinstalling.

Inspecting

Hold a bright light inside filter and check carefully for damage. Discard filter if screen is damaged or if filter shows the slightest rupture or hole.

Make sure gasket is in good condition.

Replacing Air Filter

Replace primary air filter after one year's service or six cleanings or if air filter restriction warning light remains on. Damaged filters should be replaced immediately.

OUO6085,0000073 -19-08JAN09-1/1

Filling Radiator Through Surge Tank

CAUTION: Explosive release of coolant from pressurized cooling system can cause serious burns.

Remove surge tank fill cap only when cool enough to touch with bare hands and with engine stopped.

Do not remove fill cap until all system pressure is relieved. Relieve pressure by slowly loosening cap to relieve pressure before removing completely.

TS281 —UN—23AUG88

IMPORTANT: In case of excessive coolant loss, never pour cold water into a hot engine, as it might crack cylinder block or head.

Never operate, even for a few minutes, engine without coolant.

Never fill radiator when engine is overheated, unless engine is idling slowly. Pour coolant in slowly.

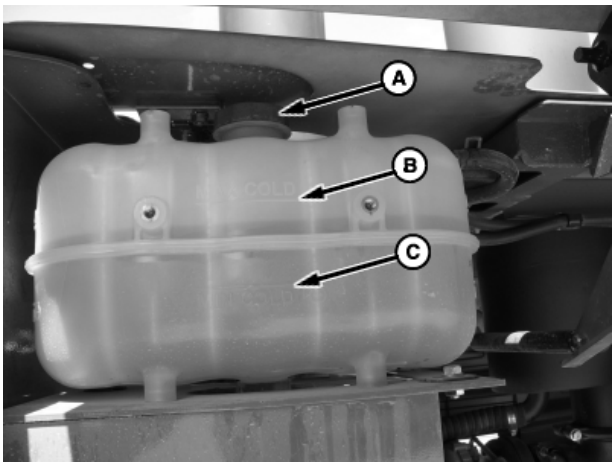
Never use high silicate automotive coolant.

NOTE: Fill system with specified coolant that contains coolant conditioner. (See DIESEL ENGINE COOLANT in Fuel, Coolant, and Lubricants section).

1. Check coolant level in surge tank. If coolant is below minimum fill line (C), add coolant.
2. Add coolant through filler cap on recovery tank to maximum fill Line (B).

NOTE: Cooling system capacity is approximately 29.3 L (7.75 U.S. gal).

3. Start and run engine for several minutes with fill cap off.



E57297 —UN—03JUN09

A—Fill Cap
B—Maximum Fill Line (Cold)
C—Minimum Fill Line (Cold)

4. Stop engine, remove key. Let system cool and check coolant level in surge tank.
5. Add coolant as needed to surge tank. Install fill cap.

OUO6085,00000FF -19-05AUG09-1/1

Winterizing Cooling System

CAUTION: Explosive release of coolant from pressurized cooling system can cause serious burns.

Remove filler cap only when cool enough to touch with bare hands and with engine stopped.

Do not remove filler cap until all system pressure is relieved. Relieve pressure by slowly loosening cap to relieve pressure before removing completely.

TS281 —UN—23AUG88

IMPORTANT: Do not drain cooling system to protect against freezing. The heater does not drain completely, so damage would result.

Do not use a high silicate automotive coolant.

After testing, if it is determined there is insufficient antifreeze to protect the system against freezing, do the following:

- Use specified coolant with conditioner. (See DIESEL ENGINE COOLANT in Fuel, Coolant, and Lubricants section.)
- After adding antifreeze (see FILLING RADIATOR in this section), turn heater on and run engine until it reaches operating temperature. This mixes the solution and circulates it through the system.
- Allow engine to cool and test coolant mixture to determine level of protection. Adjust as needed.

OUO6085,0000075 -19-09JUL09-1/1

Flushing Cooling System

For proper draining and flushing intervals see DRAIN INTERVALS FOR DIESEL ENGINE COOLANT in Fuel, Coolant, and Lubricants section

CAUTION: Explosive release of coolant from pressurized cooling system can cause serious burns.

Remove filler cap only when cool enough to touch with bare hands and with engine stopped.

Do not remove filler cap until all system pressure is relieved. Relieve pressure by slowly loosening cap to relieve pressure before removing completely.

TS281 —UN—23AUG88

1. Turn heater valve on with engine running.
2. Turn off engine and remove key.

Continued on next page

OUO6085,0000103 -19-18AUG09-1/4

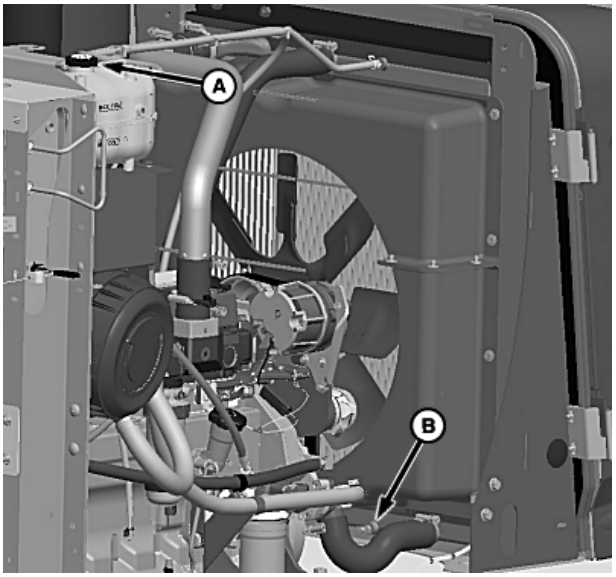
3. Remove surge tank filler cap (A), open drain (B) on bottom of the radiator.
4. After system has drained from radiator, remove block plug (C) located behind oil filter.
5. When system has drained, close drain on radiator and replace block plug.
6. Fill system through surge tank with clean water and John Deere Cooling System Flush.
7. Start and run engine until it reaches operating temperature.

IMPORTANT: Make sure engine reaches operating temperature before shutting off engine and draining system. If engine does not reach operating temperature, the system will not flush properly.

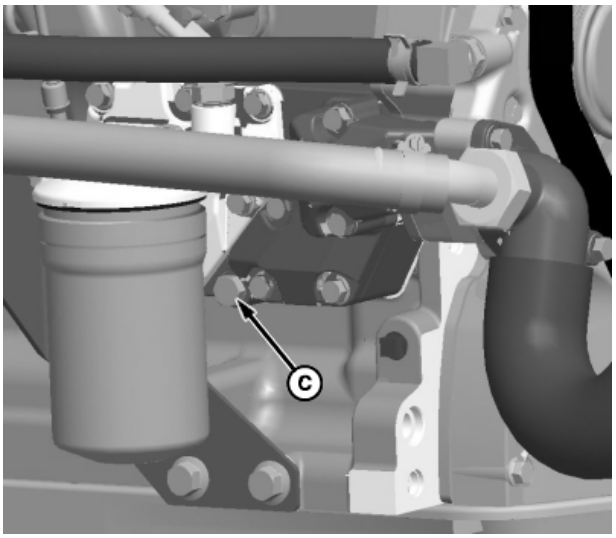
8. Turn off engine, remove key and drain cooling system cleaner and water out.
9. Close radiator drain and fill system with clean water through the surge tank.
10. Run engine until it reaches operating temperature.
11. Turn off engine, remove key. Remove surge tank cap and open radiator drain. Allow water to drain out before rust and sediment settles.
12. Close drain and fill system with specified coolant with conditioner. (See DIESEL ENGINE COOLANT in Fuel, Coolant, and Lubricants section.)

Specification	
Coolant System—Capacity	29.3 L (7.75 U.S. gal)

A—Fill Cap
B—Radiator Drain
C—Block Plug



E56992 —UN—31MAR09



E57868 —UN—18AUG09

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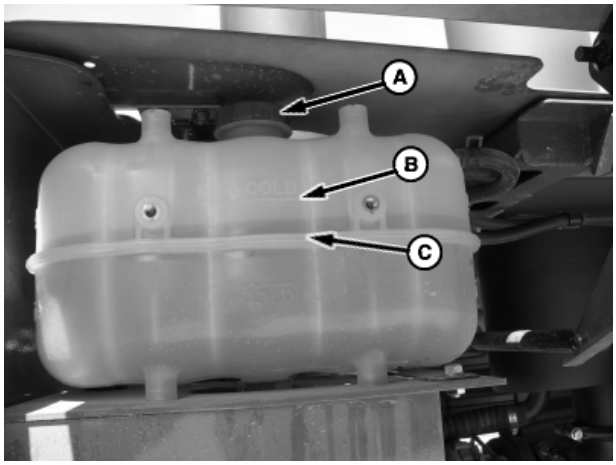
OUO6085,0000103 -19-18AUG09-2/4

13. Run engine for several minutes with fill cap (A) off. Stop engine, remove key. Add coolant as needed to maximum fill line (B).
14. After system is cold, add coolant to recovery tank to intermediate fill line (C).

A—Fill Cap
B—Maximum Fill Line
C—Intermediate Fill Line (one half of tank)

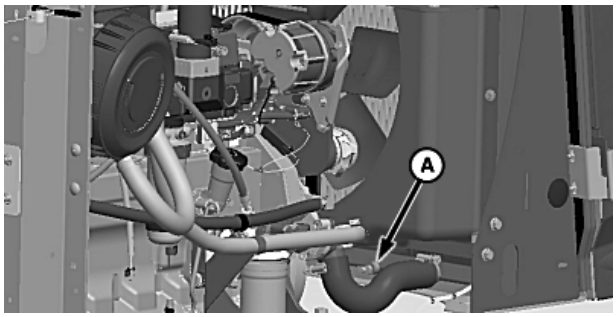


E57298 —UN—05JUN09

OUO6085,0000103 -19-18AUG09-3/4

15. Check drain (A) on radiator for leaks.

A—Radiator Drain



E57022 —UN—22APR09

OUO6085,0000103 -19-18AUG09-4/4

Cleaning Screen, Combination Cooler, Charge Air Cooler and Radiator

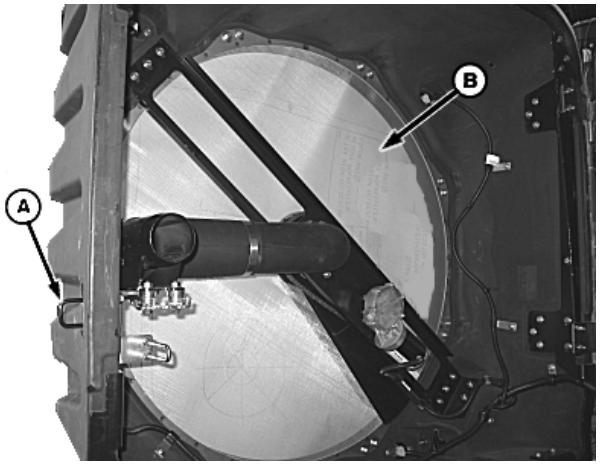
CAUTION: To prevent injury, never service windrower while it is running. Engine must be off and key removed.

1. Turn off engine and remove key.
2. Pull out on latch (A) and open door.

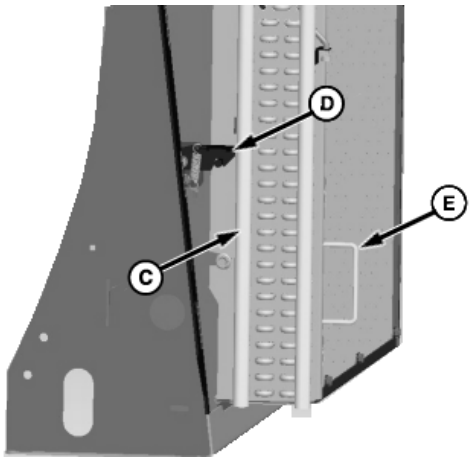
NOTE: Blow the air through the screen (B) in the opposite direction of the air flow during operation.

3. Clean the screen (B) with a brush and compressed air when dirt and chaff build up on the screen.
4. To open combination cooler (C), position hand behind cooler and lift latch (D) and pull out on handle (E).

A—Door Latch
B—Air Screen
C—Combination Cooler
D—Latch
E—Handle



E57060 —UN—01MAY09



E56782 —UN—23APR09

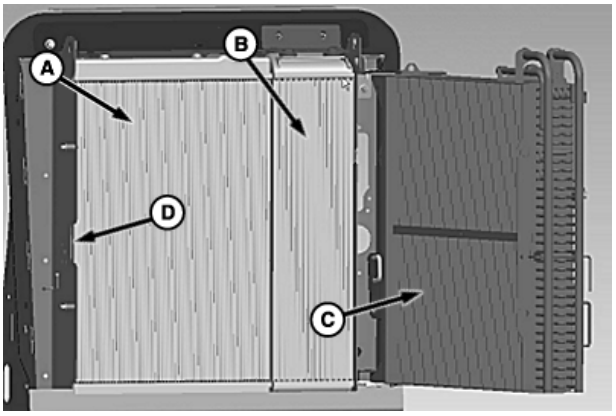
OUO6085,0000077 -19-04JUN09-1/3

IMPORTANT: When using high pressure air or water, be careful of fin damage to coolers. Use a fin comb to straighten bent fins. Bent fins will decrease cooler performance.

NOTE: Blow air or water through radiator (A), charge air cooler (B), and combination cooler (C) in the opposite direction of the air flow during operation.

5. Using compressed air or water, remove dirt and chaff build up from fins in the radiator (A), charge air cooler (B), and combination cooler (C).

A—Radiator
B—Charge Air Cooler
C—Combination Cooler
D—Latch



E56770 —UN—23APR09

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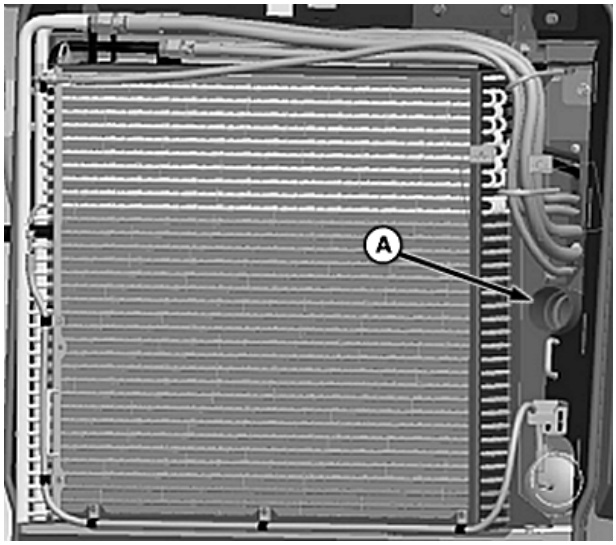
OUO6085,0000077 -19-04JUN09-2/3

6. Swing combination cooler back into place making sure it is securely latched.
7. Clean out dirt and chaff from vacuum duct (A) and air duct in rear door.

A—Vacuum Duct



E56771 —UN—09FEB09

OUO6085,0000077 -19-04JUN09-3/3

Checking Engine Valve Clearance

Have your John Deere dealer check engine valve clearance at the recommended intervals.

OUO6085,0000078 -19-08JAN09-1/1

Removing and Installing Serpentine Belt

IMPORTANT: To prevent premature belt damage, when handling the belt, do not coil the belt, bend it backwards, or double it over. Allow the belt to stay in its relaxed shape.

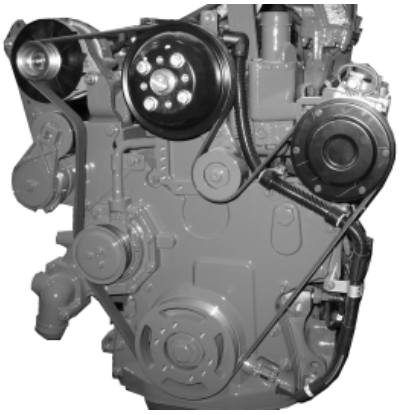
NOTE: The idler sheave and belt tensioner will ride against the non-grooved back of the belt.

The engine is removed for photographic purposes.

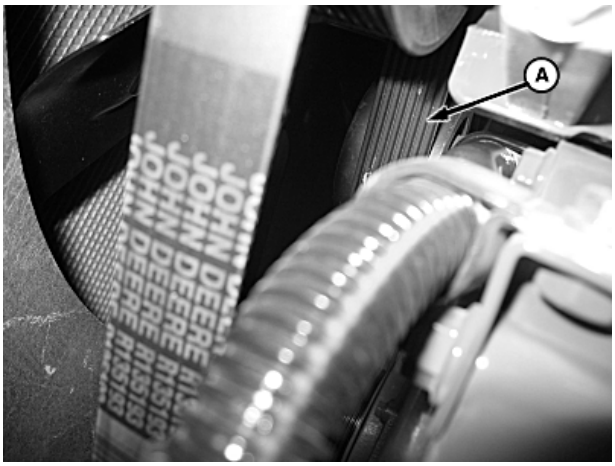
The sheave side of the belt (A) is grooved to match the ribs in the sheaves and pulleys. Always install the belt with the grooved side next to the drive or driven sheaves and pulleys.

The belt is driven by the pulley on the crankshaft and drives the air conditioning compressor, engine fan, alternator and water pump.

A—Belt



E57287 —UN—03JUN09



E57804 —UN—05AUG09

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OUO6085,0000079 -19-05AUG09-1/2

1. Insert 1/2 in. drive breaker bar (B) into square hole in belt tensioner (C).

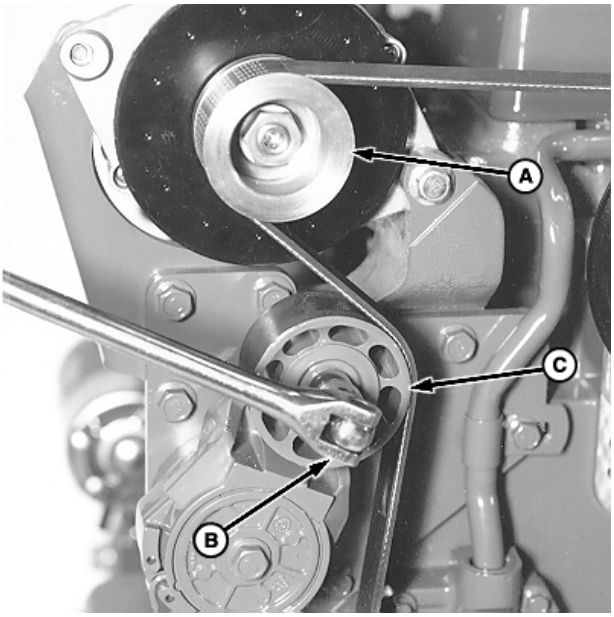
NOTE: Belt tensioner is under a heavy spring load and requires a moderate amount of force to move from the belt.

2. Pull down on breaker bar moving belt tensioner (C) outward.

CAUTION: Do not position your fingers between belt and sheave when removing or installing belt. The edges of the sheave are sharp and belt tensioner is under a heavy spring load.

IMPORTANT: Do not allow belt tensioner to snap back to its relaxed position or damage to belt tensioner assembly may result.

3. While holding belt tensioner back, slip belt off alternator sheave (A) and carefully allow belt tensioner to return to rest position.
4. Remove belt from engine.
5. Check belt ribs and edges for cracks or fraying. Replace if necessary.
6. Install belt in reverse order of removal.



E40596 —UN—28AUG00

A—Alternator Sheave
B—Breaker Bar
C—Belt Tensioner

OUO6085,0000079 -19-05AUG09-2/2

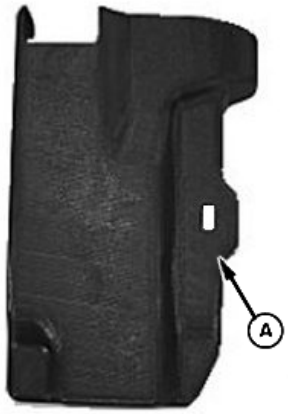
Observe Electrical Precautions

CAUTION: Keep all sparks and flames away from battery as gas given off by electrolyte is explosive. To avoid sparks, turn off key switch and all accessories, and disconnect ground cable first and connect it last. To avoid shocks and burns, disconnect battery ground cable before servicing any part of electrical system or when removing battery.

NOTE: Always keep cover (A) on battery when operating the windrower.

A—Battery Cover

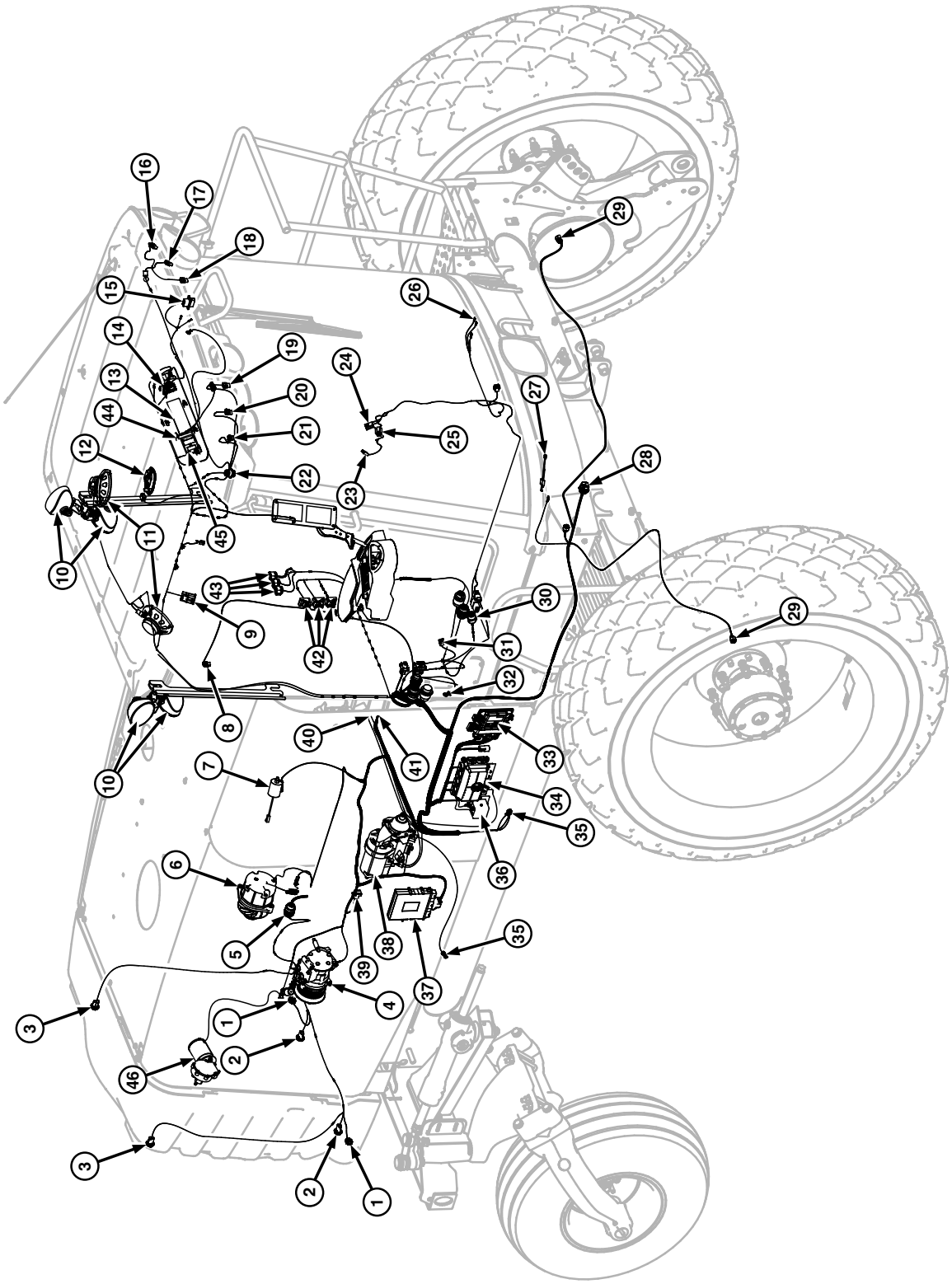
E57805 —UN—05AUG09



E58023 —UN—01OCT09

OUO6085,0000104 -19-23SEP09-1/1

Electrical Component Identification and Location



Continued on next page

OUO6085,0000149 -19-15OCT09-1/2

1— Work Lights
2— Tail Lights
3— Turn Signals/Amber Warning Lights
4— Air Conditioning Compressor
5— Air Screen Harness To Left-Hand Side
6— Alternator
7— Air Filter Sensor
8— Fuel Sender
9— Diode Module
10— Upper and Lower Work Lights (Optional)
11— Radio Speakers
12— Dome Light
13— Radio (Optional)
14— Windshield Washer/Wiper Switch
15— GPS Antenna (Optional)
16— Road/Field Light
17— Field Light
18— Road/Field Light
19— Road/Field Light
20— Field Light
21— Road/Field Light
22— GreenStar Display Connector
23— Horn Button
24— Turn Signal
25— Ignition Switch
26— Horn
27— Platform Ground
28— Platform Connector
29— Ground Speed Sensor
30— Diagnostic Port
31— Convenience Outlet
32— Cab Ground
33— Electronic Power Unit
34— Fuse Box
35— Ground Points
36— Starter Relay
37— Engine electrical Control Unit (ECU)
38— Starter
39— CAN Terminator
40— To Battery
41— To Left-Hand Chassis
42— To Cab Control Unit (CAB)
43— To Cab Power Module (CPM)
44— Heated Mirror Switch (Optional)
45— Power Mirror Switch (Optional)
46— Rear Air Screen Motor

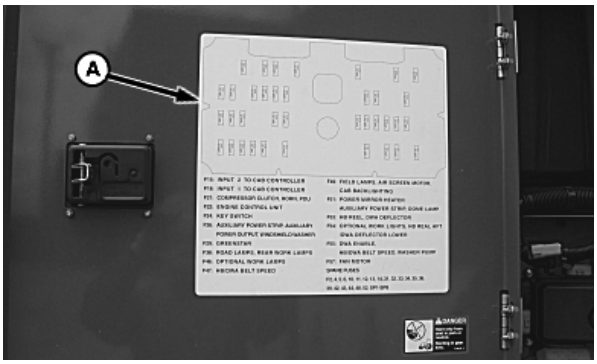
OUO6085,0000149 -19-15OCT09-2/2

Fuse Label

Fuse label (A) is mounted inside the access door on the right-hand side of the windrower behind the operator's station.

It is intended as a reference guide.

A—Label



E57142 —UN—12MAY09

OUO6085,000012E -19-04JUN09-1/1

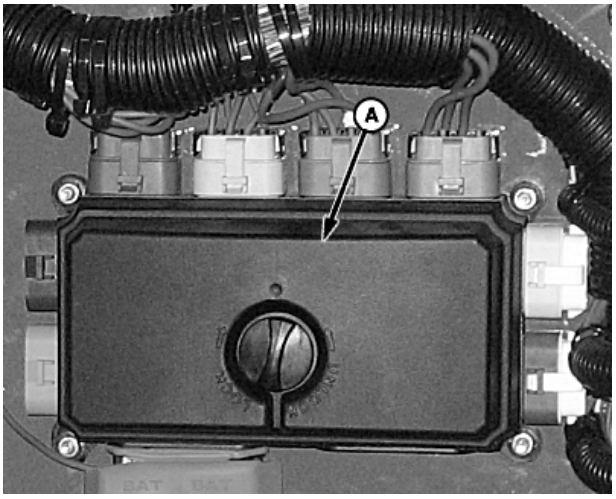
Fuse Panel (Power Center)

30 amp fuses are on the power distribution board in power center (A). The power center is located inside the access door on right-hand side of the operator's station.

A fuse label is located inside the access door on right-hand side of the machine behind the operator's station. This label shows fuse function.

The fuse, function and amp rating is as follows:

FUSE (BLADE-TYPE)		
F12	**DWA Controler Power**	
Fuse	**Function**	**Amperage**
F15	CAB Controller Power 2	30 amp - Green
F18	CAB Controller Power 1	30 amp - Green
F21	Compressor, Clutch, Horn, PDU Pressurizer Fan	30 amp - Green
F22	Engine Controller Power	30 amp - Green
F24	Key Switch	30 amp - Green
F26	Unswitched Auxiliary Power	30 amp - Green
F29	Green Star Display and Receiver, Washer Pump	30 amp - Green
F38	Cab Roof Road Lamps,	30 amp - Green
F46	Lower Optional Lamps	30 amp - Green
F47	Rear Work Lamps	30 amp - Green
F49	Cap Roof Field Lamps, Air Screen Motor, Cab Backlighting	30 amp - Green
F51	Key Switched Auxiliary Power, Dome Lamp	30 amp - Green
F53	Honeybee Deck Shift, Upper Optional Lamps	30 amp - Green
F54	Honeybee Tilt/Reel Select, Honeybee Reel Aft	30 amp - Green
F55	Honeybee Belt Speed Increase/Decrease, Honeybee Reel Fore	30 amp - Green
F57	Recirculation Fan	30 amp - Green
Spare Fuses	F2,4,5,6,10,11,12,13,14,31,32,33,34,35,36,39,42,43,44,48,52 SP1-SP8	



E57292 —UN—14OCT09

A—Fuse Panel (Power Center)

OUO6085,0000106 -19-11AUG09-1/1

Electrical Connector Handling

Electrical connectors must not be forcibly mated or unmated. All are designed to be mated easily. If you have to use tools, you may be doing something wrong. Prying or forcing connectors may cause permanent damage to the locking mechanism, contacts, or both.

When working on connectors, make sure you are working on the correct terminal. Remember that male and female halves are mirror images of one and other. Look for the terminal number on the connector body. The connection of improper electrical circuits can cause unusual electrical symptoms.

When an electrical connector is repaired, it is important that the proper terminals are used. In some of these connectors, different terminals are used to carry different currents. If contacts of different materials are mated, corrosion may develop that could affect performance.

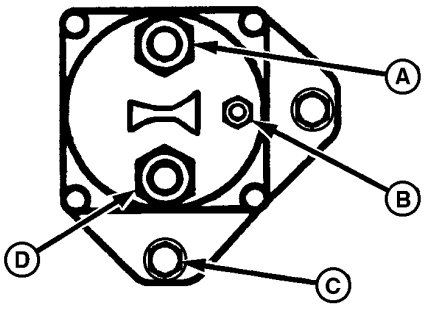
When removing terminals from a connector, it is very important to use the correct extraction tool and gently remove the terminal. The connector body can be damaged if terminals are just "jerked" out of it. The damage caused will prevent the new terminal from staying in the connector and cause replacement of the connector body.

H37083 —UN—01FEB89

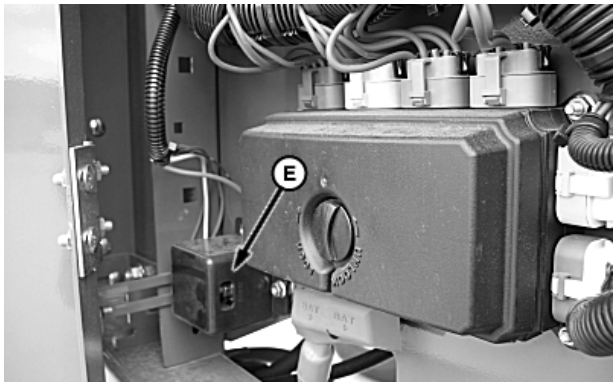
When installing a new terminal on a wire, make sure the insulation crimp and wire crimp are both made properly. Each part of the terminal crimps is designed for a specific purpose. Failure to properly crimp the wire contact area can result in poor or no electrical contact. Failure to crimp the insulation support properly can result in problems getting the terminal into the connector body, thus causing premature failure.

OUO1078,00014B9 -19-05NOV01-1/1

Starter Relay



E47674 —UN—20JAN00



E57293 —UN—05JUN09

A—From Battery
B—From Ignition
C—To Ground
D—To Starter Motor
E—Starter Relay

The starter relay (E) is located inside the access door on the right-hand side of the machine behind the operator's station.

If starter fails to operate, check starter relay (E) for loose, dirty, or corroded cables at terminals (A, B, C and D).

If these checks do not correct the problem, see your John Deere dealer.

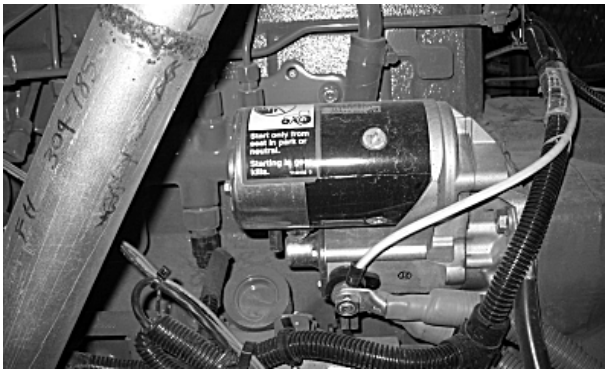
OUO6085,0000107 -19-03JUN09-1/1

Starter

If starter fails to operate or operates sluggishly, check for the following:

- Loose, dirty, broken, or corroded cables and wires.
- Malfunctioning starter relay.
- Low battery output.
- Run down battery.
- Crankcase oil of wrong viscosity.
- Loose, dirty, or corroded starter relay terminals.

If these checks do not correct the problem, see your John Deere dealer.



E56758 —UN—13FEB09

OUO6085,0000108 -19-06FEB09-1/1

Battery

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

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

Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable (B) first and connecting it last.**

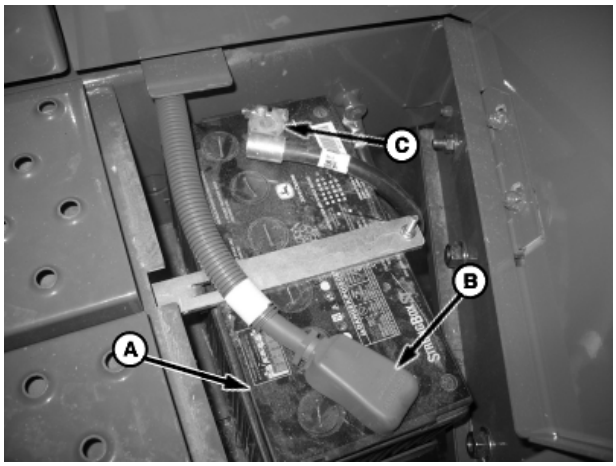
IMPORTANT: Always disconnect the negative cable (C) from the terminal THEN the positive cable (B) before working on the electrical system or welding on the machine.

NOTE: Always keep cover (D) on battery when operating the windrower.

Battery provides 12 volts to the electrical system and starter with 925 cold cranking amps.

A—Battery
B—Positive (+) Cable and Post
C—Negative (—) Cable and Post
D—Battery Cover

TS204 —UN—23AUG88



E57806 —UN—05AUG09

E58024 —UN—01OCT09

OUO6085,0000109 -19-23SEP09-1/1

Auxiliary Power Outlet Strip and Service ADVISOR™ Diagnostic Connector

NOTE: Maximum combined current draw for all outlets is 30 amps.

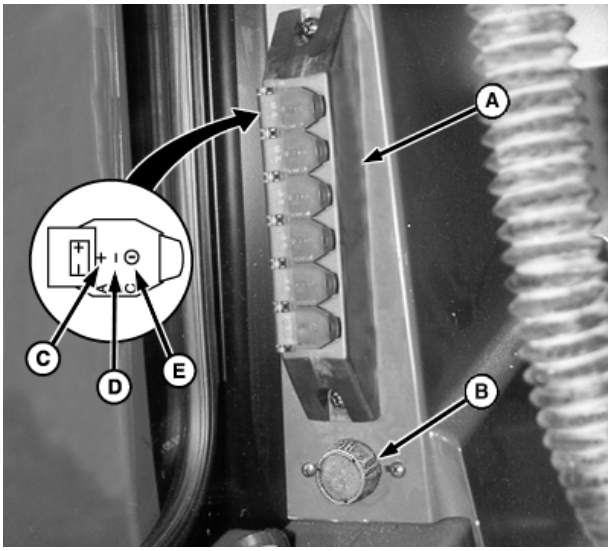
Auxiliary power outlet strip (A) is equipped with six additional electrical outlets which are located at lower rear of right-hand window. These outlets provide key-switched or unswitched power.

Seervice ADVISOR diagnostic connector (B), provides the ability to connect a laptop computer to diagnose the machine if needed.

Spade terminal (C) is direct positive power at all times.

Spade terminal (D) is ground.

Spade terminal (E) is auxiliary power (key switch ON).



H70168 —UN—23OCT01

A—Auxiliary Power Outlet Strip
B—Service ADVISOR Diagnostic Connector
C—Spade Terminal (Direct Positive Power)
D—Spade Terminal Ground
E—Spade Terminal (Positive, Key Switched ON)

Service ADVISOR is a trademark of Deere & Company

OUO6085,0000115 -19-04JUN09-1/1

Replacing Bulbs

If all of the lights fail in a particular system at the same time, check for an open fuse.

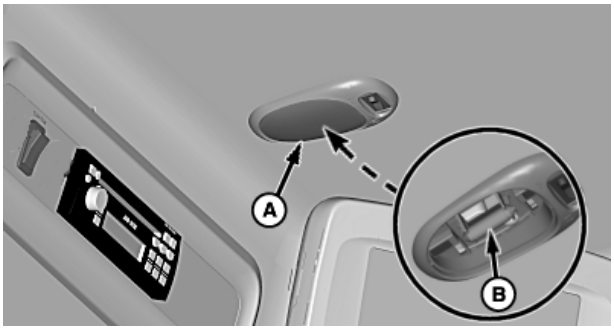
If a single light fails, bulb may be burned out.

If problem is other than fuse, relay, or bulb, see your John Deere dealer.

OUO6085,000012F -19-17MAR09-1/1

Dome Light Bulb Replacement

1. To replace light bulb (B), remove lens cover (A) by pressing sides of cover.
2. Replace bulb.
3. Replace lens cover by snapping into place.



E57145 —UN—12MAY09

A—Dome Light Cover
B—Bulb

OUO6085,0000172 -19-04JUN09-1/1

Rear Warning, Work, and Tail Light Bulbs Replacement

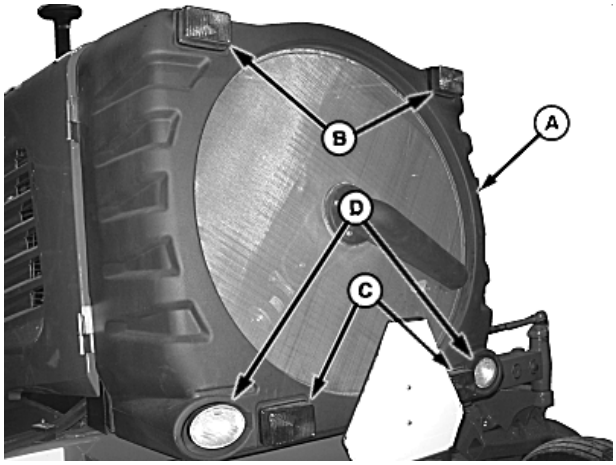
1. Open rear door (A). Pull out on latch and hold it out. Pull door open.

CAUTION: When changing a Halogen bulb, see "HALOGEN BULB SAFETY GUIDELINES" in this section.

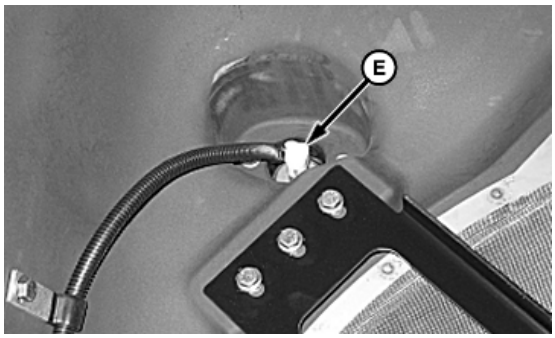
NOTE: After removing sockets from lights, reinstall sockets in reverse order.

2. To change warning light bulb, turn socket (E) counterclockwise and pull out.
3. To change a tail light bulb, turn socket (F) counterclockwise and pull out.
4. To change a work light bulb, remove nut from stud (G). Gently work the light out of the door. Turn socket counterclockwise and remove from light.

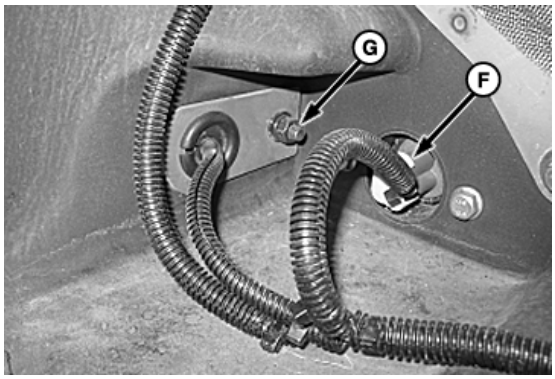
A—Rear Door
B—Warning Lights
C—Tail Lights
D—Work Lights
E—Warning Light Socket
F—Tail Light Socket
G—Work Light Bracket Stud



E57148 —UN—13MAY09



E57149 —UN—13MAY09



E57808 —UN—05AUG09

OUO6085,0000173 -19-04JUN09-1/1

Halogen Bulb Safety Guidelines

CAUTION: Halogen bulbs (A) contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

Turn off the light switch and allow bulb to cool before changing bulbs. Leave switch off until bulb change is complete.

Wear eye protection when changing a halogen bulb.

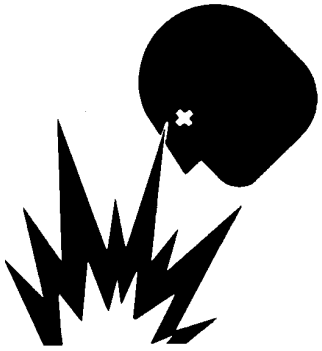
Handle bulb by its base. Avoid touching the glass.

If bulb glass is accidentally touched, clean thoroughly with alcohol.

Do not drop or scratch the bulb. Keep moisture away.

Place used bulb in the new bulb's carton and dispose of properly. Keep out of reach of children.

A—Halogen Bulb



TS280 —UN—23AUG88

H39474 —UN—30JUN00

OUO1078,00014C6 -19-05NOV01-1/1

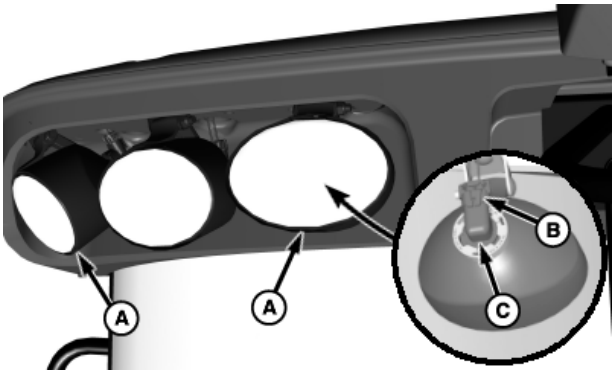
Cab Headlight Bulb—Replacement

CAUTION: Raise platform fully and engage platform lift lockout lever before standing on platform to replace or adjust cab headlights.

1. Rotate light assembly (A) upward.
2. Disconnect wiring harness connector (B).
3. Turn bulb assembly (C) counterclockwise to remove.

CAUTION: Before replacing the headlight bulbs, read HALOGEN BULB SAFETY GUIDELINES in this group.

4. Remove and replace bulb.
5. Install bulb in reverse order and connect wiring harness.



H83429 —UN—10MAY05

A—Light Assemblies
B—Connector
C—Bulb Assembly

OUO6085,00001A9 -19-04JUN09-1/1

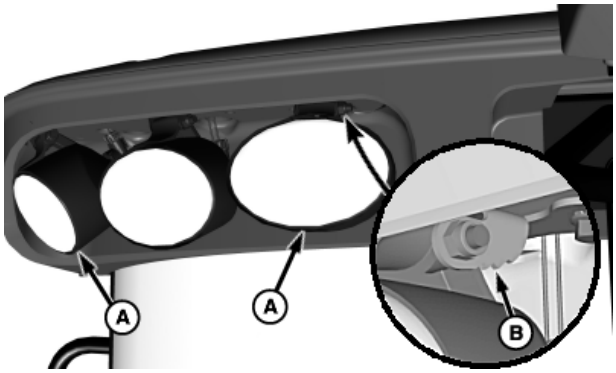
Cab Headlight—Adjustment

CAUTION: Raise platform fully and engage platform lift lockout lever before standing on platform to replace or adjust cab headlights.

NOTE: Vertical adjustment of light assemblies can be rotated up or down in three notch positions to achieve correct lighting angles.

Vertical Adjustment: Light assemblies (A) can be rotated up or down in notches (B).

A—Light Assemblies **B—Notches**

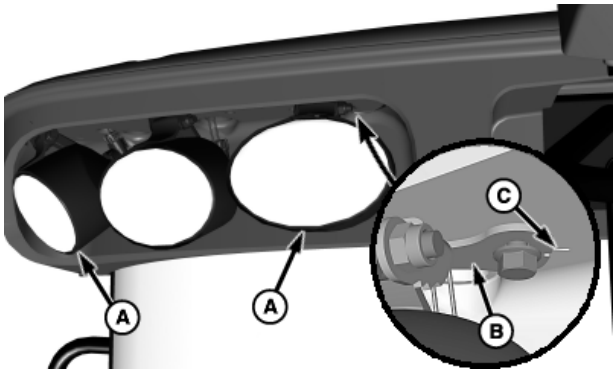


H83515 —UN—19MAY05

OUO6085,00001AA -19-04JUN09-1/2

Horizontal Adjustment: To adjust light assemblies (A), loosen cap screws and rotate bracket (B) until notch aligns with indicator line (C).

A—Light Assemblies **C—Indicator Line**
B—Bracket



H83516 —UN—19MAY05

OUO6085,00001AA -19-04JUN09-2/2

Safety Rules When Replacing High Intensity Discharge (HID) Xenon Lights

When replacing xenon bulbs or ballast, always comply with the following safety instruction:

CAUTION: Turn OFF light switch and allow bulb to cool before changing bulbs. Leave switch OFF until bulb change is complete.

Never insert foreign objects or fingers into bulb holder (high-tension voltage - potential for FATAL ACCIDENTS).

Ballast unit must never be operated when bulb is missing, as this may cause a dangerous flash-over at bulb sockets, resulting in serious damage (high-tension voltage - potential for FATAL ACCIDENTS).

IF a xenon bulb ever bursts inside a closed space (e.g. workshop), leave the area, making sure it is well ventilated, and wait 20 minutes before returning. This will eliminate risk to health caused by gases.

High-tension voltage is conducted by electrical connection between work lights and ballast unit; this connection must never be broken (high-tension voltage - potential for FATAL ACCIDENTS).

Make sure that the power supply line between work lights and ballast unit is never twisted more than 90 degrees and/or bent more than a length of 20 mm (0.8 in.).

Wear eye protection when changing xenon bulbs.

Bulbs contain xenon gas under pressure and metallic salts. Handling a bulb improperly could cause it to shatter into flying fragments.

Do NOT use any bulbs that have fallen on the ground or have scratches on their surface, as there is a risk of them shattering.

Make sure that bulb is seated correctly in its holder in the light.

Check light for signs of damage and make sure seals are seated correctly.

IMPORTANT: Handle bulb by its base. Avoid touching glass.

Place used bulb in new bulb's carton and dispose of properly. Keep out of reach of children.

Do not drop or scratch bulb. Keep moisture away.

Use a clean cloth and alcohol to remove any fingerprints from glass bulb.

OUO6085,000039D -19-16AUG05-1/1

Remove and Install High Intensity Discharge (Xenon) Lights (Optional)

CAUTION: Avoid serious injury or death from electrical shock or lamp explosion. This lamp is powered by 25,000 volts. Do Not begin installation of HID-Xenon light unless lights are turned OFF, engine is shut off, parking brake is set, key is removed and appropriate eye protection is worn.

If HID-Xenon light were previously operated, wait a minimum of five minutes before servicing bulb.

HID-Xenon light (A) are located in second and fifth cab light panel holes.

E54335 —UN—29JUN05

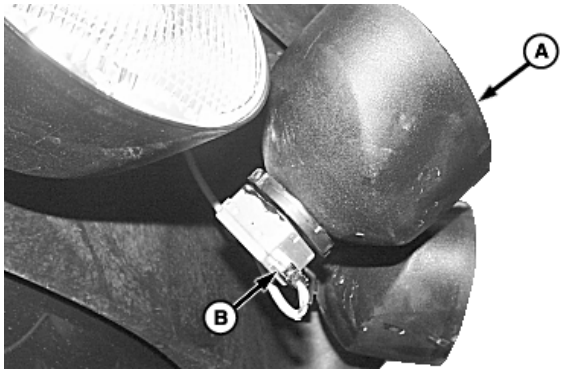
A—HID-Xenon Lights

Continued on next page

OUO6085,000039F -19-29JUN05-1/3

Rotate HID-Xenon light assembly (A) upward and disconnect wiring harness (B).

A—HID-Xenon Light Assembly **B—Wiring Harness**



H83529 —UN—20MAY05

Retainer Removed for Clarity

OUO6085,000039F -19-29JUN05-2/3

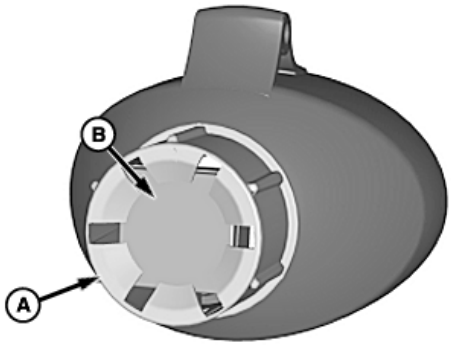
Push in and rotate retainer (A) counterclockwise.

Push in and rotate bulb assembly (B) counterclockwise.

Remove and replace bulb.

Install bulb and retainer in reverse order and connect wiring harness.

A—Retainer **B—Bulb Assembly**



H83611 —UN—26MAY05

Assembly Remove for Clarity

OUO6085,000039F -19-29JUN05-3/3

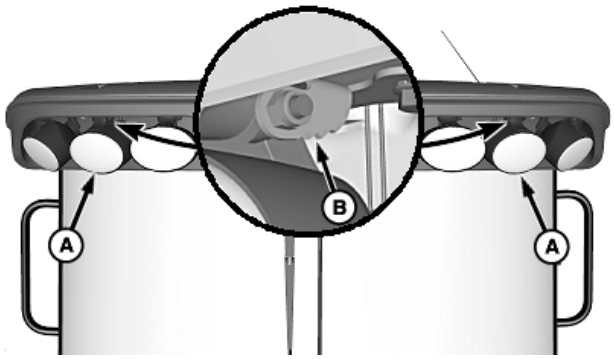
High Intensity Discharge (Xenon) Light—Adjustment

⚠ CAUTION: Raise platform fully and engage platform lift lockout lever before standing on platform to replace or adjust cab headlights.

NOTE: Vertical adjust of HID-Xenon light assemblies must be rotated to first notch to achieve correct light angle.

Vertical Adjustment: Rotate light assembly (A) to first notch (B).

A—Light Assemblies **B—First Notch**



H83537 —UN—20MAY05

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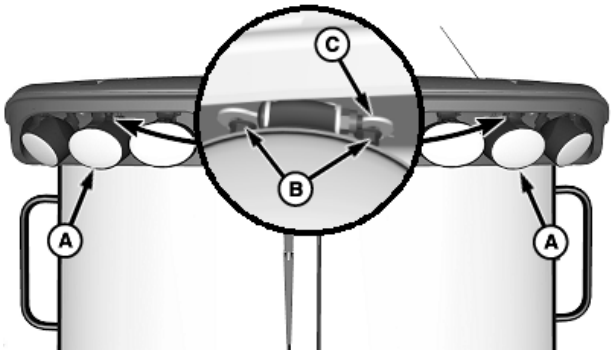
OUO6085,00003A0 -19-04JUN09-1/2

Horizontal Adjustment: To adjust light assemblies (A), loosen cap screws (B) and rotate light bracket (C) towards center of cab and tighten cap screws.

A—Light Assemblies
B—Cap Screws
C—Light Bracket



H83622 —UN—27MAY05

OUO6085,00003A0 -19-04JUN09-2/2

Preventing Battery Explosions

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

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

Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable first and connecting it last.**

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).

TS204 —UN—23AUG88

OUO1078,00014C8 -19-05NOV01-1/1

Preventing Acid Burns

CAUTION: 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:

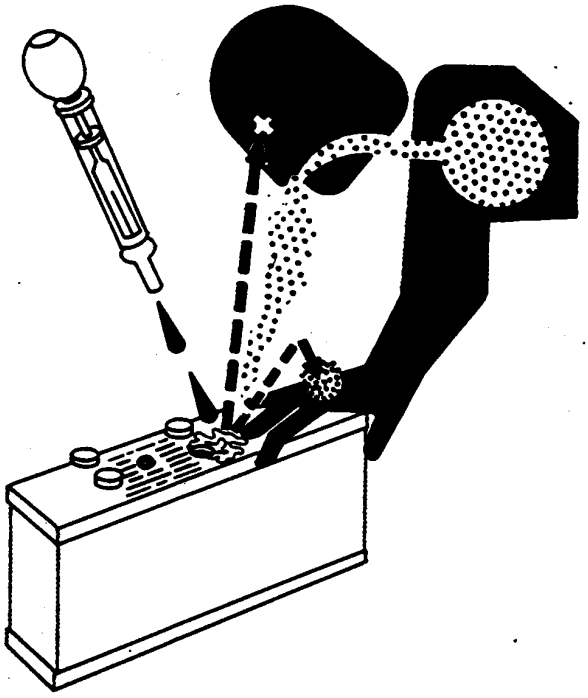
1. **Filling battery in a well-ventilated area.**
2. **Wearing eye protection and rubber gloves.**
3. **Avoiding breathing fumes when electrolyte is added.**
4. **Avoiding spilling or dripping electrolyte.**
5. **Use proper jump start procedure.**

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

OUO1078,00014C9 -19-05NOV01-1/1

Prevent Damage to Electrical Systems

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

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

Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable (A) first and connecting it last.**

NOTE: Always keep cover (C) on battery when operating the windrower.

To prevent damage to electrical system components, always observe these precautions:

Never disconnect the battery with the key switch on or the engine running.

Never connect jumper cables with the key switch on.

Disconnect battery when charging. (See CHARGING BATTERY in this section.)

The windrower should be jump started by 12 volts only.

Always charge the battery with a charger for 12 volts.

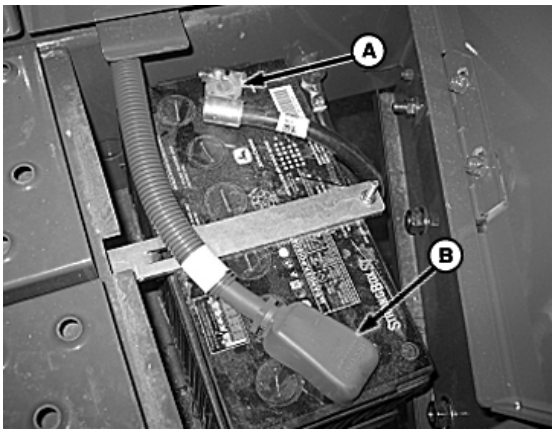
Never connect or disconnect wiring harness connectors with the key switch on.

Route negative (—) cable (A) away from positive (+) cable (B) when connecting battery to system.

Do not apply power or ground to any component as a test, unless instructed.

A—Negative Battery Cable and Post
B—Positive Battery Cable and Post
C—Battery Cover

TS204 —UN—23AUG88



E57809 —UN—05AUG09

E58025 —UN—01OCT09

OUO6085,000010A -19-23SEP09-1/1

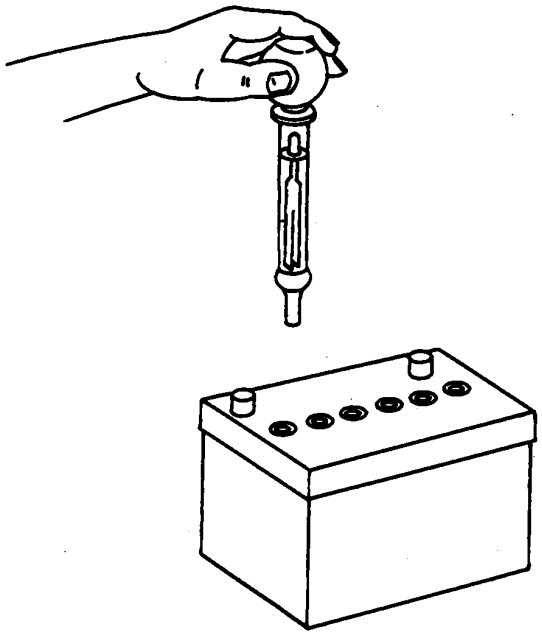
Checking Specific Gravity

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

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

Check specific gravity of electrolyte in each cell with a battery hydrometer to determine battery condition. Charge battery if reading is below 1.215. Replace battery if difference between cells is more than 0.050.

Always correct specific gravity reading for electrolyte temperature variation. Add 0.004 for every 10°F above 80°F. (Add 0.007 for every 10°C above 27°C.) Subtract at same rate if electrolyte temperature is below 80°F (27°C). Corrected specific gravity of a fully charged battery is 1.260.



TS182 —UN—23AUG88

OUO1078,00014CB -19-05NOV01-1/1

Connecting Battery Cables

CAUTION: Battery gas can explode. Keep sparks and flames away from battery.

Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable (A) first and connecting it last.**

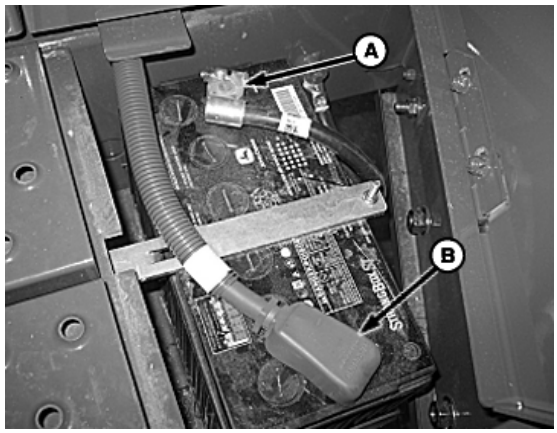
BATTERY IS NEGATIVE GROUNDED ONLY. Always connect battery ground strap to negative (—) post (A) of battery. Connect starter cable to positive (+) post (B) of battery.

Reversed polarity in battery or alternator connections results in permanent damage to electrical system. Connect ground strap to negative (—) battery post (A) last.

TS204 —UN—23AUG88

When connecting battery:

- Turn off all switches and accessories.
- Clean battery posts and terminals.
- Connect positive (+) cable (B) in position shown.
- QUICKLY TOUCH ground strap to negative post. Arcing must not occur. If arcing occurs, DO NOT MAKE CONNECTION. Check to see if battery position is reversed. If arcing still occurs, make sure all switches and accessories are off. Look for shorts, broken wires, and loose or corroded connections, then recheck.
- Connect negative (—) battery cable (A) last.



E57809 —UN—05AUG09

NOTE: Replace cover (C) on battery before operating the windrower.

E58025 —UN—01OCT09

A—Negative Battery Cable and Post
B—Positive Battery Cable and Post
C—Battery Cover

OUO6085,000010B -19-23SEP09-1/1

Charging Battery

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

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

Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable (A) first and connecting it last.**

Keep battery fully charged, especially during cold weather.

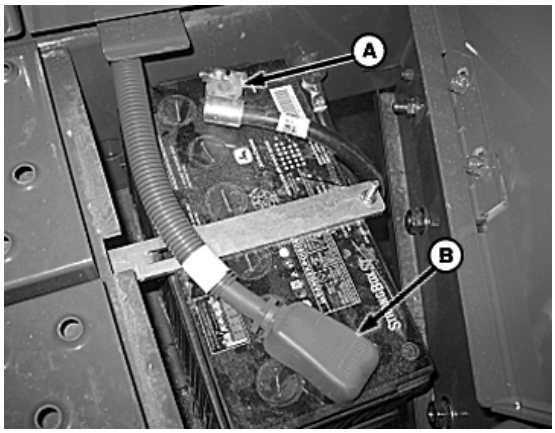
CAUTION: Never charge a frozen battery. Thaw at room temperature before connecting to battery charger. Only charge battery in a well ventilated area. Disconnect cables from battery terminals when charging battery.

1. Disconnect negative (—) battery ground cable (A) first and then the positive (+) cable (B).
2. Connect charger positive cable to "+" terminal and charger negative cable to "—" terminal.
3. Follow instructions provided with charger. Always charge battery with a 12-volt charger.
4. Connect battery cables. (See CONNECTING BATTERY CABLES in this section.)

NOTE: Always replace cover (C) on battery before operating the windrower.

A—Negative Battery Cable and Post
B—Positive Battery Cable and Post
C—Battery Cover

TS204 —UN—23AUG88



E57809 —UN—05AUG09

E58025 —UN—01OCT09

OUO6085,000010C -19-23SEP09-1/1

Connecting Booster Battery

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

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

Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable first and connecting it last.**

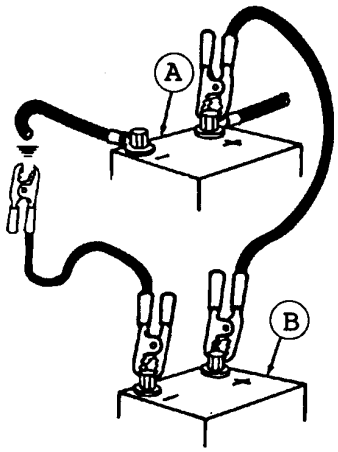
TS204 —UN—23AUG88

OUO1078,00014CE -19-05NOV01-1/2

IMPORTANT: The machine electrical system is a 12-volt negative (—) ground. Use only a 12-volt booster battery.

When connecting the booster battery to the discharged battery, always connect positive (+) to positive (+) and negative (—) to negative (—). If the polarity is reversed, damage to the battery and/or the electrical system may result.

1. Connect one end of positive (+) booster cable to positive (+) terminal of the discharged battery. Connect opposite end of the same cable to positive (+) terminal of booster battery.
2. Connect one end of negative (—) booster cable to negative (—) terminal of booster battery. Connect opposite end of the same cable to the engine block. Stand clear.
3. Start machine.
4. Disconnect the negative (—) booster cable-to-engine block connection FIRST. Remove booster cables in reverse order of connection.



T6508AE1 —UN—24OCT91

A—Machine Battery **B—Booster Battery**

T6508AE1 (CV)

OUO1078,00014CE -19-05NOV01-2/2

Battery Replacement

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

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

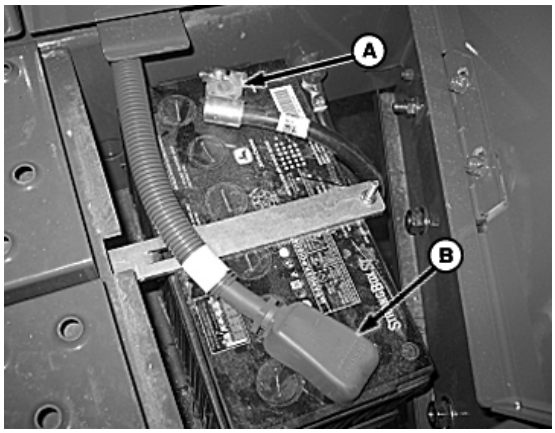
Reduce the possibility of an electrical spark when disconnecting battery by:

- **Ensuring key switch and all accessories are turned off.**
- **Disconnecting negative (—) battery cable (A) first and connecting it last.**

When replacing battery, use a John Deere battery or equivalent. (See CONNECTING BATTERY CABLES in this section.)

NOTE: Always replace cover (C) on battery before operating the windrower.

TS204 —UN—23AUG88



E57809 —UN—05AUG09

E58025 —UN—01OCT09

A—Negative Battery Cable and Post
B—Positive Battery Cable and Post
C—Battery Cover

Volts	John Deere Part No.	BCI Group	Cold Cranking Amps 0°F (-18°C)	Reserve Capacity Minutes at 25 Amps
12	TY25879	31	925	190

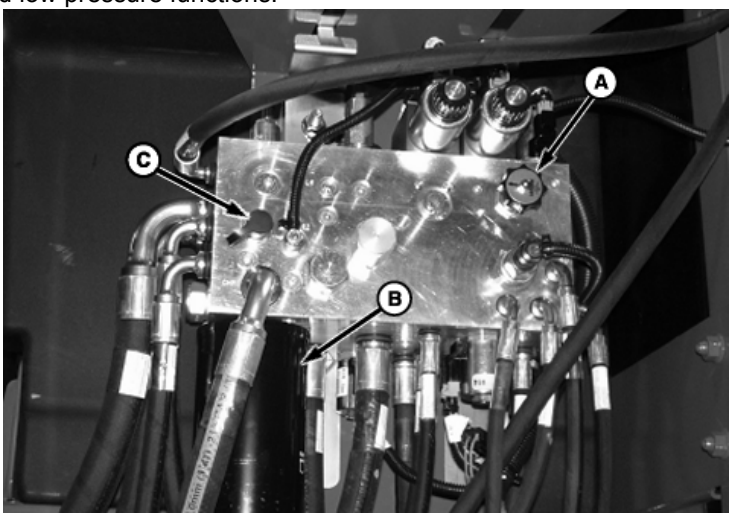
OUO6085,000010D -19-23SEP09-1/1

Hydraulic System (General Information)

The windrower hydraulic system is comprised of four major systems:

- Ground Drive Circuits; supplies oil to front drive wheels.
- Platform drive circuit; supplies oil to platform drive.
- Charge circuit; supplies makeup oil to platform drive, ground drive circuits, and low pressure functions.
- Auxiliary circuit; supplies oil for steering and header functions.

Charge circuit, low pressure functions, and auxiliary circuit functions are controlled by the main valve block.



E57812 —UN—05AUG09

Left-Hand Side Shown

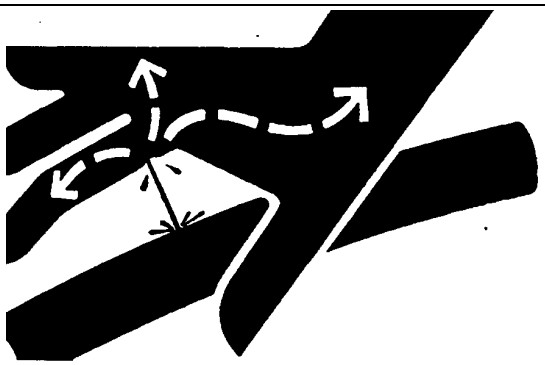
A—High-Pressure Release Valve B—Charge Filter C—Diagnostic Port

OUO6085,00000DB -19-06NOV09-1/1

Hydraulic System Cleanliness

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 may call the Deere & Company Medical Department in Moline, Illinois, or other knowledgeable medical source.



X9811 —UN—23AUG88

CLEANLINESS

If the hydraulic system should be disconnected for service, protect the ends of hoses, tubing and ports of components from contamination with clean, lint-free towels or clean plastic bags.

Before installing any replacement hose, flush the inside with unused diesel fuel or unused commercial petroleum cleaning solvent for ten seconds minimum. Do not use water, water soluble cleaners or compressed air.

OUO1078,00014D1 -19-05NOV01-1/1

Hydraulic Accumulator—Float System

CAUTION: Do not attempt to service the accumulator. See your John Deere dealer for service.

The accumulator is precharged with dry nitrogen according to specifications.

	Specification
Accumulator Auger Platforms—Pressure	5861 kPa (58.6 bar) (850 psi)
Accumulator Specialty Crop Auger Platforms—Pressure	5171 kPa (51.7 bar) (750 psi)

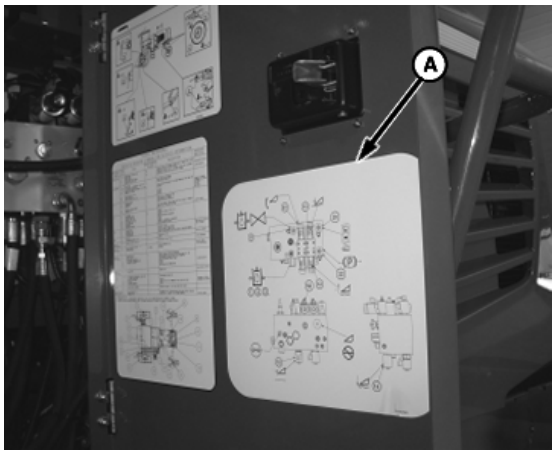
OUO1078,00014D2 -19-05NOV01-1/1

Hydraulic Valve Function and Location Label

This instruction decal (A) is mounted inside the access door on the left-hand side of the windrower behind the operator's station.

It is intended as a convenient reference guide.

A—Hydraulic Function Decal



E57813 —UN—05AUG09

OUO6085,000016F -19-05AUG09-1/1

Service Recommendations For Snap To Connect (STC)[1] Connections

Hydraulic hoses use an STC type connection that requires a tool for removal.

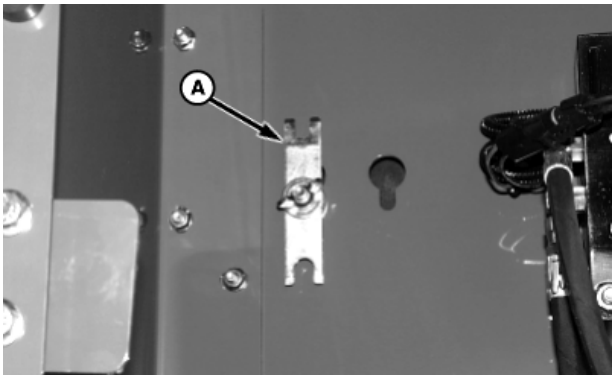
1. There are three tools, sizes 6/8, 10/12, and 16. Tools (A) are located in left-hand side door above hydraulic manifold.
2. Remove tools by loosening wing nut and sliding upward, pull bolt head through hole.

IMPORTANT: DO NOT pry against release sleeve (C) or damage to fitting may result.

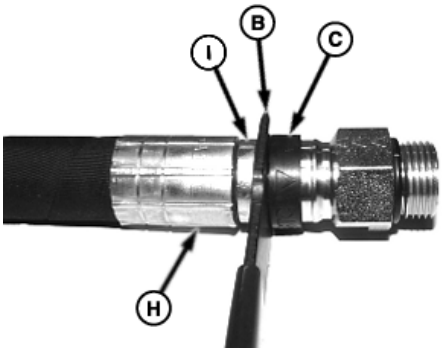
DO NOT force release sleeve beyond normal range of travel, otherwise, release sleeve may fall off when hose is disconnected. If this happens and fitting is connected without release sleeve installed, fitting will not be able to be disconnected again.

3. Disconnect STC type hoses:
   a. Clean area around connection, especially around release sleeve (C).
   b. While keeping special tool perpendicular to connection, insert tool between release sleeve (C) and shoulder (I).
   c. Gently push, **DO NOT PRY**, release sleeve (C) away from shoulder (I) to disconnect hose.
   d. Slightly twist hose connection (H) while pulling outward to disconnect.
4. Inspect STC connectors:
   a. Check seal mating surfaces for nicks, scratches, or flat spots.
   b. Check O-ring (F), backup ring (E) and retaining ring (D) for wear or damage.
   c. Make sure O-ring, backup ring, and retaining ring are in position inside port (G) before installing hose (H).
5. Connect STC hoses:
   a. Make sure connection halves (G and H) are clean and free of contaminates.
   b. Push hose into port until a definite snap and solid stop is felt.
   c. **Pull back on hose to make sure connector halves are locked together.**

[1]*STC is a registered trademark of the Aeroquip Corporation*

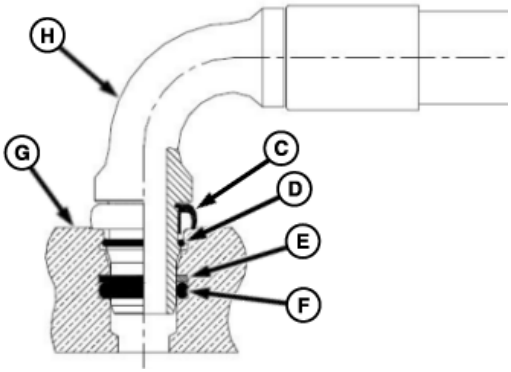


E54386 —UN—25JUL05



E54387 —UN—27JUL05

Sample Tool and Hose Shown for Illustration

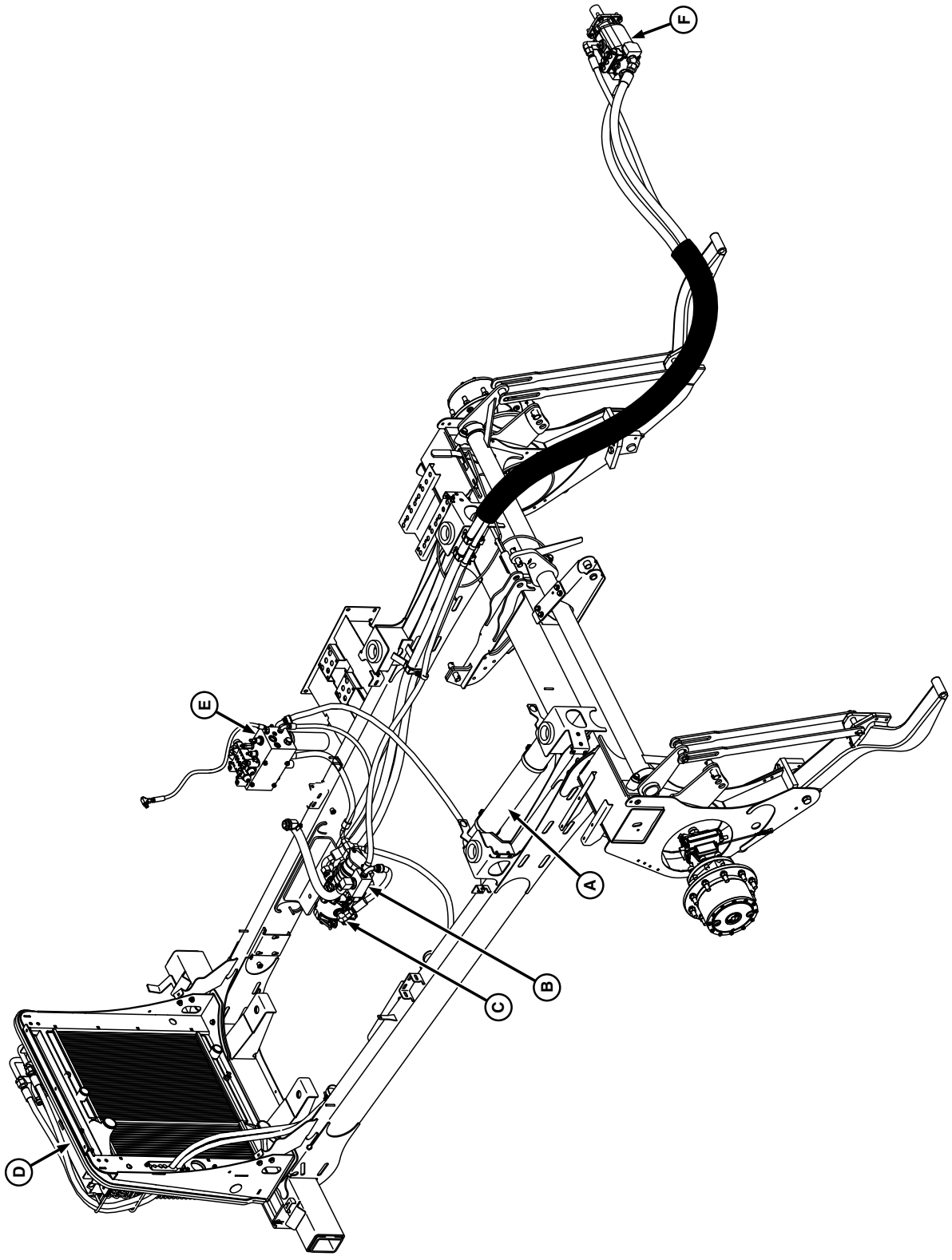


E54388 —UN—26JUL05

A—STC Tool (3 each)
B—STC Tool
C—Release Sleeve
D—Retaining Ring
E—Backup Ring
F— O-Ring
G—STC Port
H—STC Hose Connection
I— Shoulder

OUO6085,000025D -19-06AUG09-1/1

Platform Drive, and Charge System



E58181 —UN—09NOV09

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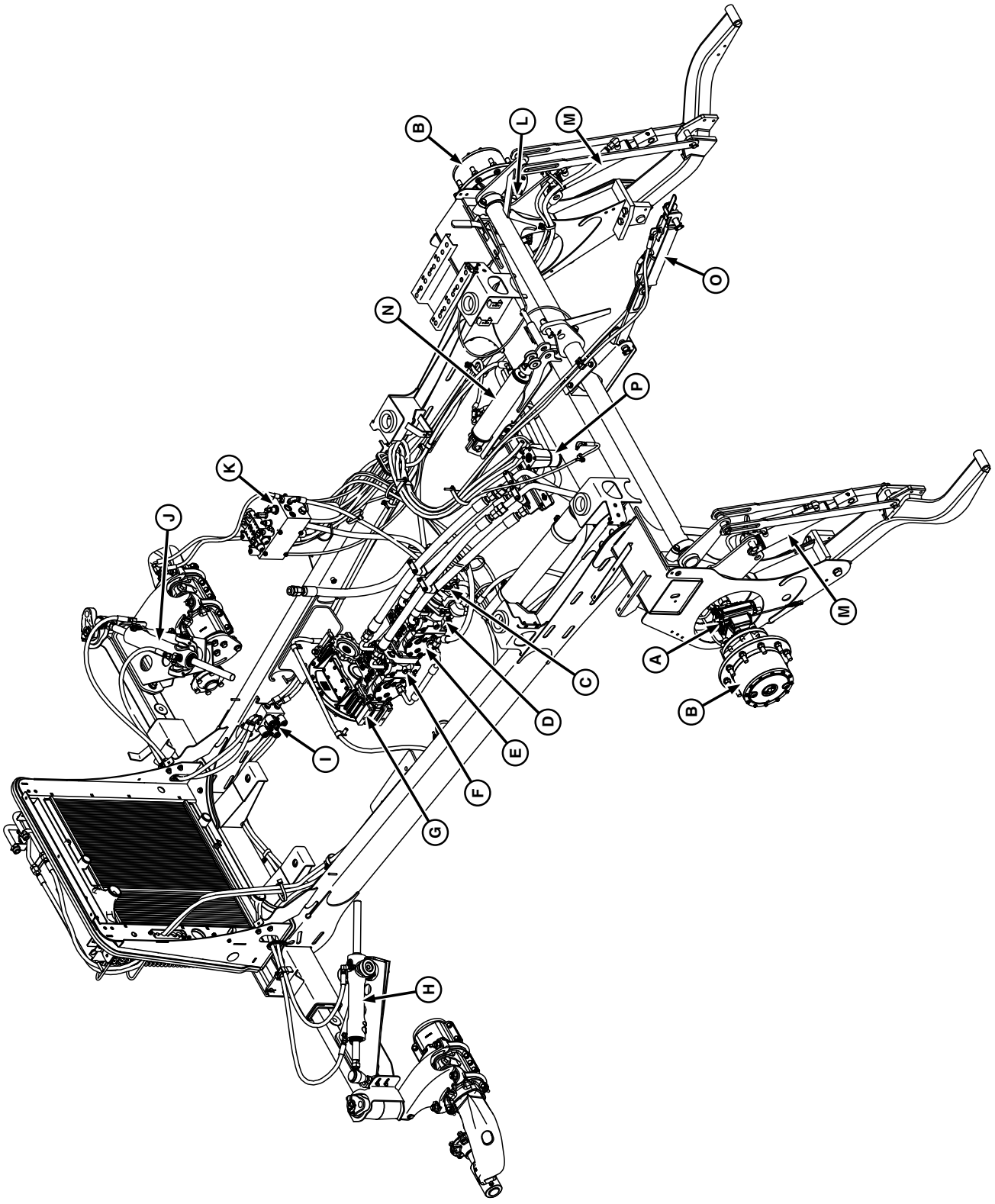
OUO6085,0000264 -19-11NOV09-1/2

A—Accumulator, Float
B—Hydraulic Charge Pump
C—Platform Drive Pump
D—Oil Cooler/Combination Cooler and Hoses
E—Hydraulic Control Valve Block
F—Platform Drive Motor

OUO6085,0000264 -19-11NOV09-2/2

Ground Drive, Auxiliary Cooling and Gear Case Cooling System



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OUO6085,0000265 -19-10NOV09-1/2

A—Right-Side Ground Drive Motor
B—Final Drives
C—Gear Case Cooling Pump
D—Auxiliary/Charge Pump (Rear Steer, Lift, Float, and Tilt)
E—Front Tandem Pump for Left-Hand Drive Motor
F—Rear Tandem Pump for Right-Hand Drive Motor
G—Gear Case
H—Rear Steer Cylinder for Right-Hand Side
I— Rear Steer Control Valve Block
J— Rear Steer Cylinder for Left-Hand Side
K—Hydraulic Control Valve Block
L—Left-Side Ground Drive Motor
M—Float Cylinders
N—Lift Cylinder
O—Tilt Cylinder
P—Primary Rear Steering Valve

OUO6085,0000265 -19-10NOV09-2/2

Releasing Accumulator—Float Pressure

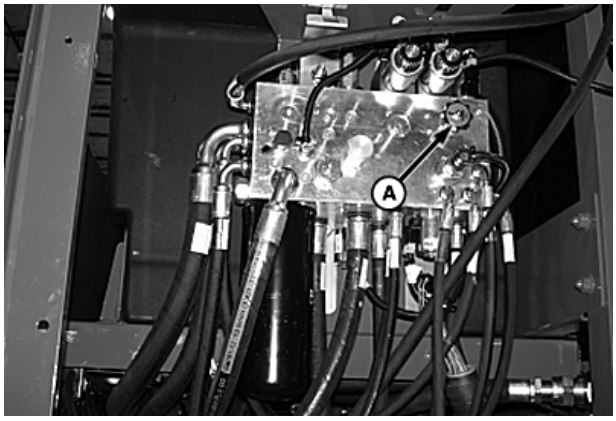
CAUTION: To prevent personal injury or machine damage, release accumulator float pressure only when the platform is on the ground.

Lower platform to the ground

To release accumulator/float pressure, turn float pressure release (A) counterclockwise opening the valve.

To close the valve, turn float pressure release (A) clockwise.

IMPORTANT: Reset float pressure before raising platform. (See Adjusting Platform Float in Operating Windrower Section.)



E56636 —UN—27JAN09

A—Float Pressure Release

OUO6085,00000B9 -19-06AUG09-1/1

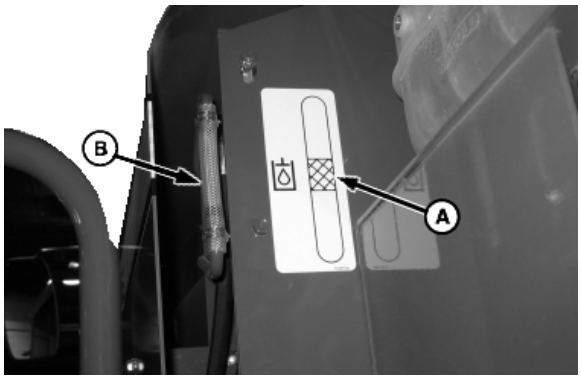
Checking Hydraulic Oil Level

The hydraulic oil sight tube (B) is located in the upper rear corner of the hydraulic component compartment located on the left-hand side of the windrower behind the operator's station.

NOTE: Check hydraulic oil level with the platform down and oil is cool.

Hydraulic oil level in sight tube (B) should be between the checkered area on label (A).

See Specifications and Fuel, Coolant, and Lubricants sections for capacity and type of oil to use.



E57132 —UN—12MAY09

Oil Level

A—Label **B—Sight Tube**

OUO6085,0000179 -19-13MAY09-1/1

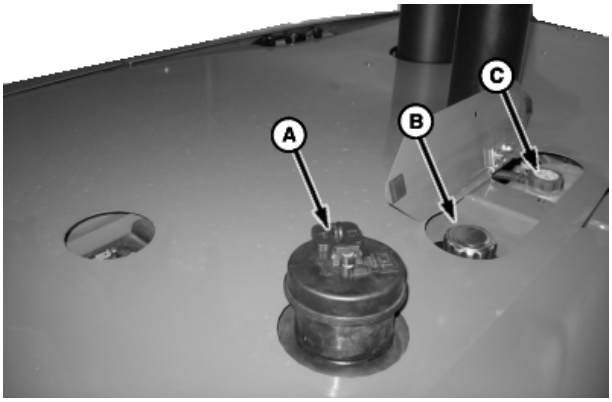
Adding Hydraulic Oil

The hydraulic oil reservoir fill cap (B) is located under a cover plate to the rear of the diesel fuel cap (A).

Fill reservoir until oil comes to midway in the sight tube. (See CHECKING HYDRAULIC OIL LEVEL in this section.)

Refer to Specifications, and Fuel, Coolant, and Lubricants sections for capacity and type of oil to use.

A—Diesel Fuel Fill Cap
B—Hydraulic Oil Reservoir Fill Cap
C—Engine Coolant fill Cap



E57136 —UN—06AUG09

OUO6085,000016B -19-12MAY09-1/1

Changing Hydraulic Oil Filter

The hydraulic charge oil filter (A) is located in the upper area of the hydraulic component compartment located on the left-hand side of the windrower behind the operator's station.

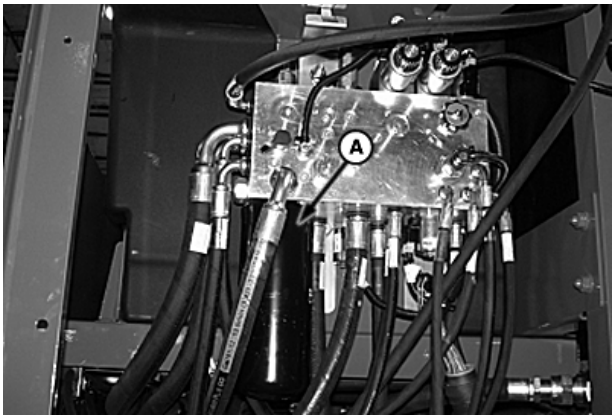
CAUTION: Do not attempt to remove or service the hydraulic oil filter while the engine is running.

1. Lower platform to the ground. Turn off engine, remove key and allow oil to cool.

NOTE: Place a bucket under machine frame below hydraulic filter.

2. Remove filter.
3. Apply a light coat of hydraulic oil to seal before installing filter.
4. Tighten filter until filter seal contacts mounting surface. Tighten an additional 1/2 turn.

CAUTION: Do not check filter seal for leaks when engine is running.



E56637 —UN—27JAN09

A—Charge Filter

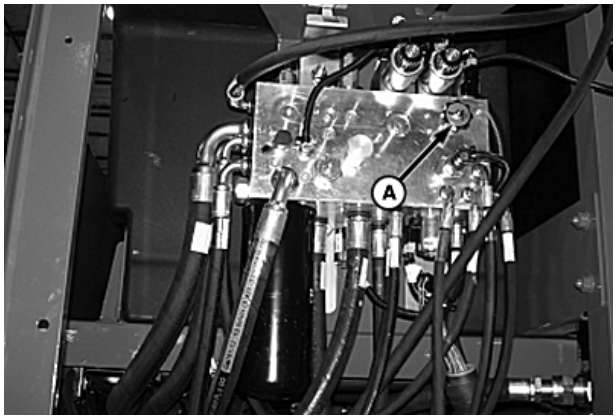
5. Start engine and allow to run for several minutes.
6. Turn off engine and remove key, wait a few minutes and visually check filter seal for leaks.

OUO6085,000010F -19-10NOV09-1/1

Draining and Filling Hydraulic Reservoir

CAUTION: To prevent bodily injury or damage to machine, do the following before servicing or repairing windrower:

- **Park on level surface.**
- **Put hydrostatic drive in neutral park.**
- **Disengage platform drive.**
- **Wait until all moving parts have stopped.**
- **Lower the platform to the ground.**
- **Release float pressure until float pressure display monitor reads ZERO.**
- **Idle hot engine for two minutes prior to shut down.**
- **Check to ensure steering wheel is locked.**
- **Turn off engine and remove key.**
- **Open manual float release valve (A).**
- **Block both sides of drive tires or rear tires as required.**
- **Disconnect the battery ground cable as required.**



E566636 —UN—27JAN09

A—Manual Float Release Valve

OUO6085,00000F0 -19-15MAY09-1/2

CAUTION: Do not attempt to drain the hydraulic reservoir while the engine is running.

NOTE: The hydraulic reservoir capacity is 94 L (25 U.S. gal.) of hydraulic fluid.

Dispose of hydraulic fluid properly.

1. Lower platform to the ground and turn off engine and remove key.
2. Release float pressure.

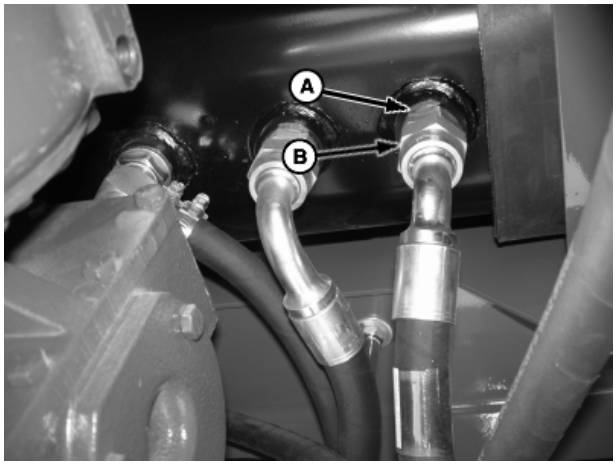
IMPORTANT: Clean the area around hose (B) and fitting (A) on the hydraulic reservoir to keep debris from entering the system.

3. Disconnect hose (B) from fitting (A) on hydraulic reservoir. Drain reservoir through fitting (A) into container(s).
4. After reservoir is drained, connect hose (B) to fitting (A) and fill reservoir with new John Deere Hy-Gard™ hydraulic oil. (See HYDROSTATIC DRIVE AND MAIN HYDRAULIC SYSTEMS OIL in Fuel, Coolant, and Lubricants section for recommended oil type and viscosity.)

Specification	
Hydraulic Reservoir—Capacity	94 L (25 U.S. gal.)

5. Start engine and allow to run for a few minutes.

Hy-Gard is a trademark of Deere & Company



E55783 —UN—28MAY08

A—Fitting **B—Hose**

6. Turn off engine, remove key and check hydraulic oil level. Add oil if necessary. Check fitting (A) for leaks. Tighten or repair as necessary.

IMPORTANT: Reset float pressure before raising platform. (See Adjusting Platform Float in Operating Windrower Section.)

OUO6085,00000F0 -19-15MAY09-2/2

Service Tires Safely

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

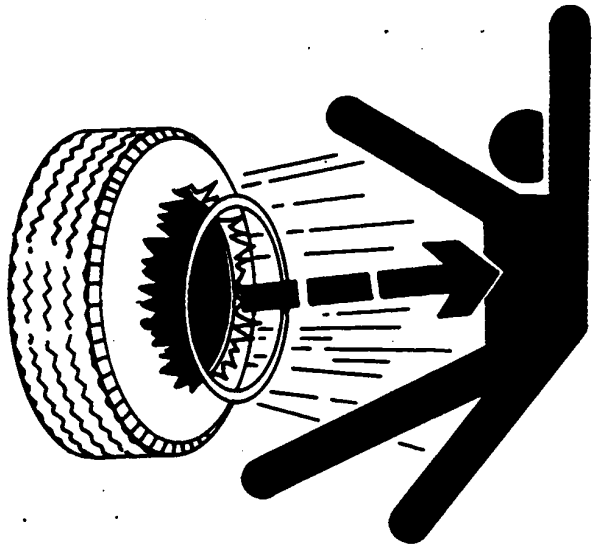
Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

Always maintain the correct tire pressure. Do not inflate the tires above the recommended pressure.

Never weld or heat a wheel and tire assembly. The heat can cause an increase in air pressure resulting in a tire explosion. Welding can structurally weaken or deform the wheel.

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

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



TS211 —UN—23AUG88

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

Tire Inflation Pressures

IMPORTANT: Never operate windrower with tires at shipping pressure. Keep valve caps screwed down finger tight on valve stems to prevent foreign material from accumulating in the valve core.

Check tire pressure with cold tires before operating windrower.

Check tire pressure frequently and inflate or deflate, both front and rear tires, to obtain proper pressure.

Item	Inflation Pressure
Front—480 x 80 R38-R3 (Button Tires) Front—480 x 80 R38-R1 (Bar Tires)	144.8 kPa (1.45 bar) (21 psi)
Rear—14L X 16.1 8-ply Rib Tires	97 kPa (0.97 bar) (14 psi)

OUO6085,0000118 -19-16JUN09-1/1

Checking Wheels

IMPORTANT: Maintain proper torque on wheel hardware according to specifications.

Whenever a wheel is removed, check torque after one hour of operation. Check cap screws or nuts every 4 hours until the torque is maintained. Thereafter, check torque every 50 hours.

Specification	
Front Wheel Nuts—Torque	780 N·m (575 lb.-ft.)
Rear Wheel Cap Screws—Torque	150 N·m (110 lb.-ft.)

E56681 —UN—03FEB09

OUO6085,0000110 -19-16JUN09-1/1

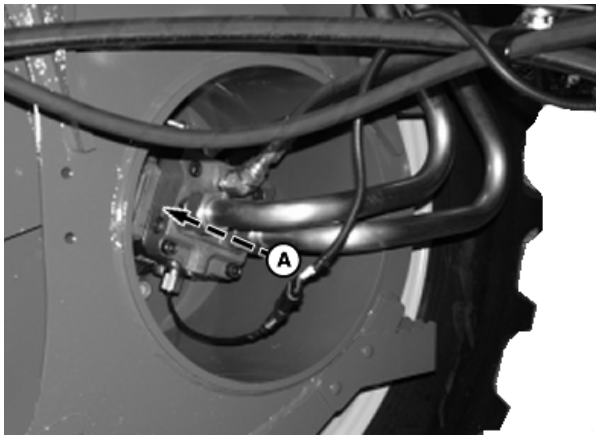
Internal Park Brakes

The internal park brakes (A) are located inside the final drives and are applied when there is a drop in hydraulic pressure when one of the following occurs:

- The engine is turned off.
- Loss of hydraulic pressure.
- Ground drive control lever is in neutral park.

When the windrower is started and the ground drive control lever is moved out of neutral park, hydraulic pressure releases the internal park brakes.

A—Internal Park Brake



E56682 —UN—03FEB09

OUO6085,00000D6 -19-29JAN09-1/1

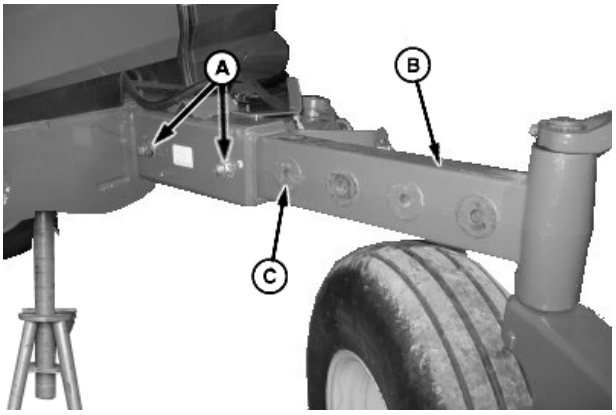
Adjusting Caster Wheel Width

CAUTION: To prevent bodily injury or damage to machine, do the following before servicing or repairing windrower:

- **Park on level surface**.
- **Put hydrostatic drive in neutral park.**
- **Disengage platform drive.**
- **Wait until all moving parts have stopped.**
- **Lower the platform to the ground.**
- **Release float pressure until float pressure display monitor reads ZERO.**
- **Idle hot engine for two minutes prior to shut down.**
- **Turn off engine and remove key.**
- **Check to ensure steering wheel is locked.**
- **Block both sides of drive tires or rear tires as required.**
- **Disconnect the battery ground cable as required.**

Caster wheels may be repositioned by moving rear axles in by one hole.

1. Block front drive tires to prevent machine from moving.
2. Raise rear of machine until tires are just touching the ground. Place a jackstand under center of rear frame.
3. Remove two cap screws (A), washers, and flange nuts from rear steer cylinder bracket and frame.
4. Using the tire, push in on axle (B) until the next hole (C) aligns with hole in rear frame.



E57950 —UN—31AUG09

Rear Cylinder and Bracket Removed for Illustration

A—Cap Screws (2 used)
B—Axle
C—Axle Hole

5. Place washer on cap screws, insert cap screws through axle and through rear steer cylinder bracket. Fasten with flange nuts. Tighten cap screws to specification.

Specification

Cap screws—Torque.....675 N·m (498 lb.-ft.)

OUO6085,00000D7 -19-31AUG09-1/1

Checking, Draining and Filling Final Drives

NOTE: Replace oil after first 50 hours of use.

Check oil level every 100 hours. Replace oil every 800 hours or each season.

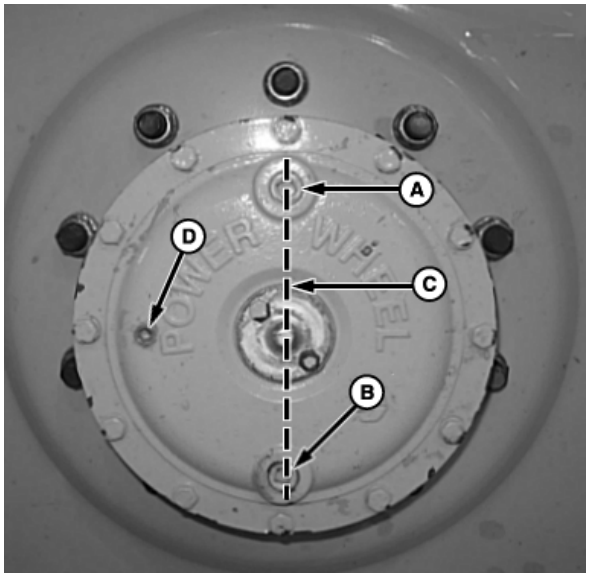
Check and Fill (Every 100 Hours)

1. Park machine on a flat level surface with wheel positioned such that fill/drain plug (A) is on top and second fill/drain plug (B) is on bottom of Vertical line (C).
2. Lower platform. Turn off engine and remove key.
3. Remove and inspect magnetic plug (D) for metallic particles. Oil level should be at same level as bottom of hole.
4. If necessary, remove fill/drain plug (A) and add oil. (See FINAL DRIVE OIL in Fuel, Coolant, and Lubricants section for recommended oil.)

IMPORTANT: Inspect plug o-rings and replace if damaged.

5. Clean and install plugs. Tighten to specification.

Specification	
Final Drive Plugs—Torque	25 N·m (18 lb.-ft.)



E56683 —UN—03FEB09

A—Fill/Drain Plug
B—Fill/Drain Plug
C—Vertical Line
D—Inspection Plug

6. Repeat Steps 1—5 on opposite final drive.

Continued on next page

OUO6085,00000D8 -19-16JUN09-1/2

Replace Oil (After first 50 hours of use and then every 800 hours or each season)

1. Park machine on a flat level surface with wheel positioned such that fill/drain plug (A) is on bottom and hole (B) is on vertical line (C).
2. Lower platform. Turn off engine and remove key.

NOTE: Final drive oil capacity is approximately 1.7—1.8 L (3.6—3.8 U.S. pt).

3. Remove plugs (A and B) and drain oil. Inspect magnetic plugs for metallic particles.

IMPORTANT: Inspect plug o-rings and replace if damaged.

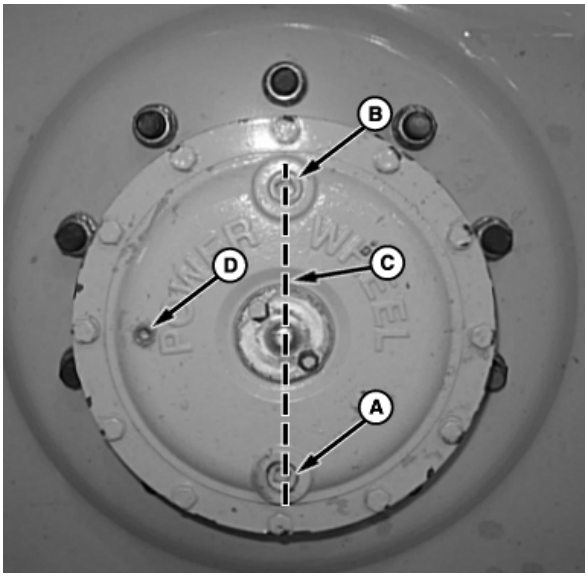
4. Clean and install plug (A). Tighten to specification.

Specification	
Final Drive Plug—Torque	25 N·m (18 lb.-ft.)

5. Remove inspection plug (D).
6. Fill final drive with clean oil until oil level is at same level as bottom of inspection hole (D). (See FINAL DRIVE OIL in Fuel, Coolant, and Lubricants section for recommended oil.)

IMPORTANT: Inspect plug o-rings and replace if damaged.

7. Clean and install plug (B) and (D). Tighten to specification.



E56684 —UN—03FEB09

A—Fill/Drain Plug
B—Fill/Drain Plug
C—Vertical Line
D—Inspection Plug

Specification	
Final Drive Plug—Torque	25 N·m (18 lb.-ft.)

8. Repeat Steps 1—7 on opposite final drive.

OUO6085,00000D8 -19-16JUN09-2/2

Air Conditioning/Heating System (General Information)

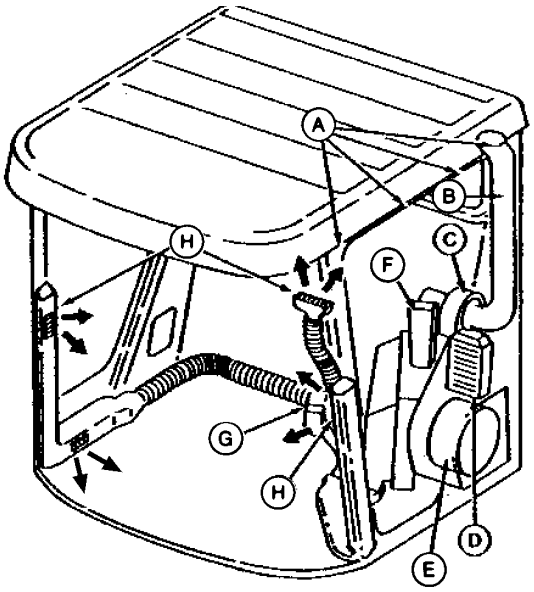
Air is drawn into the cab through air intake vents (A). This air flows down air duct (B) and into the pressurizer fan (C). The air is then pushed through the precleaner (D) where the majority of dirt and a small amount of air is discharged out through the cab floor. Be certain this opening is clear.

This cleaned air then passes through fresh air filter (E) into the evaporator compartment. Air is now mixed with air from inside the cab, being drawn into the evaporator compartment through the recirculating filter (F). The air is then drawn through the evaporator and heater core (I).

Treated air (heated or cooled) is now drawn into the recirculator blower (G) and discharged into the cab through air vents (H).

Air conditioning system low pressure switch (J) is located left of the evaporator compartment.

A—Air Intake Vents
B—Air Duct
C—Pressurizer Fan
D—Precleaner
E—Fresh Air Filter
F—Recirculating Filter
G—Recirculating Blower
H—Air Vents
I— Evaporator/Heater Core
J— Air Conditioning Low Pressure Switch



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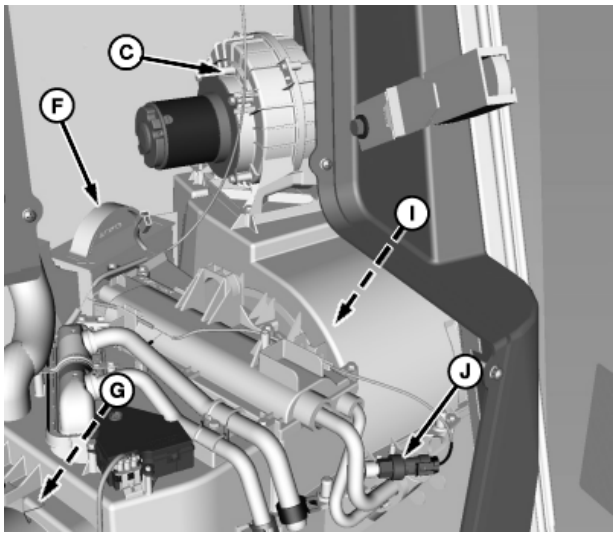


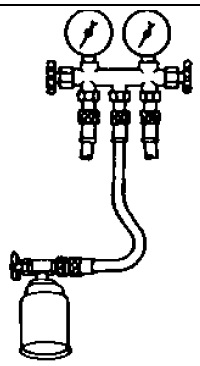
E57831 —UN—12AUG09

OUO6085,000026A -19-12AUG09-1/1

Observe Air Conditioning/Heating Precautions

CAUTION: Refrigerant (R134a) is under pressure. Improper servicing may cause refrigerant to penetrate eyes and skin or cause burns.

Special equipment and procedures are required to service air conditioning system. (See your John Deere dealer.)



E40557 —UN—21JUN96

AG,OUO6038,1200 -19-11OCT99-1/1

Removing Fresh Air Filter and Tray

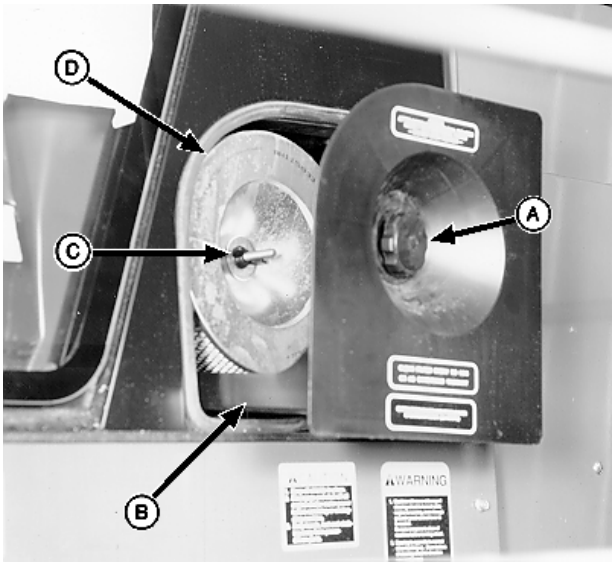
IMPORTANT: In dusty conditions, check every day. Normal service is 50 hours.

1. Loosen knob (A) and remove cover.
2. Lift out and dump dirt tray (B) attached to cover.
3. Remove wing nut (C) and fresh air filter (D).
4. Clean fresh air filter. (See CLEANING FRESH AIR AND RECIRCULATING FILTERS in this section.)
5. Remove and clean precleaner. (See REMOVING PRECLEANER in this section.)

IMPORTANT: Do not overtighten knob (A).

6. Install filter and tray in reverse order as removed.

A—Knob
B—Dirt Tray
C—Wing Nut
D—Fresh Air Filter



E40561 —UN—21JUN96

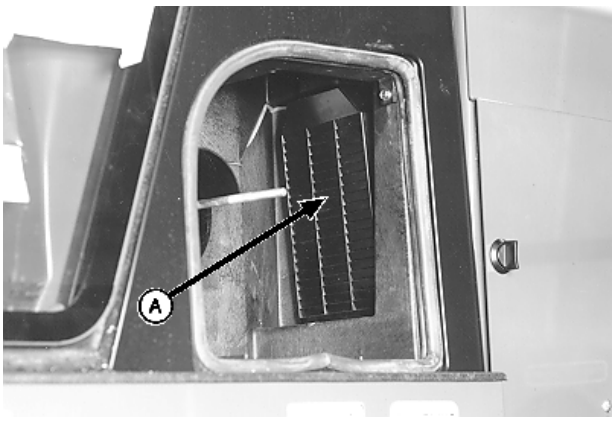
AG,OUMX005,1181 -19-14FEB00-1/1

Cleaning Precleaner

Whenever the fresh air filter is serviced, clean the precleaner as follows:

IMPORTANT: Precleaner is not removable and must be cleaned without removing from machine. Remove fresh air filter to access precleaner (A). Hole in floor under precleaner must be kept open.

A—Precleaner



E40560 —UN—21JUN96

OUO6085,0000254 -19-04AUG09-1/1

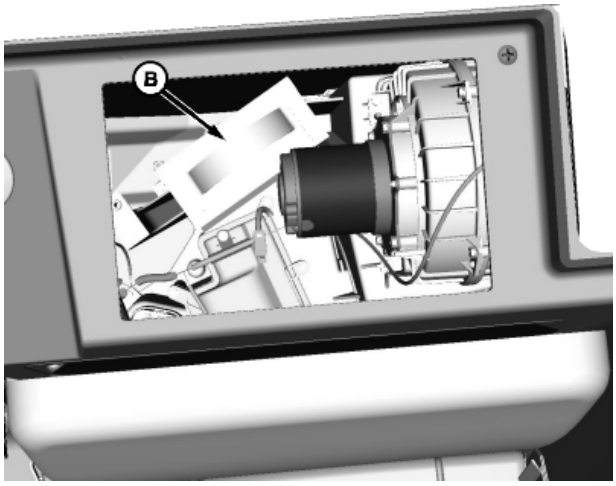
Recirculating Filter—Removing

IMPORTANT: In dusty conditions, check this filter often and service as required. Normal recommended service is 200 hours.

1. Remove storage tray (A) in left rear corner of cab.
2. Reach in opening and pull out recirculating filter (B).
3. Clean recirculating air filter. (See CLEANING FRESH AIR AND RECIRCULATING FILTERS in this section.)
4. Install filter in reverse order as removed. When replacing filter, it should drop easily into place. Do not force it. Be certain filter is installed as shown on the filter.

A—Storage Tray **B—Recirculating Filter**

H76143 —UN—24APR03



E57832 —UN—12AUG09

OUO6085,000026B -19-12AUG09-1/1

Cleaning Fresh Air and Recirculating Filters

Clean filter by one of the following methods:

- Tap gently on flat surface, dirty side down. Do not tap on a tire.
- Blow compressed air through filter in opposite direction of arrows on filter.

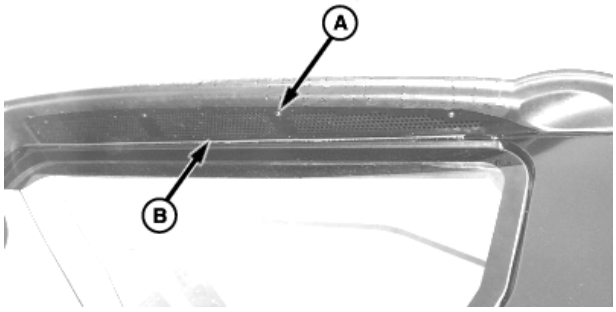
AG,OUMX005,1182 -19-14FEB00-1/1

Cleaning Air Intake Panel

Clean this panel only when it looks plugged. Air is brought in through the left-hand side panel only. The right-hand side panel does not provide cab air.

1. Remove six screws (A) and remove panel (B).
2. Clean with compressed air or water.
3. Install panel and screws.

A—Screw (6 used) **B—Panel**



E54399 —UN—01AUG05

OUO6085,00003DC -19-01AUG05-1/1

Cleaning Condenser

See CLEANING SCREEN, CONDENSER/OIL COOLER AND RADIATOR in Engine section.

AG,OUMX005,1185 -19-14FEB00-1/1

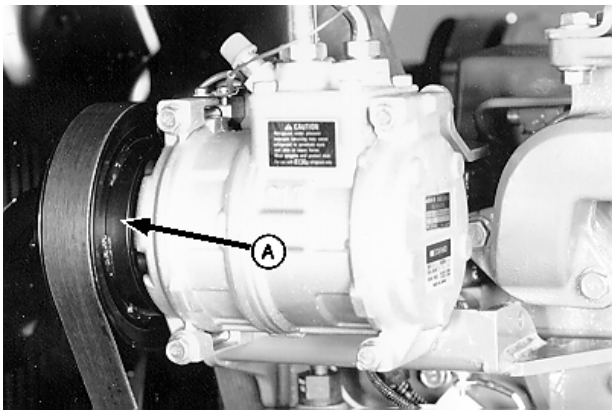
Checking Compressor and Drive Belt

CAUTION: To prevent injury, never service windrower while it is running. Engine must be off and key removed.

1. Turn off engine and remove key.
2. Inspect serpentine drive belt. If worn, see REMOVING AND INSTALLING SERPENTINE BELT in Engine section.

CAUTION: Do not start engine.

3. Turn ignition switch to RUN, turn cab fan switch on and place temperature knob to coldest setting.
4. Check compressor pulley (A) for magnetism by placing a metallic object next to it. If area is not magnetic see your John Deere Dealer.
5. Turn ignition switch to OFF position and remove key.



E40566 —UN—21JUN96

A—Pulley

AG,OUMX005,1186 -19-14JUL04-1/1

High Pressure Switch

A high pressure condition can result from insufficient air flow across the condenser. When this happens, switch (A) shuts off the compressor.

Turn off engine and remove key.

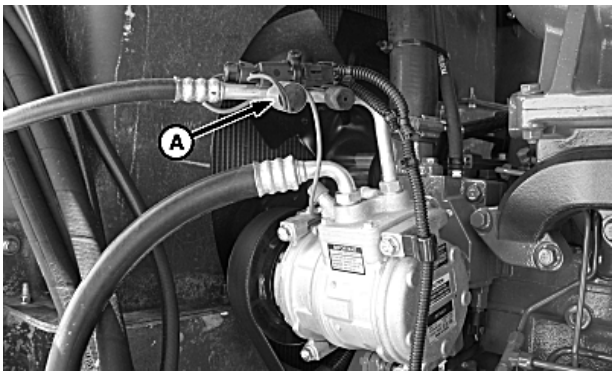
Clean condenser and cab air filters.

Check recirculating blower.

Check for a worn or broken serpentine engine belt.

Check compressor clutch, magnetic with air conditioning switch on.

Start engine and turn on air conditioning. If switch shuts off compressor again, see your John Deere dealer.



E57773 —UN—30JUL09

A—Switch

OUO6085,0000247 -19-27JUL09-1/1

Low Pressure Switch

This switch (A) (located under passenger seat) protects the compressor if refrigerant is lost. The switch can also activate if there is insufficient air flow across the evaporator. It can also cause the compressor to cycle on cool days or if there is a slow leak in the system.

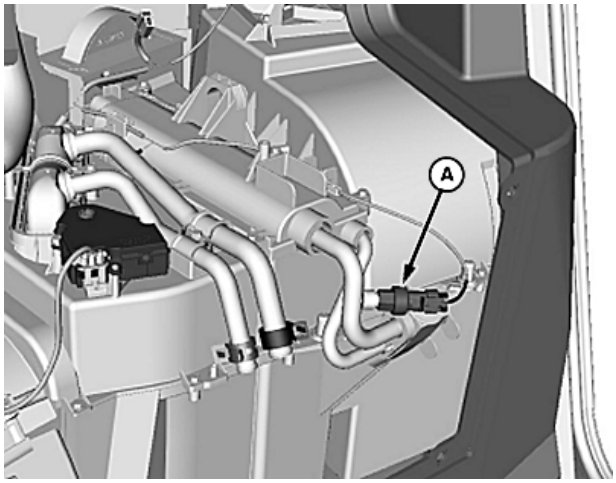
Clean condenser and cab air filters.

Check recirculating blower.

Check for a worn or broken serpentine engine belt.

If the compressor cycles excessively, or if there is no cooling, see your John Deere dealer.

A—Low Pressure Switch



E57833 —UN—12AUG09

OUO6085,000026C -19-12AUG09-1/1

Storing Windrower (End of Season)

NOTE: Recommend starting engine every 30 days or so, to allow oil and refrigerant in A/C compressor and for other moving parts to re-lubricate. This will prevent leakage from seals drying out.

1. Clean the entire windrower and platform thoroughly inside and out to prevent rust.

NOTE: Swing combination cooler-condenser away from radiator for cleaning.

2. Use pressurized water or air to clean dust and dirt from radiator, oil cooler-condenser and pump drive gear case oil cooler. (See CLEANING SCREEN, CONDENSER/OIL COOLER AND RADIATOR in Engine section.)
3. Clean engine precleaners, screens and air filters. (See procedures in Engine section.)
4. Drain crankcase while engine is warm. Replace filter and fill crankcase with oil of proper weight and quality. (See DIESEL ENGINE OIL in Fuel, Coolant, and Lubricants section.) Used oil will not protect engine parts.

IMPORTANT: The hydraulic system must not be left dry during storage.

5. Drain hydrostatic reservoir (2000 hours or every other season), install new filter elements, and fill reservoir to proper level. (See HYDROSTATIC DRIVE AND MAIN HYDRAULIC SYSTEMS OIL in Fuel, Coolant, and Lubricants section.)
6. Check and add oil, if necessary, to the final drives. (See FINAL DRIVES OIL in Fuel, Coolant, and Lubricants section.)

NOTE: For drain and flush intervals: (See DRAIN INTERVALS FOR DIESEL ENGINE COOLANT) in Fuel, Coolant, and Lubricants section.

7. Drain, flush, and refill cooling system with antifreeze rated for lower temperatures than expected. (See DIESEL ENGINE COOLANT in Fuel, Coolant, and Lubricants section for recommended coolant.)
8. Grease windrower and platform completely. (See Lubrication and Maintenance section in this manual and platform Operator's manual).
9. Paint all worn, or chipped places.
10. Store windrower in a dry place.
11. Lower platform and block up windrower, taking load off tires. DO NOT DEFLATE TIRES. If machine is exposed, cover the tires to protect them from sunlight, grease and oil.
12. Disconnect battery cables (negative ground cable first). Remove battery and store in a cool, dry location, safe from freezing temperatures and also temperatures in excess of 52°C (125°F). Check battery every 30 days and charge if necessary. (See CHARGING BATTERY in Electrical section.)
13. List the repair parts needed and order them early.

OUO6085,00001B6 -19-18JUN09-1/1

Removing Windrower From Storage (Beginning of Season)

1. Check engine, final drives, pump drive gear case, and hydrostatic system oil levels. Check for leaks and add oil as necessary.
2. Remove radiator cap and check coolant level. If low, check for leaks or loose connections. Service cooling system as required. Be certain sufficient amount of low silicate antifreeze with coolant conditioner is used to provide for coldest anticipated temperature. (See DIESEL ENGINE COOLANT in Fuel, Coolant, and Lubricants section for recommended coolant conditioner.)
3. Install battery. Charge battery. (See CHARGING BATTERY in Electrical section).
4. Remove blocking and check tires and tire inflation. (See CHECKING WHEELS in the Wheels, Steering, Brakes, and Rear Axle section).
5. Clean the windrower and platform thoroughly.
6. Check platform pump drive belt for proper tension, adjust as needed.
7. Perform BEGINNING OF SEASON procedure on platform. (See Storage section in platform Operator's manual).
8. Completely lubricate windrower and platform. (See Lubrication and Maintenance section in this manual and platform Operator's manual).

IMPORTANT: Review Operating Engine section.

9. Start windrower and allow to warm up.
10. Increase engine speed to operating rpm.
11. Raise platform and move windrower out of storage area to level ground.
12. Lower platform and engage platform drive. Allow windrower and platform to run for 3—5 minutes. Turn off engine and remove key.
13. Check windrower and platform completely to see that all hardware is tight and cotter pins are spread.
14. Check all fluid levels and, if necessary, fill with recommended fluid. (See Fuel, Coolant, and Lubricants section.)
15. Review your Operator's manual.

OUO1078,00014E6 -19-06JUL04-1/1

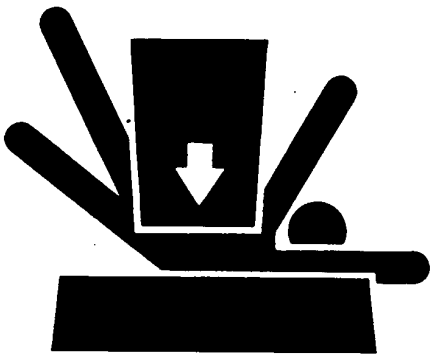
Perform Predelivery Service Safely

Understand the predelivery procedure before doing the work.

During the assembly, test and adjustment procedures, it may be necessary to operate drives and hydraulic systems. Stay clear of machine elements when raising, or lowering of platform and during operation of fans and hydraulic motors.

Practice good communications with other service technicians. Be aware of their actions and alert them to potential hazards.

Never lubricate, service, or adjust machine while engine is running. Keep hands, feet, and clothing away from power-driven or hydraulically operated parts. If it is necessary to inspect the machine while it is operating, be alert to moving parts in the immediate area.



TS229 —UN—23AUG88

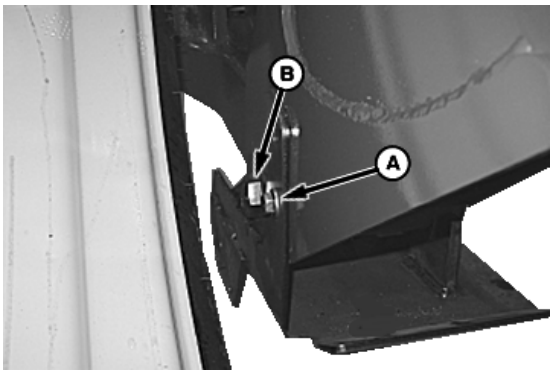
OUO6085,000085F -19-05MAR08-1/1

Assemble Windrower

1. Park windrower on level surface. Turn off engine and remove key.

NOTE: Skid shoes are heavy, use care when removing final bolt.

2. Remove cap screw and nut (A).
3. Brace skid shoe to keep from falling. Remove bolt (B). Set skid shoe aside.
4. Repeat steps 2 and 3 on opposite side.
5. Components required to assemble the A400 Self-Propelled Windrower are in a bag of parts located in the windrower cab.



E57105 —UN—17JUN09

A—Cap Screw and Nut **B—Bolt**

OUO6085,000017B -19-16JUN09-1/1

Assemble Rear Steer Assist

NOTE: Rear axle is rigid, use care when lifting rear of machine. Always place a block or jackstand rated at 3200 kg (7,000 lb.) under axle after raising rear of the machine.

A hoist or lifting device rated at 3200 kg (7000 lb.) is to be used to raise rear axle of windrower.

1. Park machine on level surface.
2. Shut off engine and remove key.
3. Block front drive tires to prevent movement.

NOTE: Place block or jackstand (A) near center of axle to prevent wheel from hitting it when positioning wheels for sliding out axle knee.

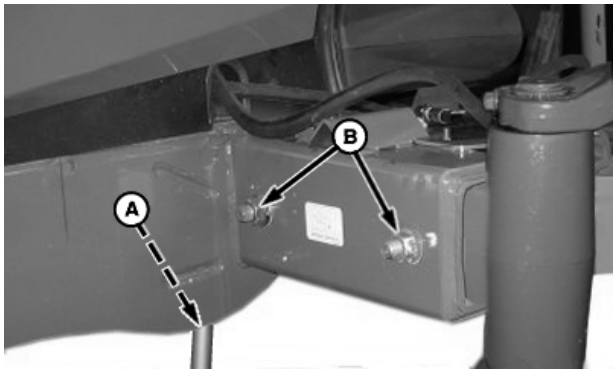
4. With a hydraulic jack or overhead hoist, lift rear axle. Place jackstand (A) under axle.
5. Remove two cap screws, washers, spacers and nuts (B).

CAUTION: Axle knee with caster wheel is heavy. Do Not pull out of axle unless casting is supported.

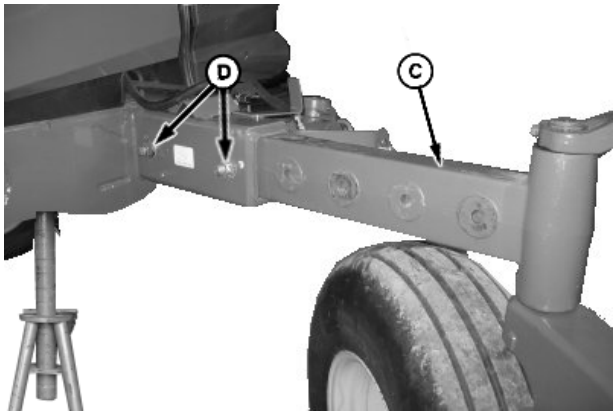
6. Using the wheel, pull out axle knee until third or fourth hole is showing. Line up remaining holes with frame holes depending on width of wheels desired.
7. Place two washers, spacers and cap screws (C) in holes in axle. Fasten with flange nuts. Tighten cap screws to specification.

Specification	
Cap Screws and Nuts—Torque	675 N·m (498 lb.-ft.)

8. Remove hose clamp (E) to allow additional hose length. Save clamp and hardware, they will be installed whenever axle is moved in.



E57792 —UN—31JUL09



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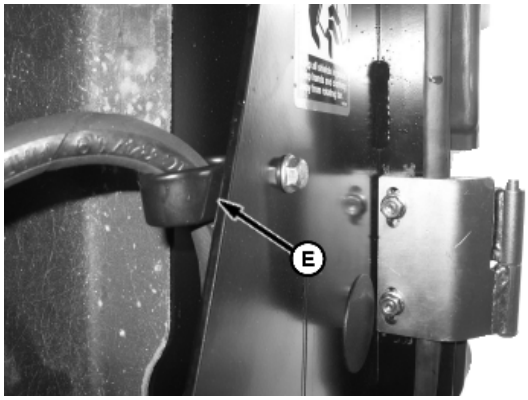


E57108 —UN—12MAY09

A—Jackstand
B—Axle Cap Screws, Left-Hand Side
C—Axle Knee (pulled out)
D—Axle Cap Screws, Left-Hand Side
E—Hose Clamp

Continued on next page

9. Install rear steer cylinder bracket (A) on front of rear axle using two 21.4 x 42 x 5 mm washers and two M20 x 30 x 150 mm cap screws (B). Ensure bracket outer edge is as far out on axle knee as possible. Insert cap screws through from rear of axle. Fasten with two flange nuts. Tighten to specification.

Specification

Flange Nuts—Torque.....675 N·m (498 lb.-ft.)

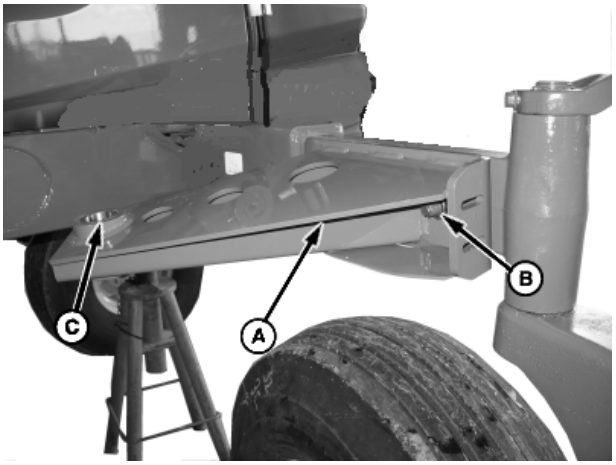
CAUTION: Rear steering assist cylinder is heavy. Be sure to support cylinder when removing cap screw and bracket.

10. Remove cap screw and nut (D). Remove rear steer assist cylinder (F) from shipping position on rear of machine. Place cylinder on top of axle in preparation for installation on cylinder bracket.
11. Remove M20 x 60 flange bolt (E) and washers from cylinder yoke.
12. Place 22 x 72 x 6 mm washer on top of cylinder bracket (C) as shown. Insert large bolt from rear steer cylinder (removed earlier) into hole of cylinder bracket.
13. Install washer and M20 x 60 flange bolt (E). Tighten to specification.

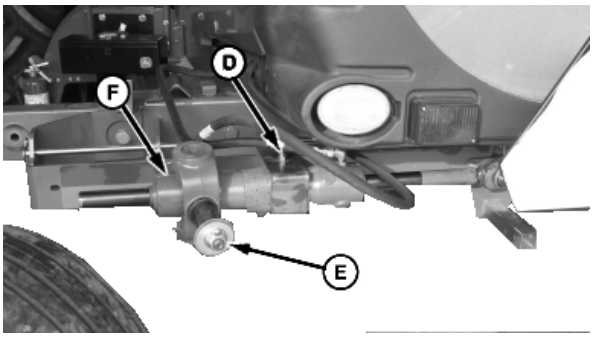
Specification

Flange Bolt—Torque.....675 N·m (498 lb.-ft.)

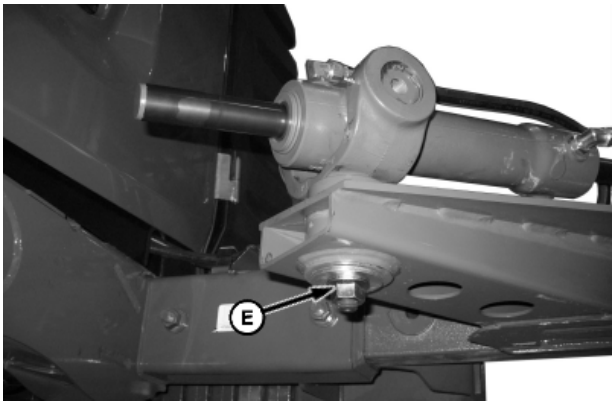
A—Cylinder Bracket
B—M20 x 30 x 150 mm Cap Screws (2 used)
C—22 x 72 x 6 mm Washer
D—Cap Screw and Bracket
E—M20 x 60 Flange bolt
F—Cylinder



E57857 —UN—12AUG09



E57834 —UN—12AUG09



E57346 —UN—17JUN09

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OUO6085,0000163 -19-03NOV09-2/4

NOTE: Tighten castle nut to 163 N·m (120 lb.-ft.), strike top of ball joint with a dead blow hammer then tighten nut again to specification. To insert cotter pin, turn nut to nearest available hole. DO NOT loosen nut.

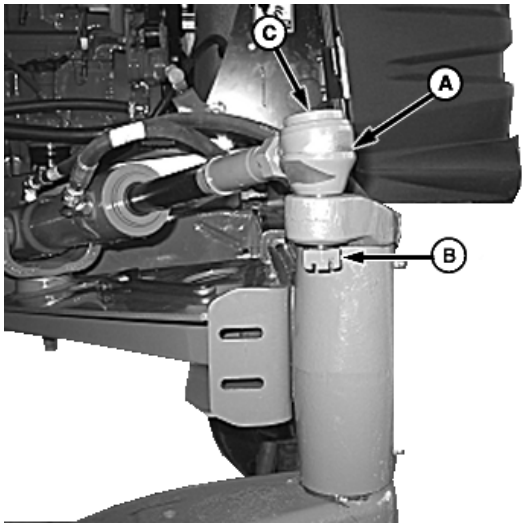
14. Install front pin (A) of rear steer cylinder in steering bracket on top of wheel. Fasten with a castle nut (B). Tighten nut to specification then strike top of ball joint (C) with a dead blow hammer. Tighten nut again to specification. To insert cotter pin, turn nut to nearest available hole. DO NOT loosen nut.

Specification

Castle Nut—Torque.....163 N·m (120 lb.-ft.)

15. Repeat Steps 4—14 on opposite side.

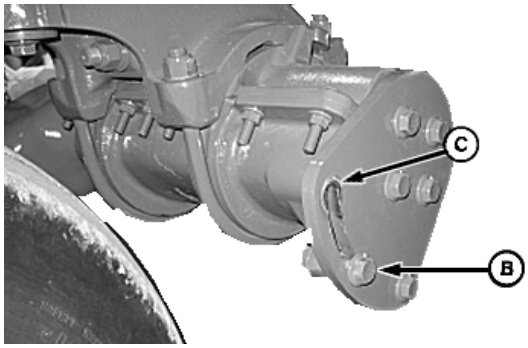
A—Front Pin
B—Castle Nut
C—Ball Joint



E57115 —UN—12MAY09

OUO6085,0000163 -19-03NOV09-3/4

16. On rear suspension, loosen suspension cap screw (A) and move it from shipping position to operating position in the top of slot (B). Repeat on opposite side.



E57860 —UN—01DEC09

OUO6085,0000163 -19-03NOV09-4/4

Rear Suspension-Adjusting

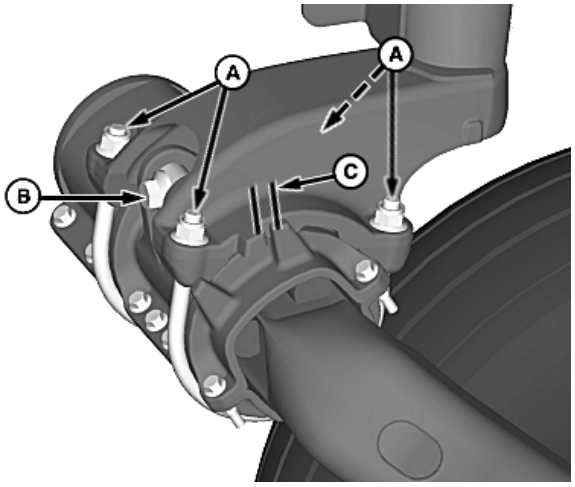
IMPORTANT: Loosen U-bolts (A) before adjusting cap screw (B). Tighten U-bolts after adjustment is complete.

NOTE: Suspension must be adjusted with platform raised, lift lockout lever engaged, and correct ballast placed on rear of machine.

1. Loosen four nuts (A) on suspension U-bolts.
2. Turn center adjustment cap screw (B) to adjust suspension tab to approximately 13 mm (1/2 in.) (C) from the stop.
3. Tighten nuts on U-bolts.
4. Drive machine to activate suspension and seat isolators.
5. Park machine on level surface with platform raised, lift lockout lever engage, and caster wheels in normal position behind axle.

NOTE: Left and right suspension should be set to equal values.

6. If adjustment is needed, loosen U-bolts, adjust cap screw (B) to level frame.



E57864 —UN—01OCT09

A—U-Bolt Nuts (4 used)
B—Adjustment Cap Screw
C—Distance (approximately 13 mm (1/2 in.)

7. Tighten U-bolts

OUO6085,000026D -19-23OCT09-1/1

Check Torque on Front and Rear Wheels

1. Check torque on front wheel nuts and rear wheel cap screws.

Specification	
Front Wheel Nuts—Torque	780 N·m (575 lb-ft)
Rear Wheel Cap Screws—Torque	150 N·m (110 lb-ft)

2. Check tire pressure with cold tires on front and rear wheels before operating windrower.

IMPORTANT: Never operate windrower with tire at shipping pressure. Keep valve caps screwed down finger tight on valve stems to prevent foreign material from accumulating in the valve core.

Check tire pressure frequently and inflate or deflate, both front and rear tires to obtain proper pressure.

E57113 —UN—11MAY09

Item	Inflation Pressure
Front—480 x 80R38 R3 (Button) or 480 x 80R38 R1 (Bar) Tires, Standard 25 ft or 30 ft Hay Head	25-30 ft Hay Head-144.8 kPa (1.45 bar) (21 psi)
Rear—14L X 16.1 8-ply Rib Tires	97 kPa (0.97 bar) (14 psi)

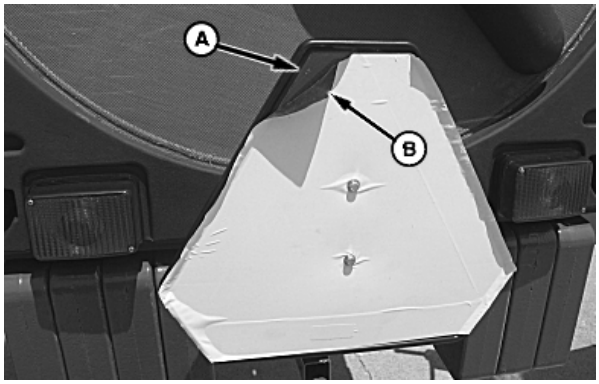
OUO6085,0000292 -19-01SEP09-1/1

Removing Slow Moving Vehicle (SMV) Emblem Protective Sheet

Remove protective sheet (B) from SMV emblem (A).

A—SMV Emblem

B—Protective Sheet



E57772 —UN—30JUL09

OUO6085,0000248 -19-27JUL09-1/1

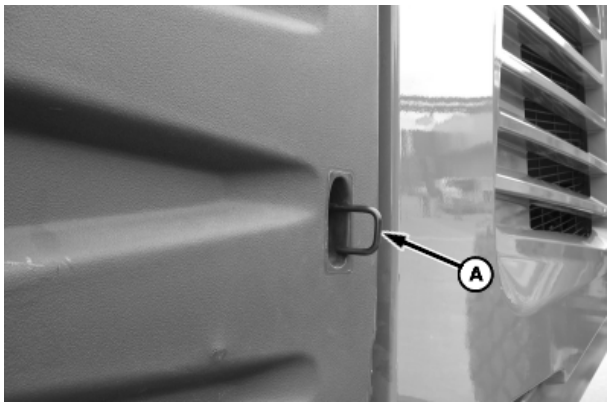
Adding Ballast to the Windrower

CAUTION: Failure to properly ballast the windrower could cause loss of control.

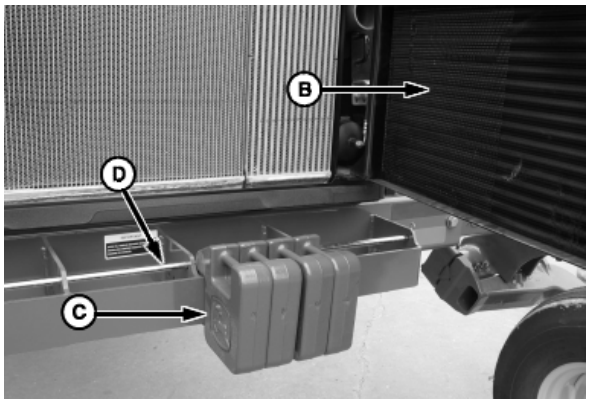
1. Pull out on latch (A) to rear screen door and pull open door.
2. Open combination cooler (B) by lifting latch and pulling out.
3. For windrower ballast, install suitcase weights (C) on weight bracket in either the right-hand or left-hand quadrant. See table below.
4. Insert rod (D) through holes in weight bracket to prevent weights from coming off. Fasten rod with cotter pins.
5. Close combination cooler and close rear door. Check door to ensure it is latched.

WINDROWER BALLAST	
4.3 m (14 Ft.) 896 Sickle Platform	0—19 kg (42 lb.) Weights
4.9 m (16 Ft.) 896 Sickle Platform	4—19 kg (42 lb.) Weights
5.5 m (18 Ft.) 896 Sickle Platform	8—19 kg (42 lb.) Weights

A—Rear Door Latch
B—Combination Cooler
C—Weights
D—Weight Rod



E57116 —UN—11MAY09



E57117 —UN—11MAY09

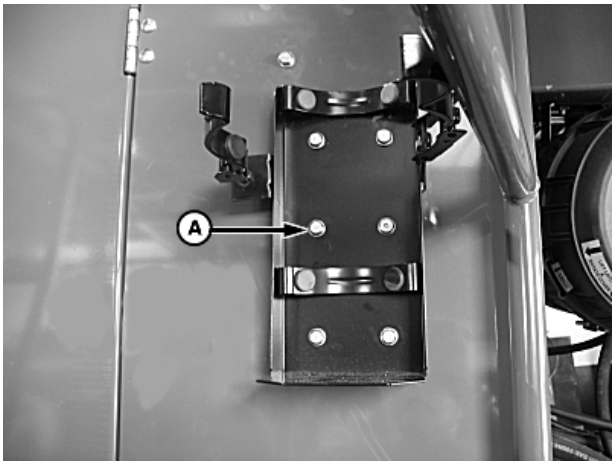
OUO6085,0000164 -19-05AUG09-1/1

Installing Optional Fire Extinguishers

A fire extinguisher may be installed on the left-hand side of the windrower and on the right-hand side of the platform steps. Fire extinguishers, brackets and hardware may be ordered through your John Deere dealer.

1. **Installing a fire extinguisher on left-hand shield:**
   - Mount fire extinguisher bracket in holes on shield with six M8 x 1.25 x 16 mm flange head cap screws (A) and six M8 flange head nuts.
   - Place fire extinguisher in bracket and secure with bracket latch (B).

A—M8 x 1.25 x 16 Flange Head Cap Screws (6 used)
B—Fire Extinguisher Bracket Latch



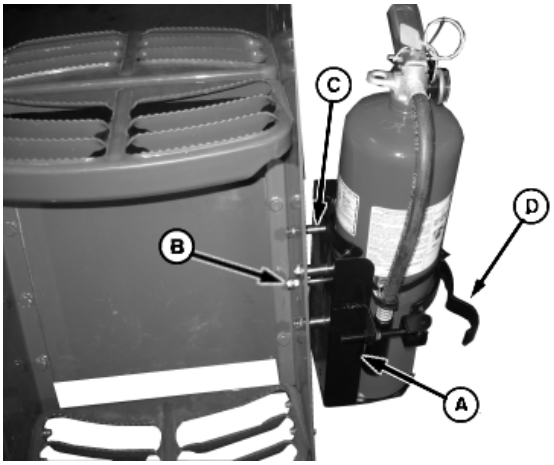
E57786 —UN—30JUL09

E57777 —UN—29JUL09

OUO6085,000024C -19-30JUL09-1/2

2. **Installing a fire extinguisher on side of platform steps:**
   - Mount bracket (A) with four M8 x 1.25 x 40 mm flange head cap screws and M8 flange head nuts (B). Place four 23.192 mm (0.913 in.) sleeves (C) between extinguisher bracket and step frame.
   - Place fire extinguisher in bracket and secure with bracket latch (D).

A—Mounting Bracket
B—M8 x 1.25 x 40 Flange Head Cap Screws and M8 Flange Head Nuts (4 used)
C—23.1902 mm (0.913 in.) Sleeves (4 used)
D—Bracket Latch



E57784 —UN—30JUL09

OUO6085,000024C -19-30JUL09-2/2

A400 Self-Propelled Windrower Specifications[1]

ENGINE	
Model	4045H
Type	Diesel
Horsepower (@ 2400 rpm)	93 kW (125 hp)
Aspiration	Turbo-Charged
Bore and Stroke	106 x 127 mm (4.19 x 5.00 in.)
Displacement	4.5 L (275 cu in.)
Compression Ratio	19.0 to 1
Firing Order	1-3-4-2
Engine Speeds:	
Slow Idle	900 rpm
Fast Idle (No load):	
Low Ground Speed (Field) Switch 1	2450 rpm (with or without platform engaged)
High Ground Speed (Road) Switch 2	2600 rpm (with platform disengaged or 2450 rpm with platform engaged)
Bearings:	
Main	4
Thrust	1
ENGINE LUBRICATION SYSTEM	
Type	Full Pressurized with full-flow micronic oil filter
Oil Capacity w/Filter	13 L (13.7 U.S. qt.)
Filter (Spin-on w/bypass valve)	RE504836
FUEL SYSTEM	
Type	Unit injection
Filter (Primary) Filter (Final)	RE529643 RE522878
Inspection Pump Type (Denso HP3)	
AIR CLEANER	
Type	Dry-type air cleaner with secondary element
Primary	AT300487
Secondary	AT314583
ENGINE COOLING SYSTEM	
Type	Pressurized
Capacity	28.4 L (7.5 U.S. gal.)
ELECTRICAL SYSTEM	
Type	12-volt, negative ground
Battery	TY25879
Alternator	12-volt, 120-amp capacity
HYDROSTATIC GROUND DRIVE SYSTEM	
Auxillary-Charge Pump:	
Type	Gear
Speed (Rated)	3072 rpm (2400 rpm - rated engine speed)
Displacement	33.6 cm³ (2.05 cu in.)
Charge Pressure	2,068 ± 10 kPa (20.7 ± 10 bar) (300 ± 10 psi)
Hydraulic Relief Pressure	13800 kPa (138 bar) (2000 psi)
Ground Drive Pump:	
Type	Variable displacement
Displacement	0—63 cm³ (0-3.84 cu in.) per revolution
Relief Pressure	34.5—36.6 kPa (345—366 bar) (5000—5300 psi)
Speed (Rated)	3072 rpm (2400 rpm rated engine speed)
Filter (1)	AH128449
Ground Drive Motors:	

Continued on next page

Type	Variable Displacement
Displacement (Field)	65 cm³ (3.96 cu in.)
Displacement (Transport)	48 cm³ (2.92 cu in.)
Case Pressure	150 kPa (1.5 bar) (25 psi) Maximum
Final Drives:	
Ratio	34.2 to 1
Ground Speed:	
Transport	33.8 km/h (21 mph)
Field	24.1 km/h (15 mph)
HYDROSTATIC PLATFORM DRIVE SYSTEM	
Platform Drive Pump:	
Type	Variable displacement
Displacement (field)	0—35.4 cm³ (2.162 cu in.)
Relief Pressure	34.5—37.2 kPa (345—372 bar) (5000—5400 psi)
Platform Drive Motor:	
Type	Fixed Displacement
Displacement	75.4 cm³ (4.6 cu in.) per revolution
PLATFORM FLOAT ACCUMULATOR	
Pre-charge Pressure	5861 kPa (58.6 bar) (850 psi)

CAPACITIES	
Fuel Tank	477 L (126 U.S. gal.)
Cooling System	29.3 L (7.75 U.S. gal.)
Engine Oil	12 L (12.6 qt.)
Hydraulic System (Reservoir)	94.6 L (25 U.S. gal.) 128.7 L (34 U.S. gal including hoses, valves and pumps.)
Final Drives	1.2—1.5 L (3.2—3.25 U.S. pt.)
Pump Drive Gear Case	3.8 L (4.0 U.S. qt.)
OPERATOR'S CAB	
Construction	Uni-body, Welded
Cab Glass	4.8 m^2 (51.5 sq. ft.)
Seat	Air suspension
Air Conditioner:	
Refrigerant	R-134a
Refrigerant (R-134a) Capacity	2.5 kg (5.5 lb.)
Overload Protection:	
Hi-Pressure Sensing Switch:	
Opening	2482—2758 kPa (24.8—27.5 bar) (360—400 psi)
Closing	1172—1448 kPa (11.7—13.5 bar) (170—210 psi)
Lo-Pressure Sensing Switch:	
Opening	144—158 kPa (1.4—1.6 bar) (21—23 psi)
Closing	283—310 kPa (2.8—3.1 bar) (41—45 psi)
Evacuating System	98 kPa (29 in. Hg)
Compressor:	
Discharge Pressure	690—2590 kPa (6.90—25.9 bar) (100—375 psi) at 2000 rpm
Suction Pressure	83—207 kPa (0.83—2.1 bar) (12—30 psi) at 2000 rpm
TIRE SIZE AND PRESSURES	
Drive Wheels:	
Size	480 x 80 R38 R1 (bar tires)
Inflation Pressure	144.8 kPa (1.45 bar) (21 psi)
Size	480 x 80 R38 R3 (button tires)
Inflation Pressure	144.8 kPa (1.45 bar) (21 psi)
Caster Wheels:	

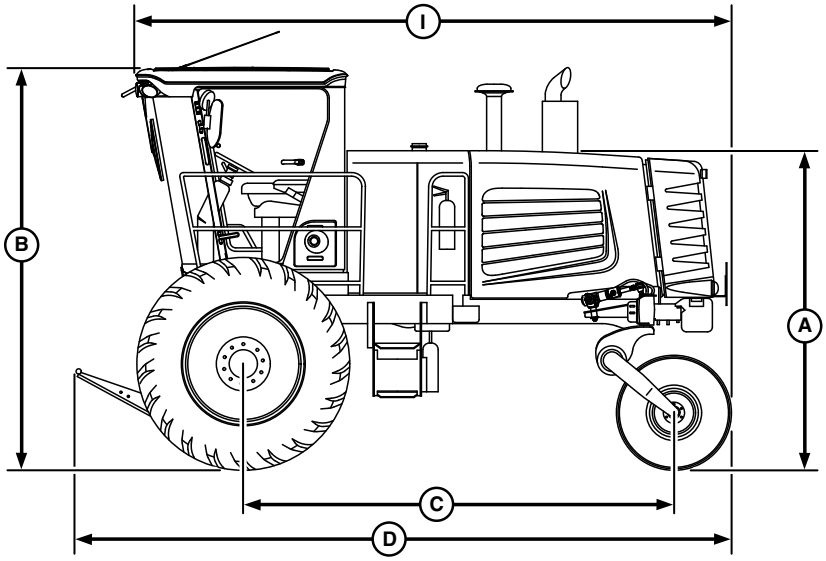
Continued on next page

TIRE SIZE AND PRESSURES	
Size	14L x 16.1 8-ply rib
Inflation Pressure	97 kPa (0.97 bar) (14 psi)
VEHICLE WEIGHT	
Without Platform	4968 kg (11,027 lb.)
WINDROWER BALLAST	
14’ Platform	0 kg (0 lb.) Weights
16’ Platform	4—19 kg (42 lb.) Weights
18’ Platform	8—19 kg (42 lb.) Weights

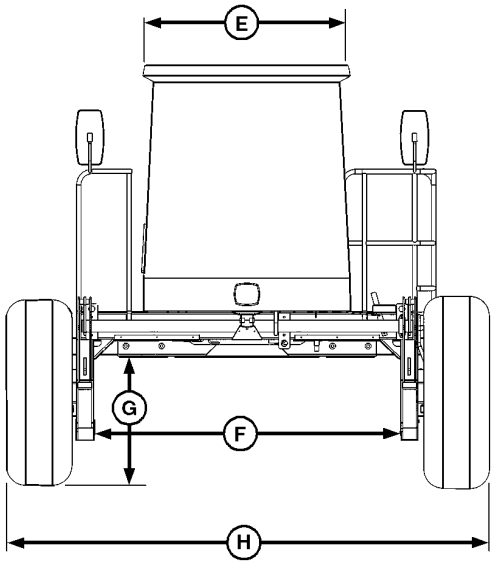
[1]*(Specifications and design subject to change without notice.)*

OUO6085,0000123 -19-03DEC09-3/3

Dimensions



E57755 —UN—23JUL09



E53188 —UN—30MAR04

A—2.5 m (8 ft 1 in.)
B—3.2 m (10 ft 5 in.) (18.4-38 Tires)
C—3.7 m (12 ft 1 in.)
D—5.6 m (18 ft 4 in.)
E—1.6 m (5 ft 1 in.)
F—2.8 m (9 ft 1 in.)
G—109 cm (3 ft 6 in.)
H—3.8 m (12 ft 5 in.)
I— 5.1 m (16 ft 8 in.)

NOTE: Rear tire width (outside to outside):

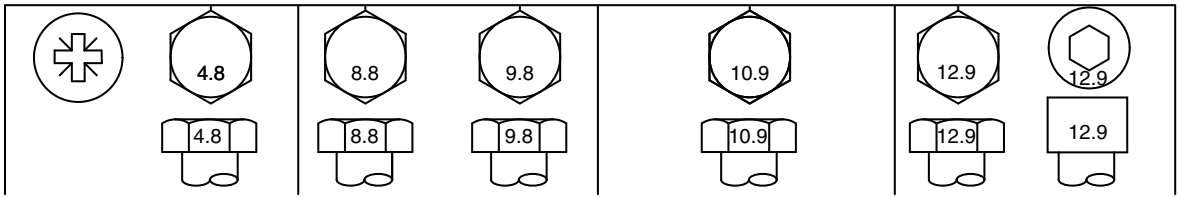
- *Maximum—2.4 m (7 ft 8 in.)*
- *Minimum—1.8 m (5 ft 1 in.)*

All dimensions are machine equipped with standard tires and with platform installed.

OUO6085,0000182 -19-27JUL09-1/1

Metric Bolt and Screw Torque Values

TS1670 —UN—01MAY03



Bolt or	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
Screw	Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]		Lubricated[a]		Dry[b]	
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
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N·m	lb-ft	N·m	lb-ft	N·m	lb-ft								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N·m	lb-ft														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

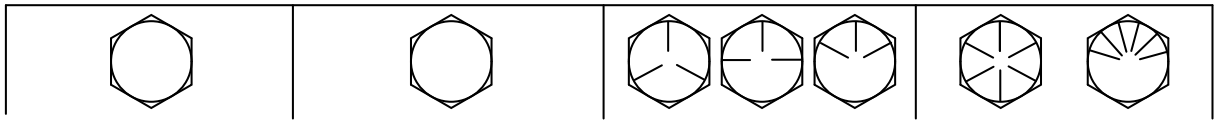
[a] *"Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C zinc flake coating.*

[b] *"Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B zinc flake coating.*

DX,TORQ2 -19-24MAR09-1/1

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.

DX,TORQ1 -19-24MAR09-1/1

Identification Numbers

Record Product Identification Numbers

The windrower product identification number plate identifies the machine.

The product identification number is above the bar code, and the machine model and type is below the bar code.

All of the letters and numbers stamped on these plates are needed when ordering parts, or identifying the machine for any John Deere product support program.

They are also needed for law enforcement to trace the machine, if it is ever stolen.

E49073 —UN—09NOV00

OUO1078,00013BD -19-19SEP01-1/1

Record Windrower Product Identification Number

Windrower product serial number is located on an identification plate (A) in the left-hand side engine compartment, lower right-hand corner of the radiator frame.

A—Identification Plate

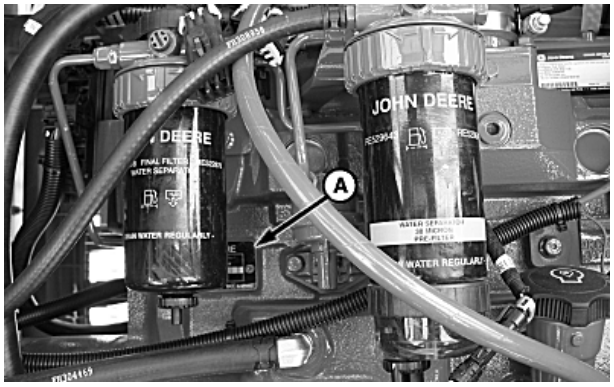
E57310 —UN—09JUN09

OUO6085,00001AC -19-09JUN09-1/1

Record Engine Serial Number

Engine serial number is located on an identification plate (A) behind the fuel filter on the left-hand side.

A—Identification Plate



E57311 —UN—09JUN09

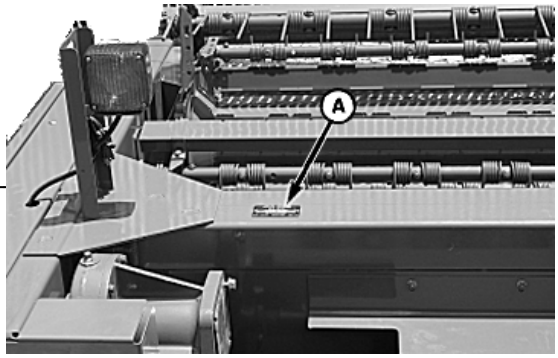
OUO6085,00001AD -19-09JUN09-1/1

Record Platform Serial Number (896 Platform)

The platform serial number plate (A) is located on top, left-hand side of frame near light bracket.

Serial No.

A—Serial Number Plate



E57915 —UN—25AUG09

OUO6085,0000281 -19-26AUG09-1/1

Keep Proof of Ownership

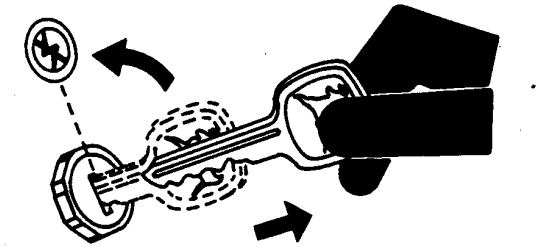
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your 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

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That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.

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DX,IBC,A -19-04JUN90-1/1

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Precision tools and testing equipment enable our Service Department to locate and correct troubles quickly . . . to save you time and money.

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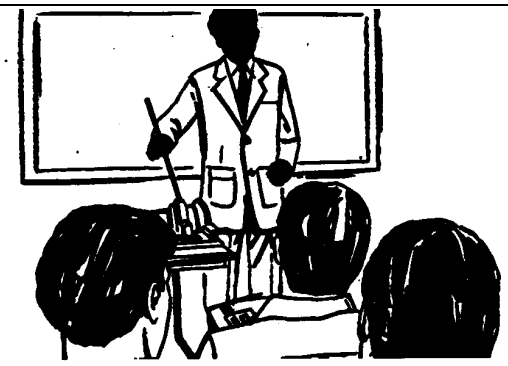
Training schools are held regularly to be sure our personnel know your equipment and how to maintain it.

Result?

Experience you can count on!



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DX,IBC,C -19-04JUN90-1/1

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We can make repairs at your place or at ours, depending on the circumstances: see us, depend on us.

JOHN DEERE SERVICE SUPERIORITY: We'll be around when you need us.

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