S690 HILLMASTER Combine (E.U. Edition) (S.N. 740101 -)

OPERATOR'S MANUAL

S690 HILLMASTER Combine

OMHXE23094 ISSUE H0 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

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

If this product contains a gasoline engine:

⚠ WARNING

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

The State of California requires the above two warnings.

Additional Proposition 65 Warnings can be found in this manual.

John Deere Harvester Works

European Version

LITHO IN U.S.A.

DCY

OMHXE23094

Introduction

Foreword

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

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

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

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

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

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

BEFORE DELIVERING THIS MACHINE, your dealer performed a predelivery inspection. After operating for the first 20 to 50 hours, schedule an after-sale inspection with your dealer to ensure best performance.

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

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

OUO6075,00001E9 -19-22SEP08-1/1

Machine Photo

H93237 —UN—15JAN09

S690 HILLMASTER Combine

OUO6075,0000215 -19-21JAN09-1/1

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

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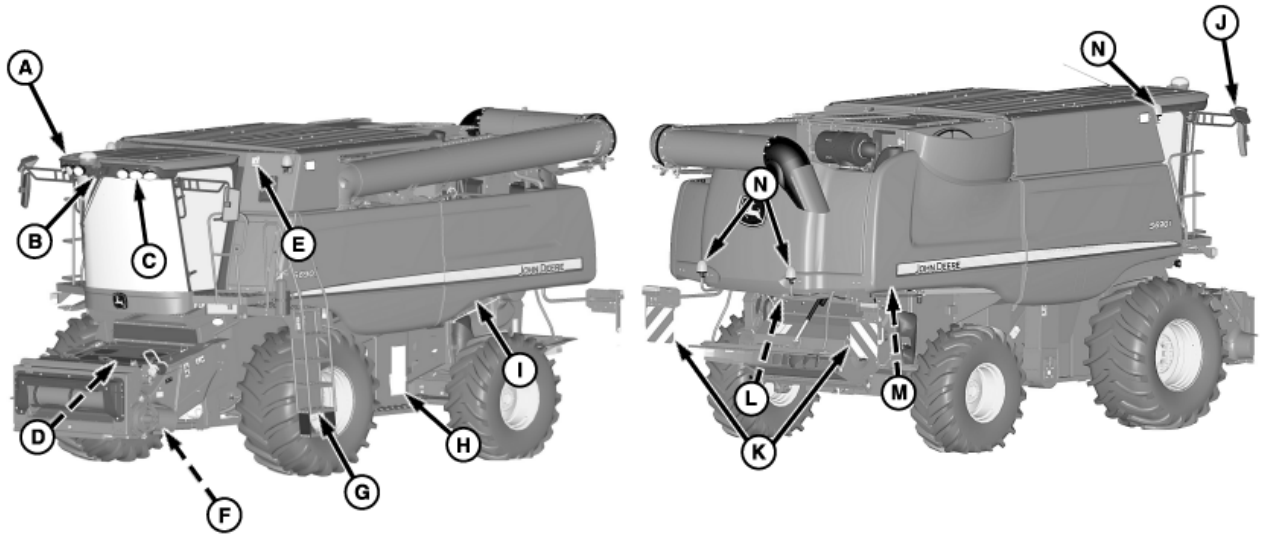
Machine Safety Features



Front Features / Rear Features

A—Cab Safety Features: Operator's Presence System, Electronic Engine Start Lockout, Horn, Emergency Exit Window, Parking Brake, Turn Signals
B—Handholds
C—Headlights
D—Slip Resistant Skid Mats
E—Safety Signs
F—Mechanical Safety Stop (Feeder House)
G—Slip Resistant Steps and Platform with Handrails
H—Wheel Chocks
I— Shields
J—Rear View Mirrors
K—Warning Lights and Reflective Tape
L—Back-Up Alarm
M—Slip Resistant Service Platform with Handrails
N—Beacon Lights

In addition to the safety features shown here, other components and systems, safety lights 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.

OUO6075,000027A -19-29MAY09-1/1

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

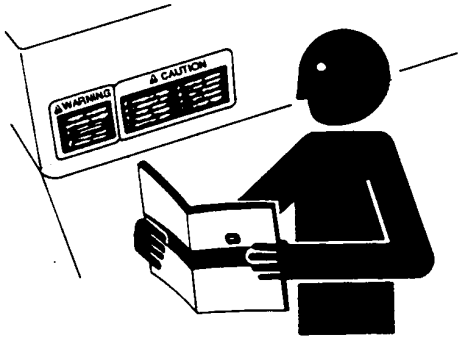
Follow Safety Instructions

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

Driving the Machine

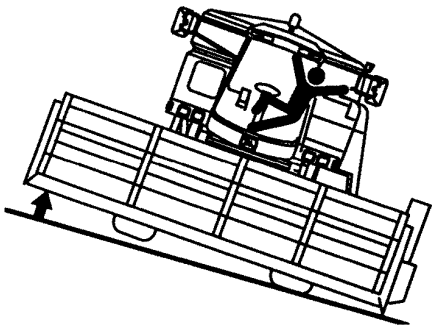
Operate machine only when all guards are correctly installed.

Before moving away, always check immediate vicinity of machine (e.g. for children). Ensure adequate visibility. Use the horn as a warning immediately before moving away.

Always adapt ground speed to road or field conditions. Avoid making sharp turns when driving up or down slopes or when driving across a slope. Be especially careful when turning on slopes with full grain tank.

Follow instructions in header Operator's Manual when attaching or detaching the header.

When making turns, always take into consideration the width of the attachment and the fact that the rear end of the machine swings out. Attachments and ground conditions affect the driving characteristics of the combine.



ZX002461

ZX002461 —UN—16JUN95

Reduce ground speed when driving on slopes or over uneven ground and before making sharp turns. Before descending a steep hill, shift to a lower gear.

Avoid holes, ditches and obstructions which may cause the combine to tip, particularly on hillsides.

OUO6075,0000AB7 -19-21FEB07-1/1

Observe Road Traffic Regulations

Always observe local road traffic regulations when using public roads.

OUO6075,0000032 -19-22JAN01-1/1

Check Machine Safety

Always check the road and general operating safety of the machine before using.

FX,READY -19-28FEB91-1/1

Keep Riders and Children Off Machine

Only allow the operator on the machine. Keep riders off the machine except for periods of training or short periods of observation.

Riders are subject to injury such as being thrown off the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

Children should never be allowed on the machine or in the combine cab when the engine is running.

The instructional seat should only be used for instruction or short periods of machine observation, and not for the accommodation of children.

TS253 —UN—23AUG88

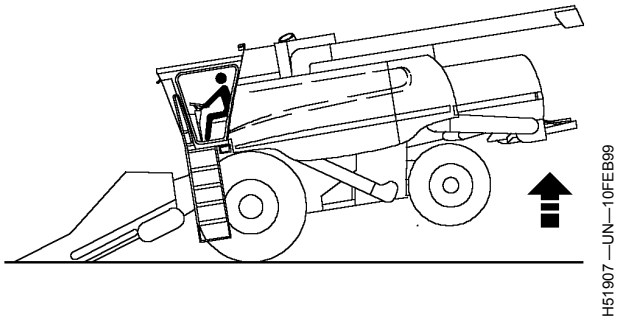
HX,AG,SF6904 -19-22JUL99-1/1

Ballasting for Safe Ground Contact

Operating, steering and braking performance of combine can be considerably affected by heavy front end attachments which alter the center of gravity of the combine.

To maintain the necessary ground contact, ballast the combine at the rear end as necessary.

Observe the maximum permissible axle loads and total weights.



HX,AG,SF6782 -19-05FEB99-1/1

Roadway Transport with Header Attached

Observe national and local laws regarding operation of the combine on public roadways.

This combine has been approved for roadway transport in Germany with a Geringhoff 8 row folding header and a Kemper 8 row folding header. Roadway transport in Germany with other heads must be approved by your local TUEV to achieve a road permission.

OUO6075,0003B9B -19-03NOV04-1/1

Avoid Electrocution from Power Line Entanglement

Low hanging power lines over fields or roads and between farm buildings can become entangled in parts of the combine and can result in the operator or a bystander suffering severe shock and possibly death.

To avoid electrical shock take these precautions:

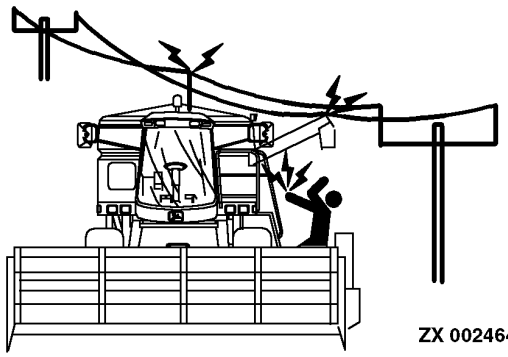
Before transporting the combine on a public roadway lower the radio antenna to the horizontal position and completely close the grain tank covers.

Be aware of the power line elevation in fields and around farm buildings. If the elevation is not known ask the utility supplier.

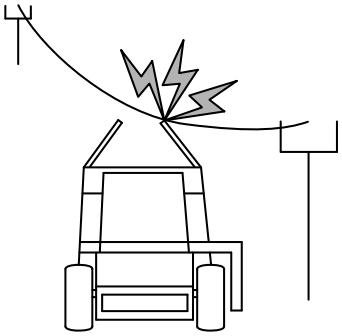
Know the height of the combine. Refer to Dimensions in the Specifications section of this manual. When harvesting near low hanging power lines, lower the grain tank covers to the 15° position. When sufficiently clear of the power lines empty grain tank and fully open the covers.

Be aware of nearby power lines before extending the unloading auger. As the auger is extended its elevation increases.

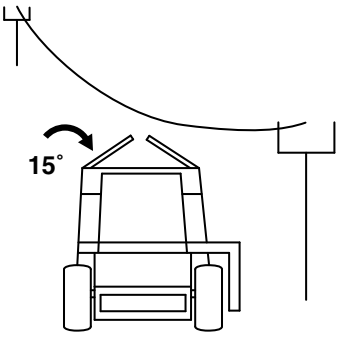
Never stand on top of the grain tank covers or engine platform when the combine is parked underneath low hanging power lines.



ZX002464 —UN—16JUN95



H71751A —UN—29APR02



H71751 —UN—07MAY02

OUO6075,000239D -19-10SEP02-1/1

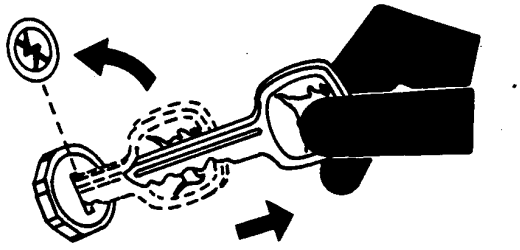
Parking and Leaving the Machine

Lower harvesting unit to the ground.

Before leaving machine, disengage harvesting unit and separator. Shut off engine and move multifunction control handle to neutral position. Apply parking brake, remove key and lock the operator's cab. Position chock blocks provided with machine.

Never leave machine unattended as long as engine is running.

Never leave the operator's cab when driving.



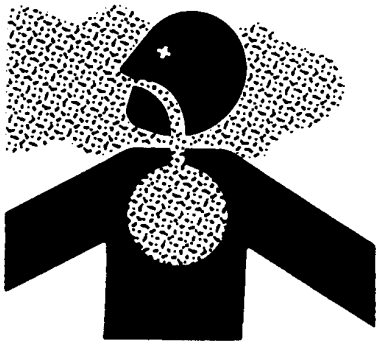
TS230 —UN—24MAY89

OUO6075,0000ABA -19-21FEB07-1/1

Work In Ventilated Area

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

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



TS220 —UN—23AUG88

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

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

In Case of Fire

Stop harvesting immediately at first sign of fire. This may be the smell of smoke or the sight of smoke or flames.

Do not risk personal injury. If a fire is too far advanced, do not try to extinguish it.

If fire can be safely extinguished, proceed carefully and follow these guidelines:

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.

TS227 —UN—23AUG88

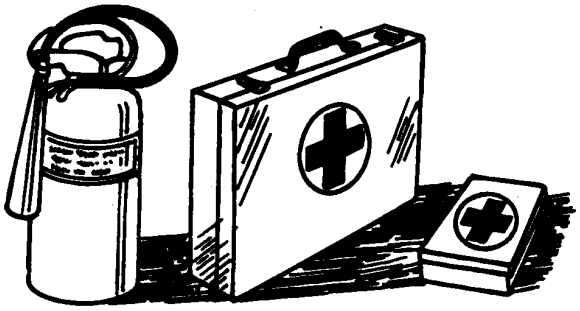
OUO6075,0000144 -19-21MAY08-1/1

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.



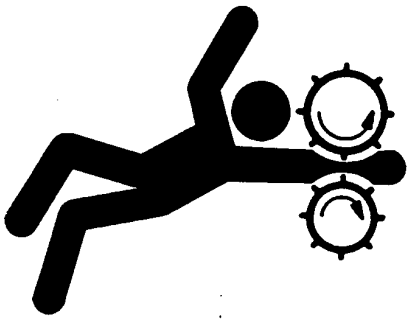
TS291 —UN—23AUG88

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

Service Machines Safely

Tie long hair behind your head. Do not wear a necktie, scarf, loose clothing, or necklace when you work near machine tools or moving parts. If these items were to get caught, severe injury could result.

Remove rings and other jewelry to prevent electrical shorts and entanglement in moving parts.



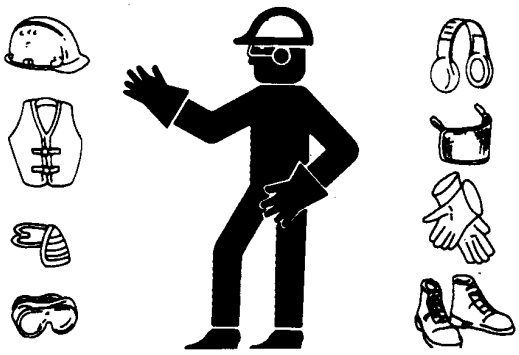
TS228 —UN—23AUG88

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

Wear Protective Clothing

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

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



TS206 —UN—23AUG88

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

Stay Clear of Harvesting Units

Cutterbar, auger, reel and feed rolls cannot be completely shielded due to their function. Stay clear of these moving elements during operation. Always disengage main clutch, shut off engine, set parking and remove key before servicing or unclogging machine.

ES118704 —UN—21MAR95

OUO6075,00014F4 -19-21FEB01-1/1

Keep Hands Away From Knives

Never attempt to clear obstructions in front of or on header unless separator is disengaged, engine shut off and key removed.

Everyone must be clear of the combine before starting the engine.

TS254 —UN—23AUG88

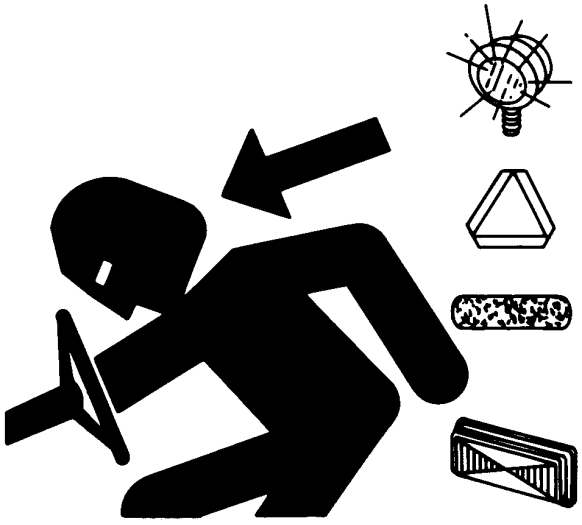
H1,90000SA,D -19-09MAY02-1/1

Use Safety Lights and Devices

Slow moving tractors, self-propelled equipment and towed implements or attachments can create a hazard when driving on public roads. They are difficult to see, especially at night. Avoid personal injury or death resulting from collision with a vehicle.

If legally permitted, use flashing warning lights or rotary beacons whenever driving on public roads. To increase visibility, use the lights and devices provided with your machine. For some equipment, install additional flashing warning lights.

Keep safety items in good condition. Replace missing or damaged items. An implement safety lighting kit is available from your John Deere dealer.



TS951 —UN—12APR90

ZX,FLASH -19-01OCT91-1/1

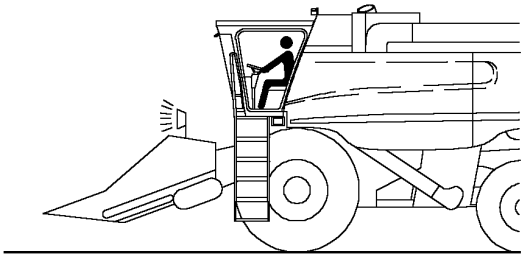
Transport Combine With Header Safely

Whenever possible avoid transporting on public roadways with the header attached.

If the combine must be transported with the header attached, make sure that the flashing warning lights on the header are operating and the reflective material is clean and visible.

The use of a spotter or pilot vehicle is recommended on busy, narrow or hilly roads and when crossing bridges.

Drive at a speed that is safe for conditions.



H51909 —UN—07MAY99

OUO6075,0000034 -19-22JAN01-1/1

Prevent Machine Runaway or Unexpected Movement

Avoid injury or death from unexpected movement of machine or components.

Do not start engine by shorting across starter or solenoid terminals. Machine or components may move if the normal circuitry is bypassed.

H58737 —UN—08JUL99

AG,OUO1035,792 -19-08JUL99-1/1

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

Welding Near Electronic Control Units

IMPORTANT: Do not jump-start engines with arc welding equipment. Currents and voltages are too high and may cause permanent damage.

1. Disconnect the negative (-) battery cable(s).
2. Disconnect the positive (+) battery cable(s).
3. Connect the positive and negative cables together. Do not attach to vehicle frame.
4. Clear or move any wiring harness sections away from welding area.
5. Connect welder ground close to welding point and away from control units.

TS953 —UN—15MAY90

6. After welding, reverse Steps 1—5.

DX,WW,ECU02 -19-14AUG09-1/1

Remove Paint Before Welding or Heating

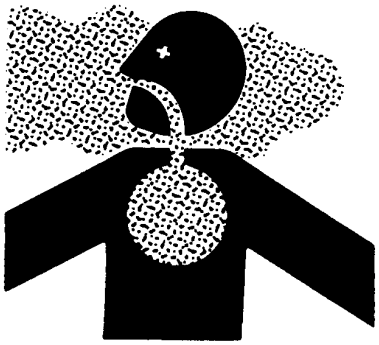
Avoid potentially toxic fumes and dust.

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 Contact With Moving Parts

Keep hands, feet and clothing away from power driven parts. Never clean, lubricate or adjust machine when it is running.

TS256 —UN—23AUG88

H01,9000SA,E -19-15JUN90-1/1

Cleaning the Grain Tank and Removal of Blockages

Avoid serious injury or death from entanglement in the grain tank cross augers. For functional purposes the cross augers cannot be completely covered. Do not enter the grain tank when the engine is running. Before entering the tank to clean out residual grain always shut off the engine and remove the key.

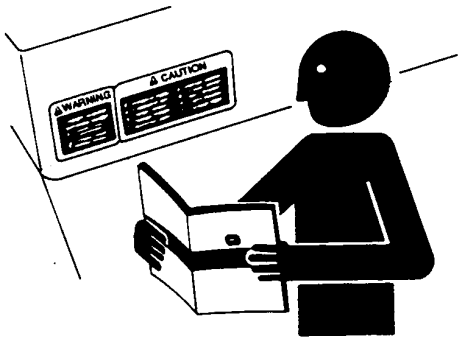
If the grain bridges and fails to flow into the cross augers, shut off the engine, remove the key and open the grain tank cover. From a position on the engine compartment door, use a rod, broom or shovel to break the bridge and restore grain flow.

TS256 —UN—23AUG88

HX,CTSESA,B1 -19-06JAN98-1/1

Replace Safety Signs

Replace missing or damaged safety signs. See the machine operator's manual for correct safety sign placement.



TS201 —UN—23AUG88

DX,SIGNS1 -19-04JUN90-1/1

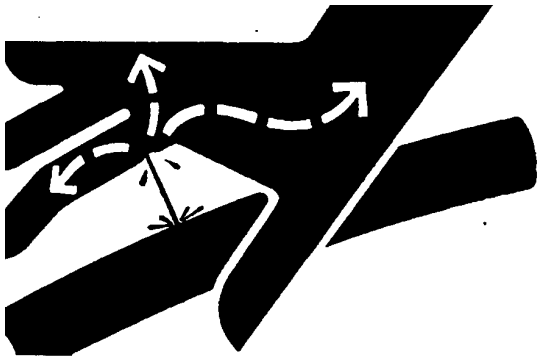
Avoid High-Pressure Fluids

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 in English 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 -19-20AUG09-1/1

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

Protect Against High Pressure Spray

Spray from high pressure nozzles can penetrate the skin and cause serious injury. Keep spray from contacting hands or body.

If an accident occurs, see a doctor immediately. Any high pressure spray 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.

TS1343 —UN—18MAR92

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

Dispose of Waste Properly

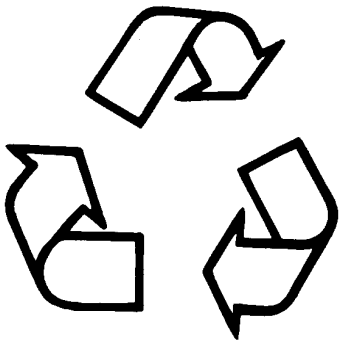
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

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

Service Cooling System Safely

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

Shut off engine, set parking brake and remove key. Allow system to cool before opening cap. Slowly loosen cap to relieve pressure before removing completely.

TS281 —UN—23AUG88

OUO6075,0000ABC -19-21FEB07-1/1

Remove Accumulated Crop Debris

The build up of chaff and crop debris in the engine compartment, on the engine, and near moving parts is a fire hazard. Check and clean these areas frequently. Before performing any inspection or service, shut off the engine, set the parking brake and remove the key.

TS227 —UN—23AUG88

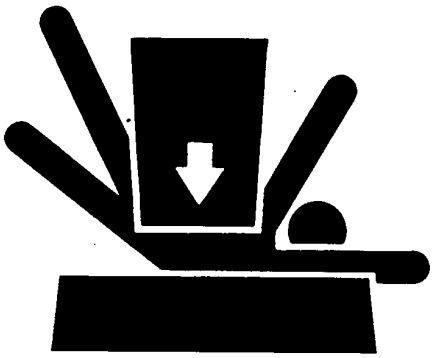
HX,9010SA,B -19-23AUG97-1/1

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

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.

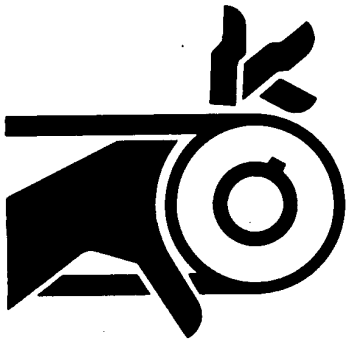
TS219 —UN—23AUG88

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

Service Drive Belts Safely

When servicing drive belts always observe these precautions:

- Avoid serious injury from hand or arm entanglement. Never attempt to clean, check or adjust belts while the machine is running. Always shut off the engine, set the parking brake and remove the key.
- Do not attempt to clean belts with flammable cleaning solvents.



TS285 —UN—23AUG88

OUO6075,00026A4 -19-06FEB03-1/1

Prevent Battery Explosions

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

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

TS204 —UN—23AUG88

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

Prevent Acid Burns

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

Avoid the hazard by:

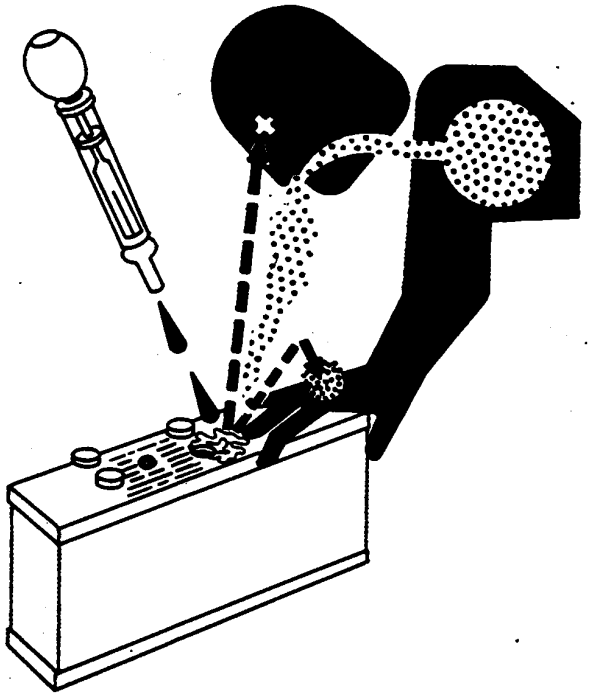
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:

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

If acid is swallowed:

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



TS203 —UN—23AUG88

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

Safety Sign Location

Pictorial Safety Signs

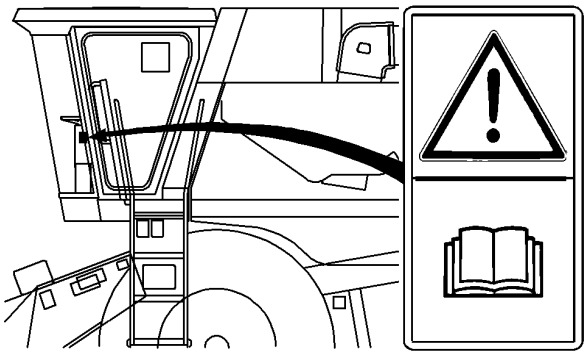
At several important places of this machine safety signs are affixed intended to signify potential danger. The hazard is identified by a pictorial in a warning triangle. An adjacent pictorial provides information how to avoid personal injury. These safety signs, their placement on the machine and a brief explanatory text are shown below.

TS231 —19—07OCT88

FX,WBZ -19-19NOV91-1/1

Operator's Manual

This operator's manual contains all important information necessary for safe machine operation. Carefully observe all safety rules to avoid accidents.

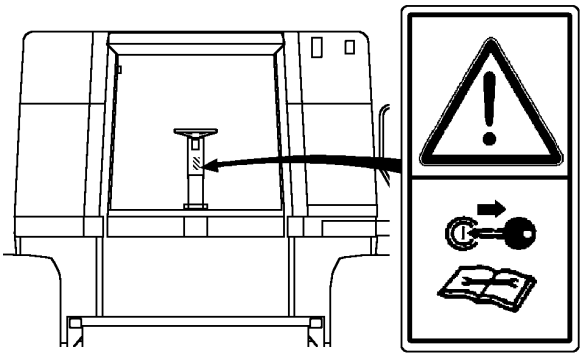


H81543 —UN—10SEP04

OUO6075,00039FE -19-21SEP04-1/1

Repair and Maintenance

Before carrying out repair and maintenance work, shut off engine, set parking brake and remove key. Refer to operator's manual for all maintenance work.

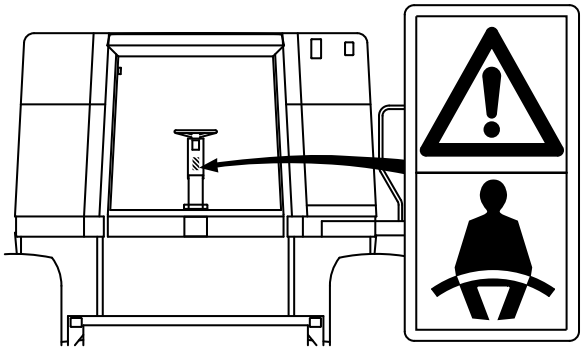


H65729 —UN—12JAN01

OUO6075,0004059 -19-10AUG05-1/1

Seat Belt

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



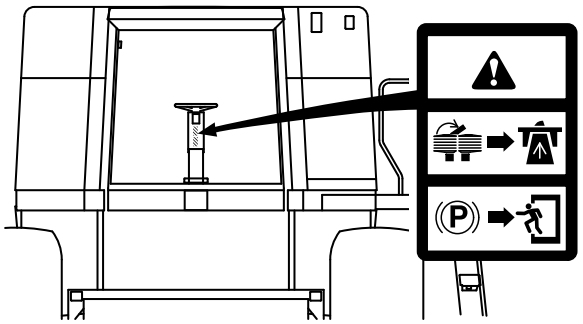
H93792 —UN—07APR09

OUO6075,000033F -19-07APR09-1/1

Parking Brake

Set parking brake before leaving machine.

Lock service brakes together before driving on roadway.

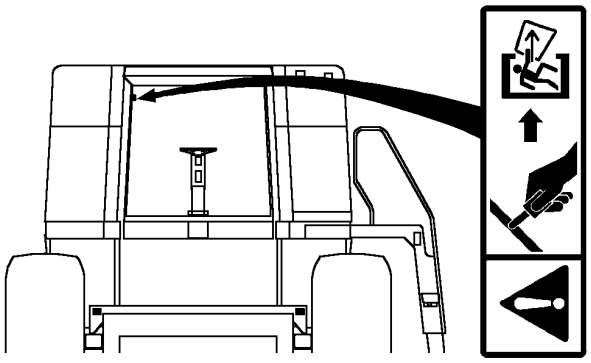


H93793 —UN—07APR09

OUO6075,00003BC -19-25JUN09-1/1

Emergency Exit

Emergency exit procedure. Pull tab, remove rope around window and push window outward.

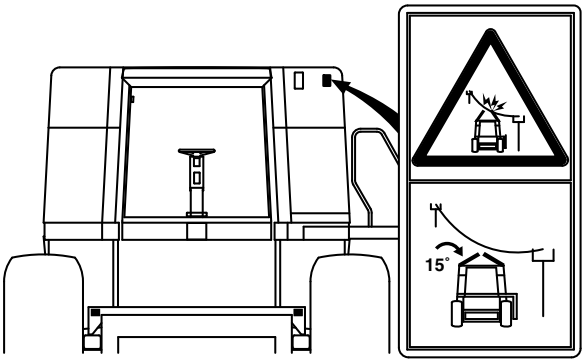


H65750 —UN—12JAN01

OUO6075,000405B -19-10AUG05-1/1

Avoid Low Hanging Power Lines

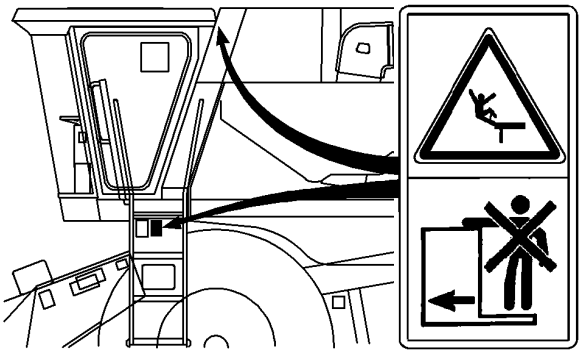
Avoid injury or death from electrocution. Lower grain tank covers to 15° position when operating near low hanging power lines.



OUO6075,000239F -19-10SEP02-1/1

Cab Access Ladder and Platform

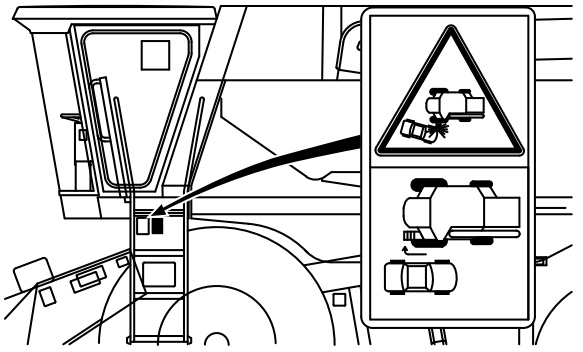
Avoid serious injury from falling. Do not allow riders on access ladder or platform area while machine is moving.



OUO6075,000405D -19-10AUG05-1/1

Avoid Motor Collisions

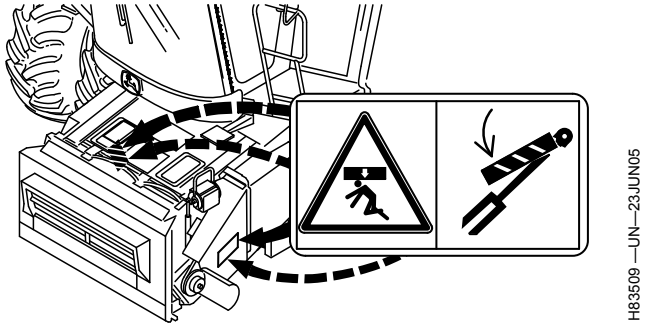
Avoid motor vehicle collision and serious injury or death. Always swing ladder to forward to locked position before driving combine on roadways.



OUO6075,0003A01 -19-21SEP04-1/1

Feeder House Safety Stop

Avoid crushing injury. Rest header on ground or set safety stop, located on feeder house lift cylinder before getting under header.

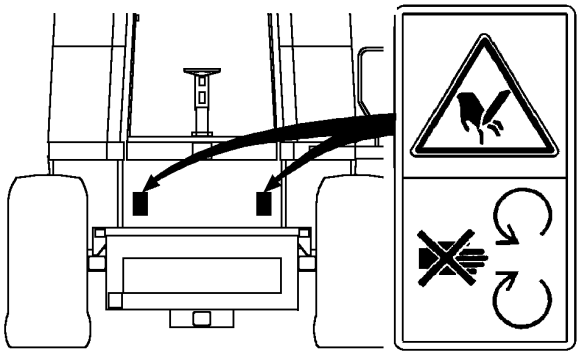


H83509 —UN—23JUN05

OUO6075,000405F -19-10AUG05-1/1

Feeder House Conveyor Chain

Potential hazard caused by rotating machine parts.

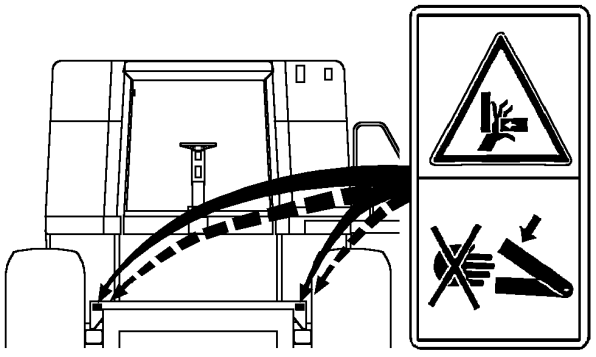


H65736 —UN—12JAN01

OUO6075,000000A -19-12JAN01-1/1

Feeder House Tilt Frame

Header can tilt causing serious injury or death. Avoid crushing injuries. Stay clear when engine is running.

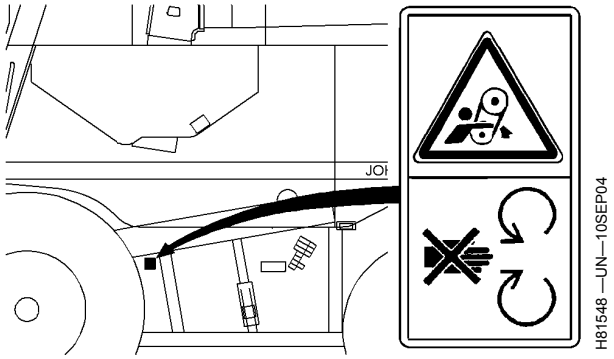


H67580 —UN—19APR01

OUO6075,0004061 -19-10AUG05-1/1

Left-Hand Guard

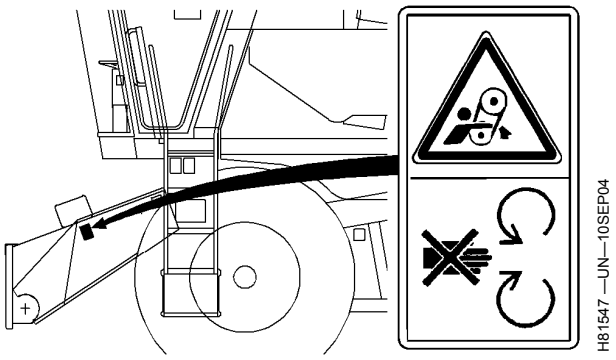
Avoid serious injury or death from entanglement. Never raise shield with engine running. Stop engine and remove key.



OUO6075,0004062 -19-10AUG05-1/1

Header Drive Guard

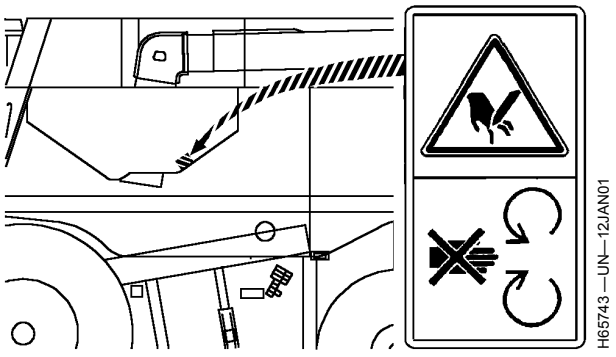
Do not open or remove guard when the engine is running.



OUO6075,0003A02 -19-21SEP04-1/1

Grain Tank Cleanout Doors

Avoid serious injury or death from entanglement. Stop engine and remove key before opening cleanout doors.

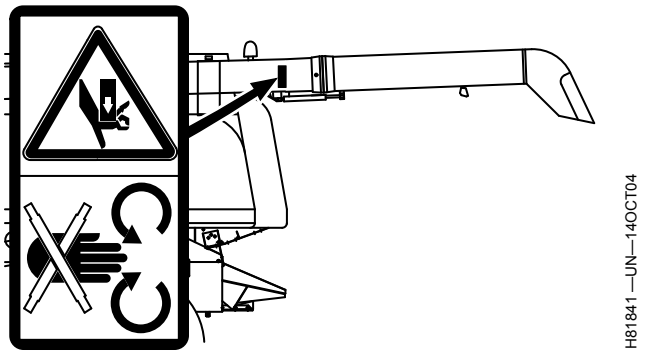


OUO6075,0004063 -19-23AUG07-1/1

Powered Folding Unloading Auger

If unloading auger actuator should fail, place unloading auger lock-out pin in locked position (see Grain Tank section).

Use a ladder or equivalent with an appropriate load rating to access lock-out pin. Do not attempt to access auger from engine platform.



OUO6075,0004078 -19-15AUG05-1/1

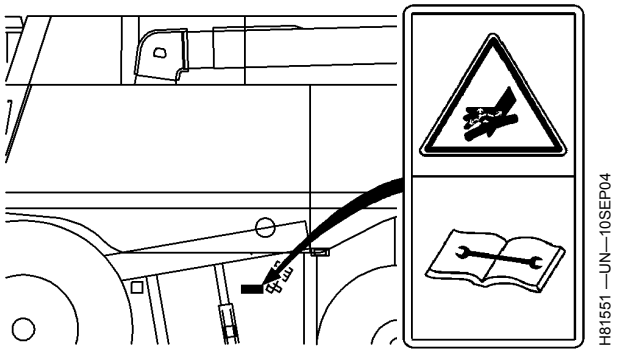
Hydraulic Oil and Gas Under Pressure

Avoid bodily injury from hydraulic oil and gas under pressure.

Before disassembling or charging accumulator, start engine and hold header height control to lower position for five seconds to relieve hydraulic pressure.

Stop engine and remove key.

Use only dry nitrogen for recharging accumulator, see your John Deere dealer.

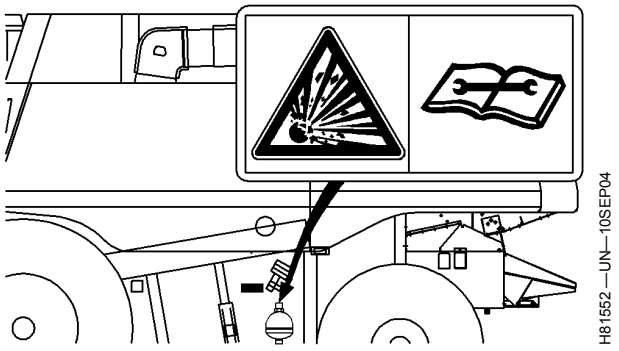


OUO6075,0004064 -19-10AUG05-1/1

Accumulator

To prevent the risk of injury as well as possible damage to the accumulator or hydraulic system, maintain recommended nitrogen gas pressure.

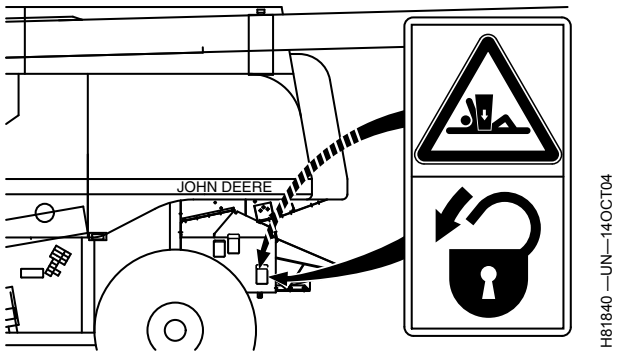
Charge only with dry nitrogen, Rated working pressure is 21,500 kPa (3120 psi), see your John Deere dealer.



OUO6075,0004065 -19-10AUG05-1/1

Chopper Lock-Out

Avoid serious injury or death from crushing. Before performing service or maintenance on raised chopper, fully insert lock-out pins into place.

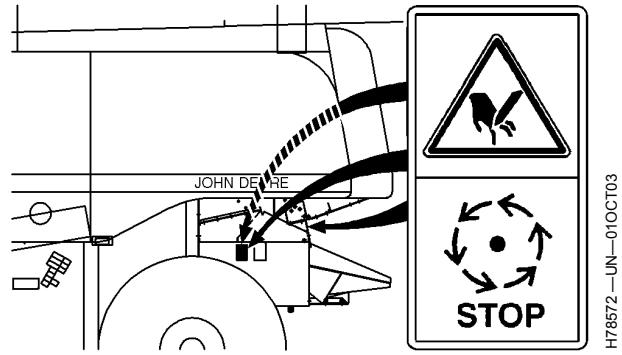


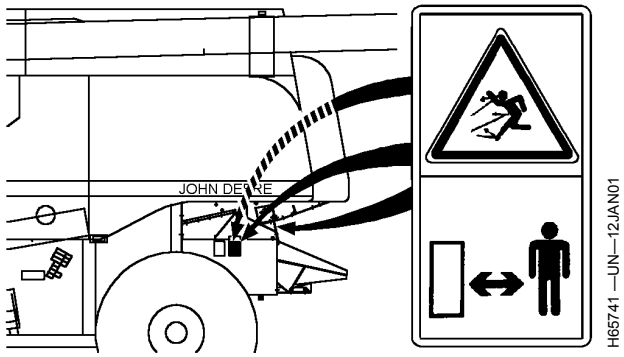
OUO6075,0003AFC -19-14OCT04-1/1

Chopper

Do not touch any moving machine parts. Wait until all moving parts have stopped.

Avoid serious injury from thrown objects. Stay clear while engine is running.

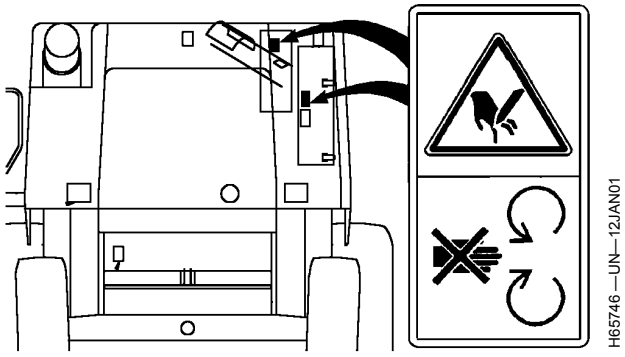




OUO6075,0004066 -19-10AUG05-1/1

Rotary Screen and Radiator Fan

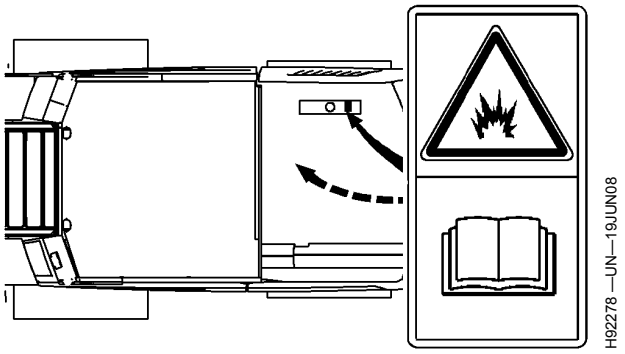
Avoid bodily injury from rotating fan and screen components. Shut engine off and remove key before opening rotary screen door.



OUO6075,0004068 -19-10AUG05-1/1

Cooling System

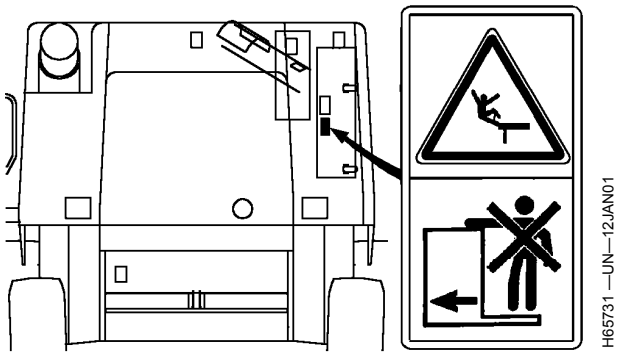
Pressurized cooling system. To prevent burn injury due to uncontrolled release of steam and hot coolant, wait until system is cool. Loosen cap slowly. Allow pressure to release before removing cap.



OUO6075,0000177 -19-19JUN08-1/1

Rear Access Ladder and Service Platform

Avoid serious injury from falling. Do not ride ladder while machine is moving.

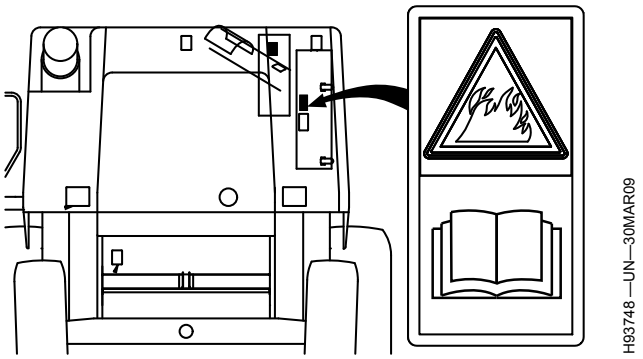


OUO6075,0004069 -19-10AUG05-1/1

Avoid Fires

Avoid equipment fires.

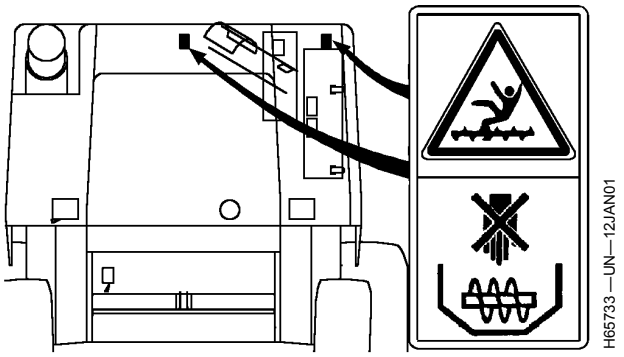
The accumulation of chaff, leaves and other crop material in the engine compartment, on the engine or near moving parts can cause a fire. Inspect and clean these areas frequently.



OUO6075,00006E8 -19-16MAR10-1/1

Grain Tank

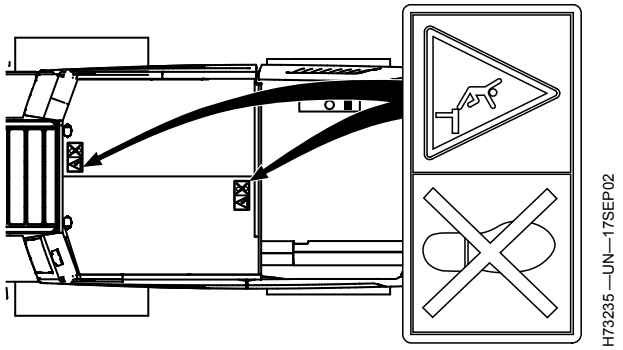
Avoid serious injury or death from entanglement. Do not enter grain tank area when engine is running.



OUO6075,000406A -19-10AUG05-1/1

Fall From Grain Tank Covers

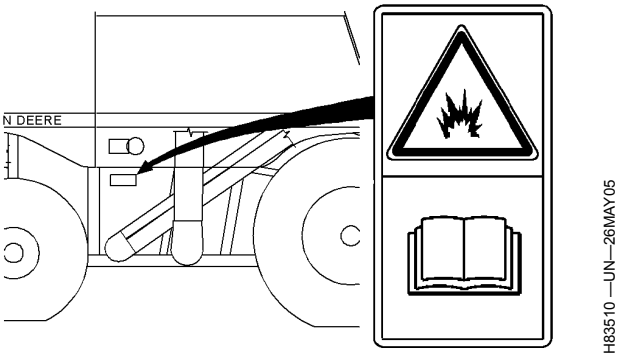
Do not walk on grain tank covers.



OUO6075,000239E -19-10SEP02-1/1

Battery Box

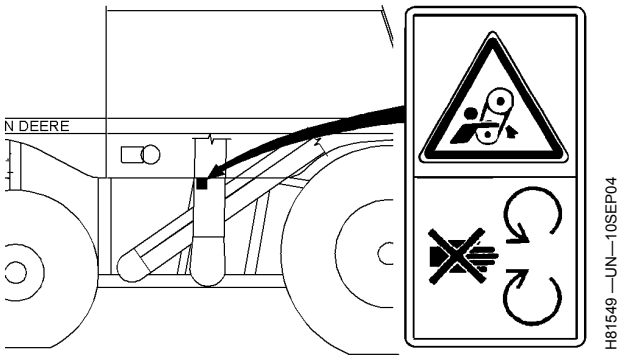
Avoid serious injury or death from explosion. High levels of hydrogen gas can accumulate if battery box is not vented properly. Always reinstall vent tubes after performing service or maintenance on batteries or battery box.



OUO6075,0004072 -19-10AUG05-1/1

Clean Grain Elevator

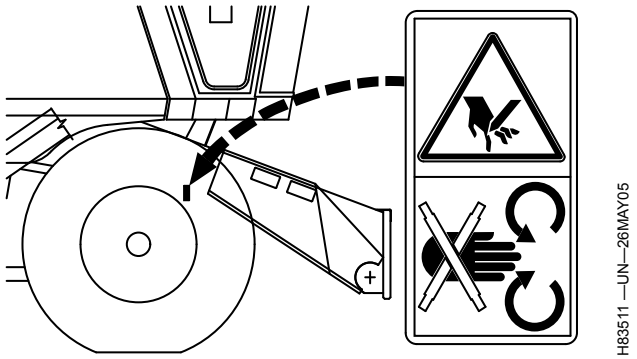
Avoid serious injury or death from entanglement. Never raise shield with engine running. Stop engine and remove key.



OUO6075,000406B -19-10AUG05-1/1

Stone Trap

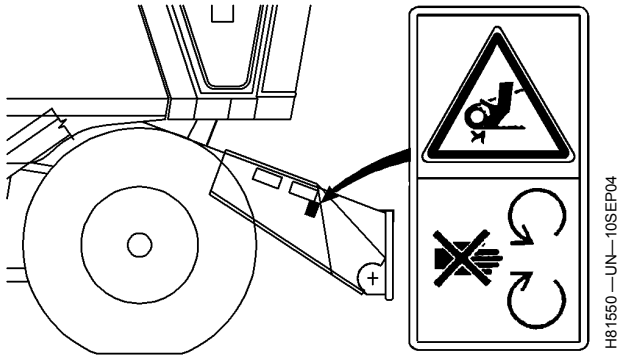
Avoid serious injury from entanglement with feed accelerator. Do not clean out stone trap until all separator motion has stopped.



OUO6075,000406D -19-10AUG05-1/1

Feeder Conveyor Drive Guard

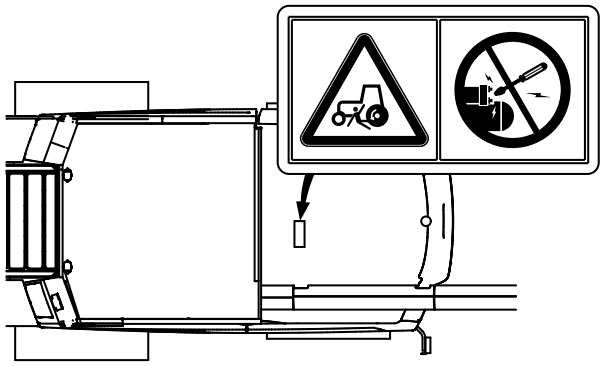
Do not open guard when the engine is running.



OUO6075,0003A05 -19-21SEP04-1/1

Starter

Do not start engine by shorting across starter or solenoid terminals. Machine or components may move if normal circuitry is bypassed.

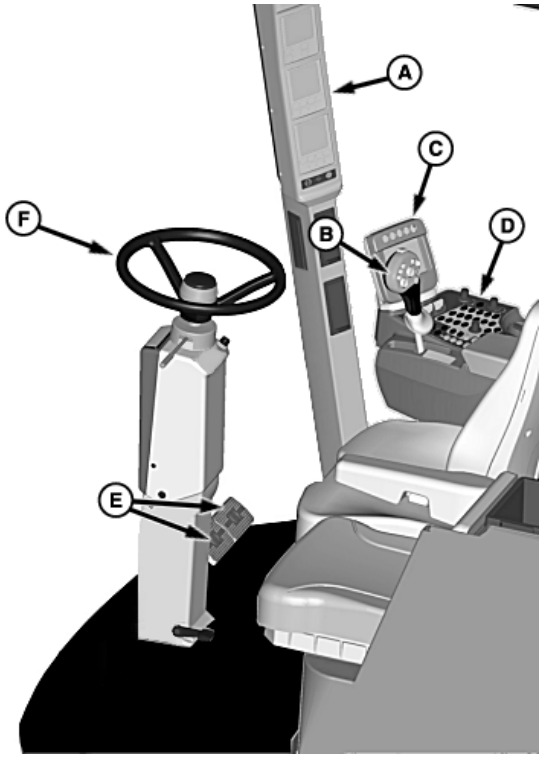


H74205 —UN—12NOV02

OUO6075,000406F -19-10AUG05-1/1

General View of Controls and Instruments

A—CommandTouch™ Cab Cornerpost
B—Multifunction Control Handle
C—CommandCenter™ Display
D—CommandTouch™ Armrest Console
E—Brake Pedals
F—Steering Column

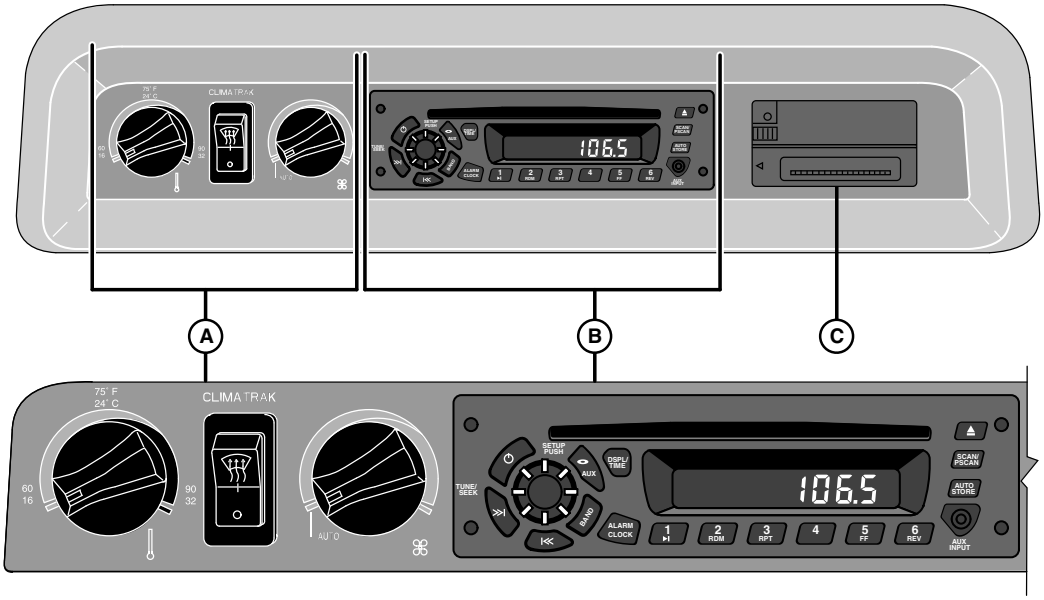


H91314 —UN—28APR08

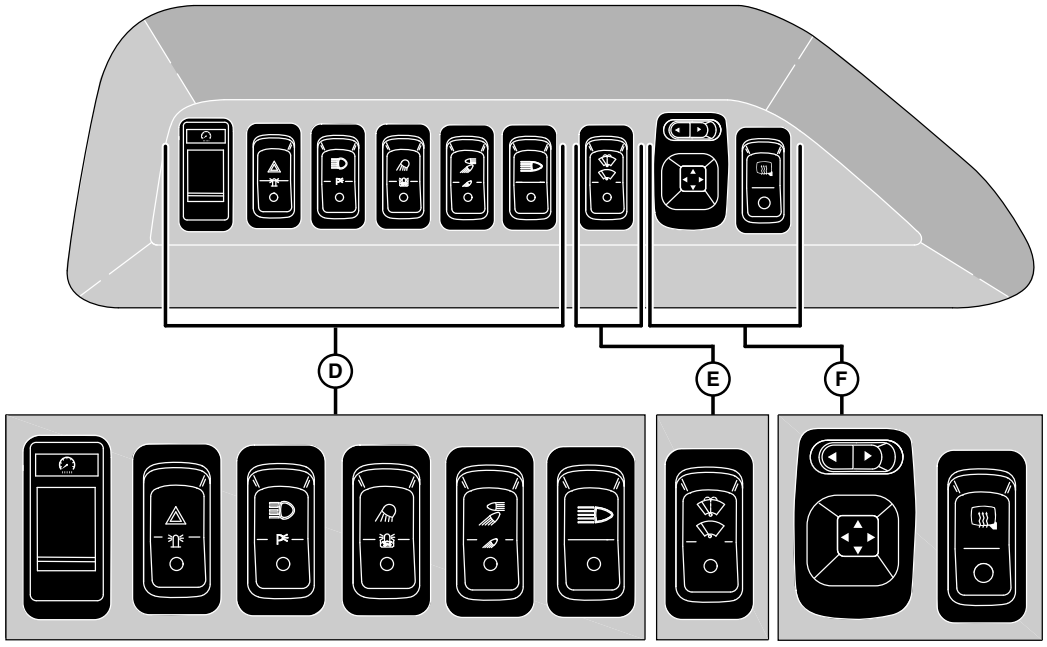
CommandTouch is a trademark of Deere & Company
CommandCenter is a trademark of Deere & Company

OUO6075,00000D0 -19-28APR08-1/1

Overhead Control Panel



H91096 —UN—08APR08



H86995 —UN—08DEC06

A—CLIMATRAK™ Control Switches
B—Radio (Special Equipment)
C—GreenStar™ Printer (Optional)
D—Light Switches
E—Windshield Wiper/Washer Switch
F—Mirror Adjust/Heater Switch

CLIMATRAK is a trademark of Deere & Company
GreenStar is a trademark of Deere & Company

OUO6075,000007E -19-08APR08-1/1

CLIMATRAK Automatic Temperature Control

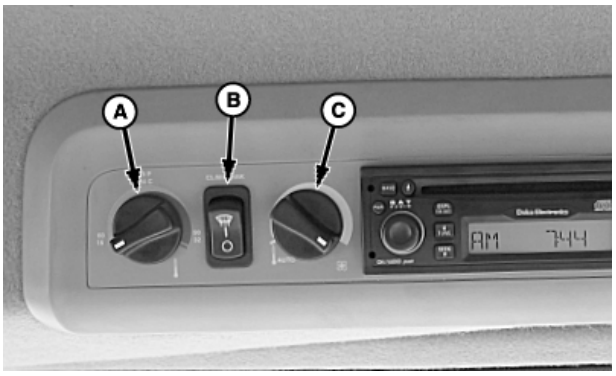
CLIMATRAK control system consists of temperature control dial (A), mode selector (B), fan control speed dial (C), and cab temperature sensor (D).

With mode selector in OFF position, all power to system is OFF. With mode selector in ON position (middle position), power is supplied for normal functions. With mode selector in “DEFOG” position (top of switch pressed in), power is supplied to compressor regardless of set temperature. This position helps remove moisture from the air even in heat mode.

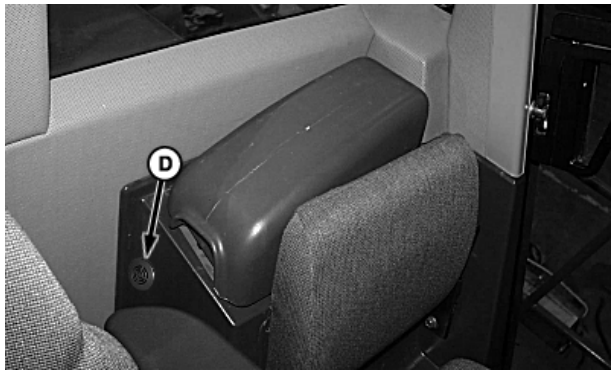
Turn temperature control clockwise to increase temperature or counterclockwise to decrease temperature.

NOTE: Cab temperature sensor is located behind instructional seat. Do not cover sensor or system may not operate correctly in AUTO mode.

Recirculation fan controls amount of air coming out of louvers. Fan speed control has a detent position for an automatic fan speed setting. In this position, fan speed is determined by the difference between selected temperature and actual cab temperature. As temperature approaches set point, fan speed will decrease.



H86090 —UN—13JUL06



H78525 —UN—16SEP03

A—Temperature Control Dial
B—Mode Selector
C—Fan Speed Control Dial
D—Cab Temperature Sensor

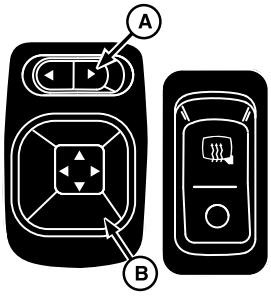
OUO6075,0000974 -19-21MAR07-1/1

Mirror Control Switch

NOTE: Key switch must be ON or machine must be running to adjust mirrors.

Mirror control switch (A) transfers power to left-hand or right-hand mirror. Press left side of switch to power left-hand mirror or press right side of switch to power right-hand mirror.

Mirror adjust switch (B) moves selected mirror up or down and left or right.



H86105 —UN—08DEC06

A—Mirror Control Switch
B—Mirror Adjust Switch

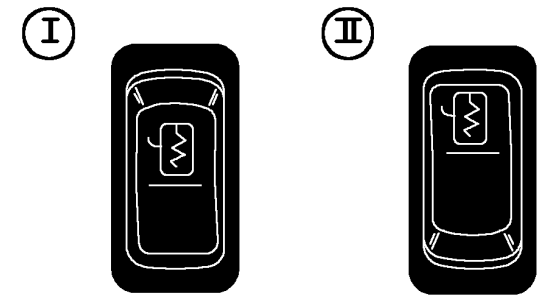
OUO6075,0000B60 -19-02APR07-1/1

Mirror Heater Switch

NOTE: Key switch must be ON or machine must be running to adjust mirrors.

Mirrors are equipped with heaters to remove ice and fog. Mirror heater switch is a two position switch. Mirror heater switch (I) (bottom switch pressed in) shuts power OFF. Mirror heater switch (II) (top switch pressed in) heats mirrors.

I— Mirror Heater Switch (OFF) **II— Mirror Heater Switch (ON)**



ZX018654

ZX018654 —UN—04NOV99

OUO6075,0000B61 -19-02APR07-1/1

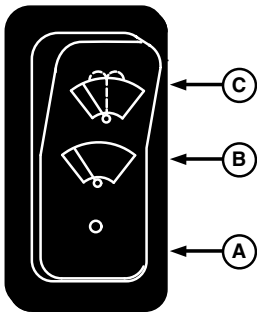
Windshield Wiper/Windshield Washer Switch

NOTE: Key switch must be ON or machine running for windshield wiper and windshield washer to operate.

Windshield washer system allows operator to control a flow of water to aid in clearing the windshield.

When windshield wiper switch is in OFF position (A), all power to the system is OFF. When switch is in ON position (B) (middle position), wiper will begin to move back and forth across windshield. Wiper will stop on either side of windshield depending on when switch was turned OFF.

When windshield wiper switch (C) is in wash position (top switch press in), windshield washer pump will spray fluid onto windshield. This continues until switch is released.



H68144 —UN—23MAY01

A—Windshield Wiper Switch (OFF)
B—Windshield Wiper Switch (ON)
C—Windshield Washer Switch

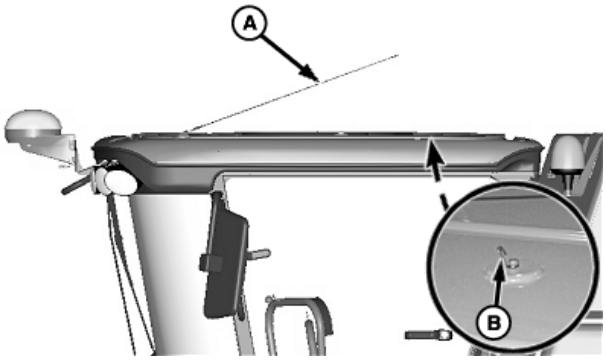
OUO6075,0000977 -19-16JUL07-1/1

Antenna

If reception is poor, check if antenna (A) is in upright position.

If radio is not used or machine is being transported, fold radio antenna down and retain with hook (B).

A—Radio Antenna **B—Hook**



H93240 —UN—15JAN09

OUO6075,000027B -19-21JAN09-1/1

Communications/CB Radio Mounting

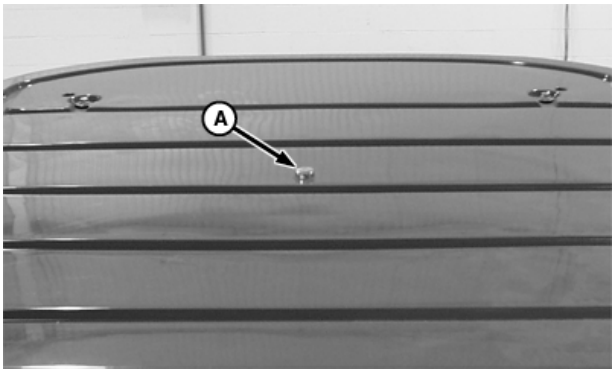
IMPORTANT: Do not install a radio requiring more than 3 amps or electrical system may malfunction.

To install additional radio or CB radio, see your John Deere dealer.

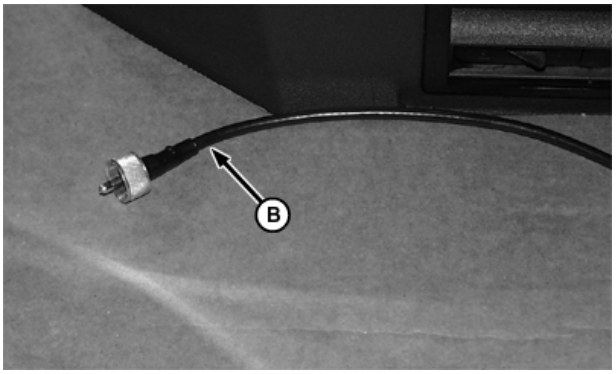
Antenna mount (A) is located in center of cab roof. Antenna cable (B) is located on right-hand side of cab under the armrest console.

A—Antenna Mount

B—Antenna Cable



H64104 —UN—01JUN00



H65641 —UN—20DEC00

OUO6075,0000896 -19-19FEB07-1/3

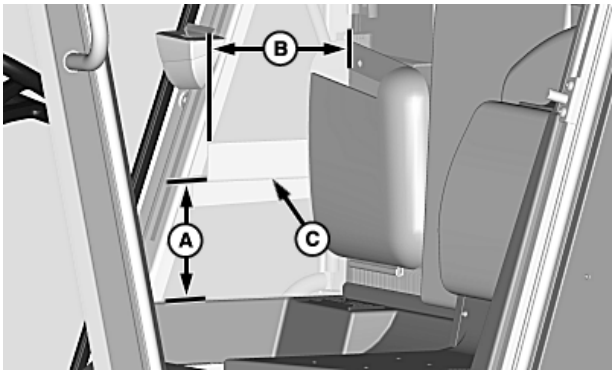
Use provided dimensions (A) and (B) to locate bracket (C) behind interior panel.

Using bracket (supplied by radio manufacture) as a template, drill holes as required through foam and plate on right-hand rear inside cab. Use self tapping screws to mount bracket.

A—Dimension, 185 mm (7.25 in.)

B—Dimension, 225 mm (9 in.)

C—Bracket, 50 mm (2 in.)



H86756 —UN—30OCT06

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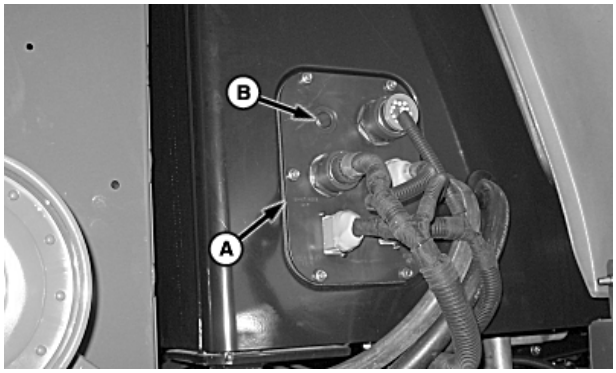
OUO6075,0000896 -19-19FEB07-2/3

Remove right-hand cab wall plate (A) and plug (B). Obtain rubber grommet from John Deere dealer and cut grommet so antenna cable can be routed through grommet and cab wall plate.

NOTE: Do not leave grommet out or mice can enter cab area through this hole.

A—Cab Wall Plate **B—Plug**



H87079 —UN—13DEC06

OUO6075,0000896 -19-19FEB07-3/3

CommandCenter Display Warning Indicators

CommandCenter displays the following:

Severity Icon and Color (A): Severity level of warning issued will be identifiable by icon (stop engine, service alert, information) and color (red, yellow, grey).

- **Red Light (B):** Stop engine at once and correct problem.
- **Yellow Light (C):** Service or correct problem. Stop engine as required.
- **Gray Light (D):** Be aware of condition.

Border Color (E): Severity level will also be indicated by a border (red, yellow, gray).

Problem Indicator Symbol (Optional) (F): Problem icon will be displayed relating to the system producing the warning.

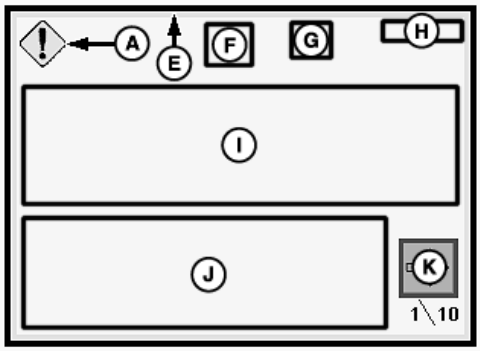
Controller Identifier (G): A three letter acronym that identifies the controller issuing the warning.

System Parameter Number (SPN) and Failure Mode Indicator (FMI) (H): Diagnostic trouble code (DTC) will be located in upper right-hand corner.

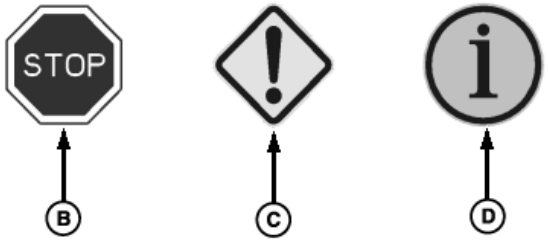
Warning Description (I): A description identifying the type of warning (e.g. Oil Pressure Low).

Recommended Solution Description (J): Text describing what happens when associated action button(s) are pressed, and/or how to resolve the problem.

Acknowledgement Button (K): Provides acknowledgement to warning(s). An action a user can take when a warning is issued (e.g. Ignore Sensors). Multiple warning screens may appear (e.g. 1/5). This means four other warning screens will follow when acknowledged.



H86093 —UN—10JAN07

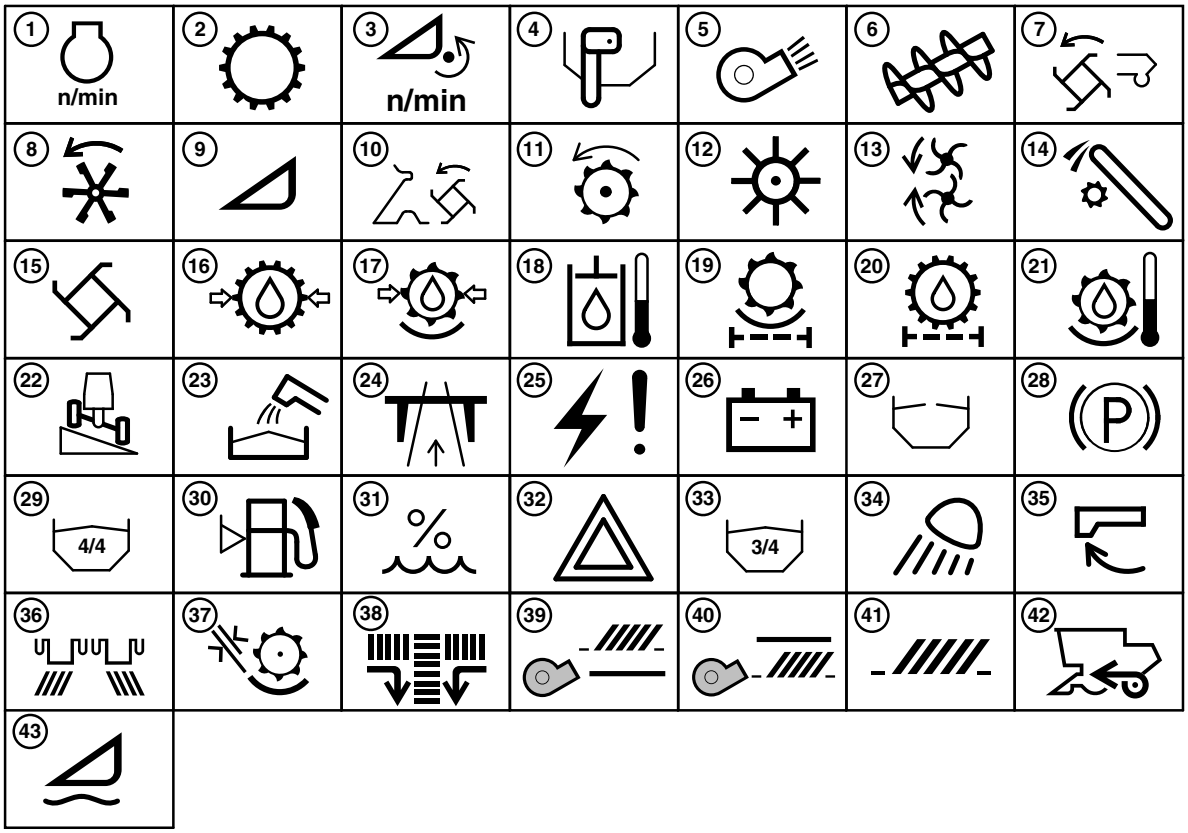


H86091 —UN—24AUG06

A—Severity Icon and Color
B—Red Light
C—Yellow Light
D—Gray Light
E—Border Color (Severity Of Alarm)
F—Problem Indicator Symbol (Optional)
G—Controller Identifier
H—System Parameter Number (SPN) and Failure Mode Indicator (FMI)
I— Warning Description
J— Recommended Solution Description
K—Action Button

OUO6075,0000592 -19-04APR07-1/1

Informational Display Warnings



H93310 —UN—19MAR09

NOTE: Following icons appear along with a brief description on the CommandCenter display.

See table following icons for description and icon that accompany the alarm.

Non Alarm Screens:			
Screen Name	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
Start-up Splash Screen	None	None	Displays when machine is first started.
Setpoint Adjust Screen	None	None	Allows operator to adjust various machine settings.
Service Hours Screen	Gray	None	Displays every 50 hours to alert operator to service machine.
Engine Preheat Screen	Gray	None	Displays when glow plugs are activated and gives countdown to when machine can be started.
Folding Unloading Auger Screen	Gray	None	Alerts operator to position of power folding auger.

Diagnostic Trouble Codes Screen:			
Alarm Name	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
Stop	Red	Continuous	Alerts operator to stop engine at once and correct problem.
Service Warning	Yellow	60 Minutes	Alerts operator to service or correct problems. Stop engine as required.
Information	Gray	No Repeat	Alerts operator to be aware of condition.

Low Speed Alarms:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
1	Low Engine Speed	Red	Continuous	Alerts operator that engine speed has slowed due to harvesting conditions. Reduce harvesting speed to reduce engine load. If message still displays, see your John Deere dealer.

Continued on next page

OUO6075,00002B8 -19-14APR09-1/8

Low Speed Alarms:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
2	Feeder House Speed Zero	Yellow	60 Minutes	Alerts operator that no movement is detected for feeder house drives. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
3	Feeder House Speed Zero	Yellow	60 Minutes	Alerts operator that no movement is detected for backshaft. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
9	Pickup Belt Speed Zero	Yellow	60 Minutes	Alerts operator that no movement is detected for belt pickup. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
4	Clean Grain Elevator Speed Zero	Yellow	10 Minutes	Alerts operator that clean grain elevator speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
5	Cleaning Fan Speed Zero	Yellow	10 Minutes	Alerts operator that cleaning fan speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
6	Conveying Auger Speed Zero	Yellow	10 Minutes	Alerts operator that conveyor auger speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
7	Discharge Beater Speed Zero	Yellow	10 Minutes	Alerts operator that discharge beater speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
38	Draper Speed Zero	Yellow	60 Minutes	Alerts operator that draper speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
10	Feed Accelerator Speed Zero	Yellow	10 Minutes	Alerts operator that feed accelerator speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
8	Reel Speed Zero	Yellow	60 Minutes	Alerts operator that reel speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
9	Corn Head Speed Zero	Yellow	60 Minutes	Alerts operator that chopping corn head speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
11	Separator Speed Zero	Yellow	10 Minutes	Alerts operator that separator speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
12	Straw Chopper Speed Zero	Yellow	10 Minutes	Alerts operator that straw chopper speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
13	Spreader Speed Zero	Yellow	10 Minutes	Alerts operator that spreader speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
14	Tailings Elevator Speed Zero	Yellow	10 Minutes	Alerts operator that tailings elevator speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.
11	Threshing Speed Zero	Yellow	10 Minutes	Alerts operator that threshing speed is less than 20 rpm. Stop engine, inspect drives and speed sensor. Engage separator and header switches. If message still displays, see your John Deere dealer.

Continued on next page

Low Speed Alarms:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
2	Feeder House Speed Low	Yellow	30 Seconds	Alerts operator that feeder house drive speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
4	Clean Grain Elevator Speed Low	Yellow	30 Seconds	Alerts operator that clean grain elevator speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
5	Cleaning Fan Speed Low	Yellow	30 Seconds	Alerts operator that cleaning fan speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
6	Conveying Auger Speed Low	Yellow	30 Seconds	Alerts operator that conveyor auger speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
7	Discharge Beater Speed Low	Yellow	30 Seconds	Alerts operator that discharge beater speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
10	Feed Accelerator Speed Low	Yellow	30 Seconds	Alerts operator that feed accelerator speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
11	Separator Speed Low	Yellow	30 Seconds	Alerts operator that separator speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
12	Straw Chopper Speed Low	Yellow	30 Seconds	Alerts operator that straw chopper speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
13	Spreader Speed Low	Yellow	30 Seconds	Alerts operator that spreader speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
14	Tailings Elevator Speed Low	Yellow	30 Seconds	Alerts operator that tailings elevator speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
11	Threshing Speed Low	Yellow	30 Seconds	Alerts operator that threshing speed has slowed to 85% of normal speed. Stop engine, check for plugging, inspect drives and reduce harvesting speed. If message still displays, see your John Deere dealer.
12	Chopper in High Speed Range	Gray	No Repeat	Alerts operator that chopper is in high speed range and detects that a chopping corn head or regular corn head is attached. Stop engine, raise chopper and move belt to inside grooves on both sheaves for slow speed. If message still displays, see your John Deere dealer.

Pressures and Temperatures:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
16	Hydrostatic Charge Pressure Low	Red	Continuous	Alerts operator that abnormal pressure is detected in hydrostatic drive. Stop engine and check oil level in hydraulic reservoir. Add oil as needed or change filter. If message still displays, see your John Deere dealer.
17	Main Gearcase Pressure Low	Red	Continuous	Alerts operator that abnormal pressure is detected in main gearcase. Stop engine and check oil level in main engine gearcase. Add oil as needed or change filter. If message still displays, see your John Deere dealer.

Continued on next page

Pressures and Temperatures:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
16	Brake Accumulator Charge Pressure Low	Red	Continuous	Alerts operator that service brakes may not have full braking capability. 1. If alarm occurs at engine start-up, allow engine to idle for 30 seconds and shut OFF. Restart engine and see if problem persists when attempting to move machine. If stop alarm remains displayed, stop engine and check hydraulic reservoir oil level, hydraulic hoses for leaks, and switch harness connection under cab. If message still displays or if no problems are observed, see your John Deere dealer. 2. If alarm occurs while driving, speed is reduced to a max of 5 km/h (3 mph) after 10 seconds. Stop machine in a safe location and perform start-up diagnostics as previously described.
16	Feeder House Drive Pressure Low	Red	Continuous	Alerts operator that abnormal pressure is detected in transmission while operating CommandTouch multi-speed feeder house drive. Stop engine and check main gearcase oil level. Add oil as needed or change filter. If message still displays, see your John Deere dealer.
18	Hydraulic Oil Temperature High	Yellow	10 Minutes	Alerts operator that abnormal temperature is detected in hydraulic system. Stop engine and check oil level in hydraulic reservoir and clean oil cooler. If message still displays, see your John Deere dealer.
19	Main Gearcase Filter Restricted	Yellow	10 Minutes	Alerts operator that filter restriction is detected. Stop engine and change main gearcase filter. If message still displays, see your John Deere dealer.
20	Feeder House Drive Filter Restricted	Yellow	10 Minutes	Alerts operator that filter restriction is detected while operating CommandTouch multi-speed feeder house drive. Stop engine and change transmission filter. If message still displays, see your John Deere dealer.
21	Main Gearcase Oil Temperature High	Yellow	10 Minutes	Alerts operator that abnormal temperature is detected in main gearcase. Stop engine and check oil level in hydraulic reservoir and clean oil cooler. If message still displays, see your John Deere dealer.
18	Transmission Oil Temperature High	Yellow	10 Minutes	Alerts operator that abnormal temperature is detected in transmission. Maximum speed is reduced. Slow or stop machine temporarily for oil to cool. Check oil cooler. If message still displays, see your John Deere dealer.

Machine Safety Interlock System:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
1	Engine Start Failure - Header Engaged	Yellow	No Repeat	Alerts operator that header engage switch is ON when trying to start machine. Turn OFF header engage switch. If message still displays, see your John Deere dealer.
1	Engine Start Failure - Separator Engaged	Yellow	No Repeat	Alerts operator that separator engage switch is ON when trying to start machine. Turn OFF separator engage switch. If message still displays, see your John Deere dealer.
1	Engine Start Failure - Unloading Auger Engaged	Yellow	No Repeat	Alerts operator that unloading auger drive switch is ON when trying to start machine. Turn OFF unloading auger engage switch. If message still displays, see your John Deere dealer.
1	Engine Start Failure - Engine Is Running	Yellow	No Repeat	Alerts operator that engine is already running when trying to start machine.
1	Engine Start Failure - Multifunction Handle Out Of Neutral	Yellow	No Repeat	Alerts operator that hydrostatic handle is out of neutral position when trying to start machine. Move hydrostatic handle into neutral position and start machine. If message still displays, see your John Deere dealer.
9	Header Engage Failure - Road Transport Mode Active	Yellow	No Repeat	Alerts operator that road transport disconnect switch is ON when trying to engage header. Turn road transport disconnect switch OFF and engage header. If message still displays, see your John Deere dealer.
9	Header Engage Failure - Quick Stop Pressed	Yellow	No Repeat	Alerts operator that quick stop switch is ON when trying to engage header. Do not press quick stop switch while trying to engage header. If message still displays, see your John Deere dealer.

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Machine Safety Interlock System:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
9	Header Engage Failure - Operator Out Of Seat	Yellow	No Repeat	Alerts operator that they are not seated when trying to engage header. Operator must be seated to engage header. If message still displays, see your John Deere dealer.
9	Header Disengaged - Quick Stop Pressed	Yellow	No Repeat	Alerts operator that header was disengaged with quick stop switch. Turn header engage switch OFF to reset and ON again to engage header. If message still displays, see your John Deere dealer.
9	Header Disengaged - Operator Out Of Seat	Yellow	No Repeat	Alerts operator that header was disengaged due to operator not seated. Operator must be seated. Turn header engage switch OFF to reset and ON again to engage header. If message still displays, see your John Deere dealer.
22	HILLMASTER Tilt Failure - Park Brake Is ON	Yellow	No Repeat	Alerts operator that park brake is engaged and HILLMASTER cannot tilt. Disengage park brake for HILLMASTER to tilt. If message still displays, see your John Deere dealer.
1	Harvesting At Low Engine Speed	Yellow	No Repeat	Alerts operator that machine is operating at low speed while harvesting. Machine must be in high engine speed during normal harvesting. If message still displays, see your John Deere dealer.
11	Separator Engage Failure - Operator Out Of Seat	Yellow	No Repeat	Alerts operator that they are not seated when trying to engage separator. Operator must be seated to engage separator. If message still displays, see your John Deere dealer.
11	Separator Engage Failure - Road Transport Mode Active	Yellow	No Repeat	Alerts operator that road transport disconnect switch is ON when trying to engage separator. Turn road transport disconnect switch OFF and engage separator. If message still displays, see your John Deere dealer.
11	Separator Engage Failure - Feeder House Drive Problem	Yellow	No Repeat	Alerts operator that separator failed to engage due to a problem in the feeder house. A message appears indicating what the problem is with the feeder house. Use message to correct problem and if message still displays, see your John Deere dealer.
11	Separator Disengage Failure - Feeder House Drive Problem	Yellow	No Repeat	Alerts operator that separator failed to disengage due to a problem in the feeder house. A message appears indicating what the problem is with the feeder house. Use message to correct problem and if message still displays, see your John Deere dealer.
11	Separator Engage Failure - Self-Leveling Shoe Problem	Yellow	No Repeat	Alerts operator that separator failed to engage due to a problem in the self-leveling shoe. Possible conditions that cause codes to appear are: • Sensor out of range • Self-leveling shoe not calibrated Possible bay collisions will not appear on display. Check for codes, calibrate, and/or inspect cleaning shoe area. If codes still appear or calibration does not resolve problem, see your John Deere dealer.
23	Unloading System Engage Failure - Road Transport Mode Active	Yellow	No Repeat	Alerts operator that road transport disconnect switch is ON when trying to engage unloading auger system. Turn road transport disconnect switch OFF and turn unloading auger drive switch ON. If message still displays, see your John Deere dealer.
23	Unloading System Engage Failure - Operator Out Of Seat	Yellow	No Repeat	Alerts operator that unloading auger drive system failed to engage due to operator not seated. Operator must be seated. Turn unloading auger drive switch ON to engage system. If message still displays, see your John Deere dealer.
23	Unloading System Engage Failure - Quick Stop Pressed	Yellow	No Repeat	Alerts operator that unloading auger system was disengaged due to quick stop switch being pressed. Turn unloading auger drive switch ON again to engage system. If message still displays, see your John Deere dealer.
23	Unloading System Engage Failure - Unloading Auger Partially Folded	Yellow	No Repeat	Alerts operator that unloading auger drive system was disengaged due to power folding auger not being fully unfolded. Press folding auger switch to unfold auger and turn unloading auger drive switch ON to engage system. If message still displays, see your John Deere dealer.

Continued on next page

Machine Safety Interlock System:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
23	Unloading System Disengaged - Quick Stop Pressed	Yellow	No Repeat	Alerts operator that quick stop switch is pressed while trying to engage unloading auger drive system. Do not press quick stop switch while trying to engage unloading auger drive system. If message still displays, see your John Deere dealer.
23	Unloading System Disengaged - Operator Out Of Seat	Yellow	No Repeat	Alerts operator that unloading auger drive system was disengaged due to operator not seated. Operator must be seated. Turn unloading auger drive switch ON to engage system. If message still displays, see your John Deere dealer.
23	Unloading System Disengaged - Unloading Auger Not Fully Unfolded	Yellow	No Repeat	Alerts operator that unloading auger drive system was disengaged due to power folding auger not being fully unfolded. Press folding auger switch to unfold auger and turn unloading auger drive switch ON to engage system. If message still displays, see your John Deere dealer.
23	Unloading System Disengaged - Unloading Auger Not Fully Swung Out	Yellow	No Repeat	Alerts operator that unloading auger drive system was disengaged due to power folding auger not being swung out from transport or storage position. Press folding auger switch to unfold auger and turn unloading auger drive switch ON to engage system. If message still displays, see your John Deere dealer.
12	Chopper Speed Detected When Chopper Raised	Yellow	30 Seconds	Alerts operator that chopper is in raised position and speed is detected. Shut OFF engine, verify that belt is in storage position, and inspect speed sensor. If message still displays, see your John Deere dealer.
24	Non-Ideal Transport State Entered - Unloading Auger Swung Out	Yellow	10 Minutes	Alerts operator that unloading auger is swung out when transporting machine. Swing unloading auger to transport position. If message still displays, see your John Deere dealer.
24	Non-Ideal Transport State Entered - Unloading Auger Not Fully Folded	Yellow	10 Minutes	Alerts operator that power folding auger is not folded when transporting machine. Swing power folding auger to transport position. If message still displays, see your John Deere dealer.
24	Non-Ideal Transport State Entered - Rear Discharge Lights ON	Yellow	10 Minutes	Alerts operator that rear discharge lights are ON when transporting machine. Turn rear discharge lights OFF. If message still displays, see your John Deere dealer.
24	Non-Ideal Transport State Entered - Stubble Lights ON	Yellow	10 Minutes	Alerts operator that stubble lights are ON when transporting machine. Turn stubble lights OFF. If message still displays, see your John Deere dealer.
24	Road Transport Mode Not Activated - Separator Is Engaged	Yellow	No Repeat	Alerts operator that separator switch is ON when trying to engage road transport mode. Turn separator engage switch OFF to allow road transport disconnect switch to be engaged. If message still displays, see your John Deere dealer.
12	Chopper Speed Non-Zero When Chopper Is Not Installed	Gray	Not Repeat	Alerts operator that chopper option is turned OFF and speed is still detected. If message still displays, see your John Deere dealer.
24	HILLMASTER Disabled In Road Transport Mode	Gray	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to turn HILLMASTER ON or OFF. Turn road transport disconnect switch OFF to engage or disengage HILLMASTER. If message still displays, see your John Deere dealer.
24	Unloading Auger Swing Disabled In Road Transport Mode	Gray	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to swing unloading auger in or out. Turn road transport disconnect switch OFF to swing unloading auger in or out. If message still displays, see your John Deere dealer.
24	Unloading Auger Fold Disabled In Road Transport Mode	Gray	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to swing power folding unloading auger in or out. Turn road transport disconnect switch OFF to swing power folding unloading auger in or out. If message still displays, see your John Deere dealer.
24	Grain Tank Covers Adjust Disabled In Road Transport Mode	Gray	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to raise or lower grain tank cover. Turn road transport disconnect switch OFF to raise or lower grain tank covers. If message still displays, see your John Deere dealer.
24	Header Adjust Functions Disabled In Road Transport Mode	Yellow	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to raise/lower or tilt header. Turn road transport disconnect switch OFF to raise/lower or tilt header. If message still displays, see your John Deere dealer.

Continued on next page

Machine Safety Interlock System:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
24	Chopper Vane Angle Adjust Disabled In Road Transport Mode	Yellow	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to adjust chopper vane angle. Turn road transport disconnect switch OFF to adjust chopper vane angle. If message still displays, see your John Deere dealer.
24	Header Functions Disabled In Road Transport Mode	Gray	No Repeat	Alerts operator that road transport disconnect switch is ON and operator is trying to adjust reel raise/lower, reel fore/aft, and deck plate spacing. Turn road transport disconnect switch OFF to adjust header hydraulics. If message still displays, see your John Deere dealer.

Machine System Status:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
2	Ground Drive Deactivated - Operator Out Of Seat	Gray	No Repeat	Alerts operator that they are not seated and machine slows to a stop. Operator must be seated for machine to move. Move multifunction control handle to neutral and restart engine. If message still displays, see your John Deere dealer.
42	Four Wheel Drive Not Engaged - Vehicle Speed Too High	Yellow	No Repeat	Alerts operator that ground speed to too fast to engage the four-wheel drive system. Slow machine ground speed and press desired four-wheel drive switch to enable system. If system fails to engage, check electrical connectors at wheel motors and if message still displays, see your John Deere dealer.
43	Kemper Float Mode Enabled	Yellow	No Repeat	Alerts operator that Header Float Mode can be activated with a Kemper Corn Head while in road transport position. Press and hold Cutterbar Pressure Adjust switch to activate system.
25	Alternator Not Charging	Yellow	10 Minutes	Alerts operator that alternator is not charging electrical system, see your John Deere dealer.
25	Alternator Regulator Failed	Red	Continuous	Alerts operator that alternator regulator failed, see your John Deere dealer.
26	Battery Voltage Low	Red	Continuous	Alerts operator that battery voltage is low. Check fluid level in each cell, clean battery posts and cable, inspect battery cables, inspect alternator belt and charge batteries. If message still displays, see your John Deere dealer.
27	Grain Tank Covers Out Of Position	Yellow	30 Seconds	Alerts operator that grain tank covers are open or separator is engaged with grain tank covers closed. Open grain tank covers when separator is engaged. Close grain tank covers when operating near power lines or before transporting machine on roadway. If message still displays, see your John Deere dealer.
28	Park Brake Engaged	Yellow	10 Seconds	Alerts operator that park brake is engaged while trying to move multifunction control handle out of neutral position. Release park brake and move multifunction control handle. If message still displays, see your John Deere dealer.
24	Road Transport Mode Activated - Press And Hold Switch To Deactivate	Yellow	No Repeat	Alerts operator that road transport disconnect switch is turned ON. Press and hold road transport disconnect switch for two seconds to turn OFF.
24	Road Transport Mode Deactivated	Yellow	No Repeat	Alerts operator that road transport disconnect switch is turned OFF.
41	Self-Leveling Shoe Disabled	Yellow	No Repeat	Alerts operator that separator is engaged, but self-leveling shoe is not enabled. Press automatic self-leveling shoe switch to enable system.
14	Tailings Full	Yellow	30 Seconds	Alerts operator that tailings elevator is full. Stop engine, check for plugging, inspect drives, adjust chaffer and sieve and reduce harvesting speed. If message still displays, see your John Deere dealer.
29	Grain Tank 4/4 Full	Yellow	30 Seconds	Alerts operator that grain tank is full. Unload grain tank to remove grain. Check grain tank full sensor indicator in grain tank for movement and clean if necessary. If message still displays, see your John Deere dealer.
22	Maximum Tilt	Yellow	No Repeat	Alerts operator that HILLMASTER has reached maximum tilt position. Max tilt remains ON until machine senses it is operating on slopes less than 15%. If message still displays, see your John Deere dealer.

Continued on next page

Machine System Status:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
30	Fuel Level Low	Yellow	10 Minutes	Alerts operator that 11% of fuel remains in fuel tank (approximately one hour of operation). Add fuel as needed. If message still displays, see your John Deere dealer.
31	Grain Moisture Low	Yellow	10 Minutes	Alerts operator when moisture sensor value drops below operator preset value. If message still displays, see your John Deere dealer.
31	Grain Moisture High	Yellow	10 Minutes	Alerts operator when moisture sensor value is above operator preset value. If message still displays, see your John Deere dealer.
31	Processing Grain With Recording OFF	Yellow	10 Minutes	Alerts operator when moisture sensor recording is OFF, but flow is detected by mass flow sensor. Turn moisture sensor recording ON if desired. If message still displays, see your John Deere dealer.
23	Unloading Auger Engaged	Yellow	30 Seconds	Alerts operator that unloading auger drive is engaged. If message still displays, see your John Deere dealer.
32	Left Amber Flasher Light Missing Or Burnt Out	Gray	No Repeat	Alerts operator when left amber flasher is missing or is burnt out. Check and replace bulb as needed. If message still displays, see your John Deere dealer.
32	Right Amber Flasher Light Missing Or Burnt Out	Gray	No Repeat	Alerts operator when right amber flasher is missing or is burnt out. Check and replace bulb as needed. If message still displays, see your John Deere dealer.
34	Engine Service Lights ON	Gray	60 Minutes	Alerts operator that engine service lights are ON. Turn engine service lights OFF. If message still displays, see your John Deere dealer.
33	Grain Tank 3/4 Full	Gray	No Repeat	Alerts operator that grain tank is 3/4 full. Unload grain tank or continue harvesting until grain tank full is displayed. Check grain tank 3/4 full sensor indicator in grain tank for movement and clean if necessary. If message still displays, see your John Deere dealer.
34	Gullwing Service Lights ON	Gray	60 Minutes	Alerts operator that gullwing service lights are ON. Turn gullwing service lights OFF. If message still displays, see your John Deere dealer.
34	Shoe Service Light Switch is ON - System Has Turned Lights OFF	Gray	60 Minutes	Alerts operator that shoe service lights are ON. Turn shoe service lights OFF. If message still displays, see your John Deere dealer.
35	Unloading Auger Swung Out	Gray	No Repeat	Alerts operator that unloading auger is swung out. Swing unloading auger back to storage position if desired. If message still displays, see your John Deere dealer.

Machine Setpoints:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
36	Chopper Vane Angle Setpoint Not Reached	Gray	No Repeat	Alerts operator that chopper vane angle setpoint was not reached. Stop engine and check chopper vanes for obstructions. If needed recalibrate chopper vanes. If message still displays, see your John Deere dealer.
5	Cleaning Fan Speed Setpoint Not Reached	Gray	No Repeat	Alerts operator that cleaning fan speed setpoint was not reached. Stop engine and check cleaning fan for obstructions and inspect drives. If message still displays, see your John Deere dealer.
39	Chaffer Opening Setpoint Not Reached	Gray	No Repeat	Alerts operator that chaffer opening setpoint was not reached. Stop engine and check chaffer for obstructions. If needed recalibrate chaffer. If message still displays, see your John Deere dealer.
40	Sieve Opening Setpoint Not Reached	Gray	No Repeat	Alerts operator that sieve opening setpoint was not reached. Stop engine and check sieve for obstructions. If needed recalibrate sieve. If message still displays, see your John Deere dealer.

Machine Setpoints:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
37	Threshing Clearance Setpoint Not Reached	Gray	No Repeat	Alerts operator that threshing clearance setpoint was not reached. Stop engine and check separator for obstructions. If needed recalibrate threshing clearance. If message still displays, see your John Deere dealer.
11	Threshing Speed Setpoint Not Reached	Gray	No Repeat	Alerts operator that threshing speed setpoint was not reached. Stop engine and check separator for obstructions and inspect drives. If message still displays, see your John Deere dealer.

Miscellaneous:				
Icon Reference Number	**Alarm Name**	**Severity Icon Color**	**Repeat Rate**	**Machine Information/Solution**
31	Moisture Sensor Not Filling	Yellow	No Repeat	Alerts operator that moisture cell is not filling. Stop engine and check moisture sensor for obstructions. If message still displays, see your John Deere dealer.
31	Moisture Sampling Disabled - Plunger Retracted For Cleaning	Yellow	No Repeat	Alerts operator that moisture sensor plunger in diagnostic mode has been retracted. This allows moisture sensor to be inspected for obstructions and problems. Turn hey switch OFF to reset moisture sensor. If message still displays, see your John Deere dealer.
31	Moisture Sampling Not Updating - Inspect Plunger	Yellow	No Repeat	Alerts operator to inspect plunger. Stop engine and check moisture sensor plunger for problems. If message still displays, see your John Deere dealer.
31	Clean Moisture Sensor	Yellow	No Repeat	Alerts operator to clean moisture sensor. Stop engine and clean moisture sensor. If message still displays, see your John Deere dealer.
31	Moisture Sensor Low On Data Space - Clear Field And Crop Totals To Recover Storage Space	Yellow	No Repeat	Alerts operator that lack of space is available on moisture sensor. Save field data and clear fields after saving data. If message still displays, see your John Deere dealer.

OUO6075,00002B8 -19-14APR09-9/8

CommandCenter Display

Press button (A, B, C or D) to select desired type of information to view or change. Corresponding icon on display highlights and show number of available pages within that selection.

Once information type is selected, press button again to advance through available pages.

Details on each of these pages are given later in this section.

H87480 —UN—23APR07

Display Navigation					
Button	**PAGE 1**	**PAGE 2**	**PAGE 3**	**PAGE 4**	**PAGE 5**
(A) Home	View Harvest Monitor information, crop and machine settings	Viewable machine settings (six reconfigure windows)			
(B) Harvesting Information	View Yield and moisture, select and change cut width	View and zero values of fuel use, area/distance, weight and moisture	View and change field totals[a]	View and change crop totals[a]	
(C) Combine Setup	Change current machine settings	Select crop, grain seed size, farm and field[b]	Select/Change current header settings View header hours	Select/Change moisture alarm min/max, moisture correction and yield units[c]	Change Harvest Smart (max harvest speed, target engine speed, response rate, target pressure)[d]
(D) Diagnostics and Calibration	Active Alarms	Calibrations	Diagnostic Readings	Special Tests	
(E)	Not currently used.				

[a]Information appears on GreenStar display (if equipped) instead of on CommandCenter.
[b]Crop, farm, and field appears on GreenStar display (if equipped) instead of on CommandCenter.
[c]Page appears if equipped with moisture sensor.
[d]Page appears if equipped with Harvest Smart Feed Rate.

Continued on next page

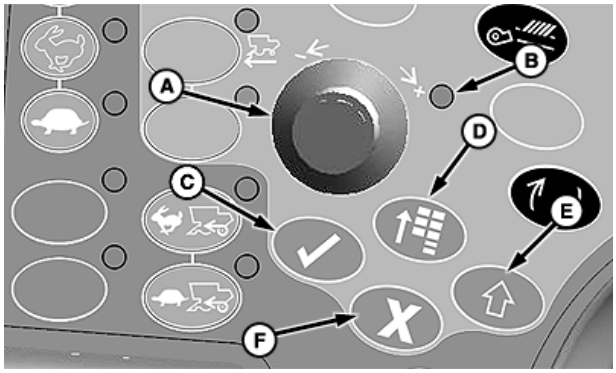
OUO6075,00000BB -19-21APR08-1/2

Once desired CommandCenter display page is selected, the display is navigated using the following dial and switches on the armrest:

- **Selection Dial (A):** Rotate dial to:
  a. Scroll through available items on selected page
  b. Increase or decrease values in a selected item
- **Indicator Light (B):** indicates that a switch was selected and now can be adjusted to operator desired position or setting.

- **Confirm Switch (C):** Once an available item is highlighted on display using selection dial, press switch to:
  a. Select that item
  b. Toggle between available selections within that item
  c. Enter/save a value
- **Main Menu Switch (D):** Press switch to change active application that display is running. Items or applications in menu include:
  - Combine
  - On Board Diagnostics Tool (OBDT)
  - Display Settings

NOTE: Display select switch must be activated to navigate between CommandCenter and GreenStar display (if equipped), see your John Deere dealer for further information.



H85905 —UN—17NOV06

A—Selection Dial
B—Indicator Light
C—Confirm Switch
D—Main Menu Switch
E—Display Select Switch
F—Cancel Switch

- **Display Select Switch (E):** Press switch to toggle selection dial control between CommandCenter display or GreenStar display (if equipped).

- **Cancel Switch (F):** Press switch to cancel a current selection.

OUO6075,00000BB -19-21APR08-2/2

CommandCenter Display Icon Identification

Home (1): displays current machine settings previously set by operator.

Harvesting Information (2): displays current harvest monitor information, performance/productivity, totals and allows operator to adjust desired settings.

Setup (3): displays current machine settings, grain loss sensitivity (seed size), current header width, moisture setup and Harvest Smart setup (if equipped).

Diagnostics and Calibration (4): displays machine calibrations, diagnostic readings templates and special tests (templates).

Area Harvested (5): displays amount of area harvested.

Distance Harvested (6): displays total distance traveled for current active load.

Generic Cleaning Shoe Element (7): displays a generic icon for both chaffer/sieve elements settings on home page.

Chaffer (8): displays current chaffer position.

Sieve (9): displays current sieve position.

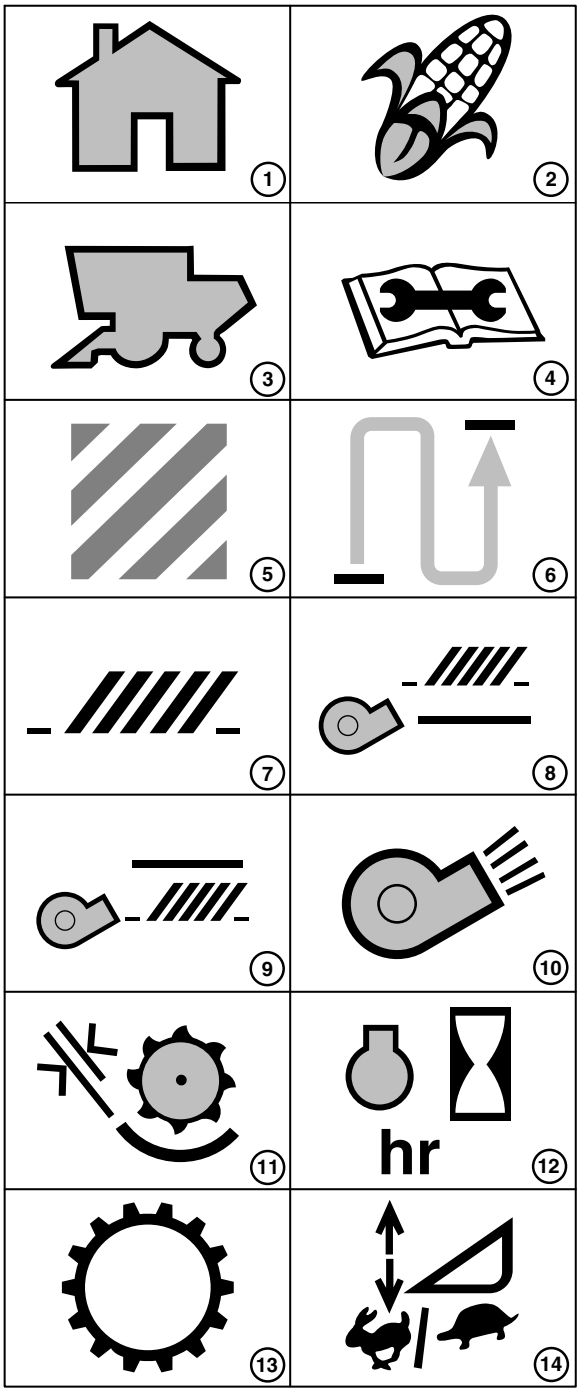
Cleaning Fan (10): displays current fan speed.

Threshing Speed/Clearance (11): displays current rotor speed and clearance.

Engine Hours (12): displays accumulated engine hours.

CommandTouch Multi-Speed Feeder House Gear (If Equipped) (13): displays selected gear for feeder house speed.

Header Height Rate and Sensitivity (14): displays current rate and sensitivity settings.



H90897 —UN—28FEB08

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OUO6075,0000028 -19-25JUN08-1/3

Recording ON/OFF (15): displays if recording is ON/OFF.

Vane Angle (if Equipped) (16): displays current vane angle position.

Enter/Accept (17:) allows operator to enter/accept desired information or settings.

Calibrate (18): allows operator to calibrate certain features.

Next Step (19): allows operator to view next page of information.

Yield (20): displays average or instantaneous crop yield.

Moisture (21): displays average or instantaneous moisture.

Threshing Speed (22): displays current threshing speed.

Backshaft Speed (23): displays current backshaft speed.

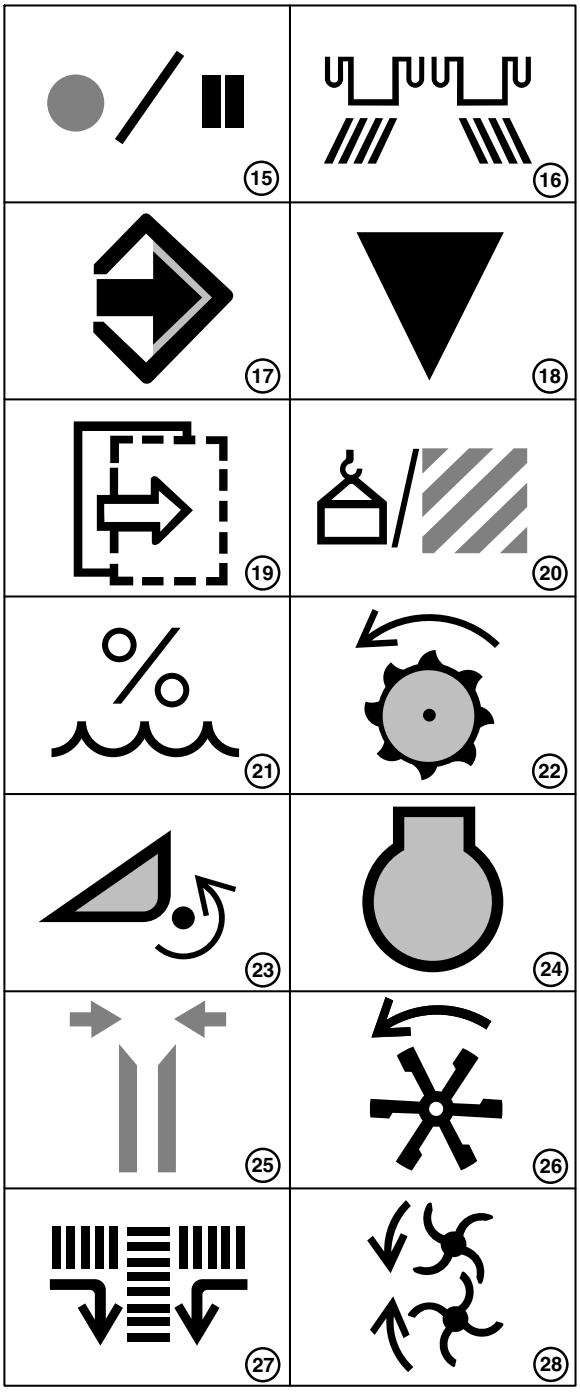
Engine Speed (24): displays current engine speed.

Deck Plate Spacing (25): displays current deck spacing position.

Reel Speed (26): displays current reel speed.

Draper Speed (27): displays current draper speed (if equipped).

Spreader Speed (28): displays current spreader speed (if equipped).



H90898 —UN—28FEB08

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OUO6075,0000028 -19-25JUN08-2/3

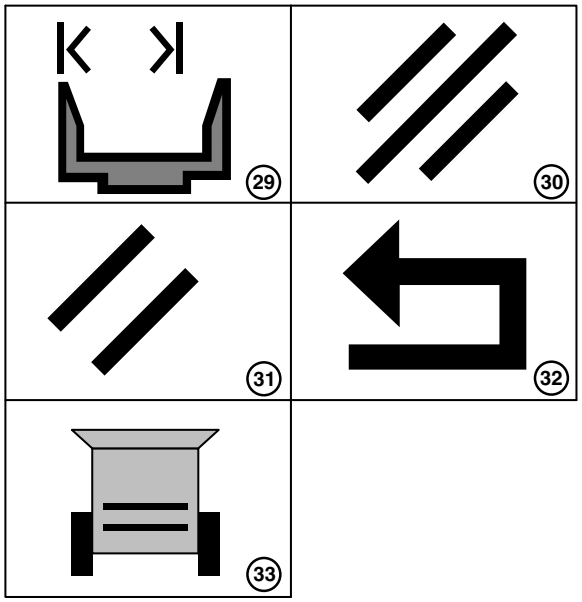
Cut Width (29): displays current cut width position.

Cancel (30): allows operator to cancel desired information or settings.

Clear (31): allows operator to clear desired information or settings.

Return/Back (32): allows operator view previous page.

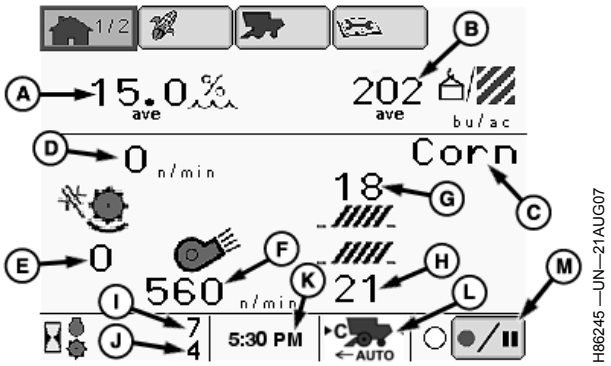
Self-Leveling Shoe (If Equipped) (33): displays current angle for chaffer/sieve elements.



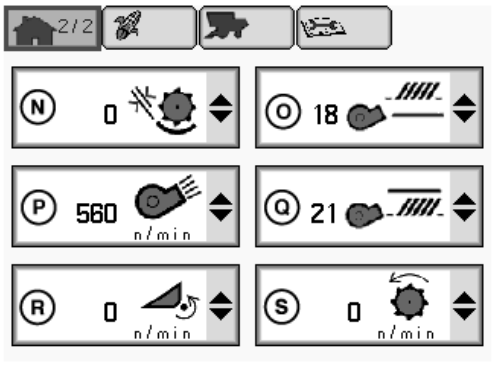
H90899 —UN—28FEB08

OUO6075,0000028 -19-25JUN08-3/3

Home Pages



H86245 —UN—21AUG07



H86246 —UN—22AUG07

Page 1 of 2

NOTE: Viewable machine readings only.

- Moisture[1] (A)
- Yield[1] (B)
- Crop (C)
- Machine Settings
  - Threshing Speed (D)
  - Threshing Clearance (E)
  - Fan Speed (F)
  - Chaffer Clearance (G)
  - Sieve Clearance (H)
- Engine Hours (I)
- Separator Hours (J)
- Current Time (K)
- Harvest Smart Feed Rate Status (OFF, Smart or Capacity)[2] (L)
- Manual Recording (ON/OFF) (M)

Page 2 of 2

NOTE: Shows detailed machine settings, allowing operator to reconfigure page and providing the ability to monitor six items at once. Items in list will vary depending upon machine configuration.

The following six machine readings are illustrated.

- Threshing Clearance (N)
- Sieve Clearance (O)
- Cleaning Fan Speed (P)
- Chaffer Clearance (Q)
- Backshaft Speed (R)
- Threshing Speed (S)

These additional machine readings are available, but are not illustrated.

- Moisture
- Yield
- Distance Counter
- Area Counter
- CommandTouch™ Multi-Speed Feeder House Gear (If Equipped)
- Engine Speed
- Deck Plate Spacing
- Reel Speed
- Draper Speed
- Spreader Speeds

CommandTouch is a trademark of Deere & Company

[1]If Equipped with Moisture Sensor.
[3]If Equipped with Harvest Smart Feed Rate.

OUO6075,00005C4 -19-22AUG07-1/1

Manual Recording ON/OFF

Recording screen shows data recording status (ON/OFF).

To start recording data, all the following must occur or be turned ON manually:

- Separator engaged
- Header engaged
- Engine at high idle
- Header lowered to recording position
- Farm and Field must be named

To stop recording, one of the following must occur:

- Header raised past record stop height setpoint
- Header disengaged
- Recording is manually turned OFF

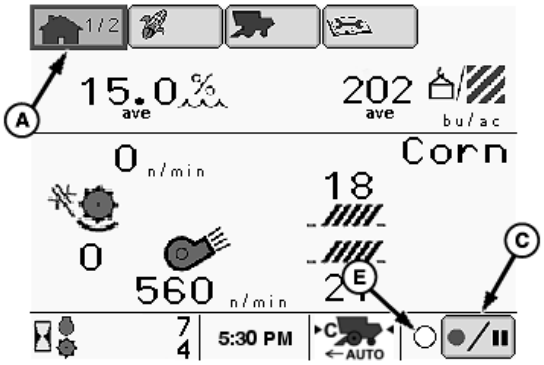
Recording can be manually stopped and restarted without raising header or disengaging separator (example, when approaching areas such as headlands, end rows already harvested, waterways, etc., for which recording data is not desired).

From home page icon (A), rotate selection dial (B) until recording ON/OFF icon (C) is highlighted.

Press confirm switch (D). Recording ON/OFF indicator (E) will toggle between an open and filled circle.

- Open circle - Recording OFF
- Filled flashing circle - Recording ON

Press confirm switch again to turn recording ON to manually resume recording data. Push header lower button on multifunction control handle (slight touch of header lower button will start recording data).



H86296 —UN—23APR07

H86297 —UN—17NOV06

A—Home Page Icon
B—Selection Dial
C—Recording ON/OFF Icon
D—Confirm Switch
E—ON/OFF Indicator

OUO6075,00005C5 -19-30MAR07-1/1

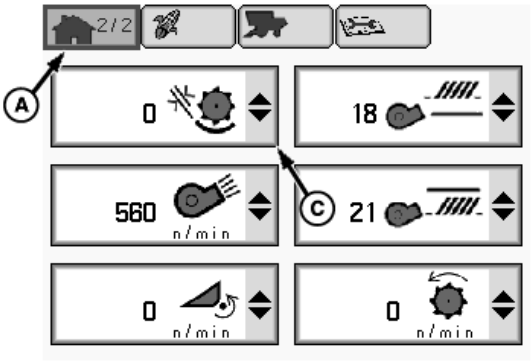
Reconfigure Detail Machine Settings Page

NOTE: Shows detailed machine settings, allowing operator to reconfigure page and providing the ability to monitor six items at once. Items in list will vary depending upon machine configuration.

From home page icon (A), rotate selection dial (B) until a reconfigured machine setting menu (C) is highlighted.

Press confirm switch (D). Reconfigured machine setting menu will appear with the following:

- Moisture
- Yield
- Distance Counter
- Area Counter
- Cleaning Fan Speed
- Threshing Speed
- Threshing Clearance
- Chaffer Clearance
- Sieve Clearance
- Backshaft Speed
- CommandTouch Multi-Speed Feeder House Gear (If Equipped)
- Engine Speed
- Deck Plate Spacing
- Reel Speed
- Draper Speed
- Spreader Speeds



H86299 —UN—10JAN07

H86297 —UN—17NOV06

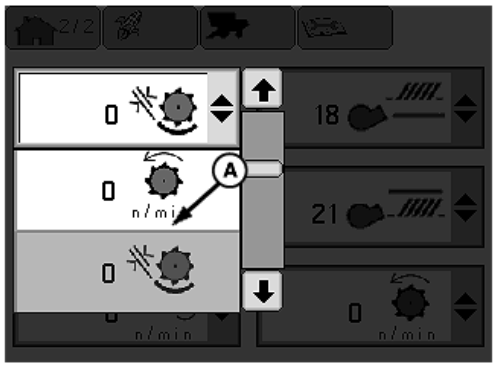
A—Home Page Icon
B—Selection Dial
C—Reconfigured Machine Setting Menu
D—Confirm Switch

OUO6075,00005C6 -19-13JUL07-1/2

Rotate selection dial until desired machine setting (A) is highlighted and press confirm switch.

Repeat procedure on remaining menus as desired.

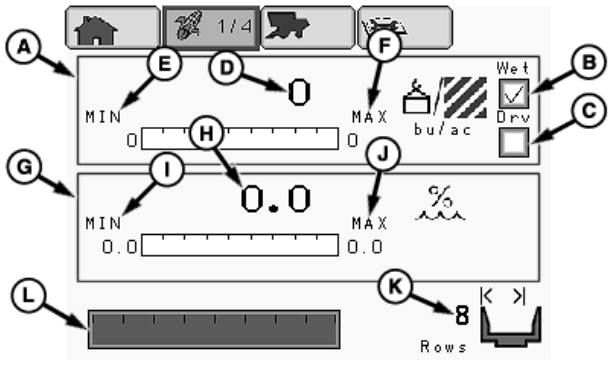
A—Machine Setting



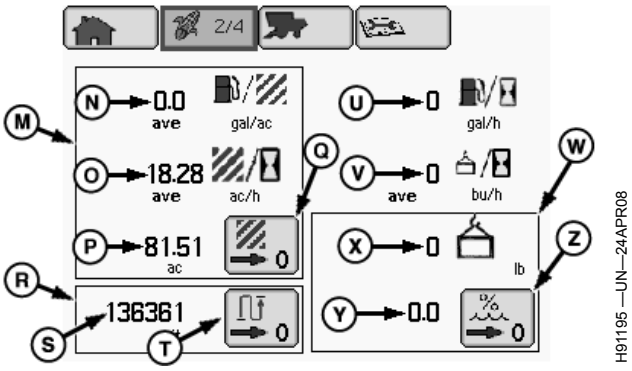
H86300 —UN—10JAN07

OUO6075,00005C6 -19-13JUL07-2/2

Harvesting Information Pages



H86247 —UN—21AUG07



H91195 —UN—24APR08

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Harvesting Information:

- Yield (A)
  - Wet (B)
  - Dry (C)
  - Instantaneous (Recording ON) (D)
  - Average (Recording OFF) (D)
  - Min (E)
  - Max (F)
- Moisture (G)
  - Instantaneous (Recording ON) (H)
  - Average (Recording OFF) (H)
  - Min (I)
  - Max (J)
- Cut Width (K)
  - Increase/Decrease (L)

Page 2 of 4

Performance/Productivity:

- Productivity (M)
  - Average Fuel Consumption Per Area (gal/ac, l/ha, gal/ha, l/ac) (N)
  - Instantaneous Area Per Hour (Recording ON) (O)
  - Average Area Per Hour (Recording OFF) (O)
  - Area Harvested (Accumulates when recording ON) (P)
  - Clear Productivity (Operator reset preference) (Q)
- Distance Traveled (R)
  - Distance (Accumulates at all times, not dependent on recording status) (S)
  - Clear Distance (Operator reset preference) (T)
- Instantaneous Fuel Consumption Per Hour (gal/hr, l/hr) (U)
- Harvesting Productivity Per Hour (Volume or Weight) (V)
  - Instantaneous (Recording ON)
  - Average (Recording OFF)
- Grain Totals (W)
  - Weight Counter (X)
  - Moisture Counter (Y)
  - Clear Grain Totals (Z)

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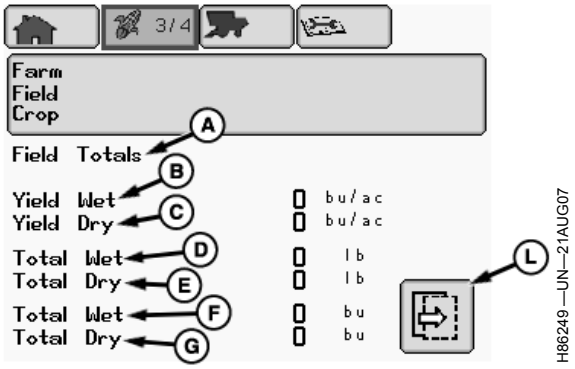
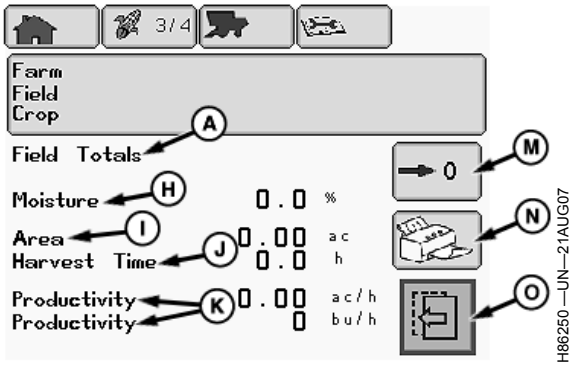




Page 3 of 4

NOTE: The following will appear on GreenStar display (if equipped) instead of on CommandCenter.

If machine is not equipped with moisture sensor, only the following Field Totals information will appear:

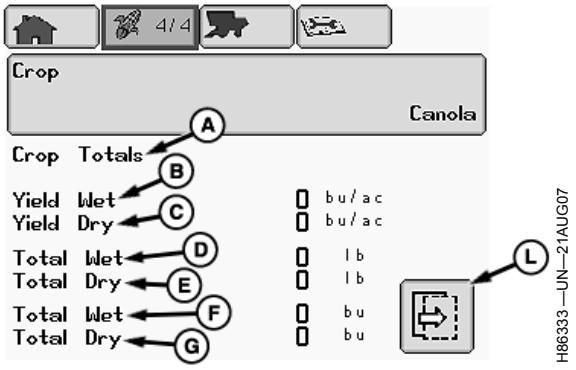
- *Area*
- *Harvest Time*
- *Productivity*

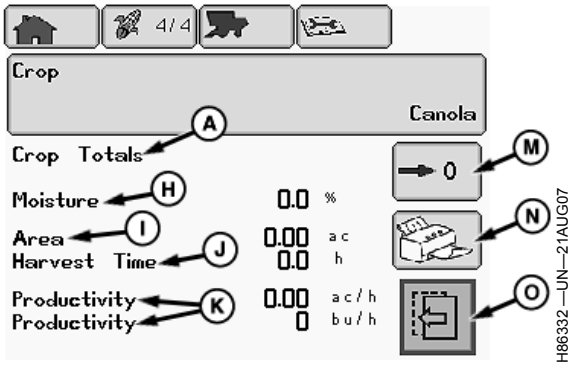
Field Totals:

- **Field Totals (A):**
  - Yield Wet (B)
  - Yield Dry (C)
  - Total Wet (Weight lb or kg) (D)
  - Total Dry (Weight lb or kg) (E)
  - Total Wet (Yield Units) (F)
  - Total Dry (Yield Units) (G)
  - Moisture (H)
  - Area (I)
  - Harvest Time (J)
  - Productivity (K)
- Items to select
  - Next Page (L)
  - Clear Totals (M)
  - Printer (Optional) (N)
  - Previous Page (O)

Continued on next page

OUO6075,00000BE -19-23APR08-2/3





Page 4 of 4

NOTE: The following will appear on GreenStar display (if equipped) instead of on CommandCenter.

If machine is not equipped with moisture sensor, only the following Field Totals information will appear:

- *Area*
- *Harvest Time*
- *Productivity*

- **Crop Totals (A):**
  - Yield Wet (B)
  - Yield Dry (C)
  - Total Wet (Weight lb or kg) (D)
  - Total Dry (Weight lb or kg) (E)
  - Total Wet (Yield Units) (F)
  - Total Dry (Yield Units) (G)
  - Moisture (H)
  - Area (I)
  - Harvest Time (J)
  - Productivity (K)
- Items to select
  - Next Page (L)
  - Clear Totals (M)
  - Printer (Optional) (N)
  - Previous Page (O)

OUO6075,00000BE -19-23APR08-3/3

Select Yield Wet or Dry and Cut Width Change

From harvesting information icon (A), rotate selection dial (B) until yield wet box (C) or yield dry box (D) is highlighted.

Press confirm switch (E). Highlighted box will display a checkmark indicating which was selected.

- Yield Wet - shows number of yield units per number of area units at current harvesting conditions.
- Yield Dry - shows number of yield units per number of area units after taking into consideration the removal of moisture.

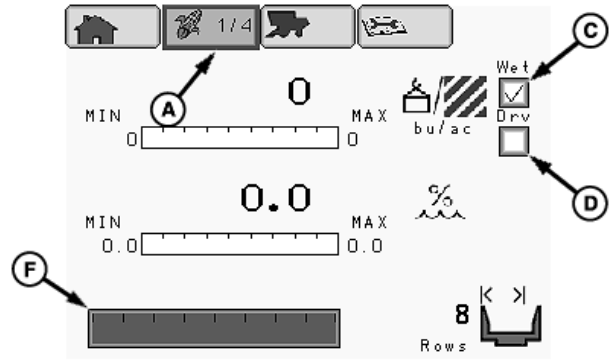
Rotate selection dial until cut width adjusting icon (F) is highlighted.

Press confirm switch. Highlighted cut width adjusting icon can now be adjusted to desired cut width.

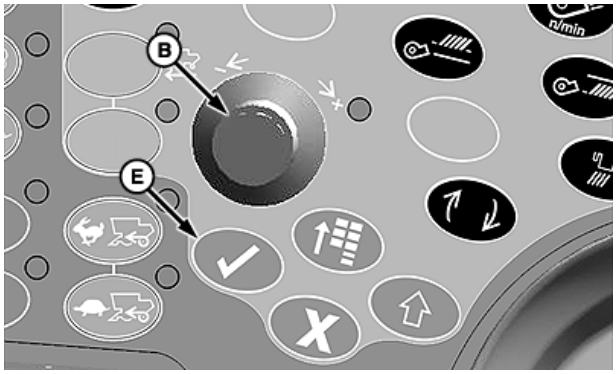
- Clockwise increase header cut width.
- Counterclockwise decreases header cut width.

Press confirm switch to enter desired cut width.

A—Harvesting Information Icon
B—Selection Dial
C—Yield Wet Box
D—Yield Dry Box
E—Confirm Switch
F—Cut Width Adjusting Icon



H86338 —UN—10JAN07



H86339 —UN—17NOV06

OUO6075,00005C8 -19-27JUN07-1/1

Clear Distance Area Counter or Weight and Moisture Counter

From harvesting information icon (A), rotate selection dial (B) until desired counter reset box is highlighted:

- Area Counter Reset Box (C)
- Distance Counter Reset Box (D)
- Weight and Moisture Counter Reset Box (E)

Press confirm switch (F) to reset highlighted box to zero.

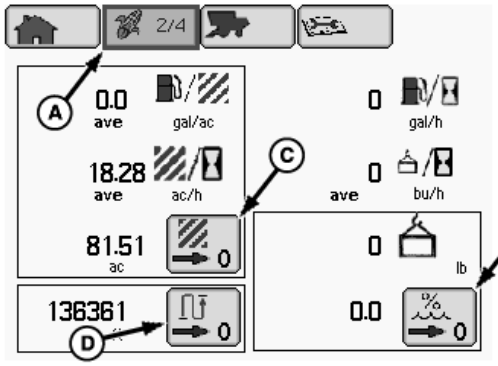
NOTE: Clearing distance and area numbers on this page will not clear Farm, Field, Crop Totals on next page. Only these counters will be cleared.

- Distance and Area Counter - shows total distance traveled and area since being reset.

NOTE: Clearing weight and moisture numbers on this page will not clear Farm, Field, Crop Totals on next page. Only these counters will be cleared.

- Weight and Moisture Counter - shows weight and moisture numbers since being reset.

A—Harvesting Information Icon
B—Selection Dial
C—Area Counter Reset Box
D—Distance Counter Reset Box
E—Weight and Moisture Counter Reset Box
F—Confirm Switch



H91198 —UN—21APR08

H87093 —UN—15DEC06

OUO6075,00000BF -19-21APR08-1/1

Clear Field Totals/Print Field Totals

NOTE: The following will appear on GreenStar display (if equipped) instead of on CommandCenter.

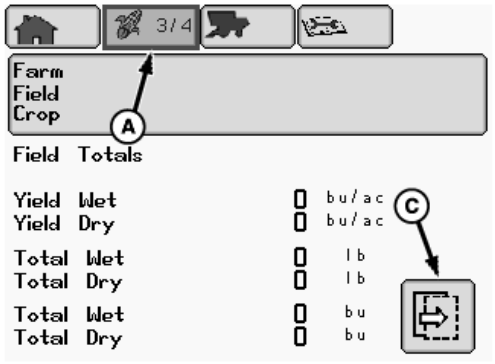
If machine is not equipped with moisture sensor, only the following Field Totals information will appear:

- *Area*
- *Harvest Time*
- *Productivity*

From harvesting information icon (A), rotate selection dial (B) until next page icon (C) is highlighted.

Press confirm switch (D) to advance to next page.

A—Harvesting Information Icon
B—Selection Dial
C—Next Page Icon
D—Confirm Switch



H86341 —UN—10JAN07

H86297 —UN—17NOV06

Continued on next page

OUO6075,00005CA -19-13JUL07-1/2

Rotate selection dial (A) until one of the following icons is highlighted:

- Field Totals Reset Box (B) - deletes field totals for the selected farm/field/crop.

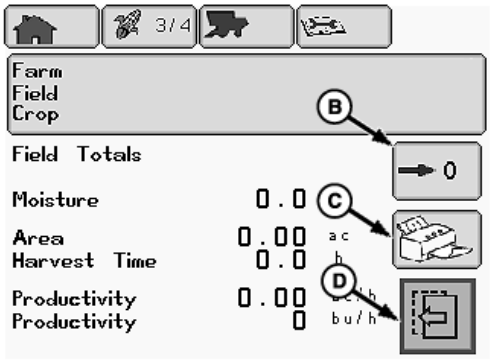
  NOTE: A optional printer can be integrated in the overhead display that allows farm, field and crop totals to be printed.

- Printer Icon (C) - allows operator to print data shown on screen.
- Previous Page Icon (D) - allows operator to view previous page.

Press confirm switch (E) once desired icon is highlighted.

A—Selection Dial
B—Field Totals Reset Box
C—Printer Icon (Optional)
D—Previous Page Icon
E—Confirm Switch

H86343 —UN—17NOV06



H86344 —UN—10JAN07

OUO6075,00005CA -19-13JUL07-2/2

Clear Crop Totals/Print Crop Totals

NOTE: The following will appear on GreenStar display (if equipped) instead of on CommandCenter.

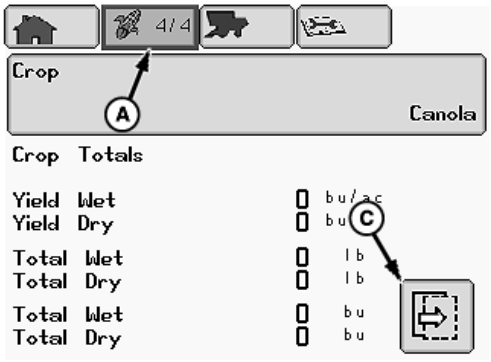
If machine is not equipped with moisture sensor, only the following Field Totals information will appear:

- *Area*
- *Harvest Time*
- *Productivity*

From harvesting information icon (A), rotate selection dial (B) until next page icon (C) is highlighted.

Press confirm switch (D) to advance to next page.

A—Harvesting Information Icon
B—Selection Dial
C—Next Page Icon
D—Confirm Switch



H86345 —UN—10JAN07

H86297 —UN—17NOV06

Continued on next page

OUO6075,00005CB -19-13JUL07-1/2

Rotate selection dial (A) until one of the following icons is highlighted:

- Crop Totals Reset Box (B) - deletes crop totals for the selected crop.

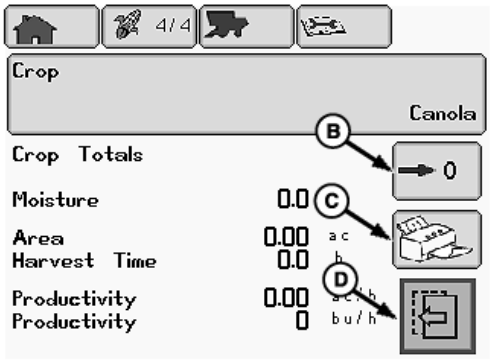
  NOTE: A optional printer can be integrated in the overhead display that allows farm, field and crop totals to be printed.

- Printer Icon (C) - allows operator to print data shown on screen.
- Previous Page Icon (D) - allows operator to view previous page.

Press confirm switch (E) once desired icon is highlighted.

A—Selection Dial
B—Crop Totals Reset Box
C—Printer Icon (Optional)
D—Previous Page Icon
E—Confirm Switch

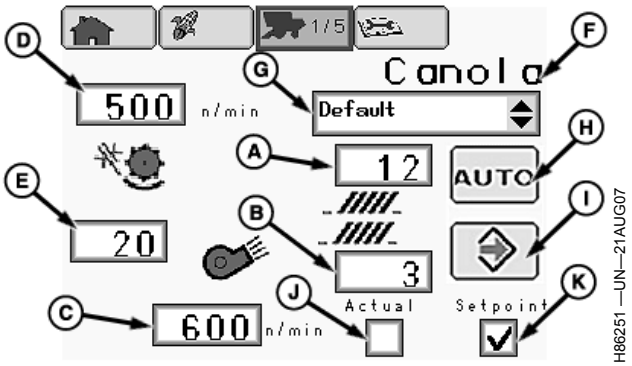
H86343 —UN—17NOV06



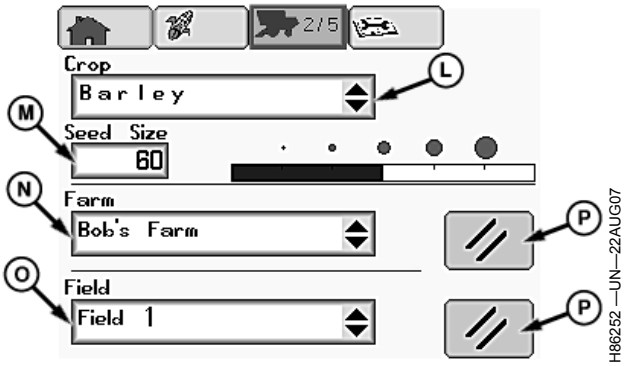
H86346 —UN—10JAN07

OUO6075,00005CB -19-13JUL07-2/2

Setup Pages



H86251 —UN—21AUG07



H86252 —UN—22AUG07

NOTE: 4 pages are displayed when not equipped with Harvest Smart Feed Rate and 5 pages when equipped with Harvest Smart Feed Rate.

Page 1 of 5

Machine Settings:

- Automatic Combine Adjust (ACA) (Numeric Entry)
  - Chaffer Position (A)
  - Sieve Position (B)
  - Fan Speed (C)
  - Threshing Speed (D)
  - Threshing Clearance (E)
  - Crop (Viewable Only) (F)
- Crop Modifiers (G)
  - Default
  - Dry (Default)
  - Wet (Default)
  - New
  - Clean Out
- Auto Icon (H) - Desired machine settings are chosen by operator and automatically adjust to settings shown on CommandCenter display.
- Save Icon (I) - Allows operator to save personal machine settings.

[1]*Appears on GreenStar display (if equipped) instead of on CommandCenter.*

NOTE: Personalizing machine settings will not override factory settings.

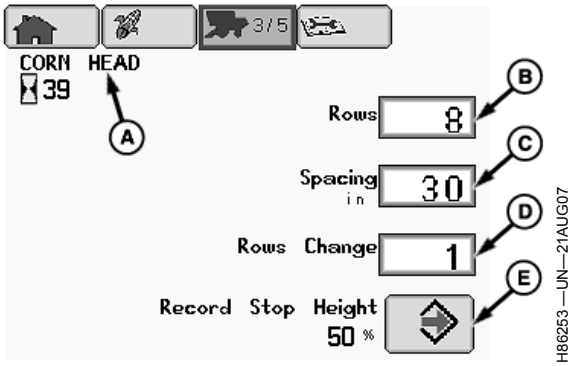
- Actual Box (J) - When checked, automatic adjust settings will not work. Allows operator to change settings one at a time instead of machine automatically adjusting every setting again.
- Setpoint Box (K) - When checked, automatic adjust settings are active. Allows operator to change settings and allows machine to automatically adjust to these settings.

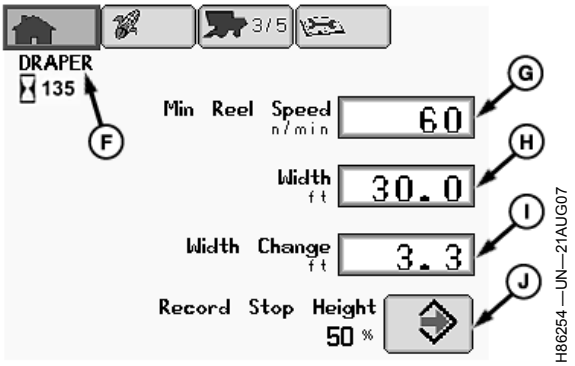
Page 2 of 5

- Crop (L)[1]
  - Fixed List
- Loss Sensitivity
  - Seed Size (M)
- Farm (N)[1]
  - Alphanumeric Data Entry
  - Clear Icon (P)
- Field (O)[1]
  - Alphanumeric Data Entry
  - Clear Icon (P)

Continued on next page

Page 3 of 5

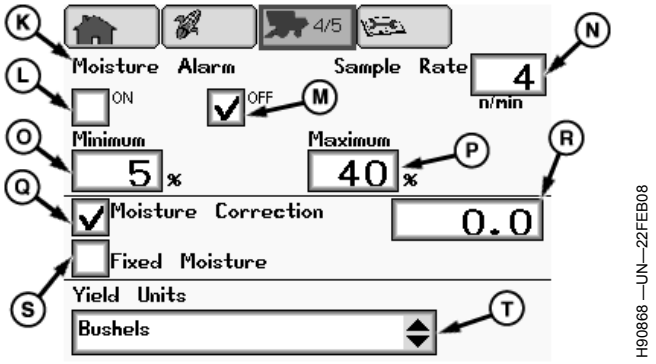




- Corn Head and Hour Counter[1] (A)
  - Header Type (Auto Detection)
  - Total Rows (Rows, Based on Type, Numeric Entry) (B)
  - Row Spacing (C)
  - Row Change (Decrease Cut Rows) (D)
  - Record Stop Height (Height Setup for Turning Recording ON/OFF) (E)
- Draper/Platform/Belt Pickup and Hour Counter[1] (F)
  - Header Type (Auto Detection)
  - Minimum Reel or Belt Pickup Speed (G)
  - Total Width (Total Width, Based on Type, Numeric Entry) (H)
  - Width Change (Decrease Cut Width) (I)
  - Record Stop Height (Height Setup for Turning Recording ON/OFF) (J)

Page 4 of 5

NOTE: Page appears if equipped with moisture sensor.



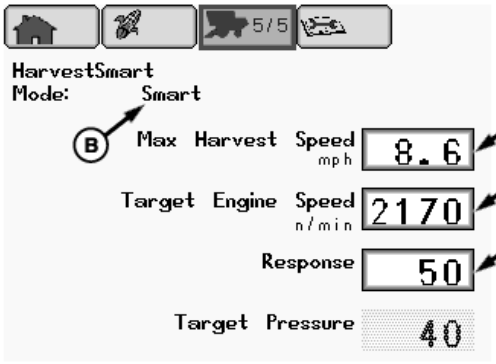
- Moisture Alarm (K)
  - ON (L)
  - OFF (M)
  - Sample Rate (0 - 4) (N)
  - Minimum Alarm (1 - 50%) (O)
  - Maximum Alarm (1 - 60%) (P)
- Moisture Correction (-25.0 to 25.0, increments of 0.1) (Q)
  - Manual Offset Setting (R)
  - Fixed Moisture (S)
- Harvesting Yield Units (T)
  - Fixed List

[1]*For information on resetting header hours, see your John Deere dealer.*

Continued on next page

Page 5 of 5

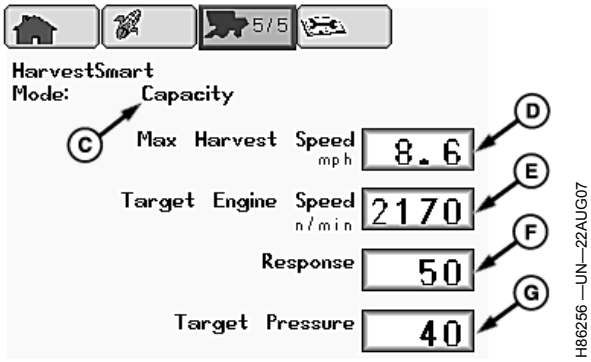
H87297 —UN—22AUG07



H87298 —UN—22AUG07

Harvest Smart Feed Rate (Optional):

- Current Mode of Operation
  - OFF (A)
  - Smart (B)
  - Capacity (C)
- Max Harvest Speed (2.0 - 14.0 km/h) (1.2 - 8.6 mph), increments of (0.1 km/h) (0.1 mph) (D)
- Target Engine Speed (2350 - 2560 rpm[1], 2150 - 2350 rpm[2], increments of 10 rpm) (E)
- Response (1 - 100, increments of 1) (F)
- Target Pressure (30 - 420, increments of 1) (G)



H86256 —UN—22AUG07

[1]6.8 L engine
[2]9.0 L and 13.5 L engine

OUO6075,0000048 -19-25JUN08-3/3

Automatic Combine Adjust (ACA) Crop Settings (Without Rear Chaffer Extension)

These crops are preloaded from factory.

Crop	Threshing Speed	Fan Speed	Threshing Clearance	Chaffer Position	Sieve Position
Alfalfa	700	620	0	15	2
Barley	700	800	15	20	7
Canola	500	650	30	13	3
Corn (Dry)	350	1200	30	17	12
Corn (Wet)	400	1250	30	17	12
Edible Beans	500	800	20	20	8
Flax	900	620	10	15	5
Grass Seed	700	500	15	15	5
Lentils	400	900	10	15	5
Millet	750	620	15	15	3
Mustard	750	800	15	14	5
Navy Beans	500	800	20	20	8
Oats	700	800	15	20	7
Peas	350	800	20	18	8
Popcorn	450	850	15	15	4
Rape Seed (Wet)	500	650	30	13	3
Rape Seed (Dry)	600	700	30	12	2
Rice	800	800	20	18	6
Rye	800	850	12	17	6
Safflower	350	650	20	15	5
Sorghum	600	900	20	15	6
Soybeans	550	900	20	18	8
Sunflower	350	750	30	15	8
Wheat	900	850	12	17	6
Triticale	900	800	22	17	6
Chickpeas	600	700	20	15	7
Lupins	450	1000	15	18	6

OUO6075,0000D45 -19-10JUL08-1/1

Automatic Combine Adjust (ACA) Crop Settings (With Rear Chaffer Extension)

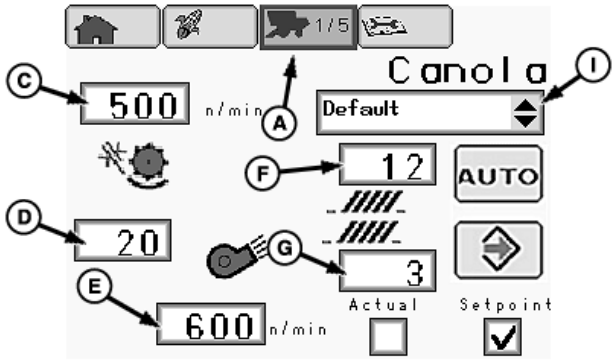
These crops are preloaded from factory.

Crop	Threshing Speed	Fan Speed	Threshing Clearance	Chaffer Position	Sieve Position	Rear Chaffer Extension
Alfalfa	700	620	0	15	4	0
Barley	900	1050	15	17	9	5
Canola	600	750	30	14	5	5
Corn (Dry)	450	1250	30	17	12	5
Corn (Wet)	450	1250	30	17	12	5
Edible Beans	500	1000	20	18	10	5
Flax	900	620	10	15	5	0
Grass Seed	900	500	15	15	6	5
Lentils	400	900	10	15	5	5
Millet	750	620	15	15	5	0
Mustard	750	800	15	14	5	0
Navy Beans	500	900	20	18	10	5
Oats	900	900	15	18	9	5
Peas	350	850	20	18	10	5
Popcorn	450	900	15	14	6	5
Rape Seed (Dry)	600	750	30	14	5	5
Rape Seed (Wet)	700	800	30	14	6	0
Rice	950	900	20	17	8	5
Rye	950	850	20	16	8	5
Safflower	350	700	20	15	7	5
Sorghum	600	1000	20	15	8	5
Soybeans	550	1000	20	18	10	5
Sunflower	350	800	30	15	10	5
Wheat	950	1100	12	16	8	5
Triticale	950	1050	22	17	8	5
Chickpeas	600	750	20	15	9	5
Lupins	450	1100	15	18	8	5

OUO6075,0000D46 -19-10JUL08-1/1

Change Machine Settings

Machine Settings Page



H86415 —UN—06MAR07

H86416 —UN—17NOV06

A—Setup Pages Icon
B—Selection Dial
C—Threshing Speed
D—Threshing Clearance
E—Fan Speed
F—Chaffer Clearance
G—Sieve Clearance
H—Confirm Switch
I— Crop Modifiers Menu

From setup pages icon (A), rotate selection dial (B) until one of the following is highlighted:

- Threshing Speed (C)
  - Settings between 200 - 1000 rpm, increments of 10 rpm
- Threshing Clearance (D)
  - Settings between 0 - 40 mm, increments of 1 mm[1]
- Fan Speed (E)
  - Settings between 620 - 1350 rpm, increments of 10 rpm
- Chaffer Clearance (F)
  - Settings between 0 - 22 mm, increments of 1 mm[1]
- Sieve Clearance (G)
  - Settings between 0 - 13 mm, increments of 1 mm[1]

When desired setting is highlighted, press confirm switch (H).

Rotate display/setpoint until desired settings are reached and press confirm switch to save values.

[1]Manual operation will be allowed above these values, but not shown on display until a decrease is indicated by operator.

Change Crop Modifiers

Rotate selection dial until crop modifiers menu (I) is highlighted and press confirm switch.

Rotate display setpoint to choose between the following:

- Default - displays factory default settings for selected crops.
- Dry (Default) - displays factory default settings for corn.
- Wet (Default) - displays factory default settings for corn.
- New - select when a set of custom/personal crop settings will be entered.
- Clean Out - displays factory default settings allowing machine to be cleaned out.

Once desired crop modifier is chosen, press confirm switch.

Continued on next page

Auto or Save Icon

Rotate selection dial until auto icon (A) or save icon (B) is highlighted.

- Auto Icon - Desired machine settings are chosen by operator and will automatically adjust to settings shown on CommandCenter display.
- Save Icon - Allows operator to save personal machine settings if new was chosen from crop modifiers menu.

NOTE: One set of personal settings may be saved for each crop and named "Custom 1". An additional nine sets of personal settings may be saved as well. These nine sets may be distributed among different crops as required. When one of these sets is used, it will be named starting with "Custom 2" (example: second set of personal settings for CORN and WHEAT will both be named "Custom 2"). Third set of personal settings for CORN will be named "Custom 3". Personalizing machine settings will not override factory settings.

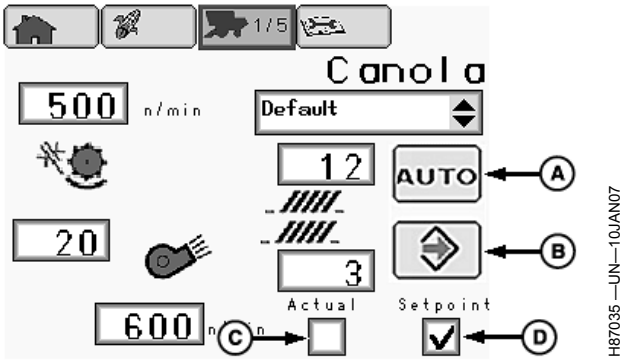
Determine which setting you want to choose and press confirm switch.

Actual or Setpoint Box

Rotate selection dial until actual box (C) or setpoint box (D) is highlighted.

- Actual Box - When actual box is checked, automatic adjust settings will not work. Allows operator to change settings one at a time instead of the machine automatically adjusting every setting again.
- Setpoint Box - When setpoint box is checked, automatic adjust settings are active. Allows operator to change settings and allows the machine to automatically adjust to these settings.

Determine which box you want to choose and press confirm switch. Highlighted box will display a checkmark indicating which was selected.



A—Auto Icon
B—Save Icon
C—Actual Box
D—Setpoint Box

OUO6075,000021C -19-22OCT08-2/2

Change Crop and Seed Sensitivity Size

Crop Menu

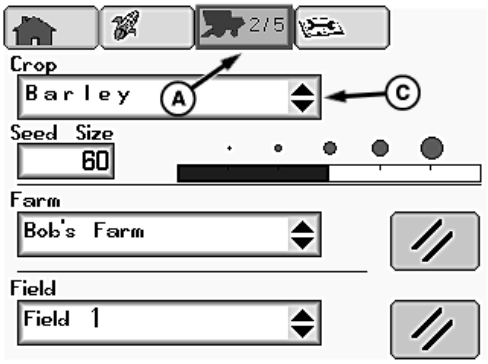
From setup pages icon (A), rotate selection dial (B) until crop menu (C) is highlighted.

Press confirm switch (D) for crop listings.

Rotate selection dial to choose desired crop:

Alfalfa	Oats
Barley - Spring	Peas
Barley - Winter	Popcorn
Canola	Rape Seed
Chickpeas	Rice
Corn	Rye
Edible Beans	Safflower
Flax	Sorghum
Grass Seeds	Soybeans
Lentils	Sunflower
Lupins	Triticale
Millet	Wheat
Mustard	
Navy Beans	

Once desired crop is chosen, press confirm switch.



H87087 —UN—25JAN07

H86297 —UN—17NOV06

A—Setup Pages Icon
B—Selection Dial
C—Crop Menu
D—Confirm Switch

Continued on next page

Seed Size

Rotate selection dial (A) until seed size (B) is highlighted.

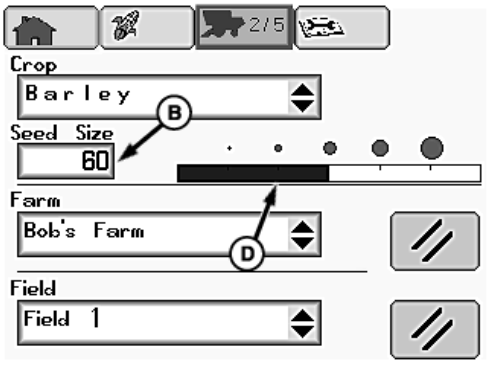
Press confirm switch (C) and rotate selection dial until desired seed size is shown on bar graph (D) (see following table for seed size numbers).

Small Seed (Default 38)	Medium Seed (Default 50)	Large Seed (Default 70)
Alfalfa	Barley - Spring	Chickpeas
Canola	Barley - Winter	Corn
Flax	Lentils	Edible Beans
Grass Seeds	Popcorn	Lupins
Millet	Safflower	Navy Beans
Mustard	Sorghum	Peas
Oats	Wheat	Soybeans
Rape Seed		Sunflowers
Rice		
Rye		
Triticale		

Press confirm switch once seed size is determined.

A—Selection Dial
B—Seed Size
C—Confirm Switch
D—Bar Graph

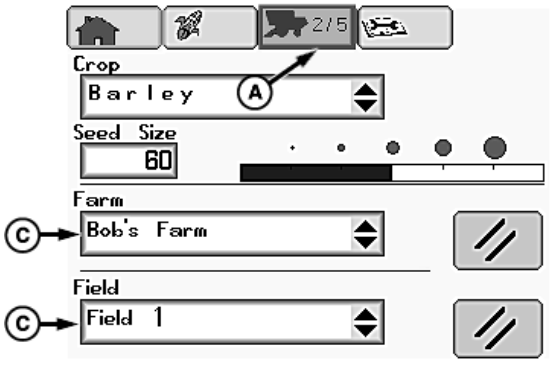
H87089 —UN—13DEC06



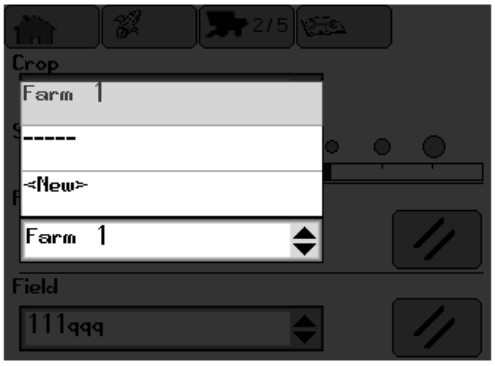
H87090 —UN—25JAN07

OUO6075,00005CE -19-09AUG07-2/2

Choose Existing Farm/Field or Name New Farm/Field



H87299 —UN—26JAN07



H87353 —UN—05FEB07

New Farm/Field Menu

From setup pages icon (A), rotate selection dial (B) until farm or field menu (C) is highlighted.

Press confirm switch (D) for farm or field listings.

Rotate selection dial to choose an existing farm or field, or select “New” to enter a new farm or field.

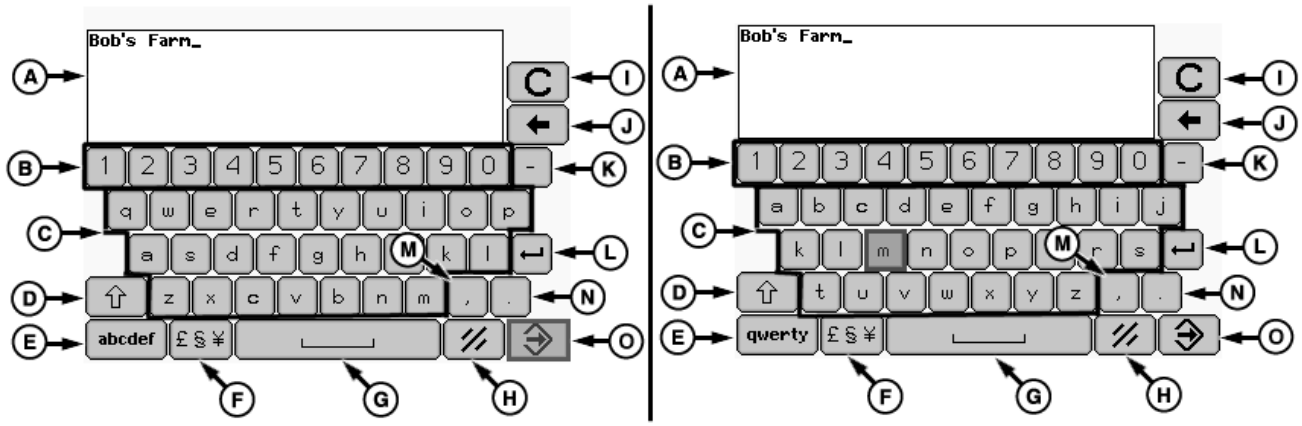
Once desired selection is highlighted, press confirm switch.

A—Setup Pages Icon
B—Selection Dial
C—Farm or Field Menu
D—Confirm Switch

H86297 —UN—17NOV06

Continued on next page

OUO6075,0000A40 -19-26JUN08-1/3

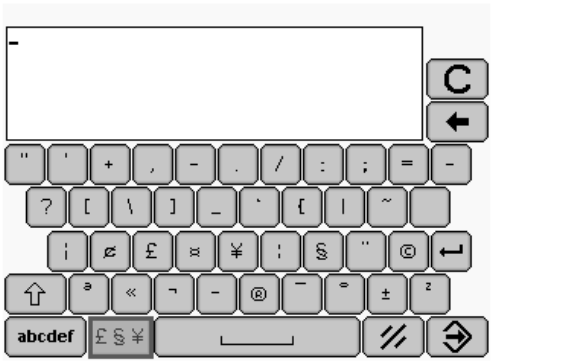


QWERTY Keyboard Layout / ABC Keyboard Layout

NOTE: QWERTY and ABC keyboard operate the same, depending on which keyboard is selected for operation.

If “New” is selected, alpha numeric screen appears and allows you to name a farm or field.

A—Farm/Field Naming Display
B—Numeric Keys
C—Alpha Keys
D—Caps Lock/Shift Key
E—QWERTY (Standard Typewriter Keyboard Layout) or ABC Key
F—Symbols Key
G—Space Key
H—Cancel Key
I— Clear All Key
J—Backspace Key
K—Hyphen Key
L—Enter/Return Key
M—Comma Key
N—Period Key
O—Enter/Accept Key



Symbols Keyboard Layout

Continued on next page

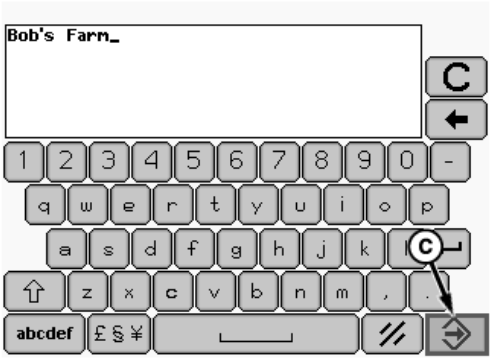
Rotate selection dial (A) until desired key is highlighted and press confirm switch (B).

Repeat procedure as needed to name farm or field.

Once farm or field is named, rotate selection dial until enter/accept key (C) is highlighted and press confirm switch.

A—Selection Dial
B—Confirm Switch
C—Enter/Accept Key

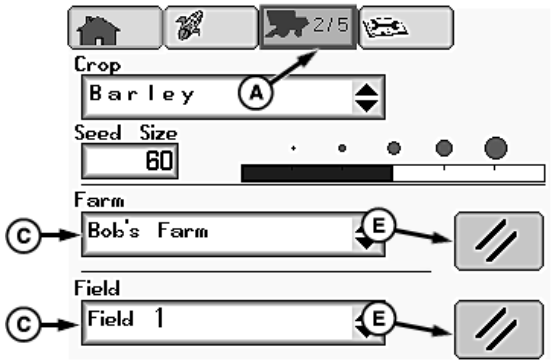
H87355 —UN—05FEB07



H87470 —UN—20FEB07

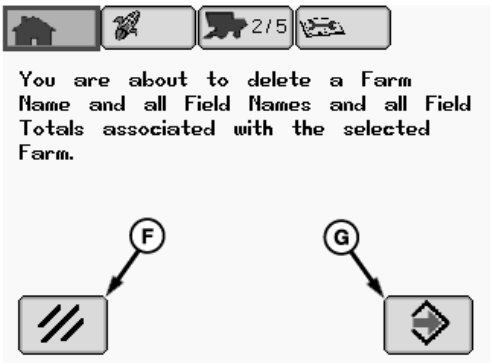
OUO6075,0000A40 -19-26JUN08-3/3

Delete Existing Farm/Field Name



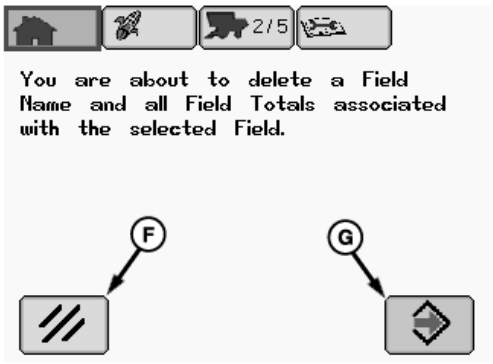
H87356 —UN—05FEB07

H86297 —UN—17NOV06



H87359 —UN—05FEB07

Delete Farm



H87358 —UN—05FEB07

Delete Field

A—Setup Pages Icon
B—Selection Dial
C—Farm or Field Menu
D—Confirm Switch
E—Clear Farm or Field Icon
F—Cancel Icon
G—Enter/Accept Icon

From setup pages icon (A), rotate selection dial (B) until farm or field menu (C) is highlighted.

Press confirm switch (D) for farm or field listings.

Rotate selection dial to choose desired farm or field to delete.

Once desired selection is highlighted, press confirm switch.

Rotate selection dial until clear farm or field icon (E) is highlighted.

Desired farm or field screen will appear.

Rotate selection dial to choose cancel icon (F) or enter/accept icon (G) to delete farm or field.

OUO6075,0000A9E -19-16JUL07-1/1

Change Header Settings

Corn Head Settings

From setup pages icon (A), rotate selection dial (B) until one of the following is highlighted:

- Rows Box (C) - allows operator to set number of rows on corn head.
- Spacing Box (D) - allows operator to set row spacing on corn head.
- Rows Change Box (E) - allows operator to set row changes (not harvesting full width). This value is needed when changing cut width on Harvesting Information Pages 1 of 4.

When desired box is highlighted, press confirm switch (F).

Rotate selection dial until desired value is shown in box and press confirm switch to save values.

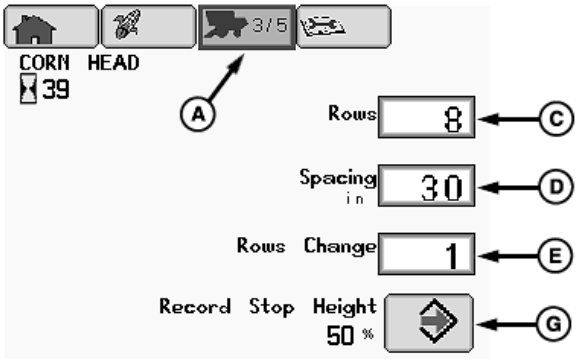
Recording Stop Height

Rotate selection dial until record stop height enter icon (G) is highlighted.

Raise or lower header to desired record stop height and press confirm switch to save value.

NOTE: Recording automatically turns OFF at and above preset height and turns ON below preset height, provided all other conditions are met (separator/header engaged, engine at high idle, farm/field is setup), see Manual Recording ON/OFF in this section for information on temporarily overriding.

If Stubble Height Sensing or Header Ground Pressure (Float) are active, record stop height setting is irrelevant and recording will turn ON, provided all other conditions are met (separator/header engaged, engine at high idle, farm/field is setup).



H87094 —UN—10JAN07

H87093 —UN—15DEC06

A—Setup Pages Icon
B—Selection Dial
C—Rows Box
D—Spacing Box
E—Rows Change Box
F—Confirm Switch
G—Record Stop Height Enter Icon

Continued on next page

OUO6075,00005CF -19-19DEC07-1/2

Draper/Platform/Belt Pickup Settings

From setup pages icon (A), rotate selection dial (B) until one of the following is highlighted:

- Minimum Reel or Belt Pickup Speed Box (C) - allows operator to set minimum reel or belt pickup speed.
- Width Box (D) - allows operator to set cut width on platforms.
- Width Change Box (E) - allows operator to set cut width changes (not harvesting full width). This value is needed when changing cut width on Harvesting Information Pages 1 of 4.

When desired box is highlighted, press confirm switch (F).

Rotate selection dial until desired value is shown in box and press confirm switch to save values.

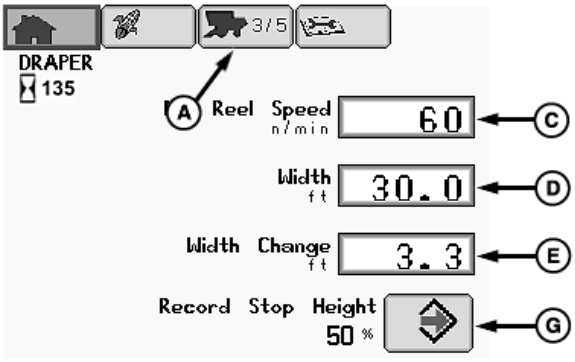
Recording Stop Height

Rotate selection dial until record stop height enter icon (G) is highlighted.

Raise or lower header to desired record stop height and press confirm switch to save value.

NOTE: Recording automatically turns OFF at and above preset height and turns ON below preset height, provided all other conditions are met (separator/header engaged, engine at high idle, farm/field is setup), see Manual Recording ON/OFF in this section for information on temporarily overriding.

If Stubble Height Sensing or Header Ground Pressure (Float) are active, record stop height setting is irrelevant and recording will turn ON, provided all other conditions are met (separator/header engaged, engine at high idle, farm/field is setup).



H87095 —UN—10JAN07

H87093 —UN—15DEC06

A—Setup Pages Icon
B—Selection Dial
C—Minimum Reel or Belt Pickup Speed Box
D—Width Box
E—Width Change Box
F—Confirm Switch
G—Record Stop Height Enter Icon

OUO6075,00005CF -19-19DEC07-2/2

Change Moisture, Sample Rate and Yield Units Settings

NOTE: Page appears if equipped with moisture sensor.

Moisture Sensor Settings

From setup pages icon (A), rotate selection dial (B) until ON box (C) or OFF box (D) is highlighted:

- Moisture Alarm ON Box - When checked, moisture alarm will sound when value drops below minimum setting (operator preset) and above maximum setting (determined by operator).
- Moisture Alarm OFF Box - When checked, moisture alarm will not sound when value drops below minimum setting (operator preset) and above maximum setting (determined by operator).

When desired box is highlighted, press confirm switch (E).

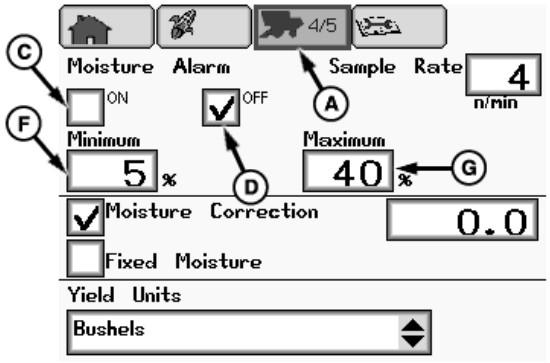
Rotate selection dial until minimum box (F) or maximum box (G) is highlighted:

NOTE: This is used to determine setpoints (minimum and maximum) for activation of moisture alarm.

- Minimum Moisture Alarm Box - Operator selects a moisture percentage for alarm to sound when value drops below preset value.
- Maximum Moisture Alarm Box - Operator selects a moisture percentage for alarm to sound when value is above preset value.

When desired box is highlighted, press confirm switch.

Rotate selection dial until desired value is shown in box. Press confirm switch to save values.



H90869 —UN—25FEB08

H86339 —UN—17NOV06

A—Setup Pages Icon
B—Selection Dial
C—ON Box
D—OFF Box
E—Confirm Switch
F—Minimum Box
G—Maximum Box

OUO6075,0000061 -19-26JUN08-1/4

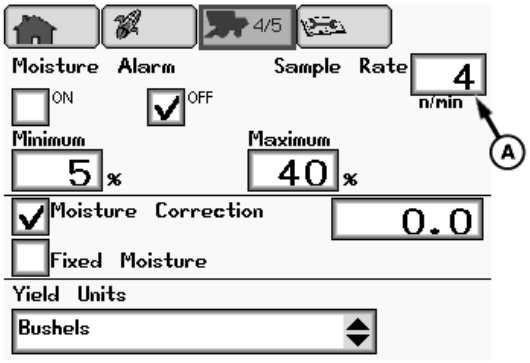
NOTE: Sample rate is how often moisture sensor takes crop samples. Some crops are abrasive and cycle times need to be lengthened (example: Rice).

Settings are stored in memory when key is cycled. If sample rate setting is set to zero (moisture sensor disabled) this setting is not saved and previous setting is restored after key is cycled.

Sample Rate Settings

Rotate selection dial until sample rate box (A) is highlighted, press confirm switch.

Rotate selection dial until desired value is shown in box. Press confirm switch to save values.



H90880 —UN—25FEB08

A—Sample Rate Box

Continued on next page

OUO6075,0000061 -19-26JUN08-2/4

Moisture Correction/Fixed Moisture Settings

Rotate selection dial (A) until moisture correction box (B) or fixed moisture box (C) is highlighted:

IMPORTANT: Changing moisture correction will not change data already saved. After changes are made, all harvest information collected from that point will reflect the changes.

- Moisture Correction Box - Set moisture correction to match readings from a customer or elevator certified moisture sensor.
- Fixed Moisture Box - Moisture sensor reading will be disabled and forces preset moisture values.

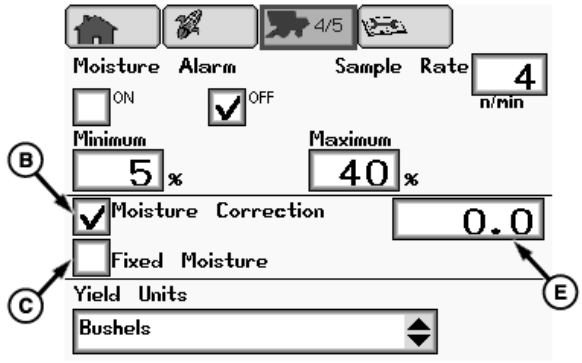
When desired box is highlighted, press confirm switch (D).

Rotate selection dial until value/change box (E) is highlighted and press confirm switch.

Rotate selection dial until desired value is shown in box. Press confirm switch to save value.

A—Selection Dial
B—Moisture Correction Box
C—Fixed Moisture Box
D—Confirm Switch
E—Value/Change Box

H86925 —UN—27NOV06



H90871 —UN—22FEB08

OUO6075,0000061 -19-26JUN08-3/4

Yield Units Settings

Rotate selection dial (A) until yield units menu (B) is highlighted. Press confirm switch (C).

Rotate selection dial to choose desired yield units:

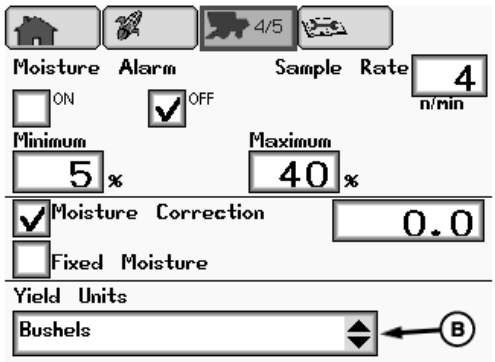
Bushels	Pounds
Barrels	Kilograms
Sacks	Metric Tons
Hundred Weight	Tons

Once desired yield units are chosen, press confirm switch.

NOTE: Operator selects desired global units from regional display settings page for desired area units, refer to Regional Settings, Time/Date Settings, Units of Measurement later in this section.

A—Selection Dial
B—Yield Units Menu
C—Confirm Switch

H87089 —UN—13DEC06



H90872 —UN—22FEB08

OUO6075,0000061 -19-26JUN08-4/4

Yield Calibration

IMPORTANT: Mass flow sensor must be calibrated every year to achieve accurate grain weight measurements.

Standard calibration must be performed in every crop that is harvested.

Low Flow calibration must be performed to obtain improved levels of accuracy in situations where large variations in grain flow rates occur.

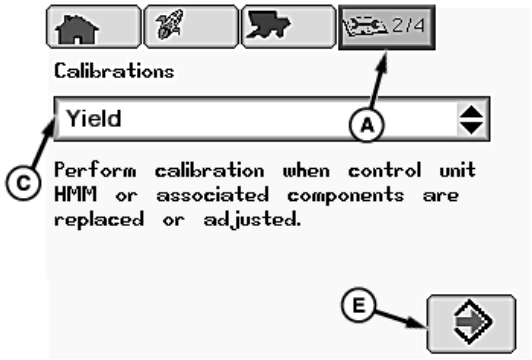
From diagnostics and calibration icon (A), rotate selection dial (B) until calibrations menu (C) is highlighted.

Press confirm switch (D) and rotate selection dial until **Yield** is highlighted.

Press confirm switch and rotate selection dial until enter icon (E) is highlighted.

Press confirm switch to advance to next page.

A—Diagnostics and Calibration Icon
B—Selection Dial
C—Calibrations Menu
D—Confirm Switch
E—Enter/Accept Icon



H91901 —UN—29MAY08

H86297 —UN—17NOV06

Continued on next page

OUO6075,00002BA -19-06MAR09-1/7

NOTE: Operator must perform the standard calibration before the low flow calibration.

For the initial calibration, weight icon and comp number rest box are not enabled.

Rotate selection dial (A) until one of the following icons is highlighted:

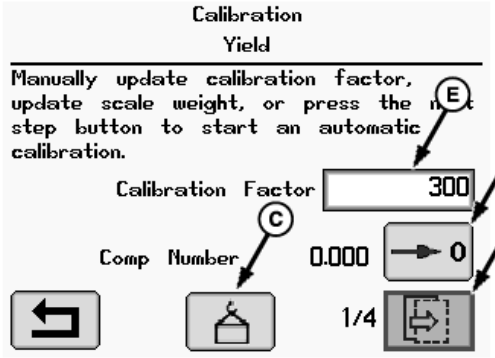
- Next Page Icon (B) - allows operator to advance to next page of calibration.
- Weight Icon (C) - allows operator to enter scale weight in calibration factor once scale weight is known from elevator.
- Comp Number Reset Box (D) - allows operator to reset the low flow calibration.

NOTE: For information on Calibration Factor, refer to Manual Adjust Calibration Factor later in this section.

- Calibration Factor (E) - allows operator to input a calibration factor number that was figured using a formula.

Press confirm switch (F) once desired selection is highlighted.

H92019 —UN—30MAY08



H92005 —UN—30MAY08

A—Selection Dial
B—Next Page Icon
C—Weight Icon
D—Comp Number Rest Box
E—Calibration Factor
F—Confirm Switch

Continued on next page

OUO6075,00002BA -19-06MAR09-2/7

Rotate selection dial (A) until one of the following icons is highlighted:

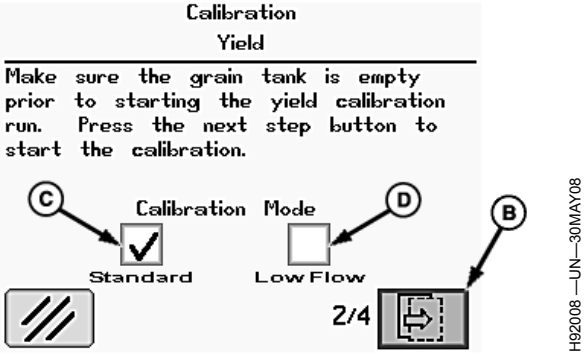
NOTE: For the initial calibration, standard box and low flow box are not enabled.

- Next Page Icon (B) - allows operator to advance to next page of calibration.
- Standard Calibration Mode Box (C) - allows operator perform a calibration in every crop that is harvested.
- Low Flow Calibration Mode Box (D) - allows operator to perform a calibration to obtain an improved level of accuracy in situations where there are large variations in grain flow rate.

Press confirm switch (E) once desired selection is highlighted.

A—Selection Dial
B—Next Page Icon
C—Standard Calibration Mode Box
D—Low Flow Calibration Mode Box
E—Confirm Switch

H92020 —UN—30MAY08



H92008 —UN—30MAY08

OUO6075,00002BA -19-06MAR09-3/7

Standard Calibration Mode

NOTE: Harvested weight (D) is the approximate weight of grain that was calibrated during the calibration process.

Rotate selection dial (A) until next page icon (B) is highlighted and press confirm switch (C).

A—Selection Dial
B—Next Page Icon
C—Confirm Switch
D—Harvested Weight

H92021 —UN—30MAY08

H92011 —UN—30MAY08

Continued on next page

OUO6075,00002BA -19-06MAR09-4/7

Low Flow Calibration Mode

NOTE: Harvested weight (D) is the approximate weight of grain that was calibrated during the calibration process.

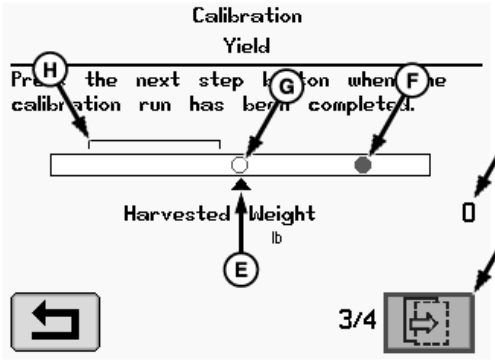
- Instantaneous Flow Rate (E) - arrow below bar graph indicates instantaneous flow rate.
- Standard Calibration Point (F) - green dot indicates standard calibration point (will be a red if a scale weight for standard calibration has not yet been entered).
- Average Flow Rate (G) - red circle indicates average flow rate during low flow calibration.

NOTE: When calibrated correctly, red circle should end up towards left side of bar graph within range area (H).

Rotate selection dial (A) until next page icon (B) is highlighted and press confirm switch (C).

A—Selection Dial
B—Next Page Icon
C—Confirm Switch
D—Harvested Weight
E—Instantaneous Flow Rate
F—Standard Calibration Point
G—Average Flow Rate
H—Range Area

H92021 —UN—30MAY08



H93312 —UN—23JAN09

Continued on next page

OUO6075,00002BA -19-06MAR09-5/7

Scale Weight Not Known: Rotate selection dial (A) until enter icon (B) is highlighted and press confirm switch (C).

NOTE: Scale weight can be entered after a calibration is complete (during calibration this indicates approximate weight of grain that has been harvested).

Scale Weight Known:

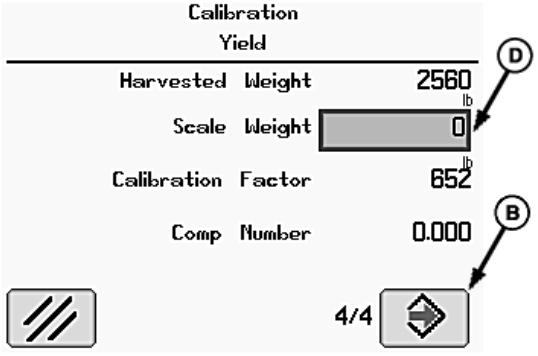
- Rotate selection dial until scale weight box (D) is highlighted and press confirm switch.
- Using numeric display, rotate selection dial until desired digits are highlighted and press confirm switch.

NOTE: Repeat procedure until scale weight value is shown.

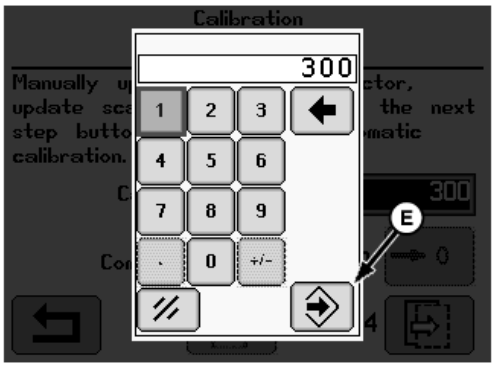
- Rotate selection dial until enter icon (E) is highlighted and press confirm switch to return to calibration menu.
- Rotate selection dial until enter icon (B) is highlighted and press confirm switch (C).

A—Selection Dial
B—Enter/Accept Icon
C—Confirm Switch
D—Scale Weight
E—Enter/Accept Icon

H92021 —UN—30MAY08



H92012 —UN—05JUN08



H91903 —UN—29MAY08

Continued on next page

OUO6075,00002BA -19-06MAR09-6/7

Scale Weight Returns From Elevator

Rotate selection dial until weight icon (A) is highlighted and press confirm switch.

Rotate selection dial until scale weight box (B) is highlighted and press confirm switch.

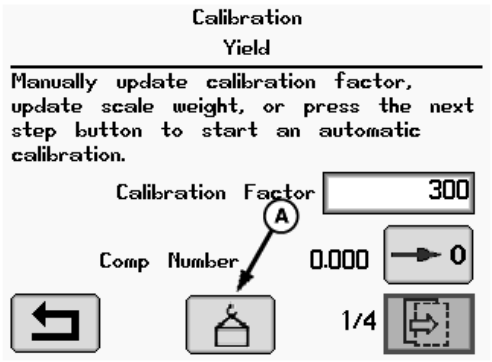
Using numeric display, rotate selection dial until desired digits are highlighted and press confirm switch.

NOTE: Repeat procedure until scale weight value is shown.

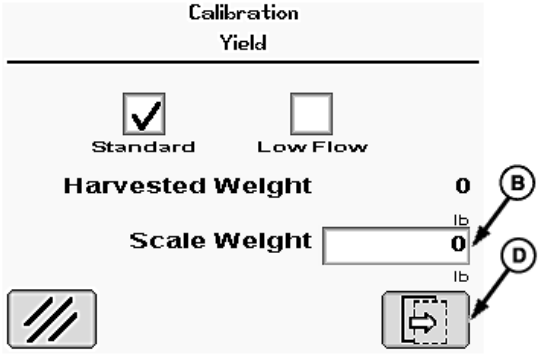
Rotate selection dial until enter icon (C) is highlighted and press confirm switch to return to calibration menu.

Rotate selection dial until next page icon (D) is highlighted and press confirm switch to follow instructions shown on remaining screens.

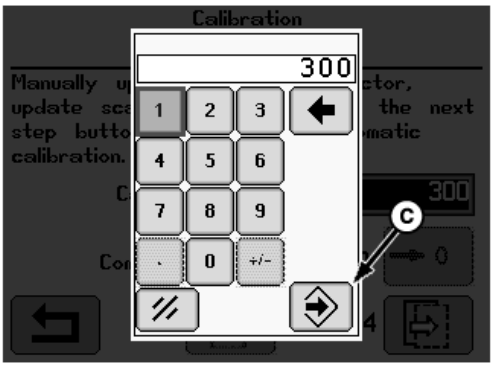
A—Weight Icon
B—Scale Weight Box
C—Enter/Accept Icon
D—Next Page Icon



H91997 —UN—30MAY08



H91998 —UN—29MAY08



H91999 —UN—29MAY08

OUO6075,00002BA -19-06MAR09-7/7

Manual Adjust Yield Calibration Factor

NOTE: Do not perform a manual adjust Calibration Factor if you intend on using the Low Flow calibration.

Use the following example to figure a New Calibration Factor:

Displayed Calibration Factor = 650

Weight of grain shown on display = 12,539 kg (27,643 lb.)

Net weight of grain from scale ticket = 12,257 kg (27,022 lb.)

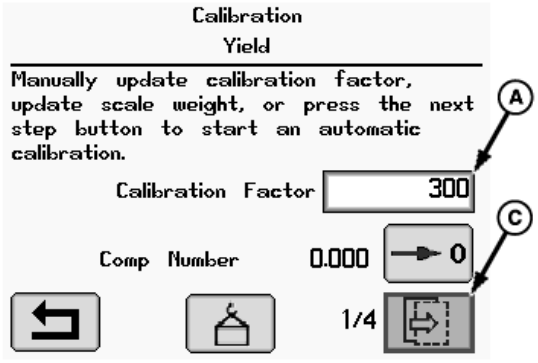
New Calibration Factor = 665

$$(650) \times \frac{12{,}539 \text{ kg } (27\,643 \text{ lb})}{12{,}257 \text{ kg } (27\,022 \text{ lb})} = (665)$$

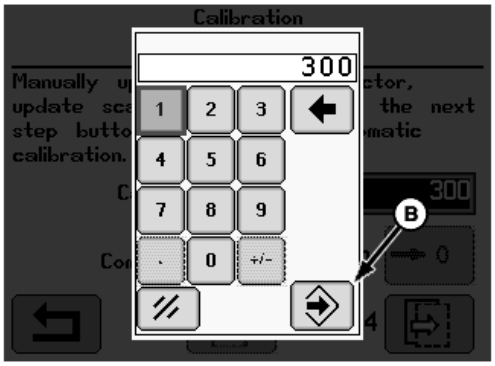
H81234 —UN—17JUN04

Continued on next page

OUO6075,0000156 -19-02JUN08-1/2



H91995 —UN—30MAY08



H91996 —UN—29MAY08

A—Calibration Factor Box **B—Enter/Accept Icon** **C—Next Page Icon**

Rotate selection dial until calibration factor box (A) is highlighted and press confirm switch.

Using numeric display, rotate selection dial until desired digits are highlighted and press confirm switch.

NOTE: Repeat procedure until calibration factor value is shown.

Rotate selection dial until enter icon (B) is highlighted and press confirm switch.

Rotate selection dial until next page icon (C) is highlighted and press confirm switch to follow instructions shown on remaining screens.

OUO6075,0000156 -19-02JUN08-2/2

Payable Moisture and Density Chart

Crop	Standard Moisture (%)	Crop Density (lbs/bushel)	Crop Density (kg/bushels)
Alfalfa	12.0	60	27
Barley (Euro Wtr)	14.5	48	22
Barley (Euro Spr)	14.5	48	22
Barley (Euro 6)	14.5	48	22
Canola	10.0	50	23
Chickpeas	12.0	61	27
Corn (Euro)	15.0	56	25
Edible Beans	14.5	60	27
Flax	7.0	56	25
Grass Seeds	12.0	22	10
Lentils	10.5	60	27
Lupins	12.0	53	24
Millet	11.0	50	23
Mustard	8.0	60	27
Navy Beans	14.5	62	28
Oats (Euro)	15.0	32	15
Peas (Euro)	12.0	60	27
Popcorn (Euro)	15.5	60	27
Rape Seed (Euro Ind)	8.5	52	24
Rape Seed (E Oil)	8.5	52	24
Rice (Long)	14.0	45	20
Rice (Medium)	14.0	45	20
Rye (Euro)	14.0	56	25
Safflower	6.0	45	20
Sorghum Milo)	13.0	56	25
Soybeans	13.0	60	27
Sunflower (E Ind)	9.0	25	11
Sunflower (E Oil)	9.0	25	11
Wheat (Durum)	13	60	27
Wheat (Euro Wtr)	14.5	60	27
Wheat (Euro Feed)	14.5	60	27
Triticale (Euro)	14.5	58	26

OUO6075,0000B6B -19-09APR07-1/1

Standard Weights Chart

Unit	Weight (lb)	Weight (kg)
Barrels	162.0	73.5
Sacks	100.0	45.4
Hundred Weight	100.0	45.4
Pounds (lb)	1.0	0.454
Kilograms (kg)	2.204	1.0
Metric Tons	2204.0	1000.0
Tons	2000.0	907.0

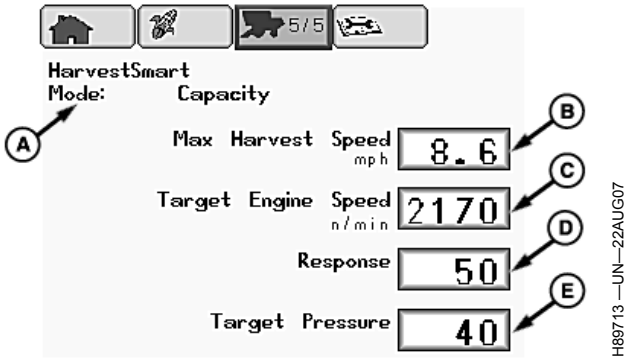
OUO6075,0000B6A -19-09APR07-1/1

Harvest Smart Feed Rate (Optional)

NOTE: Page appears if equipped with Harvest Smart Feed Rate.

Refer to Harvest Smart Feed Rate section for further information on operating the following:

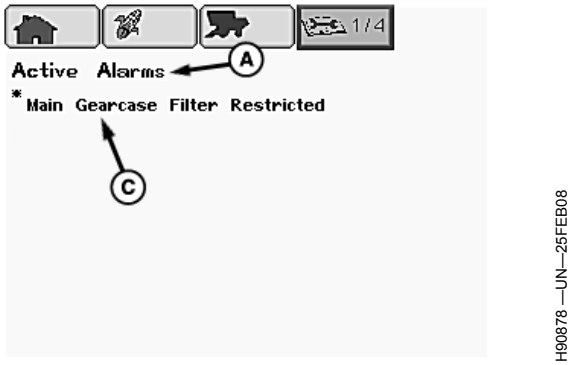
- Operating Mode (A)
- Max Harvest Speed (B)
- Target Engine Speed (C)
- Response (D)
- Target Pressure (E)

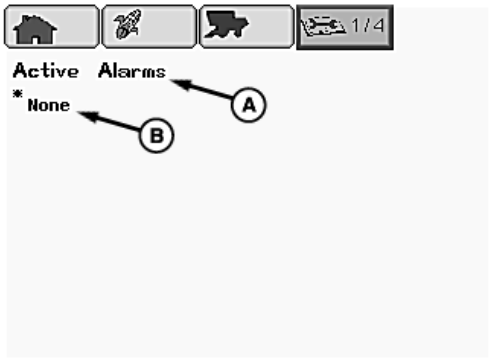


A—Operating Mode
B—Max Harvest Speed
C—Target Engine Speed
D—Response
E—Target Pressure

OUO6075,0000B0A -19-22AUG07-1/1

Diagnostics, Calibration, Diagnostic Readings and Special Tests Pages





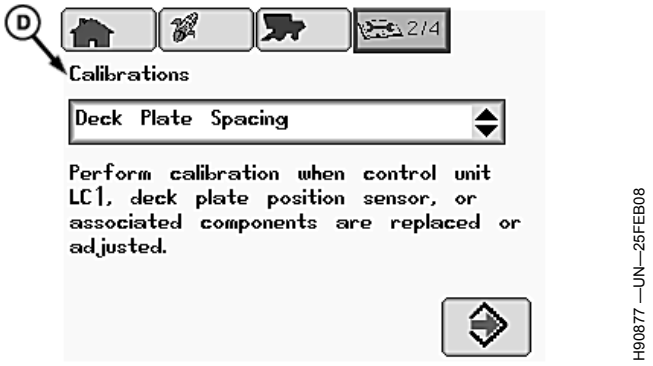
Page 1 of 4

Active Alarms (A):

- None (B) - appears when no alarms are present at this time.
- Alarm Name(s) (C) - appears with the alarm name(s) when a problem is detected in the machine system.

Page 2 of 4

NOTE: Calibrations are done using instructions shown on CommandCenter display. Operator selects which calibration and highlights calibrate icon, and is guided through procedure.

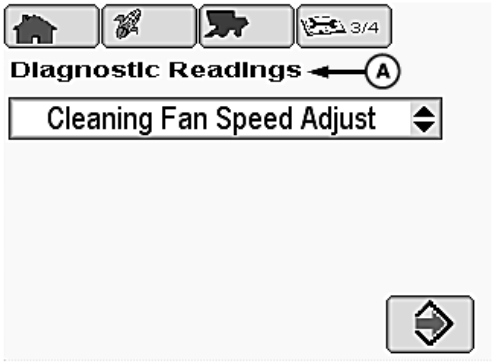


Calibrations (D):

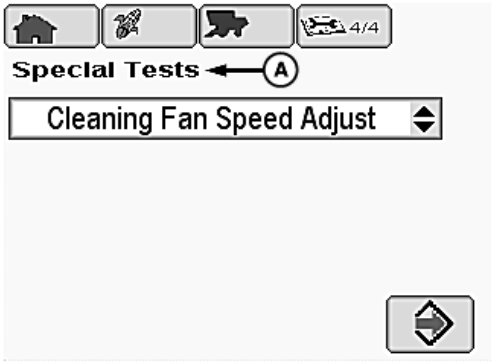
- Refer to When to Calibrate in Calibration Procedures section for listing of calibrations.

Continued on next page

OUO6075,000004A -19-19MAR08-1/2



H90873 —UN—25FEB08



H90874 —UN—25FEB08

Page 3 of 4

Diagnostic Readings (A):

- Diagnostic Readings - assists in providing more information about a machine subsystem for troubleshooting. CommandCenter display will gather data from diagnostic addresses and displays collected information on one page.

Page 4 of 4

Special Tests (A):

NOTE: Cleaning Fan Speed Adjust special test may not perform correctly if cleaning fan speed slowdown kit was installed.

- Diagnostic Special Tests - helps minimize amount of time required to diagnose an issue by leading operator or technician through a special set of instructions. Machine automatically the checks as the operator is guided through the special tests.

OUO6075,000004A -19-19MAR08-2/2

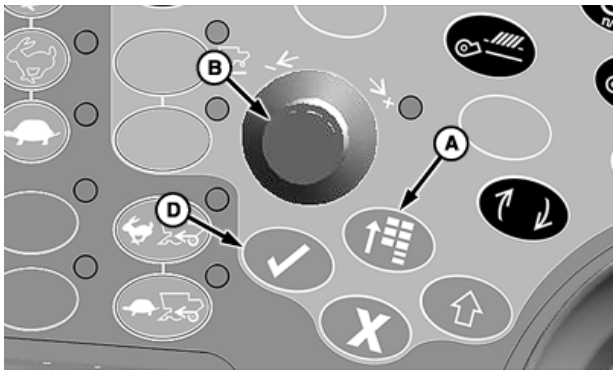
Backlight Level Control and Boundary Box Color

Backlight Setting: controls brightness of screen.

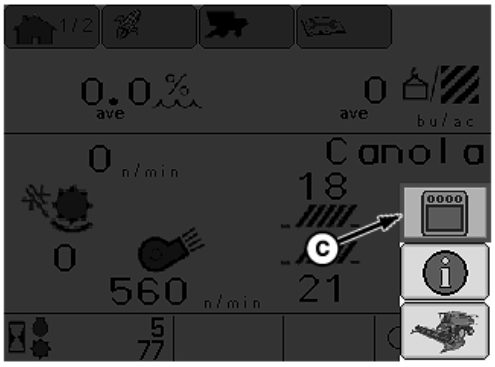
Press main menu switch (A) and rotate selection dial (B) until display settings icon (C) is highlighted.

Press confirm switch (D).

A—Main Menu Switch
B—Selection Dial
C—Display Settings Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86231 —UN—10JAN07

Continued on next page

OUO6075,00005D4 -19-30MAR07-1/4

Rotate selection dial until panel dim icon (A) is highlighted and press confirm switch.

Panel Dim quickly darkens display screen with one button push. When selected, panel dim feature temporarily darkens display screen in order to reduce glare. Screen resumes normal brightness when an alarm condition exists or activates any button on display control.

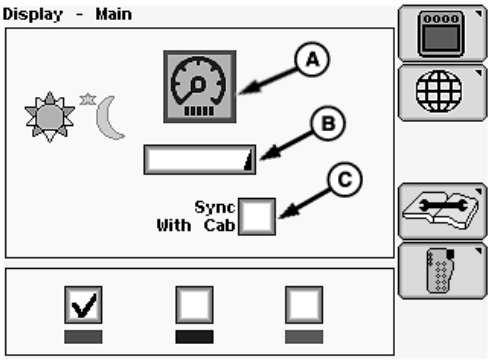
Rotate selection dial until adjusting indicator (B) is highlighted and press confirm switch.

Rotate selection dial to select brightness level of display.

- Clockwise brightens screen.
- Counterclockwise will darken screen.

Synchronize with Cab synchronizes CommandCenter display with dimmer switch in cab overhead when lights are ON.

Rotate selection dial until synchronize with cab box (C) is highlighted and press confirm switch.



H86232 —UN—07MAR07

A—Panel Dim Icon
B—Adjusting Indicator
C—Synchronize With Cab Box

OUO6075,00005D4 -19-30MAR07-2/4

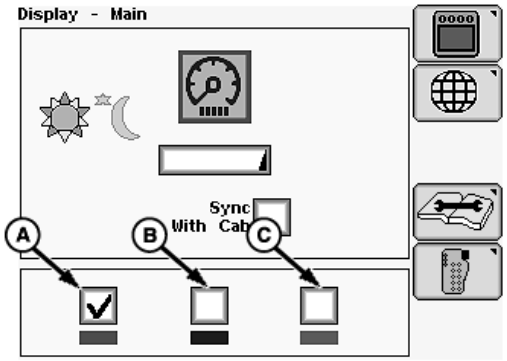
Boundary Box Color Setting: allows operator to choose color of boundary box.

NOTE: Color defaults to red at initial power-up of display.

Rotate selection dial to select color of boundary box:

- Red (A)
- Blue (B)
- Green (C)

Press confirm switch to check desired color.



H87036 —UN—07MAR07

A—Red Highlight
B—Blue Highlight
C—Green Highlight

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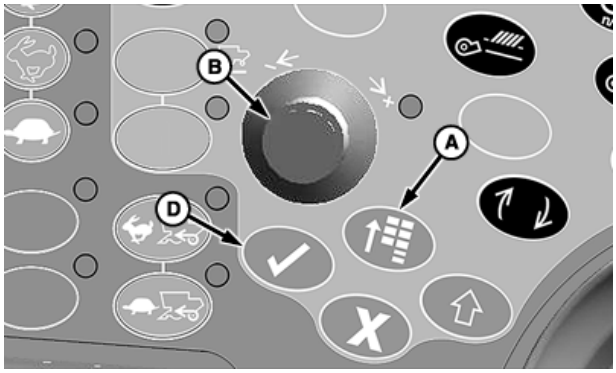
OUO6075,00005D4 -19-30MAR07-3/4

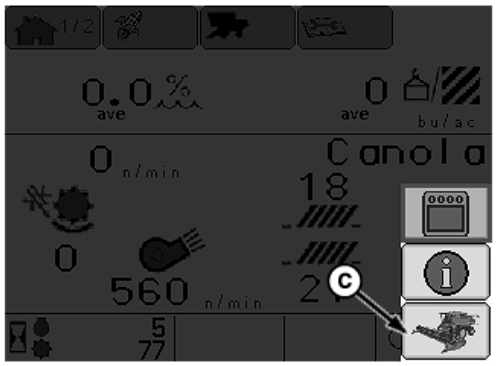
Press main menu switch (A) and rotate selection dial (B) until combine main page icon (C) is highlighted.

Press confirm switch (D) to return to home page.

A—Main Menu Switch
B—Selection Dial
C—Combine Main Page Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86236 —UN—10JAN07

OUO6075,00005D4 -19-30MAR07-4/4

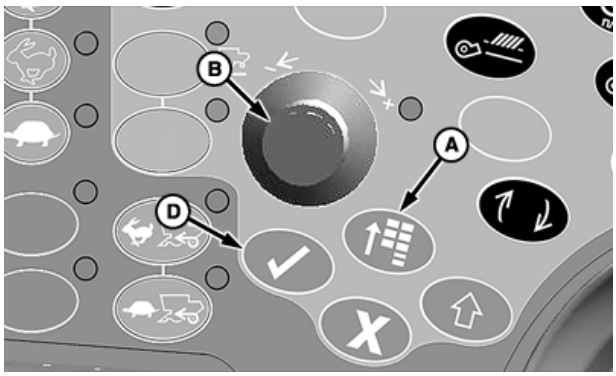
Regional Settings, Time/Date Settings, Units of Measurement

Regional Settings:

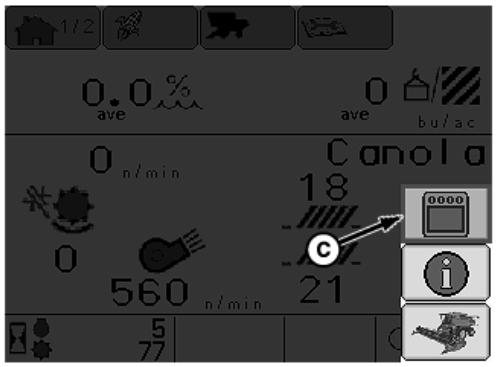
Press main menu switch (A) and rotate selection dial (B) until display settings icon (C) is highlighted.

Press confirm switch (D).

A—Main Menu Switch
B—Selection Dial
C—Display Settings Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86231 —UN—10JAN07

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OUO6075,000004C -19-19MAR08-1/5

Rotate selection dial until settings icon (A) is highlighted and press confirm switch.

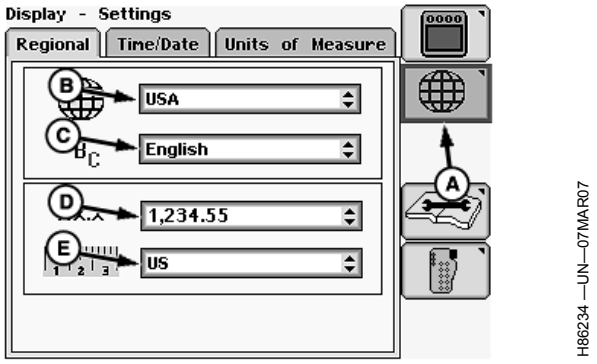
Rotate selection dial to select:

- Country Menu (B)
- Language Menu (C)
- Numeric Menu (D)
- Global Unit Menu (E)

Press confirm switch once desired menu is highlighted.

Menu will appear with choices for that highlighted menu.

Rotate selection dial until desired choice is highlighted and press confirm switch.



A—Settings Icon
B—Country Menu
C—Language Menu
D—Numeric Format Menu
E—Global Units Menu

OUO6075,000004C -19-19MAR08-2/5

Time and Date Settings:

Rotate selection dial until time/date menu (A) is highlighted and press confirm switch.

Rotate selection dial to select:

- Month/Day (B)
- Year (C)
- Date Format (D)
- Hour (E)
- Minute (F)
- A.M. or P.M. (G)

Press confirm switch once desired menu is highlighted.

Menu will appear with choices for that highlighted menu.

Rotate selection dial until desired choice is highlighted and press confirm switch.

Rotate selection dial to select:

- Military Time or Standard Time Box (H)
- Daylight Savings Time (I)

NOTE: Press confirm switch until box is checked. Time will show in military time. Press confirm switch again for standard time.

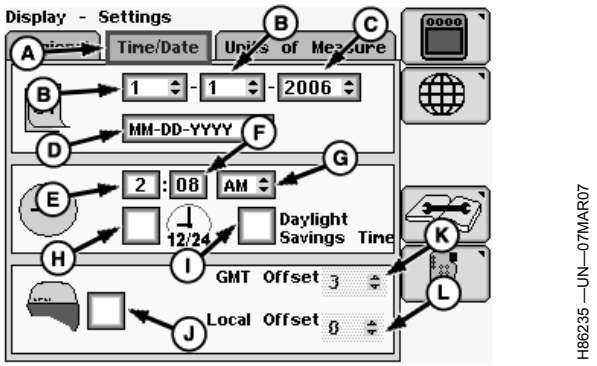
Determine which time is to be displayed and press confirm switch once to check box.

NOTE: The following items only displays if a StarFire™ Position Receiver is attached.

Rotate selection dial to select:

- Position Receiver (J)

StarFire is a trademark of Deere & Company



A—Time/Date Menu
B—Month/Day
C—Year
D—Date Format
E—Hour
F—Minute
G—A.M. or P.M.
H—Military Time or Standard Time Box
I— Daylight Savings Time
J— Position Receiver
K—Greenwich Time Offset
L—Local Time Offset

- Greenwich Mean Time Offset (K)
- Local Time Offset (L)

NOTE: Press confirm switch until position receiver box is checked. Time now can be set to two different time offsets.

Determine which time offset will be used and rotate selection dial until highlighted.

Press confirm switch once desired menu is highlighted.

Continued on next page

OUO6075,000004C -19-19MAR08-3/5

Units of Measurement (Metric, Imperial, US)

NOTE: Unit of Measurement choices will override specific Global Units previously selected and allows "mixed" units (English and Metric) where supported.

Rotate selection dial until units of measure menu (A) is highlighted and press confirm switch.

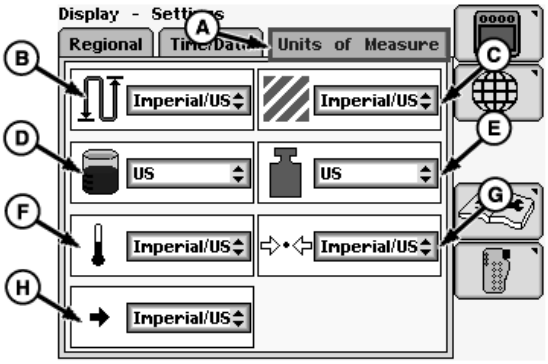
Rotate selection dial to select:

- Distance (B)
- Area (C)
- Volume (D)
- Mass (E)
- Temperature (F)
- Pressure (G)
- Force (H)

Press confirm switch once desired menu is highlighted.

Menu will appear with choices for that highlighted menu.

Rotate selection dial until desired choice is highlighted and press confirm switch.



H86237 —UN—07MAR07

A—Units of Measure Menu
B—Distance
C—Area
D—Volume
E—Mass
F—Temperature
G—Pressure
H—Force

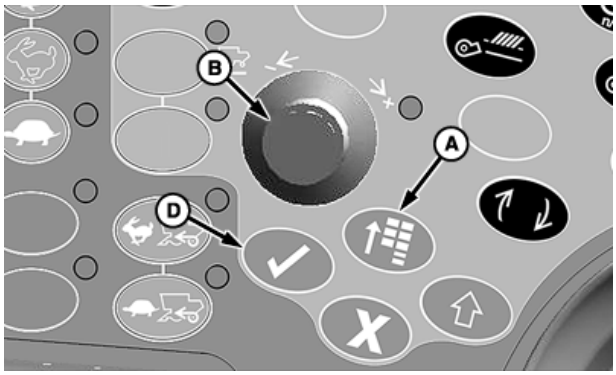
OUO6075,000004C -19-19MAR08-4/5

Press main menu switch (A) and rotate selection dial (B) until combine main page icon (C) is highlighted.

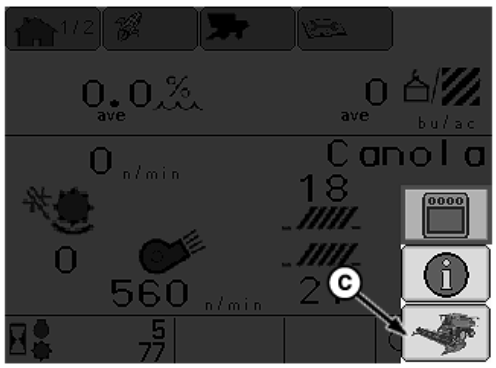
Press confirm switch (D).

CommandCenter display home page will appear.

A—Main Menu Switch
B—Selection Dial
C—Combine Main Page Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86236 —UN—10JAN07

OUO6075,000004C -19-19MAR08-5/5

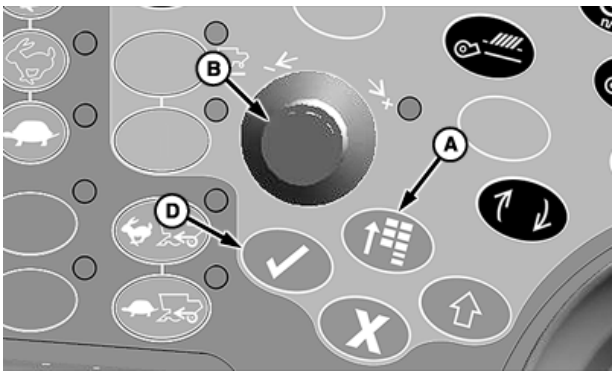
Diagnostic Readings, Tests, About

Reading Menu:

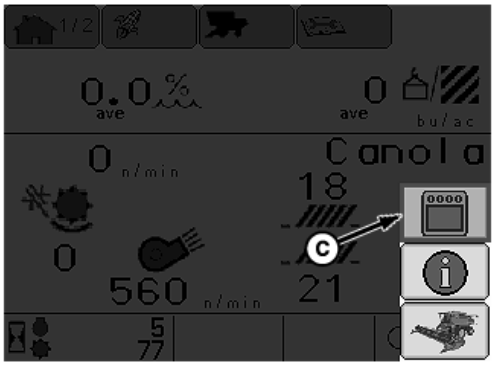
Press main menu switch (A) and rotate selection dial (B) until display settings icon (C) is highlighted.

Press confirm switch (D).

A—Main Menu Switch
B—Selection Dial
C—Display Settings Icon
D—Confirm Switch



H86133 —UN—17NOV06



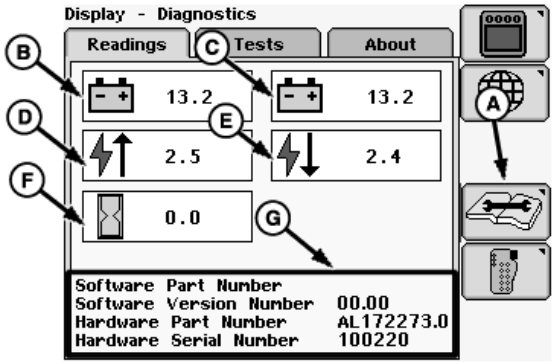
H86231 —UN—10JAN07

OUO6075,00005D6 -19-30MAR07-1/5

Rotate selection dial until diagnostic icon (A) is highlighted and press confirm switch.

Screen will display the following:

- Unswitched Voltage (B)
- Switched Voltage (C)
- CAN High Voltage (D)
- CAN Low Voltage (E)
- Operation Hours (F)
- Software and Hardware Information (G)
  - Software Part Number
  - Software Version Number
  - Hardware Part Number
  - Hardware Version Number



H86238 —UN—07MAR07

A—Diagnostic Icon
B—Unswitched Voltage
C—Switched Voltage
D—CAN High Voltage
E—CAN Low Voltage
F—Operation Hours
G—Software and Hardware Information

Continued on next page

OUO6075,00005D6 -19-30MAR07-2/5

Tests Menu:

Rotate selection dial until tests menu (A) is highlighted and press confirm switch.

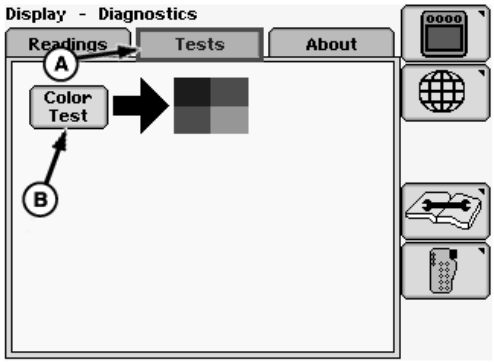
Rotate selection dial to select:

- Color Test (B)

Press confirm switch once color test is highlighted.

CommandCenter display will test color of screen (diagram will appear with blue, red, and green).

A—Tests Menu **B—Color Test**



H86243 —UN—07MAR07

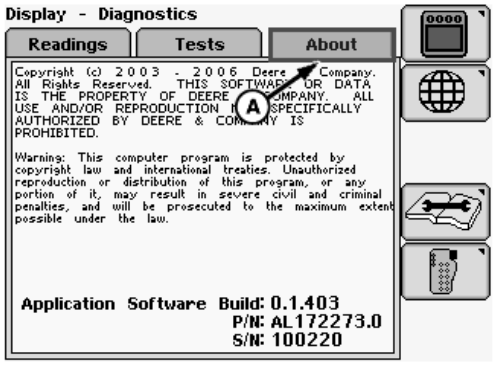
OUO6075,00005D6 -19-30MAR07-3/5

About Menu:

Rotate selection dial until about menu (A) is highlighted and press confirm switch.

CommandCenter display will show John Deere software information and copyright information.

A—About Menu



H86244 —UN—07MAR07

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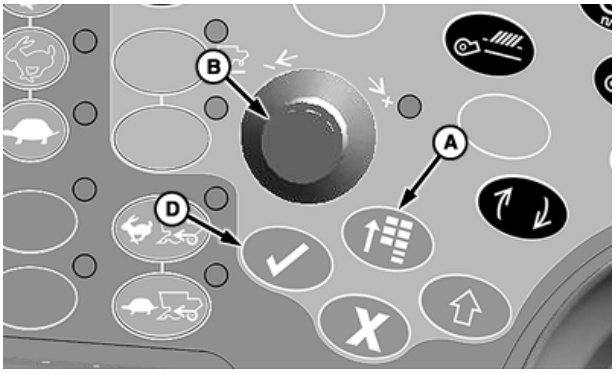
OUO6075,00005D6 -19-30MAR07-4/5

Press main menu switch (A) and rotate selection dial (B) until combine main page icon (C) is highlighted.

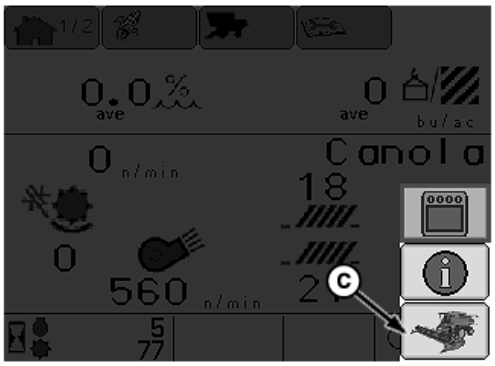
Press confirm switch (D).

CommandCenter display home page will appear.

A—Main Menu Switch
B—Selection Dial
C—Combine Main Page Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86236 —UN—10JAN07

OUO6075,00005D6 -19-30MAR07-5/5

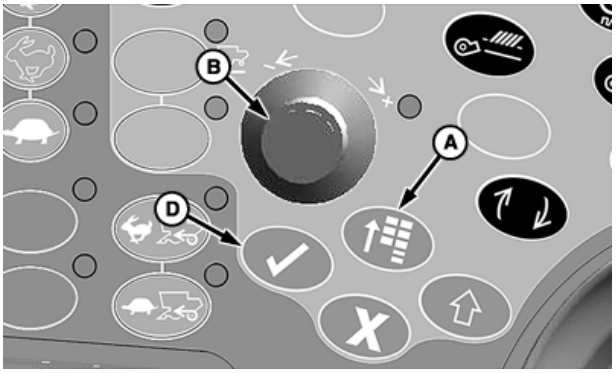
User Interface Module (UIM)

NOTE: User interface module (UIM) controls the navigation on the CommandCenter display or GreenStar display.

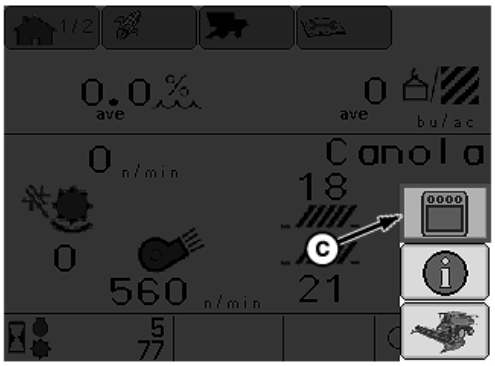
Press main menu switch (A) and rotate selection dial (B) until display settings icon (C) is highlighted.

Press confirm switch (D).

A—Main Menu Switch
B—Selection Dial
C—Display Settings Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86231 —UN—10JAN07

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OUO6075,0000AC4 -19-13JUL07-1/3

Rotate selection dial until user interface module icon (A) is highlighted and press confirm switch.

Rotate dial until user interface module menu (B) is highlighted and press confirm switch.

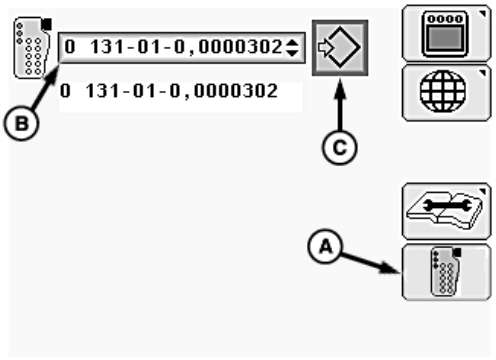
IMPORTANT: Only select 0 131-01-0,XXXXXXX from menu. All others are not recommended.

NOTE: Changing settings will change what controls the navigation on CommandCenter display and GreenStar display. Changes make certain functions (i.e. selection dial, confirm switch, cancel switch, main menu switch) not work correctly.

Rotate selection dial to select:

- None - Searches for available user interface module (UIM) (not recommended).
- Disabled - display uses five buttons on display as a user interface module (UIM) (not recommended).
- 0 131-01-0,XXXXXXX - Factory default for CommandCenter display (recommended method).

NOTE: Pressing display select switch (if activated, see your John Deere dealer) navigates between CommandCenter display and GreenStar display (if equipped).



H87508 —UN—26FEB07

A—User Interface Module Icon
B—User Interface Module Menu
C—Enter/Accept Icon

- 0 131-02-0,XXXXXXX - Recommend for GreenStar display navigation (change user interface module (UIM) setting on GreenStar). Not recommended for CommandCenter.

Once desired selection is highlighted, press confirm switch.

Rotate selection dial until enter/accept icon (C) is highlighted and press confirm switch.

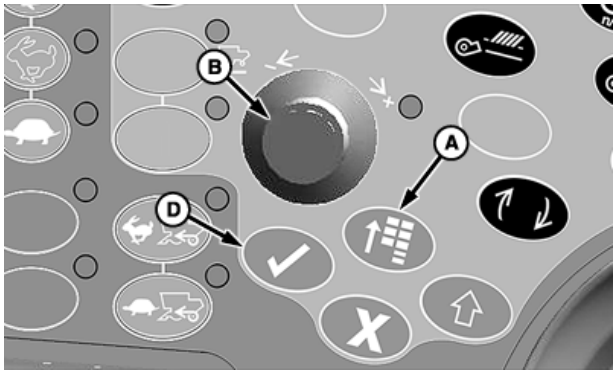
OUO6075,0000AC4 -19-13JUL07-2/3

Press main menu switch (A) and rotate selection dial (B) until combine main page icon (C) is highlighted.

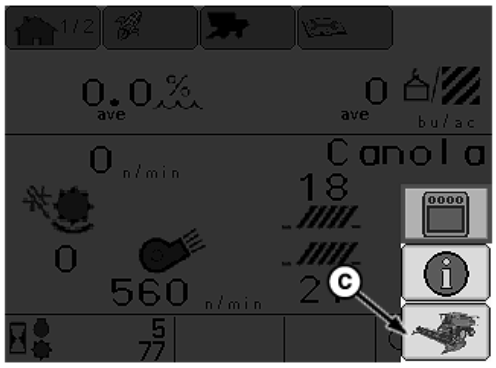
Press confirm switch (D).

CommandCenter display home page will appear.

A—Main Menu Switch
B—Selection Dial
C—Combine Main Page Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86236 —UN—10JAN07

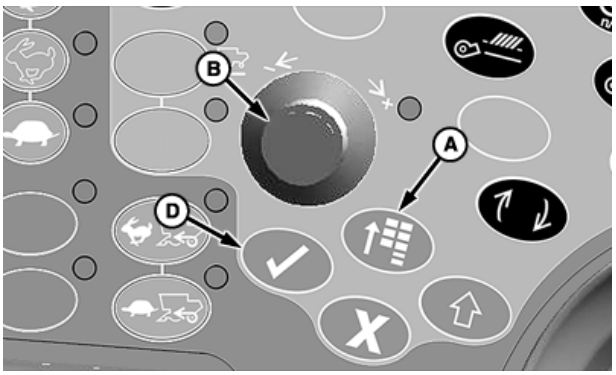
OUO6075,0000AC4 -19-13JUL07-3/3

Message Center

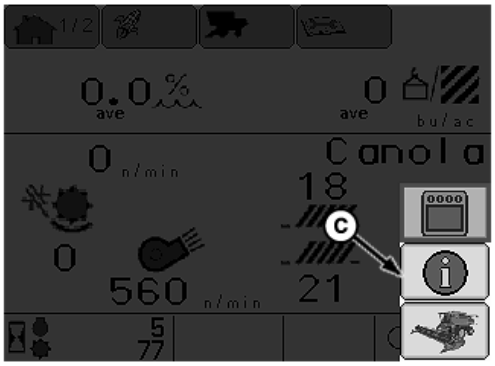
Press main menu switch (A) and rotate selection dial (B) until message center icon (C) is highlighted.

Press confirm switch (D).

A—Main Menu Switch
B—Selection Dial
C—Message Center Icon
D—Confirm Switch



H86133 —UN—17NOV06



H86257 —UN—10JAN07

Continued on next page

OUO6075,00005D7 -19-13DEC07-1/3

Message Center:

Rotate selection dial until message center icon (A) is highlighted and press confirm switch.

Screen displays messages to operator if any are available.

Diagnostic Address:

NOTE: If equipped with optional GreenStar display, do not attempt to access diagnostic address information on both displays at the same time.

Rotate selection dial until diagnostic address icon (B) is highlighted and press confirm switch.

Screen allows operator to select a desired controller and make address modifications/changes or view addresses (see your John Deere Dealer).

Diagnostic Trouble Codes:

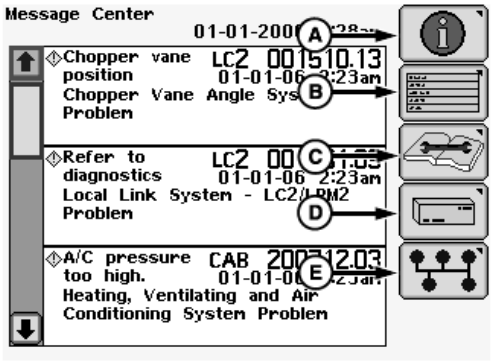
NOTE: If equipped with optional GreenStar display, do not attempt to access diagnostic trouble codes on both displays at the same time.

Rotate selection dial until diagnostic trouble codes icon (C) is highlighted and press confirm switch.

Screen allows operator to view controllers, trouble code addresses, code (active or not), and counts how many times code is displayed (refer Diagnostic Trouble Codes Menu in Diagnostic Trouble Codes Section for further information.

Electronic Control Unit Information:

Rotate selection dial until electronic control unit information icon (D) is highlighted and press confirm switch.



H87031 —UN—10JAN07

A—Message Center Icon
B—Diagnostic Address Icon
C—Diagnostic Trouble Codes Icon
D—Electronic Control Unit Information Icon
E—CAN Bus Information Icon

Screen allows operator to view control units, addresses, message counts, controller part numbers and serial numbers, software part numbers and versions (see your John Deere Dealer).

CAN Bus Information:

Rotate selection dial until CAN bus information icon (E) is highlighted and press confirm switch.

Screen allows operator to view if network status is active or not active, total message counts, and CAN high or low voltages (see your John Deere Dealer).

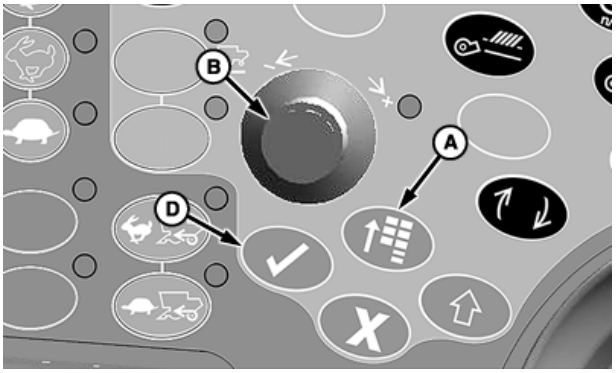
Continued on next page

OUO6075,00005D7 -19-13DEC07-2/3

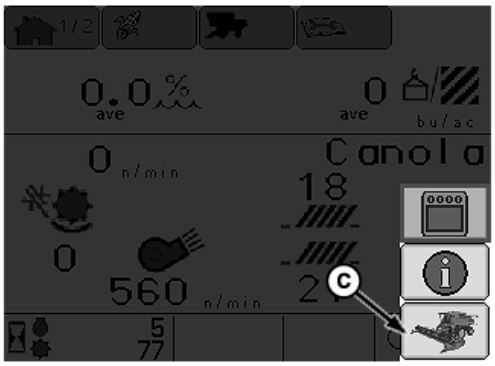
Press main menu switch (A) and rotate selection dial (B) until combine main page icon (C) is highlighted.

Press confirm switch (D) to return to home page.

A—Main Menu Switch
B—Selection Dial
C—Combine Main Page Icon
D—Confirm Switch



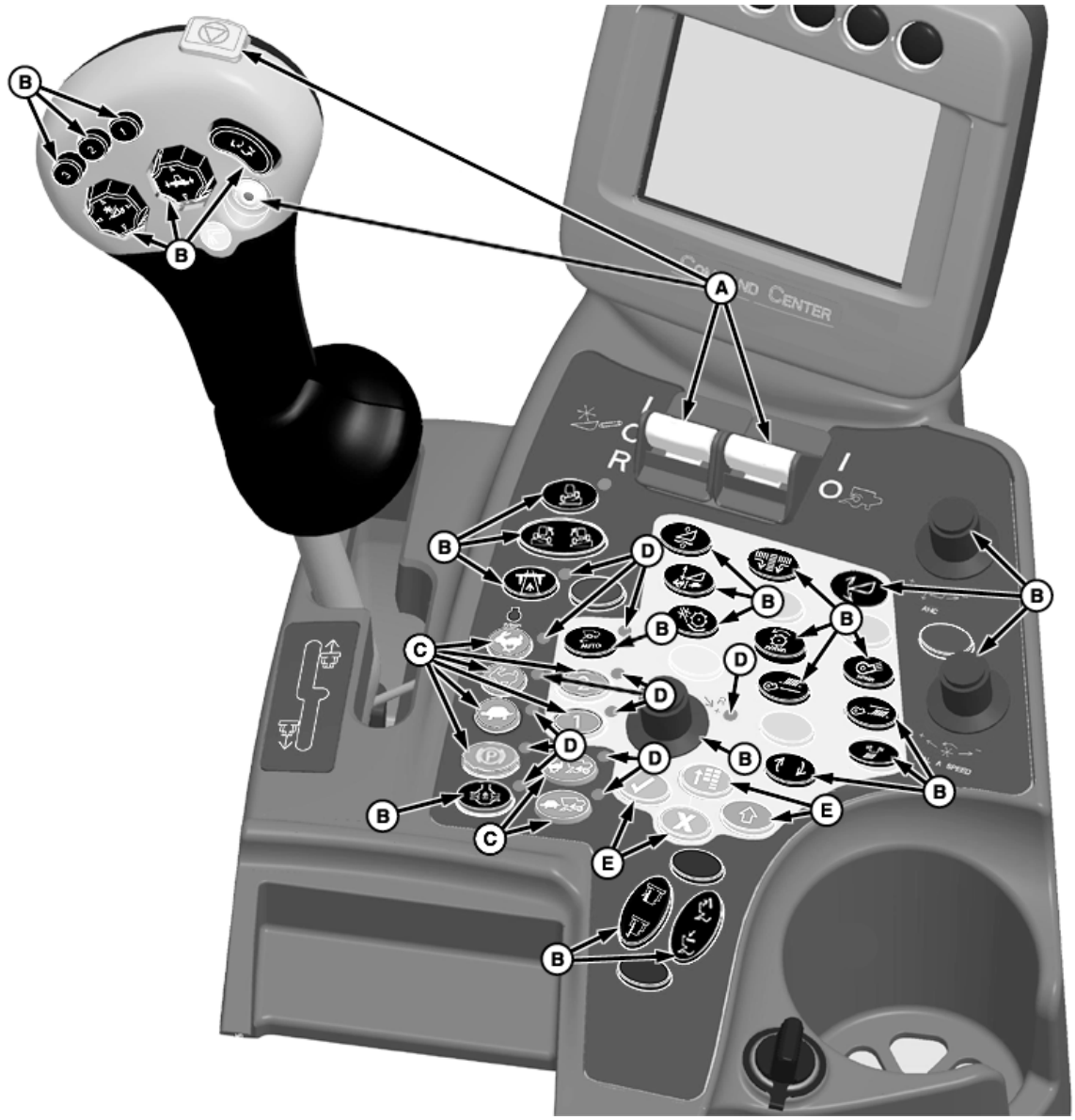
H86133 —UN—17NOV06



H86236 —UN—10JAN07

OUO6075,00005D7 -19-13DEC07-3/3

Switch and Knob Colors



H90882 —UN—03APR08

Before operating machine for the first time, become familiar with switches and controls. Controls are color “coded” to help quickly locate them when operating.

- Yellow (A) - drive engagement
- Black (B) - operating adjustments and controls
- Orange (C) - ground drive and engine speed
- Green (D) - activation indicator
- Green (E) - CommandCenter display controls

OUO6075,000005E -19-24MAR08-1/1

Armrest Console Controls

1— Header Engage and Feeder House Reverser Switch
2— Separator Engage Switch
3— Automatic Leveling Control Switch
4— Cutterbar Pressure Adjust Switch
5— Not Used
6— Corn Head Fold/Unfold and Draper Cutterbar Tilt Adjust Switch
7— Header Height/HydraFlex™ Pressure Control Dial
8— Manual Leveling Control Switch
9— Feeder House Rate/Sensitivity Adjust Switch
10— Road Transport Disconnect Switch
11— Threshing Clearance Adjust Switch
12— Threshing Speed Adjust Switch
13— Cleaning Fan Speed Adjust Switch
14— Dial-A-Speed™ Dial
15— Harvest Smart™ Feed Rate Enable Switch (Optional)
16— Chaffer Adjust Switch
17— Sieve Adjust Switch
18— Engine Speed Switches
19— ProDrive Mode 1 and 2 Switches
20— Selection Dial
21— Chopper Vane Adjust Switch
22— Swap Switch
23— Park Brake Switch
24— Differential Lock Switch
25— Four Wheel Drive Switches (Optional)
26— Confirm Switch
27— Main Menu Switch
28— Cancel Switch
29— Display Select Switch
30— Folding Auger Switch
31— Grain Tank Cover Switch

HydraFlex is a trademark of Deere & Company
Dial-A-Speed is a trademark of Deere & Company
Harvest Smart is a trademark of Deere & Company

OUO6075,0000331 -19-23APR09-1/1

Header Engage and Feeder House Reverser Switch (Yellow)

Header engage switch (A) allows header drive to be turned ON or OFF. Push down and forward to lock switch in ON position or pull back on switch to turn OFF.

NOTE: When feeder house reverser is engaged, reel will move in reverse direction (rigid and HydraFlex headers only) helping pull crop material away from feeder house.

If operating high engine speed and feeder house reverser switch is engaged, engine will automatically derate and go to low idle.

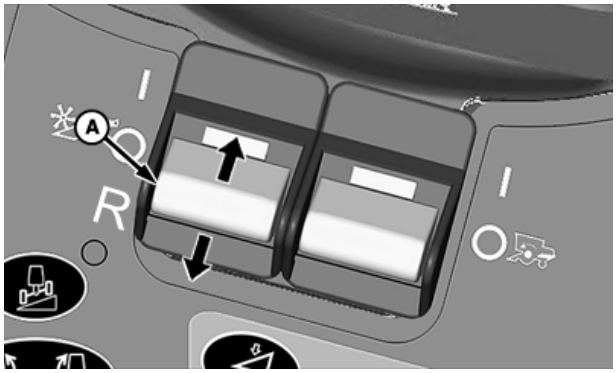
Feeder house reverser switch (A) is used to hydraulically shift the feeder house gearcase into reverse mode to clear a plugged feeder house or header. Push down and pull back on switch and hold switch until feeder house is clear of plug.

System Requirements:

- Header engage switch and feeder house reverser switch must be OFF to start machine.
- Road transport disconnect switch (B) must be in field position.
- Operator must be seated for header to operate.

Header drive can be shut OFF with quick stop switch (C) located on multifunction control handle. To engage header drive or unloading auger if quick stop switch was used, turn switch OFF and back ON.

If operator leaves seat after engagement, header will continue to operate for five seconds before disengaging. To engage, sit squarely on operator's seat and turn switch OFF and back ON.



H85864 —UN—17NOV06

H85865 —UN—19JAN07

A—Header Engage/Feeder House Reverser Switch
B—Road Transport Disconnect Switch
C—Quick Stop Switch

OUO6075,0000979 -19-09AUG07-1/1

Shifting Feeder House Reverser

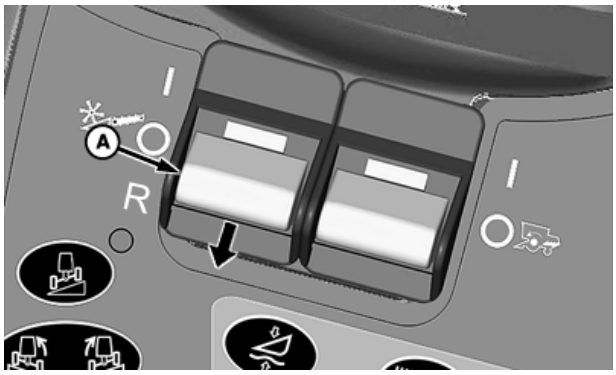
NOTE: If operating high engine speed and feeder house reverser switch is engaged, engine will automatically go to low idle.

Turn header engage/feeder house reverser switch (A) OFF and throttle engine to low idle.

Push down, pull back and hold feeder house reverser switch until feeder house is clear of plug. Release switch once feeder house is clear.

Throttle engine to high idle and resume harvesting.

IMPORTANT: Never attempt to force "slugs" through machine by repeated cycling of reverser drive. Repeated cycling shortens life of components.



H85866 —UN—17NOV06

A—Header Engage/Feeder House Reverser Switch

OUO6075,000097A -19-26JUL07-1/1

Separator Engage Switch (Yellow)

NOTE: Engage separator prior to engaging header.

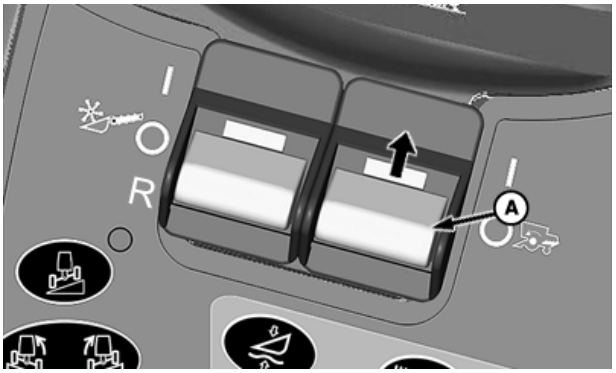
Separator engage switch (A) allows the separator to be turned ON or OFF. Push down and forward to lock switch in the ON position or pull back on switch to turn OFF.

System Requirements:

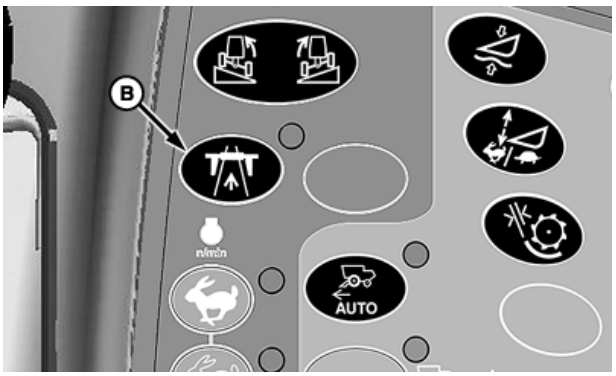
- Separator engage switch must be OFF to start machine.
- Road transport disconnect switch (B) must be in field position.

Separator drive speed adjust and cleaning fan speed adjust systems only work when the separator is running.

NOTE: If discharge beater speed drops below 300 rpm, separator will disengage.



H85868 —UN—17NOV06



H85871 —UN—17NOV06

A—Separator Engage Switch

B—Road Transport Disconnect Switch

OUO6075,000097B -19-11DEC06-1/1

Setpoint Modes (Manual or Automatic)

Pressing confirm switch (A) or cancel switch (B) while a setpoint screen is displayed on CommandCenter will cause setpoint screen to disappear and return to home page.

In addition pressing confirm switch or cancel switch will have the following affects while adjusting:

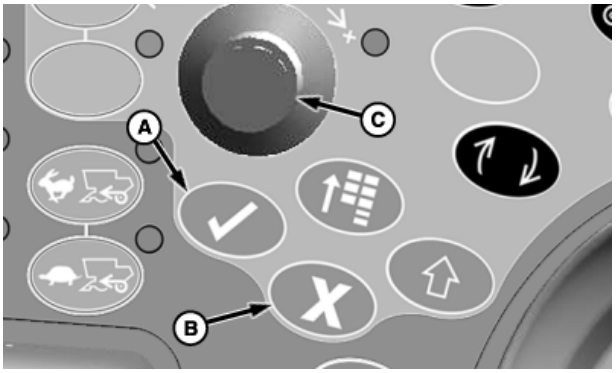
Press confirm switch while adjusting:

- Manual mode – system will deactivate.
- Automatic mode – system will continue adjusting in background.

Press cancel switch while adjusting:

- Manual mode – system will deactivate.
- Automatic mode – system will deactivate.

Turning selection dial (C) in both modes towards plus (+) symbol increases setpoint or towards minus (-) symbol decreases setpoint.



H89380 —UN—26JUL07

A—Confirm Switch

B—Cancel Switch

C—Selection Dial

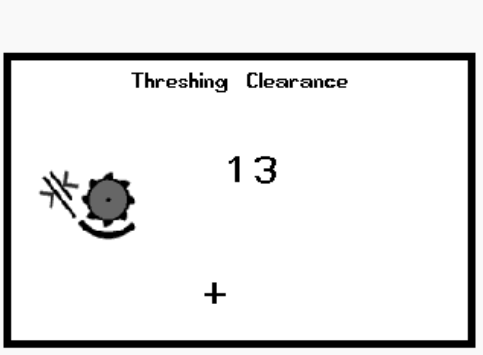
Continued on next page

OUO6075,0000C12 -19-03AUG07-1/3

Manual Mode

With key switch ON and separator and header disengaged the following setpoints can be adjusted:

- HydraFlex Pressure
- Draper Speed
- Reel Speed
- Chaffer Opening
- Sieve Opening
- Chopper Vane Angle
- Threshing Clearance
- Cleaning Fan Speed
- Threshing Speed



H89384 —UN—26JUL07

OUO6075,0000C12 -19-03AUG07-2/3

Automatic Mode

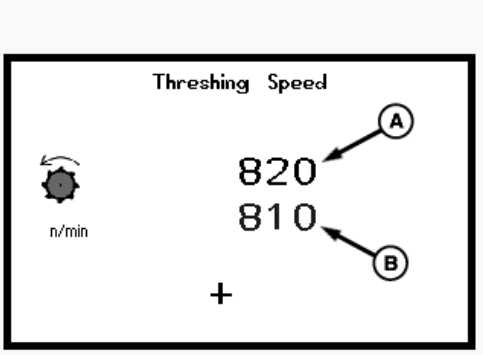
NOTE: Black number (A) indicates current setpoint and blue number (B) indicates setpoint value increase or decrease when selection dial is turned.

Engine at high idle and separator engaged the following setpoints can be adjusted:

- Threshing Speed
- Cleaning Fan Speed

With engine running, the following setpoints can be adjusted:

- Threshing Clearance
- Chaffer Opening
- Sieve Opening
- Chopper Vane Angle



H89385 —UN—26JUL07

A—Black Number **B—Blue Number**

OUO6075,0000C12 -19-03AUG07-3/3

Automatic Leveling Control Switch (HILLMASTER) (Black)

Automatic leveling control switch (A) allows machine separator to automatically level itself as machine moves over rolling ground.

System Requirements:

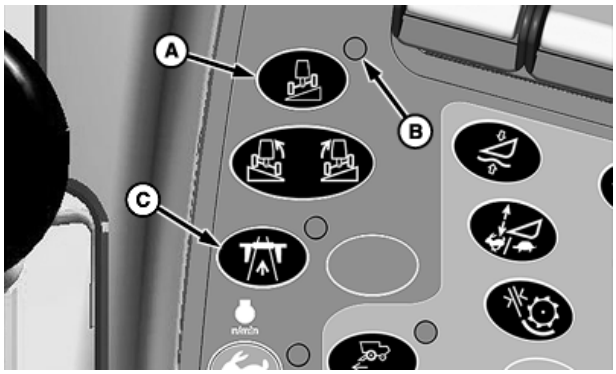
- Road transport disconnect switch (C) must be in field position.
- Engine is running.

Press automatic leveling control switch to activate the automatic leveling system. Indicator light (B) will turn ON indicating the switch is in the automatic mode.

CommandCenter display will show the position of the machine chassis body graphically.

As the machine moves across the field, a pendulum is used to sense the slope of the machine.

NOTE: With automatic leveling control system activated, manual leveling control switch can be used to overcome automatic functions, i.e. machine may be tilted manually to the left or right.



H85900 —UN—17NOV06

A—Automatic Leveling Control Switch
B—Indicator Light
C—Road Transport Disconnect Switch

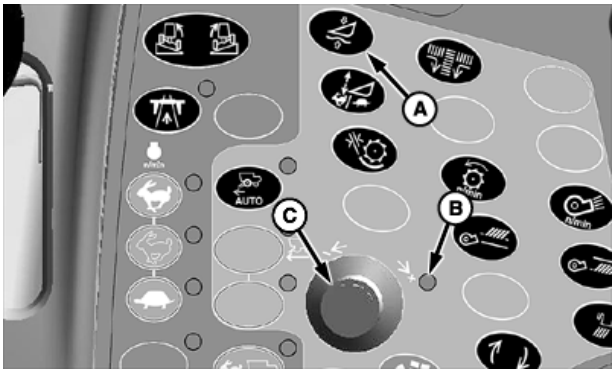
OUO6075,0000980 -19-04DEC07-1/1

Cutterbar Pressure Adjust Switch (Black)

NOTE: Switch only works on HydraFlex equipped platforms.

Cutterbar pressure adjust switch (A) controls the amount of pressure in the cutterbar as determined by operator.

1. Press cutterbar pressure adjust switch.
2. Indicator light (B) will come on indicating setting can be adjusted.
3. Turn selection dial (C) towards plus (+) symbol to increase cutterbar pressure and setpoint or towards minus (-) symbol to decrease cutterbar pressure and setpoint.
4. CommandCenter display will show operator adjustment setting.



H85993 —UN—17NOV06

A—Cutterbar Pressure Adjust Switch
B—Indicator Light
C—Selection Dial

OUO6075,000098D -19-30MAR07-1/1

Corn Head Fold/Unfold Switch (Black)

NOTE: Corn head fold/unfold switch only works on folding corn heads.

Corn head fold/unfold switch (A) allows the operator to fold or unfold a folding corn head.

1. Press corn head fold/unfold switch.
2. Indicator light (B) will come on indicating feature can be adjusted.
3. Turn selection dial (C) towards plus (+) symbol to fold corn head or towards minus (-) symbol to unfold corn head.
4. CommandCenter display will show operator folding or unfolding position.

H89407 —UN—31JUL07

A—Corn Head Fold/Unfold Switch
B—Indicator Light
C—Selection Dial

OUO6075,0000C14 -19-31JUL07-1/1

Draper Cutterbar Tilt Adjust Switch (Black)

NOTE: Draper cutterbar tilt adjust switch only works on a 600 series draper.

Draper cutterbar tilt adjust switch (A) allows the operator to increase or decrease the draper cutterbar angle.

1. Press draper cutterbar tilt adjust switch.
2. Indicator light (B) will come on indicating setting can be adjusted.
3. Turn selection dial (C) towards plus (+) symbol to tilt cutterbar down or towards minus (-) symbol to tilt cutterbar up.
4. CommandCenter display will show operator adjustment setting.

H89407 —UN—31JUL07

A—Draper Cutterbar Tilt Adjust Switch
B—Indicator Light
C—Selection Dial

OUO6075,0000075 -19-06JAN10-1/1

Header Height/HydraFlex™ Pressure Control Dial (Black)

Header height control dial (A) allows the operator to select the position of the header relative to the ground and return to that position automatically (see Return to Cut and Stubble Height Sensing in CommandTouch Cab Cornerpost section).

Turn dial towards plus (+) symbol to raise header and setpoint (if equipped with HydraFlex increase pressure) or towards minus (-) symbol to lower header and setpoint (if equipped with HydraFlex decrease pressure).

H85872 —UN—17NOV06

A—Header Height/HydraFlex Pressure Control Dial

HydraFlex is a trademark of Deere & Company

OUO6075,00009B3 -19-28MAR07-1/1

Manual Leveling Control Switch (HILLMASTER) (Black)

Manual leveling control switch (A) allows operator to level the machine separator manually as machine moves over rolling ground.

System Requirements:

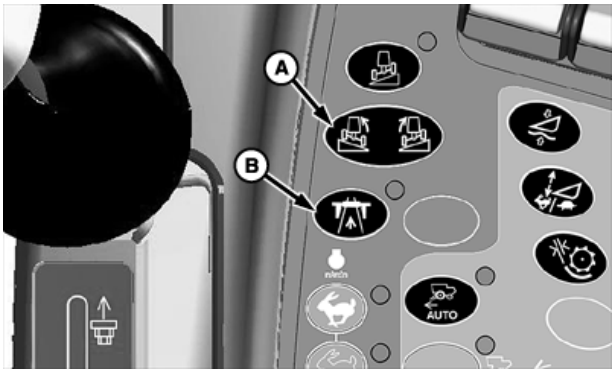
- Road transport disconnect switch (B) must be in field position.
- Engine is running.

Push and hold left side of manual leveling control switch to tilt machine to the left side or press and hold right side of manual leveling control switch to tilt machine to the right side.

NOTE: When manual leveling control switch is released, automatic mode will take over and re-level the machine chassis automatically.

CommandCenter display will show the position of the machine chassis body graphically.

As the machine moves across the field, a pendulum is used to sense the slope of the machine.



H85899 —UN—17NOV06

A—Manual Leveling Control Switch

B—Road Transport Disconnect Switch

NOTE: With automatic leveling control system activated, this switch can be used to overcome automatic functions, i.e. machine may be tilted manually to the left or right.

OUO6075,000097F -19-26APR07-1/1

Feeder House Rate/Sensitivity Adjust Switch (Black)

Feeder house rate/sensitivity adjust switch (A) allows operator to compensates for uneven ground and controls horizontal and vertical positions of header. The system continuously compares the preset position and actual position, thus keeping header in desired working position.

1. Verify road transport disconnect switch (B) is in field position.

NOTE: Pressing confirm switch makes feeder house rate/sensitivity icons appear on display.

2. Select desired feeder house adjust setting:

   a. Press switch **once time** to select manual raise/lower speed.

   b. Press switch **two times** to select header height sensitivity adjust.

NOTE: Feeder house tilt sensitivity function only works on lateral tilt equipped machines.

   c. Press switch **three times** to select feeder house tilt sensitivity adjust.

3. Indicator light (C) comes on indicating that desired choice can be adjusted.

4. Turn selection dial (D) towards plus (+) symbol to increase response rate/sensitivity or towards minus (-) symbol to decrease response rate/sensitivity.

H85901 —UN—17NOV06

A—Feeder House Rate/Sensitivity Adjust Switch
B—Road Transport Disconnect Switch
C—Indicator Light
D—Selection Dial

5. CommandCenter display shows operator adjustment setting.

NOTE: For more detailed information, refer to Description of HeaderTrak™ Control System, in CommandTouch Cab Cornerpost section.

HeaderTrak is a trademark of Deere & Company

OUO6075,00000C7 -19-24APR08-1/1

Road Transport Disconnect Switch (Black)

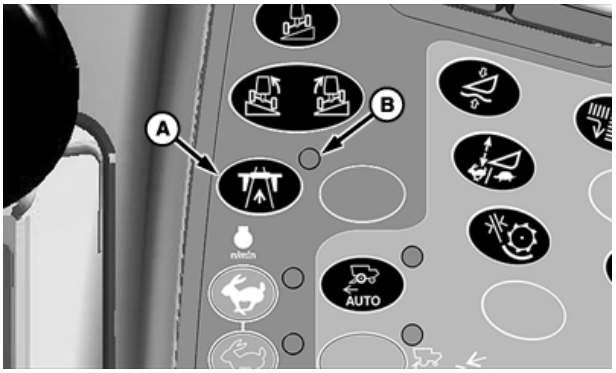
CAUTION: ProDrive Machines: Pressing quick stop switch with separator engaged causes machine to quickly stop. Avoid serious injury by preparing for a rapid decrease in speed.

NOTE: Machine will not enter road mode if separator is engaged. Warning alarm screen will appear indicating separator is engaged. Shut OFF separator to engage road transport disconnect switch.

Road transport disconnect switch (A) must be in road position when transporting machine on roadway.

When road transport disconnect switch is pressed, indicator light (B) will turn ON indicating switch is in road position. Road transport disconnect switch will prevent the following functions:

- Return to Cut
- Stubble Height
- HeaderTrak Lateral Tilt
- Reel Raise/Lower and Reel Fore/Aft
- Unloading Auger
- Auger Swing
- Power Folding Auger (If Equipped)
- Separator Engage



H85874 —UN—17NOV06

A—Road Transport Disconnect Switch **B—Indicator Light**

- Header Engage
- Header Raise/Lower
- Grain Tank Covers (Raise/Lower)

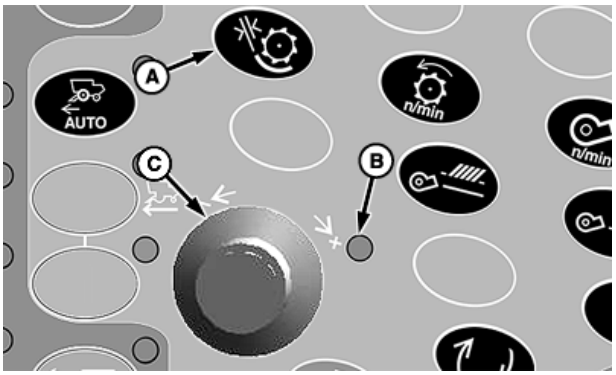
After transporting machine on roadway and field operation is desired, press road transport disconnect switch for **two seconds** allowing indicator light to turn OFF and allowing desired switch functions to operate again.

OUO6075,000050B -19-01JUL10-1/1

Threshing Clearance Adjust Switch (Black)

Threshing clearance adjust switch (A) will increase concave clearance or decrease concave clearance as determined by the operator.

1. Press threshing clearance adjust switch.
2. Indicator light (B) will come on indicating setting can be adjusted.
3. Turn selection dial (C) towards plus (+) symbol to increase threshing clearance or towards minus (-) symbol to decrease threshing clearance.
4. CommandCenter display will show operator adjustment setting.



H85876 —UN—17NOV06

A—Threshing Clearance Adjust Switch
B—Indicator Light
C—Selection Dial

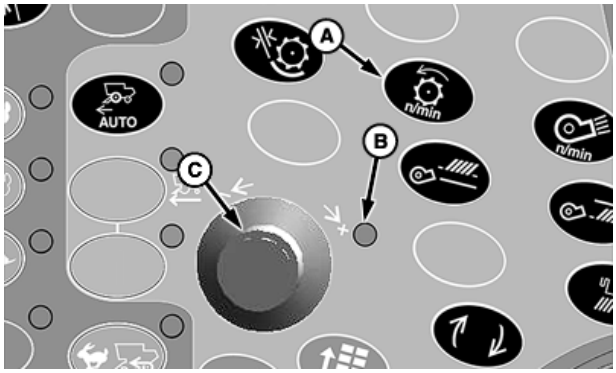
OUO6075,0000983 -19-30MAR07-1/1

Threshing Speed Adjust Switch (Black)

Threshing speed adjust switch (A) will increase threshing speed or decrease threshing speed as determined by operator.

1. Turn separator engage switch ON.
2. Press threshing speed adjust switch.
3. Indicator light (B) will come on indicating setting can be adjusted.
4. Turn selection dial (C) towards plus (+) symbol to increase threshing speed or towards minus (-) symbol to decrease threshing speed.
5. CommandCenter display will show operator adjustment setting.

NOTE: Threshing speed switch resets tachometer for low speed alarm. Whenever threshing speed is changed the alarm is also reset. Threshing speed may increase about 30 rpm over four hours as oil temperature increases. Adjust threshing speed as needed.



H85877 —UN—17NOV06

A—Threshing Speed Adjust Switch
B—Indicator Light
C—Selection Dial

OUO6075,0000984 -19-29APR10-1/1

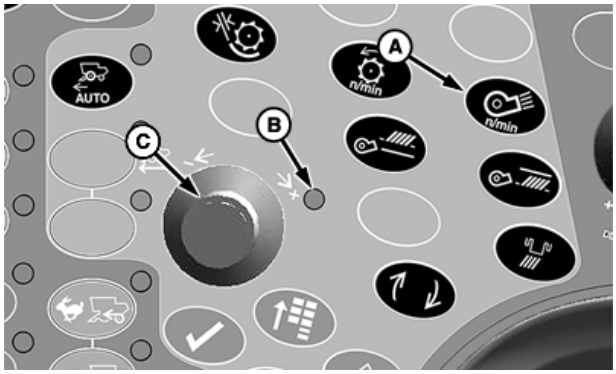
Cleaning Fan Speed Adjust Switch (Black)

Cleaning fan speed adjust switch (A) will increase cleaning fan speed or decrease cleaning fan speed as determined by operator.

1. Turn separator engage switch ON.
2. Press cleaning fan speed adjust switch.
3. Indicator light (B) will come on indicating setting can be adjusted.
4. Turn selection dial (C) towards plus (+) symbol to increase cleaning fan speed or towards minus (-) symbol to decrease cleaning fan speed.
5. CommandCenter display will show operator adjustment setting.

Fan speed motor has a thermal (heat) shut off that stops the motor from working if any of the following happen:

- Switch is used continuously for more than two or three minutes.
- Adjustment system is against stop while motor is still trying to change speed.
- Excessive binding or dragging in linkage.



H85878 —UN—17NOV06

A—Cleaning Fan Speed Adjust Switch
B—Indicator Light
C—Selection Dial

If any of the above causes are suspected, clean and adjust as necessary.

NOTE: Allow motor to cool 10 to 15 minutes before trying switch again.

OUO6075,0000985 -19-30MAR07-1/1

Dial-A-Speed Dial (Black)

Reel Speed/Belt Pickup Speed Automatic Adjust

Dial-A-Speed dial (A) will change speed of reel or belt pickup as determined by operator. Operating speed is a ratio of machine ground speed to reel or belt speed (see Dial-A-Speed System in CommandTouch Cab Cornerpost section).

Turn dial towards plus (+) symbol to increase reel or belt pickup speed and setpoint or towards minus (-) symbol to decrease reel and belt pickup speed and setpoint.

A—Dial-A-Speed Dial

H85873 —UN—17NOV06

OUO6075,000097D -19-19DEC07-1/2

Reel Speed/Belt Pickup Speed Manual Adjust

Press Dial-A-Speed button (A) on display to disable automatic adjust system and to allow manual control. Turn Dial-A-Speed dial (B) to manually change speed of reel or belt pickup.

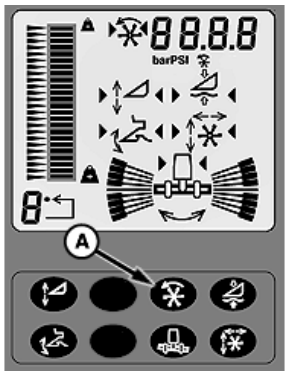
Turn dial towards plus (+) symbol to increase reel or belt pickup speed or towards minus (-) symbol to decrease reel and belt pickup speed.

System is in manual mode when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Header and separator are engaged.
- Dial-A-Speed is disabled or when machine speed is below 1/4 km/h (0.16 mph).

NOTE: Corn heads with reel attached in down corn will only run in manual mode.

A—Dial-A-Speed Button **B—Dial-A-Speed Dial**



H90412 —UN—17DEC07

H90425 —UN—18DEC07

OUO6075,000097D -19-19DEC07-2/2

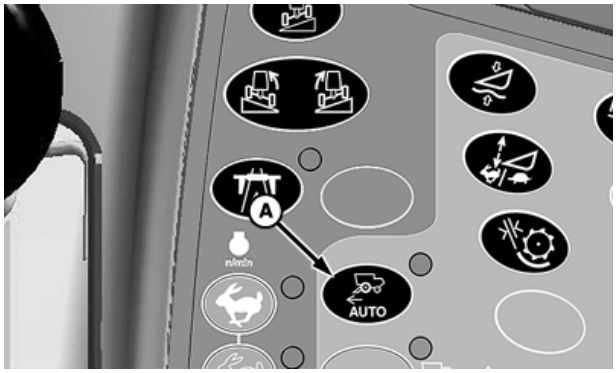
Harvest Smart Feed Rate Enable Switch (Black) (Optional)

Harvest Smart feed rate enable switch (A) allows machine to enable Harvest Smart and allows operator to select two operating modes **(Smart** and **Capacity)** or to turn OFF system.

Press Harvest Smart feed rate enable switch once causes the feed rate popup screen to appear on the CommandCenter display. With popup screen shown, press button again to change between the different modes **(Smart**, **Capacity)** and **OFF**.

From this screen the operator is allowed to change the following:

- Maximum Harvest Speed
- Target Engine Speed
- Machine Response Rate
- Rotor Target Pressure (Capacity Mode)



H85902 —UN—17NOV06

A—Harvest Smart Feed Rate Enable Switch

OUO6075,000098F -19-03AUG07-1/2

Rotate selection dial (A) to select from the following:

- Maximum Harvest Speed (B)
- Target Engine Speed (C)
- Machine Response Rate (D)
- Rotor Target Pressure (Capacity Mode) (E)

When desired choices is highlighted, press confirm switch (F).

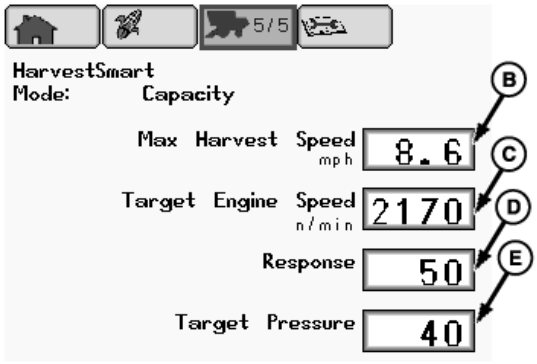
Rotate selection dial until desired value is shown on screen and press confirm switch to save value.

Repeat procedure on remain settings as desired.

NOTE: Press Home Page button on CommandCenter to resume normal operation.

A—Selection Dial
B—Maximum Harvest Speed
C—Target Engine Speed
D—Machine Response Rate
E—Rotor Target Pressure (Capacity Mode)
F—Confirm Switch

H86412 —UN—17NOV06



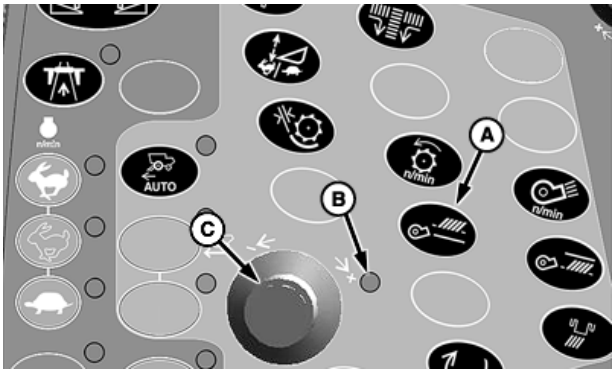
H86413 —UN—25JAN07

OUO6075,000098F -19-03AUG07-2/2

Chaffer Adjust Switch (Black)

Chaffer adjust switch (A) allows operator to adjust chaffer clearance from inside cab as determined by operator.

1. Press chaffer adjust switch.
2. Indicator light (B) will come on indicating setting can be adjusted
3. Turn selection dial (C) towards plus (+) symbol to increase chaffer clearance or towards minus (-) symbol to decrease chaffer clearance.
4. CommandCenter display will show operator adjustment setting.



H85880 —UN—17NOV06

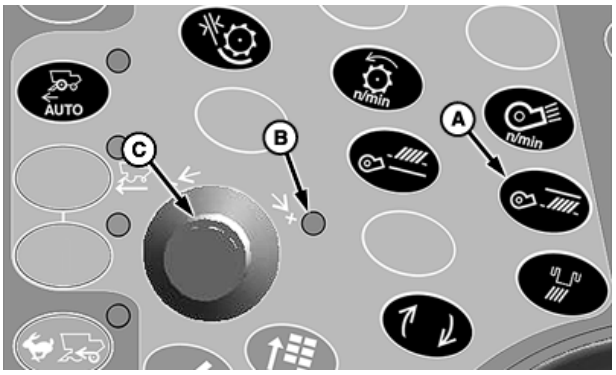
A—Chaffer Adjust Switch
B—Indicator Light
C—Selection Dial

OUO6075,0000987 -19-30MAR07-1/1

Sieve Adjust Switch (Black)

Sieve adjust switch (A) allows operator to adjust sieve clearance from inside cab as determined by operator.

1. Press sieve adjust switch.
2. Indicator light (B) will come on indicating setting can be adjusted.
3. Turn selection dial (C) towards plus (+) symbol to increase sieve clearance or towards minus (-) symbol to decrease sieve clearance.
4. CommandCenter display will show operator adjustment setting.



H85881 —UN—17NOV06

A—Sieve Adjust Switch
B—Indicator Light
C—Selection Dial

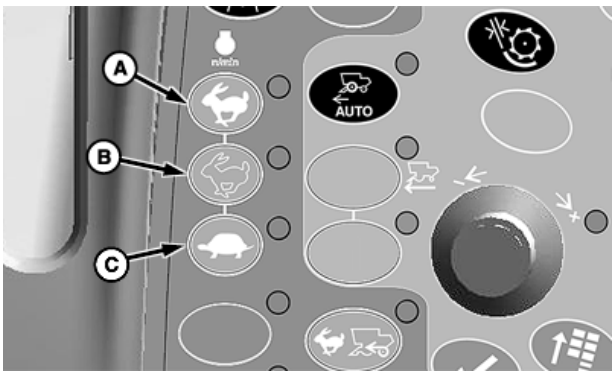
OUO6075,0000988 -19-30MAR07-1/1

Engine Speed Switches (Orange)

Engine speed switches are used to increase or decrease engine speed.

- Switch (A) is for high speed.
- Switch (B) is for medium speed.
- Switch (C) is for low speed.

A—High Engine Speed
B—Medium Engine Speed
C—Low Engine Speed



H85884 —UN—17NOV06

OUO6075,000098B -19-15NOV06-1/1

ProDrive Mode 1 and 2 Switches (Orange)

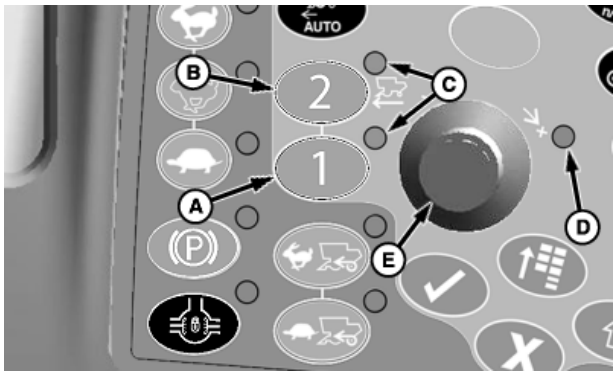
NOTE: Tire sizes and country code regulations limit maximum ground speed. Speed can be programmed from zero to maximum allowable ground speed.

Maximum reverse ground speed is 10 km/h (6.2 mph) and does not change when in either mode.

ProDrive mode 1 or 2 switches can be selected while machine is moving.

ProDrive mode 1 switch (A) and ProDrive mode 2 switch (B) are used to control transmission ground speed electronically. Switches are used to set a comfortable harvest or transport speed. When desired ground speed is set and multifunction control handle is moved fully forward, machine operates no faster than the setpoint for the selected mode.

1. Press ProDrive mode 1 or 2 switch. Indicator lights (C) indicate which mode is currently selected.
2. Indicator light (D) comes on indicating setpoint can be adjusted.
3. Turn selection dial (E) towards plus (+) symbol to increase speed or towards minus (-) symbol to decrease speed.



H91048 —UN—28MAR08

A—ProDrive Mode 1 Switch
B—ProDrive Mode 2 Switch
C—Indicator Lights
D—Indicator Light
E—Selection Dial

OUO6075,000014F -19-10JUL08-1/3

4. CommandCenter display shows operator adjustment settings for:

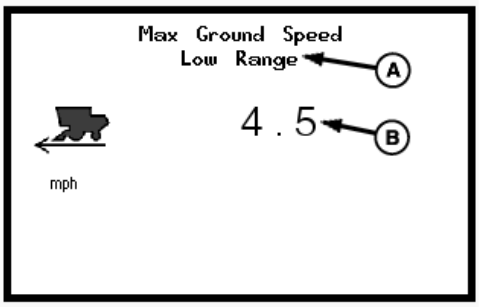
NOTE: Mode 1 maximum speed cannot be set higher than current maximum speed set in mode 2.

Machine has a speed range of 0—7.2 km/h (0—4.5 mph)) as shown and will not operator faster than setpoint speed.

Speed change occurs between mode 1 and mode 2. (Example: Mode 1 set at 8 km/h (5 mph) with multifunction control handle in mid range (4 km/h 2.5 mph). Mode 2 set at 20 km/h (12.4 mph) with multifunction control handle in mid range 10 km/h (6.2 mph). Current ground speed increases between modes).

Max Ground Speed Low Range (Mode 1)

- Max Ground Speed Low Range (A) displays when ProDrive mode 1 switch is selected.
  - Display shows current setpoint speed (B).
  - When selection dial is rotated, machine slowly increases or decreases ground speed no matter where multifunction control handle is positioned.



H91049 —UN—22APR08

A—Max Ground Speed Low Range
B—Current Setpoint Speed

Continued on next page

OUO6075,000014F -19-10JUL08-2/3

NOTE: Machine has a speed range of 0—15.6 km/h (0—9.7 mph) as shown and will not operator faster than setpoint speed.

Speed change occurs between mode 1 and mode 2. (Example: Mode 1 set at 8 km/h (5 mph) with multifunction control handle in mid range (4 km/h 2.5 mph). Mode 2 set at 20 km/h (12.4 mph) with multifunction control handle in mid range 10 km/h (6.2 mph). Current ground speed increases between modes).

Max Ground Speed High Range (Mode 2)

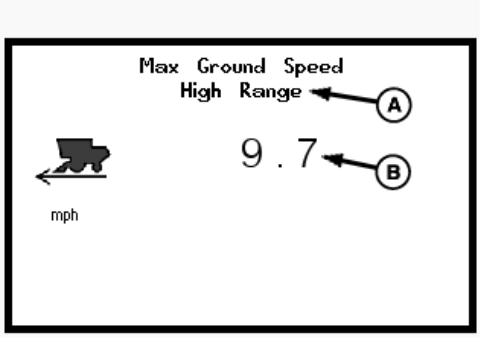
- Max Ground Speed High Range (A) displays when ProDrive mode 2 switch is selected.
  - Display shows current setpoint speed (B).
  - When selection dial is rotated, machine slowly increases or decreases ground speed no matter where multifunction control handle is positioned.

NOTE: Greater maximum setpoints mean more aggressive machines movements. It is always best to use low range with a low maximum setpoint when doing precision movements (hooking up header).

Example 1: Attaching header to machine and harvesting desired crop. Mode 1 set to 1.6 km/h (1 mph). Mode 2 set to 11.3 km/h (7 mph).

Example 2: Waterway approaches and harvesting desired crop. Mode 1 set to 4.8 km/h (3 mph). Mode 2 set to 11.3 km/h (7 mph).

A—Higher Acceleration Range B—Lower Acceleration Range



H91050 —UN—22APR08

A—Max Ground Speed High Range B—Current Setpoint Speed

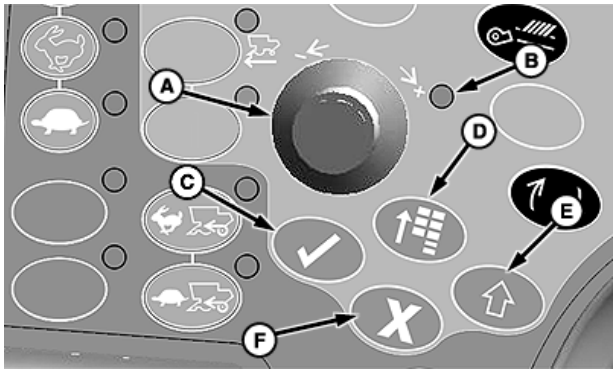
H91047 —UN—02APR08

OUO6075,000014F -19-10JUL08-3/3

Operator Interface Controls

- **Selection Dial (A):** allows operator to move the “focus” from item to item on the CommandCenter display. As item is highlighted, a “tool tip” will appear describing what the highlighted object is. Selection dial is also used for data entry to increase/decrease numeric values.
- **Indicator Light (Green) (B) :** indicates that a switch was selected and now can be adjusted to the operator desired position or setting.
- **Confirm Switch (Green) (C):** allows operator to select desired “focus” area on CommandCenter display or to confirm an action.
- **Main Menu Switch (Green) (D):** is used to change the active “application” that the CommandCenter display is running. Items or applications, in the menu included:
  - Combine Settings
  - On Board Diagnostic Troubleshooting
  - Display Settings

NOTE: Display select switch must be activated to navigate between CommandCenter and GreenStar display (if equipped), see your John Deere dealer for further information.



H85905 —UN—17NOV06

A—Selection Dial
B—Indicator Light
C—Confirm Switch
D—Main Menu Switch
E—Display Select Switch
F—Cancel Switch

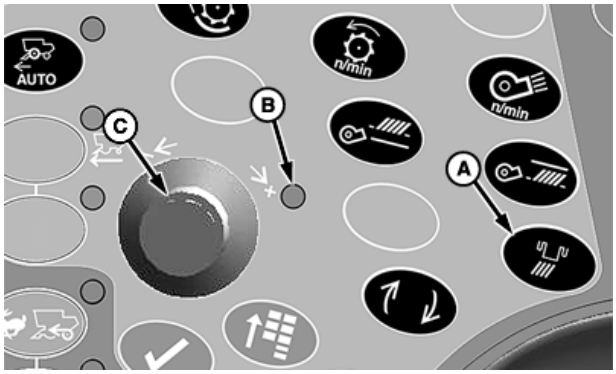
- **Display Select Switch (Green) (E):** allows operator to change which display the selection dial controls (CommandCenter or GreenStar display (if equipped)).
- **Cancel Switch (Green) (F):** allows operator to cancel an action on CommandCenter display at anytime.

OUO6075,0000990 -19-13JUL07-1/1

Chopper Vane Adjust Switch (Black)

Chopper vane adjust switch (A) allows operator to adjust direction of chopper vanes from inside cab.

1. Press chopper vane adjust switch.
2. Indicator light (B) will come on indicating setting can be adjusted.
3. Turn selection dial (C) towards plus (+) symbol to move chopper vanes to the right or towards minus (-) symbol to move chopper vane to the left.
4. CommandCenter display will show operator adjustment setting.



H85907 —UN—17NOV06

A—Chopper Vane Adjust Switch
B—Indicator Light
C—Selection Dial

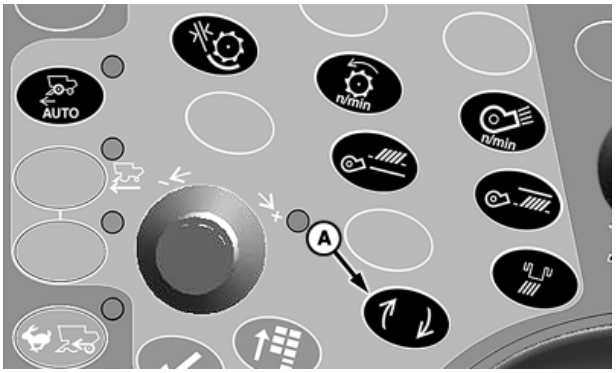
OUO6075,0000989 -19-30MAR07-1/1

Swap Switch (Black)

Pressing swap switch (A) allows operator to automatically move chopper vanes from right to left or left to right.

NOTE: Example: If wind is blowing chaff or straw towards uncut crops or operator has reached end row and travels back the opposite direction, press swap switch to allow chopper vanes to automatically move to the opposite side.

A—Swap Switch



H85908 —UN—20NOV06

OUO6075,000098A -19-08AUG07-1/1

Park Brake Switch (Orange)

NOTE: When first started, system is in manual mode with indicator light ON indicating park brake is engaged. Press park brake switch once to enter automatic mode.

Park brake switch (A) manually or automatically engages/disengages parking brake preventing machine movement.

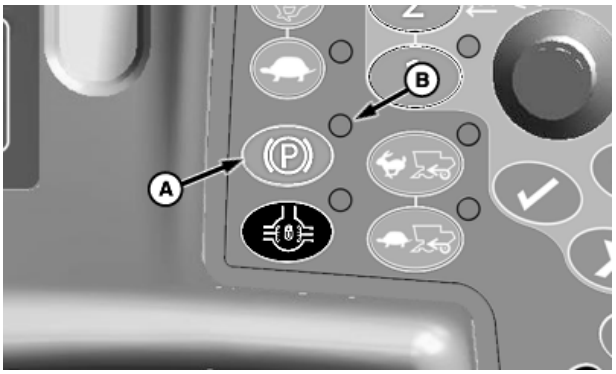
Automatic Mode:

- Press park brake switch **once** to set park brake to automatic mode. Indicator light (B) comes ON and flashes.
  - If multifunction control handle is in neutral gate and speed is less than 3 km/h (1.9 mph), park brakes are applied. If multifunction control handle is moved out of neutral gate, park brakes are released.

  NOTE: Park brake engages each time multifunction control handle is set to neutral position or if engine is shut OFF.

Manual Engagement (Default Mode):

- Press park brake switch **twice** to set park brake to manual mode. Indicator light (B) comes ON.



H90261 —UN—08NOV07

A—Park Brake Switch **B—Indicator Light**

  - If multifunction control handle is in neutral gate and speed is less than 3 km/h (1.9 mph), park brakes are applied. If multifunction control handle is moved out of neutral gate or speed is greater than 3 km/h (1.9 mph) an alarm sounds.

OUO6075,0000152 -19-28MAY08-1/1

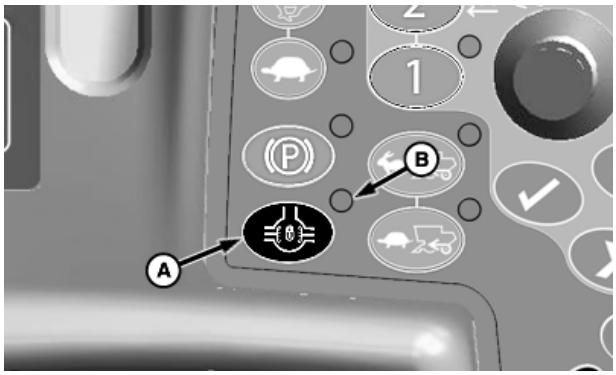
Differential Lock Switch (Black)

NOTE: Differential lock does not engage when road transport disconnect switch is ON. Differential disengages when brake pedals are pressed.

Engagement is only possible if ground speed is below 10 km/h (6.2 mph) and automatically disengages when ground speed is above 12 km/h (7.5 mph).

Differential lock switch (A) manually engages/disengages the differential lock to resolve traction problems in the field.

NOTE: Display shows a solid outer ring symbol with the lock symbol indicating differential lock is engaged.



H90262 —UN—08NOV07

A—Different Lock Switch **B—Indicator Light**

OUO6075,0000153 -19-28MAY08-1/1

Four Wheel Drive Switches (Orange) (Optional)

IMPORTANT: Do not switch four wheel drive ON or OFF while driving machine at maximum travel speed. Reduce speed to half of maximum speed.

Turn four wheel drive OFF before going down steep grades.

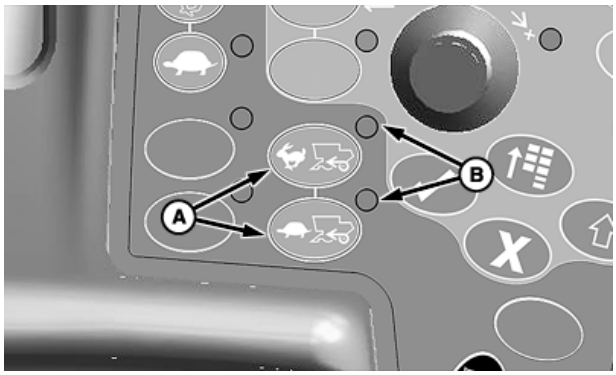
It is OK to switch between low (turtle) and high (rabbit) settings on the "GO" while harvesting.

Four wheel drive switches (A) are used to control the speed of the four wheel drive system.

Press either four wheel drive switch once to turn ON or once to turn OFF. Indicator light (B) above either switch turns ON indicating which switch was selected.

Press bottom switch (turtle) when more traction is needed or top switch (rabbit) when higher speeds are required.

NOTE: It is normal for front wheels to spin out (lose traction) before rear wheels in most conditions. In extremely muddy conditions, it may be necessary to apply both brakes momentarily to increase hydrostatic pressure to four wheel drive motors.



H85887 —UN—17NOV06

A—Four Wheel Drive Switches **B—Indicator Lights**

It is recommended that four wheel drive be left in low (turtle) speed allowing machine to operate at maximum torque capacity. It is recommended to use high (rabbit) speed only to allow rear wheels to spin out faster than ground speed when required.

OUO6075,0000151 -19-28MAY08-1/1

Folding Auger Switch (Black) (Optional)

NOTE: Verify unloading auger is unfolded fully before engaging. When unloading auger is not used, it is recommended that it be swung back and folded to transport position.

Folding auger switch (A) controls the swing of the unloading auger. Hold bottom of switch for three seconds (automatic mode) to extend short portion of unloading auger or hold top of switch for three seconds (automatic mode) to retract short portion of unloading auger.

CommandCenter display indicates position of folding unloading auger. Display only indicates when operator is folding or unfolding the auger.

NOTE: Display indicates if unloading auger has not reached the complete unfolded (field) position. Unloading auger will not work unless fully unfolded. Display indicates if unloading auger has not reached the complete folded (transport) position after the operator folds the unloading auger.

H85879 —UN—17NOV06

A—Folding Auger Switch

OUO6075,0000986 -19-30MAR07-1/1

Grain Tank Cover Switch (Black)

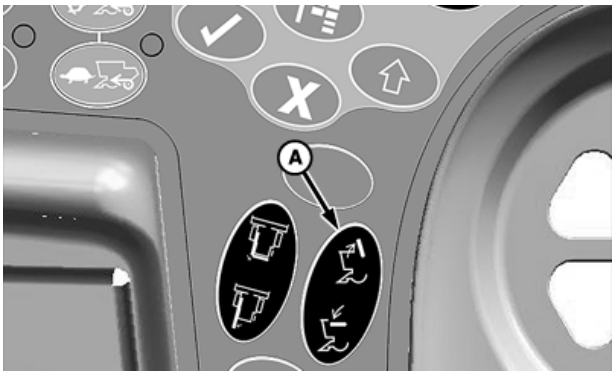
CAUTION: Avoid power line entanglement. Grain tank covers must be closed before transporting machine. Lower covers to 15° open position when operating near low hanging lines.

IMPORTANT: Open grain tank covers to 15° or greater before engaging separator. 15° decals can be seen on clean grain auger through rear cab window. Actuator will not open or close covers if grain tank is full.

Grain tank cover switch (A) allows operator to raise or lower grain tank covers. When grain tank covers are opened, clean grain loading auger also swings up and when covers are lowered, clean grain loading auger swings down.

Hold bottom of switch to lower grain tank covers and clean grain loading auger or hold top of switch to raise grain tank covers and clean grain loading auger.

CommandCenter armrest display indicates the position of grain tank covers and clean grain loading auger.



H85909 —UN—17NOV06

A—Grain Tank Cover Switch

NOTE: Display indicates if grain tank covers are open in road transport mode or the grain tank covers are close with separator engages.

OUO6075,0000982 -19-30MAR07-1/1

Multifunction Control Handle (Orange)

A—Forward and Reverse Control Handle
B—Quick Stop Switch
C—Unloading Auger Swing Switch
D—Unloading Auger Drive Engage/Disengage Switch and Indicator Light
E—Header Raise/Lower Switch and HeaderTrak Lateral Tilt Switch (Optional)
F—Reel Raise/Lower, Reel Fore and Aft (Optional), Feeder House Backshaft Speed, Adjustable Corn Head Deck Plates (Optional)
G—Activation Buttons (1, 2, 3)

H85888 —UN—10MAY06

OUO6075,0000993 -19-09AUG07-1/1

Multifunction Control Handle and Palm Adjustment

IMPORTANT: If hydrostatic charge pressure warning comes ON in CommandCenter display when multifunction control handle is moved, check hydraulic oil level or replace filter, see your John Deere dealer if the problem is not corrected.

Move multifunction control handle forward to move machine forward or pull back slightly to the right and rearward to move machine rearward.

Palm rest (A) is adjustable to three detent positions. To raise or lower palm rest, pull lever (B) under palm rest and adjust palm rest to desired position.

H85889 —UN—10MAY06

A—Palm Rest B—Lever

OUO6075,0000600 -19-02JUL07-1/1

Quick Stop Switch (Yellow)

CAUTION: ProDrive Machines: Pressing quick stop switch with separator engaged causes machine to quickly stop. Avoid serious injury by preparing for a rapid decrease in speed.

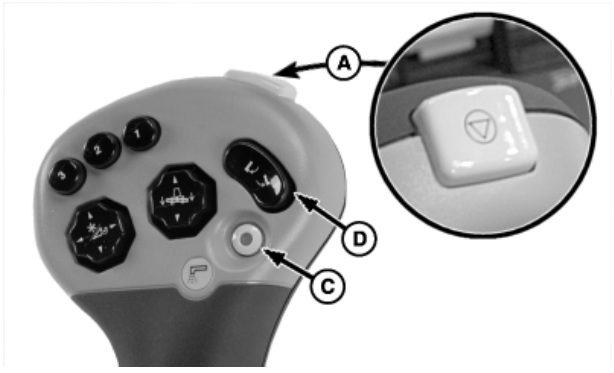
IMPORTANT: Header drive can be disengaged by this switch in case of malfunctions.

Quick stop switch (A) allows operator to simultaneously shut OFF the following at the same time in case of an emergency:

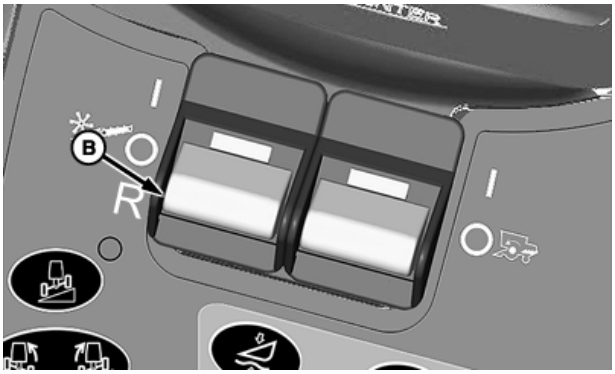
- Header engage switch (B)
- Unloading auger switch (C)
- Unloading auger swing switch (D)
- ProDrive (propulsion movement quickly stops)

Pushing unloading auger drive switch on multifunction control handle restarts the unloading auger drive. To engage header drive, turn header engage switch OFF and back ON.

A—Quick Stop Switch
B—Header Engage Switch
C—Unloading Auger Switch
D—Unloading Auger Swing Switch



H85890 —UN—10MAY06



H85891 —UN—17NOV06

OUO6075,000050C -19-01JUL10-1/1

Unloading Auger Swing Switch (Black)

Unloading auger swing switch (A) allows operator to swing unloading auger in or out manually or automatically.

System Requirements:

- Road transport disconnect switch (B) must be in field position.
- Operator must be seated.

Press top of unloading auger swing switch to swing auger out or press bottom of unloading auger swing switch to swing auger in.

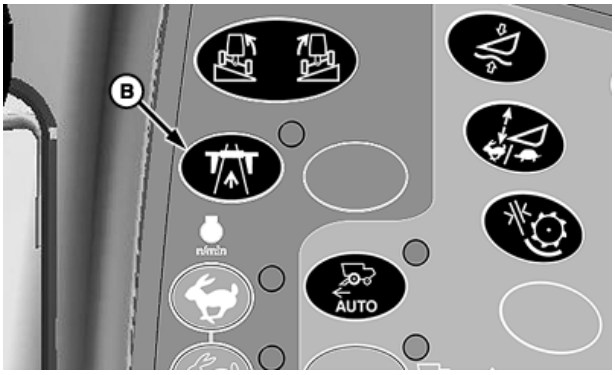
Manual Control: Press and hold switch part way in until auger reaches desired position. Auger stops when switch is released.

Automatic Control: Press switch all the way in and release it. Auger will swing fully outward or inward without holding switch.

NOTE: Automatic auger swing function will not operate when unloading auger drive is engaged. When unloading auger is not used, it is recommended to swing unloading auger back to transport position.

A—Unloading Auger Swing Switch
B—Road Transport Disconnect Switch

H85892 —UN—10MAY06



H85871 —UN—17NOV06

OUO6075,0000995 -19-15NOV06-1/1

Unloading Auger Drive Switch (Yellow)

Unloading auger drive switch (A) allows operator to engage or disengage the unloading auger.

System Requirements:

- Road transport disconnect switch (B) must be in field position.
- Operator must be seated.

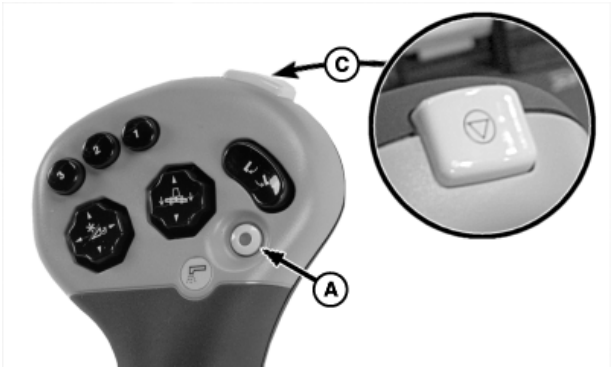
Press unloading auger drive switch once to turn ON or press unloading auger drive switch again to turn OFF. Indicator light comes ON when system is engaged.

NOTE: Unloading auger drive can also be turned OFF with quick stop switch (C) in case of an emergency. To engage unloading auger if header and unloading auger are stopped with quick stop switch, press unloading auger switch again.

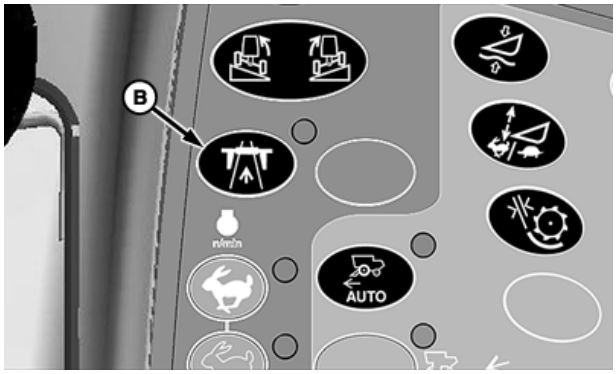
Unloading auger drive will engage only when the button is held while the auger is in auto swing mode or when auger is manually swung out less than 50%.

If operator leaves the seat after engagement, the unloading auger drive will continue to operate for five seconds before disengaging. To engage system, sit on the operator's seat and press the unloading auger switch again.

NOTE: If unloading system fails to engage or stops unexpectedly, sit squarely on the seat, and press unloading auger switch once.



H85894 —UN—10MAY06



H85893 —UN—17NOV06

A—Unloading Auger Drive Switch
B—Road Transport Disconnect Switch
C—Quick Stop Switch

OUO6075,0000996 -19-26JUL07-1/1

Header Raise/Lower Switch (Black)

Header raise/lower switch (A) allows operator to raise or lower the header.

NOTE: Header raise/lower switch has two detent positions. Push part way in on switch will cause header to slowly raise or lower. Push all the way in will cause header to raise or lower at a faster rate.

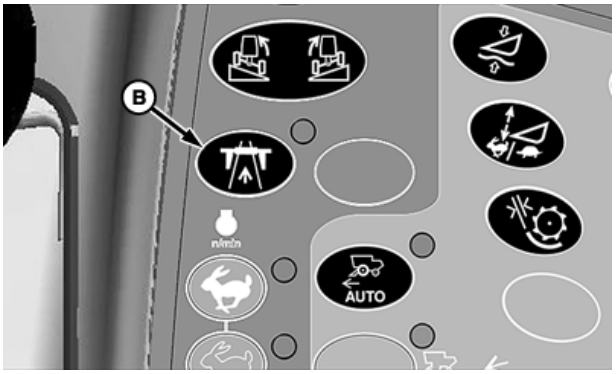
System Requirements:

- Road transport disconnect switch (B) must be in field position.
- Operator must be seated.

Press and hold top of header raise/lower switch to raise header or press and hold bottom of header raise/lower switch to lower header.

A—Header Raise/Lower Switch **B—Road Transport Disconnect Switch**

H85895 —UN—10MAY06



H85893 —UN—17NOV06

OUO6075,0000997 -19-13FEB07-1/1

HeaderTrak Lateral Tilt Switch (Black)

HeaderTrak lateral tilt switch (A) allows operator to tilt feeder house to the left or right.

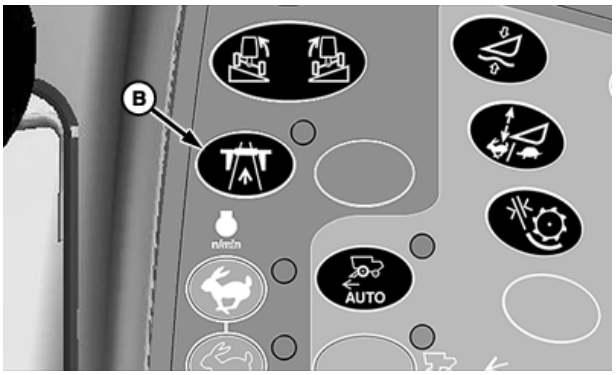
System Requirements:

- Road transport disconnect switch (B) must be in field position.

Press right side of HeaderTrak lateral tilt switch to tilt feeder house to the right or press left side of HeaderTrak lateral tilt switch to tilt feeder house to the left.

A—HeaderTrak Lateral Tilt Switch **B—Road Transport Disconnect Switch**

H85896 —UN—10MAY06



H85893 —UN—17NOV06

OUO6075,00009A6 -19-09AUG07-1/1

Platform Reel Lift/Reel Fore and Aft Switch (Black)

NOTE: Switch is also used to control corn head backshaft speed and adjustable deck plate spacing. Refer to Corn Head Backshaft Speed and Adjustable Deck Plate Spacing Switch in this section for further information.

Reel lift/reel fore and aft switch (A) allows operator to control the position of the reel.

System Requirements:

- Road transport disconnect switch (B) must be in field position.

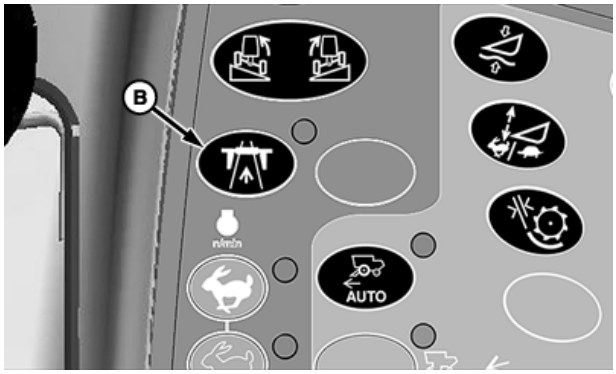
Reel Lift/Reel Fore and Aft: Push and hold top of switch to raise reel or press and hold bottom of switch to lower reel.

Push and hold left side of switch to move reel forward or press and hold right side of switch to move reel rearward.

A—Reel Lift/Reel Fore and Aft Switch

B—Road Transport Disconnect Switch

H85897 —UN—10MAY06



H85893 —UN—17NOV06

OUO6075,0000AA7 -19-13FEB07-1/1

Adjustable Deck Plate Spacing Switch (Black)

NOTE: Switch is also used to control platform reel lift/reel fore and aft. Refer to Platform Reel Lift/Reel Fore and Aft Switch in this section for further information.

Deck plate spacing switch (A) allows operator to adjust the deck plate spacing (if equipped).

System Requirements:

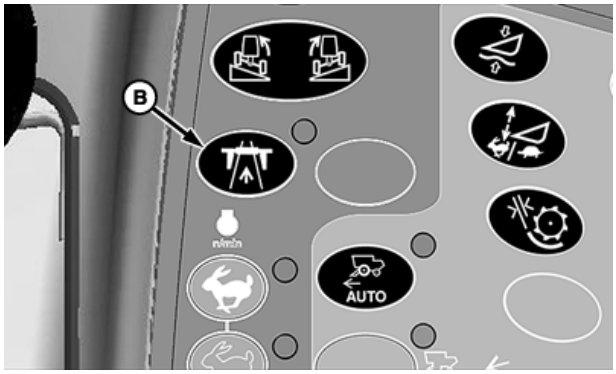
- Road transport disconnect switch (B) must be in field position.

Deck Plate Spacing (if equipped): Press left or right side of switch once to activate CommandCenter display. Press left side of switch again to increase spacing and press right side of switch to decrease spacing.

A—Deck Plate Spacing Switch

B—Road Transport Disconnect Switch

H85897 —UN—10MAY06



H85893 —UN—17NOV06

OUO6075,0000353 -19-16APR09-1/1

Header Activation Buttons (Black)

When header activation buttons (A), (B) or (C) are pressed the following functions are performed:

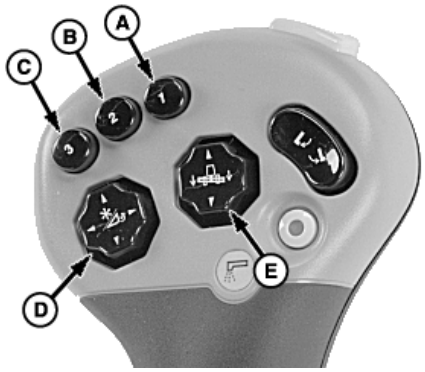
- Return to Cut
- Stubble Height Sensing
- HeaderTrak Lateral Tilt
- Reel Position Resume
- Header Ground Pressure Float

The electronic control system will move the header back to preselected position chosen by the operator.

NOTE: Header positions obtained by pressing activation buttons may be overcome by pressing reel raise/lower or reel fore and aft switch (D) or header raise/lower and HeaderTrak lateral tilt switch (E). Once activation buttons are manually overcome, press desired activation button to reactivate.

System Requirements:

- Properly equipped header is connected.
- Engine is running.
- Road transport disconnect switch must be in field position.
- HeaderTrak modes are enabled.



H85898 —UN—10MAY06

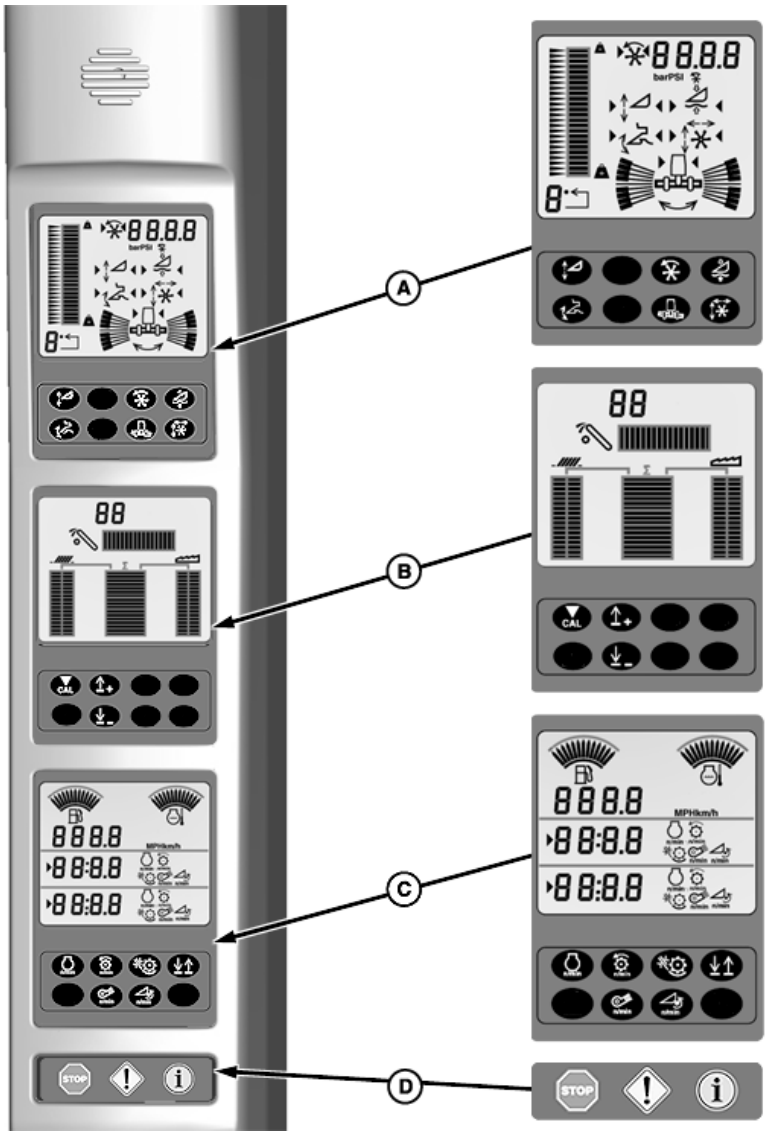
A—Activation Button 1
B—Activation Button 2
C—Activation Button 3
D—Reel Lift/Reel Fore and Aft Switch
E—Header Raise/Lower and HeaderTrak Lateral Manual Tilt Switch

- Header is engaged.

Pressing header activation buttons activates system. Header control system will take control and move header to the operator selected position.

OUO6075,00009A4 -19-09AUG07-1/1

CommandTouch Cab Cornerpost



H86000 —UN—13DEC06

A—HeaderTrak Control Display **B—VisionTrak™ Display** **C—Triple Display Tachometer Display** **D—Warning Indicators Display**

VisionTrak is a trademark of Deere & Company

OUO6075,00009A8 -19-09AUG07-1/1

HeaderTrak Control Display

Stubble Height Sensing Button: allows the operator to select the position of the header relative to the ground and return to that position automatically.

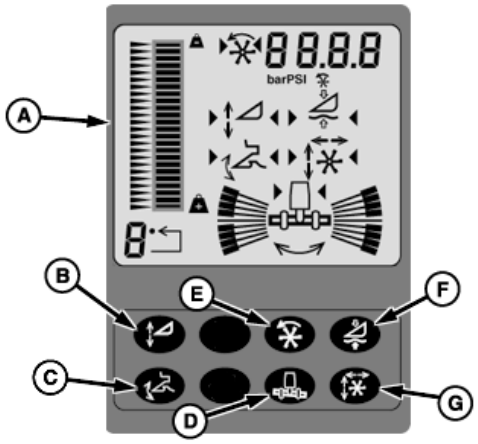
Stubble Height Sensing Button (HydraFlex): allows the operator to adjust the cutterbar ground pressure, or weight of the cutterbar, and return to that setting automatically. HydraFlex works in conjunction with header height sensing to maintain a header position relative to the ground, follow the ground contour, and return to that position automatically.

Return to Cut Button: allows the operator to select the position of the feeder house relative to the machine and return to that position automatically.

HeaderTrak Lateral Tilt Button: allows the operator to maintain the header position relative to the ground. Sensors are used to determine the height at each end of the header. The header tilts to equalize the distances to the ground at each end of the header. If equipped with Header Height Sensing— HydraFlex (optional), the two systems work together to maintain the closest position of the cutterbar relative to the ground.

Dial-A-Speed Button: allows automatic control of operating speed for reel or belt pickup headers. Operating speed will be a ratio of the machine ground speed to the reel or belt speed.

Header Ground Pressure (Float) Button: allows a rigid header to be operated in contact with the ground and maintain a set contact pressure. The operator selects how firmly the header contacts the ground and returns to that pressure automatically.



H86001 —UN—13DEC06

A—HeaderTrak Control Display
B—Stubble Height Sensing Button
C—Return to Cut Button
D—HeaderTrak Lateral Button
E—Dial-A-Speed Button
F—Header Ground Pressure (Float) Button
G—Reel Position Resume Button

OUO6075,00009A9 -19-22AUG07-1/1

Description of HeaderTrak Control System

HeaderTrak Control system compensates for uneven ground and controls horizontal and vertical positions of the header. The system continuously compares the preset position and the actual position, thus keeping the header in the desired working position. Values are entered by the response rate adjust and sensitivity adjust along with the selection dial located on armrest.

System Requirements:

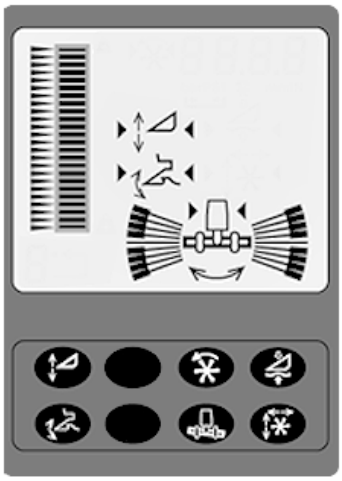
- Road transport disconnect switch must be in field position.
- Engine is running.
- Header engaged.
- Desired header control mode activated.

Lateral Tilt Adjustment—Two modes

- Manual Adjust — hydraulic components are directly activated by multifunction control handle.
- Automatic Adjust — parallel adjustments of the header in relation to the ground are carried out by sensors on each end of header. This ensures that the distance between the header and the ground is equal on both the left-hand and right-hand sides.

Platform Height Adjustment—Four Modes

- Manual Adjust — hydraulic components are directly activated by multifunction control handle.
- Return to Cut — platform can be set to any position within the feeder house range.



H86522 —UN—13DEC06

- Stubble Height Sensing — height of the platform is maintained with height sensors attached to the platform. This ensures that header height is always constant over rough terrain.
- Header Ground Pressure (Float) — machine maintains a constant header pressure with ground contact.

OUO6075,00000C8 -19-26JUN08-1/4

Manual Raise/Lower Speed (Manual Functions) controls response rate of header raise/lower functions for manual control or when in automatic height resume mode.

Operation:

NOTE: Sensitivity setting is shown on display when adjusting. Settings are adjusted between 0 to 100.

Press feeder house rate/sensitivity adjust switch (A) **one time** and use selection dial (B) to adjust rate at which header reacts when being raised or lowered.

Turn selection dial clockwise to increase response rate or counterclockwise to decrease response rate settings (C).

A—Feeder House Rate/Sensitivity Adjust Switch
B—Selection Dial
C—Rate Settings

H86524 —UN—30JUL07

Continued on next page

OUO6075,00000C8 -19-26JUN08-2/4

NOTE: It is possible to override automatic modes manually.

Stubble Height Sensing and Header Ground Pressure Sensitivity (Automatic Functions) controls the speed of response for header movements when in automatic sensing and automatic float modes.

Operation:

NOTE: Sensitivity setting is shown on display when adjusting. Settings are adjusted between 0 to 100.

Press feeder house rate/sensitivity adjust switch (A) **two times** and use selection dial (B) to adjust speed at which header follows ground contour.

Turn selection dial clockwise to increase response rate or counterclockwise to decrease response rate settings (C).

A—Feeder House Rate/Sensitivity Adjust Switch
B—Selection Dial
C—Sensitivity Settings

OUO6075,00000C8 -19-26JUN08-3/4

NOTE: It is possible to override automatic modes manually.

Feeder house tilt sensitivity function only works on lateral tilt equipped machines.

Feeder House Tilt Sensitivity (Automatic Functions) controls the speed of response for lateral tilt movements when in automatic sensing and automatic float modes.

Operation:

NOTE: Sensitivity setting is shown on display when adjusting. Settings are adjusted between 0 to 100.

Press feeder house rate/sensitivity adjust switch (A) **three times** and use selection dial (B) to adjust speed at which lateral tilt follows ground contour.

Turn selection dial clockwise to increase response rate or counterclockwise to decrease response rate settings (C).

A—Feeder House Rate/Sensitivity Adjust Switch
B—Selection Dial
C—Sensitivity Settings

OUO6075,00000C8 -19-26JUN08-4/4

Return to Cut

Return to Cut allows the operator to select the position of the feeder house relative to the machine and return to that position automatically.

System must be calibrated with each header that is used with the machine (see Calibration Procedures section).

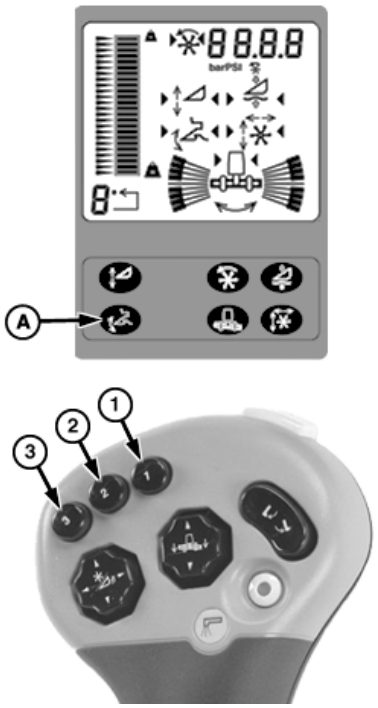
Activation buttons 1, 2 or 3 located on the multifunction control handle are used to select one of the three different programmable header heights.

NOTE: If both Return to Cut and Stubble Height Sensing are enabled, only activation button 1 will activate Return to Cut, activation buttons 2 and 3 will be assigned to Stubble Height Sensing.

Operation:

System is active when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Return to Cut system enabled.
- Header engaged.



H86495 —UN—01DEC06

A—Return to Cut Button

Continued on next page

OUO6075,00009AB -19-22AUG07-1/2

Press Return to Cut button (A) on display to enable system. Symbol (B) will appear.

Activate Return to Cut by pressing activation buttons 1, 2 or 3 on multifunction control handle. System activation arrows (C) will appear indicating system is activated.

Activation button number (D) in lower left corner of display indicates which activation button was selected.

To change height setpoint (E) of activation buttons, press desired activation button and adjust height using active header height control dial (F).

Turn active header height control dial towards plus (+) symbol to raise header and setpoint or towards minus (-) symbol to lower header and setpoint.

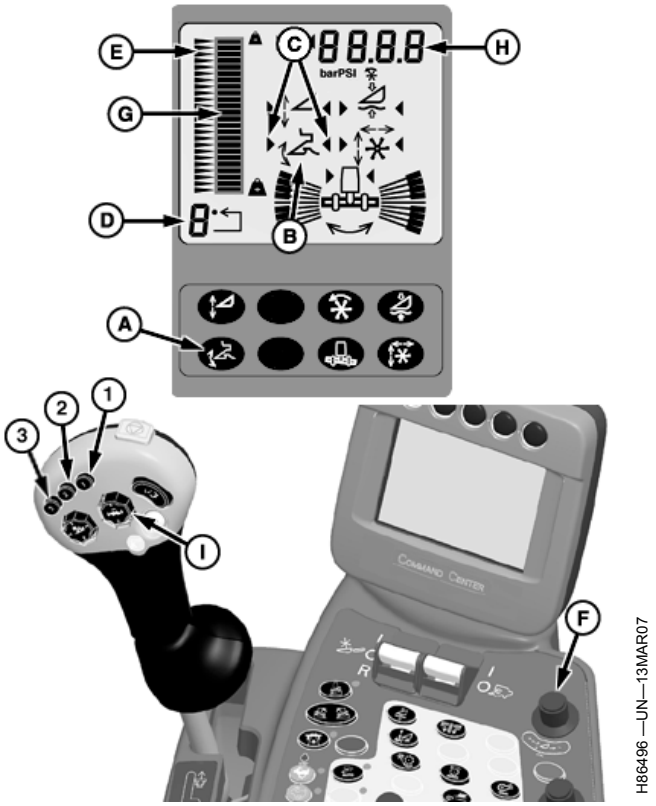
Bar graph (G) and numeric display (H) show the headers relative position based on the Return to Cut sensor linked to the feeder house.

Manually adjusting header height using header raise/lower switch (I) will deactivate system.

Press activation buttons 1, 2 or 3 to reactivate system. Header will automatically move to the preselected height.

System is disabled by pressing button (A).

A—Return to Cut Button
B—Return to Cut Symbol
C—System Activation Arrows
D—Activation Button Number
E—Height Setpoint
F—Header Height Control Dial
G—Bar Graph
H—Numeric Display
I— Header Raise/Lower Switch



H86496 —UN—13MAR07

OUO6075,00009AB -19-22AUG07-2/2

Stubble Height Sensing

Stubble Height Sensing allows the operator to select the position of the header relative to the ground and return to that position automatically.

System must be calibrated with each header that is used with the machine (see Calibration Procedures section).

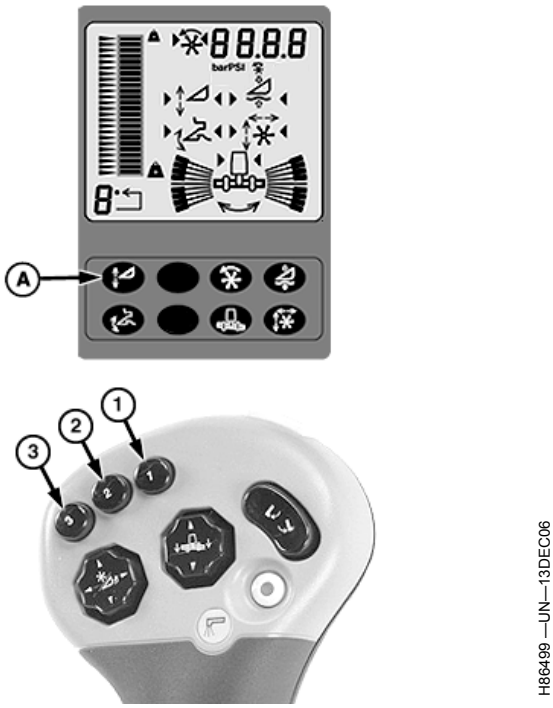
Activation buttons 1, 2 or 3 located on the multifunction control handle are used to select one of the three different programmable header heights.

NOTE: If both Return to Cut and Stubble Height Sensing are enabled, only activation button 1 will activate Return to Cut, activation buttons 2 and 3 will be assigned to Stubble Height Sensing.

Operation:

System is active when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Stubble Height Sensing system enabled.
- Header engaged.



H86499 —UN—13DEC06

A—Stubble Height Sensing Button

Continued on next page

OUO6075,00009AC -19-22AUG07-1/2

Press Stubble Height Sensing button (A) on display to enable system. Symbol (B) will appear.

Activate Stubble Height Sensing by pressing activation buttons 1, 2 or 3 on multifunction control handle. System activation arrows (C) will appear indicating system is activated.

Activation button number (D) in lower left corner of display indicates which activation button was selected.

To change height setpoint (E) of activation buttons, press desired activation button and adjust height using active header height control dial (F).

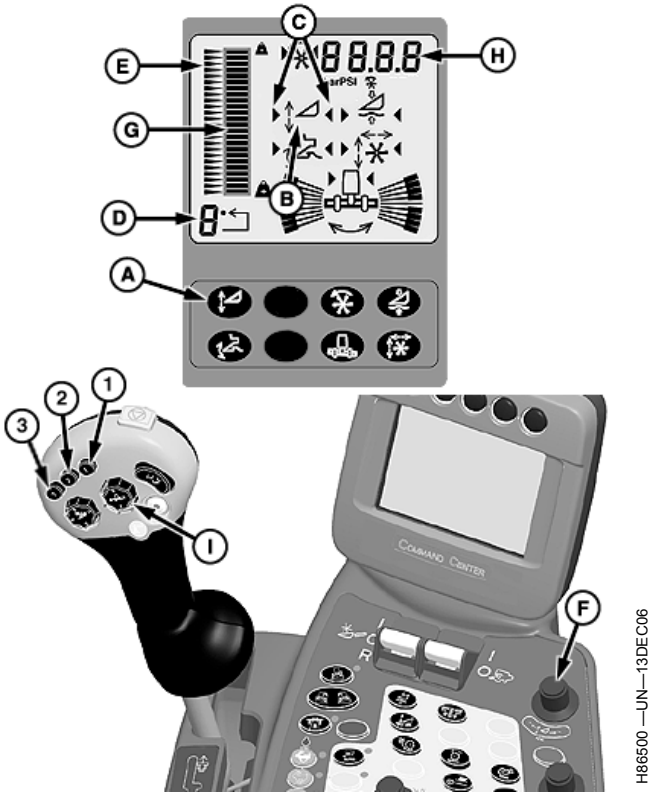
Turn active header height control dial towards plus (+) symbol to raise header and setpoint or towards minus (-) symbol to lower header and setpoint.

Bar graph (G) and numeric display (H) show the headers relative position based on the Return to Cut sensor linked to the header.

Manually adjusting header height with header lower switch (I) will temporarily override system until released. Once switch is released, system will return to automatic mode. Using header raise switch (I) will temporarily deactivate system until header lower switch is pressed. Once switch is pressed, system will reactivate.

Press activation buttons 1, 2 or 3 to reactivate system. Header will automatically move to the preselected height.

System is disabled by pressing button (A).



A—Stubble Height Sensing Button
B—Stubble Height Sensing Symbol
C—System Activation Arrows
D—Activation Button Number
E—Height Setpoint
F—Header Height Control Dial
G—Bar Graph
H—Numeric Display
I— Header Raise/Lower Switch

OUO6075,00009AC -19-22AUG07-2/2

Stubble Height Sensing—HydraFlex Platforms

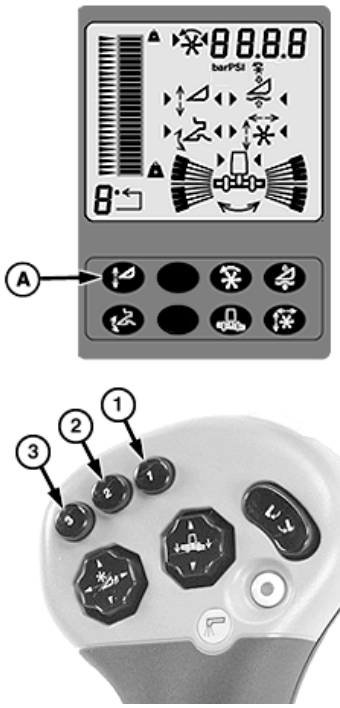
Stubble Height Sensing—HydraFlex allows the operator to adjust cutterbar ground pressure, or cutterbar weight, and return to that position automatically. HydraFlex works in conjunction with Stubble Height Sensing to maintain a header position relative to the ground, follow the ground contour, and return to that position automatically. HydraFlex heads use a sensor located on the right side of the header to measure the hydraulic pressure used to support the cutterbar.

NOTE: HydraFlex does not control cutting height relative to the ground. This is automatically controlled by the height sensing system and is not adjustable through the active header control dial when HydraFlex is present.

System must be calibrated with each header that is used with the machine (see Calibration Procedures section).

Activation buttons 1, 2 or 3 located on the multifunction control handle are used to select one of the three different programmable HydraFlex pressures.

NOTE: If both Return to Cut and Stubble Height Sensing are enabled, only activation button 1 will activate Return to Cut, activation buttons 2 and 3 will be assigned to Stubble Height Sensing.



H86499 —UN—13DEC06

A—Stubble Height Sensing Button

Operation:

System is active when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Stubble Height Sensing system enabled.
- Header engaged.

Continued on next page

OUO6075,00009AD -19-22AUG07-1/2

Press Header Height Sensing button (A) on display to enable system. Symbol (B) will appear.

Activate Stubble Height Sensing—HydraFlex by pressing activation buttons 1, 2 or 3 on multifunction control handle. System activation arrows (C) will appear indicating system is activated. Weight symbol (D) and numeric display (E) will appear indicating HydraFlex pressure is being monitored during header height sensing.

Activation button number (F) in lower left corner of display indicates which activation button was selected.

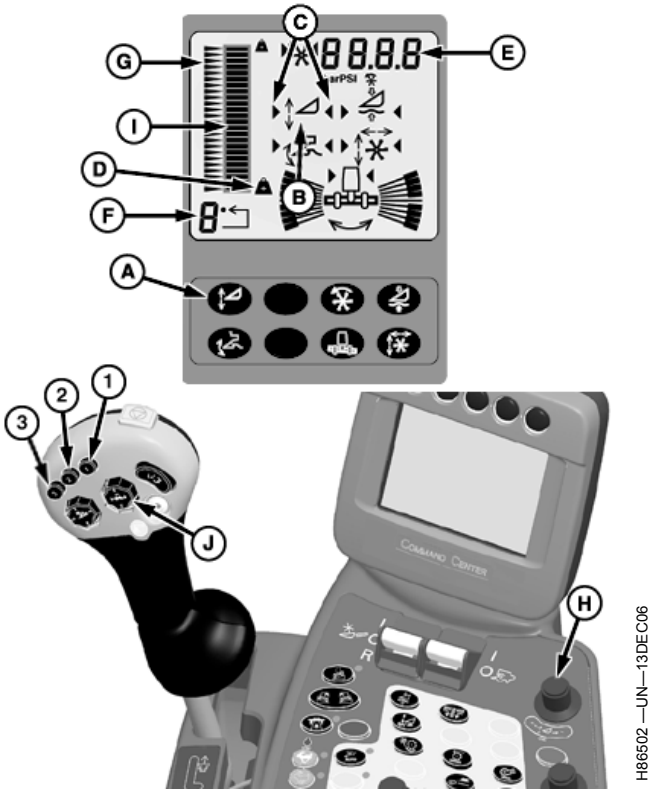
To change pressure setpoint (G) of activation buttons, press desired activation button and adjust pressure using active header height control dial (H). Pressure setpoint is displayed by an arrow to the left of the bar graph and actual pressure is shown in numeric display (E). Bar graph (I) shows whether the pressure matches the setpoint indicator.

NOTE: HydraFlex can not operate independent of Stubble Height Sensing in an automatic mode. These systems work together to control cutterbar weight and header movement.

Turn active header height control dial towards plus (+) symbol to increase HydraFlex pressure and setpoint or towards minus (-) symbol to lower HydraFlex pressure and setpoint

Manually adjusting header height using header lower switch (J) will temporarily override system until released. Once switch is released, system will return to automatic mode. Using header raise switch (J) will temporarily deactivate system until header lower switch is pressed. Once switch is pressed, system will reactivate.

Press activation buttons 1, 2 or 3 to reactivate system or manually lowering header height with header lower switch (J) will reactivate system. Header will automatically move to the preselected pressure.



H86502 —UN—13DEC06

A—Stubble Height Sensing Button
B—Stubble Height Sensing Symbol
C—System Activation Arrows
D—HydraFlex Active Symbol
E—Numeric Display
F—Activation Button Number
G—Pressure Setpoint
H—Header Height Control Dial
I— Bar Graph
J— Header Raise/Lower Switch

System is disabled by pressing button (A).

OUO6075,00009AD -19-22AUG07-2/2

Dial-A-Speed System

Dial-A-Speed provides the operator with automatic control of the operating speed for reel or belt pickup headers. Operating speed will be a ratio of machine ground speed to the reel or belt speed.

The system will operate with any header equipped with the appropriate reel or belt pickup speed sensors.

Operation:

System is active when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Header and separator are engaged.
- Dial-A-Speed system enabled.
- Ground speed greater than 1/4 km/h (0.16 mph).

Press Dial-A-Speed button (A) on display to enable system. Symbol (B) and system activation arrows (C) will appear indicating system is active if all above conditions are met.

NOTE: Dial-A-Speed system will not operate if ground speed is less than 1/4 km/h (0.16 mph).

Ratio of ground speed to reel or belt pickup speed is adjusted using Dial-A-Speed dial (D). Turn dial towards plus (+) symbol to increase reel or belt pickup speed or towards minus (-) symbol to decrease reel or belt pickup speed.

Numeric display (E) shown on CommandCenter shows the selected speed ratio. The larger the ratio number selected, the faster the reel or belt pickup will operate with respect to machine ground speed.

System is disabled by pressing button (A).

H90429 —UN—20DEC07

A—Dial-A-Speed Button
B—Dial-A-Speed Symbol
C—System Activation Arrows
D—Dial-A-Speed Dial
E—Numeric Display

Continued on next page

Changing Minimum Reel or Belt Pickup Speed

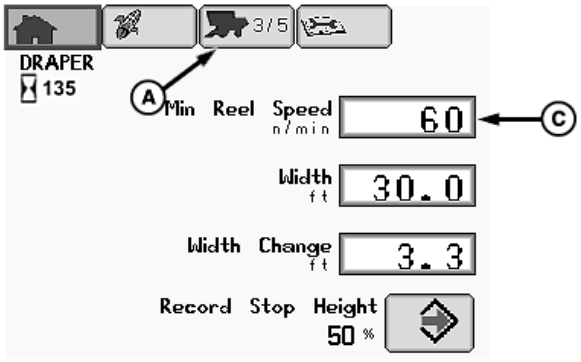
From setup pages icon (A), rotate selection dial (B) until minimum reel speed box (C) is highlighted.

When desired box is highlighted, press confirm switch (D).

Rotate selection dial until desired value is shown in box and press confirm switch to save values.

NOTE: Minimum reel or belt pickup speed has a low range of 10 rpm and high range of 60 rpm.

A—Setup Pages Icon
B—Selection Dial
C—Minimum Reel or Belt Pickup Speed Box
D—Confirm Switch



H87625 —UN—13MAR07

H86297 —UN—17NOV06

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OUO6075,000060D -19-02JAN08-2/3

Reel Speed/Belt Pickup Speed Manual Adjust

Dial-A-Speed also provides the operator with manual control of the operating speed for reel or belt pickup headers.

The system will operate with any header equipped with the appropriate reel or belt pickup speed sensors.

Operation:

System is in manual mode when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Header and separator are engaged.
- Dial-A-Speed is disabled or when machine speed is below 1/4 km/h (0.16 mph).

Press Dial-A-Speed button (A) on display to disable automatic adjust system and to allow manual control.

Turn Dial-A-Speed dial (B) to manually change speed of reel or belt pickup. Turn dial towards plus (+) symbol to increase reel or belt pickup speed or towards minus (-) symbol to decrease reel or belt pickup speed.

Numeric display (C) shown on CommandCenter shows the actual reel or belt pickup speed. The larger the number selected, the faster the reel or belt pickup will operate.

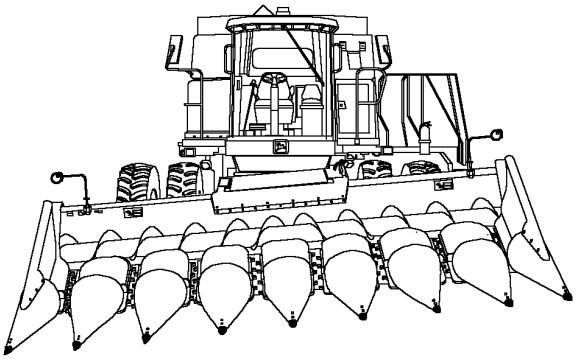
NOTE: Corn heads with reel attached in down corn will only run in manual mode.

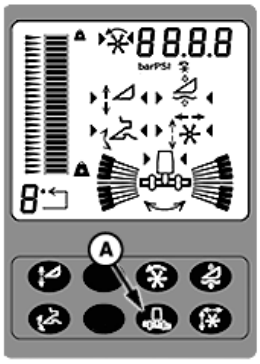
H90426 —UN—18DEC07

A—Dial-A-Speed Button
B—Dial-A-Speed Dial
C—Numeric Display

OUO6075,000060D -19-02JAN08-3/3

HeaderTrak Lateral Tilt System





A—HeaderTrak Lateral Tilt Button

HeaderTrak Lateral Tilt is an optional system that maintains the header position parallel to the ground. Sensors are used to determine the height at each end of the header. HeaderTrak tilts the header to equalize the distances to the ground at each end of the header. HeaderTrak uses a special feeder house that allows the header to tilt left and right.

If equipped with Stubble Height Sensing— HydraFlex (optional), the two systems work together to maintain the closest position of the cutterbar relative to the ground.

System is calibrated from the factory. If further calibration is needed, see Calibration Procedures section.

Activation buttons 1, 2 or 3 located on the multifunction control handle are used to activate the system.

NOTE: When HeaderTrak Lateral Tilt is active, the system works independently from Return to Cut and Stubble Height Sensing. For Return to Cut and Stubble Height Sensing, (see Calibration Procedures section).

When HeaderTrak Lateral Tilt system is disabled, Stubble Height Sensing and Return to Cut will still operate.

Operation:

System is active when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Header was calibrated
- Header engaged.
- HeaderTrak Lateral Tilt system enabled.

NOTE: HeaderTrak Lateral Tilt symbol will appear on HILLMASTER machines, but remains horizontal even as the machine is tilting.

Continued on next page

OUO6075,00009AE -19-22AUG07-1/2

Press HeaderTrak Lateral Tilt button (A) on display to enable system. Symbol (B) will appear if all above conditions are met.

Activate HeaderTrak Lateral Tilt by pressing activation buttons 1, 2 or 3 on multifunction control handle. System activation arrows (C) will appear indicating system is activated.

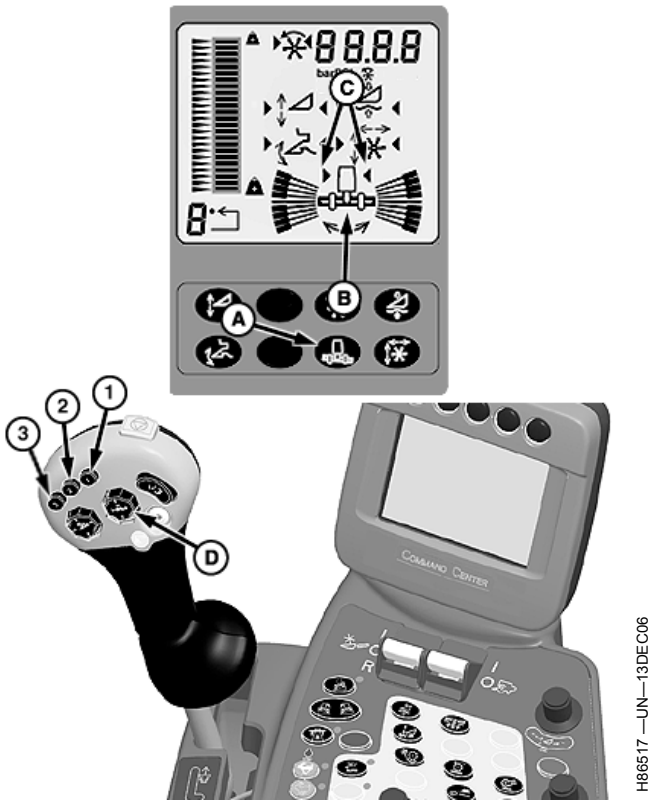
NOTE: Press HeaderTrak Lateral Tilt switch (D) to override system. When switch is released, system will return to automatic mode.

Press right side of switch to tilt header to the right or press left side of switch to tilt the header to the left.

Press activation buttons 1, 2 or 3 to reactivate system.

System is disabled by pressing button (A).

A—HeaderTrak Lateral Tilt Button
B—HeaderTrak Lateral Tilt Symbol
C—System Activation Arrows
D—HeaderTrak Lateral Tilt Switch



H86517 —UN—13DEC06

OUO6075,00009AE -19-22AUG07-2/2

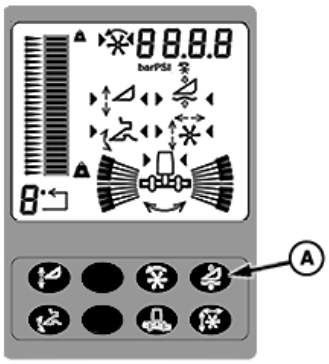
Header Ground Pressure (Float) — Rigid Platforms

Active Header Ground Pressure (Float) allows a rigid header to be operated in contact with the ground and maintain a set contact pressure. The operator selects how firmly the header contacts ground and return to that pressure automatically. A sensor measures the oil pressure within the feeder house lift cylinders and maintain that pressure as the header moves across the ground. Accuracy is greatly affected by accumulator precharge settings.

NOTE: While moving through the field, a sensor measures pressure in the lift cylinders. The system actuates the header raise/lower solenoid valve based on oil pressure within the lift cylinders. This maintains a constant ground contact pressure for the header as the terrain changes.

System must be calibrated with each header that is used with the machine (see Calibration Procedures section).

Activation buttons 1, 2 or 3 located on the multifunction control handle are used to select one of the three different programmable header pressures. A few common modes are shown below. Many more mode combinations exist.



H86518 —UN—13DEC06

A—Header Ground Pressure (Float) Button

Control Systems	Activation Button 1	Activation Button 2	Activation Button 3
Return to Cut	Return to Cut		
Stubble Height Sensing	Stubble Height Sensing		
HydraFlex	HydraFlex		
Header Ground Pressure (Float)	Header Ground Pressure (Float)		
Return to Cut, Stubble Height Sensing	Return to Cut	Stubble Height Sensing	
Return to Cut, Stubble Height Sensing w/ HydraFlex	Return to Cut	Stubble Height Sensing w/ HydraFlex	
Return to Cut, Header Ground Pressure (Float)	Return to Cut		Header Ground Pressure (Float)
Return to Cut, Stubble Height Sensing w/ HeaderTrak Lateral Tilt, Header Ground Pressure (Float)	Return to Cut	Stubble Height Sensing w/ HeaderTrak Lateral Tilt	Header Ground Pressure (Float)

Continued on next page

OUO6075,00009AF -19-22AUG07-1/2

Operation:

System is active when:

- Properly equipped header is connected to machine.
- Engine is running.
- Road transport disconnect switch is in field position.
- Header Ground Pressure (Float) mode enabled.
- Header engaged.

Press Header Ground Pressure (Float) button (A) on display to enable system. Symbol (B) will appear.

Activate Header Ground Pressure (Float) by pressing activation buttons 1, 2 or 3 on multifunction control handle. System activation arrows (C) will appear indicating system is active.

Activation button number (D) in lower left corner of display indicates which activation button was selected.

To change pressure setpoint (E) of activation buttons, press desired activation button and adjust pressure using active header height control dial (F).

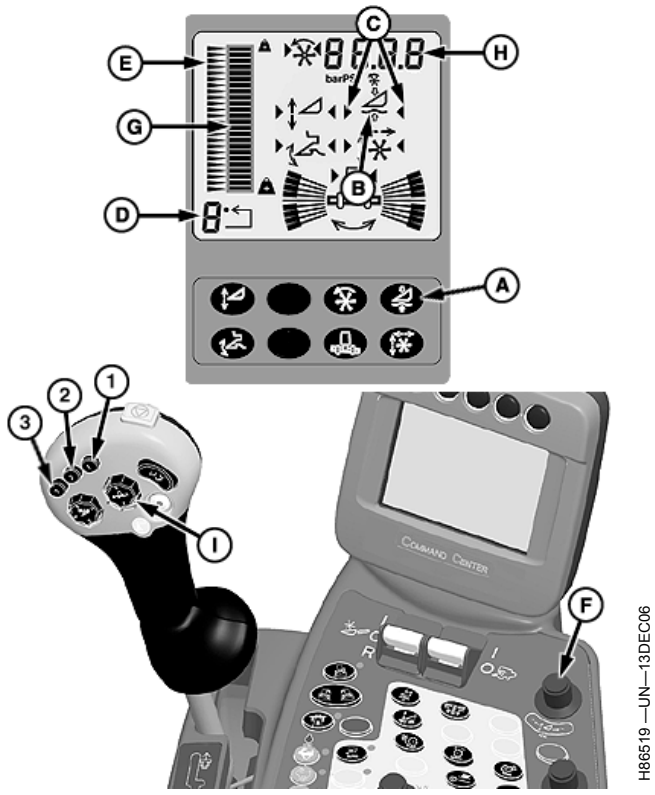
Turn dial towards plus (+) symbol to increase cylinder lift pressure setpoint (raise header) or towards minus (-) symbol to decrease cylinder lift pressure setpoint (lower header).

Pressure setpoint is displayed by an arrow to the left of the bar graph and actual header float pressure is displayed by bar graph (G) and actual pressure (H) is shown in the upper right side. Units: kPa for metric system and psi for English system.

Manually raising Header Ground Pressure (Float) using header raise/lower switch (I) will deactivate system.

Press activation buttons 1, 2 or 3 to reactivate system. Header will automatically move to the preselected pressure.

System is disabled by pressing button (A).



H86519 —UN—13DEC06

A—Header Ground Pressure (Float) Button
B—Header Ground Pressure (Float) Symbol
C—System Activation Arrows
D—Activation Button Number
E—Pressure Setpoint
F—Header Height Control Dial
G—Bar Graph
H—Numeric Display
I— Header Raise/Lower Switch

OUO6075,00009AF -19-22AUG07-2/2

Reel Position Resume/Deck Plate Position Resume

Reel Position Resume allows the operator to select the position of the reel relative to the cutterbar and return to that position automatically.

Deck Plate Position Resume allows the operator to select the spacing of the hydraulic adjustable decks plates and return to that position automatically.

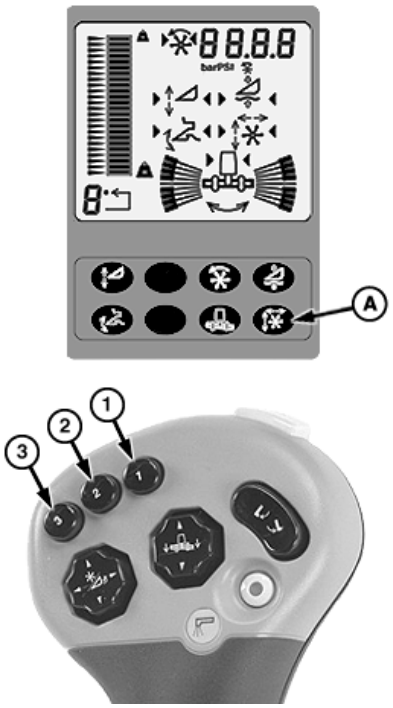
System must be calibrated with each header that is used with the machine (see Calibration Procedures section).

Activation buttons 1, 2 or 3 located on the multifunction control handle are used to select one of the three different programmable reel positions/deck plate positions.

Operation:

System is active when:

- Properly equipped header (with reel position sensors/deck plate sensors) is connected to machine and is calibrated.
- Engine is running.
- Road transport disconnect switch is in field position.
- Return to Cut, Stubble Height Sensing or Header Ground Pressure (Float) functions activated.



H86520 —UN—13DEC06

A—Reel Position Resume Button

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OUO6075,00009B1 -19-25JUL07-1/2

Press Reel Position Resume/Deck Plate Position Resume button (A) on display to enable system. Symbol (B) will appear.

System activation arrows (C) will appear indicating system is activated.

Reel Position Resume: Use reel lift and reel fore/aft switch (D) to obtain desired fore-and-aft position and to obtain reel height position.

Deck Plate Position Resume: Use reel fore/aft switch (D) to obtain desired hydraulic deck plate spacing.

NOTE: When harvesting conditions are such that more than one reel position is required, e.g., one position for down crop and one position for standing crop, the operator can store a reel position for each resume button and move from one reel position to another by pushing and releasing resume buttons.

Press and hold activation buttons 1, 2 or 3 on multifunction control handle for two seconds to memorize reel position/deck plate position.

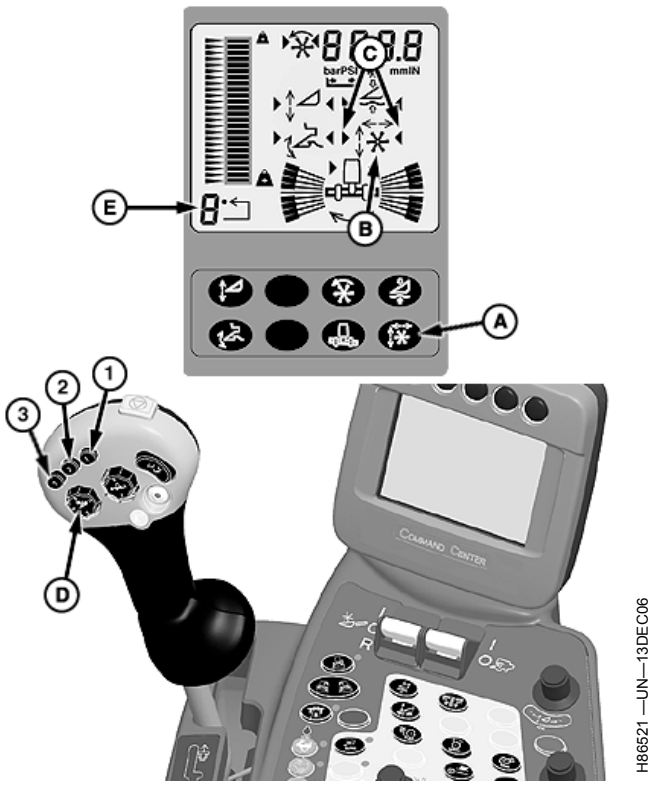
Activation button number (E) in lower left corner of display indicates which activation button was selected.

Reel Position Resume: Manually moving reel lift and reel fore/aft switch (D) on multifunction control handle will deactivate reel position.

Deck Plate Position Resume: Manually moving reel fore/aft switch (D) on multifunction control handle will deactivate deck plate spacing.

Press activation buttons 1, 2 or 3 to reactivate system. Reel will automatically move to the preselected position.

System is disabled by pressing button (A).



A—Reel Position Resume/Deck Plate Position Resume Button
B—Reel Position Resume Symbol
C—System Activation Arrows
D—Reel Lift and Reel Fore/Aft Switch
E—Activation Button Number

OUO6075,00009B1 -19-25JUL07-2/2

Deck Plate Position — Adjusting (Optional)

NOTE: To calibrate adjustable deck plates, see Calibration Procedures section.

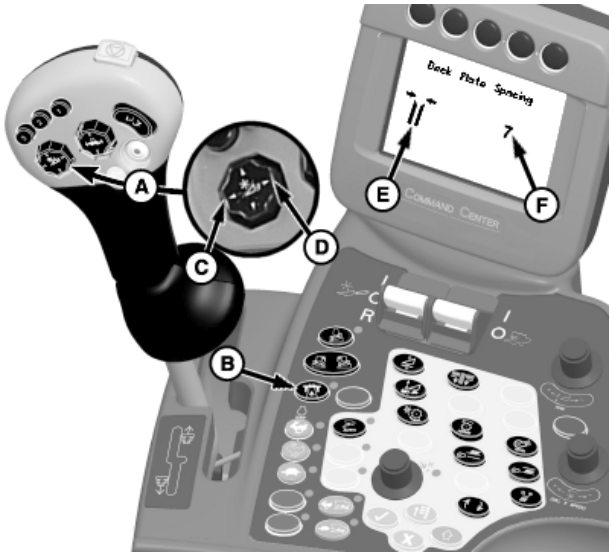
Reel fore/aft switch (A) on multifunction control handle allows operator to open and close adjustable deck plates.

System is active when:

- Engine is running.
- Road transport disconnect switch (B) is in field position.

Press reel fore switch (C) to open deck plates and press reel aft switch (D) to close deck plates.

Deck plate position icon (E) and deck plate opening (F) will appear on display. Deck plates have a range of 0 (minimum position) to 9 (maximum position).



A—Reel Fore/Aft Switch
B—Road Transport Disconnect Switch
C—Reel Fore Switch
D—Reel Aft Switch
E—Deck Plate Position Icon
F—Deck Plate Opening

OUO6075,0000612 -19-10JUL07-1/1

VisionTrak Display

VisionTrak allows the operator to do desired calibrations and setups for grain loss monitoring. Display shows grain loss levels in total loss as well as cleaning shoe and separator loss individually. Display also shows tailings volume and adjustable deck plate position (if equipped with this option).

Tailings Symbol (A): displays when system is functioning correctly.

Shoe Symbol (B): displays when system is functioning correctly.

Shoe Loss Display (C): shows grain loss from shoe.

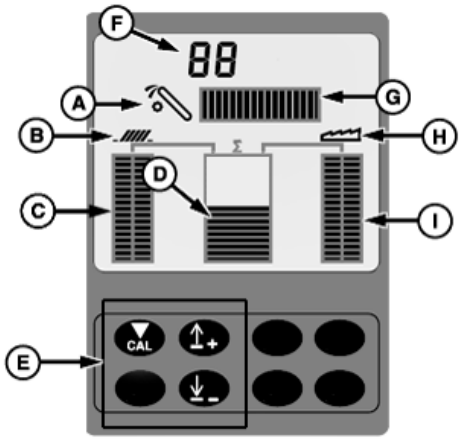
Total Loss Display (D): shows grain loss from shoe and separator area.

Control Buttons (E): allows operator to calibrate or adjust VisionTrak settings.

- **Calibration Button:** is used to calibrate the grain loss total based on current loss levels for each sensor.
- **Up Arrow/Down Arrow Buttons:** allows an operator to adjust VisionTrak calibration values. Pressing up/down arrow buttons will manually change calibration values.

Calibration Reference Number (F): shows current grain loss monitoring calibration values.

Tailings Volume Display (G): shows volume of tailings return.



A—Tailings Symbol
B—Shoe Symbol
C—Shoe Loss Indicator
D—Total Loss Indicator
E—Control Buttons
F—Calibration Reference Number
G—Tailings Volume Indicator
H—Separator Symbol
I— Separator Loss Indicator

Separator Symbol (H): displays when system is functioning correctly.

Separator Loss Display (I): shows grain loss from separator area.

OUO6075,00009B4 -19-26JUL07-1/1

VisionTrak Tailings Sensor Display

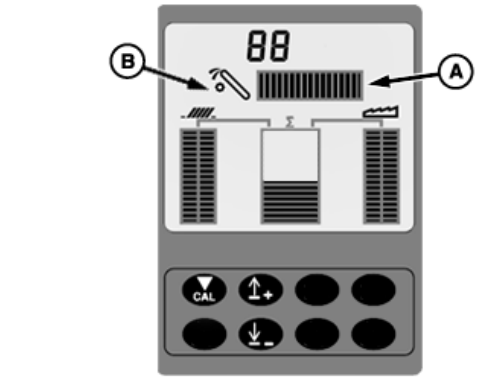
Tailings volume is displayed as a percentage of total full in horizontal bar graph (A) next to tailings icon (B).

Tailing volume is defined as the total amount of material (grain and material other than grain) moving through the tailings elevator.

Requirements:

- Engine is running.
- Road transport disconnect switch (C) is in field position.
- Header switch (D) and Separator switch (E) engaged.

A—Horizontal Bar Graph
B—Tailings Icon
C—Road Transport Disconnect Switch
D—Header Switch
E—Separator Switch



H86526 —UN—13DEC06

OUO6075,0000615 -19-28MAR07-1/1

VisionTrak Tailings Sensor Display—Operational Check

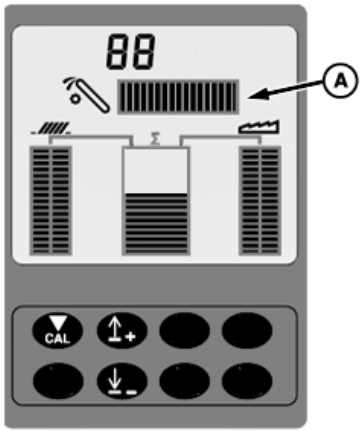
NOTE: Wrong seed size settings will cause inaccurate tailings volume. If bar graph shows full or warning alarm screen appears on CommandCenter, stop machine and adjust chaffer and sieve.

Check for acceptable loss levels.

Check tailings sensor display for location of horizontal bar graph (A). Bar graph is a visual guide which can be referred to periodically to see if an increase or decrease in tailings volume occurs.

If bar graph begins to show an increase in volume, slow machine ground speed and see if bar graph goes back into the acceptable loss range.

If bar graph does not go back into the acceptable loss range after slowing machine ground speed, disengage header switch. Bar graph should zero itself (nothing showing in bar graph). Engage header switch, bar graph should go back into the acceptable loss range.



H86527 —UN—13DEC06

A—Horizontal Bar Graph

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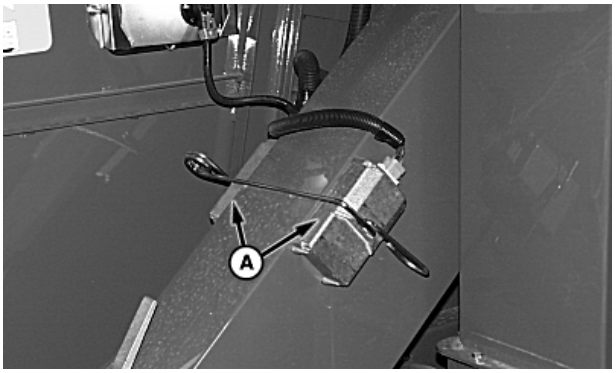
OUO6075,0000616 -19-25JUL07-1/2

If tailings sensor display consistently reads full (all bars lit) when not harvesting or empty (no bars lit) when harvesting, it may indicate that the lens is coated with material or seal under lens has allowed dust to enter:

1. Remove tailings sensors (A) to inspect and clean lenses if needed.
2. If lenses are clean, remove and check for dust. If dust is found, completely clean area and reassemble lens onto unit making sure gasket is sealing.
3. Replace sensor and test system.
4. If VisionTrak display continues to read full or empty, contact your John Deere dealer.



H70551 —UN—02JAN02

A—Tailings Sensor

OUO6075,0000616 -19-25JUL07-2/2

VisionTrak Performance Monitor

Grain loss information is displayed by three vertical bar graphs.

Shoe Loss

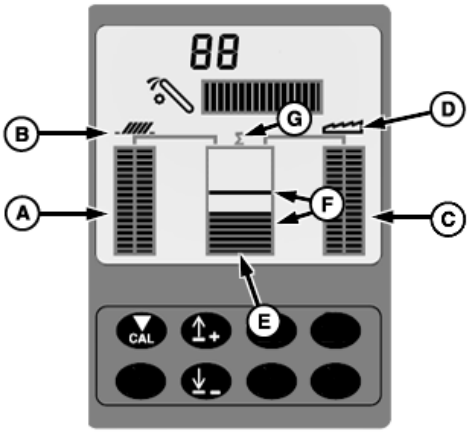
Averaged shoe loss is shown by two adjacent vertical bar graphs (A). Shoe symbol (B) is displayed above bar graphs.

Separator Loss

Averaged separator loss is shown by two adjacent vertical bar graphs (C). Separator symbol (D) is displayed above bar graphs.

Total Loss

Total loss is shown on vertical bar graph (E) located in center of display. Two horizontal lines near center range indicate the calibrated normal range (F). Summation symbol (G) is displayed above bar graph.



H86528 —UN—30JUL07

A—Vertical Bar Graphs
B—Shoe Symbol
C—Vertical Bar Graphs
D—Separator Symbol
E—Vertical Bar Graph
F—Normal Range
G—Summation Symbol

OUO6075,0000617 -19-28MAR07-1/1

VisionTrak Performance Monitor (General Information)

NOTE: VisionTrak is active when header is engaged and in some diagnostic modes.

VisionTrak monitor checks grain loss by measuring a representative sample of losses over the cleaning shoe and through the separator. VisionTrak continuously monitors the machines performance to enable the operator to use maximum machine capacity. A change in loss rate is indicated by bar graphs.

VisionTrak can be set into two modes:

Standard Mode (Factory Mode): averages the shoe sensors together. These activity indicators will not change sensitivity with a change in system calibration.

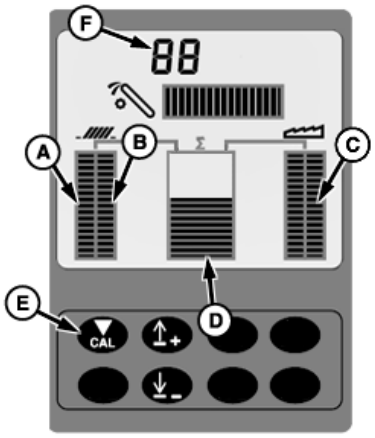
Shoe activity indicators (A and B) (shoe sensors averaged) and separator activity indicator (C) show the activity of each of the three sensors. Total loss activity indicator (D) shows the total hits from the three sensors. This total can be adjusted so that normal performance is shown mid scale.

Optional Mode: shows activity of each individual shoe sensor (see your John Deere dealer). These activity indicators will not change sensitivity with a change in system calibration.

Shoe activity indicators (A and B) (shoe sensors indicated independently) and separator activity indicator (C) show the activity of the three sensors. Total loss activity indicator (D) shows the total hits from the three sensors. This total can be adjusted so that normal performance is shown mid scale.

Determine grain size of crop being harvested (refer to VisionTrak Performance Monitor— Operating in this section).

Adjust machine and header to acceptable loss levels for particular crop and condition. While operating at desired performance, push calibration button (E). This enters the current operating characteristics into memory and center total loss activity indicator. Calibration reference number (F) will also be shown for future reference. VisionTrak is now set up to help the operator maintain the machine's performance.



H86982 —UN—13DEC06

A—Shoe Activity Indicator (Left Sensor)
B—Shoe Activity Indicator (Right Sensor)
C—Separator Activity Indicator
D—Total Loss Activity Indicator
E—Calibration Button
F—Calibration Reference Number

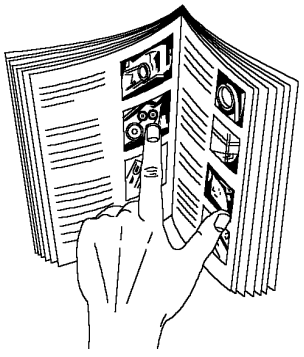
NOTE: Center bar graph is now a visual guide. Operator can refer to display periodically to know when an increase or decrease in total loss amount occurs.

A sudden upward movement of bar graphs when field conditions are unchanged, can indicate the chaffer or sieve is plugged or closed. When this happens, stop machine and correct the problem.

OUO6075,0000618 -19-28MAR07-1/1

VisionTrak—Preliminary Adjustments on Machine

Before making adjustments to VisionTrak Performance Monitor, adjust machine so it is operating at peak efficiency. Adjustments must correspond to relevant field and crop conditions (see Crop Settings section).



H52739 —UN—05MAR99

OUO6075,0000619 -19-28MAR07-1/1

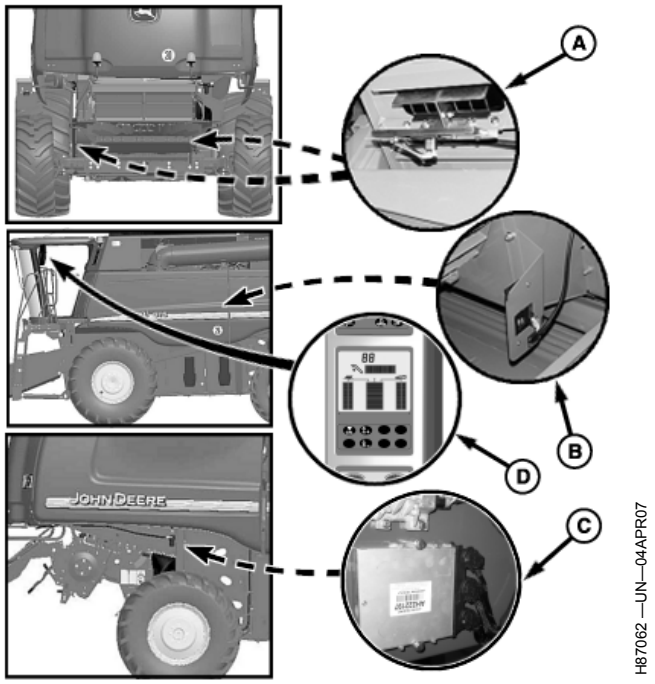
VisionTrak—How the Monitor Works

Sensors are used to detect grain impacts coming off cleaning shoe sensors (A) and separator sensor (B). These sensors transmit the impacts as electrical impulses to the right control unit (RCU) (C). The control unit eliminates and “filters” out those signals from straw stems or chaff.

VisionTrak display (D) receives messages from the control unit and displays the loss (cleaning shoe, separator and total loss).

Adjustment for grain size lets the display allow for different impulses made by various kernel sizes.

A—Cleaning Shoe Sensors
B—Separator Sensor
C—Right Control Unit (RCU)
D—VisionTrak Display



OUO6075,000061A -19-28MAR07-1/1

VisionTrak Performance Monitor— Operating

VisionTrak Performance Monitor is active when:

- Engine is running.
- Road transport disconnect switch must be in field position.
- Header and separator are engaged.

From setup pages icon (A), rotate selection dial (B) until seed size (C) is highlighted.

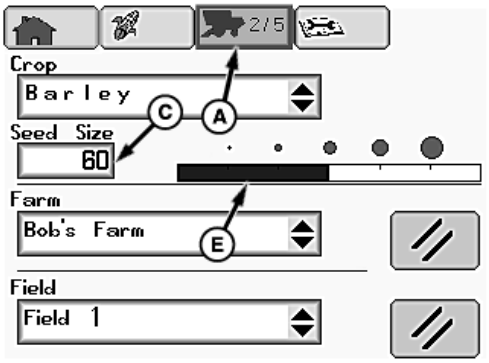
Press confirm switch (D) and rotate selection dial until desired seed size is shown on bar graph (E) (see following table for seed size numbers).

NOTE: Setting seed size sensitivity will increase or decrease sensitivity of grain loss sensors.

Small Seed (Default 38)	Medium Seed (Default 50)	Large Seed (Default 70)
Alfalfa	Barley - Spring	Chickpeas
Canola	Barley - Winter	Corn
Flax	Lentils	Edible Beans
Grass Seeds	Popcorn	Lupins
Millet	Safflower	Navy Beans
Mustard	Sorghum	Peas
Oats	Wheat	Soybeans
Rape Seed		Sunflowers
Rice		
Rye		
Triticale		

Set the following on CommandCenter display:

- Crop



H87576 —UN—07MAR07

H86297 —UN—17NOV06

A—Setup Pages Icon
B—Selection Dial
C—Seed Size
D—Confirm Switch
E—Bar Graph

- Grain Loss Sensitivity (Seed Size)

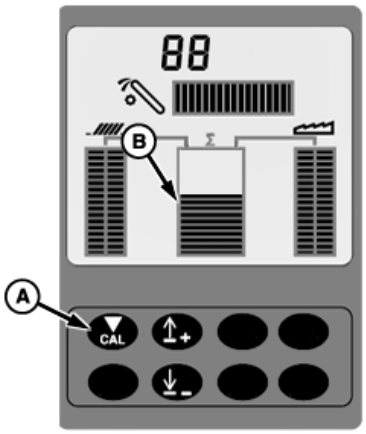
OUO6075,000061B -19-25JUL07-1/3

1. Set desired number for closest grain size.
2. Adjust machine and header to acceptable loss levels for particular crop and condition.

NOTE: Ignore center bar graph on display at this time.

3. Operate machine at acceptable loss level.
4. Press calibration button (A) to center total loss (B). Bar graph indicates machine is operating at total loss levels acceptable by operator in step 3.

NOTE: Bar graph is now a visual guide. Operator can refer to display periodically to know when an increase or decrease in total loss amount occurs. More detailed monitoring can be obtained by monitoring loss levels of the cleaning shoe and separator.



H86008 —UN—13DEC06

A—Calibration Button **B—Total Loss**

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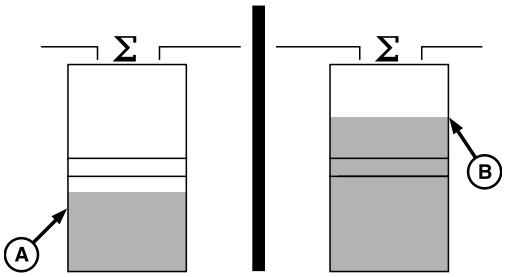
OUO6075,000061B -19-25JUL07-2/3

5. If bar graph moves downward (A), machine is not operating at maximum productivity. Machine is either incorrectly adjusted for acceptable loss levels or moving at too slow of a ground speed. Make adjustments as needed to bring bar graph back into middle of display area.
6. If bar graph moves upward (B), machine is either incorrectly adjusted for an acceptable loss level or is moving too fast a ground speed. Make adjustments as needed to bring bar graph back into middle of display area.
7. When crop conditions change during the day (straw moisture, dew, etc.), make occasional loss checks to determine if readjustment is necessary.

NOTE: When machine encounters a "slug", middle bar graph will fluctuate upward (15 to 20 seconds) and return to previous reading. Ignore these fluctuations when this occurs.



H87033 —UN—30NOV06

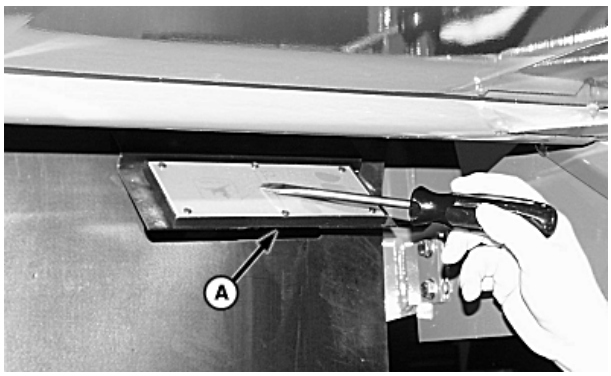
A—Downward **B—Upward**

OUO6075,000061B -19-25JUL07-3/3

VisionTrak Operational Checks

NOTE: Two people are required to perform this operational check. One person must remain seated in operators seat, while another person taps on sensors.

1. Turn key switch to "RUN" position, but do not start machine.
2. Engage header switch, adjust seed size and press calibration button.
3. Tap on right-hand shoe sensor (A) several times. Person watching VisionTrak display should see movement of shoe loss indicator. Repeat on left-hand shoe sensor.



H70998 —UN—25JAN02

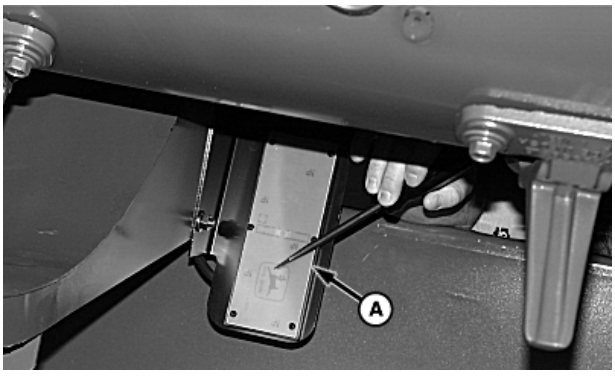
Right-Hand Shoe Sensor

A—Shoe Sensor

OUO6075,000061C -19-28MAR07-1/2

4. Tap on separator sensor (A) several times. Person watching VisionTrak display should see movement of separator loss indicator.
5. Disengage header switch and turn key switch OFF.
6. If VisionTrak does not work after these checks, see your John Deere dealer.

A—Separator Sensor



H70999 —UN—25JAN02

OUO6075,000061C -19-28MAR07-2/2

Triple Tachometer Display

Engine Speed Button (B): allows the operator to display the engine speed.

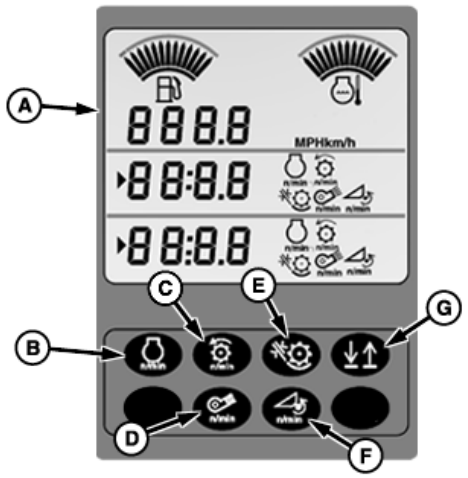
Threshing Speed Button (C): allows the operator to display the threshing speed.

Fan Speed Button (D): allows the operator to display the fan speed.

Concave Clearance Button (E): allows the operator to display the concave clearance.

Backshaft Speed Button (F): allows the operator to display the backshaft speed.

Up/Down Arrow Button (G): allows the operator to move the displayed setting from the current line to another line of choice.



H86003 —UN—13DEC06

A—Triple Display Tachometer
B—Engine Speed Button
C—Threshing Speed Button
D—Fan Speed Button
E—Concave Clearance Button
F—Backshaft Speed Button
G—Up/Down Arrow Button (Display Line Select)

OUO6075,000061D -19-16JUL07-1/1

Triple Tachometer Digital Display Lines

Upper display line (A) will only display machine ground speed (km/h or mph).

Middle display line (B) and lower display line (C) can display the same data. Operator selects any of the following data to be displayed on either line (middle or lower).

- Engine Speed (RPM)
- Threshing Speed (RPM)
- Fan Speed (RPM)
- Header Backshaft Speed (RPM)
- Concave Clearance

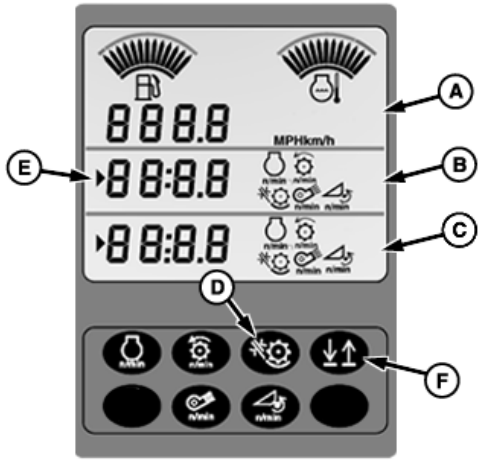
To display threshing clearance, press threshing clearance button (D). Threshing clearance along with appropriate symbol will display on middle display line.

Pressing concave, cleaning fan speed or threshing speed switches on armrest will cause that function to display on the tachometer.

Middle and lower display always show the last information displayed when key switch was turned OFF.

Either middle line or lower lines of the display can be changed by the operator to display any data of choice.

Line that is currently active to change, will be shown by an indicator arrow (E). The appropriate arrow will be displayed when the operator pushes the up/down arrow button (F) which moves the display from the currently active line to another line.



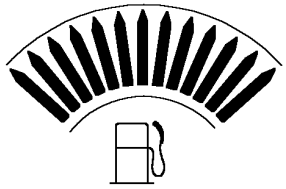
H86005 —UN—13DEC06

A—Upper Display
B—Middle Display
C—Lower Display
D—Threshing Clearance
E—Indicator Arrow
F—Up/down Arrow Button

OUO6075,000061E -19-25JUL07-1/1

Fuel Gauge

With key switch ON, fuel gauge shows how much fuel is left in tank. When fuel level reaches 11% of the remaining fuel level the (approximately one hour of operation) low fuel icon appears on CommandCenter display and a buzzer sounds four times every five minutes until fuel is added.



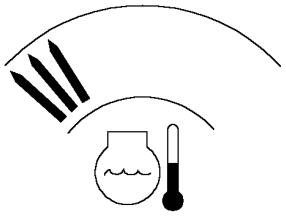
H52260 —UN—18MAY99

OUO6075,000061F -19-17APR07-1/1

Engine Coolant Temperature Gauge

Three or four arrows are displayed for normal operating temperature.

If engine temperature icon appears on CommandCenter display and a buzzer sounds, stop engine and check problem immediately.



H52262 —UN—04MAR99

OUO6075,0000620 -19-17APR07-1/1

Warning Indicator Display

Stop Engine Warning Indicator (Red) (A): comes on and a diagnostic trouble code is displayed on CommandCenter. This indicates a problem that requires the machine be stopped, engine turned off immediately and the problem corrected. CommandCenter will display the code until the problem is resolved. (Example: Engine Oil Pressure)

Service Warning Indicator (Yellow) (B): comes on and a diagnostic trouble code is displayed on CommandCenter. This indicates a problem should be checked immediately. (Example: Engine Air Filter)

Information Warning Indicator (Gray) (C): comes on and a diagnostic trouble code will be stored indicating a problem exists, but the code is not indicated to the operator. (Example: Low Battery Voltage)

A—Stop Engine Warning Indicator
B—Service Warning Indicator
C—Information Warning Indicator

H85999 —UN—13DEC06

OUO6075,0000622 -19-16JUL07-1/1

Calibration Procedures - When to Calibrate

This list shows all possible calibrations. Depending on machine options and header types, listing shown might not match calibration menu shown on display.

NOTE: Error codes show on display if a problem exists during a calibration procedure. Conditions causing error must be corrected before continuing calibration.

IMPORTANT: Threshing Clearance Calibration should not be completed with round bar concave covers installed. An incorrect zero position may result.

- **Threshing Clearance Calibration -** Perform calibration when control unit LC1, threshing clearance sensor, or associated components are replace/adjusted.
- **Header Calibration -** Perform calibration;
  - If control unit LC1 has been replaced.
  - If a header height control sensor or associated components are replaced/adjusted.
  - First time each header is connected to combine.
- **Feeder House Speed Calibration -** Perform calibration;
  - If control unit LC1 has been replaced.
  - First time each header is connected to combine.
  - If attachments of significant weight is added to or removed from head.
- **Chaffer Opening Calibration -** Perform calibration when control unit LC2 or chaffer actuator has been replaced/adjusted.
- **Sieve Opening Calibration -** Perform calibration when control unit LC2 or sieve actuator has been replaced/adjusted.
- **Corn Head Deck Plate Calibration -** Perform calibration when control unit LC1 or deck plate position sensor or associated components are replaced/adjusted.
- **Smart Feed Rate Handle Calibration (If Equipped) -** Perform calibration when control unit VCM, handle position sensor are replaced/adjusted.
- **Smart Feed Rate Valve Calibration (If Equipped) -** Perform calibration when control unit VCM, forward solenoid, or reverse solenoid has been replaced.

NOTE: Moisture sensor must be calibrated if any of the following conditions exist:

- *Moisture sensor readings inaccurate.*
- *Moisture sensor shows "moisture unmeasurable" warnings.*
- *Moisture sensor HMM or related components were replaced.*

- **Moisture Calibration (If Equipped) -** Perform calibration when control unit HMM or associated components are replaced/adjusted.

NOTE: Mass flow sensor must be calibrated every year to achieve accurate grain weight measurements.

Standard calibration must be performed in every crop that is harvested.

Low Flow calibration must be performed to obtain improved levels of accuracy in situations where large variations in grain flow rates occur. Refer to Yield Calibration in CommandCenter Display Screens section for more information.

- **Yield Calibration (If Equipped) -** Perform calibration when control unit HMM or associated components are replaced/adjusted.
- **Service Hours Calibration -** Reset Service Hours.
- **Feeder House Tilt Calibration (If Equipped) -** Perform calibration;
  - If control unit LC1 has been replaced.
  - If lateral tilt sensor or associated components are replaced/adjusted.
  - First time each header is connected to combine.

OUO6075,000002C -19-06MAR09-1/1

User Calibration Procedures

From diagnostics and calibration icon (A), rotate selection dial (B) until calibrations menu (C) is highlighted.

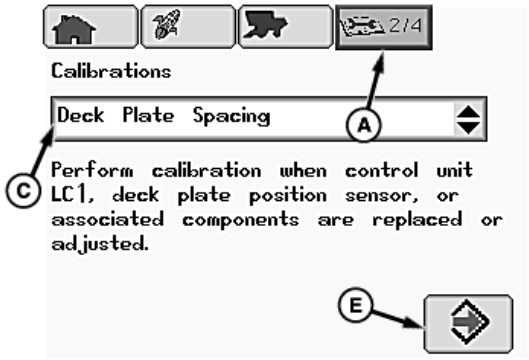
Press confirm switch (D) and rotate selection dial until **desired calibration** is highlighted.

Press confirm switch and rotate selection dial until calibration icon (E) is highlighted.

Press confirm switch and follow instructions shown on CommandCenter display to calibrate.

Repeat as needed for other calibrations.

A—Diagnostics and Calibration Icon
B—Selection Dial
C—Calibrations Menu
D—Confirm Switch
E—Calibration Icon



H91887 —UN—28MAY08

H86297 —UN—17NOV06

OUO6075,000002E -19-28MAY08-1/1

Calibration Error Codes

NOTE: If errors codes occur during calibration procedure, codes will show on CommandCenter display. Conditions causing error must be corrected before continuing calibration.

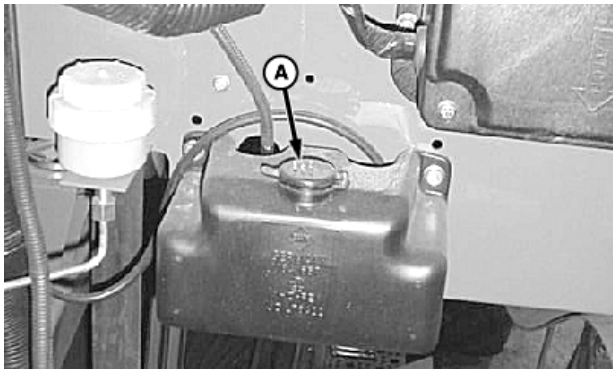
If calibration error codes appear while calibrating machine, refer to Diagnostic Trouble Codes section for further information.

OUO6075,0000B7D -19-19APR07-1/1

Windshield Washer Reservoir—Filling

Remove cap (A) and fill reservoir with windshield washer solution.

A—Cap



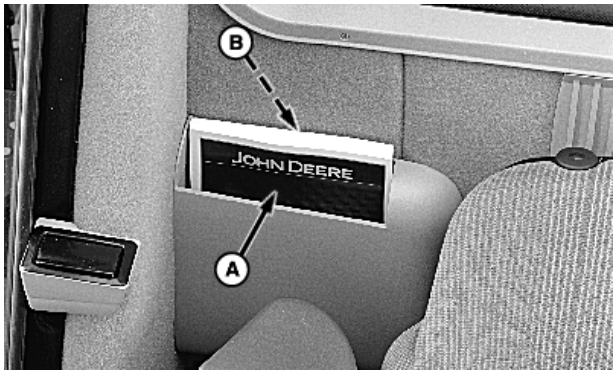
H78817 —UN—31OCT03

OUO6075,0000626 -19-02APR07-1/1

Manual Storage Location

Keep machine operator's manual (A) and settings card (B) in holder located on rear cab wall.

A—Machine Operator's Manual B—Settings Card



H78538 —UN—18SEP03

OUO6075,0000628 -19-20MAR07-1/1

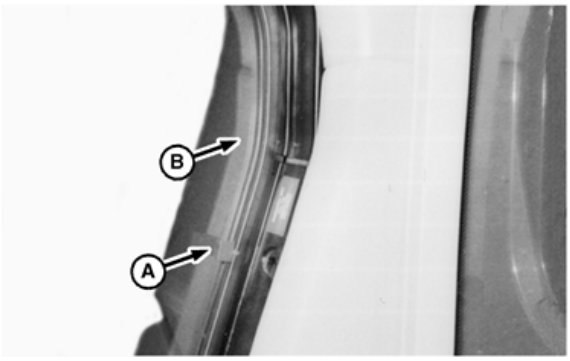
Emergency Exit

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

Pull rope until removed from around window.

Window can now be pushed out and allowed to fall free. See your John Deere dealer for window replacement.

A—Tab B—Rubber Rope



H52400 —UN—22MAR99

OUO6075,0000629 -19-20MAR07-1/1

ComfortCommand Operator's Seat—Adjusting

Vertical Shock Dampener Control (A) allows operator to limit amount of "upward motion" the seat suspension provides.

Push control forward for soft ride or move handle back for firm ride. Between these two positions is medium firmness.

Height Adjustment Handle (B) allows operator to raise or lower the seat.

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

To raise seat pull up on handle or to lower seat push down on handle.

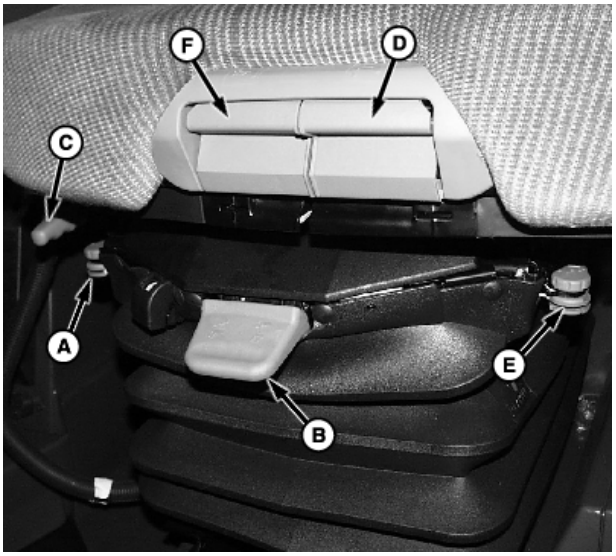
Fore/Aft Adjustment Handle (C) allows operator to slide the seat forward or rearward for the best working position.

Seat Bottom Tilt Control Handle (D) allows operator to raise or lower the seat cushion for the best working position.

Fore/Aft Attenuator Lock-Out Handle (E) allows operator to lock-out or release forward or rearward movements.

Pull up on handle to lock or push down on handle to release.

Seat Bottom Fore/Aft Adjustment Handle (F) allows operator to move the seat bottom forward or rearward for the best working position.



H72523 —UN—11JUN02

A—Vertical Shock Dampener Control
B—Height Adjustment Handle
C—Fore/Aft Adjustment Handle
D—Seat Bottom Tilt Control Handle
E—Fore/Aft Attenuator Lock-Out Handle
F—Seat Bottom Fore/Aft Adjustment Handle

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

Seat is equipped with an operator's presence system. Machine stays running when operator is seated, but shuts OFF when operator leaves the seat.

OUO6075,000062B -19-29MAR07-1/1

Left-Hand Armrest and Seat Back—Adjusting

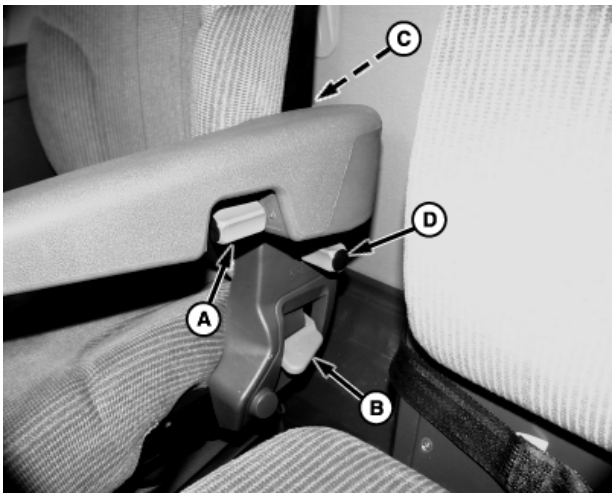
Adjust left-hand armrest up or down with knob (A). Rotate knob clockwise to lower and counterclockwise to raise.

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

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

Turn left-hand armrest vertical knob (D) counterclockwise to loosen and adjust armrest to desired position and retighten knob.

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



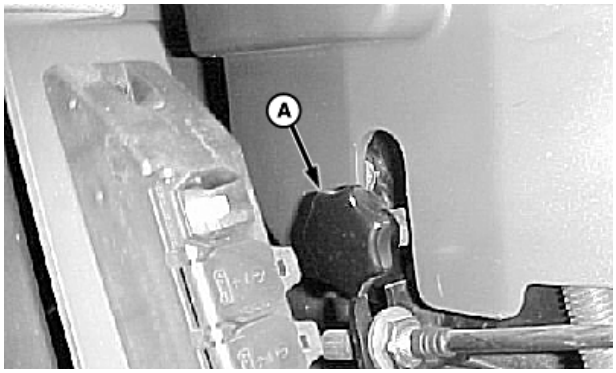
H72254 —UN—17MAY02

OUO6075,000062C -19-20MAR07-1/1

Right-Hand Armrest and Control Console—Adjusting

Knob (A) allows operator to adjust right-hand armrest control console. Loosen knob and slide armrest up/forward or down/back in slots on outer plate and tighten knob to lock armrest into position.

A—Knob



H78811 —UN—30OCT03

OUO6075,000062D -19-20MAR07-1/1

Field Office™ Seat

Field Office seat contains storage folders and a removable tray for items such as cassettes, CD's, and cell phones. When tray is removed, compartment is sized to hold a laptop computer.

H67083 —UN—02APR01

Field Office is a trademark of Deere & Company

OUO6075,000062E -19-02APR07-1/1

Cooling Compartment/Recirculation Filter

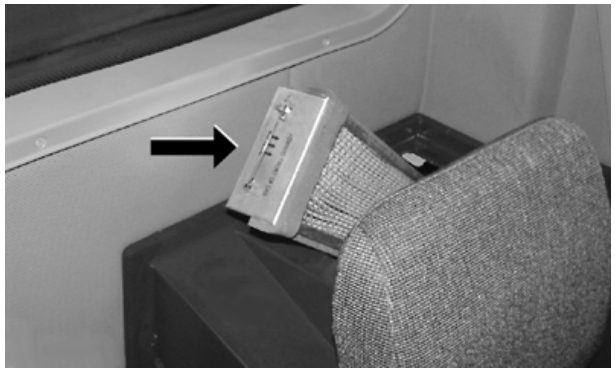
Cooling compartment (A) is located behind instructional seat. Remove cooling compartment for access to recirculation air filter.

Cooling compartment provides space for bottles etc. (e.g. two 1.5-L bottles).

To increase cooling, turn temperature selector knob (located in overhead console) counterclockwise.

A—Cooling Compartment

H67762 —UN—03MAY01



H67763 —UN—03MAY01

OUO6075,00009B5 -19-20MAR07-1/1

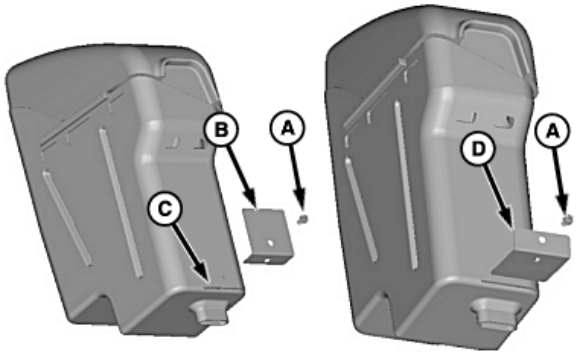
Cooling Compartment (Air Shut Off)

Remove cooling compartment from behind instructional seat.

Remove cap screw (A) and bracket (B) and install bracket (closed position) (D).

Retain bracket with previously removed cap screw.

A—Cap Screw
B—Bracket (Open Air Position)
C—Groove
D—Bracket (Closed Position)



H81459 —UN—22SEP04

OUO6075,00009B6 -19-20MAR07-1/1

Auxiliary Power Outlet Strip and Service ADVISOR™ Diagnostic Connector

NOTE: Maximum combined current draw for all outlets is 30 amps.

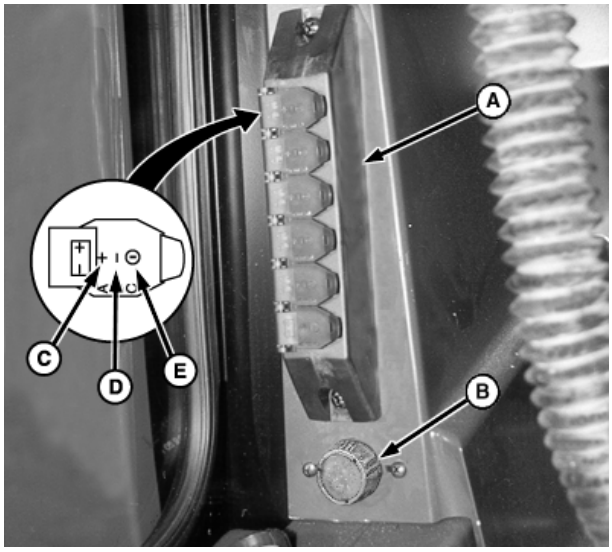
Auxiliary power outlet strip (A) is equipped with six additional electrical outlets which are located at lower rear of right-hand window. These outlets provide key-switched or unswitched power.

Service ADVISOR diagnostic connector (B), provide 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

OUO6075,0000630 -19-02APR07-1/1

GreenStar™ Display and Harvest Monitor/Harvest Doc™ Systems (Attachment)

GreenStar display (optional) and Harvest Monitor or Harvest Doc systems are fully integrated precision farming packages, which consists of a display (optional), mapping processor, mass flow sensor, moisture sensor, and position receiver.

Harvest Monitor information is also displayed on CommandCenter display if not equipped with GreenStar display.

For information on Harvest Doc system, refer to Harvest Doc manual.

GreenStar is a trademark of Deere & Company
Harvest Monitor/Harvest Doc are trademarks of Deere & Company

OUO6075,0000631 -19-30MAR07-1/1

GreenStar Printer (Optional)

A special printer can be integrated in the overhead display panel.

Information such as Farm and Field, Crop Totals and Load Totals displayed on CommandCenter display or GreenStar display (if equipped) can be printed out.

H88011 —UN—26APR07

OUO6075,0000A34 -19-26APR07-1/1

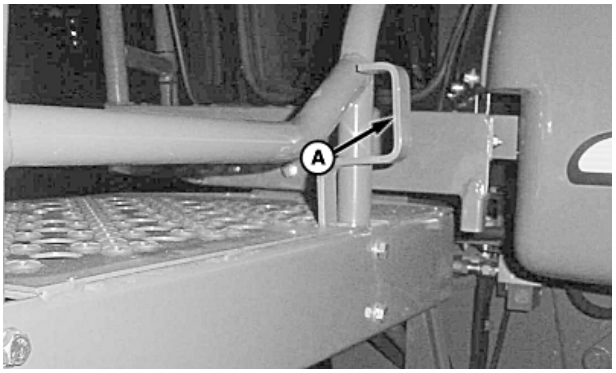
Cab Ladder

CAUTION: Do not ride or attempt to climb front or rear ladders while machine is moving.

Ladder can be positioned from ground or landing with lever (A). Swing ladder forward or rearward. Ladder locks into place (3 positions).

If ladder latch appears loose, clean out latch pin area. Do not use oil or grease in this area.

A—Lever



H81654 —UN—13SEP04

OUO6075,00009B7 -19-20MAR07-1/1

Cab Ladder Positions

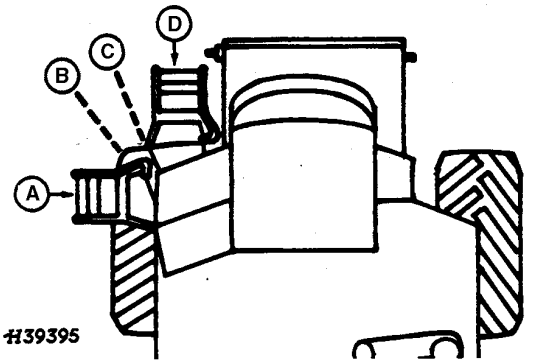
Normal operating field position (A).

Pull down latch and swing ladder to position (B) for machines with a small header, a ladder extension or duals.

From cab landing, push down on latch and swing ladder to position (D) before driving on roadways.

CAUTION: Always swing ladder to position (D) before transporting on public roadways in order to reduce machine width and position amber warning lamp toward oncoming motorists.

IMPORTANT: Long ladder extension 1390 mm (55 in) is required on machines equipped with dual tires, axle spacers, etc. will interfere with the platform drive shaft when the ladder is swung to position (D). Raising or lowering feeder house could damage ladder, drive shaft or drive shaft shield. Place ladder in position (C) in this situation.



H63874 —UN—09MAY00

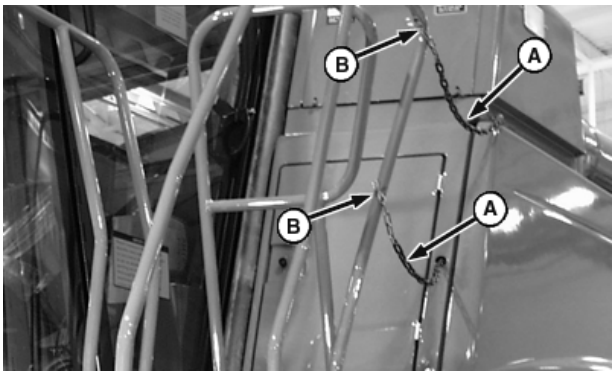
A—Field Position
B—Small Header, Ladder Extension or Duals Position
C—Roadway Driving Position for Long Ladder Extension
D—Roadway Driving Position

OUO6075,0000895 -19-20MAR07-1/1

Cab Landing Safety Chains

Safety chains (A) must be tight when ladder is in forward position. Remove pins (B) and adjust chains as needed.

A—Chains
B—Pins



H57079 —UN—12MAY99

OUO6075,0000634 -19-20MAR07-1/1

Fire Extinguisher

A 6 kg (15 lb.) general purpose fire extinguisher meeting national certification requirements must be installed on the combine. A fire extinguisher and bracket is located near the engine platform ladder landing.

Maintain fire extinguisher to keep it in operating condition.

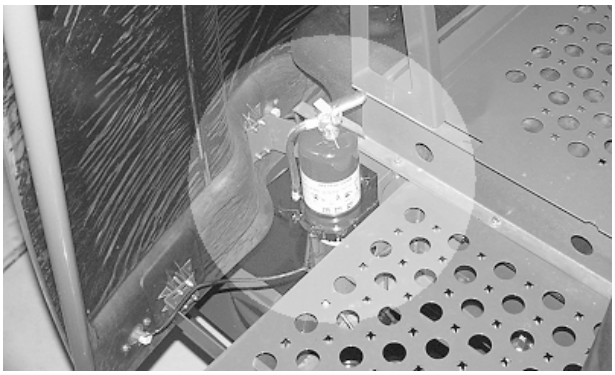
Keep the engine clean and free of dust, chaff and straw to prevent the possibility of fire.

H39760 —UN—11OCT88

OUO6075,000240D -19-29OCT02-1/1

Fire Extinguisher Location

Rear fire extinguisher is located under the right-hand gull wing door.



H82553 —UN—28APR05

Rear Fire Extinguisher Location

OUO6075,00000C4 -19-23APR08-1/1

Washing Cab Windows, Servicing Headlights and Wiper

Use ladder and landing to clean left side of cab.

CAUTION: Raise feeder house completely and lower safety stop on feeder house lift cylinder. Close cab door securely and use hand holds.

IMPORTANT: Do not manually move wiper arm, this could cause damage to the wiper mechanism.

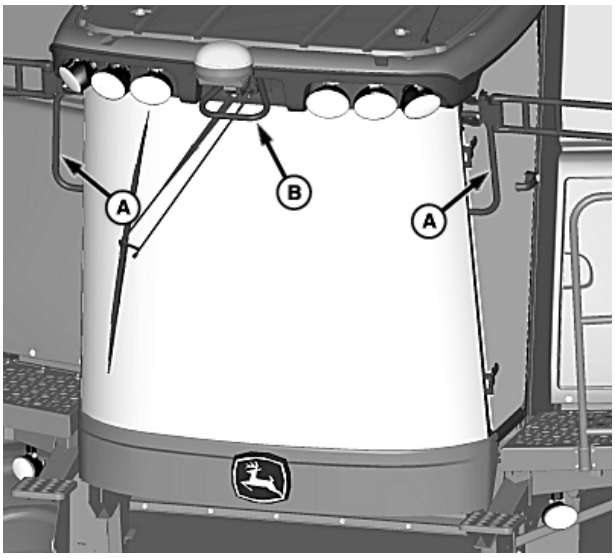
Stand on raised feeder house with feeder house safety stop lowered to clean front cab window and service head lights or wiper.

For stability, use handrails (A) on either side of cab and handhold (B) at top of cab.

Access feeder house by using step on left-hand side.

Use step and landing to clean right side of cab.

A—Handrails **B—Handhold**



H93241 —UN—15JAN09

OUO6075,000027C -19-21JAN09-1/1

Right-Hand Side Cab Access

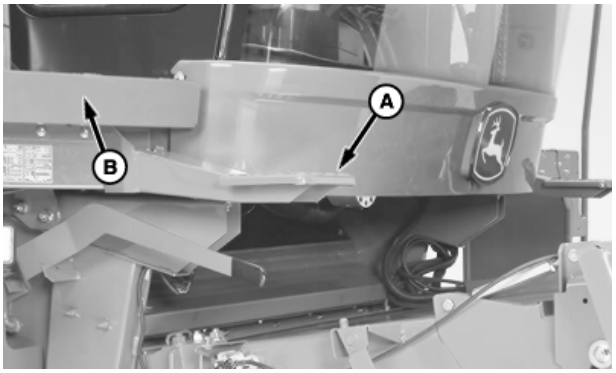
Raise feeder house and lower feeder house safety stop.

CAUTION: Shut OFF engine, set parking brake and remove key.

IMPORTANT: Close cab door before using safety rail next to cab door.

Use step (A) to access landing (B).

A—Step **B—Landing**



H81659 —UN—14SEP04

OUO6075,0000A35 -19-22MAR07-1/1

Steering Column

Trailer Signal Indicator Light (A) illuminates when trailer harness is hooked up and turn signal is applied.

Turn Signal Indicator Light (B) illuminates when a turn signal is applied.

Beacon Signal Indicator Light (C) illuminates when the beacon light switch is turned ON.

Starter Switch (D) allows key switch to be turned to:

First Position	OFF
Second Position	Accessories
Third Position	Run
Fourth Position	Start

CAUTION: Adjust steering wheel only when machine is stopped.

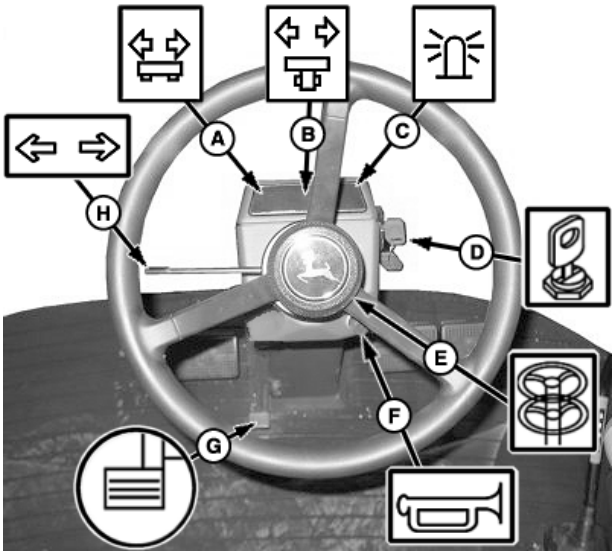
Steering Column Vertical Adjustment (E) allows operator to adjust steering column up or down.

Loosen hub and push or pull wheel to position. Slightly tighten hub to hold steering wheel in position.

Horn (F) allows operator to warn bystanders to stay clear.

CAUTION: Adjust column only when machine is stopped. Do not step on pedal without holding steering wheel.

Steering Column Horizontal Adjustment (G) allows operator to move steering column with pedal to desired location.



H86454 —UN—14AUG06

A—Trailer Signal Indicator Light
B—Turn Signal Indicator Light
C—Beacon Signal Indicator Light
D—Starter Switch
E—Steering Column Vertical Adjustment
F—Horn
G—Steering Column Horizontal Adjustment
H—Turn Signal Switch

Press pedal to release lock on steering column and move column to desired position. Column locks when pedal is released.

Turn Signal Switch (H) allows operator to indicate left or right-hand turns.

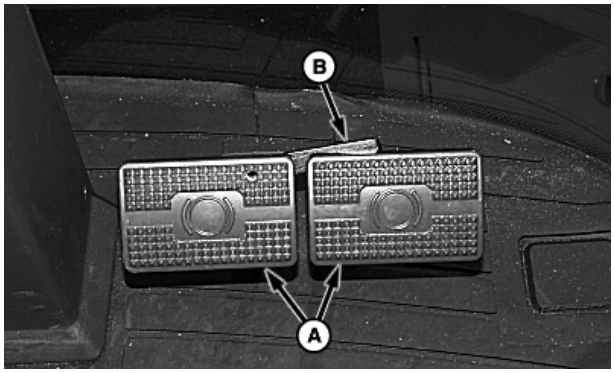
OUO6075,00009B8 -19-02APR07-1/1

Brake Pedals

Leave brake pedals (A) unlocked for field use and lock (B) brake pedals together when transporting.

A—Brake Pedals

B—Lock (Transport)



H68175 —UN—22MAY01

OUO6075,000063D -19-20MAR07-1/1

CLIMATRAK Air Conditioner Servicing

CAUTION: Escaping refrigerant under pressure can penetrate eyes and skin causing serious injury to you or others. Do not attempt to repair or service refrigerant system. (See your John Deere dealer.)

IMPORTANT: R134a refrigerant must be used. Special equipment and procedures are required to service air conditioning system, see your John Deere dealer.

NOTE: Some oil seepage from compressor shaft seal on the lower front is normal.

Check the following if air conditioner will not cool or cooling is intermittent:

If air conditioner clutch slips after machine has been in storage, compressor may be stuck. Shut OFF engine, set parking brake and remove key. Open engine access doors to access compressor. Rotate clutch hub back and forth to free compressor. If clutch hub does not rotate, or looks damaged, see your John Deere dealer.

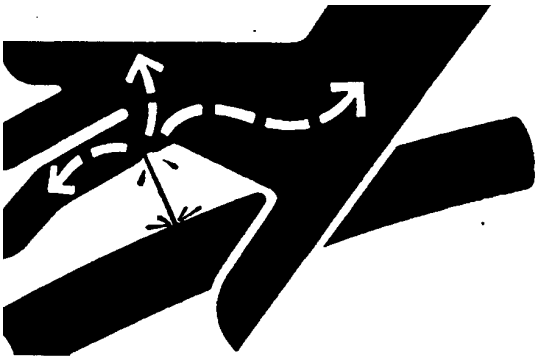
Start machine and run engine at high idle.

Place mode selector switch (A) in “DEFOG” position (top of switch pressed in).

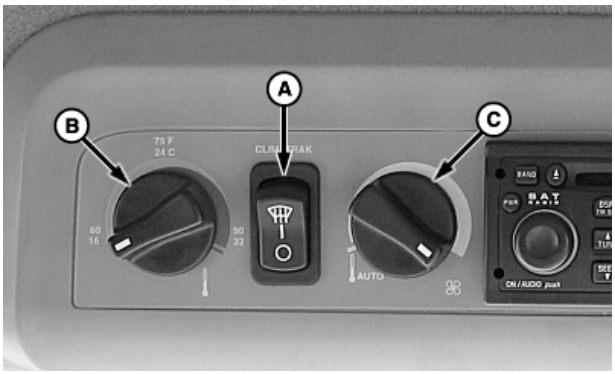
Turn temperature control dial (B) fully counterclockwise to decrease temperature and turn fan speed control dial (C) fully clockwise to increase fan speed.

If cooling is intermittent, clean radiator and condenser. If problem is not resolved, see your John Deere dealer.

Inspect cab filters for restriction. Clean cab filters if needed. If problem persists, see your John Deere dealer to have evaporator core cleaned.



X9811 —UN—23AUG88



H87630 —UN—14MAR07

A—Mode Selector Switch
B—Temperature Control Dial
C—Fan Speed Control Dial

OUO6075,0000B2D -19-14MAR07-1/1

CLIMATRAK Air Conditioning System (General Information)

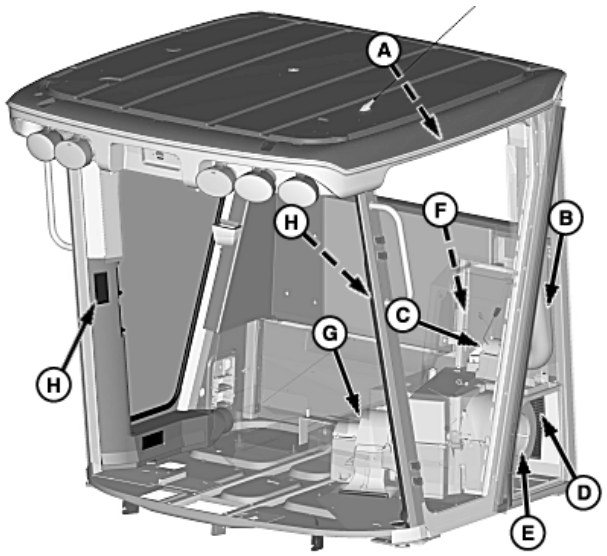
Air is drawn into the cab through holes (A). This air flows down the air duct (B) and into the pressurizer fan (C). The air is then pushed through precleaner (D) where the majority of dirt and a small amount of air is discharged out through the cab floor. Be certain this opening is open.

The cleaned air passes through the fresh air filter (E) and 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). It then passes through the evaporator and heater core.

Treated air (heated or cooled) is now drawn into the recirculator blower (G) and is discharged into the cab through air ducts (H).

CLIMATRAK Sensors Monitor

- Inlet air temp.
- Air temperature coming out of ducts.
- Evaporator core temperature to prevent icing.
- Cab air temperature.
  - Sensor located behind the operator recognizes the temperature the operator is experiencing.
  - Covering this sensor causes the system to respond slower to changes in heat loads.



H85722 —UN—19APR06

A—Holes
B—Air Duct
C—Pressurizer Fan
D—Precleaner
E—Air Filter
F—Recirculating Filter
G—Recirculator Blower
H—Air Ducts

- Use provided coat hook to hang your coat.

OUO6075,000038E -19-20APR06-1/1

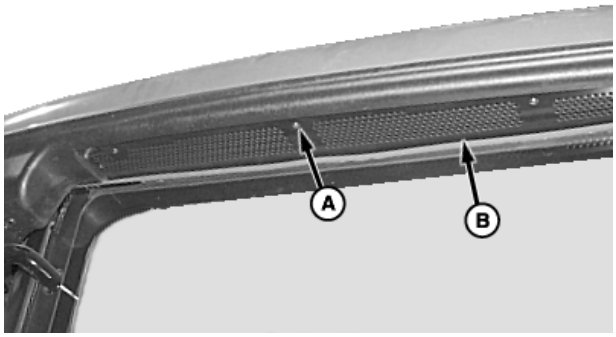
CLIMATRAK Inlet Panel—Cleaning

Clean this panel only when it looks plugged.

Remove screws (A) and remove panel (B). Air is brought in through the left-hand side panel only. The right-hand side panel does not provide cab air.

Clean with compressed air or water.

A—Screws **B—Panel**



H82841 —UN—28APR05

OUO6075,0003ECE -19-21MAR05-1/1

CLIMATRAK Precleaner—Cleaning

CAUTION: Shut OFF engine, set parking brake and remove key.

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

H85721 —UN—18APR06

OUO6075,0000D6E -19-18DEC07-1/1

CLIMATRAK Fresh Air Filter—Removing

IMPORTANT: Do not overtighten knob.

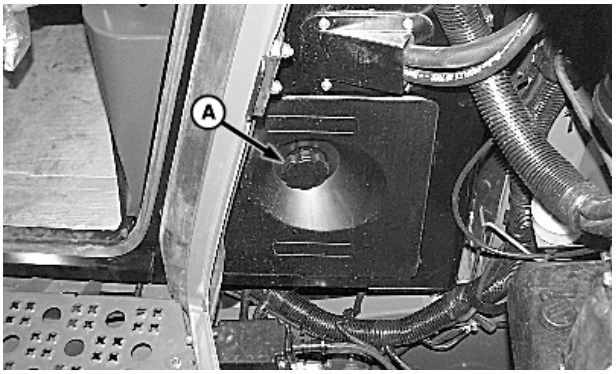
Every 50 hours check fresh air filter. In dusty conditions, check daily.

Loosen knob (A) and remove access cover.

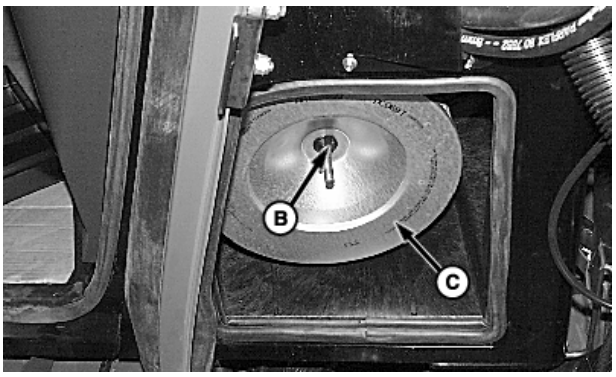
Remove wing nut (B) and pull out and clean fresh air filter (C).

Install in reverse order.

A—Knob
B—Wing Nut
C—Fresh air filter



H76202 —UN—28APR03



H76203 —UN—28APR03

OUO6075,0002BA8 -19-24APR03-1/1

Recirculating Filter—Removing

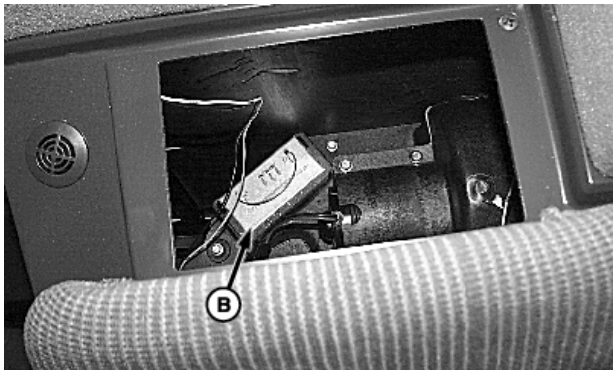
Every 200 hours check recirculating filter. In dusty conditions, check daily.

Remove cooling compartment (A). Reach in opening and pull recirculating filter (B) out.

When replacing recirculating filter, it should drop easily into place. Do not force filter in place. Be certain filter is install as shown on filter.

A—Cooling Compartment **B—Recirculating Filter**

H67762 —UN—03MAY01



H76142 —UN—24APR03

OUO6075,00009B9 -19-17NOV06-1/1

CLIMATRAK Fresh Air Filter and Recirculating Filter—Cleaning

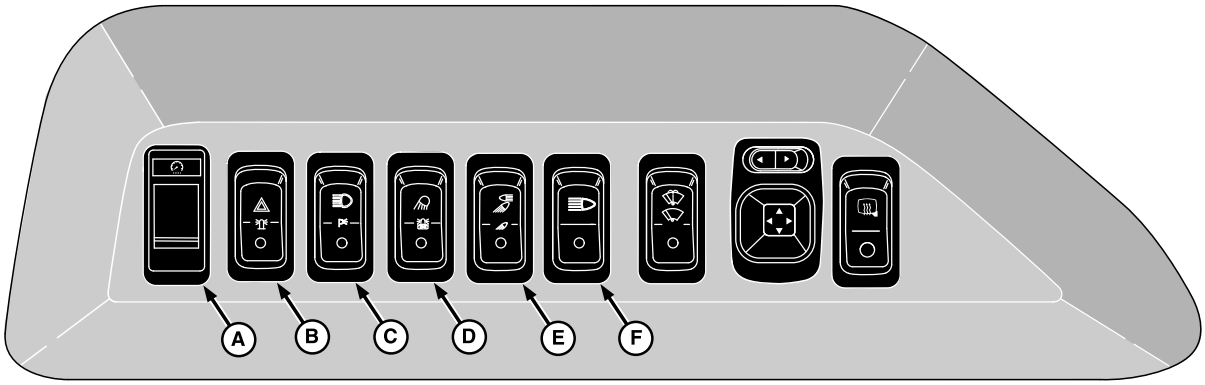
NOTE: If system is not cooling check evaporator filter. Clean this filter only if other service does not provide enough cooling. The evaporator filter can be inspected from outside the cab after removing the fresh air filter. If it looks clean, do not remove and clean it. See your John Deere dealer.

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.
- Soak 15 minutes in warm (not hot) water with R36757 John Deere Dry Filter Element Cleaner or its equal (non-sudsing detergent).
- Rinse until clean with water from hose. Do not use a high pressure washer.
- Shake extra water from filter and allow element to dry. Do not use compressed air to dry filter. It may rupture it.

OUO6075,0002BA4 -19-24APR03-1/1

Light Switches



H86996 —UN—20NOV06

A—Dimmer Switch
B—Beacon/Hazard Light Switch
C—Park/Road Light Switch
D—Auto Beacon/Field Light Switch
E—Work Light Switch
F—High/Low Beam Light Switch

NOTE: Exit lights remain ON for a maximum of 90 seconds after key switch is turned OFF (if road or field lights were used within the previous five minutes). Operator chooses to light left or right side of machine with turn signal lever.

When all lights are first turned to the ON position with key switch OFF, there will be a slight delay before lights turn ON.

- Dimmer switch (A) controls:
  - Brightness of cornerpost display, CommandCenter display and cab interior lights
- Beacon/Hazard light switch (B) controls:
  - Beacon lights (middle position)
  - Warning (flashing) lights with beacon lights (top position)
- Park/Road light switch (C) controls:
  - Position lights (middle position)
  - Headlights, beacon lights, driving lights[1], and position lights (top position)
- Auto Beacon/Field light switch (D) controls:
  - Auto beacon lights (middle position and top position)
  - Cab headlights (top position)
  - Position lights (top position)
  - Unloading auger light (top position)
  - Grain tank light (top position)
  - Side finder lights (top position)
- Work light switch (E) controls:
  - Stubble lights (middle position)
  - Stubble lights and rear residue lights (top position)
- High/Low Beam light switch (F) controls:
  - Brightness of two cab headlights

[1]*French, Italian, and Austrian machines only.*

OUO6075,00006E9 -19-16MAR10-1/1

Lighting Delay/Timeout

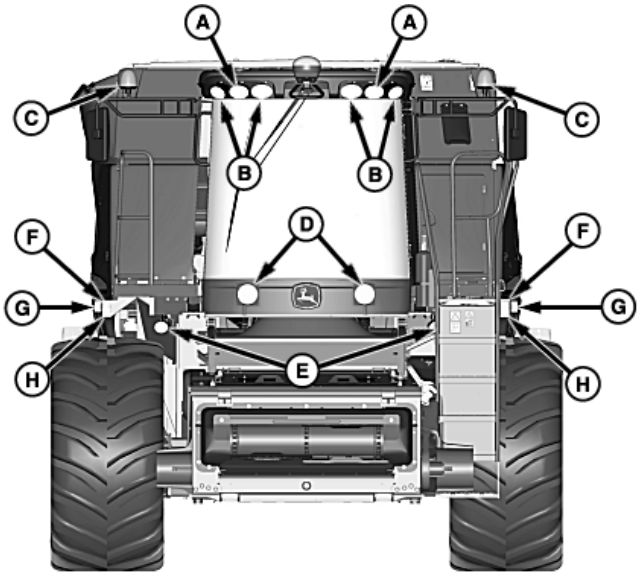
When all lights are first turned to the ON position with key switch OFF, there will be a slight delay. Machine is determining whether current battery voltage exists to operate lights without machine running. This feature is built into the machine to help prevent too much voltage being drawn from the battery, which may prevent machine from starting.

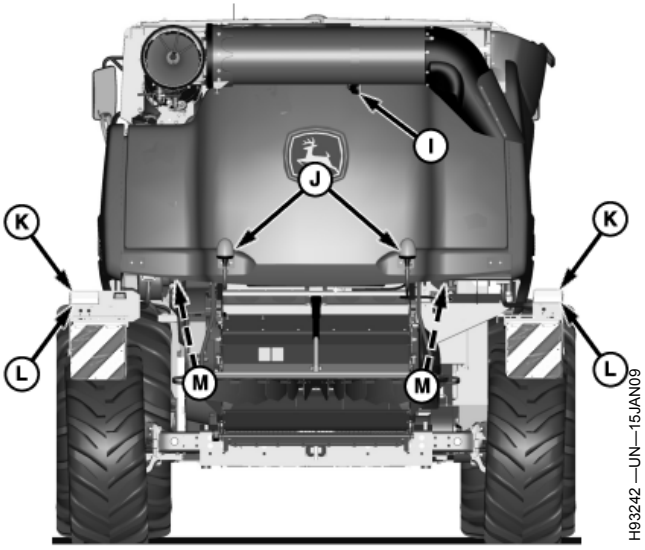
NOTE: After Cleaning Shoe Lights or Service Lights are ON for over ten minutes lights will flash, then go OFF momentarily, then back ON for 20 seconds. This cycle will continue for three minutes then lights will turn OFF until switch is cycled. If lights do not come back on after switch is cycled, machine has determined that battery voltage is too low to allow light operation until the machine is started and the batteries are recharged.

OUO6075,0000D72 -19-18DEC07-1/1

Lighting Locations

Front and Rear View Lights





A—High Intensity Discharge (HID) Cab Headlights
B—Cab Headlights
C—Beacon Lights
D—Driving Lights (If Equipped)
E—Stubble Lights
F—Warning/Turn Signal Lights (Amber)
G—Warning/Turn Signal Lights (Amber)
H—Position Lights (White)
I— Unloading Auger Light
J— Beacon Lights
K—Warning/Turn Signal Lights (Amber)
L— Position/Brake Lights (Red)
M—Discharge Lights

Beacon/Hazard Light Switch:

- Switch in middle position controls beacon lights (C, I)[1].
- Switch in top position controls beacon lights (C, I) and warning lights (F, G, J).
- Beacon lights and warning lights are located on both sides of the machine at the front and rear and give warning to other drivers when transporting or stopped on roadways.

Park/Road Light Switch:

CAUTION: Lights must be turned ON when transporting. Swing cab ladder forward to orient position light towards oncoming motorists.

NOTE: French, Italian, and Austrian require two additional driving lights (D) be added to the front of the machine below the cab facia.

- Switch in middle position controls position lights (H, K).
- Switch in top position controls position lights (H, K), headlights (A), beacon lights (C, I), and driving lights (D)[2].
- Position lights and beacon lights located on both sides of the machine at the front and rear must be turned ON when transporting on roadways.

Auto Beacon/Field Light Switch:

- Switch in middle position causes beacon lights (C, I)[1] to illuminate when grain tank is 3/4 full. Beacons provide a signal to the grain cart operator that grain tank is full and is ready to be unloaded.
- Switch in top position controls auto beacon lights (C, I), cab headlights (A, B) and position lights (H, K).
- Cab headlights provide operator with area lighting for operation at night and during low light conditions.

[1]France requires two beacon lights be installed at the front and rear. All other countries require two beacon lights be installed at the front and one beacon light be installed at the rear.
[2]French, Italian, and Austrian machines only.

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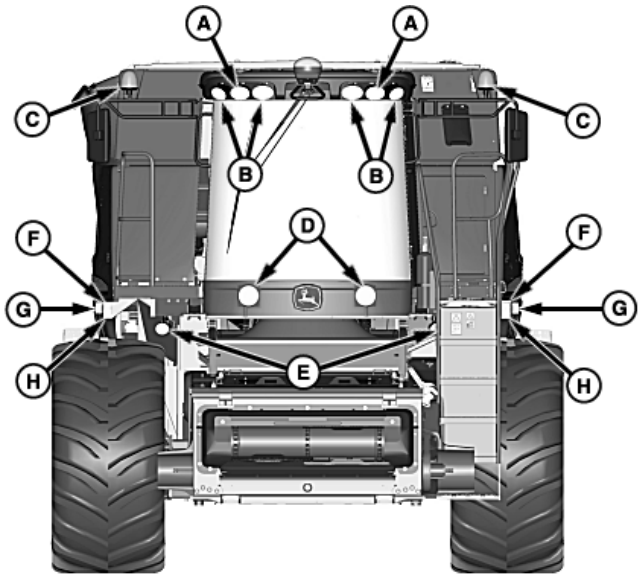
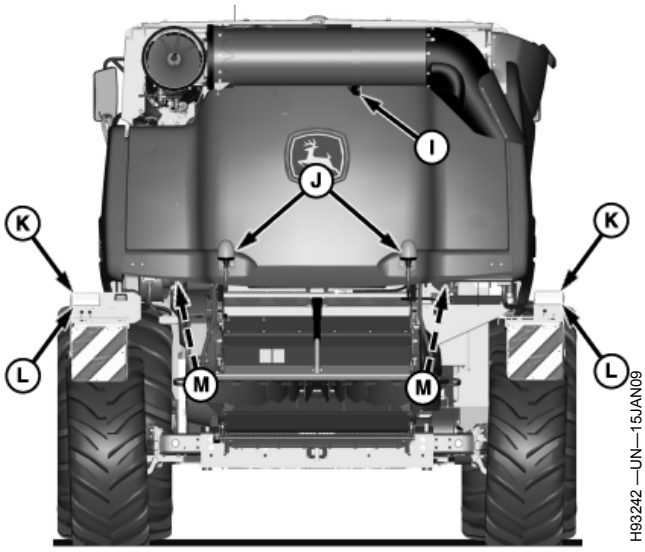
OUO6075,00006EB -19-16MAR10-1/4





H93242 —UN—15JAN09

A—High Intensity Discharge (HID) Cab Headlights
B—Cab Headlights
C—Beacon Lights
D—Driving Lights (If Equipped)
E—Stubble Lights
F—Warning/Turn Signal Lights (Amber)
G—Warning/Turn Signal Lights (Amber)
H—Position Lights (White)
I— Unloading Auger Light
J— Beacon Lights
K—Warning/Turn Signal Lights (Amber)
L— Position/Brake Lights (Red)
M—Discharge Lights

Work Lights Switch:

CAUTION: To avoid motorist confusion, do not operate work lights when transporting on public roadways.

NOTE: CommandCenter display shows a warning indicator if rear discharge or stubble lights are left ON while transporting.

- Switch in middle position controls stubble lights (E).
- Switch in top position controls stubble lights (E) and rear discharge lights (L).
- Stubble lights provide operator with area lighting behind header for night operation and low light conditions[1].
- Rear discharge lights provide operator with rear area lighting for night operation and low light conditions[1].

High/Low Beam Light Switch:

NOTE: High/Low beam light switch only works if Park/Road light switch is in middle position or if Auto Beacon/Field light switch is in top position.

- Switch controls the brightness of two center headlights (B).

Exit Lighting:

- Two inner most cab headlights (B) and exiting lights remain on for a maximum of 90 seconds after key switch is turned OFF (if road or field lights were in use within the previous five minutes). Operator chooses to light left-hand or right-hand side of machine using turn signal lever.

Stop Lights:

- Stop lights (K) come ON when machine senses a deceleration. Lights stay on for a minimum of two seconds and/or as long as deceleration.
- Once speed is less than 1.6 km/h (1 mph), stop lights stay on for two minutes or until forward acceleration is sensed and the speed is greater than 1.6 km/h (1 mph).

[1]If road lights are ON, stubble lights and rear discharge lights will not be able to be turned ON.

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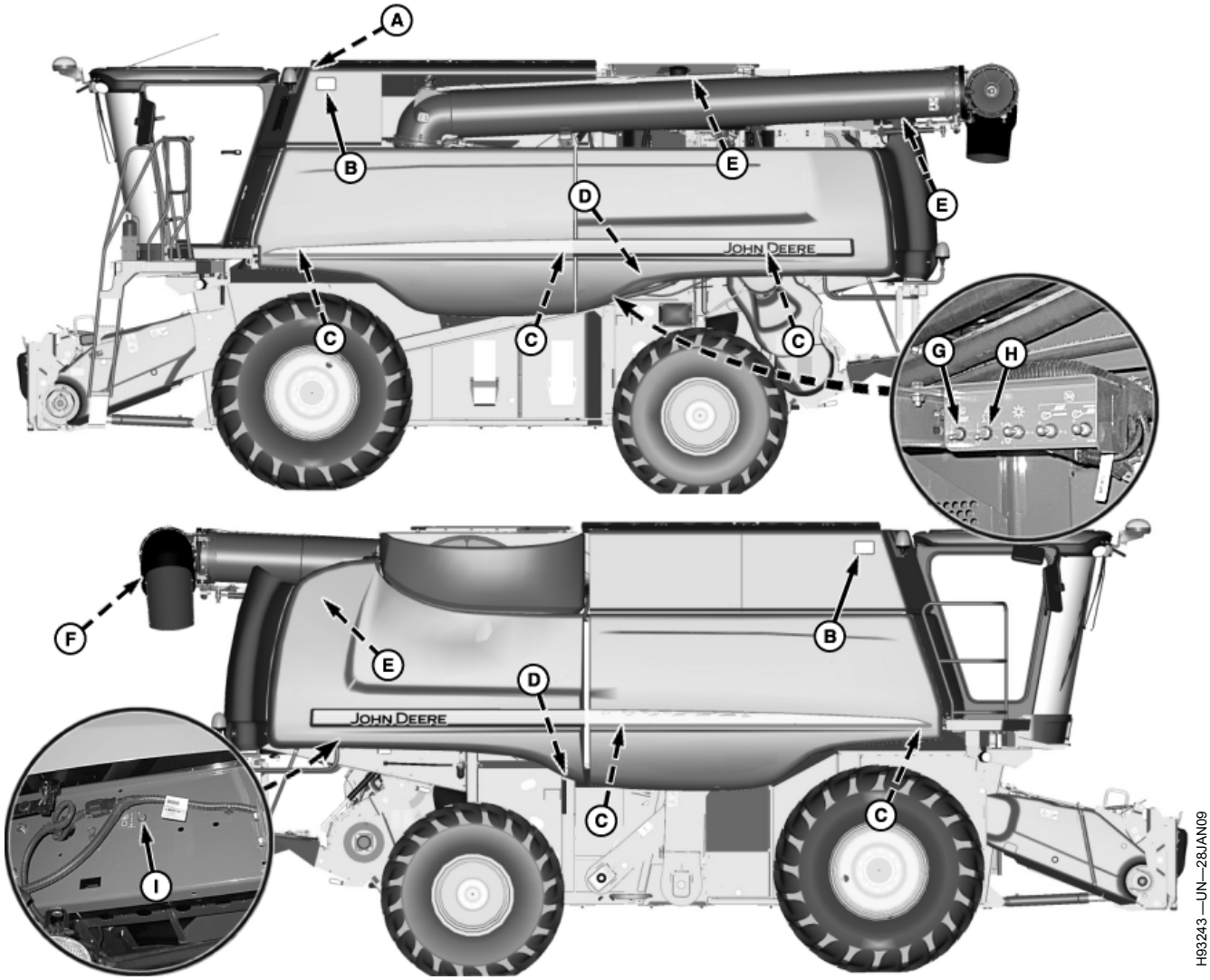
Left and Right Side View Lights



A—Grain Tank Light
B—Side Finder Lights
C—Service Door Lights
D—Cleaning Shoe Lights
E—Engine Compartment Service Lights
F—Unloading Auger Light
G—Cleaning Shoe Light Switch
H—Service Lights Switch
I— Engine Compartment Service Lights Switch

Auto Beacon/Field Light Switch:

NOTE: These lights will not operate when the hazard warning lights are ON.

- Switch in top position controls grain tank light (A)[1], side finder lights (B) (with turn signal lever), and unloading auger light (F).
- Side finder lights provide operator with area lighting on each side of machine for night operation and low light conditions.

NOTE: When Field Light switch is ON, use turn signal lever to actuate either right or left side finder light.

- Grain tank light provides operator with lighting in grain tank for night operation and low light conditions.
- Unloading auger light comes ON when auger is extended more than 50% with field light switch ON.
- Unloading auger light provides lighting for unloading grain tank at night or in low light conditions.

Cleaning Shoe Lights:

- Cleaning shoe lights (D) provide operator with lighting for cleaning shoe adjustment at night or in low light conditions.
- Cleaning shoe ON/OFF switch (G) is located above left-hand separator shield.

[1]When 3/4 full sensor is tripped, grain tank light will turn off to prevent light from overheating.

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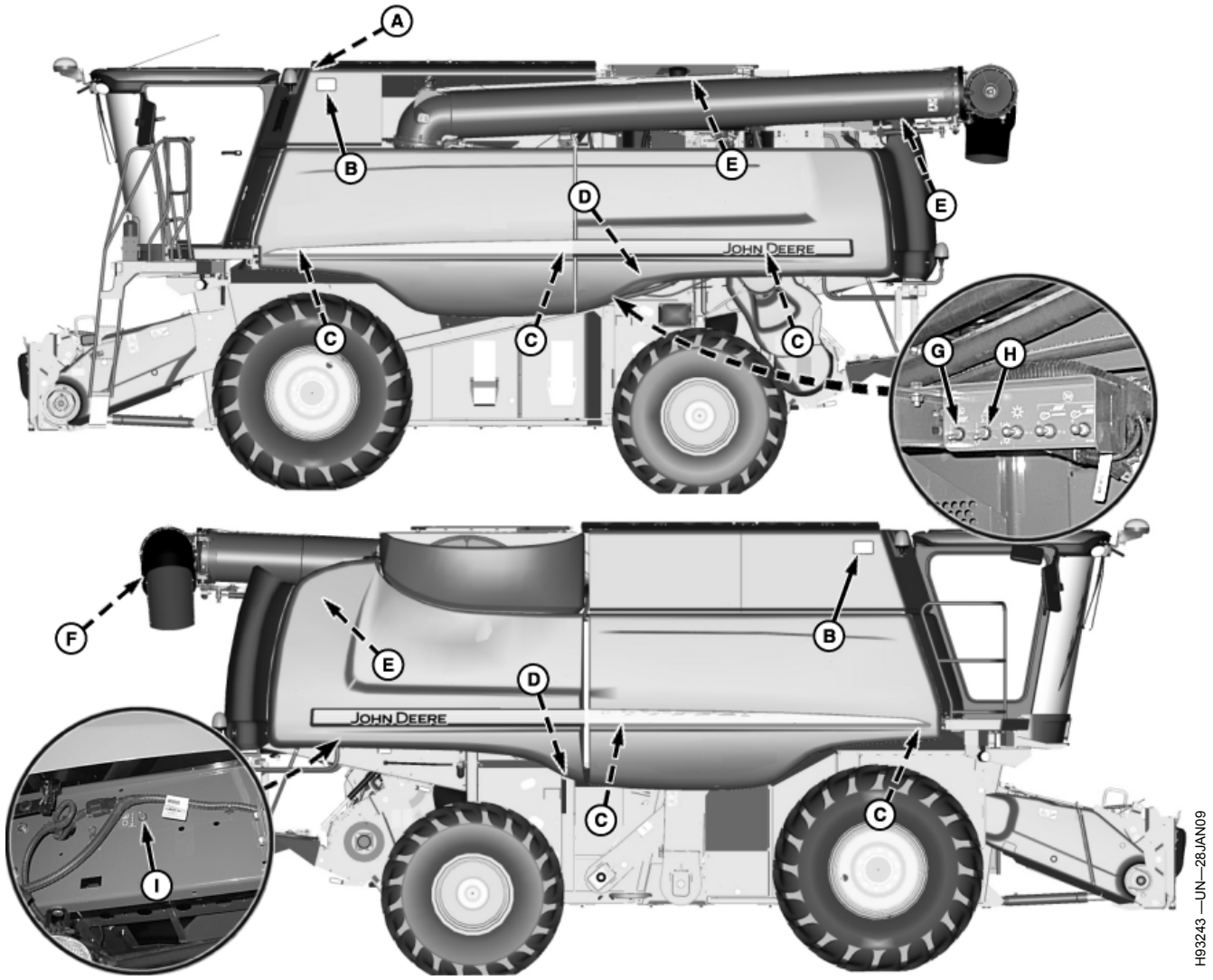


A—Grain Tank Light
B—Side Finder Lights
C—Service Door Lights
D—Cleaning Shoe Lights
E—Engine Compartment Service Lights
F—Unloading Auger Light
F—Unloading Auger Light
G—Cleaning Shoe Light Switch
H—Service Lights Switch
I— Engine Compartment Service Lights Switch

Service Lights:

CAUTION: Avoid motorist confusion. Do not operate service lights when transporting on public roadways.

- Service lights (C) are provided on both sides of machine under the gull wing doors and provide better visibility of separator area.
- Service lights ON/OFF switch (H) is located above left-hand separator shield.

Engine Compartment Service Lights:

- Engine compartment service lights (E) provide lighting for engine deck area at night or in low light conditions.
- Engine compartment service lights ON/OFF switch (I) is located on right-hand rear side of machine.
- Switch controls engine compartment door light, rear engine deck light and engine compartment front light.

Exit Lighting:

- Two inner most cab headlights and side finder lights (B) remain on for a maximum of 90 seconds after key switch is turned OFF (if road or field lights were in use within the previous five minutes). Operator chooses to light left-hand or right-hand side of machine using turn signal lever.

OUO6075,00006EB -19-16MAR10-4/4

Turn Signals

NOTE: Turn signals operate anytime key switch is ON and Auto Beacon/Field light switch is OFF or in middle position. With light switch in top position, turn signal lever actuates either right or left side finder light. Turn signals are not self-cancelling, so lever must be moved to neutral position.

When operating machine on road or highway, use turn signal lever (A) to indicate turns.

When turn signal is set for a right-hand turn, the right-hand warning light will flash 85 flashes per minute while the left-hand warning light turns off. The opposite happens for a left-hand turn.

NOTE: Indicator light on steering column illuminates and flashes at same speed as warning lights. Turn signal indicator operates at 170 flashes per minute if a bulb is burnt out.

H87005 —UN—20NOV06

A—Turn Signal Lever

OUO6075,0000383 -19-29MAY09-1/1

Cab Interior Light

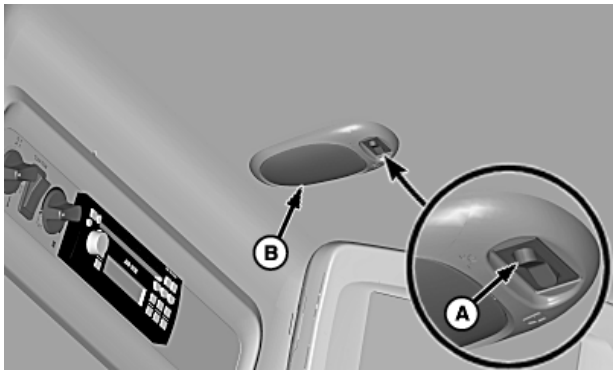
Dome light provides overhead lighting for use at night or in low light conditions.

Light switch (A) controls dome light (B).

Light switch is a three position switch:

- ON (left)
- OFF (center)
- Automatic (right) (open cab door)

A—Light Switch **B—Dome Light**



H86103 —UN—07JUN06

OUO6075,000063F -19-20MAR07-1/1

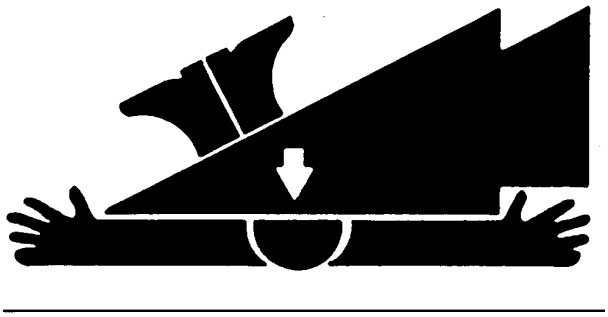
Hydraulic Cylinder Safety Stop

CAUTION: Shut OFF engine, set parking brake and remove key.

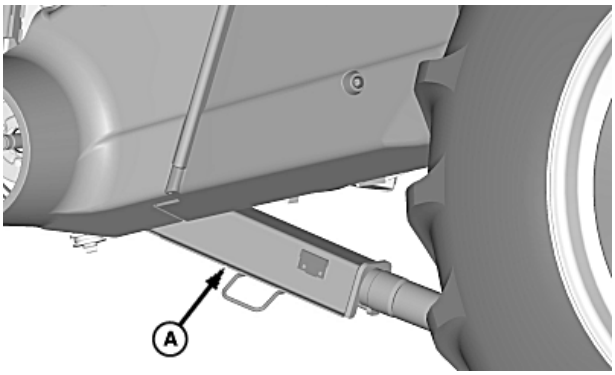
Cracking of hydraulic line fittings to lower feeder house results in an instantaneous dropping of feeder house and header.

Lower safety stop (A) onto hydraulic cylinder rod.

A—Safety Stop



TS696 —UN—21SEP89



H90891 —UN—26FEB08

OUO6075,0000001 -19-07MAR08-1/1

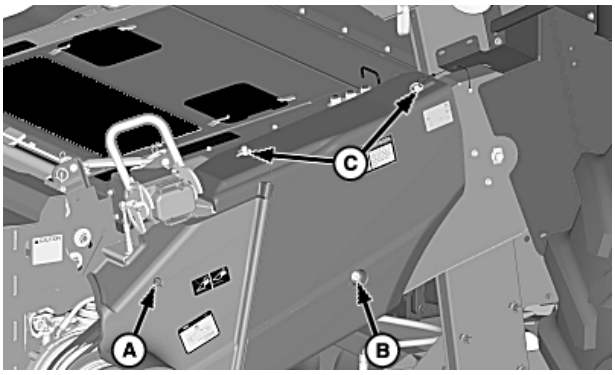
Feeder House Side Shields

CAUTION: Raise feeder house, lower safety stop, shut OFF engine, set parking brake and remove key.

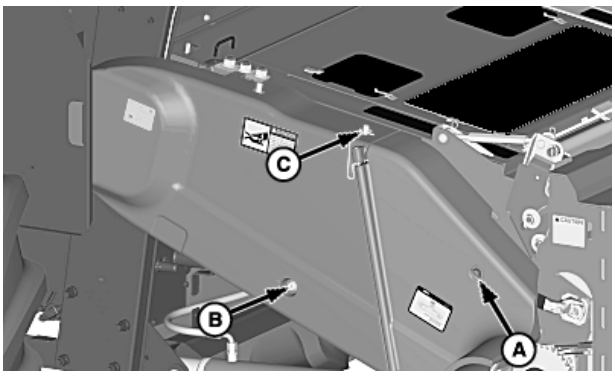
Feeder house shields have a front and rear shield. Turn latch (A) and swing front shield open for service.

Turn latch (B) and remove quick-lock pins (C) to remove rear shield.

A—Latch
B—Latch
C—Quick-Lock Pin



H91044 —UN—27MAR08



H91045 —UN—27MAR08

OUO6075,000006B -19-27MAR08-1/1

Feeder House Doors

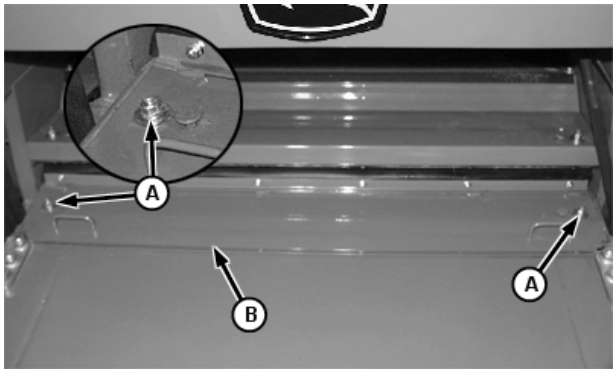
CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen nuts (A) on each side of the door and push nuts towards center of feeder house.

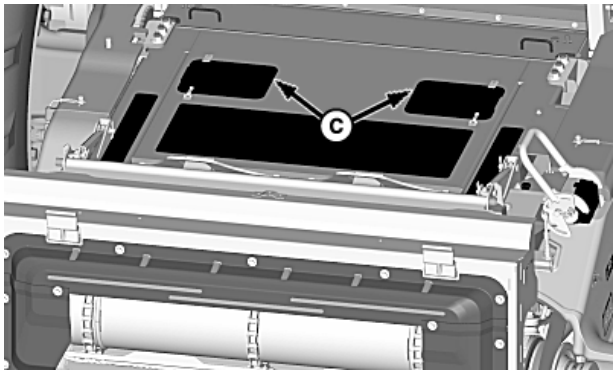
Pull door (B) forward to remove.

Lift doors (C) to access inside of feeder house.

A—Nuts
B—Door
C—Doors



H76150 —UN—24APR03



H90905 —UN—27FEB08

OUO6075,0000003 -19-07MAR08-1/1

Feed Accelerator Top Access Door

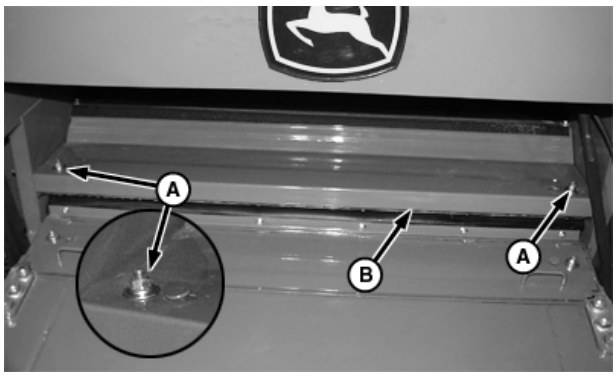
CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen locking nuts (A) on each side of the door and push locking nuts towards center of machine.

Pull door (B) forward to remove.

Slide door (C) forward to remove.

A—Locking Nuts
B—Door
C—Door



H70566 —UN—03JAN02

H70565 —UN—03JAN02

OUO6075,00008A1 -19-20MAR07-1/1

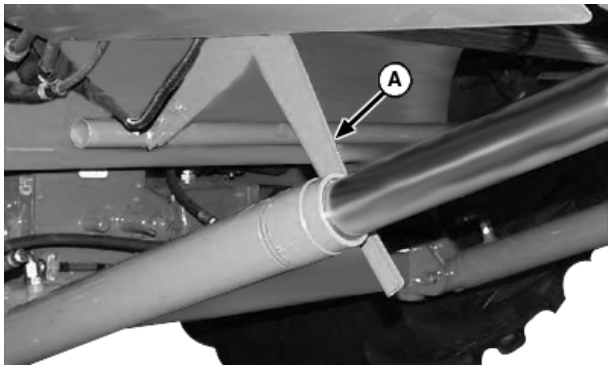
Feeder House Bottom Door and Feedplate Seal Support

CAUTION: Raise feeder house, lower safety stop, shut OFF engine, set parking brake and remove key.

Remove quick-lock pin and move lever (A) down and rearward to open door.

IMPORTANT: Lever will be bent if left down when feeder house is lowered.

Push lever forward and up to close door. Retain with quick-lock pin.



H52761 —UN—17MAY99

A—Lever

OUO6075,00008A2 -19-20MAR07-1/2

If feeder house door does not seal (A) tight, grain leakage could occur.

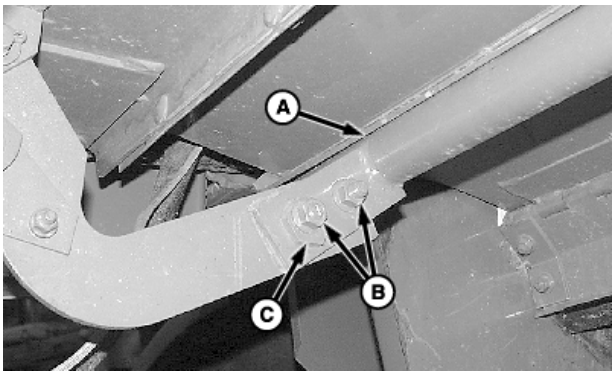
Loosen cap screws (B) on both sides.

Turn eccentric (C).

Tighten cap screw securing eccentric.

Tighten remaining cap screws.

A—Seal
B—Cap Screws
C—Eccentric

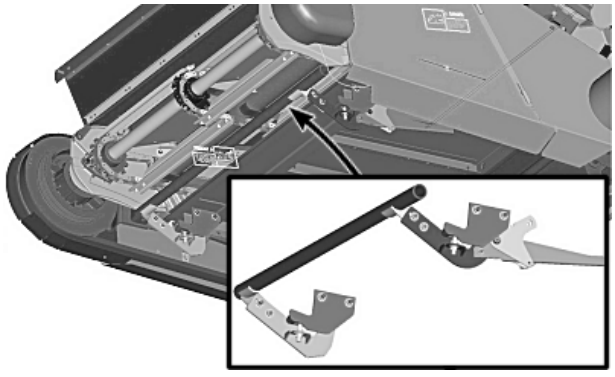


H74778 —UN—14JAN03

OUO6075,00008A2 -19-20MAR07-2/2

Reinforced Feedplate Support (Field Installed Attachment)

A heavy duty feedplate support assembly is available as a field installed bundle, (see your local John Deere dealer). This bundle provides added support for the feedplate in high yielding corn, or when harvesting with the corn head high off the ground.



H85738 —UN—25APR06

OUO6075,00008A3 -19-23APR07-1/1

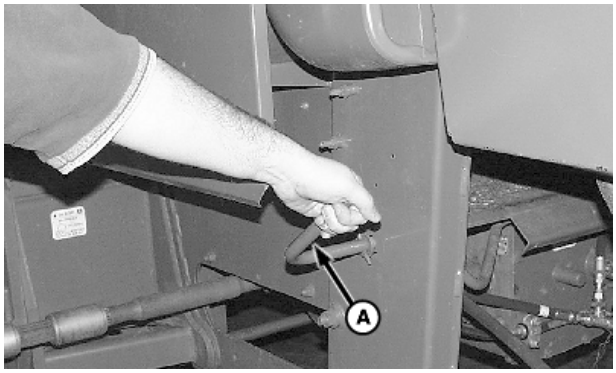
Stone Trap

CAUTION: Raise feeder house, lower safety stop, shut OFF engine, set parking brake and remove key.

Stone trap protects the cylinder and concave from rock or stone damage.

Move handle (A) up to dump stone trap and move handle down to close stone trap.

A—Lever

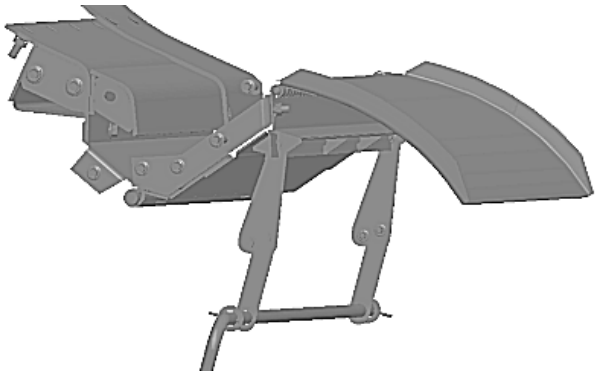


H74779 —UN—14JAN03

OUO6075,00008A4 -19-20MAR07-1/1

Expanded Stone Trap Door (Field Installed Attachment)

An expanded stone trap door with a two-piece front feed floor is available as a field installed bundle (see your local John Deere dealer). This replaces the standard one-piece feed floor. When harvesting crops such as corn, food corn, popcorn and small grains, the front piece floor section remains bolted in place. In rocky conditions such as beans and edible beans, the front floor section is removed to provide a larger open area for the stone trap, allowing for improved rock protection.



H85761 —UN—01MAY06

OUO6075,00008A5 -19-20MAR07-1/1

Feeder House Fore/Aft Tilt Frame—Adjusting

CAUTION: If adjusting fore/aft tilt frame with header attached, lower header to ground to relieve tension from turnbuckles. Shut OFF engine, set parking brake and remove key.

Feeder house tilt feature is used to set the correct relationship between platform skid plates and the ground. It is intended to compensate for different tire sizes, rear axle settings, and other variables.

Loosen tilt frame nuts (A) and nut (B) on both sides of feeder house.

IMPORTANT: Do not loosen cap screw (C).

Disengage washer splines (D) from support plate on both sides of feeder house.

NOTE: Move right-hand stop plate to rearward mounting holes if needed.

Loosen nuts (E) and move stop plate (F) rearward on both sides of feeder house.

Loosen turnbuckle jam nut (G) and adjust turnbuckles (H) on both sides as needed for correct header angle.

Tighten turnbuckle jam nut on both sides.

Engage washer splines (D) into support plate and tighten tilt frame nuts (A and B) to specification.

Specification

M16 Tilt Frame Nuts (A)—Torque	300 N·m (221 lb-ft)
M20 Tilt Frame Nut (B)—Torque	620 N·m (460 lb-ft)

IMPORTANT: No gap should exist between stop plates and fore/aft tilt frame after tightening stop plate nuts.

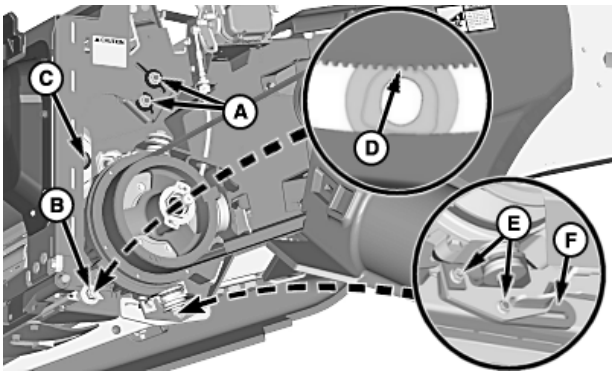
NOTE: Attach right-hand stop plate to forward or rearward holes as needed.

Move stop plates (F) fully forward to fore/aft tilt frame on both sides and tighten nuts (E) to specification.

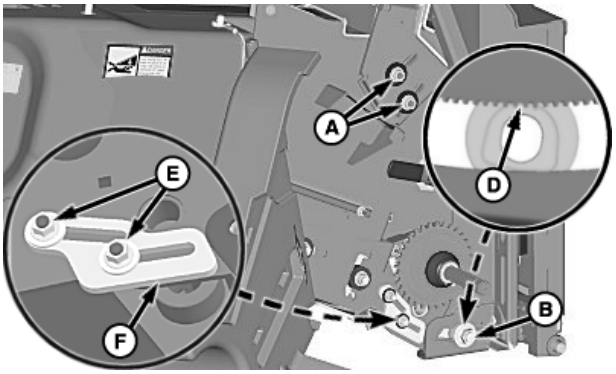
Specification

Stop Plate Nuts—Torque	130 N·m (96 lb.-ft.)

A—Tilt Frame Nuts, M16
B—Tilt Frame Nut, M20
C—Cap Screw
D—Washer Splines
E—Nuts
F—Stop Plate
G—Jam Nut
H—Turnbuckle

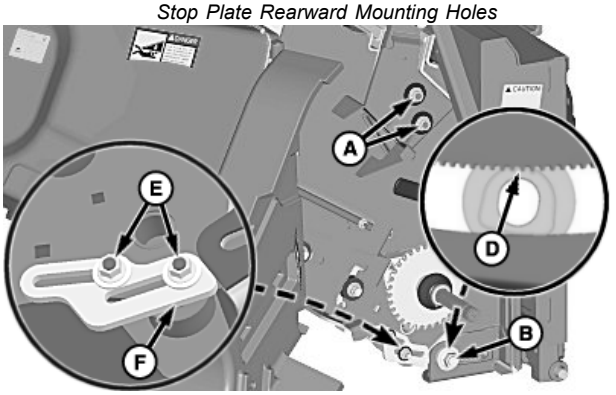


H95796 —UN—22MAR10



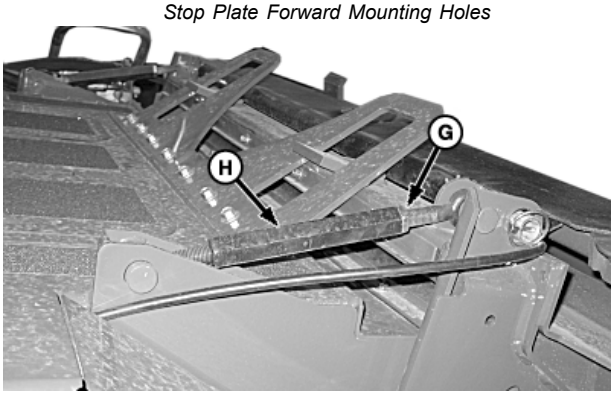
H95792 —UN—22MAR10

Stop Plate Rearward Mounting Holes



H95793 —UN—22MAR10

Stop Plate Forward Mounting Holes



H95794 —UN—22MAR10

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Tilt adjustment is set to an approximate position at factory, but if tires or axle positions are changed, it may be necessary to readjust. An approximate setting can be obtained without a header attached by the following:

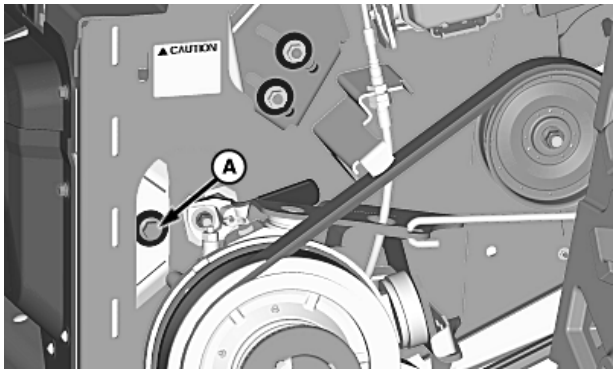
- With machine on a smooth level surface, lower or raise feeder house until pivot bolt (A) to ground distance is set to specification.

Specification

Pivot Bolt To Ground—Distance ..... 865 mm (34 in.)

- Using a level as a reference, adjust fore/aft tilt frame until front face is vertical.

If further adjustment is necessary, refer to header operators manual for additional adjustments.



H94359 —UN—24JUN09

A—Pivot Bolt

OUO6075,00006F3 -19-22MAR10-2/2

Feeder House Conveyor Chain—Adjusting

Remove feeder house shields on both sides.

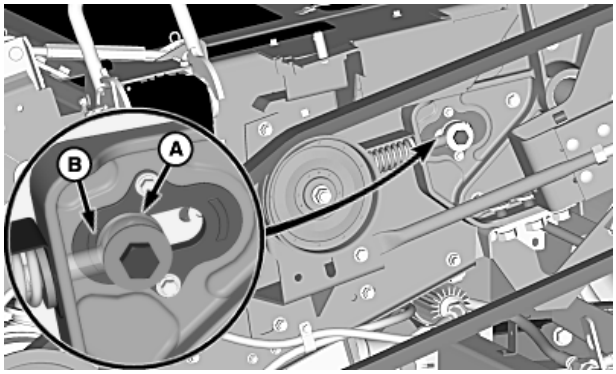
One offset link on each chain strand must be removed when washer (A) aligns with inner edge of front embossment (B) as shown.

Tighten nut (C) on both sides of feeder house until washer (D) is between end of gauge (E) and bottom of step.

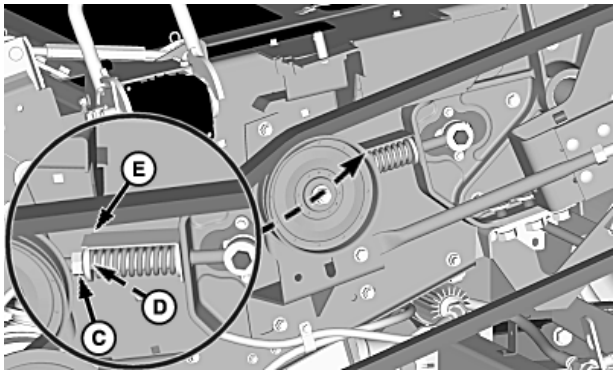
- Check tension on both sides every 100 hours. Adjust when any part of washer is beyond end of gauge.
- Out-of-round sprockets or drum and bent shafts can cause chain tension to be uneven, too tight, or too loose.
- Excessive chain tension causes shaft and bearing failures.

Install feeder house side shields.

A—Washer
B—Embossment
C—Nut
D—Washer
E—Gauge



H94329 —UN—19JUN09



H94336 —UN—22JUN09

OUO6075,00006F0 -19-19MAR10-1/1

Feeder House Conveyor Chain Links—Removing

NOTE: When replacing chain links always check sprockets for wear.

Remove offset links (A) for initial chain adjustment.

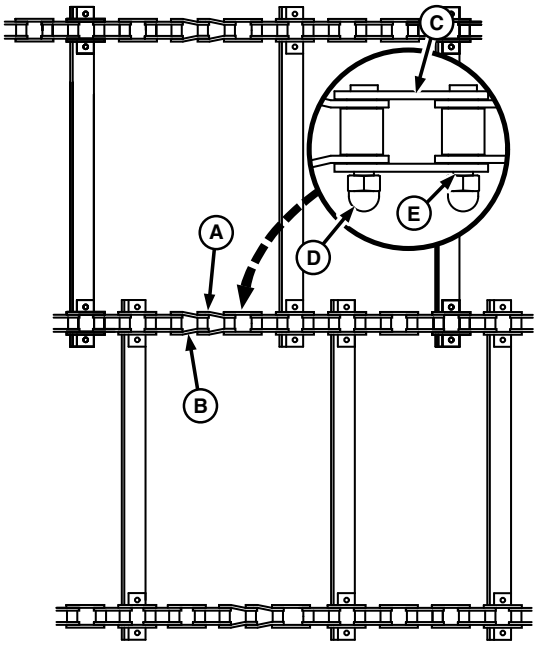
Remove offset links (B) for second adjustment. When adjustment is used up from second adjustment, chain is worn out and should be replaced.

Specification

"T" Slat M8 Hardware—Torque	30 N·m (22 lb-ft)
Chain Link M8 Cap Nuts—Torque	25 N·m (18 lb-ft)

IMPORTANT: When installing connector links, cap nuts must be oriented away from drum rings.

When chain link cap nuts (D) are torqued to specification, gap (E) should exist between connector link sidebar (C) and cap nut.



H87864 —UN—17APR07

A—Offset Link
B—Offset Link
C—Sidebar
D—Cap Nut
E—Gap, 1—2 mm (3/64 in.—5/64 in.)

OUO6075,00008A8 -19-27MAR08-1/1

Feeder House Drum—Height Adjustment

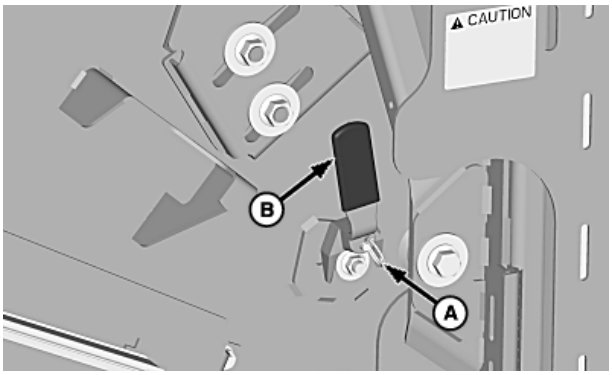
CAUTION: Raise feeder house, lower safety stop, shut OFF engine, set parking brake and remove key.

Open feeder house shields.

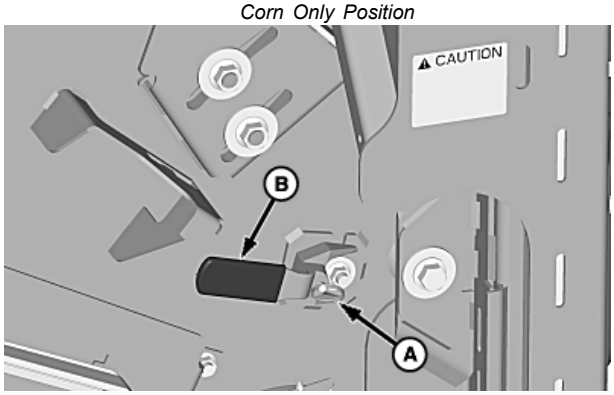
Pull and hold pin (A) while rotating handle (B) to desired crop position on both sides.

Close feeder house shields.

A—Pin **B—Drum Height Handle**



Corn Only Position



Small Grain Position

OUO6075,0000007 -19-07MAR08-1/1

Feeder House Conveyor Speed—Changing

CAUTION: Raise feeder house, lower safety stop, shut OFF engine, set parking brake and remove key.

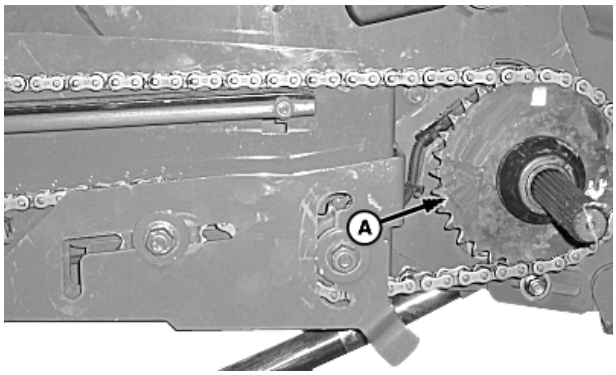
NOTE: Refer to Crops Settings section for recommended feeder house conveyor sprocket settings.

Important Notes About 32 Tooth Sprocket:
- Sprocket is not recommended for corn use.

Recommended for conditions when feeding is poor due to following crops and conditions:
- **Crops:** Barley, Canola, Oats, Rice, Rye, and Wheat
- **Conditions:** High Volume, Green, Wet, Windrowed, and Poor Feeding

As crop conditions change or feeding improves (dryer, more even windrows, lighter straw), it is recommended to use the 26 tooth sprocket. Chain speed slows and reduces potential for straw damage or pre-threshing and extends chain life.

Feeder conveyor chain can be set to two different speeds by selecting drive sprocket (A) on right-hand side of the lower shaft.



A—Sprocket

Use small sprocket for slow speed and large sprocket for high speed.

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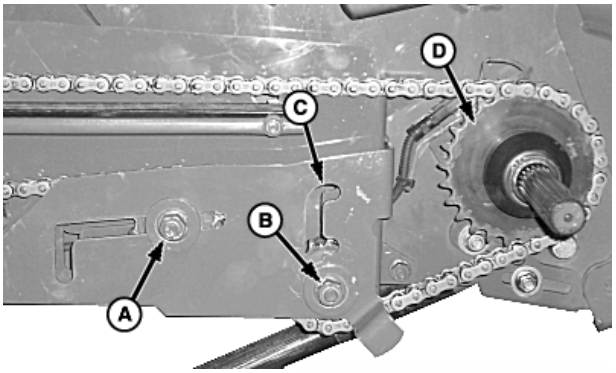
OUO6075,00004A5 -19-22OCT09-1/4

1. **To move drive chain to smaller sprocket:** Open right-hand front shield.
2. Loosen nut (A) and push sprocket rearward.
3. Loosen nut (B) and move sprocket to upper position (C).
4. Push in on coupler (D) and move small sprocket outward until it engages detent.

A—Nut
B—Nut
C—Upper Position
D—Lower Position

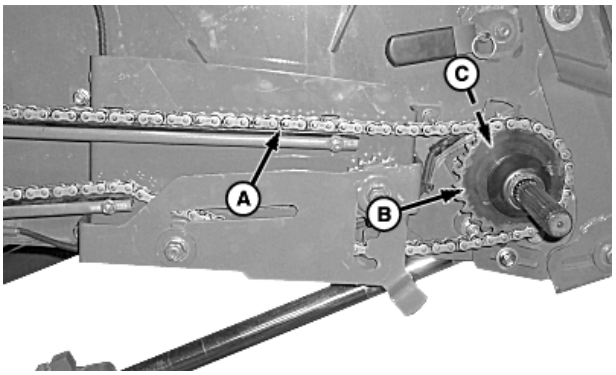


H90956 —UN—04MAR08

OUO6075,00004A5 -19-22OCT09-2/4

5. Move chain (A) from large sprocket (B) to small sprocket (C).

A—Chain
B—Large Sprocket
C—Small Sprocket



H90957 —UN—04MAR08

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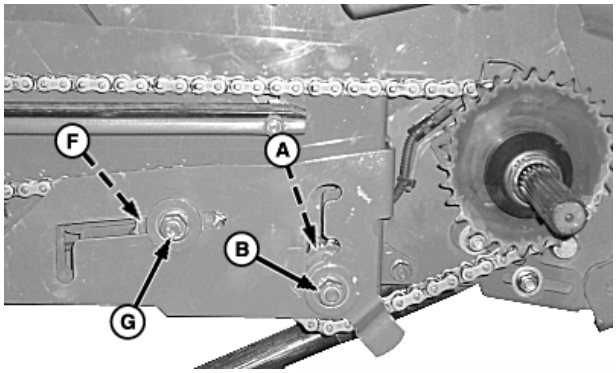
OUO6075,00004A5 -19-22OCT09-3/4

6. Move sprocket (A) to lower position and tighten nut (B).
7. Loosen nuts (C) and slide chain guide (D) into desired notches (E) and tighten nuts.

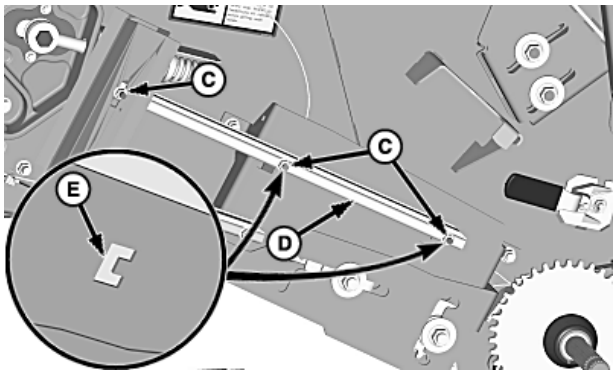
NOTE: Do not over tighten feeder conveyor drive chain. It is acceptable for chain to ride on plastic guide.

8. Use pry bar in holes of inside plate to move sprocket (F) forward and tighten nut (G).
9. Close right-hand front shield.

A—Sprocket
B—Nut
C—Nuts
D—Chain Guide
E—Notches
F—Sprocket
G—Nut



H91065 —UN—02APR08



H91064 —UN—02APR08

OUO6075,00004A5 -19-22OCT09-4/4

Feeder House Conveyor Drive Chain—Adjusting

⚠ CAUTION: Raise feeder house, lower safety stop, shut OFF engine, set parking brake and remove key.

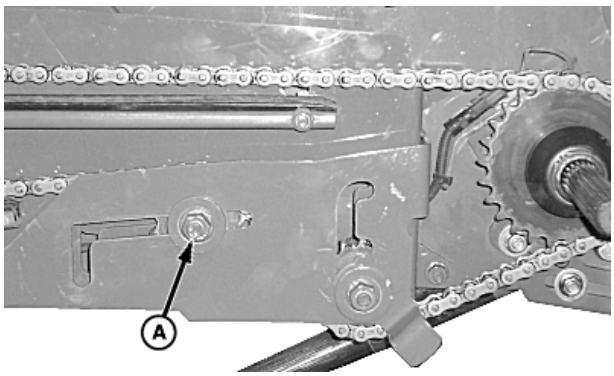
Open right-hand front shield.

Loosen nut (A) and push sprocket rearward.

NOTE: Do not over tighten feeder conveyor drive chain. It is acceptable for the chain to ride on the plastic guide.

Use pry bar in holes of inside plate to move sprocket forward and tighten nut (A).

Tighten nut and close right-hand shield.



H90960 —UN—04MAR08

A—Nut

OUO6075,000000A -19-07MAR08-1/1

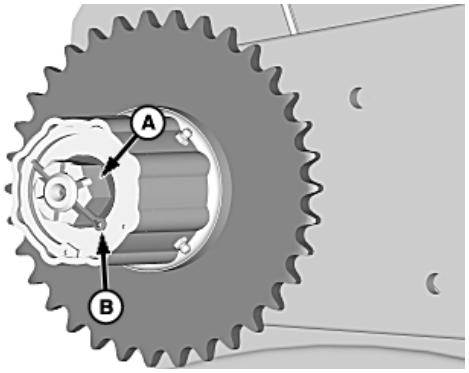
Feeder House Slip Clutch

CAUTION: Shut OFF engine, set parking brake and remove key.

The slip clutch protects the upper shaft, conveyor, and drive chains.

If the slip clutch is removed, tighten castle nut (A) to specification and install cotter pin (B).

Specification	
Castle Nut—Torque	350 N·m (258 lb-ft)



H86504 —UN—28AUG06

A—Castle Nut

B—Cotter Pin

OUO6075,00008B2 -19-20MAR07-1/1

Feeder House Top Shaft Stripper—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

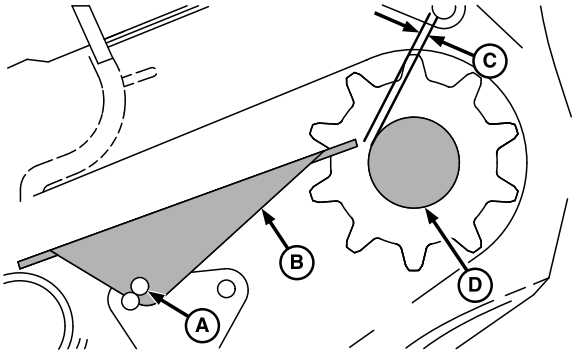
If top feeder house shaft should wrap, check to see that the strippers are adjusted as follows:

Remove top feeder house door.

Loosen bolts (A) and set stripper (B) to 3 mm (1/8 in.) (C) from top shaft (D).

Specification	
Stripper Location—Distance	3 mm (1/8 in.)

Tighten bolts (A) and install top feeder house door.



H59570 —UN—18AUG99

A—Bolts

B—Stripper

C—Dimension 3 mm (1/8 in.)

D—Top Shaft

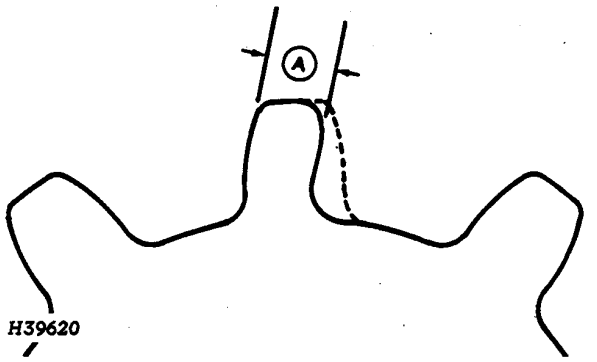
OUO6075,00008B3 -19-09AUG07-1/1

Feeder House Top Shaft Sprockets

After 1000 hours, depending on the crops being harvested, check the upper shaft sprockets for wear.

If these sprockets are worn past 12 mm (1/2 in.) (A), sprockets can be reversed for additional wear.

A—Dimension 12 mm (1/2 in.)



H39620 —UN—11OCT88

OUO6075,00008B4 -19-20MAR07-1/1

Feeder House Fixed Speed Drive Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Lower safety stop and remove left-hand feeder house shields.

Remove shields (A).

A—Shields

H90923 —UN—28FEB08

OUO6075,000000F -19-07MAR08-1/2

Loosen nuts (A) to relieve tension on drive belt (B).

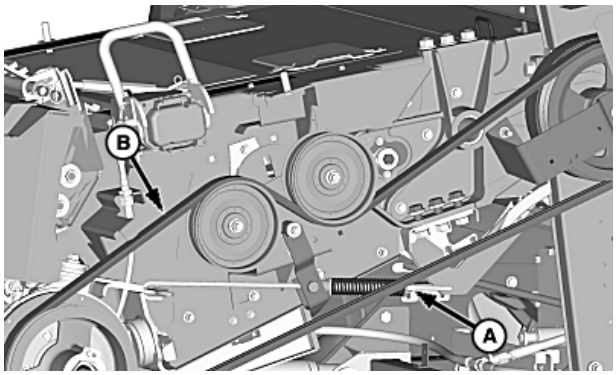
Remove drive belt from sheaves.

Install replacement drive belt and tighten nuts to position washer between end of gauge and bottom of step.

Swing bracket into position and retain with cap screw and nut.

Install feeder house shields previously removed.

A—Nuts **B—Drive Belt**



H90924 —UN—28FEB08

OUO6075,000000F -19-07MAR08-2/2

Feeder House Fixed Speed Drive Belt—Adjusting

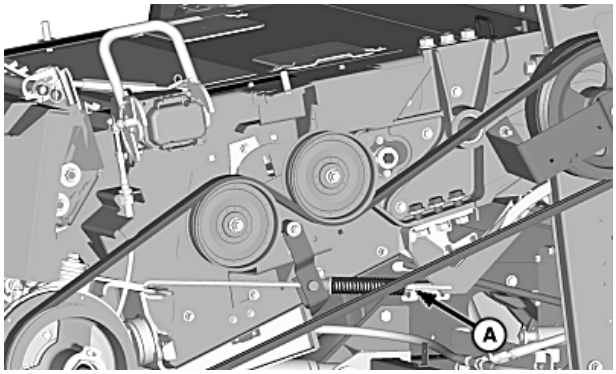
CAUTION: Shut OFF engine, set parking brake and remove key.

Lower safety stop and remove left-hand feeder house shields.

Tighten nuts (A) to position washer between end of gauge and bottom of step.

Install feeder house shields previously removed.

A—Nuts



H90925 —UN—28FEB08

OUO6075,0000010 -19-07MAR08-1/1

Header Reel/Belt Pickup Pump Belt (Fixed Speed Feeder House)—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Lower safety stop and remove left-hand feeder house shields.

Remove shields (A).

A—Shields

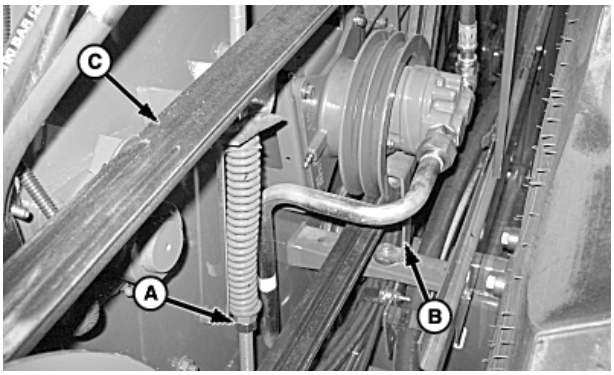
H90923 —UN—28FEB08

OUO6075,0000011 -19-07MAR08-1/8

Loosen nuts (A) to relieve tension from drive belt.

Remove cap screw and nut to move reel pump brace (B) out of way so drive belt (C) can be removed.

A—Nuts
B—Brace
C—Drive Belt

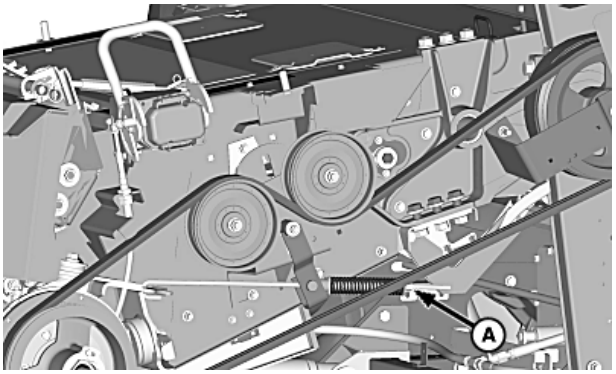


H90977 —UN—06MAR08

OUO6075,0000011 -19-07MAR08-2/8

Loosen nuts (A) to relieve tension on drive belt.

A—Nuts



H90925 —UN—28FEB08

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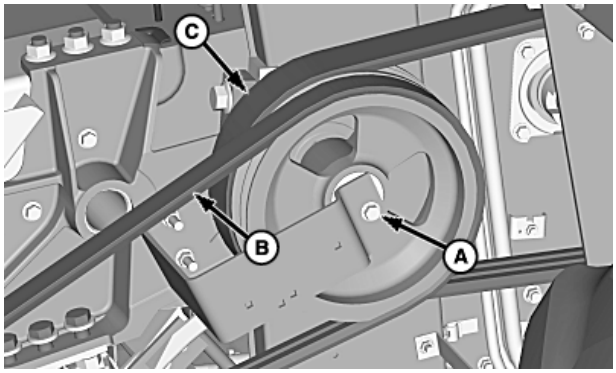
OUO6075,0000011 -19-07MAR08-3/8

Remove cap screw (A), fixed speed drive belt (B) and header reel/belt pickup pump belt (C).

A—Cap Screw
B—Fixed Speed Drive Belt
C—Header Reel/Belt Pickup Pump Belt



H90926 —UN—28FEB08

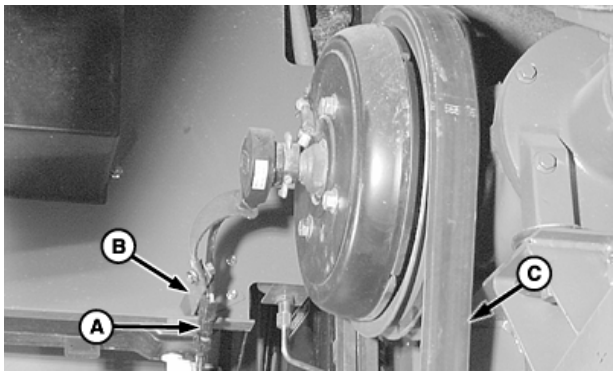
OUO6075,0000011 -19-07MAR08-4/8

Disconnect connector (A) and remove strap from bracket (B).

Remove and discard header reel/belt pickup pump belt (C).

Install replacement header reel/belt pickup pump belt, connect strap to bracket and connect electrical connector.

A—Connector
B—Bracket
C—Header Reel/Belt Pickup Pump Belt



H87527 —UN—27FEB07

OUO6075,0000011 -19-07MAR08-5/8

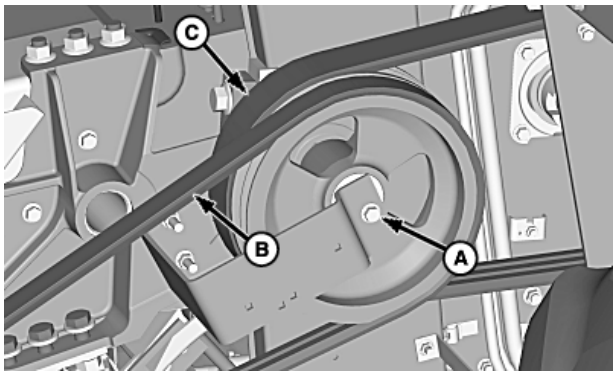
Install replacement header reel/belt pickup pump belt (C) and fixed speed drive belt (B).

Install and tighten cap screw (A) to specification.

Specification

Cap Screw—Torque.....185 N·m (136 lb-ft)

A—Cap Screw
B—Fixed Speed Drive Belt
C—Header Reel/Belt Pickup Pump Belt



H90926 —UN—28FEB08

Continued on next page

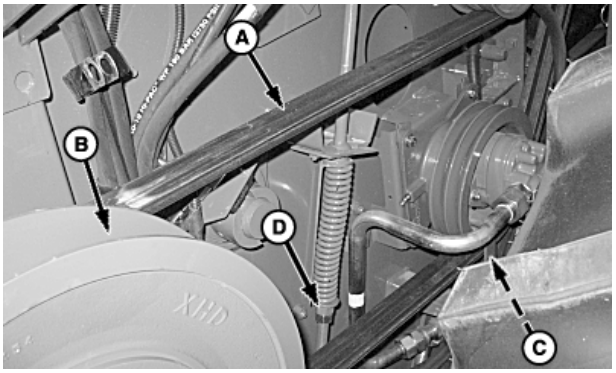
OUO6075,0000011 -19-07MAR08-6/8

Install drive belt (A) around reel pump and rear sheaves (B).

Install previously removed reel pump brace (C) with cap screw and nut.

Tighten nuts (D) to position washer between end of gauge and bottom of step to adjust drive belt.

A—Drive Belt
B—Sheave
C—Brace
D—Nuts (2 Used)



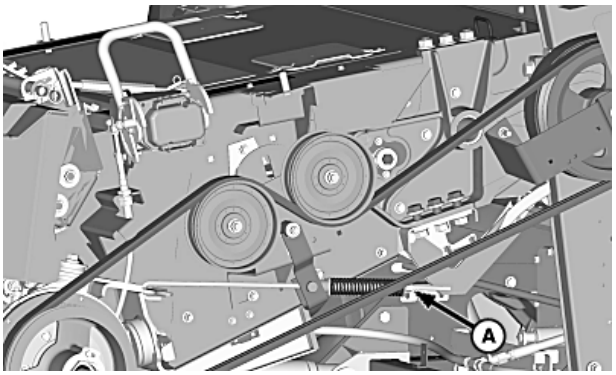
H90979 —UN—06MAR08

OUO6075,0000011 -19-07MAR08-7/8

Tighten nuts (A) to position washer between end of gauge and bottom of step to properly tensioner drive belt.

Install left-hand feeder house shields.

A—Nuts



H90925 —UN—28FEB08

OUO6075,0000011 -19-07MAR08-8/8

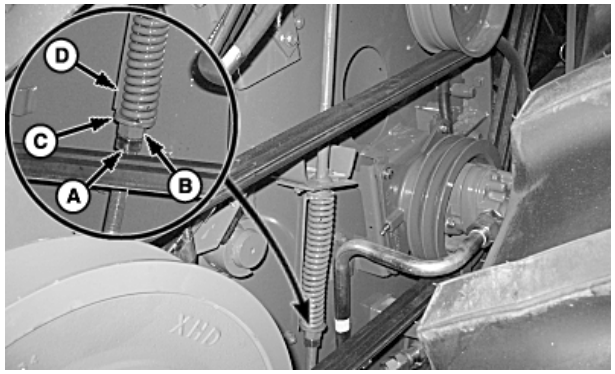
Header Reel/Belt Pickup Pump Belt (Fixed Speed Feeder House)—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H90975 —UN—06MAR08

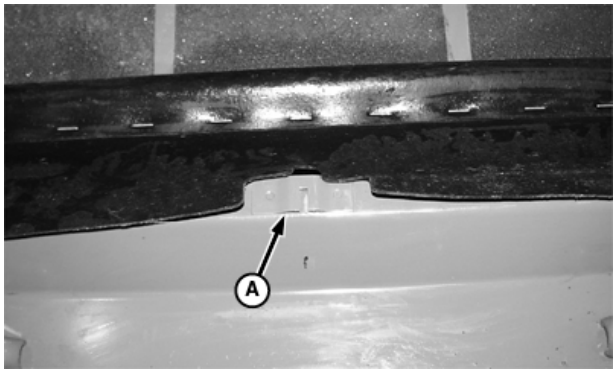
OUO6075,000001C -19-07MAR08-1/1

Manual Tilt Indicator (HeaderTrak)

For a quick visual indication of whether header is level with machine chassis, HeaderTrak is equipped with a manual tilt indicator.

When notch (A) is in center of rubber seal, the header is approximately level with the machine body. Indicator may also be useful as a reference during operation.

A—Notch



H62284A —UN—24JAN00

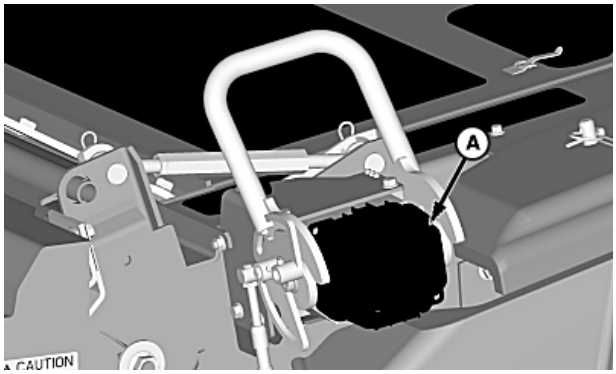
OUO6075,000093A -19-09AUG07-1/1

Attach Multi-Coupler and Single Point Latching

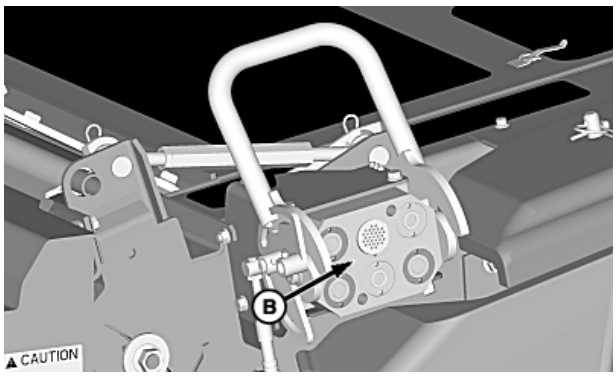
IMPORTANT: Do not actuate latch pins with header on ground. If multi-coupler must be actuated with header on ground, unhook cable from handle.

Remove cover (A) and clean multi-coupler face (B).

A—Cover **B—Multi-Coupler Face**



H90927 —UN—31MAR10



H90928 —UN—28FEB08

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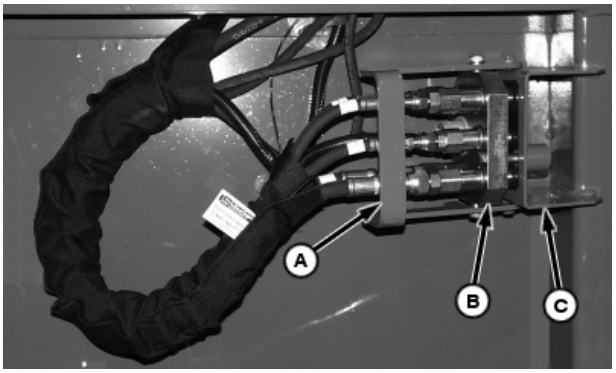
OUO6075,0000012 -19-26JUN08-1/6

Open handle (A) and remove multi-coupler (B) from storage bracket (C).

A—Handle
B—Multi-Coupler
C—Storage Bracket



H70035 —UN—19SEP01

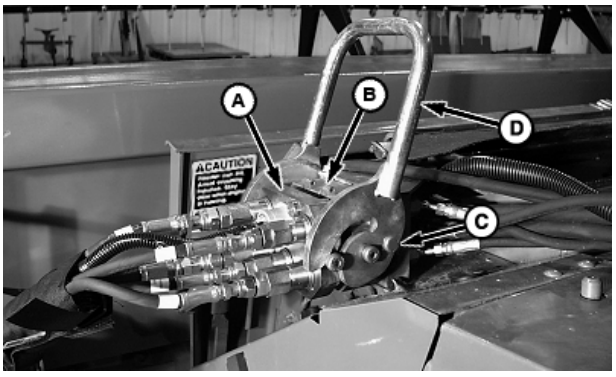
OUO6075,0000012 -19-26JUN08-2/6

NOTE: To prevent damage to latching cable, a shear screw is attached to the handle. Attempts to actuate latching pins with header on ground results in screw shearing. (See Extra Shear Screw Location later in this section.)

Install multi-coupler (A) onto receptacle (B).

Pull and hold button lock (C) to close handle (D).

A—Multi-Coupler
B—Receptacle
C—Button Lock
D—Handle



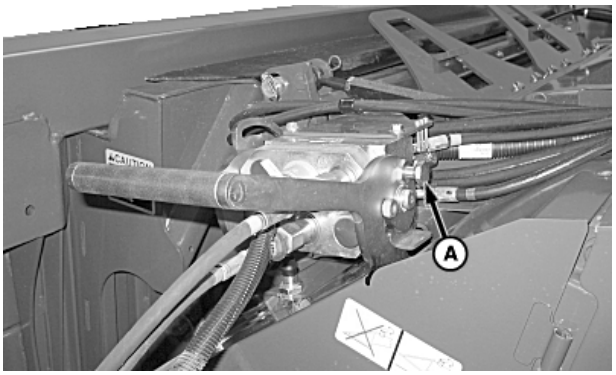
H82378 —UN—07FEB05

OUO6075,0000012 -19-26JUN08-3/6

IMPORTANT: Failure to close multi-coupler fully so button lock can engage could result in header falling off while harvesting or transporting.

When multi-coupler handle is fully closed, button lock (A) automatically locks couplers together.

A—Button Lock



H87894 —UN—19APR07

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OUO6075,0000012 -19-26JUN08-4/6

NOTE: With header attached, latch pins must move freely through latch plate holes. If latch pins do not extend through latch plates, make sure that latching plates on header are properly adjusted.

Latch pins (A) must move freely through latch plate holes in header when multi-coupler is latched. Latch plate (B) must make contact with bracket (C). Less clearance (D) must be maintained between bottom of plate and pin rather than top of plate (E) and pin. This may require latch plate to be flipped.

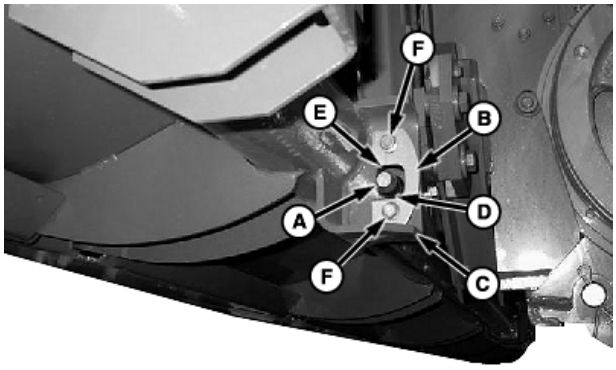
If adjustment is needed: Remove cap screws (F), flip plate (D) end for end and reinstall.

Tighten cap screws to M10 or M12 specification.

Specification	
Inside Latch Plate (M10 Cap Screws)—Torque	80 N·m (60 lb-ft)

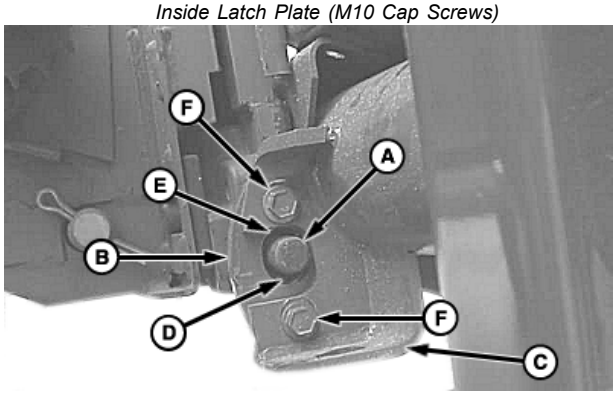
Specification	
Outside Latch Plate (M12 Cap Screws)—Torque	130 N·m (96 lb-ft)

A—Latch Pin
B—Latching Plate
C—Bottom Bracket
D—Gap
E—Top Of Plate
F—Cap Screws



H81307 —UN—28JUN04

Inside Latch Plate (M10 Cap Screws)



H81308 —UN—28JUN04

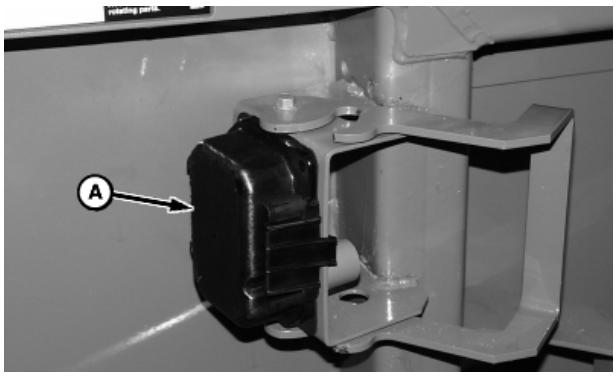
Outside Latch Plate (M12 Cap Screws)

OUO6075,0000012 -19-26JUN08-5/6

Install multi-coupler cover (A) on platform storage position.

Remove telescopic shaft from storage position and install onto feeder house backshaft, making sure quick attach collar locks fully.

A—Cover



H74305 —UN—18NOV02

OUO6075,0000012 -19-26JUN08-6/6

Attaching And Detaching Header from Feeder House

CAUTION: Do not leave drive shafts on combine. Personal injury or machine damage may occur if feeder house is accidentally engaged.

IMPORTANT: Drive shafts with U-joints are used on the left-hand and right-hand sides of all approved headers.

NOTE: For complete attaching and detaching procedures refer to the header Operator's Manual.

Disconnect telescoping drive shaft from feeder house at the quick disconnect coupler (A) on left and right sides.

Place telescoping drive shaft in storage position (B).

IMPORTANT: Latch pins are not to be actuated with header on the ground. If multi-coupler must be actuated with header on ground, unhook cable from handle.

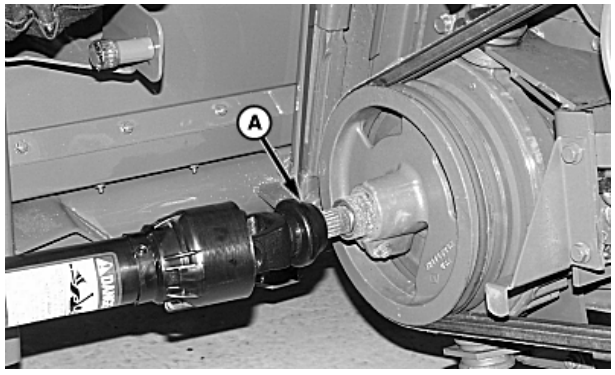
NOTE: Latch pins should be fully retracted when handle is all the way up against the stop. Adjust cable mounting if latch pins are not fully retracted (see Single Point Latching—Adjusting).

Pull and hold button lock (C) to release lock while raising handle to disconnect multi-coupler.

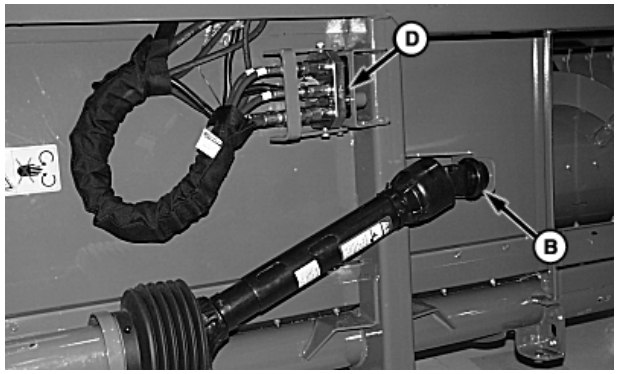
Remove multi-coupler cover from storage position on header and place cover on combine multi-coupler.

Place and lock multi-coupler in storage position (D).

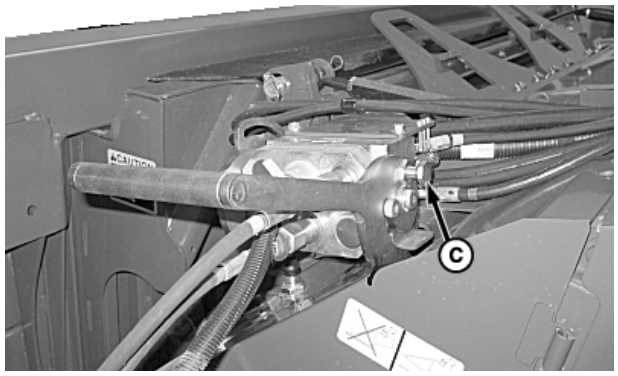
A—Quick Disconnect Coupler
B—Storage Position
C—Button Lock
D—Multi-Coupler Storage Position



H66470 —UN—19FEB01



H82374 —UN—07FEB05



H87895 —UN—19APR07

OUO6075,000093B -19-19APR07-1/1

Single Point Latching—Adjusting

NOTE: HeaderTrak Feeder House: Adjustments must only be made to cable at multi-coupler handle.

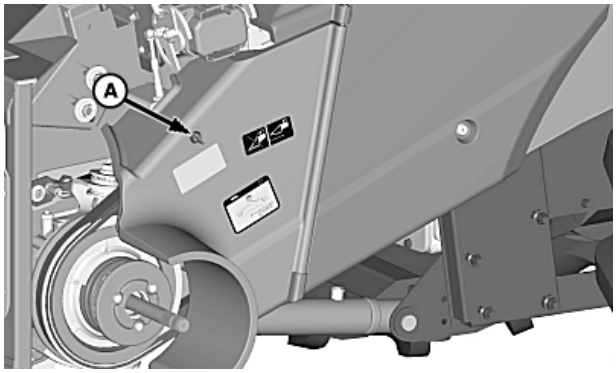
Open left-hand feeder house shield (A).

Loosen cable jam nuts (B).

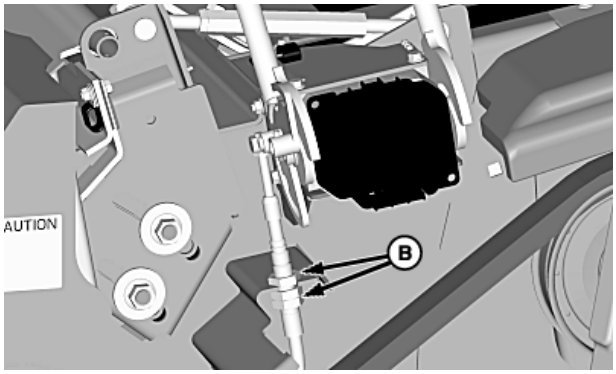
IMPORTANT: Verify handle is against stop on multi-coupler. Failure to verify that handle is against stop results in inaccurate pin dimensions and could result in header falling off while harvesting or transporting.

Rest multi-coupler handle against stop.

A—Shield **B—Jam Nuts**



H90929 —UN—28FEB08



H90930 —UN—28FEB08

OUO6075,000001E -19-26JUN08-1/4

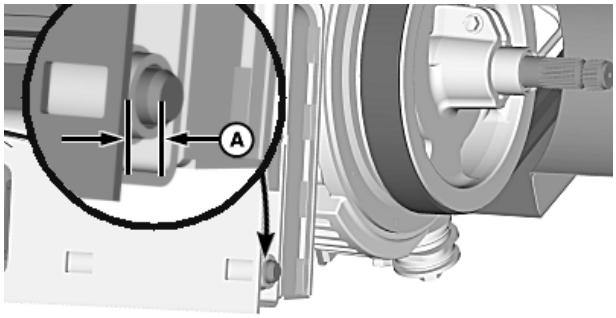
NOTE: Moving cable "up" in bracket pulls pin farther in.

Moving cable "down" in bracket pushes pin farther out.

Adjust cable in bracket as needed for proper pin adjustment:

- Left-hand latching pin must be flush to +/- 2 mm (A).

A—Dimension



H84872 —UN—04NOV05

Left-Hand Latching Pin

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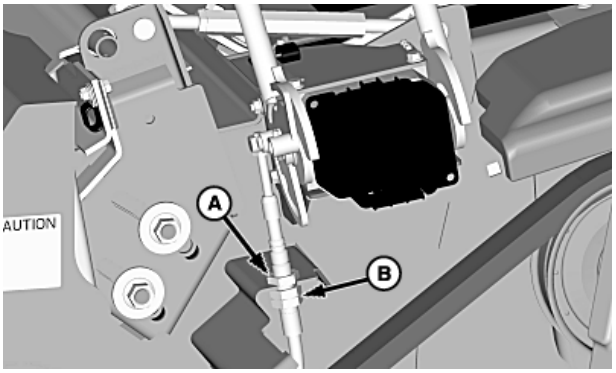
OUO6075,000001E -19-26JUN08-2/4

Hold bottom jam nut (B) and tighten top jam nut (A).

A—Top Jam Nut **B—Bottom Jam Nut**



H90932 —UN—28FEB08

OUO6075,000001E -19-26JUN08-3/4

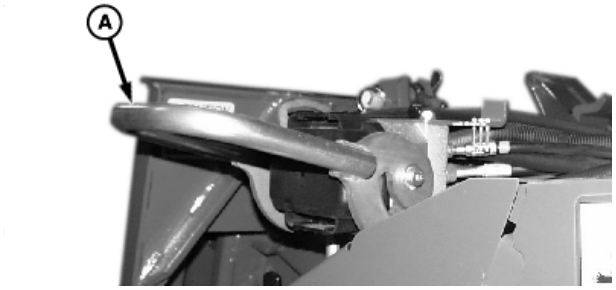
IMPORTANT: Failure to verify that pins are set to specified dimensions could result in header falling off while harvesting or transporting.

Fully lower multi-coupler handle (A) and verify pins (B) (both sides) are set to specification. Readjust if not set to specification.

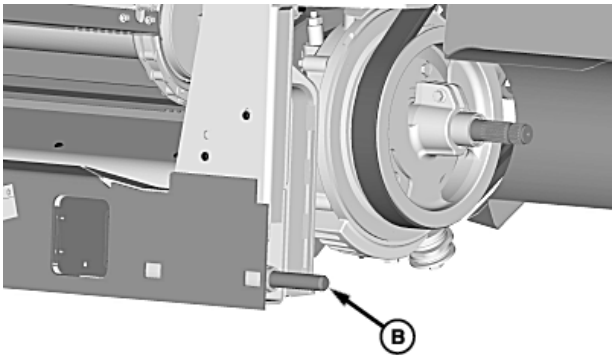
Specification

Feeder House
Pins—Distance.....45—52 mm
(1-3/4 in. — 2 in.)

A—Multi-Coupler Handle **B—Pins**



H81287 —UN—23JUN04



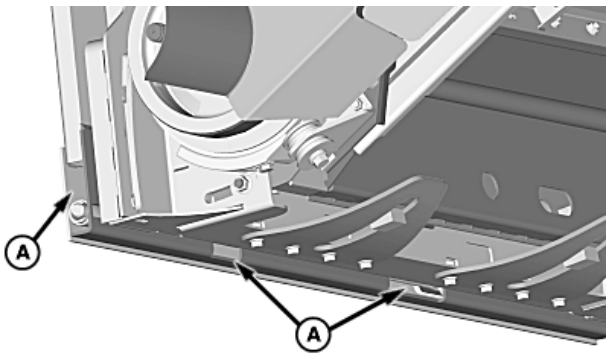
H84873 —UN—04NOV05

OUO6075,000001E -19-26JUN08-4/4

Feeder House Latching Pins (Cleanout)

If latch pins move hard on HeaderTrak feeder houses, clean crop debris from locations (A).

A—Clean Out Locations



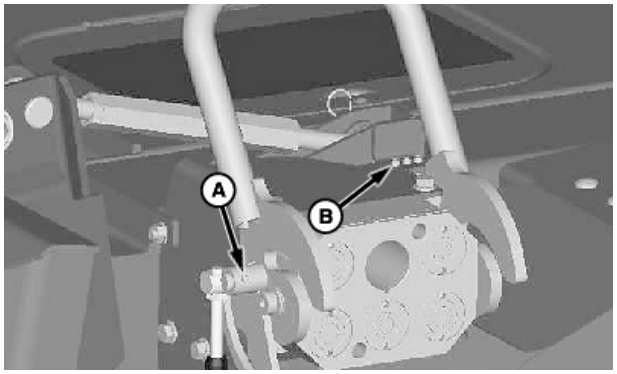
H84874 —UN—03NOV05

OUO6075,0000B67 -19-25SEP07-1/1

Shear Screw Location

If shear screw (A) should break, remove and replace with extra shear screw (B). Extra shear screws are provided.

A—Shear Screw **B—Extra Shear Screws**



H75095 —UN—07FEB03

OUO6075,00008C1 -19-03APR07-1/1

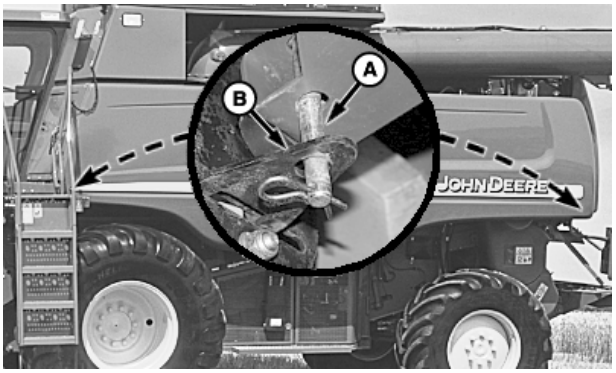
Gull Wing Doors

CAUTION: Shut OFF engine, set parking brake and remove key.

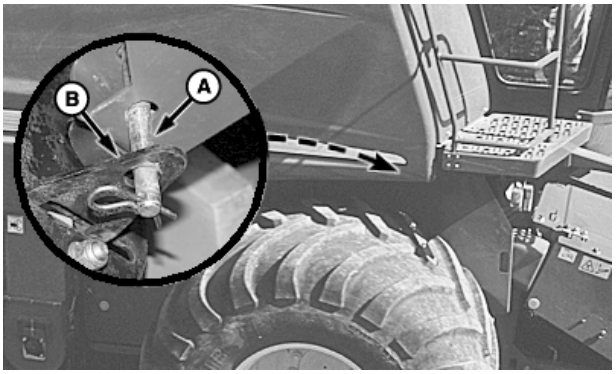
NOTE: Pinning and latch lever operation is the same on both sides of machine.

1. Remove spring clip, and pin (A) from locking plate (B). Reinstall spring clip onto pin.

A—Pin **B—Locking Plates**



H81656 —UN—13OCT04

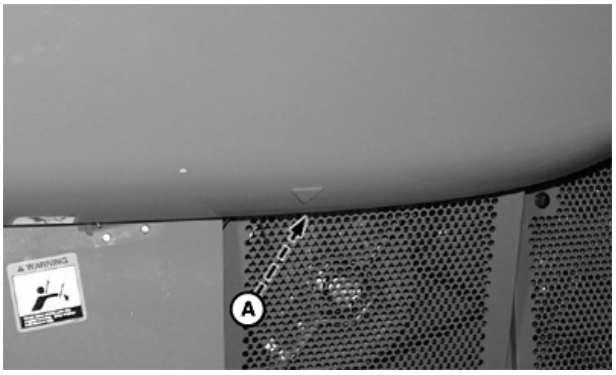


H81657 —UN—13OCT04

OUO6075,0000946 -19-01JUL08-1/3

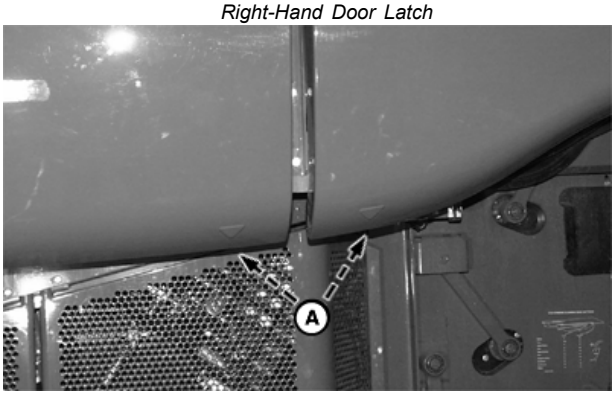
2. Turn knob (A), then pull out on gull wing door to raise.

A—Knob



H75701 —UN—17MAR03

Right-Hand Door Latch



H75702 —UN—17MAR03

Left-Hand Door Latches

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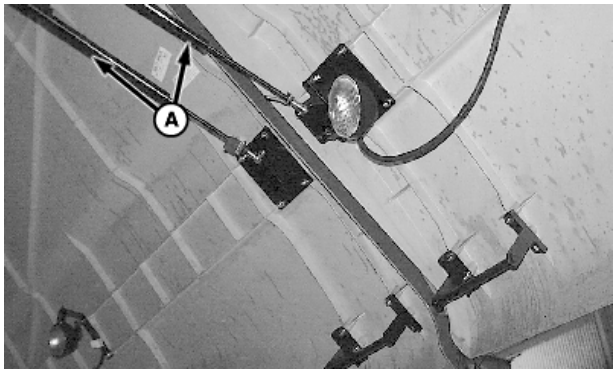
OUO6075,0000946 -19-01JUL08-2/3

IMPORTANT: Do not use cylinders (A) as hand holds or hang anything on these cylinders. This could cause the cylinder rod to bend or break.

In cold weather or in high winds, these gull wing doors may “creep” down. Position stop on rod to hold shield up.

A—Cylinders



H76219 —UN—29APR03

Left-hand Cylinder Stop Shown

OUO6075,0000946 -19-01JUL08-3/3

Left-Hand Side Shields

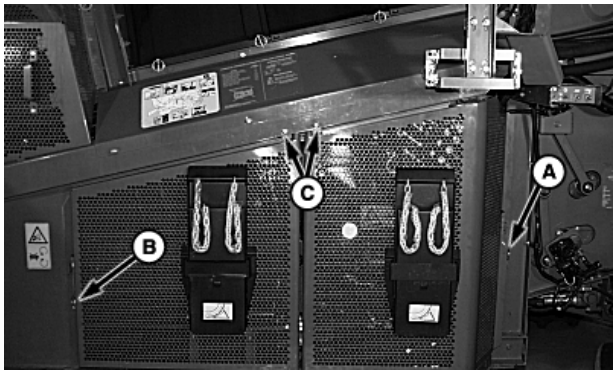
CAUTION: Shut OFF engine, set parking brake and remove key.

Side Shields— Remove cap screw and lock nut (A) and swing rear shield out.

Remove cap screw and lock nut (B) and swing middle shield out.

Remove cap screws (C) and lift shields completely to remove.

A—Cap Screw and Lock Nut
B—Cap Screw and Lock Nut
C—Cap Screws



H66010 —UN—29JAN01

H66011 —UN—29JAN01

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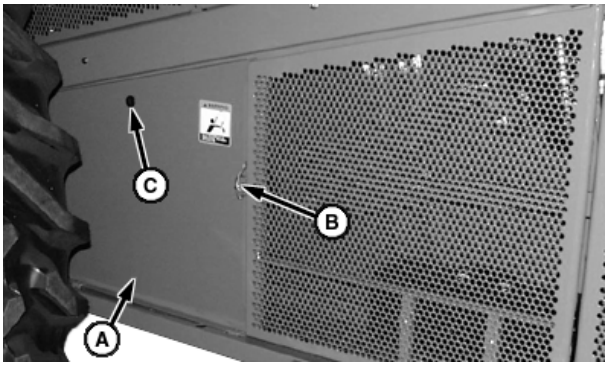
OUO6075,0000947 -19-20MAR07-1/4

Fan Shield— Remove fan shield (A) by removing cap screw and lock nut (B) and swing middle shield out.

Turn lock (C) counterclockwise and remove fan shield.

A—Fan Shield
B—Cap Screw and Lock Nut
C—Lock

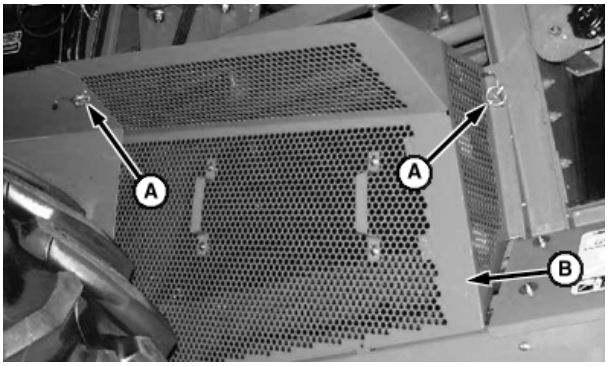


H58753 —UN—14JUL99

OUO6075,0000947 -19-20MAR07-2/4

Left-Hand Upper Separator Shield— Remove cap screw and lock nut (A), lift and remove shield (B).

A—Cap Screw and Lock Nut
B—Shield



H58754 —UN—14JUL99

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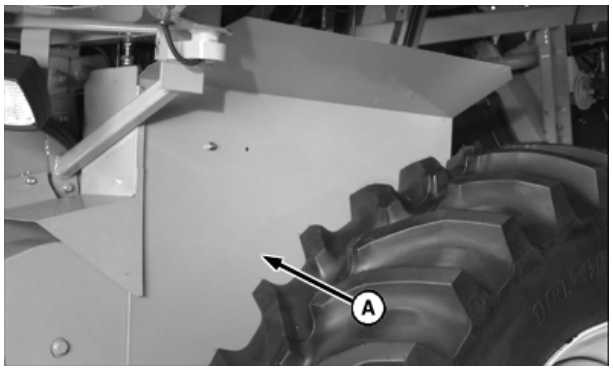
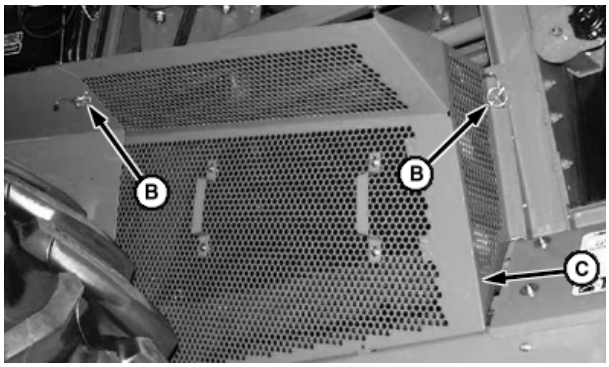
OUO6075,0000947 -19-20MAR07-3/4



H52787 —UN—16APR99

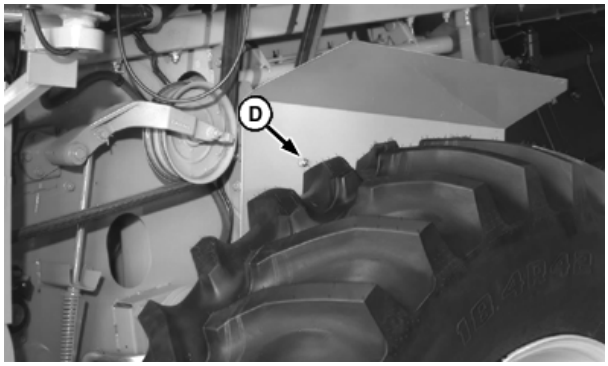


H58755 —UN—14JUL99

Left-Hand Front Separator Shield— Remove front shield (A) by removing cap screw and lock nut (B), lift and remove shield (C).

Pull front shield rearward. Remove shield completely by removing cap screw (D) and pull shield out of support.

A—Front Shield
B—Cap Screw and Lock Nut
C—Shield
D—Cap Screw



H52788 —UN—14JUL99

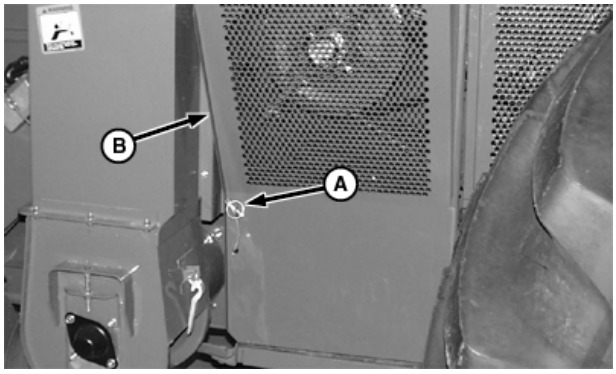
OUO6075,0000947 -19-20MAR07-4/4

Right-Hand Side Shields

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

Right-Hand Rear Shield— Remove cap screw and lock nut (A) to open rear shield (B) to service belts.

A—Cap Screw and Lock Nut
B—Rear Shield



H62139 —UN—11JAN00

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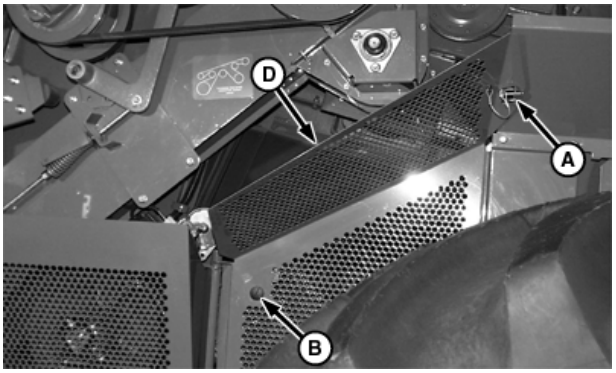
OUO6075,0000948 -19-20MAR07-1/3

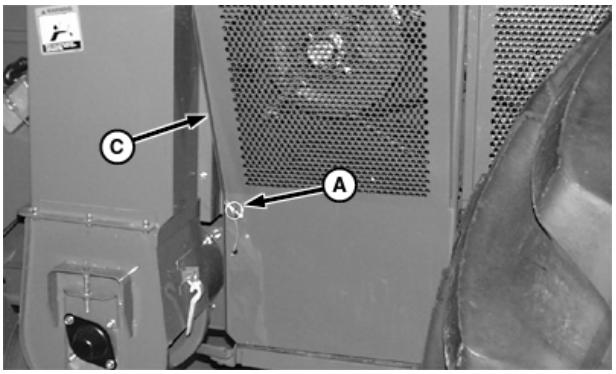
Fan Shield— Remove cap screw and lock nut (A) and turn lock (B) counterclockwise to unlock.

Lift and remove rear shield (C) and middle shield (D).

A—Cap Screw and Lock Nut
B—Lock
C—Rear Shield
D—Middle Shield



H62140 —UN—14FEB00



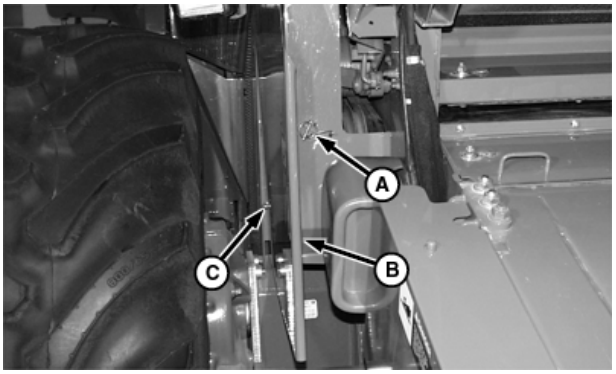
H62141 —UN—11JAN00

OUO6075,0000948 -19-20MAR07-2/3

Right-Hand Front Separator Shield— Remove cap screw and lock nut (A) and pull shield (B) forward.

Remove shield completely by removing cap screw (C) and lift to remove from lower support.

A—Cap Screw and Lock Nut
B—Shield
C—Cap Screw



H62142 —UN—11JAN00

OUO6075,0000948 -19-20MAR07-3/3

Separator Covers

CAUTION: Shut OFF engine, set parking brake and remove key.

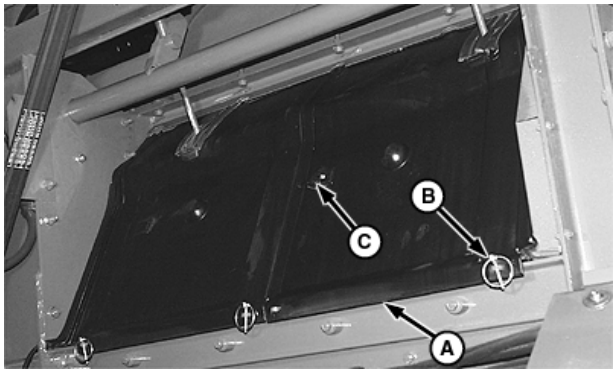
IMPORTANT: To prevent grain loss make sure separator covers are flush against separator and underneath the edge of separator. Covers are installed starting from the left-hand side, as facing the machine and working to the right.

Do not lay covers in the hot sun or they will become distorted.

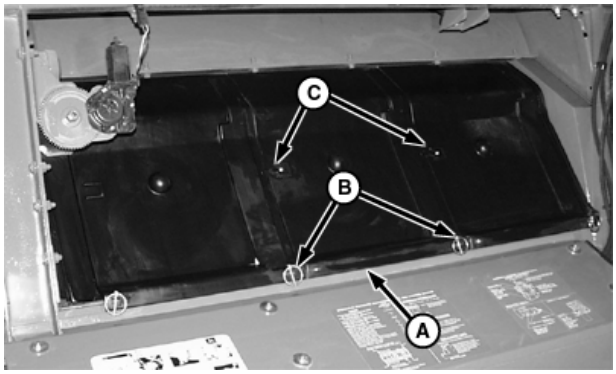
Two covers (A) are used on each side of the machine to seal the threshing section. Three covers (A) on each side seal the separating section. Quick-lock pins (B) and spring straps (C) are used to retain covers.

Remove covers by removing quick-lock pins and raise spring straps. Pull shield out to clear retainer brackets.

A—Covers
B—Quick-Lock Pins
C—Spring Straps



H62100 —UN—20JAN00



H62143 —UN—11JAN00

OUO6075,000073D -19-20MAR07-1/1

Composite Panels—Cleaning

NOTE: To repair composite panels see your John Deere dealer.

Wash outside of machine using power washer.

Use soft absorbent cloth wipe off water droplets.

Use a good clean wax or glazing compound that contains no abrasives and a lint free towel.

To apply wax or compound: Put compound on cloth and rub into panel in a circular motion after compound is rubbed into the surface well, turn the towel over and buff out with the other (dry) side.

OUO6075,000073E -19-16JUL07-1/1

Feed Accelerator—Wing Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Feed accelerator wings and wear strips can be replaced without removing the feed accelerator. Replace feed accelerator wings in sets of two and opposite of each other to maintain proper balance.

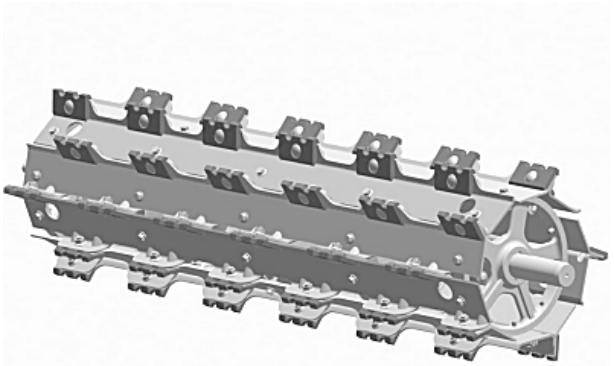
NOTE: If accelerator is removed from machine, or has been serviced, tighten clamp bolts before securing wings. Tighten cap screws to specification.

Remove round head bolts (A) and replace feed accelerator wear strips (B) as required. Tighten round head bolts to specification.

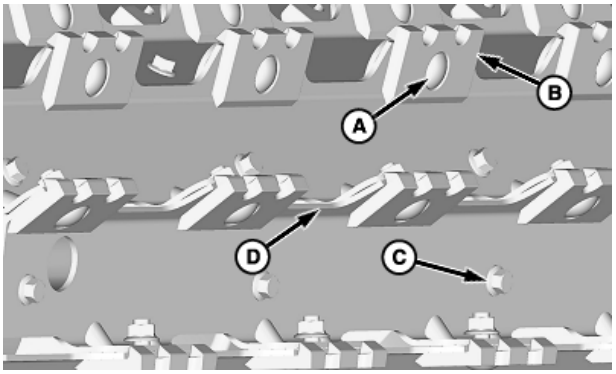
Specification	
Feed Accelerator Wear Strip Round Head Bolts—Torque	90 N·m (66 lb-ft)

Remove cap screws (C) and replace feed accelerator wings (D) as required. Tighten cap screws to specification.

Specification	
Feed Accelerator Wing Cap Screws—Torque	70 N·m (52 lb-ft)



H81772 —UN—28SEP04



H79440 —UN—15DEC03

A—Round Head Bolt
B—Feed Accelerator Wear Strip
C—Cap Screw
D—Feed Accelerator Wings

OUO6075,00009D6 -19-23AUG07-1/1

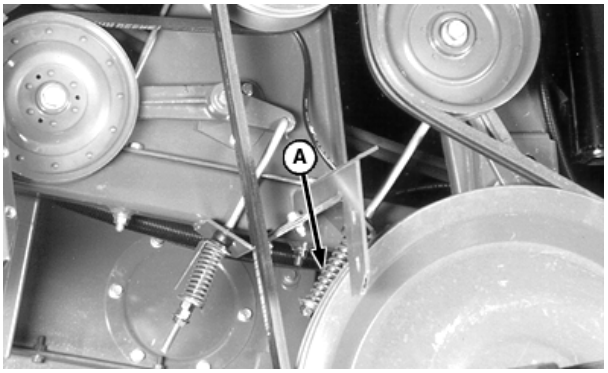
High Speed High Capacity Feed Accelerator Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

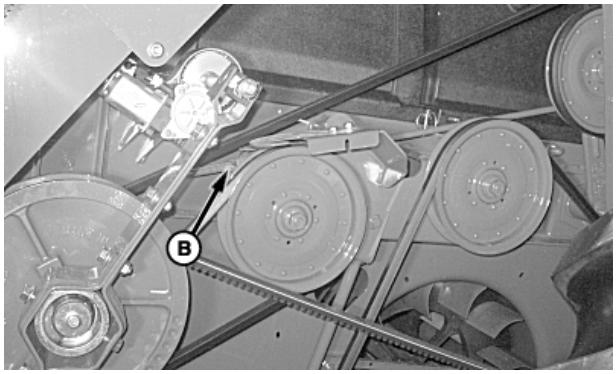
Remove tension on front jackshaft belt idler (A). Remove tension on shoe, fan and conveyor auger belt idler (B).

Remove both belts from countershaft sheaves to allow removal of feed accelerator belt.

A—Front Jackshaft Belt Idler **B—Auger Belt Idler**



H62317 —UN—24JAN00

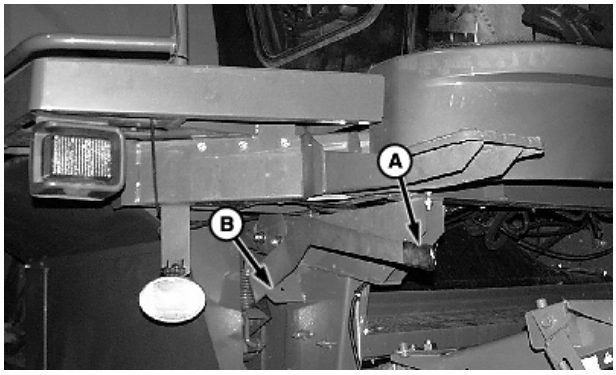


H96475 —UN—20MAY10

OUO6075,000076C -19-20MAY10-1/3

Remove belt tension from accelerator belt by pushing lever (A) up and out of notch in bracket (B).

A—Lever **B—Bracket**



H74782 —UN—14JAN03

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OUO6075,000076C -19-20MAY10-2/3

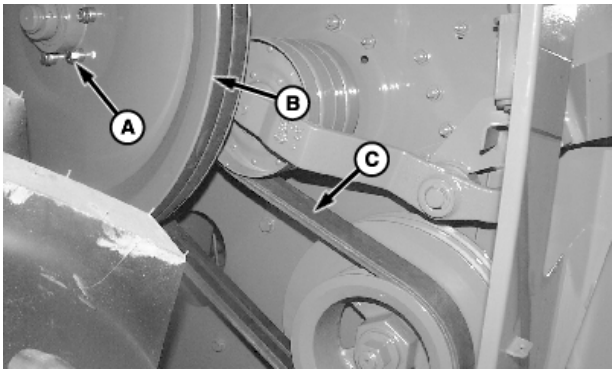
Remove cap screws (A) and sheave (B).

Remove feed accelerator belt (C) and install replacement belt.

Install sheave and retain with cap screws.

Push lever up and into notch in bracket. Adjust belt idler tension so washer is positioned between end of gauge and bottom of step.

Install shoe, fan and conveyor auger belt and front jackshaft belt. Adjust tension rod for each belt so washer is positioned between end of gauge and bottom of step.



H75090 —UN—06FEB03

A—Cap Screws (6 Used)
B—Sheave
C—Feed Accelerator Belt

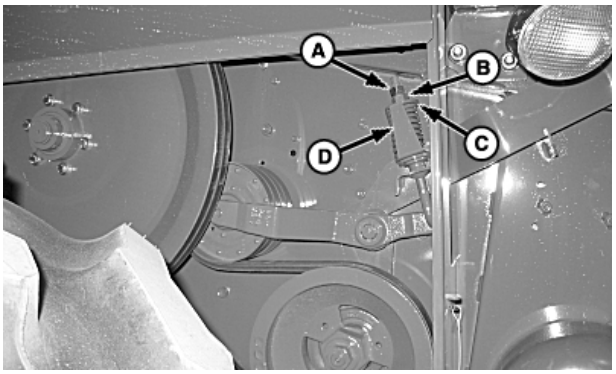
OUO6075,000076C -19-20MAY10-3/3

Feed Accelerator Belt—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Feed accelerator belt idler is located on right-hand side of machine behind feeder house pivot.

Loosen lock nut (A) and tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.



H85678 —UN—06APR06

A—Lock Nut
B—Nut
C—Washer
D—Gauge

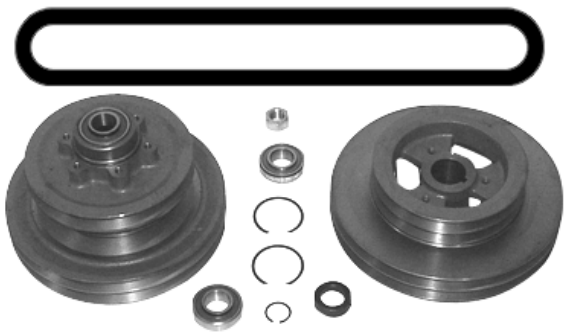
OUO6075,0000743 -19-19MAR07-1/1

Feed Accelerator Slow Speed Drive (Attachment)

NOTE: Always use slow speed attachment with smooth wear strips.

Feed accelerator beater slow speed drive is available from your John Deere dealer.

Slow speed drive has a range of 320 rpm—790 rpm and is recommended for use in specialty crops such as edible beans, popcorn and food corn.



H54572 —UN—16JUL99

OUO6075,0000744 -19-16JUL07-1/1

Feed Accelerator Speed

NOTE: See Crop Settings section for proper settings.

Optional slow speed feed accelerator can be run at two different speeds, 320 rpm and 790 rpm.

High speed high capacity feed accelerator can be run at two different speeds, 500 rpm and 1000 rpm.

NOTE: When using high speed inspect feed beater wings for excessive wear and service as needed.

High speed is used for better material handling in tough, small grain or weedy conditions.

OUO6075,00009D8 -19-06DEC07-1/1

High Speed High Capacity Feed Accelerator—Changing To Slow Speed

NOTE: When changing separator speeds make sure to cycle power ON and OFF. Combine will now recognize the new speed range.

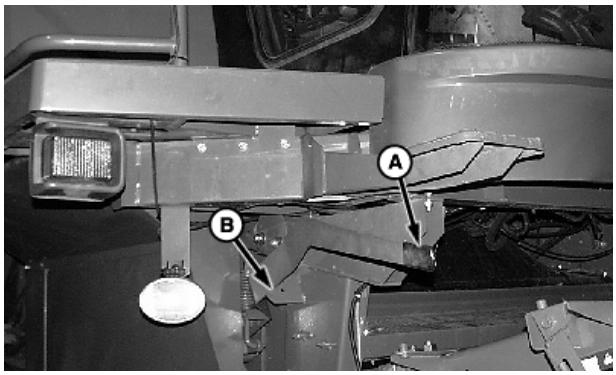
To change feed accelerator speed to low speed position:

- Remove belt tension by pushing lever (A) up and out from notch in bracket (B).
- Remove belt (C) from lower sheave and let belt hang freely from upper sheave.

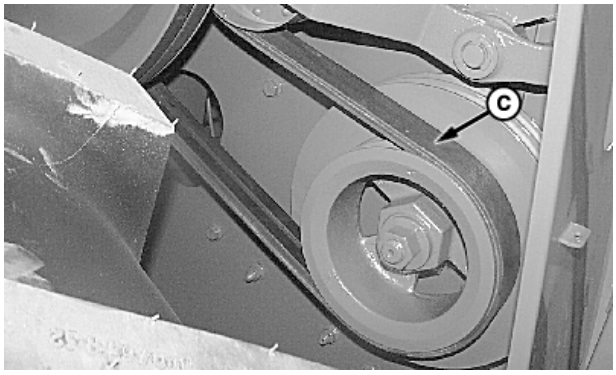
NOTE: Belt may need to be twisted to fit between upper sheave and side sheet.

- Remove belt (D) from upper sheave (E) and move to inside sheave for low speed.
- Install belt (C) on inner sheave groove on lower sheave.
- Push lever up and into notch in bracket to reset belt tension.

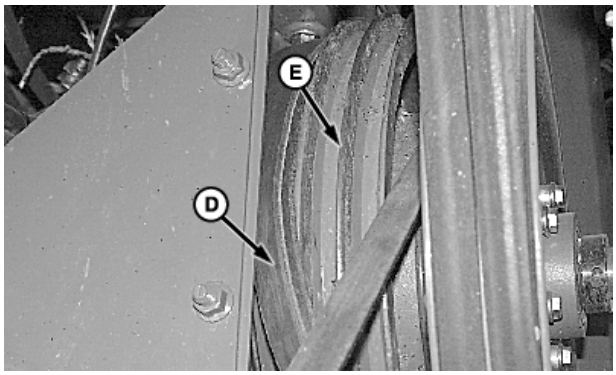
A—Lever
B—Notch in Bracket
C—Belt
D—Belt
E—Upper Sheave



H74782 —UN—14JAN03



H75088 —UN—07FEB03



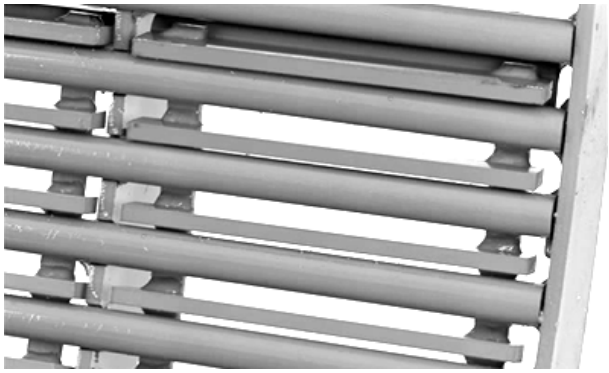
H75076 —UN—06FEB03

OUO6075,0000A9F -19-16JUL07-1/1

Concave Round Bar Inserts (Attachment)

Optional threshing inserts are required in the first concave to improve the threshing ability in small grain.

Tough threshing conditions may require additional threshing inserts in the second and third concaves.



H54510 —UN—24JUN99

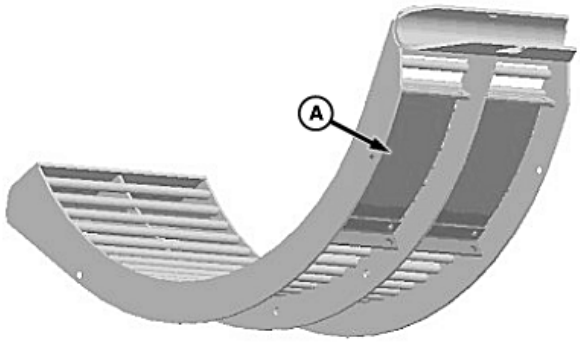
OUO6075,000074A -19-16JUL07-1/1

Round Bar Concave Cover Plates (Attachment)

IMPORTANT: Separator should not be engaged with round bar concave covers installed when concave clearance is less than 10 mm (3/8 in.). Round bar concave covers should not be installed during leveling of concave.

Round bar concave cover plates (A) can be installed starting on right-hand side of concave to assist in evening crop mat distribution to cleaning shoe. Covers in middle concave are beneficial when operating in situations with high tailings volumes.

Round bar concave cover plates are available from your John Deere dealer.



H90338 —UN—29NOV07

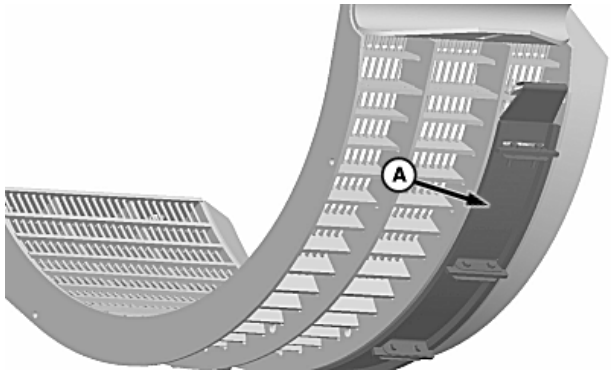
A—Round Bar Concave Cover Plates

OUO6075,0000D32 -19-29NOV07-1/1

Flat Bar Concave Cover Plates (Attachment)

Sectional flat bar concave plates (A) can be installed on bottom side of large wire or small wire concaves. These cover plates assist in threshing hard-to-thresh wheat, barley, clover, flax and some grass seeds. Individual section covers may be removed to influence distribution of crop to cleaning shoe.

Flat bar concave cover plates are available from your John Deere dealer.



H90337 —UN—29NOV07

A—Flat Bar Concave Cover Plates

OUO6075,0000D31 -19-29NOV07-1/1

Separator Grate Spacers

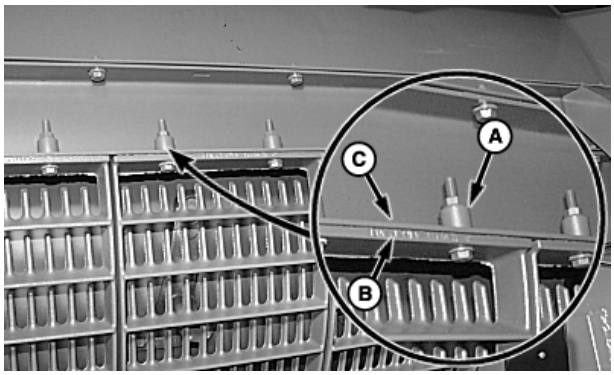
Spacers are installed in storage position (as shown) from factory.

Spacers can be used in corn to reduce bits of cob in the grain tank sample and to reduce separator loss.

IMPORTANT: Spacers should be used in corn and soybeans only. Remove spacers for all other crops (place spacers in storage position as shown).

Remove all separator grate spacers (A) from storage position (as shown) and install between separator grates (B) and separator channel (C).

Spacers provide added clearance between tine ends and the separator grates allowing for cleaner grain tank samples and reduce separator loss in corn.



H86634 —UN—20SEP06

A—Spacers
B—Separator Grates
C—Separator Channel

OUO6075,00009DA -19-19MAR07-1/1

Concave Sector Gear Shear Bolts

CAUTION: Shut OFF engine, set parking brake and remove key.

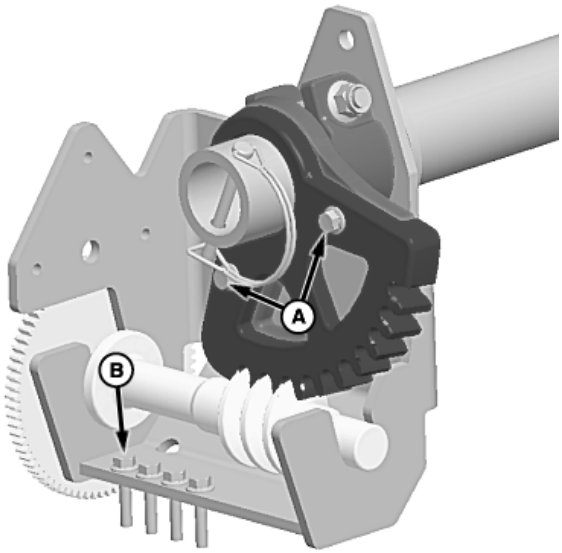
Use only John Deere supplied shear bolts (A), see your John Deere dealer for replacement shear bolts.

If shear bolts should break, replace with extra shear bolts (B), which are provided on sector gear bracket.

Tighten shear bolts to specification.

Specification	
Shear Bolts—Torque	15 N·m (133 lb-in.)

A—Shear Bolts
B—Extra Shear Bolts (4 Used)



H88917 —UN—14JUN07

OUO6075,0000BEC -19-14JUN07-1/1

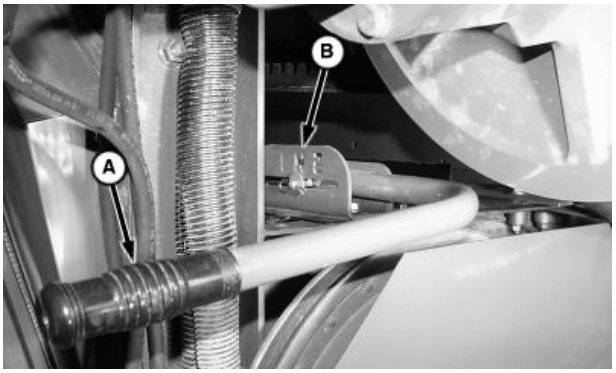
Concave Sections—Remove and Install

CAUTION: Concave sections are heavy and awkward to handle. Another person may be needed to remove and install concave sections.

NOTE: For ease of removal, close concave completely.

1. Move handle (A) to shift rotor gearcase in neutral position (B).

A—Handle
B—Neutral Position

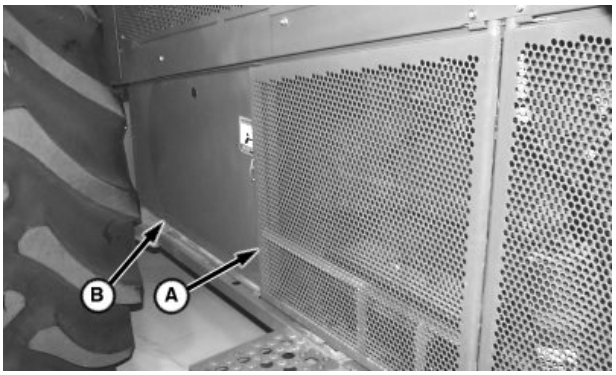


H63544 —UN—12APR00

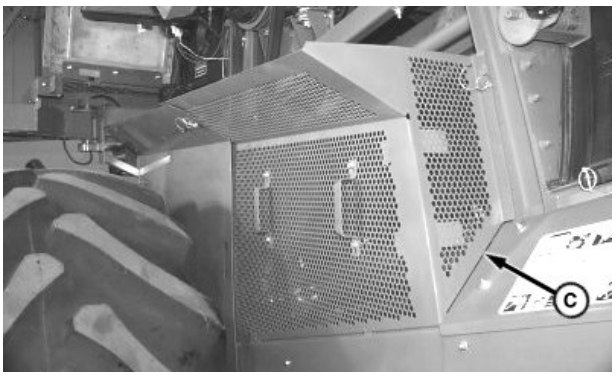
OUO6075,0000763 -19-19MAY10-1/21

2. Remove cap screw, lock nut and open side shield (A).
3. Remove cap screw, lock nut and shields (B and C).

A—Shield
B—Shield
C—Shield



H63545 —UN—12APR00



H63546 —UN—12APR00

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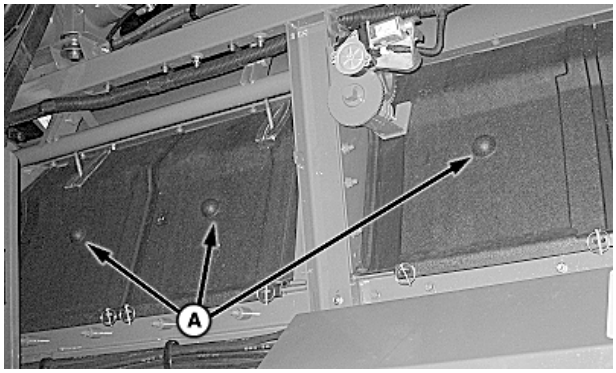
OUO6075,0000763 -19-19MAY10-2/21

4. Remove separator inspection covers (A).
5. Inspect wear on concave sections using AH204933 Clearance Gauge.

A—Separator Cover



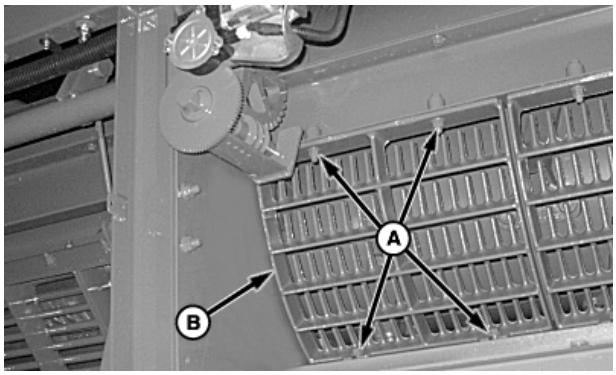
H96446 —UN—20MAY10

OUO6075,0000763 -19-19MAY10-3/21

NOTE: Removing separator grate provides access for rotating rotor for maximum concave to threshing element clearance.

6. Remove cap screws (A) and separator grate (B).

A—Cap Screws **B—Separator Grate**

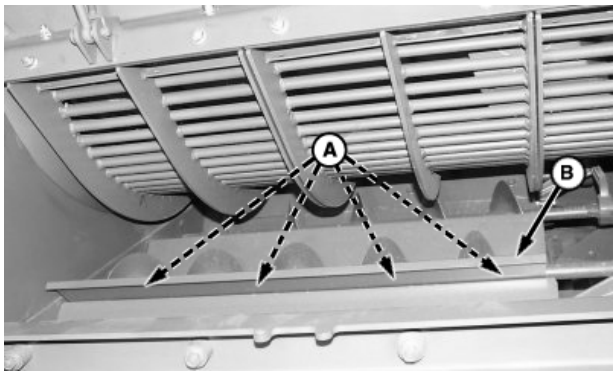


H96447 —UN—20MAY10

OUO6075,0000763 -19-19MAY10-4/21

7. Loosen cap screws (A) and remove left-hand sheet metal diverter (B).

A—Cap Screws **B—Diverter**



H63543 —UN—12APR00

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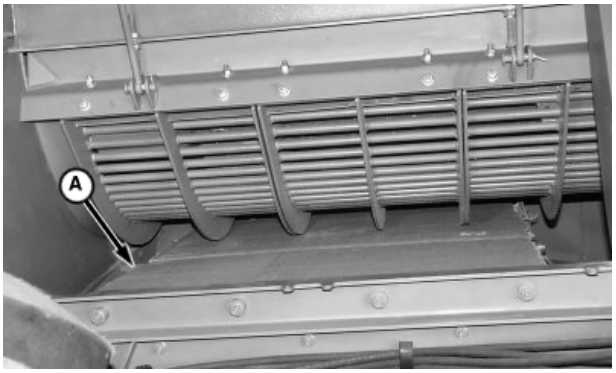
OUO6075,0000763 -19-19MAY10-5/21

8. Place a piece of cardboard (A) or poly over conveyor augers. This provides protection for the augers and allows a smooth surface to remove the concaves.

A—Cardboard

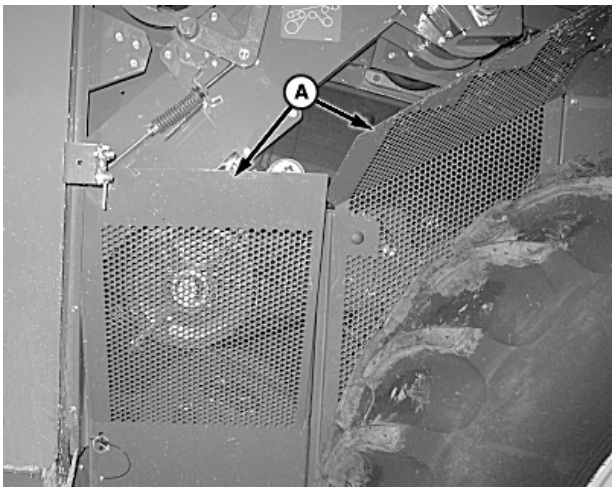


H63541 —UN—12APR00

OUO6075,0000763 -19-19MAY10-6/21

9. Remove shields (A).

A—Shields

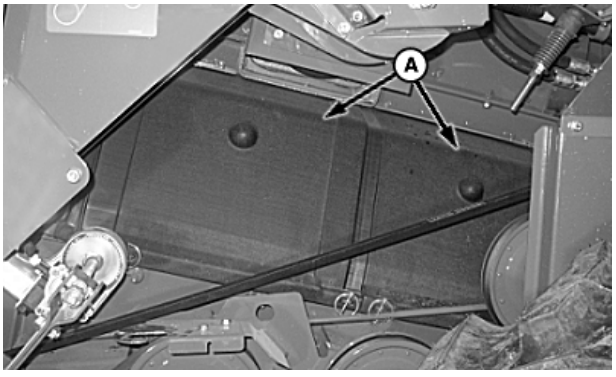


H96449 —UN—19MAY10

OUO6075,0000763 -19-19MAY10-7/21

10. Remove quick-lock pins and front two separator covers (A) on right-hand side of machine.

A—Separator Cover



H96448 —UN—19MAY10

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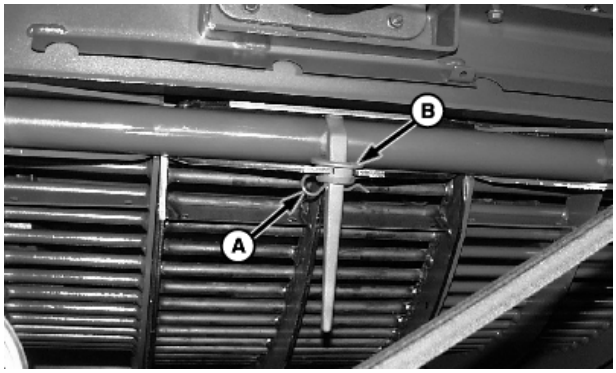
OUO6075,0000763 -19-19MAY10-8/21

11. Remove spring lock pin (A) from concave retainer (B).
12. Lift concave retainer and remove handle from each concave section.

A—Spring Pin **B—Concave Retainer**



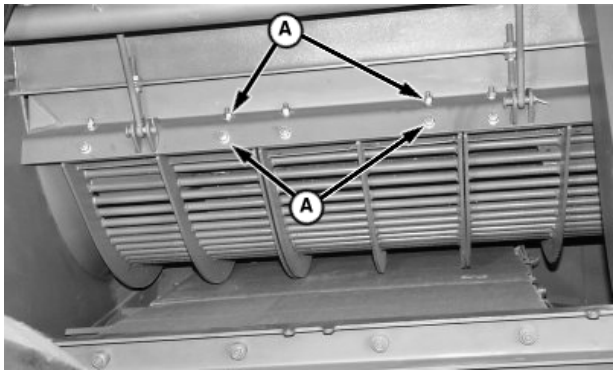
H75040 —UN—04FEB03

Concave Retainer

OUO6075,0000763 -19-19MAY10-9/21

13. Loosen cap screws (A).
14. Fully open concave. This allows weight of concaves to rest on conveyor auger bed.

A—Cap Screws (12 Used)

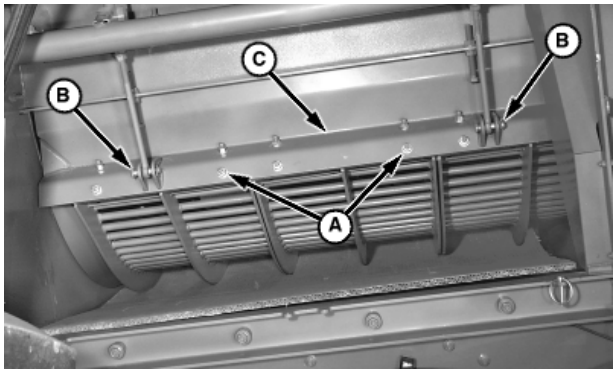


H63582 —UN—14APR00

OUO6075,0000763 -19-19MAY10-10/21

15. Remove cap screws (A).
16. Remove cotter pins, pins (B) and “Z” bar (C).
17. Rotate rotor such that a gap in the threshing element pattern occurs at mid concave.
18. Remove center concave section.
19. Slide rear concave to the center position and remove.
20. Slide front concave to the center position and remove.
21. Install concaves in reverse order.

A—Cap Screws (12 Used) **C—“Z” Bar**
B—Pins



H63583 —UN—14APR00

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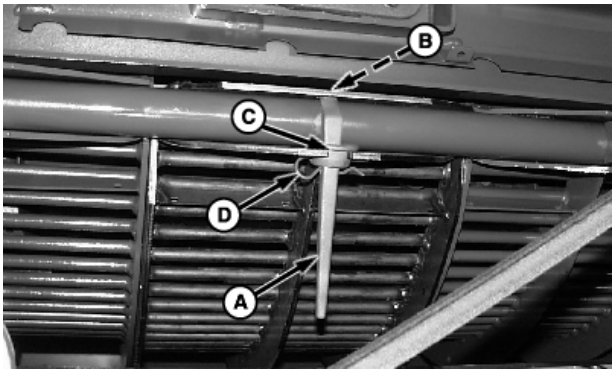
OUO6075,0000763 -19-19MAY10-11/21

22. Install concave handle (A) into groove (B) on concave sections.
23. Install concave retainer (C) and retain with spring pin (D).

A—Handle
B—Groove
C—Concave Retainer
D—Spring Pin

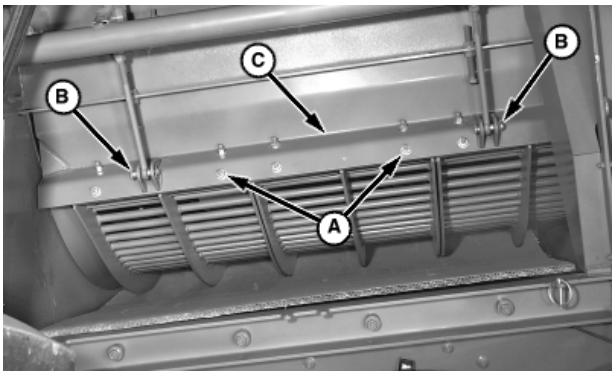


H75041 —UN—04FEB03

OUO6075,0000763 -19-19MAY10-12/21

24. Position “Z” bar (C) over end of concaves and install cap screws, but do not tighten.
25. Install pins (B).
26. Fully close concave.

A—Cap Screws (12 Used)
B—Pins
C—“Z” Bar

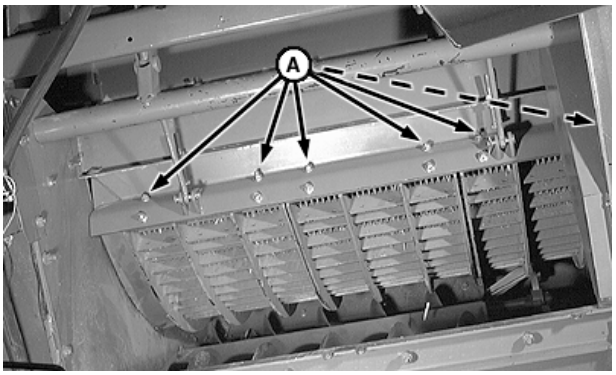


H63583 —UN—14APR00

OUO6075,0000763 -19-19MAY10-13/21

27. Be sure the ends of concaves fit snug into “Z” bar; then tighten top row of cap screws (A) first.
28. Tighten bottom row of cap screws last.
29. Adjust concave level. (See Concave Leveling later in this section.)

A—Cap Screws



H51980 —UN—16FEB99

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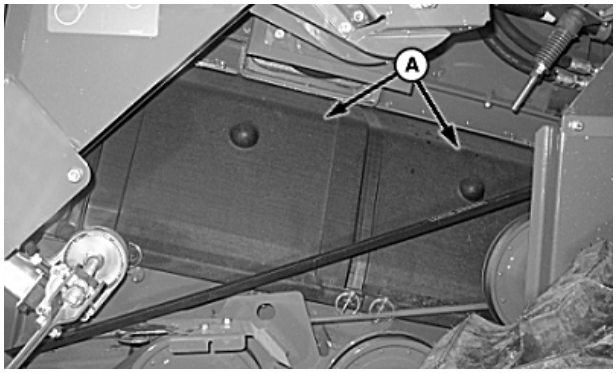
OUO6075,0000763 -19-19MAY10-14/21

NOTE: Verify that top edge of separator cover is under clips.

30. Install separator covers (A).

A—Separator Covers

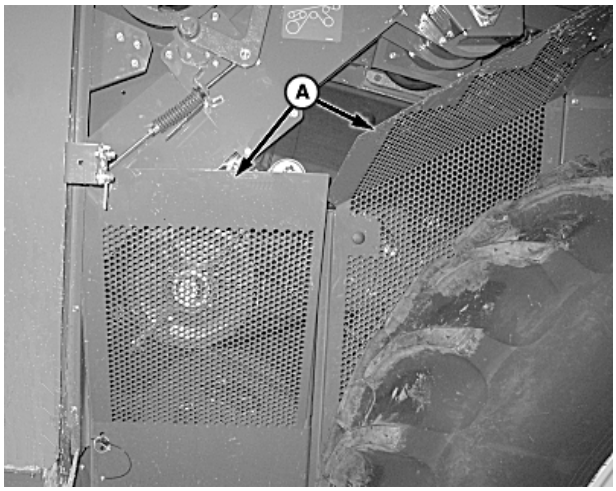


H96448 —UN—19MAY10

OUO6075,0000763 -19-19MAY10-15/21

31. Install shields (A).

A—Shields

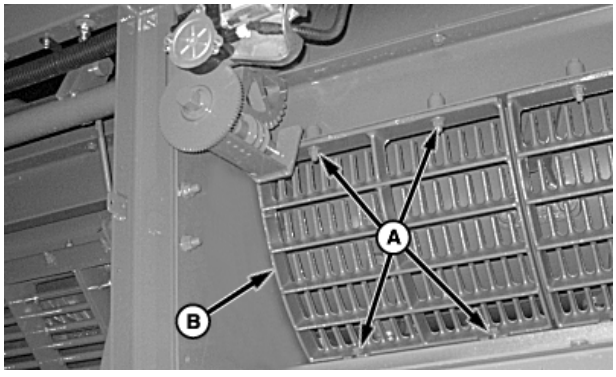


H96449 —UN—19MAY10

OUO6075,0000763 -19-19MAY10-16/21

32. Install separator grate (B) and retain with cap screws (A).

A—Cap Screws **B—Separator Grate**



H96447 —UN—20MAY10

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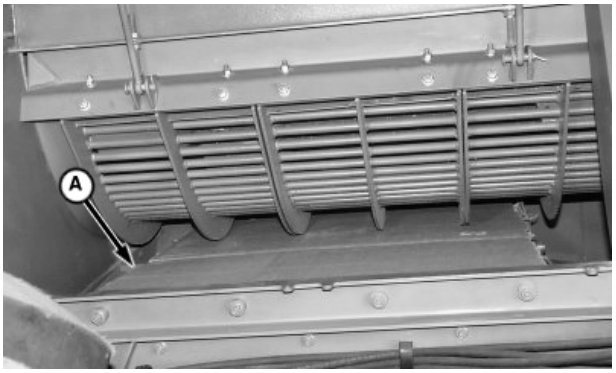
OUO6075,0000763 -19-19MAY10-17/21

33. Remove cardboard (A) or poly from conveyor augers.

A—Cardboard

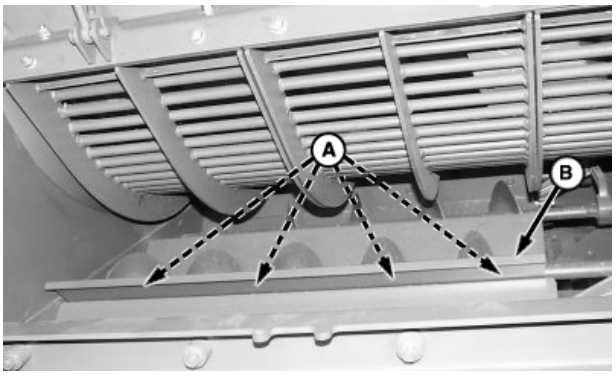


H63541 —UN—12APR00

OUO6075,0000763 -19-19MAY10-18/21

34. Install diverter (B) to original position and tighten cap screws (A).

A—Cap Screws **B—Diverter**

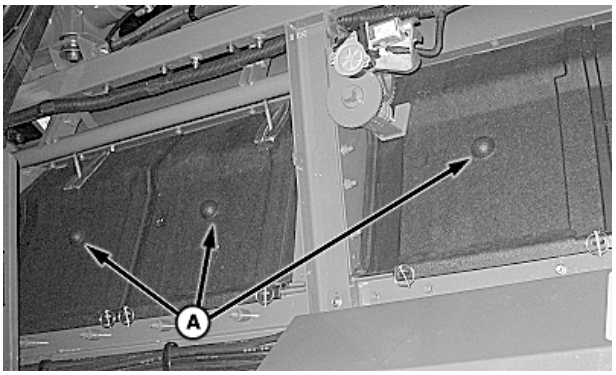


H63543 —UN—12APR00

OUO6075,0000763 -19-19MAY10-19/21

35. Install separator inspection covers (A).

A—Separator Cover



H96446 —UN—20MAY10

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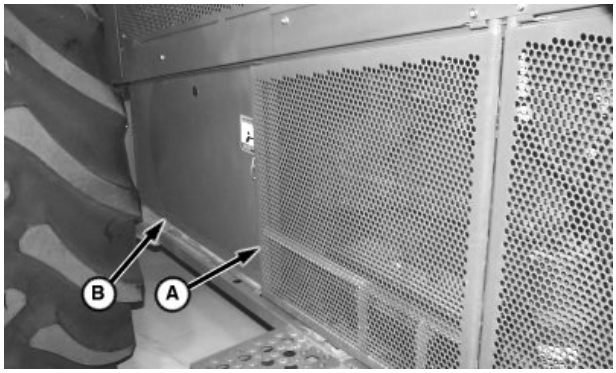
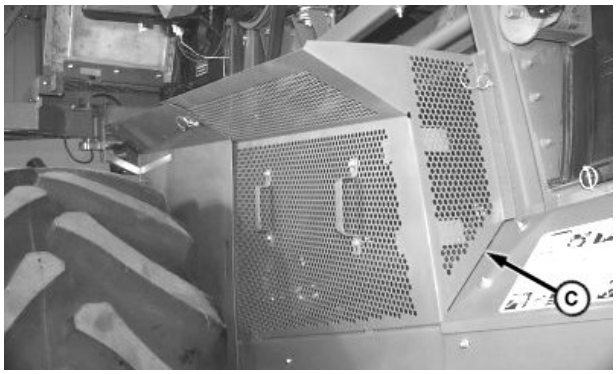
OUO6075,0000763 -19-19MAY10-20/21

36. Install shields (B and C).
37. Close side shield (A).
38. Place rotor drive gearcase in desired speed range.

A—Shield
B—Shield
C—Shield



H63545 —UN—12APR00



H63546 —UN—12APR00

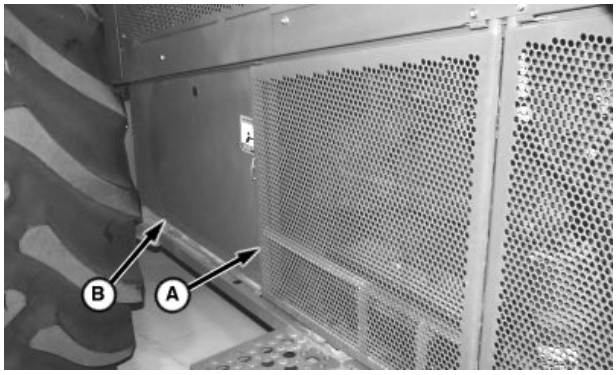
OUO6075,0000763 -19-19MAY10-21/21

Concave Leveling

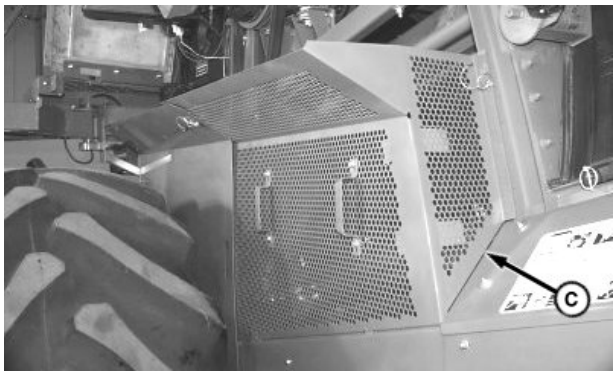
NOTE: Round bar concave covers (if installed) should be removed prior to beginning concave leveling.

1. Remove cap screw, lock nut and open side shield (A).
2. Remove cap screw, lock nut and remove shields (B and C).

A—Shield
B—Shield
C—Shield



H63545 —UN—12APR00



H63546 —UN—12APR00

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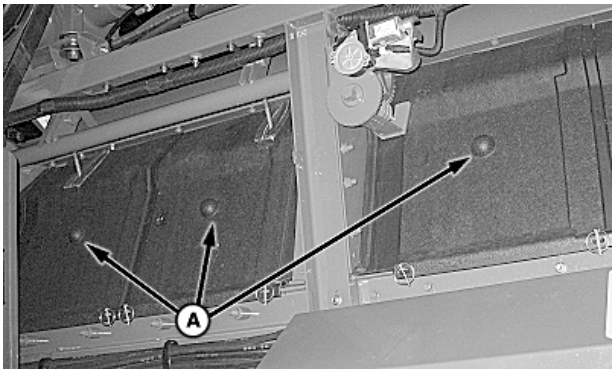
OUO6075,0000765 -19-19MAY10-1/10

3. Remove separator inspection covers (A).

A—Separator Cover



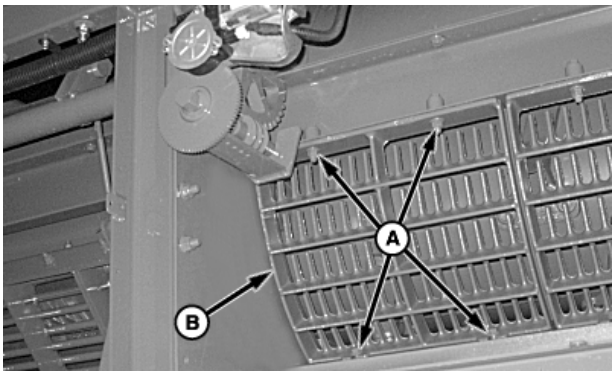
H96446 —UN—20MAY10

OUO6075,0000765 -19-19MAY10-2/10

NOTE: Removing separator grate provides access for rotating rotor.

4. Remove cap screws (A) and separator grate (B).

A—Cap Screw (4 used) **B—Separator Grate**



H96447 —UN—20MAY10

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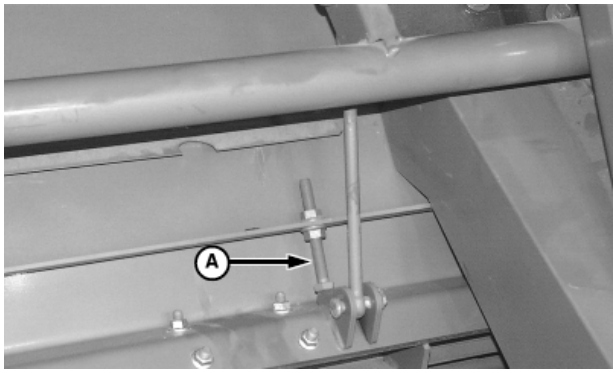
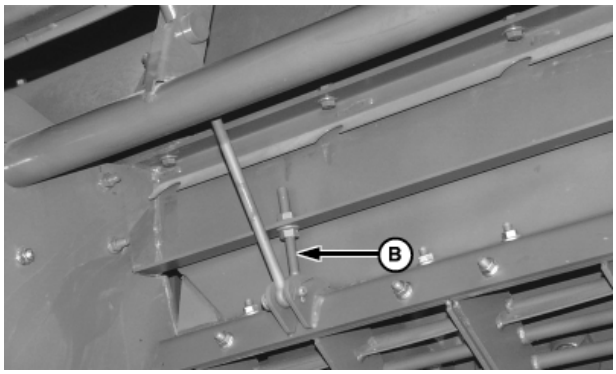
OUO6075,0000765 -19-19MAY10-3/10

5. Back off stop bolts (A and B).

A—Stop Bolt **B—Stop Bolt**



H63912 —UN—15MAY00

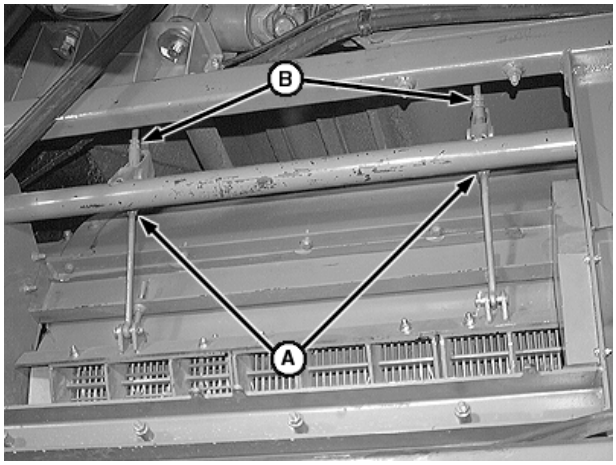


H63911 —UN—15MAY00

OUO6075,0000765 -19-19MAY10-4/10

6. Loosen jam nuts (A) and back off nuts (B) five turns each.

A—Bottom Nut (2 used) **B—Top Nut (2 used)**



H51982 —UN—16FEB99

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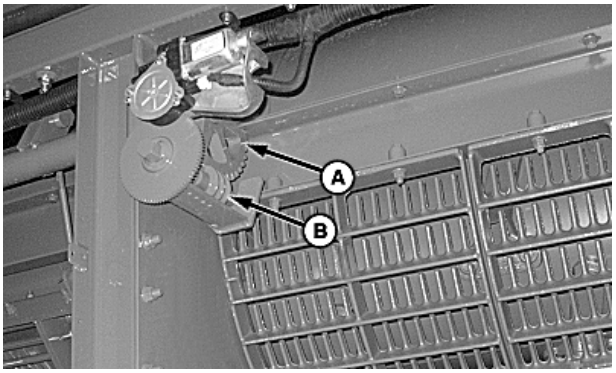
OUO6075,0000765 -19-19MAY10-5/10

7. Use concave adjust switch to adjust concave up until worm gear (B) and sector gear (A) are bottomed out in the up position.

A—Sector Gear **B—Worm Gear**

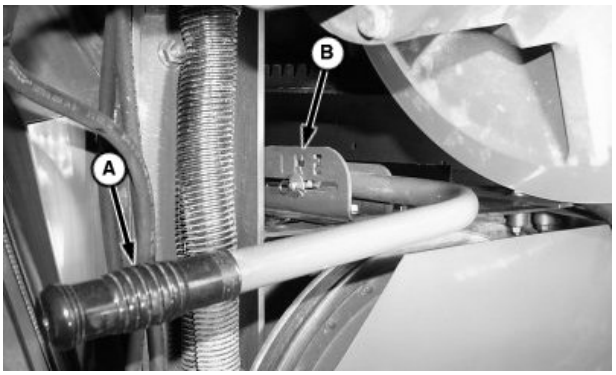


H96450 —UN—20MAY10

OUO6075,0000765 -19-19MAY10-6/10

8. Shift rotor drive gearcase to neutral position (B) using handle (A).

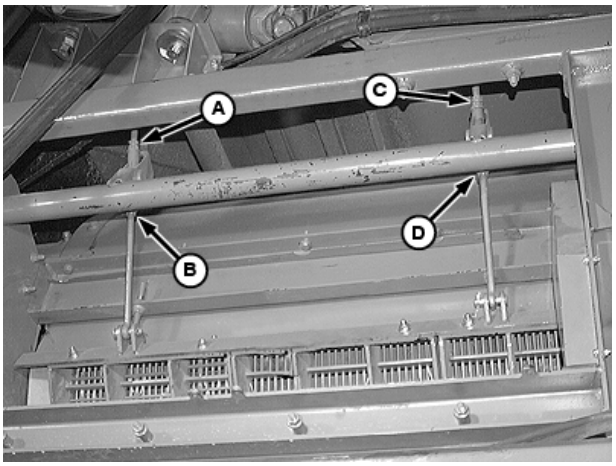
A—Handle **B—Neutral Position**



H63544 —UN—12APR00

OUO6075,0000765 -19-19MAY10-7/10

9. Adjust front eyebolt top nut (A) slowly until elements “tick” concave while rotor is rotating. Back off three complete turns.
10. Adjust rear eyebolt top nut (C) slowly, until elements “tick” concave while rotor is rotating. Back off three complete turns.
11. Adjust front eyebolt top nut (A) down slowly until elements “tick” concave. Back off slowly until “tick” stops. As soon as “tick” has stopped back off one complete turn and tighten top jam nut.
12. Adjust rear eyebolt top nut (C) down slowly, until elements “tick” concave. Back off slowly until “tick” stops. As soon as “tick” has stopped back off one complete turn and tighten top jam nut.
13. Tighten bottom front concave adjustment nut. Hold front eyebolt top nut (A) with open end wrench and tighten front eyebolt bottom jam nut (B).
14. Tighten bottom rear concave adjustment nut. Hold rear eyebolt top nut (C) with open end wrench and tighten rear eyebolt bottom jam nut (D).



H65419 —UN—22NOV00

A—Front Eyebolt Top Nut
B—Front Eyebolt Bottom Jam Nut
C—Rear Eyebolt Top Nut
D—Rear Eyebolt Bottom Jam Nut

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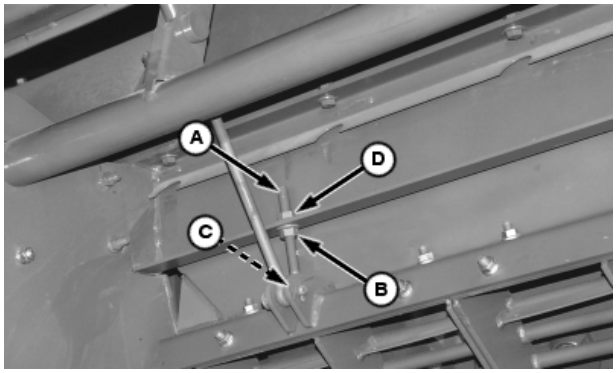
OUO6075,0000765 -19-19MAY10-8/10

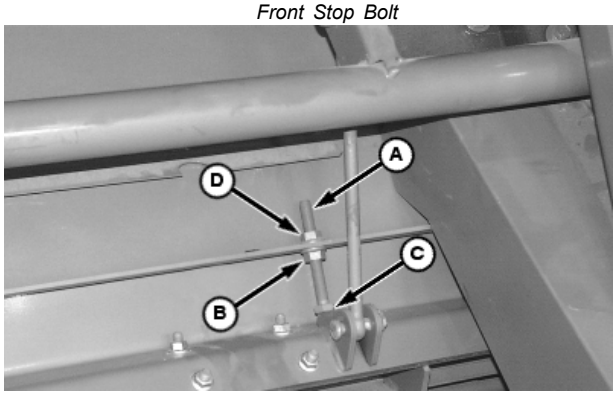
15. Adjust front and rear concave stop bolt (A) by tightening bottom nut (B) until head of bolt (C) is snug against concave. Tighten top nut (D) while holding bottom nut (B) with open end wrench.

A—Stop Bolt (2 used)
B—Jam Nut
C—Head of Bolt
D—Jam Nut



H65421 —UN—22NOV00

Front Stop Bolt



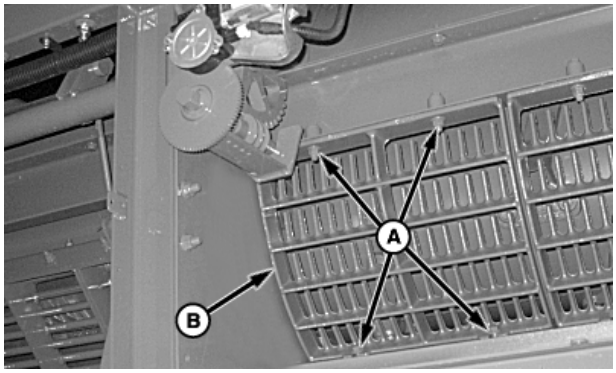
H65420 —UN—22NOV00

Rear Stop Bolt

OUO6075,0000765 -19-19MAY10-9/10

16. Install separator grate (B) and retain with cap screws (A).
17. Shift rotor drive gearcase to desired position.
18. Install separator inspection covers and shields.
19. Calibrate concave position from inside cab. (See Calibration Procedures section.)

A—Cap Screw (4 used)
B—Separator Grate



H96447 —UN—20MAY10

OUO6075,0000765 -19-19MAY10-10/10

Posi-Torq™ Separator—Dual-Range

CAUTION: Shut OFF engine, set parking brake and remove key.

Dual-range separator drive has a high range of 420-1000 rpm and a low range of 230-550 rpm.

NOTE: Use slowest possible speed with large seed crops to prevent damage.

To shift from low to high speed or high to low speed, move shaft handle (A) to detented neutral position.

For low speed position (B), push handle towards separator side sheet.

For high speed position (C), pull handle away from separator side sheet.

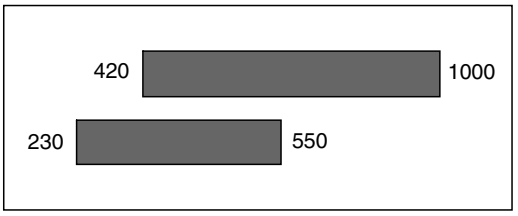
To fully engage drive, it may be necessary to rotate variable sheaves a small amount while moving shift handle.

NOTE: Be certain gears are fully engaged.

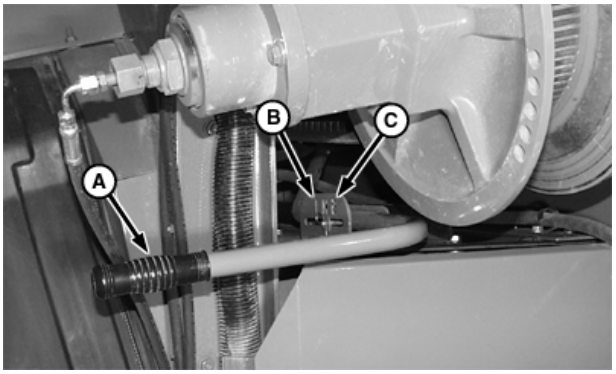
When changing separator speeds make sure to cycle power ON and OFF. Machine will now recognize the new speed range.

If operating below 550 rpm for extended periods of time, shift to low speed.

Posi-Torq is a trademark of Deere & Company



H81157 —UN—10JUN04



H62144 —UN—11JAN00

A—Shaft-Handle
B—Low Speed Position (1)
C—High Speed Position (2)

OUO6075,0000750 -19-26APR07-1/1

Separator Drive Sheave Gap—Adjusting

IMPORTANT: If gap is more than 10 mm (3/8 in.), it limits sheave travel. Any of these failures can occur when drive is operated at high end of variable drive range:

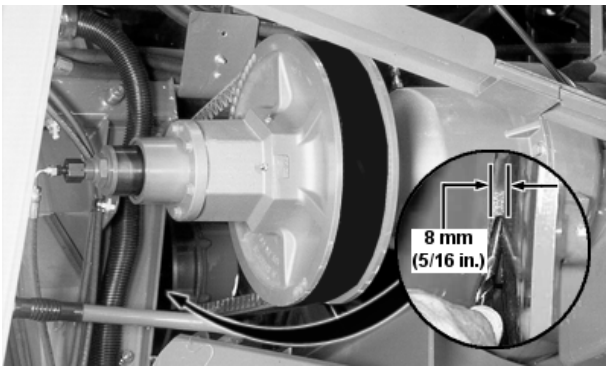
- **Belt stretch or failure**
- **Bearing or shaft failure**

If gap is less than 6 mm (1/4 in.), it limits torque sensing. Any of these failures can occur when drive is operated at low end of variable range:

- **Belt failure**
- **Belt slippage**

If unable to obtain high speed while operating at high end of variable drive range or belt slippage occurs while operating at low end of variable drive, check for incorrect gap. For best performance, set gap to specification.

Specification	
Sheaves—Gap	8 mm ± 2 mm (5/16 in. ± 1/16 in.)



H75081 —UN—07FEB03

With separator engaged and running, set separator drive to slowest speed allowing driven sheaves to close.

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OUO6075,0000752 -19-25JUN08-1/2

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen cap screws (A) holding gearcase and draw nuts (B).

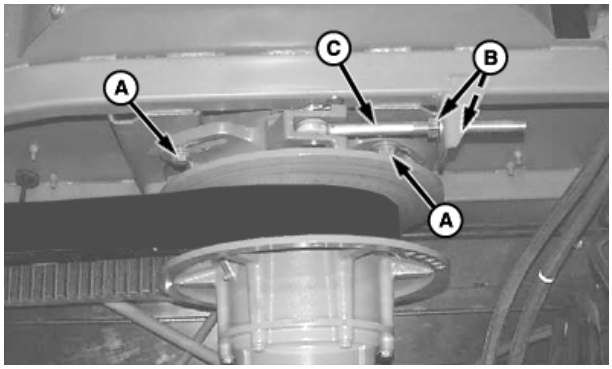
NOTE: Shift gearcase to neutral to properly seat belt between sheaves. Manually rotate sheaves, while adjusting draw bolt.

Adjust draw bolt (C) to obtain specified gap between driven sheaves.

Specification	
Sheaves—Gap	8 mm (5/16 in.)

Retighten cap screws (A) and draw nuts (B).

Shift two speed gearcase to desired speed range.



H77291 —UN—21MAY03

A—Cap Screws (4 Used)
B—Draw Nuts
C—Draw Bolt

OUO6075,0000752 -19-25JUN08-2/2

Separator Variable Drive Belt—Replacing

With separator engaged, set separator drive to slowest speed allowing driven sheaves to close.

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

Shift dual range gearcase to neutral position.

Disconnect hose (A) at rotary hydraulic coupling using two wrenches and pry driver sheaves completely open.

Loosen cap screws (B) holding separator drive gearcase and adjusting nuts (C) on adjusting bolt (E).

NOTE: Clean and remove plug (D) to relieve vacuum in grease cavity and ease opening of driver sheaves.

Use adjusting bolt (E) to move gearcase and sheave assembly to the left.

Remove and replace belt. Rotate pulleys by hand to seat belt.

Reinstall and tighten plug (D) on driver sheave.

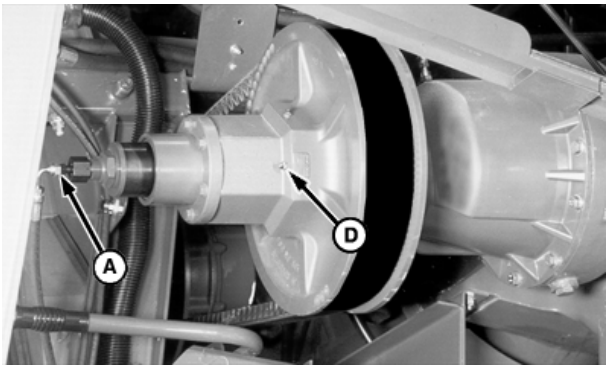
Adjust driven sheave gap to specification. Adjust bolt (E) to move gearcase and sheave assembly to right while rotating pulleys.

Specification	
Sheaves—Gap	8 mm (5/16 in)

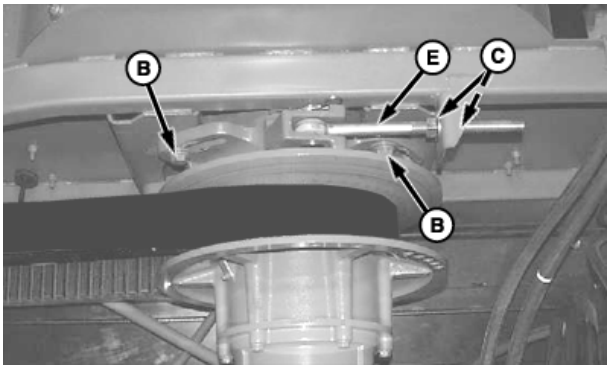
Tighten cap screws (B) and inner adjusting nut (C) on adjusting bolt (E). Install and tighten hydraulic hose.

Shift two speed gearcase to original speed range.

Start engine and engage separator. Cycle variable drive through speed range several times. Disengage separator drive.



H75082 —UN—06FEB03



H77295 —UN—21MAY03

A—Hose
B—Cap Screws (4 Used)
C—Adjusting Nuts
D—Plug
E—Adjusting Bolt

NOTE: Check sheave gap again after several hours and adjust as required.

OUO6075,0000753 -19-09AUG07-1/1

Separator Grate Covers (Attachment)

Recommended for very dry small grain. Covers (A) are installed on the separator grates to help balance the chaff load to the cleaning shoe.

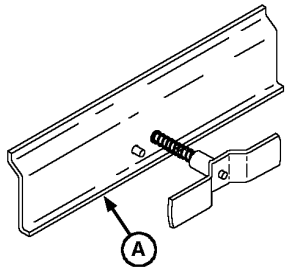
Small Wire Concave Initial Cover Configuration

- Install two rows (eight covers) on right-hand side and three rows (twelve covers) on left-hand side. Make adjustments as necessary depending on conditions.

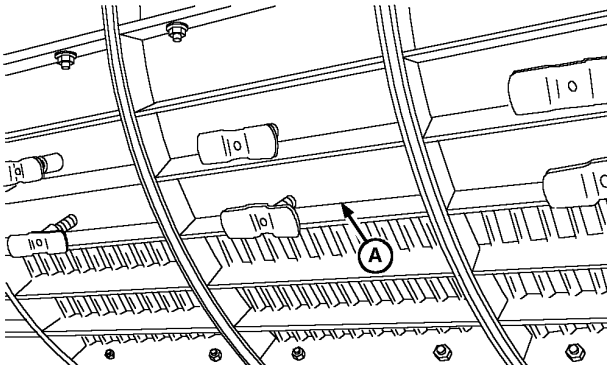
Large Wire Concave Initial Cover Configuration

- Install three rows (twelve covers) on right-hand side and two rows (eight covers) on left-hand side. Make adjustments as necessary depending on conditions.

A—Separator Grate Covers



H544511 —UN—01APR99



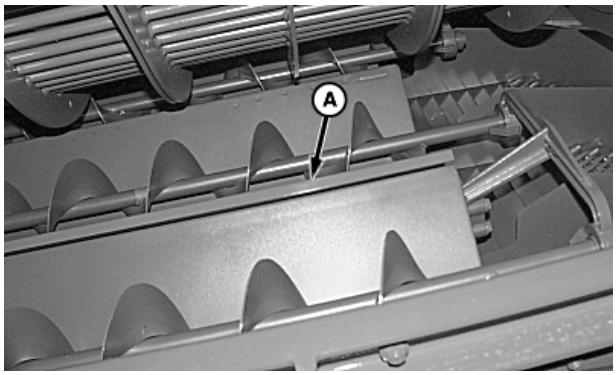
H54512 —UN—01APR99

OUO6075,0000754 -19-23APR07-1/1

Auger Bed Dividers

To prevent high seed losses or to prevent material building up on one side while harvesting on hillsides, move auger bed dividers (A) in an upwards direction.

A—Auger Bed Dividers



H83545 —UN—20MAY05

OUO6075,0000755 -19-20MAR07-1/1

Discharge Beater Belt—Adjusting

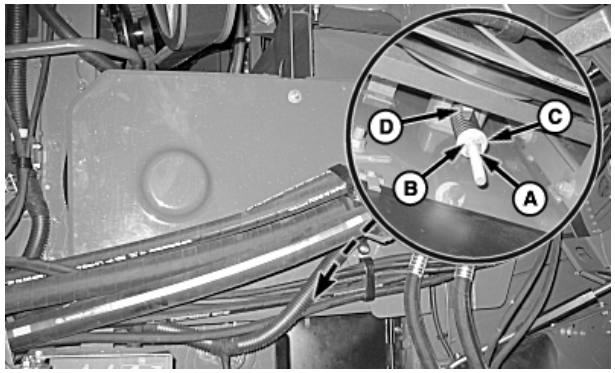
CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step.

Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H86547 —UN—08SEP06

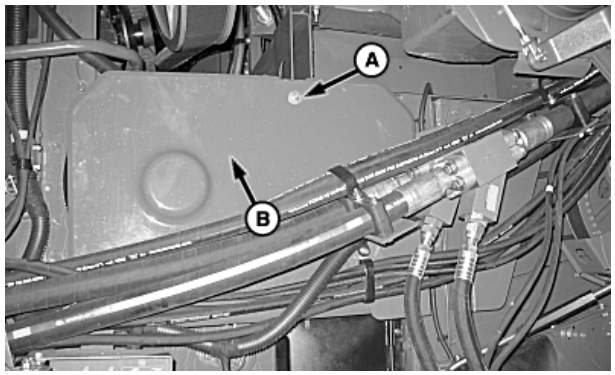
OUO6075,0000899 -19-23APR07-1/1

Discharge Beater Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Remove cap screw (A) and remove shield (B) from left-hand rear of machine.

A—Cap Screw
B—Shield



H86546 —UN—08SEP06

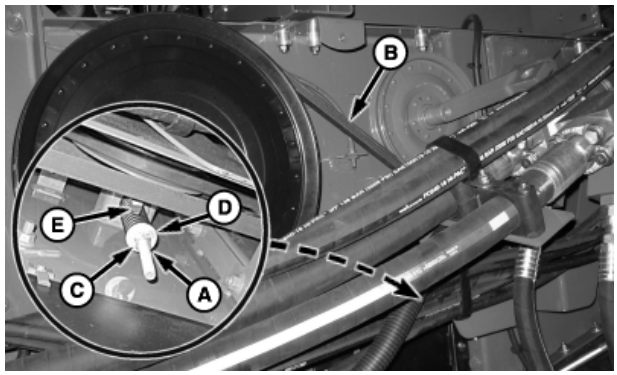
OUO6075,000089A -19-23APR07-1/2

Loosen lock nut (A) and remove belt (B).

Install replacement belt and tighten nut (C) until washer (D) is positioned between end of gauge (E) and bottom of step.

Tighten lock nut and install shield.

A—Lock Nut
B—Belt
C—Nut
D—Washer
E—Gauge



H86548 —UN—08SEP06

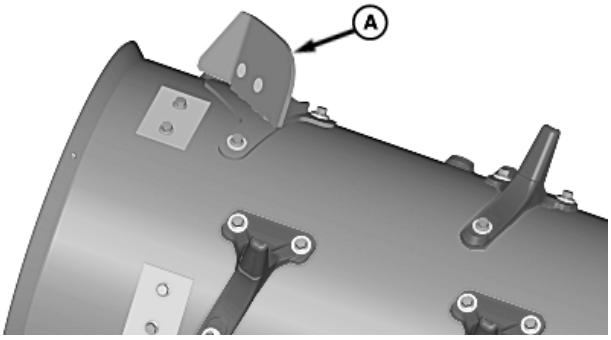
OUO6075,000089A -19-23APR07-2/2

Rotor Discharge Paddles (Attachment)

If harvesting in tough material handling conditions or at low rotor speeds, a rotor discharge paddle (A) kit is available as a field installed bundle from your John Deere dealer.

Rotor discharge paddles directly mount to tine positions 21 and 22 and assist in moving material from the rotor through the discharge housing area.

A—Rotor Discharge Paddle



H88923 —UN—14JUN07

OUO6075,0000BED -19-14JUN07-1/1

Tough Crop (Rice) Discharge Beater—Wing Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Discharge beater wings and wear strips can be replaced without removing the discharge beater. Replace discharge beater wings in sets of two and opposite of each other to maintain proper balance.

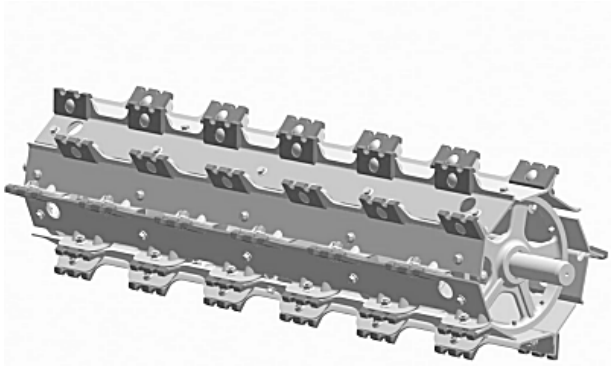
NOTE: If discharge beater is removed from machine, or has been serviced, tighten clamp bolts before securing wings. Tighten cap screws to specification.

Remove round head bolts (A) and replace discharge beater wear strips (B) as required. Tighten round head bolts to specification.

Specification	
Discharge Beater Wear Strip Round Head Bolts—Torque	90 N·m (66 lb-ft)

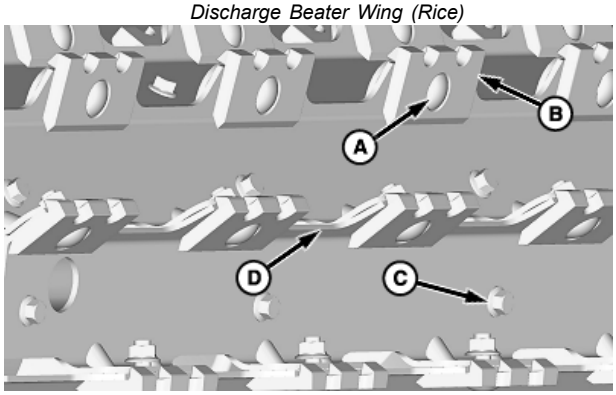
Remove cap screws (C) and replace discharge beater wings (D) as required. Tighten cap screws to specification.

Specification	
Discharge Beater Wing Cap Screws—Torque	70 N·m (52 lb-ft)



H81772 —UN—28SEP04

Discharge Beater Wing (Rice)



H79440 —UN—15DEC03

Discharge Beater Wing (Rice)

A—Round Head Bolt(s)
B—Discharge Beater Wear Strip
C—Cap Screws
D—Discharge Beater Wings

OUO6075,0000AB3 -19-16JUL07-1/1

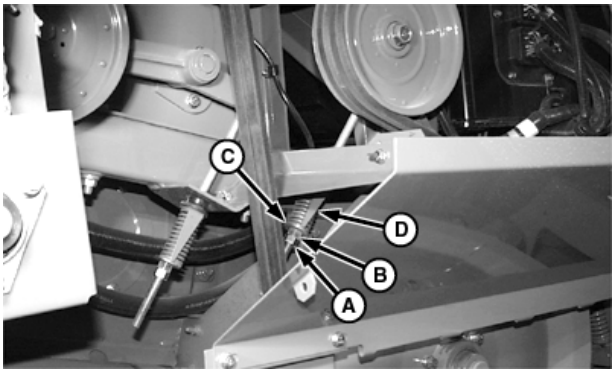
Countershaft Right-Hand Front Belt—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H62180 —UN—13JAN00

OUO6075,000075B -19-20MAR07-1/1

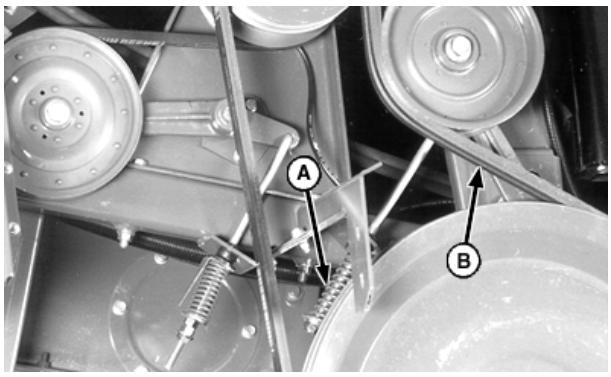
Countershaft Right-Hand Front Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen idler spring (A) and remove belt (B).

Install replacement belt and adjust tensioner so washer is positioned between end of gauge and bottom of step.

A—Idler Spring
B—Right-Hand Front Belt



H62320 —UN—24JAN00

OUO6075,000075C -19-20MAR07-1/1

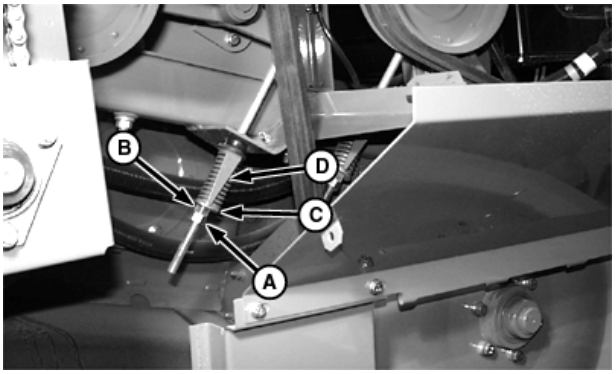
Countershaft Right-Hand Rear Belt—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H62181 —UN—13JAN00

OUO6075,000075D -19-20MAR07-1/1

Countershaft Right-Hand Rear Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

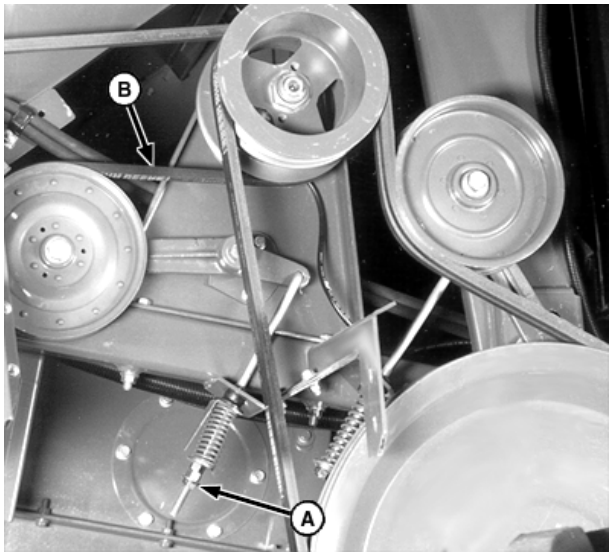
Remove right-hand front countershaft belt. Loosen tension on idler nut (A) and remove rear jackshaft belt (B).

Install replacement belt and adjust tensioner so washer is positioned between end of gauge and bottom of step.

Install front jackshaft belt and adjust idler tension.

A—Nut

B—Rear Countershaft Belt



H54681 —UN—13MAY99

OUO6075,000075E -19-20MAR07-1/1

Cleaning Shoe Inspection Door

Allows operator to look at cleaning shoe area when adjusting chaffer or sieve or when inspecting cleaning shoe area for crop material.

H68187 —UN—22MAY01

OUO6075,000075F -19-20MAR07-1/1

Cleaning Shoe Auger Gears—Cleanout Door

CAUTION: Shut OFF engine, set parking brake and remove key.

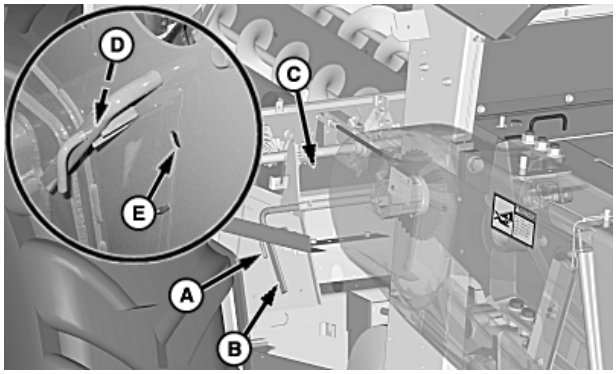
Allows operator to clean and inspect the cleaning shoe augers gear area.

Pull lock-out pin (A) and move handle (B) to open or close cleanout door (C).

Move handle to desired position:

- Closed Position (D)
- Open Position (E)

A—Lock-Out Pin
B—Handle
C—Cleanout Door
D—Closed Position
E—Open Position



H95822 —UN—24MAR10

OUO6075,00006FD -19-24MAR10-1/1

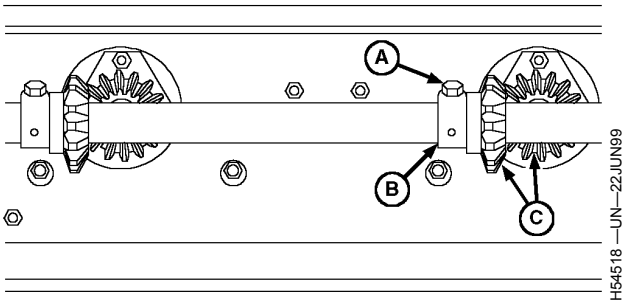
Cleaning Shoe Auger Gears—Adjusting

CAUTION: Raise feeder house, shut OFF engine, set parking brake, remove key and lower safety stop.

Loosen nut (A) on clamp (B) and adjust gears (C) until they touch.

Back clamp off 0.8 mm (1/32 in.) and tighten nut. Do not run gears too tight.

A—Nut
B—Clamp
C—Gears



OUO6075,0000760 -19-20MAR07-1/1

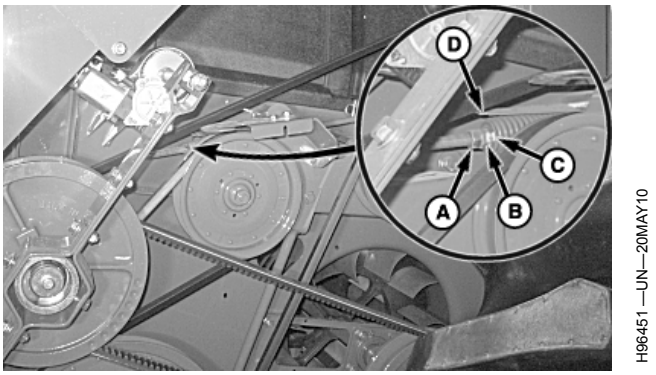
Shoe, Fan and Conveyor Auger Belt—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



Shield Removed for Clarity

OUO6075,0000767 -19-20MAY10-1/1

Shoe, Fan and Conveyor Auger Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

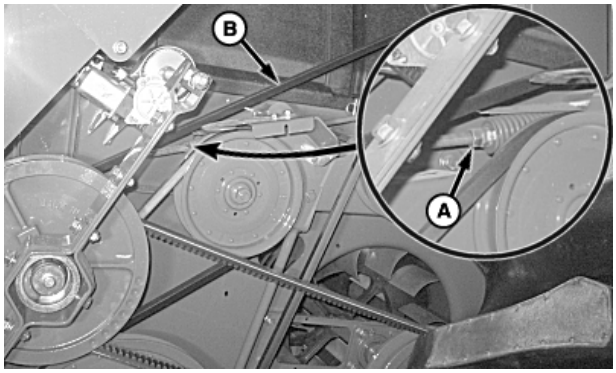
Remove right-hand front countershaft and cleaning fan variable drive belts.

Loosen tension on idler nut (A) and remove shoe, fan and conveyor auger drive belt (B).

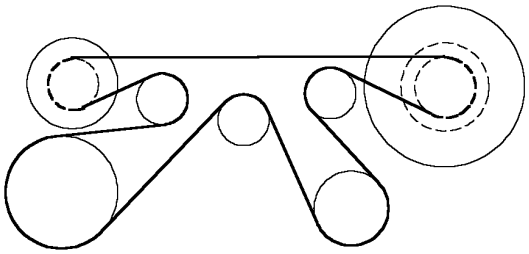
Install replacement belt and adjust tensioner so washer is positioned between end of gauge and bottom of step.

Reinstall front jackshaft belt, fan variable belt and adjust idler tensions.

A—Nut **B—Belt**



H96452 —UN—20MAY10



H54683 —UN—17MAY99

Belt Routing

OUO6075,0000768 -19-20MAY10-1/1

Cleaning Fan Belt—Replacing

Start engine, engage separator and operate fan at maximum speed.

Disengage separator, shut OFF engine and remove key.

CAUTION: Shut OFF engine, set parking brake and remove key.

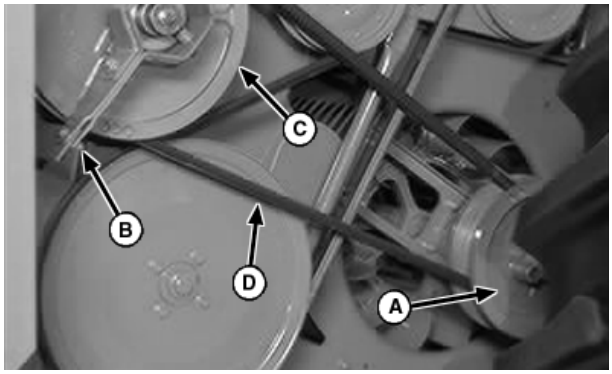
Wedge bottom sheave (A) open.

Disconnect support arms (B) and swing arms away.

Remove upper sheave (C) and pull belt (D) over lower sheave.

Install replacement belt, remove wedge and connect support arms.

Check adjustment of cleaning fan speed.



H62321 —UN—24JAN00

A—Bottom Sheave **C—Upper Sheave**
B—Support Arms **D—Belt**

OUO6075,0000763 -19-20MAR07-1/1

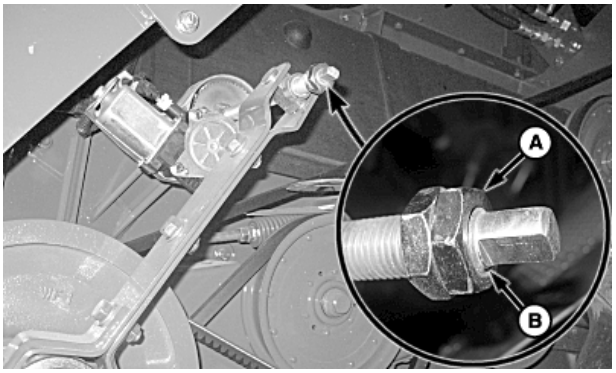
Cleaning Fan Actuator—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: Cleaning fan minimum/maximum speed is controlled electronically; stop nuts ensure drive protection in the event of improper electronic speed setting and must be installed as shown.

Verify nuts (A) are jammed together at end of threads (B) as shown.

A—Nuts **B—End of Threads**



H96483 —UN—26MAY10

OUO6075,0000769 -19-26MAY10-1/1

Slow Speed Cleaning Fan Drive (Attachment)

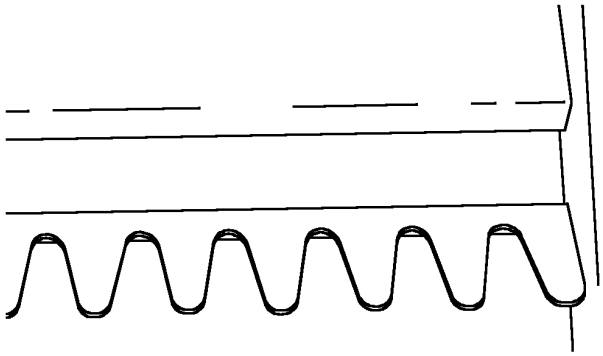
This fan drive has a range of 250 to 500 rpm and is recommended for use in grass seed crops.

OUO6075,0000765 -19-20MAR07-1/1

Deep-Tooth Front Chaffer

Deep-tooth front chaffer is fixed and is set at 24 mm (15/16 in.).

Crop material that passes through the front chaffer is delivered to the chaffer for further cleaning.



H54528 —UN—01APR99

OUO6075,0000766 -19-22APR08-1/1

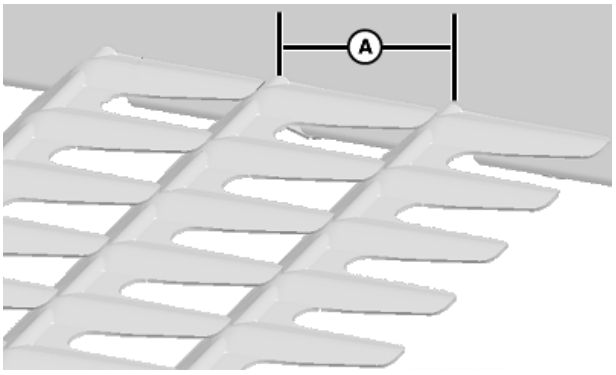
Chaffer and Sieve—Measuring

Machines can be equipped with two different types of chaffer and sieves.

- **Deep-tooth** chaffer and sieve.
- **General Purpose** chaffer and sieve.

Proper way to measure chaffer and sieve dimensions is from wire-to-wire (A). This can be used to determine if a deep-tooth or general purpose chaffer or sieve is installed.

A—Wire-To-Wire

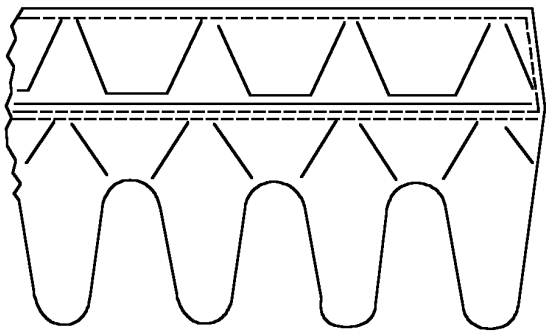


H89699 —UN—21AUG07

OUO6075,0000C1E -19-22AUG07-1/1

General Purpose Chaffer 29 mm (1-1/8 in.)

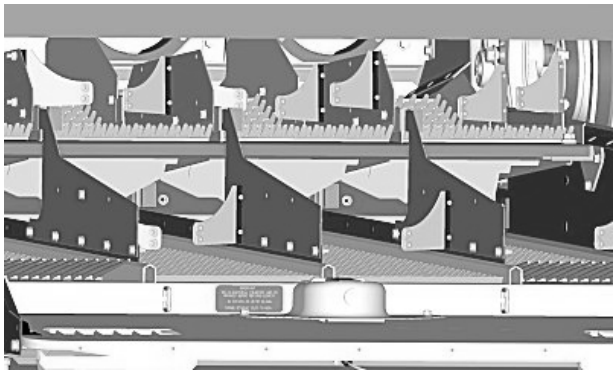
General purpose chaffer is suitable for corn, soybeans, sorghum, small grains, oil seed crops, grass seed and many specialty crops. It is recommended for dry conditions and is resistant to “stabbing” of corn tassels and soybean, sunflower and sorghum stems.



OUO6075,0000767 -19-22AUG07-1/1

Chaffer Divider Extensions (Attachment)

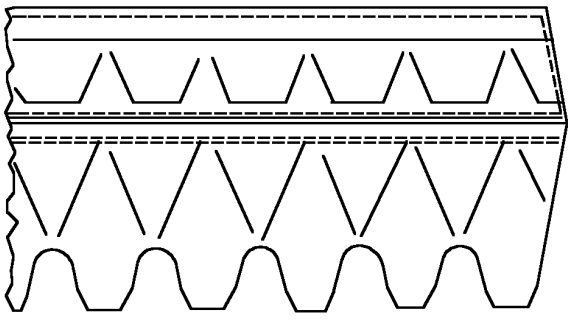
Divider extensions provide additional divider height to control overloading of the downhill side for cleaning shoe when operating on slopes.



OUO6075,0000BFC -19-10JUL07-1/1

General Purpose Sieve 22 mm (7/8 in.)

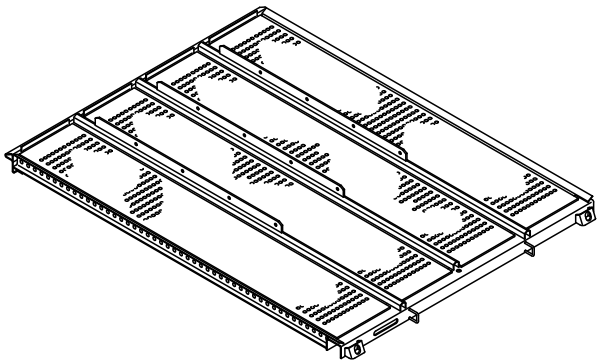
This sieve is suitable for all major crops and many specialty crops.



OUO6075,0000AB5 -19-22AUG07-1/1

Sieve Round Fixed Hole (Optional)

These sieves are suitable for all major crops and many specialty crops. Two optional sieves are available from your John Deere dealer. Round fixed hole 3 mm (1/8 in.) and 10 mm (5/16 in.) sieves are available for seed and specialty crops that require exact sizing.



H81663 —UN—27SEP04

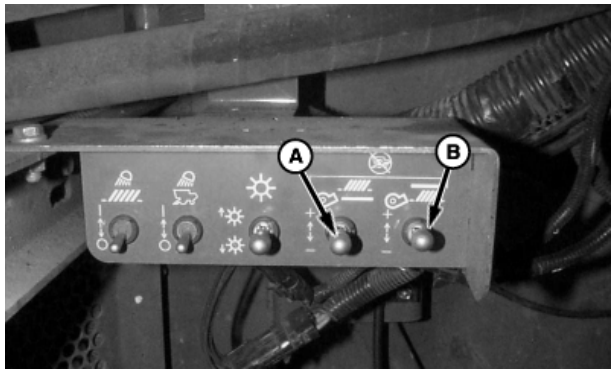
OUO6075,000076B -19-20MAR07-1/1

Chaffer/Sieve Adjusting Switch

Chaffer adjust switch (A) and sieve adjust switch (B) are located on left-hand side of combine above separator shield.

Chaffer adjust switch and sieve adjust switch allows the operator to open or close the chaffer and sieve to various positions.

A—Chaffer Adjust Switch **B—Sieve Adjust Switch**



H65987 —UN—11SEP01

OUO6075,00009DF -19-23APR07-1/1

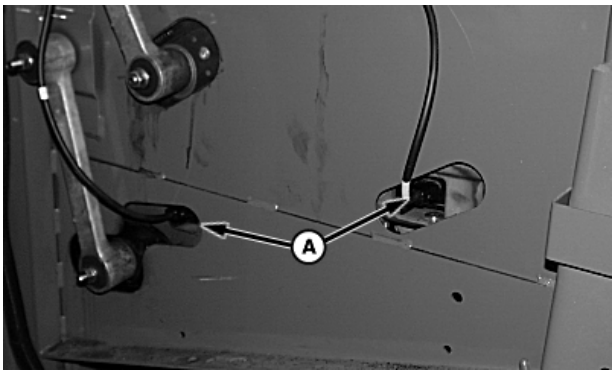
Chaffer/Sieve Elements—Remove and Install

CAUTION: Shut OFF engine, set parking brake and remove key to help prevent accidental starting and personal injury.

NOTE: It is not necessary to remove straw chopper to remove chaffer. Chopper must be in fully raised position.

1. Disconnect electrical harness (A).

A—Chaffer/Sieve Harness



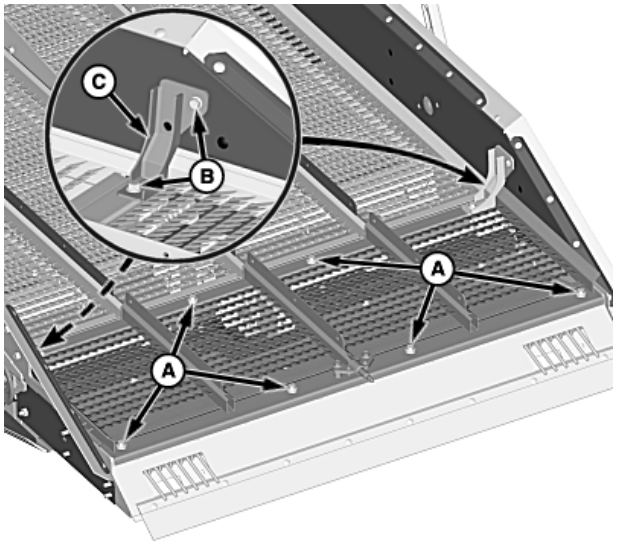
H69954 —UN—12SEP01

Continued on next page

OUO6075,00003C8 -19-26JUN09-1/3

2. Remove cap screws (A) from rear chaffer extension.
3. Remove cap screws (B) and bracket (C) from both sides.

A—Cap Screws
B—Cap Screws
C—Bracket



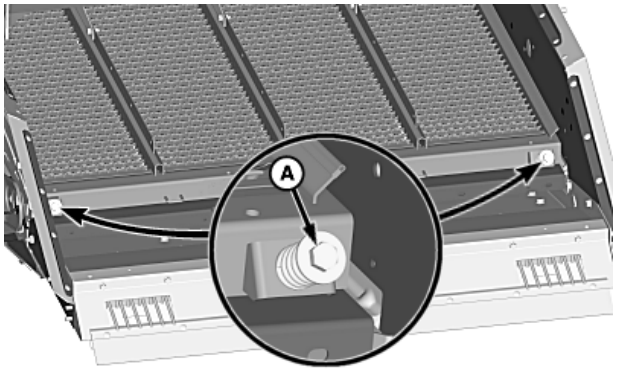
H90269 —UN—12NOV07

OUO6075,00003C8 -19-26JUN09-2/3

NOTE: Chaffer motor does not need to be removed from frame.

4. Remove chaffer bolts (A) on both sides and remove chaffer from machine.
5. Sieve removal is similar to chaffer procedure.
6. Install in reverse order.

A—Chaffer Bolts



H90270 —UN—12NOV07

OUO6075,00003C8 -19-26JUN09-3/3

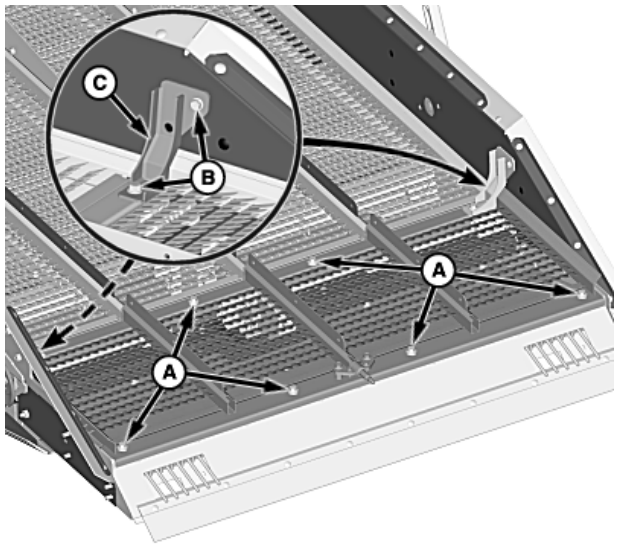
Chaffer/Sieve Motor—Manual Adjust

CAUTION: Shut OFF engine, set parking brake and remove key to help prevent accidental starting and personal injury.

NOTE: Same manual adjust procedure can be used on the chaffer or sieve motor.

1. Remove cap screws (A) and cover to access motor.
2. Remove cap screws (A) from rear chaffer extension.

A—Cap Screws
B—Cap Screws
C—Bracket



H90269 —UN—12NOV07

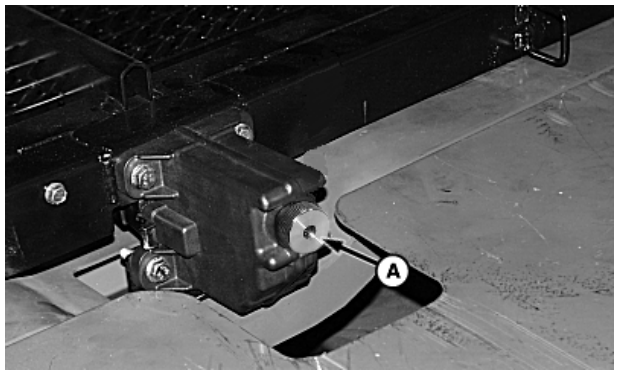
OUO6075,00003C9 -19-25JUN09-1/2

IMPORTANT: To prevent adjusting motor damage, do not use wrench on knob.

NOTE: Once chaffer or sieve adjusting motor is repaired or replaced, adjusting motor will have to be recalibrated. (See Calibration Procedures section).

3. Use knob (A) to adjust motor. Turn knob clockwise to close and counterclockwise to open chaffer/sieve.

A—Knob



H74041 —UN—05NOV02

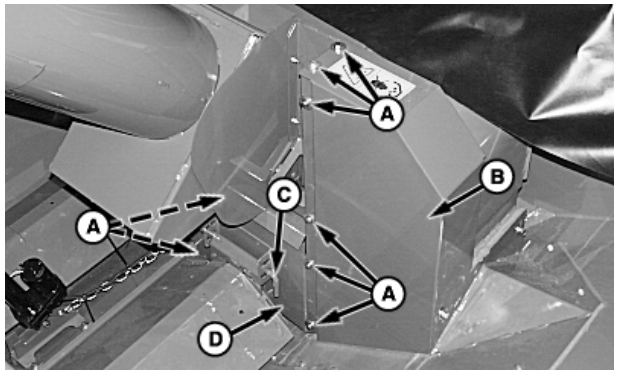
OUO6075,00003C9 -19-25JUN09-2/2

Clean Grain Elevator Drive Top Access Doors

Remove cap screws (A) from cover (B).

Remove cross auger pin (C) and cover (D).

A—Cap Screws
B—Cover
C—Pin
D—Cover



H81665 —UN—14SEP04

OUO6075,00009E2 -19-04APR07-1/1

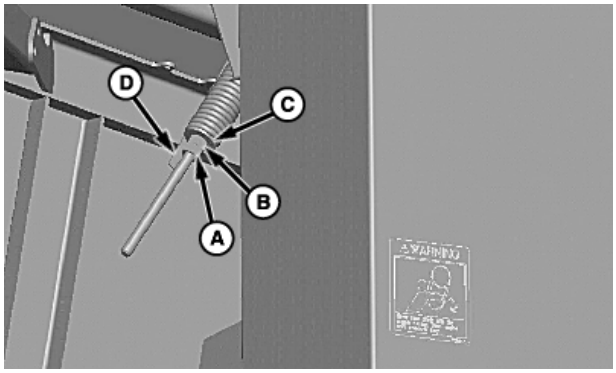
Clean Grain Elevator Belt—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen locking nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H75300 —UN—24FEB03

OUO6075,0000775 -19-20MAR07-1/1

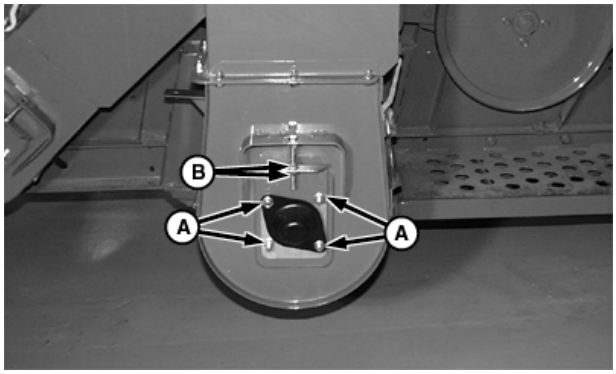
Clean Grain Elevator Conveyor Chain—Adjusting

Release latch and open lower door.

Remove nuts from bearing cover.

Loosen nuts (A) and use nuts (B) to adjust chain. Move bearing carrier downward to tighten chain.

Elevator chain is adjusted properly when lower end of chain can be slid side-to-side on sprocket but cannot be pulled away from sprocket. When chain loosens up to 6 mm (1/4 in.) from sprocket, readjust chain. After a period of use, it may be necessary to remove a half link to adjust chain correctly.



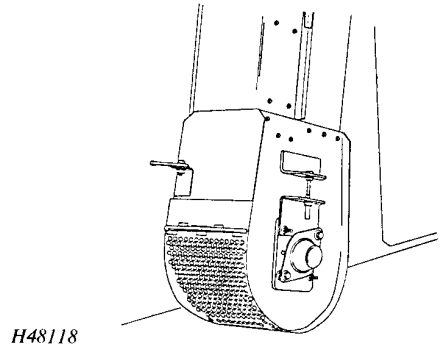
H62184 —UN—13JAN00

A—Nuts (4 Used) **B—Nuts**

OUO6075,0000776 -19-23APR07-1/1

Clean Grain Elevator Perforated Screens (Attachment)

Perforated screens are available for the lower door and the clean grain auger trough. They help sift out dirt, weed seed and fine material.



H48118

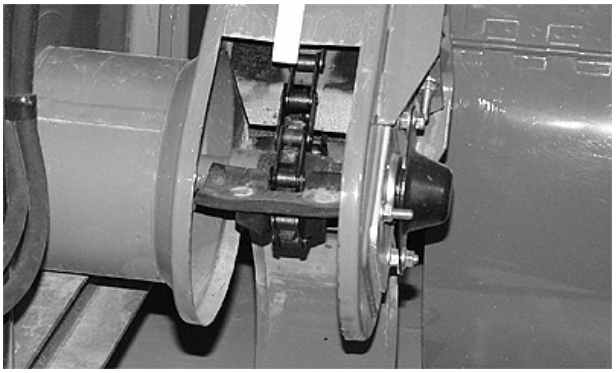
H48118 —UN—24OCT96

OUO6075,0000777 -19-20MAR07-1/1

Tailings Elevator Paddles

Check elevator chain occasionally for worn or missing paddles.

In muddy conditions, one steel paddle may be installed in the elevator chain to act as a wiper.



H62187 —UN—13JAN00

OUO6075,0000778 -19-20MAR07-1/1

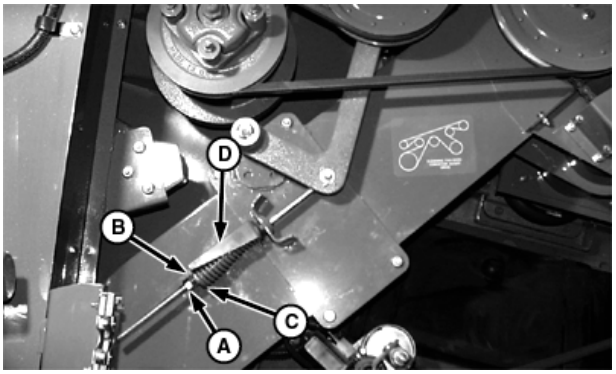
Tailings Elevator Drive Belt—Adjusting

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H62186 —UN—13JAN00

OUO6075,0000779 -19-20MAR07-1/1

Tailings Elevator Paddle Chain—Adjusting

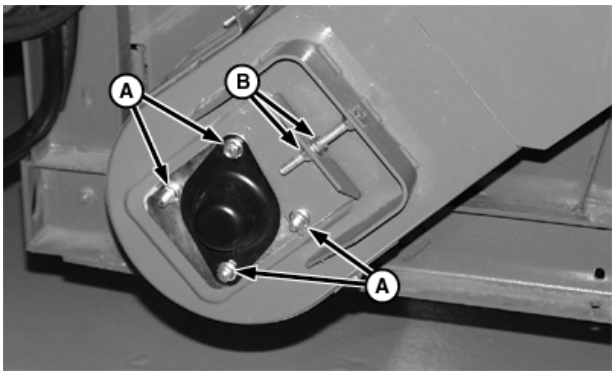
Release latch and open lower door.

Remove nuts from bearing cover.

Loosen nuts (A) and use nuts (B) to adjust chain. Move bearing carrier downward to tighten chain.

Elevator chain is adjusted properly when lower end of chain can be slid side-to-side on sprocket but cannot be pulled away from sprocket. When chain loosens up to 6 mm (1/4 in.) from sprocket, readjust chain. After a period of use, it may be necessary to remove a half link to adjust tailings elevator chain correctly.

A—Nuts (4 Used)
B—Nuts



H62185 —UN—13JAN00

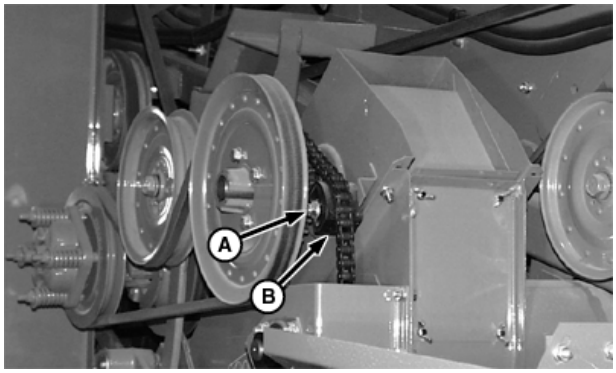
OUO6075,000077A -19-04APR07-1/1

Upper Tailings Auger Drive Chain—Adjusting

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen cap screw (A) and adjust block (B) to tighten chain. Tighten cap screw when chain is tight.

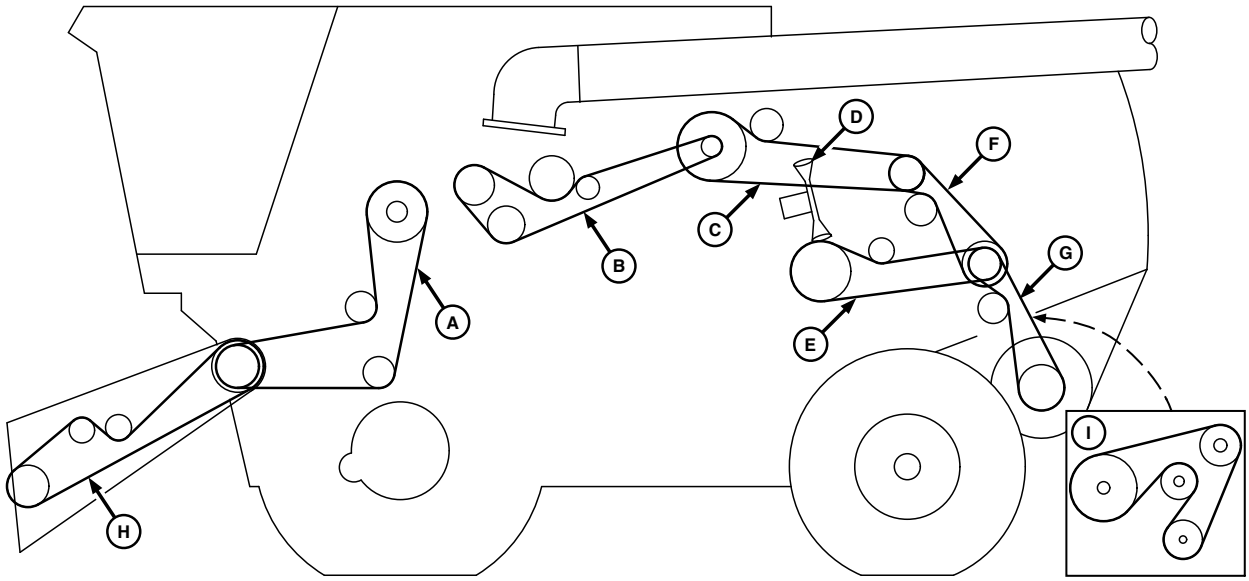
A—Cap Screw **B—Block**



H62189 —UN—13JAN00

OUO6075,000077B -19-20MAR07-1/1

Drive Belts—Left-Hand

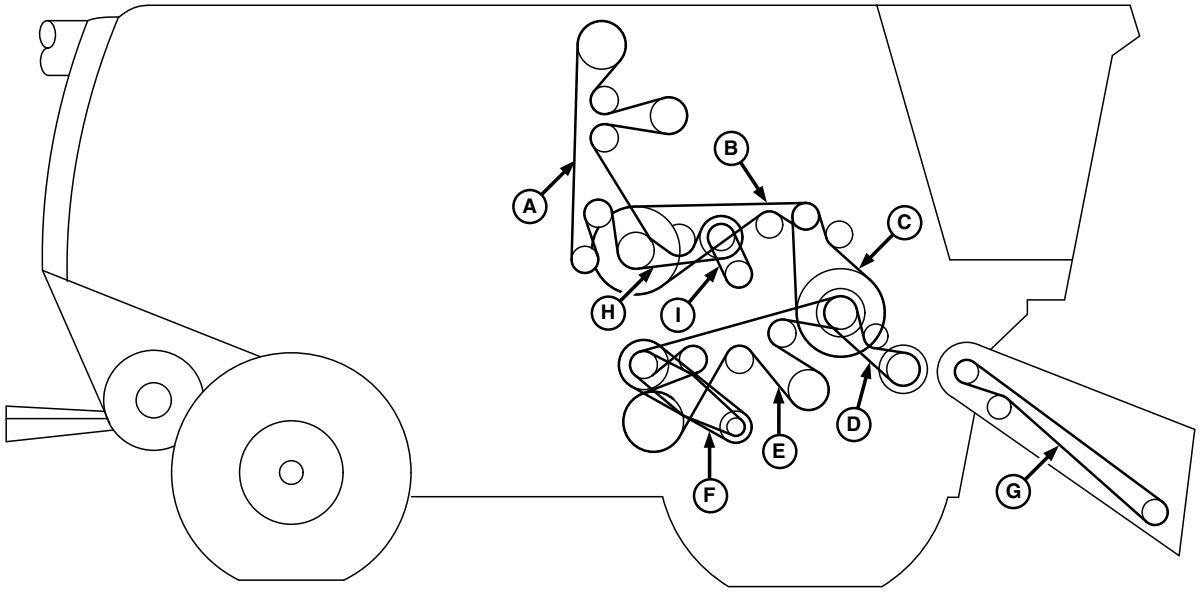


H90340 —UN—03DEC07

A—Header and Reel Pump Standard or High Capacity Belt
B—Unloading Auger System, #60 Roller Chain
C—Unloading Auger System Belt
D—Separator Variable Drive Belt
E—Discharge Beater Belt
F—Chopper Jackshaft Belt
G—Chopper Belt (Standard Model)
H—Feeder House Drive Belt
I— Chopper Belt (Premium Model)

OUO6075,0000D35 -19-30NOV07-1/1

Right-Hand Drives



H66283 —UN—21FEB01

A—Clean Grain Elevator Belt
B—Rear Right-Hand Jackshaft Belt
C—Front Right-Hand Jackshaft Belt
D—Feed Accelerator Belt
E—Shoe Fan and Conveyor Augers Belt
F—Cleaning Fan Variable Belt
G—Feeder Conveyor (Chain), #60 Chain
H—Tailings Auger and Elevator Belt
I— Tailings Return Auger, #50 Chain

OUO6075,00009E6 -19-20MAR07-1/1

Rotor Anti-Wrap Kit (Field Installed Attachment)

If harvesting in grass seeds or very long straw crops a rotor anti-wrap kit is available as a field installed bundle, see your local John Deere dealer for further information. A set of knives attach to a specially modified front rotor casting, limits the wrapping of crop around the rotor bearing. The front rotor casting directly replaces the factory installed rotor casting and special blades attach to the casting.

H85701 —UN—13APR06

OUO6075,000077E -19-20MAR07-1/1

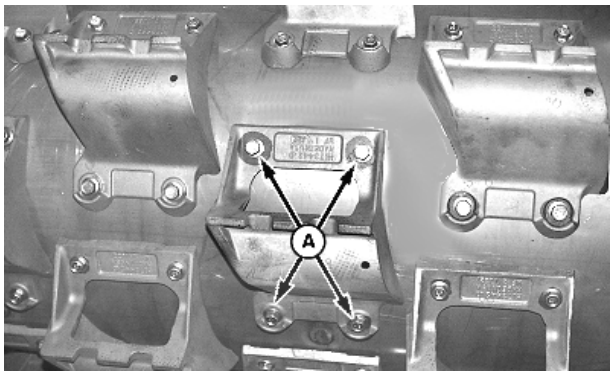
Threshing Elements and Tines—Remove and Install

IMPORTANT: Rotor is a balanced assembly. Elements and tines must be replaced in groups of three to maintain balance. Replacement kits are available through service parts and include new cap screws with pre-applied Threadlock and Sealer. Tines or elements that become loose may result in machine damage.

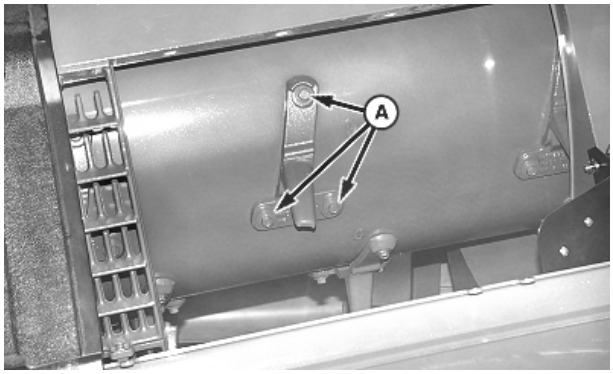
If tines or elements need to be removed for other than replacement, mark location on tine(s)/element(s) and rotor, prior to removal. Install in same location as removed to maintain balance. Always use new cap screws.

Make sure to clean out tailings and front cross auger if tine replacement is due to broken or damage tines. Failure to do so before initial start-up may allow broken tines to recirculate and cause tine damage to reoccur.

1. Remove separator grates or concave sections as needed to access rotor. (See Concave Sections—Remove and Install.)
2. Inspect wear on threshing elements and separator tines using AH204933 Clearance Gauge.
3. Remove cap screws (A) and threshing element or tine.



H73906 —UN—30OCT02



H73898 —UN—30OCT02

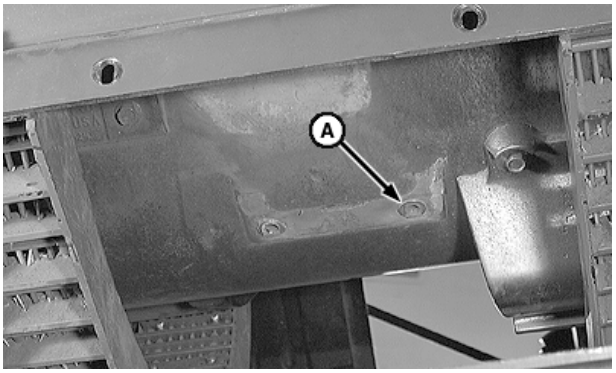
A—Cap Screw

Continued on next page

4. Inspect RIVNUT threaded inserts (A). Replace if damaged.
5. If one element or tine needs replaced, replace all in the group. Example: If element 2 needs to be replaced, replace elements 1 and 3 also.
6. Use Threshing Elements and Separator Tine Location diagram for identifying elements and tines.

NOTE: 15 element configuration to 24 element configuration: Remove bolts from 9 blank locations and install elements 7 & 9 & 11, 13 & 15 & 17, 20 & 22 & 24 with supplied hardware (refer to 24 Element Dense Pack Rotor Configuration later in this section.)

24 element rotor configuration to 15 element configuration: Remove elements 7 & 9 & 11, 13 & 15 & 17, 20 & 22 & 24 (specified elements that have been removed will have an "O" stamped into the rotor) and reinstall hardware to prevent crop material from building up in holes (refer to 15 Element Standard Rotor Configuration later in this section.)



H54006 —UN—18FEB99

A—Threaded Insert

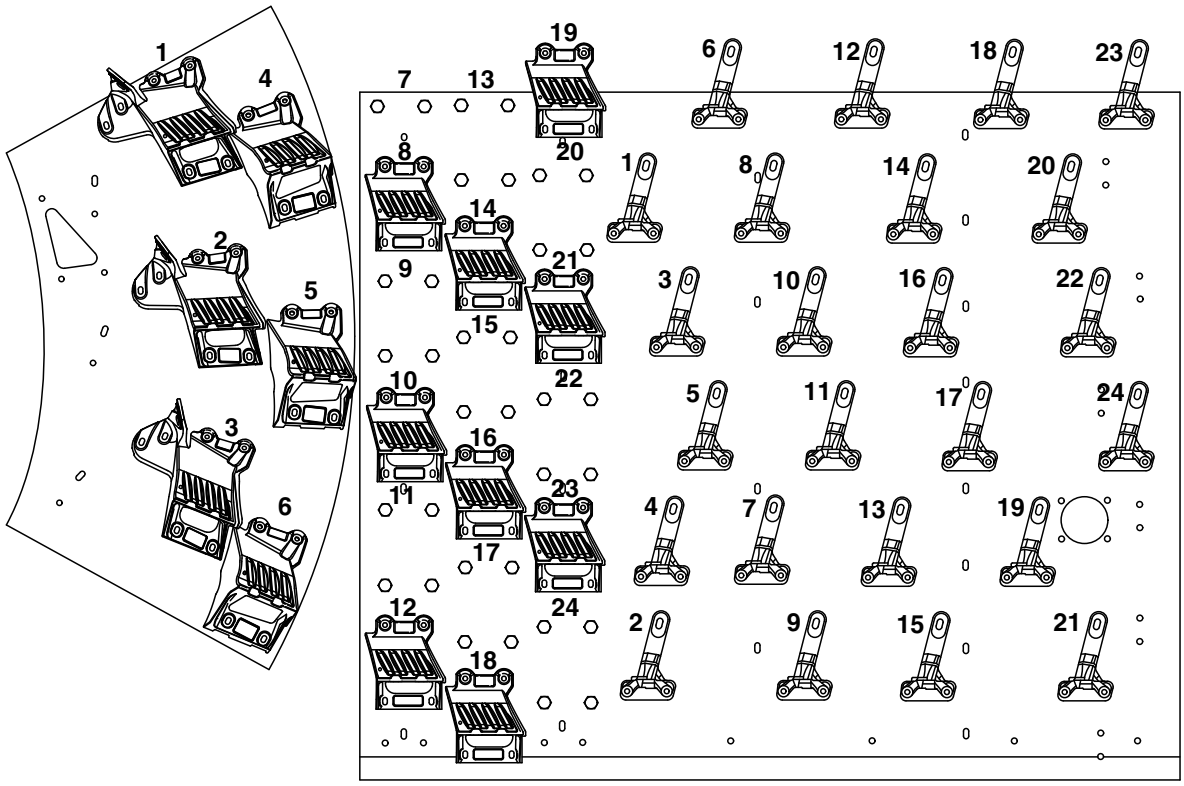
Threshing Element Groups (15 Element Standard Rotor Configuration)	**Separator Tine Groups (Hi Standard Rotor Configuration)**
Group 1 Elements = 1, 2, 3	**Group 1 Tines =** 1, 4, 5
Group 2 Elements = 4, 5, 6	**Group 2 Tines =** 2, 3, 6
Group 3 Elements = 8, 10, 12	**Group 3 Tines =** 8, 9, 11
Group 4 Elements = 14, 16, 18	**Group 4 Tines =** 7, 10, 12
Group 5 Elements = 19, 21, 23	**Group 5 Tines =** 13, 16, 18
	Group 6 Tines = 14, 15, 17
	Group 7 Tines = 19, 22, 23
	Group 8 Tines = 20, 21, 24
Threshing Element Groups (24 Element Dense Pack Rotor Configuration)	**Separator Tine Groups (Dense Pack Rotor Configuration)**
Group 1 Elements = 1, 2, 3	**Group 1 Tines =** 1, 4, 5
Group 2 Elements = 4, 5, 6	**Group 2 Tines =** 2, 3, 6
Group 3 Elements = 7, 9, 11	**Group 3 Tines =** 8, 9, 11
Group 4 Elements = 8, 10, 12	**Group 4 Tines =** 7, 10, 12
Group 5 Elements = 13, 15, 17	**Group 5 Tines =** 13, 16, 18
Group 6 Elements = 14, 16, 18	**Group 6 Tines =** 14, 15, 17
Group 7 Elements = 19, 21, 23	**Group 7 Tines =** 19, 22, 23
Group 8 Elements = 20, 22, 24	**Group 8 Tines =** 20, 21, 24

7. Tighten cap screws to specification.

	Specification
Threshing Element and Separator Tine Cap Screws—Torque	90 N·m (66 lb-ft)

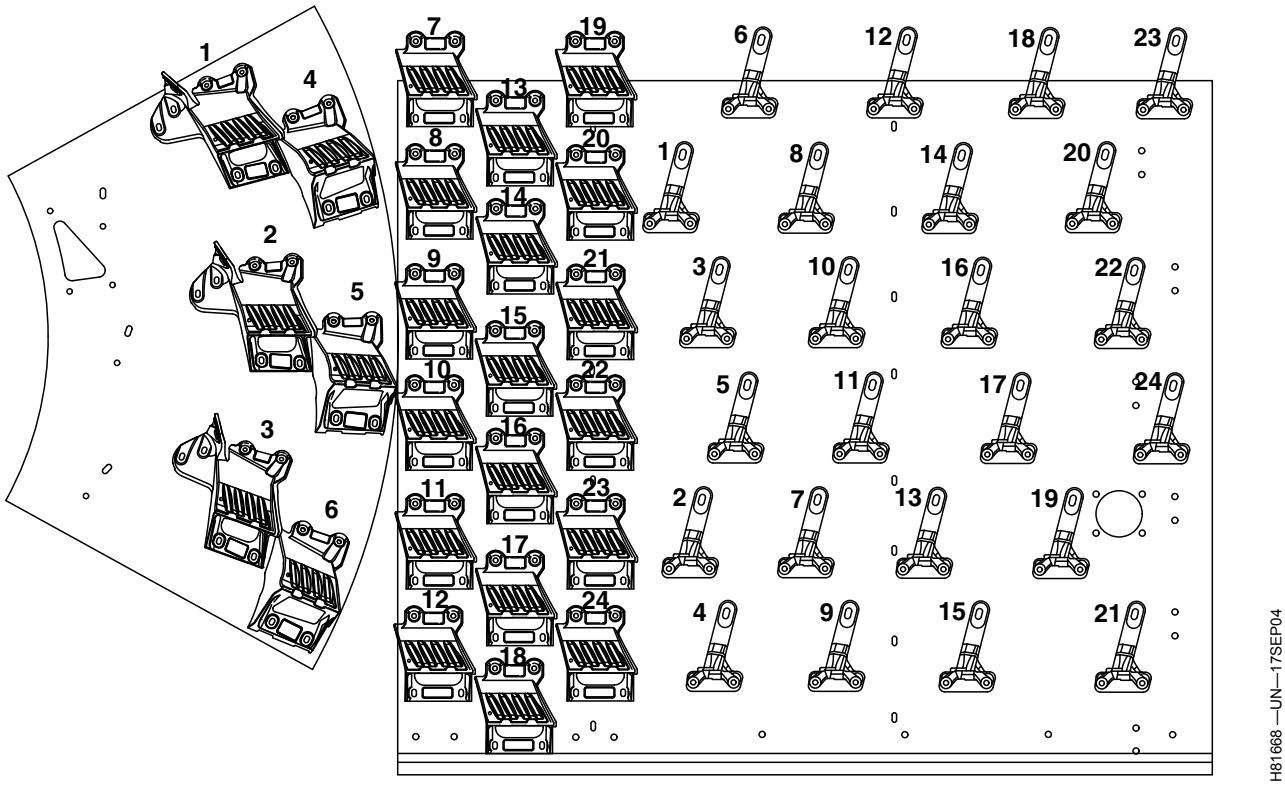
OUO6075,00009E9 -19-01JUL08-2/2

Threshing Element and Separator Tine Location (15 Element Standard Configuration)



OUO6075,00009EA -19-23APR07-1/1

Threshing Element and Separator Tine Location (24 Element Dense Pack Configuration)



NOTE: For best performance in tough material handling and tough threshing conditions operate with all 24 threshing elements installed. To reduce rotor power or improve straw quality, remove elements in groups of three (7 & 9 & 11, 13 & 15 & 17, 20 & 22 & 24 specified elements that have been removed will have an "O" stamped into the rotor) starting in the front of the rotor.

OUO6075,00009EB -19-01JUL08-1/1

Feed Accelerator—Unplugging

1. Disengage separator.
2. Shut OFF engine, set parking brake and remove key.
3. Shift separator drive gearcase to low speed.
4. Remove belt tension from feed accelerator drive by pushing lever up and out from notch in bracket.
5. Open stone trap door and clean. Leave stone trap door open.
6. Sound horn, start engine and set engine speed at mid idle.
7. Engage separator to clean out material, discharge beater and chopper.
8. Disengage separator.
9. Shut OFF engine, set parking brake and remove key.
10. Remove feed accelerator access covers and remove crop material from accelerator area. After clearing plug, rotate accelerator one revolution to be sure it is free.
11. Engage feed accelerator drive by pushing lever up and into notch in bracket.
12. Sound horn, start engine and set engine speed at mid idle.
13. Engage separator. If plug does not clear, disengage separator and repeat steps 9 — 13.
14. Shut OFF engine, set parking brake and remove key.
15. Close stone trap door and set concave spacing back to original setting. Replace feed accelerator access covers.
16. If initially operating in high speed, shift separator drive gearcase and adjust separator speed back to initial setting and resume operation.

OUO6075,0000785 -19-09AUG07-1/1

Separator—Unplugging

Disengage separator.

NOTE: Note concave setting and adjust concave to wide open position.

Shut OFF engine, set parking brake and remove key.

Shift separator drive gearcase to neutral position.

Remove belt tension from feed accelerator drive by pushing lever up and out from notch in bracket.

Open stone trap door and clean. Leave stone trap door open.

Sound horn, start engine and set engine speed at mid idle.

Engage separator to clean out material from the discharge beater.

Adjust separator variable belt to mid range.

Disengage separator.

Shut OFF engine, set parking brake and remove key.

Shift separator drive gearcase to low speed.

Sound horn, start engine and set engine speed at mid idle.

IMPORTANT: To prevent damage to engine PTO gearcase and wet clutch, do not engage separator clutch with a plugged separator more than three times in a period of three minutes.

Engage separator to clear separator. If plug does not clear, disengage separator.

If separator cannot be power unplugged, it will be necessary to remove concaves and grates and remove some straw by hand. After clearing plug, replace concaves and grates.

After separator is unplugged, close stone trap door and set concave spacing back to original setting.

Engage feed accelerator drive by pushing lever up and into notch in bracket.

If originally operating in high speed, shift separator gearcase to high speed position. Adjust separator speed back to original setting and resume operation.

OUO6075,0000786 -19-09AUG07-1/1

Discharge Beater—Unplugging

Disengage header and separator.

NOTE: Note concave setting and adjust concave to wide open position.

Shut OFF engine, set parking brake and remove key.

Raise straw chopper.

Remove covers to access discharge beater area and remove crop material from beater area.

Remove shields over discharge beater drive pulley, so pulley can be rotated by hand.

After clearing plug, rotate beater one revolution to be sure it is free.

Shift separator drive gearcase to neutral position.

Remove belt tension from feed accelerator drive by pushing lever up and out from notch in bracket.

Sound horn, start engine and set engine speed at mid idle.

Engage separator to clean out material from discharge beater and chopper.

Disengage separator.

Shut OFF engine, set parking brake and remove key.

Shift separator drive gearcase to original speed.

Engage feed accelerator drive by pushing lever up and into notch in bracket.

Install all shields previously removed.

Lower straw chopper to operating position.

Sound horn, start engine and set engine speed at mid idle.

Engage separator.

Set concave spacing back to initial setting and resume operation.

OUO6075,0000787 -19-09AUG07-1/1

Chopper (General Information)

CAUTION: Do not let anyone stand behind chopper while it is running. Shut OFF engine, set parking brake set and remove key before adjusting chopper.

Before performing service or maintenance on raised chopper, use lift actuator to snap lock-out pins into place.

Normal use wears the bottom of chopper fins to a sharp edge.

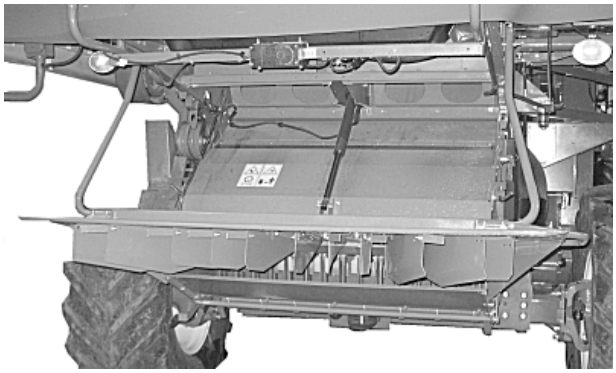
For Chopper High Speed:

- Grain

For Chopper Low Speed:

- Corn

To change chopper to high speed or low speed, see Chopper Drive Speeds Changing later in this section.



H87262 —UN—22JAN07

Start with knifebank in fully disengaged position. If better cut quality is desired, adjust knifebank to fully engaged position, see Chopper Stationary Knifebank Adjusting later in this section.

OUO6075,000096A -19-05DEC07-1/1

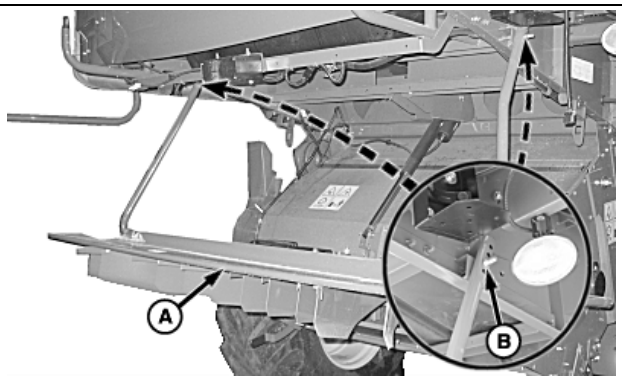
Chopper Tailboard—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Adjust chopper tailboard (A) up or down to control straw spread width.

Adjust chopper tailboard by removing cap screws (B) and adjust tailboard up or down. Attach tailboard with cap screws and tighten.

A—Tailboard **B—Cap Screws**



H87263 —UN—22JAN07

OUO6075,000096B -19-19MAR07-1/1

Chopper Vanes—Adjusting

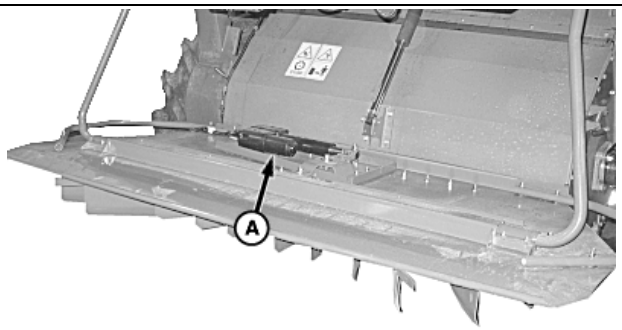
CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: If factory settings do not produce adequate spread width or even distribution, adjustments can be made to linkage components.

Chopper vanes can be individually moved by relocating bolt on adjuster linkage bar. Move vanes inward for a narrower spread pattern. Factory settings are based on a 9.1 m (30 ft.) platform.

Electrical Adjustment

Chopper vanes are adjusted centrally by means of electric motor (A).



H87264 —UN—22JAN07

A—Electric Motor

Continued on next page

OUO6075,000096C -19-26JUN08-1/3

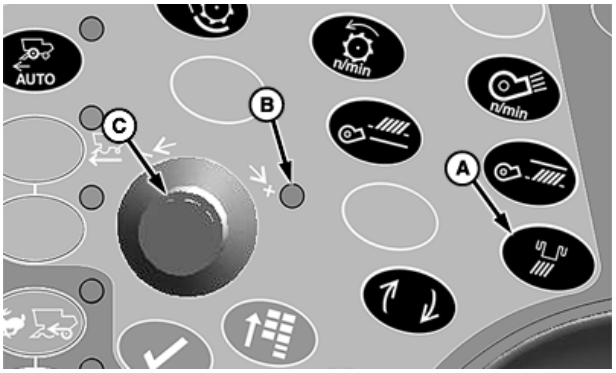
Press chopper vane angle adjust switch (A).

Indicator light (B) will come on indicating setting can be adjusted.

Turn selection dial (C) towards plus (+) symbol to move vanes right or towards minus (-) symbol to move vanes left.

CommandCenter display will show operator adjustment setting.

A—Chopper Vane Angle Adjust Switch
B—Indicator Light
C—Selection Dial



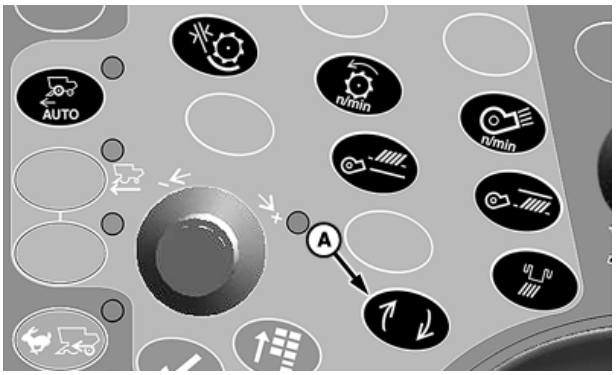
H85907 —UN—17NOV06

OUO6075,000096C -19-26JUN08-2/3

NOTE: If wind is blowing chaff or straw towards uncut crops, set chopper vanes against wind to prevent standing crop from becoming covered with material.

Once optimum setting is reached and operator has reached end row, press swap switch (A) to allow chopper vanes to automatically move to the opposite side.

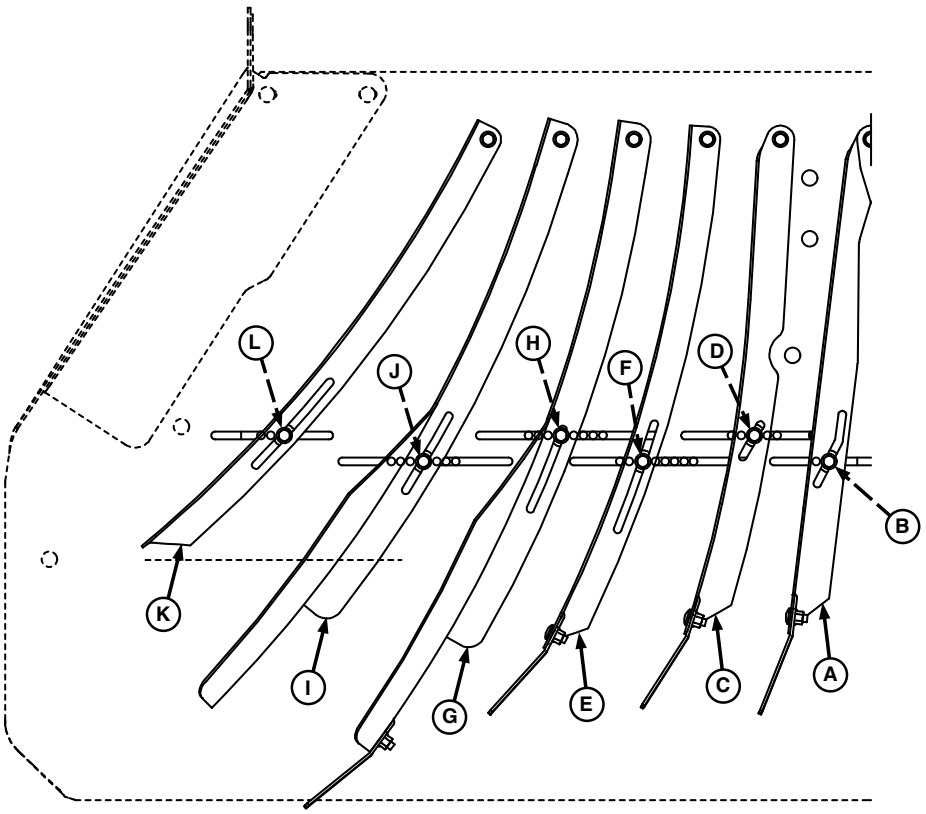
A—Swap Switch



H85908 —UN—20NOV06

OUO6075,000096C -19-26JUN08-3/3

Chopper Vanes—Factory Settings



H87748 —UN—29MAR07

Chopper Settings For 9.2 m (30 Ft.) Platforms

A—Vane 1
B—Second Hole
C—Vane 2
D—Third Hole
E—Vane 3
F—Sixth Hole
G—Vane 4
H—Fifth Hole
I— Vane 5
J— Fourth Hole
K—Vane 6
L—First Hole

NOTE: Hole locations are from center of chopper outward when installing chopper vanes.

If 7.6 m (25 ft.) spread width pattern is desired, see your John Deere dealer for further information on an optional kit.

Use same chopper vane settings on right-hand side of chopper.

OUO6075,000096D -19-26JUN08-1/1

Chopper Door Position

CAUTION: Before performing service or maintenance on raised chopper, use lift actuator to snap lock-out pins into place. Shut OFF engine, set parking brake and remove key.

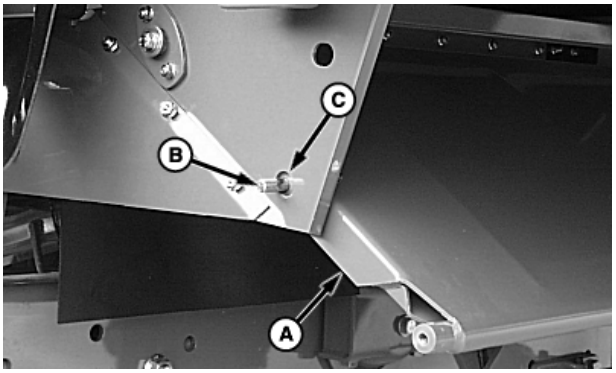
Deflector door (A) must be installed in middle position for chopping. Put spring loaded pins (B) in holes (C) on both sides of chopper to hold door in position. This position is acceptable for windrowing.

Deflector door can be raised for access to tow hook. Put spring loaded pins in holes (D) on both sides of chopper to hold door in position.

IMPORTANT: Do not harvest crop with door in raised position. Door will prevent crop material from exiting machine.

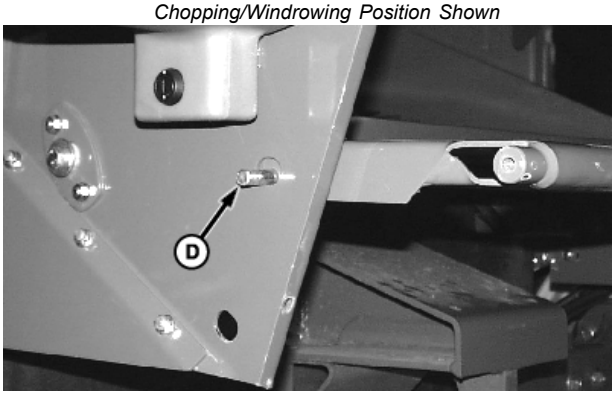
Deflector door can also be lowered past middle position for access to cleaning shoe. Lowering door will also provide more exit room for straw when windrowing in heavy straw conditions.

A—Deflector Door
B—Spring Loaded Pins
C—Holes
D—Holes



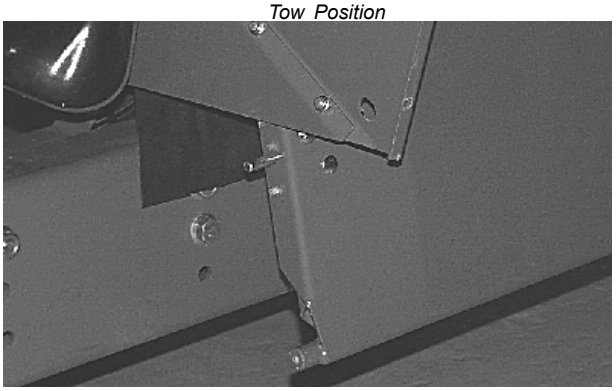
H71687 —UN—18APR02

Chopping/Windrowing Position Shown



H71795 —UN—24APR02

Tow Position



H72010 —UN—30APR02

Service/Heavy Straw Windrow Position Shown

OUO6075,000078F -19-19MAR07-1/1

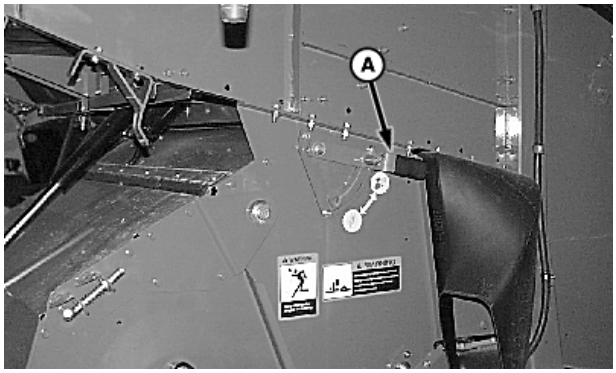
Crop Diverter

IMPORTANT: To prevent personal injury or machine damage do not move crop diverter handle when machine is running.

Corn Position

When harvesting corn or sunflowers, crop diverter handle (A) should be in “UPPER” position. The crop diverter protects the cleaning shoe from damage by preventing material from being thrown forward.

A—Crop Diverter Handle (Corn Position)



H80259 —UN—09FEB04

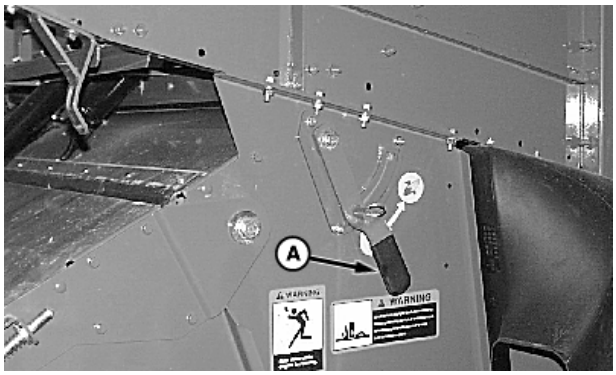
OUO6075,0000790 -19-19MAR07-1/2

Crop Diverter — Small Grain Position

IMPORTANT: To prevent personal injury or machine damage do not move crop diverter handle when machine is running.

When harvesting small grains, crop diverter handle (A) should be in “LOWER” position. When servicing cleaning shoe, crop diverter handle can be placed in this position to allow better access.

A—Crop Diverter Handle (Small Grain Position)



H80260 —UN—09FEB04

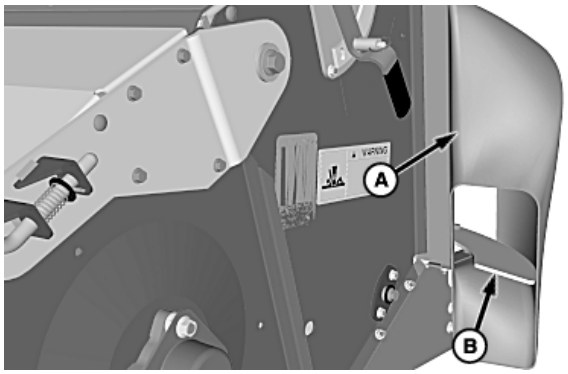
OUO6075,0000790 -19-19MAR07-2/2

Air Chutes

Air chute (A) allows the shoe to breath more freely especially when the chopper is running on low speed. Depending upon harvesting conditions, grain tank quality may be enhanced and feeder house dust reduced.

Air chute agitator (B) prevents crop material from building up and plugging the air chute.

A—Air Chute **B—Air Chute Agitator**



H82427 —UN—10FEB05

OUO6075,0000791 -19-19MAR07-1/1

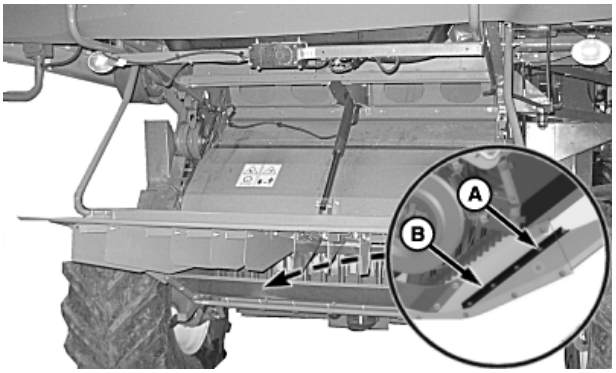
Chopper Controller Bar

IMPORTANT: When harvesting corn, controller bar must be removed and placed in storage position. Failure to remove controller bar can result in chaffer element damage.

Controller bar improves cut quality, distribution and spread width. Controller bar can be removed, which will result in lower power required by the chopper.

Remove cap screws and lock nuts (A) from controller bar (B).

A—Cap Screws and Lock Nuts **B—Controller Bar**

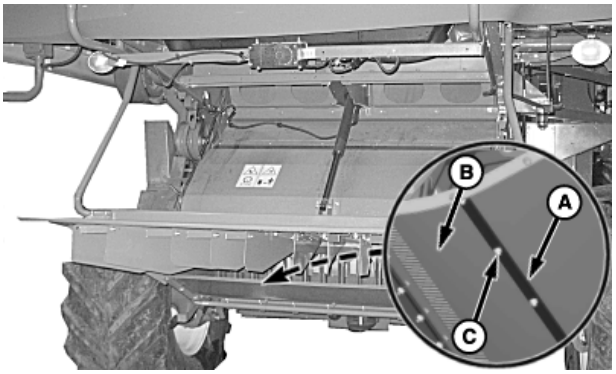


H87265 —UN—22JAN07

OUO6075,0000795 -19-04APR07-1/2

Align controller bar (A) on bottom of chopper floor (B). Retain controller bar with previously removed cap screws and locks nuts (C).

A—Controller Bar
B—Bottom Of Chopper Floor
C—Cap Screws and Lock Nuts



H87266 —UN—22JAN07

OUO6075,0000795 -19-04APR07-2/2

Chopper Stationary Knifebank—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key. Before performing service or maintenance on raised chopper, use lift actuator to snap lock-out pins into place.

Knives can be adjusted to any position. Position of knives determines cut length of material.

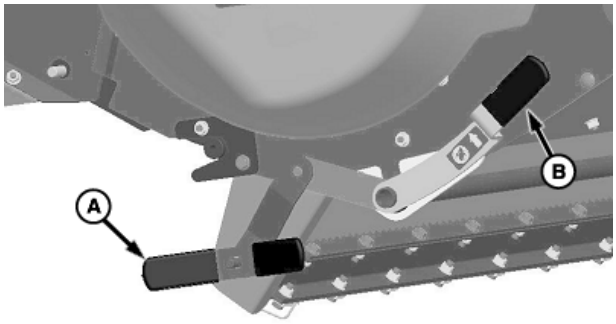
IMPORTANT: Knifebank must be in fully disengaged position for corn.

To fully disengage knifebank, loosen wing nut (A) by rotating counterclockwise and move adjustment handle (B) upward until knifebank is at the bottom of the adjustment slot. Tighten wing nut by rotating clockwise.

To fully engage knifebank, loosen wing nut (A) by rotating counterclockwise and move adjustment handle (B) downward until knifebank is at the top of the adjustment slot. Tighten wing nut by rotating clockwise.

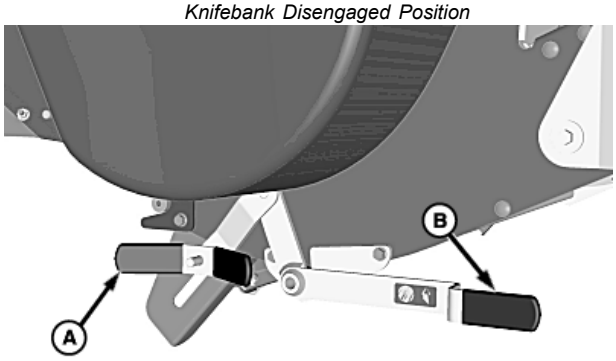
NOTE: Chopper can be run with knives disengaged. however, cut quality will decrease.

Use intermediate position to optimize power consumption and achieve satisfactory cut length.



H86569 —UN—12SEP06

Knifebank Disengaged Position



H82429 —UN—10FEB05

Knifebank Engaged Position

A—Wing Nut **B—Handle**

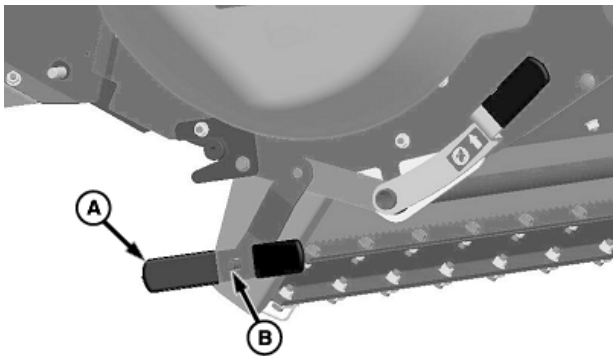
OUO6075,0000796 -19-19MAR07-1/1

Chopper Stationary Knife Blades—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key. Before performing service or maintenance on raised chopper, use lift actuator to snap lock-out pins into place.

Knife blades are sharp.

1. Loosen wing nut (A) and position knifebank to the fully disengaged position.
2. While supporting knifebank, remove tension rod (B) by pushing out the right side of the machine. Retain bushing at outer ends of knifebank for later assembly.



H86570 —UN—12SEP06

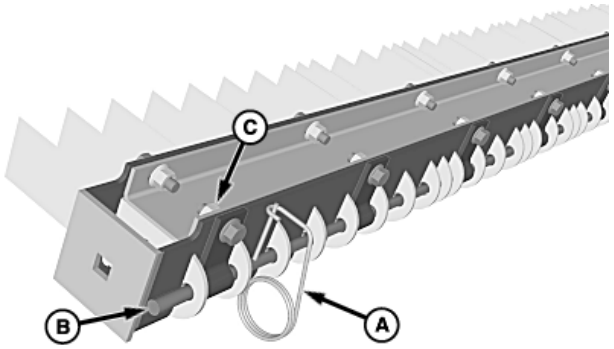
A—Wing Nut **B—Tension Rod**

Continued on next page

OUO6075,0000797 -19-16JUL07-1/3

3. Remove pin (A) from retaining rod (B).
4. Loosen lock nuts (C) on clips holding retaining rod.
5. Slide retaining rod until it clears the knives that are being replaced.
6. Reverse knives for additional usage, or replace knives if worn on both sides.
7. Reposition retaining rod, install pin and tighten lock nuts.

A—Pin
B—Retaining Rod
C—Lock Nuts



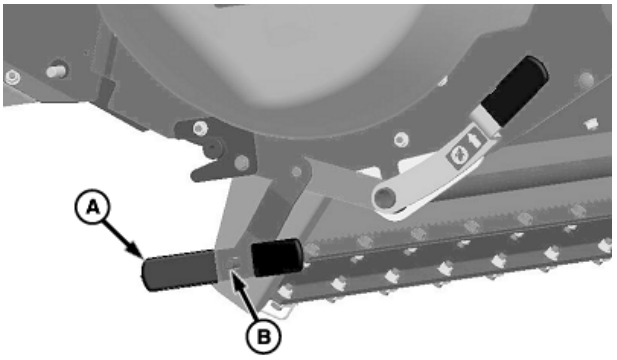
H82430 —UN—14FEB05

OUO6075,0000797 -19-16JUL07-2/3

8. Position knifebank to chopper and install tension rod (B) from right side of machine making sure to reposition bushing previously removed.
9. Install wing nut (A) to tension rod. Adjust knifebank to desired position and tighten wing nut.

IMPORTANT: Knifebank must be in the fully disengaged position for corn.

A—Wing Nut
B—Tension Rod



H86570 —UN—12SEP06

OUO6075,0000797 -19-16JUL07-3/3

Chopper Blades—Replacing and Configuration

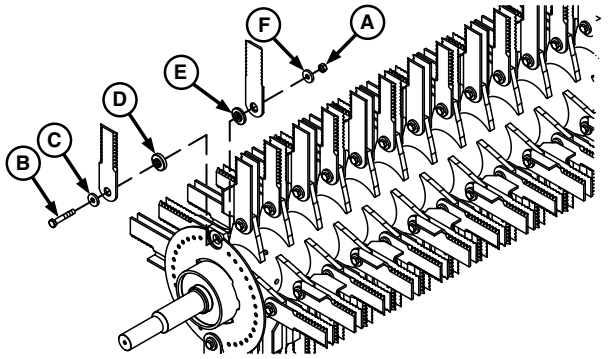
CAUTION: Shut OFF engine, set parking brake and remove key. Before performing service or maintenance on raised chopper, use lift actuator to snap lock-out pins into place.

NOTE: Rotor shown illustrates blade replacement examples for both paddle and straight blades. Always maintain original factory provided blade pattern.

Outer Most Blade Removal:

NOTE: If removing blades or bushings for inspection purposes, be certain to reinstall blades on SAME support from which they were removed. This must be done to maintain balance. It is a good practice to individually mark each blade before removal.

Remove lock nut (A), cap screw (B), washer (C), and bushings (D), (E), (F).



H81774 —UN—05OCT04

A—Lock Nut
B—Cap Screw
C—Washer
D—Bushing
E—Bushing
F—Bushing

Inspect and if needed replace blade bushings (D), (E), and (F) while replacing blades. See your John Deere dealer for replacement parts.

Continued on next page

OUO6075,000096E -19-08AUG07-1/5

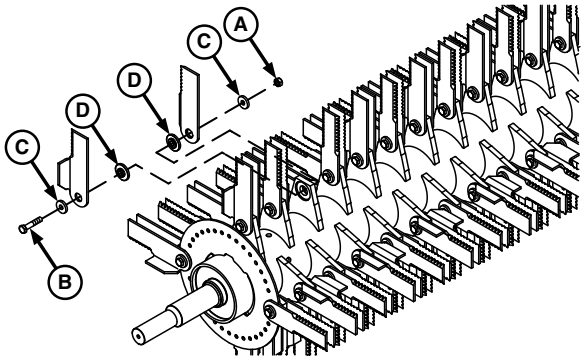
Inner Blade Removal:

NOTE: If removing blades or bushings for inspection purposes, be certain to reinstall blades on SAME support from which they were removed. This must be done to maintain balance. It is a good practice to individually mark each blade before removal.

Remove lock nut (A), cap screw (B), bushings (C) and (D).

Inspect and if needed replace blade bushings (C) and (D) while replacing blades. See your John Deere dealer for replacement parts.

A—Lock Nut
B—Cap Screw
C—Bushings
D—Bushings



H81775 —UN—05OCT04

OUO6075,000096E -19-08AUG07-2/5

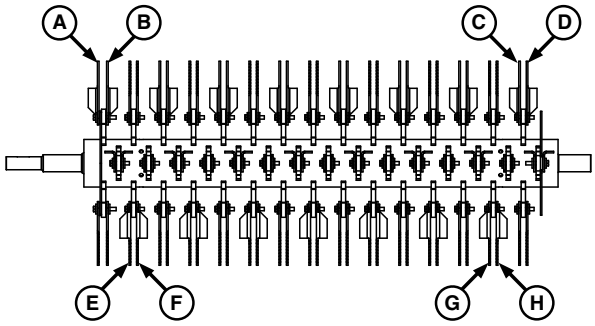
Blade Configuration:

IMPORTANT: Chopper balance MUST be maintained. Replace BOTH blades on single support and BOTH blades on opposite support (180 degrees). Also replace four blades at opposite end of rotor, at same axial distance from balance ring. Eight blades MUST be installed to replace one broken blade, or all blades can be replaced at one time. This MUST be done to maintain balance.

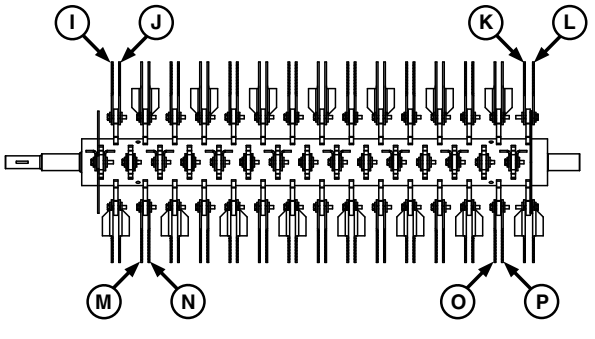
If paddle blade (A) is broken, replace blades (A—H).

If straight blade (I) is broken, replace blades (I—P).

A—H— Paddle Blades
I—P— Straight Blades



H78905 —UN—10NOV03



H78904 —UN—10NOV03

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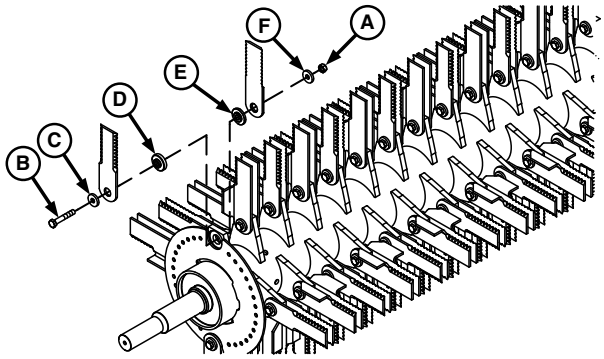
OUO6075,000096E -19-08AUG07-3/5

Outer Most Blade Installation:

Replace blade and install cap screw (B), washer (C), bushings (D), (E), (F), and lock nut (A). Tighten nuts to specification.

Specification	
Chopper Blade Lock Nuts—Torque	60 N·m (44 lb-ft)

A—Lock Nut
B—Cap Screw
C—Washer
D—Bushing
E—Bushing
F—Bushing



H81774 —UN—05OCT04

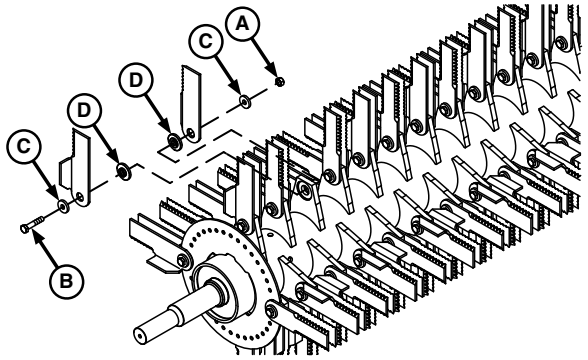
OUO6075,000096E -19-08AUG07-4/5

Inner Blade Installation:

Replace blade and install cap screw (B), bushings (C), (D), and lock nut (A). Tighten nuts to specification.

Specification	
Chopper Blade Lock Nuts—Torque	60 N·m (44 lb-ft)

A—Lock Nut
B—Cap Screw
C—Bushings
D—Bushings



H81775 —UN—05OCT04

OUO6075,000096E -19-08AUG07-5/5

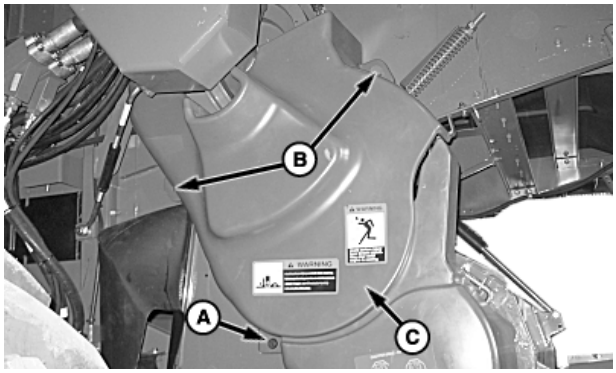
Chopper Blades—Centering

CAUTION: Shut OFF engine, set parking brake and remove key. Before performing service or maintenance on raised chopper, use lift actuator to snap lock-out pins into place.

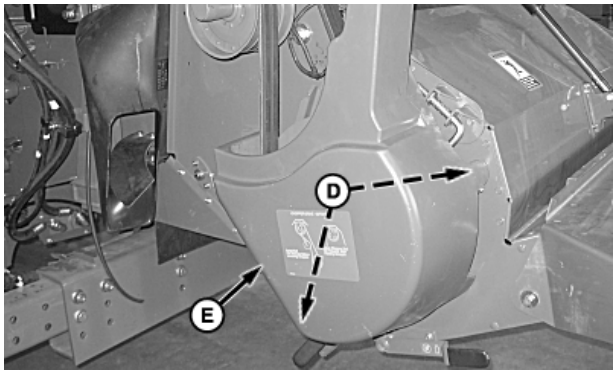
Release latch (A) and lift shield (B) over pins (C).

Remove quick-lock pins (D) from shield (E) and remove.

A—Latch
B—Shield
C—Pins
D—Quick-Lock Pins
E—Shield



H86549 —UN—08SEP06



H86550 —UN—08SEP06

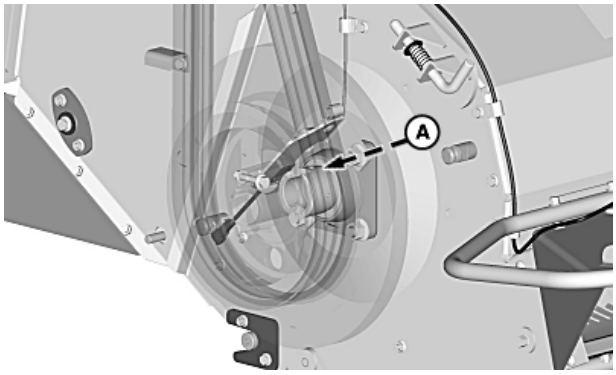
OUO6075,0000970 -19-16JUL07-1/4

Loosen left-hand side set screw on locking collar (A) and loosen locking collar.

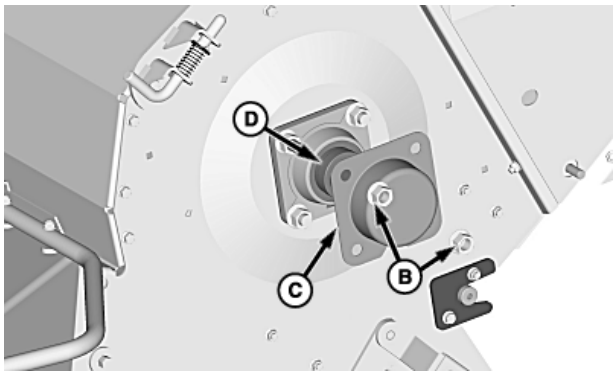
Remove and retain nuts (B) and bearing shield (C).

Loosen right-hand side set screw on locking collar (D) and loosen locking collar.

A—Locking Collar (Left-Hand Side)
B—Nuts
C—Bearing Shield
D—Lock Collar (Right-Hand Side)



H87267 —UN—22JAN07



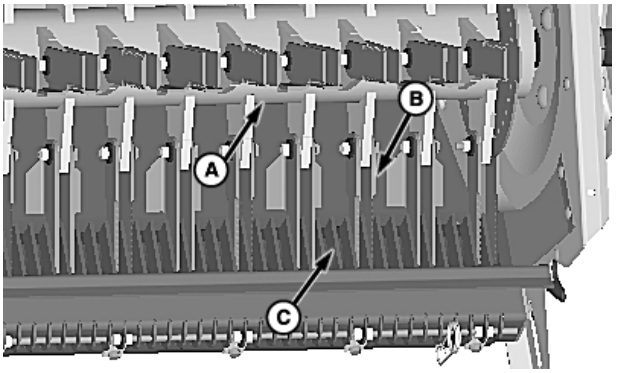
H87268 —UN—22JAN07

Continued on next page

OUO6075,0000970 -19-16JUL07-2/4

Position chopper rotor (A) to right or left to ensure all rotor blades (B) clear stationary knives (C).

A—Chopper Rotor
B—Rotor Blades
C—Stationary Knives



H78908 —UN—07NOV03

OUO6075,0000970 -19-16JUL07-3/4

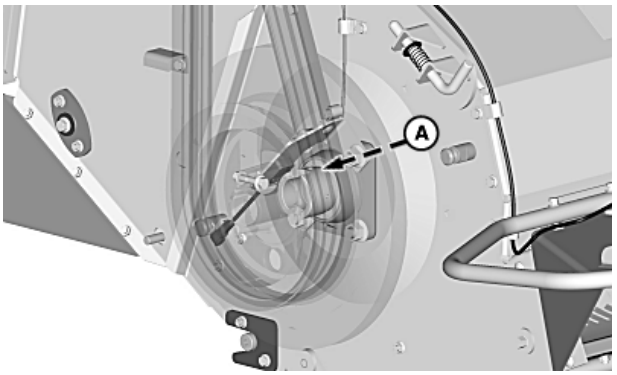
Tighten locking collars (A and D) on both sides in direction of rotation.

Tighten locking collar set screws.

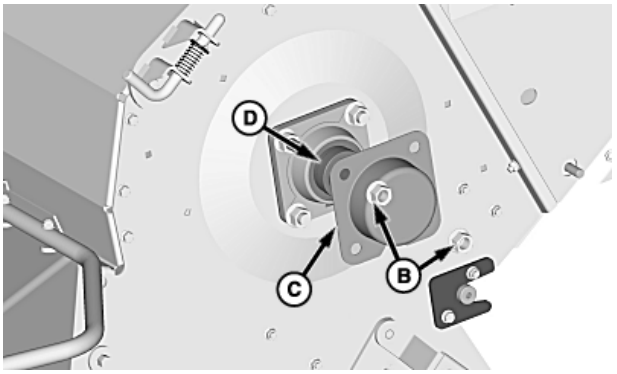
Install bearing shield (C) on right-hand side and retain with nuts (B).

Install chopper shields on left-hand side.

A—Locking Collar (Left-Hand Side)
B—Nuts
C—Bearing Shield
D—Lock Collar (Right-Hand Side)



H87267 —UN—22JAN07



H87268 —UN—22JAN07

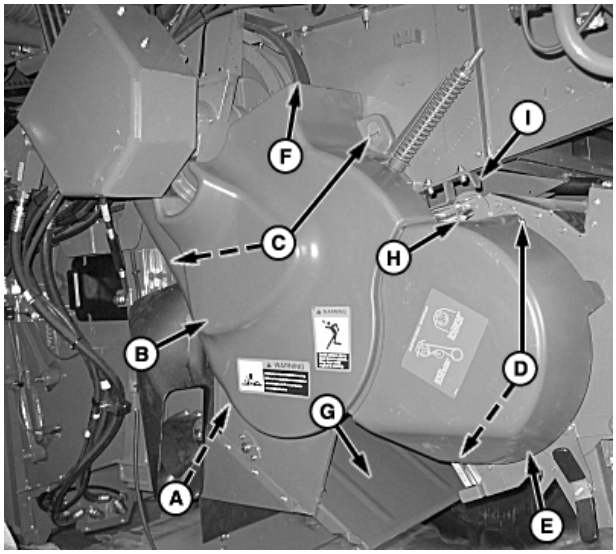
OUO6075,0000970 -19-16JUL07-4/4

Chopper—Lowering

CAUTION: Shut OFF engine, set parking brake and remove key.

1. Release latch (A) and lift shield (B) over pins (C).
2. Remove quick-lock pins (D) from shield (E) and remove.
3. Remove chopper drive belt (F) from storage position and place on desired speed sheaves.
4. Move deflector door (G) to middle position as shown.
5. Pull lock-out pins (H) rearward and rotate up until handle rests on bracket (I).

A—Latch
B—Shield
C—Pins
D—Quick-Lock Pins
E—Shield
F—Chopper Drive Belt
G—Deflector Door
H—Lock-Out Pin
I— Bracket



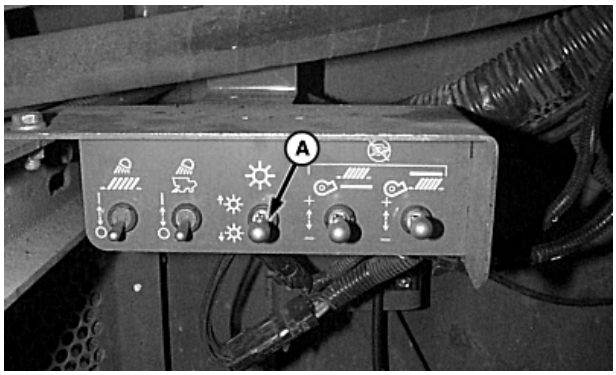
H87269 —UN—22JAN07

OUO6075,0000884 -19-23APR07-1/2

IMPORTANT: When lowering chopper, verify belt aligns with proper sheaves.

6. Lower chopper fully with switch (A) and verify belt aligns with sheaves.
7. Install previously removed chopper shields.

A—Switch



H69985 —UN—13SEP01

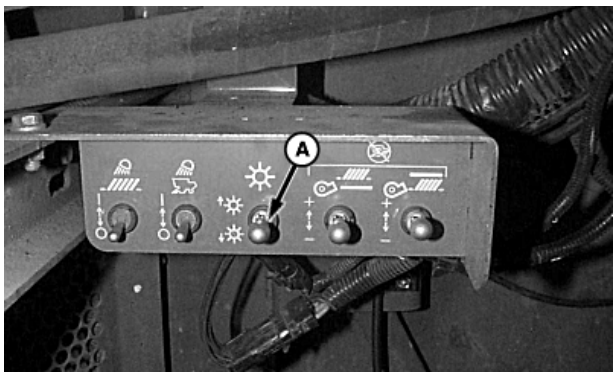
OUO6075,0000884 -19-23APR07-2/2

Chopper to Windrow/Servicing Position

CAUTION: Shut OFF engine, set parking brake and remove key.

Raise chopper assembly fully with switch (A) until lock-out pins snap into place.

A—Switch



H69985 —UN—13SEP01

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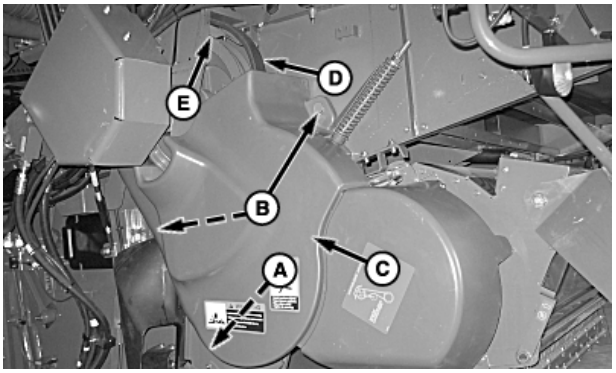
OUO6075,000088B -19-23APR07-1/2

Release latch (A) and lift shield (B) over pins (C).

Move chopper drive belt (D) on top of belt guard (E), so belt does not turn while chopper is in windrow position.

A—Latch
B—Shield
C—Pins
D—Chopper Drive Belt
E—Belt Guard



H87270 —UN—22JAN07

OUO6075,000088B -19-23APR07-2/2

Chopper Drive Speeds—Changing

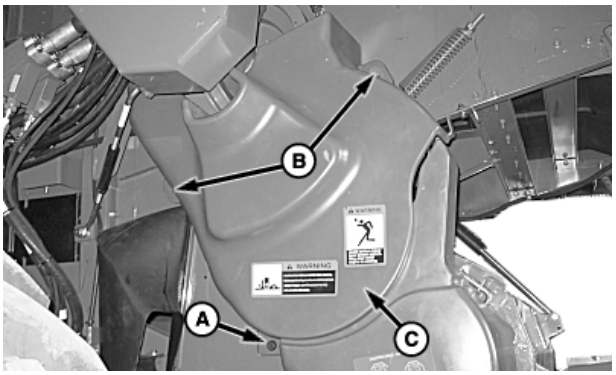
CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: Machine is shipped from factory with a three strand belt, which is set for high chopping speed. If slow chopping speed is desired, order a one strand belt from your John Deere dealer.

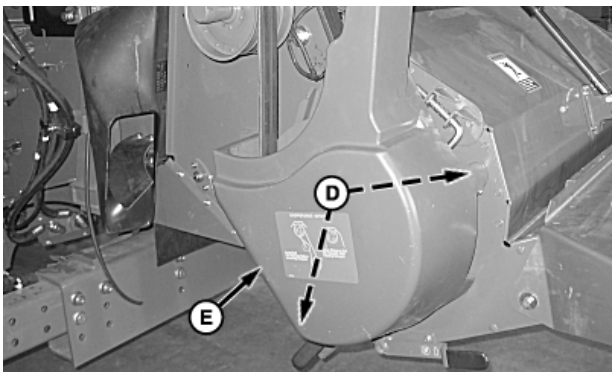
Release latch (A) and lift shield (B) over pins (C).

Remove quick-lock pins (D) from shield (E) and remove.

A—Latch
B—Shield
C—Pins
D—Quick-Lock Pins
E—Shield



H86549 —UN—08SEP06



H86550 —UN—08SEP06

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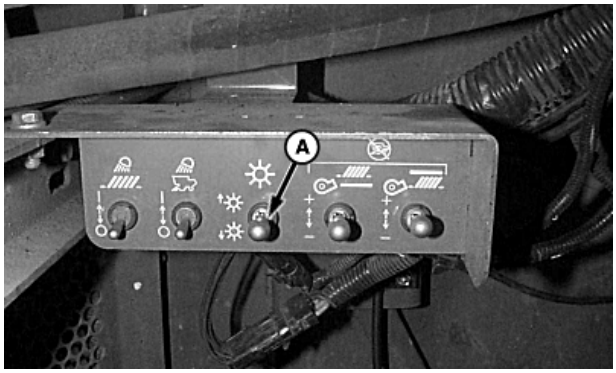
OUO6075,0000971 -19-31AUG07-1/3

Raise chopper assembly fully with switch (A) until lock-out pins snap into place.

A—Switch



H69985 —UN—13SEP01

OUO6075,0000971 -19-31AUG07-2/3

For High Speed (3200 rpm):

NOTE: Install three strand belt on outside sheave grooves for high speed.

Install belt on outside sheave grooves (A), idlers (B) and outside sheave grooves (C).

- Grain

For Low Speed (1600 rpm):

NOTE: Install one strand belt on inside sheave grooves for slow speed.

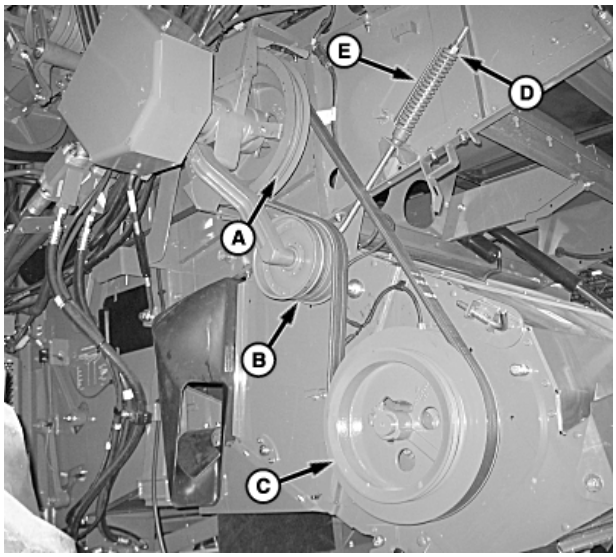
Install belt on inside sheave grooves (A), idlers (B), and inside sheave grooves (C).

- Corn

Pull lock-out pins rearward and rotate up until handles rest on bracket.

Lower chopper and verify belt aligns with sheaves.

Install chopper shields and verify washer (D) is positioned between end of gauge (E) and bottom of step. Adjust as required.



H86552 —UN—08SEP06

A—Sheave
B—Idlers
C—Sheave
D—Washer
E—Gauge

OUO6075,0000971 -19-31AUG07-3/3

Chopper Drive Belt Tension—Adjusting

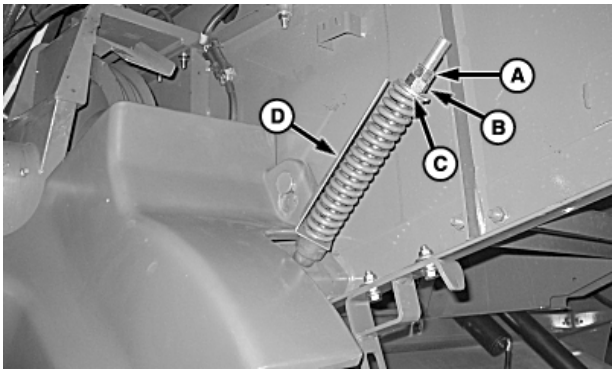
CAUTION: Shut OFF engine, set parking brake and remove key.

Chopper belt idler tension is located on left-hand side above chopper.

Spring tensioning assembly must be in drive engaged position to adjust.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.



H86553 —UN—08SEP06

A—Lock Nut
B—Nut
C—Washer
D—Gauge

OUO6075,000088D -19-23APR07-1/1

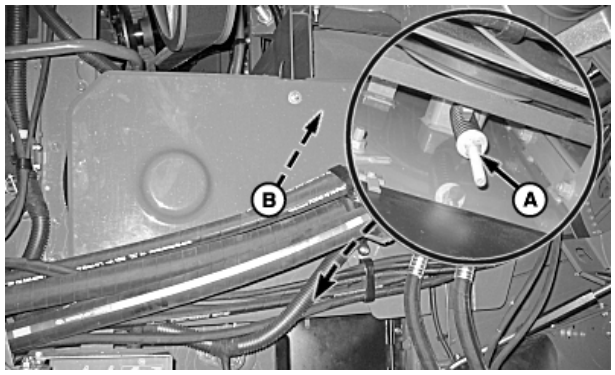
Chopper Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nuts (A) to relieve tension on discharge beater drive belt (B).

Remove discharge beater belt from chopper jackshaft to remove chopper belt.

A—Lock Nuts
B—Discharge Beater Belt



H86554 —UN—08SEP06

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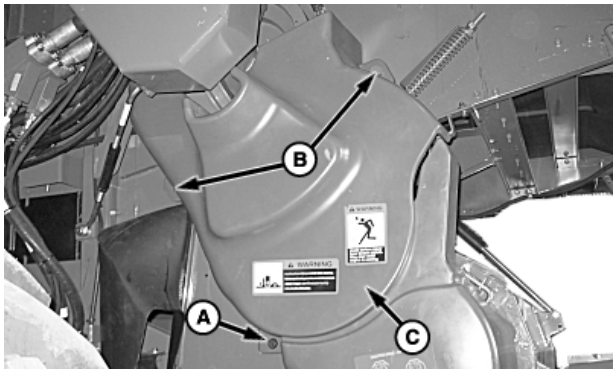
OUO6075,000088F -19-23APR07-1/5

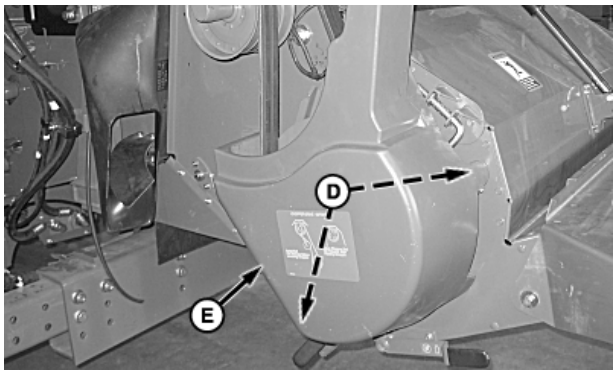
Release latch (A) and lift shield (B) over pins (C).

Remove quick-lock pins (D) from shield (E) and remove.

A—Latch
B—Shield
C—Pins
D—Quick-Lock Pins
E—Shield



H86549 —UN—08SEP06

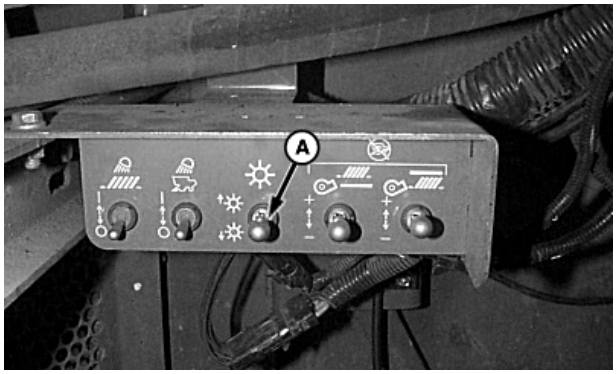


H86550 —UN—08SEP06

OUO6075,000088F -19-23APR07-2/5

Raise chopper assembly fully with switch (A) until lock-out pins snap into place.

A—Switch



H69985 —UN—13SEP01

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OUO6075,000088F -19-23APR07-3/5

Remove belt from sheave (A), idlers (B) and sheave (C).

Install replacement belt on desired speed sheaves.

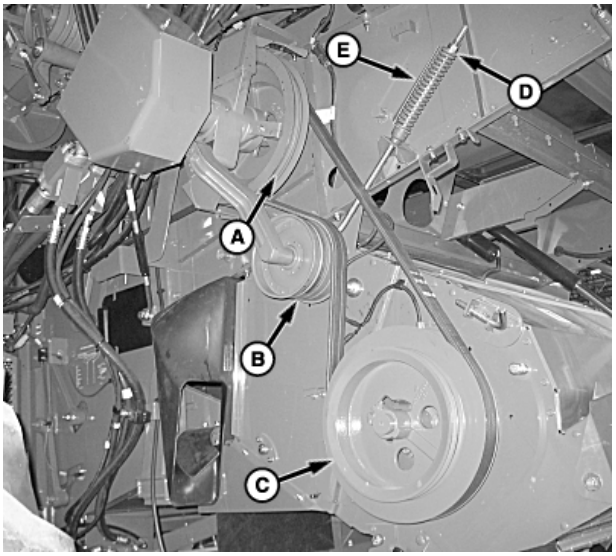
IMPORTANT: When lowering chopper, verify belt aligns with proper sheaves.

Pull lock-out pins rearward and rotate up until handles rest on bracket.

Lower chopper fully with switch and verify belt aligns with sheaves.

Verify washer (D) is positioned between end of gauge (E) and bottom of step. Adjust as required.

A—Sheave
B—Idlers
C—Sheave
D—Washer
E—Gauge



H86552 —UN—08SEP06

OUO6075,000088F -19-23APR07-4/5

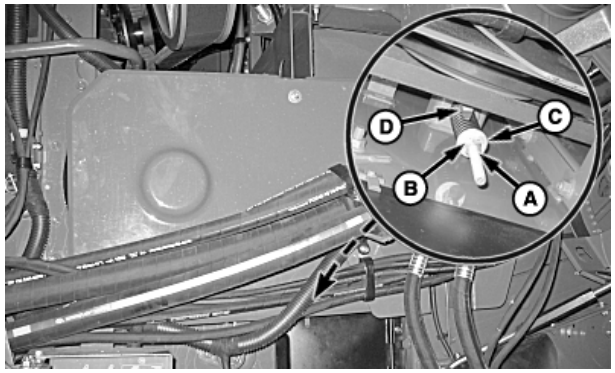
Install discharge beater belt on chopper jackshaft.

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step.

Tighten lock nut (A).

Install previously removed chopper shields.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H86547 —UN—08SEP06

OUO6075,000088F -19-23APR07-5/5

Chopper Jackshaft Belt—Adjusting

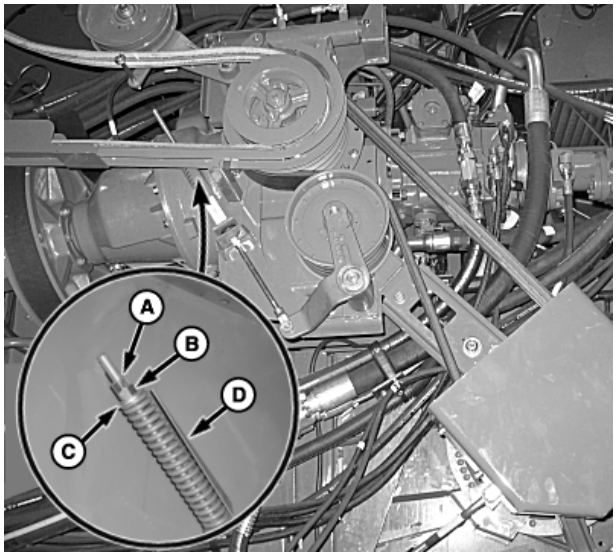
CAUTION: Shut OFF engine, set parking brake and remove key.

Chopper jackshaft belt is located on left-hand side above chopper.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H86565 —UN—12SEP06

OUO6075,0000890 -19-23APR07-1/1

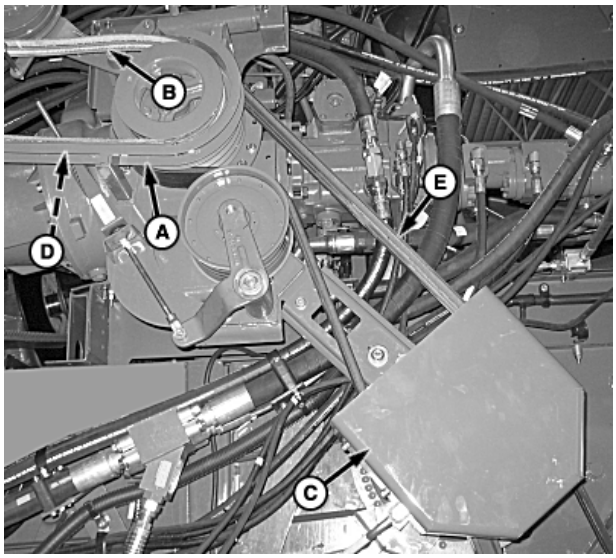
Chopper Jackshaft Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Remove belt trap (A), unloading auger drive belt (B) and shield (C).

Loosen lock nuts (D) to relieve tension on chopper jackshaft belt (E).

A—Belt Trap
B—Unloading Auger Drive Belt
C—Shield
D—Lock Nuts
E—Chopper Jackshaft Belt



H86566 —UN—12SEP06

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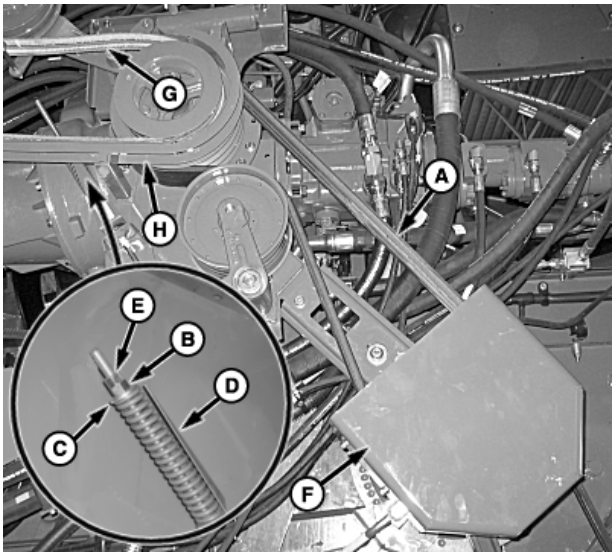
OUO6075,0000891 -19-23APR07-1/2

Install replacement chopper jackshaft belt (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut (E).

Install shield (F), unloading auger drive belt (G) and belt trap (H).

A—Chopper Jackshaft Belt
B—Nut
C—Washer
D—Gauge
E—Lock Nut
F—Shield
G—Unloading Auger Drive Belt
H—Belt Trap



H86567 —UN—12SEP06

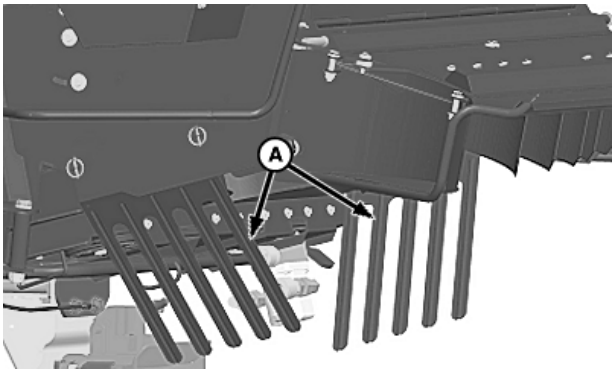
OUO6075,0000891 -19-23APR07-2/2

Windrow Convergence Panels (Optional)

NOTE: When transporting header trailer, remove and store windrow convergence panels between left-hand side shields and wheel chocks.

Convergence panels (A) are used to divert cut straw material into a narrower windrow.

A—Convergence Panels



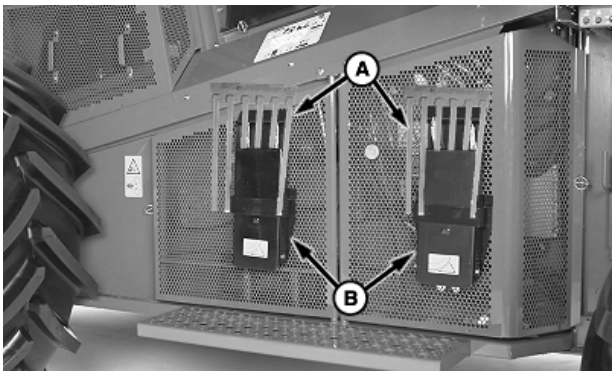
H85212 —UN—11JAN06

OUO6075,0000A6A -19-19MAR07-1/1

Windrow Convergence Panel (Storage Location)

Place windrow convergence panels (A) between left-hand side shields and wheel chocks (B) when not in use.

A—Convergence Panels
B—Wheel Chocks



H81942 —UN—02NOV04

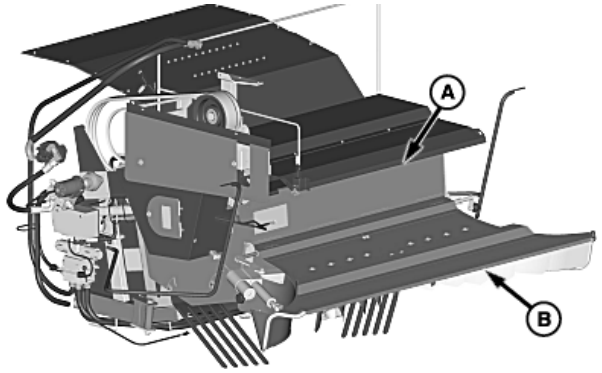
OUO6075,0000969 -19-19MAR07-1/1

Premium Chopper and Chaff Spreader (General information)

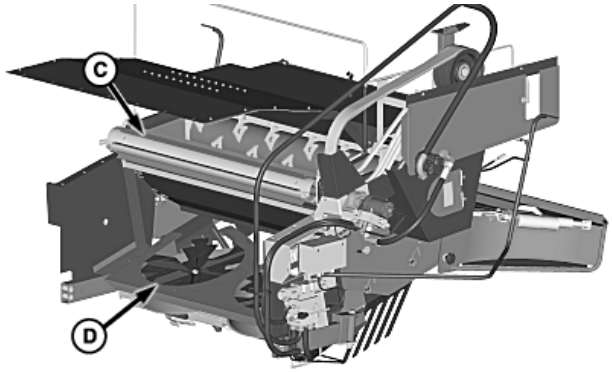
The premium chopper cuts the straw discharged from the separator when configured to the chopping position. The chopping position is when the chopper is moved fully forward and the clutch is engaged. The premium chopper can also be configured to drop the straw discharged from the separator into a windrow behind the machine. The drop straw position is when the chopper is moved fully rearward and the clutch is disengaged.

The chaff spreader distributes the chaff from the cleaning shoe to the width of the header. The chaff spreader position is when the chopper is moved fully rearward and the clutch is disengaged. When configured to the chop straw position, the chaff spreader provides a boost of air to the tailboard which helps spread the chaff and straw to the width of the header.

A—Chopper
B—Tailboard
C—Feed Roller
D—Chaff Spreader



H86645 —UN—26SEP06



H86646 —UN—26SEP06

OUO6075,0000956 -19-19MAR07-1/1

Tailboard Vanes—Adjusting

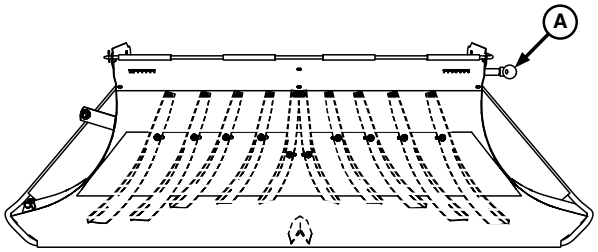
CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: Tailboard is set from the factory for an even spread pattern. Adjustments are made with crank and by moving vanes individually at front and rear positions.

Chopper vanes can be adjusted for minimum and maximum spread width using crank (A).

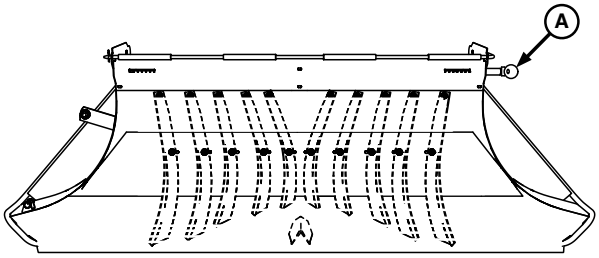
Use indicator (B) as a reference when adjusting vanes.

A—Crank **B—Indicator**



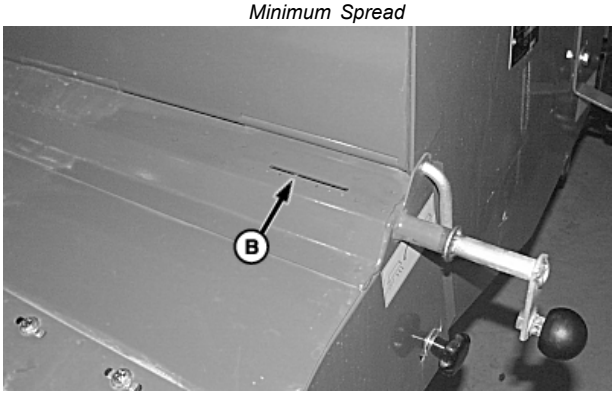
H84374 —UN—09SEP05

Maximum Spread



H84375 —UN—09SEP05

Minimum Spread



H84242 —UN—17AUG05

OUO6075,0000957 -19-26JUN08-1/4

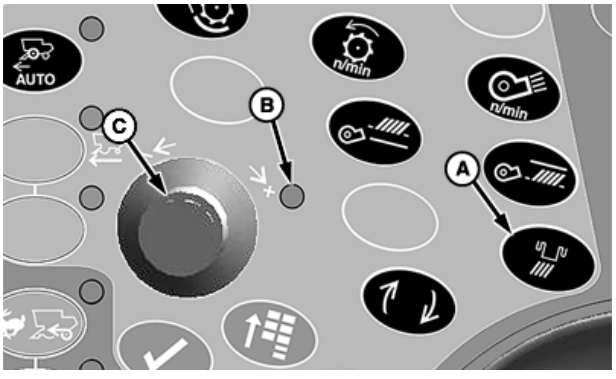
Press chopper vane angle adjust switch (A).

Indicator light (B) will come on indicating setting can be adjusted.

Turn selection dial (C) towards plus (+) symbol to move vanes right or towards minus (-) symbol to move vanes left.

CommandCenter display will show operator adjustment setting.

A—Chopper Vane Angle Adjust Switch **C—Selection Dial**
B—Indicator Light



H85907 —UN—17NOV06

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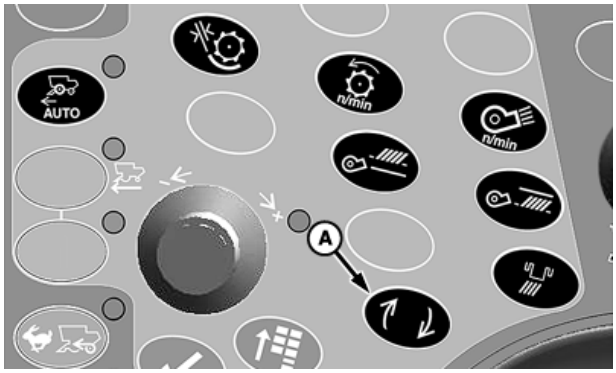
OUO6075,0000957 -19-26JUN08-2/4

NOTE: If wind is blowing chaff or straw towards uncut crops, set chopper vanes against wind to prevent standing crop from becoming covered with material.

Once optimum setting is reached and operator has reached end row, press swap switch (A) to allow chopper vanes to automatically move to the opposite side.

A—Swap Switch



H85908 —UN—20NOV06

OUO6075,0000957 -19-26JUN08-3/4

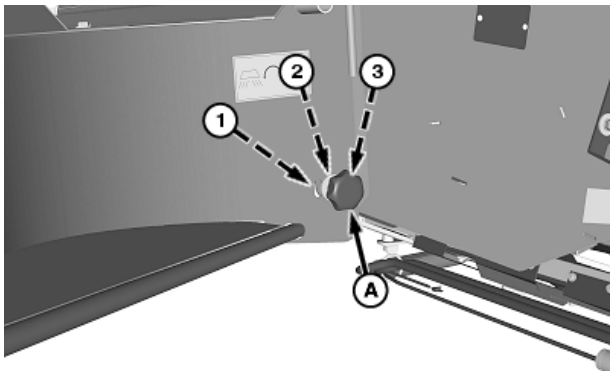
Remove knob (A) on both sides of chopper tailboard.

NOTE: Adjusting chopper tailboard up or down allows cut material to spread over a large area or narrow area.

Raise or lower chopper tailboard to desired position and install knob on both sides.

NOTE: Normal position for spreading cut material is position 2. Positions are changed by raising or lowering chopper tailboard.

- Position 1 — raises chopper tailboard. Cut material spreads over a wide area.
- Position 2 — middle position. Cut material spreads over a moderate area.
- Position 3 — lowers chopper tailboard. Cut material spreads over a narrow area.



H83838 —UN—24JUN05

A—Knob
1—Wide Position
2—Middle Position
3—Narrow Position

OUO6075,0000957 -19-26JUN08-4/4

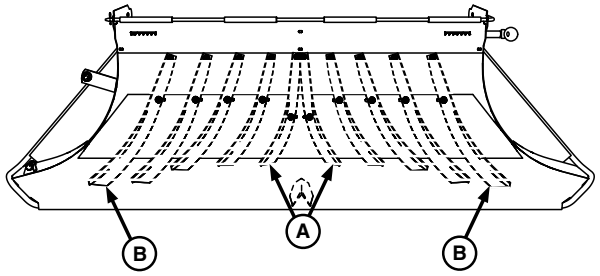
Chopper Vanes For Different Header Widths—Changing

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: This procedure shows what is needed when changing from a 9.1 m (30 ft.) header to a 7.6 m (25 ft.) header.

If spread width is too wide and/or spread pattern is uneven, replace four chopper vanes on tailboard. These four additional chopper vanes will need to be ordered from your see your John Deere dealer.

Remove inside chopper vanes (A) and outside chopper vanes (B).



H84377 —UN—09SEP05

A—Inside Vanes
B—Outside Vanes

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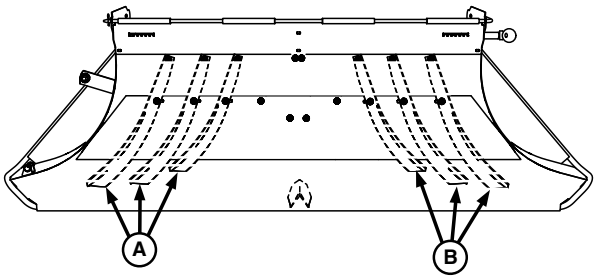
OUO6075,0000958 -19-19MAR07-1/4

Move left-hand chopper vanes (A) and right-hand chopper vanes (B) outward one hole.

A—Left-Hand Chopper Vanes **B—Right-Hand Chopper Vanes**

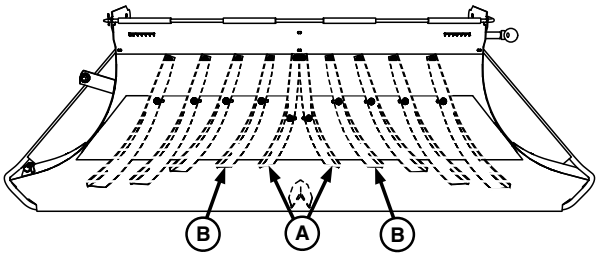


H84378 —UN—09SEP05

OUO6075,0000958 -19-19MAR07-2/4

Install inner vanes (A) and outer vanes (B) from kit (see your John Deere dealer).

A—Inner Vanes **B—Outer Vanes**

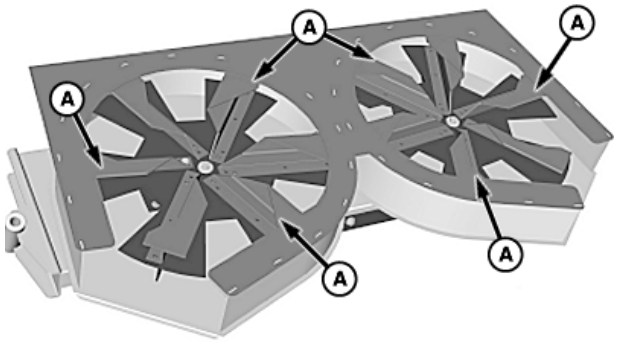


H84379 —UN—09SEP05

OUO6075,0000958 -19-19MAR07-3/4

Remove every other spreader vanes (A) as shown.

A—Spreader Vanes



H83842 —UN—24JUN05

OUO6075,0000958 -19-19MAR07-4/4

Chopper Stationary Knifebank Blades—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

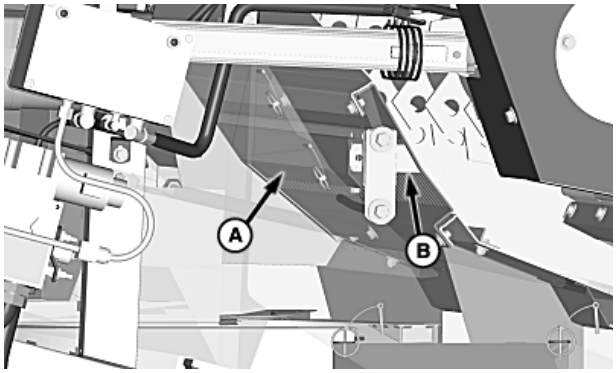
Chopper blades are sharp.

NOTE: Worn blades increase power consumption and chopper quality is reduced.

Remove locking plate (A).

Remove and replace blades on counter blade bar (B).

Install locking plate.



H84844 —UN—02NOV05

Viewed Through Left Side of Chopper

A—Locking Plate **B—Counter Blade Bar**

OUO6075,0000959 -19-16JUL07-1/1

Chopper Quality—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

The chopper can chop many different types of crops. Knifebank and controller bar (A) should be adjusted depending on crop and chopping requirements.

Adjustments to chopper affects length of straw and how much power is consumed.

Follow these recommendations for adjust chopper to different crop types:

Cereals— (Wheat, Rye, Barley, Oats):

Controller bar (A) should be installed.

Knifebank can be in positions 1, 2, or 3 depending on desired cut quality and moisture of straw.

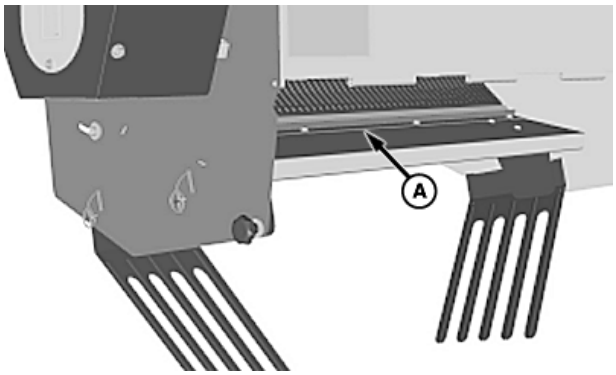
Position 1 takes more power if straw is high in moisture. There is a risk that material will buildup on knifebank requiring more power. If straw builds up, set knifebank to a less aggressive position.

It is more important to use the controller bar than to set the knifebank in a more aggressive position. Controller bar consumes less power compared with adjusting knifebank from position 2 to position 1.

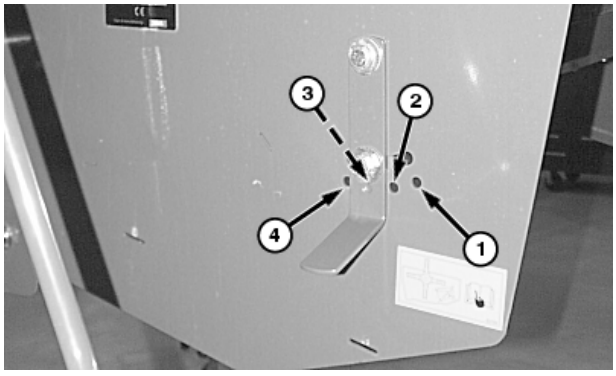
Setting knifebank for higher cut quality will increase chopper power requirements.

It is important to adjust the chopper correctly considering the chopping results and combine capacity.

Rape:



H83825 —UN—23JUN05



H84240 —UN—16AUG05

A—Controller Bar
1— Position
2— Position
3— Position
4— Position

If crop is heavy, controller bar (A) should not be installed. Knifebank should be in position 4. A less aggressive knifebank position helps material flow into the chopper.

OUO6075,000095A -19-19MAR07-1/1

Chopper Rotor Blades—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Chopper blades are sharp.

NOTE: Worn blades increase power consumption and chopper quality is reduced.

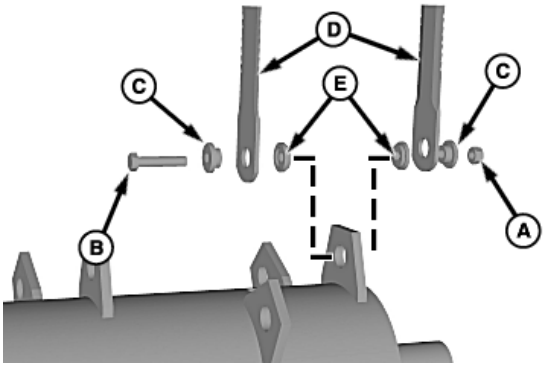
Remove lock nut (A), cap screw (B), bushings (C), blades (D) and spacers (E).

NOTE: If removing blades or bushings for inspection purposes, be certain to reinstall blades on SAME support from which they were removed. This must be done to maintain balance. It is a good practice to individually mark each blade before removal.

Inspect and if needed replace bushings. See your John Deere dealer for replacement parts.

IMPORTANT: Chopper balance MUST be maintained. Replace opposite blade to maintain balance.

NOTE: Reverse blades for additional usage, or replace blades if worn on both sides.



H84247 —UN—17AUG05

A—Lock Nut
B—Cap Screw
C—Bushings
D—Blades
E—Spacers

Install spacers, bushing, blades, cap screws and tighten lock nut to specification.

Specification	
Lock Nut—Torque	65 N·m (48 lb-ft)

OUO6075,000095B -19-22AUG07-1/1

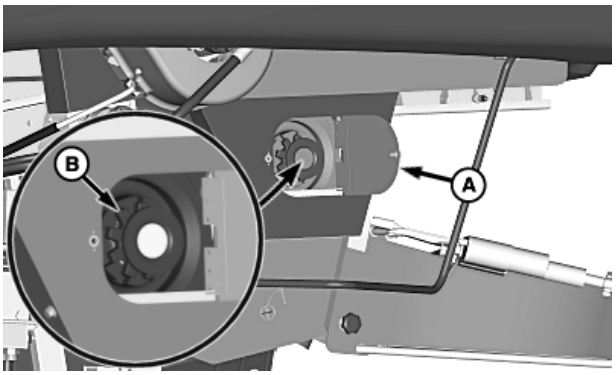
Moving Chopper to Drop Straw Position

CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: Door can only be opened when in chopping position.

Open door (A) and disengage claw clutch (B) before moving chopper.

Close and lock door.



H86637 —UN—22SEP06

A—Door
B—Claw Clutch

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OUO6075,000095C -19-26JUN08-1/2

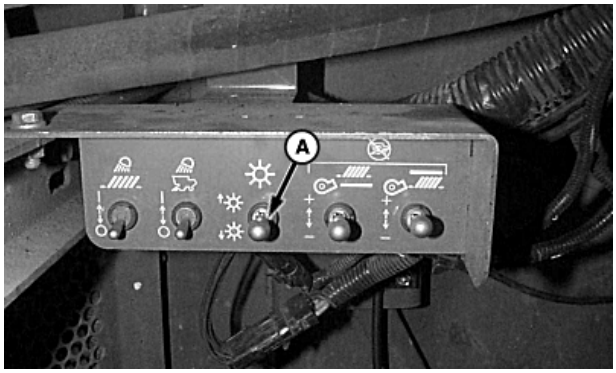
IMPORTANT: Chopper knives will be damaged if separator is started with clutch engaged and chopper is in drop straw position.

Move chopper fully rearward with switch (A) until rear diode (B) illuminates.

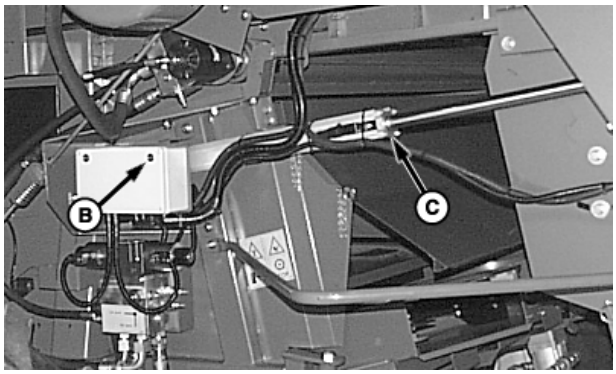
Wait three seconds to verify electric actuator (C) is fully extended on both sides of machine.

Chaff spreader will change directions and speed automatically, allowing material to be spread to the sides.

A—Switch
B—Rear Diode
C—Electric Actuator



H69985 —UN—13SEP01



H84231 —UN—16AUG05

Drop Straw Position

OUO6075,000095C -19-26JUN08-2/2

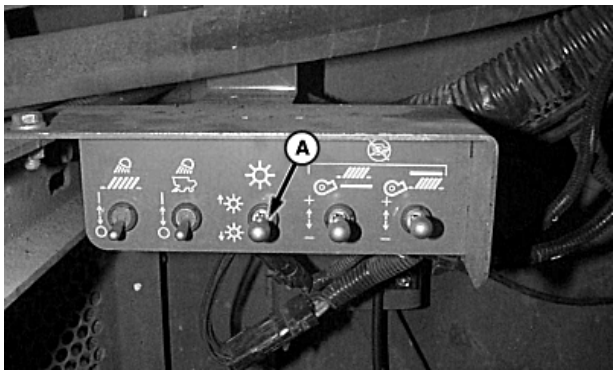
Moving Chopper to Chopping Position

CAUTION: Shut OFF engine, set parking brake and remove key.

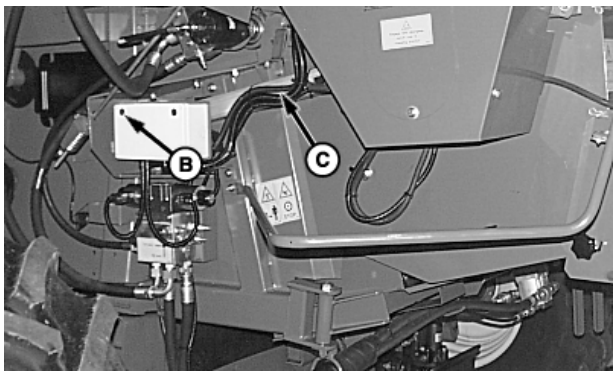
Move chopper fully forward with switch (A) until front diode (B) illuminates.

Wait three seconds to verify electric actuator (C) is fully retracted on both sides of machine.

A—Switch
B—Front Diode
C—Electric Actuator



H69985 —UN—13SEP01



H84232 —UN—16AUG05

Chopping Position

Continued on next page

OUO6075,000095D -19-26JUN08-1/2

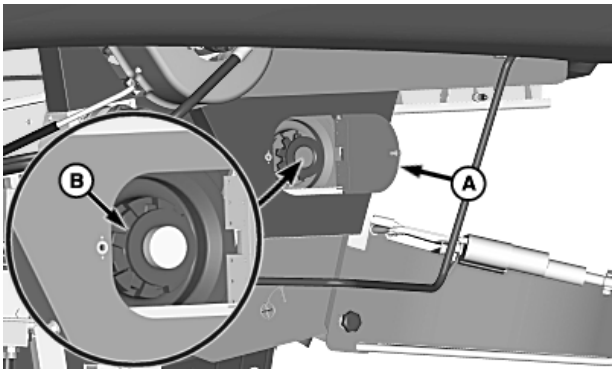
IMPORTANT: If electric actuator is not fully retracted, chopper knives will be damaged.

Open door (A) and engage claw clutch (B).

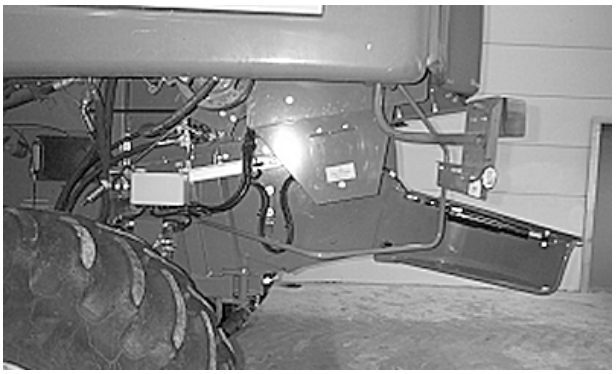
Close and lock door.

Chaff spreader will change directions and speed automatically, allowing material to flow into chopper tailboard. Air stream from chaff spreader will increase spreading width of straw.

A—Door **B—Claw Clutch**



H86638 —UN—22SEP06



H83817 —UN—24JUN05

Chopping Position

OUO6075,000095D -19-26JUN08-2/2

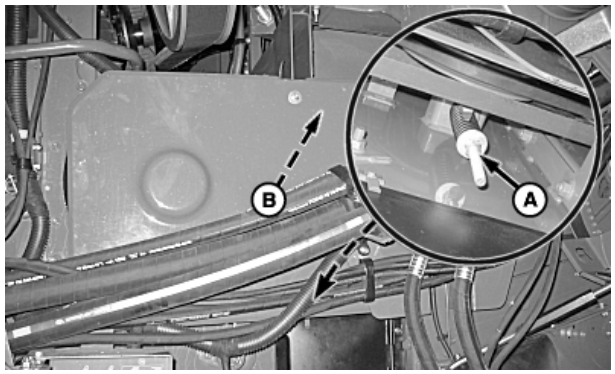
Changing Chopper and Chaff Spreader for Maize (Low Speed)

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nuts (A) to relieve tension on discharge beater drive belt (B).

Remove discharge beater belt from chopper jackshaft to remove chopper belt.

A—Lock Nuts **B—Discharge Beater Belt**



H86554 —UN—08SEP06

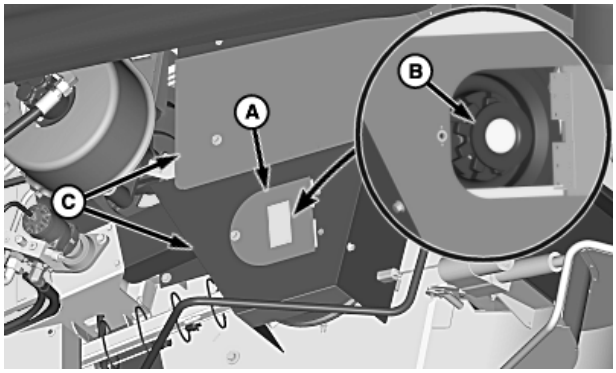
Continued on next page

OUO6075,000095E -19-26JUN08-1/11

Open door (A) and disengage claw clutch (B).

Move chopper to middle position and remove shields (C).

A—Door
B—Claw Clutch
C—Shields

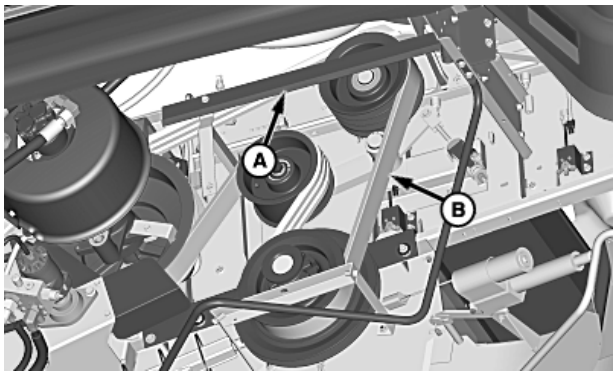


H86639 —UN—22SEP06

OUO6075,000095E -19-26JUN08-2/11

Remove bracket (A) and remove three strand belt (B).

A—Bracket
B—Belt



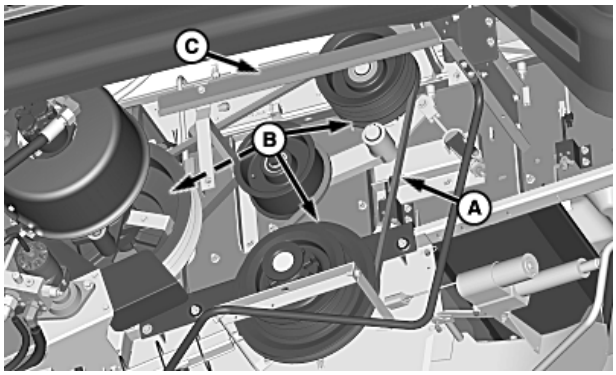
H86640 —UN—22SEP06

OUO6075,000095E -19-26JUN08-3/11

NOTE: Obtain one strand belt from local John Deere dealer.

Install one strand belt (A) on inside sheave grooves (B) and install bracket (C).

A—Belt
B—Inside Sheave Grooves
C—Bracket



H86642 —UN—22SEP06

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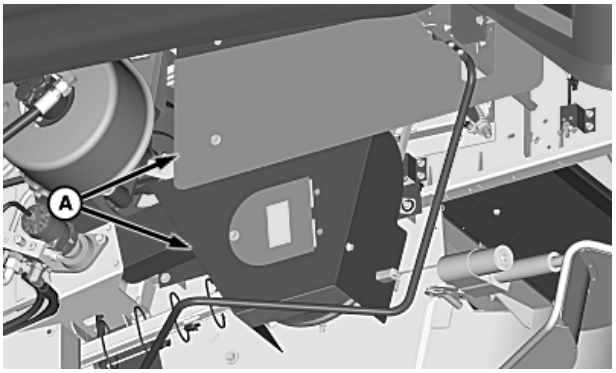
OUO6075,000095E -19-26JUN08-4/11

Install shields (A).

A—Shields



H86643 —UN—22SEP06

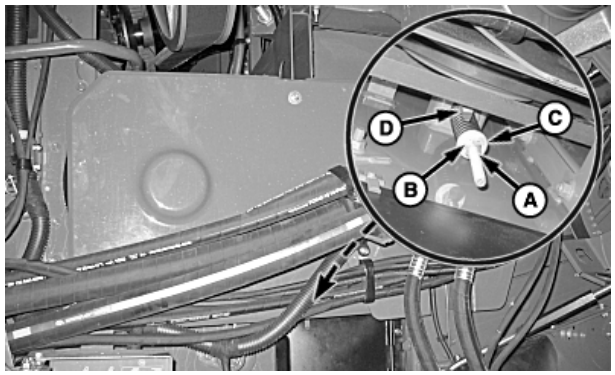
OUO6075,000095E -19-26JUN08-5/11

Install previously removed discharge beater belt on chopper jackshaft.

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step.

Tighten lock nut (A) and move chopper to chopping position.

A—Lock Nut
B—Nut
C—Washer
D—Gauge

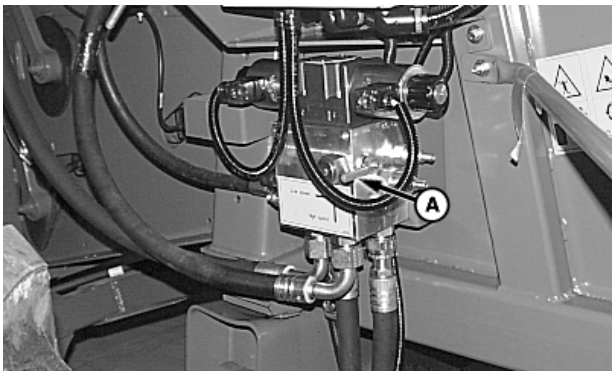


H86547 —UN—08SEP06

OUO6075,000095E -19-26JUN08-6/11

Move control lever (A) to slow speed position (refer to decal).

A—Control Lever



H84237 —UN—16AUG05

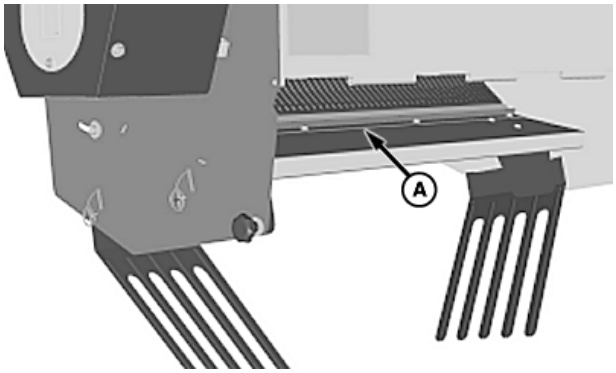
Continued on next page

OUO6075,000095E -19-26JUN08-7/11

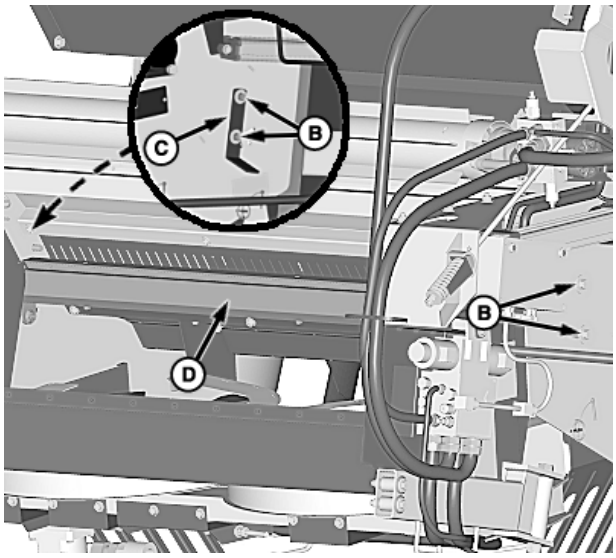
Remove controller bar (A) from chopper floor.

Remove hardware (B), handle (C) and stationary knifebank (D).

A—Controller Bar
B—Hardware
C—Handle
D—Stationary Knifebank



H83825 —UN—23JUN05



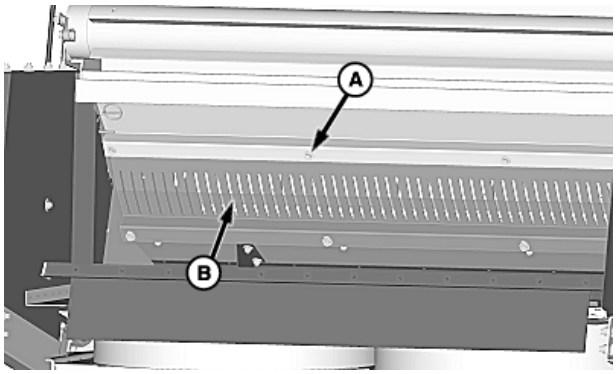
H84840 —UN—02NOV05

OUO6075,000095E -19-26JUN08-8/11

Remove cap screws (A) and slotted chopper floor (B).

Install solid chopper floor obtained from your John Deere dealer and install cap screws.

A—Cap Screws
B—Slotted Chopper Floor



H84841 —UN—02NOV05

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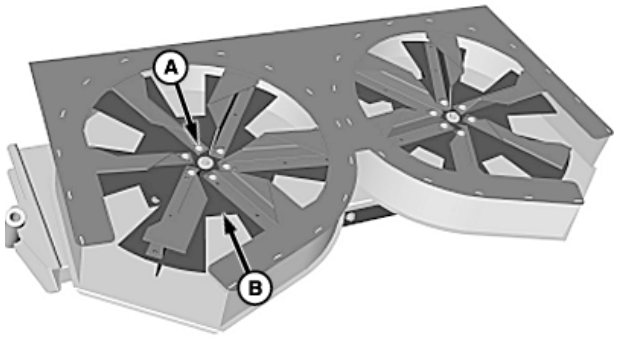
OUO6075,000095E -19-26JUN08-9/11

Remove cap screws (A) and both standard disc assemblies (B).

A—Cap Screws

B—Standard Disc Assemblies (2 Used)

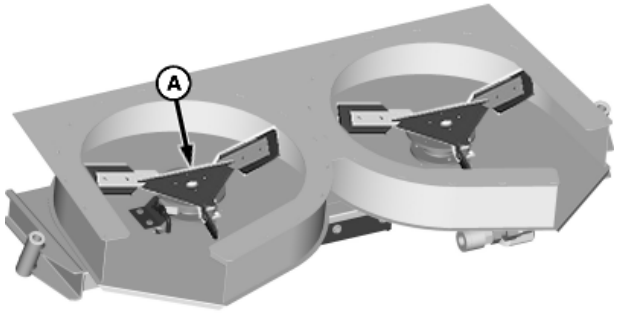


H85009 —UN—28NOV05

OUO6075,000095E -19-26JUN08-10/11

Install corn disc assemblies (A) obtained from your John Deere dealer and install with previously removed cap screws.

A—Corn Disc Assemblies (2 Used)



H85011 —UN—28NOV05

OUO6075,000095E -19-26JUN08-11/11

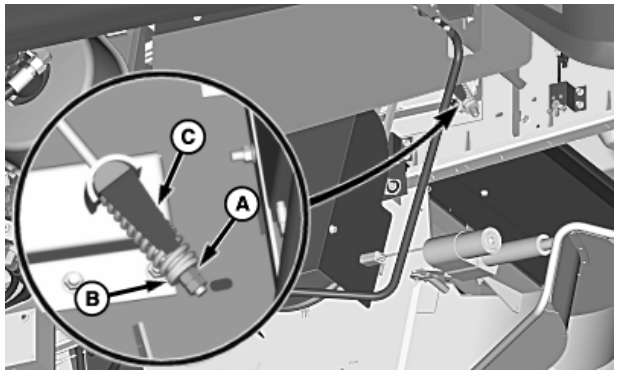
Chopper Drive Belt Tension—Adjusting

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

IMPORTANT: To prevent belt damage, do not over tighten spring tensioner.

Tighten nut (A) until washer (B) is positioned between end of gauge (C) and bottom of step. Tighten lock nut.

A—Nut
B—Washer
C—Gauge



H86644 —UN—22SEP06

OUO6075,000095F -19-05DEC07-1/1

Chopper Belt—Replacing

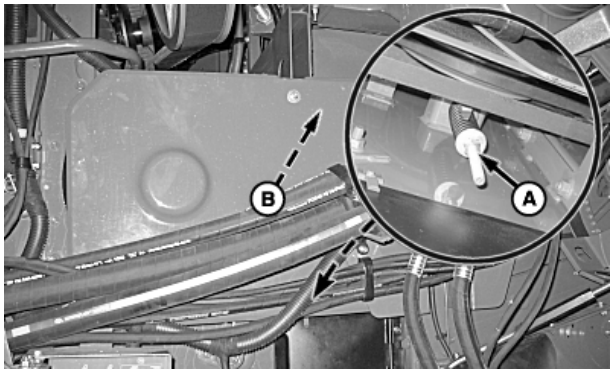
CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen lock nuts (A) to relieve tension on discharge beater drive belt (B).

Remove discharge beater belt from chopper jackshaft to remove chopper belt.

A—Lock Nuts

B—Discharge Beater Belt



H86554 —UN—08SEP06

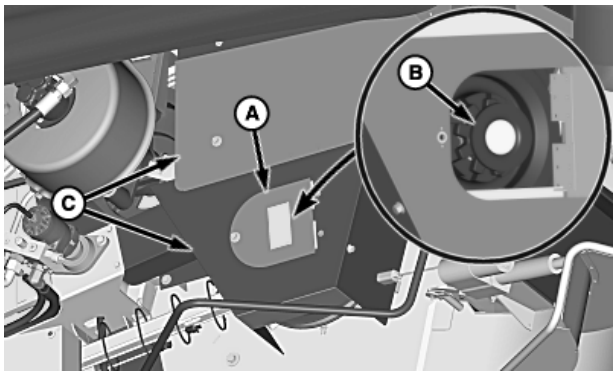
OUO6075,0000960 -19-19MAR07-1/5

Open door (A) and disengage claw clutch (B).

Move chopper to middle position and remove shields (C).

A—Door
B—Claw Clutch

C—Shields



H86639 —UN—22SEP06

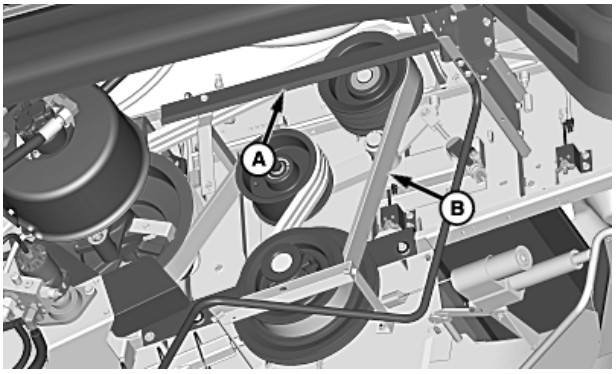
Continued on next page

OUO6075,0000960 -19-19MAR07-2/5

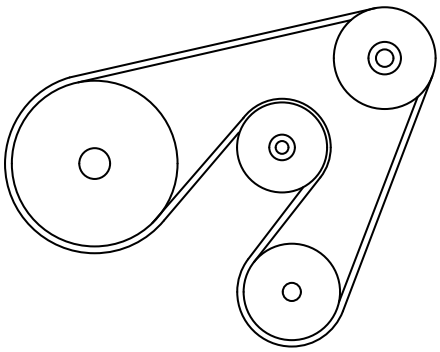
Remove bracket (A) and remove chopper belt (B).

Install replacement belt and install previously removed bracket.

A—Bracket **B—Belt**



H86640 —UN—22SEP06

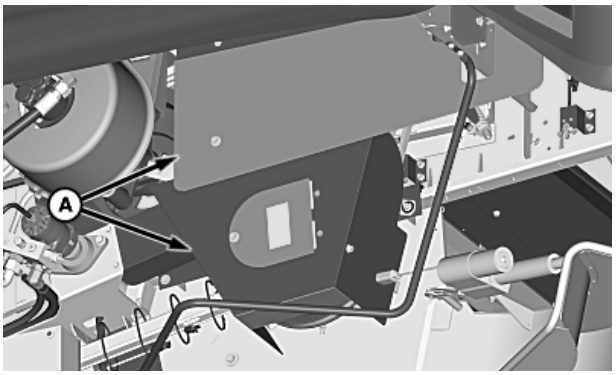


H86647 —UN—26SEP06

OUO6075,0000960 -19-19MAR07-3/5

Install shields (A).

A—Shields



H86643 —UN—22SEP06

Continued on next page

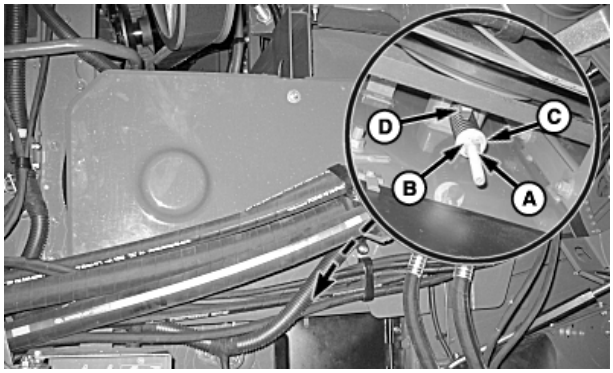
OUO6075,0000960 -19-19MAR07-4/5

Install discharge beater belt on chopper jackshaft.

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step.

Tighten lock nut (A).

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H86547 —UN—08SEP06

OUO6075,0000960 -19-19MAR07-5/5

Chopper Jackshaft Belt—Adjusting

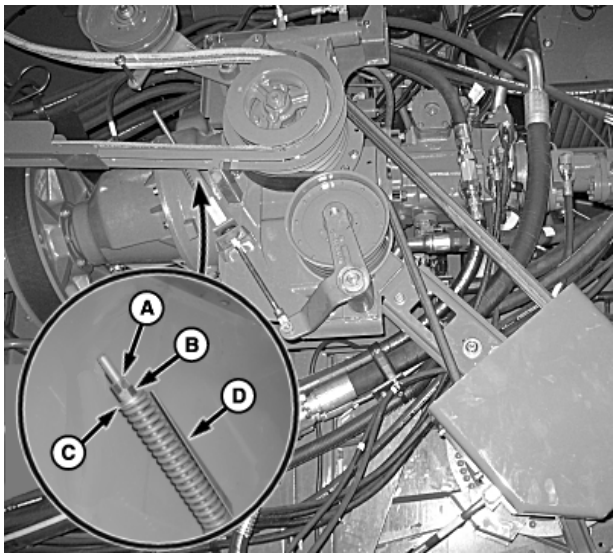
⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

Chopper jackshaft belt is located on left-hand side above chopper.

Loosen lock nut (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut.

A—Lock Nut
B—Nut
C—Washer
D—Gauge



H86565 —UN—12SEP06

OUO6075,0000890 -19-23APR07-1/1

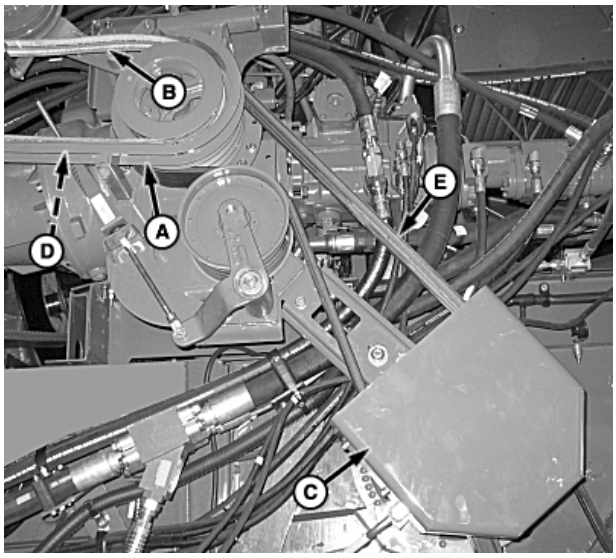
Chopper Jackshaft Belt—Replacing

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

Remove belt trap (A), unloading auger drive belt (B) and shield (C).

Loosen lock nuts (D) to relieve tension on chopper jackshaft belt (E).

A—Belt Trap
B—Unloading Auger Drive Belt
C—Shield
D—Lock Nuts
E—Chopper Jackshaft Belt



H86566 —UN—12SEP06

Continued on next page

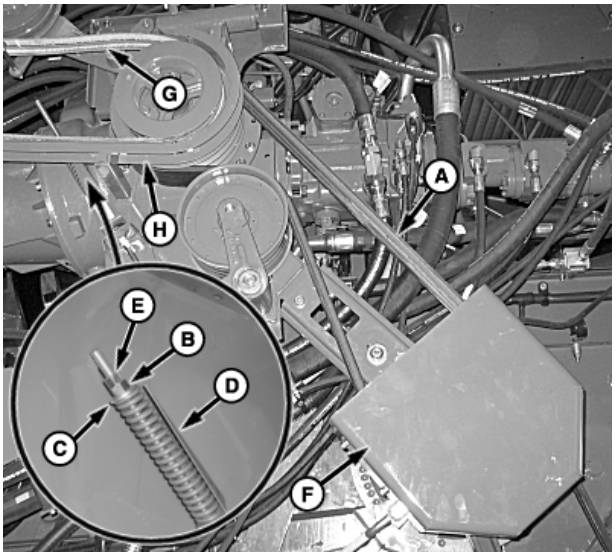
OUO6075,0000891 -19-23APR07-1/2

Install replacement chopper jackshaft belt (A).

Tighten nut (B) until washer (C) is positioned between end of gauge (D) and bottom of step. Tighten lock nut (E).

Install shield (F), unloading auger drive belt (G) and belt trap (H).

A—Chopper Jackshaft Belt
B—Nut
C—Washer
D—Gauge
E—Lock Nut
F—Shield
G—Unloading Auger Drive Belt
H—Belt Trap



H86567 —UN—12SEP06

OUO6075,0000891 -19-23APR07-2/2

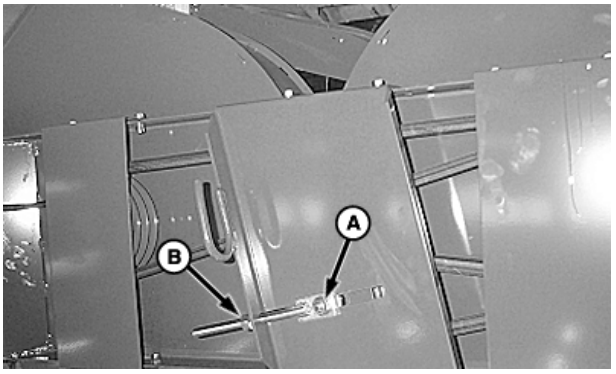
Chaff Spreader Drive Belt—Adjusting

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

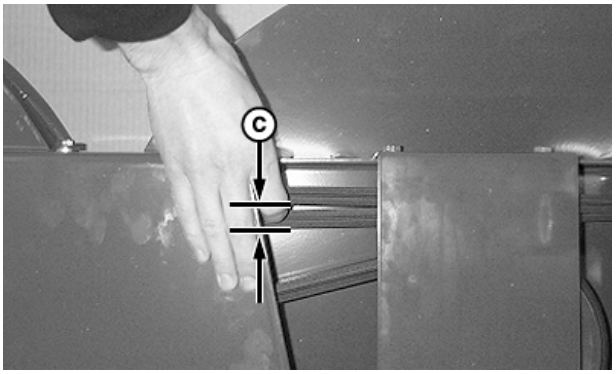
Loosen idler nut (A) and tighten nuts (B) until chaff spreader belt (C) is set to specification.

Specification	
Chaff Spreader Belt—Deflection	20 mm (13/16 in.)
Belt—Force	40 N 9 lb-force

A—Idler Nut
B—Nuts
C—Belt Deflection



H83845 —UN—24JUN05



H84875 —UN—04NOV05

OUO6075,0000961 -19-19MAR07-1/1

Chaff Spreader Speed—Adjusting

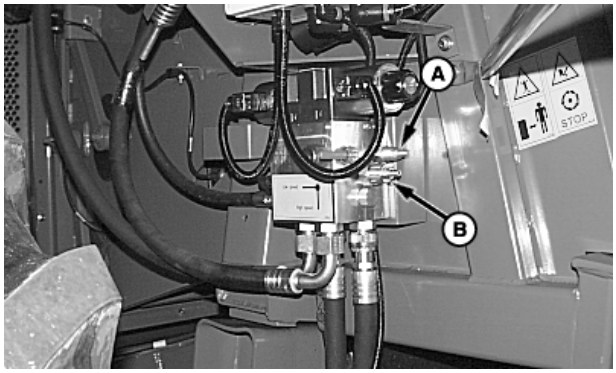
CAUTION: Shut OFF engine, set parking brake and remove key.

Low Speed: Turn hex head screw (A) counterclockwise to increase chaff spreader speed.

High Speed: Turn hex head screw (B) counterclockwise to increase chaff spreader speed.

NOTE: When chopping material, chaff spreader speed is not adjustable.

A—Hex Head Screw (Maize Low Speed) **B—Hex Head Screw (Windrow)**



H84246 —UN—17AUG05

Chaff Spreader Hydraulic Valve

OUO6075,0000962 -19-19MAR07-1/1

Chaff Spreader—Removing

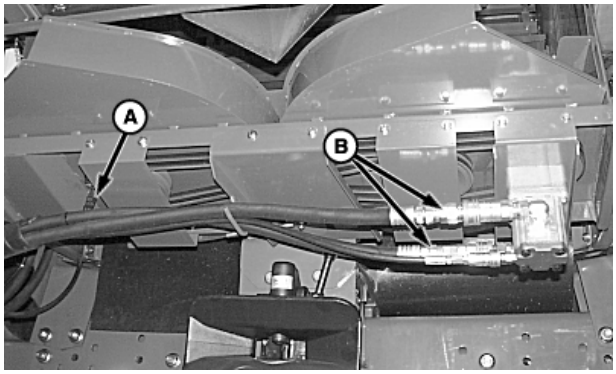
CAUTION: Shut OFF engine, set parking brake and remove key.

Move chopper to drop straw position (see Moving Chopper to Drop Straw Position in this section.)

Disconnect electrical connector (A).

Disconnect hydraulic hoses (B) from chaff spreader and connect together.

IMPORTANT: Connect hydraulic hoses together to prevent pump damage.



H84239 —UN—16AUG05

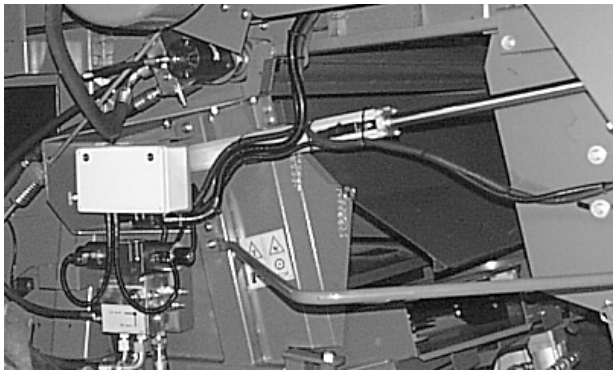
A—Electrical Connector **B—Hydraulic Hoses**

OUO6075,0000963 -19-19MAR07-1/1

Cleaning Shoe Access

CAUTION: Shut OFF engine, set parking brake and remove key.

Move chopper to drop straw position (see Moving Chopper to Drop Straw Position in this section.)



H84843 —UN—02NOV05

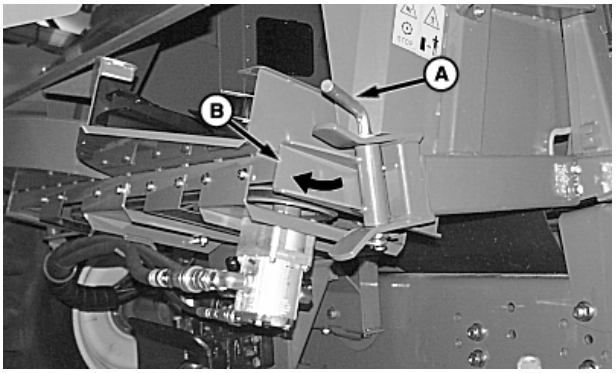
Drop Straw Position

Continued on next page

OUO6075,0000964 -19-19MAR07-1/2

Remove pin (A) on right side and swing chaff spreader (B) to access or service cleaning shoe.

A—Pin **B—Chaff Spreader**



H84238 —UN—16AUG05

OUO6075,0000964 -19-19MAR07-2/2

Guide Plate—Removing

CAUTION: Shut OFF engine, set parking brake and remove key.

Move chopper to drop straw position (see Moving Chopper to Drop Straw Position in this section.)

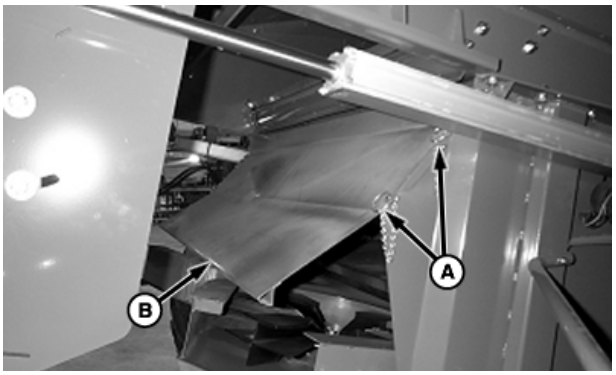
H84843 —UN—02NOV05

Drop Straw Position

OUO6075,0000965 -19-19MAR07-1/2

Remove pins (A) on both sides and remove guide plate (B).

A—Pins **B—Guide Plate**



H83829 —UN—24JUN05

OUO6075,0000965 -19-19MAR07-2/2

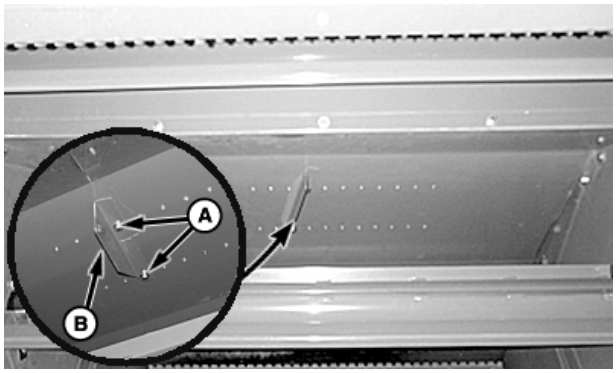
Roof Vane—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

If crop material does not flow evenly into the chopper, remove cap screws (A) and adjust roof vane (B) as desired depending on the crop being harvested.

A—Cap Screws

B—Roof Vane



H84877 —UN—04NOV05

Roof Vane Normal Position

OUO6075,0000966 -19-19MAR07-1/1

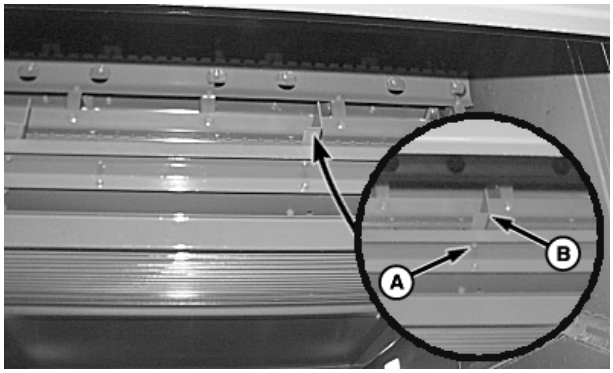
Discharge Beater Vanes—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

If chopper is consistently discharging heavy material to the right-hand side, remove cap screw (A) and right-hand discharge beater grate vane (B).

A—Cap Screw

B—Discharge Beater Grate Vane



H84876 —UN—04NOV05

Discharge Beater Grate Vanes

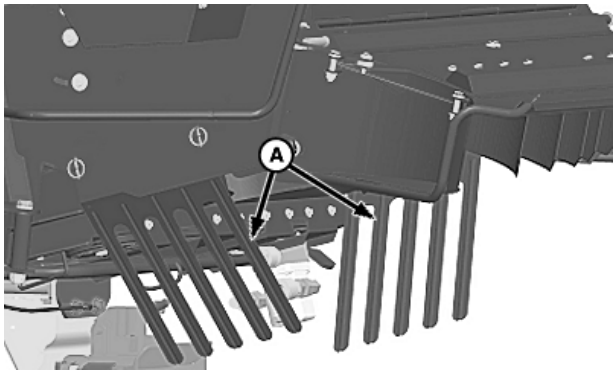
OUO6075,0000967 -19-19MAR07-1/1

Windrow Convergence Panels

NOTE: When transporting header trailer, remove and store windrow convergence panels between left-hand side shields and wheel chocks.

Convergence panels (A) are used to divert cut straw material into a narrower windrow.

A—Convergence Panels



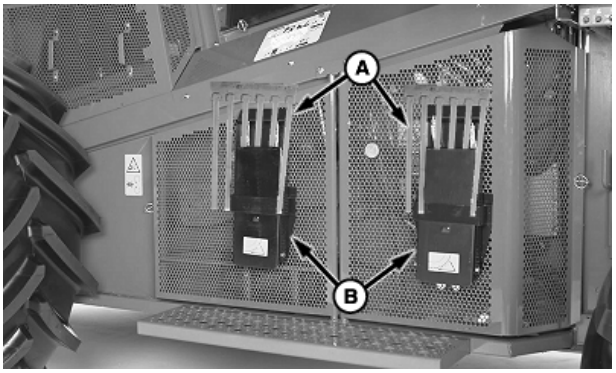
H85212 —UN—11JAN06

OUO6075,0000968 -19-19MAR07-1/1

Windrow Convergence Panel (Storage Location)

Place windrow convergence panels (A) between left-hand side shields and wheel chocks (B) when not in use.

A—Convergence Panels **B—Wheel Chocks**



H81942 —UN—02NOV04

OUO6075,0000969 -19-19MAR07-1/1

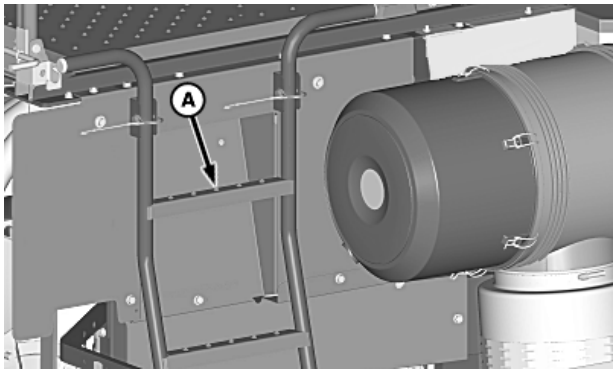
Grain Tank/Engine Ladder

CAUTION: Shut OFF engine, set parking brake and remove key.

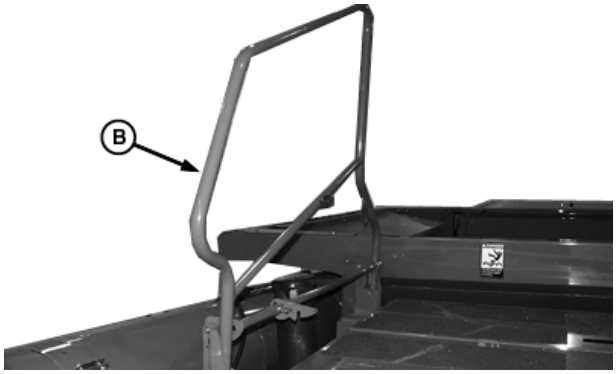
Use ladder (A) to access grain tank.

Raise handrail (B) to upright position to lock into place

A—Ladder **B—Handrail**



H92977 —UN—06OCT08



H62225 —UN—19JAN00

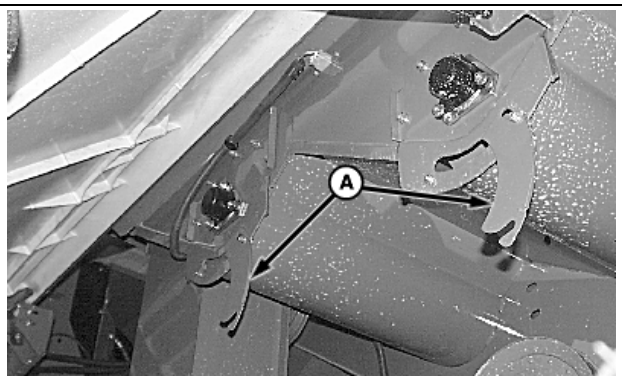
OUO6075,0000221 -19-23OCT08-1/1

Grain Tank Drain Holes

Grain tank drain hole doors (A) are located on right-hand end of both cross augers and must be opened during storage or for cleaning grain tank.

Loosen cap screws and slide doors away from drain holes.

A—Drain Hole Doors



H80946 —UN—27MAY04

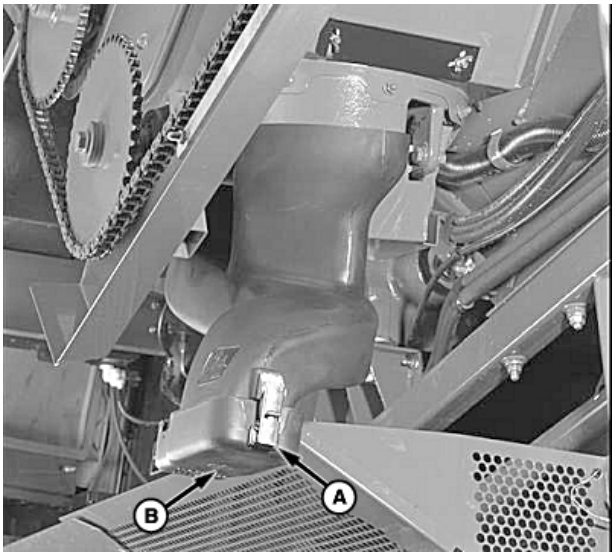
OUO6075,00007B7 -19-23APR07-1/1

Cleanout Chute (Optional)

An optional cleanout chute is available from your John Deere dealer.

To open chute release latch (A) and open door (B).

A—Latch **B—Door**



H83739 —UN—14JUN05

OUO6075,00007BD -19-19MAR07-1/1

Operating Grain Tank Covers

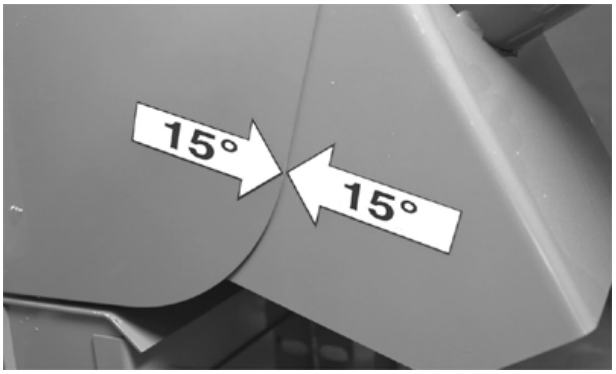
CAUTION: Grain tank covers must be closed and antenna turned to horizontal position before transporting machine on roadway. Avoid contact with low hanging power lines and tree limbs. Lower grain tank covers to 15° position.

IMPORTANT: Open grain tank covers to 15° open position or greater before engaging separator. 15° decals can be seen on clean grain auger through rear cab window. Actuator will not open or close covers if grain is in tank.

Grain tank covers open up to 90°. When covers are opened, the clean grain loading auger also swings up. Auger swings down when covers are closed.

When operating with covers open less than 90° grain tank capacity will be reduced. To avoid grain leakage when operating with covers less than 90°, do not let grain pile above the top of the base grain tank.

H84885 —UN—07NOV05



H87817 —UN—05APR07

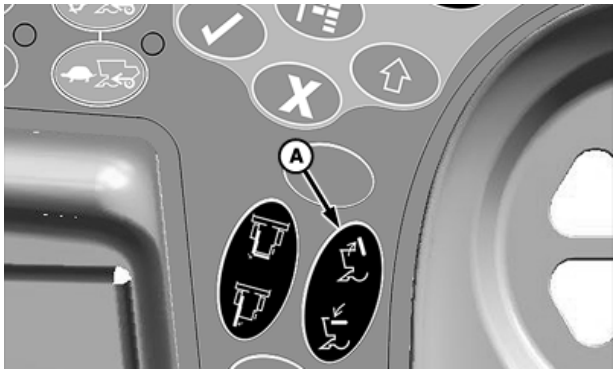
Continued on next page

OUO6075,0000952 -19-31AUG07-1/2

Grain tank covers are operated with an electric motor, which is activated by grain tank cover switch (A).

- Push and hold top of switch to open grain tank covers.
- Push and hold bottom of switch to close grain tank covers.

A—Grain Tank Cover Switch



H85909 —UN—17NOV06

OUO6075,0000952 -19-31AUG07-2/2

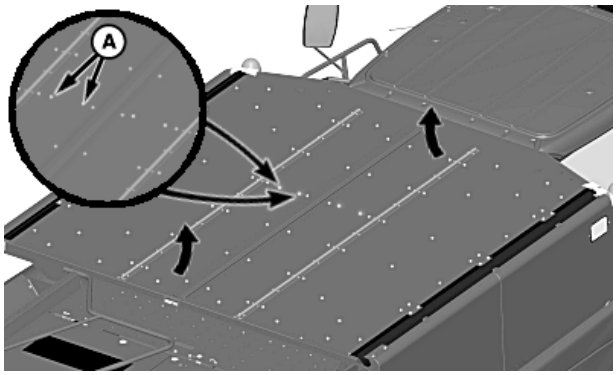
Manual Grain Tank Access

CAUTION: Shut OFF engine, set parking brake and remove key before entering grain tank.

When covers do not open using grain tank actuator, remove cap screws (A) to access grain tank.

Raise two center grain tank covers to access grain tank.

A—Cap Screws (2 Used Per Cover)



H84836 —UN—01NOV05

OUO6075,0000954 -19-23APR07-1/1

Grain Tank Sample Trough

Grain tank sample trough (A) allows the operator to get a sample of the harvested crop from the loading auger without entering the grain tank.

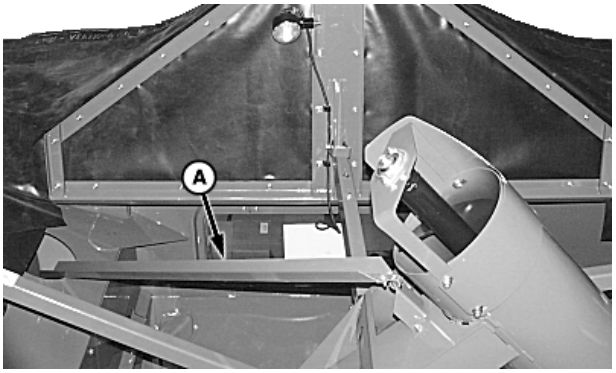
With machine full of harvested crop, bring multifunction control handle to neutral and stop. Apply the parking brake.

Disengage header, but leave separator engaged.

CAUTION: Do not have a second person check for a grain tank sample.

Open door (B). Lower end of grain tank trough will spill off a sample of the harvested crop.

A—Grain Tank Sample Trough B— Door



H81641 —UN—09SEP04

H81642 —UN—09SEP04

OUO6075,000094F -19-19MAR07-1/1

Grain Tank Fill Sensors—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

NOTE: Header drive must be engaged for buzzer to sound.

Grain Tank 3/4 Full Sensor:

Grain tank 3/4 full sensor (A) is located on the front right-hand side of the clean grain loading auger.

Grain tank 3/4 full icon appears on the CommandCenter display indicating grain tank is almost full. Grain tank 3/4 full icon displays immediately, but a two second delay occurs between the tripping of the sensor and the buzzer sounding.

When grain tank is 3/4 full, beacon lights illuminate to provide a signal to the grain cart operator that grain tank is nearly full.

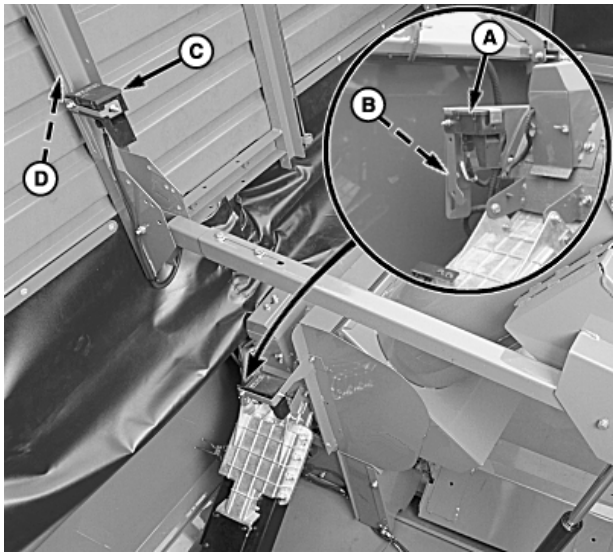
Adjust sensor by moving it higher or lower in slot (B) to adjust the switch "trip" point. The higher the sensor is positioned, the fuller the grain tank will be at the time the buzzer sounds.

Grain Tank 4/4 Full Sensor:

Grain tank 4/4 full sensor (A) is located on the right-hand grain tank cover above the clean grain loading auger.

Grain tank 4/4 full icon appears on the CommandCenter display indicating grain tank is full. Grain tank 4/4 full icon displays immediately, but a two second delay occurs between the tripping of the sensor and the buzzer sounding.

Adjust sensor by moving it higher or lower in holes (B) to adjust the switch "trip" point. The higher the sensor is positioned, the fuller the grain tank will be at the time the buzzer sounds.



H93821 —UN—14APR09

A—3/4 Full Sensor
B—Full Sensor
C—Slot

OUO6075,000034F -19-17APR09-1/1

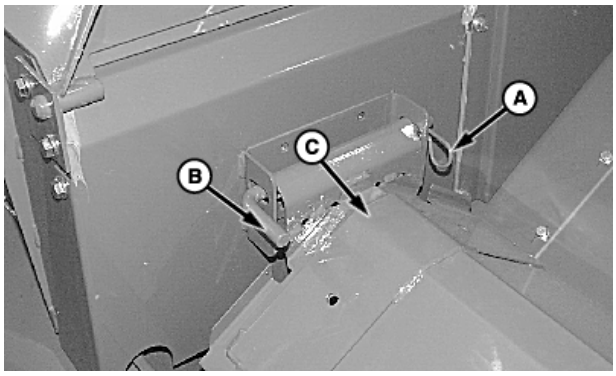
Grain Tank Cross Auger Covers

CAUTION: Shut OFF engine, set parking brake and remove key.

Remove locking pins (A) and pins (B) holding ends of auger cover (C) to grain tank. Hold cover in desired position and install previously removed pins and locking pins.

Covers should be level and mounted so each cover is the same distance from auger over entire length.

NOTE: Set auger covers to top position for all crops.



H80947 —UN—27MAY04

A—Locking Pins
B—Pins
C—Auger Cover

OUO6075,00007C0 -19-23APR07-1/1

Unloading Auger Drive Shear Bolt

CAUTION: Shut OFF engine, set parking brake and remove key.

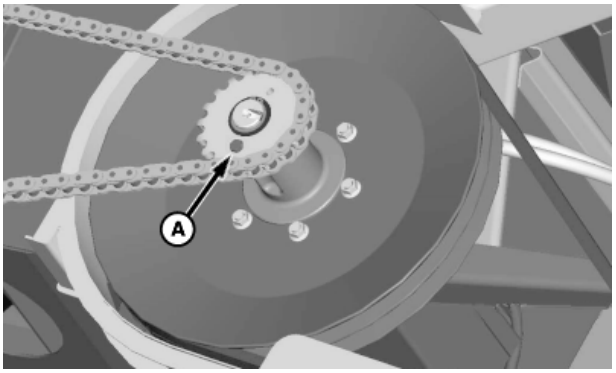
Use only John Deere supplied shear bolt (A) (cap screw through hub), see your John Deere dealer for replacement shear bolts.

Extra shear bolts (B) are provided to the right of the drive below the countershaft.

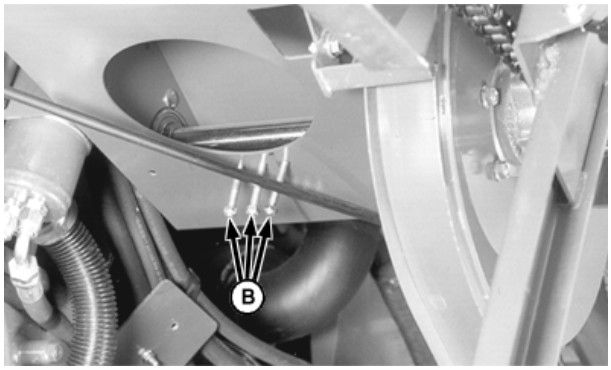
IMPORTANT: Do not install a tire inner tube or a sack to end of unloading auger. Any restriction at end of auger can cause damage to unloading auger system and could cause shear bolt failure.

A—Shear Bolt

B—Extra Shear Bolts (3 Used)



H82824 —UN—21MAR05



H54575 —UN—08APR99

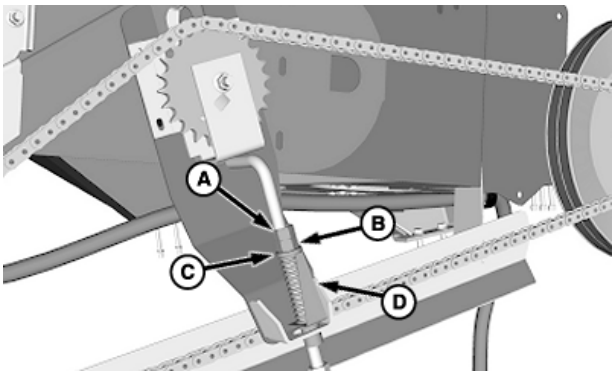
OUO6075,00007C1 -19-19MAR07-1/1

Unloading Auger Drive Chain—Adjusting

CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen locking nut (A). Tighten adjusting nut (B) until washer (C) aligns with end of gauge (D). Tighten locking nut.

A—Locking Nut
B—Adjusting Nut
C—Washer
D—End of Gauge



H82823 —UN—21MAR05

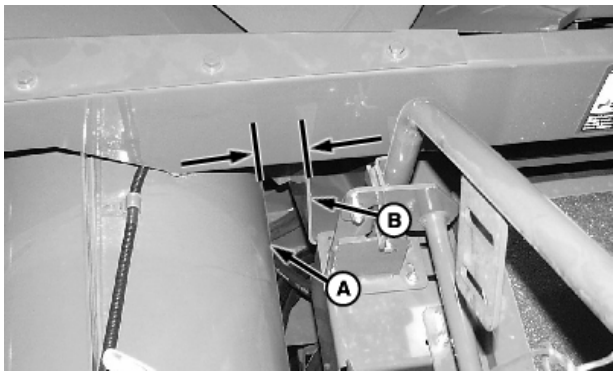
OUO6075,00007C6 -19-23APR07-1/1

Unloading Auger Position—Adjusting

1. Measure distance from unloading auger edge (A) to grain tank structure (B) as shown.
2. Distance must be set to specification.

Specification	
Unloading Auger Edge to Grain Tank Structure—Distance	73 mm (2-7/8 in.)

A—Unloading Auger Edge
B—Grain Tank Frame

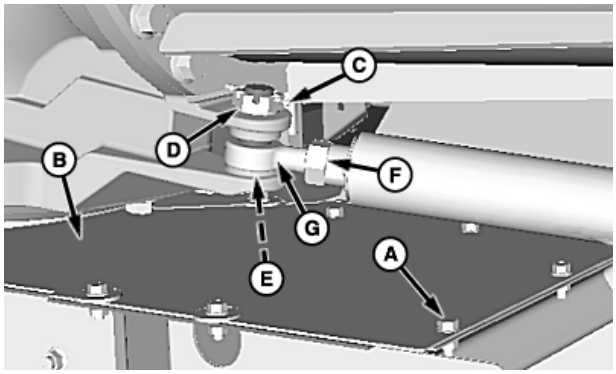


H80949 —UN—27MAY04

OUO6075,000034B -19-13APR09-1/2

3. If distance is incorrect, remove cap screws (A) and cover (B).
4. Remove cotter pin (C), nut and washer (D), and pin (E).
5. Loosen jam nut (F) and adjust eyebolt (G) to obtain correct distance.
6. Install previously removed hardware and cover after dimensions are set correctly.

A—Cap Screws (8 Used)
B—Cover
C—Cotter Pin
D—Nut and Washer
E—Pin
F—Jam Nut
G—Eyebolt



H93804 —UN—08APR09

OUO6075,000034B -19-13APR09-2/2

Unloading Auger Cradle Support Bracket—Adjusting

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

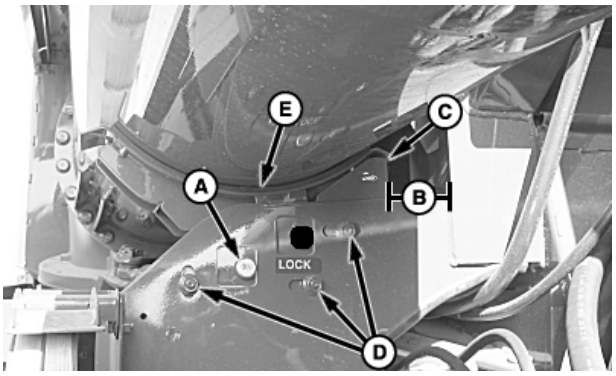
1. Swing unloading auger to storage or transport position and keep cradle pinned (A).
2. Measure distance (B) between cradle support bracket (C) and grain tank frame as shown.

Specification

Cradle Support Bracket to Grain Tank Frame—Distance..... 79 mm (3-1/8 in.)

NOTE: Verify that lower edge of cradle support bracket is square with grain tank frame.

3. If distance is incorrect, loosen cap screws (D) and adjust to specifications.
4. Adjust cradle support bracket (C) up or down until wear plate (E) contacts lower surface of unloading auger.



H93802 —UN—13APR09

A—Pin
B—Distance
C—Cradle Support Bracket
D—Cap Screws
E—Wear Plate

5. Tighten cap screws after dimension is properly adjusted.

OUO6075,000034C -19-13APR09-1/1

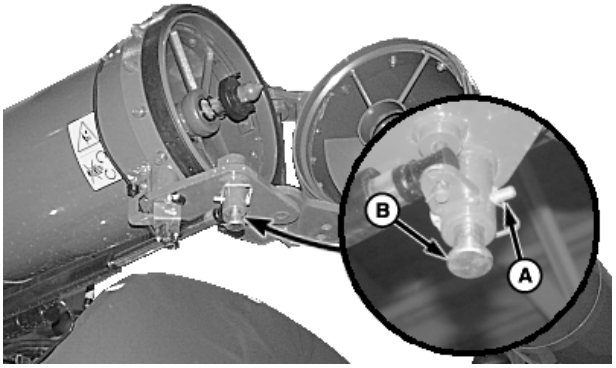
Power Folding Auger Actuator Failure—Removing

⚠ CAUTION: Park machine on a flat level surface before removing actuator.

If unloading auger actuator motor fails, auger can still be manually folded and unfolded, until the actuator is replaced.

Swing unloading auger to desired position (folded or unfolded) and remove quick lock pin (A). Position pin (B) to the upmost position to lock auger in desired position.

A—Quick-Lock Pin **B—Pin**



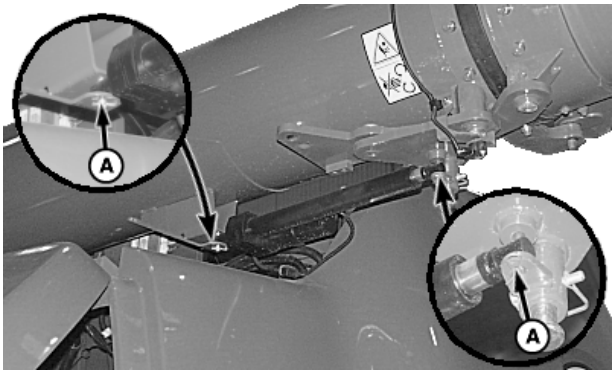
H83547 —UN—20MAY05

Neutral Position

OUO6075,0000955 -19-05APR07-1/2

Disconnect wiring harness from actuator. Remove spring pins and pins (A) from actuator motor and replace actuator motor.

A—Spring Pins and Pins



H83548 —UN—28JUN05

OUO6075,0000955 -19-05APR07-2/2

Unloading Auger Drive Belt—Replacing

CAUTION: Shut OFF engine, set parking brake and remove key.

Be certain drive is disengaged and hydraulic cylinder (A) is retracted.

Loosen tensioner (B) on unloading auger drive chain.

Remove chain from driver sprocket (C) on countershaft.

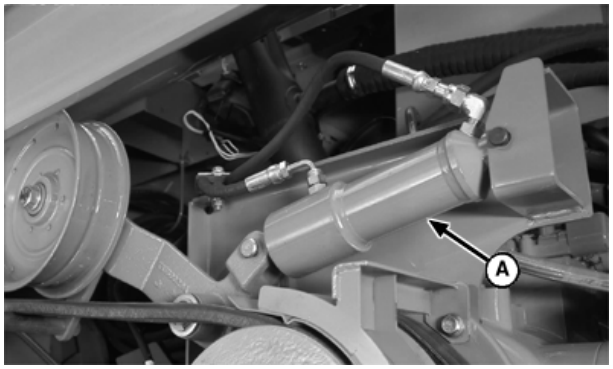
Remove cap screws retaining belt trap (D).

Remove belt trap and belt (E).

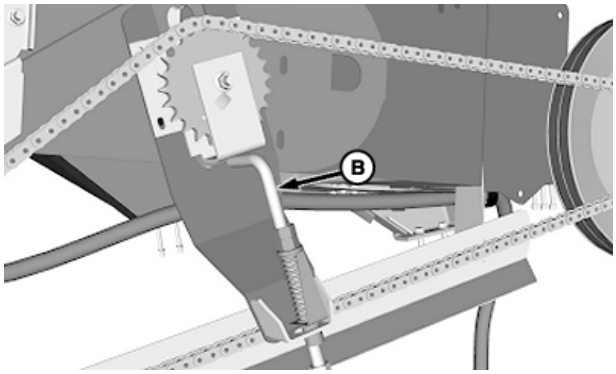
Install replacement belt and replace belt trap previously removed.

Install drive chain and adjust idler until washer aligns with end of gauge.

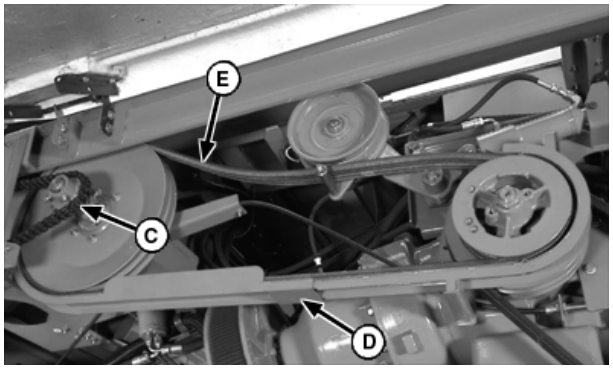
A—Hydraulic Cylinder
B—Tensioner
C—Sprocket
D—Belt Trap
E—Belt



H54696 —UN—21MAY99



H87818 —UN—05APR07



H54698 —UN—21MAY99

OUO6075,00007D2 -19-23APR07-1/1

Welding Near Electronic Control Units

IMPORTANT: Do not jump-start engines with arc welding equipment. Currents and voltages are too high and may cause permanent damage.

1. Disconnect the negative (-) battery cable(s).
2. Disconnect the positive (+) battery cable(s).
3. Short the positive and negative vehicle battery cables together. Do not attach to vehicle frame.
4. Clear or move any wiring harness sections away from welding area.
5. Connect welder ground close to welding point and away from control units.
6. After the repair area is complete and all components are back in their proper locations, connect positive (+) battery cable(s) first, then connect negative (-) battery cable(s).

TS953 —UN—15MAY90

OUO6075,00003DD -19-01JUL09-1/1

Keep Electronic Control Unit Connectors Clean

IMPORTANT: Do not open control unit and do not clean with a high-pressure spray. Moisture, dirt, and other contaminants may cause permanent damage.

1. Keep terminals clean and free of foreign debris. Moisture, dirt, and other contaminants may cause the terminals to erode over time and not make a good electrical connection.
2. If a connector is not in use, put on the proper dust cap or an appropriate seal to protect it from foreign debris and moisture.
3. Control units are not repairable.
4. Since control units are the components LEAST likely to fail, isolate failure before replacing by completing a diagnostic procedure. (See your John Deere dealer.)
5. The wiring harness terminals and connectors for electronic control units are repairable.

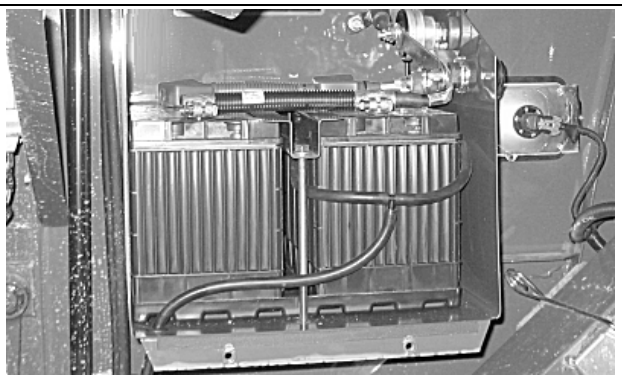
RG16946 —UN—31MAR09

DX,WW,ECU04 -19-11JUN09-1/1

Observe Electrical Precautions

CAUTION: Batteries must be on a flat surface to accurately check fluid levels. Battery fluid level should be visible at the top of each fill port covering the plates in each cell.

Keep all sparks and flames away from batteries as gas given off by electrolyte is explosive. To avoid sparks, connect ground cable last and disconnect it first. To avoid shocks and burns, turn battery disconnect switch OFF before servicing any part of the electrical system or when removing batteries.



H85704 —UN—17APR06

OUO6075,00007D3 -19-19MAR07-1/1

Basic Electrical Component Handling / Precautions for Vehicles Equipped with Computer Controlled Systems

- Never disconnect the batteries while the key switch is on and the engine is running.
  Why: This can cause electrical voltage spikes that can damage electronic components.
- Do not connect jumper cables while the key switch is on.
  Why: This can cause electrical voltage spikes that can damage electronic components.
- Disconnect batteries prior to recharging (if possible)
  Why: Electrical loads in the machine can slow the recharging process. Battery chargers can cause electrical voltage spikes that can damage electronic components.
- Never jump start the machine with a voltage higher than the machine is designed to operate on
  Why: This can damage electronic components
- Do not connect or disconnect electrical connectors while the key switch is on or the machine is running.
  Why: This can cause computer system errors from interrupting a computer program while it is running and electrical voltage spikes that are produced can damage electronic components.
- Do not apply power or ground to any component as a test unless specifically instructed to do so.
  Why: Connecting the wrong voltage to the wrong point of an electronic system can cause electronic component failures.
- When welding on the machine, make sure to connect ground lead to the parts being welded. For maximum protection disconnect all electronic controllers before welding.
  Why: The high currents associated with welding can damage wiring harnesses that are involved in the ground path. Welding can also cause electrical voltage spikes that can damage electronic components.

KC01776,00003CF -19-19MAR01-1/1

Prevent 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:

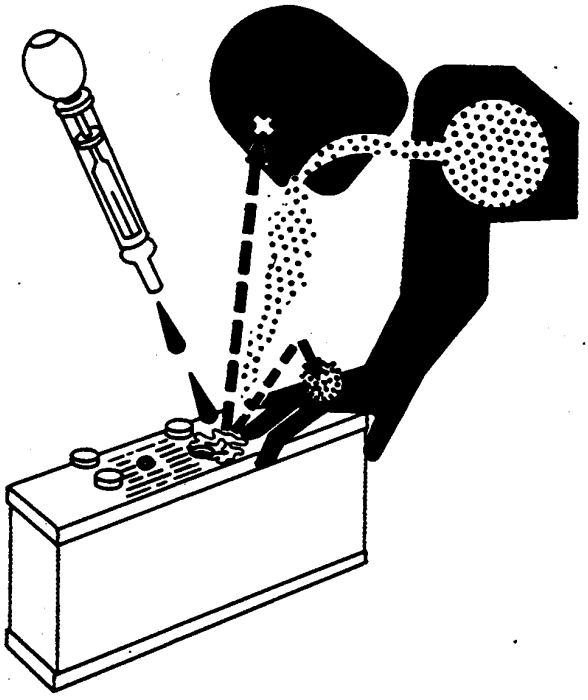
1. **Filling batteries in a well-ventilated area.**
2. **Wearing eye protection and rubber gloves.**
3. **Avoiding breathing fumes when electrolyte is added.**
4. **Avoiding spilling or dripping electrolyte.**
5. **Use proper jump start procedure.**

If you spill acid on yourself:

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

If acid is swallowed:

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



TS203 —UN—23AUG88

OUO6075,00009ED -19-19MAR07-1/1

Prevent Battery Explosions

CAUTION: Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

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

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

TS204 —UN—23AUG88

OUO6075,00007D5 -19-19MAR07-1/1

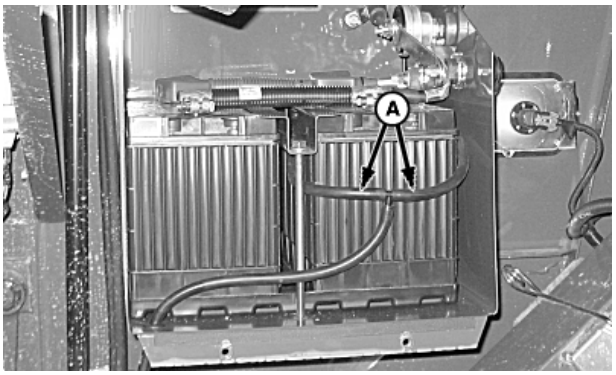
Batteries—Safe Installation

CAUTION: Batteries must be on a flat surface to accurately check fluid levels. Battery fluid level should be visible at the top of each fill port covering the plates in each cell.

Avoid serious injury or death from explosions. High levels of hydrogen gas can accumulate if the battery box is not vented properly. Always reinstall the vent tubes (A) after performing service or maintenance on the batteries or the battery box. Verify that the ventilation hoses are not bent or kinked.

Replacement batteries must have a ventilation fitting suited for ventilation hose attachment. See your John Deere dealer for replacement batteries equipped with ventilation fittings.

If ventilation tubes are not attached to the battery then the battery lid must remain off whenever the machine engine is running or whenever the batteries are being charged with an external charger.



H85705 —UN—17APR06

A—Vent Tubes

OUO6075,00007D6 -19-19MAR07-1/1

Battery Cables—Connecting

CAUTION: BATTERIES ARE NEGATIVE GROUNDED ONLY. Always connect battery ground strap to negative (-) posts of battery. Connect starter cable to positive (+) post of battery. Reversed polarity in battery or alternator connections results in permanent damage to electrical system. Connect ground strap to negative (-) terminal last.

IMPORTANT: Batteries must have same terminal locations.

When connecting batteries:

Turn off all switches and accessories. Clean battery posts and terminals.

QUICKLY TAP 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, check again that all switches and accessories are off. Then check for shorts, broken wires and loose or corroded connections.

Connect negative (-) battery ground straps.

OUO6075,00007D7 -19-19MAR07-1/1

Batteries—Charging

Keep battery fully charged, especially during cold weather. Failure to keep battery fully charged, above 12.50 volts, may result in reduced battery life.

CAUTION: Never charge a frozen battery. Thaw at room temperature before connecting to battery charger. Only charge batteries in a well ventilated area. Disconnect both cables from battery terminals when charging batteries in combine.

IMPORTANT: If batteries are not fully charged electrolyte may freeze.

Determine which battery needs to be charged.

Disconnect both battery cables and connect charger positive cable to "+" terminal and charger negative cable to "-" terminal.

Follow instructions provided with charger. Always charge batteries with a 12-volt charger.

OUO6075,00007D8 -19-19MAR07-1/1

Batteries—Checking Specific Gravity

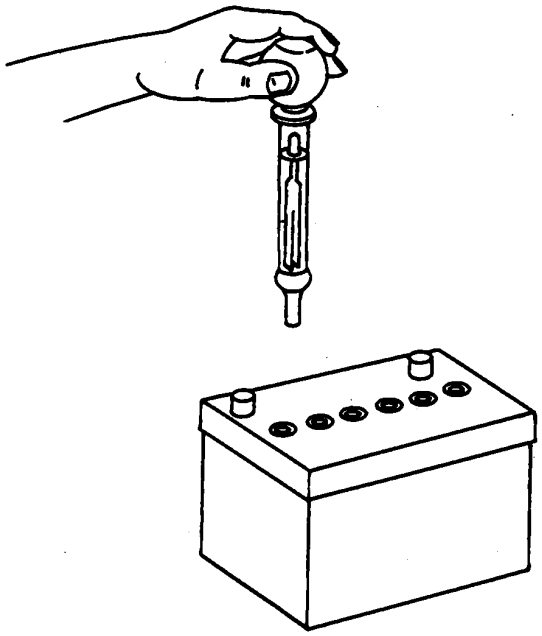
CAUTION: Batteries must be on a flat surface to accurately check fluid levels. Battery fluid level should be visible at the top of each fill port covering the plates in each cell.

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 1.225. 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 1.265 — 1.280.



TS182 —UN—23AUG88

OUO6075,00007D9 -19-19MAR07-1/1

Batteries—Connecting Booster

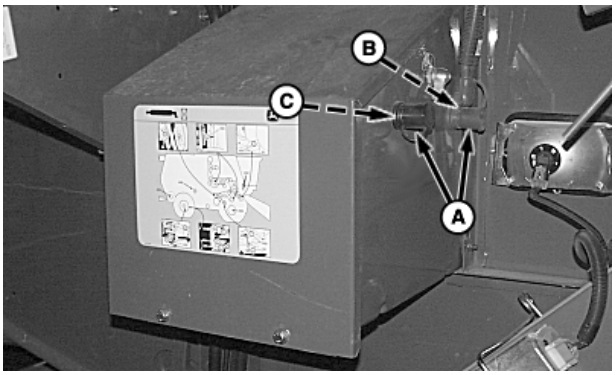
Cold weather starting can be easier by connecting an additional 12-volt battery in parallel.

CAUTION: Gas given off by batteries is explosive. Avoid sparks near batteries.

IMPORTANT: Never connect jumper cables with key switch ON. Never jump-start with more than 12 volts.

Remove protective caps (A).

First jumper cable must first be connected to positive (+) post of booster battery. Connect other end of positive (+) post (B) to machine battery. Second jumper cable must first be connected to negative (-) post of booster battery. Connect other end of negative (-) post (C) to machine battery.



H83463 —UN—01JUN05

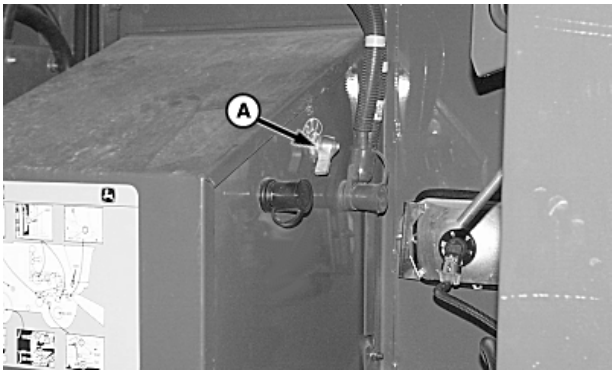
A—Protective Caps
B—Positive (+) Post
C—Negative (-) Post

OUO6075,000089B -19-23APR07-1/1

Batteries—Removing and Installing

1. Turn battery disconnect switch (A) counterclockwise to OFF position.

A—Battery Switch



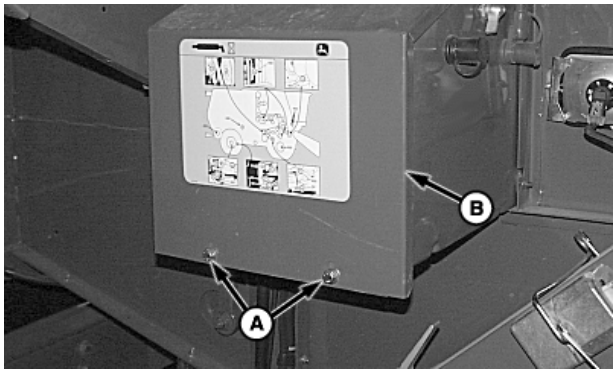
H83428 —UN—01JUN05

Continued on next page

OUO6075,00007DB -19-19MAR07-1/4

2. Remove cap screws (A) and cover (B) to access batteries.

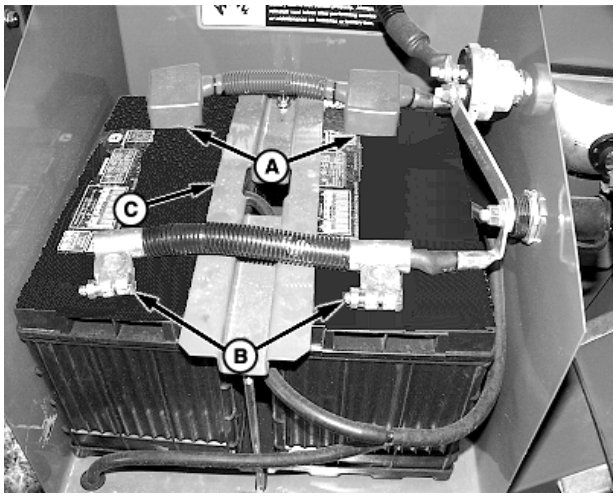
A—Cap Screws **B—Cover**



H83464 —UN—01JUN05

OUO6075,00007DB -19-19MAR07-2/4

3. Disconnect negative (-) cable (B) from batteries and negative jump start post.
4. Disconnect positive (+) cable (A) and positive jump start post.
5. Remove clamp (C) and battery vent tubes.
6. Clean batteries and battery mounting area.
7. Install batteries in battery box and on plastic tray.
8. Clean battery cables and posts and reconnect battery vent tubes.
9. Loosely install clamp (C).
10. Attach positive (+) cable (A) and positive jump start post.
11. Attach negative (-) cable (B) and negative jump start post.
12. Tighten battery clamp



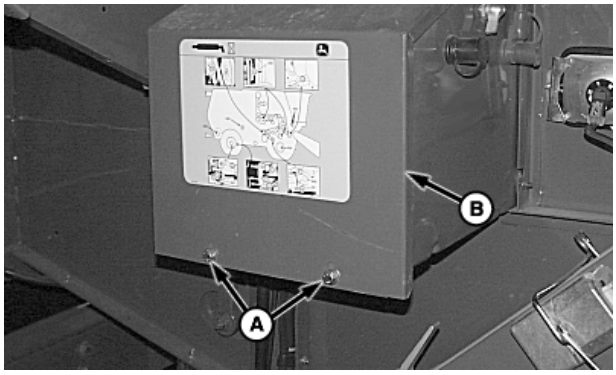
H83385 —UN—11JUL05

A—Positive Cable **C—Clamp**
B—Negative Cable

OUO6075,00007DB -19-19MAR07-3/4

13. Install cover (B) and retain with previously removed cap screws (A).
14. Turn battery disconnect switch clockwise to ON position.

A—Cap Screws **B—Cover**



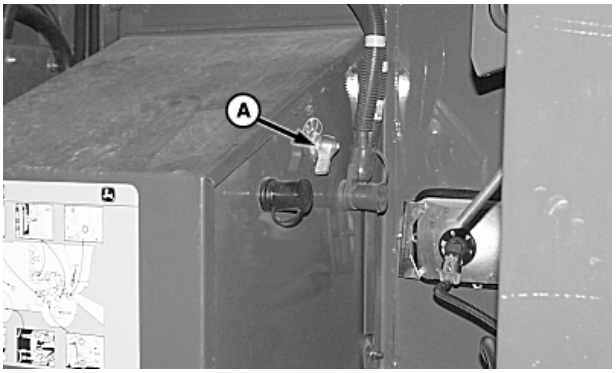
H83464 —UN—01JUN05

OUO6075,00007DB -19-19MAR07-4/4

Battery Disconnect Switch

Turn battery disconnect switch (A) clockwise to turn ON machine electrical system or turn handle counterclockwise to turn OFF machine electrical system.

A—Battery Switch



H83428 —UN—01JUN05

OUO6075,00007DC -19-19MAR07-1/1

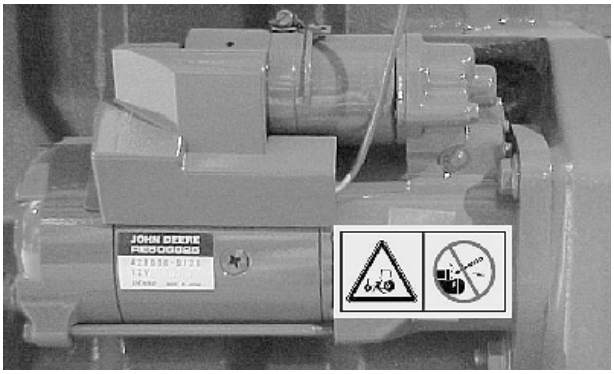
Starter

If starter fails to operate or operates sluggishly, the cause may not be in starter but one of the following:

- Loose, dirty, broken or corroded cables and wires
- Low battery output
- Run down batteries
- Crankcase oil of wrong viscosity

Starter is located on the left back side of the engine

If these checks do not correct the problem, see your John Deere dealer.



H74208 —UN—11NOV02

OUO6075,00007DD -19-19MAR07-1/1

Alternator and Voltage Regulator

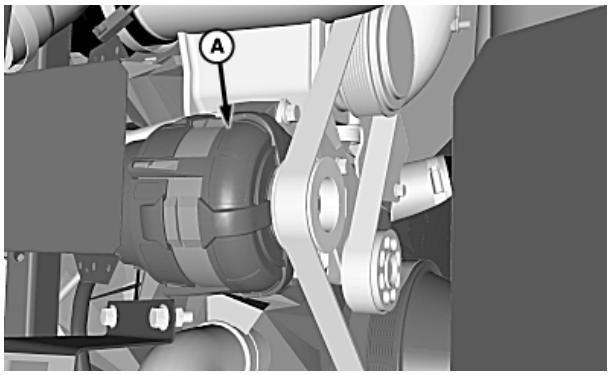
Always disconnect battery ground cable before working on alternator (A) or regulator.

Machine is equipped with a 200 amp alternator. Never attempt to polarize alternator or regulator.

Never ground a terminal or connect a jumper wire to any alternator terminals.

Never connect or disconnect alternator wires with batteries connected or alternator operating.

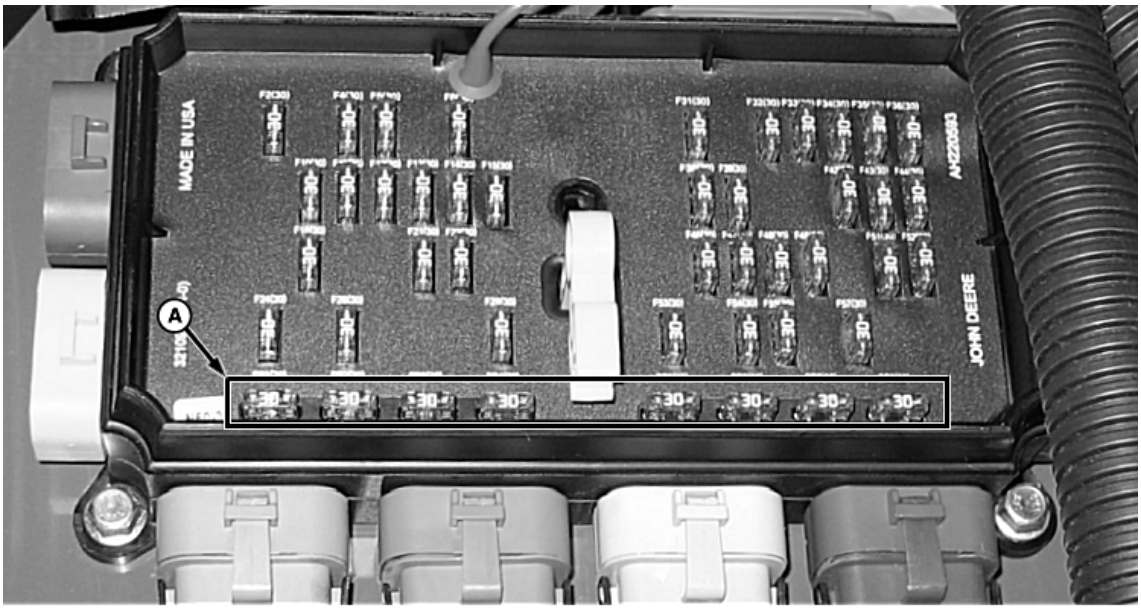
A—Alternator



H82366 —UN—03FEB05

OUO6075,00007DE -19-16JUL07-1/1

Fuse Center

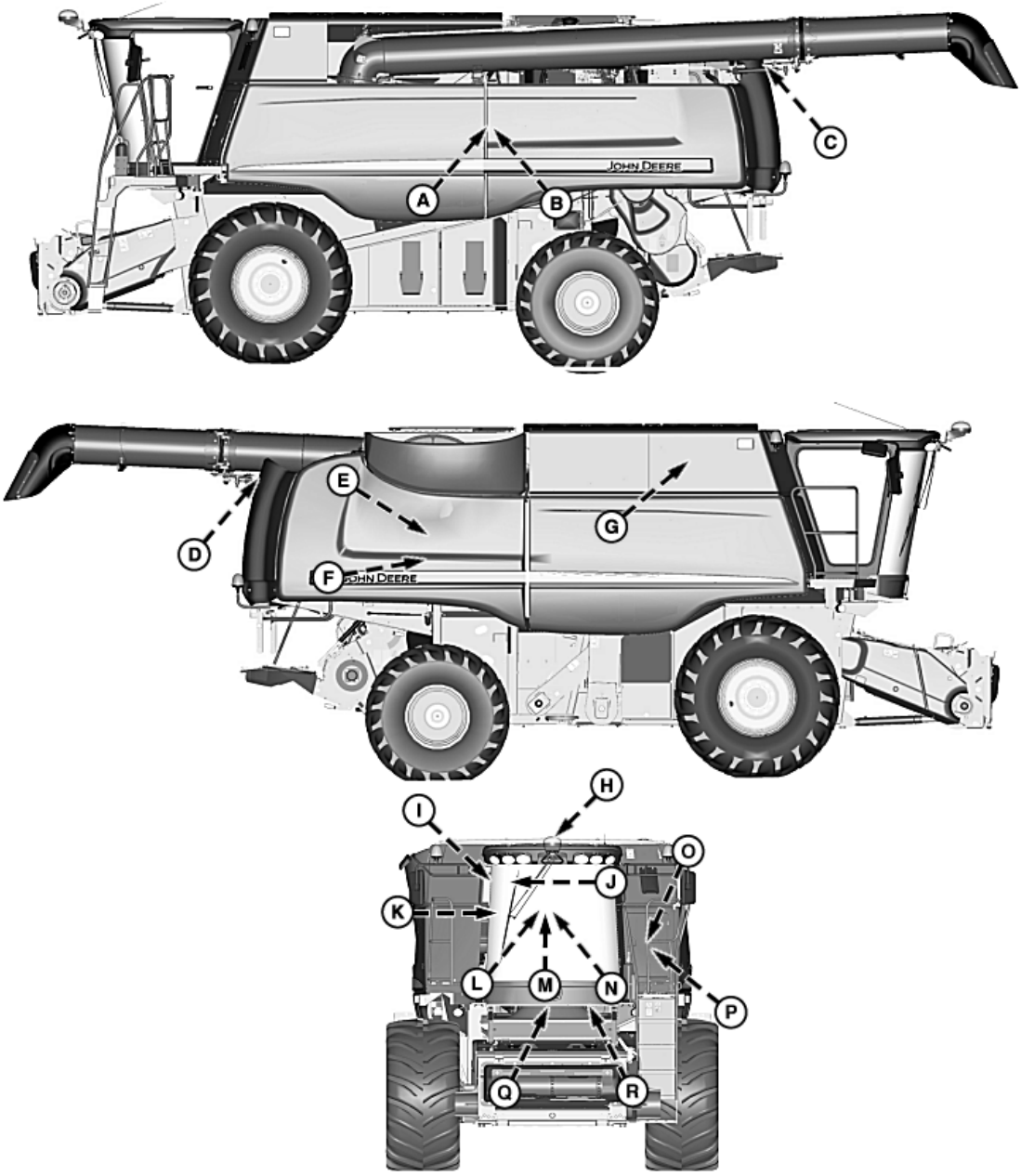


H87865 —UN—17APR07

- A — Spare Fuses (30 Amp.)
- F1 — F11 Not Used
- F12 — Right Power Module Power 4
- F13 — F14 Not Used
- F15 — Control Unit (SSU) Unswitched Power (If Equipped)
- F18 — Cornerpost Display Unit (CDU), Control Unit (CAB), Air Seat Compressor, Radio, Mirror Adjust
- F21 — Cab Power Module 4, Control Unit (ADU)
- F22 — Right Power Module Power 5
- F24 — Control Unit (CAB) Power 2, Ignition Switch
- F26 — Auxiliary Power Outlet Strip, Windshield Wiper, Cigarette Lighter
- F29 — Control Unit (ECU) Power
- F31 — Left Power Module 1 Power 2
- F32 — Control Unit (VCM) Power (If Equipped)
- F33 — Left Power Module 1 Power 3
- F34 — Chopper Raise/Lower
- F35 — Control Unit (LC2) Power 1
- F36 — Left Power Module 1 Power 5
- F38 — Cab Power Module Power 1
- F39 — Control Unit (LC1) Power 1
- F42 — Left Power Module 2 Power 4 (If Equipped)
- F43 — Left Power Module 1 Power 1
- F44 — Control Unit (LC2) Power 2
- F46 — Right Power Module Power 3
- F47 — Moisture Meter Power (If Equipped)
- F48 — Left Power Module 1 Power 4
- F49 — Cab Power Module Power 2
- F51 — Cab Power Module Power 4, Dome Light
- F52 — Control Unit (LC1) Power 2
- F53 — Control Unit (RCU) Power 1
- F54 — Right Power Module Power 2
- F55 — Right Power Module Power 1
- F57 — Cab Power Module Power 3

OUO6075,0000892 -19-17APR07-1/1

Controller and Power Module Locations



H93245 —UN—15JAN09

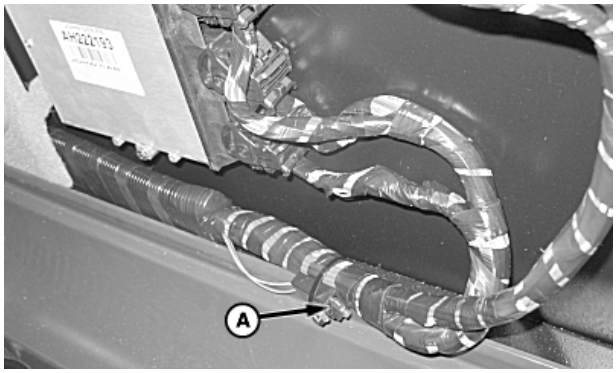
A—Left Control Unit 2 (LC2)
B—Left Power Module 2 (LPM2)
C—Vehicle Control Module (VCM) (Optional)
D—Engine Control Unit (ECU)
E—Right Control Unit (RCU)
F—Right Control Power Module (RPM)
G—Moisture Sensor (HMM)
H—GreenStar Position Receiver (Optional)
I—Cornerpost Display Unit (CDU)
J—GreenStar Display (GS2) (Optional)
K—Armrest Display Unit (ADU)
L—Cab Control Unit (CAB)
M—Cab Power Module (CPM)
N—Harvest Smart Feed Rate Controller (SFC) (Optional)
O—Left Control Unit 1 (LC1)
P—Left Power Module 1 (LPM1)
Q—AutoTrac Controller (SSU) (Optional)
R—ProDrive Transmission Controller (PTP) (Optional)

OUO6075,000027E -19-21JAN09-1/1

System Wakeup Power Fuse

Fuse (A) is located behind the operator's seat along the rear wall. Wakeup power is used to turn on control units when key switch is "RUN" position. It keeps electrical power connected to the controllers after key switch is turned OFF. This also controls exit lighting and allow controllers to save operating information into memory.

A—5 Amp. Fuse (F62)



H88133 —UN—03MAY07

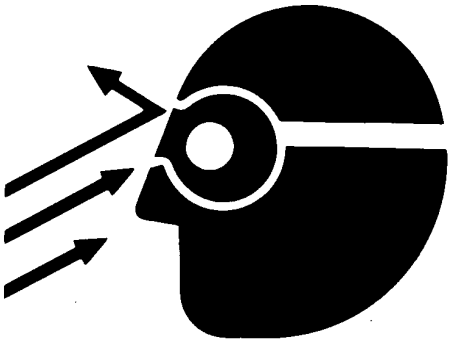
OUO6075,0000BB0 -19-03MAY07-1/1

Safety Rules When Replacing Halogen Bulbs

CAUTION: Halogen bulbs (A) contain gas under pressure. Handling a bulb improperly could cause it to shatter into flying fragments. To avoid possible injury:

1. **Turn OFF light switch and allow bulb to cool before changing bulbs. Leave switch OFF until bulb change is complete.**
2. **Wear eye protection when changing a halogen bulb.**
3. **Handle bulb by its base. Avoid touching glass.**
4. **Do not drop or scratch bulb. Keep moisture away.**
5. **Place used bulb in new bulb's carton and dispose of properly. Keep out of reach of children.**

A—Halogen Bulb



TS266 —UN—23AUG88

H59774 —UN—30AUG99

OUO6075,00007E8 -19-19MAR07-1/1

Replacing Bulbs

If all lights fail in a particular system at the same time, check for a failed fuse or relay.

If a single light fails, bulb may be burned out.

If problem is other than fuse, relay or bulb, see your John Deere dealer.

OUO6075,00007E9 -19-19MAR07-1/1

Cab Headlights—Replacing

CAUTION: Raise feeder house and lower safety stop before replacing or adjusting headlights.

Rotate light assembly (A) upward.

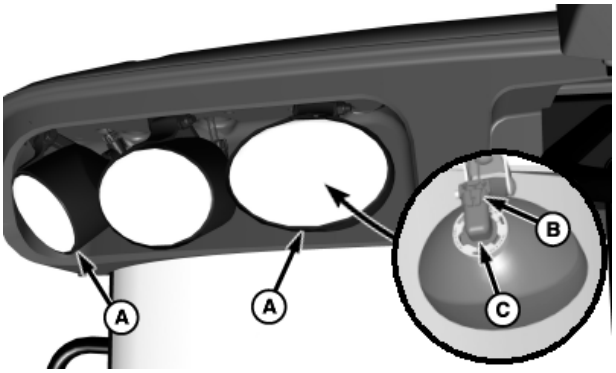
Disconnect wiring harness connector (B).

Turn bulb assembly (C) counterclockwise to remove.

Remove and replace bulb.

Install bulb in reverse order and connect wiring harness.

A—Light Assemblies
B—Connector
C—Bulb Assembly



H83429 —UN—10MAY05

OUO6075,00007EA -19-19MAR07-1/1

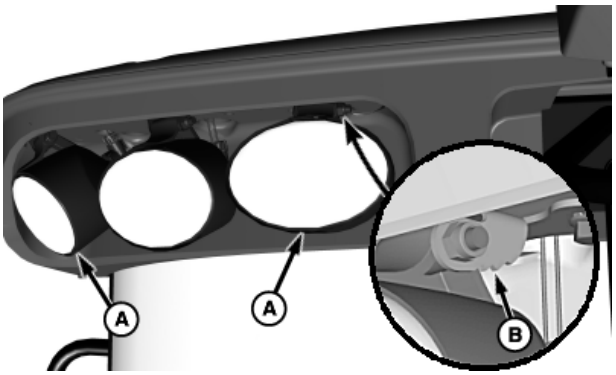
Cab Headlights—Adjusting

CAUTION: Raise feeder house and lower safety stop before replacing or adjusting headlights.

NOTE: The vertical adjustment of the light assemblies can be rotated up or down in the three notch positions to achieve the correct lighting angles.

Vertical Adjustment: Light assemblies (A) can be rotated up or down in notches (B).

A—Light Assemblies
B—Notches

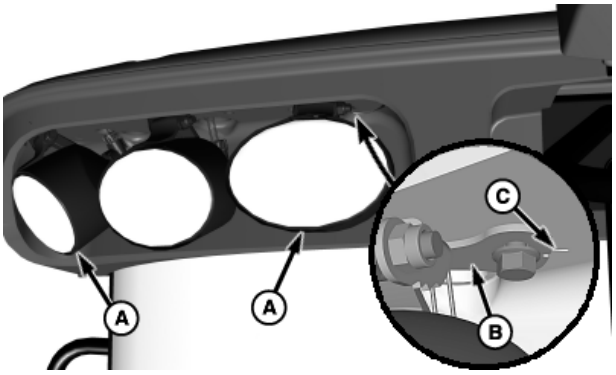


H83515 —UN—19MAY05

OUO6075,00007EB -19-19MAR07-1/2

Horizontal Adjustment: To adjust light assemblies (A), loosen cap screws and rotate bracket (B) until notch aligns with indicator line (C).

A—Light Assemblies
B—Bracket
C—Indicator Line



H83516 —UN—19MAY05

OUO6075,00007EB -19-19MAR07-2/2

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 the bulb sockets, resulting in serious damage (high-tension voltage - potential for FATAL ACCIDENTS).

If 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 the risk to health caused by gases.

High-tension voltage is conducted by the electrical connection between the work lights and the ballast unit; this connection must never be broken (high-tension voltage - potential for FATAL ACCIDENTS).

Make sure that 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 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 the bulb. Keep moisture away.

Use a clean cloth and alcohol to remove any fingerprints from glass bulb.

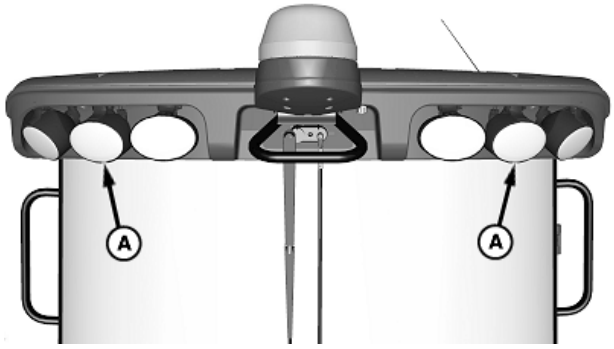
OUO6075,00007EC -19-19MAR07-1/1

High Intensity Discharge (Xenon) Lights (Optional)—Replacing

CAUTION: Avoid serious injury or death from electrical shock or lamp explosion. This lamp is powered by 25,000 volts. Do no begin installation of HID-Xenon lights 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 lights were previously operated, wait a minimum of five minutes before servicing bulb.

High intensity discharge (HID) xenon lights (A) are located in second and fifth cab light panel holes.



H82329 —UN—01FEB05

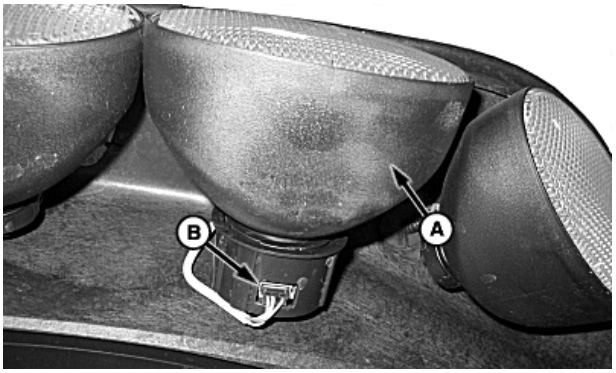
A—HID-Xenon Lights

Continued on next page

OUO6075,00007ED -19-01AUG07-1/3

Rotate light assembly (A) upward and disconnect wiring harness (B).

A—Light Assembly **B—Wiring Harness**



H89433 —UN—01AUG07

OUO6075,00007ED -19-01AUG07-2/3

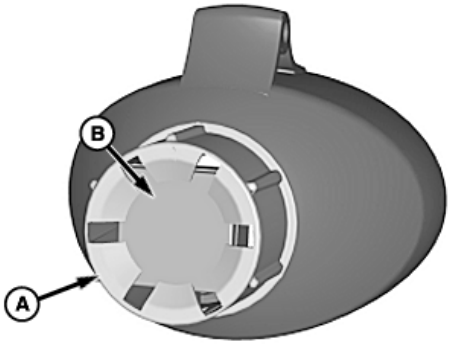
Push in and rotate retainer (A) counterclockwise.

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 Removed for Clarity

OUO6075,00007ED -19-01AUG07-3/3

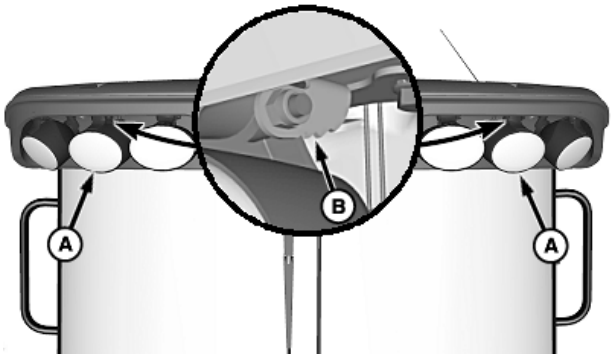
High Intensity Discharge (Xenon) Lights (Optional)—Adjusting

CAUTION: Raise feeder house and lower safety stop before replacing or adjusting headlights.

NOTE: Vertical adjustment of High Intensity Discharge (HID) Xenon lights assemblies must be rotated to first notch to achieve correct light angle.

Vertical Adjustment: Rotate light assembly (A) to the first notch (B).

A—Light Assemblies **B—First Notch**



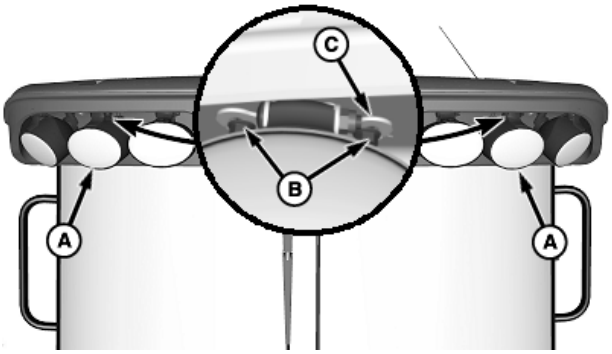
H83537 —UN—20MAY05

Continued on next page

OUO6075,00007EE -19-19MAR07-1/2

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

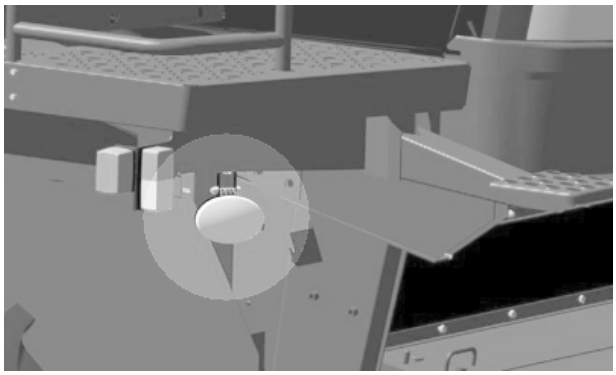
OUO6075,00007EE -19-19MAR07-2/2

Rear Discharge Lights, Auxiliary Field Lights, Access Door Work Lights, Stubble Lights, Grain Tank and Unloading Auger Light—Replacing

NOTE: (For important safety information regarding halogen bulbs, see Safety Rules When Replacing Halogen Bulbs in this section before performing this procedure.

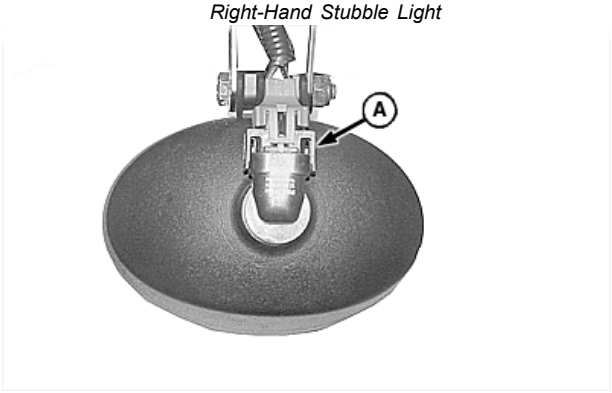
1. Disconnect connector (A).
2. Turn bulb assembly counterclockwise and remove.
3. Install bulb assembly in reverse order.

A—Connector
B—Bulb Assembly



H81762 —UN—28SEP04

Right-Hand Stubble Light



H76294 —UN—05MAY03

OUO6075,00009F0 -19-05APR07-1/1

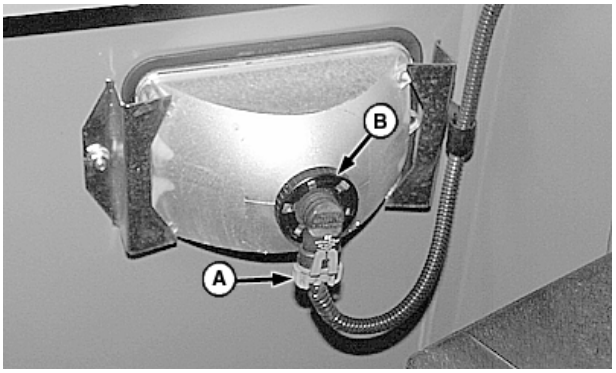
Side Finder Light—Replacing

Disconnect connector (A) and clean dirt from light.

Push in and twist retainer ring (B) counterclockwise. Bulb pulls straight out.

Install bulb in reverse order.

A—Connector **B—Retainer Ring**



H57680 —UN—28MAY99

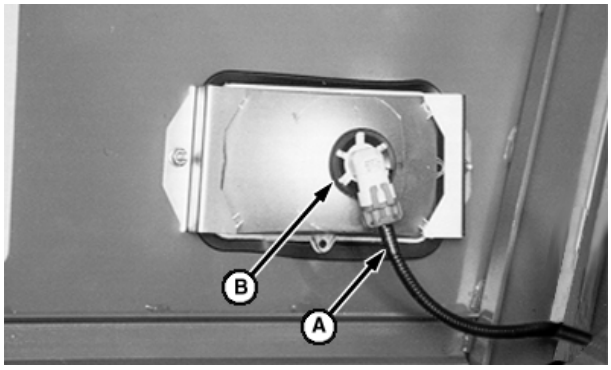
OUO6075,00007F1 -19-19MAR07-1/1

Cleaning Shoe Light—Replacing

Disconnect wiring (A) and clean dirt from light.

Push in and twist ring retainer (B) counterclockwise. Bulb pulls straight out.

A—Wiring **B—Ring Retainer**



H57457 —UN—08JUN99

OUO6075,00007F2 -19-22MAR07-1/1

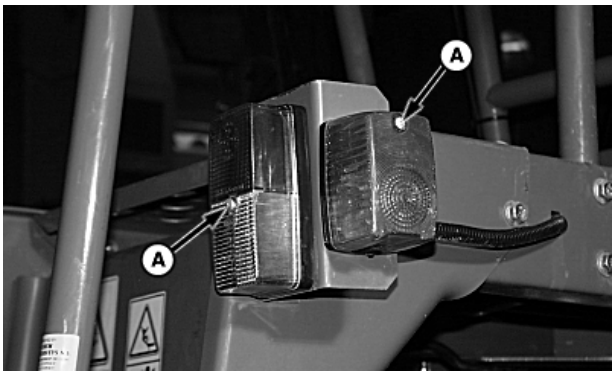
Warning Lights—Replacing

Remove screws (A) from lens covers.

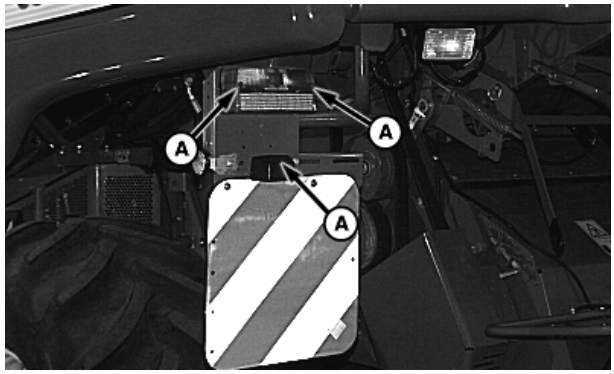
Remove light bulb by pushing in and turning counterclockwise.

Install bulb in reverse order.

A—Screws



H66115 —UN—01FEB01



H66116 —UN—01FEB01

OUO6075,00009F1 -19-19MAR07-1/1

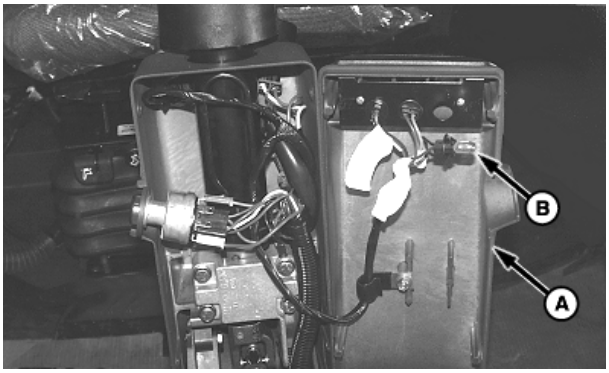
Turn Signal Indicator Lights—Replacing

Tilt steering column toward drivers seat.

Remove four screws and remove steering column cover (A).

Pull out bulb socket (B) (bulb pulls straight out).

A—Steering Column Cover **B—Bulb Socket**



H65622 —UN—15MAR01

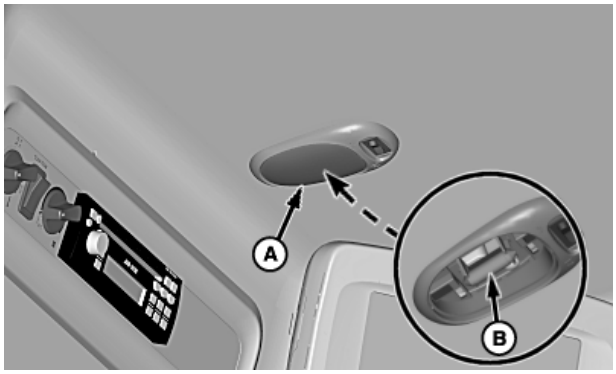
OUO6075,00007F5 -19-19MAR07-1/1

Cab Interior Light—Replacing

Remove lens cover (A) and replace bulb (B).

Install lens cover by snapping in place.

A—Lens Cover **B—Bulb**



H86762 —UN—31OCT06

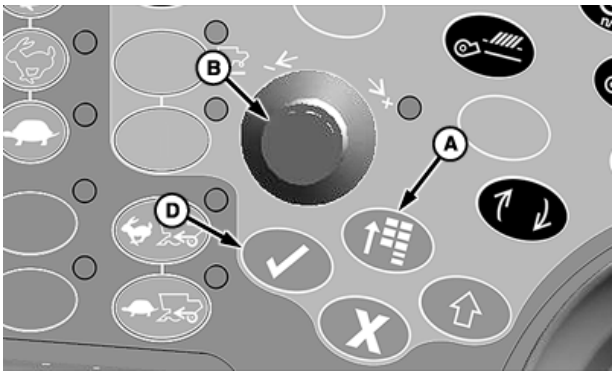
OUO6075,00007F6 -19-19MAR07-1/1

Accessing Diagnostic Trouble Code Menu

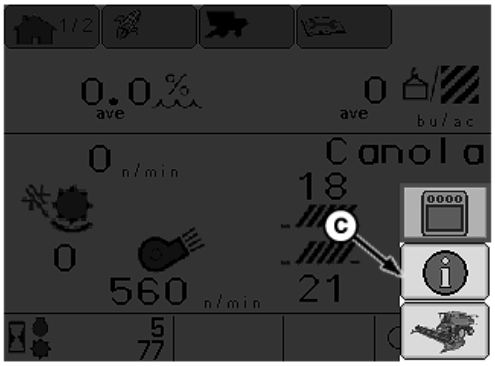
Press main menu switch (A) and rotate selection dial (B) until message center icon (C) is highlighted.

Press confirm switch (D).

A—Main Menu Switch
B—Selection Dial
C—Message Center Icon
D—Confirm Switch



H86133 —UN—17NOV06

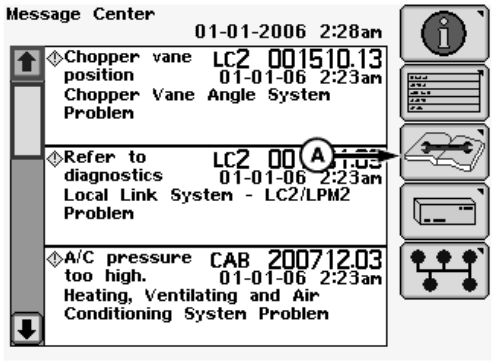


H86257 —UN—10JAN07

OUO6075,000080D -19-26JUN08-1/5

Rotate selection dial until trouble codes icon (A) is highlighted and press confirm switch.

A—Trouble Codes Icon



H86265 —UN—10JAN07

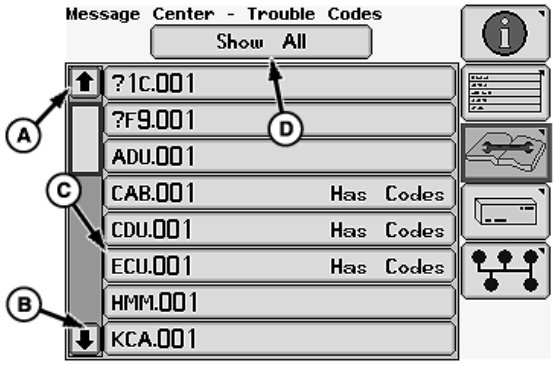
Continued on next page

OUO6075,000080D -19-26JUN08-2/5

NOTE: Another way to display diagnostic trouble codes is with show all menu (D). Rotate selection dial until show all menu is highlighted and press confirm switch. This displays all trouble codes for all controllers.

Rotate selection dial until up arrow (A) or down arrow (B) is highlighted and press confirm switch to scroll through controller list.

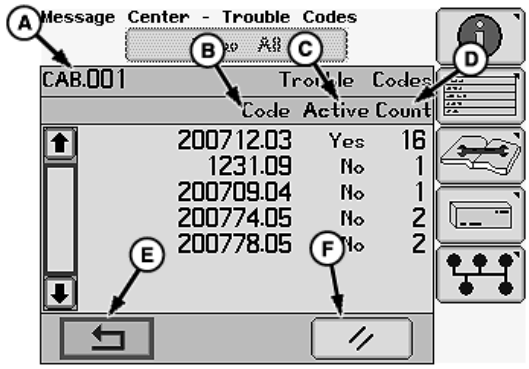
Rotate selection dial until desired controller (C) is highlighted and press confirm switch.



H86262 —UN—10JAN07

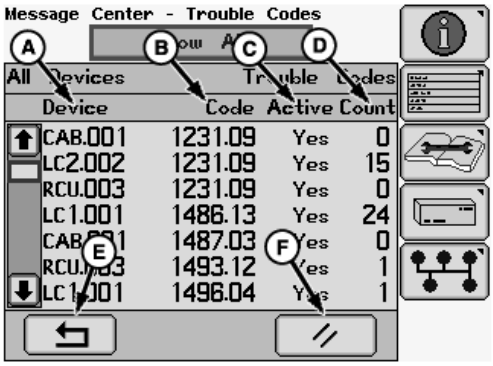
A—Up Arrow
B—Down Arrow
C—Controller
D—Show All Menu

OUO6075,000080D -19-26JUN08-3/5



H86263 —UN—10JAN07

Individual Controller Trouble Codes



H86264 —UN—28FEB07

All Controller Trouble Codes

A—Controller/Device
B—Trouble Code
C—Active (Yes/No)
D—Count
E—Return/Back Arrow Icon
F—Clear Icon

NOTE: It may be necessary to rotate selection dial to scroll through trouble codes if multiple codes are displayed.

Screen will display the following:

- Controller (A)
- Trouble Code (B)
- Active (Yes/No) (C)
- Count (D)

Rotate selection dial until return/back icon (E) is highlighted to return to previous screen or until clear icon (F) is highlighted and press confirm switch.

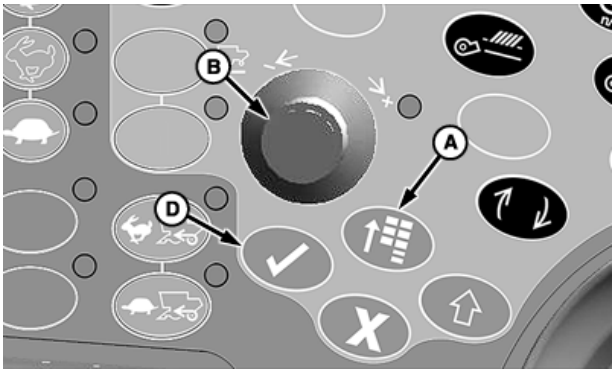
Continued on next page

OUO6075,000080D -19-26JUN08-4/5

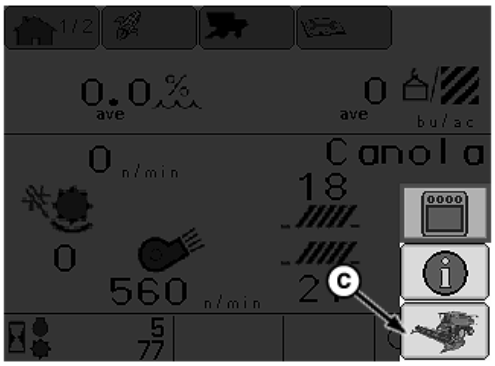
Press main menu switch (A) and rotate selection dial (B) until combine main page icon (C) is highlighted.

Press confirm switch (D) to return to home page.

A—Main Menu Switch
B—Selection Dial
C—Combine Main Page Icon
D—Confirm Switch



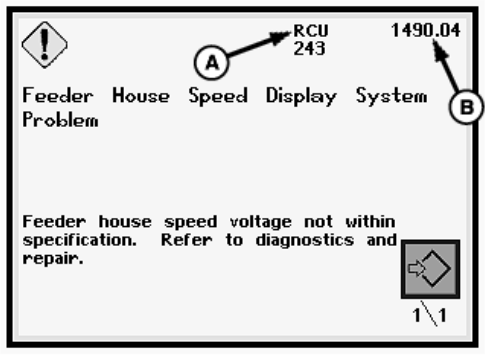
H86133 —UN—17NOV06



H86236 —UN—10JAN07

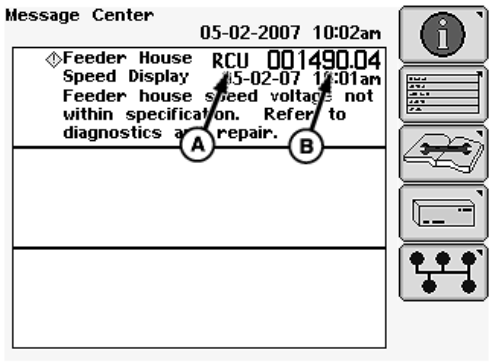
OUO6075,000080D -19-26JUN08-5/5

Diagnostic Trouble Code Screen Information



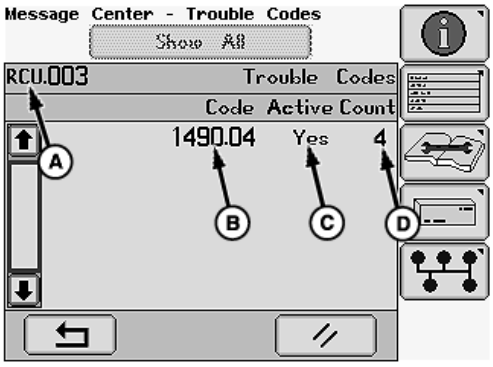
H91339 —UN—29APR08

Active Trouble Code



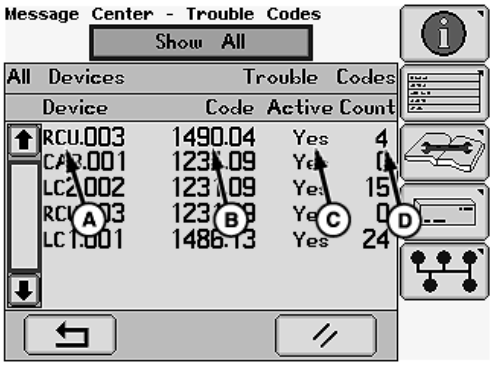
H91340 —UN—29APR08

Message Center Active Trouble Code



H91342 —UN—29APR08

Individual Controller Stored Trouble Code



H91341 —UN—29APR08

All Controller Stored Trouble Codes

A—Controller/Device **B—Trouble Code** **C—Active (Yes/No)** **D—Count**

When a diagnostic trouble code screen appears or a diagnostic trouble code needs to be retrieved, the following information needs to be provided to your John Deere dealer to properly diagnose the symptom:

- Controller (A)
- Trouble Code (B)
- Active (Yes/No) (C)
- Count (D)

NOTE: It may be necessary to rotate selection dial to scroll through trouble codes if multiple codes are displayed.

OUO6075,00000E5 -19-30APR08-1/1

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 — indicates a problem that requires the machine be stopped, the engine turned OFF immediately and the problem corrected. DTC is shown until the problem is resolved.
- Service Alert — indicates a problem should be checked immediately.
- Information — DTC is stored, but is not indicated to operator.

OUO6075,000080F -19-16JUL07-1/1

Hydraulic System (General Information)

Machine hydraulic system is an open center system. In an open center system the pump runs continuously, even when system components are not activated (system is in neutral). When system is in neutral, oil flows through the system and back to the reservoir - “open center” feature.

There are two reservoirs in the hydraulic system; hydraulic/hydrostatic reservoir and steering/main engine gearcase reservoir. Hydraulic/hydrostatic reservoir supplies oil for the header lift, hydraulic, reel/belt pickup. Steering/main engine gearcase reservoir supplies oil for the steering, ProDrive transmission, separator engage wet clutch, gearcase lubrication, and unloading auger engage systems.

There is one oil cooler for both reservoirs. Oil cooler bypass valves provide quick warm up of oil in cold weather.

There are three oil filters providing filtration for the hydrostatic system, steering/main engine gearcase system and the combined return oil from the header lift, hydraulic, and reel/belt pickup systems. A fourth filter provides filtration to the ProDrive transmission.

A three-pump stack supplies oil to the header lift, hydraulic and steering/main engine gearcase systems. A fourth section of this pump stack supplies oil to the ProDrive transmission. A pump powered by the feeder house drive supplies oil to the reel/belt pickup system. The hydrostatic system uses it’s own charge pump to supply charged oil to the hydrostatic unit.

CAUTION: It is normal for the system to allow a raised feeder house (with or without a header) to slowly lower to the ground after a long period of time. Always lower safety stop when machine is unattended. If feeder house should lower itself to the ground in less than 12 hours (approximate), see your John Deere dealer.

IMPORTANT: Components in this system are built to very close tolerances and have been adjusted at the factory. Do not attempt to service these components except to maintain proper oil level and to change oil and filter. See your John Deere dealer for all other service.

OUO6075,00000D2 -19-29APR08-1/1

Hydraulic System Cleanliness

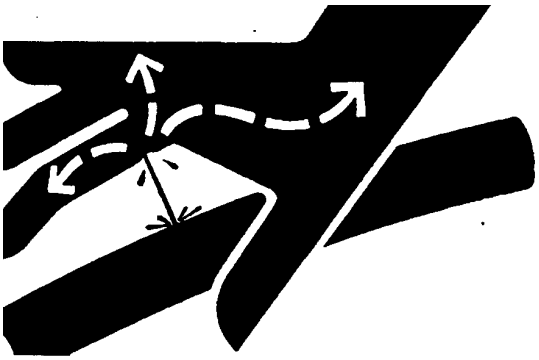
CAUTION: Escaping fluid under pressure can penetrate the skin causing serious injury. Avoid the hazard by relieving pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Search for leaks with a piece of cardboard. Protect hands and body from high pressure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

Cleanliness

If hydraulic system should be disconnected for service, protect 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



X9811 —UN—23AUG88

cleaning solvent for ten seconds minimum. Do not use water, water soluble cleaners or compressed air.

When coupling, remove cover from multi-coupler and attach to docking station on header. Clean both multi-coupler faces on feeder house and on header to remove dirt and debris.

OUO6075,0000811 -19-19MAR07-1/1

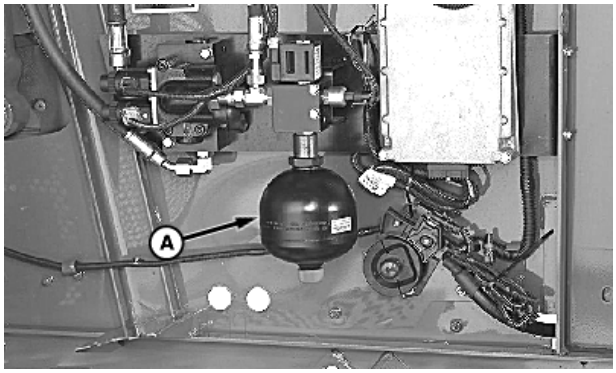
Accumulator

NOTE: If different headers are to be used, accumulator precharge should be set for the header with the lowest recommended precharge. When changing headers during harvest season, there is usually no need to change accumulator precharge pressure. Performance of accumulator system covers a large range of headers for most conditions.

Accumulator (A) system is connected to the header lift system between the lift cylinders and solenoid control valve. The accumulator is used to control header ground pressure (float) when it is necessary to operate headers in contact with the ground.

Accumulator Volume: 0.7 L (0.19 U.S. gal).

Accumulator is maintenance-free and cannot be repaired if damaged.



H78502 —UN—11SEP03

A—Accumulator

OUO6075,0000812 -19-22MAR07-1/1

Valve for Raising/Lowering Header (Proportional Valve)

Oil at a flow of (52 L/min; 13.7 gpm) reaches valve (A) from the first pump.

Pressure relief valve is set to 21000 kPa (210 bar; 3045 psi).

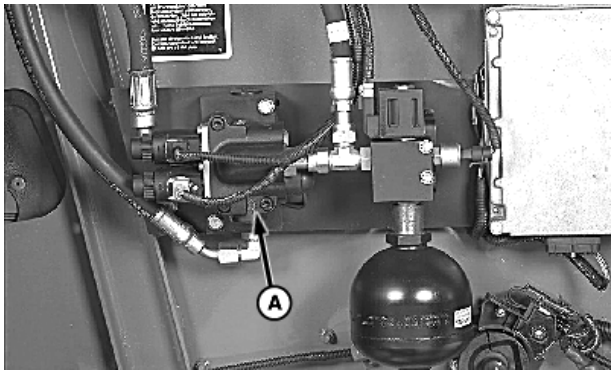
There are 3 internal valves:

- Neutral flow valve
- Raise (solenoid) valve
- Lower (solenoid) valve

When raising, the neutral flow valve automatically closes.

Entire oil flow returns via the filter in neutral flow or when pressure relief valve is triggered.

When lowering, the entire return flow discharges from the cylinders and goes directly to the tank.



H78503 —UN—11SEP03

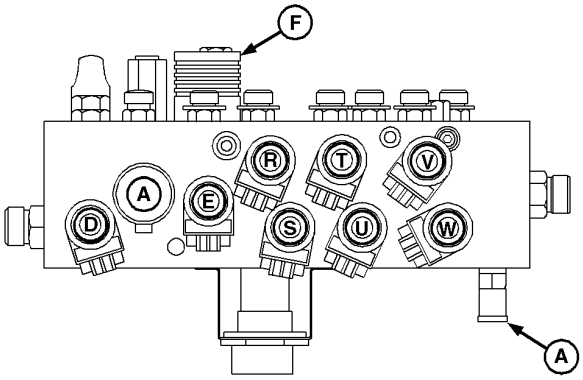
A—Valve

OUO6075,0000813 -19-16JUL07-1/1

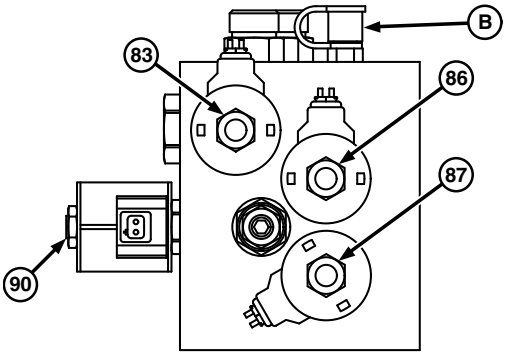
Hydraulic Pressure Diagnostic Ports and Control Scheme

With engine running apply screw driver to indicated coil to check energized condition (magnetized). See your John Deere dealer if indicated coil is not energized.

Function	Coils Magnetized
Threshing Speed Decrease	A
Threshing Speed Increase	A & D
Reel Lower (Header Speed Decrease)	E
Reel Lift (Header Speed Increase)	F & D
Unloading Auger Extend	S & D
Unloading Auger Retract	R & D
Reel Fore/Aft Extend (Deck Plate Open)	U & D
Reel Fore/Aft Retract (Deck Plate Close)	T & D
HeaderTrak Extend (Tilt Right)	W & D
HeaderTrak Extend (Tilt Left)	V & D
HILLMASTER Lower	83, 90, & 86 or 87
HILLMASTER (Tilt Left)	83 & 86
HILLMASTER (Tilt Right)	83 & 87



H87703 —UN—21MAR07



H84550 —UN—28SEP05

A—Relief Pressure At High Idle 21700 ± 1200 kPa (3150 ± 180 psi)

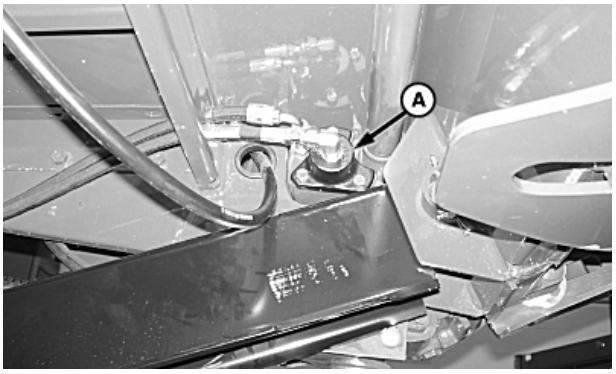
B—Relief Pressure At High Idle 21000 ± 690 kPa (3045 ± 100 psi)

OUO6075,00009F3 -19-09AUG07-1/1

Feeder House Reverser Valve and Reverser Housing

NOTE: Feeder house reverser only engages when feeder house drum is not rotating.

Feeder house reverser uses hydrostatic charge pressure to shift the feeder house gearcase. When reverser solenoid is energized, hydrostatic charge oil is routed to the reverser shift cylinder (A), causing it to retract against a spring. Oil from the spring side is vented back to the hydraulic reservoir. The piston retracts a shift fork inside, which moves the shift collar from a forward position to a reverse position. To operate reverser, see Shifting Feeder House in CommandTouch Armrest Console section.



H86512 —UN—18OCT06

A—Reverser Shift Cylinder

OUO6075,0000815 -19-09AUG07-1/1

Service Tires Safely

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

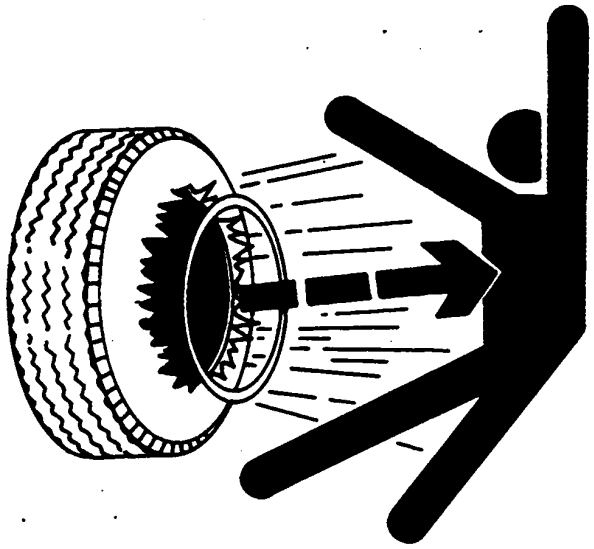
Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job.

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

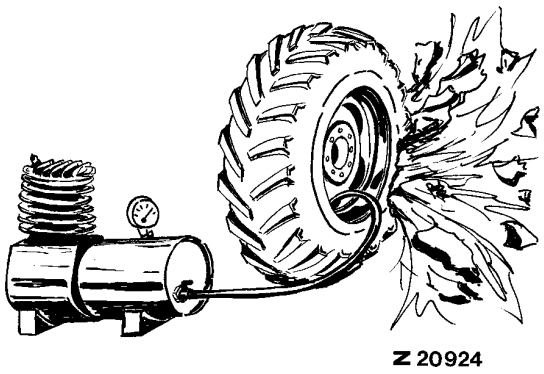
DX,RIM1 -19-27OCT08-1/1

Mounting Tires

CAUTION: Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service.

When seating tire beads on rims, never exceed maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead and reinflate.

Detailed agricultural tire mounting instructions, including the necessary safety precautions, are available from your local tire manufacturer agents.



IMPORTANT: Never operate combine with tires at shipping pressure. Keep valve caps screwed down on valve stems to prevent foreign material from accumulating in the valve core.

Check tire pressure frequently, referring to tire pressure charts. Required pressure may vary as load changes with the installation of different header units.

OUO6075,00009F6 -19-15MAR07-1/1

Care and Service of Tires

Check tires daily for damage and noticeably low pressure. Long life and satisfactory performance depend on proper tire inflation.

At least every 50 hours of operation, check tire pressure. If tires contain liquid ballast, use a special air-water gauge and measure with valve stem at bottom.

A small puncture in a tubeless tire can be temporarily repaired without dismounting the tire, thus avoiding down time during a busy season.

Have cuts or tears repaired as soon as possible, or change tire.

Protect tires from unnecessary exposure to sunlight, petroleum products and chemicals.

Drive carefully. Try to avoid rocks and sharp objects.

IMPORTANT: A permanent repair should be made as soon as possible to prevent further tire damage.

NOTE: The tire pressure listed below may be higher than the tire pressure shown on the side of the tire.

Front Wheels			
Size	**kPa**	**bar**	**psi**
710/70R38 (171A8) R1W	248	2.48	36
800/65R32 (172A8) R1W	276	2.76	40

Rear Wheels			
Size	**kPa**	**bar**	**psi**
500/85R24 (171A8) R1	276	2.76	40

OUO6075,000019A -19-07JUL08-1/1

Roadway Transport with Header Attached

Observe national and local laws regarding operation of the combine on public roadways.

This combine has been approved for roadway transport in Germany with a Geringhoff 8 row folding header and a Kemper 8 row folding header. Roadway transport in Germany with other heads must be approved by your local TUEV to achieve a road permission.

OUO6075,0000A06 -19-15MAR07-1/1

Front and Rear Tire Information

For additional information shown below on front and rear tires, see your John Deere dealer for further information.

Front Tires:

- Tire Sizes
- Header Compatibility
- Row Spacings
- Wheel Spacers
- Axle Spacers
- Wheel Offsets

Rear Tires:

- Tire Sizes
- Axle Types
- Spindle Types
- Axle Positions
- Front to Rear Height Differences

OUO6075,0000278 -19-13JAN09-1/1

Changing Tire Radius

If tires or final drives are changed from what was originally shipped from the factory, it will be necessary to recalibrate the system. Verify that the correct tire code is entered into memory.

IMPORTANT: When changing drive wheels, tire radius may also change. If so, CAB controller must be adjusted to new tire radius. See your John Deere dealer for further information on changing tire codes.

Failure to recalibrate system will result in inaccurate Harvest Monitor Yields.

OUO6075,00009FA -19-01MAY07-1/1

Ballast Requirements

NOTE: Tires requiring fluid must be filled to 75%.

	S690 HILLMASTER							
Conditions	**Normal (Slopes of 15% or less)**				**Extremely Hilly (Slopes greater than 15%)**			
Four Wheel Drive	**No**		**Yes**		**No**		**Yes**	
Fluid Required	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**	**No**	**Yes**
Header								
618R & F	0	0	0	0	0	0	0	0
620R & F	0	0	0	0	0	0	0	0
622R & F	0	0	0	0	0	0	0	0
625R & F	0	0	0	0	0	0	0	0
630R & F	0	0	0	0	0	0	0	0
635F	0	0	0	0	NR	1	0	0
693C	0	0	0	0	0	0	0	0
694C	0	0	0	0	0	0	0	0
893C	0	0	0	0	0	0	0	0
894C	0	0	0	0	0	0	0	0
1290C	0	0	0	0	NR	1	0	0
1291C	0	0	0	0	NR	1	NR	1
1293C	0	0	0	0	NR	1	NR	1
608C	0	0	0	0	0	0	0	0
608C-SM	0	0	0	0	0	0	0	0
612C	0	1	0	0	NR	NR	NR	1
612C-SM	NR	NR	0	0	NR	NR	NR	NR
R = Rigid Platform				0 = No ballast required for any rear tire option.				
F = Flex Platform				1 = 500/85R24 rear tires.				
C = Corn Head				NR = Not recommended since machine with header cannot be properly ballasted.				
C-SM = Corn Head w/ StalkMaster™								

StalkMaster is a trademark of Deere & Company

OUO6075,000016B -19-09JUL08-1/1

Using Liquid Weight

CAUTION: Installing liquid weight (ballast) requires special equipment and training.

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

A solution of water and calcium chloride provides a safe and economical ballast. Used properly, it will not damage tires, tubes or rims.

Use calcium chloride to prevent water from freezing. A mixture of 1.6 kg (3-1/2 lb) of calcium chloride per 3.8 L (1 gal) will not freeze solid above -45°C (-50°F).

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

H65625 —UN—09JAN01

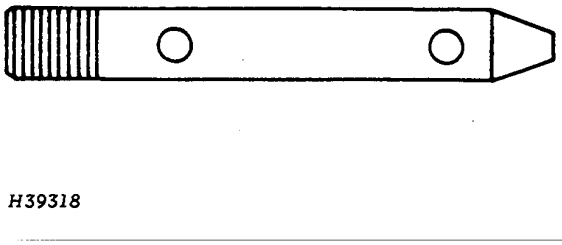
Fill tubeless tires at least to valve level (minimum 75 percent full). Less solution would expose part of rim, possibly causing corrosion. Tube-type tires may be filled to any level below 90 percent.

OUO6075,000089D -19-15MAR07-1/1

Drive Wheel Starter Stud

If a wheel is removed, thread rim starter stud into axle, then install wheel. This stud can also be used for duals.

NOTE: Wheel bolts are M20 x 1.5.



H39318 —UN—11OCT88

OUO6075,0000825 -19-15MAR07-1/1

Rear Wheel Bolt Torque

Each time a rear wheel is removed, torque wheel bolts to specification. After one hour of operation torque wheel bolts again to specification.

Specification	
Wheel Bolts (Non-Powered Axles)—Torque (Dry)	315 N·m (232 lb-ft)
Wheel Bolts (Powered Axles)—Torque (Dry)	200 N·m + 1/4 turn (150 lb-ft + 1/4 turn)

NOTE: Mount rear tires with the offset "in" and valve stems to the outside.

Refer to decal on tire for proper torque sequence.

H57469 —UN—07JUN99

OUO6075,0000826 -19-15MAR07-1/1

Drive Wheel Bolt Torque

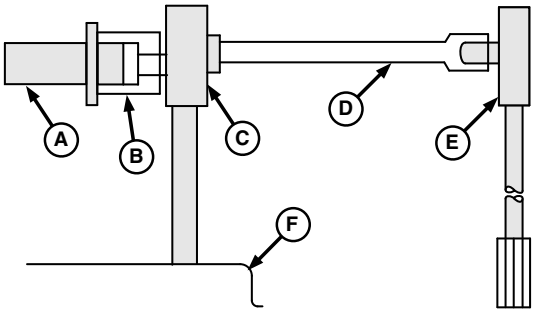
IMPORTANT: Bolts must be clean and free of lube before installing. Torque value is for clean, dry bolt. Lubricating reduces friction and overloads bolts.

When drive wheels are repositioned or replaced, torque wheel bolts to specification and in a criss/cross pattern without using a torque multiplier.

Specification	
Wheel Bolts—Torque	200 N•m + 1/4 turn (150 lb-ft + 1/4 turn)

NOTE: If equipped with 100 mm (4 in.) wheel spacers, turn bolt head 1/2 turn (ratchet/torque wrench will make two full turns).

Use torque multiplier and turn bolt head 1/4 turn (ratchet/torque wrench will make a full turn).



H72242 —UN—12JUN02

A—Wheel Bolt
B—30 mm Socket
C—4-to-1 Torque Multiplier
D—Extension
E—Torque Wrench
F—Wheel

OUO6075,0000D4B -19-05DEC07-1/1

Front Drive Wheel Offset

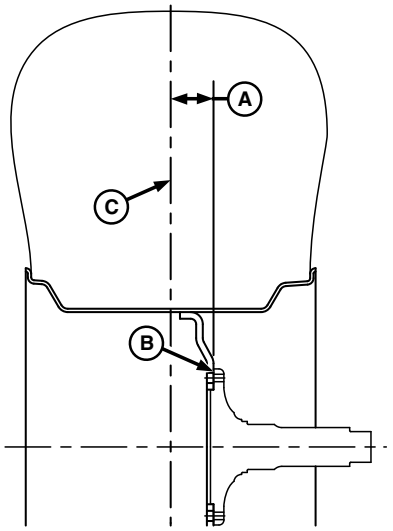
CAUTION: Avoid serious injury or death resulting from final drive failure and loss of drive wheel during transport or field operation. Do not exceed maximum wheel offset.

IMPORTANT: Use only John Deere supplied wheels, tires and spacers. Use of non-John Deere components not meeting John Deere specification will void John Deere warranty.

Dual wheels are not available for use on S560, S690 and S690 HILLMASTER machines. Machine damage can occur if dual wheels are used.

Wheel offset distance severely affects life of final drive parts. When installing drive wheels, ensure that offset dimension (A) measured from spindle surface (B) to centerline (C) is within specification.

Maximum Wheel Offset—Specification	
Single Wheel—Distance	114.3 mm (4-1/2 in.)



H65047 —UN—30OCT00

Single Wheel

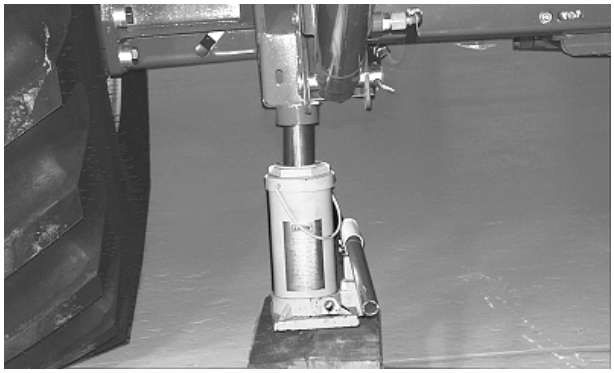
A—Dimension
B—Spindle Surface
C—Tire Centerline

OUO6075,0000A05 -19-20SEP07-1/1

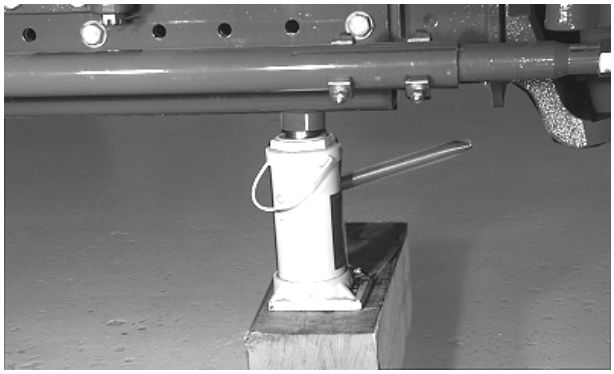
Jacking Locations

CAUTION: Always empty grain tank before jacking up machine.

Do not raise machine at any other location than those with a jack pocket.



H65709 —UN—05JAN01



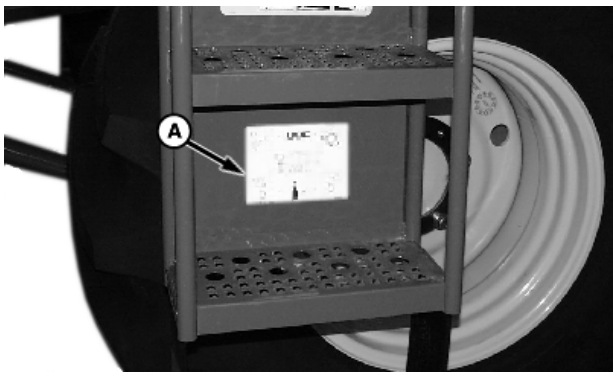
H65710 —UN—05JAN01

OUO6075,0000834 -19-19MAR07-1/1

Jack Pocket Location Decal

Jack pocket location decal (A) is located on cab ladder. Decal shows correct locations for raising machine using proper jacks.

A—Jack Pocket Location Decal



H80888 —UN—12MAY04

OUO6075,0000835 -19-19MAR07-1/1

Breaking-In Engine

The engine is ready for normal operation. However, extra care during the first 100 hours of operation results in more satisfactory long-term engine performance and life. DO NOT exceed 100 hours of operation with break-in oil.

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.

If engine has significant operating time at idle, constant speeds, and/or light load usage, or makeup oil is required in the first 100 hour period, a longer break-in period may be required. In these situations, an additional 100 hour break-in period is recommended using a new change of John Deere Engine Break-in Oil and a new John Deere oil filter.

IMPORTANT: DO NOT add makeup oil until the oil level is BELOW the "ADD" mark on 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™ or Plus-50™ II Engine Oil during break-in period of a new engine or engine that has had a major overhaul. These oils will not allow a new or overhauled engine to properly wear during this break-in period.

Check engine oil level more frequently during engine break-in period. If oil must be added during this period, John Deere Engine Break-In Oil is preferred.

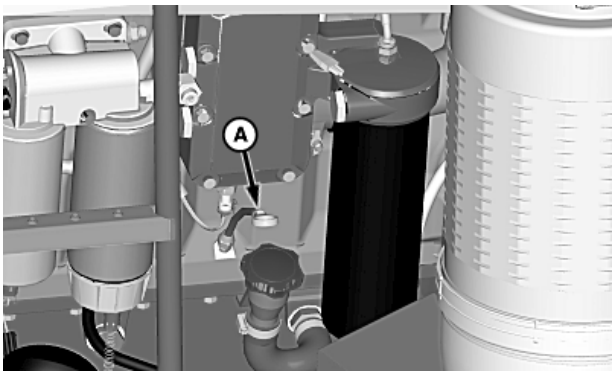
IMPORTANT: DO NOT fill above the FULL mark. Oil levels anywhere within the cross hatch marks are considered in the acceptable operating range.

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

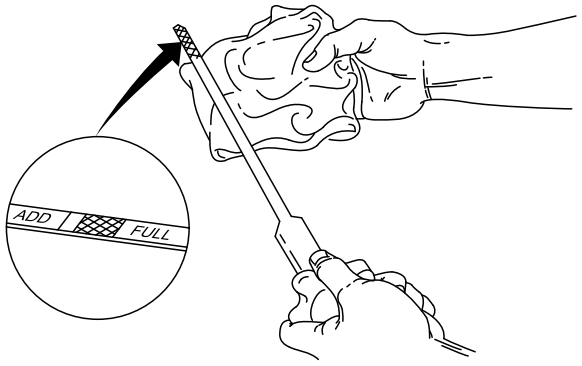
During first 20 hours, avoid prolonged periods of engine idling or sustained maximum load operation. If engine idles longer than 5 minutes, stop engine.

After first 100 hours maximum, change engine oil and replace engine oil filter. Fill crankcase with seasonal viscosity grade oil, (see Diesel Engine Oil in the Fuel And Lubricants section for oil recommendations).

Plus-50 is a trademark of Deere & Company



H86715 —UN—19OCT06



H86717 —UN—19OCT06

A—Dipstick

Check engine oil level with dipstick (A) daily. Do not operate engine when oil level is below "ADD" mark on dipstick.

NOTE: Verify dipstick is pushed completely into housing before removing to check oil level.

Remove dipstick and check oil level. Oil level should be between "ADD" and top of cross-hatch area on dipstick. If oil level is below "ADD" mark, add oil as needed, (see Fuel And Lubricants section for oil recommendations).

Watch for leaks. Do not operate engine with oil level below "ADD" mark.

Continued on next page

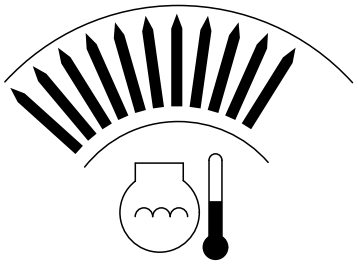
OUO6075,0000498 -19-07JAN10-1/3

If air temperature is below -10°C (14°F) use an engine block heater.

Temperature gauge needle should read in green zone during normal operation.

IMPORTANT: Prevent possible engine damage. Do not shut OFF engine if temperature warning light comes ON or needle enters the red zone. Shutting OFF engine causes coolant temperature to rise even higher, resulting in machine damage. Reduce load and run engine at a slower speed to lower coolant temperature. Unless temperature drops quickly, stop engine and determine cause before resuming operation.

Watch temperature gauge closely. If needle moves into red zone 115°C (240°F), reduce load on engine and determine cause before resuming operation.

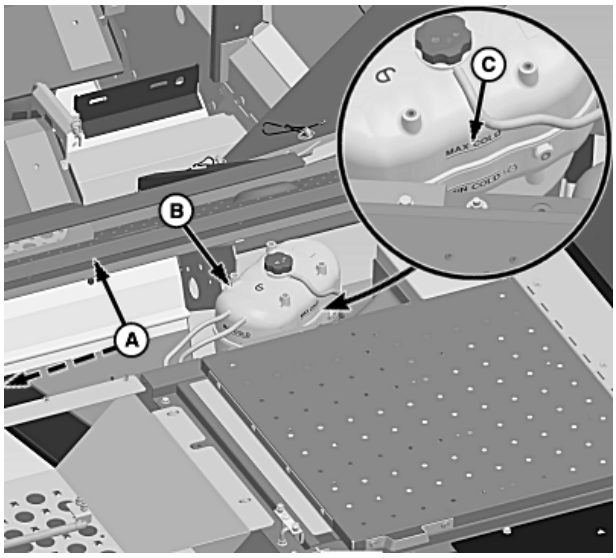


H69573 —UN—06AUG01

OUO6075,0000498 -19-07JAN10-2/3

Turn latch and open engine access covers (A) to check coolant level periodically and watch for signs of leaks. Pour coolant into surge tank (B) to “Max Cold” line (C).

A—Engine Access Covers
B—Surge Tank
C—Max Cold Line



H91166 —UN—17APR08

OUO6075,0000498 -19-07JAN10-3/3

Belt Drives Adjustment - First 50 Hours

CAUTION: Never check or adjust belt drives with engine running. Shut OFF engine, set parking brake and remove key.

Check all spring loaded belt idler adjustments after first 50 hours of operation. Most belt stretch occurs during the first hours of service.

After initial adjustments, check belt adjustment as required. Washer on spring tensioner should be positioned between end of gauge and bottom of step.

OUO6075,00006A2 -19-20MAR07-1/1

Break-In Check First 100 Hours

Perform daily or 10 hour service, (see Lubrication and Maintenance section).

Watch CommandCenter display for engine temperature and engine oil pressure diagnostic trouble codes. If codes appear, refer to Diagnostic Trouble Codes section for further information.

Check engine oil level (if needed, add John Deere Break-In Oil) and coolant level frequently and watch for signs of leaks.

Check engine air intake system hoses and clamps for tightness.

OUO6075,00006A3 -19-26APR07-1/1

Break-In Check After 100 Hours

Drain crankcase oil by opening drain (A) and close once oil is drained.

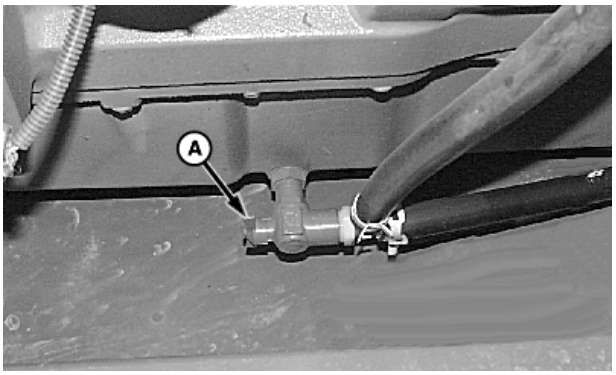
Remove and dispose of oil filter (B) properly.

Clean filter mount base, apply oil to gasket and install new filter element. Hand tighten only.

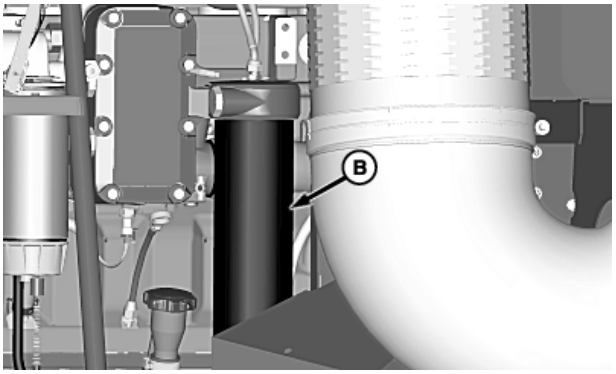
Fill crankcase with proper amount of engine oil, (see Diesel Engine Oil in Fuel And Lubricants section for oil specification).

IMPORTANT: If diesel fuel sulfur content exceeds 0.7 percent, change oil every 100 hours.

A—Drain **B—Oil Filter**



H81205 —UN—15JUN04



H86719 —UN—19OCT06

OUO6075,0000873 -19-17MAR10-1/1

Engine Oil Level

Check engine oil level with dipstick (A) daily. Do not operate engine when oil level is below “ADD” mark on dipstick.

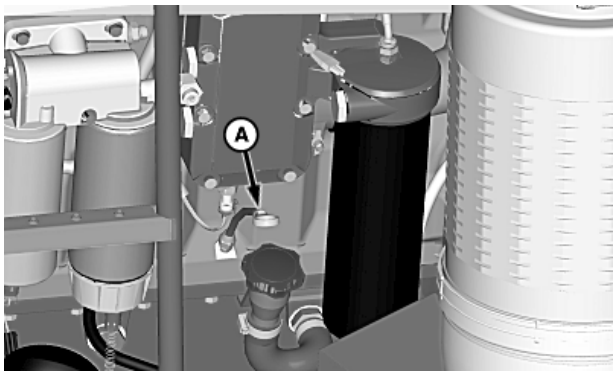
IMPORTANT: It is vital to maintain engine oil at correct levels to ensure a long service life. Check oil level with machine parked on level ground.

NOTE: Verify dipstick is pushed completely into housing before removing to check oil level.

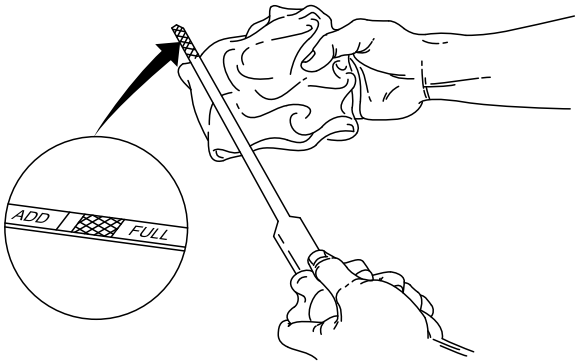
Remove dipstick and check oil level. Oil level should be between “ADD” and top of cross-hatch area on dipstick. If oil level is below “ADD” mark, add oil as needed, (see Fuel And Lubricants for oil recommendations).

Watch for leaks. Do not operate engine with oil level below “ADD” mark.

A—Dipstick



H86715 —UN—19OCT06



H86717 —UN—19OCT06

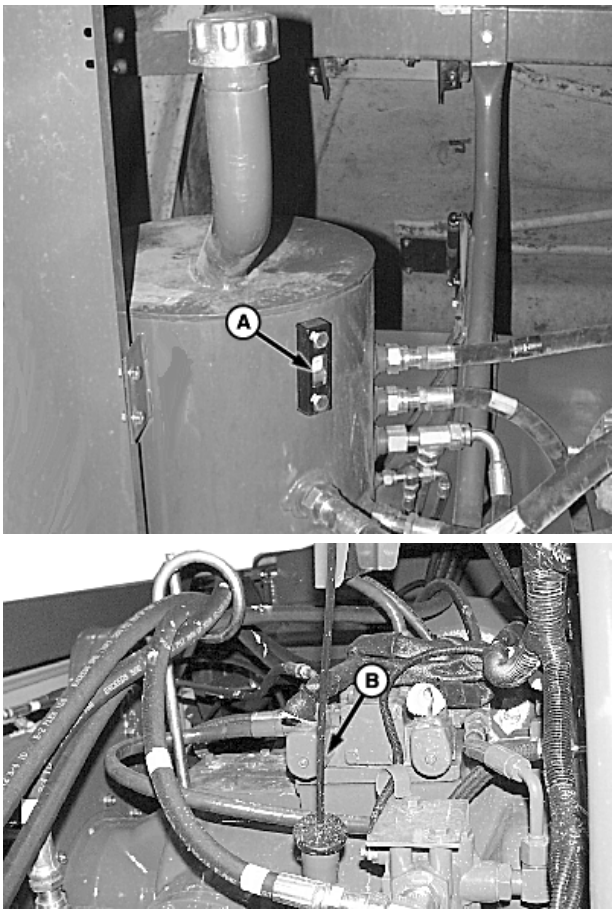
OUO6075,0000874 -19-15MAR07-1/1

Hydrostatic/Hydraulic Oil Level

Check hydrostatic/hydraulic oil level with header on ground and all cylinders retracted. Oil level must be at top of sight glass (A) with feeder house fully lowered. Add oil as needed, but do not overfill.

Shut OFF engine, set parking brake and remove key before checking hydraulic oil at engine gearcase. Oil must not be below “ADD” mark on dipstick (B).

A—Sight Glass **B—Dipstick**



Hydraulic Oil Level (Engine Gearcase)

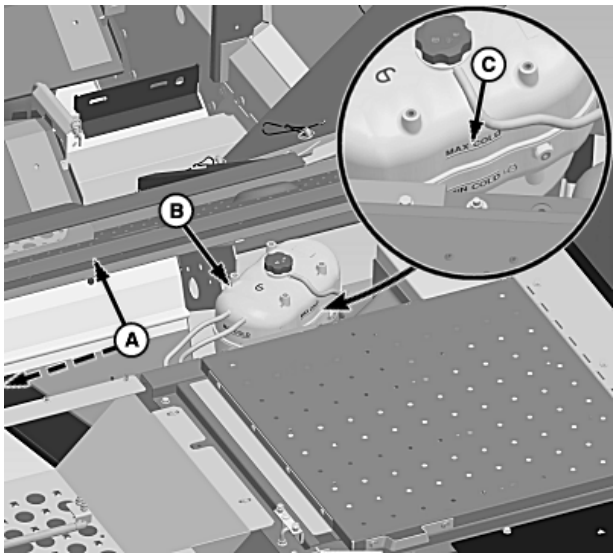
OUO6075,00006A6 -19-09AUG07-1/1

Coolant Level

IMPORTANT: A special cap is used on the surge tank and radiator. If either cap is damaged or missing, it must be replaced by an equivalent cap.

Allow engine to cool and open engine access covers (A). Coolant level in surge tank (B) should be at “Max Cold” line (C).

A—Engine Access Covers
B—Surge Tank
C—Max Cold Line



H91166 —UN—17APR08

OUO6075,00000A2 -19-30APR08-1/1

Fuel System

⚠ CAUTION: Shut OFF engine, set parking brake and remove key before performing maintenance work on fuel filters.

NOTE: Make sure precleaner bowl is fully seated to prevent air from entering the fuel system.

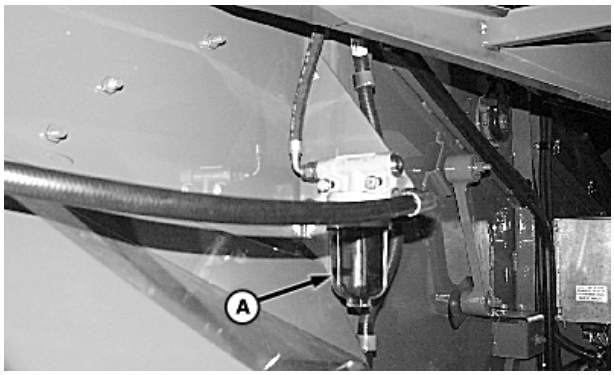
Close fuel shut off valve on fuel tank.

Remove precleaner and clean screen (A) if dirty fuel was used.

Open drain (B) to inspect fuel system for water in primary filter (C), (see Service Engine section).

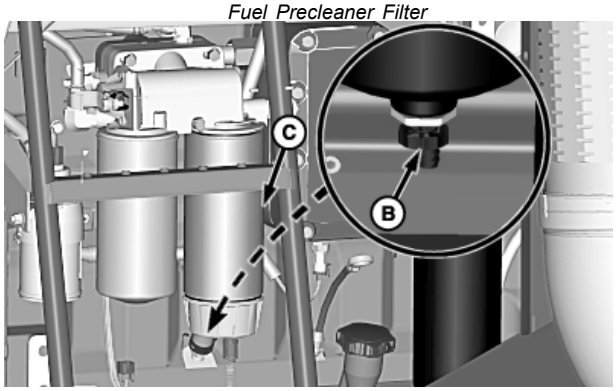
If dirty fuel was used replace filter (C), (see Service Engine section).

A—Screen
B—Drain
C—Primary Fuel Filter



H78613 —UN—13OCT03

Fuel Precleaner Filter



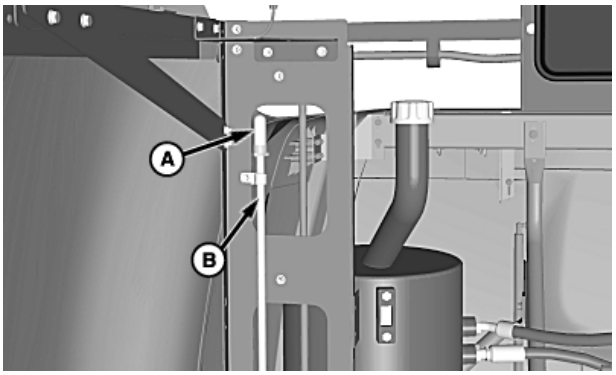
H86720 —UN—19OCT06

OUO6075,0000875 -19-15APR09-1/1

Fuel Tank Breather

Visually inspect fuel tank breather (A) weekly (located by hydraulic reservoir). Do not allow excessive amounts of chaff or debris to collect on top of breather. If breather is covered with debris, it will not allow fuel tank to breathe. Remove fuel tank breather from hose (B) and clean.

A—Fuel Tank Breather **B—Hose**



H82416 —UN—09FEB05

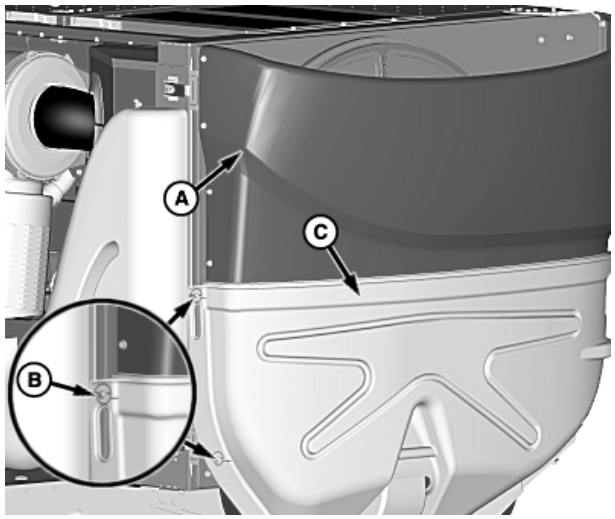
OUO6075,00006A9 -19-15MAR07-1/1

Engine Air Scoop

Check engine air scoop (A) as needed for crop debris or foreign material.

Remove quick-lock pins (B) and open lower radiator door (C) to cleanout debris or material.

A—Engine Air Scoop **C—Lower Radiator Door**
B—Quick-Lock Pins

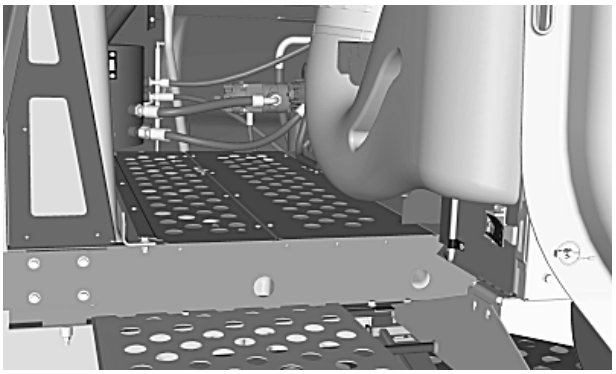


H86721 —UN—19OCT06

OUO6075,0000876 -19-15MAR07-1/1

Cleaning Engine Compartment

CAUTION: Dirt, oil, chaff and crop debris in the engine compartment and on the engine is a fire hazard. Direction of wind, type of crop and its moisture content can all have an effect on where and how much chaff and debris accumulate. Check and clean this area frequently. Do not clean engine or engine compartment with engine running.



H82381 —UN—07FEB05

OUO6075,00006AB -19-15MAR07-1/1

Fire Extinguisher

A 6 kg (15 lb.) general purpose fire extinguisher meeting national certification requirements must be installed on the combine. A fire extinguisher and bracket is located near the engine platform ladder landing.

Maintain fire extinguisher to keep it in operating condition.

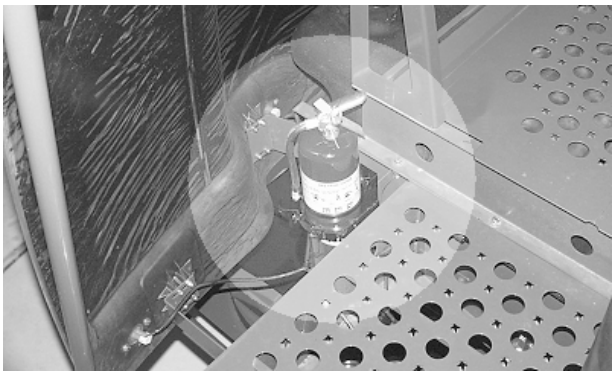
Keep the engine clean and free of dust, chaff and straw to prevent the possibility of fire.

H39760 —UN—11OCT88

OUO6075,000240D -19-29OCT02-1/1

Fire Extinguisher Location

Rear fire extinguisher is located under the right-hand gull wing door.



H82553 —UN—28APR05

Rear Fire Extinguisher Location

OUO6075,00000C4 -19-23APR08-1/1

After Long Storage Period

Bleed fuel system to remove air (see Service Engine section).

Grease machine and header.

OUO6075,00006AC -19-05DEC07-1/1

Tires

Check tires daily for damage or noticeably low pressure, (refer to Care and Service of Tires in Ground Drive and Rear Axle section).

Every 50 hours of operation, check tire pressures. If tires contain liquid ballast, use a special air-water gauge and measure with valve stem at bottom.

OUO6075,00006AD -19-15MAR07-1/1

Starting the Engine

CAUTION: Before starting engine, make sure everyone is clear of machine. Sound horn to warn others.

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

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

1. Move multifunction control handle (A) to neutral position.
2. Verify header engage switch (B) and separator engage switch (C) are OFF.

A—Multifunction Control Handle
B—Header Engage Switch
C—Separator Engage Switch

OUO6075,0000352 -19-15APR09-1/2

CAUTION: Sound horn before starting engine to warn others to stay clear from machine.

To avoid the possibility of personal injury or death, start engine ONLY from operator seat. Do not start engine by shorting across starter terminals. Machine will start in gear if bypassed.

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

NOTE: When key switch is turned to "START" a delay of a couple seconds will occur. This allows controllers to power up, relays to close and starter solenoid to energize.

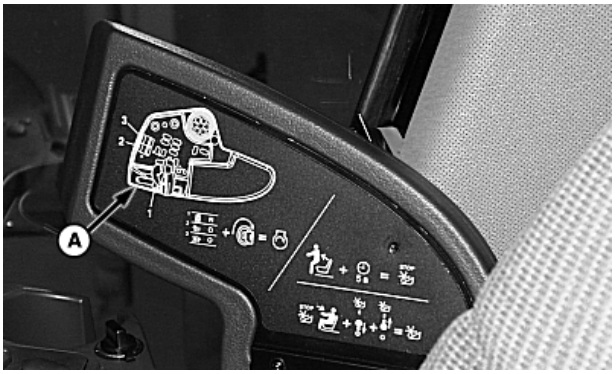
Decal (A) on storage box lid shows engine starting information.

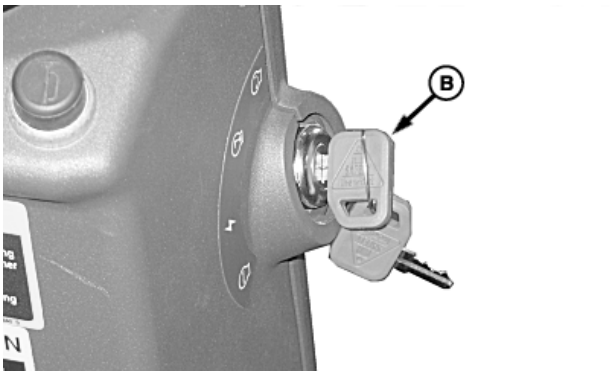
3. Sound horn and turn key switch (B) located on steering column to "START" position.

   Key positions are:

First Position	OFF
Second Position	Accessories
Third Position	Run
Fourth Position	Start

NOTE: Diagnostic Trouble Codes (DTC) will display if Stop Engine Code appears on CommandCenter display. Display stops normal functions, indicating a problem that requires the machine be stopped and the problem corrected immediately. Codes are displayed until the problem is resolved. If problem cannot be resolved, see your John Deere dealer.





A—Decal
B—Key Switch

4. Release key after engine starts and let engine run at low idle for five minutes to warm oil.

OUO6075,0000352 -19-15APR09-2/2

Stopping the Engine

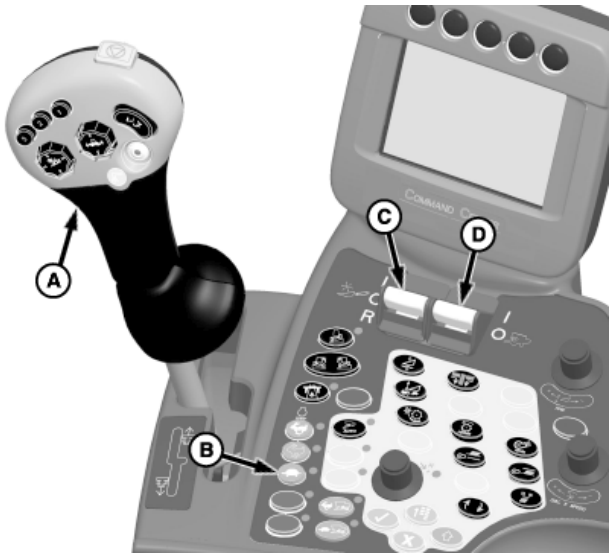
1. Lower header or reel completely to ground.
2. Move multifunction control handle (A) to neutral position and press engine speed control switch (B).
3. Shut OFF header engage switch (C) and separator engage switch (D).

IMPORTANT: Cooling of turbocharger and some engine parts is provided by engine oil. Stopping a hot engine might cause damage to these parts.

4. Before stopping an engine that was operating at working load, idle engine at least two to three minute to allow turbocharger to cool.

CAUTION: Set parking brake and remove key before leaving machine.

5. Turn key switch OFF.



H87023 —UN—27NOV06

A—Multifunction Control Handle
B—Engine Speed Control Switch
C—Header Engage Switch
D—Separator Engage Switch

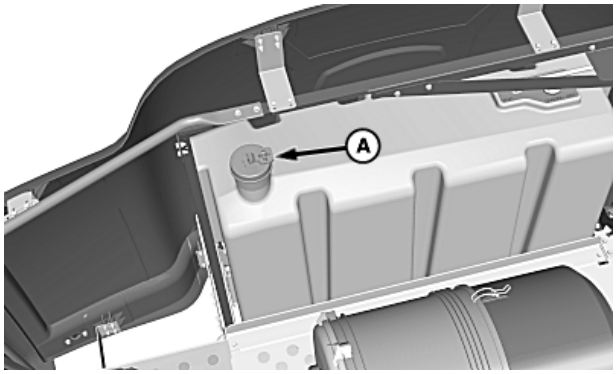
OUO6075,0000A1D -19-04MAY10-1/1

Cold Weather Operation

Fuel Tank

Remove fuel tank cap (A) and fill with winter grade fuel at the end of each day to prevent condensation.

A—Fuel Tank Cap



H82497 —UN—04MAR05

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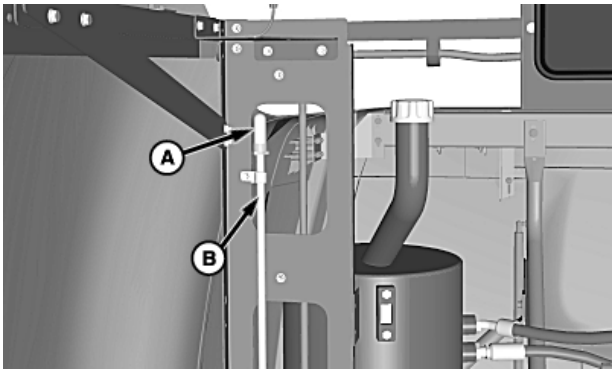
OUO6075,00000AB -19-30APR08-1/4

Fuel Tank Breather

Visually inspect fuel tank breather (A) (located by hydraulic reservoir). Do not allow excessive amounts of chaff or debris to collect on top of breather. If breather is covered with debris, it will not allow fuel tank to breathe. Remove fuel tank breather from hose (B) and clean.

A—Fuel Tank Breather **B—Hose**



H82416 —UN—09FEB05

OUO6075,00000AB -19-30APR08-2/4

Radiator

IMPORTANT: Do not try to drain cooling system to protect against freezing. Heater does not drain completely, so freeze damage might result.

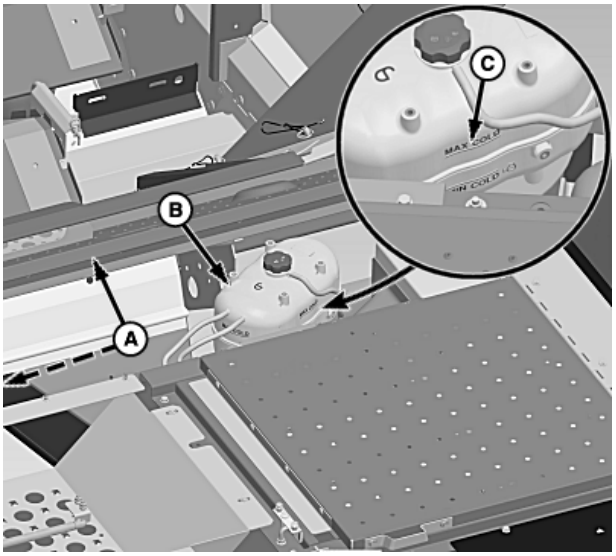
Machine is shipped from factory with permanent type 50/50 ethylene glycol antifreeze mix.

Allow engine to cool and open engine access doors (A). Coolant level in surge tank (B) should be at “Max Cold” line (C).

Leave antifreeze in cooling system all year long. If coolant is lost or drained, it must be replaced with the correct coolant and conditioner, (see recommendations given in Fuels and Lubricants section).

After adding antifreeze, turn heater ON and run engine until it reaches operating temperature. This mixes the solution and circulates it through the system.

IMPORTANT: A special cap is used on the surge tank and radiator. If either cap is damaged or missing, it must be replaced by an equivalent cap.



H91166 —UN—17APR08

A—Engine Access Doors **C—Max Cold Line**
B—Surge Tank

OUO6075,00000AB -19-30APR08-3/4

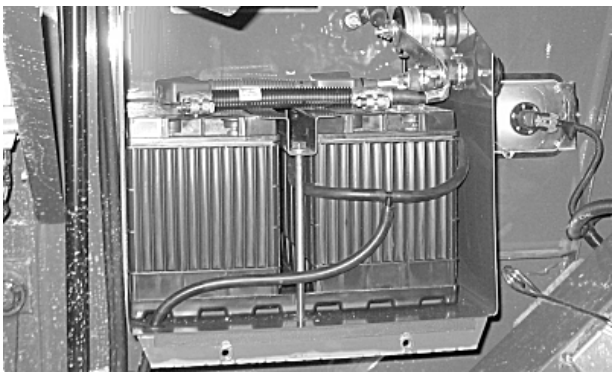
Batteries

When temperature drops below freezing, keep batteries fully charged. Discharged batteries will freeze.

In freezing weather, do not add water to batteries unless engine is to be run for 30 minutes or more or batteries are charged after water is added.

Windshield Washer Reservoir

Fill windshield washer reservoir with automotive windshield washer solution.



H85704 —UN—17APR06

OUO6075,00000AB -19-30APR08-4/4

Hot Weather Operation

CAUTION: Coolant conditioner contains alkali. Avoid contact with eyes. Do not take internally. In case of contact, immediately wash skin with soap and water. For eyes, flush with large amounts of water for at least 15 minutes. Call a physician. Keep out of reach of children.

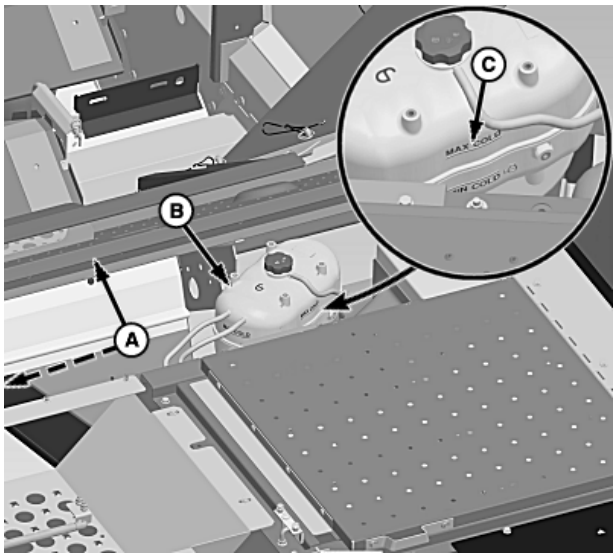
Cooling system must be clean and in good condition for operation. Loss of pressure results in over heating and loss of coolant.

Check for:
- Surge tank coolant level
- Plugged radiator
- Leaking hoses
- Broken fan belt or rotary screen belt
- Engine fan should be at high speed

Machine is shipped from factory with permanent type 50/50 ethylene glycol antifreeze mix.

Allow engine to cool and open engine access doors (A). Coolant level in surge tank (B) should be at “Max Cold” line (C).

Leave antifreeze in cooling system all year long. If coolant is lost or drained, it must be replaced with the correct coolant and conditioner, (see recommendations given in Fuels and Lubricants section).



H91166 —UN—17APR08

A—Engine Access Doors
B—Surge Tank
C—Max Cold Line

To prevent mineral deposits, do not use hard water.

OUO6075,000032A -19-23MAR09-1/1

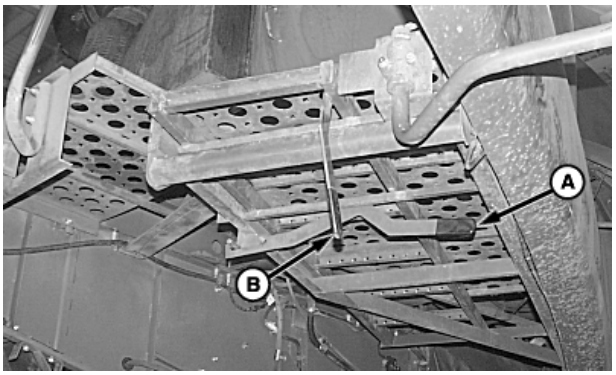
Rear Ladder and Landing

CAUTION: Shut OFF engine, set parking brake and remove key.

Push up on handle (A) and swing ladder out until door latches.

Use handle (B) to pull ladder rearward.

A—Handle **B—Handle**



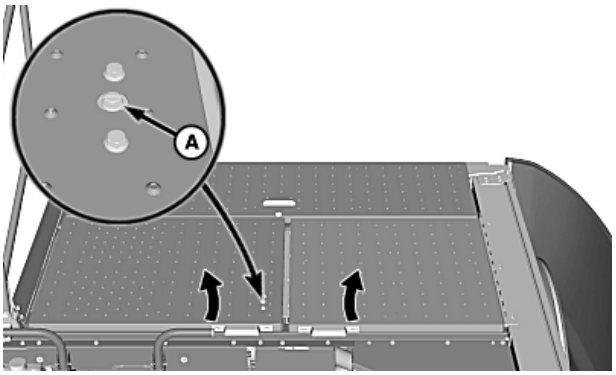
H82379 —UN—07FEB05

OUO6075,00006B6 -19-15MAR07-1/1

Engine Access Covers

Turn latch (A) to open engine access covers.

A—Latch

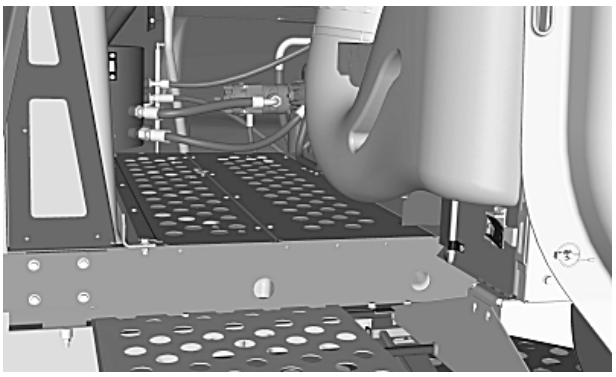


H87207 —UN—17JAN07

OUO6075,00006B7 -19-15MAR07-1/1

Cleaning Engine Compartment

CAUTION: Dirt, oil, chaff and crop debris in the engine compartment and on the engine is a fire hazard. Direction of wind, type of crop and its moisture content can all have an effect on where and how much chaff and debris accumulate. Check and clean this area frequently. Do not clean engine or engine compartment with engine running.



H82381 —UN—07FEB05

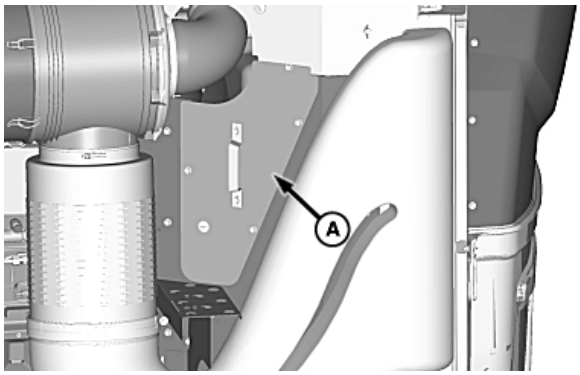
OUO6075,00006AB -19-15MAR07-1/1

Belt Shield

CAUTION: Drive belts on engine are enclosed. Keep shield in place except to service. Shut OFF engine, set parking brake and remove key before opening shield.

Remove shield (A) to access engine belts.

A—Shield



H87210 —UN—16JAN07

OUO6075,000087A -19-15MAR07-1/1

Do Not Modify Engine Power or Fuel/Air System

IMPORTANT: Increasing horsepower, or altering any aspect of fuel and air delivery on emissions certified engines beyond factory settings, will cause emission levels beyond what is allowed by engine emission regulations. Unauthorized adjustments are in violation of the emission regulations applicable to this engine and may result in substantial fines and penalties. Machine warranty will be voided if power level is changed from factory specifications.

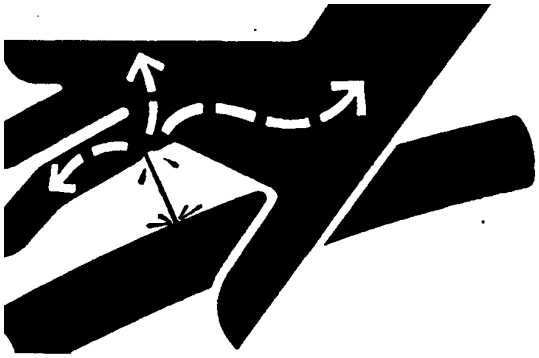
Do not attempt to service injection pump or fuel injectors. Special training and special tools are required. See your John Deere dealer.

OUO6075,000038D -19-18APR06-1/1

Fuel System

CAUTION: Escaping diesel fuel under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pin holes and nozzles which eject fluids under high pressure. Use a piece of cardboard or paper to search for leaks. Do not use your hand.

If ANY fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene may result.



X9811 —UN—23AUG88

HX,AG,SF7073 -19-23JAN92-1/1

Check Engine Oil

IMPORTANT: It is vital to maintain engine oil at correct levels to ensure a long service life. Check oil level with machine parked on level ground.

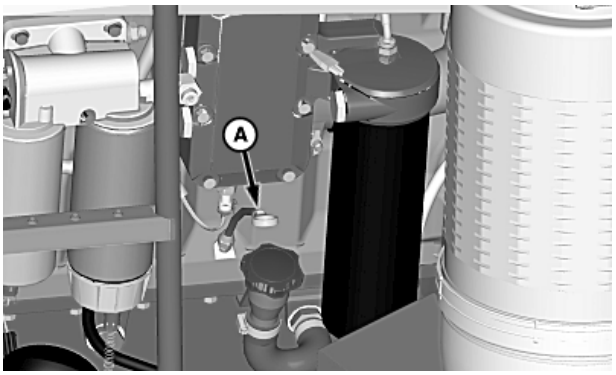
NOTE: Verify dipstick is pushed completely into housing before removing to check oil level.

Check engine oil level with dipstick (A) daily. Do not operate engine when oil level is below “ADD” mark on dipstick.

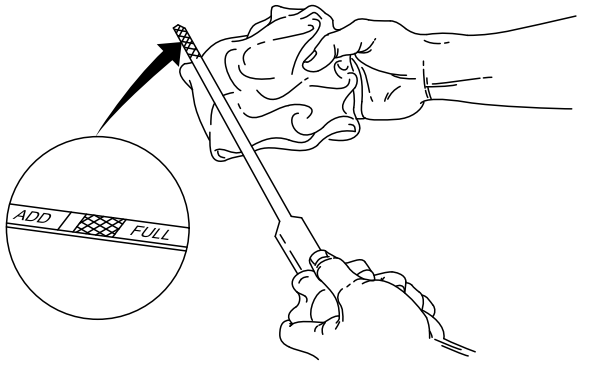
Remove dipstick and check oil level. Oil level should be between “ADD” and top of cross-hatch area on dipstick. If oil level is below “ADD” mark, add oil as needed, (see Fuel And Lubricants for oil recommendations).

Watch for leaks. Do not operate engine with oil level below “ADD” mark.

A—Dipstick



H86715 —UN—19OCT06



H86717 —UN—19OCT06

OUO6075,000087B -19-15MAR07-1/1

Fuel Tank—Filling

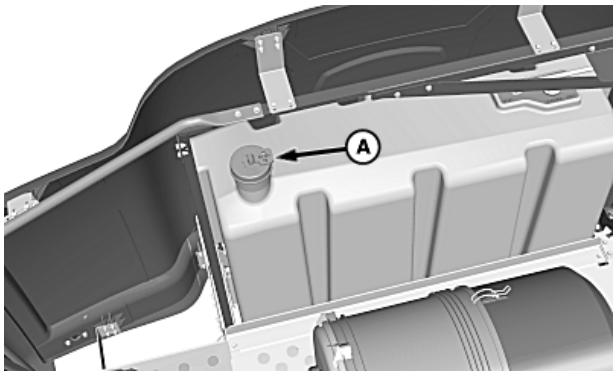
CAUTION: Handle fuel carefully. Do not refuel machine while smoking. Shut OFF engine, set parking brake and remove key before filling tank.

Do not overfill fuel tank. Bodily injury can result from fuel splash back. Leakage can result from expansion of fuel. If tank is filled too full, then left in direct sunlight or if temperature gets too hot, tank will overflow.

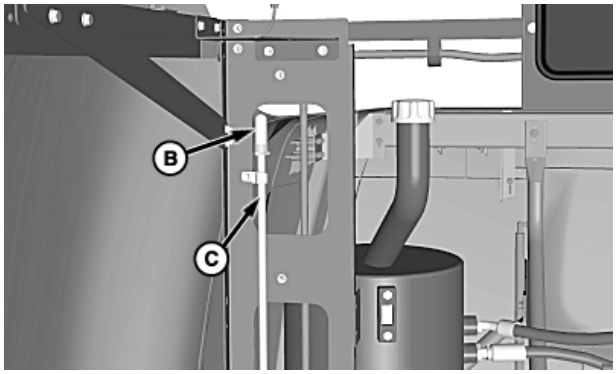
Fuel tank cap (A) is not vented. Excess air is vented through fuel tank breather (B) (located by hydraulic reservoir).

Visually inspect fuel tank breather. Do not allow excessive amounts of chaff or debris to collect on top of breather. If breather is covered with debris, it will not allow fuel tank to breathe. Remove fuel tank breather from hose (C) and clean.

A—Fuel Tank Cap
B—Fuel Tank Breather
C—Hose



H82497 —UN—04MAR05



H82417 —UN—09FEB05

OUO6075,000087C -19-15MAR07-1/1

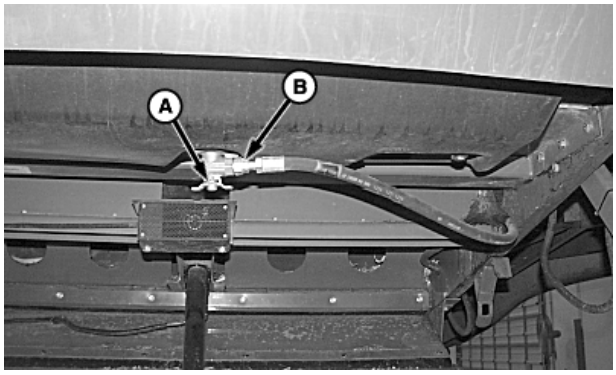
Fuel Tank—Draining

CAUTION: Shut OFF engine, set parking brake and remove key before performing maintenance work.

Close valve (A) at bottom of fuel tank and remove hose (B).

Open valve and use a clean container to inspect fuel.

A—Valve
B—Hose



H95704 —UN—16MAR10

OUO6075,00006E7 -19-16MAR10-1/1

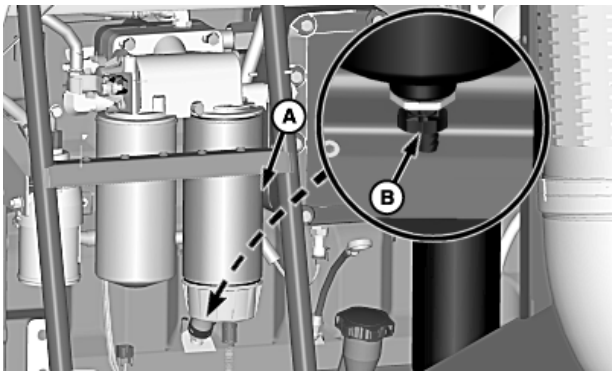
Water Separator Primary Fuel Filter—Draining

CAUTION: Shut OFF engine, set parking brake and remove key before performing maintenance work.

When primary fuel filter (A) senses water in fuel system a diagnostic trouble code is generated.

If ECU 97.16 appears, drain primary filter using drain (B) and reset code.

A—Primary Fuel Filter **B—Drain**



H86724 —UN—19OCT06

OUO6075,000087E -19-05DEC07-1/1

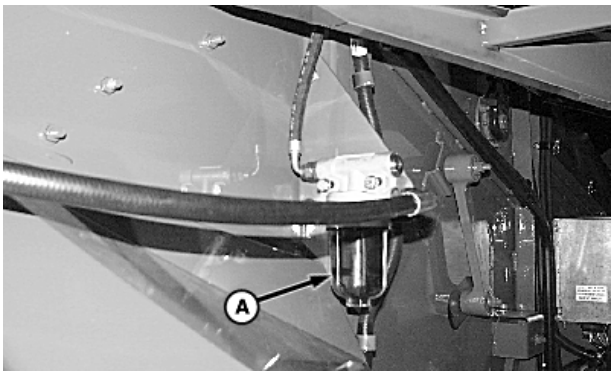
Fuel Precleaner Filter—Cleaning

NOTE: Do not clean fuel precleaner and change primary and secondary fuel filters at the same time. Doing so will make it difficult to restart machine. Perform this procedure, then run engine before changing primary and secondary fuel filters.

Clean fuel precleaner filter if buildup is visible on filter screen or if ECU 94.17 appears. Reset code after cleaning filter.

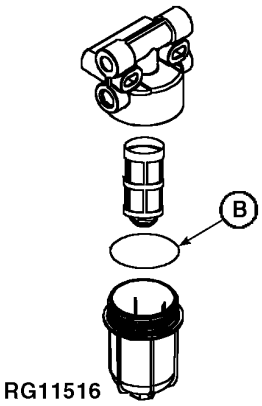
1. Start engine and run 3 to 5 minutes at low idle if machine had not been previously running.
2. Shut OFF engine and close valve at bottom of fuel tank to prevent drain back within supply line.
3. Thoroughly clean fuel precleaner assembly and surrounding area.
4. Remove precleaner bowl (A).
5. Clean filter screen and precleaner bowl. Inspect o-ring (B).
6. Install screen and tighten precleaner bowl.
7. Open valve at bottom of fuel tank to fill precleaner.
8. Start engine and run 3 to 5 minutes at low idle.

A—Precleaner Bowl **B—O-ring**



H78613 —UN—13OCT03

Fuel Precleaner Filter



RG11516 —UN—10NOV00

Fuel Precleaner Parts

OUO6075,0000A52 -19-05DEC07-1/1

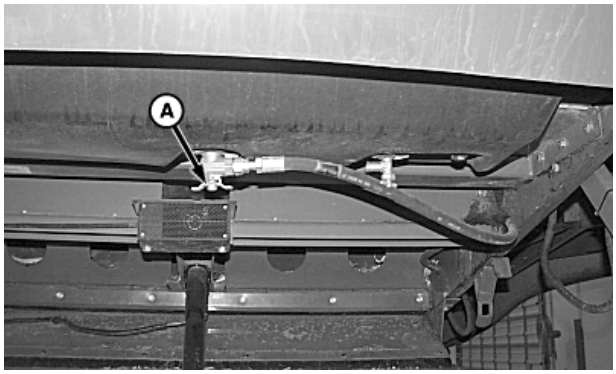
Heavy Duty Fuel Precleaner Filter (Optional)—Flushing

NOTE: Do not clean fuel precleaner and change primary and secondary fuel filters at the same time. Doing so makes it difficult to restart machine. Perform this procedure, then run engine before changing primary and secondary fuel filters.

Heavy duty fuel precleaner should be back flushed whenever bowl is half full of water or when diagnostic code appears. Reset code after cleaning. If code still displays, see Heavy Duty Fuel Precleaner Filter (Optional)—Cleaning.

Filter element can be back flushed up to five times before being replaced.

1. Shut OFF engine and close valve (A) at bottom of fuel tank.



H91170 —UN—17APR08

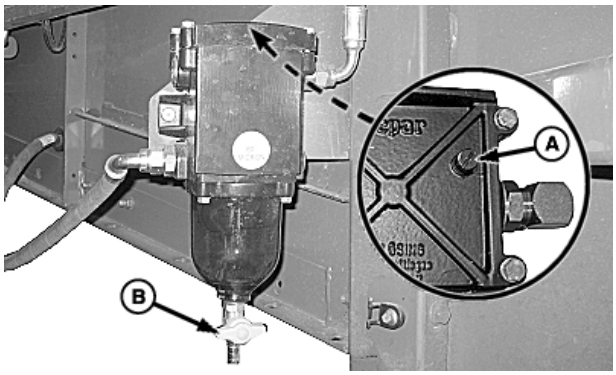
A—Valve

OUO6075,0000086 -19-16APR09-1/2

2. Open bleed screw (A) on top of water separator. Allow water and dirt to be released from filter element and settle in bottom of bowl.
3. Push IN on drain valve (B) and turn counterclockwise to drain water and dirt from bowl.

NOTE: As fuel, water, and dirt is drained from bowl, more water and dirt will be flushed from filter element and collect in bottom of bowl.

4. Close drain valve 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 and open valve at bottom of fuel tank.
7. Turn key switch ON for 60 seconds to allow fuel pump to prime fuel system and check for leaks.
8. Start engine and run 3 to 5 minutes at low idle. If engine does not start or dies, see Primary and Secondary Fuel Filter Element—Replacing.



H91102 —UN—14APR08

A—Bleed Screw **B—Drain Valve**

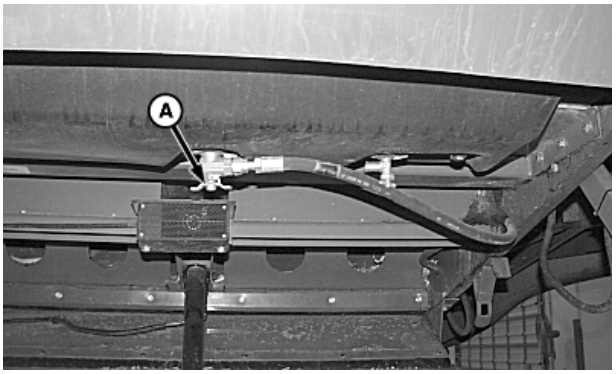
OUO6075,0000086 -19-16APR09-2/2

Heavy Duty Fuel Precleaner Filter (Optional)—Replacing

NOTE: After filter element has been back flushed five times, clean filter. Replace filter when light is no longer visible while holding filter up to light.

1. Shut OFF engine and close valve (A) at bottom of fuel tank.
2. Loosen lid screws evenly in sequence shown.

A—Valve



H91170 —UN—17APR08

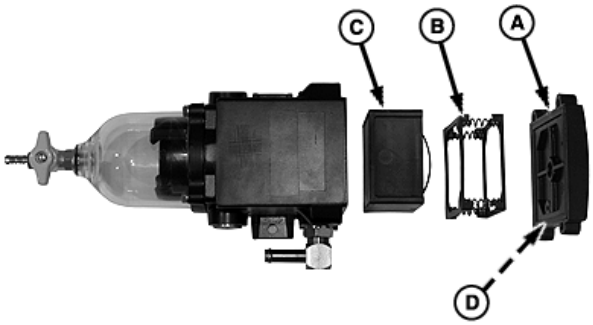
RXA0084320 —UN—26SEP05

OUO6075,0000087 -19-16APR09-1/2

NOTE: Lid and spring cassette will be used again, but a replacement filter element needs to be installed.

3. Remove lid (A), spring cassette (B), and filter element (C).
4. Install replacement filter element and previously removed spring cassette (B).
5. Inspect lid gasket (D) and replace if necessary.
6. Install lid and tighten in sequence shown.
7. Open valve at bottom of fuel tank.
8. Turn key switch ON for 60 seconds to allow fuel pump to prime fuel system and check for leaks.
9. Start engine and run 3 to 5 minutes at low idle. If engine does not start or dies, see Primary and Secondary Fuel Filter Element—Replacing.

A—Lid
B—Spring Cassette
C—Filter Element
D—Gasket



H91103 —UN—09APR08

RXA0084320 —UN—26SEP05

OUO6075,0000087 -19-16APR09-2/2

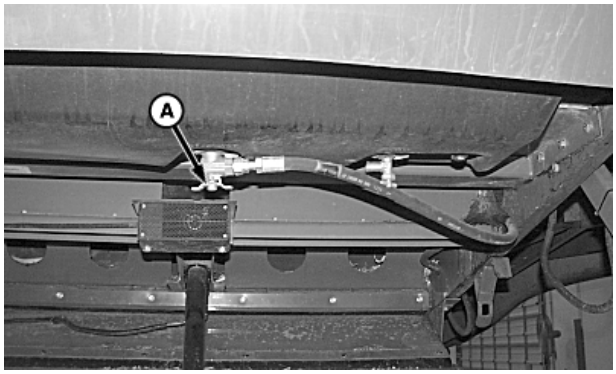
Heavy Duty Fuel Precleaner Filter (Optional)—Cleaning

1. Shut OFF engine and close valve (A) at bottom of fuel tank.

NOTE: Use a catch pan when draining fuel.

2. Open drain valve and drain fuel from bowl.

A—Valve



H91170 —UN—17APR08

OUO6075,0000088 -19-16APR09-1/2

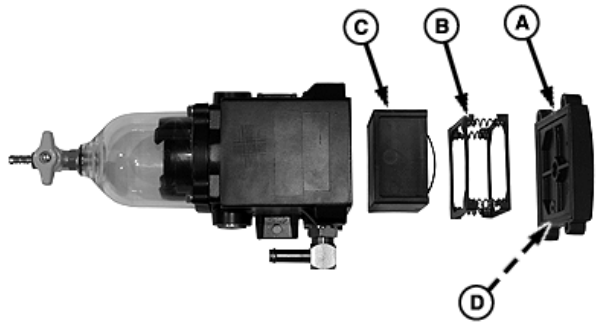
3. Loosen lid screws evenly in sequence shown.
4. Remove lid (A) and spring cassette (B).
5. Lift out filter element (C) by handle.

NOTE: Inspect filter for damage. If damaged, install replacement filter.

6. Wash filter in clean diesel fuel or mineral spirits.
7. Install filter element and spring cassette.
8. Inspect lid gasket (D) and replace if necessary.
9. Install lid and cap screws and leave cap screws finger tight.
10. Tighten cap screws in sequence as shown.
11. Open valve at bottom of fuel tank.
12. Turn key switch ON for 60 seconds to allow fuel pump to prime fuel system and check for leaks.
13. Start engine and run 3 to 5 minutes at low idle.

A—Cover
B—Spring Cassette
C—Filter Element
D—Gasket

RXA0084320 —UN—26SEP05



H91103 —UN—09APR08

OUO6075,0000088 -19-16APR09-2/2

Primary and Secondary Fuel Filter—Replacing

CAUTION: High-pressure fluid remaining in fuel lines can cause serious injury. Only technicians familiar with this type of system should perform repairs. Before disconnecting 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, wait a minimum of 15 minutes after engine is stopped.

NOTE: Do not clean fuel precleaner and change final fuel filter at the same time. Doing so will make it difficult to restart machine. Perform fuel precleaner cleaning procedure then run engine before changing primary and secondary fuel filter.

Change primary and secondary fuel filters if performance decline is noticed or if ECU 94.17 appears. Reset code after replacing filters.

1. Start engine and run 3 to 5 minutes at low idle if machine had not been previously operating.

TS1343 —UN—18MAR92

2. Shut OFF engine and thoroughly clean exterior of filter elements and filter mounting areas.

OUO6075,0000A53 -19-05DEC07-1/3

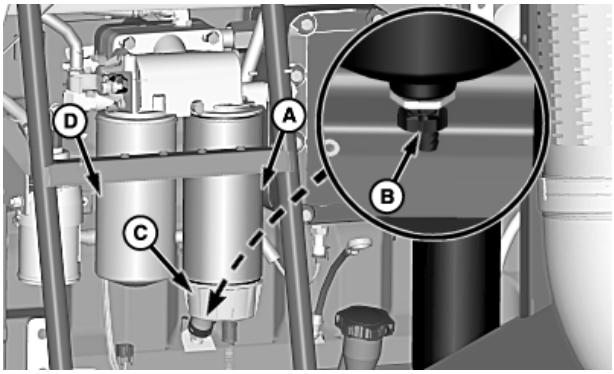
CAUTION: Fuel in filters may be under pressure. Do not remove filters without completing the following step.

NOTE: Use a catch pan when draining fuel and when removing fuel filters.

3. Drain fuel contaminates and relieve pressure from primary fuel filter (A) by opening drain valve (B).
4. Close drain valve and remove and retain separator bowl (C).

NOTE: Additional fuel will drain from filter housings.

5. Remove primary fuel filter and secondary fuel filter (D).



H86726 —UN—20OCT06

A—Primary Fuel Filter
B—Drain Valve
C—Separator Bowl
D—Secondary Fuel Filter

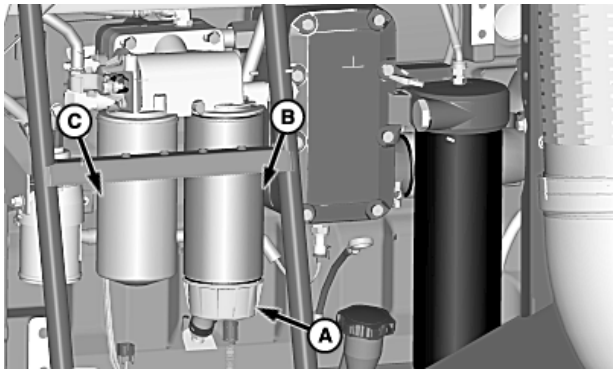
Continued on next page

OUO6075,0000A53 -19-05DEC07-2/3

IMPORTANT: Do NOT prefill either fuel filter with fuel.

NOTE: Lube filter seals with diesel fuel before installing.

6. Install previously removed separator bowl (A) on replacement primary fuel filter (B).
7. Install primary fuel filter assembly on engine. Tighten filter assembly 3/4 of a turn after seal contacts filter housing.
8. Install replacement secondary fuel filter (C). Tighten filter 3/4 of a turn after seal contacts filter housing.
9. Turn key switch ON for 60 seconds to allow fuel pump to prime fuel system.
10. Start engine and run 3 to 5 minutes at low idle.



H86727 —UN—20OCT06

A—Separator Bowl
B—Primary Fuel Filter
C—Secondary Fuel Filter

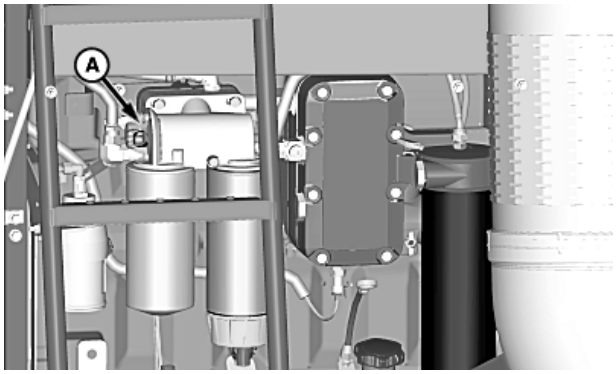
OUO6075,0000A53 -19-05DEC07-3/3

Fuel System—Bleeding

CAUTION: Shut OFF engine, set parking brake and remove key before performing maintenance work.

Air can enter fuel system when changing fuel filters or when machine is run out of fuel. Air in fuel system could prevent engine from starting. If engine does not start, turn key switch ON for 60 seconds to allow fuel pump (A) to prime fuel system.

A—Fuel Pump



H86728 —UN—20OCT06

OUO6075,0000883 -19-15MAR07-1/1

Cooling System—Draining

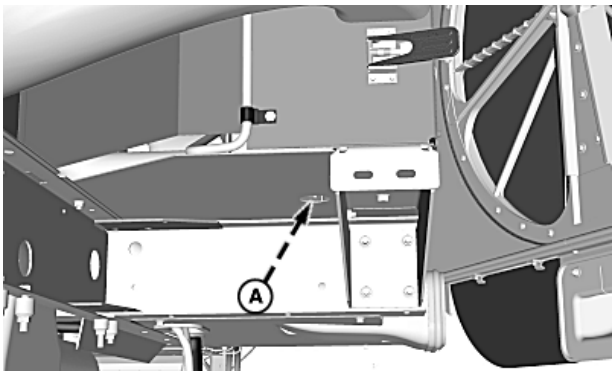
CAUTION: Avoid being scalded when opening surge tank cap. Open cap 1.5 turns to relieve pressure. Never open cap when engine is hot. Allow system to cool before draining.

Every six years or 2000 hours, drain cooling system by opening drains on bottom side of radiator (A) and engine block drain (B).

A—Radiator Drain (Bottom Side)

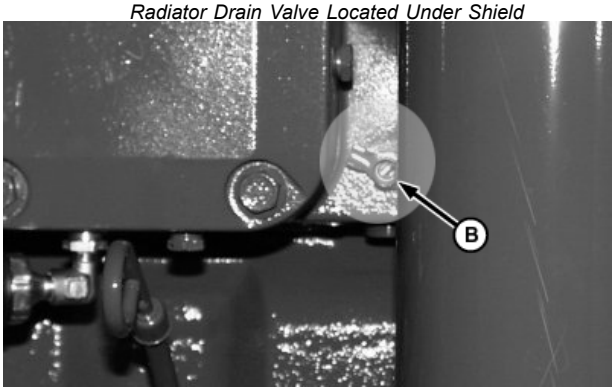
B—Engine Block Drain

TS281 —UN—23AUG88



H82412 —UN—09FEB05

Radiator Drain Valve Located Under Shield



H71198 —UN—21FEB02

Cooling System Drain (Above Crankshaft)

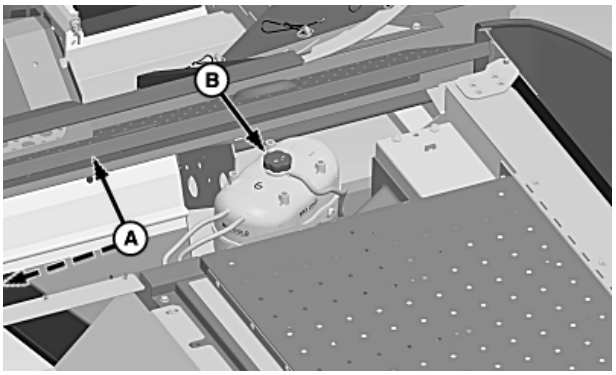
OUO6075,000032D -19-15APR09-1/3

NOTE: Drain approximately 9 L (2.4 gal.) before removing radiator cap.

Open engine access doors (A) and remove surge tank cap (B).

A—Engine Access Covers

B—Surge Tank Cap



H91167 —UN—17APR08

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OUO6075,000032D -19-15APR09-2/3

Open engine access doors and remove radiator cap (A) to allow coolant to drain faster.

Close radiator drains and fill system with clean water.

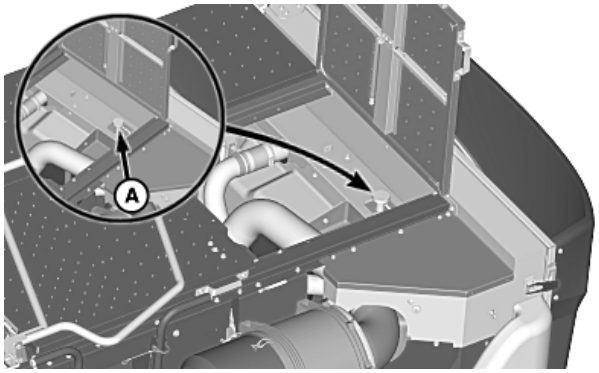
Install radiator and surge tank caps and run engine until it reaches operating temperature with heater ON.

Shut OFF engine, carefully remove surge tank and radiator caps and drain water out before rust or sediment settles.

Close radiator drains and refill system with a solution of clean water and John Deere Cooling System Cleaner PT500 or its equal. Follow instructions with cleaner.

After using cleaner, flush system with clean water and drain.

Close radiator drains and fill system (refer to Cooling System—Filling in this section for filling procedure and Fuels and Lubricants section for coolant specifications).



H87203 —UN—16JAN07

A—Radiator Cap

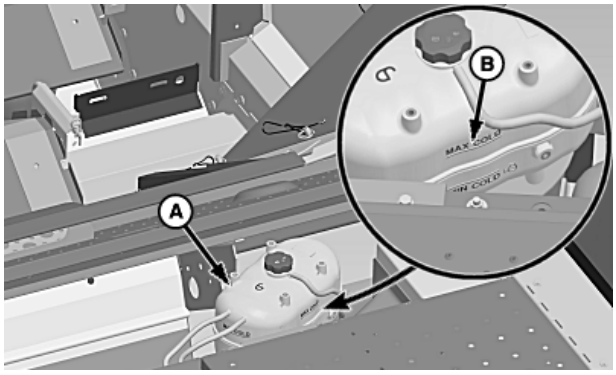
OUO6075,000032D -19-15APR09-3/3

Cooling System—Filling

CAUTION: Avoid being scalded when opening surge tank cap. Open cap 1.5 turns to relieve pressure. Never open cap when engine is hot and never fill cooling system when engine is overheated unless engine is idling slowly. Pour coolant in slowly. Check coolant level when engine is cold.

IMPORTANT: A special cap is used on the surge tank and radiator. If either cap is damaged or missing, it must be replaced by an equivalent cap.

Never pour cold water into a hot engine as it might crack cylinder block or head. Do not operate engine without coolant.



H91168 —UN—17APR08

A—Surge Tank **B—Max Cold Line**

Surge Tank Fill (Routine Check)

Fill surge tank (A) until fluid is at “Max Cold” line.

Install cap on surge tank and radiator, turn ON heater and run engine until it reaches operating temperature.

Carefully remove cap from surge tank and refill as necessary. Install cap on surge tank and close engine access doors.

When engine is cool, coolant level should be at “Max Cold” line.

Continued on next page

OUO6075,00000A6 -19-30APR08-1/2

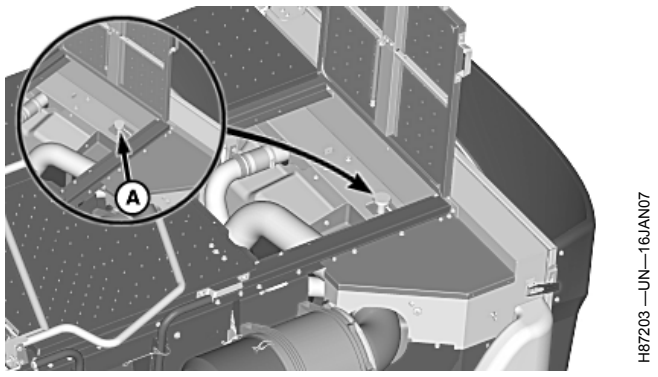
Radiator Fill (System Service/Flushing)

Fill radiator (A) until no more fluid can be added, (refer to Specifications section for Radiator Capacities).

After filling radiator, install cap and finish fill surge tank until coolant level is at “Max Cold” line.

Turn ON heater and run engine until it reaches operating temperature.

A—Radiator



OUO6075,00000A6 -19-30APR08-2/2

Cooling System—Winterize

IMPORTANT: Do not drain cooling system to protect against freezing. Heater does not drain completely, so damage would result.

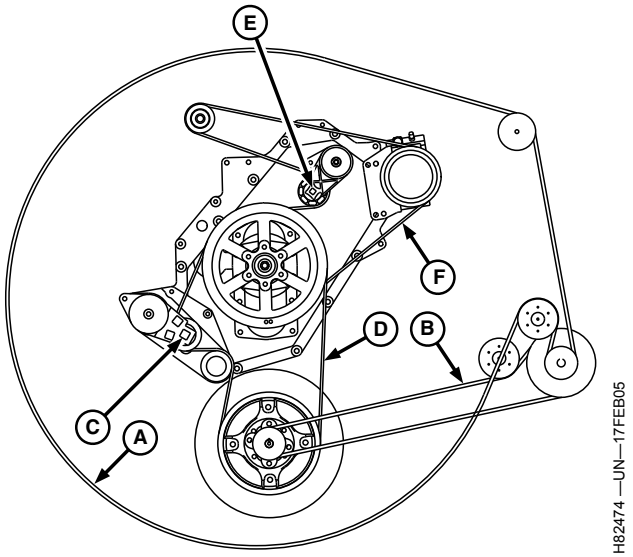
Before cold weather, be sure cooling system has enough antifreeze. Use a reliable brand of permanent-type ethylene glycol antifreeze which contains a rust inhibitor and water pump lubricant, but does not contain a leak-stopping additive, (see Fuels and Lubricants in this manual for correct recommendations).

After adding antifreeze, turn heater ON and run engine until it reaches operating temperature. This mixes the solution and circulates it through the system.

OUO6075,00006C5 -19-15MAR07-1/1

Engine Belt—Routing

A—Belt, Rotary Screen (Driven)
B—Belt, Rotary Screen (Drive)
C—Tensioner, Fan
D—Belt, Fan
E—Tensioner, Accessory
F—Belt, Accessory



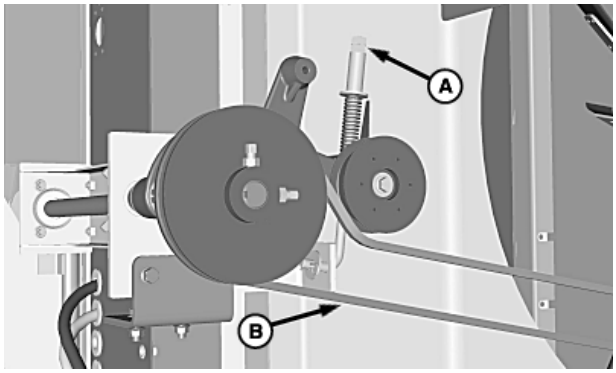
OUO6075,0000880 -19-15MAR07-1/1

Engine Accessory/Fan Drive Belt—Replacing

⚠ CAUTION: Shut OFF engine, set parking brake and remove key.

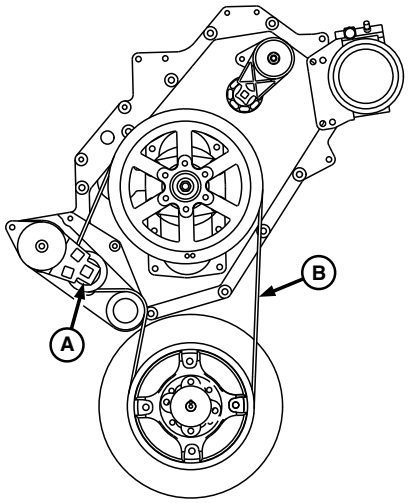
Loosen nut (A) and remove rotary screen drive belt (B).

A—Nut **B—Rotary Screen Drive Belt**



H82404 —UN—09FEB05

OUO6075,0000881 -19-15MAR07-1/3

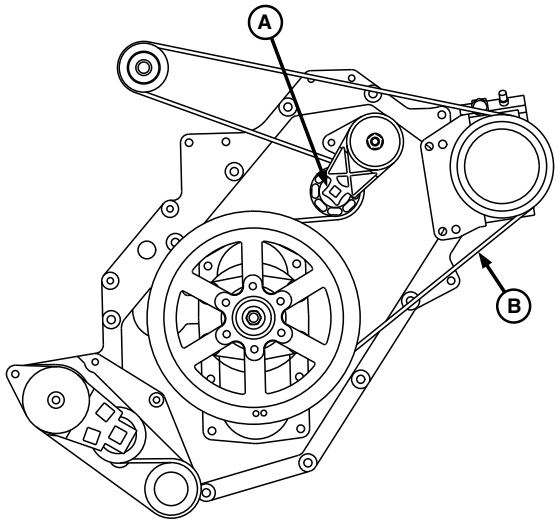


H71844 —UN—25APR02

Fan Belt Routing

A—Square Hole **B—Belt**

Insert breaker bar into square hole (A) on tensioner arm to release belt tension.



H82475 —UN—17FEB05

Accessory Belt Routing

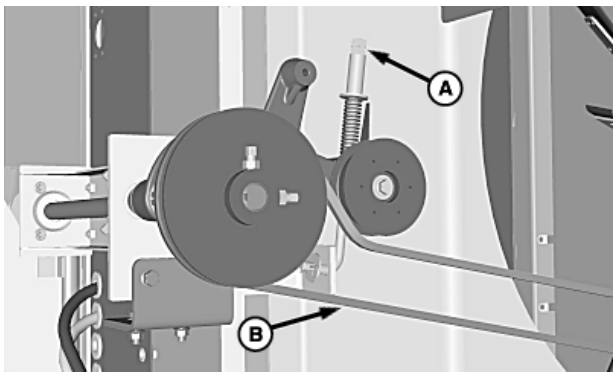
Remove belt (B) from engine. Work belt over fan and remove belt.

OUO6075,0000881 -19-15MAR07-2/3

Install belt (B) in reverse order.

Tighten nut (A) until washer is positioned between end of gauge and bottom of step.

A—Nut **B—Rotary Screen Drive Belt**



H82404 —UN—09FEB05

OUO6075,0000881 -19-15MAR07-3/3

Rotary Screen Drive Belt—Replacing

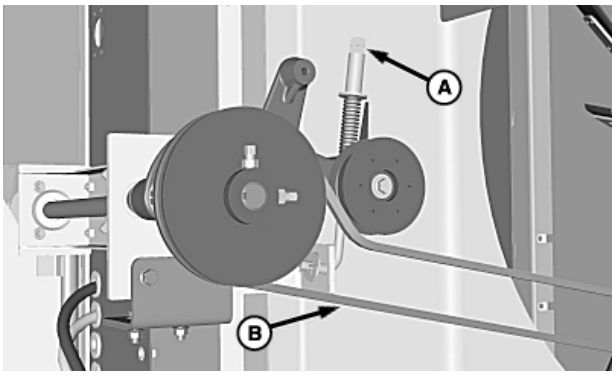
CAUTION: Shut OFF engine, set parking brake and remove key.

Loosen nut (A) and remove rotary screen drive belt (B).

Install new belt and tighten nut until washer is positioned between end of gauge and bottom of step.

A—Nut

B—Rotary Screen Drive Belt



H82404 —UN—09FEB05

OUO6075,00006C9 -19-22MAR07-1/1

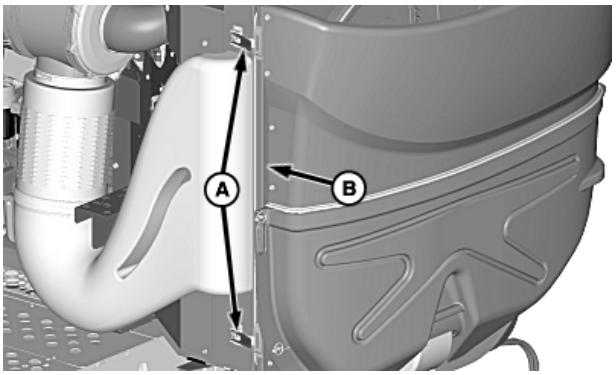
Rotary Screen, Oil Cooler, Condenser, Radiator and Charge Air Cooler—Cleaning

CAUTION: Shut OFF engine, set parking brake and remove key.

Pull latches (A) and open rotary screen door (B).

A—Latches

B—Rotary Screen Door



H86733 —UN—23OCT06

OUO6075,00006CA -19-16JUL07-1/2

Check rotary screen daily to be certain it turns freely.

Clean rotary fan screen with a brush and compressed air when dirt and chaff builds up on or behind screen.

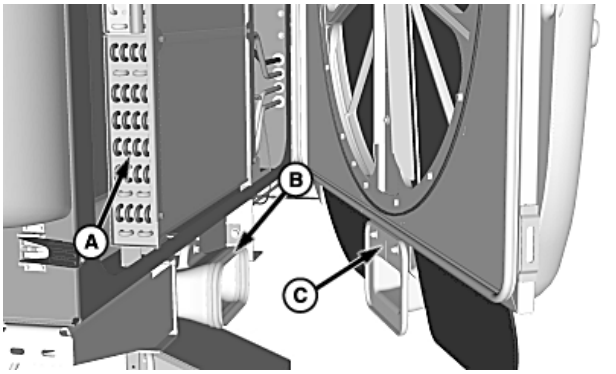
Pull oil cooler and condenser (A) out.

Clean oil cooler, condenser, charge air cooler and radiator.

Clean with compressed air, blowing from inside out.

Clean out dirt from lower transfer duct (B) and vacuum duct (C).

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.



H82413 —UN—09FEB05

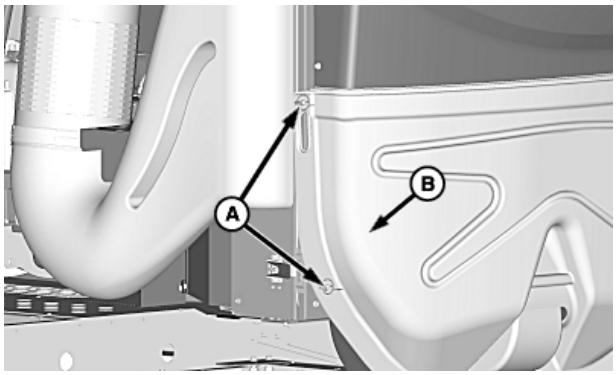
A—Condenser
B—Transfer Duct
C—Vacuum Duct

OUO6075,00006CA -19-16JUL07-2/2

Rotary Screen Brush—Adjustment

Remove quick-lock pins (A) and open lower radiator door (B).

A—Quick-Lock Pins **B—Lower Radiator Door**

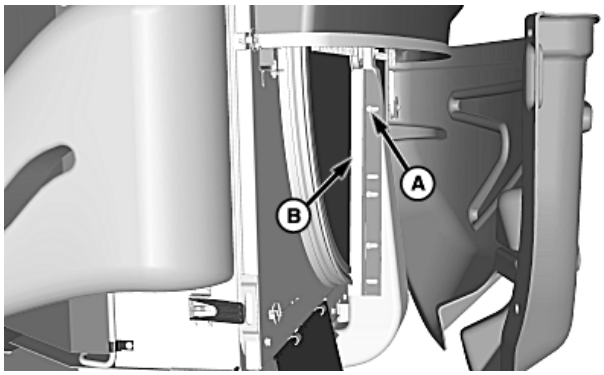


H87209 —UN—16JAN07

OUO6075,00006CB -19-16JUL07-1/2

Loosen cap screws (A) and adjust brush (B) as needed to remove crop debris.

A—Cap Screws **B—Brush**



H82389 —UN—04MAR05

OUO6075,00006CB -19-16JUL07-2/2

Air Cleaner Filters—Removing

IMPORTANT: When servicing filters, shut OFF engine, set parking brake and remove key so dirt cannot be pulled into engine.

Service filters only when engine air filter icon is displayed on CommandCenter display.

Unsnap dust cover (A) and remove primary air filter (B).

Unscrew safety filter (C) in a counterclockwise direction to remove. Safety filter stops dirt that would pass through a damaged primary filter.

IMPORTANT: Never wash, brush or knock elements. If blowing out the primary element, use dry compressed air (500 kPa (72.5 psi)). Clean the element from the inside out making sure the tip of the air gun does not come in contact with the filter paper.

Never clean the safety element. Replace if dirty.

Never run engine without both filters in place.

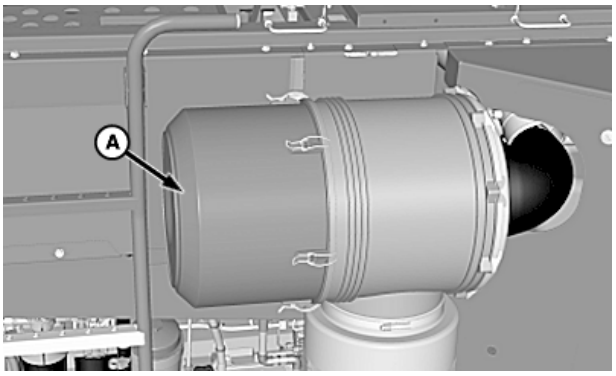
Service filters as needed.

Install safety filter and turn in a clockwise direction until hand tight.

Install primary air filter and dust cover.

Check all connections in the air intake system. Be certain they are tight.

IMPORTANT: Do not use any exhaust flow cleaning unit to blow chaff off combine. Using such a unit can cause air filter failure, followed by engine failure.



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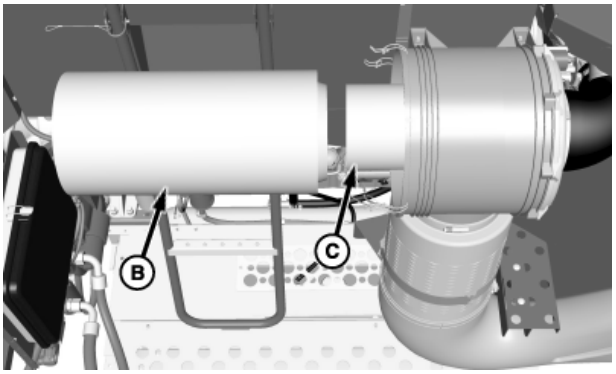


H82485 —UN—17FEB05

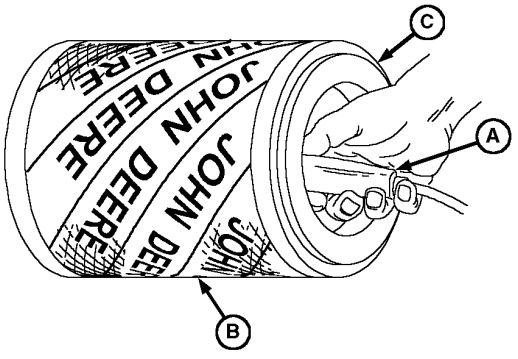
A—Dust Cover
B—Primary Air Filter
C—Safety Filter

OUO6075,00006CC -19-26APR07-1/1

Inspecting Element

1. Hold a bright light inside element (A) and check carefully for holes. Discard any element which shows the slightest hole.
2. Be sure outer screen (B) is not dented. Vibration would quickly wear a hole in filter.
3. Be sure filter gasket (C) is in good condition. If gasket is damaged or missing, replace element.

A—Element
B—Outer Screen
C—Filter Gasket



H59771 —UN—31AUG99

OUO6075,00006CD -19-15MAR07-1/1

Roadway Transport with Header Attached

Observe national and local laws regarding operation of the combine on public roadways.

This combine has been approved for roadway transport in Germany with a Geringhoff 8 row folding header and a Kemper 8 row folding header. Roadway transport in Germany with other heads must be approved by your local TUEV to achieve a road permission.

OUO6075,0000A06 -19-15MAR07-1/1

Driving Machine on Roads

IMPORTANT: Verify that grain tank is unloaded before transporting.

1. Use folding auger switch (A) to fold unloading auger rearward to transport position.

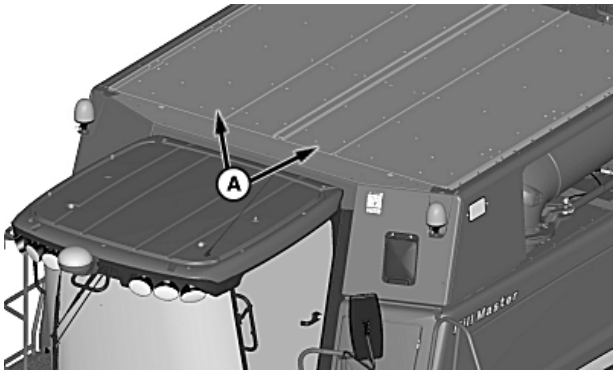
A—Folding Auger Switch

H85879 —UN—17NOV06

OUO6075,00000D5 -19-26JUN08-1/8

2. Close grain tank covers (A) to reduce height of machine.

A—Grain Tank Covers



H89763 —UN—31AUG07

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OUO6075,00000D5 -19-26JUN08-2/8

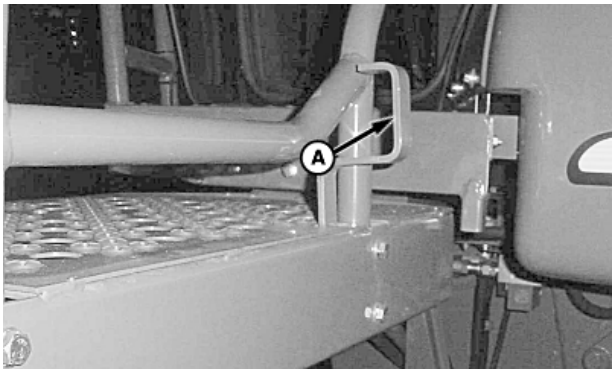
CAUTION: Swing ladder to the full forward position to reduce machine width and to orient position light toward oncoming motorists.

IMPORTANT: Travel at a reasonable speed for road or field conditions. Never transport on the road with grain in the tank. Always use warning lights.

Follow local regulations for equipment size, lighting and marking before driving on public roadways.

NOTE: For machines with long 1390 mm (55 in.) ladder extension the ladder cannot be positioned in the full forward position. A transport position 9° out from full forward has been provided. (See Cab Ladder Positions).

3. Use lever (A) to unlock ladder and swing to the full forward position.
4. Fold radio antenna down and retain with hook (if equipped). If hook is not available, retain antenna to cab roof with tape.



H81654 —UN—13SEP04

A—Lever

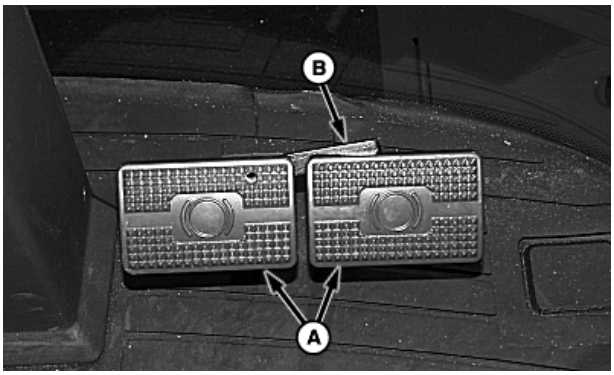
OUO6075,00000D5 -19-26JUN08-3/8

5. Lock brake pedals together with lock (B) when driving on roads. Leave pedals (A) unlocked for field operation.

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

6. Sound horn and start engine.

A—Pedals **B—Lock**



H68175 —UN—22MAY01

OUO6075,00000D5 -19-26JUN08-4/8

7. Raise header with header switch (A).

A—Header Raise/Lower Switch

H86734 —UN—23OCT06

Continued on next page

OUO6075,00000D5 -19-26JUN08-5/8

8. Move machine to level ground for leveling purposes.
9. Place road transport disconnect switch (A) in field position. Indicator light (B) goes OFF.
10. Press automatic leveling control switch (C). Indicator light (D) comes ON. Machine will self-level to neutral position.

CAUTION: Avoid loss of control during road transport and serious injury or death. Never transport machine on a roadway with HILLMASTER leveling system in automatic mode. Never attempt to manually tilt machine while transporting on a roadway.

11. After machine has leveled itself, press automatic leveling control switch (C). Indicator light (D) goes OFF.

NOTE: After transporting machine, press road transport disconnect switch for two seconds allowing indicator light to turn OFF and allowing desired switch functions to operate.

12. Place road transport disconnect switch in road position. Indicator light (B) comes ON. This lockouts HILLMASTER leveling system and ensures that leveling system does not shift during road transport.

H87018 —UN—22NOV06

A—Road Transport Disconnect Switch
B—Indicator Light
C—Automatic Leveling Control Switch (HILLMASTER)
D—Indicator Light

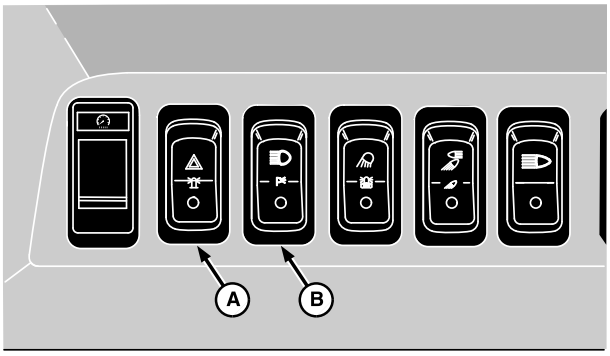
OUO6075,00000D5 -19-26JUN08-6/8

CAUTION: When transporting on a road or highway, position lights and rotary beacon lights provide warning to operators of vehicles approaching from the front and rear. These lights must be turned ON when driving the machine on a public road. Swing cab ladder fully forward to orient position light towards oncoming motorists. Do not operate rotary beacon lights if prohibited by law.

13. Turn beacon/hazard light switch (A) ON for both daytime and nighttime road travel. Turn ON park/road lights (B) for nighttime travel.

NOTE: Turn signal lights on steering column burn steadily to indicate a turn.

14. Use turn signals as needed. They are not self canceling.



H87024 —UN—04DEC06

A—Beacon/Hazard Light Switch
B—Park/Road Light Switch

Continued on next page

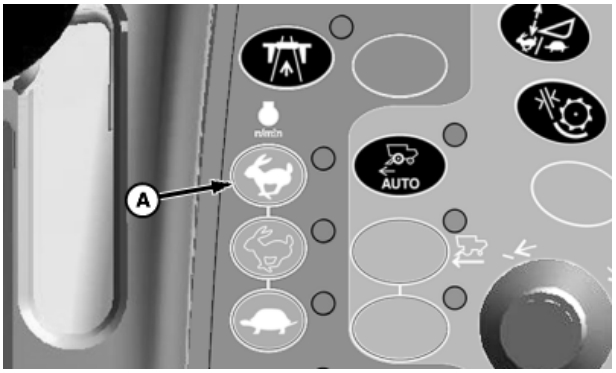
OUO6075,00000D5 -19-26JUN08-7/8

15. Press engine speed switch (A) for maximum engine speed.

CAUTION: If transporting machine with header attached, travel at a reasonable speed to ensure adequate braking performance and control of machine.

16. Slowly move multifunction control handle forward or rearward. When coming to the top of a hill, pull back on the multifunction control handle before starting down the other side.

A—Engine Speed Switch



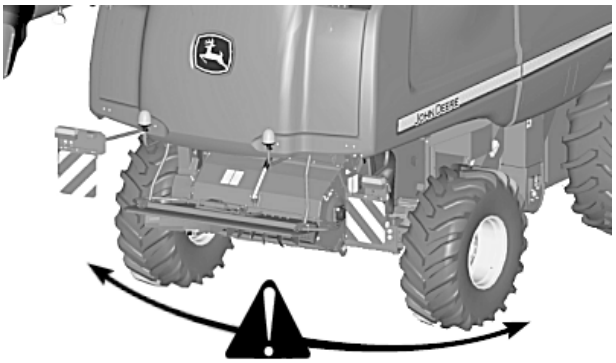
H86737 —UN—27NOV06

OUO6075,00000D5 -19-26JUN08-8/8

Steering and Driving

CAUTION: Machine swings outward when changing direction. Take extra care on bends.

Steering wheels are located at rear of machine. Familiarize yourself with the different steering characteristics.



H93246 —UN—15JAN09

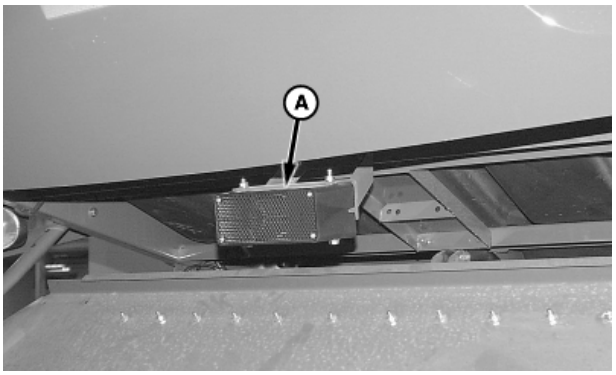
OUO6075,0000280 -19-21JAN09-1/1

Back-Up Alarm

IMPORTANT: During cold weather start-up (below 0°C (32°F) back-up alarm may not activate on reverse travel until hydraulic oil is sufficiently warmed. After start-up allow engine to run at low idle for five minutes in order to warm oil.

If multifunction control handle is moved rearward while engine is running, back-up alarm (A) sends an acoustical signal to warn others around the machine that the operator is backing up.

A—Back-Up Alarm



H83433 —UN—11MAY05

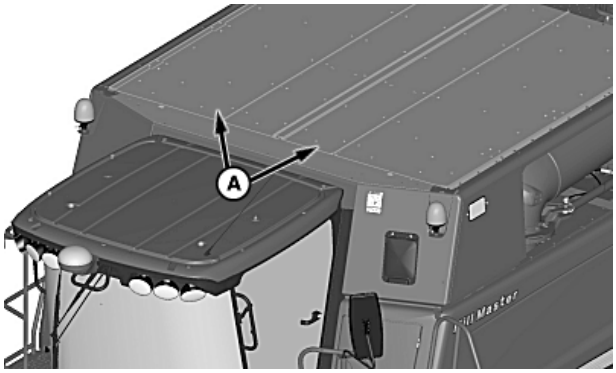
OUO6075,0000838 -19-09APR07-1/1

Transporting Machine on a Trailer

CAUTION: Avoid collisions with other roadway users. Before transporting on a public roadway check and follow local regulations regarding the use of lights, flags, over-width signs, pilot vehicles and other requirements for wide loads.

1. Empty grain tank and reduce overall height of machine by closing grain tank covers (A).

A—Grain Tank Covers



H89763 —UN—31AUG07

OUO6075,0000A0D -19-01JUL08-1/14

2. Use folding auger switch (A) to fold unloading auger rearward to transport position.

A—Folding Auger Switch

H85879 —UN—17NOV06

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OUO6075,0000A0D -19-01JUL08-2/14

NOTE: After transporting machine, adjust rear axle spacing to previous width.

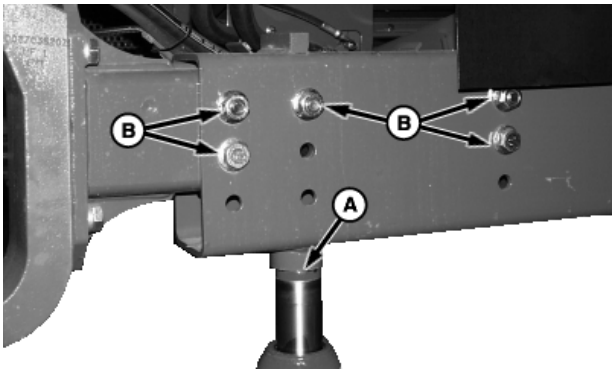
3. Do not raise machine at any other location than those with jack pocket (A).

   Remove cap screws (B) from rear axle and cap screws (C) from tie rod. Adjust rear axle to narrowest position. Install and tighten hardware to specification. Repeat on opposite side.

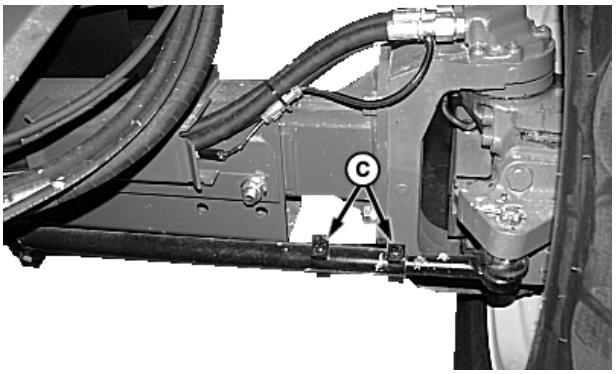
Specification

Axle Cap Screws (B)—Torque	620 N·m (460 lb-ft)
Tie Rod Cap Screws (C)—Torque	130 N·m (95 lb-ft)

A—Jack Pocket
B—Cap Screws (5 used)
C—Cap Screws



H70555 —UN—02JAN02



H70554 —UN—02JAN02

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OUO6075,0000A0D -19-01JUL08-3/14

4. Move machine to level ground for leveling purposes.
5. Place road transport disconnect switch (A) in field position. Indicator light (B) will go OFF.
6. Press automatic leveling control switch (C). Indicator light (D) will come ON. Machine will self-level to neutral position.

CAUTION: Never drive machine on a trailer with HILLMASTER leveling system in automatic mode. Never attempt to manually tilt machine while on trailer.

7. After machine has leveled itself, press automatic leveling control switch (C). Indicator light (D) will go OFF.
8. Place road transport disconnect switch in road position. Indicator light (D) will come ON. This will lockout HILLMASTER leveling system and will ensure that leveling system does not shift during road transport.
9. Drive machine on trailer and put multifunction control handle in neutral.
10. Shut OFF engine, set parking brake and remove key.
11. Fold radio antenna down and retain with hook (if equipped). If hook is not available, retain antenna to cab roof with tape.

H87018 —UN—22NOV06

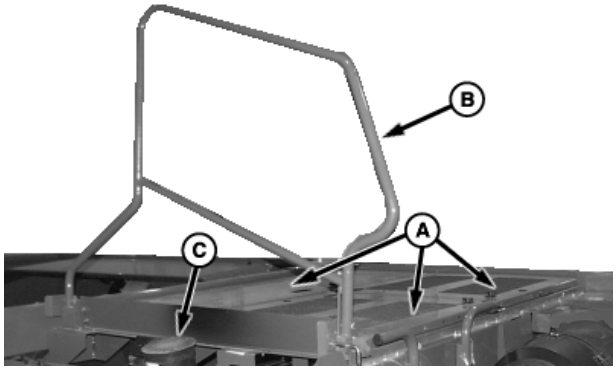
A—Road Transport Disconnect Switch
B—Indicator Light
C—Automatic Leveling Control Switch (HILLMASTER)
D—Indicator Light

12. Swing cab ladder to the full forward position.

OUO6075,0000A0D -19-01JUL08-4/14

13. Lower and latch engine access doors (A) and lower handrail (B).
14. Tape muffler cap (C) closed to prevent damage to turbocharger.

A—Engine Access Doors
B—Handrail
C—Muffler Cap



H83951 —UN—12JUL05

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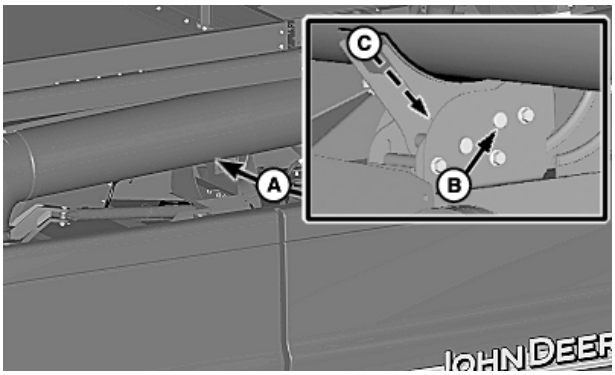
OUO6075,0000A0D -19-01JUL08-5/14

CAUTION: Possible injury or death to you or others can occur from falling. Use a ladder or equivalent with an appropriate load rating to access location (A) when installing unloading auger retaining pin (B). Do not attempt to access location from engine platform.

15. Retrieve pin (B) and spring pin (C) from tool box and install hardware as shown.

A—Location
B—Pin
C—Spring Pin

TS249 —UN—23AUG88

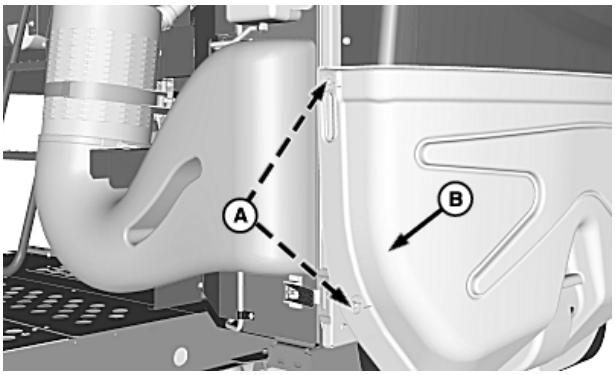


H85672 —UN—05APR06

OUO6075,0000A0D -19-01JUL08-6/14

16. Remove quick-lock pins (A) to open lower radiator door (B).

A—Quick-Lock Pins
B—Lower Radiator Door



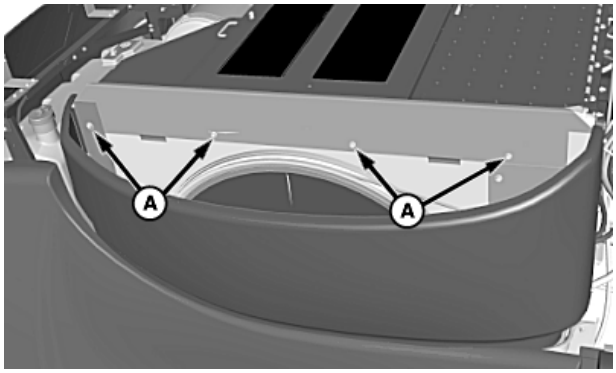
H82388 —UN—09FEB05

Continued on next page

OUO6075,0000A0D -19-01JUL08-7/14

17. Remove and retain cap screws (A) from engine air scoop.
18. Remove engine air scoop from machine and close lower radiator door. Retain lower radiator door with previously removed quick-lock pins.

A—Cap Screws (4 Used)

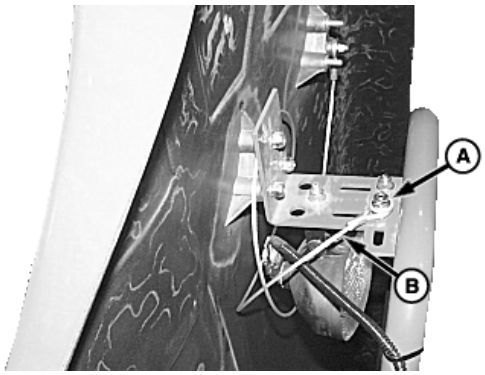


H82965 —UN—07APR05

OUO6075,0000A0D -19-01JUL08-8/14

19. Remove hardware (A) and remove cable (B) from storage position.

A—Hardware **B—Cable**

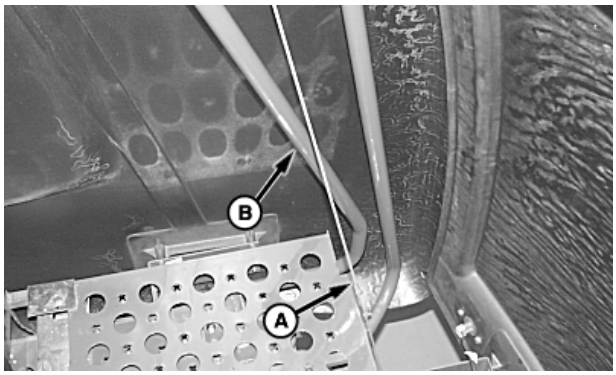


H83639 —UN—02JUN05

OUO6075,0000A0D -19-01JUL08-9/14

20. Verify cable (A) is installed on inside of handrail (B).

A—Cable **B—Handrail**



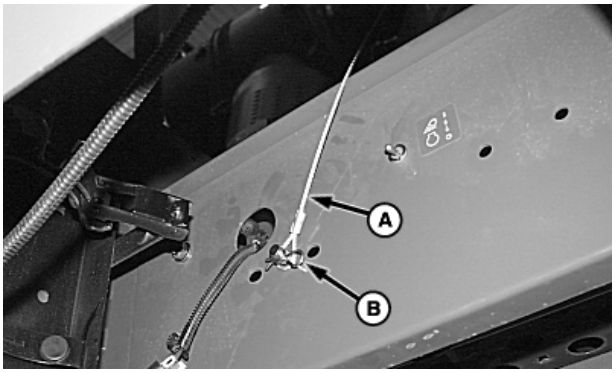
H83638 —UN—01JUN05

Continued on next page

OUO6075,0000A0D -19-01JUL08-10/14

21. Install cable (A) and retain with spring pin (B).

A—Cable **B—Spring Pin**

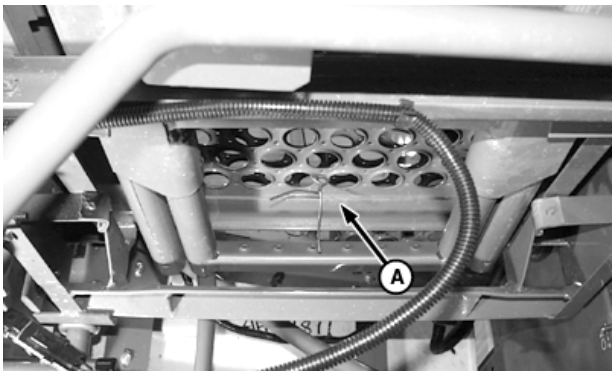


H83640 —UN—01JUN05

OUO6075,0000A0D -19-01JUL08-11/14

22. Wire down ladder extension and platform (A).

A—Ladder Extension and Platform



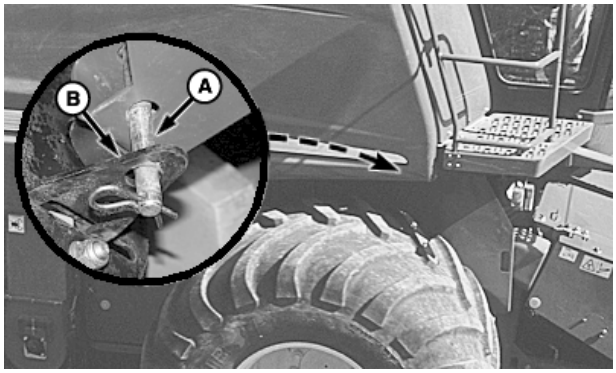
H61818 —UN—11NOV99

Continued on next page

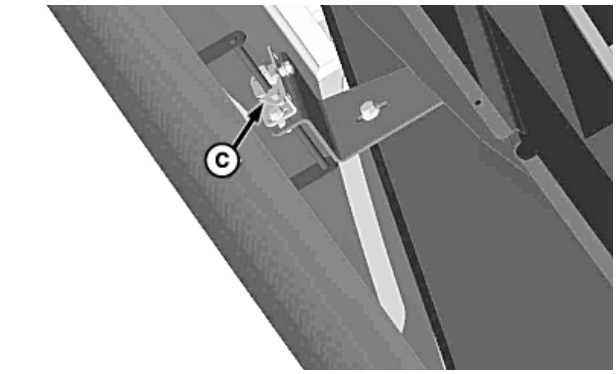
OUO6075,0000A0D -19-01JUL08-12/14

23. Make sure that pin (A) is installed through locking plate (B) and retained with spring pin at front corner of right-hand gull wing door and door latch (C) is fully engaged.
24. Wire down door at latch (C).

A—Pin
B—Locking Plate
C—Door Latch



H81657 —UN—13OCT04



H81847 —UN—19OCT04

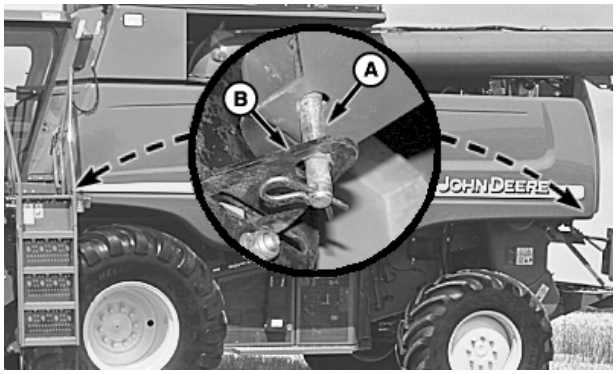
OUO6075,0000A0D -19-01JUL08-13/14

25. Make sure pin (A) is installed through locking plate (B) and retained with spring pin at front and rear corners of left-hand gull wing doors and door latch (C) is fully engaged.
26. Wire down door at latches (C).
27. Swing rear warning lights rearward.

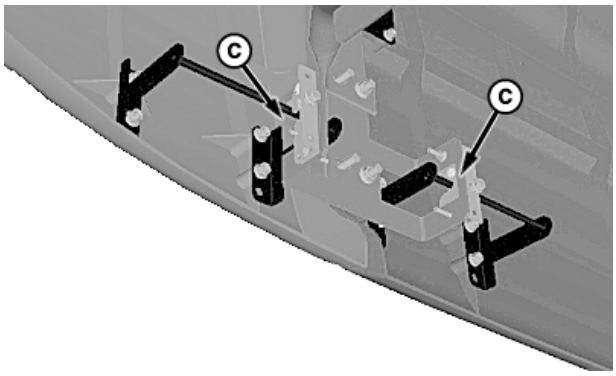
IMPORTANT: Fasten machine to trailer with chains.

28. Fasten machine to trailer with chains (see Machine Tie Down Location Decal located on cab ladder for tie down information).

A—Pin
B—Locking Plate
C—Door Latches



H81656 —UN—13OCT04



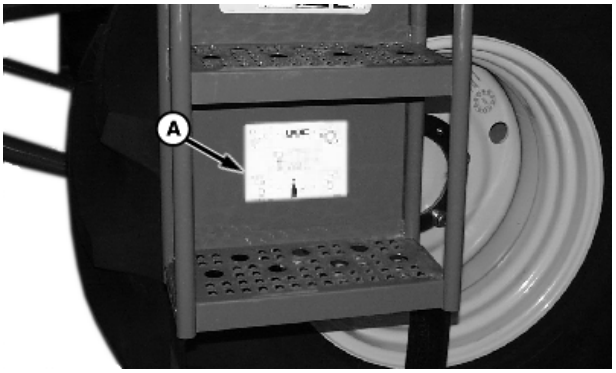
H81846 —UN—19OCT04

OUO6075,0000A0D -19-01JUL08-14/14

Machine Tie Down Location Decal

Tie down location decal (A) is located on cab ladder. This decal shows the correct locations for fastening the machine with chains.

A—Tie Down Location Decal



H80888 —UN—12MAY04

OUO6075,000083C -19-15MAR07-1/1

Transport Information

CAUTION: Avoid electrical line entanglement. Grain tank cover must be closed and radio antenna turned to horizontal position before transporting machine.

Check local governmental regulations regarding driving or towing equipment on public roads. Use auxiliary lights and devices available from your John Deere dealer to warn other road users.

Machine can be transported on a flat bed truck or by towing.

When towing, refer to Towing Machine in this section.

OUO6075,00000D6 -19-28APR08-1/1

Towing Machine

CAUTION: Do not tow machine with wire rope. If rope breaks, the whipping action could cause bodily injury.

Do not remove couplers. When couplers are removed, brakes are disabled.

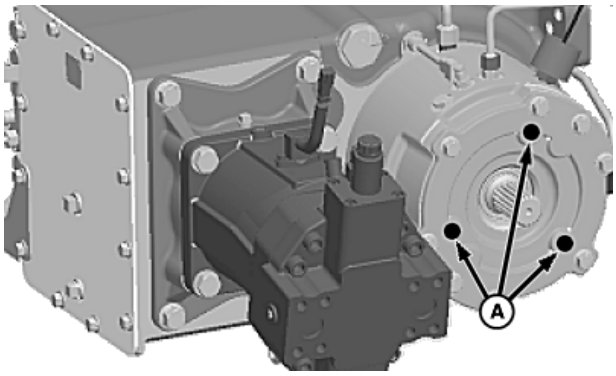
Avoid electrical line entanglement. Grain tank covers must be closed and radio antenna lowered before transporting.

Check local governmental regulations regarding driving or towing equipment on public roads. Use auxiliary lights and devices available from your John Deere dealer to warn other roadway users.

Avoid crushing injuries from runaway machine. If machine is on a slope, do not disengage parking brake until wheels are blocked.

Releasing parking brake lock must be carried out ONLY for towing purposes. NEVER operate machine with parking brake mechanically released. ALWAYS set parking brake lock back to its initial status when towing is no longer required.

Machine can be towed for emergency situations up to 10 minutes at maximum speed of 10 km/h (6.2 mph).



H91067 —UN—03APR08

A—Plugs (3 Used)

To tow machine, proceed as follows:

- Empty grain tank and remove header.
- Swing unloading auger back. Fold grain tank extensions.
- Swing ladder forward and fold down radio antenna.
- Turn key switch OFF.
- Remove plugs (A) from transmission on both sides.

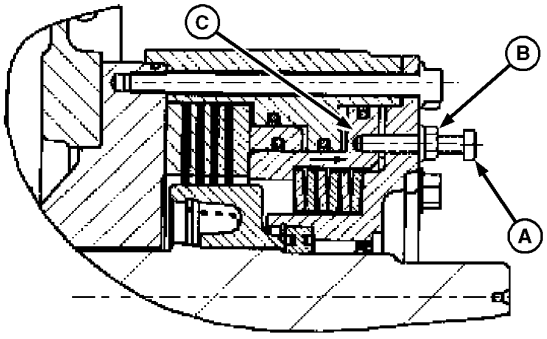
Continued on next page

OUO6075,0000154 -19-28MAY08-1/2

- Insert cap screws (A) and lock nuts (B) in previously removed plug locations.
- SLOWLY AND EVENLY tighten lock nuts (B) to pull back ring (C) until it bottoms to release parking brakes.

CAUTION: NEVER operate machine with parking brakes mechanically released.

IMPORTANT: While tightening lock nut the parking brake ring (C) will be displaced. Pay extreme attention while tightening lock nuts not to squeeze the ring.

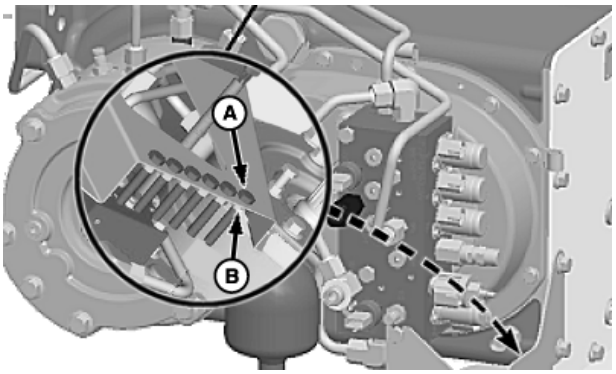


H91068 —UN—03APR08

- Tow machine in a forward direction by attaching a chain around main axle. Be certain chain does not damage any hydraulic lines. Have driver in operator's seat to steer machine.
- Turn warning lights ON, unless prohibited by law.

CAUTION: Remove cap screws and lock nut on both sides. Install plugs back into place.

- When finished towing, store cap screws and lock nuts back in place by transmission.



H91070 —UN—03APR08

CAUTION: 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.

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 are damaged or lost.

A—Cap Screws, M10 x 60 (3 Used)
B—Lock Nut
C—Ring

OUO6075,0000154 -19-28MAY08-2/2

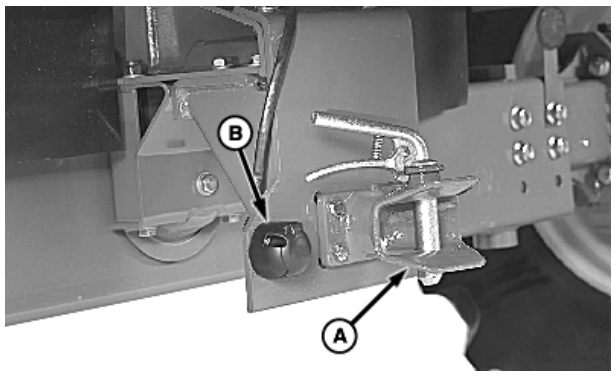
Semi-Automatic Trailer Hitch— Attaching (Standard)

CAUTION: Shut OFF engine, set parking brake and remove key before hooking up trailer.

Raise chopper until pins lock into position.

Attach trailer to hitch (A) and secure with trailer hitch pin.

Connect trailer electrical harness to electrical connector (B).



H78504 —UN—11SEP03

A—Hitch
B—Electrical Connector

OUO6075,0000A10 -19-15MAR07-1/1

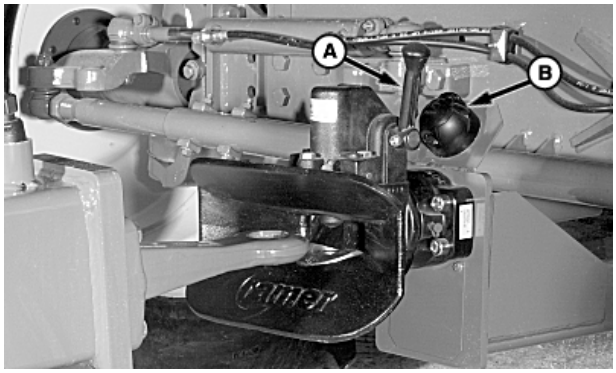
AutoMatic Rear Trailer Hitch—Attaching (Optional)

CAUTION: Shut OFF engine, set parking brake and remove key before hooking up trailer.

Raise chopper until pins lock into position.

Raise handle (A) to open lock pin and attach trailer to machine. When trailer hitch aligns with lock pin, handle will lower and automatically lock trailer hitch in place.

Connect trailer electrical harness to electrical connector (B).



H81658 —UN—13SEP04

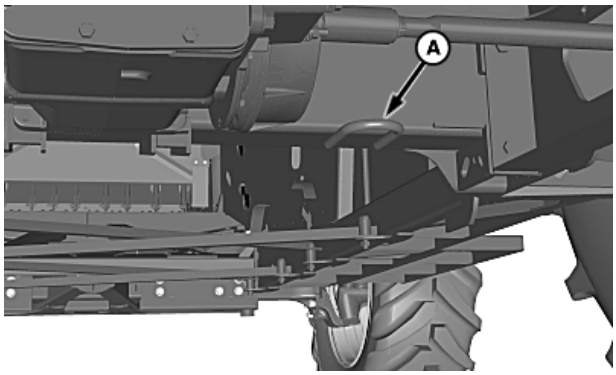
A—Handle **B—Electrical Connector**

OUO6075,0000A11 -19-09APR07-1/1

Front Tow Hook

Tow or pull machine out of mud in a forward direction if necessary by attaching a chain to hook (A) on the front axle. Be certain chain will not damage any hydraulic lines.

A—Hook



H84249 —UN—17AUG05

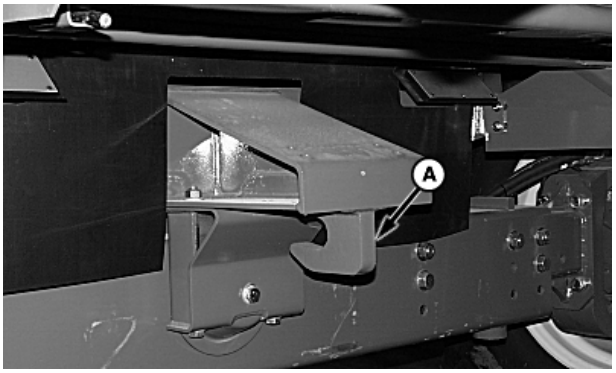
OUO6075,0000A12 -19-15MAR07-1/1

Rear Tow Hook

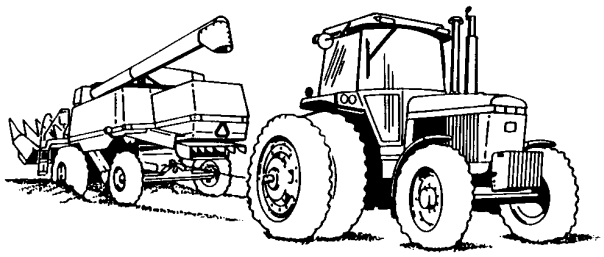
CAUTION: Always use a suitable chain. Do not exceed the breaking strength. Do not mix chain with tow straps or ropes. Energy stored in the towing device could cause serious bodily injury if it should break.

Secure chain to hook (A) to pull out machine. Do not use this hook for pulling a trailer.

A—Hook



H70303 —UN—09NOV01



H47135 —UN—19OCT95

H47135

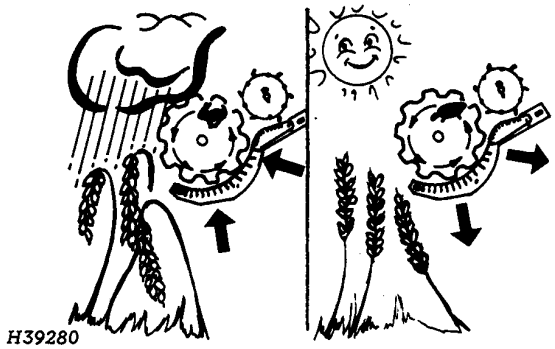
OUO6075,0000A13 -19-15MAR07-1/1

Harvesting Hints

Choice of Harvesting Time

This machine can be adjusted to harvest almost any crop under most conditions. Become familiar with the following before beginning:

Crop must be ready to thresh. Moisture content must not be too high and straw must not be too green. Grain with 12 percent moisture or less, and corn with 14 percent moisture or less, is considered dry enough for safe storage.



H39280 —UN—11OCT88

OUO6075,000083F -19-15MAR07-1/1

Harvesting Tips

Adjust machine to crop being harvested and to field conditions.

Select a ground speed that does not overload machine. Engine must be at full rpm to keep separator at full speed. Select a ground speed for slower travel, but do not slow engine speed.

If concave is set too close for harvested crop, straw will be excessively ground up requiring more horsepower to thresh the crop.

If concave is set too wide for harvested crop, it will not be completely threshed.

After concave is adjusted properly, adjust separator speed to achieve maximum threshing with the least amount of crop damage. If crop damage does occur, do not widen concave clearance. Instead reduce feed accelerator speed. Concave spacing in these crops has very little effect on seed damage.

Crops such as edible beans and peas are easily cracked and can require the use of a slower feed accelerator drive. When harvesting edible beans and peas keep machine full to provide enough material to cushion the crop against cracking.

For potential improvements in straw quality consider that the following can help improve straw quality depending on conditions:

- Slowing feeder house chain speed
- Slowing feed accelerator speed
- Slowing rotor speed
- Opening concave
- Reducing threshing elements to minimum of 15
- Installing round bar concaves

For improved performance in sidehill conditions consider, raising auger bed dividers, installing tall chaffer dividers available from your John Deere dealer, removing or clipping the removable plastic fingers located in rear corners of chaffer element, and/or improve chaff and grain distribution by installing separator grate covers (if equipped). Each of these can improve chaff and grain distribution to the cleaning shoe that will help improve the machines performance in sidehill conditions.

When using a cutting platform, cut crop as high as possible without loss of low heads. Adjust reel position and speed for even feeding. Keep cutterbar in register and guards in alignment for clean cutting.

When harvesting corn, keep corn head only as low as necessary for ears. Keep it centered in the rows to prevent ear loss.

When using a belt pickup, keep windrow centered so material is fed evenly into feeder house. Grain heads must be lying in one direction. Operate machine so heads are picked up first.

When harvesting soybeans with a row-crop head, keep header as low as possible. When harvesting crops such as milo or sunflowers, operate header just low enough to cut the heads from the stalks.

Adjust chaffer openings to pass grain or seed to the lower sieve in the first two-thirds of the chaffer without admitting too much coarse material.

Use as much air as possible without blowing over clean grain and seed. Heavy crops require more air than light seed crops.

OUO6075,00000D7 -19-28APR08-1/1

Alfalfa / Barley (Spring) and (Winter)

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Alfalfa	Barley (Spring)
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	26 Tooth	26 Tooth [a]
Feed Accelerator Speed [b]	High	High
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	600—800	750—950
Threshing Elements [d]	24 [e]	15 [e]
Concave Clearance	0—5 [f]	5—20 [f]
Concave Type	Small Wire	Small/Small/Large Wire [g]
Separator Grate Covers	As Required [h]	As Required [h]
Fan Speed (rpm)	550—700 [i]	800—1100
Chaffer Settings	10—20 mm (3/8—3/4 in.)	15—19 mm (19/32—3/4 in.)
Sieve Settings	1—3 mm (1/32—1/8 in.)	8—10 mm (5/16—3/8 in.)
Chaffer Extension Settings	0	4—6 mm (3/16—1/4 in.)
	Barley (Winter)	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	26 Tooth [a]	
Feed Accelerator Speed [b]	High	
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	
Threshing Speed (rpm)	750—950	
Threshing Elements [d]	15 [e]	
Concave Clearance	5—20 [f]	
Concave Type	Small/Small/Large Wire [g]	
Separator Grate Covers	Use as required [h]	
Fan Speed (rpm)	800—1100	
Chaffer Settings	15—19 mm (19/32—3/4 in.)	
Sieve Settings	8—10 mm (5/16—3/8 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] 32 tooth is recommended for high yielding, high volume poor feeding straw crops.
[b] For improved straw quality in dry crops and grain quality, use low speed.
[c] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[d] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[e] Non Serrated (Grain Quality) Elements.
[f] Separator grate spacers MUST be in storage position.
[g] For hard threshing conditions install concave covers in second concave.
[h] In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.
[i] Cleaning fan slow down kit may be required.

OUO6075,00003CF -19-26JUN09-1/1

Beans (Edible) / Corn (Dry Shelled) and (Wet Shelled)

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Beans (Edible)	**Corn (Dry Shelled)** [a]
Feeder House Drum Position	Down	Up
Feeder House Conveyor Chain	22 Tooth [b]	26 Tooth
Feed Accelerator Speed [c]	Low [d]	Low [d]
Feed Accelerator Wear Strips [e]	Serrated Grain [f,g]	Serrated Grain [g,h]
Threshing Speed (rpm)	300-350 [i,j]	250—400
Threshing Elements [k]	15 [l,m]	15 [l,m]
Concave Clearance	10—30 [n]	25—35 [o]
Concave Type	Round Bar [p]	Round Bar
Separator Grate Covers	None	None
Fan Speed (rpm)	800—1100	900—1250
Chaffer Settings	16—20 mm (5/8—25/32 in.)	15—20 mm (19/32—25/32 in.) [q]
Sieve Settings	6—10 mm (1/4—3/8 in.)	10—14 mm (3/8—9/16 in.) [r]
Chaffer Extension Setting	4—6 mm (3/16—1/4 in.)	4—6 mm (3/16—1/4 in.)
	Corn (Wet Shelled) [a]	
Feeder House Drum Position	Up	
Feeder House Conveyor Chain	26 Tooth	
Feed Accelerator Speed [c]	Low [d]	
Feed Accelerator Wear Strips [e]	Serrated Grain [g,h]	
Threshing Speed (rpm)	300—400	
Threshing Elements [k]	15 [l,m]	
Concave Clearance	25—35 [o]	
Concave Type	Round Bar	
Separator Grate Covers	None	
Fan Speed (rpm)	900—1250	
Chaffer Settings	15—20 mm (19/32—25/32 in.) [q]	
Sieve Settings	10—14 mm (3/8—9/16 in.) [r]	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] Chopper set to slow speed with knifebank out.
[b] Available through service parts.
[c] For improved straw quality in dry crops and grain quality, use low speed.
[d] For improved grain quality, use slow down kit to 320 rpm.
[e] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[f] Backswept serrated wings could be installed in grain feed accelerator for improved grain quality.
[g] Serrated Tough Crop feed accelerator may be used, grain quality may be sacrificed.
[h] For further improved grain quality, use smooth wear strips. This configuration is not recommended for small grains and rice.
[i] Do not operate below minimum speed recommendation.
[j] Discharge paddles can be installed for improved material handling in rotor.
[k] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[l] For improved grain quality, use smooth corn/grain threshing elements available through service parts.
[m] Non Serrated (Grain Quality) Elements.
[n] Separator grate spacers MUST be in storage position.
[o] For improved grain quality, it is recommended that separator grate spacers be installed, see Separator Grate Spacers in Separator Section. Leave spacers installed if harvesting in corn or soybeans.
[p] Large Wire concaves acceptable, grain quality may be sacrificed.
[q] Deep tooth chaffer 16—19 mm (5/8—3/4 in.)
[r] Deep tooth sieve 9—13 mm (3/8—17/32 in.)

OUO6075,00003D0 -19-26JUN09-1/1

Corn Cob Mix / Flax/Linseed / Grass Seed

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Corn Cob Mix [a]	Flax/Linseed
Feeder House Drum Position	Up	Down
Feeder House Conveyor Chain	26 Tooth	26 Tooth
Feed Accelerator Speed [b]	Low	High
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	450—650	800—1000
Threshing Elements [d]	15 [e]	15 [e]
Concave Clearance	15—20 [f]	0—10 [g]
Concave Type	Large Wire [h]	Small/Small/Large Wire
Separator Grate Covers	None	Use as required [i]
Fan Speed (rpm)	700—1250	620—750
Chaffer Settings	22 mm (7/8 in.)	14—16 mm (9/16—5/8 in.)
Sieve Settings	Removed	2—6 mm (3/32—1/4 in.)
Chaffer Extension Settings	0 [j]	0
	Grass Seed	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	26 Tooth [k]	
Feed Accelerator Speed [b]	High	
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	
Threshing Speed (rpm)	500—800	
Threshing Elements [d]	15 [l,m]	
Concave Clearance	5—25 [g]	
Concave Type	Small/Small/Large Wire	
Separator Grate Covers	Use as required [i]	
Fan Speed (rpm)	300—600 [n]	
Chaffer Settings	12—18 mm (1/2—11/16 in.)	
Sieve Settings	4—8 mm (3/16—5/16 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] Utilize Corn Cob mix separator grates.
[b] For improved straw quality in dry crops and grain quality, use low speed.
[c] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[d] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[e] Non Serrated (Grain Quality) Elements.
[f] For improved grain quality, it is recommended that separator grate spacers be installed, see Separator Grate Spacers in Separator Section. Leave spacers installed if harvesting in corn or soybeans.
[g] Separator grate spacers MUST be in storage position.
[h] Wires may be removed for increased cob capture.
[i] In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.
[j] Max opening 10 mm, not recommended without tailings sump cover.
[k] 32 tooth is recommended for high yielding, high volume poor feeding straw crops.
[l] Serrated (Rice/Tough Crop) Elements.
[m] In place of using 15 serrated elements, 9 threshing tines may be installed in Dense Pack Locations with 15 Non serrated elements.
[n] Cleaning fan slow down kit may be required.

OUO6075,00003D1 -19-26JUN09-1/1

Guar (Cluster Beans) / Millet (Proso) / Mustard

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Guar (Cluster Beans)	Millet (Proso)
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	22 Tooth [a]	26 Tooth
Feed Accelerator Speed [b]	Low	High [b]
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	500—700	400—500
Threshing Elements [d]	15 [e]	15 [e]
Concave Clearance	10—15 [f]	10—15 [f]
Concave Type	Large Wire	Small/Small/Large Wire
Separator Grate Covers	None	None
Fan Speed (rpm)	650—750	620—750
Chaffer Settings	10—12 mm (3/8—1/2 in.)	13—16 mm (17/32—5/8 in.)
Sieve Settings	3 mm (1/8 in.)	4—6 mm (3/16—1/4 in.)
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	0
	Mustard	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	26 Tooth	
Feed Accelerator Speed [b]	High	
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	
Threshing Speed (rpm)	600—900	
Threshing Elements [d]	15 [e]	
Concave Clearance	10—20 [f]	
Concave Type	Small/Small/Large Wire	
Separator Grate Covers	Use as required [g]	
Fan Speed (rpm)	550—800 [h]	
Chaffer Settings	10—15 mm (3/8—19/32 in.)	
Sieve Settings	2—5 mm (3/32—3/16 in.)	
Chaffer Extension Settings	0	

[a] *Available through service parts.*
[b] *For improved straw quality in dry crops and grain quality, use low speed.*
[c] *Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.*
[d] *In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.*
[e] *Non Serrated (Grain Quality) Elements.*
[f] *Separator grate spacers MUST be in storage position.*
[g] *In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.*
[h] *Cleaning fan slow down kit may be required.*

OUO6075,00003D2 -19-26JUN09-1/1

Oats / Peas (Field) / Popcorn

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Oats	Peas (Field)
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	26 Tooth [a]	26 Tooth
Feed Accelerator Speed [b]	High	Low
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	600—900	300—350 [d,e]
Threshing Elements [f]	15 [g,h]	15 [i]
Concave Clearance	10—20 [j]	15—25 [j]
Concave Type	Small/Small/Large Wire	Large Wire [k]
Separator Grate Covers	None	None
Fan Speed (rpm)	800—1000	800—950
Chaffer Settings	18—22 mm (11/16—7/8 in.)	17—20 mm (21/32—25/32 in.)
Sieve Settings	6—9 mm (1/4—3/8 in.)	6—10 mm (1/4—3/8 in.)
Chaffer Extension Settings	4—6 mm (1/4—3/8 in.)	4—6 mm (3/16—1/4 in.)
	Popcorn [l]	
Feeder House Drum Position	Up	
Feeder House Conveyor Chain	26 Tooth	
Feed Accelerator Speed [b]	Low [m]	
Feed Accelerator Wear Strips [c]	Smooth Grain [n]	
Threshing Speed (rpm)	210—310	
Threshing Elements [f]	15 [o,i]	
Concave Clearance	15—25 [p]	
Concave Type	Large Wire [k]	
Separator Grate Covers	None	
Fan Speed (rpm)	800—1100	
Chaffer Settings	12—16 mm (1/2—5/8 in.)	
Sieve Settings	6—8 mm (1/4—5/16 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] 32 tooth is recommended for high yielding, high volume poor feeding straw crops.
[b] For improved straw quality in dry crops and grain quality, use low speed.
[c] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[d] Do not operate below minimum speed recommendation.
[e] Discharge paddles can be installed for improved material handling in rotor.
[f] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[g] Serrated (Rice/Tough Crop) Elements.
[h] In place of using 15 serrated elements, 9 threshing tines may be installed in Dense Pack Locations with 15 Non serrated elements.
[i] Non Serrated (Grain Quality) Elements.
[j] Separator grate spacers MUST be in storage position.
[k] For improved quality, use round bar concaves.
[l] Chopper set to slow speed with knifebank out.
[m] For improved grain quality, use slow down kit to 320 rpm.
[n] Requires conversion to grain feed accelerator.
[o] For improved grain quality, use smooth corn/grain threshing elements available through service parts.
[p] For improved grain quality, it is recommended that separator grate spacers be installed, see Separator Grate Spacers in Separator Section. Leave spacers installed if harvesting in corn or soybeans.

OUO6075,00003D3 -19-26JUN09-1/1

Rapeseed (Dry) and (Green) / Rice

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Rapeseed (Dry)	Rapeseed (Green)
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	26 Tooth	26 Tooth
Feed Accelerator Speed [a]	Low [b]	Low [b]
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	400—700	500—800
Threshing Elements [d]	15 [e]	15 [e]
Concave Clearance	20—35 [f]	20—35 [f]
Concave Type	Small/Small/Large Wire	Small/Small/Large Wire
Separator Grate Covers	Use as required [g]	Use as required [g]
Fan Speed (rpm)	620—800	700—850
Chaffer Settings	13—15 mm (17/32—19/32 in.)	13—15 mm (17/32—19/32 in.)
Sieve Settings	3—6 mm (1/8—1/4 in.)	4—8 mm (3/16—5/16 in.)
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	0
	Rice	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	32 Tooth [h]	
Feed Accelerator Speed [a]	High	
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	
Threshing Speed (rpm)	700—1000	
Threshing Elements [d]	15 [i,j,k]	
Concave Clearance	15—25 [f,l]	
Concave Type	Large Wire	
Separator Grate Covers	None	
Fan Speed (rpm)	800—1000	
Chaffer Settings	16—18 mm (5/8—11/16 in.)	
Sieve Settings	5—10 mm (3/16—3/8 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] For improved straw quality in dry crops and grain quality, use low speed.
[b] For increased material handling use high speed.
[c] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[d] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[e] Non Serrated (Grain Quality) Elements.
[f] Separator grate spacers MUST be in storage position.
[g] In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.
[h] 38 tooth is available through service parts for extremely tough material handling conditions.
[i] Serrated (Rice/Tough Crop) Elements.
[j] In place of using 15 serrated elements, 9 threshing tines may be installed in Dense Pack Locations with 15 Non serrated elements.
[k] In extremely tough material handling conditions, threshing tines may be installed in place of threshing elements (threshing performance may be reduced).
[l] It is not recommended to operate above maximum concave clearance shown.

OUO6075,00003D4 -19-26JUN09-1/1

Rye / Safflower / Sorghum (Milo)

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Rye	Safflower
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	26 Tooth [a]	26 Tooth
Feed Accelerator Speed [b]	High	Low
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	700—900	300—400 [d,e]
Threshing Elements [f]	15 [g,h]	15 [i]
Concave Clearance	10—25 [j]	15—25 [j]
Concave Type	Small/Small/Large Wire	Small/Small/Large Wire
Separator Grate Covers	None	Use as required [k]
Fan Speed (rpm)	800—950	550—750
Chaffer Settings	15—18 mm (19/32—11/16 in.)	14—16 mm (9/16—5/8 in.)
Sieve Settings	6—10 mm (1/4—3/8 in.)	4—8 mm (3/16—5/16 in.)
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	4—6 mm (3/16—1/4 in.)
	Sorghum (Milo)	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	26 Tooth	
Feed Accelerator Speed [b]	Low	
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	
Threshing Speed (rpm)	500—700	
Threshing Elements [f]	15 [i]	
Concave Clearance	15—25 [j]	
Concave Type	Large Wire	
Separator Grate Covers	Use as required [k]	
Fan Speed (rpm)	900—1100	
Chaffer Settings	14—17 mm (9/16—21/32 in.)	
Sieve Settings	6—9 mm (1/4—3/8 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] 32 tooth is recommended for high yielding, high volume poor feeding straw crops.
[b] For improved straw quality in dry crops and grain quality, use low speed.
[c] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[d] Do not operate below minimum speed recommendation.
[e] Discharge paddles can be installed for improved material handling in rotor.
[f] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[g] Serrated (Rice/Tough Crop) Elements.
[h] In place of using 15 serrated elements, 9 threshing tines may be installed in Dense Pack Locations with 15 Non serrated elements.
[i] Non Serrated (Grain Quality) Elements.
[j] Separator grate spacers MUST be in storage position.
[k] In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.

OUO6075,00003D5 -19-26JUN09-1/1

Soybeans / Sunflowers (Oil) and (Confection)

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Soybeans	Sunflowers (Oil)
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	26 Tooth	26 Tooth
Feed Accelerator Speed [a]	High [a]	Low
Feed Accelerator Wear Strips [b]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	450—650	300—400 [c,d]
Threshing Elements [e]	15 [f,g]	15 [g]
Concave Clearance	15—25 [h]	30—40 [i]
Concave Type	Round Bar [j]	Large Wire [k]
Separator Grate Covers	None	Use as required [l]
Fan Speed (rpm)	900—1200	700—900
Chaffer Settings	16—20 mm (5/8—25/32 in.) [m]	14—16 mm (9/16—5/8 in.)
Sieve Settings	8—12 mm (5/16—1/2 in.) [n]	8—12 mm (5/16—1/2 in.)
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	4—6 mm (3/16—1/4 in.)
	Sunflowers (Confection)	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	26 Tooth	
Feed Accelerator Speed [a]	Low	
Feed Accelerator Wear Strips [b]	Serrated Tough Crop	
Threshing Speed (rpm)	300—400 [c,d]	
Threshing Elements [e]	15 [g]	
Concave Clearance	30—40 [i]	
Concave Type	Large Wire [k]	
Separator Grate Covers	Use as required [l]	
Fan Speed (rpm)	700—900	
Chaffer Settings	14—16 mm (9/16—5/8 in.)	
Sieve Settings	8—12 mm (5/16—1/2 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] For improved straw quality in dry crops and grain quality, use low speed.
[b] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[c] Do not operate below minimum speed recommendation.
[d] Discharge paddles can be installed for improved material handling in rotor.
[e] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[f] For improved grain quality, use smooth corn/grain threshing elements available through service parts.
[g] Non Serrated (Grain Quality) Elements.
[h] For improved grain quality, it is recommended that separator grate spacers be installed, see Separator Grate Spacers in Separator Section. Leave spacers installed if harvesting in corn or soybeans.
[i] Separator grate spacers MUST be in storage position.
[j] Large Wire concaves acceptable, grain quality may be sacrificed.
[k] For improved quality, use round bar concaves.
[l] In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.
[m] Deep tooth chaffer 14—18 mm (9/16—11/16 in.)
[n] Deep tooth sieve 6—9 mm (1/4—3/8 in.)

OUO6075,00003D6 -19-26JUN09-1/1

Triticale / Wheat (Tough) and (Dry)

NOTE: Various crop settings shown are for average conditions. Varying crop and field conditions may require slightly different settings.

	Triticale	Wheat Tough
Feeder House Drum Position	Down	Down
Feeder House Conveyor Chain	26 Tooth	26 Tooth [a]
Feed Accelerator Speed [b]	High	High
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	Serrated Tough Crop
Threshing Speed (rpm)	850—950	750—950
Threshing Elements [d]	15 [e,f]	15 [e,f]
Concave Clearance	20—25 [g]	10—25 [g]
Concave Type	Small/Small/Large Wire [h]	Small/Small/Large Wire [h]
Separator Grate Covers	Use as required [i]	Use as required [i]
Fan Speed (rpm)	900—1100	950—1150
Chaffer Settings	16—18 mm (5/8—11/16 in.)	15—17 mm (19/32—21/32 in.)
Sieve Settings	6—10 mm (1/4—3/8 in.)	6—10 mm (1/4—3/8 in.)
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	4—6 mm (3/16—1/4 in.)
	Wheat Dry	
Feeder House Drum Position	Down	
Feeder House Conveyor Chain	26 Tooth [a]	
Feed Accelerator Speed [b]	High	
Feed Accelerator Wear Strips [c]	Serrated Tough Crop	
Threshing Speed (rpm)	750—950	
Threshing Elements [d]	15 [j]	
Concave Clearance	15—32 [g]	
Concave Type	Small/Small/Large Wire [h]	
Separator Grate Covers	Use as required [i]	
Fan Speed (rpm)	950—1150	
Chaffer Settings	15—17 mm (19/32—21/32 in.)	
Sieve Settings	6—10 mm (1/4—3/8 in.)	
Chaffer Extension Settings	4—6 mm (3/16—1/4 in.)	

[a] 32 tooth is recommended for high yielding, high volume poor feeding straw crops.
[b] For improved straw quality in dry crops and grain quality, use low speed.
[c] Serrated Tough Crop feed accelerator has 60 wear strips, Serrated Grain (North American) feed accelerator has 30 wear strips.
[d] In most conditions 15 elements (standard configuration) will require less power leading to higher capacity, less shoe load, and less straw damage. An additional 9 element locations (Dense Pack) are available which can be used in tough material handling conditions.
[e] Serrated (Rice/Tough Crop) Elements.
[f] In place of using 15 serrated elements, 9 threshing tines may be installed in Dense Pack Locations with 15 Non serrated elements.
[g] Separator grate spacers MUST be in storage position.
[h] For hard threshing conditions install concave covers in second concave.
[i] In shoe overloading conditions in dry crops, with large wire concaves, initially install three rows on right side and two rows on left side. With small wire concaves, initially install two rows on right side and three rows on left side. Adjust number and pattern as required by condition.
[j] Non Serrated (Grain Quality) Elements.

OUO6075,00003D7 -19-26JUN09-1/1

Machine Performance Check

NOTE: In most cases the machine performance check will help you determine where the losses are and what adjustments can be made to correct the condition.

1. Set up and adjust machine as described in the operator's manual or settings card for the desired crop.
2. Residue equipment must be in the raised position.
3. Operate the machine at an acceptable ground speed filling separator with crop.
4. Monitor loss levels, if any, on VisionTrak Performance Monitor and determine where losses are highest (separator versus cleaning shoe area).
5. Stop and check losses behind machine:

   If losses are acceptable, lower residue equipment, continue to harvest and calibrate VisionTrak Performance Monitor.

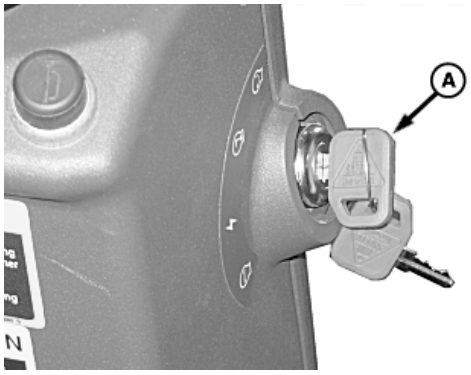
   If losses are not acceptable, make adjustments according to area that has the greater amount of loss shown on the VisionTrak Performance Monitor. Refer to settings card and check machine for correct settings (return to step 4).

OUO6075,0000843 -19-28MAR07-1/1

Power Shutdown Procedure

NOTE: A power shutdown is used to determine the machines performance in the threshing and separating areas by taking a "snap-shot" of the material in the separator. This is valuable in determining where the losses behind the machine are generated and what adjustments can be made to correct the condition.

1. Operate machine to fill with crop.
2. Pull multifunction control handle to neutral and then quickly complete step 3.
3. Momentarily shut OFF key switch (A) to kill the engine while reaching over and disengaging header (B) and separator (C) engage switches on the armrest console. **After machine comes to a complete stop, quickly restart engine to allow for turbo charger lubrication.**
4. After 30—60 seconds at low idle shut OFF engine, set parking brake and remove key.
5. Inspect for excessive grain damage, kernels left on the cobs, and free grain loss before making any adjustments.
6. Decide what adjustments are needed. Open threshing clearance and engage separator (avoids undue stress to cylinder drive area during cleanout).
7. Adjust machine to desired settings and continue harvesting.
8. Repeat this procedure and verify grain quality and losses behind machine.



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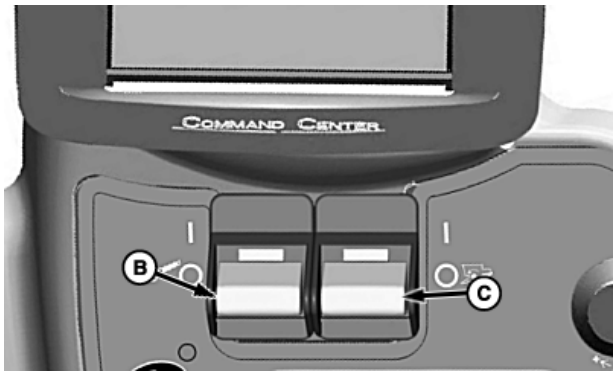

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A—Key Switch
B—Header Engage Switch
C—Separator Engage Switch

9. Once acceptable loss levels are attained, set sensitivity on VisionTrak Monitor and continue to harvest.

OUO6075,0000077 -19-03APR08-1/1

Harvest Smart™ Feed Rate (Optional)

Harvest Smart Feed Rate—Operating Safely (If Equipped)

IMPORTANT: Harvest Smart Feed Rate is intended to aid the operator for more efficient machine operation. Operator is still responsible for machine and must continue to pay attention to surrounding environment during operation.

Read and understand this manual before operating Harvest Smart. Do not let others operate system without instruction. If you do not understand any part of this manual and need assistance, see your John Deere dealer.

When system is activated, remain alert and pay attention to surrounding environment. Be prepared to take control of ground speed when deactivating system at end rows.

OUO6075,0000A72 -19-28MAR07-1/1

Harvest Smart Feed Rate—Description

Harvest Smart Feed Rate varies ground speed to maintain a constant flow of material through machine, maximizing productivity and reducing operator stress. As crop material gets lighter, machine ground speed will increase and as crop material gets heavier machine ground speed will decrease. **Operator limits maximum ground speed at all times by pulling back on multifunction control handle.** System begins to slow machine ground speed when engine rpm drops below 2170 rpm. This helps prevent engine from pulling down and from stalling.

System may not perform optimally if used in the following conditions:

- Extreme Hilly Conditions
- Tangled or Lodged Crop Conditions
- Extremely Muddy Conditions

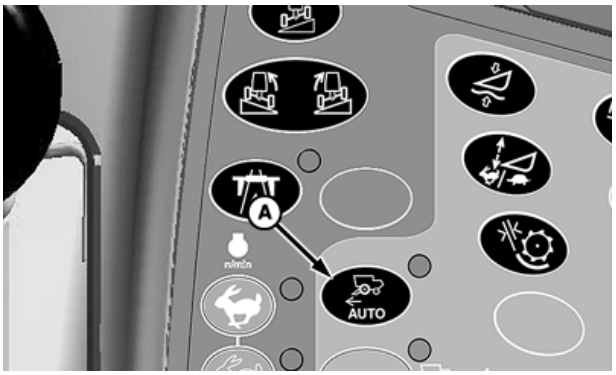
OUO6075,0000A73 -19-28MAR07-1/1

Harvest Smart Feed Rate—Smart Mode

NOTE: Smart mode is the preferred operating method for controlling the machine.

Press Harvest Smart feed rate enable switch (A) until smart mode is shown on CommandCenter display.

A—Harvest Smart Feed Rate Enable Switch



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OUO6075,0000A74 -19-30MAR07-1/2

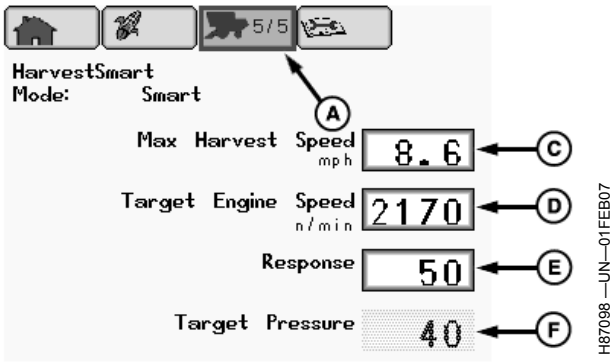
Smart Mode: monitors loss level on VisionTrak to ensure that system is at operator designated level (loss monitor calibrated). System is set when calibration button on VisionTrak display is pressed. When loss monitor levels are consistently above or below operator desired levels, system increases or decreases material flow levels, bringing loss levels back into desired range.

From setup pages icon (A), rotate selection dial (B) until one of the following is highlighted:

- Max Ground Speed (C) - sets maximum allowable ground speed for Harvest Smart to travel. System will not exceed setting, regardless of crop volume.
- Engine RPM (D) - sets minimum engine rpm (default 2170 rpm) level at which Harvest Smart is allowed to operate at.
- Response (E) - sets aggressiveness of Harvest Smart response to crop density changes. High response settings cause machine to make abrupt changes to ground speed maintaining crop volume. Low response settings cause machine to make less aggressive changes.
- Target Pressure (F) - not selectable in smart mode.

When desired box is highlighted, press confirm switch (G).

Rotate selection dial until desired values are shown. Press confirm switch to save value.



H87098 —UN—01FEB07

H87100 —UN—14DEC06

A—Setup Pages Icon
B—Selection Dial
C—Max Ground Speed
D—Engine RPM
E—Response
F—Target Pressure (Not Selectable in Smart Mode)
G—Confirm Switch

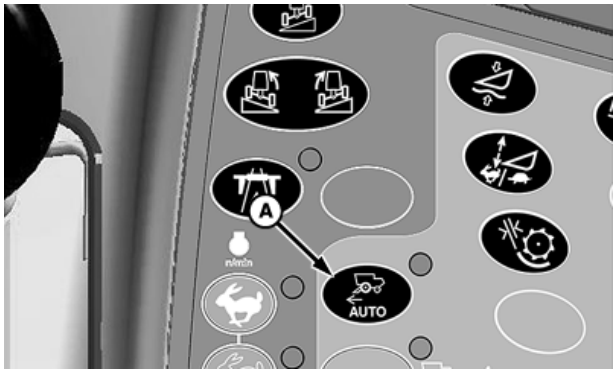
OUO6075,0000A74 -19-30MAR07-2/2

Harvest Smart Feed Rate—Capacity Mode

NOTE: Capacity mode should only be used when VisionTrak loss monitor is not reliable (sensors matting over with crop material).

Press Harvest Smart feed rate enable switch (A) until capacity mode is shown on CommandCenter display.

A—Harvest Smart Feed Rate Enable Switch



H85902 —UN—17NOV06

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OUO6075,0000A75 -19-30MAR07-1/2

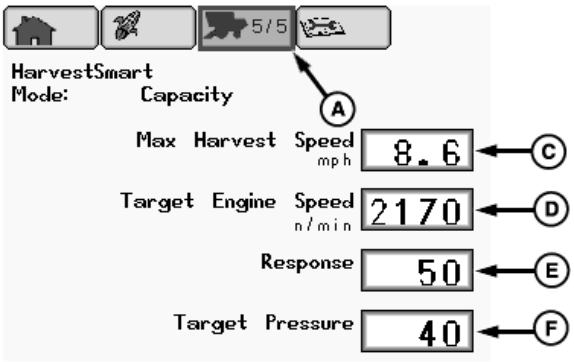
Capacity Mode: maintains a constant material flow allowing machine to increase ground speed when crop materials are lighter and decrease ground speed when crop material are heavier. Capacity mode does not adjust VisionTrak loss monitor settings, since mode is only maintaining a constant material flow.

From setup pages icon (A), rotate selection dial (B) until one of the following is highlighted:

- Max Ground Speed (C) - sets maximum allowable ground speed for Harvest Smart to travel. System will not exceed setting, regardless of crop volume.
- Engine RPM (D) - sets minimum engine rpm (default 2170 rpm) level at which Harvest Smart is allowed to operate at.
- Response (E) - sets aggressiveness of Harvest Smart response to crop density changes. High response settings cause machine to make abrupt changes to ground speed maintaining crop volume. Low response settings cause machine to make less aggressive changes.
- Target Pressure (F) - allows operator to adjust target volume without changing VisionTrak loss monitor settings. Target volume measures amount of material entering separator by monitoring rotor pressure.

When desired box is highlighted, press confirm switch (G).

Rotate selection dial until desired values are shown. Press confirm switch to save value.



H87099 —UN—23JAN07

H87100 —UN—14DEC06

A—Setup Pages Icon
B—Selection Dial
C—Max Ground Speed
D—Engine RPM
E—Response
F—Target Pressure
G—Confirm Switch

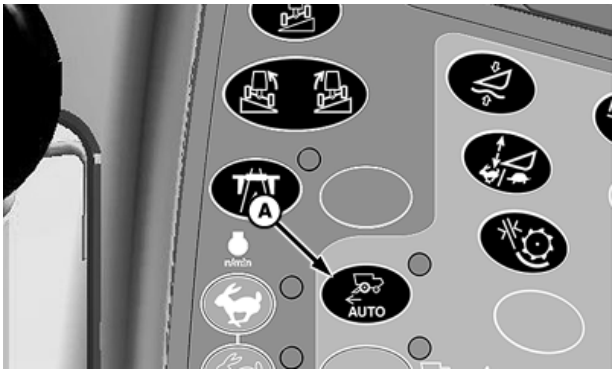
OUO6075,0000A75 -19-30MAR07-2/2

Harvest Smart Feed Rate—Initial Calibration

NOTE: Calibration needs to be done when first time harvesting crops, changing crops, or when field conditions change.

Press Harvest Smart feed rate enable switch (A) until OFF is shown on CommandCenter display.

A—Harvest Smart Feed Rate Enable Switch



H85902 —UN—17NOV06

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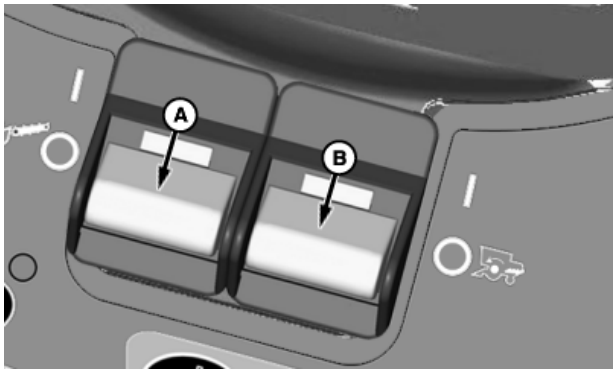
OUO6075,0000A76 -19-30MAR07-1/3

Turn header engage switch (A) and separator engage switch (B) ON and lower header.

A—Header Engage Switch **B—Separator Engage Switch**



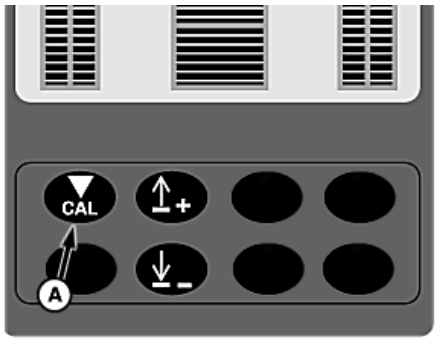
H87102 —UN—14DEC06

OUO6075,0000A76 -19-30MAR07-2/3

Operate machine in consistent crop at desired loss levels, maintaining that level for 10 – 15 seconds to allow machine to stabilize.

Press calibration button (A) on VisionTrak display. This sets material flow and loss targets for Harvest Smart.

A—Calibration Button



H87103 —UN—17DEC07

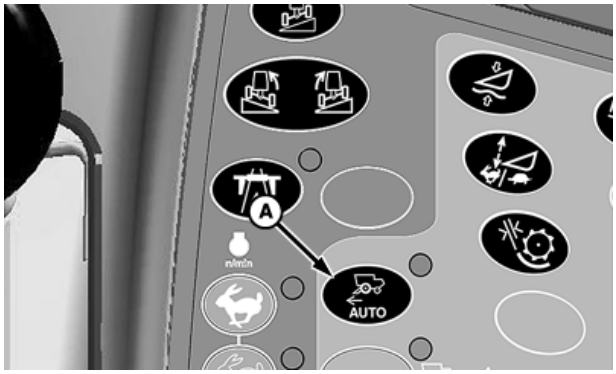
OUO6075,0000A76 -19-30MAR07-3/3

Harvest Smart Feed Rate—Operation

NOTE: If operator leaves seat while Harvest Smart is activated, system will continue to operate for three seconds before system disengages and machine slows to a stop. To activate system, place multifunction control handle in neutral position and press activation buttons 2 or 3 on multifunction control handle.

Press Harvest Smart feed rate enable switch (A) until smart is shown on CommandCenter display.

A—Harvest Smart Feed Rate Enable Switch



H85902 —UN—17NOV06

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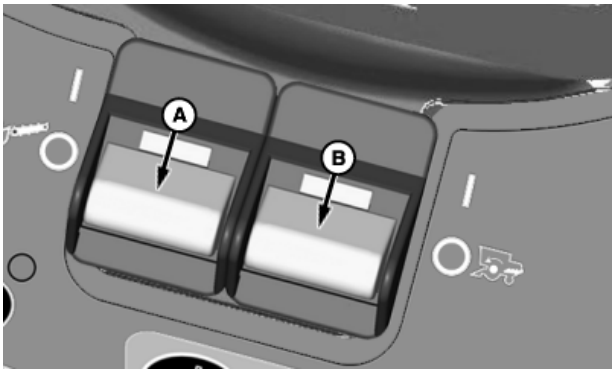
OUO6075,0000A77 -19-01JUL08-1/5

Turn header engage switch (A) and separator engage switch (B) ON and lower header.

A—Header Engage Switch **B—Separator Engage Switch**



H87102 —UN—14DEC06

OUO6075,0000A77 -19-01JUL08-2/5

Press activation buttons 2 or 3 on multifunction control handle to activate system and move multifunction control handle fully forward.

NOTE: Multifunction control handle limits maximum ground speed. Move multifunction control handle rearward to slow or stop machine. Move multifunction control handle forward to slowly allow machine to go to operator preset ground speed.

Maximum allowable ground speed is shown on CommandCenter display.

H87104 —UN—14DEC06

OUO6075,0000A77 -19-01JUL08-3/5

⚠CAUTION: Once activation button 1 is pressed machine will accelerate to multifunction control handle position, returning full control of multifunction control handle to operator.

When coming to end of field, press activation button 1 on multifunction control handle. This temporarily deactivates the system, allowing machine to accelerate to multifunction control handle position. When system is temporarily deactivated, operator has full control of machine. Pull multifunction control handle rearward to slow machine.

H87105 —UN—14DEC06

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OUO6075,0000A77 -19-01JUL08-4/5

When entering crops, press activation button 2 or 3 on multifunction control handle to reactivate system and move multifunction control handle fully forward.

H87104 —UN—14DEC06

OUO6075,0000A77 -19-01JUL08-5/5

Harvest Smart Feed Rate—Additional Information (Unloading Auger ON and Field Conditions)

NOTE: Harvest Smart will maintain ground speed of machine when unloading auger button is pressed (if multifunction control handle is not moved rearward). When unloading system is engaged, system stops adjusting machine.

If unloading system is engaged, Harvest Smart cannot be activated.

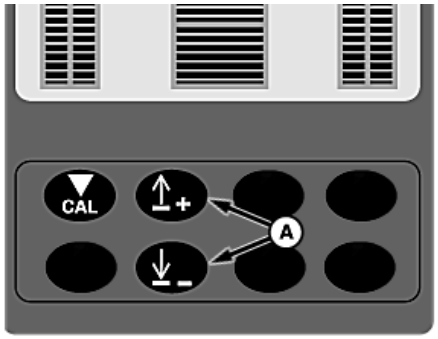
- When unloading auger drive switch (A) is pressed, Harvest Smart will still be active. If operator wants manual control while unloading, pull multifunction control handle rearward until machines slows slightly to temporarily deactivate system. Operator now has full control of ground speed. When unloading auger button is shut OFF, system automatically reactivates and controls ground speed.

H87106 —UN—14DEC06

A—Unloading Auger Drive Switch

OUO6075,0000A78 -19-31JUL07-1/2

- When crop conditions are highly variable, operator should move multifunction control handle rearward to slow and limit entry speed into heavier crop conditions. After 5 seconds move multifunction control handle fully forward.
- If system consistently makes machine drive faster than normal, press down arrow (A) on VisionTrak 2 or 3 times. If system consistently makes machine drive slower than normal, press up arrow (A) on VisionTrak 2 or 3 times. If this does not adjust system to desired operating speeds, calibrate system again.



H87107 —UN—17DEC07

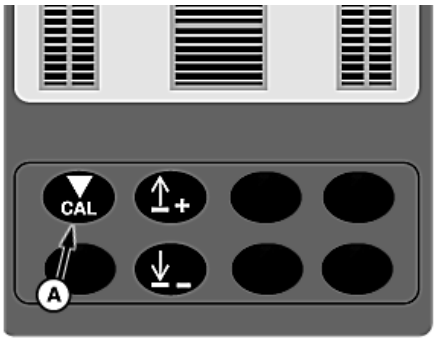
A—Up Arrow/Down Arrow Buttons

OUO6075,0000A78 -19-31JUL07-2/2

Harvest Smart Feed Rate—Best Practices

- **Calibrate system** using calibration button (A) on VisionTrak display. Operate machine in desired crop at acceptable throughput and loss level for 15-20 seconds ensuring steady operation (allows rotor pressure and loss levels to steady). Calibrating sets the following parameters:
  - Target Volume (Throughput)
  - Target Loss
  - VisionTrak Loss Calibration Factor

A—Calibration Button



H87103 —UN—17DEC07

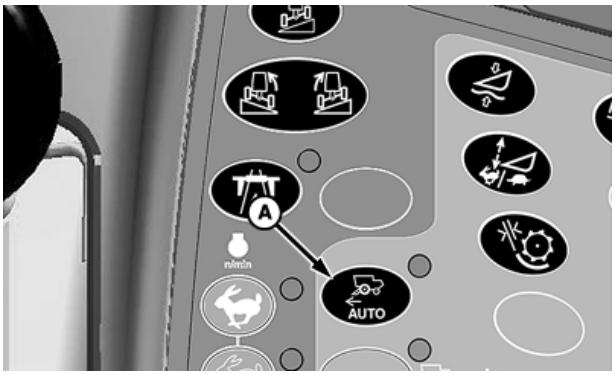
OUO6075,0000A79 -19-31JUL07-1/2

- **Activate system** by pressing Harvest Smart Feed Rate Enable switch (A). Choose desired mode:
  - Smart mode - is the recommended method.
  - Capacity mode - if losses are not a concern or VisionTrak is not reliable due to conditions.

Press activation buttons 2 or 3 on multifunction control handle to activate system and move multifunction control handle forward allowing system to increase speed accordingly to crop density.

NOTE: System will not command a speed greater than handle position.

A—Harvest Smart Feed Rate Enable Switch



H85902 —UN—17NOV06

H87104 —UN—14DEC06

OUO6075,0000A79 -19-31JUL07-2/2

Harvest Smart Feed Rate—System Adjustments

- Max Ground Speed (2.0 - 14.0 km/h) (1.2 - 8.6 mph) (A) – use parameter to set maximum ground speed when Harvest Smart is active.

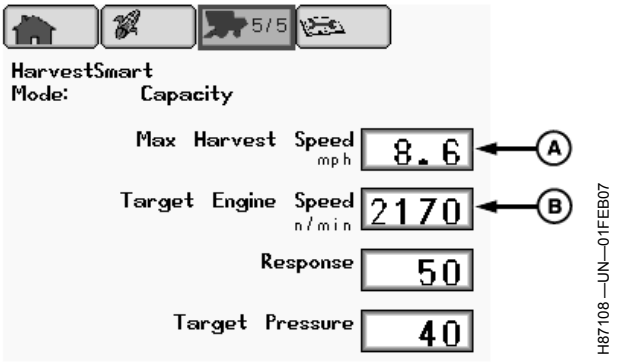
  NOTE: These parameters can be modified to increase functionality and optimize performance.

  - Sets a comfortable maximum ground speed without having to move multifunction control handle back. Otherwise, when crop conditions change from normal yields to light yields, system will increase ground speed until target pressure or multifunction control handle position speed is reached.
  - One option is to set maximum ground speed to 0.8—1.6 km/h (0.5—1 mph) higher speed in lightest crop condition. By limiting maximum ground speed to just above normal operating speed, system is more efficient (not a large speed range to adapt to and learn parameters).

    NOTE: Multifunction control handle position always limits maximum ground speed set by operator.

- Engine RPM (2350 - 2560 rpm[1], 2150 - 2350 rpm[2]) (B) – use this to set lowest allowable engine rpm Harvest Smart will allow.

[1] *6.8 L engine*
[2] *9.0 L and 13.5 L engine*



A—Max Ground Speed **B—Engine RPM**

- If slug feeding is a concern, increase setting to allow for more cushion on engine load.
- Using engine rpm to control ground speed can be accomplished by setting value close to operating rpm. This can be done in crops where there are large header loads relative to threshing loads (example corn).

Continued on next page

- Response (0—100) (A) – use this to adjust how aggressively Harvest Smart makes ground speed changes.

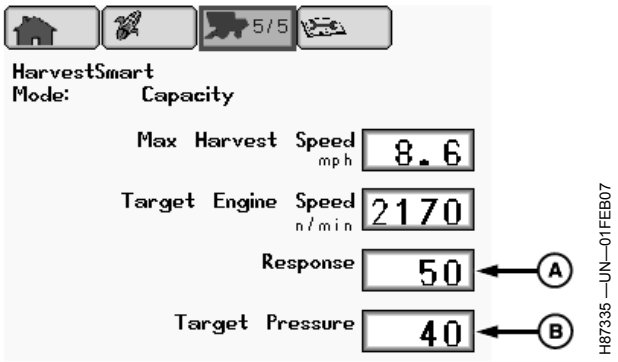
  NOTE: These parameters can be modified to increase functionality and optimize performance.

  - It is best to start low and make large (10-20) increases until ground speed changes feel too aggressive. Back numbers down from there.
  - Rate will vary with header because of difference in feeding function (example: corn head might perform best at high rates, whereas a draper needs low rates).
  - Rate may need to be adjusted based on ground speed. At slow speeds a higher rate might perform better than at high speeds. In highly variable conditions (large density changes in short distances) it is recommended to keep response rate in mid range setting (40—60).

- Target Pressure (30—420) (B) – use this to set target volume or throughput independently of VisionTrak loss monitor.

  NOTE: Target pressure is not selectable if operating in Smart Mode.

  - This parameter can be used when operator likes to adjust target volume (based on rotor load) without changing VisionTrak loss monitor calibration.



A—Response

B—Target Pressure (Not Selectable in Smart Mode)

  - Recommended way of adjusting target pressure is in Smart Mode using up/down arrow buttons on VisionTrak. By adjusting settings through VisionTrak this keeps target volume/loss relationship intact (example: if VisionTrak calibration factor is acceptable, but machine maintains a slow ground speed, increase target volume parameter by 20. If ground speed is high, decrease target volume parameter by 20).

OUO6075,0000A7A -19-19DEC07-2/2

Harvest Smart Feed Rate Control—System and Field Symptoms

Machine is accelerating too slow:

- Increase response rate calibration, see Harvest Smart Feed Rate—System Adjustment in this section.
  Harvest Smart Feed Rate—System Adjustments
  - At higher response rates, machine will respond faster to changes.

  NOTE: Increasing response rate by increments of one is hardly noticeable. Increasing response rate by increments of 20 is more noticeable. After getting in an acceptable performance range, settings can be refined more closely.

  Increasing response rate has no effect on maximum deceleration.

Machine stops or over speed dramatically:

- If machine is at low end of threshing speed range and feed rate over speeds, increase rotor speed by 20 - 30 rpm. Recalibrate system, see Harvest Smart Feed Rate—System Adjustment in this section.

  NOTE: Calibration of Target Value is recommended again since rotor rpm was increased.

  Harvest Smart has limits detecting rotor load at the low and high end of threshing speed.

Ground speed oscillating:

NOTE: When harvesting new crops, it is normal for machine to oscillate for a short period of time.

- Decrease response rate.
- Machine is operating near maximum power (under 2200 rpm) and is causing machine to oscillate (speed up/slow down ground speed), see Harvest Smart Feed Rate—System Adjustment in this section.
  - Decrease response rate to stop oscillation and adjust target engine speed to control ground speed.

Ground speed oscillating in hilly conditions:

- As machine moves up hill it will keep a constant ground speed. If machine is moving up a steep hill, machine will slow slightly due to high hydrostatic forces, see Harvest Smart Feed Rate—System Adjustment in this section.
- As machine moves down hill it increases in speed, see Harvest Smart Feed Rate—System Adjustment in this section.
  - Operator should set a maximum harvest ground speed that is comfortable. This allows machine to not exceed maximum speed when going down a hill.

  NOTE: When harvesting in areas where crop conditions are tougher or along waterways and washouts, it is recommended that operator pull back on multifunction control handle. This gains control of machine and slows ground speed if operator feels machine is moving too fast.

Target or ground speed increases with no losses:

- When operating in Smart Mode, VisionTrak sensors are not working (matted over, disconnected, or are damaged), which causes machine to increase speed resulting in high losses, see Harvest Smart Feed Rate—System Adjustment in this section.
  - Change from operating in Smart Mode to Capacity Mode. This allows constant material flow, allowing machine to increase speed when crop materials are lighter and decrease speed when crop materials are heavier.

System loses target values:

- When operating in Smart Mode, system continuously recalculates target pressure values to adjust ground speed.
- Harvest Smart must be recalibrated each time key switch is cycled. System does not retain entry speed through key cycles.

Machine reacts too slow for crop changes:

- Machine response rate adjust is too slow, see Response Rate Calibration in previous section.

  NOTE: Increasing response rate by increments of one is hardly noticeable. Increasing response rate by increments of 20 is more noticeable.

  - Continue to increase response rate until oscillating occurs and lower response rate from that point.
  - High response rate settings will cause machine to make abrupt ground speed changes to maintain crop volume.
  - Low response rate settings will allow for less aggressive changes.

Machine reacts aggressively to crop losses:

- Capacity Mode allows constant material flow, allowing machine to increase speed when crop materials are lighter and decrease speed when crop materials are heavier.
  - Recalibrate VisionTrak, see Harvest Smart Feed Rate—Initial Calibration in this section.
  - If recalibrating VisionTrak has no affect, switch to Capacity Mode, see Harvest Smart Feed Rate—System Adjustment in this section.
  - In some conditions, Capacity Mode is a better mode for operation.

OUO6075,0000A7B -19-19DEC07-1/1

Harvest Smart Feed Rate Troubleshooting

Harvest Smart Feed Rate Control

Symptom	Problem	Solution
Machine slows way down or stops when Harvest Smart Feed Rate Control is activated.	Machine has a bad calibration value.	Recalibrate system.
	Harvest Smart must be recalibrated each time key switch is cycled. System does not retain entry speed through key cycles.	Recalibrate system.
After calibrating system machine drives too slow.	Target load torque is too low.	Press up arrow on VisionTrak display two or three times.
	Machine has a bad calibration value.	Recalibrate system.
After calibrating system machine drives faster than desired.	Target rotor torque is too high.	Press down arrow on VisionTrak two or three times.
	Machine has a bad calibration value.	Recalibrate system.
With Harvest Smart Feed Rate Control active machine is oscillating speed too much.	Gain/Aggressiveness is set too high.	Decrease response setting.
	Loss monitor too sensitive.	Try running Harvest Smart Feed Rate Control System on Capacity Mode.
With Harvest Smart Feed Rate Control active system seems sluggish to respond to changes.	Gain/Aggressiveness is set too low.	Increase response setting.
Harvest Smart Feed Rate Control is operating erratically.	Machine has a bad calibration value.	Recalibrate system.
	Loss monitor not working properly.	Try running Harvest Smart Feed Rate Control on Capacity Mode.

Harvest Smart Feed Rate Control Drive By Wire

Symptom	Problem	Solution
Machine stops unexpectedly and will not move.	System has a component out of tolerance.	Return multifunction control handle to neutral and clear all diagnostic trouble codes. After codes are cleared try to drive machine.
	Swashplate position sensor detects a stuck valve or has malfunctioned and is showing multiple diagnostic trouble codes.	Refer to Harvest Smart Feed Rate Limp Mode later in this section for further information or see your John Deere dealer.

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Symptom	Problem	Solution
	System has lost one or more of the redundancy channels or channels are in discrepancies and is showing multiple diagnostic trouble codes.	Refer to Harvest Smart Feed Rate Limp Mode later in this section for further information or see your John Deere dealer.
Machine will stop after driver is out of seat for three seconds.	Operator out of seat.	Operator must return to seat and return multifunction control handle to neutral before operation can resume.

OUO6075,0000133 -19-08MAY08-2/2

Harvest Smart Feed Rate Limp Mode

Limp Mode

To get machine to move or move machine out of way, use the following **LIMP** mode.

Press main menu switch and rotate selection dial until message center icon is highlighted and press confirm switch.

Rotate selection dial until diagnostic address icon is highlighted and press confirm switch.

Rotate selection dial until device (controller) drop menu is highlighted and press confirm switch.

Rotate selection dial until **PTP** controller is highlighted and press confirm switch.

Rotate selection dial until address **119** is highlighted and press confirm switch.

Address value will highlight and display **zero**.

Press confirm switch to enter into address value and rotate selection dial until **one** is displayed.

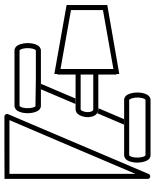
Press confirm switch to enter **one** into memory.

Rotate selection dial until save icon is highlighted and press confirm switch.

NOTE: ALLOWS MACHINE TO OPERATE UNTIL KEY IS CYCLED. NOT TO BE USED FOR NORMAL OPERATION. Call your John Deere dealer to have machine inspected immediately.

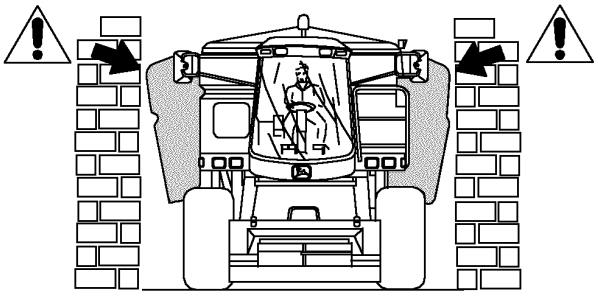
OUO6075,0000130 -19-08MAY08-1/1

HILLMASTER System (General Information)



H84256 —UN—25AUG05

Maximum Tilt Limit Indicator



ZX002438 —UN—16JUN95

ZX 002438

⚠ CAUTION: HILLMASTER must only be used in field. Before driving on public roads, machine must be lowered to transport position, so maximum height is less than 4.0 m.

Care must be taken when turning machine on slopes. Follow these precautions when turning machine on slopes in order to avoid loss of stability and potential rollover of machine:

- **Never turn machine faster than leveling system can keep machine level.**
- **Always turn uphill and never downhill.**
- **Do not move onto steeper grades once maximum tilt message appears on CommandCenter display.**

Avoid crushing injuries. Always completely lower leveling system before getting underneath machine for service, adjustments or repairs. Shut OFF engine, set parking brake and remove key.

IMPORTANT: Before actuating manual leveling control switch, verify that parking brake is released.

Do not park machine too close to other machines or building walls. This is important as machine may tilt due to internal loss of oil pressure when parked for long periods of time. This may cause damage to machine and adjacent machines or walls.

Standard final drives are mounted to pivoting carrier plates on the front axle. Hydraulic cylinders are used to pivot the carrier plates up and down to tilt the machine. This allows separator to remain level as machine moves over uneven ground.

System is operated manually using HILLMASTER tilt left and right buttons or in automatic mode.

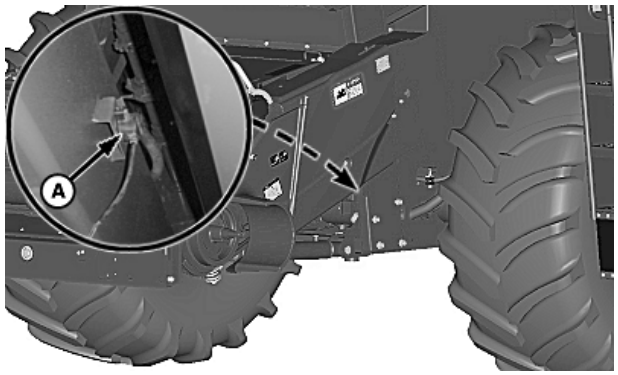
OUO6075,000004D -19-26JUN08-1/5

In automatic mode, tilt sensor (A) levels the body of the machine and remains level as the machine moves across the field.

As field slope changes, a pendulum in the tilt sensor measures the angle of tilt and provides a signal to the controller. At the appropriate time and angle of tilt, the control circuit sends an electronic signal to the right or left tilt solenoid on the tilt leveling control valve.

NOTE: Sensor keeps separator level within one degree during field operation. When operating on rough or irregular ground, level position of separator may exceed this one degree for a short time.

The system keeps the separator level on slopes up to 15%. If operated on slopes greater than 15%, maximum tilt icon shows on display.



H91010 —UN—19MAR08

Position Sensor Locate on Front Axle

A—Tilt Sensor

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OUO6075,000004D -19-26JUN08-2/5

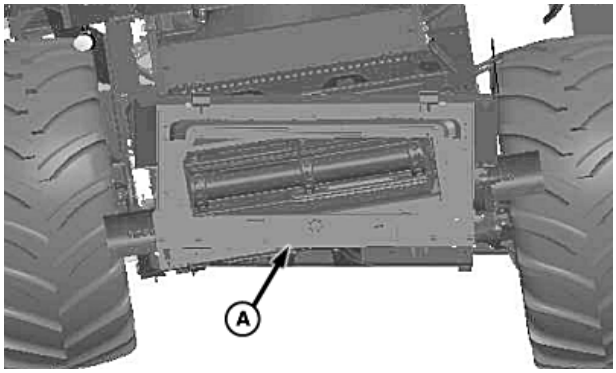
HeaderTrak Tilt Operation

HeaderTrak tilt assists in keeping the header parallel with the ground as the machine separator tilts to stay level. The system uses a specially equipped feeder house (A) that enables the header to tilt left and right.

HILLMASTER along with HeaderTrak tilt function allows header to tilt left and right ± 9 degrees. Both systems allow header to cut properly on slopes up to 15%.

HeaderTrak tilt system uses a double-acting master-slave cylinder arrangement to tilt header with respect to chassis.

A—Feeder House



H84660 —UN—07OCT05

OUO6075,000004D -19-26JUN08-3/5

Header tilt master cylinder (A) is connected between the front axle and the left final drive carrier plate. Header tilt slave cylinder (B) is located on top of feeder house and connects the tilt frame to the feeder house. During normal operation, the header automatically stays parallel to ground as separator tilts left or right staying level.

NOTE: Areas around feeder house tilt frame need cleaned regularly to prevent buildup of material, which could limit full tilt travel.

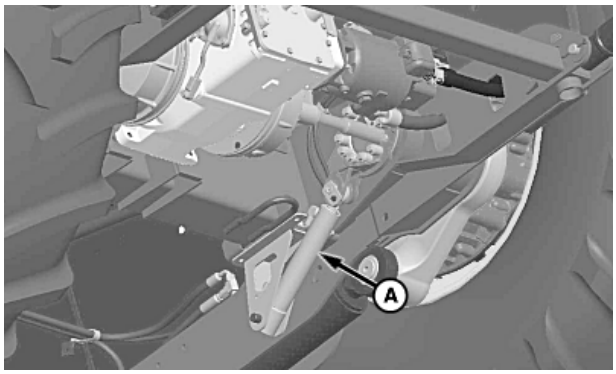
Operator can override automatic header leveling feature by using HeaderTrak tilt switches located on multifunction control handle. When HeaderTrak tilt switches are pressed, oil from main hydraulic valve stack is added or removed from header tilt circuit, allowing it to move independently of feeder house and chassis.

HeaderTrak tilt function can also operate in automatic mode.

For automatic operation, header must be equipped with HeaderTrak sensors and calibrated prior to first use.

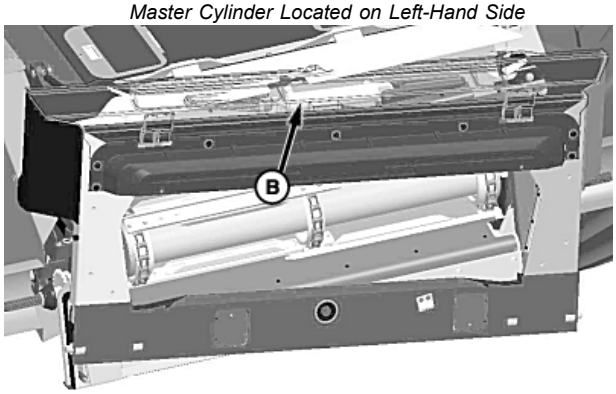
Automatic operation is enabled by pressing HeaderTrak enable button on display. System is activated by pressing activation buttons 1, 2 or 3 on the multifunction control handle.

Headers equipped for HeaderTrak tilt have a sensor at both left and right ends. Signals from these sensors are processed and the appropriate hydraulic control valve is energized to level header with respect to ground.



H84613 —UN—04OCT05

Master Cylinder Located on Left-Hand Side



H84661 —UN—07OCT05

Header Tilt Slave Cylinder

A—Header Tilt Master Cylinder B—Header Tilt Slave Cylinder

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OUO6075,000004D -19-26JUN08-4/5

Header Tilt Cylinders

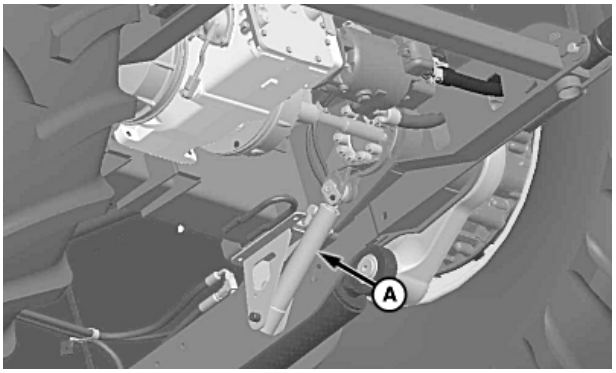
Angle of header is determined by a master/slave cylinder arrangement. Master cylinder (A) is connected between chassis and left final drive carrier plate. Slave cylinder (B) is connected between feeder house and tilt frame.

Rod ends of master and slave cylinders are connected to each other and piston ends of master and slave cylinders are connected to each other. As left leveling cylinder extends and retracts, the left final drive carrier plate pivots up and down and extends or retracts the header tilt master cylinder. Movement of master cylinder extends and retracts slave cylinder.

As master cylinder extends through movement of final drive carrier plate, oil flows from rod end of master cylinder to rod end of slave cylinder. This causes the slave cylinder to retract. Oil from base end of slave cylinder flows to base end of master cylinder to fill additional volume created as master cylinder is extended.

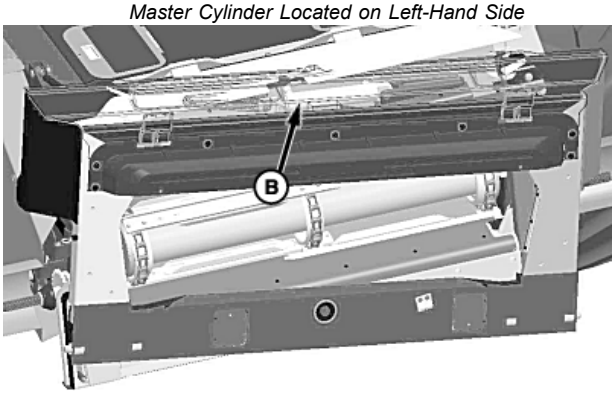
When master cylinder is retracted by movement of final drive carrier plate, the opposite occurs.

A—Header Tilt Master Cylinder B—Header Tilt Slave Cylinder



H84613 —UN—04OCT05

Master Cylinder Located on Left-Hand Side



H84661 —UN—07OCT05

Header Tilt Slave Cylinder

OUO6075,000004D -19-26JUN08-5/5

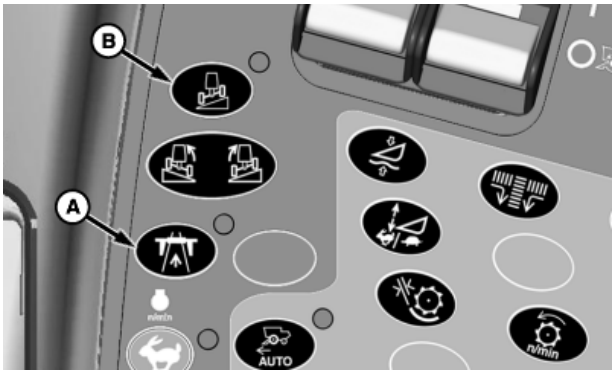
HILLMASTER Daily Operation Preparations

CAUTION: Do not attempt to operate HILLMASTER machine unless all three of the following operational checks are completed successfully. If one or more of the following checks fail (separator does not tilt or time to reach full tilt is excessive), contact your John Deere dealer for assistance.

Before operating HILLMASTER machine the following three operational checks must be performed (daily).

Pre-check Configuration:

- Engine is running (High idle)
- Road transport disconnect switch (A) is in field position
- Parking brake is released
- Automatic leveling control switch (B) is OFF (indicator light OFF)



H87612 —UN—12MAR07

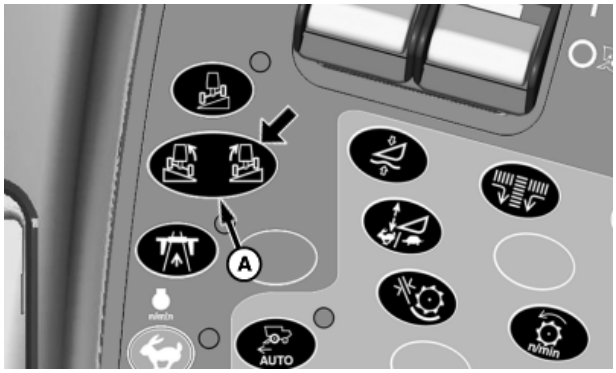
A—Road Transport Disconnect Switch B—Automatic Leveling Control Switch

Continued on next page

OUO6075,0000A5B -19-02APR07-1/4

Operational Check One: Move manual leveling control switch (A) to right-hand tilt position for 20 seconds. Machine should tilt right.

A—Manual Leveling Control Switch

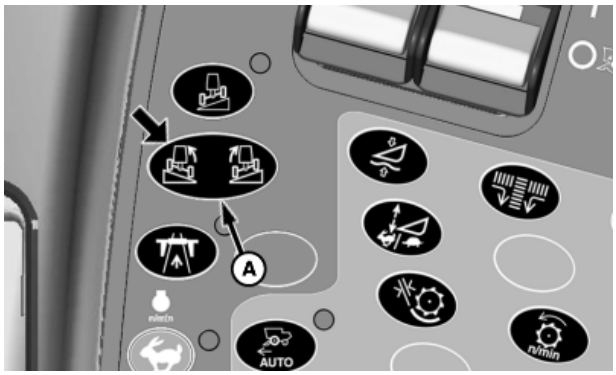


H87613 —UN—12MAR07

OUO6075,0000A5B -19-02APR07-2/4

Operational Check Two: Move manual leveling control switch (A) to left-hand tilt position for 20 seconds. Machine should tilt left.

A—Manual Leveling Control Switch

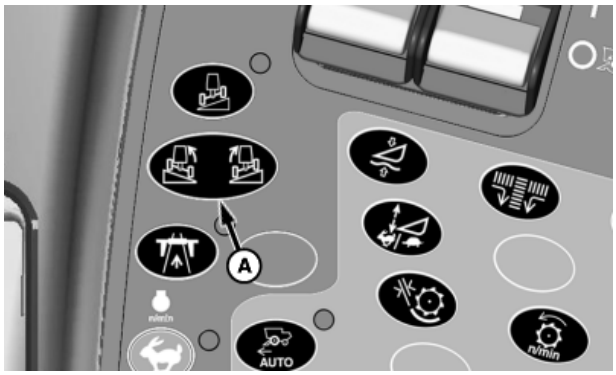


H87614 —UN—12MAR07

OUO6075,0000A5B -19-02APR07-3/4

Operational Check Three: Use manual leveling control switch (A) to bring machine from maximum left tilt position to maximum right tilt position. Time required to do this should be 5—7 seconds.

A—Manual Leveling Control Switch



H87615 —UN—12MAR07

OUO6075,0000A5B -19-02APR07-4/4

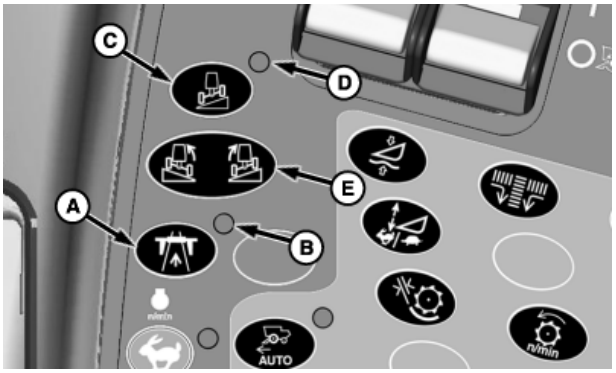
Automatic Leveling HILLMASTER Operation

When operating in field, place road transport disconnect switch (A) to field position. Indicator light (B) will go OFF. Place automatic leveling control switch (C) to automatic position. Indicator light (D) will come ON.

Press manual leveling control switch (E) alternatively left or right to raise machine to working position.

With switch configuration machine will automatically level on slopes up to 15%.

A—Road Transport Disconnect Switch
B—Indicator Light
C—Automatic Leveling Control Switch (HILLMASTER)
D—Indicator Light
E—Manual Leveling Control Switch (HILLMASTER)



H87616 —UN—12MAR07

OUO6075,0000A5C -19-02APR07-1/1

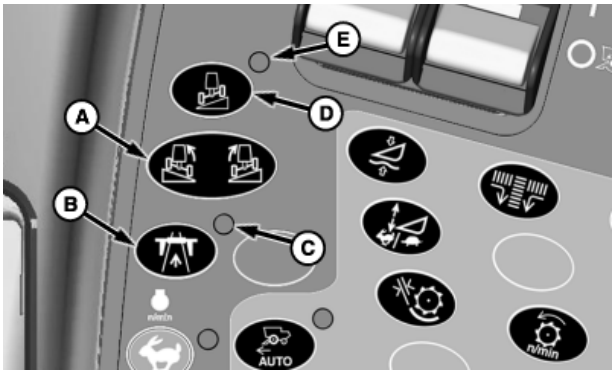
Manual Leveling HILLMASTER Operation

Use manual leveling control switch (A) to manually tilt machine or to place machine in road transport position.

Place road transport disconnect switch (B) to field position. Indicator light (C) will go OFF. Place automatic leveling control switch (D) to automatic position. Indicator light (E) will come ON.

Press manual leveling control switch (A) left or right to tilt machine as desired.

A—Manual Leveling Control Switch (HILLMASTER)
B—Road Transport Disconnect Switch
C—Indicator Light
D—Automatic Leveling Control Switch (HILLMASTER)
E—Indicator Light



H87617 —UN—12MAR07

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OUO6075,0000A5D -19-09APR07-1/2

Road Transport Position:

Move machine to level ground for leveling purposes.

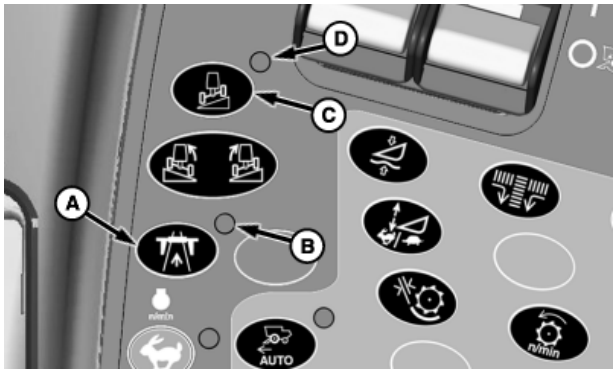
Place road transport disconnect switch (A) in field position. Indicator light (B) will go OFF.

Press automatic leveling control switch (C). Indicator light (D) will come ON. Machine will self-level to neutral position.

CAUTION: Avoid loss of control during road transport and serious injury or death. Never transport machine on roadway with HILLMASTER in automatic mode. Never attempt to manually tilt machine while transporting on a roadway.

After machine has leveled itself, press automatic leveling control switch (C). Indicator light (D) will go OFF.

Place road transport disconnect switch (A) in road position. Indicator light (B) will come ON. This will lockout HILLMASTER leveling system and will ensure leveling system does not shift during road transport.



H87618 —UN—12MAR07

A—Road Transport Disconnect Switch
B—Indicator Light
C—Automatic Leveling Control Switch (HILLMASTER)
D—Indicator Light

Machine is now in neutral position and can be driven on roadways.

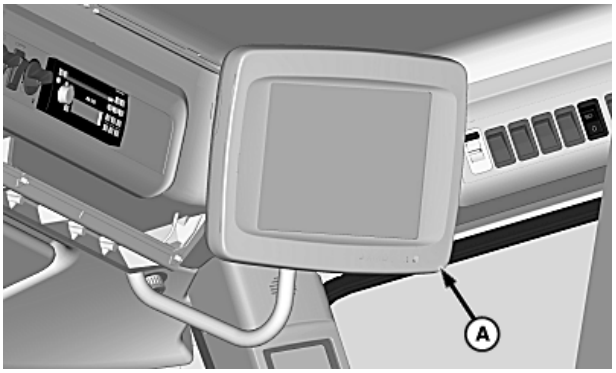
OUO6075,0000A5D -19-09APR07-2/2

GreenStar™ Component Location

GreenStar Display (If Equipped)

GreenStar display (A) is located inside the cab. Display allows operator to view instantaneous system information from the seat while operating.

A—GreenStar Display



H87619 —UN—12MAR07

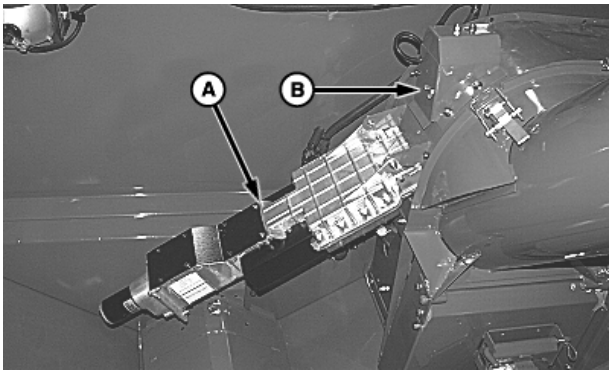
OUO6075,0000A64 -19-28MAR07-1/1

Moisture Sensor and Mass Flow Sensor

Moisture sensor (A) is located below the mass flow sensor in the top of the clean grain elevator. The sensor continuously measures the moisture of a small sample of the grain as it is conveyed through the clean grain elevator to the grain system.

Mass flow sensor (B) is located in the top of the clean grain elevator housing in the grain tank. Harvested grain discharged from the clean grain elevator then deflects onto the impact plate. Mass flow sensor converts the force of the grain into an electronic impulse corresponding to the wet-yield unit/area unit.

A—Moisture Sensor **B—Mass Flow Sensor**



PC7748 —UN—01JUL03

OUO6075,0000B26 -19-15MAR07-1/1

GreenStar Printer (Optional)

A special printer can be integrated in the overhead display panel.

Information such as Farm and Field, Crop Totals and Load Totals displayed on CommandCenter display or GreenStar display (if equipped) can be printed out.

H88011 —UN—26APR07

OUO6075,0000A34 -19-26APR07-1/1

Fire Prevention

Recommended Fire Preventions

The machine must be inspected periodically throughout the harvest day. Buildup of crop material and other debris must be removed to ensure proper machine function and to reduce the risk of fire.

Regular and thorough cleaning of machine combined with other routine maintenance procedures listed in the Operator's Manual greatly reduces the risk of fire, chance of costly downtime, and improve machine performance.

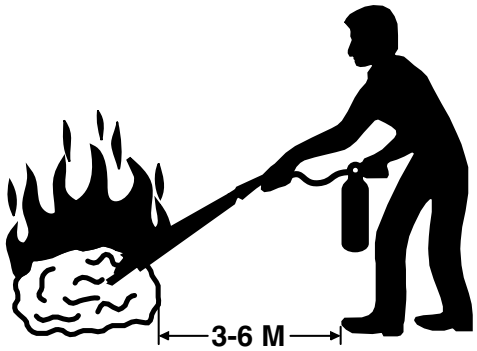
Always follow all safety procedures posted on the machine and in the Operator's Manual. Before carrying out any inspection or cleaning, always shut OFF engine, set parking brake, and remove key.

Your machine has been equipped with two large, general-purpose fire extinguishers (ladder platform and rear of machine). Extinguishers must be checked daily when entering or exiting the cab and when working around machine to ensure that they are in working condition. Fire extinguishers must be replaced or professionally serviced after any usage.

For further information, refer to Machine Cleanout section.

OUO6075,00000B5 -19-30OCT08-1/1

Fire Extinguisher Operation



H90363 —UN—05DEC07

Your machine has been equipped with two large, general-purpose fire extinguishers (ladder platform and rear of machine). Extinguishers must be checked daily when entering or exiting the cab and when working around machine to ensure that they are in working condition. Fire extinguishers must be replaced or professionally serviced after any usage.

Use of a Fire Extinguisher:

The diagram 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.

Inspection Checklist:

At least once per month, inspect fire extinguishers and ensure the following:

1. Are fire extinguishers positioned in designated location on cab ladder landing and at rear of machine?
2. Are there any obstructions to proper access or visibility?
3. Are operating instructions on nameplate legible and facing outward?
4. Are safety seals broken or missing?
5. Is extinguisher full? (Determines by weighing or "hefting")
6. Is there any physical damage, corrosion, leakage, or a clogged nozzle?

When inspection of fire extinguisher reveals a deficiency, extinguisher must be serviced or replaced.

OUO6075,0000021 -19-28APR08-1/1

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

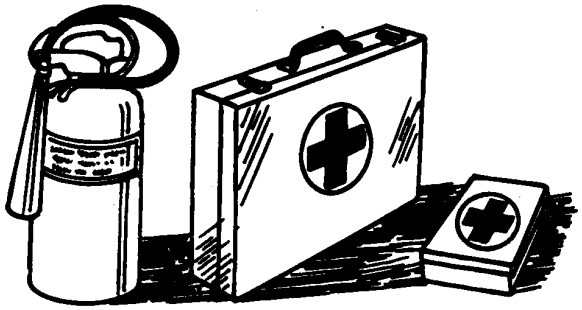
DX,FIRE1 -19-03MAR93-1/1

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

Remove Accumulated Crop Debris

The build up of chaff and crop debris in the engine compartment, on the engine, and near moving parts is a fire hazard. Check and clean these areas frequently. Before performing any inspection or service, shut off the engine, set the parking brake and remove the key.

TS227 —UN—23AUG88

HX,9010SA,B -19-23AUG97-1/1

Fire Extinguisher

A 6 kg (15 lb.) general purpose fire extinguisher meeting national certification requirements must be installed on the combine. A fire extinguisher and bracket is located near the engine platform ladder landing.

Maintain fire extinguisher to keep it in operating condition.

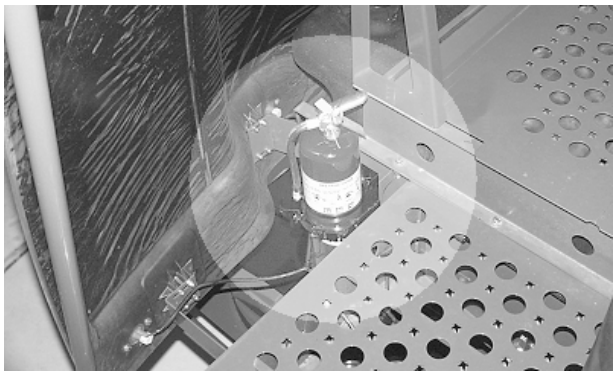
Keep the engine clean and free of dust, chaff and straw to prevent the possibility of fire.

H39760 —UN—11OCT88

OUO6075,000240D -19-29OCT02-1/1

Fire Extinguisher Location

Rear fire extinguisher is located under the right-hand gull wing door.



H82553 —UN—28APR05

Rear Fire Extinguisher Location

OUO6075,00000C4 -19-23APR08-1/1

In Case of Fire

Stop harvesting immediately at first sign of fire. This may be the smell of smoke or the sight of smoke or flames.

⚠ CAUTION: Do not risk personal injury. If a fire is too far advanced, do not try to extinguish it.

If fire can be safely extinguished, proceed carefully and follow these guidelines:

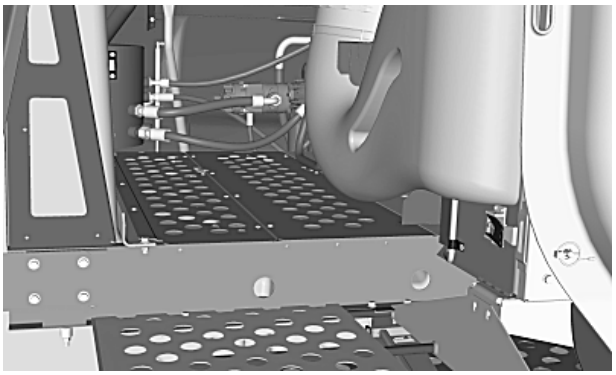
1. Remove fire extinguisher from bracket and carry to area of fire.
2. Approach area of fire with wind to your back.
3. Pull safety pin from top of extinguisher.
4. Hold extinguisher upright by handles and aim hose at base of flames.
5. Squeeze handles to discharge fire extinguisher.
6. Move nozzle back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

TS227 —UN—23AUG88

OUO6075,00000B6 -19-22APR08-1/1

Cleaning Engine Compartment

CAUTION: Dirt, oil, chaff and crop debris in the engine compartment and on the engine is a fire hazard. Direction of wind, type of crop and its moisture content can all have an effect on where and how much chaff and debris accumulate. Check and clean this area frequently. Do not clean engine or engine compartment with engine running.



H82381 —UN—07FEB05

OUO6075,00006AB -19-15MAR07-1/1

Cleaning Out Machine (Periodic)

Important Notes

The machine must be inspected periodically throughout the harvest day. Buildup of crop material and other debris must be removed to ensure proper machine function and to reduce the risk of fire.

This section shows primary areas of the machine that require periodic inspection and cleaning. Frequency of inspections and cleanings vary depending on a number of factors, including operating conditions, machine settings, crop conditions, operating speeds, and weather conditions, particularly dry, hot, and windy conditions. Various photographs show accumulations of crop material and other debris prior to cleaning. This was allowed for illustrative purposes only.

Primary areas that need inspection and cleaning are:

- Engine Compartment
- Pulleys
- Shields and Ledges
- Wiring Harnesses and Hydraulic Hoses
- Transmission

While there are other areas that require regular cleaning, these areas provide the greatest impact on fire prevention. Using compressed air can make the job of keeping these areas clean much easier.

Harvesting certain crops can cause special issues. Some crops are very “sticky” and it is often more difficult to clean the machine when harvesting these crops. Examples of these crops include sunflower, canola, and safflower. Take special care in cleaning the machine when harvesting these crops.

Regular and thorough cleaning of machine combined with other routine maintenance procedures listed in the Operator’s Manual greatly reduce the risk of fire, chance of costly downtime, and improve machine performance.

Always follow all safety procedures posted on the machine and in the Operator’s Manual. Before carrying out any inspection or cleaning, always shut OFF engine, set parking brake, and remove key.

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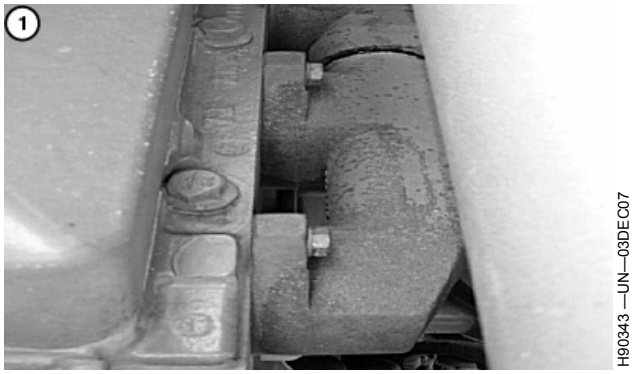
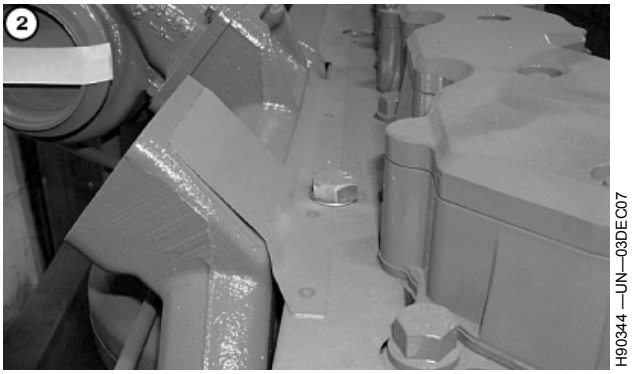
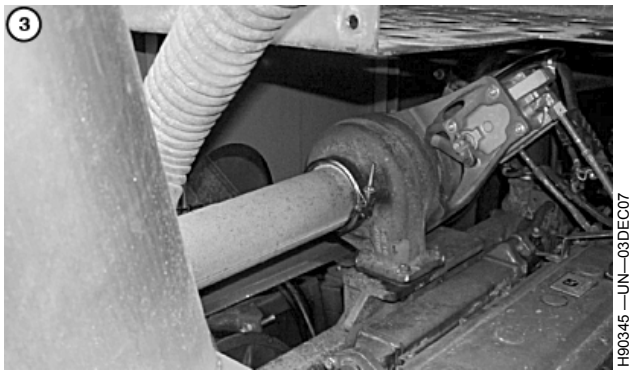
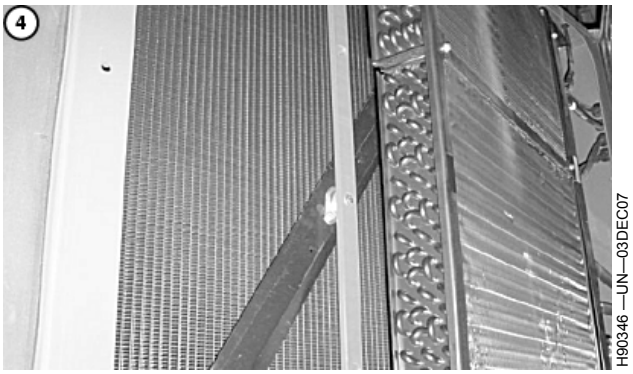
Engine Compartment









Crop material and other debris can accumulate in engine compartment. Direction of wind, type of crop, and crop moisture content can all have an effect on where and how much crop material and debris can accumulate. Inspect and clean engine compartment frequently throughout the harvest day. Primary areas that must be inspected and cleaned are:

1. Exhaust Manifold
2. Manifold Shield
3. Turbocharger
4. Engine Cooling Package
5. Underneath Fuel Tank
6. On Top of Fuel Tank

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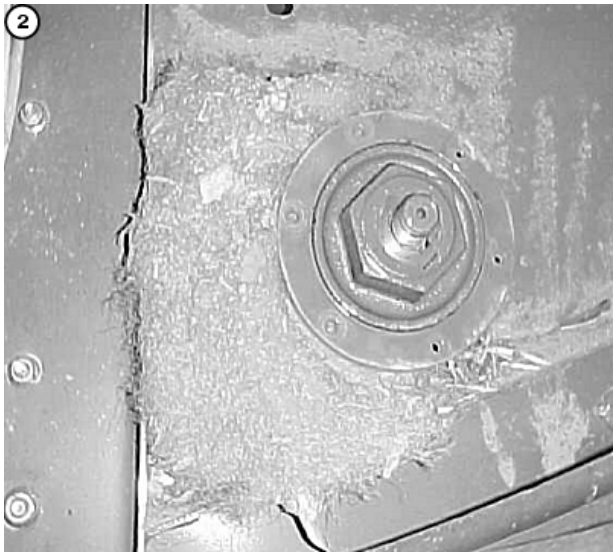
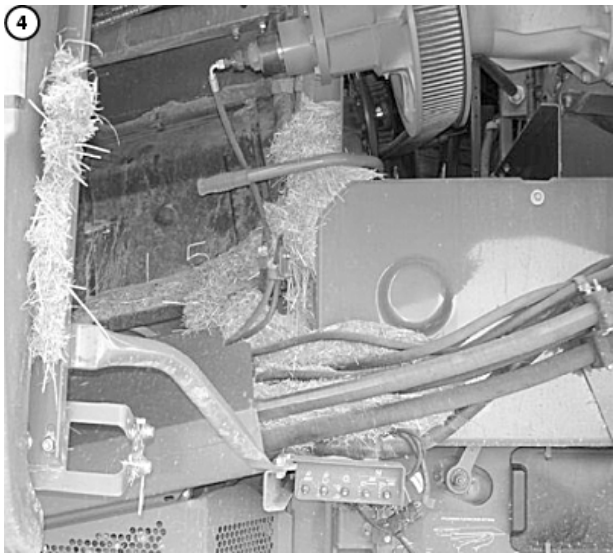
OUO6075,0000020 -19-01JUL08-2/7

Pulleys



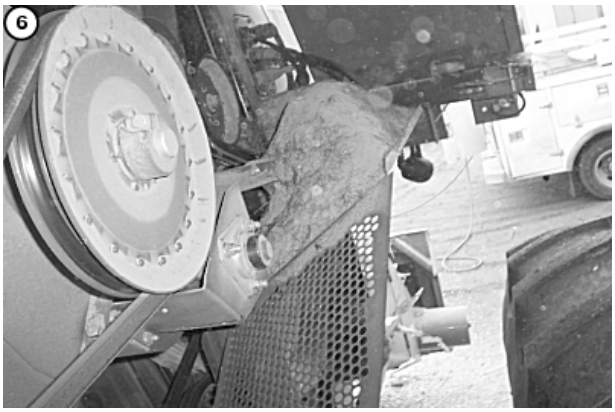


Crop material and other debris may accumulate inside and around pulleys. Inspect and clean these areas periodically throughout the harvest day. Some examples of areas to inspect and clean are shown.

1. Clean Grain Elevator Drives
2. Discharge Beater Drives
3. Residue Disposal Drives
4. Rotor Drives

Continued on next page

Shields and Ledges



Crop material and other debris may accumulate on, behind, and/or under shields. Inspect and clean these areas periodically throughout the harvest day. Some examples of areas to inspect and clean are shown.

1. Right Side Catwalk Area
2. Left Side Catwalk Area
3. Right Side Feeder House Shields
4. Left Side Feeder House Shields
5. Bearing Guards
6. Right Side Mud Shields

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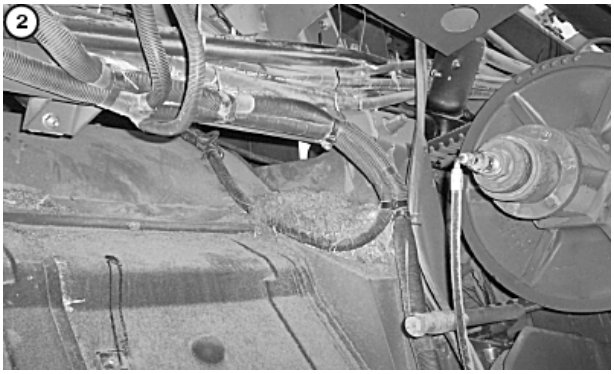
OUO6075,0000020 -19-01JUL08-4/7

Wiring Harnesses and Hydraulic Hoses



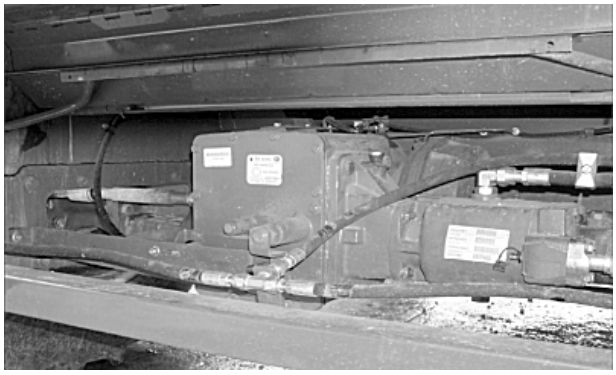
Crop material and other debris may accumulate on, between, and/or around wiring harnesses and hydraulic hoses. Inspect and clean these areas periodically throughout the harvest day. Some examples of areas to inspect and clean are shown.

1. Right Side Batteries
2. Left Side Rotor Area

OUO6075,0000020 -19-01JUL08-5/7

Transmission

Crop material and other debris may accumulate on top of and around transmission. Inspect and clean area periodically throughout the harvest day.



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OUO6075,0000020 -19-01JUL08-6/7

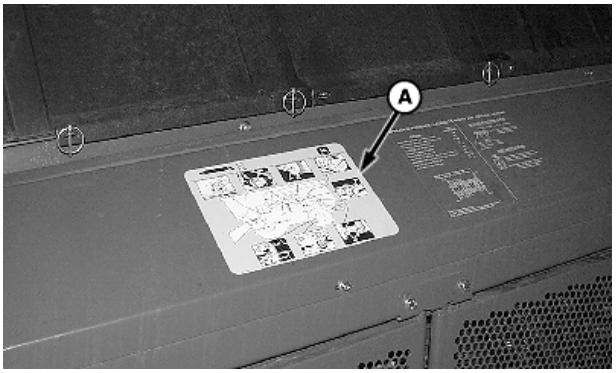
Lubrication Decal Locations

Lubrication decals (A) show the different locations of grease points around the machine. Follow lubrication times provided on decals and refer to hour intervals listed in Lubrication and Maintenance section for further information.

Bearing failures or overheating can result in a fire. To reduce bearing failures or overheating, always refer to lubrication decals on machine.

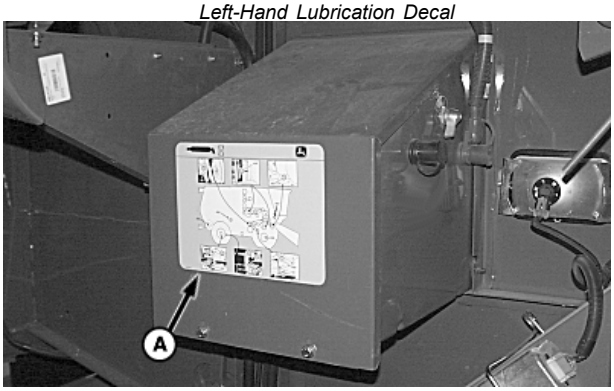
Crop material and other debris may accumulate around bearings and bearing covers. Inspect and clean these areas periodically throughout the harvest day.

A—Lubrication Decals



H80953 —UN—01JUN04

Left-Hand Lubrication Decal



H83439 —UN—01JUN05

Right-Hand Rear Lubrication Decal

OUO6075,0000020 -19-01JUL08-7/7

Cleaning Out Machine (Annual and Specialty Crops)

CAUTION: To prevent injury, never clean machine with engine running and separator engaged. Shut OFF engine, set parking brake and remove key.

The following instructions are recommended when cleaning out machine for certified seed crops or when transporting machine inter-state.

CAUTION: Block header safely so it will not move. Lower reel safety stops.

Remove header from machine.

Drive machine over end rows or bumps to jar and shake dirt loose. Shut OFF engine, set parking brake and remove key.

Open or remove all doors and drain holes.

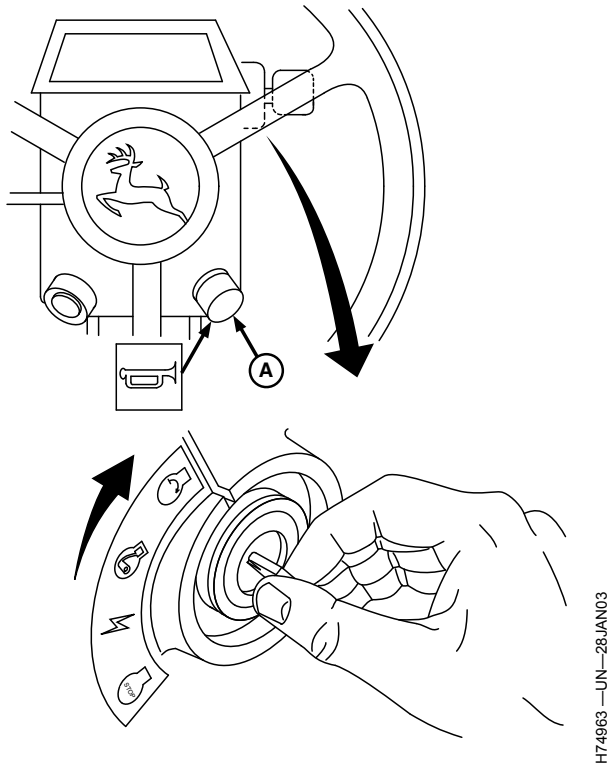
CAUTION: Sound horn (A) to clear everyone from area. Stay clear of machine when discharging chaff.

Start engine and let separator run until chaff stops coming out rear of machine.

Lower engine rpm to low idle and engage separator several times. Running separator at low idle removes dirt from inside rotor.

Move throttle to high rpm and run for a few minutes. Repeat cycle until chaff no longer comes out rear of machine.

CAUTION: Keep bystanders clear of machine when discharging chaff.



H74963 —UN—28JAN03

A—Horn

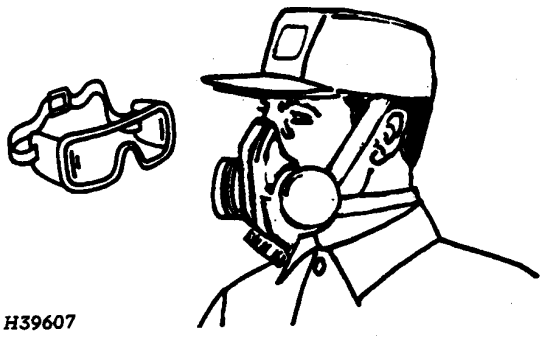
Drive machine onto blocking so right-hand side is about 150 mm (6 in.) higher, or park on incline so dirt can run out.

OUO6075,0000268 -19-16APR09-1/22

CAUTION: Shut OFF engine, set parking brake, remove key, block wheels and lower feeder house safety stop.

When working with compressed air in dusty conditions, you must wear goggles and dust mask for personal protection. Air hose must have a 2 m (6 ft.) wand (end).

Start at top of machine and work down.



H39607 —UN—11OCT88

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OUO6075,0000268 -19-16APR09-2/22

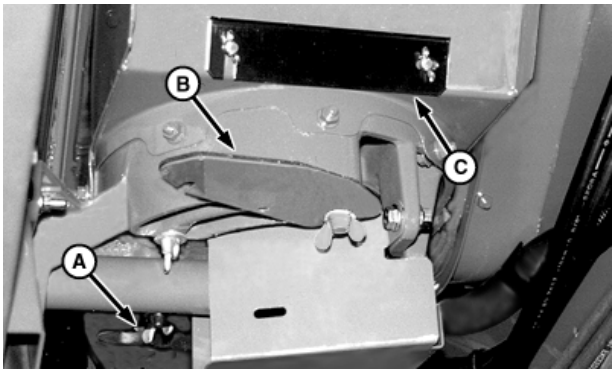
Open cleanout doors (A), (B) and (C).

IF EQUIPPED: Release latch (D) and open cleanout door (E).

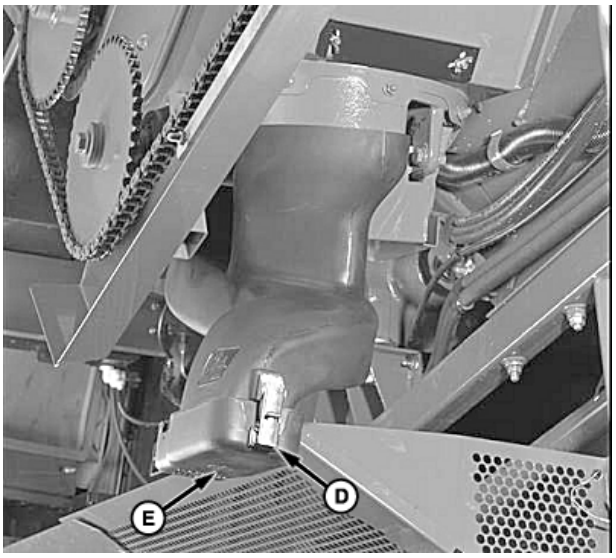
Clean grain from under grain tank cross augers over to the sump.

Clean grain from edges of unloading auger sump to the bottom. Grain must be cleaned out from doors standing on ground.

A—Cleanout Door
B—Cleanout Door
C—Cleanout Door
D—Latch
E—Cleanout Door



H62230 —UN—19JAN00



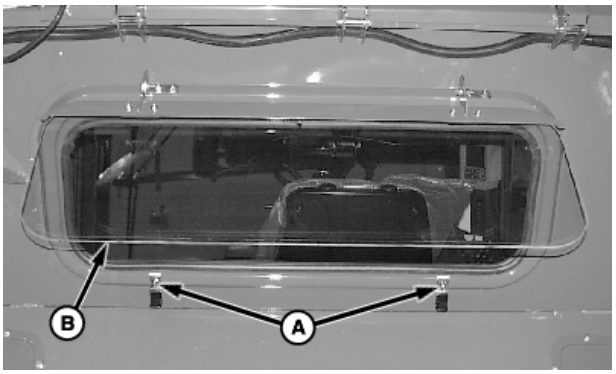
H83719 —UN—10JUN05

OUO6075,0000268 -19-16APR09-3/22

Loosen clamps (A) and swing grain tank window (B) up.

Clean out area behind cab, around primary countershaft and over separator.

A—Clamps
B—Grain Tank Window



H76204 —UN—28APR03

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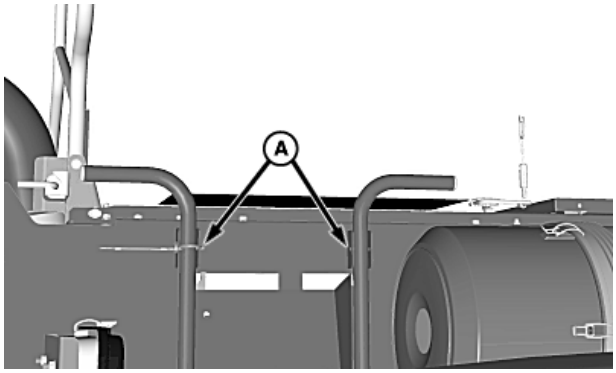
OUO6075,0000268 -19-16APR09-4/22

Clean engine compartment area. Ladder can be moved by removing quick-lock pins (A) and lifting bottom of ladder out of slot.

A—Quick-Lock Pins



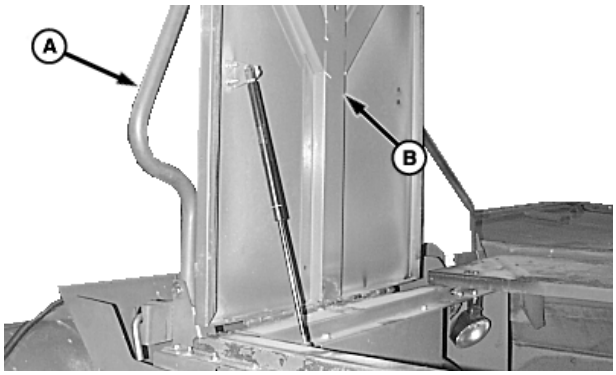
H82407 —UN—09FEB05

OUO6075,0000268 -19-16APR09-5/22

Raise handrail (A) and raise engine access cover (B).

A—Handrail

B—Engine Access Cover



H82409 —UN—09FEB05

OUO6075,0000268 -19-16APR09-6/22

Stand on access step (A) to raise engine access covers (B) and (C).

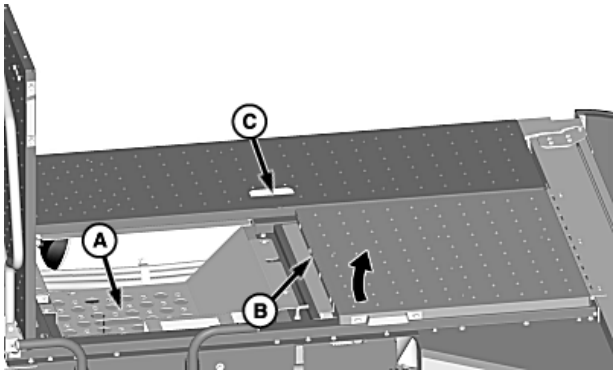
Clean area around separator and both sides of engine.

Clean entire engine compartment area, especially under engine.

Wipe up any oil or grease found on the engine area.

A—Access Step
B—Latch

C—Engine Access Cover



H87208 —UN—05APR07

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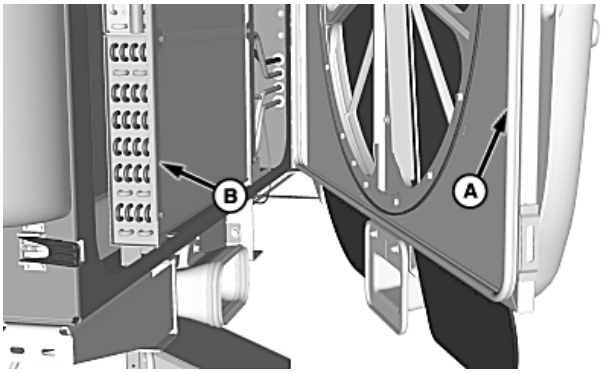
OUO6075,0000268 -19-16APR09-7/22

Open rotary screen door (A) and clean the following areas from inside out: radiator, oil cooler, condenser (B), and rotary screen.

A—Rotary Screen Door **B—Condenser**



H86740 —UN—23OCT06

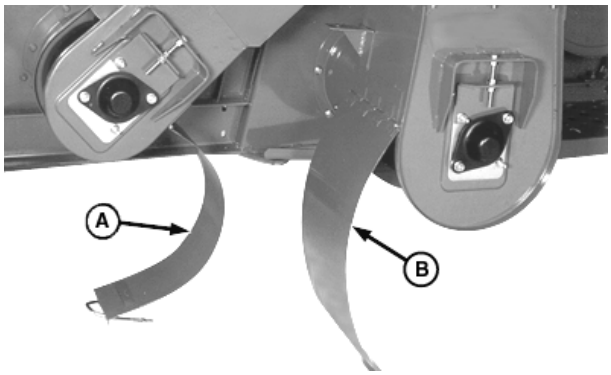
OUO6075,0000268 -19-16APR09-8/22

Open lower tailings elevator door (A) and clean grain elevator door (B).

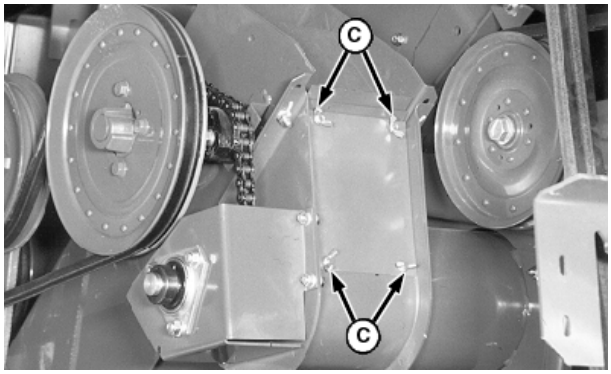
Remove wing nuts (C) and remove door at upper end of tailings elevator.

Clean down sides of elevator and clean out cross auger trough.

A—Tailings Elevator Door **C—Wing Nuts**
B—Clean Grain Elevator Door



H62232 —UN—19JAN00



H62233 —UN—19JAN00

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OUO6075,0000268 -19-16APR09-9/22

Clean out chaff between separator and sides of machine.

H75117 —UN—10FEB03

OUO6075,0000268 -19-16APR09-10/22

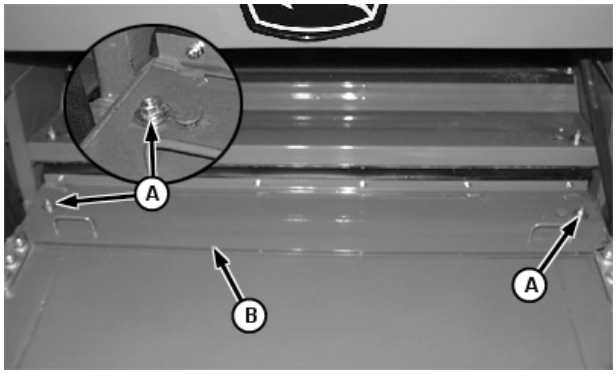
Loosen nuts (A) on each side of feeder house door and push nuts towards center of feeder house.

Pull door forward to remove.

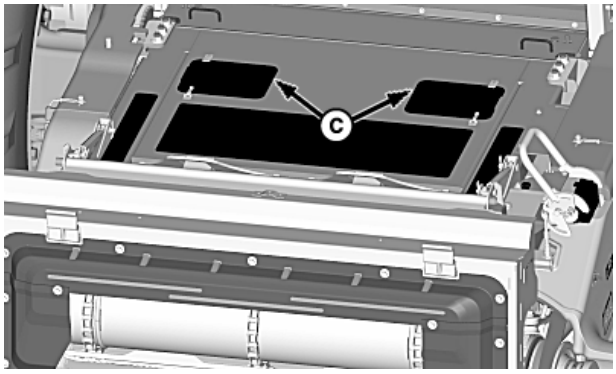
Clean feeder house through top doors (B) and (C).

Lift conveyor chain and let chain snap back several times while cleaning.

A—Nuts
B—Feeder House Door
C—Feeder House Door



H76150 —UN—24APR03



H90905 —UN—27FEB08

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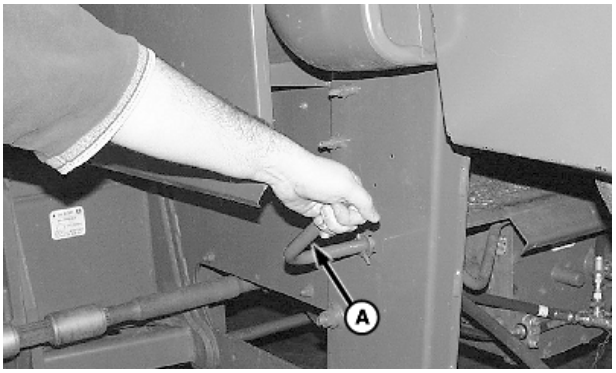
OUO6075,0000268 -19-16APR09-11/22

Lower stone trap and feed plate using handle (A). Clean areas out.

A—Handle

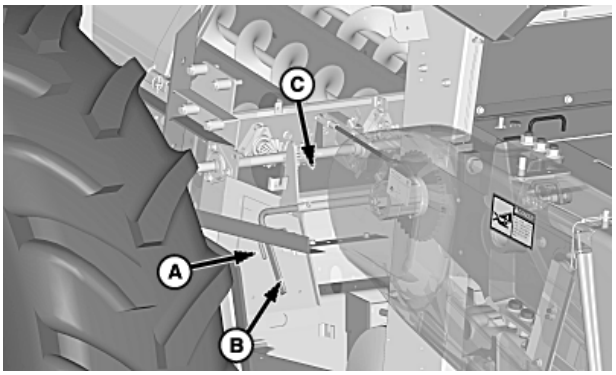


H74779 —UN—14JAN03

OUO6075,0000268 -19-16APR09-12/22

Pull lock-out pin (A) and move handle (B) up to dump cleanout door (C) and move handle down to close and lock cleanout door.

A—Lock-Out Pin
B—Handle
C—Cleanout Door



H91139 —UN—15APR08

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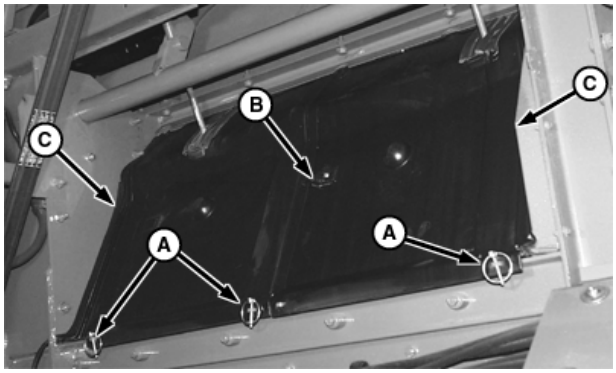
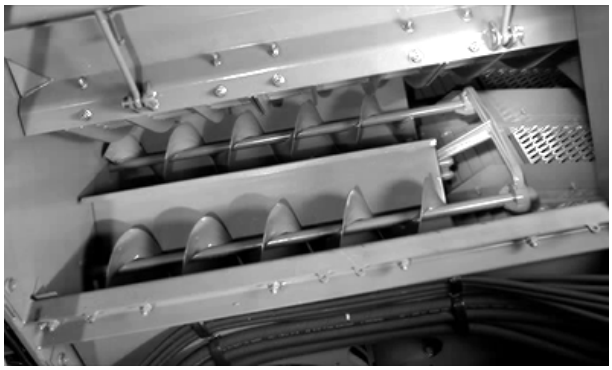
OUO6075,0000268 -19-16APR09-13/22

Remove quick-lock pins (A), spring latch (B) and separator covers (C). Use scraper to loosen material, and clean out through sides of machine.

A—Quick-Lock Pins
B—Spring Latch
C—Separator Covers



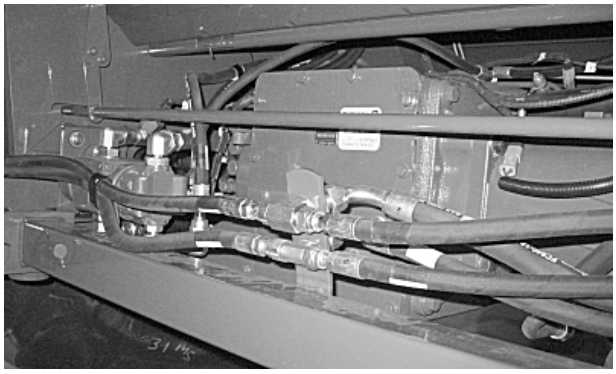
H62265 —UN—19JAN00



H52708 —UN—23MAR99

OUO6075,0000268 -19-16APR09-14/22

Clean off top of axle and transmission.



H92039 —UN—03JUN08

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OUO6075,0000268 -19-16APR09-15/22

Open sieve and chaffer as far as possible and clean.

H52710 —UN—23MAR99

OUO6075,0000268 -19-16APR09-16/22

Clean rear axle area.

H52711 —UN—23MAR99

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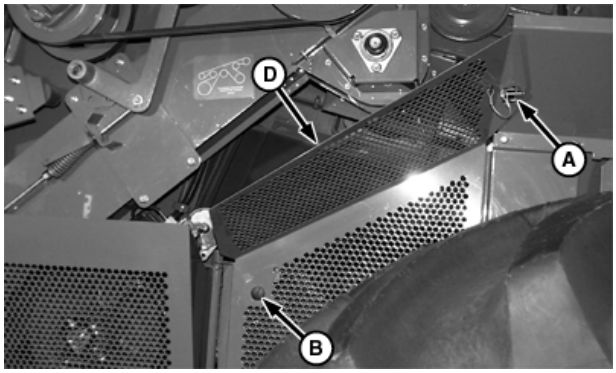
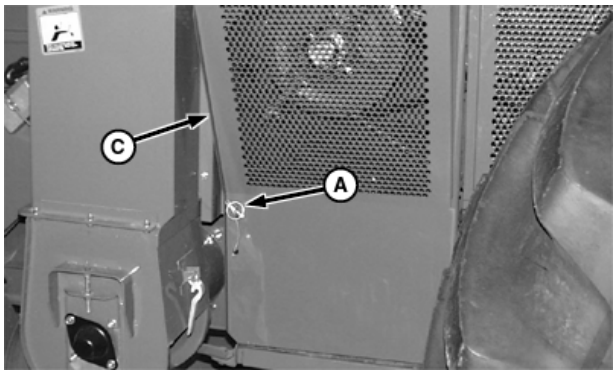
OUO6075,0000268 -19-16APR09-17/22

Remove cap screw and lock nut (A). Turn lock (B) counterclockwise to unlock. Remove right-hand rear shield (C) and middle shield (D). Clean out fan area.

A—Cap Screw and Lock Nut
B—Lock
C—Right-Hand Rear Shield
D—Middle Shield



H62140 —UN—14FEB00



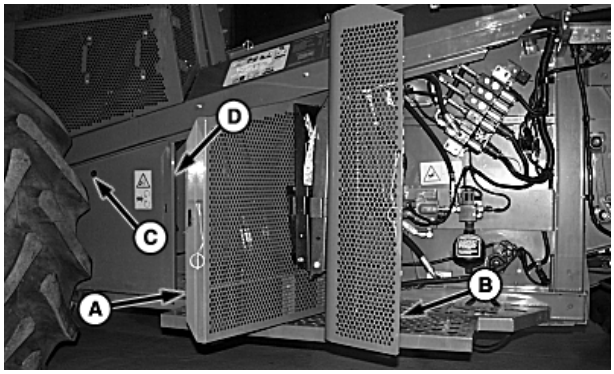
H62141 —UN—11JAN00

OUO6075,0000268 -19-16APR09-18/22

Remove cap screw and lock nut. Open left-hand side shields (A) and (B) and clean area.

Turn lock (C) counterclockwise and remove shield (D).

A—Side Shields
B—Side Shields
C—Lock
D—Shield



H65979 —UN—29JAN01

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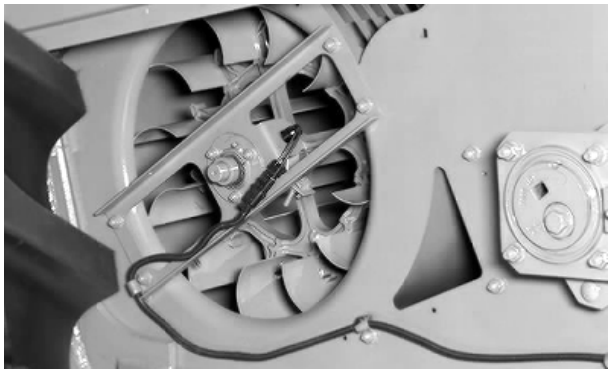
OUO6075,0000268 -19-16APR09-19/22

Clean area around fan.

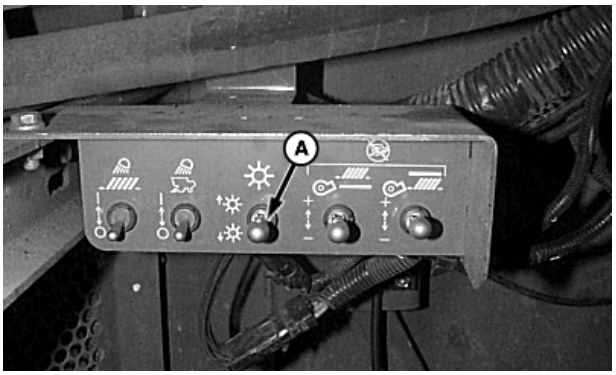


H62234 —UN—19JAN00

OUO6075,0000268 -19-16APR09-20/22

Raise chopper completely with switch (A).

A—Switch

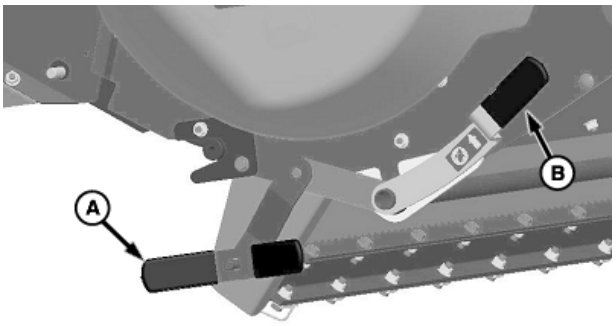


H69985 —UN—13SEP01

OUO6075,0000268 -19-16APR09-21/22

Loosen wing nut (A) and use handle (B) to disengage knifebank and clean chopper.

A—Wing Nut **B—Handle**



H86569 —UN—12SEP06

OUO6075,0000268 -19-16APR09-22/22

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

Handling and Storing Diesel Fuel

CAUTION: Handle fuel carefully. Do not fill the fuel tank when engine is running.

DO NOT smoke while you fill the fuel tank or service the fuel system.

Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.

Keep all storage tanks as full as practicable to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering.

Monitor water content of the fuel regularly.

When using bio-diesel fuel, the fuel filter may require more frequent replacement due to premature plugging.

Check engine oil level daily prior to starting engine. A rising oil level may indicate fuel dilution of the engine oil.

When fuel is stored for an extended period or if there is a slow turnover of fuel, add a fuel conditioner to stabilize the fuel and prevent water condensation. Contact your fuel supplier for recommendations.

OUO6075,000035C -19-03APR06-1/1

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

Biodiesel Fuel

Biodiesel is a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats. Biodiesel blends are biodiesel mixed with petroleum diesel fuel on a volume basis.

Biodiesel users in the U.S. are strongly encouraged to purchase biodiesel blends from a BQ-9000 Certified Marketer and sourced from a BQ-9000 Accredited Producer (as certified by the National Biodiesel Board). Certified Marketers and Accredited Producers can be found at the following website: http://www.bq-9000.org.

While 5% blends are preferred (B5), biodiesel concentrations up to a 20% blend (B20) in petroleum diesel fuel can be used in all John Deere engines. Biodiesel blends up to B20 can be used ONLY if the biodiesel (100% biodiesel or B100) meets ASTM D6751 (US), EN 14214 (EU), or equivalent specification. Expect a 2% reduction in power and a 3% reduction in fuel economy when using B20.

John Deere approved fuel conditioners containing detergent/dispersant additives are recommended when using lower biodiesel blends, but are required when using blends of B20 or greater.

John Deere engines can also operate on biodiesel blends above B20 (up to 100% biodiesel) ONLY if the biodiesel meets the EN 14214 specification (primarily available in Europe). Engines operating on biodiesel blends above B20 may not fully comply with all applicable emissions regulations. Expect up to a 12% reduction in power and an 18% reduction in fuel economy when using 100% biodiesel. John Deere approved fuel conditioners containing detergent/dispersant additives are required.

The petroleum diesel portion of biodiesel blends must meet the requirements of ASTM D975 (US) or EN 590 (EU) commercial standards.

Biodiesel blends up to B20 must be used within 90 days of the date of biodiesel manufacture. Biodiesel blends from B21 to B100 must be used within 45 days of the date of biodiesel manufacture.

Request a certificate of analysis from your fuel distributor to ensure that the fuel is compliant with the above specifications.

Consult your John Deere dealer for approved biodiesel fuel conditioners to improve storage and performance with biodiesel fuels.

When using biodiesel fuel, the engine oil level must be checked daily. If oil becomes diluted with fuel, shorten oil change intervals. Refer to Diesel Engine Oil and Filter Service Intervals for more details regarding biodiesel and engine oil change intervals.

The following must be considered when using biodiesel blends up to B20:

- Cold weather flow degradation
- Stability and storage issues (moisture absorption, oxidation, microbial growth)
- Possible filter restriction and plugging (usually a problem when first switching to biodiesel on used engines.)
- Possible fuel leakage through seals and hoses
- Possible reduction of service life of engine components

The following must also be considered when using biodiesel blends above B20.

- Possible coking and/or blocked injector nozzles, resulting in power loss and engine misfire if John Deere approved fuel conditioners containing detergent/dispersant additives are not used
- Possible crankcase oil dilution, requiring more frequent oil changes
- Possible corrosion of fuel injection equipment
- Possible lacquering and/or seizure of internal components
- Possible formation of sludge and sediments
- Possible thermal oxidation of fuel at elevated temperatures
- Possible elastomer seal and gasket material degradation (primarily an issue with older engines)
- Possible compatibility issues with other materials (including copper, lead, zinc, tin, brass, and bronze) used in fuel systems and fuel handling equipment
- Possible reduction in water separator efficiency
- Potential high acid levels within fuel system
- Possible damage to paint if exposed to biodiesel

IMPORTANT: Raw pressed vegetable oils are NOT acceptable for use as fuel in any concentration in John Deere engines. Their use could cause engine failure.

DX,FUEL7 -19-04OCT07-1/1

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

Testing Diesel Fuel

DIESELSCAN™ is a John Deere fuel analysis program that can be used to monitor the quality of your fuel. The DIESELSCAN analysis verifies fuel type, cleanliness, water content, suitability for cold weather operation, and whether the fuel meets specifications.

Check with your John Deere dealer for availability of DIESELSCAN kits.

DIESELSCAN is a trademark of Deere & Company

DX,FUEL6 -19-14NOV05-1/1

Minimizing the Effect of Cold Weather on Diesel Engines

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

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

Use Winter Grade Fuel

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

Cloud point is the temperature at which wax will begin to form in the fuel and this wax causes fuel filters to plug. **Pour point** is the lowest temperature at which movement of the fuel is observed.

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

Air Intake Heater

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

Ether

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

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

Coolant Heater

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

Seasonal Viscosity Oil and Proper Coolant Concentration

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

Diesel Fuel Flow Additive

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

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

BioDiesel

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

Winterfronts

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

If winterfronts are used, they should never totally close off the grill frontal area. Approximately 25% area in the center of the grill should remain open at all times. At no time should the air blockage device be applied directly to the radiator core.

Radiator Shutters

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

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

For more information, see your John Deere dealer.

DX,FUEL10 -19-03AUG09-1/1

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

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

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

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.

COOL-GARD is a trademark of Deere & Company

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.

DX,COOL16 -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

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

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

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:

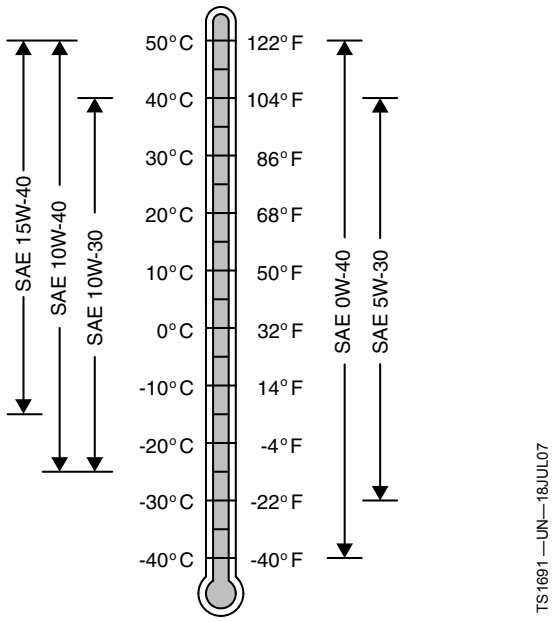
- John Deere Torq-Gard Supreme™
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4

Multi-viscosity diesel engine oils are preferred.

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

DO NOT use diesel fuel with sulfur content greater than 1.0% (10 000 mg/kg).

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



Oil Viscosities for Air Temperature Ranges

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Diesel Engine Oil and Filter Service Intervals

The oil and filter service intervals in the following table should be used as guidelines. Actual service intervals also depend on operation and maintenance practices. It is suggested to use oil analysis to determine the actual useful life of the oil and to aid in selection of the proper oil and filter service interval.

Oil and filter service intervals are based on a combination of oil pan capacity, type of engine oil and filter used, and sulfur content of the diesel fuel.

Diesel fuel sulfur level will affect engine oil and filter service intervals. Higher fuel sulfur levels reduce oil and filter service intervals as shown in the table.

- 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 as shown in the table.
- BEFORE using diesel fuel with sulfur content greater than 0.50% (5000 mg/kg), contact your John Deere dealer.
- DO NOT use diesel fuel with sulfur content greater than 1.00% (10 000 mg/kg).

IMPORTANT: When using biodiesel blends greater than B20, reduce the oil and filter service interval by 50% or monitor engine oil based on test results from Oilscan.

Oil types in the table include:

- John Deere Plus-50™ II and John Deere Plus-50
- “Other Oils” include John Deere Torq-Gard Supreme™, API CJ-4, API CI-4 PLUS, API CI-4, ACEA E9, ACEA E7, ACEA E6, ACEA E5, or ACEA E4 oils.

Use of lower specification oils in Tier 3 engines may result in premature engine failure.

NOTE: The 500 hour extended oil and filter change interval is only allowed if all the following conditions are met:

- *Engine equipped with an extended drain interval oil pan*
- *Use of diesel fuel with sulfur content less than 0.50% (5000 mg/kg)*
- *Use of John Deere Plus-50™ II or John Deere Plus-50 oil*
- *Use of an approved John Deere oil filter*

	U.S. Tier 3 and EU Stage III A - PowerTech Plus™				**U.S. Tier 3 and EU Stage III A -** PowerTech™		
	Oil Pan Size (L/kW)				Oil Pan Size (L/kW)		
Oil pan capacity	Greater than or equal to 0.10	Greater than or equal to 0.12	Greater than or equal to 0.14	Greater than or equal to 0.22	Greater than or equal to 0.10	Greater than or equal to 0.12	Greater than or equal to 0.14
Fuel Sulfur	Less than 0.10% (1000 mg/kg)				Less than 0.10% (1000 mg/kg)		
Plus-50	375 hours	500 hours	500 hours	500 hours	375 hours	500 hours	500 hours
Other Oils	250 hours	250 hours	250 hours	250 hours	250 hours	250 hours	250 hours
Fuel Sulfur	0.10 - 0.20% (1000 - 2000 mg/kg)				0.10 - 0.20% (1000 - 2000 mg/kg)		
Plus-50	300 hours	300 hours	500 hours	500 hours	300 hours	400 hours	500 hours
Other Oils	200 hours	200 hours	250 hours	250 hours	200 hours	200 hours	250 hours
Fuel Sulfur	0.20 - 0.50% (2000 - 5000 mg/kg)				0.20 - 0.50% (2000 - 5000 mg/kg)		
Plus-50	250 hours	250 hours	300 hours	500 hours	275 hours	350 hours	500 hours
Other Oils	150 hours	150 hours	200 hours	250 hours	150 hours	175 hours	250 hours
Fuel Sulfur	0.50 - 1.00% (5000 - 10 000 mg/kg)				0.50 - 1.00% (5000 - 10 000 mg/kg)		
Plus-50	Contact John Deere Dealer (dealer refers to DTAC solutions)				187 hours	250 hours	250 hours
Other Oils	Contact John Deere Dealer (dealer refers to DTAC solutions)				125 hours	125 hours	125 hours
The service interval of “Other Oils” may be extended only if oil analysis is performed to determine the actual service life, to a maximum not to exceed that of Plus-50.							

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

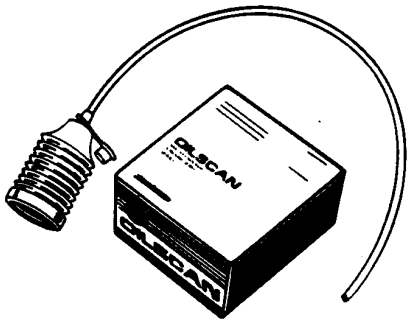
DX,ENOIL13 -19-03AUG09-1/1

OILSCAN ™ and COOLSCAN ™

OILSCAN ™ and COOLSCAN ™ are John Deere sampling programs to help you monitor machine performance and identify potential problems before they cause serious damage.

Oil and coolant samples should be taken from each system prior to its recommended change interval.

Check with your John Deere dealer for the availability of OILSCAN ™ and COOLSCAN ™ kits.



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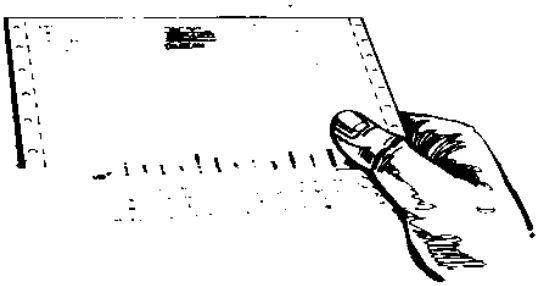

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OILSCAN is a trademark of Deere & Company.
COOLSCAN is a trademark of Deere & Company.

DX,OILSCAN -19-02DEC02-1/1

Hydrostatic Drive System, Main Hydraulic System and Main Engine Gearcase Oils

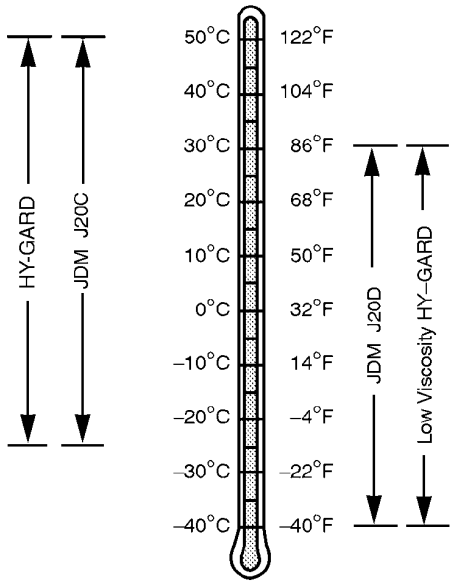
NOTE: Machines come factory filled with John Deere Hy-Gard™.

Only the following oils are approved:

- John Deere Hy-Gard™
- Oils meeting John Deere Standard JDM J20C

NOTE: For usage in extremely low temperatures only the following may be substituted:

- *Low Viscosity Hy-Gard™*
- *Oils meeting John Deere Standard JDM J20D*



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Hy-Gard is a trademark of Deere & Company

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Final Drives, Loading Auger, Primary Countershaft and Two-Speed Separator Drive Gearcases

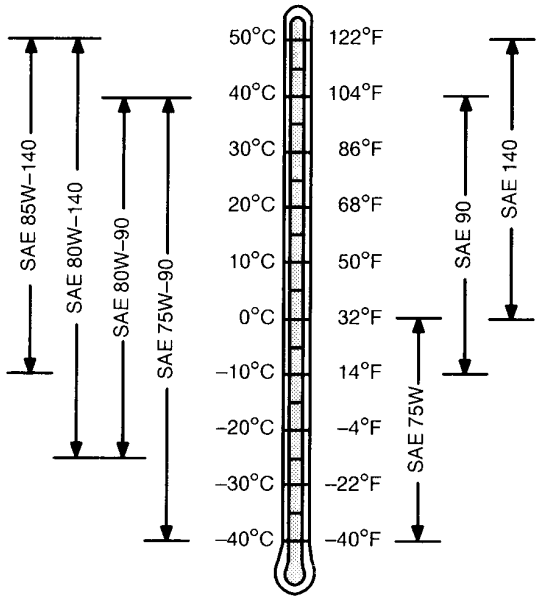
Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere GL-5 GEAR LUBRICANT
- John Deere EXTREME-GARD™

Other oils may be used if they meet API Service Classification GL-5.

Product Number	Description	Size
TY6252	80W/90 GL5 Gear Lube	16 kg pail (35 lb. pail)
TY6296	80W/90 GL5 Gear Lube	0.9 L can (1 qt. can)
TY6256	85W/140 GL5 Gear Lube	16 kg pail (35 lb. pail)
TY6345	85W/140 GL5 Gear Lube	0.9 L can (1 qt. can)



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EXTREME-GARD is a trademark of Deere & Company

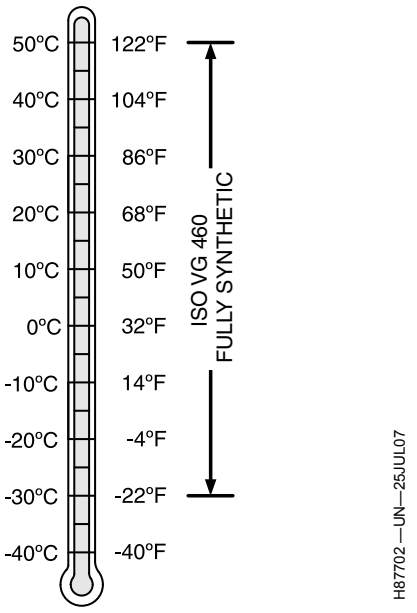
OUO6075,0000112 -19-05MAY08-1/1

Feeder House Reverser Gearcase

Only the following oil is approved:

- ISO VG 460 Fully Synthetic

Product Number	Description	Size
TY26408	ISO VG 460 Fully Synthetic	0.95 L (1 qt)



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Grease

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

The following grease is recommended:

- John Deere SD POLYUREA GREASE (TY6341)

Other greases may be used if they meet the following:

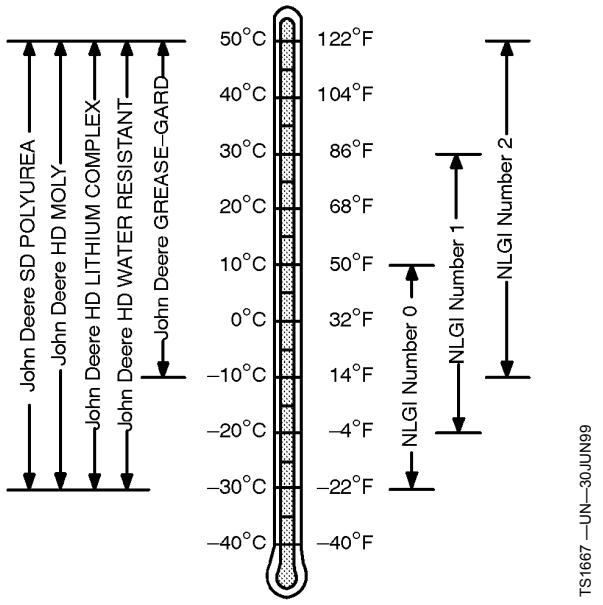
- NLGI Performance Classification GC-LB

IMPORTANT: John Deere SD POLYUREA GREASE (TY6341) is the required grease for the feeder house torque sensing cams.

Some types of grease thicken and are not compatible with others.

If grease fitting is missing, replace immediately. Clean fittings thoroughly before using grease gun.

Product Number	Description
TY6341	Multi-Purpose, High-Temperature Extreme Pressure Grease, especially effective in rolling contact applications.



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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

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.

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.

Avoid mixing different brands or types of oils. Oil manufacturers blend base stock and additives to create their oils and to meet certain specifications and performance requirements. Mixing different oils can interfere with proper functioning of these formulations and degrade lubricant performance.

Consult your authorized John Deere dealer to obtain specific information and recommendations.

DX,ALTER -19-11NOV09-1/1

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

Service Intervals—Clearing or Delaying

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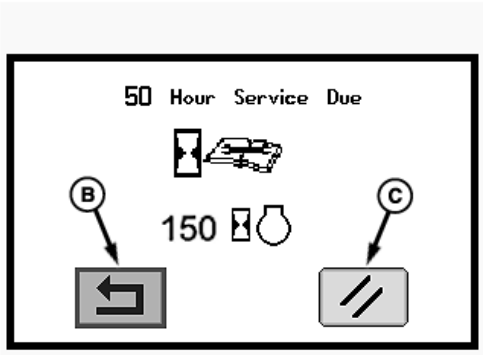

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A—Selection Dial B—Return/Back Icon C—Clear Icon D—Confirm Switch

CAUTION: To prevent injury, never lubricate or service machine, header, or engine while it is running. Shut OFF engine, set parking brake and remove key.

IMPORTANT: Service times are for average conditions. Service more often if machine is used in extreme conditions.

NOTE: See Break-In Service section for information on Service Intervals for First 100 Hours of Machine Operation.

Use service screen on CommandCenter display as a guide to servicing the machine.

Service screen will appear every 50 hours of engine operation, indicating the machine needs to be serviced.

When service screen appears, two choices can be selected:

- Operator can choose to ignore servicing the machine at this time.
- Operator can choose to service the machine at this time.

NOTE: If operator selects the return/back icon ignoring servicing the machine at this time the screen will disappear. The next time the key switch is turned to the "RUN" position the screen will appear.

Rotate selection dial (A) until return/back icon (B) or clear icon (C) is highlighted and press confirm switch (D).

NOTE: To reset service hours, refer to Calibration Procedures section for more information.

OUO6075,0000922 -19-31MAR09-1/1

Lubrication Decal Locations

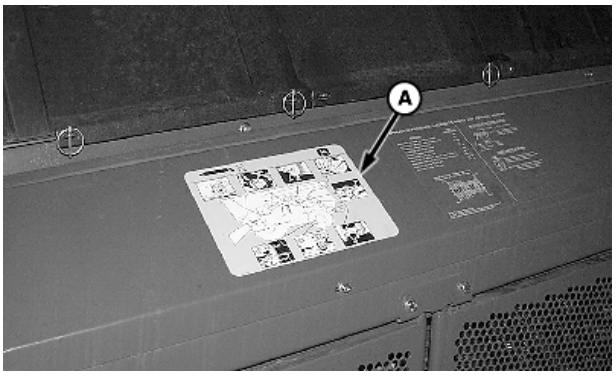
IMPORTANT: S690 HILLMASTER: Avoid crushing injuries. Always completely lower machine leveling system before getting underneath for service, adjustments or repairs. Shut OFF engine, set parking brake and remove key.

Lubrication decals (A) show the different locations of grease points around the machine. Follow lubrication times provided on decals and refer to hour intervals listed in this section for further information.

Bearing failures or overheating can result in a fire. To reduce bearing failures or overheating, follow hour intervals listed in this section for further information.

Crop material and other debris may accumulate around bearings and bearing covers. Inspect and clean these areas periodically throughout the harvest day.

A—Lubrication Decals



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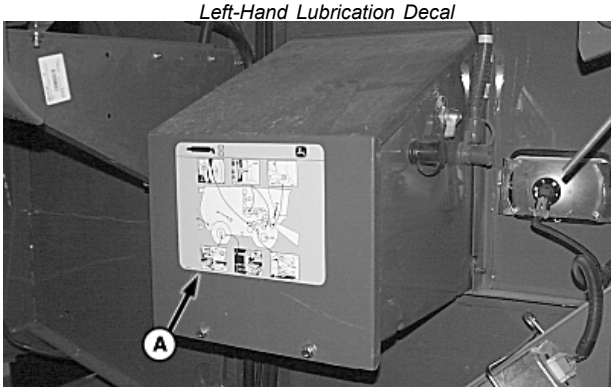
Left-Hand Lubrication Decal



H83439 —UN—01JUN05

Right-Hand Rear Lubrication Decal

OUO6075,00000C1 -19-21APR08-1/1

Hydraulic Hose Replacement

Hydraulic hoses should be inspected frequently for leakage, kinking, cuts, cracks, abrasion, corrosion, exposed wire braid, or any other signs of wear or damage. Worn or damaged hose assemblies can fail during use and should be replaced immediately. See your John Deere dealer for replacement hoses.

CAUTION: If incorrectly rated hose is used, machine damage, injury or death could occur.

If hoses are to be fabricated, ensure that hoses are the same rating as one being replaced. See your John Deere dealer for correct hose rating replacements.

Incorrect hose length or routing can increase chance of hose wear or damage. Use old hose as guide for length and hose routing.

Incorrect fittings can damage mating parts or cause leaks. Make sure to use steel fittings approved for use with hose manufacture. Use correct size and thread type as replaced hose.

OUO6075,00000B9 -19-04JUN08-1/1

Lubrication Symbols

CAUTION: Never lubricate or service corn head while machine engine is running.

Lubricate with John Deere Multipurpose SD Polyurea Grease High Temperature/Extreme Pressure lubricant or an equal SAE Multipurpose High Temperature Grease with Extreme Pressure (EP) performance at hours shown on the symbol.

Lubricate with John Deere SAE 30 oil or heavier oil at hourly intervals indicated on the symbols.

IMPORTANT: Recommended service intervals are for average conditions. Service MORE OFTEN if machine is operated under adverse conditions.

OUO6075,0000852 -19-14MAR07-1/1

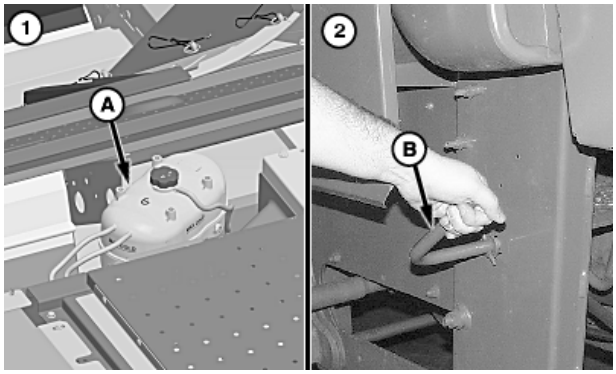
Every 10 Hours

H93250 —UN—15JAN09

IMPORTANT: Service times are for average conditions. Service more often if machine is used in extreme conditions.

1. Surge Tank - Check engine coolant level in surge tank (A) with engine cold. Level must be up to “Max Cold” line.
2. Stone trap - At end of each day, dump stone trap with lever (B).

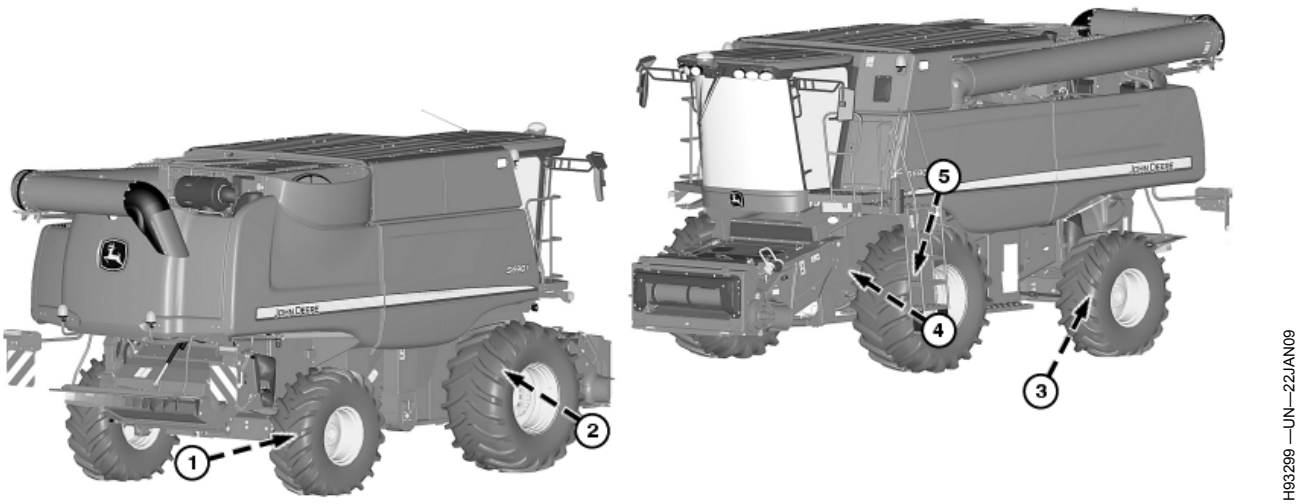
A—Surge Tank **B—Lever**



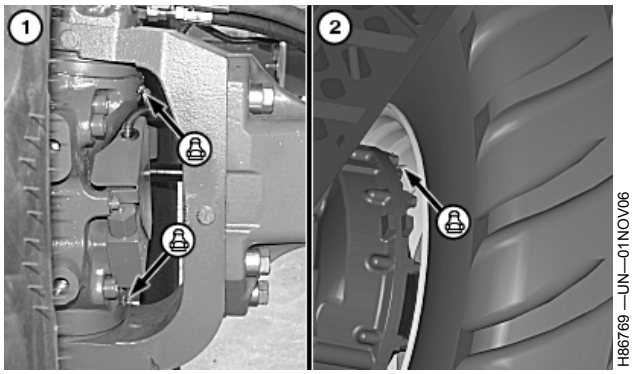
H91171 —UN—17APR08

OUO6075,0000297 -19-22JAN09-1/1

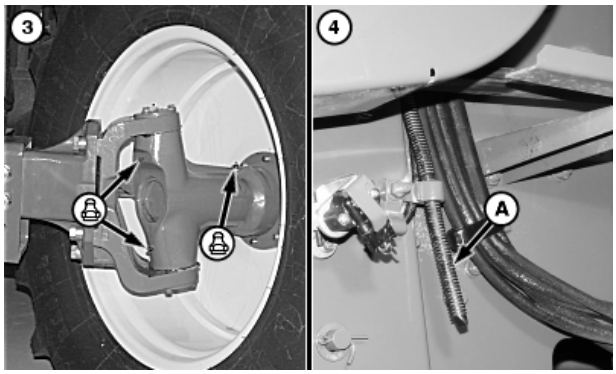
Every 10 Hours



H93299 —UN—22JAN09



H86769 —UN—01NOV06



H86770 —UN—17DEC07

A—Drain Hose

NOTE: When operating in mud and water, grease rear axle spindle bearings and motor pivots every 10 hours. Normal conditions grease every 50 hours.

1. Two Speed Four Wheel Drive Motor Pivots - Grease two fittings (both sides).
2. Final Drive Outer Bearings - When operating in mud and water, grease fitting (both sides) every 10 hours. Normal conditions grease fitting (both sides) every 50 hours.
3. Two Wheel Drive Heavy Duty Axle Spindle Bearings/Pivot Pins - When operating in mud and water, grease fitting (both sides) every 10 hours. Normal conditions grease fitting (both sides) every 50 hours.
4. Air Conditioning Drain Hose- Clean air conditioning drain hose (A).

H91005 —UN—17MAR08

5. **S690 HILLMASTER:** Final Drive Pivot - Grease fitting (both sides) until grease purges.

OUO6075,00002AC -19-22JAN09-1/1

Every 50 Hours

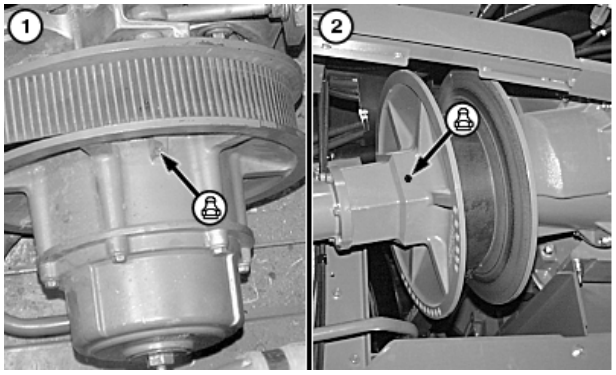
H93252 —UN—15JAN09

IMPORTANT: Separator Variable Speed Driven and Driver Sheaves: Pump 20 to 25 shots of grease into fitting. DO NOT OVER GREASE.

1. Separator Variable Speed Driven Sheaves - Rotate sheaves to access fitting.

NOTE: Start machine and cycle separator through full speed range a couple of times to distribute grease evenly.

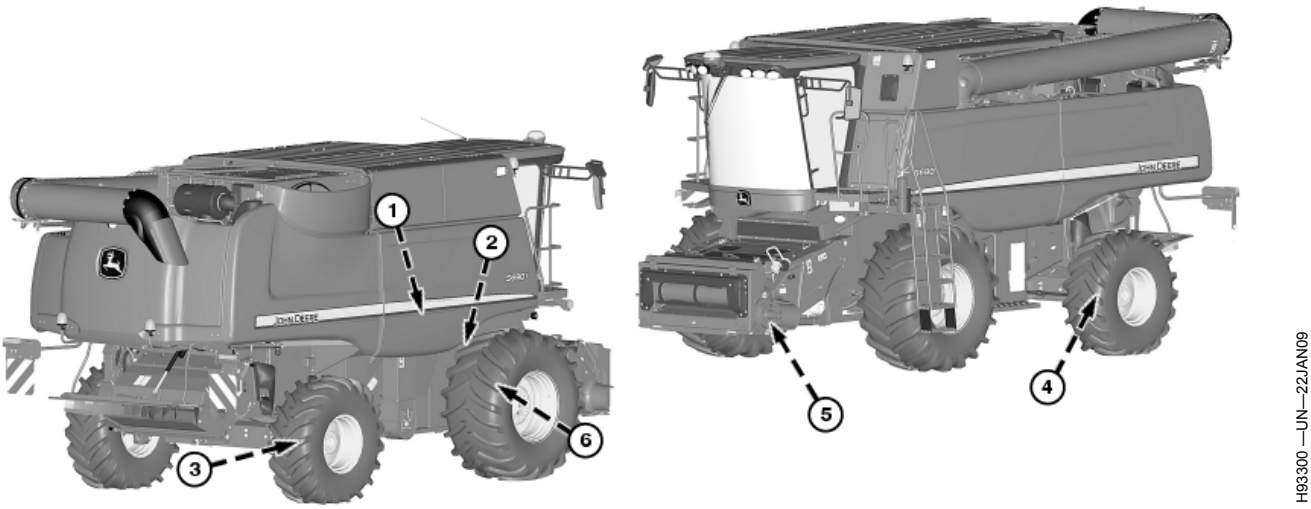
2. Separator Variable Speed Driver Sheave - Close sheaves (high speed) before greasing fitting on outer sheave hub. Rotate sheave to access fitting. Cycle cylinder speed to distribute grease if operated at high speed all the time.



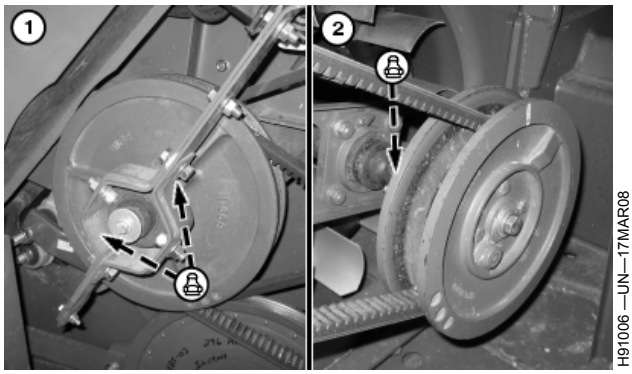
H93580 —UN—05MAR09

OUO6075,0000299 -19-05MAR09-1/1

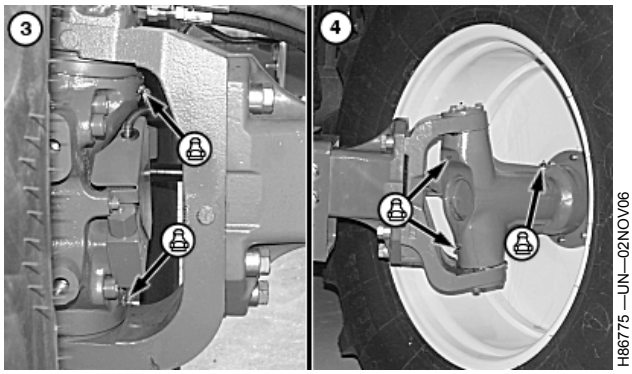
Every 50 Hours



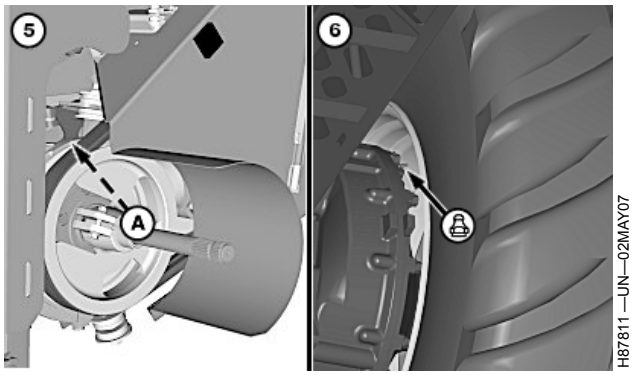
H93300 —UN—22JAN09



H91006 —UN—17MAR08



H86775 —UN—02NOV06



H87811 —UN—02MAY07

A—Dipstick

1. Cleaning Fan Variable Upper Sheaves - Grease both fittings on hub of outer sheave. Rotate sheaves for fitting access.
2. Cleaning Fan Variable Lower Sheaves - Grease fitting on hub located on inner sheave. Rotate sheaves for fitting access.

NOTE: When operating in mud and water grease rear axle spindle bearings and motor pivots every 10 hours. Normal conditions grease every 50 hours.

3. Two Speed Four Wheel Drive Motor Pivots - Grease two fittings (both sides).

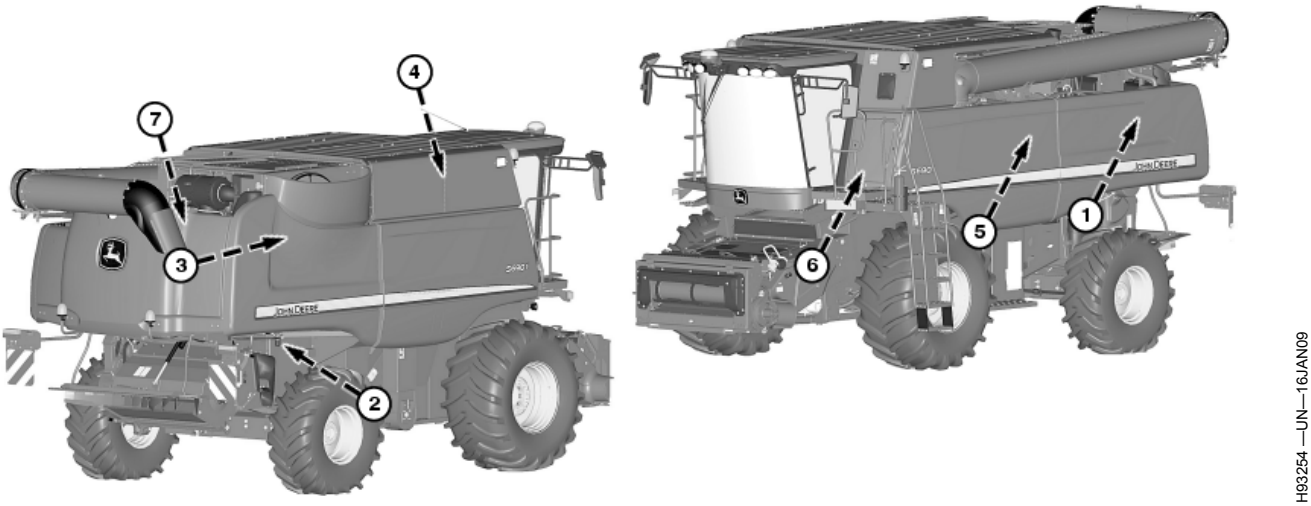
Continued on next page

OUO6075,00002AD -19-22JAN09-1/2

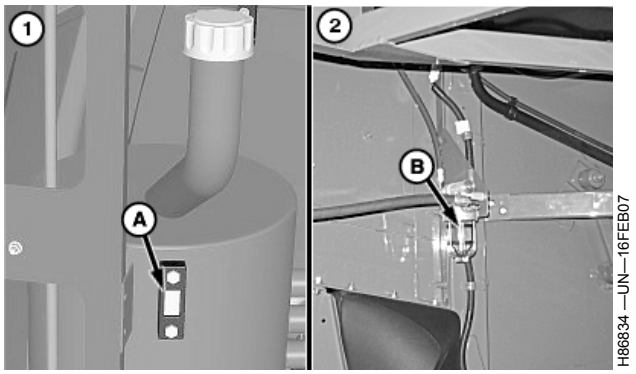
4. Two Wheel Drive Heavy Duty Axle Spindle Bearings/Pivot Pins - When operating in mud and water, grease fittings (both sides) every 10 hours. Normal conditions grease fittings (both sides) every 50 hours.
5. Feeder House Reverser Gearcase - Raise feeder house and lower safety stop. Gearcases with an oil cooler will require gearcase be run for several minutes. This ensures that the cooler is filled with oil. Oil level must show on knurled part of dipstick (A).
6. Final Drive Outer Bearings - When operating in mud and water, grease fitting (both sides) every 10 hours. Normal conditions grease fitting (both sides) every 50 hours.

OUO6075,00002AD -19-22JAN09-2/2

Every 50 Hours



H93254 —UN—16JAN09



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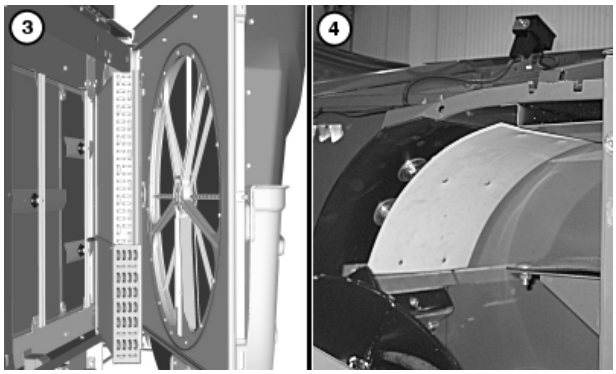

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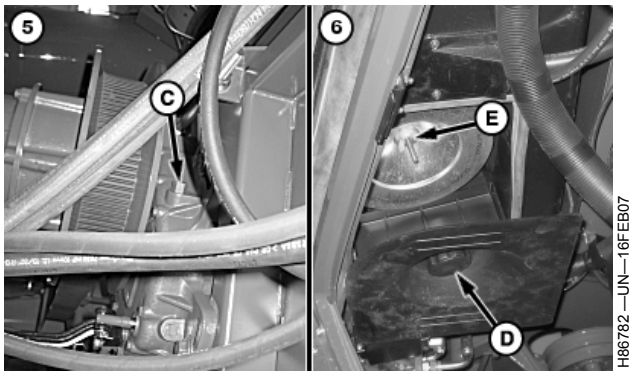

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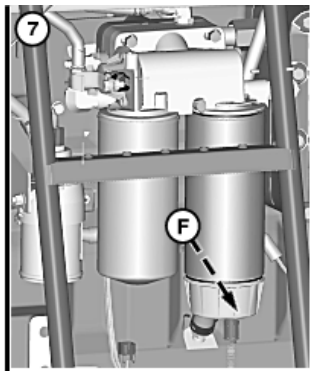


H86919 —UN—09NOV06

A—Sight Glass
B—Fuel Precleaner Filter
C—Dipstick
D—Knob
E—Wing Nut
F—Drain

1. Hydrostatic/Hydraulic Oil - Check with header on ground. Oil level must be at top of sight glass (A) with feeder house fully lowered. Add oil as needed.
2. Fuel Precleaner Filter - Visually check fuel precleaner filter (B) and clean if buildup is visible on screen. Close fuel tank shut off valve. Remove filter and clean screen. Install screen and filter and open fuel tank shut off valve to fill (see Fuel Precleaner Filter Cleaning in Service Engine section.)

Continued on next page

OUO6075,000029B -19-22JAN09-1/2

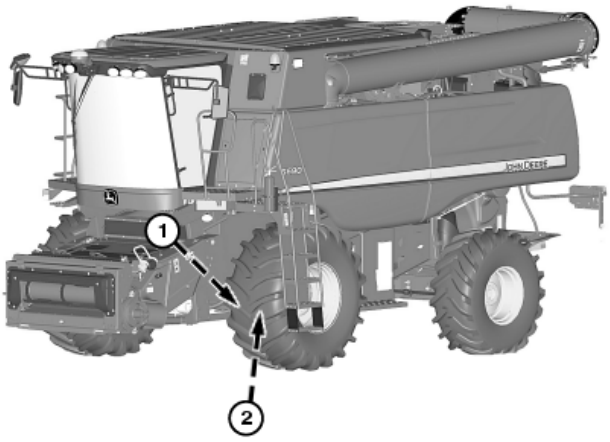
3. Radiator, Charge Air Cooler, Oil Cooler and Condenser - Clean radiator by blowing compressed air from inside out. Check areas for chaff buildup and clean if necessary.
4. Mass Flow Sensor - Lower auger and clean mass flow sensor plate.
5. Two Speed Separator Drive - Remove dipstick (C) and check oil level. Add oil as needed to correct level on dipstick.

NOTE: May require cleaning sooner in very dusty conditions.

6. Fresh Air Filter - Loosen knob (D) and remove filter door. Remove wing nut (E) and slide filter out. Clean or replace filter.
7. Water Separator Primary Fuel Filter - Check separator bowl for water. Open drain (F) and drain water out separator bowl.

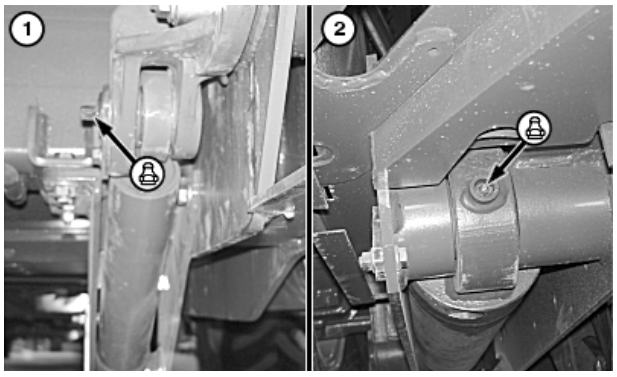
OUO6075,000029B -19-22JAN09-2/2

Every 50 Hours



H93301 —UN—22JAN09

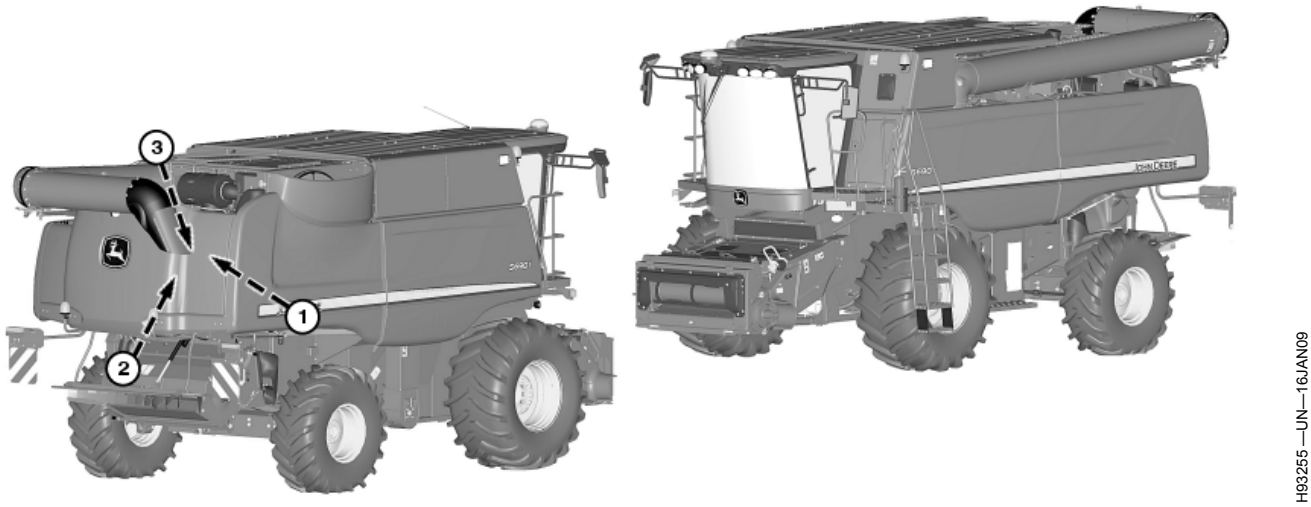
1. **S690 HILLMASTER:** Master Cylinder Piston Pin - Grease fitting (both sides) until grease purges.
2. **S690 HILLMASTER:** Leveling Cylinder Barrel - Grease fitting (both sides) until grease purges.



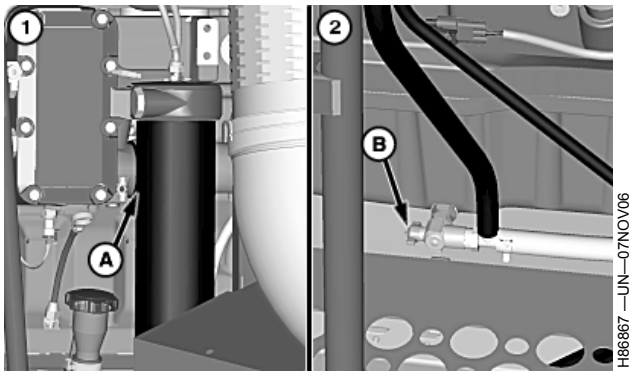
H86922 —UN—01MAY07

OUO6075,00002AE -19-22JAN09-1/1

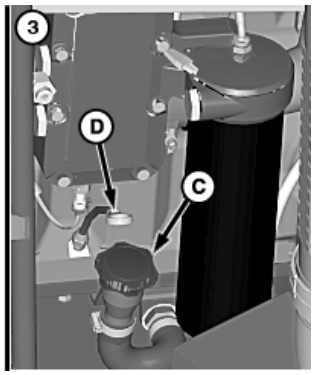
First 100 Hours



H93255 —UN—16JAN09



H86867 —UN—07NOV06



H86868 —UN—07NOV06

A—Oil Filter **B—Drain** **C—Cap** **D—Dipstick**

IMPORTANT: Change oil every 100 hours if fuel is more than 0.5 % sulfur.

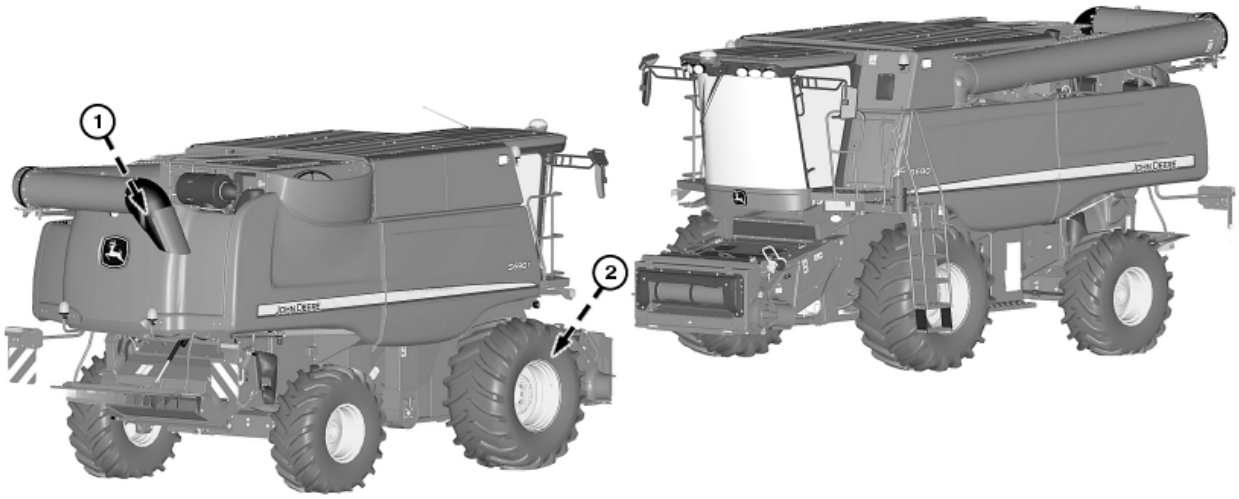
Fill crankcase with seasonal viscosity grade oil or Torq-Gard Supreme™ (250 hours change interval). If using Plus-50™ or Plus-50™ II oil and a John Deere filter, service interval can be extended by 50 percent. Example: 250 Hours extends to 375 Hours.

1. Engine Crank Case Oil Filter - Remove and replace oil filter (A).
2. Engine Crank Case Oil - Open drain (B) to remove oil.
3. Engine Crank Case Oil - Remove cap (C) to fill and check oil level with dipstick (D) after filling.

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

OUO6075,000029C -19-09OCT09-1/1

First 100 Hours



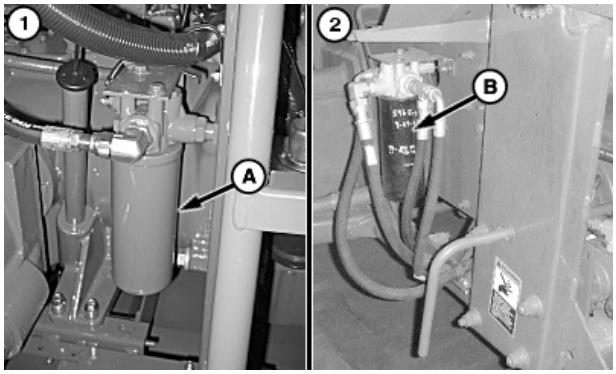
H93256 —UN—16JAN09

NOTE: It is not necessary to drain system when installing filters.

1. Engine Power Take-Off Gearcase Filter - Replace engine gearcase filter (A). Coat seal on new filter with oil. Hand tighten, then tighten 1/2 turn more.
2. ProDrive Filter - Replace ProDrive filter (B). Coat seal on filter with oil. Hand tighten, then tighten 1/2 turn more.

A—Engine Power Take-Off Gearcase Filter

B—ProDrive Filter



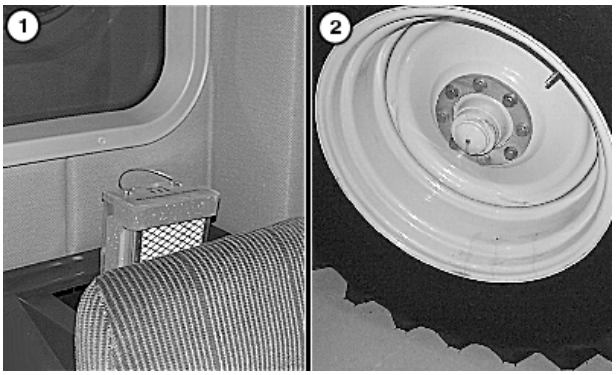
H93561 —UN—05MAR09

OUO6075,00002AF -19-05MAR09-1/1

Every 200 Hours

H93257 —UN—16JAN09

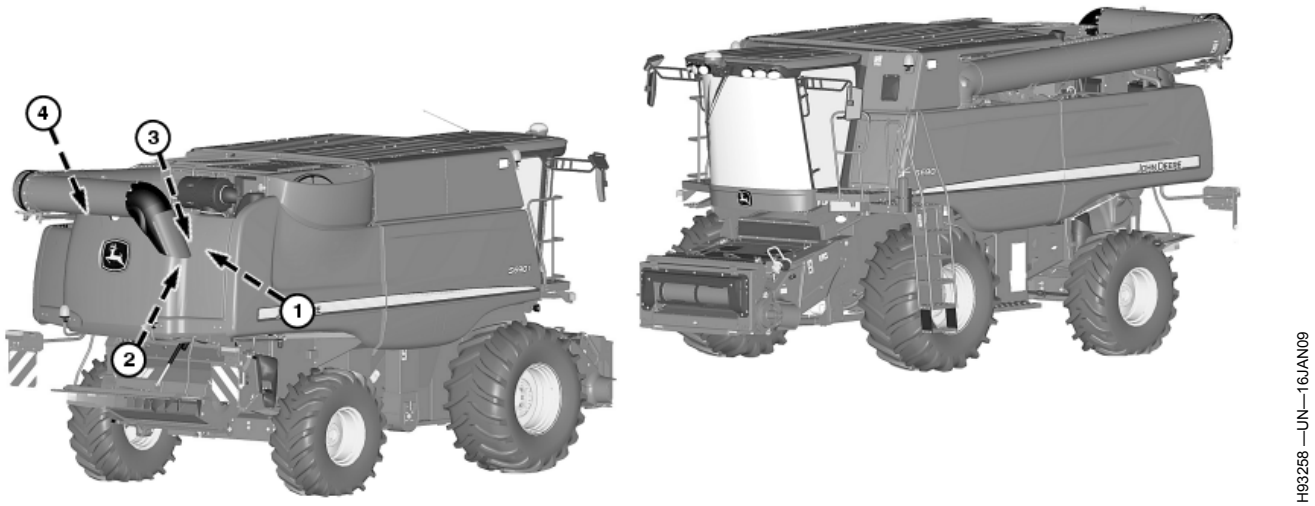
1. Recirculating Filter - Remove cooling compartment and remove filter from inside of housing. Clean or replace filter. Check to be certain air flow arrow points toward front of machine.
2. Tire pressure and Bolt Torque - Check front and rear tire pressure and wheel bolt torque (see Ground Drive and Rear Axle section).



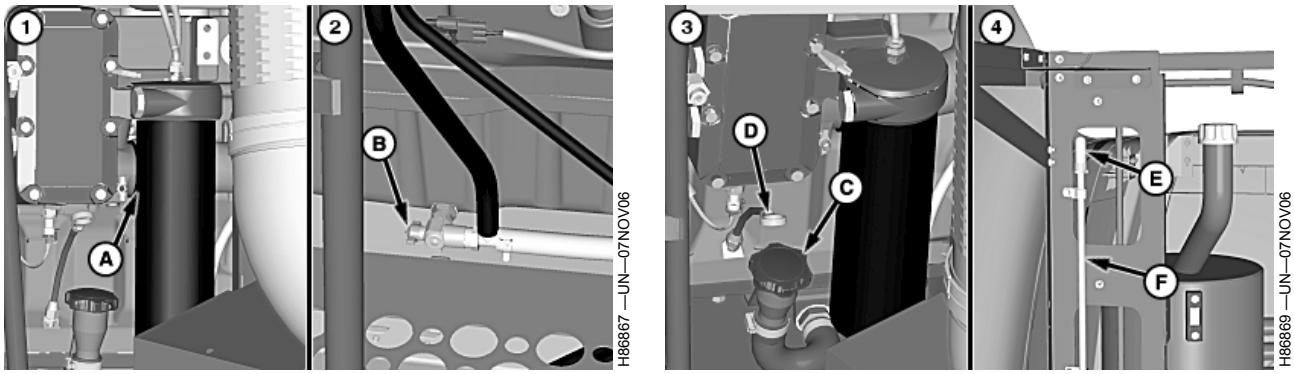
H86787 —UN—06NOV06

OUO6075,000029E -19-22JAN09-1/1

Every 250 Hours



H93258 —UN—16JAN09



H86867 —UN—07NOV06

H86869 —UN—07NOV06

A—Oil Filter
B—Drain
C—Cap
D—Dipstick
E—Fuel Tank Breather
F—Hose

IMPORTANT: Change oil every 100 hours if fuel is more than 0.5 % sulfur.

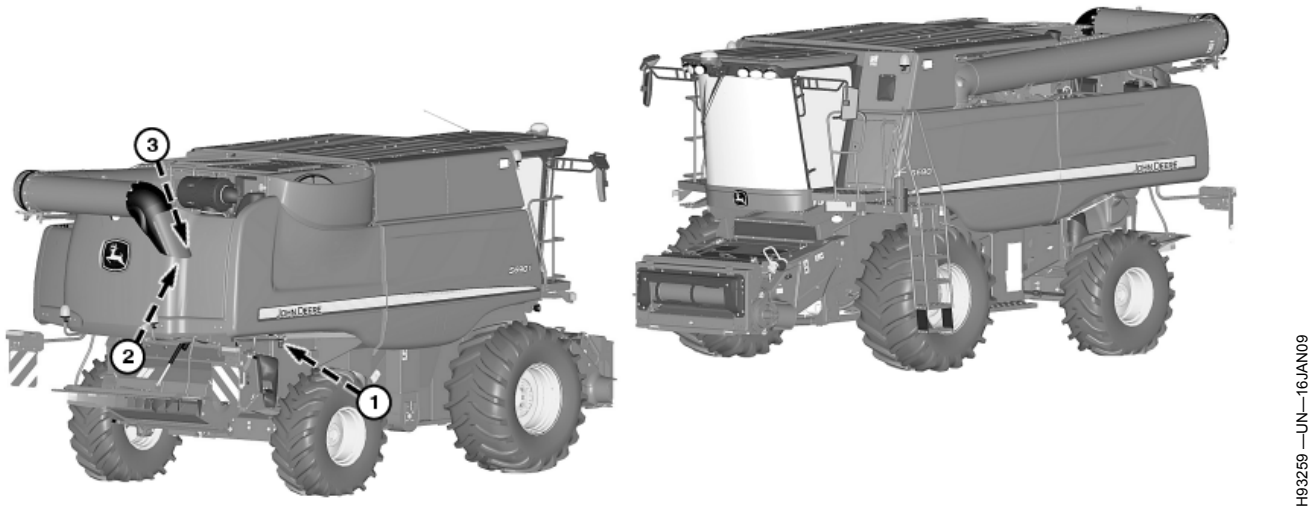
Fill crankcase with seasonal viscosity grade oil or Torq-Gard Supreme™ (250 hours change interval). If using Plus-50™ or Plus-50™ II oil and a John Deere filter, service interval can be extended by 50 percent. Example: 250 Hours extends to 375 Hours.

1. Engine Crank Case Oil Filter - Remove and replace oil filter (A).
2. Engine Crank Case Oil - Open drain (B) to remove oil.
3. Engine Crank Case Oil - Remove cap (C) to fill and check oil level with dipstick (D) after filling.
4. Fuel Tank Breather - Visually inspect fuel tank breather (E). Do not allow debris to collect on breather. Remove fuel tank breather from hose (F) and clean.

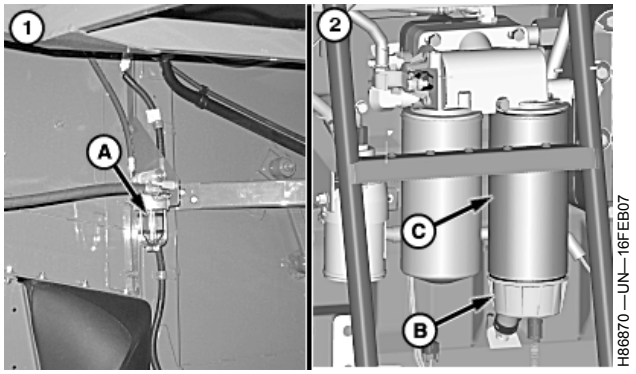
Torq-Gard Supreme is a trademark of Deere & Company
Plus-50 is a trademark of Deere & Company

OUO6075,000029F -19-09OCT09-1/1

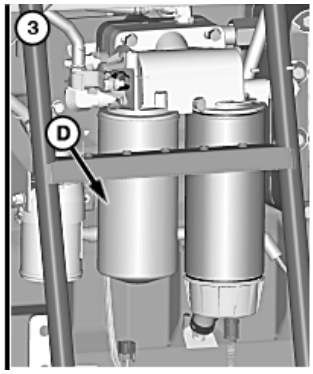
Every 400 Hours



H93259 —UN—16JAN09



H86870 —UN—16FEB07



H86871 —UN—07NOV06

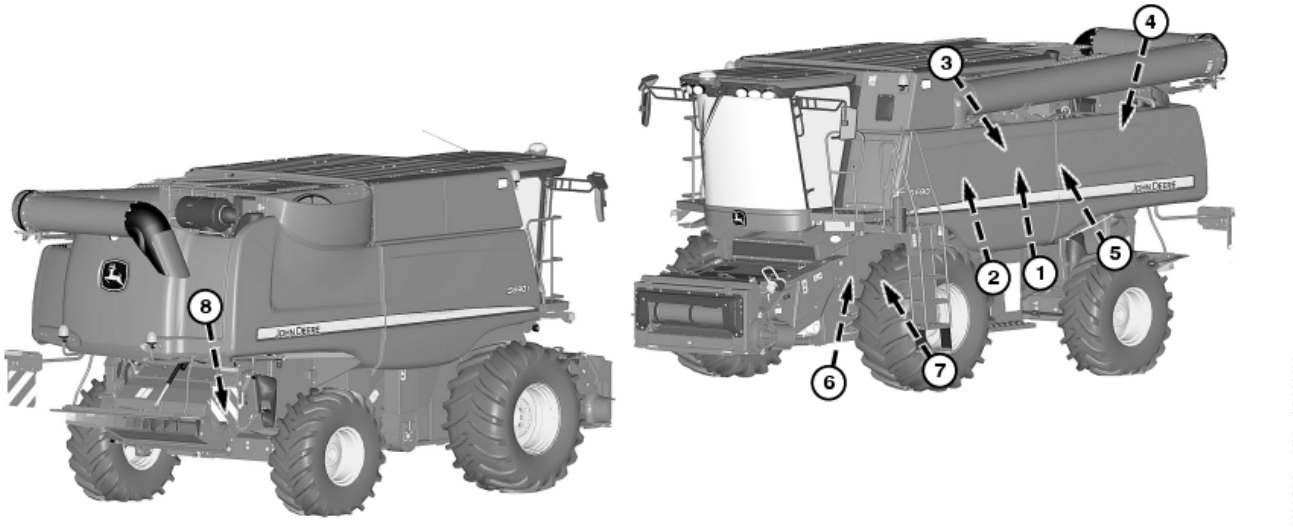
A—Fuel Precleaner Filter **B—Water Separator** **C—Primary Fuel Filter** **D—Secondary Fuel Filter**

1. Fuel Precleaner Filter - Close fuel tank shut off valve. Remove fuel precleaner filter (A) and clean screen. Install fuel precleaner filter and open fuel tank shut off valve and allow bowl to fill (see Fuel Precleaner Filter Cleaning in Service Engine section.)
2. Water Separator - Check water separator (B) for water or when diagnostic trouble code is generated. Open drain and drain water out water separator (see Water Separator Primary Fuel Filter Draining in Service Engine section). Remove and retain water separator.

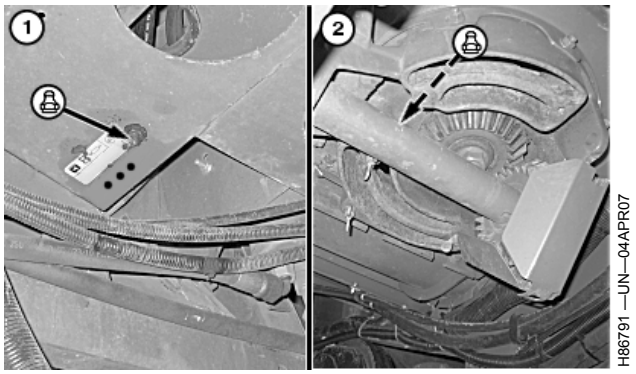
   Primary Fuel Filter - Remove primary fuel filter (C) when performance decline is noticed or diagnostic trouble code is generated. Install new primary fuel filter and previously removed water separator.
3. Secondary Fuel Filter - Replace secondary fuel filter (D) when performance decline is noticed or diagnostic trouble code is generated. Remove fuel from filter and discard secondary fuel filter. Install new secondary fuel filter and turn key switch ON to prime fuel system (see Primary and Secondary Fuel Filter Replacing in Service Engine section).

OUO6075,00002A0 -19-22JAN09-1/1

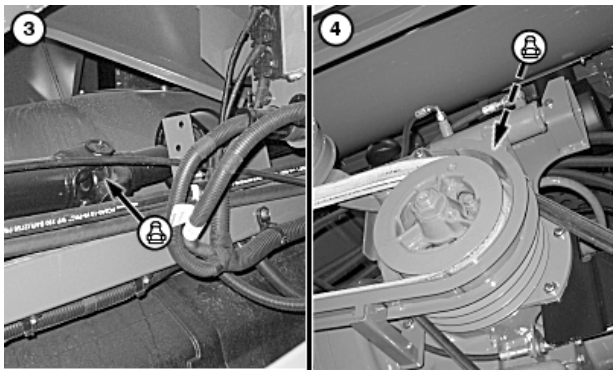
Every 400 Hours



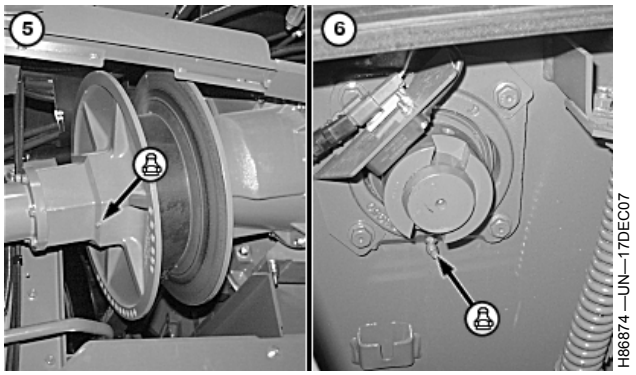
H93302 —UN—22JAN09



H86791 —UN—04APR07



H87955 —UN—17DEC07



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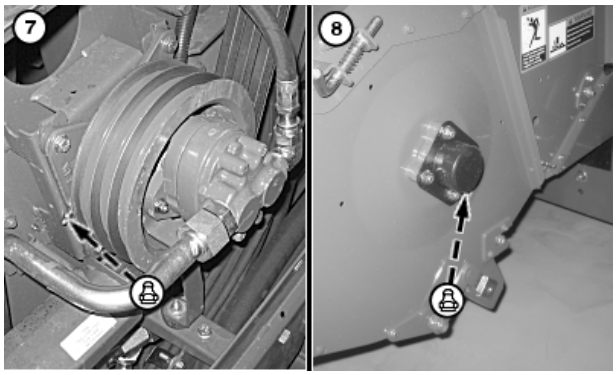


H86875 —UN—17DEC07

1. Unloading Auger Upper Gearcase - Grease fitting.
2. Unloading Auger Lower Gearcase Bearing - Grease fitting.
3. Primary Countershaft Universal Joint - Rotate to access fitting and grease.
4. Chopper/Unloading Drive Shaft Bearing - Rotate sheave to access fitting on bottom of sheave groove and grease fitting.

IMPORTANT: Remove pipe plug and install grease fitting. Pump 40 to 45 shots of grease into fitting. DO NOT OVER GREASE. Remove grease fitting and reinstall pipe plug.

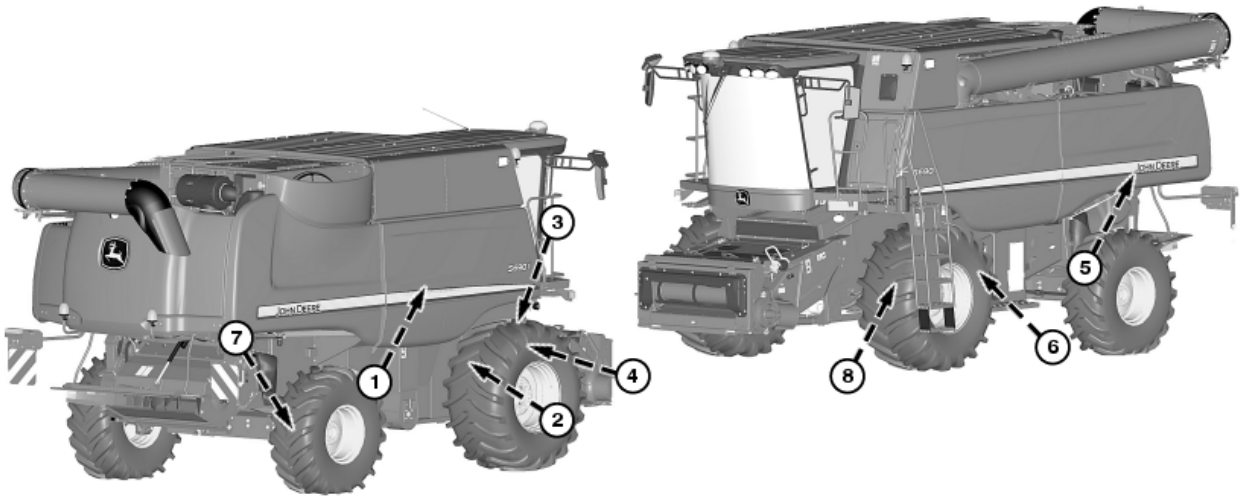
Continued on next page

OUO6075,00002B0 -19-22JAN09-1/2

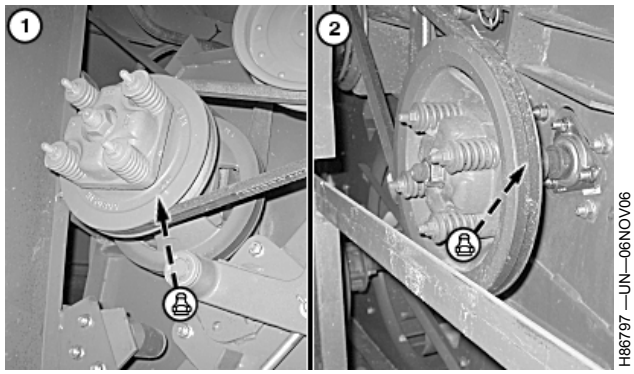
5. Variable Speed Driver Sheave - Close sheaves (high speed) before greasing at pipe plug in outer sheave hub. Rotate sheave for pipe plug access. Cycle cylinder speed to distribute grease if operated at high speed all the time.
6. Feed Accelerator Bearing (Left Side) - Grease fitting.
7. Header/Reel Drive Pump Sheave Bearing - Grease fitting.
8. Chopper Rotor Bearings - Grease fitting (both sides).

OUO6075,00002B0 -19-22JAN09-2/2

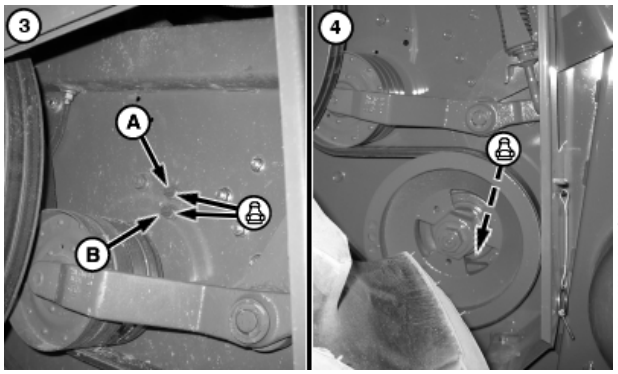
Every 400 Hours



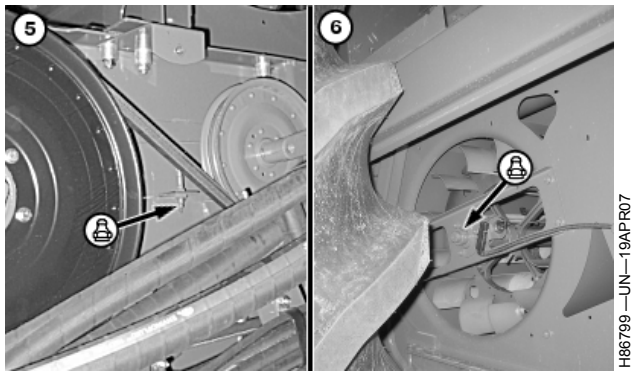
H93261 —UN—16JAN09



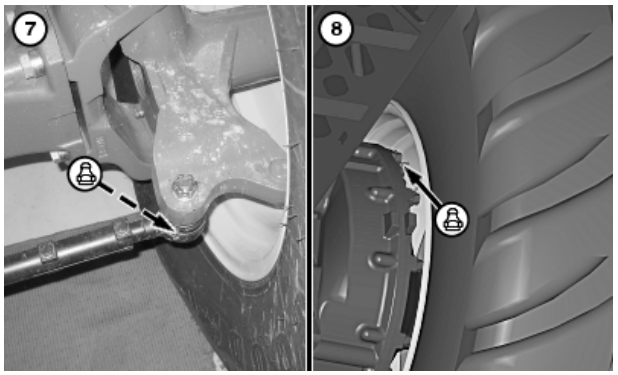
H86797 —UN—06NOV06



H86798 —UN—06NOV06



H86799 —UN—19APR07



H86898 —UN—16FEB07

A—Primary Countershaft Bearing B—Separator Bearing

1. Tailings Auger Drive Slip Clutch - Rotate sheave assembly to access fitting. Do not over grease.
2. Conveyor Auger Drive Slip Clutch - Rotate sheave assembly to access fitting. Do not over grease.
3. Right-Hand Side Lube Bank - Grease fittings to lubricate primary countershaft bearing (A) and separator bearing (B).
4. Feed Accelerator Bearing (Right Side) - Rotate sheaves to access fitting.
5. Discharge Beater Bearing - Grease fitting (both sides).
6. Cleaning Fan Shaft Bearings - Grease fitting (both sides).

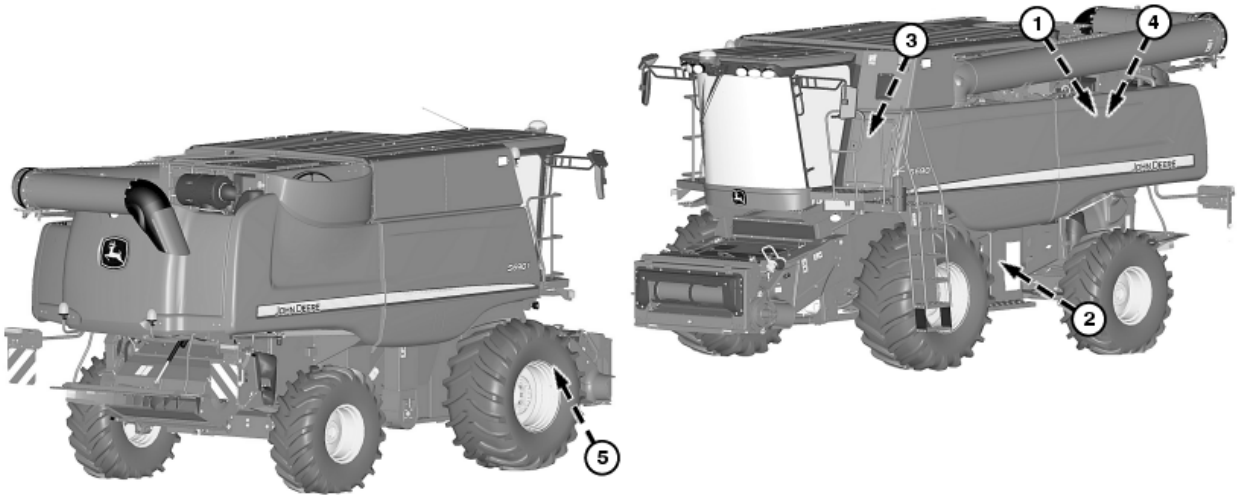
Continued on next page

OUO6075,00002A2 -19-22JAN09-1/2

7. Rear Axle Tie Rod - Grease fitting (both sides) on power steering rod end ball joint.	Normal conditions grease fitting (both sides) every 50 hours.
8. Final Drive Outer Bearings - When operating in mud and water, grease fitting (both sides) every 10 hours.	

OUO6075,00002A2 -19-22JAN09-2/2

Every 400 Hours



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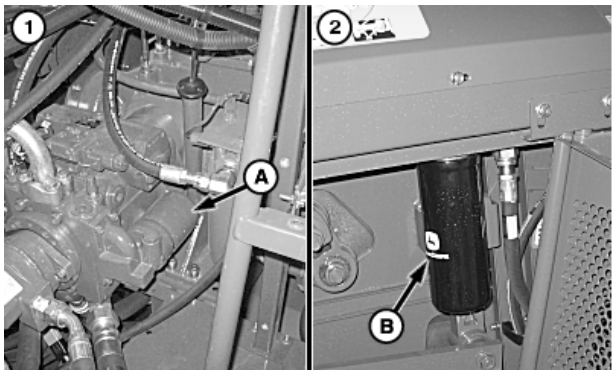
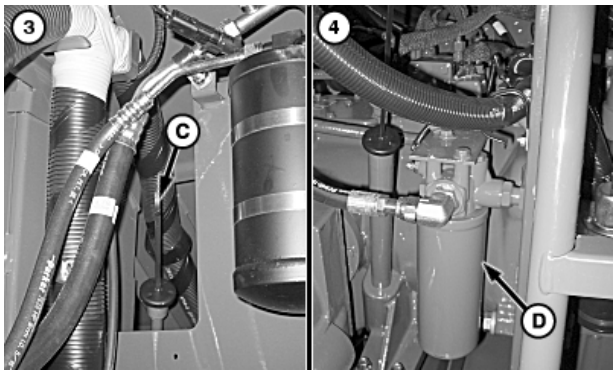


H91323 —UN—28APR08

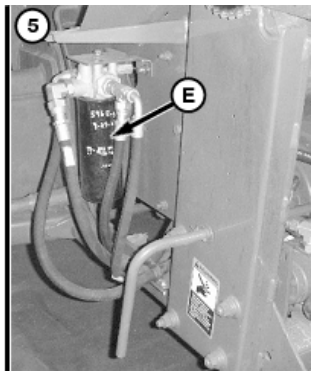


H91324 —UN—28APR08

A—Hydrostatic Charge Filter
B—Hydraulic/Hydrostatic Filter
C—Dipstick
D—Engine Power Take-Off Gearcase Filter
E—ProDrive Filter

NOTE: It is not necessary to drain system when installing filters.

1. Hydrostatic Charge Filter - Replace hydrostatic charge filter (A). Coat seal on new filter with oil. Hand tighten, then tighten 1/2 turn more.
2. Hydraulic/Hydrostatic Filter - Replace hydraulic/hydrostatic filter (B). Coat seal on new filter with oil. Hand tighten, then tighten 1/2 turn more.
3. Primary Countershaft Gearcase Oil - Check primary countershaft gearcase oil level with dipstick (C). Add oil as needed.
4. Engine Power Take-Off Gearcase Filter - Replace engine gearcase filter (D). Coat seal on new filter with oil. Hand tighten, then tighten 1/2 turn more.

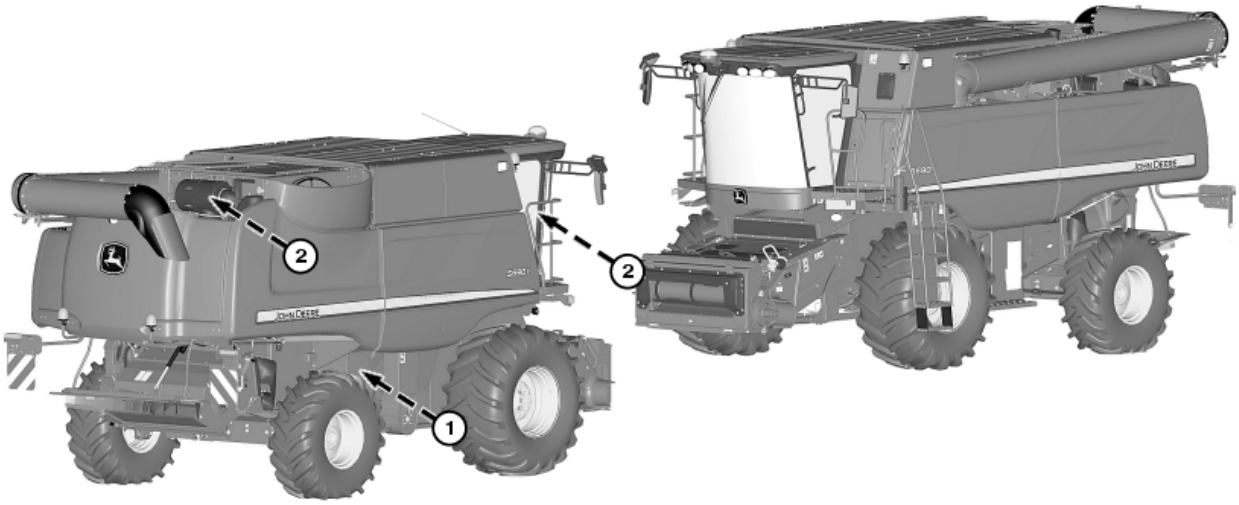


H93564 —UN—05MAR09

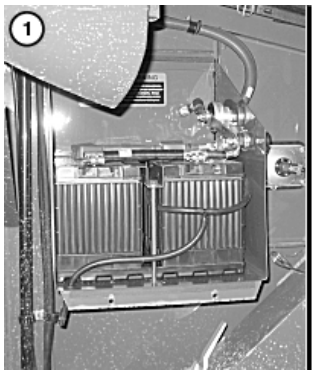
5. ProDrive Filter - Replace ProDrive filter (E). Coat seal on filter with oil. Hand tighten, then tighten 1/2 turn more.

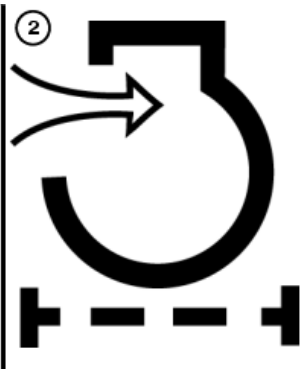
OUO6075,00002B1 -19-05MAR09-1/1

Every 400 Hours

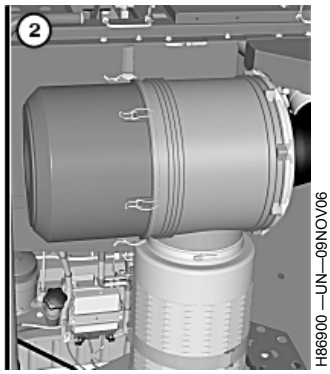


H93304 —UN—22JAN09





H86899 —UN—09NOV06

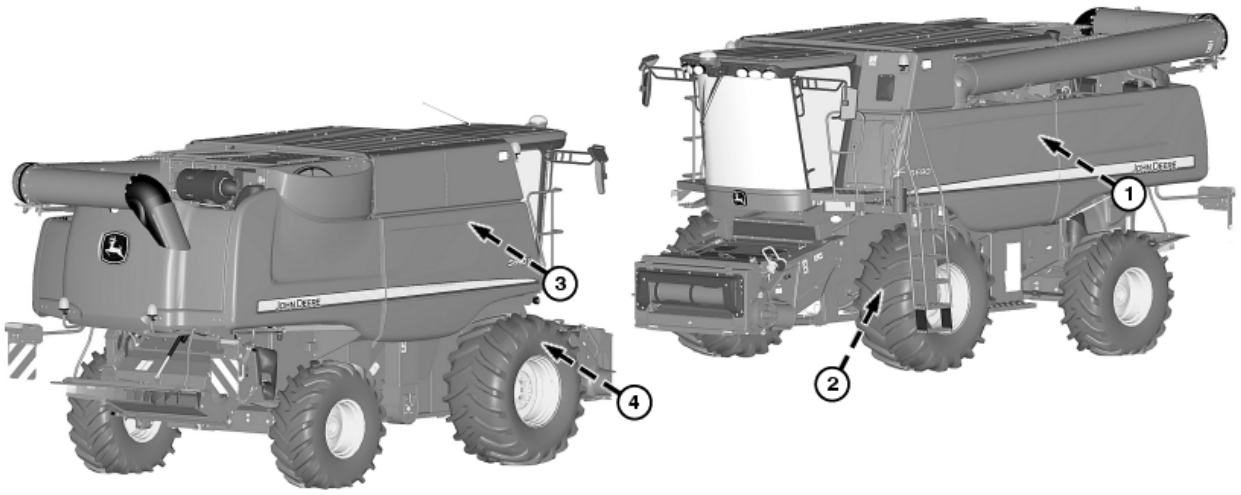


H86900 —UN—09NOV06

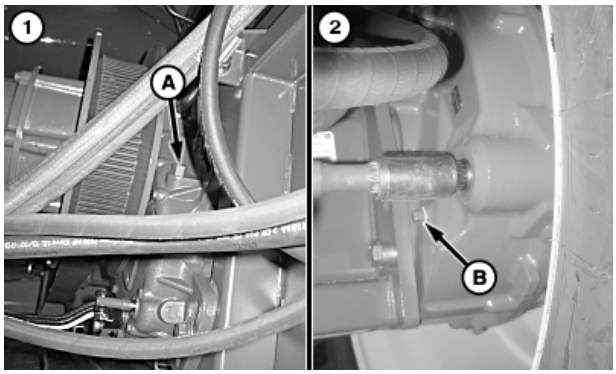
1. Batteries - Clean top of batteries and check level in each cell. Fill to bottom of filler neck with distilled water if needed. Clean battery posts, cables and tighten connections as needed.
2. Air Filter Element - When engine air filter restricted indicator is shown on CommandCenter display, service primary filter. Check precleaner for plugging. Check for leaks and for collapse of aspirator tube. Replace elements if plugged.

OUO6075,00002B2 -19-22JAN09-1/1

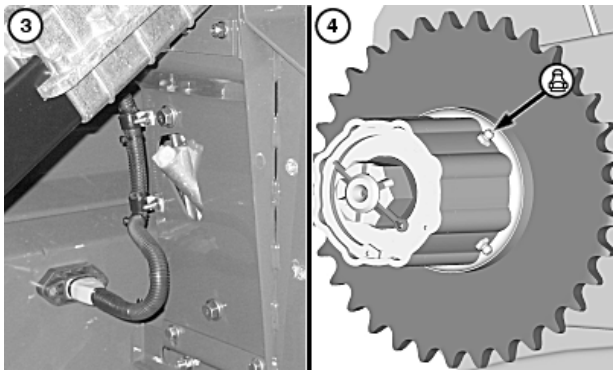
Every 400 Hours



H93264 —UN—16JAN09



H86807 —UN—19APR07



H87389 —UN—14MAR07

A—Dipstick **B—Plug**

1. Separator Drive - Remove dipstick (A) and check oil level. Oil level should be between grooves on dipstick. Add oil as needed.

IMPORTANT: S690 HILLMASTER: When checking final drive oil level, warn bystanders to stay clear of machine while being leveled.

NOTE: S690 HILLMASTER: For oil level accuracy, final drives must be positioned so that final drive input shaft is on the same level as the axle drive shaft.

2. Final Drive Oil - Remove plug (B) and check oil level (both sides). Oil should be within 12 mm (1/2 in) of bottom of hole. Add oil as needed.

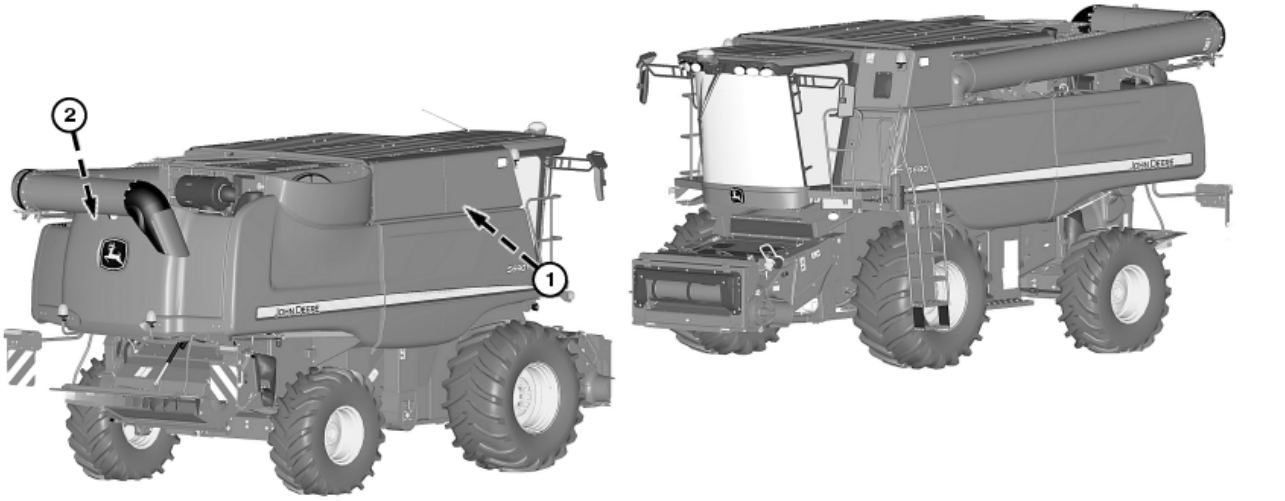
NOTE: Loading auger gearcase does not need to be drained.

3. Loading Auger Gearcase - Check oil level with dipstick and add oil as needed.

4. Feeder House Slip Clutch - Grease fitting on upper feeder house slip clutch, until grease is forced out past seal.

OUO6075,00002B3 -19-22JAN09-1/1

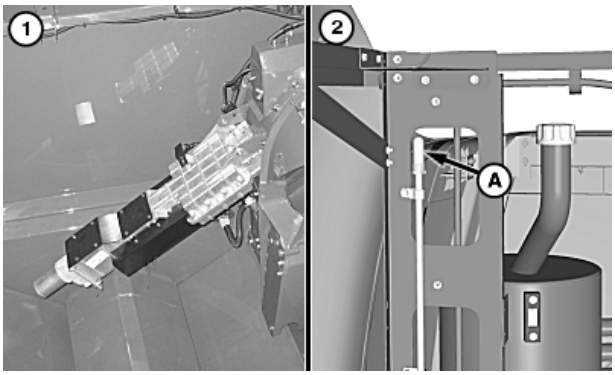
Every 400 Hours



H93265 —UN—16JAN09

1. Moisture Sensor - Clean out moisture sensor when operation in weedy, green crop or very small grain (canola). Fold down loading auger, and remove plunger to clean moisture sensor. Verify cell and area behind plunger (bottom of the cell) is clean.
2. Fuel Tank Breather - Remove and replace fuel tank breather (D).

A—Fuel Tank Breather



H86876 —UN—16FEB07

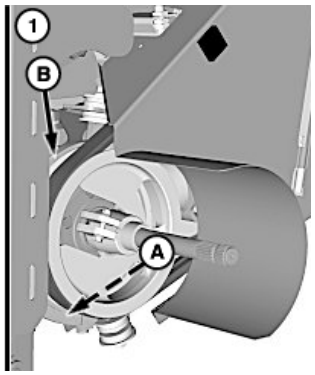
OUO6075,00002A6 -19-16APR09-1/1

Every 800 Hours

H93266 —UN—16JAN09

1. Feeder House Reverser Gearcase - Raise feeder house and lower safety stop. Drain oil with plug (A), wipe plug clean and refill at dipstick opening (B). Check oil level with feeder house raised up. Gearcases with an oil cooler will require gearcase be run for several minutes. This ensures that the cooler is filled with oil. Oil level must show on knurled part of dipstick.

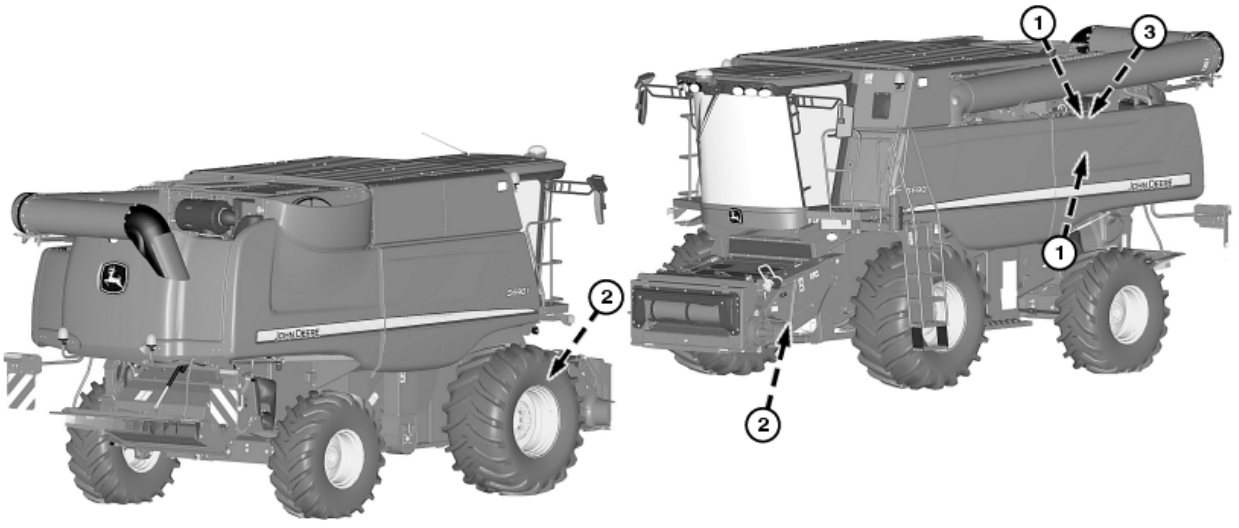
A—Plug **B—Dipstick**



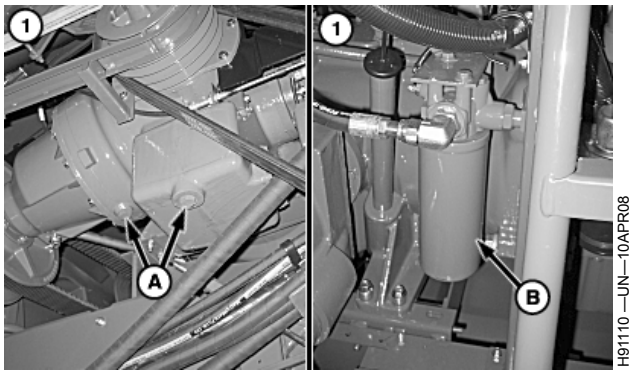
H86901 —UN—14MAR07

OUO6075,00002B5 -19-22JAN09-1/1

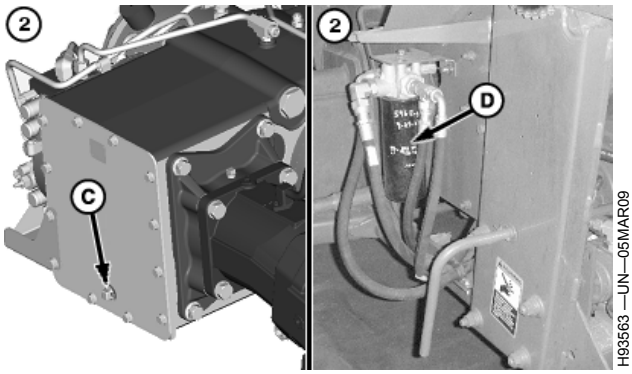
Every 1000 Hours



H93267 —UN—16JAN09



H91110 —UN—10APR08



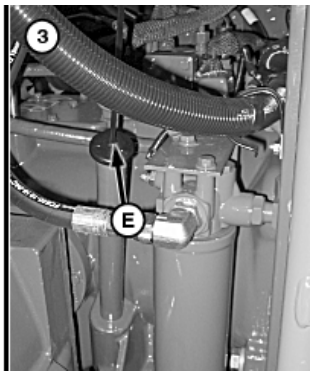
H93563 —UN—05MAR09

A—Drain Plugs
B—Engine Power Take-Off Gearcase Filter
C—Drain Plug
D—ProDrive Filter
E—Dipstick

1. Engine Power Take-Off Gearcase Oil and Filter - Drain oil at plugs (A) and replace engine power take-off gearcase filter (B). Coat seal on new filter with oil. Hand tighten, then tighten 1/2 turn more.
2. ProDrive Transmission Oil and Filter - Drain oil at plug (C) and replace filter (D). Coat seal on new filter with oil. Hand tighten, then tighten 1/2 turn more.

NOTE: Overfilling engine power take-off gearcase may cause oil to force dipstick tube out when machine is running.

3. **Fill Engine Power Take-Off Gearcase**
   1. Fill until oil is at bottom line on dipstick (E).
   2. Install dipstick and run engine for one minute minimum.
   3. Shut OFF engine and let machine sit for five minutes allowing air to settle from oil.

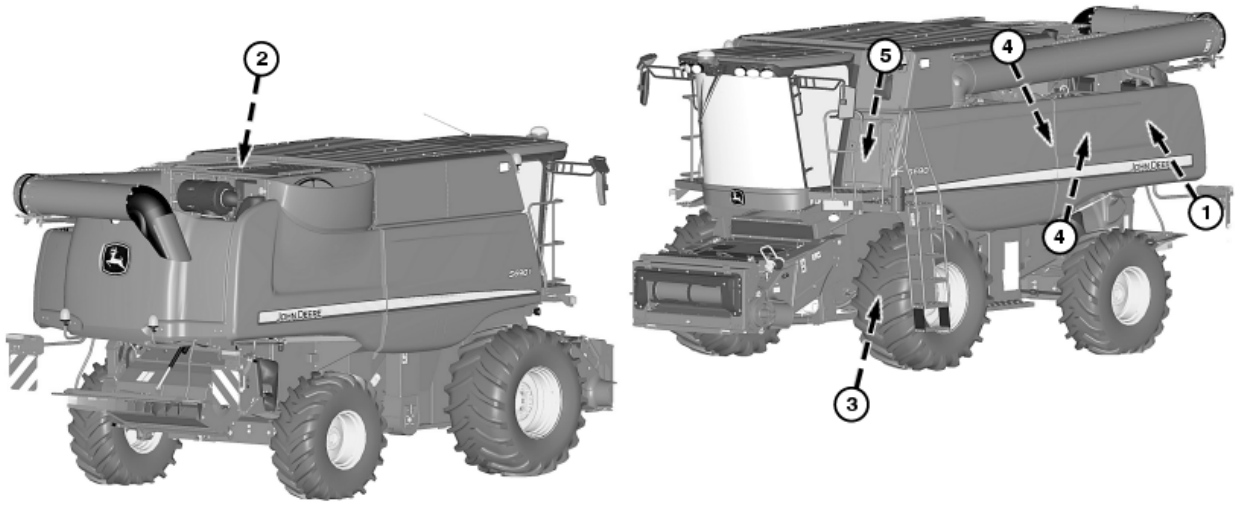


H91112 —UN—10APR08

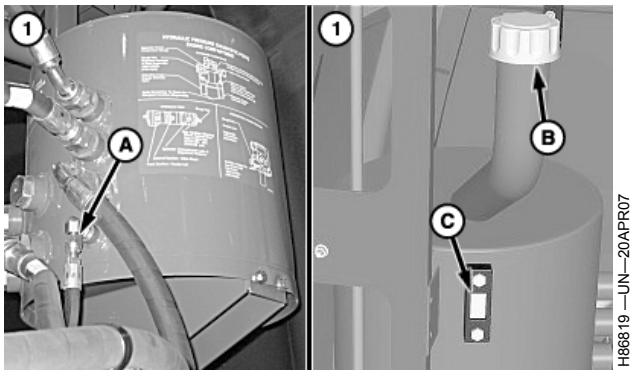
   4. Remove dipstick and check oil level. Add oil until oil level is at top line on dipstick.
   5. Repeat procedures until oil level remains at top line on dipstick.

OUO6075,00002B6 -19-05MAR09-1/1

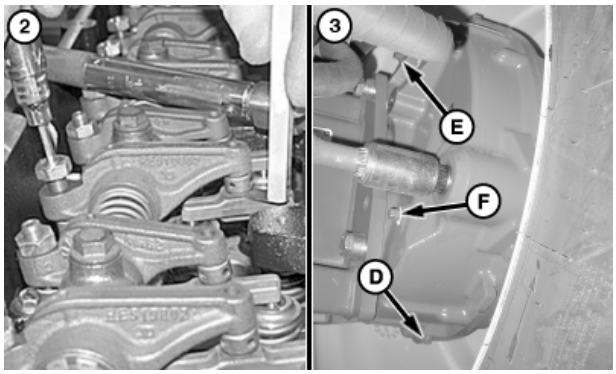
Every 2000 Hours



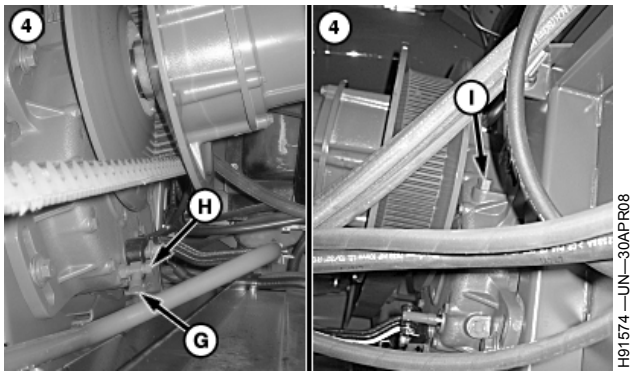
H93305 —UN—22JAN09



H86819 —UN—20APR07



H86820 —UN—19APR07



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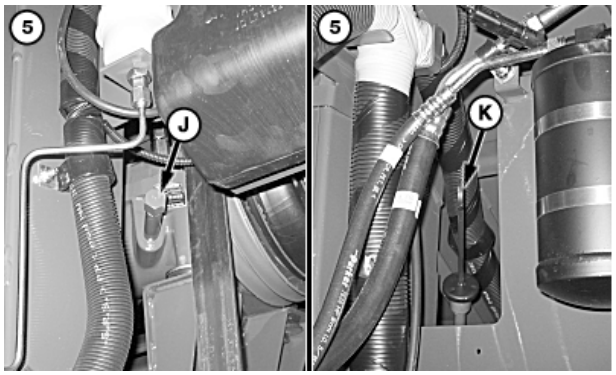


H91575 —UN—30APR08

A—Hydraulic Hose
B—Cap
C—Sight Glass
D—Drain Plug
E—Fill Plug
F—Check Hole
G—Protective Cap
H—Drain Valve
I— Dipstick
J— Cap
K—Dipstick

NOTE: Before removing hydraulic hose, refer to Specifications section for hydraulic reservoir capacity.

1. Hydraulic/Hydrostatic Reservoir Oil - Remove hydraulic hose (A) to drain. Clean screen and cap (B) and refill reservoir. Oil level must show in middle on sight glass (C).
2. Engine Valve Back Lash - Have engine valve back lash checked and adjusted if necessary, by your John Deere dealer.

Continued on next page

OUO6075,00002B7 -19-22JAN09-1/2

3. Final Drives Oil (both sides) - Remove drain plug (D) to drain. Remove fill plug (E) to refill until oil level is within 12 mm (1/2 in.) of bottom check hole (F).
4. Separator Drive Oil - Remove protective cap (G) and attach hose to drain valve (H). Open valve to drain. Refill at dipstick (I) as needed.
5. Primary Countershaft Gearcase Oil - Drain at cap (J) and refill at dipstick (K). Oil level must show on knurled part of dipstick.

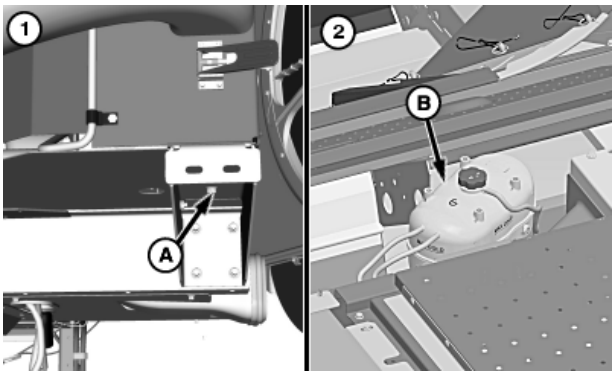
OUO6075,00002B7 -19-22JAN09-2/2

Every 2000 Hours or Six Years

H93268 —UN—16JAN09

1. Radiator - Open drain (A) to remove coolant from radiator.
2. Surge Tank - Flush and refill with correct coolant and conditioner (see Cooling System—Draining in Service Engine section and Engine Coolant recommendations given in Fuels and Lubricants section). Check engine coolant level in surge tank (B) with engine cold. Level must be up to “Max Cold” line.

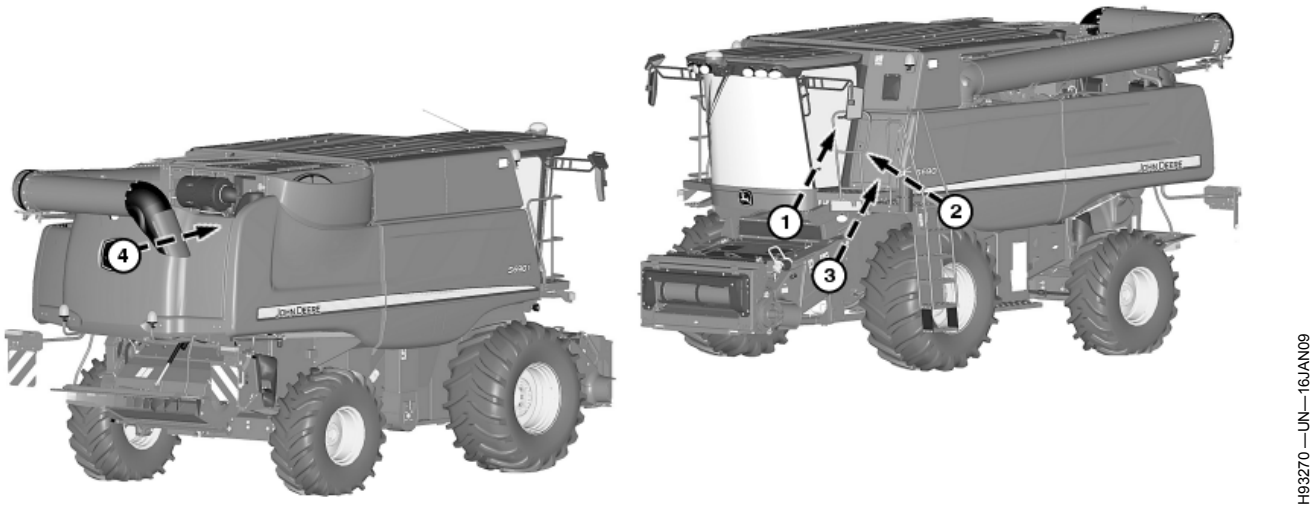
A—Drain **B—Surge Tank**



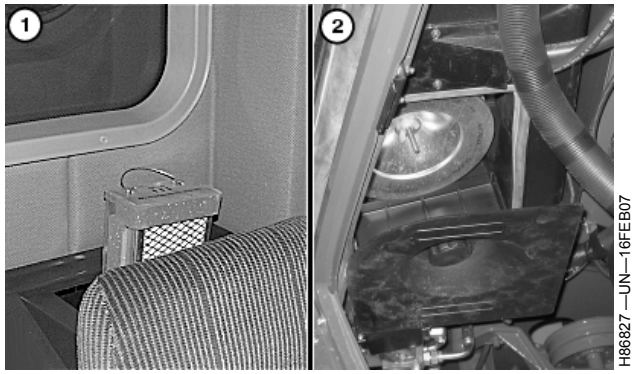
H91173 —UN—17APR08

OUO6075,00002A9 -19-23MAR09-1/1

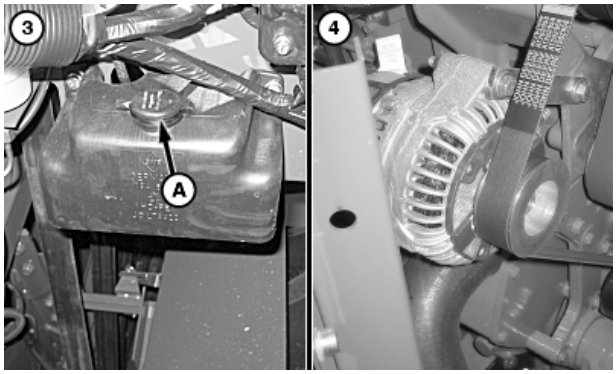
As Required



H93270 —UN—16JAN09



H86827 —UN—16FEB07



H86828 —UN—19APR07

A—Windshield Washer Reservoir Cap

1. Recirculating Filter - Remove cooling compartment and lift out filter from inside of housing. Clean or replace filter. Check to be certain air flow arrow points toward front of machine.
2. Cab Fresh Air Filter - Turn knob and pull out tray. Remove wing nut and pull out filter. Clean or replace as needed.
3. Windshield Washer Reservoir - Open cap (A) and fill windshield washer reservoir as needed.
4. Alternator Screen - Clean alternator screen when 50% covered with debris.

OUO6075,00002AB -19-22JAN09-1/1

4500 Hours or Five Years

IMPORTANT: Vibration damper assembly is not repairable and should be replaced every five years or 4500 hours, whichever occurs first.

Have your John Deere dealer replace the front engine crankshaft damper.

OUO6075,00008D5 -19-14MAR07-1/1

Care and Maintenance of Belts

CAUTION: When servicing drive belts always observe these precautions:

- **Avoid serious injury from hand or arm entanglement. Never attempt to clean, check or adjust belts while the machine is running. Always shut off the engine, set the parking brake and remove the key.**
- **Do not attempt to clean belts with flammable cleaning solvents.**

Belt dressing is not recommended on any belt, V- or flat at any time. Most dressings contain chemicals, which tend to soften belts. While this softening process actually does increase the friction between the belt and sheave grooves, the result is only temporary.

Remove grease and oil as quickly as possible before they can penetrate deeply into the belt, causing rapid deterioration.

Clean belts by wiping them with a clean cloth. Use a non-flammable cleaner or solvent to remove excessive grease and oil. Water and a detergent soap can be used, but is not as satisfactory as a non-flammable cleaner.

OUO6075,0000853 -19-22MAR07-1/1

Cleaning Machine

Cleaning outside of machine

- Wash outside of machine using a power washer.
- Use a soft absorbent cloth to wipe off water droplets.
- Use a good clear wax or glazing compound that contains no abrasives and lint free towel.
- Apply wax or compound on a cloth and rub into panel in a circular motion. After compound is rubbed into panels, turn towel over and buff out with the other (dry) side.

Cleaning plastic parts:

NOTE: Do not clean plastic parts with fuel or other petroleum based cleaners.

Always follow manufacturers directions when using cleaner and test on a small hidden area first.

- Some machine trim parts are plastic. Use tar and road oil remover to remove dirt, wax buildup and other deposits.

Vinyl and plastic parts:

- Remove dust and dirt with a whisk broom or vacuum cleaner. Clean vinyl surfaces with leather and vinyl cleaner.
- Clean surfaces with clean, soft damp cloth.
- For more thorough cleaning, wipe surface with soft cloth and mild detergent.
- Remove excess detergent with clean dry cloth.

Cleaning Fabric:

NOTE: Always follow manufacturers directions when using fabric cleaner and test on a small hidden area first.

- Remove dust and loose dirt with whisk broom or vacuum cleaner.
- Remove excess staining material by scraping or wiping with clean cloth.
- For water soluble stains, use a damp cloth first, followed by a soft cloth with a mild detergent and water.
- For grease, oil, tar or other petroleum based stains, apply fabric cleaner to soiled area following the manufactures directions.

OUO6075,0000854 -19-14MAR07-1/1

Feeder House

Symptom	Problem	Solution
Uneven or bunched feeding of crop to rotor.	Header auger too high.	Adjust auger down and back. See header operator's manual.
	Buildup of grain on cutterbar.	Lower reel and set fore-and aft position as close as possible to cutterbar and auger. See platform operator's manual.
	Front of feeder conveyor chain adjusted too high.	Adjust feeder drum so conveyor slat clears bottom with correct clearance.
	Feeder conveyor chain too tight and holds drum up.	Adjust conveyor chain to correct tension.
	Header drive belt slipping.	Spring-loaded idler must be free and tight against belt.
	Auger too far ahead of stripper.	Adjust auger back to stripper. See header operator's manual.
	Feeder conveyor drive chain not on correct sprocket.	Place chain on correct sprocket.
	Feeder conveyor slats bowed up.	Straighten or replace bent slats.
	Dirt and sap buildup on feeder house bottom.	Clean bottom.
	Too great a distance between platform auger and feeder house front drum.	Add links to feeder house chain.
Header or Reel Will Not Lift Correctly	Air in hydraulic system.	Tighten clamps on leaking lines or hoses. Bleed reel lift system. See Platform operator's manual.

OUO6075,0002F6A -19-07AUG03-1/1

Separator

Symptom	Problem	Solution
Slugging or Overloading of Separator.	Engine not up to correct speed.	See your John Deere dealer.
	Single tine separator variable drive belt is slipping as slow speed.	Adjust sheave gap.
	Concave to separator spacing too close or too wide.	Adjust concave spacing.
	Separator speed too slow for crop.	Increase separator speed.
	Too much material entering separator.	Reduce ground speed.
Backfeeding of Feed Accelerator.	Separator speed too slow for crop.	Increase separator speed.
	Accelerator speed in slow speed position.	Change accelerator speed to high speed position.
	Feed accelerator wings on smooth wear strip.	Switch to serrated wings.
	Dirt and sap buildup on feed floor.	Clean feed floor.
Grain Not Threshed.	Crop not ready to thresh.	Test moisture of crop before threshing.
	Separator speed too slow for crop.	Increase separator speed enough to do a good job of threshing, but do not increase speed to the point where grain cracks.
	Concave spacing not even from front to rear.	Adjust to specifications.
	Concave spacing too wide.	Close separator to concave spacing until tight bar ticks, to increase threshing action.
	Uneven feeding to separator.	Check feeder conveyer chain tension and float in feeder house.
	Not enough material entering combine for proper threshing action.	Increase ground speed.
Too Much Cracked Grain in Tank.	Separator speed too fast for crop.	Decrease separator speed just enough to stop grain cracking, but still do a good threshing job.
	Concave spacing too close.	Open concave just enough to stop cracking.
	Feed beater speed too fast for crop.	Decrease feed accelerator speed by switching to low speed drive.
	Too much clean grain in tailings, causing grain to crack when rethreshed.	Open sieve slightly to reduce tailings.
	Not enough straw entering combine.	Increase ground speed.

Continued on next page

Symptom	Problem	Solution
	Dented auger housings or bent auger shafts cracking grain between flights and housings.	Remove dents from auger housings and/or straighten bent auger shafts.
	Serrated beater wings.	Install smooth beater wing strips or back swept.
Separator Grain Loss	Separator overloaded due to incomplete threshing or late threshing at concave.	Reduce separator to concave spacing and/or increase separator speed to increase threshing action.
	Broken cob pieces in grain tank.	*NOTE: Spacers should be used in corn and soybeans only. Remove spacers for all other crops.*
		Install separator grate spacers to reduce broken cob pieces.
Almost No Chaff in Tailings. Grain Tank Very Clean.	Fan speed is too high and/or chaffer not open far enough.	Reduce fan speed and/or increase chaffer opening.
Some Chaff in Tailings. Grain Tank Clean.	Sieve is closed too tight.	Open sieve.
Heavy Chaff in Tailings. Grain Tank May Range from Good to Dirty.	Sieve is closed too tight and fan is too slow.	Open sieve and increase fan speed.
Too Much Trash (Ground Up Weeds) in Tailings.	Chaffer too far open for weedy conditions.	Close chaffer.
	Separator too fast or concave too tight.	Reduce separator speed and/or increase concave spacing.
Dirty Grain Tank (Unthreshed Heads).	Sieve too far open.	Close sieve.
	Separator not threshing enough.	Increase separator speed and/or decrease concave spacing.
Dirty Grain Tank (Mostly Chaff).	Fan speed too slow.	Increase fan speed.
	Cob deflector installed.	Remove cob deflector.
Dirty Grain Tank (Small Pieces of Cob).	Broken cob pieces in grain tank.	*NOTE: Spacers should be used in corn and soybeans only. Remove spacers for all other crops.*
		Install separator grate spacers to reduce broken cob pieces.
Damaged chaffer/sieve elements.	Cob deflector not installed.	Install cob deflector.
Loss of Grain Over Cleaning Shoe (Grain Tank is Clean).	Chaffer closed.	Open chaffer.
	Fan speed incorrect.	Adjust fan speed. Check tailings, losses and grain tank.

Continued on next page

Symptom	Problem	Solution
High Grain Losses (Occurs at Low Feed Rates or High Feed Rates).	Fan speed too fast.	Reduce fan speed.
	Chaffer not open far enough.	Open chaffer.
High Grain Losses (Occurs at High Feed Rates Only).	Fan speed too low.	Increase fan speed.
VisionTrak Cleaning Shoe Sensors Plugging Up with Trash.	Trash is getting caught between plastic fingers and sensor.	Remove fingers over sensor.

OUO6075,0000709 -19-28MAR07-3/3

Hydrostatic Ground Drive

Symptom	Problem	Solution
System Overheats.	Oil cooler or radiator plugged.	Blow air through core and clean.
	Lack of charge oil flow.	See your John Deere dealer.
	Engine fan belt slipping or broken.	Check for worn or broken belt.
	Plugged oil filter.	Change filter.
	Exceeding relief valve pressure.	Shift to lower gear.
	Relief valve stuck closed.	See your John Deere dealer.
	By-pass valve fails to close.	See your John Deere dealer.
High Oil Loss.	Loose connections or leaking hydraulic lines, hoses or O-rings.	Tighten connections or replace damaged lines, hoses or O-rings.
	Oil leaking into power take-off gearbox.	Replace hydrostatic motor shaft seal or park brake seals in transmission, see your John Deere dealer.
Machine Will Not Move Forward or Reverse.	System detects ground drive faults.	See your John Deere dealer.
	Low on oil.	Check for leaks and correct. Fill reservoir.
	Air leak in system.	Tighten connections.
	Lack of charge flow or charge pressure.	See your John Deere dealer.
	Plugged filter.	Change filter.
	Exceeding maximum operating pressure setting.	See your John Deere dealer.
	Drive system unable to build up pressure.	See your John Deere dealer.
	Relief valve open.	See your John Deere dealer.
Ground Travel Speed Erratic.	Low oil.	Check for leaks and correct. Fill reservoir.
	Plugged filter.	Change hydrostatic charge filter.
	Exceeding maximum operating pressure setting.	See your John Deere dealer.
	Multifunction control handle creeps toward neutral.	See your John Deere dealer.
	System unable to keep charge pressure.	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
Lack of Power or Lost Power. Machine Not Responding to Speed Range Selector.	Low on oil.	Check for leaks and correct. Fill reservoir.
	Plugged filter.	Change hydrostatic charge filter.
	Lack of charge flow or charge pressure.	See your John Deere dealer.
	Dirty fuel filter.	Replace fuel filter.
	Water in separator bowl.	Drain water from separator bowl.
	Drive system unable to keep or build up pressure.	See your John Deere dealer.
	System detects ground drive faults.	See your John Deere dealer.

OUO6075,00000DF -19-29APR08-2/2

Four Wheel Drive (Optional)

Symptom	Problem	Solution
Machine Will Not Move When Four Wheel Drive Is Engaged.	One or both rear wheels in spin-out condition.	Increase hydrostatic pump flow by moving multifunction control handle forward.
	Bad electrical control switch on console.	See your John Deere dealer
	Bad solenoid valve on control valve.	See your John Deere dealer.
	Spool will not move in control valve.	See your John Deere dealer.
Machine Will Not Move When Four Wheel Drive Is Disengaged.	Faulty line or connection between main system and rear wheel drive control valve.	Repair or replace parts as needed.
Four Wheel Drive Will Not Disengage.	Bad electrical control switch on console.	See Your John Deere dealer
	Bad solenoid valve on control valve.	See your John Deere dealer.
	Spool will not work in control valve.	See your John Deere dealer.
Rear Wheels Wander During Transport Speeds.	Toe-in out of adjustment.	Adjust toe-in.

OUO6075,0000B22 -19-14MAR07-1/1

Steering

Symptom	Problem	Solution
Rear Wheels Wander During Transport Speeds.	Toe-in out of adjustment.	Adjust toe-in.
Steering Arms Do Not Contact Stops at Full Turns.	Steering cylinder out of adjustment.	Adjust cylinder.
Hard Steering.	Low oil level in engine gearcase reservoir.	Add oil.

OUO6075,0000B30 -19-09AUG07-1/1

Brakes

Symptom	Problem	Solution
Spongy Brake Pedal Pressure.	Brake pedal push rods out of adjustment.	Adjust jam nut on brake pedal push rods.
	Air in system.	See your John Deere dealer.
Loss of Braking Power.	Inadequate pressure.	See your John Deere dealer.
	Worn linings.	See your John Deere dealer.
Parking Brake Not Holding.	Lack of spring force.	See your John Deere dealer.
	Worn brake linings.	See your John Deere dealer.
	Machine was manual overridden to move machine.	Remove cap screws from transmission.

OUO6075,00000E0 -19-28APR08-1/1

Engine

Symptom	Problem	Solution
Engine Hard to Start or Will Not Start.	No fuel.	Fill tank with correct fuel and bleed system.
	Water in fuel filter.	Drain water from separator bowl.
	Incorrect starting procedure.	Review starting procedure.
	Water, dirt or air in fuel system.	Drain, flush, fill and bleed system.
	Clogged fuel filter.	Replace filter and bleed air.
	Incorrect type of fuel.	Consult fuel supplier; use correct fuel type for operating conditions.
	Dirty or faulty injectors.	See your John Deere dealer.
	Crankcase oil too heavy.	Use correct oil viscosity.
	Cold Weather.	Use cold weather starting aids (if equipped).
Engine Knocks	Low oil.	Add oil of correct viscosity.
	Air in fuel system.	Bleed fuel system.
	Injection pump out of time.	See your John Deere dealer.
	Injection nozzle valve sticking.	See your John Deere dealer.
	Internal engine problem.	See your John Deere dealer.
	Low coolant temperature.	See your John Deere dealer.
	Engine overheating.	See Engine Overheats.
Engine Runs Irregularly or Stalls Often.	Low coolant temperature.	See your John Deere dealer.
	Water in fuel filter.	Drain water from separator filter.
	Clogged water filter.	Change filter.
	Clogged fuel filter.	Replace filter and bleed air.
	Clogged fuel tank filter vent.	Clean filter vent.
	Water, dirt or air in fuel system.	Drain, flush, fill and bleed system.
	Dirty or faulty injectors.	See your John Deere dealer.
	Injection pump out of time.	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
Lack of Power	Engine overloaded.	Reduce load.
	Overheated engine.	See Engine Overheats.
	Below normal engine temperature.	Remove and check thermostats.
	Intake air restriction.	Service air cleaner.
	Clogged fuel filter.	Replace filter and bleed system.
	Water in fuel filter.	Drain water from separator filter.
	Clogged fuel tank filter vent.	Clean filter vent.
	Incorrect type of fuel.	Use correct fuel.
	Turbocharger not functioning.	See your John Deere dealer.
	Incorrect valve clearance.	See your John Deere dealer.
	Dirty or faulty injectors.	See your John Deere dealer.
	Injection pump out of time.	See your John Deere dealer.
	Leaking exhaust manifold gasket.	See your John Deere dealer.
Engine Overheats	Low coolant level.	Fill radiator with coolant to the correct level. Check hoses and radiator for leaks or loose connections.
	Dirty cooling system radiator core or rotary cooling screen.	Clean radiator and rotary screen.
	Rotary cooling screen not turning.	Broken drive belt. Belt off sheaves.
	Loose or broken fan belt.	Replace worn belt.
	Cooling system needs flushing.	Drain and flush cooling system.
	Defective thermostats.	See your John Deere dealer.
	Vacuum duct plugged.	Clean duct.
	Faulty radiator cap.	See your John Deere dealer.
	Defective temperature gauge or sender.	See your John Deere dealer.
Low Oil Pressure	Low oil level.	Check crankcase oil level and add oil if needed.

Continued on next page

Symptom	Problem	Solution
	Incorrect type of oil.	Drain, fill crankcase with correct quality and viscosity of oil.
	Oil cooler plugged.	See your John Deere dealer.
High Oil Consumption	Restricted air intake system.	Check air cleaner and clean air intake.
	Oil leaks.	Check for leaks in lines and around gaskets and drain plugs.
	Too low viscosity crankcase oil.	Drain and fill crankcase with correct viscosity oil.
	Restricted crankcase vent tube.	Clean vent tube.
	Defective turbocharger.	See your John Deere dealer.
High Fuel Consumption	Incorrect type of fuel.	Use correct fuel.
	Clogged or dirty air cleaner.	Service air cleaner.
	Incorrect valve clearance.	See your John Deere dealer.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
Engine Blows Black or Gray Exhaust Smoke	Clogged or dirty air cleaner.	Check air cleaner for plugging. Filter element must be clean.
	Wrong type of fuel.	Use correct type of fuel for operating conditions.
	Dirty or defective injectors.	See your John Deere dealer.
	Air in fuel system.	Bleed fuel system.
	Defective muffler.	Check muffler for possible damage that might create back pressure.
	Engine out of time.	See your John Deere dealer.
Engine Blows White Exhaust Smoke	Incorrect type of fuel.	Use correct fuel.
	Clogged or dirty air cleaner.	Service air cleaner.
	Injection nozzles dirty.	See your John Deere dealer.
	Engine out of time.	See your John Deere dealer.
	Turbocharger not functioning.	See your John Deere dealer.

Continued on next page

Symptom	Problem	Solution
	Defective thermostats.	See your John Deere dealer.
Batteries Will Not Charge.	Loose or defective alternator belt.	Adjust belt or replace worn belt.
	Loose or corroded connections.	Clean and tighten battery connections.
	Alternator or voltage regulator not working right.	See your John Deere dealer.
Starter Cranks Slowly or Will Not Operate.	Relay not working.	Check relay and wire connections.
	Loose or corroded battery connections.	Clean and tighten loose connections.
	Key switch worn or terminals loose.	Check switch and terminals.
	Too high viscosity crankcase oil.	Drain and fill crankcase with correct viscosity oil.

OUO6075,0000B23 -19-14MAR07-4/4

Heater

Symptom	Problem	Solution
Heater Not Blowing Warm Air.	Dirty recirculating filter.	Clean filter.
	No thermostat in water outlet manifold.	See your John Deere dealer.
	Defective thermostat in water outlet manifold.	See your John Deere dealer.
	Heater temperature control defective.	Replace control.
	Kinked heater hose. Defective heater valve.	Straighten or replace. Replace valve.

OUO6075,0000B24 -19-14MAR07-1/1

Air Conditioner

Symptom	Problem	Solution
Lack Of Or Insufficient Cooling	Temperature control in OFF position.	Select Air Conditioning position.
	Compressor belt off or broken.	Replace belt.
	Compressor not functioning (if both the large and small hoses in the left-hand access panel are at the same temperature).	See your John Deere dealer.
	High-pressure switch ON - insufficient air flow across condenser.	Clean condenser. Check fan belt condition. Check engine fan speed belt position. Check rotary screen function. If this does not correct problem, see your John Deere dealer.
	Low-pressure switch ON - insufficient air flow across evaporator.	Clean filters. Check cab fan operation. If this does not correct problem, see your John Deere dealer.
	Low-pressure switch ON - low outside air temperature.	Move temperature control to a warmer setting.
	Low-pressure switch ON - insufficient refrigerant level.	See your John Deere dealer.
Compressor clutch cycles excessively or compressor stays OFF up to 15 minutes.	Evaporator icing.	Adjust controls correctly. See Operator's Station. Open louvers. Clean filters. Move control to a warmer setting.
Bad smell (foul odor) in cab.	Plugged drain tube. Dirty filters. Dirty cab.	Blow out condensate tube and clean pan under evaporator. Clean filters. Vacuum out cab.
		Be certain weep valve in condensate drain tube is installed.

OUO6075,0000B31 -19-22MAR07-1/1

Moisture Sensor (If Equipped)

Symptom	Problem	Solution
Moisture is too high.	Green plant sap or weed seed buildup on moisture sensor plates.	Clean moisture sensor plates.
Moisture is consistently high or low.	Moisture correction needs adjustment.	Change moisture correction.
Moisture does not change	Obstructed sensor. Actuator stopped.	Inspect moisture sensor and clean as needed.
Moisture reading is inaccurate.	Incorrect crop selected.	Select correct crop.
	Moisture sensor out of calibration.	Change moisture calibration.
Moisture always zero.	Obstruction in sensor.	Inspect moisture sensor and clean as needed.

OUO6075,0000B6C -19-09APR07-1/1

Mass Flow Sensor (If Equipped)

Symptom	Problem	Solution
Yield is constantly too high or low.	System is out of calibration.	Change yield calibration.
	Incorrect header width.	Change header width.
	Incorrect crop selection.	Change crop selection.
	Dirt, mud, debris caked on impact plate.	Clean impact plate.
Yield is zero.	No ground speed.	See your John Deere dealer.
	Mass flow sensor unplugged in grain tank.	Plug mass flow sensor into wiring harness connector.

OUO6075,0000B6D -19-09APR07-1/1

GreenStar Display (If Equipped)

Symptom	Problem	Solution
Display is blank.	No power.	Check harness connections at display.
	Out of contrast or insufficient backlighting.	Adjust contrast.
		Change backlighting level.
Display alarm does not sound.	Possible failed alarm.	See your John Deere dealer.
Display is locked up on a certain page.	Communication problem.	Turn key switch OFF and ON.
Display does not perform monitor or mapping functions.	CAN address incorrect.	Set CAN address to primary.

OUO6075,0000B6E -19-09APR07-1/1

Storage

Preparing Machine for Storage

Swing out condenser and oil cooler and clean radiator with air, water, or a vacuum cleaner.

Clean condenser and oil cooler after cleaning radiator. Clean charge air cooler.

Every 60 to 90 days start engine and turn air conditioning ON. Run engine at low idle for several minutes for compressor seal lubrication. Outside temperature should be above 5 °C (40 °F) for proper air conditioning operation.

Clean outside of engine with a safe solvent.

CAUTION: Do not use gasoline.

Clean inside of air cleaner and install new elements.

With engine warm, drain crankcase. Replace filter and fill with correct oil. Add 0.66 L (22 oz.) of corrosion inhibitor to crankcase. Run engine to circulate.

Drain, flush, and refill cooling system with 50/50 mixture of antifreeze and water.

Charge batteries completely. Specific gravity will equal 1.260 volts. Remove negative lead to batteries to minimize load to the batteries.

Drain water separator.

Clean machine inside and out. Leave elevator doors and drain covers open.

Cycle concave up and down several times to prevent material buildup in the concave area.

IMPORTANT: Do not use high pressure washer spray directly on bearings. High pressure water can get past most seals and cause damage. Dry these areas, then lube and run machine.

Repaint areas where needed.

NOTE: It is not necessary to wax machine. However, if desired, use a good clear wax that contains no abrasives. These type of waxes usually do not contain cleaners.

Lubricate machine and grease adjusting bolt threads.

Perform all 400 hour (yearly) service.

Fill fuel tank to prevent condensation.

IMPORTANT: When fuel is stored in the machines fuel tank or farms storage tank for extended periods, or if there is a slow turn over of fuel, add a fuel conditioner to stabilize the fuel and prevent water condensation. Contact your John Deere dealer for recommendations.

For prolonged machine storage the best practice is to drain bio-diesel and fill machine with regular petroleum diesel fuel. Otherwise use bio-diesel stabilizer (anti-oxidant) additives or fully formulated bio-diesel conditioners. Contact your John Deere dealer for recommendations.

If machine is to be stored for a long period of time remove and clean batteries. Store them in a cool dry place and keep them charged.

OUO6075,000032E -19-23MAR09-1/1

Removing Machine From Storage

Reconnect and/or charge batteries.

Charge batteries completely. Specific gravity will equal 1.260 volts. Remove negative lead to batteries to minimize load to the batteries.

Check oil and coolant levels. Inspect for leaks and add oil and coolant if needed.

Close elevator doors and drain hole.

Check drive belt tensions. Adjust spring loaded idlers until washer is positioned between end of gauge and bottom of step.

Check tire inflation and review machine operator’s manual.

OUO6075,0000856 -19-14MAR07-1/1

Operating Speeds

NOTE: Speeds shown are average and can vary from machine to machine. Speeds are rated at high idle with separator engaged, with no load.

Operating speed specifications and design are subject to change without notice.

Engine Speeds	
Slow Idle (Separator Off)	1200 rpm
Mid Speed (Separator Off)	1680 rpm
Fast Idle (Separator Off)	2300 rpm
Full Load Rated Speed	2200 rpm

Separator Drive Shaft Speed	1546 rpm

Main Countershaft Speed	1546 rpm

Separator Speeds	
High Range	420 - 1000 rpm
Low Range	230 - 550 rpm

Feeder House Lower Shaft Sprocket Speed	
Fixed Speed Sprocket	520 rpm

Feed Accelerator Speeds	
Feed Accelerator (Optional Slow Speed)	320/790 rpm
Feed Accelerator (High Speed High Capacity)	500/1000 rpm

Discharge Beater Speed	1060 rpm

Jackshaft Speeds	
Front Right-Hand Jackshaft	532 rpm
Rear Right-Hand Jackshaft	532 rpm

Cleaning Fan Speeds	
Standard Speed	620 - 1350 rpm
Special Slow Speed	250 - 500 rpm

Elevator Speeds	
Clean Grain Elevator	426 rpm
Clean Grain Loading Auger	458 rpm
Tailings Elevator, Lower Auger	405 rpm
Tailings Elevator, Upper Auger	640 rpm
Shoe Drive	300 rpm
Conveyor Augers	433 rpm

Unloading System Speeds	
Unloading System Countershaft	1087 rpm
Unloading Auger Gearbox, Input Shaft	516 rpm
Unloading Vertical Auger	516 rpm
Unloading Outer Auger	516 rpm
Grain Tank Horizontal Augers	344 rpm

Standard Chopper Speeds	
Chopper/Discharge Beater Jackshaft	2002 rpm
Chopper (Two Speed)	1600/3200 rpm

Premium Chopper Speeds	
Rotor Speed (Straw)	3350 rpm
Rotor Speed (Maize)	1680 rpm

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OUO6075,00000CE -19-25APR08-1/2

Premium Chaff Spreader		
Disc Speed (Straw)	Chopping	1900 rpm
Disc Speed (Straw)	Windrowing	1000 rpm
Disc Speed (Maize)		550 rpm
Hydraulic Flow		62 L/min (16.4 gpm)
Hydraulic Pressure		150 bar (2175 psi)

Premium Chopper Feed Roller	
Feed Roller Speed	400 rpm

OUO6075,00000CE -19-25APR08-2/2

Specifications

NOTE: Specifications and design subject to change without notice.

Engine	
Make	John Deere
Model	6135HH001 (Tier III Engine) 6135HH002 (Tier II Engine)
Type	six-cylinder, wet sleeve, valve-in-head, air-to-air aftercooled diesel turbocharged
Engine Power at 2100 rpm (ECE R24)	366 kW (491 hp.)
Engine Power at 2100 rpm (ISO)	394 kW (528 hp.)
Power Boost	25 kW (33 hp.)
Displacement	13.5 L (825 cu. in.)
Firing Order	1-5-3-6-2-4
Air Cleaner	Dry-type with safety element

Electrical System	
Type	12 volt, negative ground with 200 amp alternator

Transmission	
Speeds	Two Speed Auto Shift

Brakes	
Type	Multiple Wet Discs

Separator Elements	
Threshing Elements (Standard Configuration)	15
Threshing Elements (Dense Pack Configuration)	24
Tines	24

Concave	
Number of Concaves	3
Number of Bars Per Concave	Grain—Front 25, Mid/rear 25; Corn 31

Separating	
Number of Grates	4

Feed Accelerator	
Number of Wings	10

Discharge Grate	
Number of Grates	1

Discharge Beater	
Number of Wings	10

Grain Tank	
Capacity	11,000 L (312 bu.)
Average Unloading rate	6977 L/min. (198 bu/min)
Maximum Unloading rate	7612 L/min. (216 bu/min)

Weight	
Grain Machine — less header	17,608 kg (38,826 lb.)

Turning Radius	
Rear Wheel Tread Width	3.3 m (10 ft. 10 in.)

Continued on next page

Turning Radius (Non-Powered Axles)	7.73 m (25 ft. 4 in.)
Turning Radius (Powered Axles)	8.19 m (26 ft. 9 in.)

Capacities	
Fuel Tank	1155 L (305 gal.)
Cooling System w/ heater	65 L (68.7 qt.)
Engine Crankcase w/ filter	39 L (41.2 qt.)
Final Drives	7 L (7.4 qt.)
Feeder House Reverser Gearcase w/o cooler	3.6 L (7.7 pt)
Feeder House Reverser Gearcase w/ cooler	4.9 L (10.4 pt)
Countershaft Drive Gearcase	1.2 L (2.5 pt)
Loading Auger Gearcase	3.8 L (4 qt.)
Two Speed Separator Drive Gearcase	4.7 L (5 qt.)
Engine Gearcase w/ transfer	51 L (54 qt.)
Hydraulic/Hydrostatic Reservoir	55 L (58 qt.)

OUO6075,000035D -19-22APR09-2/2

Dimensions

CAUTION: Avoid power line entanglement. Grain tank covers must be closed before transporting machine. Lower covers to 15° open position when operating near low hanging lines.

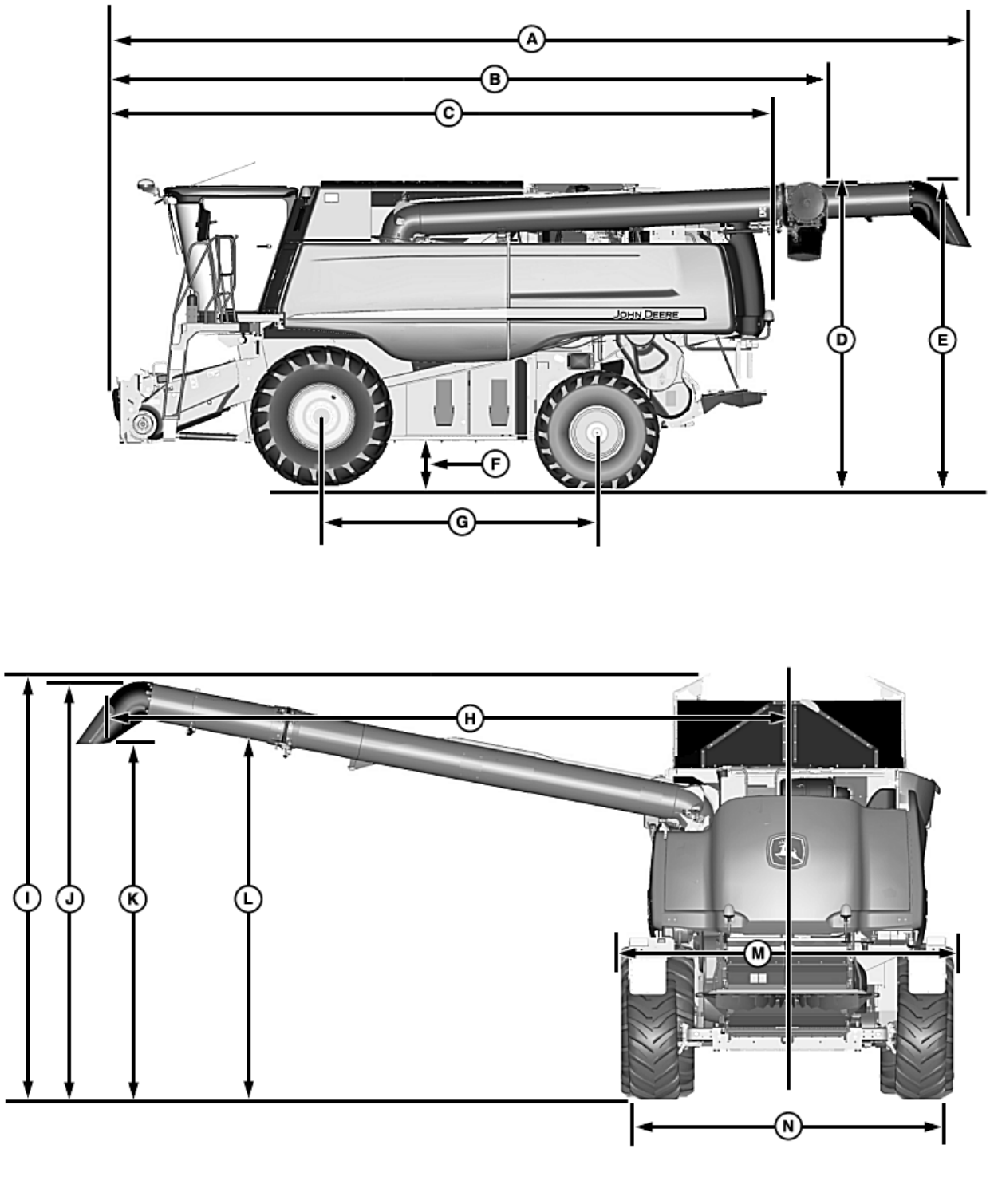
NOTE: Dimensions are approximate and subject to change without notice.

Dimension	800/65R32 Front Tires 500/85R24 Rear Tires	710/70R38 Front Tires 500/85R24 Rear Tires
A	10.99 m w/ 6.86 m Unloading Auger	10.99 m w/ 6.86 m Unloading Auger
B	9.10 m w/ 6.86 m Unloading Auger	9.10 m w/ 6.86 m Unloading Auger
C	8.48 m	8.48 m
D	4.04 m [a]	4.03 m [a]
E	4.10 m [a]	4.07 m [a]
F	0.45 m	0.53 m
G	3.52 m	3.52 m
H	7.67 m	7.67 m
I	5.04 m	5.09 m
J	5.17 m	5.27 m
K	4.47 m	4.56 m
L	4.53 m [b]	4.62 m [b]
M	3.49 m — 3.75 m [c] Front Tires	
N	3.41 m — 3.75 m [c] Rear Tires	

[a] Top of unloading auger.
[b] Dimension is measured 1.22 m (4 ft.) from the grain spill point. This represents the unloading auger when centered over the grain cart.
[c] Due to different tire configurations, row spacings, axle configurations, wheel offsets, axle positions and spindles types, machine widths will vary. Measurements given in chart are for minimum and maximum widths. For more detailed width information, see your John Deere dealer.

OUO6075,00001A0 -19-14JUL08-1/1

Dimension Reference Points



OUO6075,0000296 -19-21JAN09-1/1

Whole Body Vibration

The weighted root mean square acceleration to which the whole body is subjected to ranges from 0.51 to 0.73 m/s^2 as measured on a representative machine during typical operations and analyzed in accordance with ISO 2631. During the same operations, the weighted root means square hand-arm vibration was less than 2.5 m/s^2 when analyzed in accordance with ISO 5349. These acceleration values depend on the roughness of the ground, the speeds at which the combine is operated, the operator's experience, weight and driving habits.

OUO6075,0000929 -19-14MAR07-1/1

Sound Level

The A-weight sound pressure levels inside the operator's station ranged from 74.3 — 76.2 dB(A) as measured on several representative machines in accordance with ISO 5131. The sound pressure level depends upon the engine speed and load, separator settings, field and crop conditions and the type of platform used.

OUO6075,000092A -19-14MAR07-1/1

Safety Note Regarding the Subsequent Installation of Electrical and Electronic Appliances and/or Components

The machine is equipped with electronic components whose function may be influenced by electromagnetic radiation from other appliances. Such influences may be hazardous, so take the following safety instructions into account:

If electrical and electronic appliances are subsequently installed on the machine and connected to the on board system, the user must verify whether the installation affects the electronics or other components. This applies particularly to:

- Area counter
- Personal Computer
- GPS (Global Positioning System) receiver

In particular, subsequently installed electrical/electronic components must comply with the relevant edition of EMC Directive 89/336/EEC, and be CE marked.

If mobile communication systems (e.g. radio communication, telephone) are to be installed subsequently, the following extra requirements must be met:

- Only devices with an approval complying with the valid national regulation (i.e. BZT approval in Germany) shall be installed;
- The device shall be installed securely;
- Portable or mobile devices may be operated in the vehicle only if connected to a fixed outside antenna;
- Transmitters shall be installed separately from the vehicle's electronics;
- The antenna must be installed in a professional manner, with a good ground connection between the antenna and the vehicle ground.

Wiring, installation and maximum permissible current supply must be as stated in the installation instructions of the machine manufacturer.

OUO6075,000092B -19-14MAR07-1/1

EC Declaration of Conformity

Deere & Company
Moline, Illinois U.S.A.

The person named below declares that

Machine type: Combine

Model: S690

fulfills all relevant provisions and essential requirements of the following directives:

Directive	Number	Certification Method
Machinery Directive	2006/42/EC	Self certified, per Annex V of the Directive
Electromagnetic Compatibility Directive	2004/108/EC	Self certified, per Annex II of the Directive

Name and address of the person in the community authorized to compile the technical construction file:

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Place of declaration: East Moline, Illinois, USA

Date of declaration: November 1, 2009

Manufacturing unit: John Deere Harvester Works

Name: Don Yarbrough

Title: Global Director, Crop Harvesting Platform Engineering

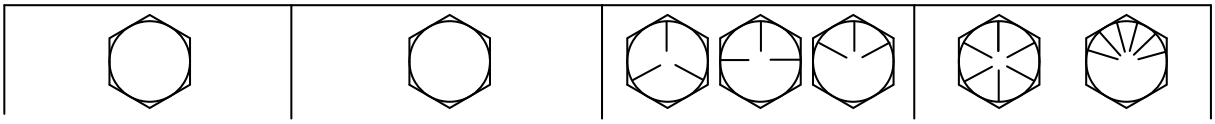
CE

DXCE01—UN—28APR09

OUO6075,0000396 -19-02NOV09-1/1

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.

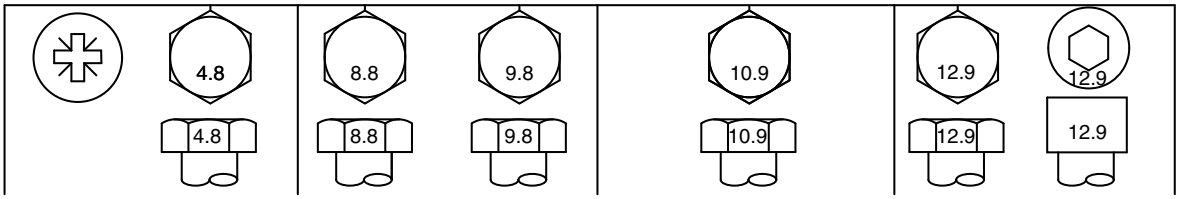
[b] "Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or 7/8 in. and larger fasteners with JDM F13C zinc flake coating.

[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 -19-08DEC09-1/1

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 -19-08DEC09-1/1

Machine Identification Numbers

Identification Plates

Serial numbers identifying machine harvester components or assemblies are stamped on components or factory serial number plates.

These numbers and letters are required when ordering parts or components for the machine.

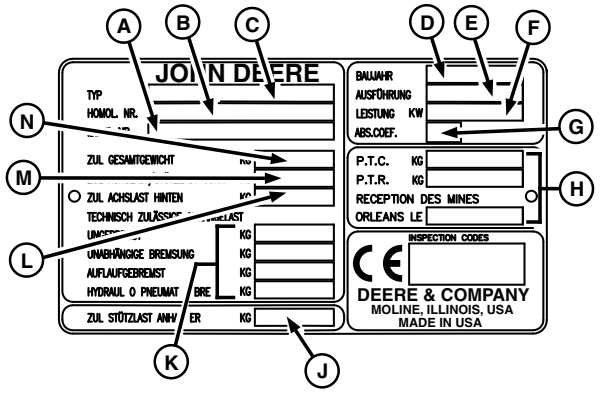
To ensure that you always have these numbers at hand, enter the appropriate serial numbers in the spaces provided in each illustration.

OUO6075,0000B2F -19-14MAR07-1/1

Machine Identification Plate

Located on right-hand side of cab handrail landing.

A—Product Identification Number
B—Homologation Number (Certain Countries)
C—Model
D—Year of Production
E—Version (Certain Countries)
F—Engine Power
G—Absorption Coefficient
H—French Homologation Purpose
J—Permissible Drawbar Load
K—Permissible Trailer Load
L—Permissible Rear Axle Load
M—Permissible Front Axle Load
N—Permissible Total Weight

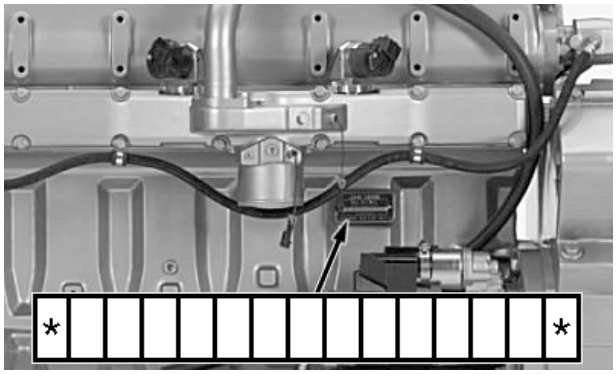


H70120 —UN—16OCT01

OUO6075,0000B2E -19-14MAR07-1/1

Engine Serial Number

Located on front side of engine above starter.

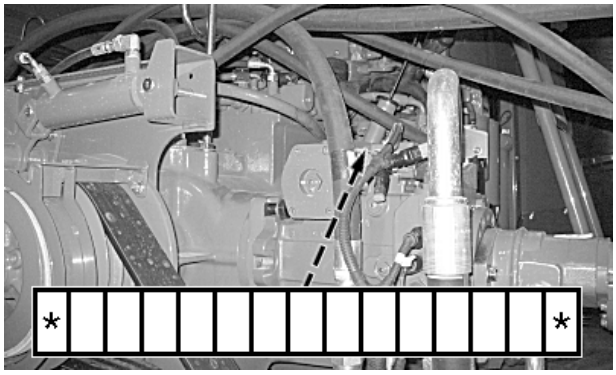


H87631 —UN—14MAR07

OUO6075,0000B32 -19-23APR07-1/1

Hydrostatic Drive Unit Pump

Located on top of hydrostatic drive pump.

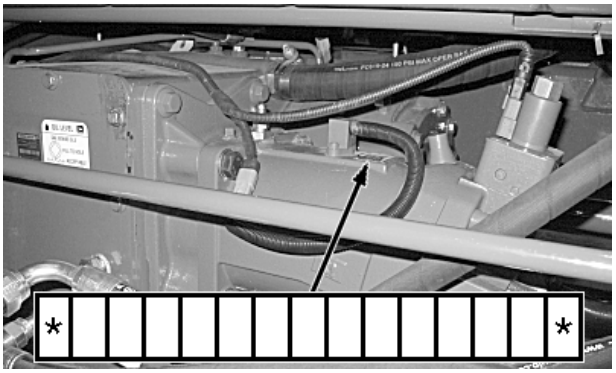


H91333 —UN—28APR08

OUO6075,00000E1 -19-28APR08-1/1

Hydrostatic Drive Unit Motor

Located on top side of hydrostatic drive motor.

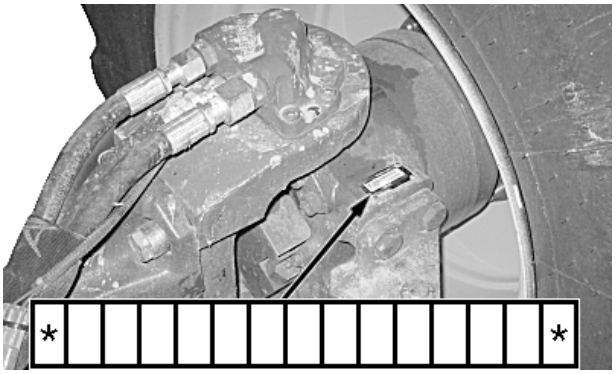


H91334 —UN—28APR08

OUO6075,00000E2 -19-29APR08-1/1

Two Speed Four Wheel Drive Motor

Located on top side of four wheel drive motor.

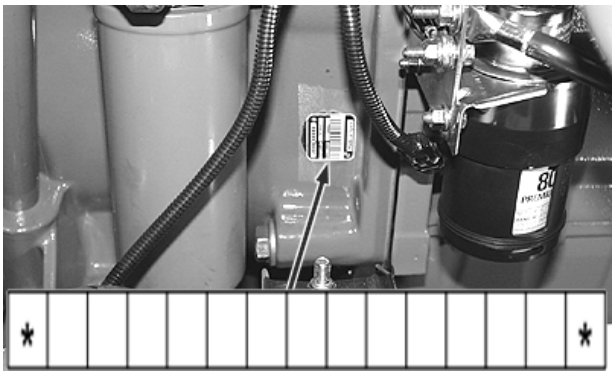


H94154 —UN—01JUN09

OUO6075,0000385 -19-01JUN09-1/1

Engine Gearcase

Located on rear side of engine gearcase.

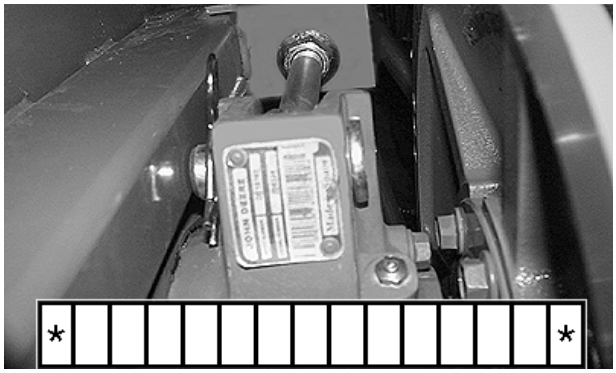


H55688 —UN—22APR99

OUO6075,000086B -19-13AUG07-1/1

Rotor Drive Gearcase

Located on left-hand side of rotor drive gearcase.

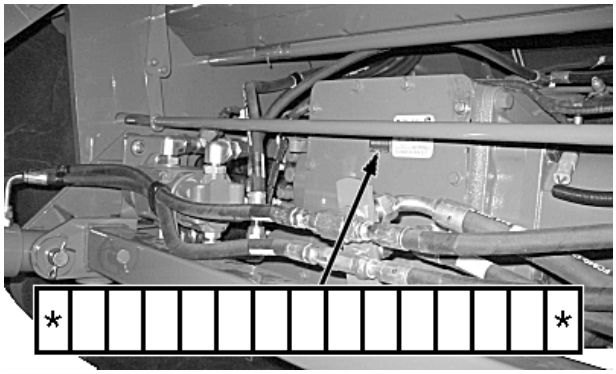


H74641 —UN—07JAN03

OUO6075,000086C -19-13AUG07-1/1

Transmission

Located on front of transmission.

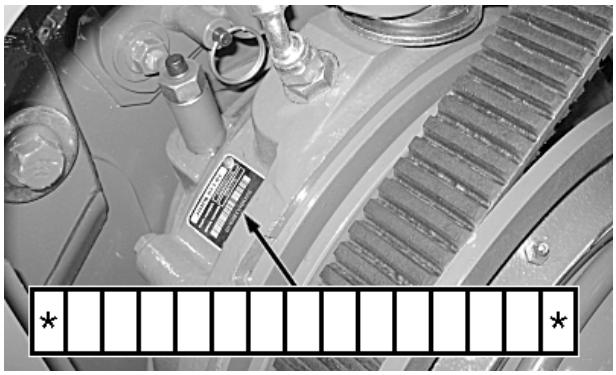


H91337 —UN—28APR08

OUO6075,00000E4 -19-28APR08-1/1

Feeder House Reverser

Located on top side of feeder house reverser.

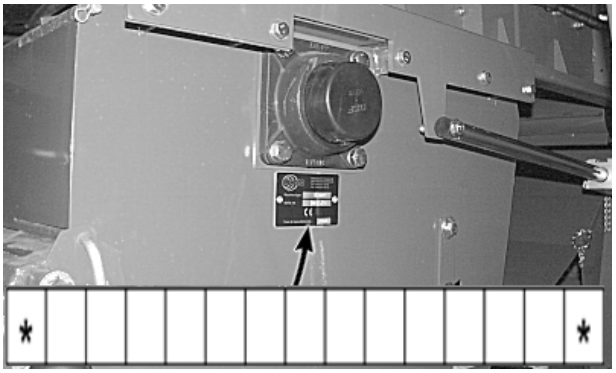


H88117 —UN—01MAY07

OUO6075,000086E -19-01MAY07-1/1

Chopper (Premium Model)

Located on right-hand side of chopper.



H84819 —UN—27OCT05

OUO6075,0000B7F -19-25APR07-1/1

Keep Proof of Ownership

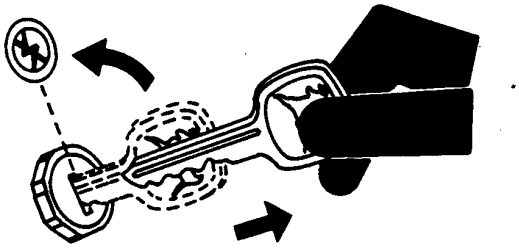
1. Maintain in a secure location an up-to-date inventory of all product and component serial numbers.
2. Regularly verify that identification plates have not been removed. Report any evidence of tampering to law enforcement agencies and order duplicate plates.
3. Other steps you can take:
   - Mark your 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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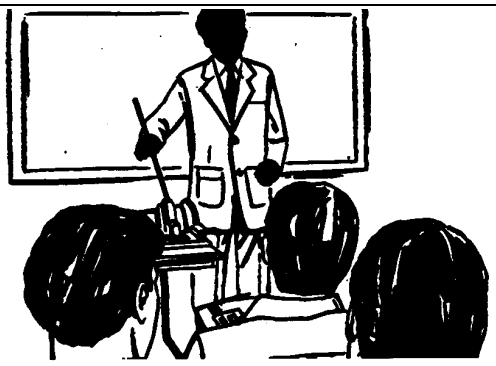

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