

4LZ-9 (C120) Full-Feeder Combine 4YL-6 (C120) Corn Combine

(Serial No. 020000 -)



JOHN DEERE

OPERATOR'S MANUAL

4LZ-9 (C120) Full-Feeder Combine 4YL-6 (C120) Corn Combine

OMDX17079 ISSUE K2 (ENGLISH)

CALIFORNIA

Proposition 65 Warning

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

If this product contains a gasoline engine:

WARNING

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

The State of California requires the above two warnings.

John Deere (Jiamusi) Agricultural Machinery Co.,
Ltd
PRINTED IN U.S.A.

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 in the direction of forward travel.

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

WARRANTY is provided as part of John Deere's

support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate or statement which you should have received from your dealer.

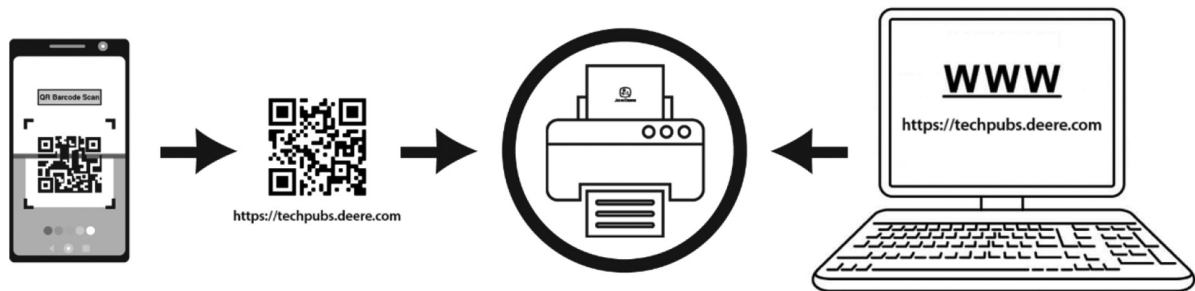
This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused,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

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

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

DX,IFC1-19-03APR09

Download Instructions



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How to Search Service Part Information

Service part information can be available by the following two ways:

Parts Catalog Website



A—Search Area

1. Navigate to <https://partscatalog.deere.com/jdrc/> to access the website.
2. Input the product identification number (PIN), model, part number, or equipment in the search area (A).

NOTE: It is recommend to use PIN for searching. Using model, part number, or equipment causes multiple results.

3. Click on the search icon to enter the search result page.

John Deere Official WeChat Public Platform (only for China)



QR Code of John Deere

1. Scan QR Code and access John Deere official WeChat public platform.



Step 1



Step 2



Step 3

2. Follow the step 1, 2, and 3 and click the icons to access the parts catalog website.



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A—Search Area

3. Input the product identification number (PIN), model, part number, or equipment in the search area (A).

NOTE: It is recommend to use PIN for searching. Using model, part number, or equipment causes multiple results.

4. Click on the search icon to enter the search result page.

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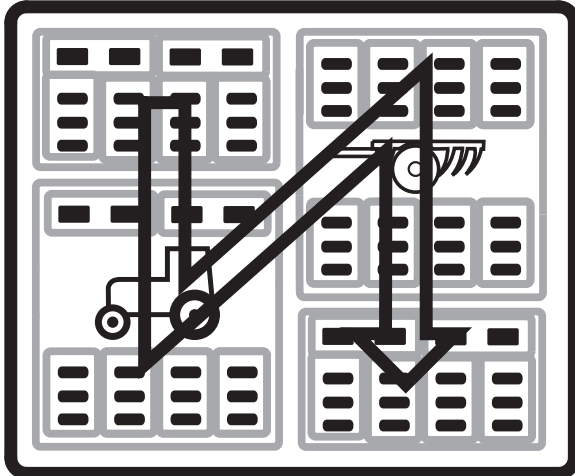
General Information

A Message to Our Customers

We appreciate the confidence placed in us by the purchase of this machine. To ensure that the machine performs at the highest level, countless hours were spent designing and testing, before this machine was produced. To achieve the maximum performance, it is imperative that this machine is operated in accordance with the procedures outlined in this manual.

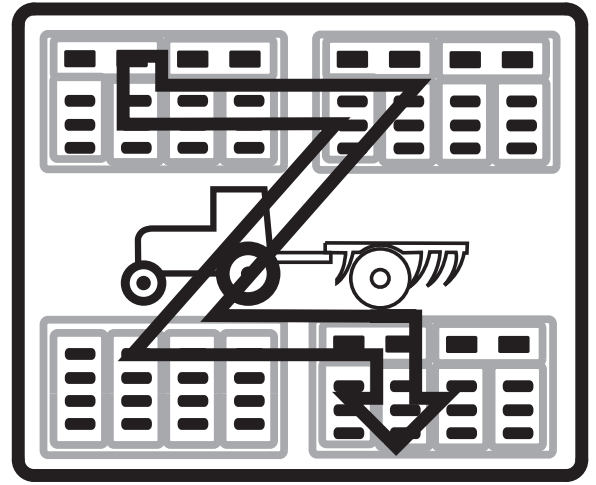
Information in this manual is divided into sections. The section names are identified in the table of contents and at the top of each page. Each section has a unique number and page count. Specific information within each section is organized into topics identified with bold headings.

The topic headings are listed in the table of contents with the section number and page number where the topic begins. Topics and information related to each topic are also referenced in the index along with the section and page number.



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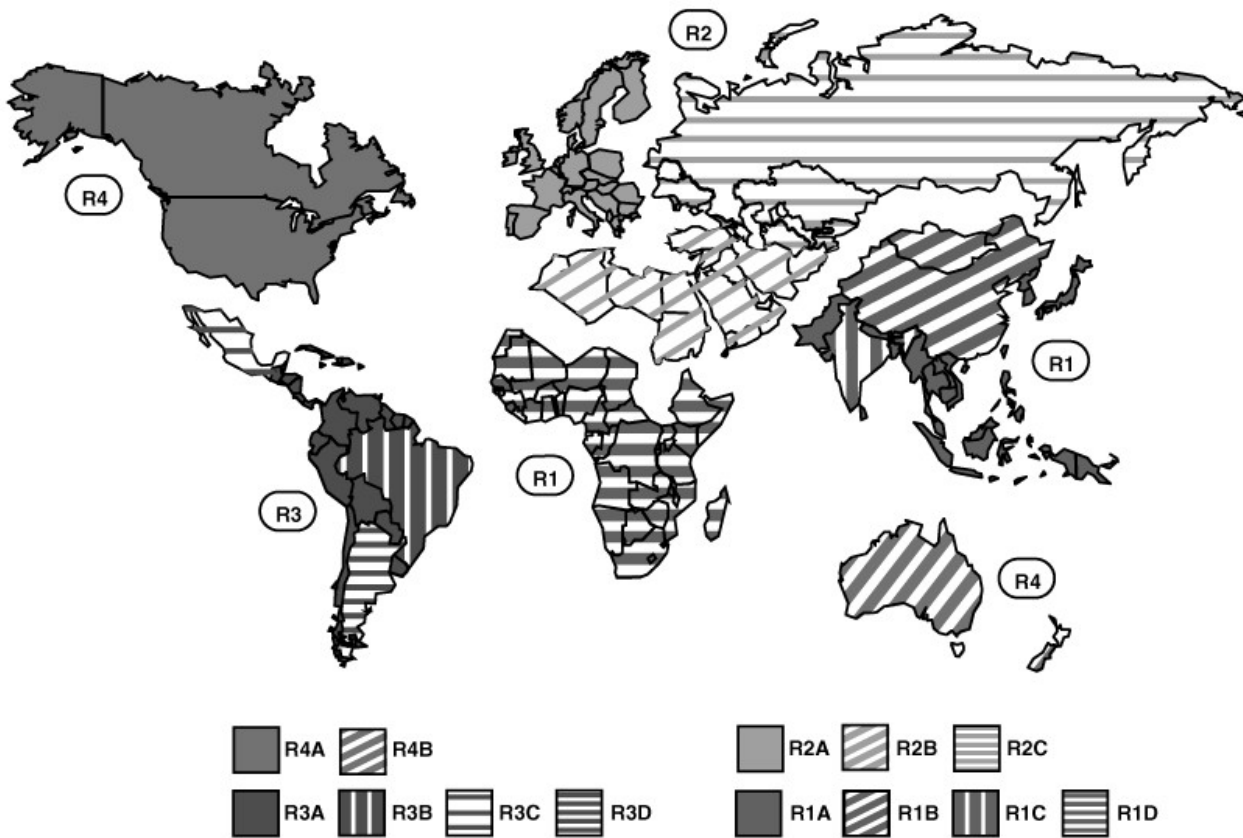
The flow can divide both before and after the images and tables that span the width of a page.

Review this manual often to learn where to look for information.

Thanks again for purchasing this machine.

CP00834,0008B7D-19-18MAR21

Regions and Country Versions



RXA0150915—UN—01FEB16

R1—Asia and Sub-Saharan Africa

R1A—Far East, Sri Lanka and Pakistan

R1B—China

R1C—India

R1D—Sub-Saharan Africa

R2—Europe, North Africa, Mid East, CIS

R2A—European Union (EU 28+)

R2B—North Africa and North Middle East (NANME)

R2C—Commonwealth of Independent States (CIS)

R3—Central and South America

R3A—Latin America (JDLA)

R3B—Brazil

R3C—Mexico

R3D—Argentina

R4—North America

R4A—USA and Canada

R4B—Oceania (Australia and New Zealand)

Regions 1, 2, and 3 equipment is traditionally manufactured with Economic Commission for Europe (ECE) features or systems.

Region 4 equipment is traditionally manufactured with Society of Automotive Engineers (SAE) features or systems.

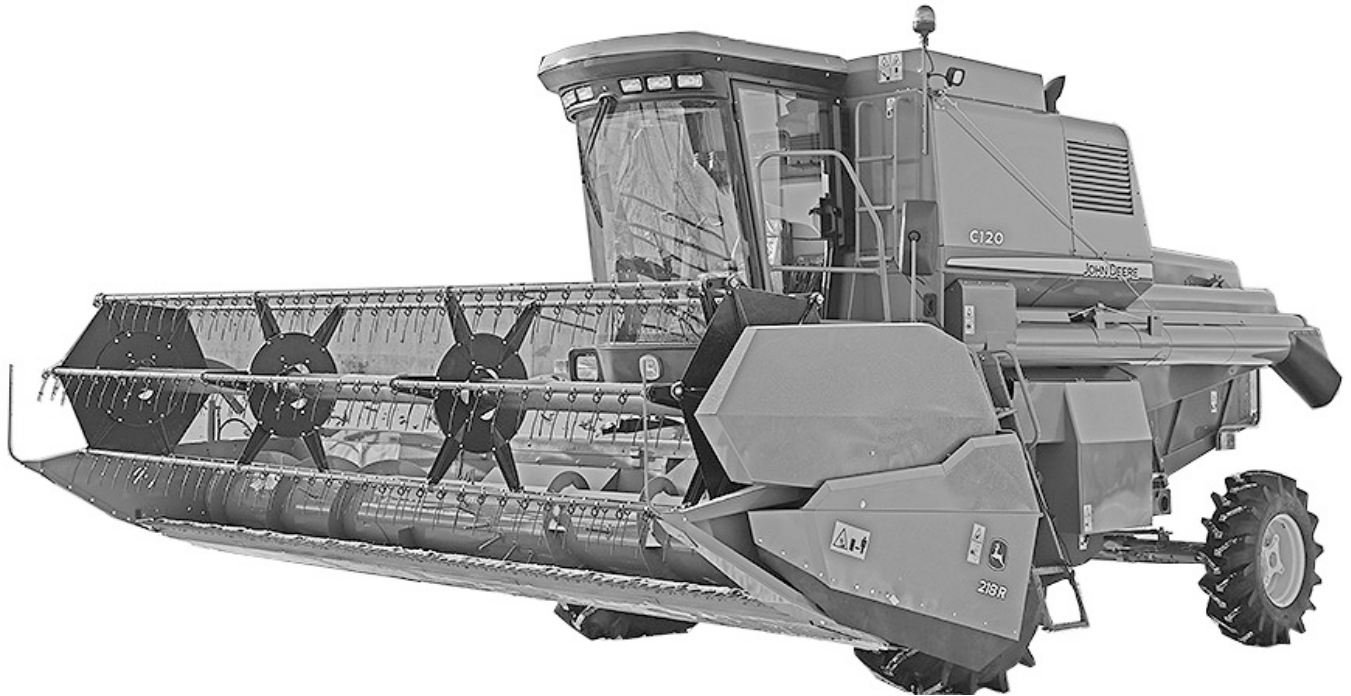
Drive and signal lighting, traffic signs, safety signs, and braking features are some of the systems that differ between ECE and SAE. For example, Text-Free (pictorial only) safety signs are used for ECE while Text-with-Picture safety signs are used on SAE.

Use information above, if equipment information is identified by regions, countries, trade federations, industry standards, or governmental regulations.

NOTE: Australia and New Zealand (R4B) are available as either region 4 and/or region 2 configurations, only using text-free safety signs.

CP00834,0008B7F-19-18MAR21

Identification View



Identification View (with Cutting Platform)

YC21250—UN—28NOV22

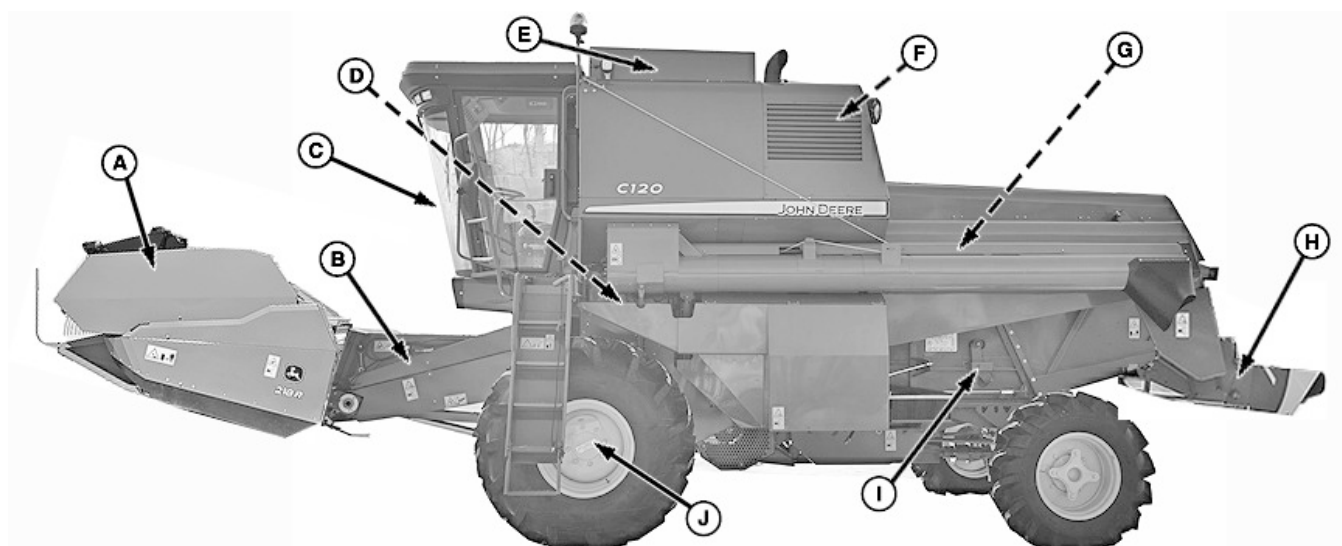


Identification View (with Corn Header)

YC21251—UN—28NOV22

cp00834,1668921618959-19-19NOV22

Machine Overview



YC21252—UN—28NOV22

A—Header
B—Feeder House
C—Cab
D—Threshing System
E—Grain Tank

F—Engine
G—Separating System
H—Straw Chopper
I—Cleaning System
J—Front Axle

The combine performs the following basic crop harvesting functions:

- Cutting
- Feeding
- Threshing and Separating
- Cleaning
- Handling
- Residue Disposal
- Engine
- Drive System

Cutting the Crops

The header is used to cut or gather the crops. The machine can be equipped with a cutting platform or corn header.

The following operations are performed in the cab:

- Header engagement/disengagement
- Reel raise/lower operation
- Header raise/lower operation
- Reel speed adjustment

Refer to the header operator's manual for the maintenance.

Feeding the Crops

The feeder house takes the material from the header and feeds it to the threshing cylinder.

The following adjustments and maintenance are included in this manual:

- Floating drum adjustment
- Conveyor chain tension adjustment
- Clean feeder house blockage

Threshing and Separating the Crops

Up to 90 percent of the grain is separated from its stem, cob, or pod as it passes between the threshing cylinder and the concave. The remaining loose grain is separated by the separator.

The following operations are included in this manual:

- Separator engagement/disengagement
- Threshing speed adjustment
- Concave clearance adjustment
- Threshing cylinder speed reduction gear operation (Option)
- Separator speed adjustment

The following adjustments and maintenance are included in this manual:

- Concave clearance basic setting
- Dump the stone trap
- Clean threshing unit
- Clean separating unit

Cleaning the Crops

After the crop is threshed and separated, the grain and chaff are delivered to the cleaning area.

The following operations are included in this manual:

- Cleaning fan speed adjustment
- Air deflector adjustment
- Chaffer/sieve/chaffer extension opening adjustment

The following maintenance is included in this manual:

- Replacement of rubber sleeves

Handling the Crops

Handling the crop means moving the threshed, separated, and cleaned crop from the cleaning shoe to the grain tank. However, rethreshing of the tailings is another phase of the grain handling.

The following operations are included in this manual:

- Unloading auger engagement/disengagement
- Unloading auger swing operation
- Unloading speed adjustment

The following adjustments and maintenance are included in this manual:

- Elevator conveyor chain tension adjustment
- Clean elevator
- Clean lower grain/tailing auger

Residue Disposal

Straw and chaff exiting the separating and cleaning areas can be chopped or spread evenly across the field or even windrowed for baling.

The following operations are included in this manual:

- Chopped straw length adjustment
- Deflector position adjustment
- Vanes on the deflector adjustment

The following adjustments and maintenance are included in this manual:

- Straw chopper rotary blades replacement
- Straw chopper stationary blades replacement

Engine

The following operations are included in this manual:

- Start the engine
- Stop the engine
- Use booster battery or charger

The following adjustments and maintenance are included in this manual:

- Bleed fuel system
- Clean air filter elements
- Clean radiator and rotary screen
- Drain water from the primary fuel filter
- Drain water and sediment from the fuel tank

Drive System

The following operations are included in this manual:

- Drive the machine
- Stop the machine

The following adjustments and maintenance are included in this manual:

- Gearshift control cable adjustment
- Service brake adjustment
- Park brake adjustment

cp00834,1668921627239-19-19NOV22

How to Use This Manual

This manual is designed to assist in the operations and maintenance of the machine.

- **Section 00**—Include some general information.
- **Sections 05A—05B**—Include some safety precautions. Read the safety precautions carefully and follow the safety decals before performing any operations and maintenance.
- **Sections 10—20, 40—90**—Include all the harvesting system operations.
- **Sections 25**—Include break-in period service of engine and machine.
- **Sections 100—140**—Include machine storage and transportation, fuel and oil, and fire prevention.
- **Sections 200—200L**—Include the regular lubrication and maintenance of the harvesting system.
- **Sections 220—280**—Include the required maintenance of the harvesting system.
- **Sections 300—400A**—Include troubleshooting, specifications, and identification numbers.

cp00834,1668921759181-19-21NOV22

Safety Precautions

Recognize Safety Information



T81389—UN—28JUN13

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

Follow recommended precautions and safe operating practices.

DX,ALERT-19-03OCT22

Understand Signal Words



▲ WARNING

▲ CAUTION

TS187—19—30SEP88

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

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

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

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

DX,SIGNAL-19-05OCT16

Follow Safety Instructions



TS201—UN—15APR13

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

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

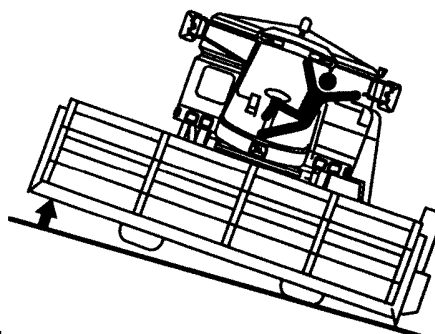
Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

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

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

DX,READ-19-01AUG22

Driving the Machine



ZX002461

ZX002461—UN—16JUN95

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.

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

Operator Ability

- Machine owners must make sure that operators are responsible, trained, have read the operating instructions and warnings, and know how to operate the machine properly and safely.
- Age, physical ability, and mental capacity can be factors in machine-related injuries. Operators must be mentally and physically capable of accessing the operator station and/or controls, and operating the machine properly and safely.
- Never allow a child or an untrained person to operate the machine. Instruct all operators not to give children a ride on the machine or an attachment.
- Never operate machine when distracted, fatigued, or impaired. Proper machine operation requires the operator's full attention and awareness.

DX,ABILITY-19-07DEC18

Observe Road Traffic Regulations

Always observe local road traffic regulations when using public roads.

OUO6075,0000032-19-22JAN01

Check Machine Safety

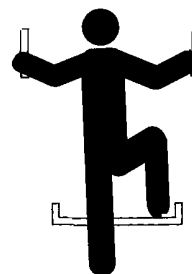
Always check the road and general operating safety of the machine before using.

FX,READY-19-28FEB91

Use Handholds and Steps



T6981AN—UN—15JUN89



T133468—UN—15APR13

Falling is a major cause of personal injury.

Prevent falls by facing the machine when getting on and off.

When you get on and off the machine, maintain a 3-point contact with the steps, handholds, and handrails and face the machine. Unfold and use the handrail whenever you climb on top of the engine deck.

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

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

OUO6075,0004E97-19-17JUN20

Keep Riders and Children Off Machine



TS253—UN—23AUG88

Only allow the operator on the machine. Keep riders off

the machine except for periods of training or short periods of observation.

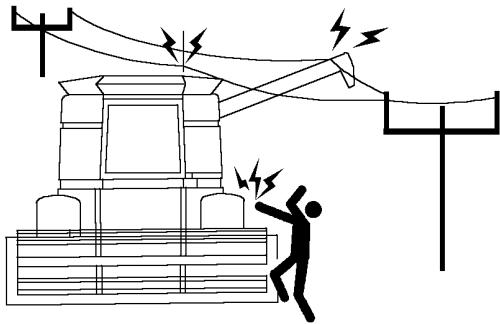
Riders are subject to injury such as being thrown off the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

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.

HX,AG,SF6904-19-22,JUL99

Avoid Electrical Power Lines



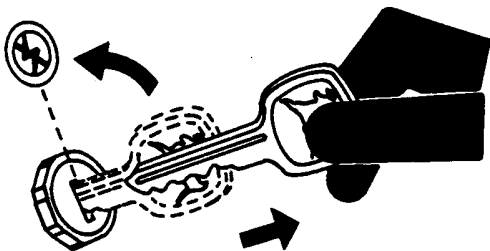
H52022—UN—14APR99

Put the grain tank unloading auger in transport position and close the grain tank covers before driving on public roads.

Avoid to contact with low-hanging electrical cables. This would result in the operator suffering a severe electrical shock.

CP00834,0008B83-19-19MAR21

Parking and Leaving the Machine



TS230—UN—24MAY89

Lower the header to the ground.

Before leaving the machine, disengage the header and separator. For the machine with hydrostatic drive, move

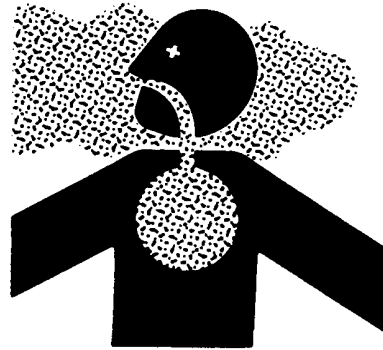
the hydrostatic drive lever to the neutral position. Shut off engine, apply the park brake, remove key, and lock the operator's cab.

Never leave the machine unattended if the engine is running.

Never leave the operator's cab when driving.

CP00834,0008B84-19-19MAR21

Work In Ventilated Area



TS220—UN—15APR13

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

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

DX,AIR-19-17FEB99

Handle Fuel Safely—Avoid Fires



TS202—UN—23AUG88

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

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

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

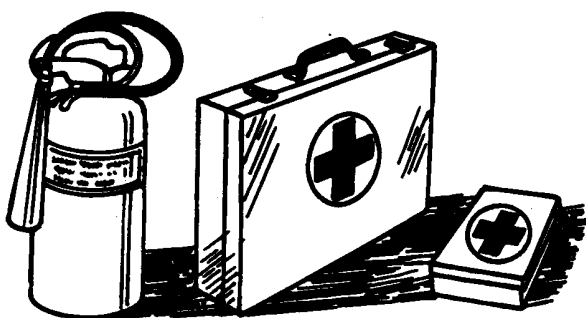
Use only an approved fuel container for transporting flammable liquids.

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

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

DX,FIRE1-19-12OCT11

Prepare for Emergencies



TS291—UN—15APR13

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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

DX,FIRE2-19-03MAR93

In Case of Fire



TS227—UN—15APR13



CAUTION: Avoid personal injury.

Stop machine immediately at the first sign of fire. Fire may be identified by the smell of smoke or sight of flames. Because fire grows and spreads rapidly, get off

the machine immediately and move safely away from the fire. Do not return to the machine! The number one priority is safety.

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

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

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

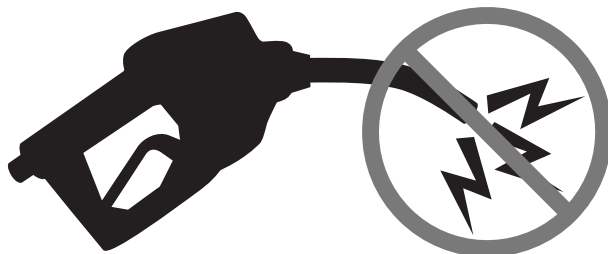
1. Pull the pin. Hold the extinguisher with the nozzle pointing away from you, and release the locking mechanism.
2. Aim low. Point the extinguisher at the base of the fire.
3. Squeeze the lever slowly and evenly.
4. Sweep the nozzle from side-to-side.

DX,FIRE4-19-22AUG13

Avoid Static Electricity Risk When Refueling



RG22142—UN—17MAR14



RG21992—UN—21AUG13

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

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

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

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

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

Stay Clear of Harvesting Units



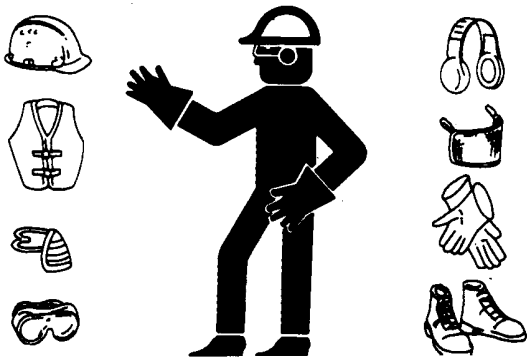
ES 118 704

ES118704—UN—21MAR95

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 brake and remove key before servicing or unclogging machine.

OOU6075,00009E5-19-28SEP10

Wear Protective Clothing



TS206—UN—15APR13

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

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

DX,WEAR2-19-03MAR93

Keep Hands Away From Knives



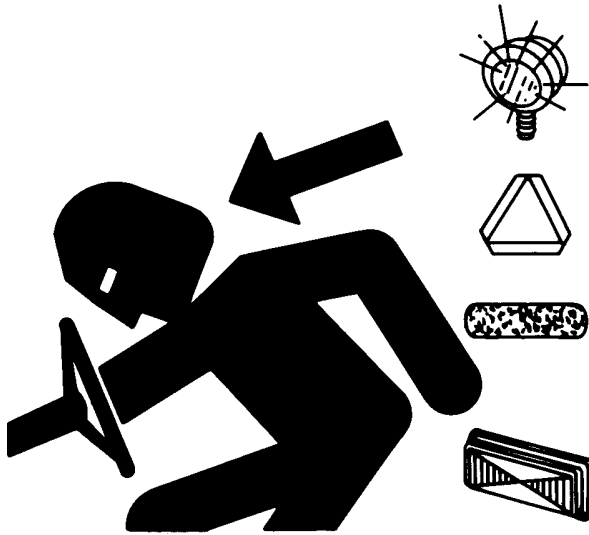
TS254—UN—23AUG88

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

Everyone must be clear of machine before starting engine.

OOU6075,00009E6-19-28SEP10

Use Safety Lights and Devices



TS951—UN—12APR90

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

Use headlights, flashing warning lights, and turn signals day and night. Follow local regulations for equipment lighting and marking. Keep lighting and marking visible, clean and in good working order. Replace or repair lighting and marking that has been damaged or lost.

HX,STSSA,O-19-22JUL99

Use Seat Belts

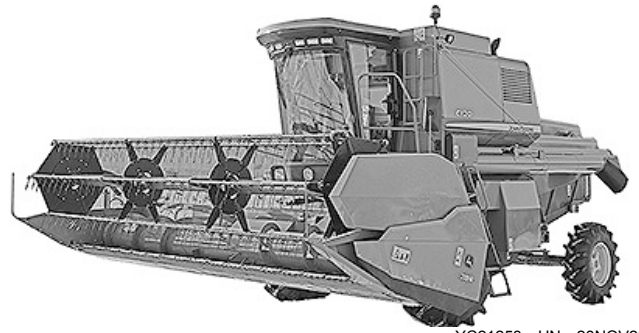


TS1730—UN—24MAY13

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

OOU6075,0004E96-19-17JUN20

Transport Combine With Header Safely



YC21253—UN—28NOV22

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

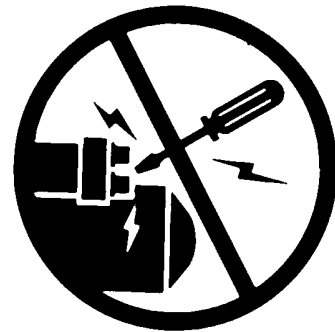
If the combine must be transported with the header attached, make sure that the hazard warning lights are operating.

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.

cp00834,1668923012734-19-19NOV22

Prevent Machine Runaway or Unexpected Movement



H58737—UN—08JUL99

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.

AG,OOU1035,792-19-08JUL99

Practice Safe Maintenance



TS218—UN—23AUG88

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

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

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

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

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

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

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

DX,SERV-19-28FEB17

Welding Near Electronic Control Units



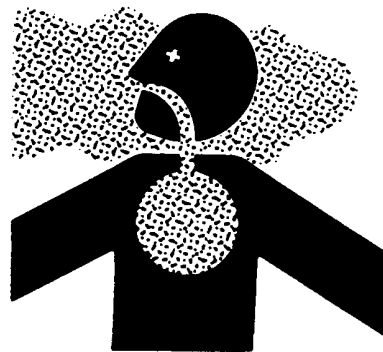
TS953—UN—15MAY90

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.
6. After welding, reverse Steps 1—5.

DX,WW,ECU02-19-14AUG09

Remove Paint Before Welding or Heating



TS220—UN—15APR13

Avoid potentially toxic fumes and dust.

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

Remove paint before heating:

- Remove paint a minimum of 100 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.

Safety Precautions

- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

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

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

Dispose of paint and solvent properly.

DX, PAINT-19-24JUL02

Avoid Heating Near Pressurized Fluid Lines



TS953—UN—15MAY90

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

DX, TORCH-19-10DEC04

Avoid Contact With Moving Parts



TS256—UN—23AUG88

Keep hands, feet and clothing away from power driven

parts. Never clean, lubricate or adjust machine when it is running.

H01,9000SA,E-19-15JUN90

Cleaning Grain Tank and Removal of Blockages Safely



TS256—UN—23AUG88

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, set parking brake and remove the key.

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

OOU6043,00015E2-19-24MAY04

Stay Clear of Rotating Drivelines



TS1644—UN—22AUG95

Entanglement in rotating driveline can cause serious injury or death.

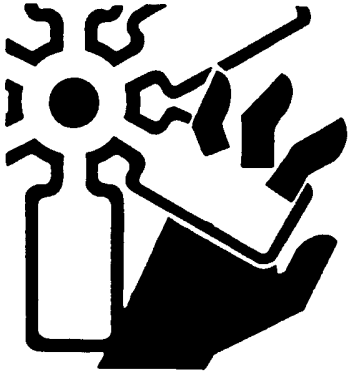
Keep all shields in place at all times. Make sure rotating shields turn freely.

Wear close-fitting clothing. Stop the engine and be sure that all rotating parts and drivelines are stopped before

making adjustments, connections, or performing any type of service on engine or machine driven equipment.

DX,ROTATING-19-18AUG09

Install All Shields and Guards



TS677—UN—21SEP89

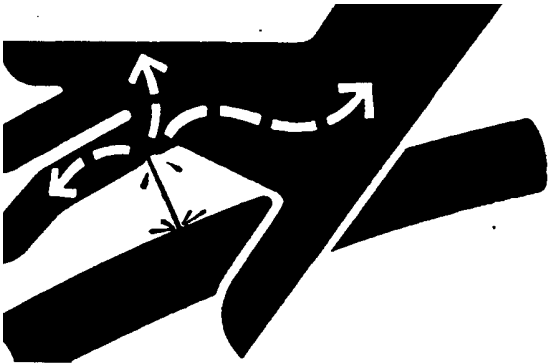
Rotating fans, belts, pulleys, and drives can cause serious injury.

Keep all shields and guards in place at all times during operation.

Wear close-fitting clothes. Stop the engine and be sure fans, belts, pulleys, and drives are stopped before making adjustments, connections, or cleaning near fans and their drive components.

OUO6075,0000C23-19-03MAY11

Avoid High-Pressure Fluids



X9811—UN—23AUG88

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

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

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

Avoid the hazard by relieving pressure before

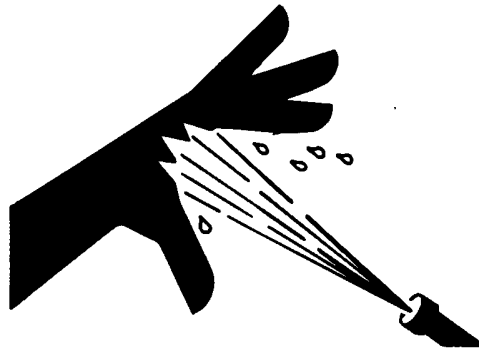
disconnecting hydraulic or other lines. Tighten all connections before applying pressure.

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

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

DX,FLUID-19-12OCT11

Do Not Open High-Pressure Fuel System



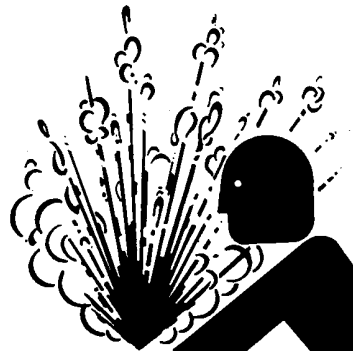
TS1343—UN—18MAR92

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

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

DX,WW,HPCR1-19-07JAN03

Service Accumulator Systems Safely



TS281—UN—15APR13

Escaping fluid or gas from systems with pressurized accumulators that are used in air conditioning,

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

Relieve pressure from the pressurized system before removing accumulator.

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

Accumulators cannot be repaired.

DX,WW,ACCLA2-19-22AUG03

Protect Against High Pressure Spray



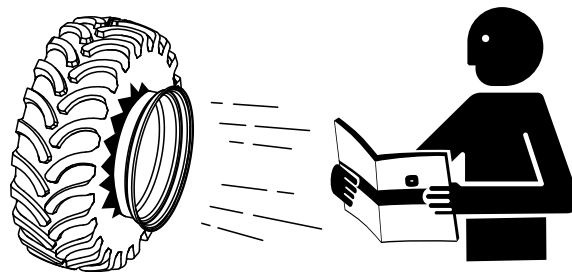
TS1343—UN—18MAR92

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.

DX,SPRAY-19-16APR92

Follow Tire Recommendations



H111235—UN—13MAY14

Keep your machine in proper working order.

Use only prescribed tire sizes with correct ratings and inflate to the pressure specified in this manual.

Use of other than prescribed tires may decrease stability, affect steering, result in premature tire failure, or cause other durability or safety issues.

DX,TIRE,INFO-19-19MAY14

Service Tires Safely



RXA0103438—UN—11JUN09

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

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

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

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

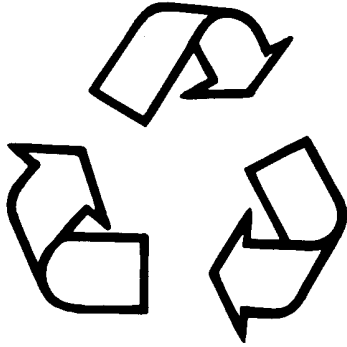
Check wheels for low pressure, cuts, bubbles, damaged rims, or missing lug bolts and nuts.

Wheels and tires are heavy. When handling wheels and

tires use a safe lifting device or get an assistant to help lift, install, or remove.

DX,WW,RIMS-19-28FEB17

Decommissioning — Proper Recycling and Disposal of Fluids and Components



TS1133—UN—15APR13

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

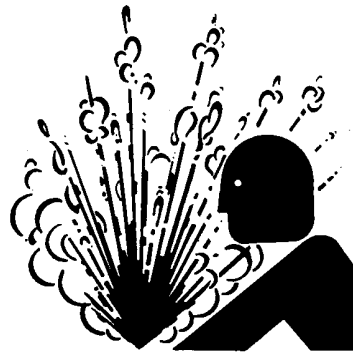
- Use appropriate tools and personal protective equipment such as clothing, gloves, face shields or glasses, during the removal or handling of objects and materials.
- Follow instructions for specialized components.
- Release stored energy by lowering suspended machine elements, relaxing springs, disconnecting the battery or other electrical power, and releasing pressure in hydraulic components, accumulators, and other similar systems.
- Minimize exposure to components which may have residue from agricultural chemicals, such as fertilizers and pesticides. Handle and dispose of these components appropriately.
- Carefully drain engines, fuel tanks, radiators, hydraulic cylinders, reservoirs, and lines before recycling components. Use leak-proof containers when draining fluids. Do not use food or beverage containers.
- Do not pour waste fluids onto the ground, down a drain, or into any water source.
- Observe all national, state, and local laws, regulations, or ordinances governing the handling or disposal of waste fluids (example: oil, fuel, coolant, brake fluid); filters; batteries; and, other substances or parts. Burning of flammable fluids or components in other than specially designed incinerators may be prohibited by law and could result in exposure to harmful fumes or ashes.
- Service and dispose of air conditioning systems appropriately. Government regulations may require a certified service center to recover and recycle air

conditioning refrigerants which could damage the atmosphere if allowed to escape.

- Evaluate recycling options for tires, metal, plastic, glass, rubber, and electronic components which may be recyclable, in part or completely.
- Contact your local environmental or recycling center, or your John Deere dealer for information on the proper way to recycle or dispose of waste.

DX,DRAIN-19-01JUN15

Service Cooling System Safely



TS281—UN—15APR13

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

Shut OFF engine, set park brake, and remove key.

NEVER add coolant when engine is overheated. Wait for it to cool.

NEVER remove surge tank cap when coolant or engine is hot. Wait until engine coolant is cool to remove cap.

SLOWLY loosen cap to relieve pressure before removing completely.

Add coolant only when engine is shut off.

OUC6075,0004E98-19-26JUN20

Remove Accumulated Crop Debris



TS227—UN—15APR13

The build up of chaff and crop debris in the engine

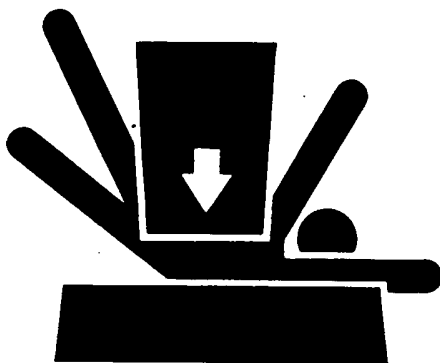
compartment, on the engine, and near moving parts is a fire hazard. Check and clean these areas frequently. Before performing any inspection or service, shut off the engine, set the parking brake and remove the key.

HX,9010SA,B-19-23AUG97

falling. Keep playing children and bystanders away from storage area.

DX,STORE-19-03MAR93

Support Machine Properly



TS229—UN—23AUG88

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

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

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

DX,LOWER-19-24FEB00

Store Attachments Safely

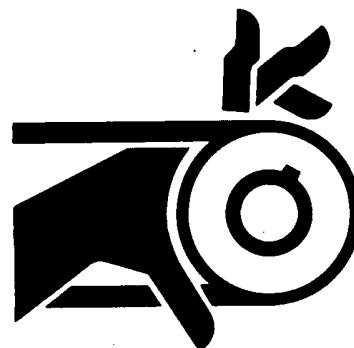


TS219—UN—23AUG88

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

Securely store attachments and implements to prevent

Service Drive Belts Safely



TS285—UN—23AUG88

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.

OUO6075.00026A4-19-06FEB03

Handle Electronic Components and Brackets Safely



TS249—UN—23AUG88

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

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

If installing or servicing a global positioning receiver

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

DX,WW,RECEIVER-19-24AUG10

Avoid Backover Accidents



PC10857XW—UN—15APR13

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

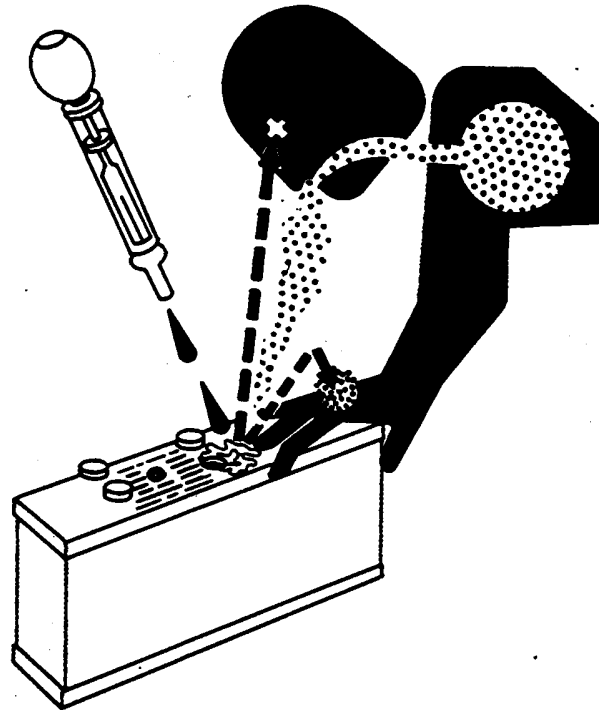
Do not rely on a camera to determine if personnel or obstacles are behind the machine. The system can be limited by many factors including maintenance practices, environmental conditions, and operating range.

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

Handling Batteries Safely



TS204—UN—15APR13



TS203—UN—23AUG88

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

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

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

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

Avoid hazards by:

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

If acid is spilled on skin or in eyes:

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

If acid is swallowed:

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

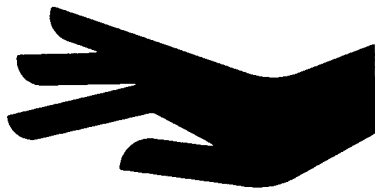
WARNING: Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. **Wash hands after handling.**

DX,WW,BATTERIES-19-02DEC10

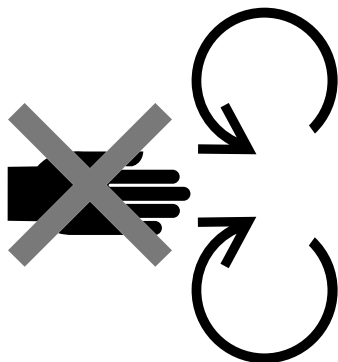
Clean Exhaust Filter Safely



TS227—UN—15APR13



TS271—UN—23AUG88



TS1693—UN—09DEC09

During exhaust filter cleaning operations, the engine may run at elevated idle and hot temperatures for an extended period of time. Exhaust gases and exhaust

filter components reach temperatures hot enough to burn people, or ignite or melt common materials.

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

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

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

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

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

Avoid contact with these components until cooled to safe temperatures.

If service procedure requires engine to be running:

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

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

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

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

OUC6075,0000E81-19-07FEB12

Avoid Hot Exhaust



RG17488—UN—21AUG09

Servicing machine or attachments with engine running can result in serious personal injury. Avoid exposure

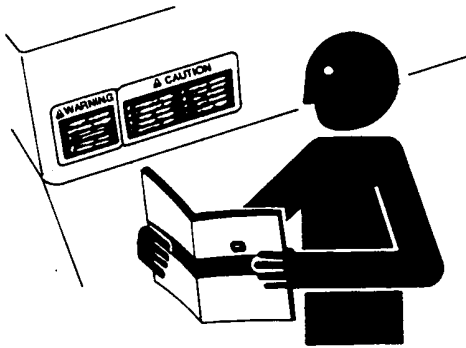
and skin contact with hot exhaust gases and components.

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

DX,EXHAUST-19-20AUG09

Safety Signs (for Export Market)

Replace Safety Signs



TS201—UN—15APR13

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

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

DX,SIGNS-19-18AUG09

Pictorial Safety Signs

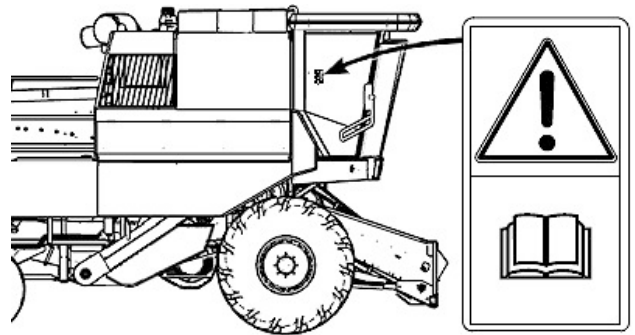


TS231—19—07OCT88

At several important places on this machine safety signs are affixed intended to signify potential hazards. 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.

OOU6075,0001163-19-19JUN12

Operator's Manual



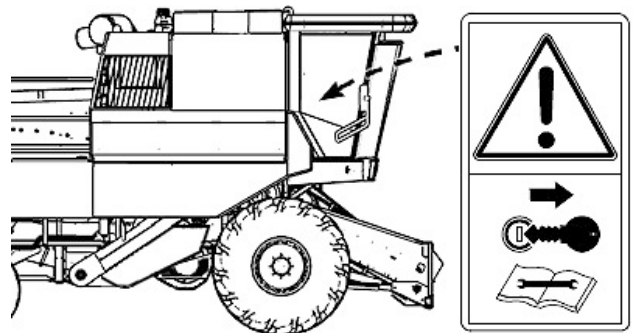
YC21255—UN—28NOV22

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

cp00834,1668991983756-19-20NOV22

Repair and Maintenance

NOTE: The safety decal is on the right-hand console in cab.

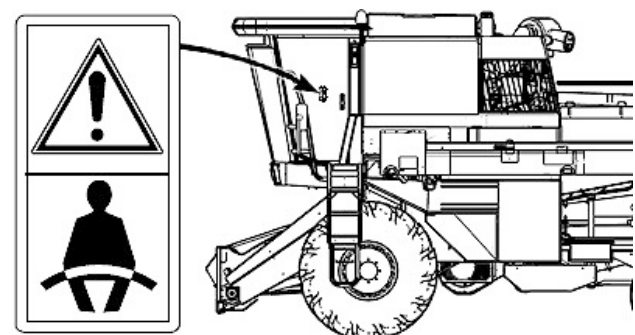


YC21256—UN—28NOV22

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.

cp00834,1668992413311-19-20NOV22

Seat Belt



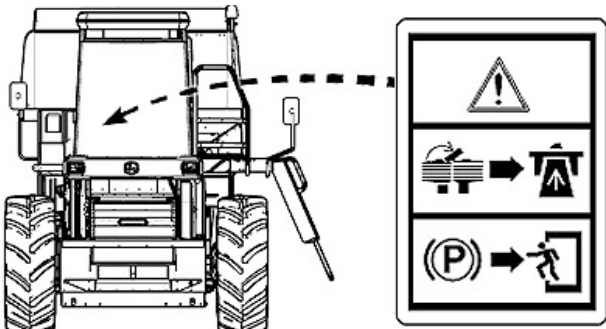
YC21254—UN—28NOV22

Use the seat belt whenever operating the machine.

cp00834,1668992073399-19-20NOV22

Park Brake

NOTE: The safety decal is on the right-hand console in cab.

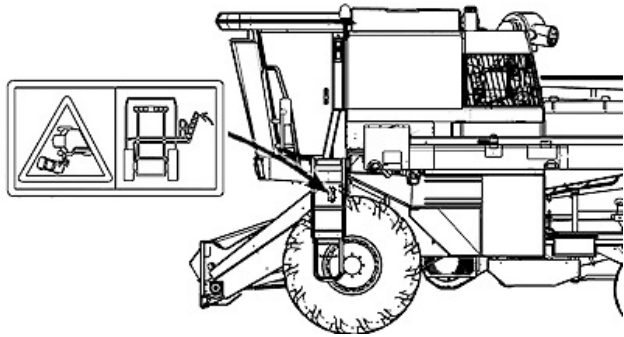


YC21257—UN—28NOV22

Lock service brakes together before driving on roadway. Set parking brake before leaving machine.

cp00834,1668993153296-19-20NOV22

Avoid Motor Vehicle Collisions

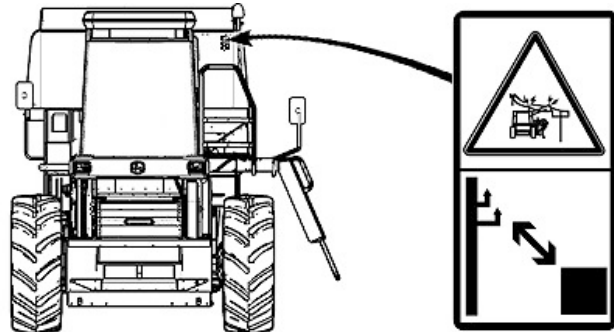


YC21260—UN—28NOV22

Avoid motor vehicle collision and serious injury or death. Always fold up ladder to the transport position before driving machine on roadway.

cp00834,1668993764625-19-20NOV22

Avoid Low Hanging Power Lines

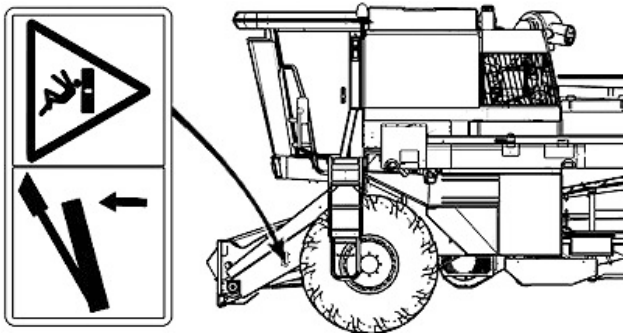


YC21258—UN—28NOV22

Avoid serious injury or death from electrocution. Do not contact electric lines. Keep the unloading auger in the transport position.

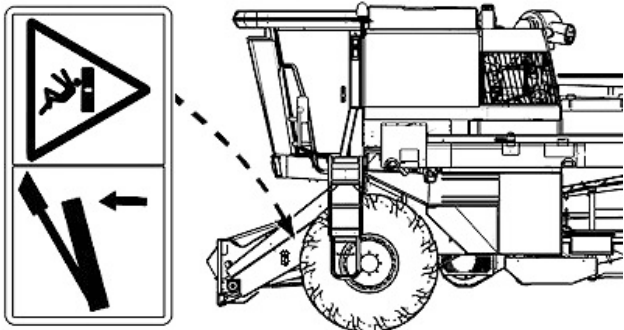
cp00834,1668993405121-19-20NOV22

Feeder House Safety Stop



YC21261—UN—28NOV22

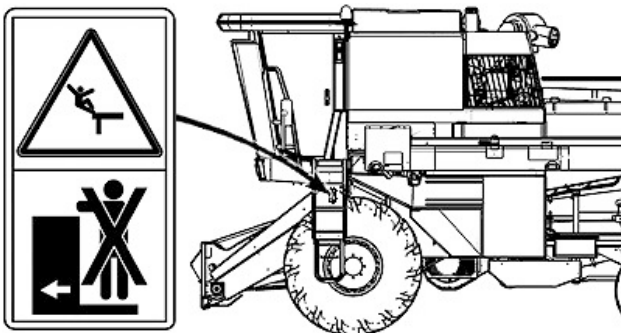
Safety Decal (left-hand side of the feeder house)



YC21262—UN—28NOV22

Safety Decal (left-hand side of the feeder house, inside of the shield)

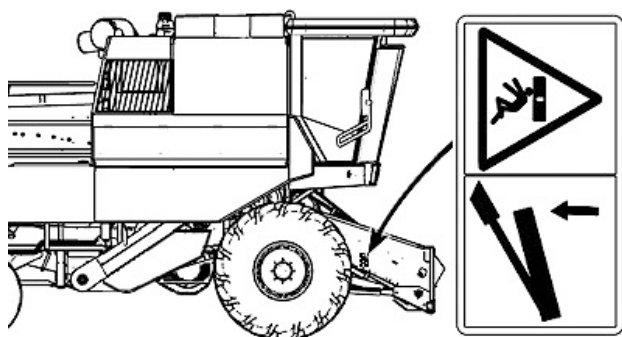
Cab/Platform Access Ladder



YC21259—UN—28NOV22

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

cp00834,1668993620720-19-20NOV22



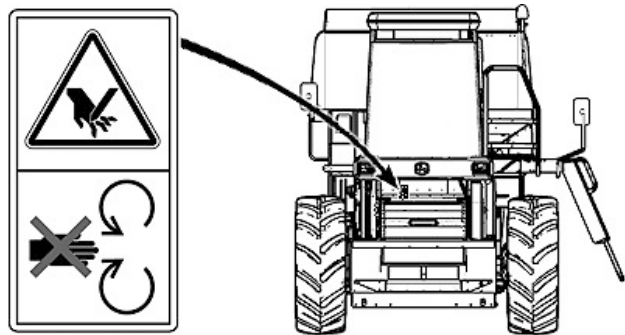
YC21263—UN—28NOV22

Safety Decal (right-hand side of the feeder house)

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

cp00834,1668994428825-19-20NOV22

Threshing Cylinder Inspection Door

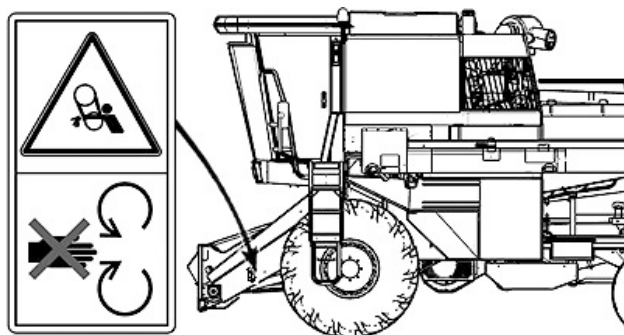


YC21266—UN—28NOV22

Avoid serious injury from contact with moving components. Do not open inspection door until the threshing cylinder motion has stopped.

cp00834,1668994851180-19-20NOV22

Feeder House Guard

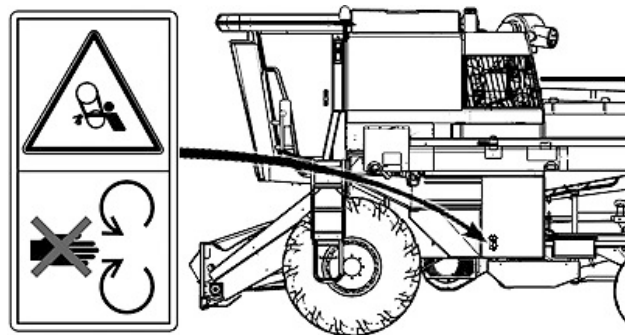


YC21264—UN—28NOV22

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

cp00834,1668994598619-19-20NOV22

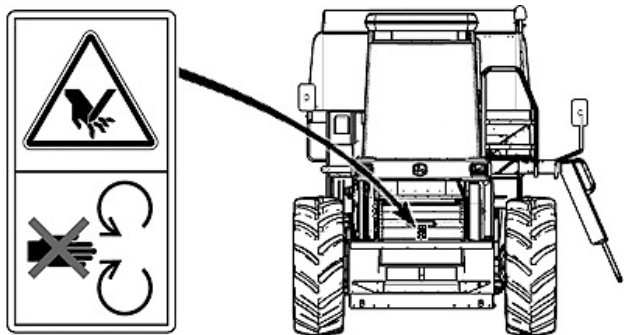
Guards



YC21267—UN—28NOV22

Safety Decal (left-hand side of the machine)

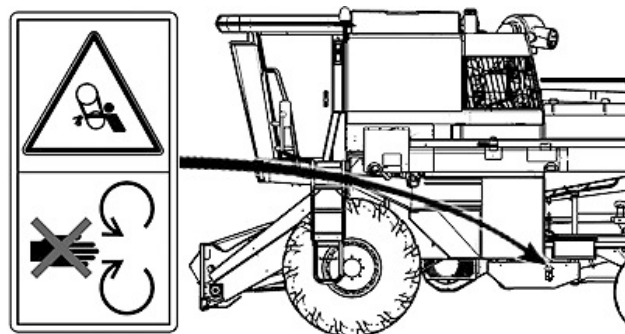
Feeder House Inspection Door



YC21265—UN—28NOV22

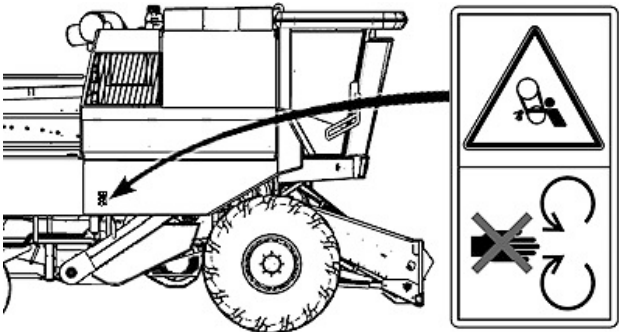
Avoid serious injury from contact with moving components. Do not open inspection door until the feeder house motion has stopped.

cp00834,1668994718539-19-20NOV22



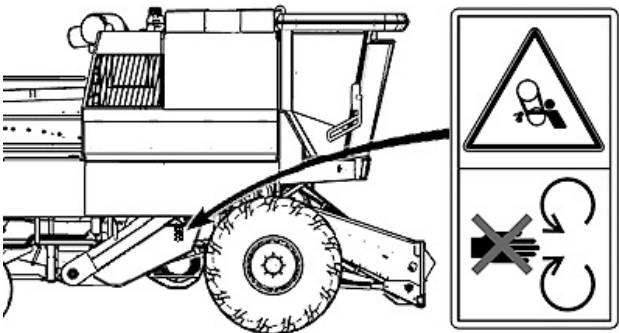
YC21270—UN—28NOV22

Safety Decal (left-hand side of the machine)



YC21268—UN—28NOV22

Safety Decal (right-hand side of the machine)



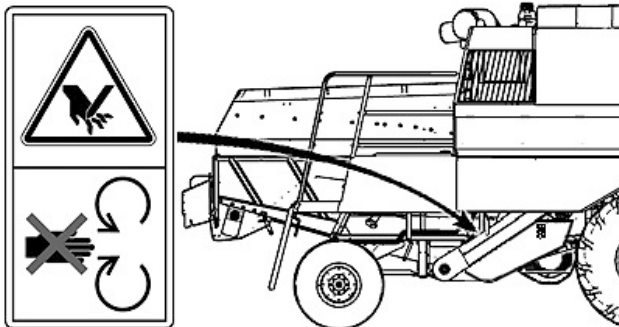
YC21269—UN—28NOV22

Safety Decal (right-hand side of the machine)

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

cp00834,1668996397535-19-20NOV22

Grain Elevator

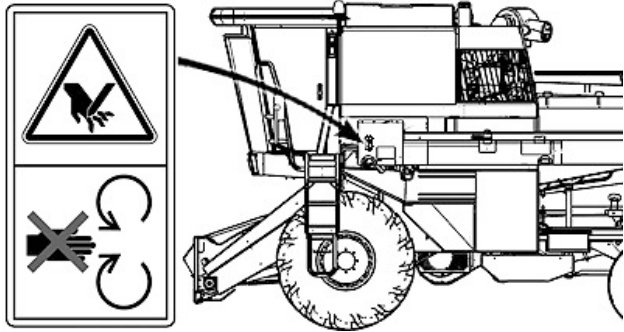


YC21271—UN—28NOV22

Avoid serious injury or death from entanglement. Never open the cover when the engine running. Stop engine and remove key.

cp00834,1668996832741-19-20NOV22

Unloading Auger Clean Door

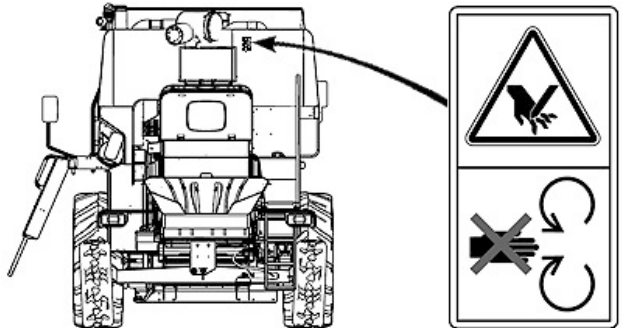


YC21272—UN—28NOV22

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

cp00834,1668996955880-19-20NOV22

Rotary Screen Door and Radiator Fan

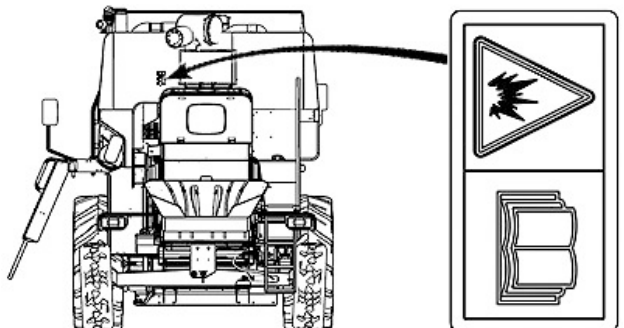


YC21279—UN—28NOV22

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

cp00834,1668998678315-19-20NOV22

Cooling System

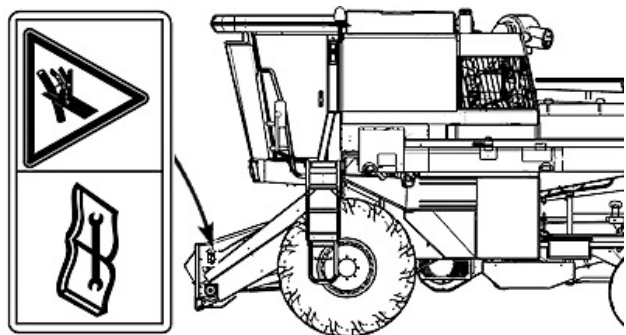


YC21278—UN—28NOV22

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.

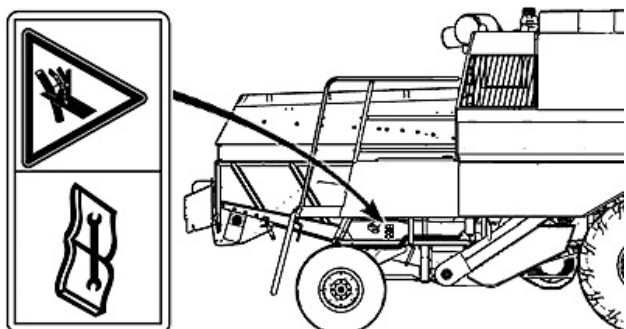
cp00834,1668998486034-19-20NOV22

Hydraulic Oil Under Pressure



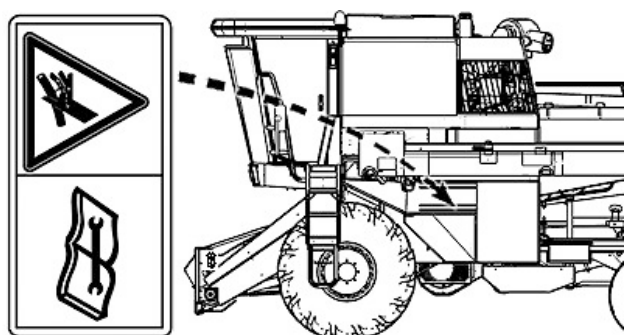
YC21282—UN—28NOV22

Safety Decal (left-hand side of feeder house)



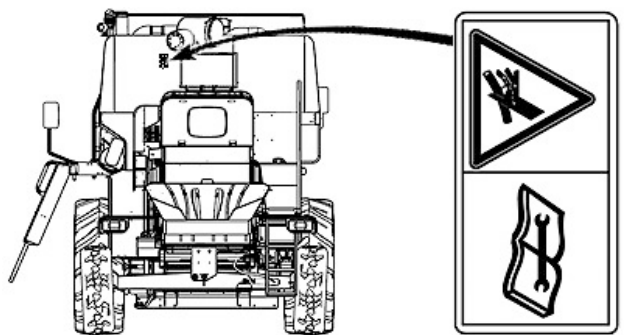
YC21283—UN—28NOV22

Safety Decal (right-hand side of the machine)



YC21284—UN—28NOV22

Safety Decal (left-hand side of the machine)



YC21285—UN—28NOV22

Safety Decal (hydrostatic reservoir)

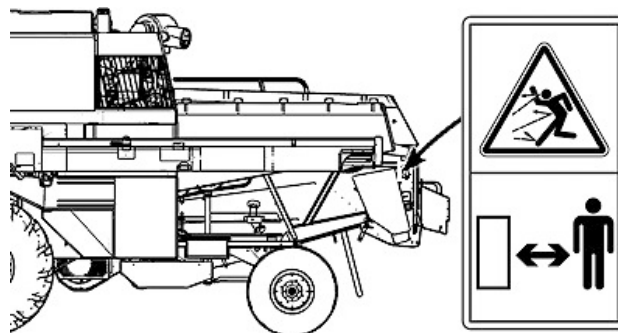
Avoid serious injury from contact with hydraulic oil under pressure.

Before removing hydraulic components:

1. Relieve system hydraulic pressure. Refer to operator's manual and repair manual for system information.
2. Stop engine and remove key.

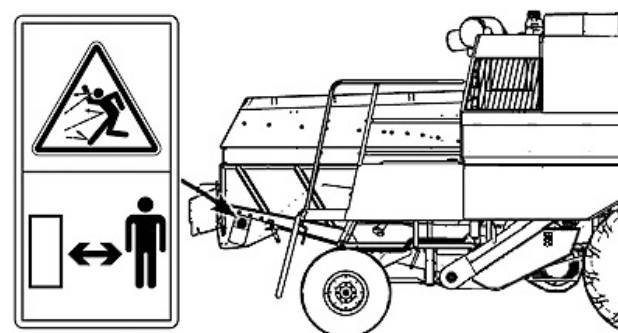
cp00834,1669001320789-19-20NOV22

Chopper Flying Debris



YC21273—UN—28NOV22

Safety Decal (left-hand side of the chopper)



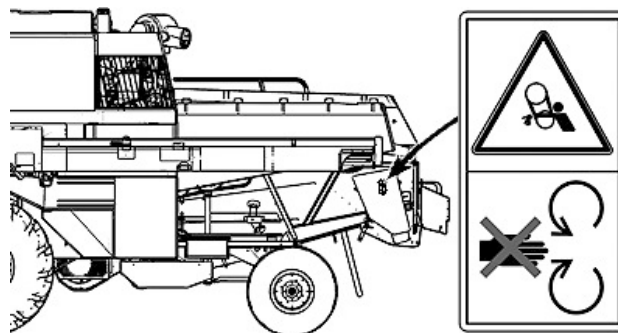
YC21274—UN—28NOV22

Safety Decal (right-hand side of the chopper)

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

cp00834,1668997444362-19-20NOV22

Chopper Blades

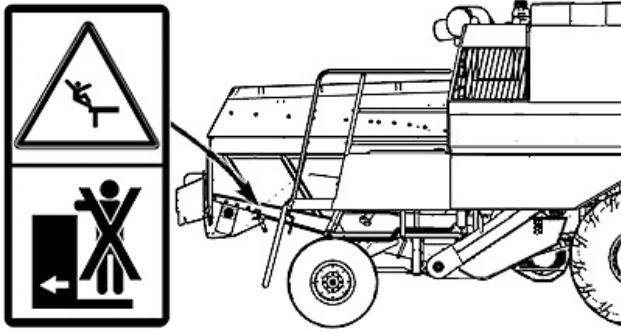


YC21275—UN—28NOV22

Avoid serious injury from contact with chopper blades. Chopper rotates in windrow position. Keep clear.

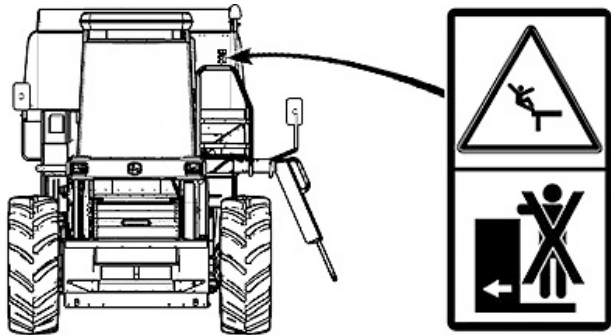
cp00834,1668997487137-19-20NOV22

Access Ladder and Service Platform



YC21276—UN—28NOV22

Rear Access Ladder



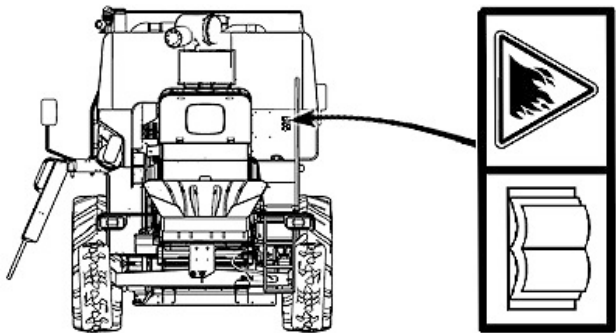
YC21287—UN—28NOV22

Front Access Ladder

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

cp00834,1668997683492-19-20NOV22

Avoid Fires

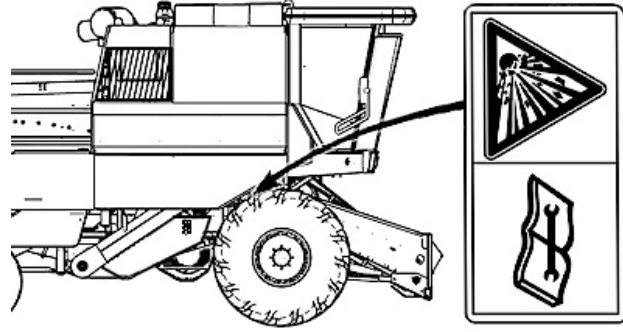


YC21277—UN—28NOV22

Avoid equipment fires. The accumulation of chaff, leaves, and other crop material on the fuel tank can cause a fire. Inspect and clean this area frequently.

cp00834,1668998256727-19-20NOV22

Accumulator

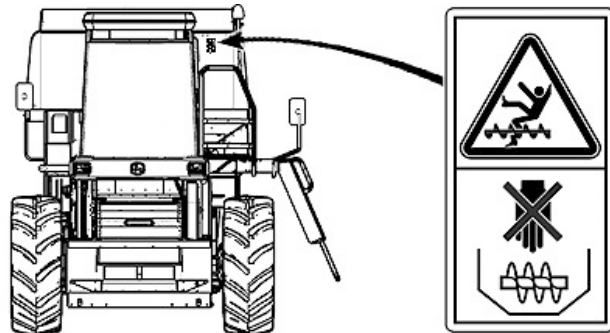


YC21280—UN—28NOV22

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.

cp00834,1668998953206-19-20NOV22

Grain Tank

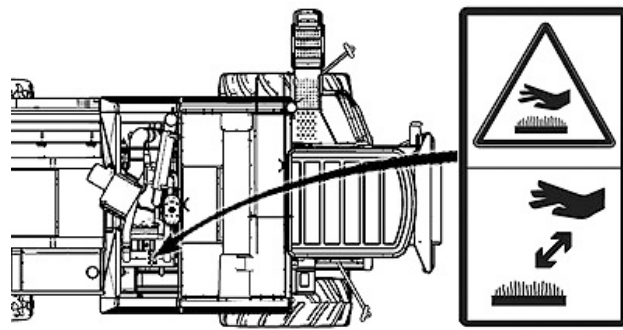


YC21286—UN—28NOV22

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

cp00834,1669002893664-19-20NOV22

Exhaust Temperature



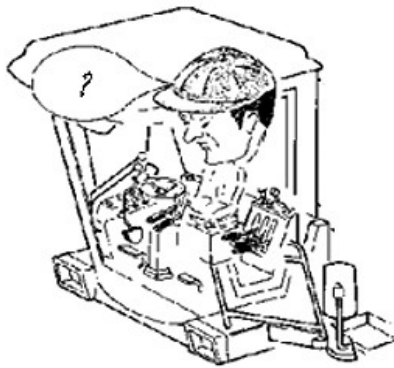
YC21281—UN—28NOV22

Exhaust system components may be hot. To avoid severe burns, keep away from the exhaust system components.

cp00834,1668999270256-19-20NOV22

Controls and Instruments

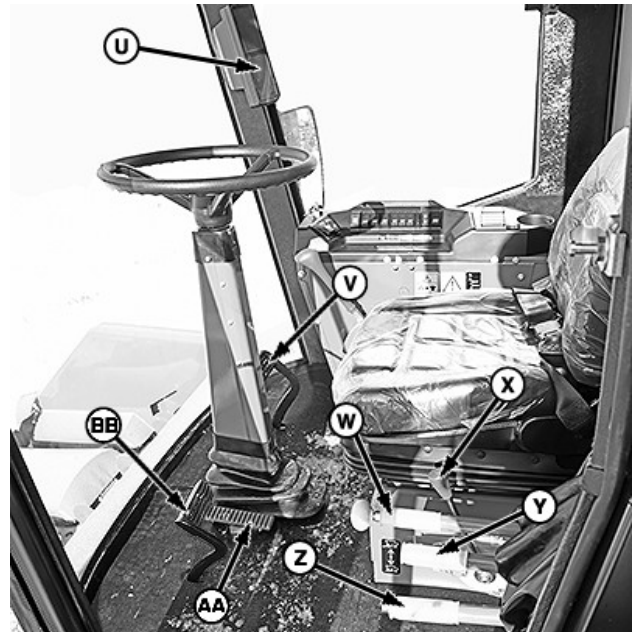
Controls and Instruments



YC1536—UN—25NOV13

Before operating a new combine, make yourself familiar with the position and function of each control and instrument.

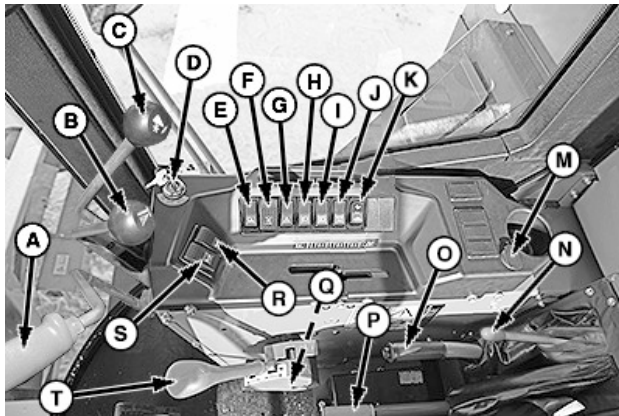
CP00834,0008DE5-19-27MAY21



YC17965—UN—14JUL21

Front and Left-Hand Console Controls

Controls and Instruments Overview (Mechanical Drive)



YC20971—UN—28NOV22

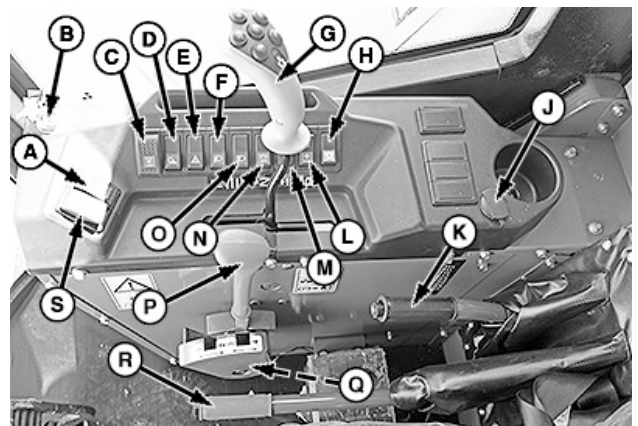
Right-Hand Console Controls

- A—Ground Speed Lever
- B—Header Raise/Lower Control Lever
- C—Reel Raise/Lower Control Lever
- D—Key Switch
- E—Reel Speed Switch
- F—Worklight Switch
- G—Hazard Warning Light Switch
- H—Light Switch
- I—High-Beam Switch
- J—Beacon Light and Unloading Light Switch
- K—Throttle Switch
- M—Auxiliary Power Outlet (only for export market)
- N—Threshing Speed Adjustment Lever
- O—Concave Clearance Adjustment Lever
- P—Park Brake Lever
- Q—Service Advisor Outlet
- R—Turn-Signal Light Switch
- S—Horn Switch
- T—Gearshift Lever

- U—Corner Post Display
- V—Service Brake Pedal (2 used)
- W—Header Engagement Lever
- X—Rear Wheel Drive Control Lever (Option)
- Y—Threshing System Engagement Lever
- Z—Unloading Auger Engagement Lever
- AA—Steering Column Adjustment Pedal
- BB—Clutch Pedal

cp00834,1668583678051-19-17NOV22

Controls and Instruments Overview (Hydrostatic Drive)



YC20972—UN—28NOV22

Right-Hand Console Controls

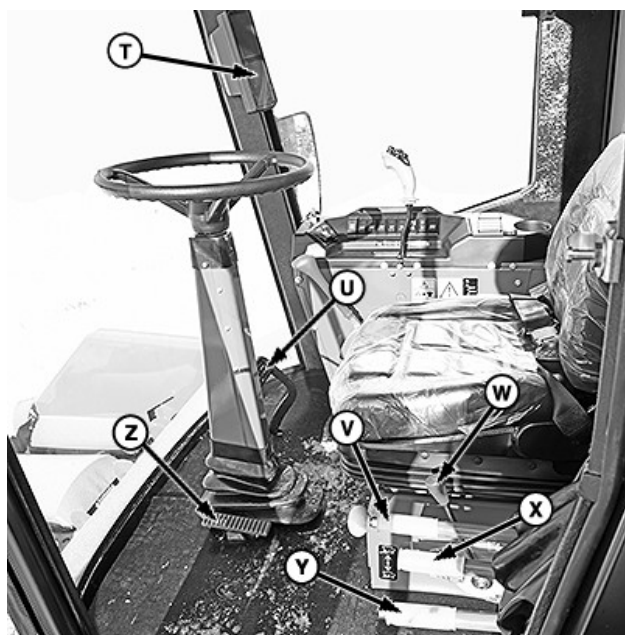
- A—Turn-Signal Light Switch
- B—Key Switch
- C—Reel Speed Switch
- D—Worklight Switch
- E—Hazard Warning Light Switch
- F—Light Switch
- G—Multi-Function Lever
- H—Road/Field Switch

- J—Auxiliary Power Outlet (only for export market)
- K—Concave Clearance Adjustment Lever
- L—Threshing Speed Switch
- M—Throttle Switch
- N—Beacon Light and Unloading Light Switch
- O—High-Beam Switch
- P—Gearshift Lever
- Q—Service Advisor Outlet
- R—Park Brake Lever
- S—Horn Switch

- F—Header Lower Button

cp00834,1668583788869-19-17NOV22

Operator's Station Interior Overview

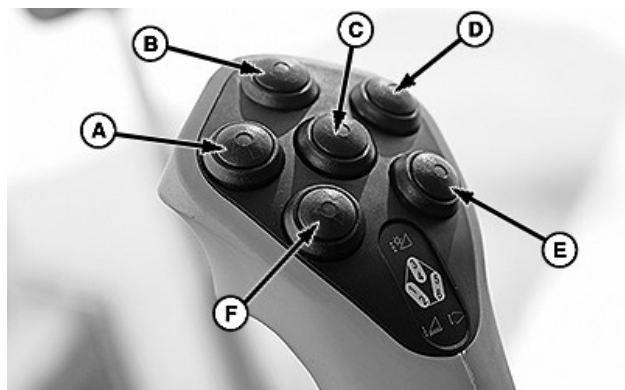


YC17962—UN—14JUL21

Front and Left-Hand Console Controls

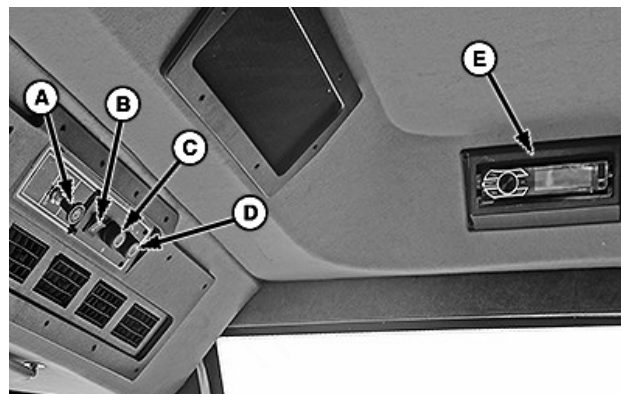
- T—Corner Post Display
- U—Service Brake Pedal (2 used)
- V—Header Engagement Lever
- W—Rear Wheel Drive Control Lever (Option)
- X—Threshing System Engagement Lever
- Y—Unloading Auger Engagement Lever
- Z—Steering Column Adjustment Pedal

Multi-Function Lever



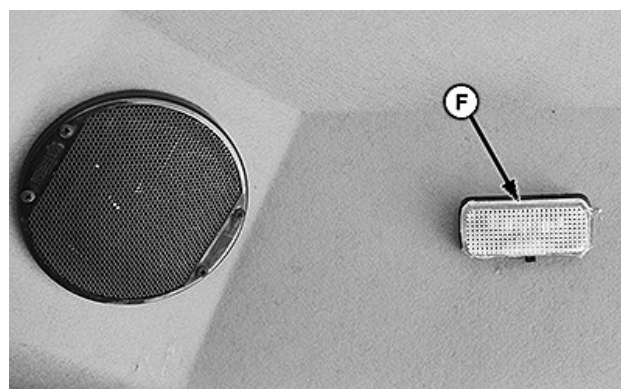
YC17963—UN—14JUL21

- A—Header Raise Button
- B—Reel Raise Button
- C—Reel Lower Button
- D—Unloading Auger Swing Out Button
- E—Unloading Auger Swing In Button



YC17966—UN—14JUL21

- A—Wiper Switch
- B—HVAC Mode Switch
- C—Air Flow Control Knob
- D—AC Temperature Adjustment Knob
- E—Radio (Option)



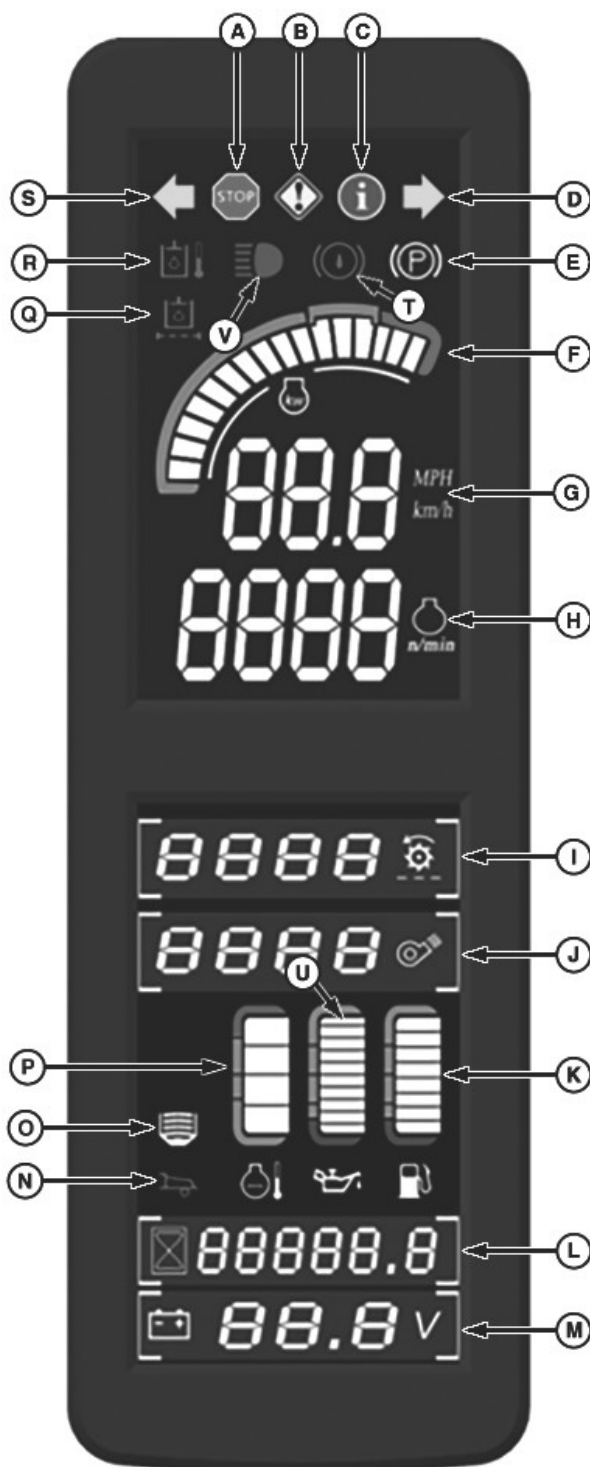
YC17967—UN—14JUL21

- F—Dome Light

CP00834,0008F93-19-28SEP21

Corner Post Display

Corner Post Display on Inspection Interface



YC14238—UN—24DEC19

A - STOP Indicator (Red): Flashes when the machine needs to be stopped at once due to a serious problem. A related diagnostic trouble code is shown until the problem is solved.

B - Service Alert Indicator (Yellow): Flashes when a

problem exists with machine. Requires machine to be stopped at the earliest convenience. A related diagnostic trouble code is shown.

C - Information Indicator (Blue): Flashes to alert the operator to be aware of a condition. A related diagnostic trouble code is shown. When the warning is acknowledged, the screen message disappears and the indicator turns off.

D - Right Turn-Signal Indicator: Flashes when a right turn is planned. Activated by the turn-signal light switch.

E - Park Brake Light Indicator: Turns on when park brake is engaged.

F - Engine Power Meter: Shows the percentage of power that the engine is using at any given time:

- Green Region: 35—100%
- Yellow Region: 101—107%
- Red Region: 108—114%

IMPORTANT: If the power meter indicator moves into the red region, engine power is maximized and machine could potentially stall. Reduce the load on the machine until the indicator moves back into green or yellow regions.

G - Ground Speed Indicator: Shows the current machine ground speed.

H - Tachometer: Shows the current engine speed.

I - Threshing Speed Indicator: Shows the current threshing speed.

J - Cleaning Fan Speed Indicator: Shows the current cleaning fan speed.

K - Fuel Level Indicator: Shows how much fuel is left in the tank. When level reaches 10% of remaining fuel, the fuel indicator flashes, an alarm sounds, and a message appears.

L - Working Hours: Shows the vehicle working hours.

M - Battery Voltage: Shows the voltage of the vehicle.

N - Rear Shield Blockage Indicator: Flashes to alert the operator that the rear shield is blocked.

O - Grain Tank Full Indicator: Flashes when grain tank is full.

P - Coolant Temperature Indicator: Shows the current coolant temperature. Green region is displayed for normal operating temperature.

Q - Hydraulic Oil Filter Pressure Indicator: Flashes to alert the operator that the hydraulic oil filter pressure is high.

R - Hydrostatic Oil Temperature Indicator: Flashes to alert the operator that the hydrostatic oil temperature is high.

S - Left Turn-Signal Indicator: Flashes when a left turn is planned. Activated by the turn-signal light switch.

T - Brake Fluid Level Indicator: Flashes to alert the operator that the brake fluid level is low.

U - Engine Oil Pressure Indicator: Shows the current engine oil pressure. Green region is displayed for normal operating pressure.

V - High-Beam Indicator: Turns on when the high beams are on.

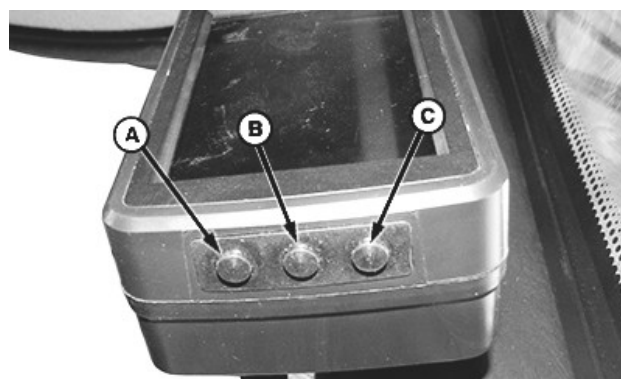
Home Page After Startup



YC18022—UN—14JUL21

- A—Engine Power Meter
- B—Ground Speed Indicator
- C—Tachometer
- D—Threshing Speed Indicator
- E—Cleaning Fan Speed Indicator
- F—Fuel Level Indicator
- G—Working Hours
- H—Battery Voltage
- I—Coolant Temperature Indicator
- J—Engine Oil Pressure Indicator

Buttons



YC14241—UN—20DEC19

- A—Button
- B—Button
- C—Button

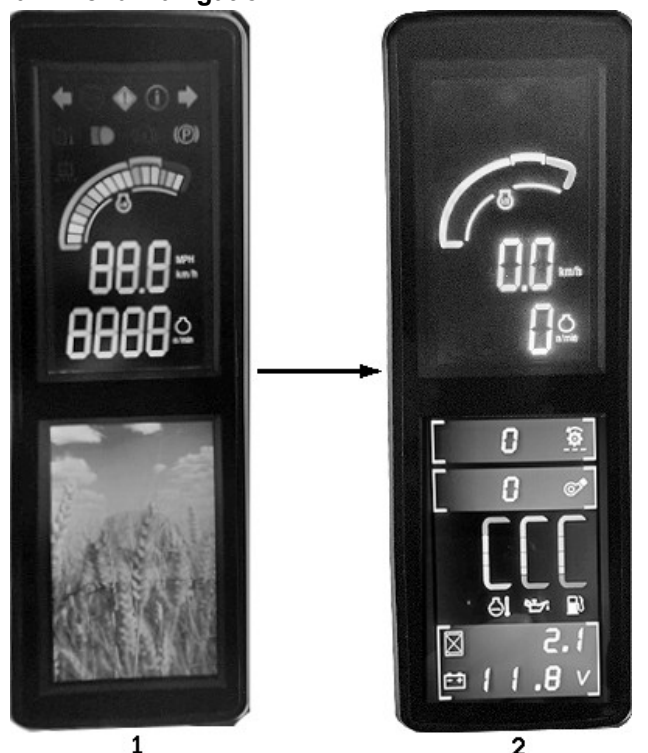
There are three buttons (A, B, and C) at the bottom of the corner post display.

Press the buttons to activate the corresponding function.

cp00834,1668584223761-19-16NOV22

Corner Post Display Menu Navigation

Main Menu Navigation



Corner Post Display Main Page

1. Turn the key switch to the RUN position. All parameters and indicator lights are on.
The corner post display main page switches to page 2 from page 1.

NOTE: The three buttons (A, B, and C) shown in the artwork are the three buttons at the bottom of the corner post display.



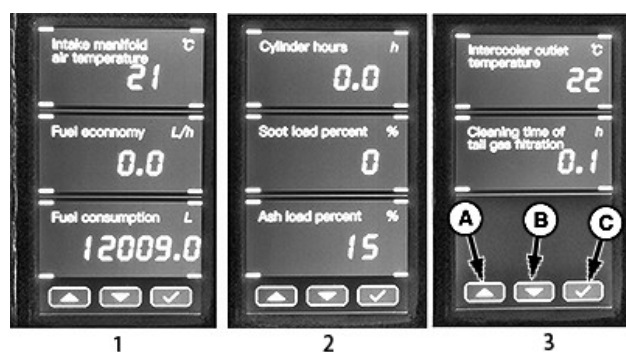
Working Data and Setting Display Area

A—Scroll Button
B—Back Button
C—Enter Button

2. Press the right-side button at the bottom of the corner post display to page 2 from page 1.
3. Press the scroll button (A) to select the desired submenu.
4. Press the enter button (C) to the submenu. Press the back button (B) to return to the main menu.

Working Data Submenu Navigation

NOTE: The three buttons (A, B, and C) shown in the artwork are the three buttons at the bottom of the corner post display.



Working Data Submenu page 1, 2, 3

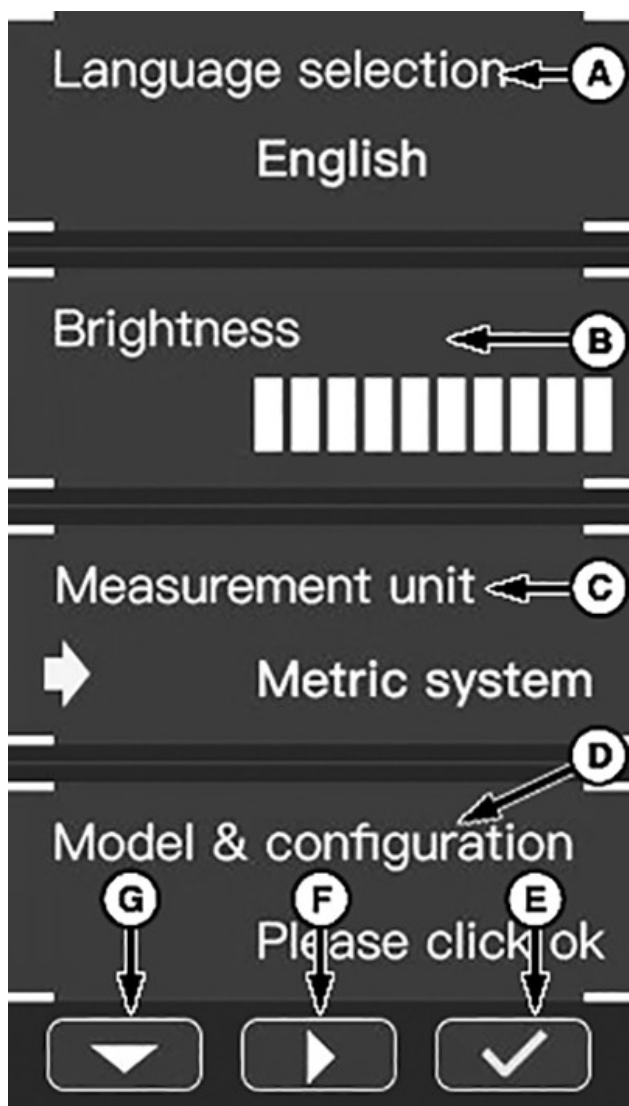
A—Scroll Up Button
B—Scroll Down Button
C—Enter Button

Press the scroll down button (B) and the scroll up button (A) to select the desired working data submenu and check the corresponding working data.

Press the enter button (C) to return to the main menu.

System Setting Submenu Navigation

NOTE: The three buttons (A, B, and C) shown in the artwork are the three buttons at the bottom of the corner post display.



YC14244—UN—02JAN20

System Setting Submenu

- A—Language Selection
- B—Brightness
- C—Measurement Unit
- D—Model & Configuration
- E—Enter Button
- F—Adjusting Button
- G—Scroll Button

Press the scroll button (G) to select the desired system setting submenu.

- **Language Selection (A):** Press the adjusting button (F) to select the language (English or Chinese).
- **Brightness (B):** Press the adjusting button to adjust brightness.
- **Measurement Unit (C):** Press the adjusting button to change the measurement unit (metric system or imperial system).
- **Model & Configuration (D):** This submenu cannot be set.

Press the enter button (E) to return to the main menu.

Current Failure Submenu Navigation

NOTE: The three buttons (E, F, and G) shown in the artwork are the three buttons at the bottom of the corner post display.



YC17355—UN—20APR21

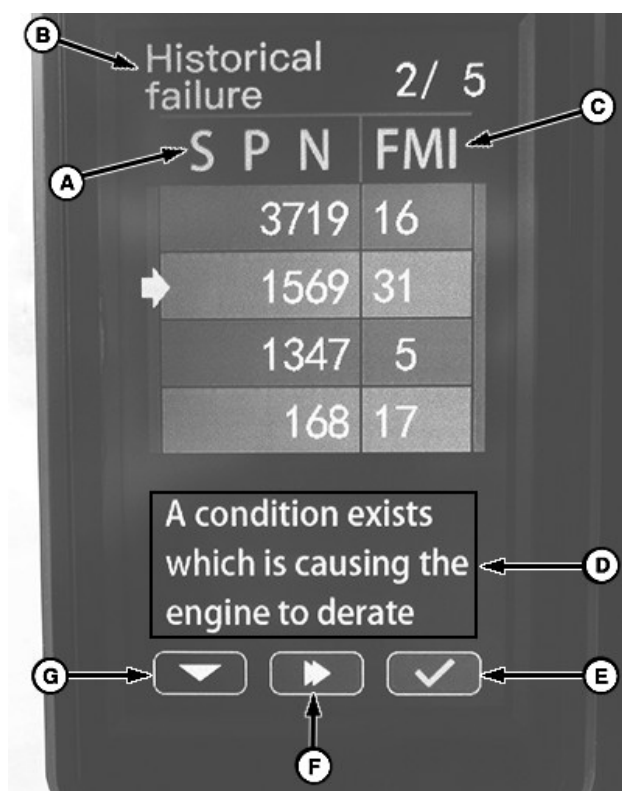
- A—SPN (Suspect Parameter Number)
- B—Current Failure
- C—FMI (Failure Mode Indicator)
- D—DTC Information Area
- E—Enter Button
- F—Next Button
- G—Scroll Button

Press the scroll button (G) to select the desired DTC and check the DTC information. Press the next button (F) to view the DTCs in the next page.

Press the enter button (E) to return to the previous page.

Historical Failure Submenu Navigation

NOTE: The three buttons (E, F, and G) shown in the artwork are the three buttons at the bottom of the corner post display.



YC17356—UN—20APR21

- A—SPN (Suspect Parameter Number)
 B—Current Failure
 C—FMI (Failure Mode Indicator)
 D—DTC Information Area
 E—Enter Button
 F—Next Button
 G—Scroll Button

Press the scroll button (G) to select the desired DTC and check the DTC information. Press the next button (F) to view the DTCs in the next page.

Press the enter button (E) to return to the previous page.

Diagnostic Trouble Codes

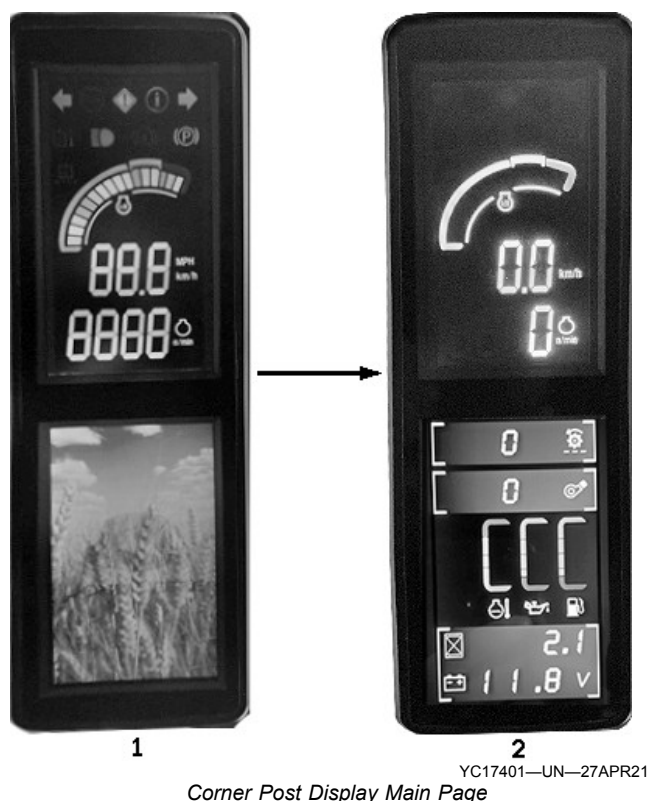
DTC Number	DTC Information	DTC Number	DTC Information
91.03	Analog Throttle Position OOR High	637.07	Timing Sensor / Engine Position Sensor Mismatch
91.04	Analog Throttle Position OOR L	637.08	Timing Sensor Signal Missing
94.03	Fuel Pressure Voltage OOR High	637.10	Timing Sensor Pattern Error Detected
94.04	Fuel Pressure Voltage OOR Low	651.00	Injector limited by max pulse duration on Cylinder #1
94.18	Fuel Pressure Low - Moderately Severe Level	651.01	Injector limited by min pulse duration on Cylinder #1
107	Low air pressure at compressor inlet	651.02	Injector #1 Part Number is Invalid
627.18	Battery Voltage Below Normal- Moderately Severe Level	651.05	The current to the injector in cylinder #1 is less than expected
729.03	Air Heater Relay Output High When Relay Not Active.	651.06	SPV[0] has a short
729.05	Air Heater Relay Output Low When Relay Active.	651.13	Injector #1 QR Code string error
1075.05	Current Lower than expected	652.00	Injector limited by max pulse duration on Cylinder #2
97.03	Water In Fuel Voltage OOR High	652.01	Injector limited by min pulse duration on Cylinder #2
97.04	Water In Fuel Voltage OOR Low	652.02	Injector #2 Part Number is Invalid
97.16	Water In Fuel Detected	652.05	The current to the injector in cylinder #1 is less than expected
100.01	Oil Pressure Low - Most Severe Level	652.06	SPV[1] has a short
100.04	Oil Pressure Voltage OOR Low	652.13	Injector #2 QR Code string error
100.18	Oil Pressure Low - Moderately Severe Level	653.00	Injector limited by max pulse duration on Cylinder #3
100.31	Oil Pressure Detected At Zero Engine Speed	653.01	Injector limited by min pulse duration on Cylinder #3
105.00	Manifold Air Temperature High - Most Severe Level	653.02	Injector #3 Part Number is Invalid
105.03	Manifold Air Temperature Voltage OOR High	653.05	The current to the injector in cylinder #3 is less than expected
105.04	Manifold Air Temperature Voltage OOR Low	653.06	SPV[2] has a short
105.15	Manifold Air Temperature High - Least Severe Level	653.13	Injector #3 QR Code string error
105.16	Manifold Air Temperature High - Moderately Severe Level	654.00	Injector limited by max pulse duration on Cylinder #4

Controls and Instruments

DTC Number	DTC Information	DTC Number	DTC Information
108.02	Barometric Pressure Invalid	654.01	Injector limited by min pulse duration on Cylinder #4
110.00	Coolant Temperature High - Most Severe Level	654.02	Injector #4 Part Number is Invalid
110.03	Coolant Temperature Voltage OOR High	654.05	The current to the injector in cylinder #4 is less than expected
110.04	Coolant Temperature Voltage OOR Low	654.06	SPV[3] has a short
110.15	Coolant Temperature High - Least Severe Level	654.13	Injector #4 QR Code string error
110.16	Coolant Temperature High - Moderately Severe Level	655.00	Injector limited by max pulse duration on Cylinder #5
157.03	Rail Pressure Voltage OOR High	655.01	Injector limited by min pulse duration on Cylinder #5
157.04	Rail Pressure Voltage OOR Low	655.02	Injector #5 Part Number is Invalid
157.17	Rail Pressure Not Developed During Cranking (10Mpa with8sec)	655.05	The current to the injector in cylinder #5 is less than expected
158.17	ECU Cannot Power Down	655.06	SPV[4] has a short
174.00	Fuel Temperature High - Most Severe Level	655.13	Injector #5 QR Code string error
174.03	Fuel Temperature Voltage OOR High	656.00	Injector limited by max pulse duration on Cylinder #6
174.04	Fuel Temperature Voltage OOR Low	656.01	Injector limited by min pulse duration on Cylinder #6
174.16	Fuel Temperature High - Moderately Severe Level	656.02	Injector #6 Part Number is Invalid
189.00	A condition exists which is causing the engine to derate.	656.05	The current to the injector in cylinder #6 is less than expected
611.03	Short to battery on the injector lines	656.06	SPV[5] has a short
611.04	Short to ground on the injector lines	656.13	Injector #6 QR Code string error
627.01	Injector Pull In Current Too Low or Hold Current Incorrect	1347.03	Pump Return shorted to a plus voltage.
629.12	Bad Intelligent Device or Component	1347.05	The circuit to pump solenoid #1 is open, shorted to ground, or overloaded.
636.02	Engine Position Sensor Noise Detected	1347.07	Rail pressure control is unable to match the required rail pressure. It may be either too high or too low
636.05	Engine Position Sensor Current Below Normal Or Open Circuit	1569.31	A condition exists which is causing the engine to derate.
636.06	Engine Position Sensor Current Above Normal Or Grounded Circuit	3509.03	Sensor Supply Voltage OOR High
636.08	Engine Position Sensor Signal Missing	3509.04	Sensor Supply Voltage OOR Low
636.10	Engine Position Sensor Pattern Error Detected	3510.03	Sensor Supply Voltage OOR High
637.02	Timing Sensor Noise Detected	3510.04	Sensor Supply Voltage OOR Low
637.05	Timing Sensor Current Below Normal Or Open Circuit	3511.03	Sensor Supply Voltage OOR High
637.06	Timing Sensor Current Above Normal Or Grounded Circuit	3511.04	Sensor Supply Voltage OOR Low

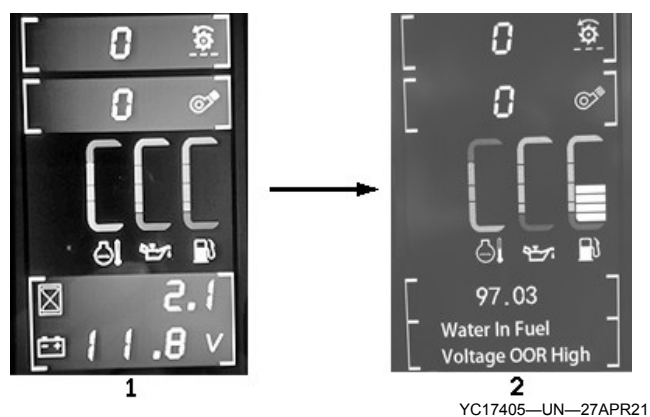
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Corner Post Display Fault Warning Display



1. Turn the key switch to the RUN position. All parameters and indicator lights are on.

The corner post display main page switches to page 2 from page 1.



2. If there is an active fault code, the corner post display main page switches to page 2 from page 1, the DTCs and the DTCs information will display all the time.

When the fault is solved and the right-side button at the bottom of the corner post display is pressed, the fault warning disappears.

NOTE: Clear the fault warnings one by one.

Prestart Checks

Prestart Checks Chart

Before starting the engine every day, check all the items in the table.

Check and Fill Engine Oil
Check and Fill Engine Coolant
Check and Fill Hydraulic Oil
Check and Fill Hydrostatic Oil (Hydrostatic Drive)
Check and Fill Fuel Tank
Drain Water from Primary Fuel Filter
Check and Clean Rotary Screen in Winter

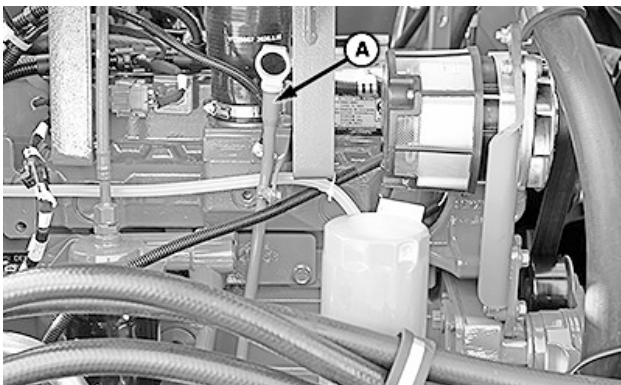
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Check and Fill Engine Oil

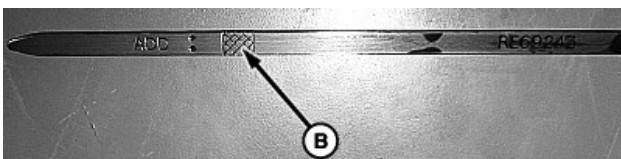
IMPORTANT: Keeping proper engine oil level is vital for the service life of the engine. Check the engine oil level when combine is parked on level ground.

IMPORTANT: Never refill the engine oil before the engine oil level falls below the mark “ADD” on the dipstick.

IMPORTANT: DO NOT fill above the top of the crosshatch area (B) on the dipstick. Do not operate engine when the engine oil level is below the mark “ADD” on the dipstick.



YC20973—UN—28NOV22



YC20975—UN—28NOV22

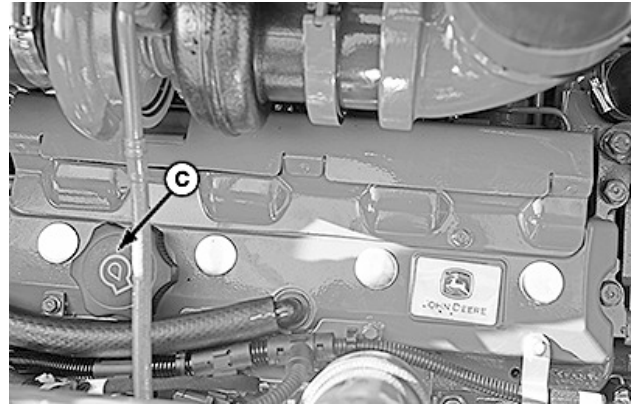
Engine Oil Dipstick

A—Dipstick
B—Crosshatch Area

Check the engine oil level with the dipstick (A) daily. Do not operate engine when the engine oil level is below the mark “ADD” on the dipstick.

NOTE: Verify that dipstick is screwed or pushed completely into housing before removing to check the engine oil level.

Remove dipstick and check oil level. The engine oil level should be within the crosshatch area (B) on the dipstick.



YC20974—UN—28NOV22

Fill Engine Oil

C—Filling Cap

If the engine oil level is below the mark “ADD” on the dipstick, remove the filling cap (C) to add oil as needed.

New engines are filled at the factory with John Deere Break-In Engine Oil. During the break-in period, add John Deere Break-In Engine Oil, as needed to maintain the specified oil level. See Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III in Fuel, Coolant, and Lubricants Section for recommendations.

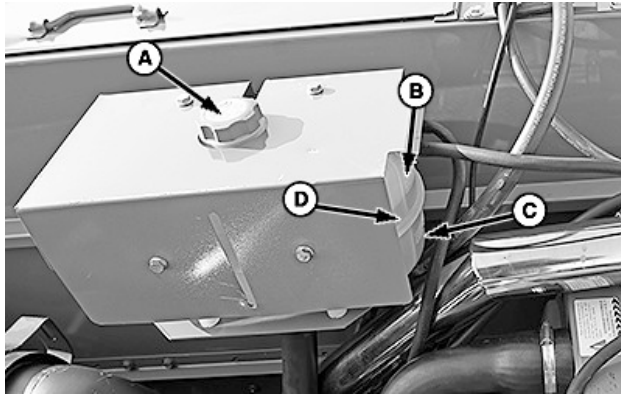
After the break-in period, John Deere Plus-50™ II is the recommended engine oil. See Diesel Engine Oil — Tier 3 and Stage IIIA in Fuel, Coolant, and Lubricants Section for recommendations.

cp00834,1668585815853-19-16NOV22

Check and Fill Engine Coolant

CAUTION: Shut OFF engine, set park brake, and remove key. Avoid being scalded when opening the surge tank cap. Never open the cap when engine is hot. Open cap slowly to relieve pressure.

IMPORTANT: A special cap is used on the surge tank. If cap is damaged or missing, it must be replaced by an equivalent cap.



YC20976—UN—28NOV22

- A—Surge Tank Cap
B—MAX Mark
C—MIN Mark
D—Surge Tank

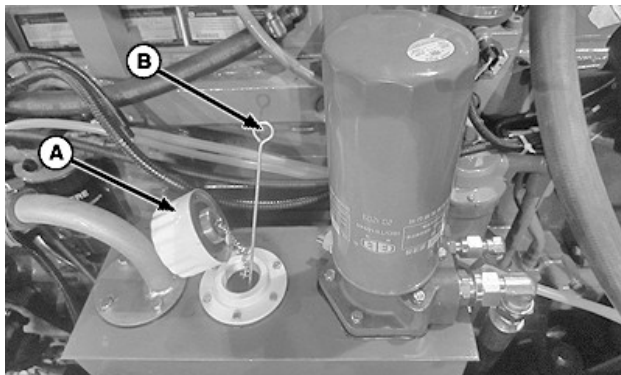
Allow engine to cool. The coolant level should be between the MIN mark (C) and the MAX mark (B) on the surge tank.

If the coolant level is below the MIN mark, remove the surge tank cap (A) to add coolant as needed.

See Diesel Engine Coolant (engine with wet sleeve cylinder liners) in the Fuel, Coolant, and Lubricants Section for recommendations.

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Check and Fill Hydraulic Oil



YC3221—UN—24DEC13

Check and Fill Hydraulic Oil



YC20977—UN—28NOV22

- A—Filling Cap
B—Dipstick
C—Maximum Mark
D—Minimum Mark

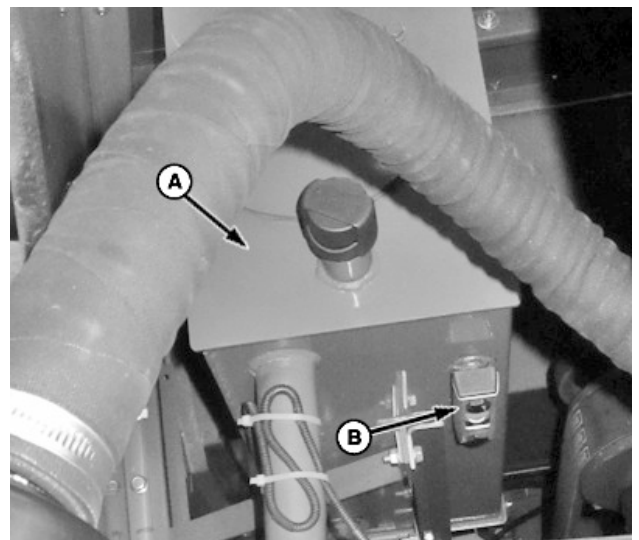
Retract all hydraulic cylinders and lower header onto the ground. Shut OFF engine, set park brake, and remove key.

1. Remove the filling cap (A).
2. Remove and clean dipstick (B).
3. Insert the dipstick and check the hydraulic oil level. The oil level should be between the minimum mark (D) and maximum mark (C) on the dipstick.
4. Add oil as needed, but do not overfill.

See Hydraulic/Hydrostatic Oil in the Fuel, Coolant, and Lubricants Section for recommendations.

cp00834,1668587072094-19-16NOV22

Check and Fill Hydrostatic Oil (Hydrostatic Drive)



YC20978—UN—28NOV22



YC20982—UN—28NOV22

Fill Hydrostatic Oil

- A—Hydrostatic Reservoir
B—Sight Glass
C—Filling Cap

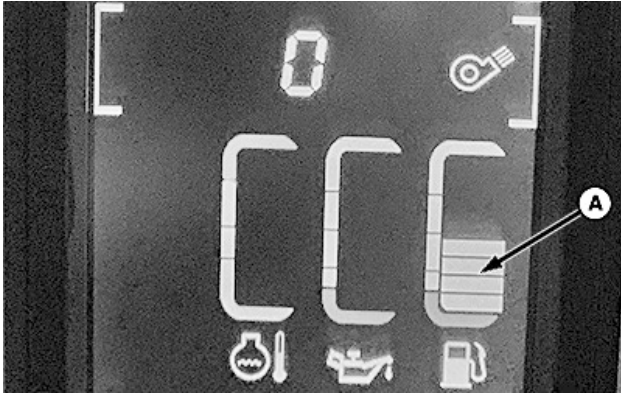
Shut OFF engine, set park brake, and remove key.

The oil level must be at top of sight glass (B). Remove the filling cap (C) to add hydrostatic oil as needed, but do not overfill.

See Hydraulic/Hydrostatic Oil in the Fuel, Coolant, and Lubricants Section for recommendations.

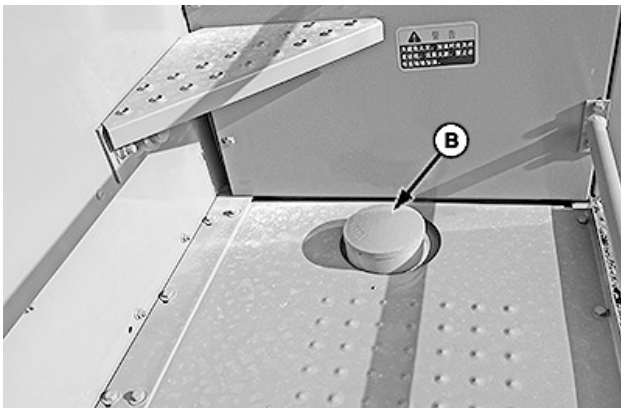
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Check and Fill Fuel Tank

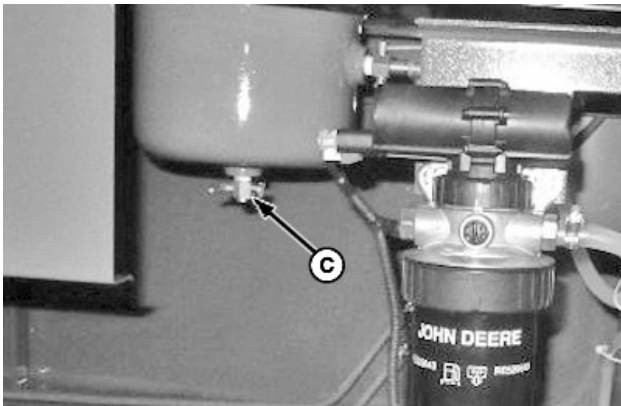


YC20979—UN—28NOV22

Check Fuel Level



YC20984—UN—28NOV22



YC20985—UN—28NOV22

- A—Fuel Level Gauge
- B—Filling Cap
- C—Drain Tap

Check the fuel level at the fuel level gauge (A) on the corner post display.

Remove the filling cap (B) to fill the fuel tank as needed.

See Diesel Fuel in Fuel, Coolant, and Lubricants Section for recommendations.

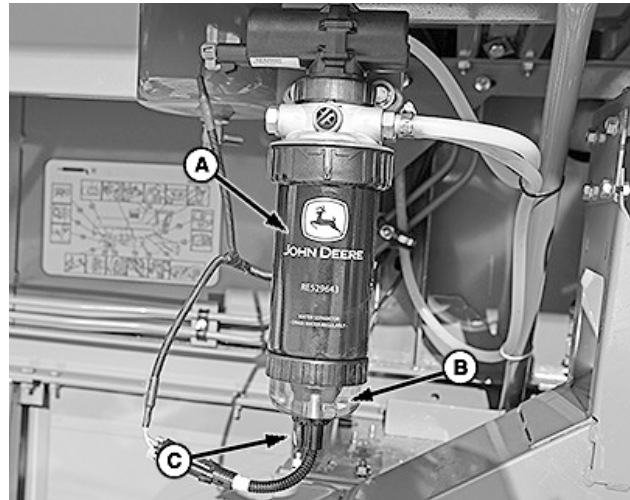
If engine does not work for a long time, Open the drain tag (C) to drain water from the fuel tank and refill fuel tank.

IMPORTANT: Fuel is highly flammable and can cause serious injury or death. Do not refuel machine while smoking or near an open flame or spark. Always stop engine before refueling. Always fill the fuel tank in open air. Be sure to reinstall fuel filler cap and rear screen after filling. Always clean up spilled fuel. Do not overfill fuel tank.

cp00834,166858868326-19-16NOV22

Drain Water from Primary Fuel Filter

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC20980—UN—28NOV22

- A—Primary Fuel Filter
- B—Water Separator Bowl
- C—Drain Tag

A water-in-fuel sensor is in the water separator bowl (B). When the primary fuel filter (A) senses water in the fuel system, a diagnostic trouble code is generated. If a diagnostic trouble code appears, loosen the drain tag (C) to drain water.

Before starting the engine every day, check the water separator bowl and drain water as needed.

cp00834,1668589283494-19-16NOV22

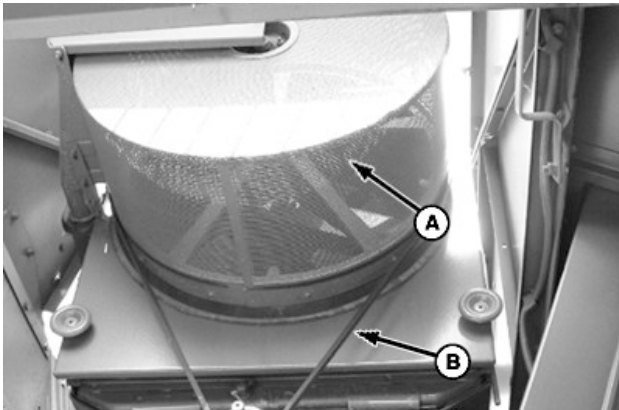
Check and Clean Rotary Screen in Winter

⚠ CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

IMPORTANT: Before starting engine in winter, check and clean snow or frozen moisture on the rotary screen.



YC20983—UN—28NOV22



YC20981—UN—28NOV22

A—Rotary Screen
B—Drive Belt

Clean the rotary screen (A) on top of machine.

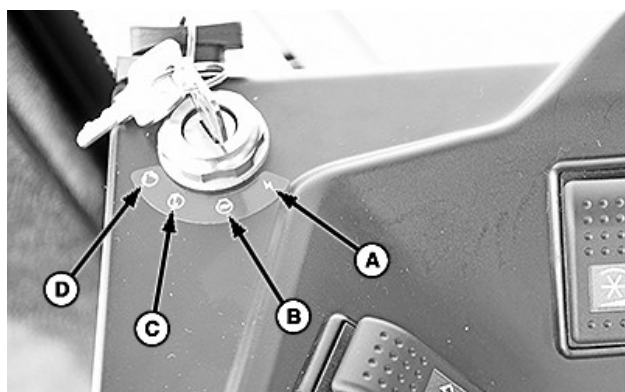
Open the right shield to clean the rotary screen.

Make sure that the drive belt (B) is free before starting engine at temperature below 0°C.

cp00834,1668589293711-19-16NOV22

Engine Operation

Operate Key Switch



YC17947—UN—12JUL21

A—ACCESSORY Position
B—STOP Position
C—RUN Position
D—START Position

ACCESSORY Position (A): Push in and turn key to the ACCESSORY position to power the electrical functions.

STOP Position (B): Turn key to the STOP position to stop engine and turn off the electrical functions.

RUN Position (C): Turn key to the RUN position. Check gauges and indicator lights before starting.

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

CP00834,0008F85-19-12JUL21



YC17959—UN—14JUL21

A—Gearshift Lever
B—Multi-Function Lever
C—Throttle Switch
D—RUN Position
E—START Position

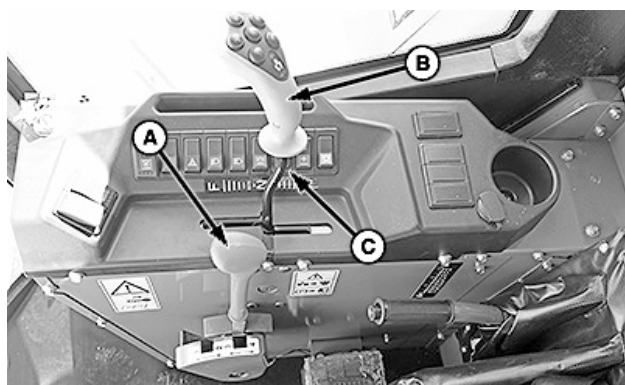
1. For the hydrostatic drive machine, place the multi-function lever (B) in the neutral position.
2. Verify that the gearshift lever (A) is in the neutral position.
3. Verify that the threshing system engagement lever, the header engagement lever, and the unloading auger engagement lever are disengaged.
4. Turn the ignition key to the RUN position (D), check and clear all the DTCs on the corner post display.

NOTE: Codes are displayed until the problem is resolved. If problem cannot be resolved, see your John Deere dealer.

Start the Engine

CAUTION: Before starting engine in a confined building, install the proper outlet exhaust ventilation equipment. Always use safety approved fuel storage and piping.

Before starting engine, make sure that everyone is clear of machine. Sound horn to warn others.



YC20986—UN—28NOV22

Controls and Instruments (Hydrostatic Drive Shown)

CAUTION: To avoid the possibility of personal injury or death, start engine **ONLY** from the operator seat. Do not start engine by shorting across starter terminals. Machine starts 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. If engine does not start after four attempts, see **Engine Troubleshooting** in the Troubleshooting Section.

NOTE: When the ignition key is turned to the **START** position, a delay of a couple of seconds will occur. This allows the control units to power up, relays to close, and the starter solenoid to energize.

5. Set the throttle switch (C) at "turtle" position, sound horn, and turn the ignition key to the **START** position (E) to start the engine.
6. Run the engine at low idle for 1—2 minutes to preheat the engine.

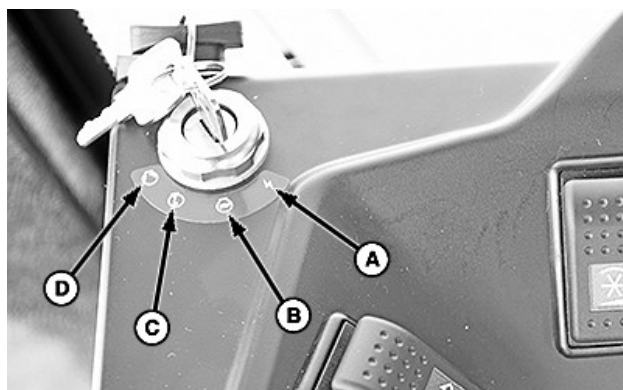
IMPORTANT: Never run the engine at low idle for more than 5 minutes.

cp00834,1668646376592-19-16NOV22

Start Engine in Cold Weather Conditions

CAUTION: Before starting engine, make sure that everyone is clear of machine. Sound horn to warn others.

Ether is highly flammable. Do not use ether when starting an engine equipped with an air intake heater.



YC17947—UN—12JUL21

A—ACCESSORY Position
B—STOP Position
C—RUN Position
D—START Position

Starting aids are required below 0°C (32°F).

Other cold weather starting aids are required at temperatures below -25°C (-13°F) or at altitudes above 1500 m (5000 ft). See Using Booster Battery or Charger to Start the Engine in this Section.

1. Turn the ignition key to the RUN position (C) to preheat the engine. It will take 15—20 seconds to complete preheating.

NOTE: Do not start the engine before preheating is completed.



YC17948—UN—12JUL21

Throttle Switch (Hydrostatic Drive Shown)

E—Throttle Switch

2. Set the throttle switch (E) at “turtle” position, sound horn, and turn the ignition key to the START position (D) to start the engine.
3. Run the engine at low idle for 2—4 minutes to preheat the engine.

IMPORTANT: Never run the engine at low idle for more than 5 minutes.

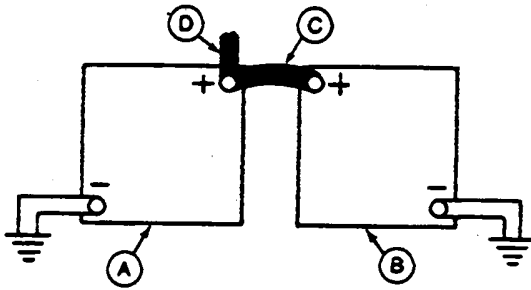
cp00834,1668646437316-19-16NOV22

Using Booster Battery or Charger to Start the Engine

CAUTION: Gas given off by battery is explosive. Keep sparks and flames away from battery. Before connecting or disconnecting a battery charger, turn off charger. Make last connection and first disconnection at a point away from battery. Always connect the negative cable last and disconnect this cable first.



TS204—UN—15APR13



RG4678—UN—14DEC88

A—12 V Machine Battery
B—12 V Booster Battery
C—Jumper Cable
D—Starter Cable

Starting aids are required at temperatures below -25°C (-13°F) or at altitudes above 1500 m (5000 ft).

A 12 V booster battery or charger can be connected in parallel with battery on the unit to aid in cold weather starting. ALWAYS use heavy-duty jumper cables.

CAUTION: Battery posts, terminals, and related accessories contain lead and lead compounds which are known to cause cancer and reproductive harm. Wash hands after handling.

IMPORTANT: Turn off the battery disconnect switch before connecting the jumper cables. Never jump-start with more than 12 volts.

Be sure that polarity is correct before making connections. Reversed polarity damages electrical system. Always connect positive to positive and negative to ground. Always use 12 volt booster battery for 12 volt electrical systems.

1. Remove the protective caps.

NOTE: To avoid sparks, DO NOT allow the free ends of the jumper cables to touch the engine.

2. Connect the first jumper cable to the positive strap of the booster battery and the other end to the positive strap of the machine battery.
3. Connect the second jumper cable to the negative strap of the booster battery and the other end to the negative strap of the machine battery or to a ground connection.
4. Start the engine. Disconnect the jumper cables immediately after engine starts. Always disconnect the negative cable first.

CP00834,0008DDA-19-29AUG21

Avoid Excessive Engine Idling

Avoid excessive engine idling. Prolonged engine idling may cause the engine coolant temperature to fall below

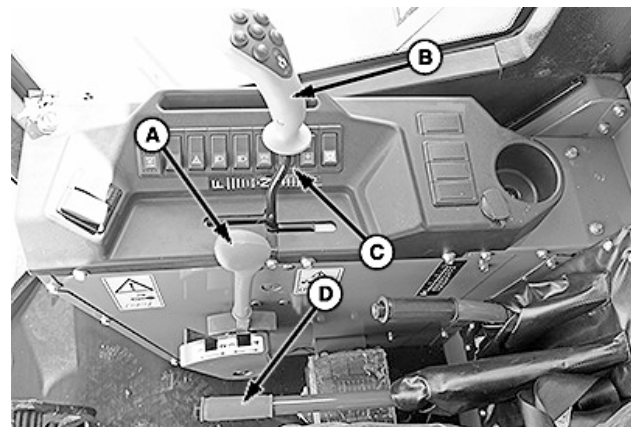
its normal range. This in turn, causes crankcase oil dilution, due to incomplete fuel combustion and permits formation of gummy deposits on valves, pistons, and piston rings. It also promotes rapid accumulation of engine sludge and unburned fuel in the exhaust system.

Once an engine is warmed to normal operating temperatures, engine should be idled at slow idle speed. If an engine will be idling for more than five minutes, stop and restart later.

To reduce buildup of soot while operating at slow idle speed, ECU increases engine operating speed to rated speed whenever DOC face plugging is possible. Increased engine operating speed increases exhaust temperature and ability to burn soot from DOC face.

CP00834,0008DDB-19-26MAY21

Stop the Engine



YC20987—UN—28NOV22

Controls and Instruments (Hydrostatic Drive Shown)

A—Gearshift Lever
B—Multi-Function Lever
C—Throttle Switch
D—Park Brake Lever

1. For the hydrostatic drive machine, move the multi-function lever (B) to the neutral position.
2. For the mechanical drive machine, verify that the gearshift lever (A) is in the neutral position.
3. Set the throttle switch (C) at "turtle" position.
4. Lower the header to the ground.
5. Verify that the threshing system engagement lever, the header engagement lever, and the unloading auger engagement lever are disengaged.
6. Pull the park brake lever (D) upwards to engage the park brake.
7. Idle engine two—three minutes to allow turbocharger to cool.
8. Shut off engine.

cp00834,1668646812486-19-16NOV22

Break-In Period Service

Breaking-In Engine

Extra care during the first 100 hours of operation will result in satisfactory long-term engine performance and life.

1. This engine is factory-filled with John Deere Break-In engine oil. Operate the engine at heavy loads with minimal idling during the break-in period.
2. If the engine has significant operating time at idle, constant speeds, and/or light load usage, or additional 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 engine oil and a new John Deere oil filter.
3. Check oil more frequently during the engine break-in period. If oil must be added during this period, John Deere Break-In engine oil is preferred. (See Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III in Fuel, Coolant, and Lubricants Section.)

IMPORTANT: DO NOT add makeup oil until the oil level is BELOW the "ADD" mark on dipstick. John Deere Break-In engine oil should be used to make up any oil consumed during this period.

DO NOT use Plus-50™ engine oil during the 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.

DO NOT fill above the crosshatch mark on dipstick.

4. During the first 20 hours, avoid prolonged periods of engine idling. If engine will idle longer than 5 minutes, stop engine.
5. During the initial operation of a new or rebuilt engine with John Deere Break-In engine oil, change the oil and filter between a minimum of 100 hours and a maximum of up to 375 hours for John Deere Plus-50™ engine oil. (See Diesel Engine Oil — Tier 3 and Stage IIIA in Fuel, Coolant, and Lubricants Section.)
6. Watch the coolant temperature indicator on the corner post display closely during the engine operation. If gauge moves into the red zone, reduce load on the engine and determine the cause before resuming operation.

7. Check coolant level periodically and watch for signs of leaks. Pour coolant into the surge tank to the Max Cold line.

cp00834,1668646964359-19-16NOV22

Breaking-In Machine

1. After engine has run for 15 minutes, engage and disengage the threshing system. If an unusual sound is heard, immediately disengage the threshing system and shut off the engine. Check diagnostic trouble codes and repair.
2. After the combine has run for 15—30 minutes, disengage the threshing system and shut off the engine. Check all bearings for over-heating.
3. After engine has run for a few hours, check and tension all belts and chains.

CP00834,0008FEB-19-29AUG21

Break-In Period Maintenance

During the break-in period, perform the first several hours maintenance, the first 25 hours maintenance, and the first 100 hours maintenance. (See Maintenance Chart—Break-In Period in this Section.)

During the break-in period, also perform the every 10 hours (daily) maintenance, the every 50 hours maintenance, and the every 100 hours maintenance.

- See Lubrication and Maintenance Chart—Every 10 Hours (Daily) in Lubrication and Maintenance—Every 10 Hours (Daily) Section
- See Lubrication and Maintenance Chart—Every 50 Hours in Lubrication and Maintenance—Every 50 Hours Section
- See Lubrication and Maintenance Chart—Every 100 Hours in Lubrication and Maintenance—Every 100 Hours Section

CP00834,0008FEB-19-05AUG21

Maintenance Chart—Break-In Period

NOTE: During the break-in period, also perform the every 10 hours (daily) maintenance, the every 50 hours maintenance, and the every 100 hours maintenance.

Item	First Several Hours	First 25 Hours	First 100 Hours
Check and Tighten Wheel Bolts and Nuts	•	•	
Check and Tighten Front Axle Bolts and Nuts		•	
Change Engine Oil and Replace Oil Filter			•
Replace Hydraulic Oil Filter			•

Break-In Period Service

Item	First Several Hours	First 25 Hours	First 100 Hours
Replace Hydrostatic filter screen (Hydrostatic Drive)			•
Change Gear Case Transmission Oil			•
Change Final Drive Oil			•
Change Threshing Cylinder Speed Reduction Gear Grease (Option)			•
Change Brake Fluid			•
Change Separator Rotor Gear Case Oil			•
Change Rear Wheel Drive Axle Oil (Option)			•
Change Rear Wheel Drive Final Drive Oil (Option)			•
Change Rear Wheel Drive Gear Case Oil (Option)			•

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Check and Tighten Wheel Bolts and Nuts

Service Interval	First Several Hours
	First 25 Hours
	Every 200 Hours (Every Season)*

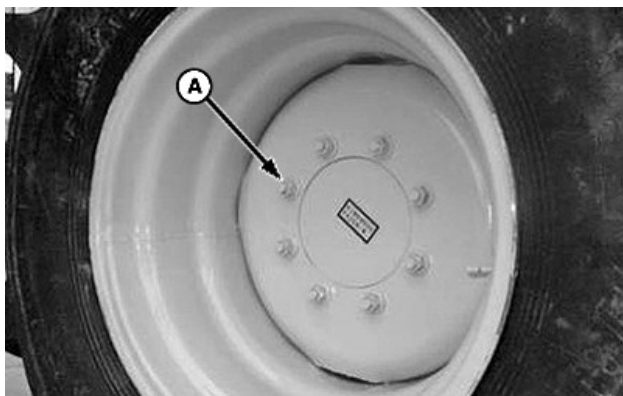
*After the first 25 hours, check and tighten wheel bolts and nuts every 200 hours or every season, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC17587—UN—28MAY21

Rear Wheel



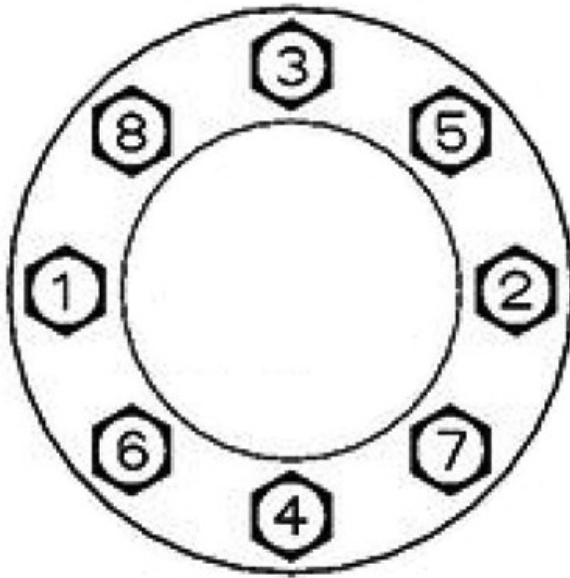
YC17586—UN—28MAY21

Front Wheel



YC18358—UN—02SEP21

Rear Wheel (Rear Wheel Drive, Option)



Torque Sequence

YC12755—UN—06AUG18

A—Nut (8 used)
B—Bolt (8 used)

Check and tighten the front wheel nuts (A) and the rear wheel bolts (B) following the torque sequence to specification.

Specification

Front Wheel Nuts—Torque. 420 N·m
(310 lb·ft)
Rear Wheel Bolts—Torque. 180 N·m
(133 lb·ft)

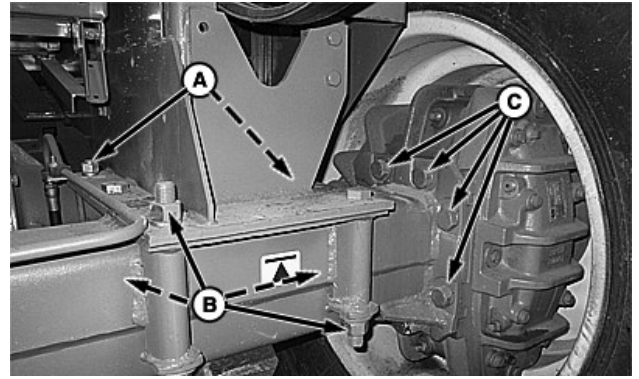
cp00834,1661848485905-19-30AUG22

Check and Tighten Front Axle Bolts and Nuts

Service Interval	First 25 Hours
	Every 200 Hours (Every Season)*

*After the first 25 hours, check and tighten front axle bolts and nuts every 200 hours or every season, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC8202—UN—12MAR15

A—Nut (2 used)
B—Nut (4 used)
C—Bolt (8 used)

Check and tighten the front axle attaching bolts and nuts to specification.

Specification

Front Axle Nuts (A)—Torque. 240 N·m
Front Axle Nuts (B)—Torque. 435 N·m
Front Axle Bolts (C)—Torque. 435 N·m

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Change Engine Oil and Replace Oil Filter

Service Interval	First 100 Hours
	Every 375 Hours*

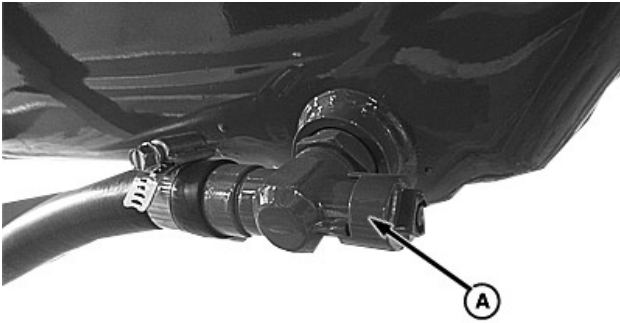
*If non John Deere recommended engine oil and oil filter are used, after break-in period, shorten the service interval to 250 hours.

NOTE: Always replace the engine oil filter when changing the engine oil.

After the break-in period, change the engine oil and replace the engine oil filter. John Deere Plus-50™ is the recommended engine oil. See Engine Oil and Filter Service Intervals in Fuel, Coolant, and Lubricants Section.

NOTE: If changing the engine oil during the break-in period, use John Deere John Deere Break-In engine oil. See Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III in Fuel, Coolant, and Lubricants Section for recommendations.

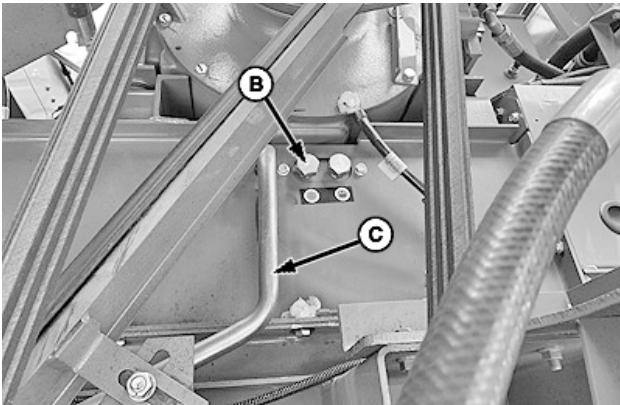
1. Run engine approximately 5 minutes to warm up the engine oil.
2. Shut off engine, set park brake, and remove key.



A—Drain Tap

YC8631—UN—28FEB16

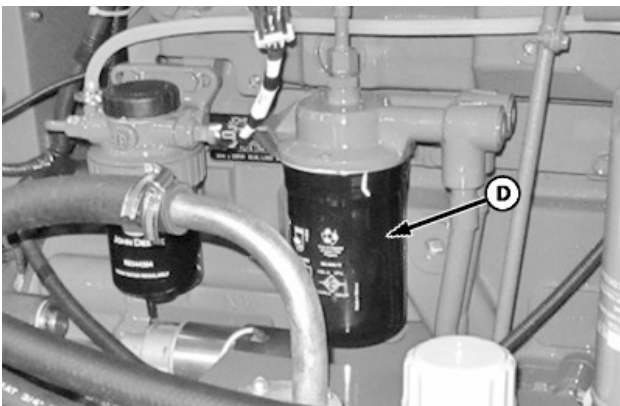
3. Open the drain tap (A) at the bottom of the engine.



B—Engine Oil Drain Plug
C—Oil Drain Tube

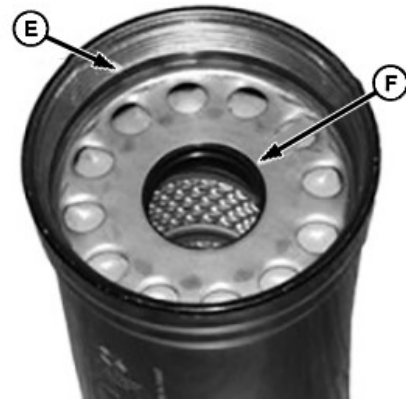
YC20988—UN—28NOV22

4. Loosen the engine oil drain plug (B) and drain the engine oil into a suitable container by the oil drain tube (C).



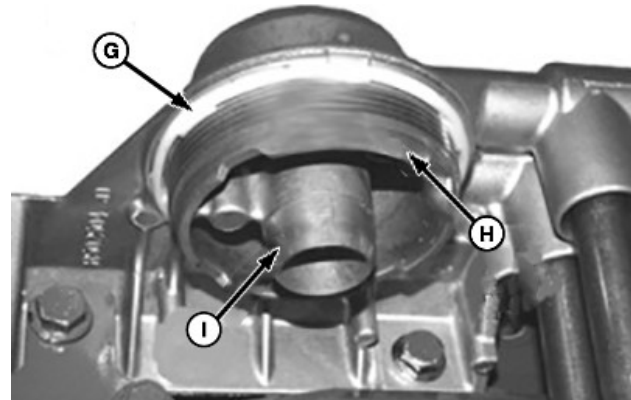
YC20989—UN—28NOV22

Replace Engine Oil Filter



Oil Filter Seals

YC20990—UN—28NOV22



Filter And Mounting Header

YC20991—UN—28NOV22

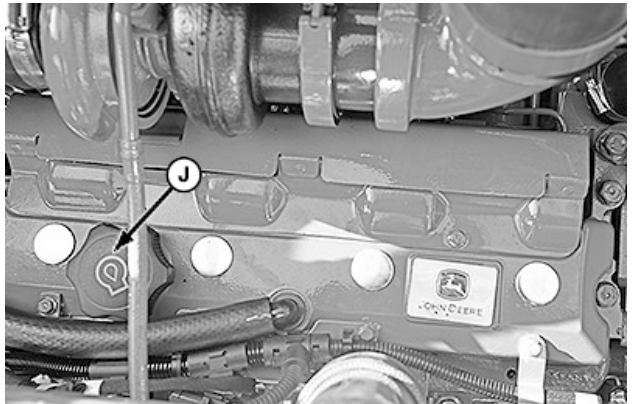
D—Filter Element
E—Outer Seal
F—Inner Seal
G—Dust Seal
H—Sealing Surface On Header
I—Sealing Surface On Header

5. Unscrew and remove the filter element (D) using a suitable filter wrench. Discard the old filter element
6. Apply clean engine oil to the new filter element at the inner seal (F) and outer seal (E) and to filter threads.
7. Wipe both sealing surfaces of the header (H and I) with a clean rag. Ensure that notches in dust seal (G) are properly installed in the slots in the housing. Replace dust seal if damaged

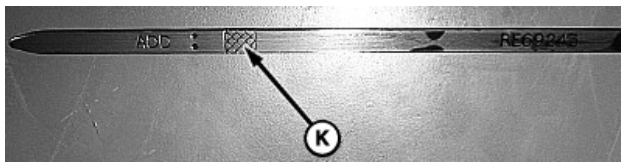
IMPORTANT: When installing filter element, **HAND TIGHTEN** only. A filter wrench may be used for **REMOVAL ONLY**. Be sure that notches in dust seal (G) are properly installed in the slots in the housing.

8. Install and tighten filter element by hand until firmly against dust seal (G). DO NOT apply an extra 3/4 to 1-1/4 turn after gasket contact as done with standard filters.
9. Close the drain tap (A) at the bottom of the engine.

10. Tighten the engine oil drain plug (B).



YC20992—UN—28NOV22



YC20993—UN—28NOV22

Engine Oil Dipstick

J—Filling Cap
K—Dipstick

11. Remove the filling cap (J) and fill engine crankcase with specified engine oil.

NOTE: Check the engine oil capacity in Specifications Section.

12. Remove dipstick (K) and check oil level. The engine oil level should be within the crosshatch area on the dipstick.

13. Start engine and run to check for possible leaks.

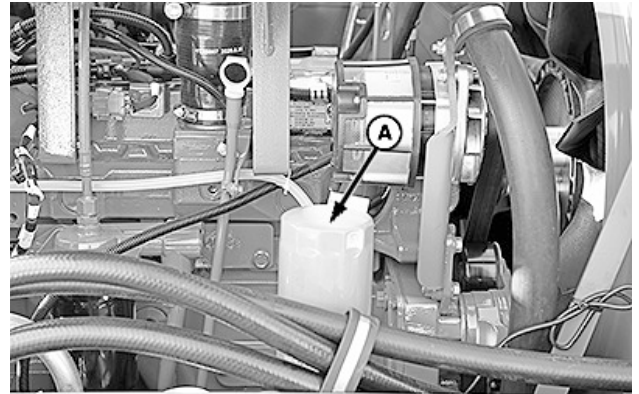
14. Stop engine and check engine oil level after 10 minutes.

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Replace Hydraulic Oil Filter

Service Interval	First 100 Hours
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CAUTION: Shut off engine, set park brake, and remove key.



YC20994—UN—28NOV22

A—Hydraulic Oil Filter Element

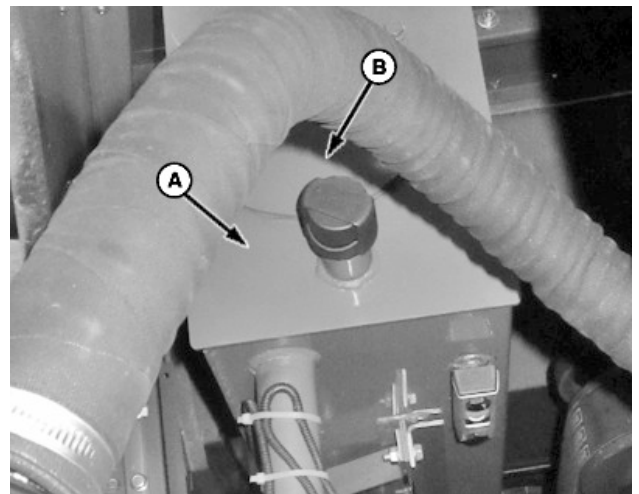
Remove the hydraulic oil filter element (A) and replace with a new filter element.

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Replace Hydrostatic Filter Screen (Hydrostatic Drive)

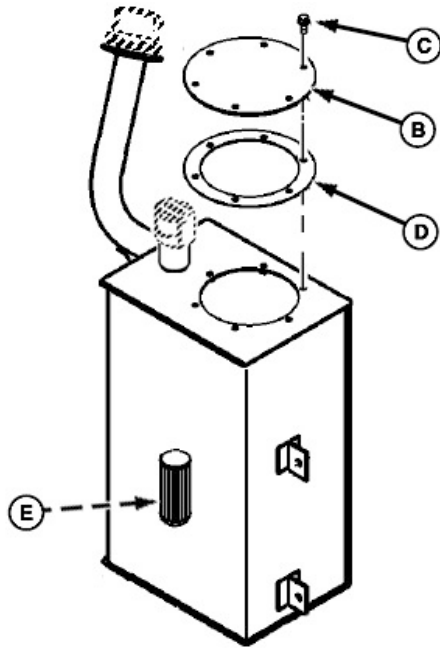
Service Interval	First 100 Hours
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CAUTION: Shut off engine, set park brake, and remove key.



YC20995—UN—28NOV22

Hydrostatic Reservoir



- A—Hydrostatic Reservoir
B—Cap
C—Cap Screw (6 used)
D—Sealing Washer
E—Filter Screen

1. Remove cap screws (C) and cap (B) to replace the filter screen (E).

IMPORTANT: Keep the hydrostatic oil clean.

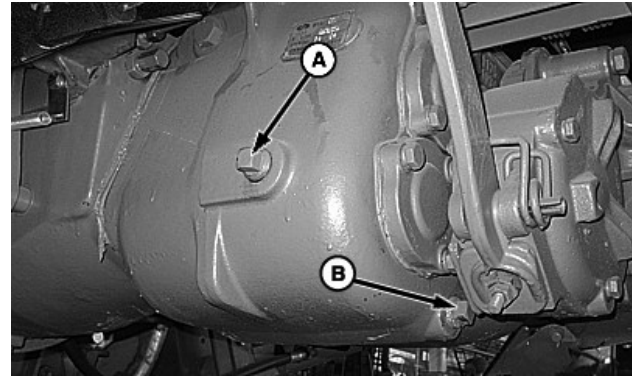
2. Apply silicon sealant-free gasket to the cap and cap screws.
3. Install cap and tighten cap screws.

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Change Gear Case Transmission Oil

Service Interval	First 100 Hours
	Every 500 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC20997—UN—28NOV22

- A—Filling Plug
B—Drain Plug

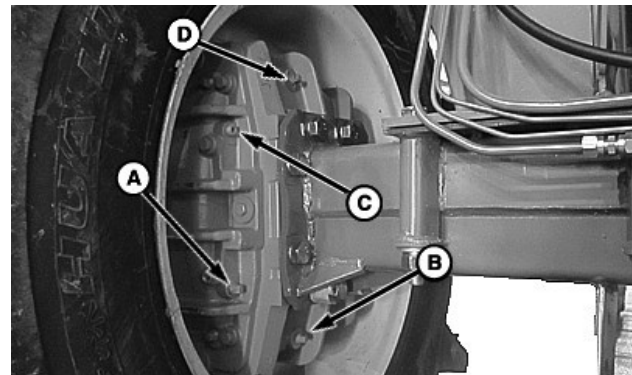
1. Put a suitable container under the gear case transmission.
2. Remove the filling plug (A) and the drain plug (B) to drain the oil.
3. Install and tighten the drain plug.
4. Fill the gear case transmission with specified oil.
 - **Gear Oil:** GL-5 80W/90 gear oil
 - **Gear Case Capacity:** 6.6 L
5. Install and tighten the filling plug until oil flows out of the filling port.

cp00834,1668655504668-19-16NOV22

Change Final Drive Oil

Service Interval	First 100 Hours
	Every 500 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC20998—UN—28NOV22

Right Side Final Drive Shown

- A—Oil Level Plug
B—Drain Plug
C—Vent Plug

D—Filling Plug

1. Put a suitable container under the final drive.
2. Remove the filling plug (D), the oil level plug (A), and the drain plug (B) to drain off the oil.
3. Install and tighten the drain plug.
4. Fill the final drive with specified oil.
 - **Gear Oil:** GL-5 80W/90 gear oil
 - **Final Drive Capacity:** 3.1 L
5. Install and tighten the oil level plug until oil flows out of the port.
6. Install and tighten the filling plug.

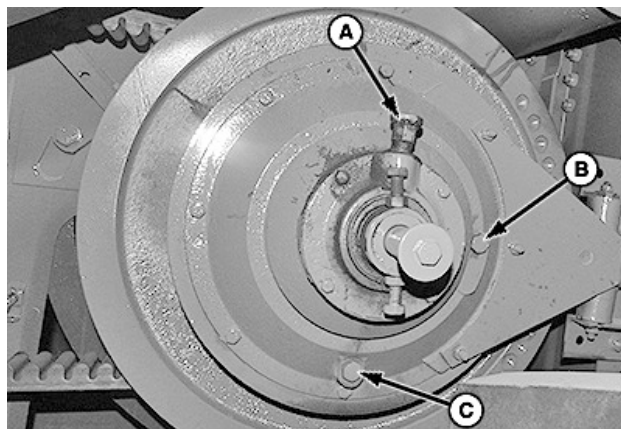
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Change Threshing Cylinder Speed Reduction Gear Grease (Option)

Service Interval	First 100 Hours
	Every 500 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

IMPORTANT: Before filling the threshing cylinder speed reduction gear or checking the grease level, close the variable speed sheaves.



YC20999—UN—28NOV22

A—Breather
B—Filling Plug
C—Drain Plug

1. Put a suitable container under the threshing cylinder speed reduction gear.
2. Remove the breather (A), the filling plug (B), and the drain plug (C) to drain the grease.
3. Install and tighten the drain plug.

4. Fill the threshing cylinder speed reduction gear with specified grease.

- **Grease:** MOBILITH SHC 007 Grease
- **Grease Capacity:** 0.8 kg

5. Install and tighten the filling plug until grease flows out of the port.
6. Install and tighten the breather.

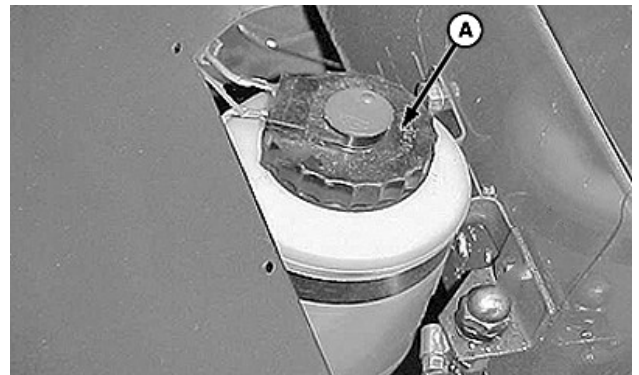
IMPORTANT: Check the grease level again after 15 minutes. Refill as necessary.

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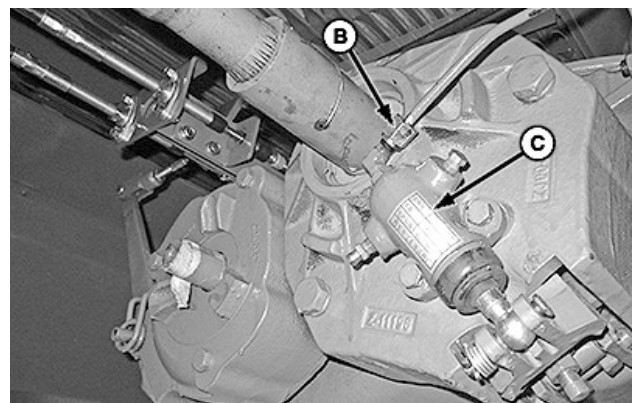
Change Brake Fluid

Service Interval	First 100 Hours
	Every 500 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21000—UN—28NOV22



YC21101—UN—28NOV22

A—Cap
B—Lock Nut (2 used)
C—Brake Slave Cylinder (2 used)

1. Put a suitable container under the gear case transmission.

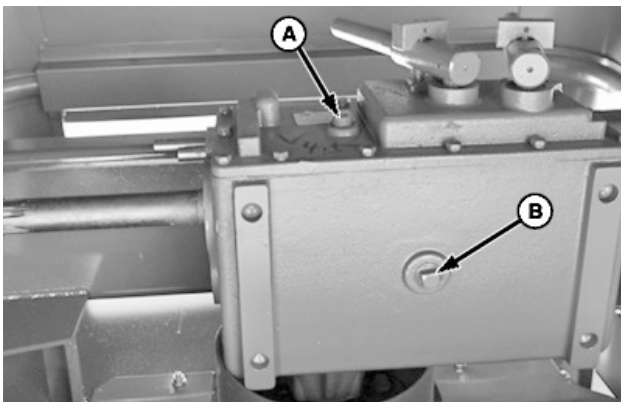
2. Remove the cap (A).
3. Loosen the lock nuts (B) to disconnect the hydraulic oil lines from the brake slave cylinders (C).
4. Depress the brake pedals to drain the brake fluid.
5. Connect the hydraulic oil lines and tighten the lock nuts.
6. Fill the brake fluid reservoir with specified oil.
 - **Oil:** 10[#] aviation hydraulic oil
 - **Brake System Capacity:** 3 L
 - **Brake Fluid Can Capacity:** 0.75 L
7. Install and tighten the cap until the brake fluid reservoir is filled up.
8. Bleed the brake system. (See Bleed Brake System in Drive System Maintenance Section.)

cp00834,1668655605003-19-16NOV22

Change Separator Rotor Gear Case Oil

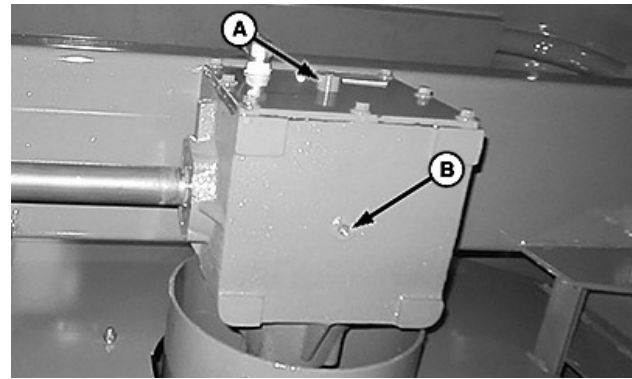
Service Interval	First 100 Hours
	Every 500 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21102—UN—28NOV22

Adjustable Gear Case



YC21103—UN—28NOV22

Non-Adjustable Gear Case

A—Filling Plug
B—Drain Plug

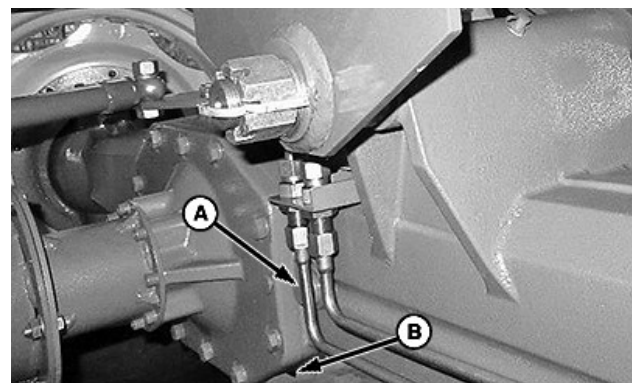
1. Put a suitable container under the gear case.
2. Remove the filling plug (A) and the drain plug (B) to drain the oil.
3. Install and tighten the drain plug (B).
4. Fill the gear case with specified oil.
 - **Oil:** John Deere Hy-Gard™
 - **Adjustable Gear Case Capacity:** 2.5 L
 - **Non-Adjustable Gear Case Capacity:** 1.6 L
5. Install and tighten the filling plug until oil flows out of the port.

cp00834,1668658597852-19-16NOV22

Change Rear Wheel Drive Axle Oil (Option)

Service Interval	First 100 Hours
	Every 1600 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21104—UN—28NOV22

A—Filling Plug
B—Drain Plug

1. Put a suitable container under the rear wheel drive axle.
2. Remove the filling plug (A) and the drain plug (B) to drain the oil.
3. Install and tighten the drain plug.
4. Fill the rear wheel drive axle with specified oil.
 - **Gear Oil:** GL-5 80W/90 gear oil
 - **Oil Capacity:** 18 L
5. Install and tighten the filling plug until oil flows out of the port.

cp00834,1668658861006-19-16NOV22

Change Rear Wheel Drive Final Drive Oil (Option)

Service Interval	First 100 Hours
	Every 800 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC16665—UN—13JAN21

Plug at the Lowest Position



YC17612—UN—01JUN21

Plug at Horizontal Position

A—Plug

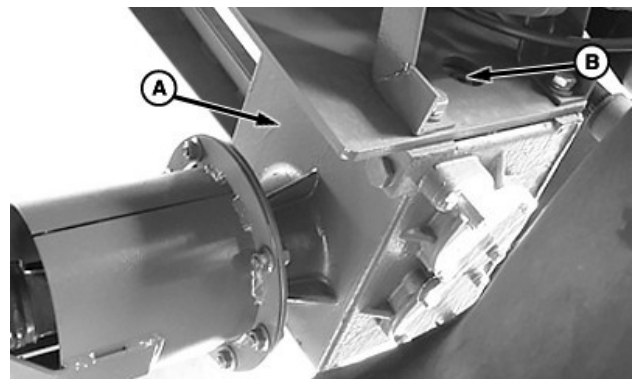
1. Turn the rear wheel to make the plug (A) at the lowest position.
2. Put a suitable container to collect the oil.
3. Remove the plug to drain the oil.
4. Turn the rear wheel to make the plug at the horizontal position.
5. Fill the final drive with specified oil.
 - **Gear Oil:** GL-5 80W/90 gear oil
 - **Oil Capacity:** 1.5 L
6. Install and tighten the plug until oil flows out of the port.

CP00834,0008E77-19-10JUN21

Change Rear Wheel Drive Gear Case Oil (Option)

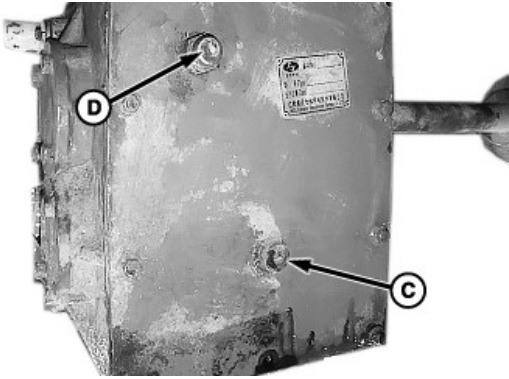
Service Interval	First 100 Hours
	Every 400 Hours

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



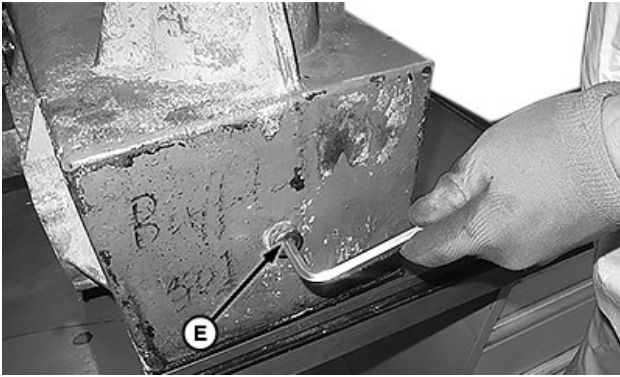
YC21105—UN—28NOV22

Top of the Gear Case



YC11508—UN—08MAR17

Side of the Gear Case



YC11509—UN—08MAR17

Bottom of the Gear Case

- A—Gear Case
- B—Filling Plug
- C—Oil Level Plug
- D—Breather
- E—Drain Plug

1. Put a suitable container under the gear case.
2. Remove the filling plug (B), the oil level plug (C) and the drain plug (E) to drain the oil.
3. Install and tighten the drain plug.
4. Fill the gear case with specified oil.
 - **Gear Oil:** GL-5 80W/90 gear oil
 - **Oil Capacity:** 3.2 kg
5. Install and tighten the oil level plug until oil flows out of the port.
6. Install and tighten the filling plug.

cp00834,1668658901044-19-16NOV22

Electrical and Lighting Operation

Observe Electrical Precautions

CAUTION: Keep all sparks and flames away from battery 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 the battery disconnect switch OFF before servicing any part of the electrical system or when removing battery.

Check Battery Condition

IMPORTANT: It is forbidden to add electrolyte to the maintenance-free battery. Battery cannot be tilted.

CP00834,0008ED3-19-24JUN21



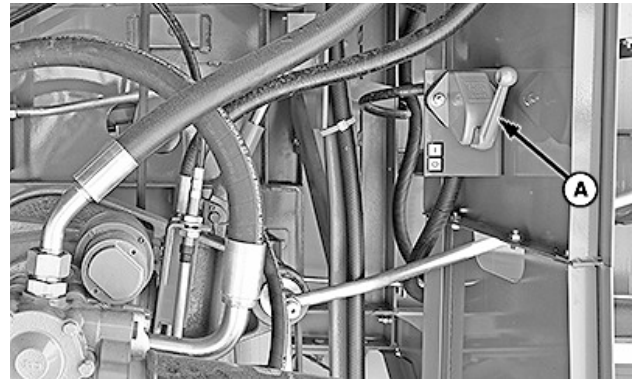
Battery Label

YC19414—UN—09JAN22

The battery is a maintenance-free battery. Often check the color of the battery status indicator on the battery. Recharge or replace the battery as needed.

Indicator Color	Battery Status
Green	Good
Black	Charge the Battery
White	Replace the Battery

CP00834,0008DEB-19-10JAN22



YC21106—UN—28NOV22

Battery Disconnect Switch (ON Position Shown)

Battery Disconnect Switch Operation

IMPORTANT: The battery disconnect switch does not control power to the engine control unit (ECU). If machine is not used for a long period, disconnect the battery ground cable.

IMPORTANT: In order to prevent ECU data loss, wait for at least 30 s to turn off the battery disconnect switch after engine is shut off.

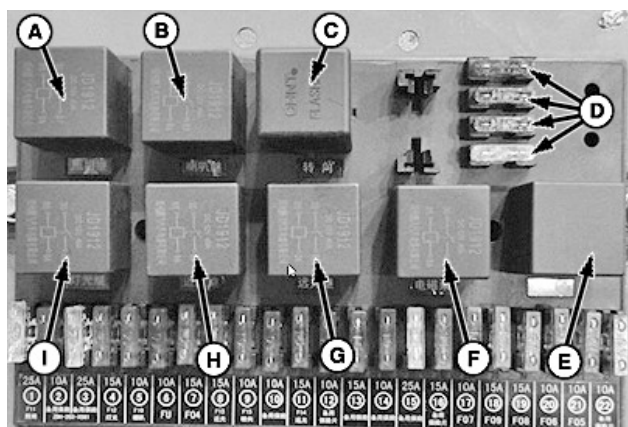
A—Battery Disconnect Switch

Set the battery disconnect switch (A) to OFF position after harvesting every day.

Before repairing electrical components, disconnect the battery disconnect switch.

cp00834,1668658994143-19-16NOV22

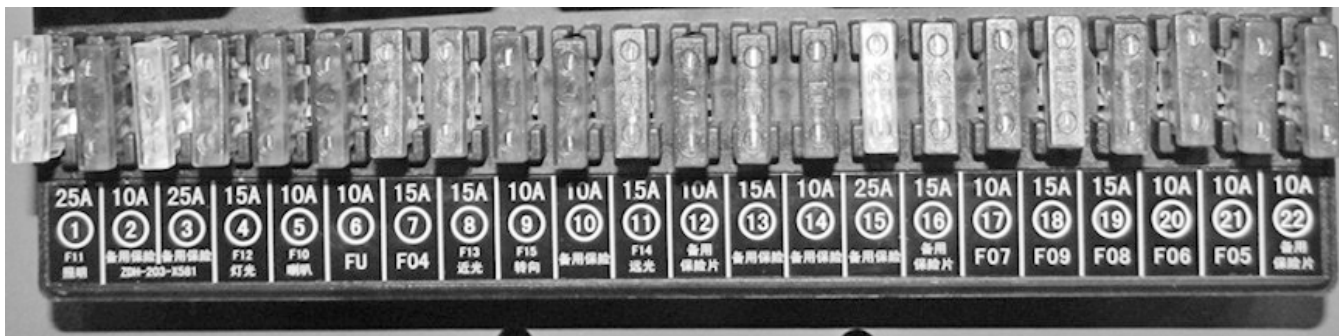
Cab Fuse Block Identification



YC21107—UN—28NOV22

Fuses and Relays in Cab

- A—Front Inner and Middle Worklight Relay
- B—Horn Relay
- C—Turning light Relay
- D—Spare Fuses
- E—Power Relay
- F—Fuel Pump Relay
- G—High-Beam Headlight Relay
- H—Low-Beam Headlight Relay
- I—Front Outer Worklight Relay



YC21108—UN—28NOV22

Fuses

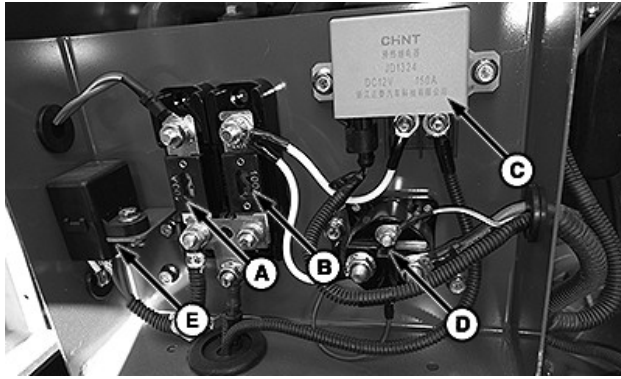
Item	Fuse	Item	Fuse	Item	Fuse	Item	Fuse
1	Front inner and middle worklight fuse 25A	2	Spare fuse 10A	3	Spare fuse 25A	4	Front outer worklight fuse 15A
5	Horn fuse 10A	6	Front worklight switch fuse 10A	7	Beacon light fuse 15A	8	Low-beam headlight fuse 15A
9	Turn-signal light fuse 10A	10	Multi-function lever fuse 10A	11	High-beam headlight fuse 15A	12	Spare fuse 10A
13	Spare fuse 15A	14	Spare fuse 10A	15	Spare fuse 25A	16	Spare fuse 15A
17	Corner post display fuse 10A	18	A/C and dome light fuse 15A	19	Backup light and horn fuse 15A	20	Backup alarm fuse 10A
21	Reel speed adjusting motor fuse 10A	22	Multi-function lever control unit fuse 5A				

cp00834,1668659495547-19-21NOV22

Fuses and Relay in Electrical Box

IMPORTANT: If fuses and relays in the electrical box need to be replaced, contact with your John Deere dealer.

Make sure that the battery disconnect switch is turned off before replacing the fuse.



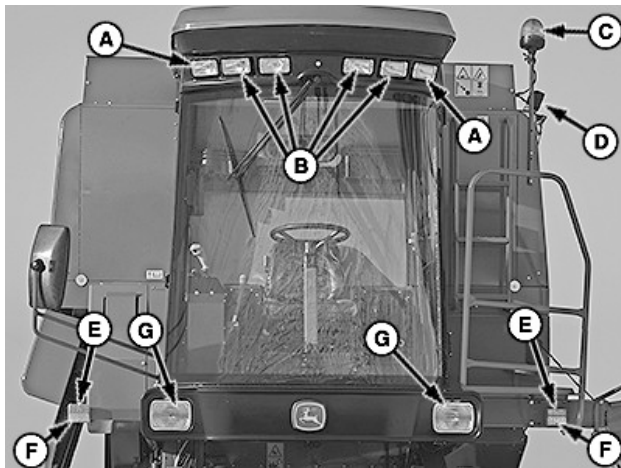
YC11126—UN—04DEC17

- A—Main Power Supply Fuse (100A)
- B—Cold Start Heater Fuse (100A)
- C—Starter Relay
- D—Cold Start Heater Relay
- E—Fuses (ECU fuse 20A and Key switch fuse 15A)

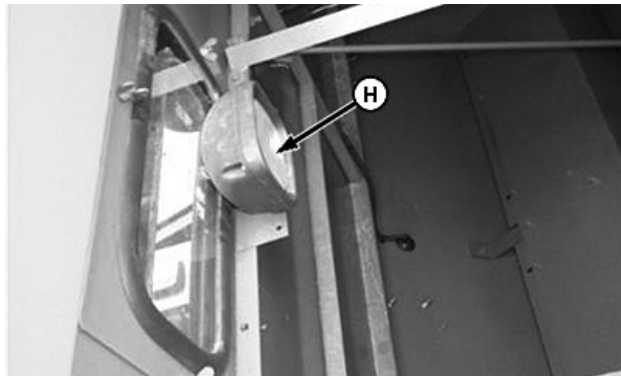
The electrical box is on the left-hand side of engine.

cp00834,1668660276868-19-16NOV22

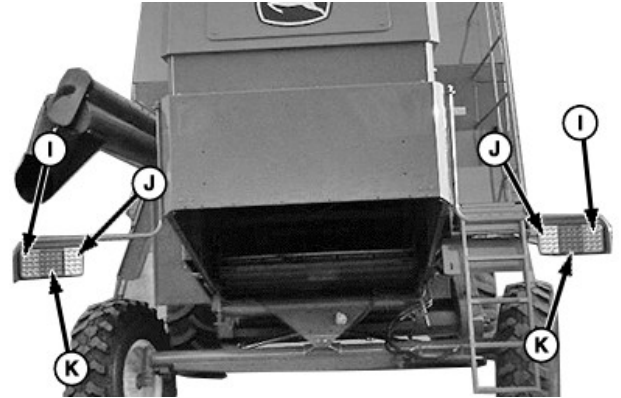
Light Locations



YC21109—UN—28NOV22



YC21110—UN—28NOV22



YC21111—UN—28NOV22

Rear View

- A—Worklight (2 used)
- B—Worklight (4 used)
- C—Beacon Light (only for export market)
- D—Unloading Light
- E—Front Hazard Warning Light/Front Turn-Signal Light (2 used)
- F—Front Marker Light (2 used)
- G—Headlight (High/Low Beam, 2 used)
- H—Grain Tank Light
- I—Rear Turn-Signal Light (2 used)
- J—Rear Marker Light (2 used)
- K—Brake Light (2 used)

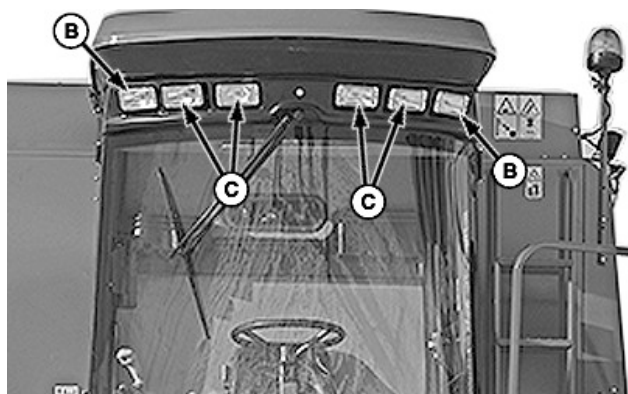
cp00834,1668662516505-19-16NOV22

Use Worklights

CAUTION: To avoid motorist confusion, do not operate worklights when driving on public roadways.



YC18231—UN—05AUG21



A—Worklight Switch
B—Worklight (2 used)
C—Worklight (4 used)

The worklight switch (A) controls the worklights (B and C).

The worklight switch is a three-position switch:

- Upper Position: All worklights are off.
- Low Position: The worklights (B) are on.
- Lower Position: The worklights (B and C) are on.

cp00834,1668663033916-19-16NOV22

Use Headlights and Marker Lights

CAUTION: Accidental collision with another vehicle can cause serious injury or death to you or others. Always comply with traffic regulations when driving machine on a road.

Dim headlights to the low beam for on-coming vehicles.



A—Light Switch
B—High-Beam Switch

The light switch (A) controls the marker lights and the low beams.

The high beams are controlled by the high-beam switch (B) together with the light switch.

The light switch is a three-position switch:

- Upper Position: Headlights and the marker lights are off.
- Low Position: The marker lights are on.
- Lower Position: The marker lights and the low beams are on.

The high-beam switch is a two-position switch:

- Upper Position: The high beams are off.

NOTE: Before operating the high-beam switch, the light switch should be in the lower position.

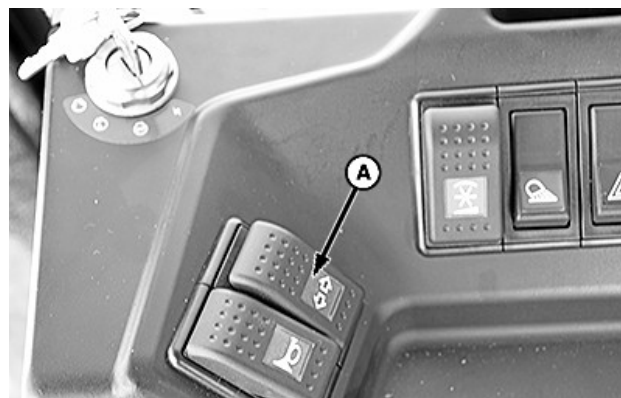
- Low Position: The high beams are on.

NOTE: When the high beams are on, the high-beam indicator in the corner post display turns on.

cp00834,1665381246293-19-10OCT22

Use Turn-Signal Lights

NOTE: The turn signals operate anytime when the key switch is ON.



A—Turn-Signal Light Switch

The turn-signal light switch (A) controls the turn-signal lights.

The light switch is a three-position switch:

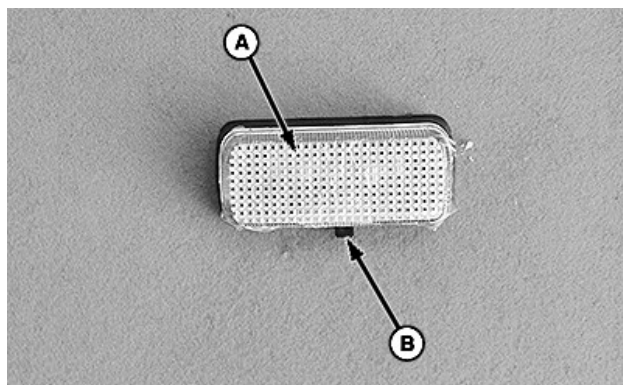
- Upper Position: The right turn-signal lights are on.
- Neutral Position: The turn-signal lights are off.
- Lower Position: The left turn-signal lights are on.

NOTE: The turn-signal lights are not self-cancelling, so the switch must be returned to the neutral position manually.

The indicator lights (left or right) on corner post display illuminate and indicate a turn.

CP00834,0008FAD-19-20OCT21

Use Dome Light



YC18018—UN—14JUL21

A—Dome Light
B—Light Switch

The dome light (A) provides the overhead lighting for use at night or in low light conditions.

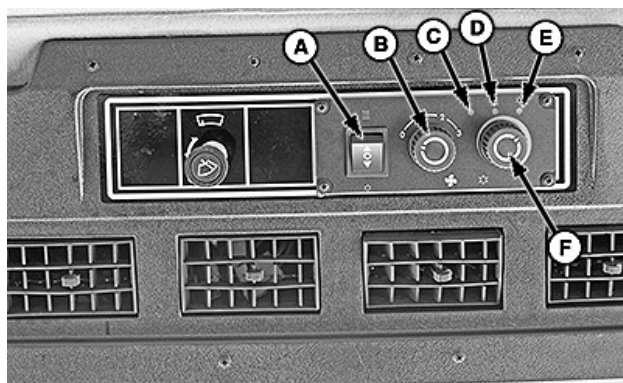
The light switch (B) controls the dome light.

The light switch is a two-position switch:

- ON
- OFF

CP00834,0008FAC-19-29AUG21

Heater/Ventilation/Air-Conditioning System (HVAC) Operation



YC18017—UN—14JUL21

A—HVAC Mode Switch
B—Air Flow Control Knob
C—Indicator
D—Indicator
E—Indicator
F—AC Temperature Adjustment Knob

HVAC Mode Switch (A): Activate air-conditioning system and heating system.

- Upper Position: The heating system is activated and the indicators (C and D) are on.
- Neutral Position: The HVAC system is OFF and the indicators are OFF.
- Lower Position: The cooling system is activated and the indicators (C and E) are on.

Air Flow Control Knob (B): Adjust the fan speed and the amount of air coming out of louvers.

- Off Position - All power to system is OFF.
- On Position - The fan speed increases by turning the knob clockwise to one of the three available positions: Low, medium, and high speeds.

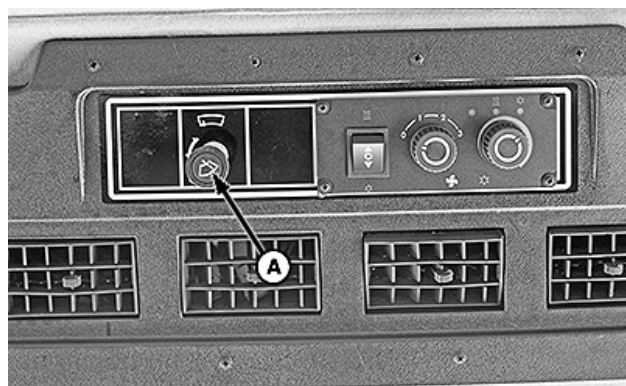
AC Temperature Adjustment Knob (F): Adjust the temperature of cab.

- Turn the knob clockwise to increase the temperature.
- Turn the knob counterclockwise to decrease the temperature.

CP00834,0008FAF-19-28SEP21

Windshield Wiper Operation

NOTE: The key switch must be ON or machine running for the windshield wiper to operate.



YC18016—UN—14JUL21

A—Wiper Switch

The windshield wiper switch (A) is used to control the windshield wiper.

- Pull the wiper switch out to the first position, the windshield wiper operates continuously at low speed.
- Pull the wiper switch out to the second position, the windshield wiper operates continuously at high speed.
- Push the wiper switch to the bottom, the windshield wiper is OFF.

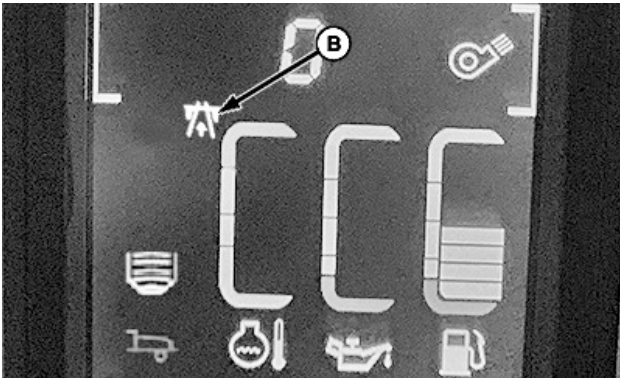
CP00834,0008FAE-19-15JUL21

Drive System Operation

Road/Field Mode (Hydrostatic Drive)



YC17949—UN—12JUL21



YC21113—UN—28NOV22

A—Road/Field Switch
B—Indicator Light

The road/field switch (A) is used when transporting the combine on roadways.

Press the lower part of the road/field switch, the indicator light on the switch and the indicator light (B) on the corner post display turn on, the road mode is activated.

The road mode prevents the following functions:

- Header Raise/Lower
- Reel Raise/Lower
- Unloading Auger Swing

When the field operation is required, press the upper part of the road/field switch and the indicator lights turn off. The functions above can be used.

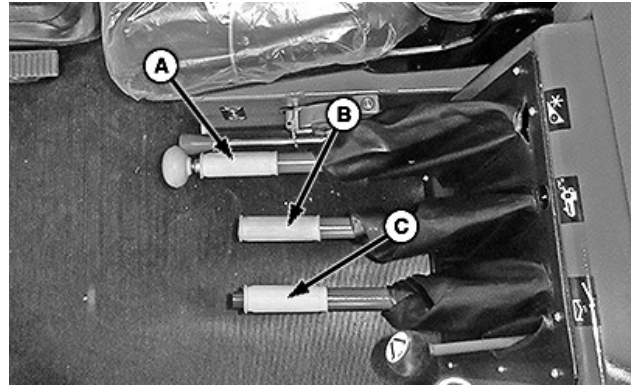
NOTE: When the indicators turn on, the machine is in the road mode.

When the indicators turn off, the machine is in the field mode.

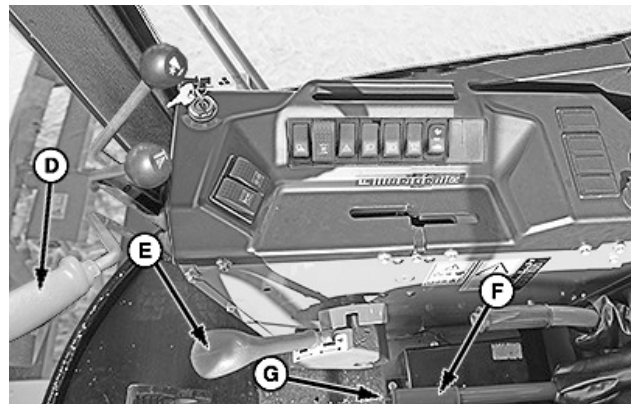
cp00834,1668663913898-19-16NOV22

Drive the Machine (Mechanical Drive)

CAUTION: Before starting engine, make sure that everyone is clear of machine. Sound horn to warn others.



YC17953—UN—13JUL21



YC21114—UN—28NOV22

A—Header Engagement Lever
B—Threshing System Engagement Lever
C—Unloading Auger Engagement Lever
D—Ground Speed Lever
E—Gearshift Lever
F—Park Brake Lever
G—Button

1. Verify that the header engagement lever (A), the threshing system engagement lever (B), and the unloading auger engagement lever (C) are disengaged.
2. Sound horn and start the engine.
3. Raise the header to the working or transport position.
4. **Disengage Park Brake:** Pull the park brake lever (F) upwards slightly, press the button (G), push the park brake lever fully downwards, and release the button.
5. Depress the clutch pedal and move the gearshift lever (E) to the desired position.

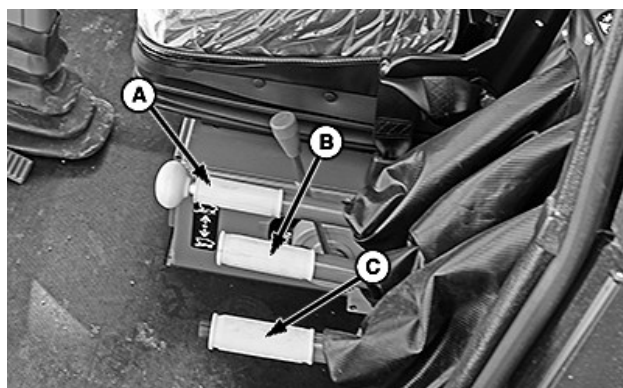
NOTE: In certain circumstances, the gears do not shift at the first attempt, so try several times until the gears shift.

- Shift the gearshift lever to the fourth gear for transporting on the road.
 - Shift the gearshift lever to the desired gear for operating in the field.
6. Push the ground speed lever (D) forward to increase the driving speed.
- Pull the ground speed lever backward to decrease the driving speed.

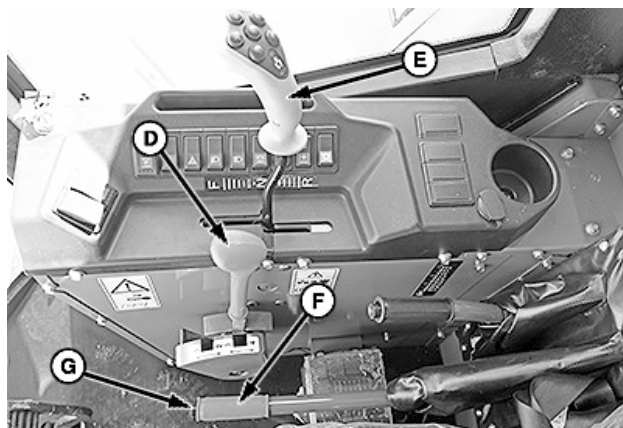
cp00834,1668664022594-19-16NOV22

Drive the Machine (Hydrostatic Drive)

CAUTION: Before starting engine, make sure that everyone is clear of machine. Sound horn to warn others.



YC17951—UN—13JUL21



YC21115—UN—28NOV22

- A—Header Engagement Lever
- B—Threshing System Engagement Lever
- C—Unloading Auger Engagement Lever
- D—Gearshift Lever
- E—Multi-Function Lever
- F—Park Brake Lever
- G—Button

1. Place the multi-function lever (E) in the neutral position.
2. Verify that the header engagement lever (A), the threshing system engagement lever (B), and the

unloading auger engagement lever (C) are disengaged.

3. Sound horn and start the engine.
4. Move the gearshift lever (D) to the desired position.

NOTE: In certain circumstances, the gears do not shift at the first attempt, so try several times until the gears shift.

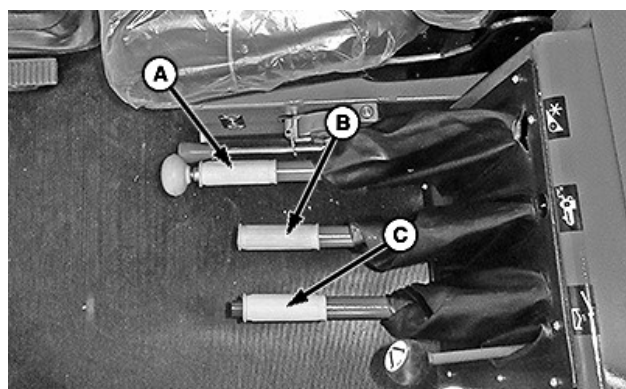
- Shift the gearshift lever to the fourth gear for transporting on the road.
- Shift the gearshift lever to the desired gear for operating in the field.

5. Raise the header to the working or transport position.
6. **Disengage Park Brake:** Pull the park brake lever (F) upwards slightly, press the button (G), push the park brake lever fully downwards, and release the button.
7. **Driving Forward:** Push the multi-function lever forwards to drive the machine forward. Push the multi-function lever further forward to increase the driving speed.

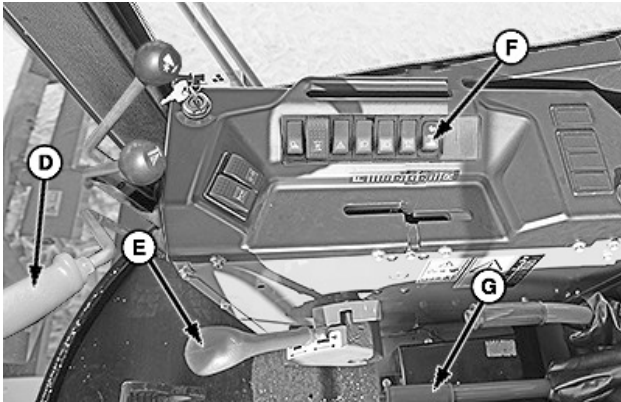
Driving Rearward: Pull the multi-function lever backward to drive the machine rearward. Pull the multi-function lever further backward to increase the driving speed.

cp00834,1668664118251-19-16NOV22

Stop the Machine (Mechanical Drive)



YC17953—UN—13JUL21



YC21116—UN—28NOV22

- A—Header Engagement Lever
- B—Threshing System Engagement Lever
- C—Unloading Auger Engagement Lever
- D—Ground Speed Lever
- E—Gearshift Lever
- F—Throttle Switch
- G—Park Brake Lever

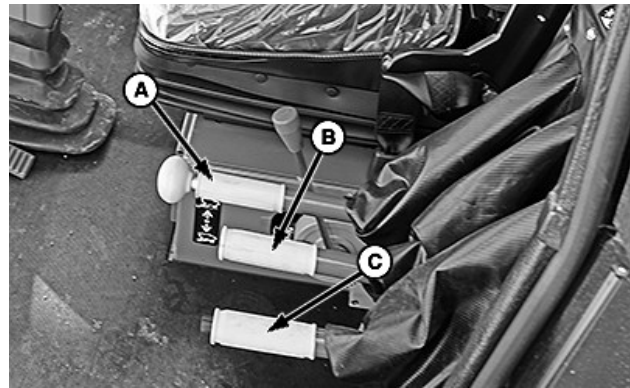
1. Pull the ground speed lever (D) fully backward to the low speed position.
2. Depress the service brake pedals to stop the machine.
3. Depress the clutch pedal and move the gearshift lever (E) to the neutral position and release the service brake pedals.

NOTE: In certain circumstances, the gears do not shift at the first attempt, so try several times until the gears shift.

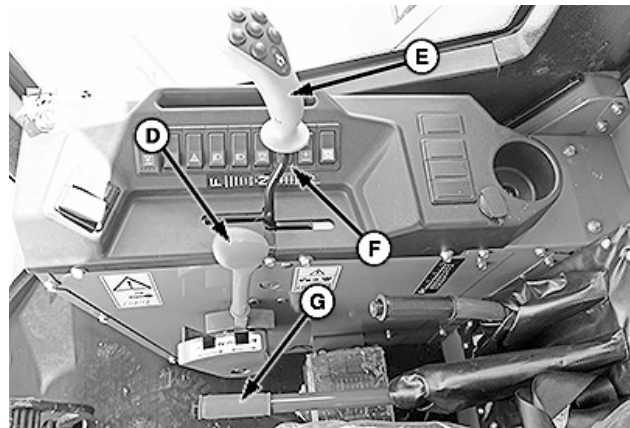
4. Set the throttle switch (F) at “turtle” position.
5. Lower the header to the ground.
6. Disengage the header engagement lever (A), the threshing system engagement lever (B), and the unloading auger engagement lever (C).
7. Pull the park brake lever (G) upwards to engage the park brake.
8. Idle engine two—three minutes to allow turbocharger to cool.
9. Shut off engine.

cp00834,1668664210284-19-16NOV22

Stop the Machine (Hydrostatic Drive)



YC17951—UN—13JUL21



YC21117—UN—28NOV22

- A—Header Engagement Lever
- B—Threshing System Engagement Lever
- C—Unloading Auger Engagement Lever
- D—Gearshift Lever
- E—Multi-Function Lever
- F—Throttle Switch
- G—Park Brake Lever

1. Depress the service brake pedals to stop the machine.
2. Move the multi-function lever (E) to the neutral position and release the service brake pedals.
3. Set the throttle switch (F) at “turtle” position.
4. Lower the header to the ground.
5. Disengage the header engagement lever (A), the threshing system engagement lever (B), and the unloading auger engagement lever (C).
6. Pull the park brake lever (G) upwards to engage the park brake.
7. Idle engine two—three minutes to allow turbocharger to cool.
8. Shut off engine.

cp00834,1668664291054-19-16NOV22

Clutch Pedal Operation (Mechanical Drive)

IMPORTANT: To avoid damage to the gear case, do not depress the clutch pedal when driving the machine.

To prevent unnecessary wear, never operate with a foot resting on the clutch pedal.



YC18072—UN—23JUL21

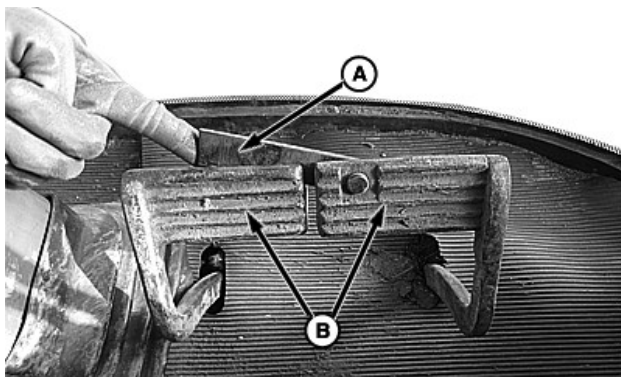
A—Clutch Pedal

Depress the clutch pedal (A) fully then shift the gearshift lever to the desired position.

CP00834,0008FF1-19-23JUL21

Service Brake Pedals Operation

IMPORTANT: To prevent unnecessary wear, never operate with a foot resting on the brake pedals.



YC8055—UN—21JAN15

A—Brake Pedal Lock

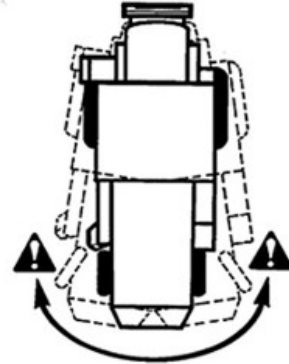
B—Service Brake Pedal (2 used)

- For field work, unlock the service brake pedals (B). Apply the right brake pedal lightly to assist in making sharp right-hand turns and the left brake pedal for left-hand turns.
- Before operating machine on a road or transporting, use the brake pedal lock (A) to hold the service brake pedals together.

CP00834,0008F88-19-13JUL21

Precautions for Steering

NOTE: The rear wheels of the machine are the steering wheels, make sure that there is enough space for the steering.



YC2755—UN—29OCT12

When the machine stops, it is difficult to turn the steering wheel.

Turn the steering wheel to the left with less angle. Turn the steering wheel to the right with more angle.

CP00834,0008DCB-19-24MAY21

Rear Wheel Drive Control Lever Operation (Option)

IMPORTANT: Do not engage or disengage the rear wheel drive while driving the machine.

Disengage the rear wheel drive before going down steep grades.



YC17957—UN—14JUL21

A—Rear Wheel Drive Control Lever

Before engaging the rear wheel drive, stop the machine and place the multi-function lever (if equipped) and gearshift lever in the neutral position.

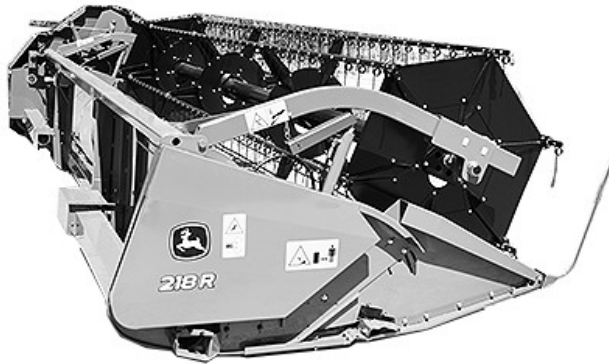
- **Engage Rear Wheel Drive:** Push the rear wheel drive control lever (A) downwards.

- **Disengage Rear Wheel Drive:** Pull the rear wheel drive control lever (A) upwards.

cp00834,1660809813275-19-18AUG22

Header and Feeder House Operation

General Information



YC17731—UN—21JUN21

The machine can be equipped with 212R/F, 215R/F, and 218 R/F cutting platform for harvesting wheat, rice, soybean, and so on.

NOTE: 212R/F cutting platform is only for China market.



YC17732—UN—21JUN21

The machine can be equipped with 206C (650 mm row spacing) corn header for corn harvesting for China market.

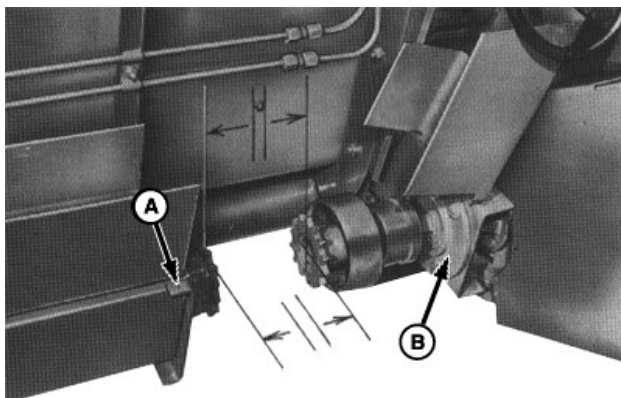
The machine can be equipped with 204C, 205C, 206C (762 mm row spacing) corn header for corn harvesting for export market.

cp00834, 1669092574913-19-21NOV22

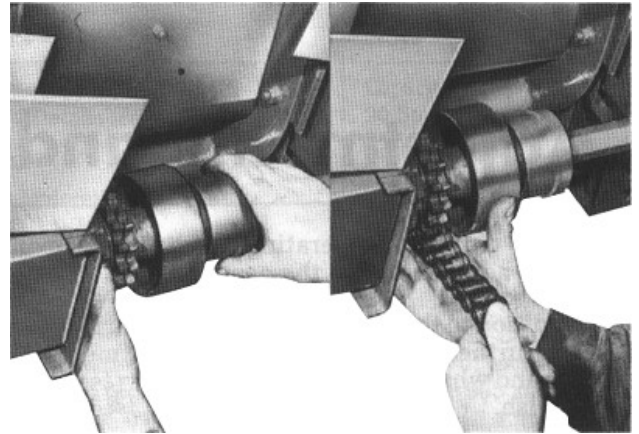
Feeder House and Header Connection

Chain Connection

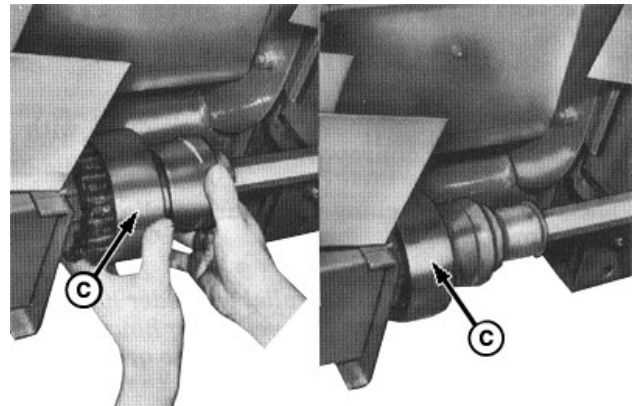
NOTE: Do not adjust the screws on bearing seat (B) at the rear of the feeder house.



YC19561—UN—26JAN22



YC7312—UN—10JUN14



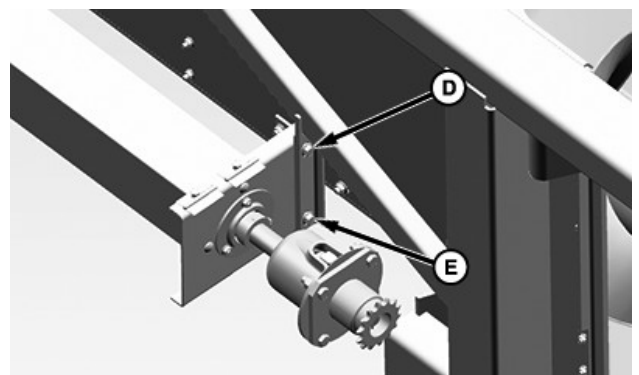
YC19586—UN—26JAN22

A—Bearing Seat
B—Bearing Seat
C—Safety Guard

Push two driveshafts together. Plates of two chain sprockets should be parallel to each other horizontally and vertically. To set these two chain sprockets at ideal position, adjust the adjustable screws on bearing seat (A).

Place the chain around the chain sprockets together when the end surfaces of two chain sprockets are in close contact or the gap between the end surfaces of two chain sprockets is even. Fix the chain and cover it with the safety guard (C).

Repeat procedure on the other side.



YC19560—UN—26JAN22

Adjustment

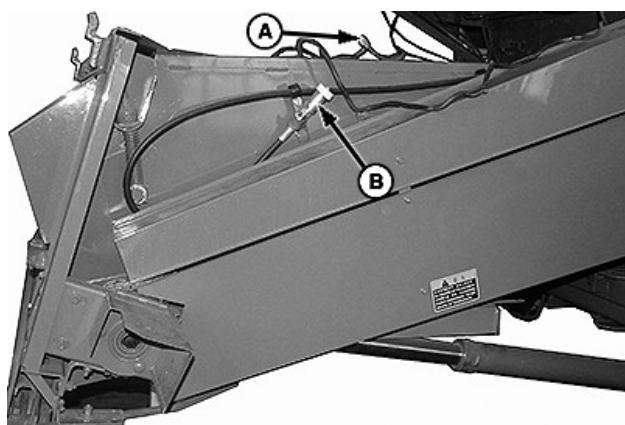
D—Bolt
E—Bolt

NOTE: Adjustments can be made when aligning chain sprockets of the feeder house and header as follows (The following instructions take the left-hand side for example, the right-hand side is adjusted in the same way):

When two chain sprockets are aligned, do not force the two chain sprockets together.

When it is found that the axes of the two shafts cannot be aligned, loosen the bolts (D and E) of the support plate at the rear of the header, so that the two chain sprockets are concentric, lock the chain, and then tighten the bolts (D and E).

Hydraulic and Electrical Connection



A—Electrical Connector
B—Hydraulic Coupler

YC19771—UN—08MAR22

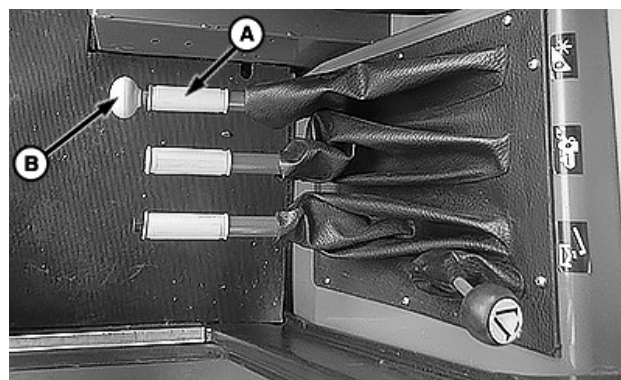
- Connect the electrical connector to the electrical component on the header.
- Connect the hydraulic coupler to the hydraulic coupler on the header.

CP00834,00020D1-19-09MAR22

Header Engagement/Disengagement Operation

CAUTION: Before engaging the header, ensure that there are no people around the machine.

To avoid damage to the machine, before engaging the header, engage the threshing system first.



YC12268—UN—11DEC17

Header Engagement Lever (Mechanical Drive Shown)

A—Header Engagement Lever
B—Button

The header engagement lever (A) is used to engage or disengage the header drive.

The header engagement lever is on the left-hand side of the seat.

- Pull the header engagement lever upwards to engage the header.
- Press the button (B) and push the header engagement lever downwards to disengage the header.

NOTE: After pressing the button, the header engagement lever can drop downwards automatically.

CP00834,0008F79-19-04AUG21

Header Raise/Lower Operation (Mechanical Drive)



YC17937—UN—11JUL21

A—Header Raise/Lower Control Lever

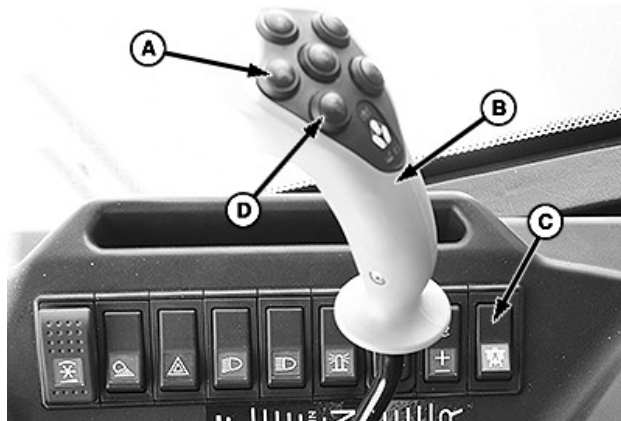
The header raise/lower control lever (A) allows operator to raise or lower the header.

- Pull the control lever backward to raise the header.

- Push the control lever forward to lower the header.

CP00834,0008F72-19-12JUL21

Header Raise/Lower Operation (Hydrostatic Drive)



YC17936—UN—11JUL21

- A—Header Raise Button
- B—Multi-Function Lever
- C—Road/Field Switch
- D—Header Lower Button

The header raise/lower button allows operator to raise or lower the header.

NOTE: Before raising or lowering the header, make sure that the road/field switch (C) is in the field mode (the indicator light on the switch does not turn on).

- Press and hold the header raise button (A) to raise the header.
- Press and hold the header lower button (D) to lower the header.

CP00834,0009463-19-20OCT21

Reel Raise/Lower Operation (Mechanical Drive)

NOTE: The reel raise/lower operation is only applied for the machine with the cutting platform.



YC17938—UN—11JUL21

- A—Reel Raise/Lower Control Lever

The reel raise/lower control lever (A) allows operator to raise or lower the reel.

- Pull the control lever backward to raise the reel.
- Push the control lever forward to lower the reel.

CP00834,0008F74-19-12JUL21

Reel Raise/Lower Operation (Hydrostatic Drive)

NOTE: The reel raise/lower operation is only applied for the machine with the cutting platform.



YC17939—UN—13SEP21

- A—Reel Raise Button
- B—Multi-Function Lever
- C—Road/Field Switch
- D—Reel Lower Button

The reel raise/lower button allows operator to raise or lower the reel.

NOTE: Before raising or lowering the reel, make sure that the road/field switch (C) is in the field mode (the indicator light on the switch does not turn on).

- Press and hold the reel raise button (A) to raise the reel.

- Press and hold the reel lower button (D) to lower the reel.

CP00834,0009464-19-20OCT21

Adjust Reel Speed

NOTE: Engage the header before adjusting the reel speed.



YC16898—UN—02MAR21

A—Reel Speed Switch

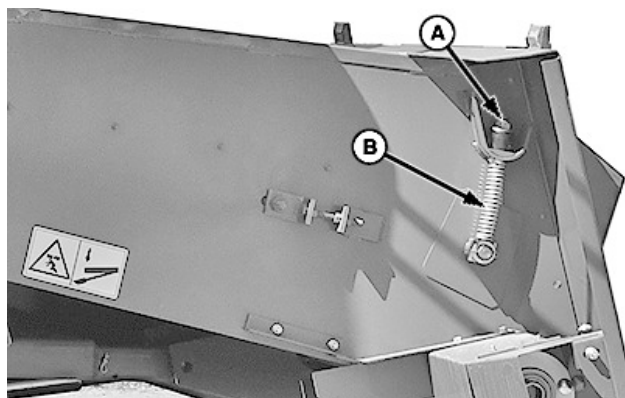
The reel speed switch (A) allows operator to adjust the reel speed.

- Press and hold the upper part of the reel speed switch to increase the reel speed.
- Press and hold the lower part of the reel speed switch to decrease the reel speed.

NOTE: After operating the reel speed switch, release the switch and the switch will return to the neutral position.

CP00834,0008F76-19-12JUL21

Adjust Feeder House Floating Drum Height



YC21297—UN—28NOV22

Right Side of Feeder House Shown

A—Nut (2 used)

B—Spring (2 used)

Adjust the length of the springs (B) by turning the nuts (A) on both sides of the feeder house.

- **For most crops except for corn and large-volume rapeseed:** The length of the springs is 140 mm.
- **For Corn:** The length of the springs is 107—113 mm.

cp00834,1669014979019-19-21NOV22

Threshing and Separating System Operation

Threshing System Engagement/Disengagement Operation



YC8773—UN—10JUN15

Threshing System Engagement Lever (Mechanical Drive Shown)

A—Threshing System Engagement Lever

The threshing system engagement lever (A) is used to engage or disengage the threshing system.

The threshing system engagement lever is on the left-hand side of the seat.

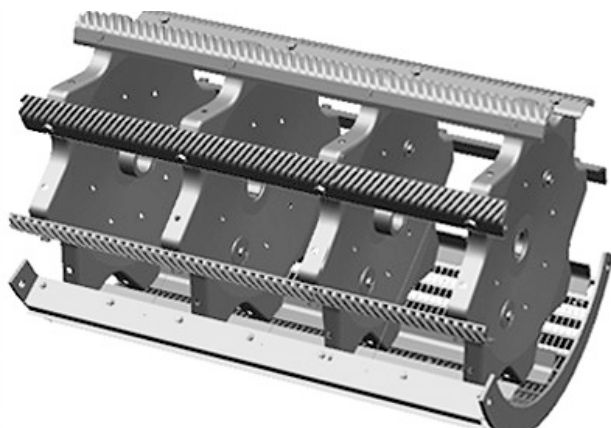
NOTE: Before engaging the threshing system, run engine at low idle speed.

Before disengaging the threshing system, lower the engine speed to the low idle speed.

- Pull the threshing system engagement lever upwards to engage the threshing system.
- Push the threshing system engagement lever downwards to disengage the threshing system.

CP00834,0008F7D-19-29AUG21

Threshing Cylinder and Concave Identification

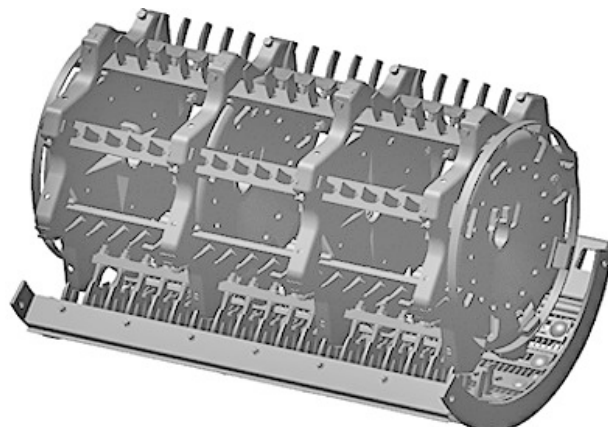


YC21118—UN—28NOV22

Rasp-Bar Threshing Cylinder and Small/Large Wire Concave

The rasp-bar threshing cylinder is used for wheat and other small grain crops harvesting together with the small wire concave.

The rasp-bar threshing cylinder is used for corn, soybean, and other large grain crops harvesting together with the large wire concave.



YC21119—UN—28NOV22

Spike-Tooth Threshing Cylinder and Spike-Tooth Concave

The spike-tooth threshing cylinder is used for rice harvesting together with the spike-tooth concave.

cp00834,1668665378651-19-17NOV22

Threshing Speed and Concave Clearance Adjustment Principle

Threshing Speed	Concave Clearance	Harvest Effect
High	Narrow	Good Threshing Action
Too High	Too Narrow	Overthreshing
Low	Wide	Poor Threshing Action
Too Low	Too Wide	Underthreshing

- **Moist Crops:** Increase the threshing speed and reduce the concave clearance.
- **Dry Crops:** Reduce the threshing speed and increase the concave clearance.
- **Overthreshing:** Reduce the threshing speed by 5%. If this does not correct the problem, reduce the threshing speed by 10%. If this still not correct the problem, increase the concave clearance slightly. If overthreshing can not be corrected by these measures, reduce the ground speed.
- **Underthreshing:** Increase the threshing speed by 5%. If this does not correct the problem, reduce the concave clearance slightly. If the threshing action still has not improved, increase the ground speed.

CP00834,0008DBE-19-08MAR22

Adjust Concave Clearance

NOTE: Run the engine before adjusting the concave clearance.

NOTE: See Recommended Crop Settings in Section 120 for the recommended concave clearance.



Concave Clearance Adjustment Lever (Mechanical Drive Shown)

A—Concave Clearance Adjustment Lever
B—Button

The concave clearance adjustment lever (A) is used to adjust the concave clearance.

The concave clearance adjustment lever is on the right-hand side of the seat.

- Press the button (B) and pull the lever upwards to decrease the concave clearance.
- Press the button (B) and push the lever downwards to increase the concave clearance.

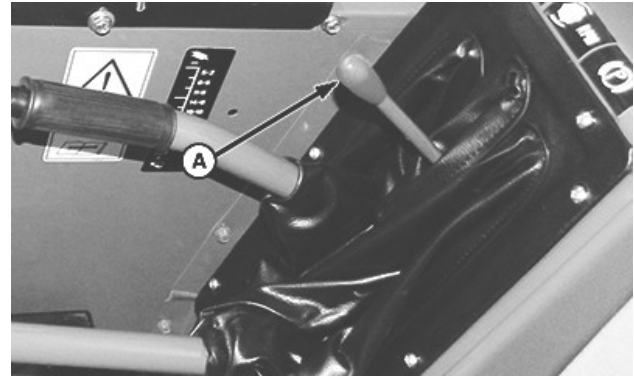
NOTE: The concave clearance changes 2—3 mm with one tooth.

CP00834,0008F7F-19-12JUL21

Adjust Threshing Speed (Mechanical Drive)

NOTE: Engage the threshing system before adjusting the threshing speed.

NOTE: See Recommended Crop Settings in Section 120 for the recommended threshing speed.



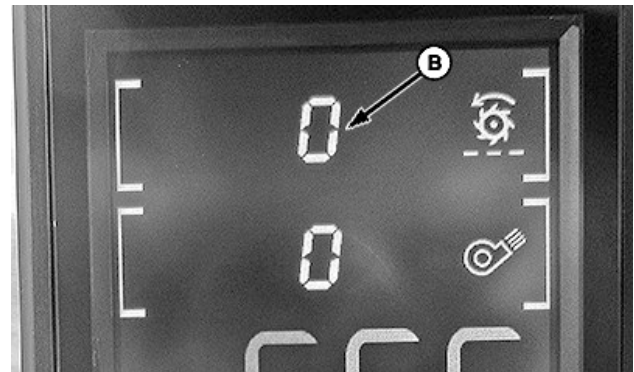
YC14209—UN—20DEC19

A—Threshing Speed Adjustment Lever

The threshing speed adjustment lever (A) allows operator to adjust the threshing speed.

The threshing speed adjustment lever is on the right-hand side of the seat.

- Pull threshing speed adjustment lever upwards to increase the threshing speed.
- Push threshing speed adjustment lever downwards to decrease the threshing speed.



YC21120—UN—28NOV22

B—Threshing Speed Value

The threshing speed value (B) displays on the corner post display.

cp00834,1668666772966-19-17NOV22

Adjust Threshing Speed (Hydrostatic Drive)

NOTE: Engage the threshing system before adjusting the threshing speed.

NOTE: See Recommended Crop Settings in Section 120 for the recommended threshing speed.



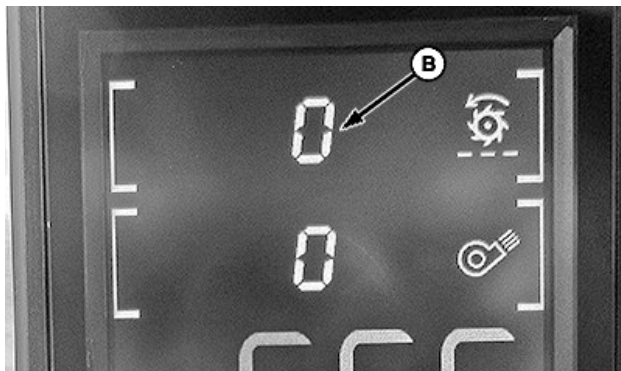
YC17942—UN—12JUL21

A—Threshing Speed Switch

The threshing speed switch (A) allows operator to adjust the threshing speed.

- Press and hold the upper part of the threshing speed switch to increase the threshing speed.
- Press and hold the lower part of the threshing speed switch to decrease the threshing speed.

NOTE: After operating the threshing speed switch, release the switch and the switch will return to the neutral position.



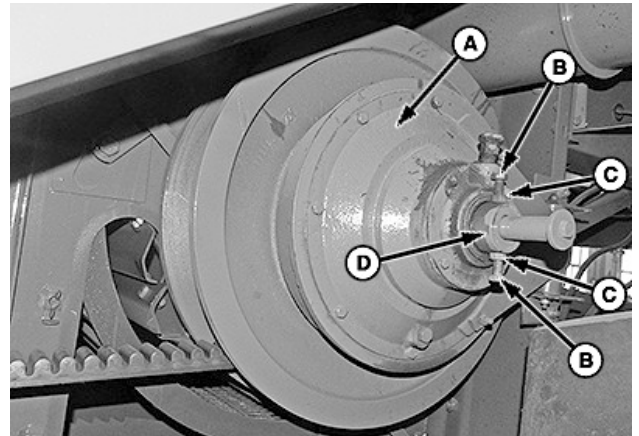
YC21120—UN—28NOV22

B—Threshing Speed Value

The threshing speed value (B) displays on the corner post display.

cp00834,166866780974-19-17NOV22

Threshing Cylinder Speed Reduction Gear Operation (Option)



YC21121—UN—28NOV22

A—Threshing Cylinder Speed Reduction Gear

B—Bolt (2 used)

C—Lock Nut (2 used)

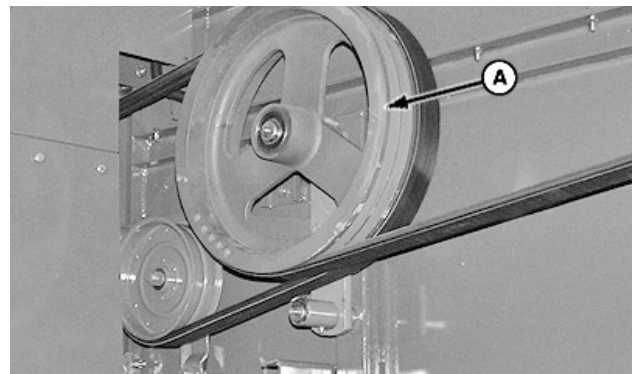
D—Collar Shifter

1. Loosen the lock nuts (C) and bolts (B), then adjust the threshing speed:
 - Push the collar shifter (D) inward to normal speed between 350—1100 rpm.
 - Pull the collar shifter outward to deceleration at a speed of 130—390 rpm.
2. Tighten bolts and the lock nuts after adjustment.

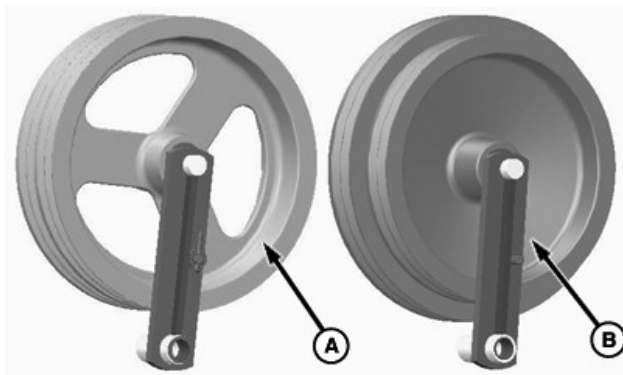
cp00834,1668667091765-19-17NOV22

Adjust Separator Speed (with non-adjustable gear case)

⚠ CAUTION: Shut OFF engine, set park brake, and remove key.



YC21302—UN—28NOV22



A—Drive Pulley
B—Drive Pulley

YC9548—UN—30NOV15

The drive pulley (A) is installed at factory and the separator speed is 700 rpm.

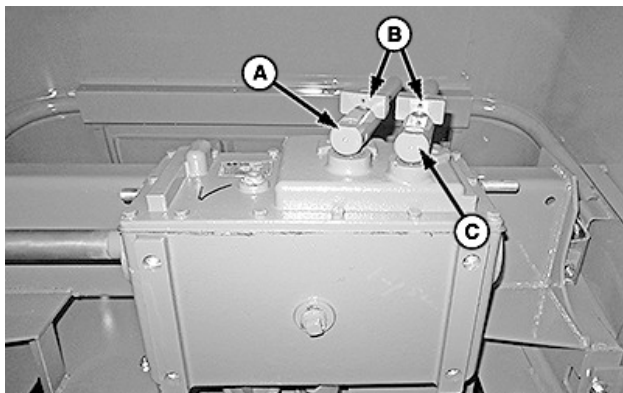
The different separator speed (800 rpm and 500 rpm) can be available by changing to the dive pulley (B).

cp00834,1669170138757-19-22NOV22

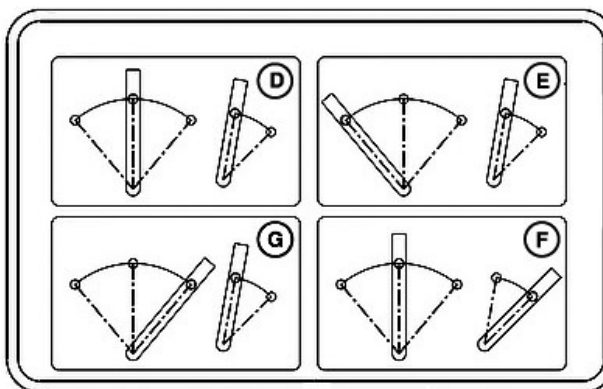
Adjust Separator Speed (with adjustable gear case)

CAUTION: Shut OFF engine, set park brake, and remove key.

IMPORTANT: Before switching the shift levers, place the two shift levers in the neutral position.



YC21122—UN—28NOV22



YC17447—UN—12MAY21

A—Shift Lever
B—Lock (2 used)
C—Shift Lever
D—Position (Neutral)
E—Position (500 rpm)
F—Position (800 rpm)
G—Position (700 rpm)

Switch the shift levers (A and C) to the different separator speeds.

Lift the lock (B), switch the shift lever, and then release the lock.

- Position (D): Neutral
- Position (E): 500 rpm
- Position (F): 800 rpm
- Position (G): 700 rpm

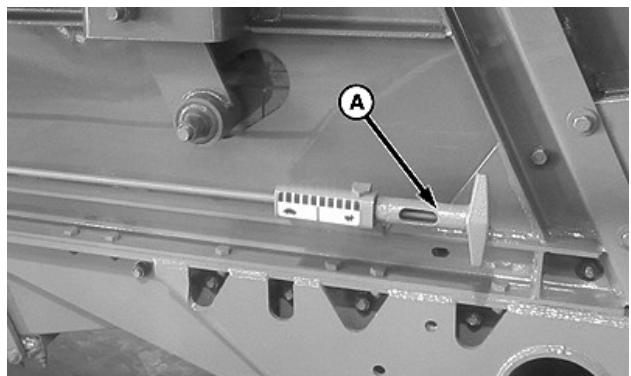
cp00834,1668667537188-19-17NOV22

Cleaning System Operation

Adjust Cleaning Fan Speed

IMPORTANT: The cleaning fan speed can be adjusted only when the cleaning fan is running, or some components will be damaged.

NOTE: Usually low cleaning fan speed can result in more grain losses than high cleaning fan speed.



YC2414—UN—25JUL14

Adjust Cleaning Fan Speed



YC21123—UN—28NOV22

A—Adjusting Lever
B—Cleaning Fan Speed Value

Turn the adjusting lever (A) clockwise to increase speed.

Turn the adjusting lever (A) counterclockwise to decrease speed.

The cleaning fan speed value (B) displays on the corner post display.

See Recommended Crop Settings in Section Harvesting Hints for recommended cleaning fan speed of different crops.

NOTE: Check the last adjustment result before adjustment.

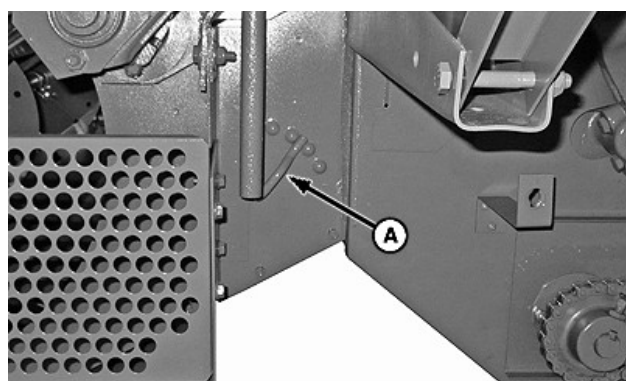
Before the adjustment of the cleaning fan speed, adjust the opening of the chaffer and sieve to the recommended maximum value of the different crops. Then gradually increase the cleaning fan speed from the recommended minimum speed until no grains are blown out of the machine or no grains are blown into the tailing slide plate.

When the cleaning fan speed is up to the maximum value, slightly adjust the opening of the chaffer if necessary, then adjust the cleaning fan speed.

cp00834,1668668576037-19-17NOV22

Adjust Air Deflector

NOTE: At factory, the adjusting lever (A) is in the middle position.



YC8174—UN—25MAR15

A—Adjusting Lever

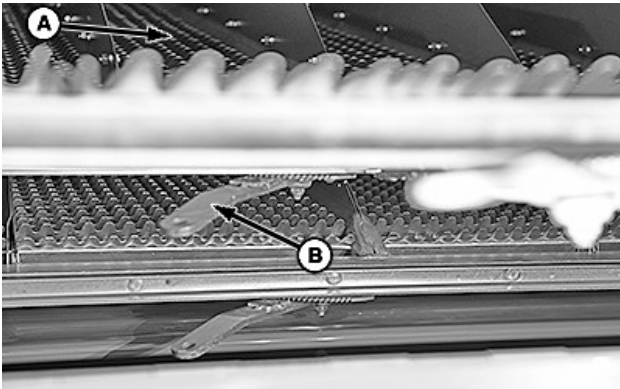
Place the adjusting lever in the upper position for small grain crops.

Place the adjusting lever in the lower position for large grain crops.

cp00834,1668668776790-19-17NOV22

Adjust Chaffer Opening

Adjustment



YC17148—UN—01APR21

A—Chaffer
B—Adjusting Lever

Turn the adjusting lever (B) to the left to increase the opening.

Turn the adjusting lever (B) to the right to reduce the opening.

See Recommended Crop Settings in Section Harvesting Hints for recommended chaffer opening of different crops.

NOTE: Check the last adjustment result before adjustment.

Adjust the opening of the chaffer as small as possible and make sure that the grain falls through before passing the length of the chaffer.

Measurement



YC1661—UN—27NOV12

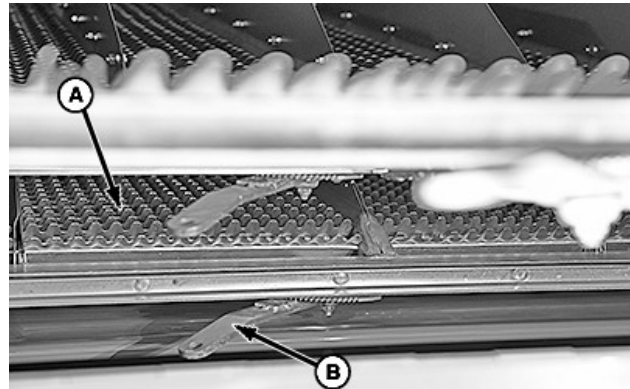
X—Chaffer Opening

Measure the chaffer opening between the two metal louvers.

cp00834,1659687195991-19-05AUG22

Adjust Sieve Opening

Adjustment



YC17149—UN—01APR21

A—Sieve
B—Adjusting Lever

Turn the adjusting lever (B) to the left to increase the opening.

Turn the adjusting lever (B) to the right to reduce the opening.

See Recommended Crop Settings in Section Harvesting Hints for recommended sieve opening of different crops.

NOTE: Check the last adjustment result before adjustment.

Adjust the opening of the sieve as wide as possible and make sure that the chaff and straw do not drop through.

Measurement



YC1661—UN—27NOV12

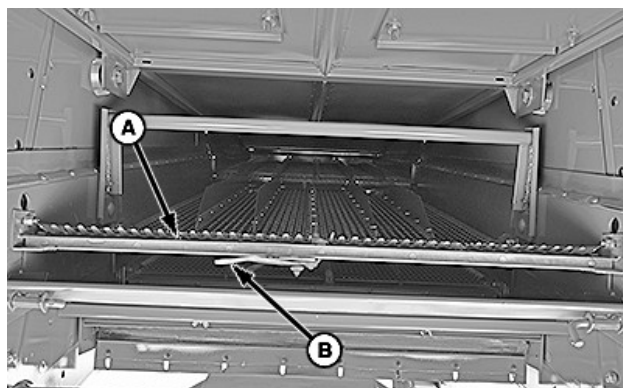
X—Sieve Opening

Measure the sieve opening between the two metal louvers.

cp00834,1659687221945-19-05AUG22

Adjust Chaffer Extension Opening

Adjustment



YC17147—UN—01APR21

A—Chaffer Extension
B—Adjusting Lever

Turn the adjusting lever (B) to the left to increase the opening.

Turn the adjusting lever (B) to the right to reduce the opening.

The opening of the chaffer extension is slightly wider than the opening of the chaffer.

See Recommended Crop Settings in Section Harvesting Hints for recommended chaffer opening of different crops.

NOTE: Raise the chaffer extension a little to allow tailings to drop through easily.

Measurement



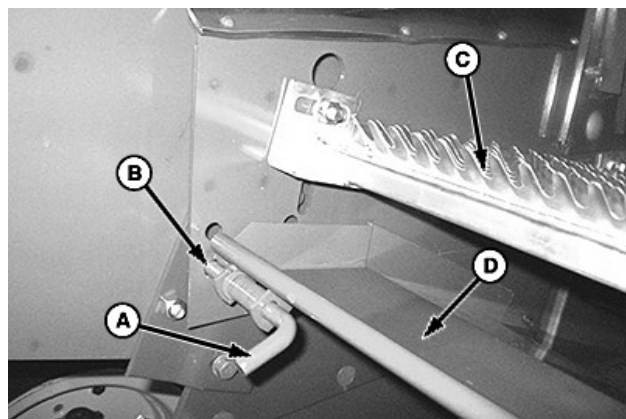
YC1661—UN—27NOV12

X—Chaffer Extension Opening

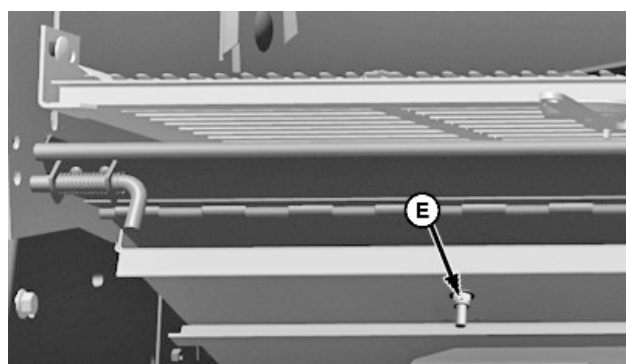
Measure the chaffer extension opening between the two metal louvers.

cp00834,1659687241866-19-05AUG22

Adjust Tail board Position



YC17150—UN—01APR21



YC21124—UN—28NOV22

A—Lock Pin (2 used)
B—Adjusting Position (4 used)
C—Chaffer Extension
D—Tail board
E—Lock Nut (2 used)

Reduce the clearance between the chaffer extension (C) and the tail board (D) to prevent excessive loss caused by wind.

1. Loosen the lock nuts (E)
2. Pull the lock pins (A) and move the tail board to the required position.
3. Insert the lock pins into the corresponding hole.

NOTE: There are four positions for the tail board.

4. Tighten the lock nuts after adjustment.

NOTE: Move the tail board upward as far as possible. If the clearance is still wide, move the chaffer extension downward.

cp00834,1668669307283-19-17NOV22

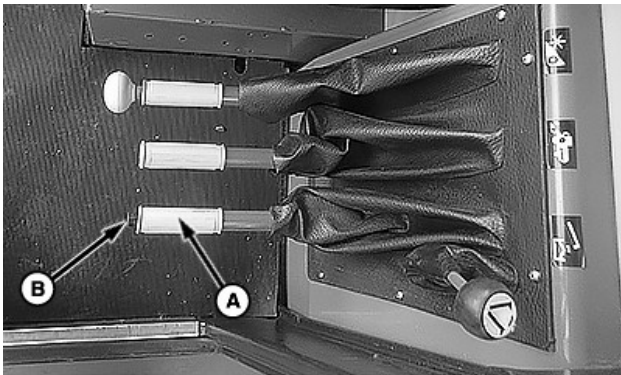
Elevators and Unloading System Operation

Unloading Auger Engagement/Disengagement Operation

IMPORTANT: Before engaging the unloading auger, ensure that the unloading auger is in the unloading position.

Disengage the unloading auger only when grain is unloaded completely. Empty the grain tank in one single operation (in one go).

NOTE: The grain can be unloaded on the go (while the combine is in motion).



YC12270—UN—11DEC17

Unloading Auger Engagement Lever (Mechanical Drive Shown)

A—Unloading Auger Engagement Lever
B—Button

The unloading auger engagement lever (A) is used to engage or disengage the unloading system.

The unloading auger engagement lever is at the left-hand side of the seat.

- Pull the lever upwards to engage the unloading system.
- Press button (B) and push the lever downwards to disengage the unloading system.

NOTE: After pressing the button, the unloading auger engagement lever can drop downwards automatically.

NOTE: To engage the unloading auger, pull the unloading auger engagement lever slowly. Pull the unloading auger engagement lever quickly when the unloading auger is rotating.

CP00834,0008F7A-19-29AUG21

Unloading Auger Swing Operation (Mechanical Drive)

NOTE: When the unloading auger is not used, it is recommended to swing the unloading auger back to the transport position.



YC1410—UN—06MAR14

A—Unloading Auger Swing Lever

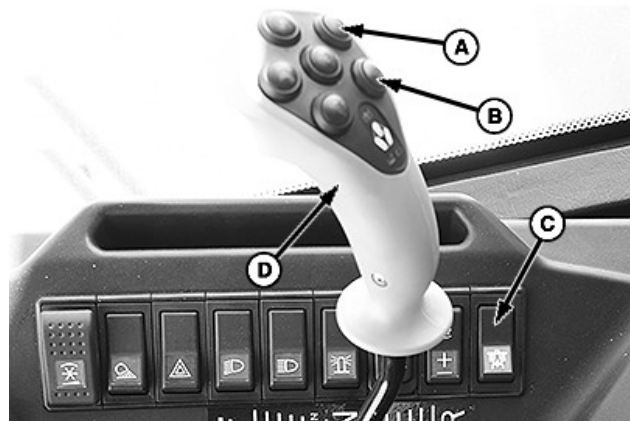
The unloading auger swing lever (A) is used to swing the unloading auger in or out.

- Pull the unloading auger swing lever upwards to swing out the unloading auger.
- Push the unloading auger swing lever downwards to swing in the unloading auger.

CP00834,0008F7B-19-12JUL21

Unloading Auger Swing Operation (Hydrostatic Drive)

NOTE: When the unloading auger is not used, it is recommended to swing the unloading auger back to the transport position.



YC17940—UN—12JUL21

A—Unloading Auger Swing Out Button
B—Unloading Auger Swing In Button
C—Road/Field Switch
D—Multi-Function Lever

The unloading auger swing out/in button is used to swing the unloading auger in or out.

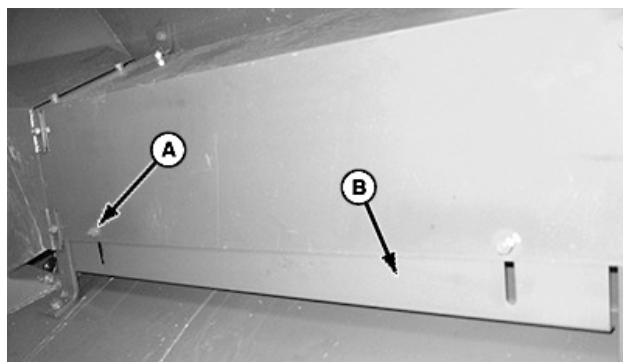
NOTE: Before swinging the unloading auger in or out, make sure that the road/field switch (C) is in the field mode (the indicator light on the switch does not turn on).

- Press and hold the unloading auger swing out button (A) to swing out the unloading auger.
- Press and hold the unloading auger swing in button (B) to swing in the unloading auger.

CP00834,0008F7C-19-20OCT21

Adjust Unloading Opening in Grain Tank

IMPORTANT: If these plates are raised too far, the auger drive shear bolt may break repeatedly, or damage could occur to augers or grain tank.



YC21125—UN—28NOV22

A—Nut (12 used)
B—Plate (6 used)

Loosen nuts (A) and move plates (B) upward to increase the unloading opening. Tighten nuts after adjustment.

Loosen nuts (A) and move plates (B) downward to reduce the unloading opening. Tighten nuts after adjustment.

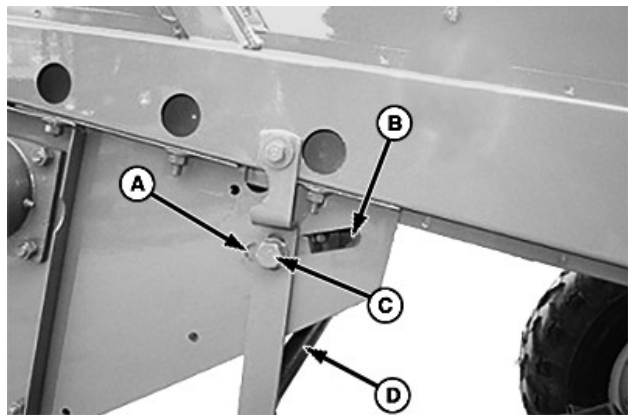
*NOTE: Increase the unloading opening for dry crops.
Reduce the unloading opening for moist crops.*

cp00834,1668670051368-19-17NOV22

Residue Operation

Adjust Chopped Straw Length

IMPORTANT: Set stationary counter knives at the minimum cutting length position (A) when harvesting beans, rapeseed, or other bulky crops.



YC17142—UN—31MAR21

A—Minimum Cutting Length Position
B—Maximum Cutting Length Position
C—Bolt (2 used)
D—Hand Grip

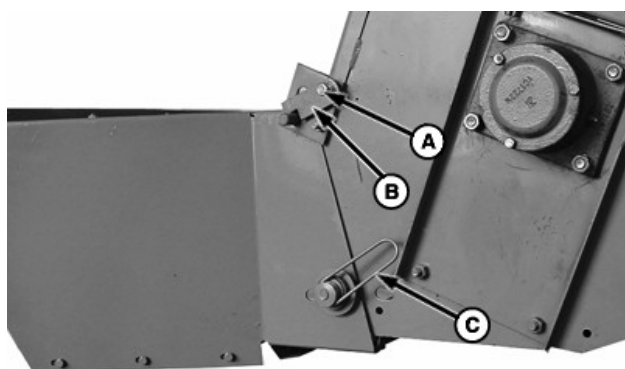
Loosen bolts (C) on both sides of the machine. Adjust the hand grip (D) to the desired position, then retighten bolts.

CP00834,0008BD7-19-08MAR22

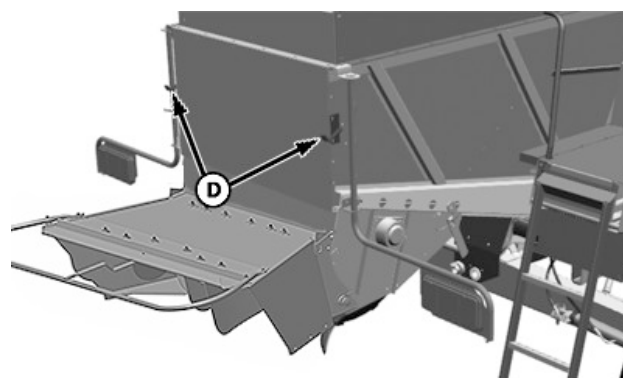
Change Deflector Position

CAUTION: Lock the deflector in the transport position before transporting. Never engage the straw chopper during transporting.

Do not allow any person to stay behind the machine when the straw chopper is in use.

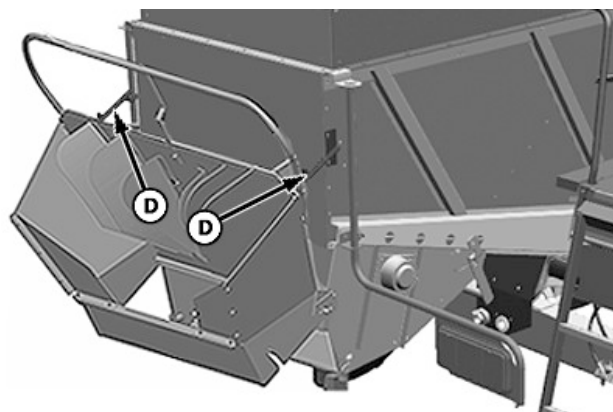


YC8296—UN—09FEB15



YC21127—UN—28NOV22

Deflector in Operating Position



YC21128—UN—28NOV22

Deflector in Transport Position

A—Cap Screw (2 used)
B—Lock Plate (2 used)
C—Latch (2 used)
D—Hook (2 used)

Change Deflector to the Operating Position

NOTE: Operate on both sides of the machine at the same time.

1. Loosen cap screws (A) and rotate the lock plates (B) away from the shaft.

CAUTION: The deflector is about 37 kg. It needs two persons to operate it.

2. Lift deflector away from the hooks and put it down.
3. Lock latches (C).
4. Rotate the lock plates onto the shaft and tighten cap screws.

Change Deflector to the Transport Position

NOTE: Operate on both sides of the machine at the same time.

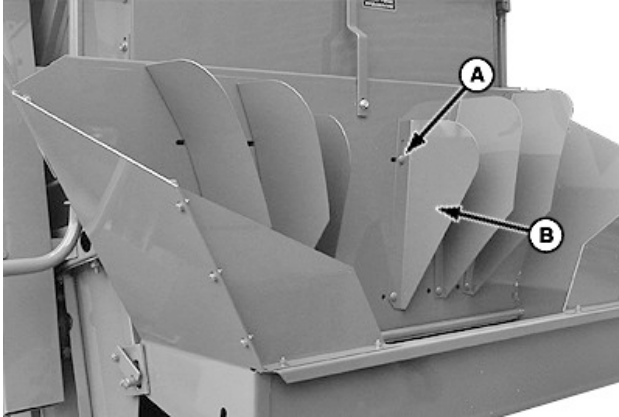
1. Loosen latches (C).
2. Loosen cap screws (A) and rotate the lock plates (B) away from the shaft.

⚠ CAUTION: The deflector is about 37 kg. It need two persons to operate it.

3. Lift deflector and put it onto the hooks.
4. Rotate the lock plates onto the shaft and tighten cap screws.

cp00834,1668672131613-19-17NOV22

Adjust Vanes on the Deflector



YC21126—UN—28NOV22

A—Bolt (12 used)
B—Vane (6 used)

Loosen bolts (A). Adjust the position of the vanes (B) to change the spreading angle and range.

The spreading width should align with the header width.

cp00834,1668670535929-19-17NOV22

Operator Station Operation

Use Seat Belt

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



A—Seat Belt

Seat belt (A) is a standard equipment on the operator's seat. The lap type seat belt has a push button quick release and automatic belt retraction to allow unrestricted exiting and entering.

CP00834,0008BC3-19-30MAR21

Backrest Adjustment: Turn the backrest adjustment lever (B) to adjust the angle of the backrest.

Height Adjustment: Press the height adjustment lever (C) to adjust the seat cushion to the desired position.

Angle Adjustment: Press the angle adjustment lever (D) to adjust the seat cushion to the desired position.

Fore/Aft Adjustment: Pull up the fore/aft adjustment lever (E) and slide the operator's seat to the desired position.

CP00834,0008F68-19-09JUL21

Adjust Steering Column Tilt



YC17132—UN—30MAR21

Steering Column (with hydrostatic drive shown)

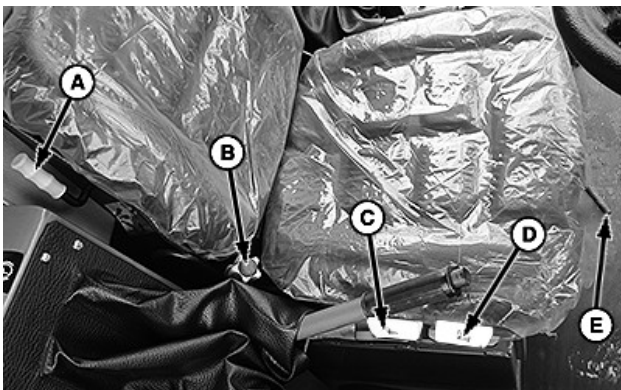
A—Steering Column
B—Pedal

Adjust steering column: Depress pedal (B) forward, adjust the steering column (A) to the desired position.

Lock steering column: Depress pedal backward to lock the steering column.

CP00834,0008BC5-19-30MAR21

Adjust Operator's Seat



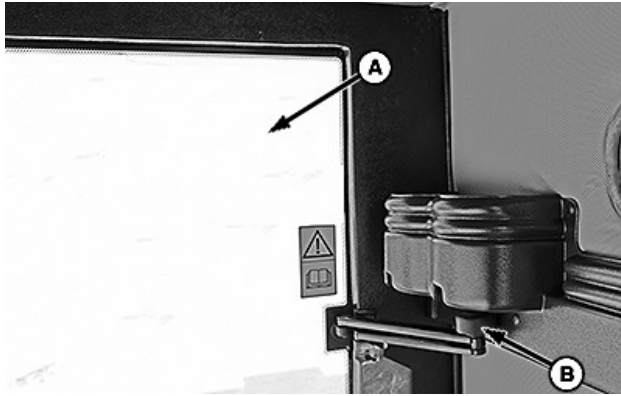
YC17131—UN—30MAR21

A—Weight/Height Adjustment Lever
B—Backrest Adjustment Lever
C—Height Adjustment Lever
D—Angle Adjustment Lever
E—Fore/Aft Adjustment Lever

Comfort Adjustment: Turn the weight/height adjustment lever (A) to adjust the seat comfort.

Cab Right Window (Emergency Exit)

CAUTION: If an emergency occurs and the entrance door is blocked, use the right window to exit the cab.



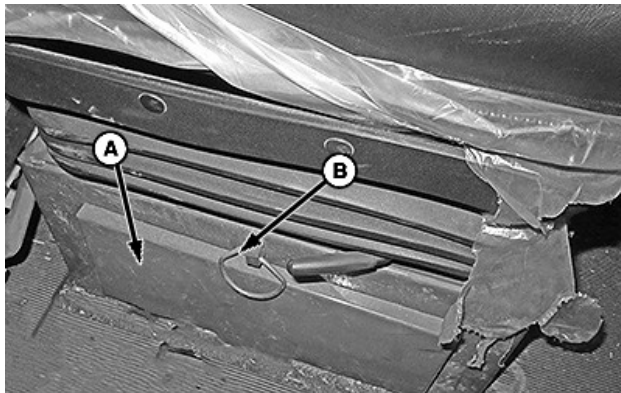
YC17134—UN—30MAR21

A—Right Window
B—Handle

Hold handle (B) and turn it clockwise to open the right window (A). Turn handle counterclockwise to close the right window.

CP00834,0008BC6-19-30MAR21

Toolbox



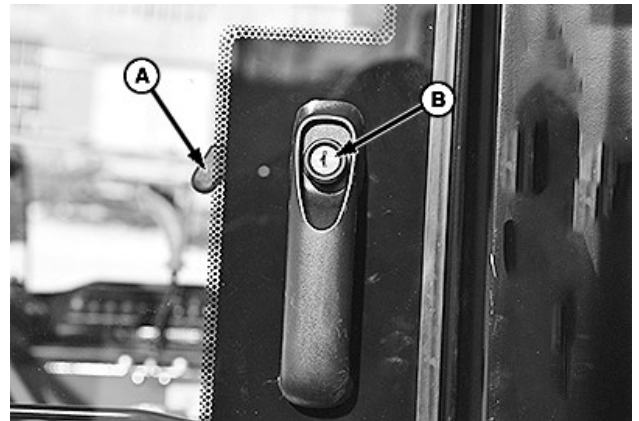
YC17133—UN—30MAR21

A—Toolbox
B—Latch

Toolbox (A) is under the operator's seat.
Move latch (B) upward to open toolbox.

CP00834,0008BC7-19-30MAR21

Open the Door



YC17135—UN—30MAR21

A—Handle
B—Lock

If the cab door is not locked, press the lock (B) to open the cab door. If the cab door is locked, use a key to open it.

Press handle (A) to open the cab door from the inside of the cab.

CP00834,0008BC8-19-30MAR21

Secure Ladder in Transport Position

CAUTION: Before driving on roads, fold up ladder and secure it in the transport position.
Avoid hurting others when unfolding the ladder.



YC21129—UN—28NOV22
cp00834,1669015435856-19-21NOV22

Extend Ladder



YC21303—UN—28NOV22

A—Connecting Plate

If wide wheel tires are used, remove cap screws, pull the connecting plate (A) outward, and secure with cap screws.

cp00834,1669170530230-19-22NOV22

Storage and Transportation

Prepare Machine for Storage

Machine

- Clean thoroughly the inside and outside of the machine.
- Remove or loosen all drive belts.
- Lubricate machine. Grease the adjusting bolt threads. Grease all chains.
- Clean augers, elevators, and cleaning shoe. Leave elevator doors open.
- To prevent condensation, fill fuel tank.
- Drain the water separator.
- Repaint areas where needed.

NOTE: Turn the battery disconnect switch OFF if machine is stored longer than 25 days. If the storage period is longer than 90 days, remove the negative lead to battery to minimize load to battery.

- Charge batteries completely. Specific gravity equals 1.260 volts. To minimize load to the battery, remove the negative lead to the battery.

NOTE: If machine is to be stored for a long period, remove and clean the battery. Store it in a cool, dry place and keep it fully charged.

Engine

- Clean the surfaces of the engine with safe solvent.
- Clean radiator with air, water, or a vacuum cleaner.
- Clean condenser and oil cooler if equipped. Clean the charge air cooler.
- Every 60—90 days start engine and turn air conditioning ON if equipped. Run engine at low idle for several minutes. Outside temperature should be above 5°C (40°F) for proper air conditioning operation.

 **CAUTION: Do not use gasoline.**

- Clean inside the air cleaner and install new air filter elements.
- Drain engine oil, while the engine is warm. Replace filter and fill with correct oil. Run engine to circulate.
- Drain, flush, and refill cooling system with 50/50 mixture of antifreeze and water.

CP00834,0008BB7-19-29MAR21

Remove Machine from Storage

- Install and tension all drive belts. Tension all drive chains.
- Close elevator doors.
- Check tire inflation and review machine operator's manual.

- Inspect fire extinguisher by following maintenance instructions on the fire extinguisher label. Recharge or replace as necessary.
- Reconnect and/or charge battery.
- Check engine oil and coolant levels. Inspect for leaks and add engine oil and coolant if needed.

CP00834,0008BBB-19-29MAR21

Drive Machine on Roads

To drive machine on roads, proceed as follows:

- Empty grain tank and remove header.
- Swing in unloading auger.
- Fold up ladder.
- Lock the service brake pedals together.
- Turn the hazard warning lights ON as necessary.

cp00834,1668677436009-19-17NOV22

Transport Machine on a Trailer

To transport machine, proceed as follows:

- 1.Remove header.
- 2.Drive machine on trailer. Place the gearshift lever and the hydrostatic drive lever (if equipped) in neutral position.
- 3.Lower feeder house onto trailer. Swing in unloading auger.
- 4.Shut OFF engine, set park brake, and remove key.
- 5.Fold up ladder.
- 6.Fasten machine to trailer with chains.

cp00834,1668677457544-19-17NOV22

Tow Machine

 **CAUTION: Do not tow machine with wire rope. If rope breaks, the whipping action could cause bodily injury.**

IMPORTANT: Do not tow machine except in an emergency for a short distance at 20 km/h MAX.

To tow machine, proceed as follows:

- Empty grain tank and remove header.
- Swing in unloading auger.
- Fold up ladder.
- Disengage the park brake.

 **CAUTION: Do not remove couplers. When couplers are removed, brakes are disabled.**

- Place the gearshift lever and the hydrostatic drive lever (if equipped) in neutral position.
- Tow machine in a forward direction by attaching a chain around the main axle. Be certain chain does not damage any hydraulic lines. Have driver in the operator's seat to steer and brake the machine.
- Turn the hazard warning lights ON.
- Travel at a safe and reasonable speed, not to exceed 20 km/h.

 **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, hazard warning lights, and turn-signal lights day and night.

cp00834,1668677466675-19-17NOV22

Fuel, Coolant, and Lubricants

Handling and Storing Diesel Fuel

CAUTION: Reduce the risk of fire. Handle fuel carefully. **DO NOT** fill the fuel tank when engine is running. **DO NOT** smoke while you fill the fuel tank or service the fuel system.

Fill the fuel tank at the end of each day's operation to prevent water condensation and freezing during cold weather.

Keep all storage tanks as full as practical to minimize condensation.

Ensure that all fuel tank caps and covers are installed properly to prevent moisture from entering. Monitor water content of the fuel regularly.

When using biodiesel fuel, the fuel filter may require more frequent replacement due to premature plugging.

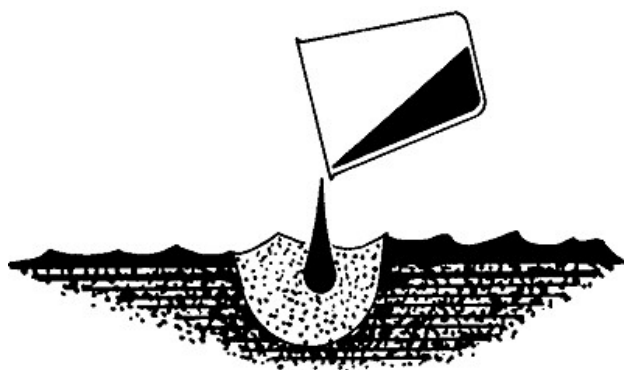
Check engine oil level daily prior to starting engine. A rising oil level may indicate fuel dilution of the engine oil.

IMPORTANT: The fuel tank is vented through the filler cap. If a new filler cap is required, always replace it with an original vented cap.

When fuel is stored for an extended period or if there is a slow turnover of fuel, add a fuel conditioner to stabilize the fuel. Keeping the free water drained and treating the bulk fuel storage tank quarterly with a maintenance dose of a biocide will prevent microbial growth. Contact your fuel supplier or John Deere dealer for recommendations.

DX,FUEL4-19-13JAN18

Comply with Rules and Regulations of Environmental Protection



YC1389—UN—07DEC12

Have environmental and ecological awareness.

Determine the correct disposal methods before discarding any liquids.

Always comply with rules and regulations of

environmental protection when handling engine oil, fuel, coolant, brake fluid, filter elements, and batteries.

CP00718,0004295-19-19DEC17

Diesel Fuel

Consult your local fuel distributor for properties of the diesel fuel available in your area.

Diesel fuels specified to GB 19147 is recommended.

Required Fuel Properties

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

Cetane number of 40 minimum. Cetane number greater than 47 is preferred, especially for temperatures below -20°C (-4°F) or elevations above 1675 m (5500 ft.).

Cloud Point should be below the expected lowest ambient temperature or **Cold Filter Plugging Point** (CFPP) should be a maximum 10°C (18°F) below the fuel cloud point.

Fuel lubricity should pass a maximum scar diameter of 0.52 mm as measured by ASTM D6079 or ISO 12156-1. A maximum scar diameter of 0.45 mm is preferred.

Diesel fuel quality and sulfur content must comply with all existing emissions regulations for the area in which the engine operates. **DO NOT** use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

Materials such as copper, lead, zinc, tin, brass and bronze should be avoided in fuel handling, distribution and storage equipment as these metals can catalyze fuel oxidation reactions which can lead to fuel system deposits and plugged fuel filters.

E-Diesel fuel

DO NOT use E-Diesel (Diesel fuel and ethanol blend). Use of E-Diesel fuel in any John Deere machine may void the machine warranty.

CAUTION: Avoid severe injury or death due to the fire and explosion risk from using E-Diesel fuel.

Sulfur Content for Diesel Engines of Non-Road Mobile Machinery (China IV)

- Use **ONLY** ultra low sulfur diesel (ULSD) fuel with a maximum of 15 mg/kg (15 ppm) sulfur content.

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.

cp00834,1661909695490-19-30AUG22

Diesel Engine Break-In Oil — Non-Emissions Certified and Certified Tier 1, Tier 2, Tier 3, Stage I, Stage II, and Stage III

New engines are filled at the factory with either John Deere Break-In™ or John Deere Break-In Plus™ Engine Oil. During the break-in period, add John Deere Break-In™ or Break-In Plus™ Engine Oil, respectively, as needed to maintain the specified oil level.

Operate the engine under various conditions, particularly heavy loads with minimal idling, to help seat engine components properly.

If John Deere Break-In™ Engine Oil is used during the initial operation of a new or rebuilt engine, change the oil and filter at a maximum of 100 hours.

If John Deere Break-In Plus™ Engine Oil is used, change the oil and filter at a minimum of 100 hours and a maximum equal to the interval specified for John Deere Plus-50™ II or Plus-50™ oil.

After engine overhaul, fill the engine with either John Deere Break-In™ or Break-In Plus™ Engine Oil.

If John Deere Break-In™ or Break-In Plus™ Engine Oil is not available, use an SAE 10W-30 viscosity grade diesel engine oil meeting one of the following and change the oil and filter at a maximum of 100 hours of operation:

- API Service Classification CE
- API Service Classification CD
- API Service Classification CC
- ACEA Oil Sequence E2
- ACEA Oil Sequence E1

IMPORTANT: Do not use Plus-50™ II, Plus-50™, or engine oils meeting any of the following for the initial break-in of a new or rebuilt engine:

API CK-4	ACEA E9
API CJ-4	ACEA E7
API CI-4 PLUS	ACEA E6
API CI-4	ACEA E5
API CH-4	ACEA E4
API CG-4	ACEA E3
API CF-4	
API CF-2	
API CF	

These oils do not allow the engine to break in properly.

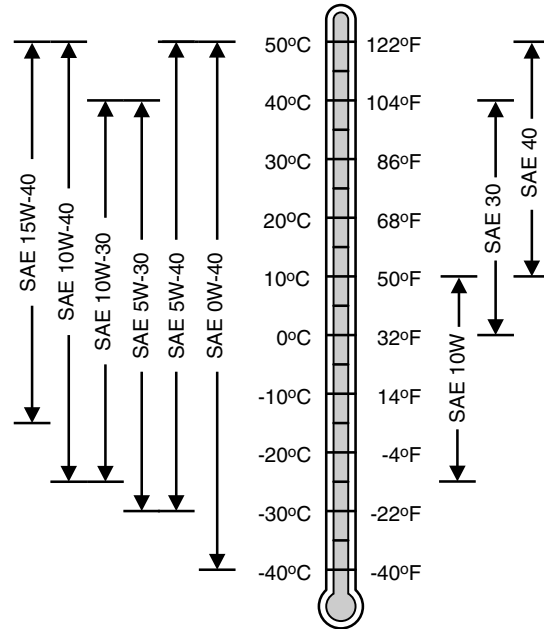
John Deere Break-In Plus™ Engine Oil can be used for all John Deere diesel engines at all emission certification levels.

*Break-In is a trademark of Deere & Company.
Break-In Plus is a trademark of Deere & Company
Plus-50 is a trademark of Deere & Company.*

After the break-in period, use John Deere Plus-50™ II, John Deere Plus-50™, or other diesel engine oil as recommended in this manual.

DX,ENOil4-19-02NOV16

Diesel Engine Oil — Tier 3 and Stage IIIA



TS1743—UN—25APR19

Oil Viscosities for Air Temperature Ranges

Failure to follow applicable oil standards and drain intervals can result in severe engine damage that might not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere oils, parts, or service.

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

John Deere Plus-50™ II oil is preferred.

John Deere Plus-50™ is also recommended.

John Deere Torq-Gard™ is also allowed.

Other oils may be used if they meet one or more of the following standards:

- API Service Category CK-4
- API Service Category CJ-4
- API Service Category CI-4 PLUS
- API Service Category CI-4
- ACEA Oil Sequence E9
- ACEA Oil Sequence E7
- ACEA Oil Sequence E6
- ACEA Oil Sequence E5
- ACEA Oil Sequence E4

Torq-Gard is a trademark of Deere & Company

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 10 000 mg/kg (10 000 ppm).

DX,ENOIL11-19-23APR19

Engine Oil and Filter Service Intervals

Recommended 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. Actual service intervals also depend on operation and maintenance practices.

Use oil analysis to evaluate the condition of the oil and to aid in selection of the proper oil and filter service interval. Contact your John Deere dealer for more information on engine oil analysis.

Change the oil and oil filter at least once every 12 months even if the hours of operation are fewer than the otherwise recommended service interval.

Diesel fuel sulfur content affects engine oil and filter service intervals.

- Use of diesel fuel with sulfur content less than 1000 mg/kg (1000 ppm) is **RECOMMENDED**.
- **BEFORE** using diesel fuel with sulfur content greater than 5000 mg/kg (5000 ppm), **REDUCES** the oil, and filter change interval.
- **DO NOT** use diesel fuel with sulfur content greater than 10 000 mg/kg (10 000 ppm).

IMPORTANT: To avoid engine damage:

- **Reduce oil and filter service intervals by 50% when using biodiesel blends greater than B20. Oil analysis allows longer service intervals.**
- **Use only approved oil types.**

Approved Oil Types:

- "Plus-50 Oils" include John Deere Plus-50™ II and John Deere Plus-50™
- "Other Oils" include John Deere Torq-Gard™, API CK-4, API CJ-4, API CI-4 PLUS, API CI-4, ACEA E9, ACEA E7, ACEA E6, ACEA E5, and ACEA E4.

PowerTech™ Engine oil and filter change intervals	
Sulfur content of fuel	Lower than 1000 mg/kg (1000 ppm)
Plus-50 oil	375 hours
Other oils	250 hours
Fuel sulfur content	1000-2000 mg/kg (1000-2000 ppm)
Plus-50 oil	300 hours
Other oils	200 hours
Fuel sulfur content	2000-5000 mg/kg (2000-5000 ppm)
Plus-50 oil	275 hours
Other oils	150 hours
Fuel sulfur content	5000-10000 mg/kg (5000-10000 ppm)
Plus-50 oil	187 hours
Other oils	125 hours

Oil analysis extends service interval of "Other oils", to a maximum not exceeding the interval of Plus-50 Oils.

IMPORTANT: DO NOT extend the service interval of the engine oil and oil filter to 375 hours until all following conditions are met.

- **Use of diesel fuel with sulfur content less than 1000 mg/kg (1000 ppm).**
- **Use of John Deere Plus-50™ II and John Deere Plus-50™ oil.**
- **Use of oil filter authorized by John Deere.**

CO00263,0001D9F-19-21MAY20

Diesel Engine Oil Service Interval for Operation at High Altitude

To avoid excessive oil degradation and potential engine damage, reduce oil and filter service intervals to 50% of the original recommended values when operating engines at altitudes above **1675 m (5500 ft)**.

Oil analysis may allow longer service intervals.

Use only approved oil types.

Example of Original Hours	Corresponding High Altitude Hours
125	60
150	75
175	85
200	100
250	125
275	135
300	150
350	175
375	185
400	200
500	250

DX,ENOIL,SERV,HALT-19-11NOV14

Fuel Filters

The importance of fuel filtration cannot be overemphasized with modern fuel systems. The combination of increasingly restrictive emission regulations and more efficient engines requires fuel system to operate at much higher pressures. Higher pressures can only be achieved using fuel injection components with very close tolerances. These close manufacturing tolerances have significantly reduced capacities for debris and water.

John Deere brand fuel filters have been designed and produced specifically for John Deere engines.

To protect the engine from debris and water, always change engine fuel filters as specified in this manual.

DX,FILT2-19-14APR11

Oil Filters

Filtration of oils is critically important for proper operation and lubrication. John Deere brand oil filters have been designed and produced specifically for John Deere applications.

John Deere filters adhere to engineering specifications for quality of the filter media, filter efficiency rating, strength of the bond between the filter media and the element end cap, fatigue life of the canister (if applicable), and pressure capability of the filter seal. Non-John Deere branded oil filters might not meet these key John Deere specifications.

Always change oil filters regularly as specified in this manual.

DX,FILT1-19-11APR11

Diesel Engine Coolant (engine with wet sleeve cylinder liners)

Failure to follow applicable coolant standards and drain

intervals can result in severe engine damage that may not be covered under warranty. Warranties, including the emissions warranty, are not conditioned on the use of John Deere coolants, parts, or service.

Preferred Coolants

The following pre-mix engine coolants are preferred:

- John Deere COOL-GARD™ II
- John Deere COOL-GARD II PG

COOL-GARD II pre-mix coolant is available in several concentrations with different freeze protection limits as shown in the following table.

COOL-GARD II Pre-Mix	Freeze Protection Limit
COOL-GARD II 20/80	-9°C (16°F)
COOL-GARD II 30/70	-16°C (3°F)
COOL-GARD II 50/50	-37°C (-34°F)
COOL-GARD II 55/45	-45°C (-49°F)
COOL-GARD II PG 60/40	-49°C (-56°F)
COOL-GARD II 60/40	-52°C (-62°F)

Not all COOL-GARD II pre-mix products are available in all countries.

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

Additional Recommended Coolants

The following engine coolant is also recommended:

- John Deere COOL-GARD II Concentrate in a 40—60% mixture of concentrate with quality water.

IMPORTANT: When mixing coolant concentrate with water, do not use less than 40% or greater than 60% concentration of coolant. Less than 40% gives inadequate additives for corrosion protection. Greater than 60% can result in coolant gelation and cooling system problems.

Other Coolants

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

- Pre-mix coolant meeting ASTM D6210 requirements
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- Coolant concentrate meeting ASTM D6210 requirements in a 40—60% mixture of concentrate with quality water

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

COOL-GARD is a trademark of Deere & Company

- 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
- Is formulated with a nitrite-free additive package
- Is formulated with a 2-ethylhexanoic acid (2-EHA) free additive package
- Protects the cooling system metals (cast iron, aluminum alloys, and copper alloys such as brass) from corrosion

Water Quality

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

Coolant Drain Intervals

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

When COOL-GARD II or COOL-GARD II PG is used, the drain interval is 6 years or 6000 hours of operation.

If a coolant other than COOL-GARD II or COOL-GARD II PG is used, reduce the drain interval to 2 years or 2000 hours of operation.¹

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.

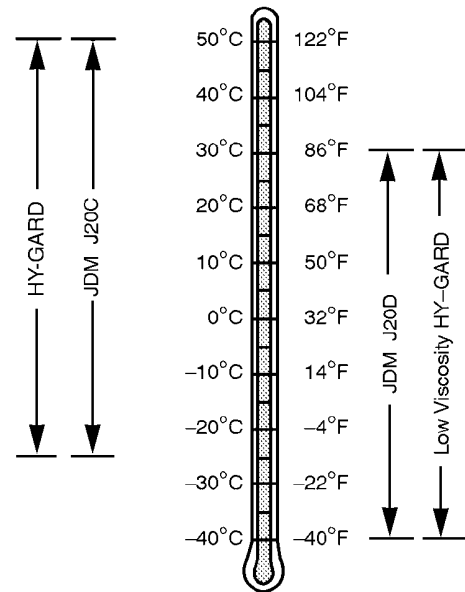
DX, COOL3-19-25AUG20

Brake Fluid

Fill the brake fluid reservoir with 10[#] aviation hydraulic oil.

CP00834,0008B2D-19-11MAR21

Hydraulic/Hydrostatic Oil



ZX1030848—UN—15SEP02

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

The following oils are preferred:

- John Deere Hy-Gard™
- John Deere Low Viscosity Hy-Gard™

Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D

CP00834,0008B30-19-26MAY21

Separator Rotor Gear Case Oil

Fill the separator rotor gear case with John Deere Hy-Gard™.

CP00834,0008B2F-19-11MAR21

Threshing Cylinder Speed Reduction Gear Grease

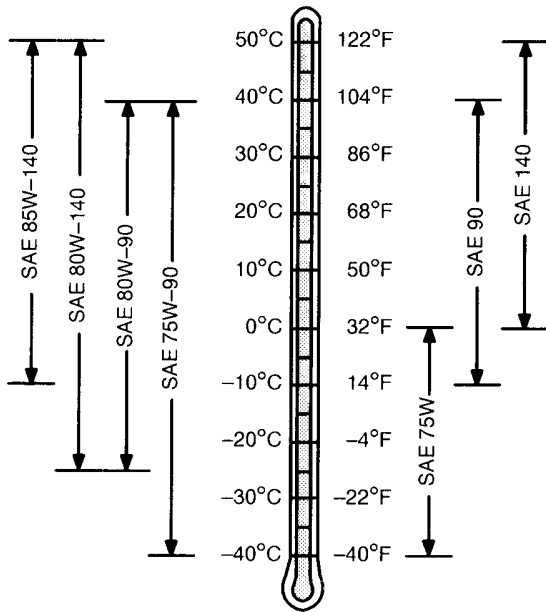
Fill the threshing cylinder speed reduction gear with MOBILITH SHC 007 Grease.

cp00834,1666593452957-19-24OCT22

¹ Coolant analysis may extend the service interval of other "Coolants" to a maximum not to exceed the interval of Cool-Gard II coolants. Coolant analysis means taking a series of coolant samples at 1000 hour increments beyond the normal service interval until either the data indicate the end of useful coolant life or the maximum service interval of Cool-Gard II is reached.

Hy-Gard is a trademark of Deere & Company.

Gear Oil



TS1653—UN—14MAR96
Oil Viscosities for Air Temperature Ranges

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 the following:

- API Service Category GL-5

DX,GEOIL-19-14APR11

Gear Case Oil

The gear oil GI-5 80W/90 is used in the following positions:

- Gear Case Transmission
- Final Drive
- Rear Wheel Drive Axle (Option)
- Rear Wheel Drive Final Drive (Option)
- Rear Wheel Drive Gear Case (Option)

cp00834,1663051698078-19-13SEP22

Multipurpose Grease

The following grease is recommended:

- Molybdenum Disulphide Lithium Grease

NOTE: For the combine with mechanical drive, lubricate the Posi-Torq™ lower unit with Mobil XHP222 grease.

cp00834,1660029171638-19-09AUG22

Lubricant Storage

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

Use clean containers to handle all lubricants.

Store lubricants and containers in an area protected from dust, moisture, and other contamination. Store containers on their side to avoid water and dirt accumulation.

Make certain that all containers are properly marked to identify their contents.

Properly dispose of all old containers and any residual lubricant they may contain.

DX,LUBST-19-11APR11

Harvesting Hints

Determine Crop Conditions

The usual rule of thumb is to harvest as early as possible when the moisture content has dropped to acceptable levels.

Premature harvesting results in yield losses and a reduction in quality. Immature grain produces smaller yields and less weight. The grain is also harder to thresh, which tends to cause threshing damage and incomplete threshing.

Delayed harvesting results in losses from shattered grain, lodged plants, down plants, and reduced weight. Shatter losses occur because the grain is too easily threshed.

CP00834,0008B43-19-12MAR21

Determine Grain Losses

Grain losses result from improper adjustment of the combine. Even if the machine has been adjusted to cut, thresh, separate, and clean the grain acceptably, the operator should check the combine occasionally to make sure that it is continuing to operate properly.

Sources of Grain Losses

Some losses are due to improper operation, others are caused by improper adjustment.

Here are the sources of losses the operator must identify:

- **Preharvest Losses**—Preharvest losses are those that occurred in the field before combining. Such as a result of wind shatter, lodging, down crop, or weather conditions.
- **Header Losses**—These losses occur when the header is operated improperly or when the crop tends to shatter easily.
- **Threshing Losses**—Threshing losses are caused by:
 - Unthreshed grain carried out the rear of the separator
 - Cracked grain due to overthreshing
 - Cracked grain due to excessive tailings
- **Separator Losses**—Separator losses are usually caused by feeding too much material over them at low cylinder speeds and by wide concave clearance when the combine is operating at excessive ground speeds.
- **Cleaning Shoe Losses**—Cleaning shoe losses may be caused by:
 - Too much air from cleaning fan
 - Too much material on chaffer
 - Improperly adjusted chaffer and sieve
- **Leakage Losses**—Leakage losses can occur almost

anywhere on the combine. All leaks must be repaired as soon as possible.

CP00834,0008B44-19-12MAR21

Determine Threshing Action

IMPORTANT: Adjust the threshing speed and concave clearance together to achieve good threshing action.

NOTE: When harvesting small-grain crops, usually keep high threshing speed and narrow concave clearance.

When harvesting large-grain crops, usually keep low threshing speed and wide concave clearance.

- High threshing speed and narrow concave clearance with good threshing action. Too high threshing speed and too narrow concave clearance with more cracked grains.
- Low threshing speed and wide concave clearance with poor threshing action. Too low threshing speed and too wide concave clearance with more unthreshed grains.
- **Moist Crops:** Increase the threshing speed and reduce the concave clearance.
- **Dry Crops:** Reduce the threshing speed and increase the concave clearance.

CP00834,0008B45-19-07MAR22

Correct Threshing Problems

- **Overthreshing**—Try reducing the threshing speed by 5 percent at a time. Check the result before making additional changes. Try increasing the concave clearance slightly if reducing the threshing speed 10 percent does not help. If this correct the problem, increase the concave clearance slightly. If overthreshing cannot be corrected by these measures, try reducing the ground speed.
- **Underthreshing**—Try increasing the threshing speed by 5 percent. If this does not correct the problem, reduce the concave clearance slightly. Check the results of these changes frequently. If after trying a few of these adjustments threshing action still hasn't improved, increase the ground speed.

CP00834,0008B46-19-07MAR22

Recommended Crop Settings

NOTE: The data is recommended values. The values require slightly different settings based on crop and field conditions.

Harvesting Hints

Crop	Threshing Cylinder Speed (rpm)	Concave Clearance (mm)	Chaffer Opening (mm)	Sieve Opening (mm)	Cleaning Fan Speed (rpm)
Wheat	850—1100	Inlet Clearance: 7—8 (early stage of harvesting) Outlet Clearance: 4—5 (early stage of harvesting) Inlet Clearance: 9—12 (mid-late stage of harvesting) Outlet Clearance: 7—10 (mid-late stage of harvesting)	12—17	3—7	700—1100
Rice	500—950	Inlet Clearance: 14 Outlet Clearance: 10	14—18	5—10	700—1100
Corn	358—550	Inlet Clearance: 30 Outlet Clearance: 19	12—17	10—15	≥800

cp00834,1668731645357-19-17NOV22

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.

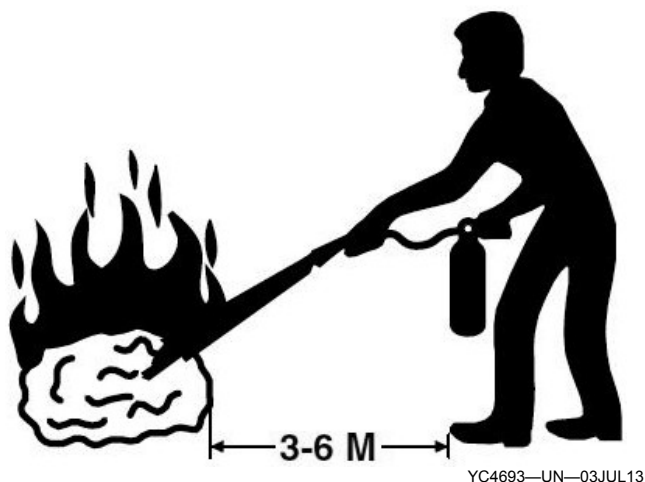
Always follow all safety procedures posted on the machine and in the Operator's Manual. Before carrying out any inspection or cleaning, always shut OFF engine, set park brake, and remove key.

Your machine is equipped with a general-purpose powder fire extinguisher. Extinguisher must be checked daily when entering or exiting the cab and when working around machine to ensure that it is in working condition. Fire extinguisher must be replaced or professionally serviced after any usage.

For further information, refer to Machine Cleanout section.

CP00834,0008B35-19-11MAR21

Fire Extinguisher Operation



The machine is equipped with a general-purpose powder fire extinguisher. The fire extinguisher must be checked daily when entering or exiting the cab and when working around machine to ensure that it is in working condition. The fire extinguisher must be replaced or professionally serviced after any usage.

Fire Extinguisher Recommendation:

IMPORTANT: Read label on the fire extinguisher and become familiar with instructions and restrictions to use it.

The general-purpose powder fire extinguisher can be used for grease, oil, electrical, and chemical fires.

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

Inspection Checklist:

At least once per month, inspect the fire extinguisher and ensure the following:

- 1.Is the fire extinguisher positioned in designated location on the cab ladder landing?
- 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 the fire extinguisher full? (Determines by weighing or "hefting")
- 6.Is there any physical damage, corrosion, leakage, or a clogged nozzle?

When inspection of the fire extinguisher reveals a deficiency, the fire extinguisher must be serviced or replaced.

CP00834,0008B3C-19-12MAR21

Handle Fluids Safely—Avoid Fires



TS227—UN—15APR13

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

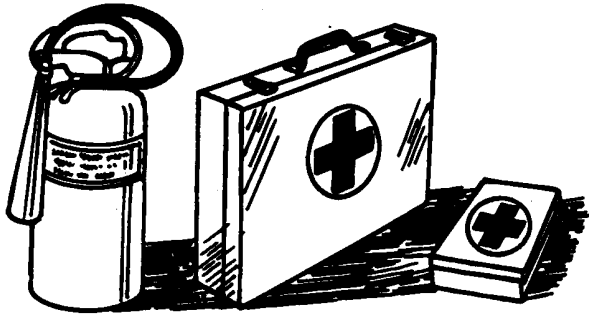
Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

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

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

DX,FLAME-19-29SEP98

Prepare for Emergencies



TS291—UN—15APR13

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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

DX,FIRE2-19-03MAR93

Remove Accumulated Crop Debris



TS227—UN—15APR13

The buildup 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 park brake, and remove the key.

CP00834,0008B37-19-11MAR21

Fire Extinguisher Location



YC21131—UN—28NOV22

The machine is equipped with a general-purpose powder fire extinguisher.

The fire extinguisher is on the front ladder platform.

cp00834,1668731944351-19-17NOV22

In Case of Fire



TS227—UN—15APR13

CAUTION: Avoid personal injury.

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

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

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

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

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

DX,FIRE4-19-22AUG13

Machine Cleanout

General Cleaning Guidelines

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.

Frequency of inspections and cleanings will vary depending on a number of factors, including operating conditions, machine settings, crop conditions, operating speeds, and weather conditions. Inspections and cleanings may be required multiple times throughout the harvest day, particularly in dry, hot, and windy conditions.

IMPORTANT: 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.

Crop material and other debris can accumulate in various areas. Direction of wind, type of crop, and crop moisture content can all impact where and how much crop material and debris can accumulate. Be aware of harvest conditions and adjust your cleaning schedule to ensure proper machine function and to reduce the risk of fire. Inspect and clean these areas as needed throughout the harvest day.

Cleaning out Areas:

- Engine Compartment
- Engine Cooling System
- Fuel Tank
- Cleaning Fan
- Separating Unit
- Gear Case Transmission

IMPORTANT: These areas may require more frequent cleaning, even multiple times per day, depending on harvest conditions. Be aware of harvest conditions and adjust your cleaning schedule to ensure proper machine function and to reduce the risk of fire.

Other areas not covered in this section may also collect crop debris and **MUST** be cleaned periodically for machine function and appearance. Thoroughly inspect the entire machine regularly throughout the harvest season.

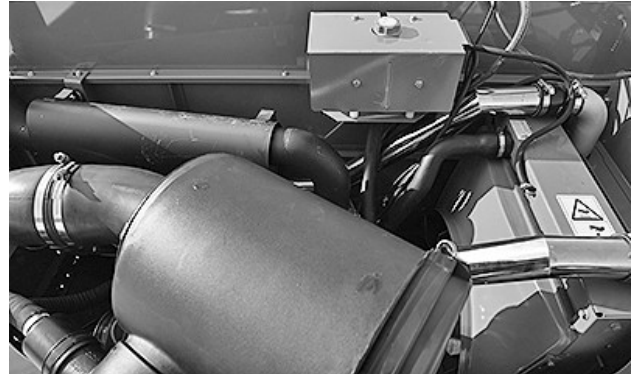
These areas of the machine require regular inspection and cleaning. While there are other areas that require regular cleaning, frequent attention to these areas provides the greatest impact on fire prevention.

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 park brake, and remove ignition key.

cp00834,1663048433758-19-13SEP22

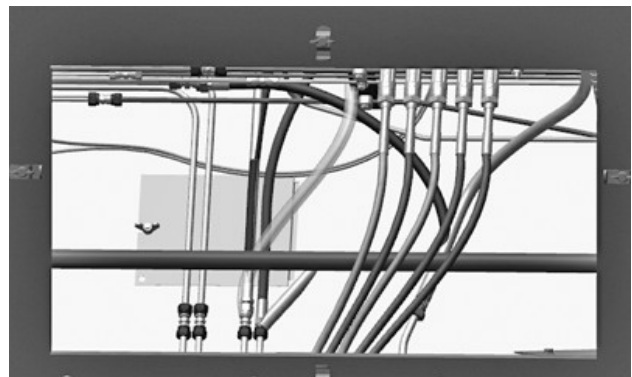
Clean Out Engine Compartment



YC21133—UN—28NOV22

Engine Compartment (top area)

Thoroughly clean the top area of the engine compartment with compressed air.



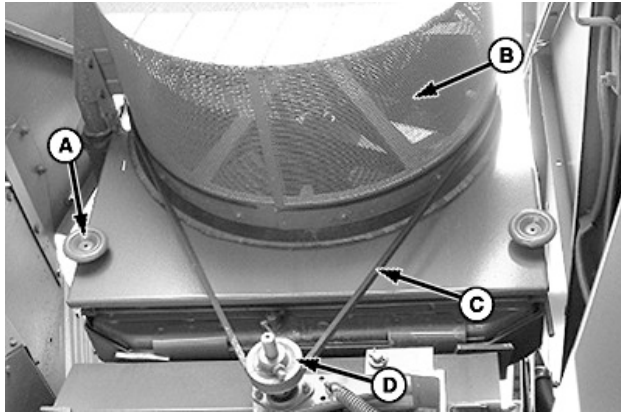
YC21132—UN—28NOV22

Engine Compartment (bottom area)

Open the access door in the grain tank, thoroughly clean the bottom area of the engine compartment with compressed air.

cp00834,1668733657460-19-17NOV22

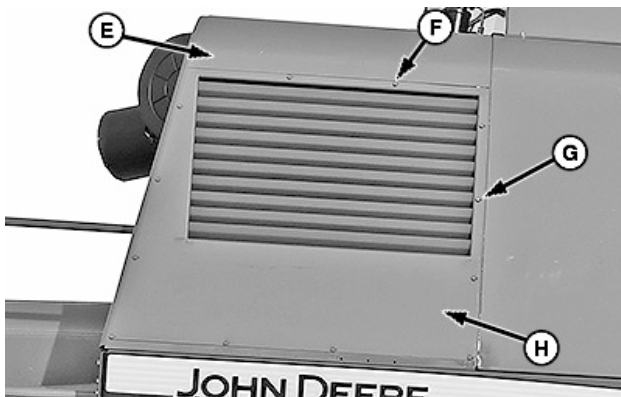
Clean Out Engine Cooling System



YC21163—UN—28NOV22

- A—Knurled Nut (2 used)
- B—Rotary Screen
- C—Drive Belt
- D—Pulley

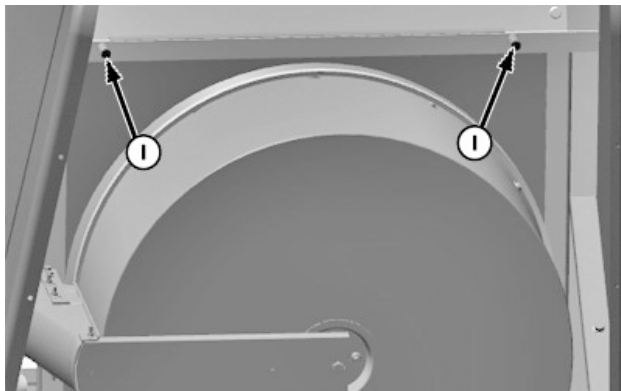
1. Open the right-hand side shield.
2. Loosen and remove the drive belt (C) from pulley (D).



YC21164—UN—28NOV22

- E—Cover
- F—Cap Screw (2 used)
- G—Cap Screw (10 used)
- H—Cover

3. Remove cap screws (F) and cover (E).
4. Remove cap screws (G) and cover (H).



YC21165—UN—28NOV22

- I—Cap Screw (2 used)

5. Loosen knurled nuts (A).
6. Remove cap screws (I), springs, and nuts.
7. Lift and remove the rotary screen (B).
8. Clean radiator with compressed air, blowing from inside out.

IMPORTANT: When using compressed air for cleaning, be careful to avoid damage to the cooling fin.

cp00834,1668747307380-19-17NOV22

Clean Out Fuel Tank

Thoroughly clean areas around the fuel tank.



YC6693—UN—14MAY14

Fuel Tank (top area)



YC6672—UN—12MAY14

Fuel Tank (bottom area)



YC6694—UN—14MAY14

Fuel Tank (bottom area)



YC6682—UN—14MAY14

Fuel Tank (bottom area)

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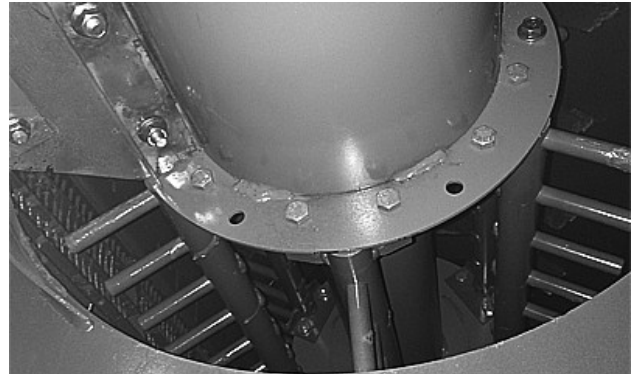
Clean Out Separating Unit



YC6674—UN—13MAY14

Gear Case

Thoroughly clean areas around the gear case.



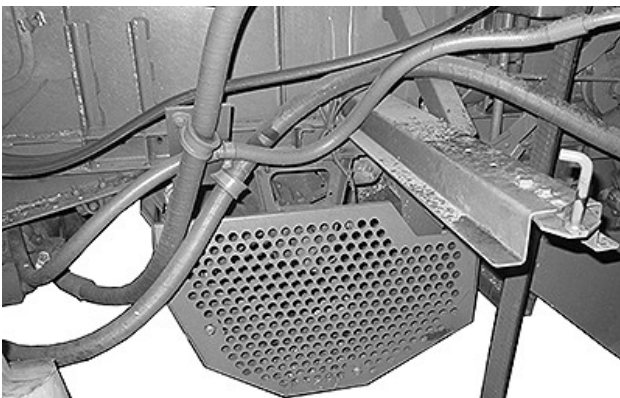
YC8893—UN—07JUL15

Separator Rotor

Thoroughly clean areas around the separator rotor.

Clean Out Cleaning Fan

Thoroughly clean areas around the cleaning fan on both sides of the machine.



YC16921—UN—15MAR21

Cleaning Fan (left-hand side shown)

CP00834,0008BD2-19-29AUG21



YC6676—UN—13MAY14

Separating Unit (top area)

Open the access doors on the top of machine, thoroughly clean the top area of the separator unit.



YC17749—UN—23JUN21

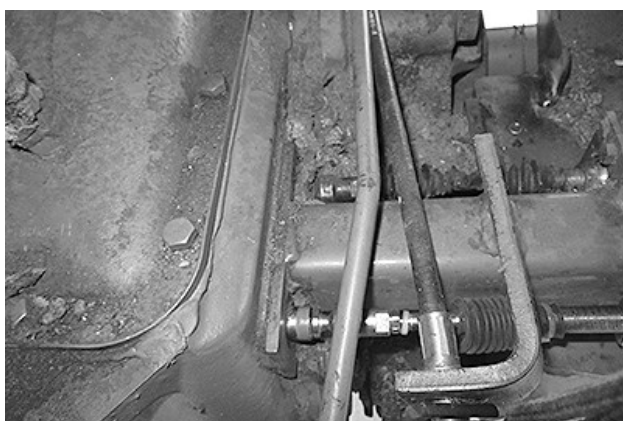
Separating Unit (bottom area)

Open the access doors on the top of the cleaning shoe, thoroughly clean the bottom area of the separator unit.

cp00834,1668733049256-19-17NOV22

Clean Out Gear Case Transmission

Thoroughly clean areas around the gear case transmission.

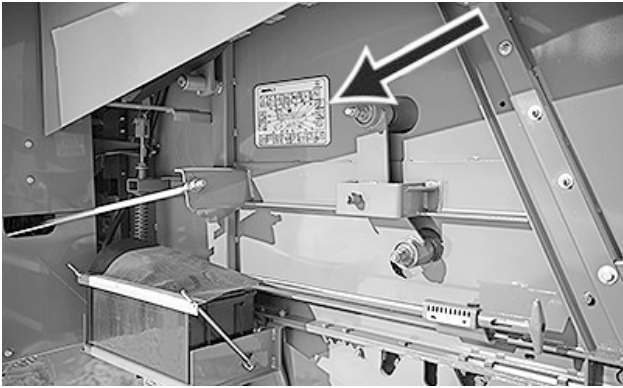


YC16920—UN—15MAR21

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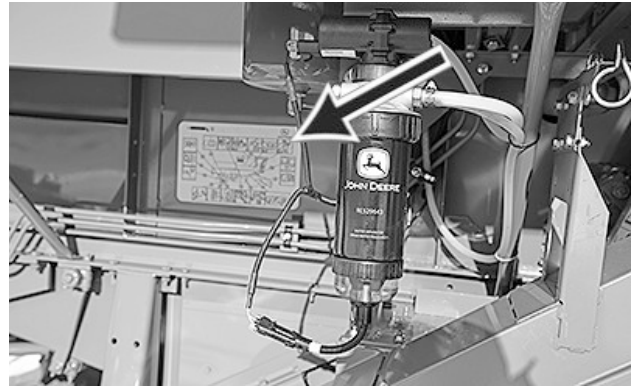
Lubrication and Maintenance

Lubrication Decal Locations



YC21137—UN—28NOV22

Left-Hand Lubrication Decal



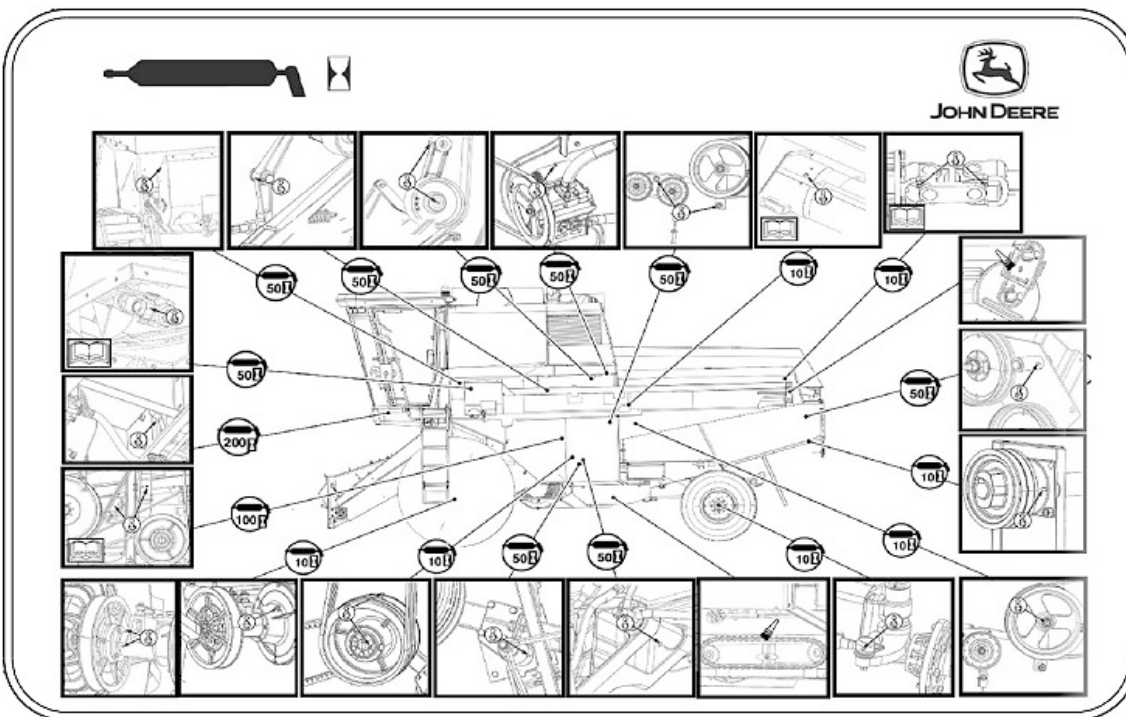
YC21136—UN—28NOV22

Right-Hand Lubrication Decal

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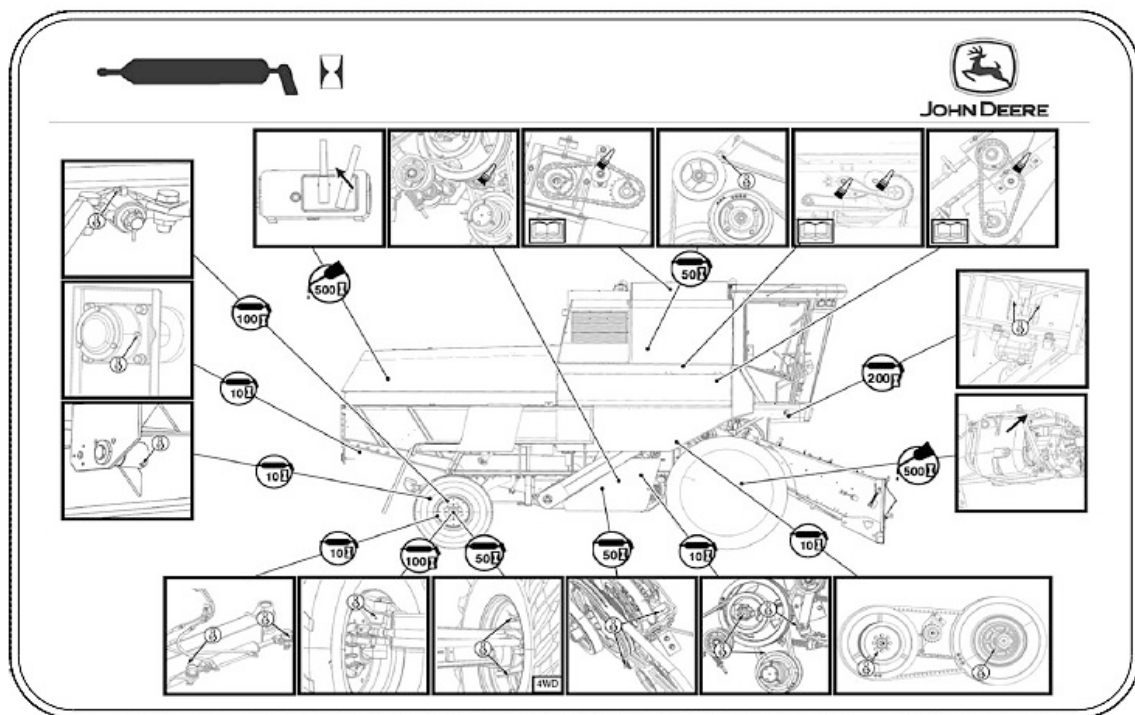
Lubrication Symbols

IMPORTANT: The recommended service intervals are for the average conditions. Service **MORE OFTEN** if machine is operated under the adverse conditions.



YC21134—UN—28NOV22

Lubrication Symbol (Left Side of the Machine, Full-Feeder Combine Shown)



Lubrication Symbol (Right Side of the Machine, Full-Feeder Combine Shown)

YC21135—UN—28NOV22

cp00834,1668736359445-19-21NOV22

Lubrication and Maintenance Interval Chart

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement. For example: at every 200 hours, also service those items listed in every 10 hours (daily), every 50 hours, and every 100 hours.

Item	Every 10 Hours (Daily)	Every 50 Hours	Every 100 Hours	Every 200 Hours	Every Season	Every 375 Hours	Every 400 Hours	Every 500 Hours (One Year)	Every 800 Hours	Every 1000 Hours (Two Years)	Every 1600 Hours	Every 3000 Hours (Three Years)
Lubricate Fitting at Separator Drive Middle Pulley	•											
Lubricate Fitting at Straw Chopper Bearings	•											
Lubricate Fitting at Threshing Cylinder Drive Sheave	•											
Lubricate Fitting at Threshing Cylinder Sheave	•											
Lubricate Fitting at Cleaning Fan Variable Speed Drive Sheave	•											
Lubricate Fitting at Cleaning Fan Variable Speed Sheave	•											
Lubricate Fitting at Separator Gear Case Universal Joint	•											
Lubricate Fitting at Steering Cylinder Ball Joints	•											

Lubrication and Maintenance

Item	Every 10 Hours (Daily)	Every 50 Hours	Every 100 Hours	Every 200 Hours	Every Season	Every 375 Hours	Every 400 Hour- s	Every 500 Hour- s (One Year)	Every 800 Hours	Every 1000 Hour- s (Two Year- s)	Every 1600 Hour- s	Every 3000 Hours (Three Years)
Lubricate Fitting at Steering Rod Ball Joints	•											
Lubricate Fitting at Rear Axle Support Pivot	•											
Lubricate Fitting at Posi-Torq™ Upper Unit (Mechanical Drive)	•											
Lubricate Fitting at Posi-Torq™ Lower Unit Spring (Mechanical Drive)	•											
Lubricate Fitting at Posi-Torq™ Lower Unit Half Cam (Mechanical Drive)	•											
Lubricate Fitting at Ground Drive Input Housing Bearing (Mechanical Drive)	•											
Lubricate Fitting at Unloading Auger Telescopic Segment	•											
Lubricate Tailing Elevator Drive Chain	•											
Lubricate Cleaning Shoe Drive Chain	•											
Lubricate Grain Leveling Auger Drive Chain	•											
Lubricate Unloading Impeller and Cross Auger Drive Chains	•											
Lubricate Upper Tailing Auger Drive Chain	•											
Lubricate Unloading Auger Drive Chain	•											
Lubricate Overshot Beater Drive Chain (option)	•											
Check and Adjust Feeder House Conveyor Chain Tension	•											
Clean Primary Air Filter Element	•											
Clean Radiator	•											
Clean Rotary Screen	•											
Check and Dump the Stone Trap	•											
Check and Clean Front Grain Pan	•											
Check Condition of Tires	•											
Check and Adjust Clutch Clearance (Mechanical Drive)	•											
Lubricate Fitting at Rear Axle Vertical Shafts		•										
Lubricate Fitting at Separator Engage Drive Belt Tensioner and Tensioner Support		•										
Lubricate Fitting at Separator Engage Support		•										
Lubricate Fitting at Hydraulic Pump Support		•										
Lubricate Fitting at Straw Chopper Drive Belt Tensioner Support		•										
Lubricate Fitting at Separator Drive Middle Pulley Support		•										
Lubricate Fitting at Separator Drive		•										

Lubrication and Maintenance

Item	Every 10 Hours (Daily)	Every 50 Hours	Every 100 Hours	Every 200 Hours	Every Season	Every 375 Hours	Every 400 Hour- s	Every 500 Hour- s (One Year)	Every 800 Hours	Every 1000 Hour- s (Two Year- s)	Every 1600 Hour- s	Every 3000 Hours (Three Years)
Middle Pulley Drive Belt Tensioner Support												
Lubricate Fitting at Rear Axle Pivot Bearing (Optional Rear Wheel Drive)		•										
Lubricate Fitting at Beater Drive Belt Tensioner Support		•										
Lubricate Fitting at Cleaning System Drive Belt Tensioner Support		•										
Lubricate Fitting at Cleaning Shoe Drive Chain Tensioner Support		•										
Lubricate Fitting at Posi-Torq™ Upper Unit Support (Mechanical Drive)		•										
Lubricate Fitting at Hydrostatic Pump Pulley Support (Hydrostatic Drive)		•										
Lubricate Fitting at Unloading Auger Universal Joint		•										
Clean Fresh Air Filter		•										
Check and Adjust Posi-Torq™ Lower Unit Clearance (Mechanical Drive)		•										
Check and Adjust Length of Wire Rope		•										
Lubricate Fitting at Front Separator Bearing (for China market)			•									
Lubricate Fitting at Rear Axle Support			•									
Check Gear Case Transmission Oil			•									
Check Final Drive Oil			•									
Check Threshing Cylinder Speed Reduction Gear Grease (Option)			•									
Lubricate Fitting at Clutch Pedal (Mechanical Drive)				•								
Lubricate Fitting at Service Brake Pedals				•								
Check and Tighten Wheel Bolts and Nuts				• ^a	• ^a							
Check and Tighten Front Axle Bolts and Nuts				• ^a	• ^a							
Check and Adjust Service Brake				• ^a	• ^a							
Check and Adjust Park Brake				• ^a	• ^a							
Check and Fill Rear Wheel Drive Final Drive Oil (Option)				•								
Replace Fresh Air Filter				• ^e								
Replace Fuel Filter Elements				•								
Check and Clean HVAC System				• ^a	• ^a							
Change Engine Oil and Replace Oil Filter						• ^b						
Change Rear Wheel Drive Gear Case Oil (Option)							•					
Check and Fill Rear Wheel Drive Axle Oil (Option)							•					

Lubrication and Maintenance

Item	Every 10 Hours (Daily)	Every 50 Hours	Every 100 Hours	Every 200 Hours	Every Season	Every 375 Hours	Every 400 Hour- s	Every 500 Hour- s (One Year)	Every 800 Hours	Every 1000 Hour- s (Two Year- s)	Every 1600 Hour- s	Every 3000 Hours (Three Years)
Lubricate Fitting at Rear Wheel Bearings								● ^h				
Lubricate Fitting at Rear Axle Hitch								● ^h				
Change Hydraulic Oil and Replace Oil Filter					● ^c			● ^c				
Change Hydrostatic Oil and Replace Oil Filter (Hydrostatic Drive)					● ^c			● ^c				
Change Gear Case Transmission Oil								● ^h				
Change Final Drive Oil								● ^h				
Change Threshing Cylinder Speed Reduction Gear Grease (Option)								● ^h				
Change Brake Fluid								● ^h				
Change Separator Rotor Gear Case Oil								● ^h				
Check Belt Tensioner Spring Tension and Belt Wear								● ^d				
Check Crankcase Vent System								● ^d				
Change Rear Wheel Drive Final Drive Oil (Option)									●			
Replace Front Separator Bearing (for export market)										●		
Change Rear Wheel Drive Axle Oil (Option)											●	
Flush and Refill Engine Cooling System												● ^f

^a Perform the maintenance every 200 hours or every season, whichever comes first.

^b If non John Deere recommended engine oil and oil filter are used, shorten the service interval to 250 hours.

^c Perform the maintenance every 500 hours or every season, whichever comes first.

^d Perform the maintenance every 500 hours or every year, whichever comes first.

^e At every 4 cleanings or 200 hours, whichever happens first, replace the fresh air filter.

^f Perform the maintenance every 3000 hours or every three years, whichever comes first. If COOL-GARD™ is not used, shorten the service interval to 2000 hours or two years.

^h Perform the maintenance every 500 hours.

cp00834,1669018660139-19-22NOV22

Lubrication and Maintenance—Every 10 Hours (Daily)

Lubrication and Maintenance Chart—Every 10 Hours (Daily)

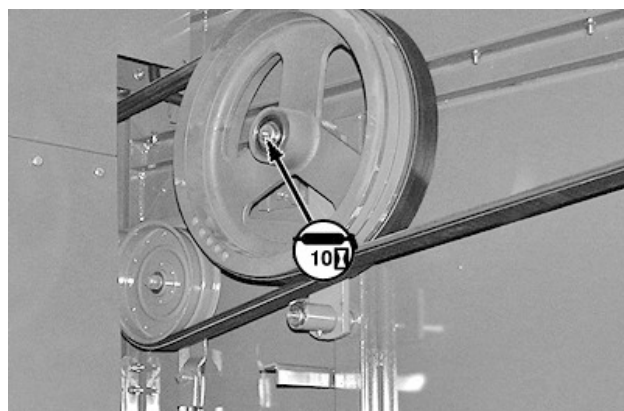
Every 10 Hours (Daily) Service
Lubricate Fitting at Separator Drive Middle Pulley
Lubricate Fitting at Straw Chopper Bearings
Lubricate Fitting at Threshing Cylinder Drive Sheave
Lubricate Fitting at Threshing Cylinder Sheave
Lubricate Fitting at Cleaning Fan Variable Speed Drive Sheave
Lubricate Fitting at Cleaning Fan Variable Speed Sheave
Lubricate Fitting at Separator Gear Case Universal Joint
Lubricate Fitting at Steering Cylinder Ball Joints
Lubricate Fitting at Steering Rod Ball Joints
Lubricate Fitting at Rear Axle Support Pivot
Lubricate Fitting at Posi-Torq™ Upper Unit (Mechanical Drive)
Lubricate Fitting at Posi-Torq™ Lower Unit Spring (Mechanical Drive)
Lubricate Fitting at Posi-Torq™ Lower Unit Half Cam (Mechanical Drive)
Lubricate Fitting at Ground Drive Input Housing Bearing (Mechanical Drive)
Lubricate Fitting at Unloading Auger Telescopic Segment
Lubricate Tailing Elevator Drive Chain
Lubricate Cleaning Shoe Drive Chain
Lubricate Grain Leveling Auger Drive Chain
Lubricate Unloading Impeller and Cross Auger Drive Chains
Lubricate Upper Tailing Auger Drive Chain
Lubricate Unloading Auger Drive Chain
Lubricate Overshot Beater Drive Chain (option)
Check and Adjust Feeder House Conveyor Chain Tension
Clean Primary Air Filter Element
Clean Radiator
Clean Rotary Screen
Check and Dump the Stone Trap
Check and Clean Front Grain Pan
Check Condition of Tires
Check and Adjust Clutch Clearance (Mechanical Drive)

cp00834,1668740579362-19-17NOV22

Lubricate Fitting at Separator Drive Middle Pulley

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

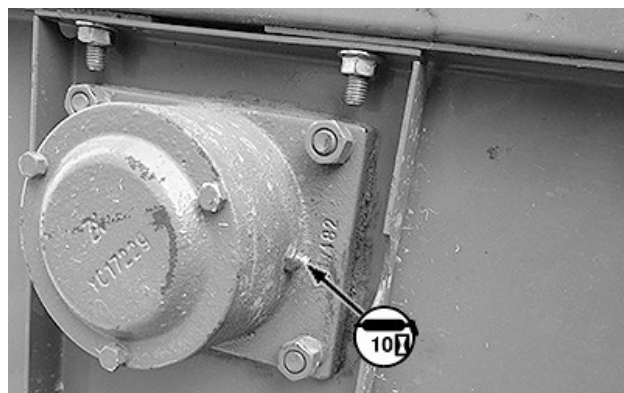


YC21138—UN—28NOV22
cp00834,1668738339471-19-17NOV22

Lubricate Fitting at Straw Chopper Bearings

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



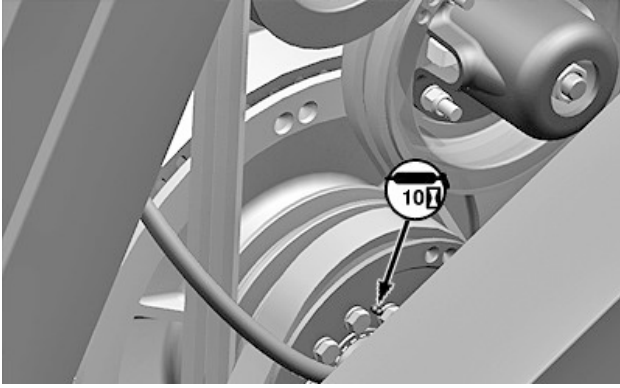
YC21139—UN—28NOV22
Lubricate Fitting at Straw Chopper Bearings (Right Side Shown)

cp00834,1668738382637-19-17NOV22

Lubricate Fitting at Threshing Cylinder Drive Sheave

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21140—UN—28NOV22
cp00834,1668738429709-19-17NOV22

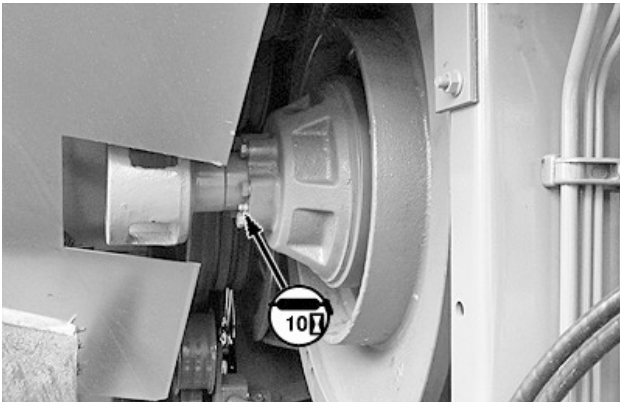


YC21141—UN—28NOV22
cp00834,1668738509388-19-17NOV22

Lubricate Fitting at Threshing Cylinder Sheave

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

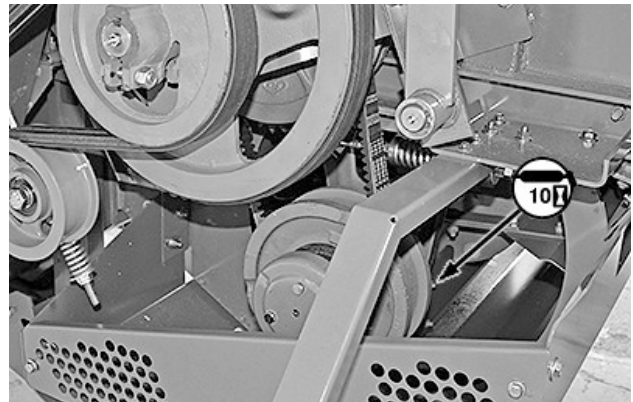


YC21142—UN—28NOV22
cp00834,1668738460677-19-17NOV22

Lubricate Fitting at Cleaning Fan Variable Speed Sheave

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21143—UN—28NOV22
cp00834,1668738540445-19-17NOV22

Lubricate Fitting at Cleaning Fan Variable Speed Drive Sheave

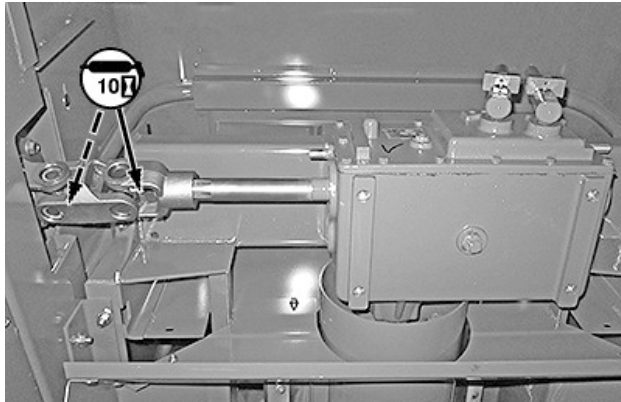
Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Lubricate Fitting at Separator Gear Case Universal Joint

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

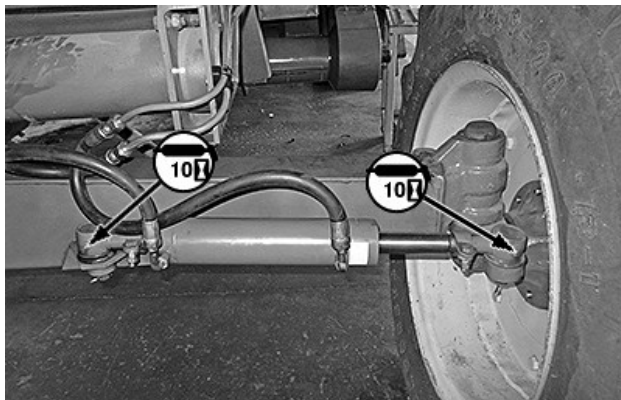


YC21144—UN—28NOV22
cp00834,1668738580006-19-17NOV22

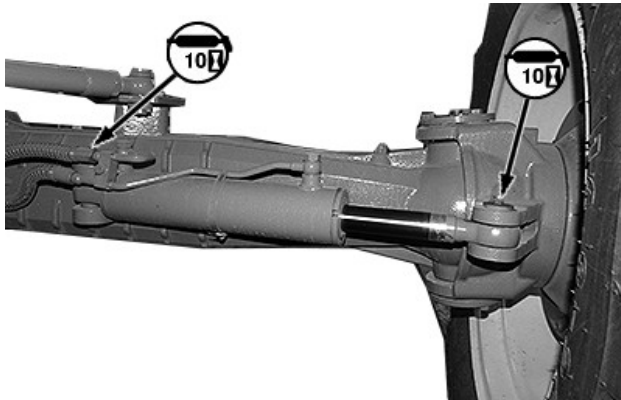
Lubricate Fitting at Steering Cylinder Ball Joints

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC17677—UN—10JUN21



YC17678—UN—10JUN21

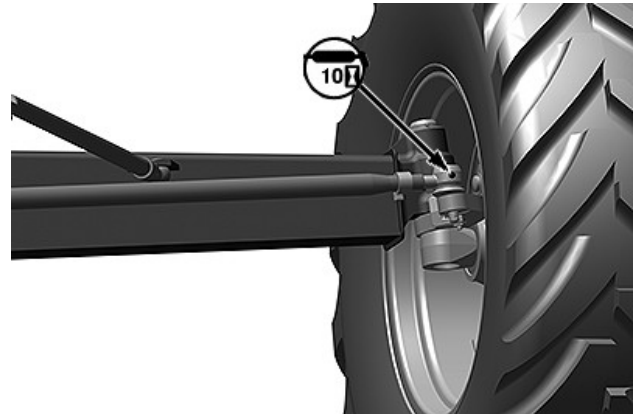
Lubricate Fitting at Steering Cylinder Ball Joints (Optional Rear Wheel Drive)

CP00834,0008E89-19-11JUN21

Lubricate Fitting at Steering Rod Ball Joints

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC17680—UN—10JUN21

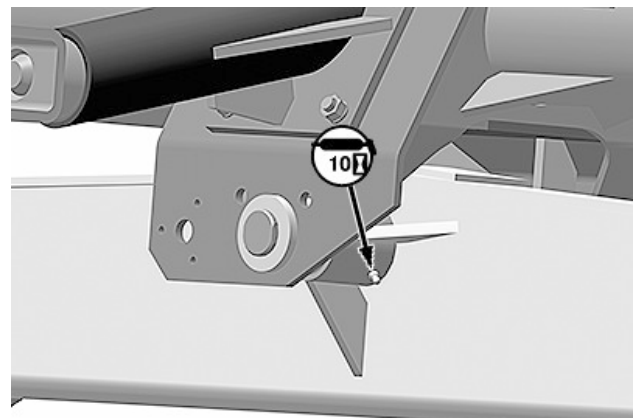
Left Side Steering Rod Ball Joints Shown

CP00834,0008E79-19-10JUN21

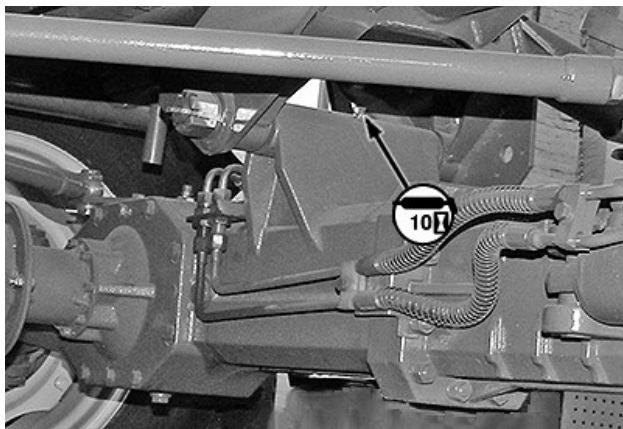
Lubricate Fitting at Rear Axle Support Pivot

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21145—UN—28NOV22

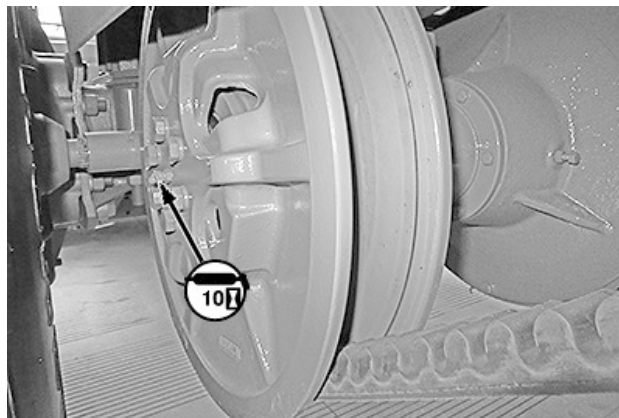


YC17679—UN—10JUN21

Lubricate Fitting at Rear Axle Support Pivot (Optional Rear Wheel Drive)

cp00834,1668738632342-19-17NOV22

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

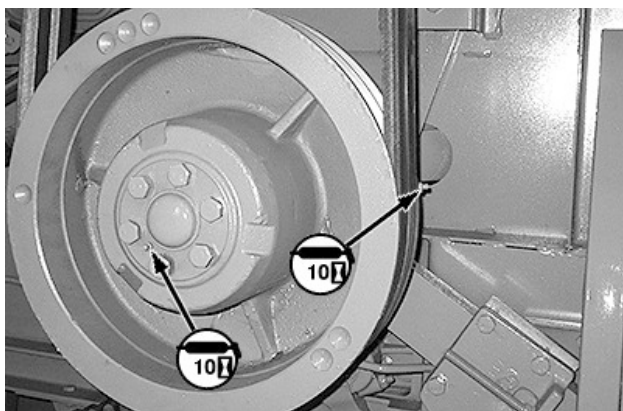


YC21147—UN—28NOV22

Lubricate Fitting at Posi-Torq™ Upper Unit (Mechanical Drive)

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21146—UN—28NOV22

NOTE: Close the variable sheave before lubricating the Posi-Torq™ upper unit.

cp00834,1668738721789-19-17NOV22

Lubricate Fitting at Posi-Torq™ Lower Unit Spring (Mechanical Drive)

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

IMPORTANT: Lubricate the Posi-Torq™ lower unit with Mobil XHP222 grease.

NOTE: Close the variable sheave before lubricating the Posi-Torq™ lower unit.

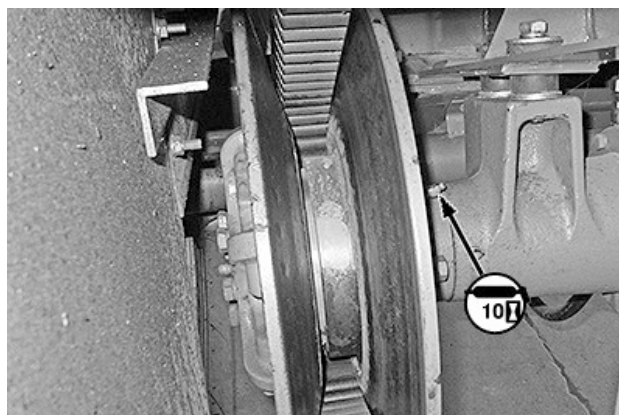
Do not grease too much.

cp00834,1668738766845-19-17NOV22

Lubricate Fitting at Posi-Torq™ Lower Unit Half Cam (Mechanical Drive)

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21148—UN—28NOV22

IMPORTANT: Lubricate the Posi-Torq™ lower unit with Mobil XHP222 grease.

NOTE: Close the variable sheave before lubricating the Posi-Torq™ lower unit.

cp00834,1668738799965-19-17NOV22

Lubricate Fitting at Ground Drive Input Housing Bearing (Mechanical Drive)

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21149—UN—28NOV22

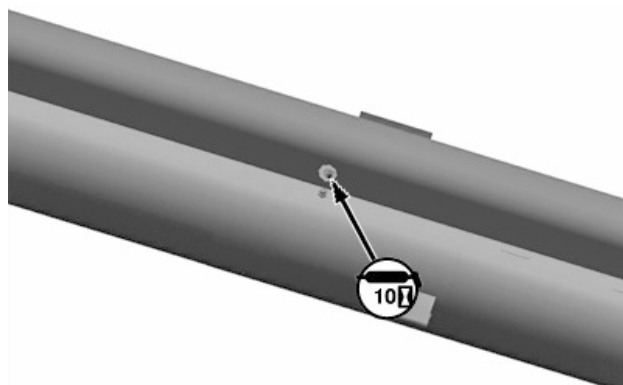
IMPORTANT: Lubricate the Posi-Torq™ lower unit with Mobil XHP222 grease.

cp00834,1668738836180-19-17NOV22

Lubricate Fitting at Unloading Auger Telescopic Segment

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21162—UN—28NOV22

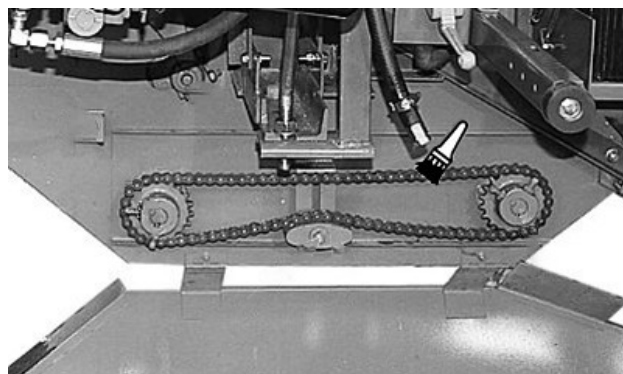
Swing out the unloading auger and lubricate the fitting.

cp00834,1668742400458-19-17NOV22

Lubricate Tailing Elevator Drive Chain

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



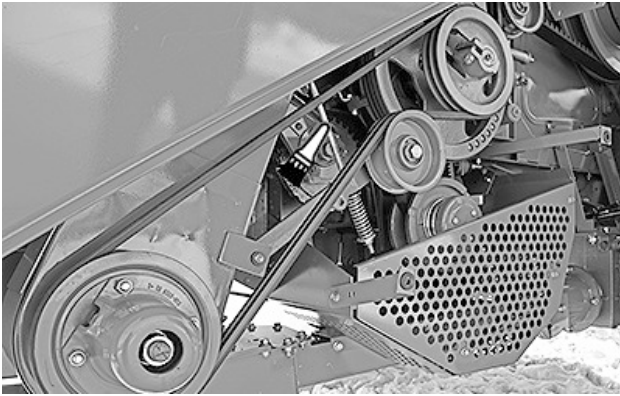
YC21150—UN—28NOV22

cp00834,1668738881526-19-17NOV22

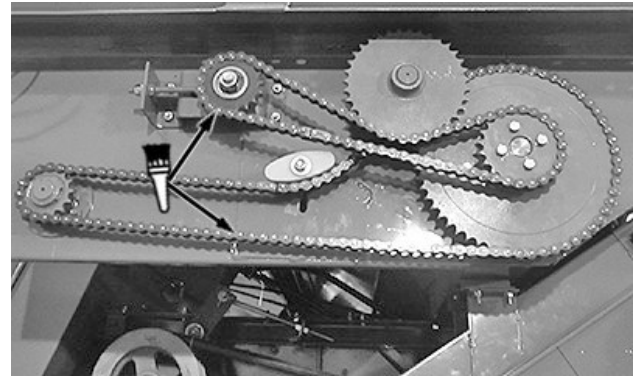
Lubricate Cleaning Shoe Drive Chain

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21151—UN—28NOV22
cp00834,1668738915398-19-17NOV22

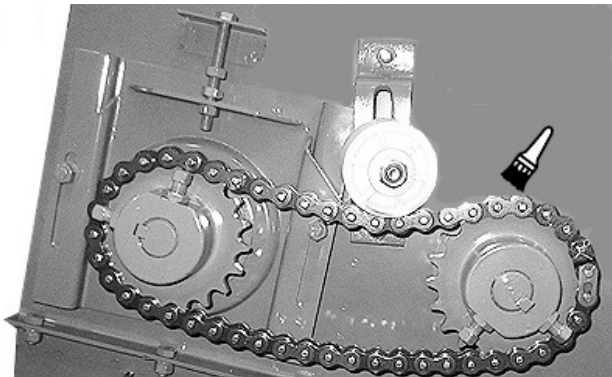


YC21159—UN—28NOV22
cp00834,1668739886602-19-17NOV22

Lubricate Grain Leveling Auger Drive Chain

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21158—UN—28NOV22

The drive chain is in the grain tank. Remove the cover to lubricate the chain.

cp00834,1668739412150-19-17NOV22

Lubricate Unloading Impeller and Cross Auger Drive Chains

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Lubricate Upper Tailing Auger Drive Chain

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

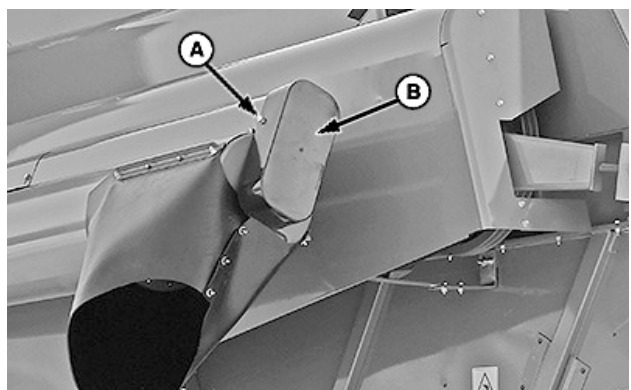


YC21152—UN—28NOV22
cp00834,1668739129863-19-17NOV22

Lubricate Unloading Auger Drive Chain

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21160—UN—28NOV22



YC21161—UN—28NOV22

A—Cap Screw (2 used)
B—Cover

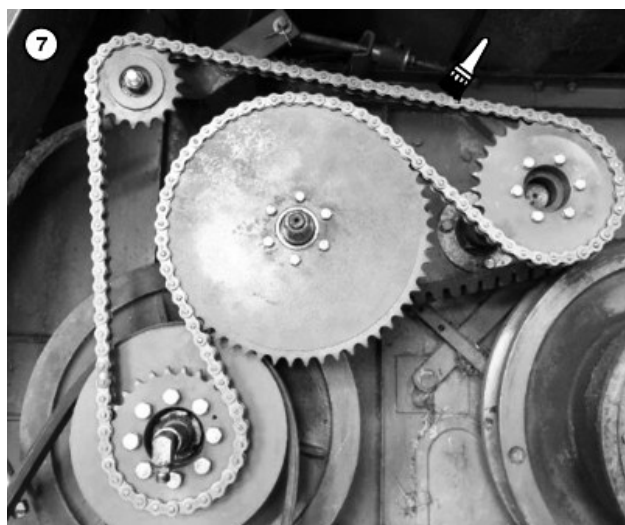
Remove cap screws (A) and cover (B) to lubricate the drive chain.

cp00834,1668741798194-19-17NOV22

Lubricate Overshot Beater Drive Chain (option)

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



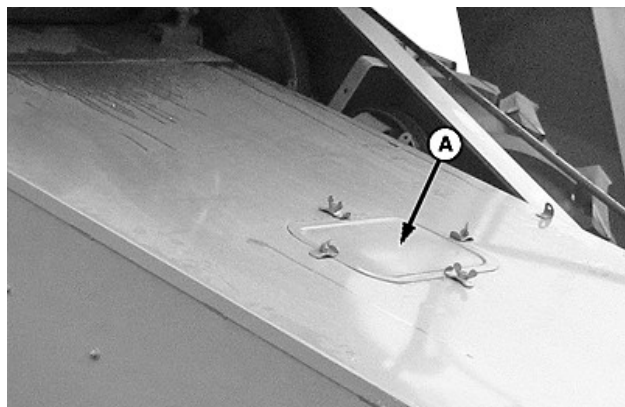
YC20278—UN—08JUN22
cp00834,1668742096284-19-17NOV22

Check and Adjust Feeder House Conveyor Chain Tension

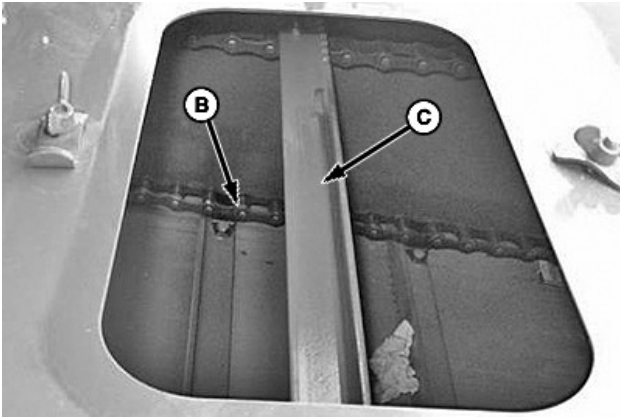
Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Check Feeder House Conveyor Chain Tension



YC21153—UN—28NOV22



A—Cover
B—Conveyor Chain
C—Slat

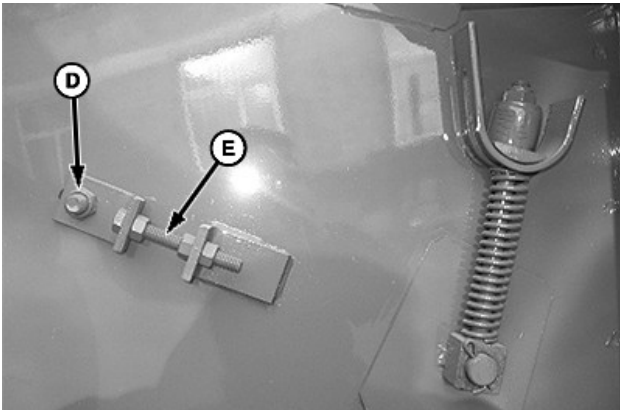
YC16635—UN—07JAN21

Open the cover (A) on the feeder house, lift the slat (C) with 300 N (67 lb) force.

- For small crops, the conveyor chain (B) should be lifted 30—40 mm (1.2—1.6 in).
- For corn, the conveyor chain should be lifted 40—50 mm (1.6—2 in).

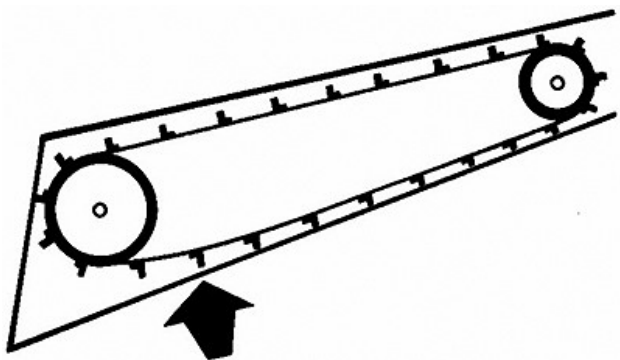
If the value is out of range, adjust the conveyor chain tension as necessary.

Adjust Feeder House Conveyor Chain Tension



YC21154—UN—28NOV22

Adjusting Bolt (Right Side of the Feeder House Shown)



D—Nut (2 used)

YC16637—UN—07JAN21

E—Adjusting Bolt (2 used)

1. Loosen nuts (D).

NOTE: If necessary, remove the front shield of the feeder house.

2. Adjust the length of the adjusting bolts (E) on both sides of the feeder house, until the third slat from the front slightly touches the bottom of the feeder house.
3. Tighten the nuts after adjustment.

cp00834,1668743762066-19-17NOV22

Clean Primary Air Filter Element

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

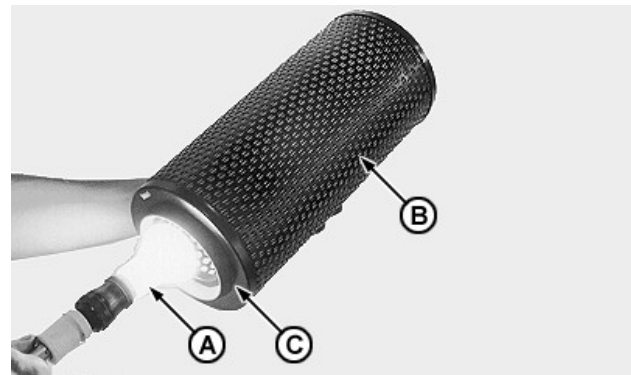
NOTE: Clean several times daily in dusty conditions.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

IMPORTANT: Never clean the secondary filter. Replace if dirty.

Replace the secondary filter every time the primary filter is replaced.

Inspect Primary Air Filter Element



CQ294575—UN—07MAY13

A—Light
B—Outer Screen
C—Gasket

Throw away filter that has even the slightest damage. If the gasket is broken or missing, install a new element.

- Hold a bright light (A) inside filter and check carefully for holes. Discard any filter that has even the slightest hole.
- Be sure that the outer screen (B) is not dented. Vibration would quickly wear a hole in filter.
- Be sure that the filter gasket (C) is in good condition. If the gasket is damaged or missing, replace filter.

NOTE: After the cleaning process is completed, inspect the filter again to ensure that no damage occurred during cleaning. If there is any sign of damage to the filter, discard the filter.

Cleaning in the Field

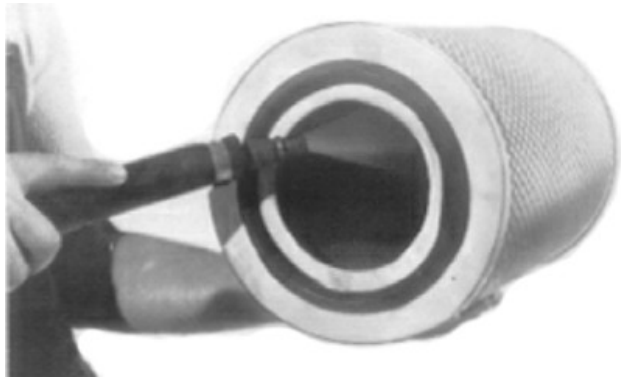


YC16682—UN—15JAN21

When cleaning the primary air filter element in the field, tap it carefully on a soft surface or palm of your hand as a temporary measure.

NOTE: Only pat the edge of the filter element to avoid damage to the filter element.

Cleaning with Compressed Air



YC1341—UN—03JAN14

When cleaning the primary air filter element with compressed air, keep the air nozzle parallel to the inner surface of the filter element. Blow from inside and the pressure does not exceed 500 kPa (5 bar).

IMPORTANT: Do not clean the outside of the filter element with compressed air.

NOTE: Clean the filter element with compressed air for 6 times at most, then replace it.

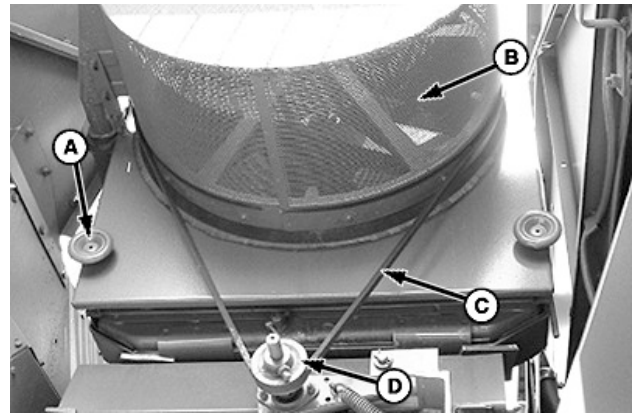
cp00834,1668130443550-19-10NOV22

Clean Radiator

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

NOTE: Clean several times daily in dusty conditions.

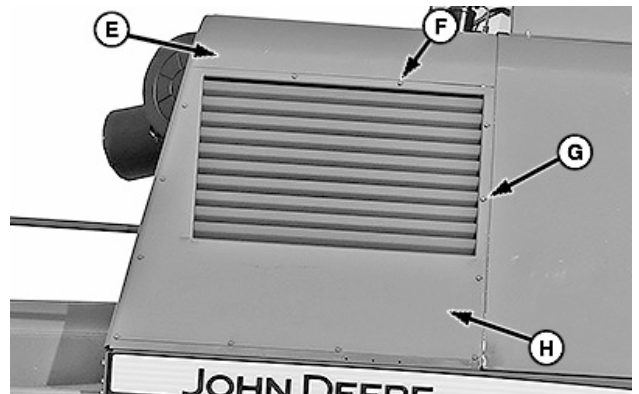
CAUTION: Shut off engine, set park brake, and remove ignition key.



YC21163—UN—28NOV22

A—Knurled Nut (2 used)
B—Rotary Screen
C—Drive Belt
D—Pulley

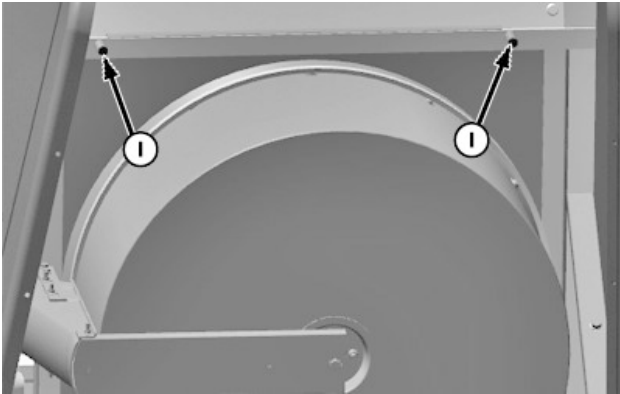
1. Open the right-hand side shield.
2. Loosen and remove the drive belt (C) from pulley (D).



YC21164—UN—28NOV22

E—Cover
F—Cap Screw (2 used)
G—Cap Screw (10 used)
H—Cover

3. Remove cap screws (F) and cover (E).
4. Remove cap screws (G) and cover (H).



I—Cap Screw (2 used)

YC21165—UN—28NOV22

5. Loosen knurled nuts (A).
6. Remove cap screws (I), springs, and nuts.
7. Lift and remove the rotary screen (B).
8. Clean radiator with compressed air, blowing from inside out.

IMPORTANT: When using compressed air for cleaning, be careful to avoid damage to the cooling fin.

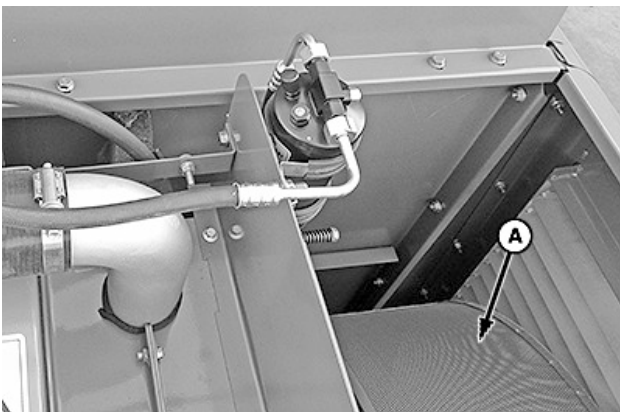
cp00834,1668744075457-19-17NOV22

Clean Rotary Screen

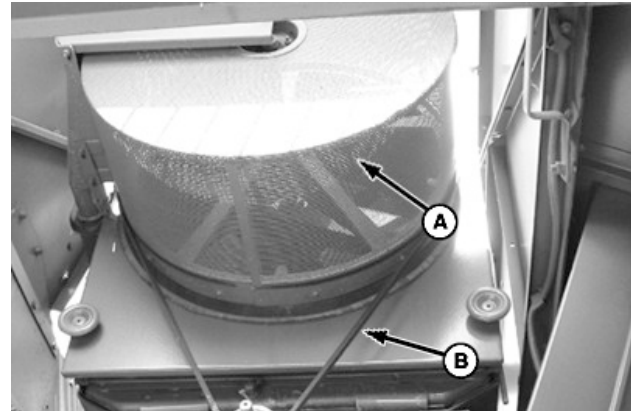
Service Interval	Every 10 Hours (Daily)
------------------	------------------------

NOTE: Clean several times daily in dusty conditions.

CAUTION: Shut off engine, set park brake, and remove ignition key.



YC20983—UN—28NOV22



A—Rotary Screen
B—Drive Belt

YC20981—UN—28NOV22

Clean the rotary screen (A) on top of machine.
Open the right shield to clean the rotary screen.

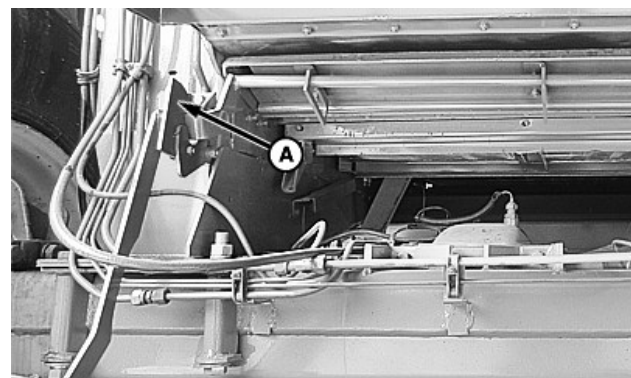
cp00834,1668747567374-19-17NOV22

Check and Dump the Stone Trap

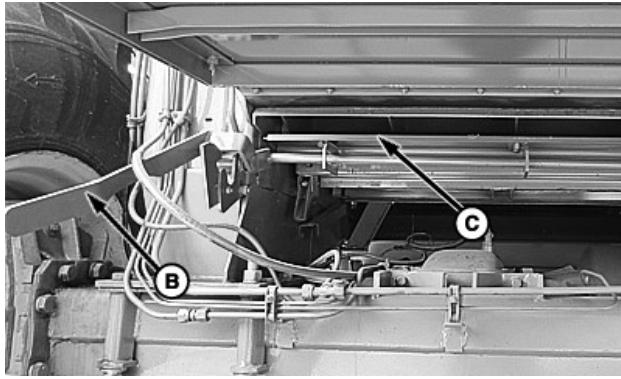
Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Raise the feeder house, lock the safety stop, shut off engine, set park brake, and remove ignition key.

Do not stay under the stone trap when dumping the stone trap.



YC8820—UN—08JUL15



YC8832—UN—08JUL15

- A—Lock Plate
B—Handle
C—Stone Trap

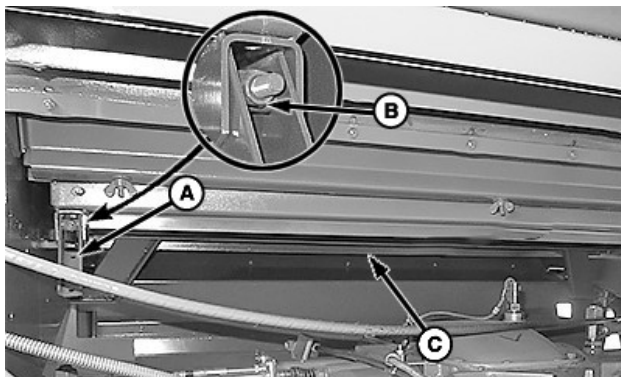
Open the lock plate (A) and rotate handle (B) upward to dump the stone trap (C).

cp00834,1668747777095-19-17NOV22

Check and Clean Front Grain Pan

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Raise the feeder house, lock the safety stop, shut off engine, set park brake, and remove ignition key.



YC21155—UN—28NOV22

- A—Latch (2 used)
B—Lock Nut (2 used)
C—Front Grain Pan

Press the latches (A) rearward and slide the front grain pan (C) outward.

Support and clean the front grain pan.

cp00834,1668749012306-19-17NOV22

Check Condition of Tires

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

IMPORTANT: To ensure maximum performance, keep tires at the recommended pressure.

Inspect tires for cuts, damage, or excessive wear.

Adjust and maintain the tire pressure according to the recommended pressure.

Specification

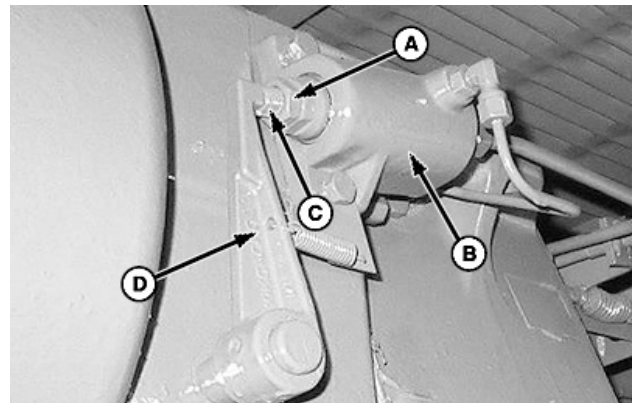
Front Wheel Tire—Pressure. 250 kPa (2.5 bar)
Rear Wheel Tire—Pressure. 370 kPa (3.7 bar)

CP00834,0008E7D-19-18APR22

Check and Adjust Clutch Clearance (Mechanical Drive)

Service Interval	Every 10 Hours (Daily)
------------------	------------------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21156—UN—28NOV22

- A—Lock Nut
B—Hydraulic Cylinder
C—Piston Rod
D—Control Lever

Pull the control lever (D) away from the hydraulic cylinder (B). Measure the clearance between the piston rod (C) and the surface of the control lever, the clearance should be 3—5 mm.

If the clearance is out of range, loosen the lock nut (A) and turn the piston rod to adjust the clearance. Tighten the lock nut after adjustment.

cp00834,1668749069962-19-17NOV22

Lubrication and Maintenance—Every 50 Hours

Lubrication and Maintenance Chart—Every 50 Hours

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

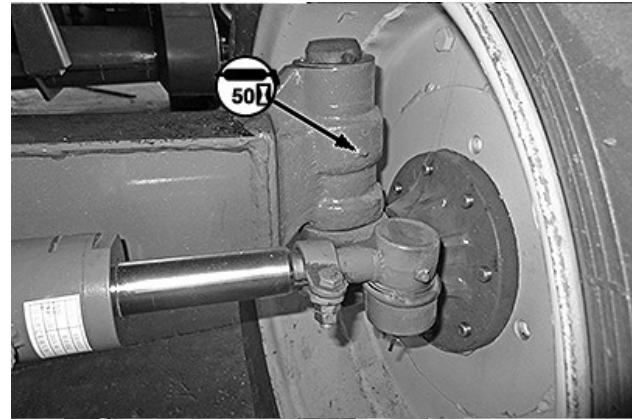
Every 50 Hours Service
Lubricate Fitting at Rear Axle Vertical Shafts
Lubricate Fitting at Separator Engage Drive Belt Tensioner and Tensioner Support
Lubricate Fitting at Separator Engage Support
Lubricate Fitting at Hydraulic Pump Support
Lubricate Fitting at Straw Chopper Drive Belt Tensioner Support
Lubricate Fitting at Separator Drive Middle Pulley Support
Lubricate Fitting at Separator Drive Middle Pulley Drive Belt Tensioner Support
Lubricate Fitting at Rear Axle Pivot Bearing (Optional Rear Wheel Drive)
Lubricate Fitting at Beater Drive Belt Tensioner Support
Lubricate Fitting at Cleaning System Drive Belt Tensioner Support
Lubricate Fitting at Cleaning Shoe Drive Chain Tensioner Support
Lubricate Fitting at Posi-Torq™ Upper Unit Support (Mechanical Drive)
Lubricate Fitting at Hydrostatic Pump Pulley Support (Hydrostatic Drive)
Lubricate Fitting at Unloading Auger Universal Joint
Clean Fresh Air Filter
Check and Adjust Posi-Torq™ Lower Unit Clearance (Mechanical Drive)
Check and Adjust Length of Wire Rope

cp00834,1668749889731-19-22NOV22

Lubricate Fitting at Rear Axle Vertical Shafts

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC17636—UN—10JUN21

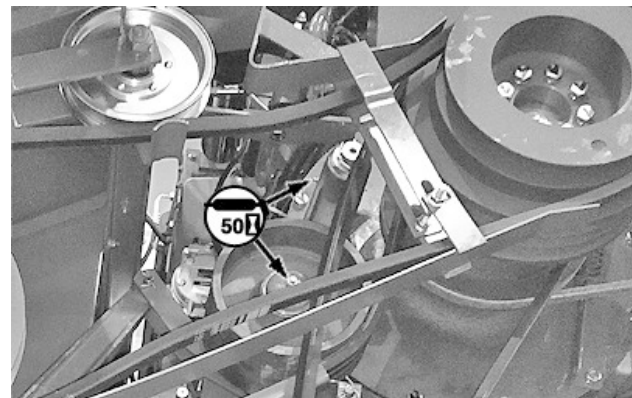
Rear Axle Vertical Shafts (Right Side Shown)

CP00834,0008E4D-19-09JUN21

Lubricate Fitting at Separator Engage Drive Belt Tensioner and Tensioner Support

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21167—UN—28NOV22
cp00834,1668751580054-19-18NOV22

Lubricate Fitting at Separator Engage Support

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

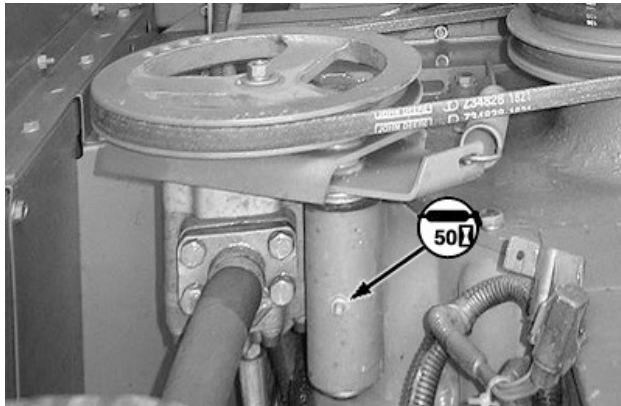


YC21168—UN—28NOV22
cp00834,1668751610158-19-18NOV22

Lubricate Fitting at Hydraulic Pump Support

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

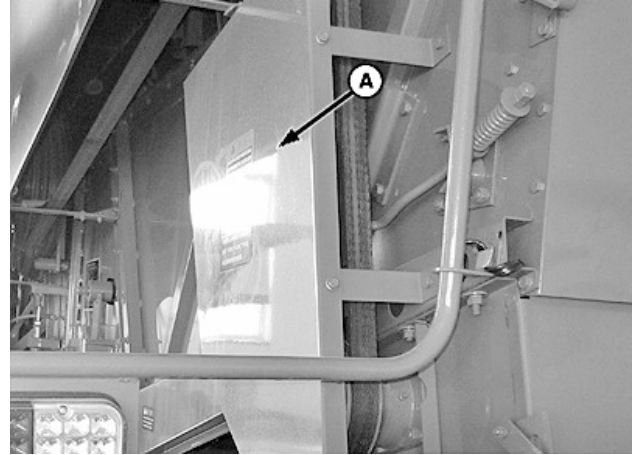


YC21169—UN—28NOV22
cp00834,1668751635855-19-18NOV22

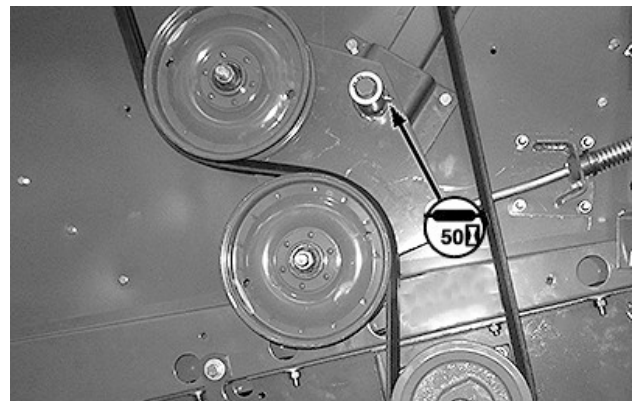
Lubricate Fitting at Straw Chopper Drive Belt Tensioner Support

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21301—UN—28NOV22



YC21170—UN—28NOV22

A—Shield

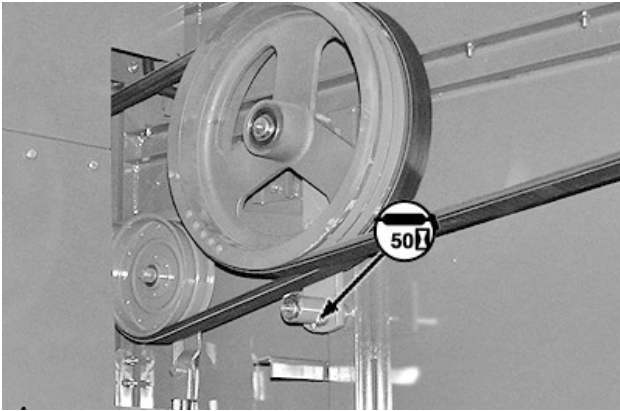
Remove cap screws and shield (A), then lubricate the fitting.

cp00834,1669166474147-19-22NOV22

Lubricate Fitting at Separator Drive Middle Pulley Support

Service Interval	Every 50 Hours
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CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21171—UN—28NOV22
cp00834,1668751692567-19-18NOV22

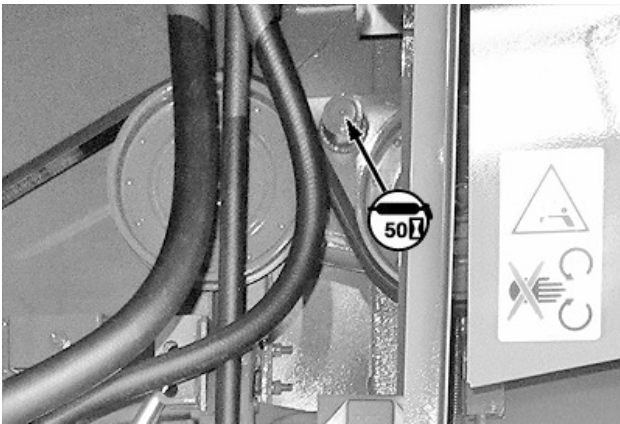


YC17646—UN—10JUN21
CP00834,0008E4E-19-09JUN21

Lubricate Fitting at Separator Drive Middle Pulley Drive Belt Tensioner Support

Service Interval	Every 50 Hours
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CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21172—UN—28NOV22
cp00834,1668751749896-19-18NOV22

Lubricate Fitting at Rear Axle Pivot Bearings (Optional Rear Wheel Drive)

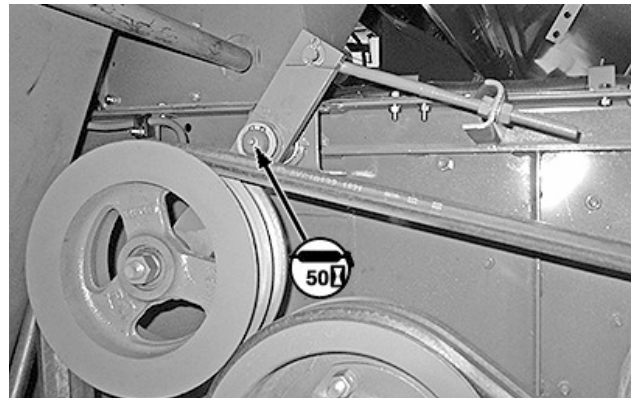
Service Interval	Every 50 Hours
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CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Lubricate Fitting at Beater Drive Belt Tensioner Support

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

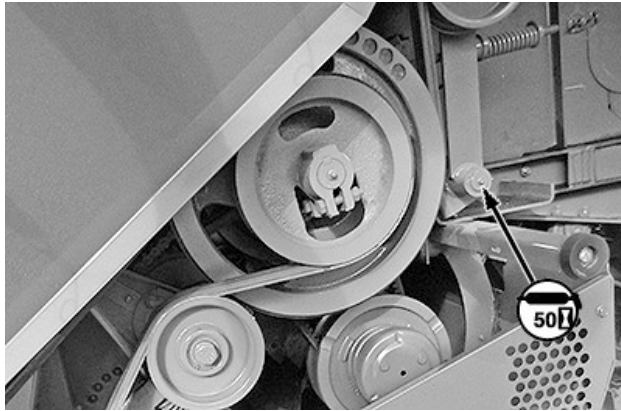


YC21173—UN—28NOV22
cp00834,1668751811703-19-18NOV22

Lubricate Fitting at Cleaning System Drive Belt Tensioner Support

Service Interval	Every 50 Hours
------------------	----------------

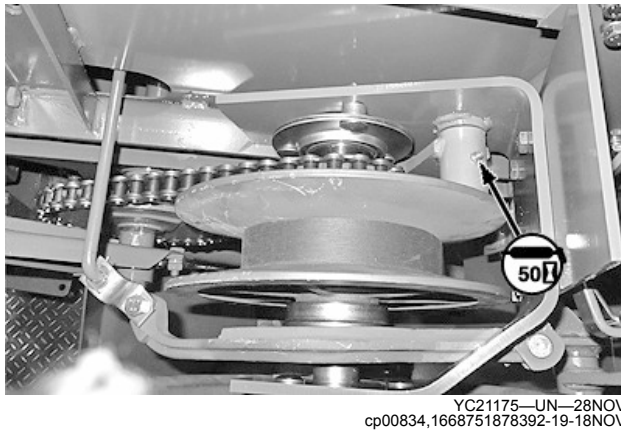
CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



Lubricate Fitting at Cleaning Shoe Drive Chain Tensioner Support

Service Interval	Every 50 Hours
------------------	----------------

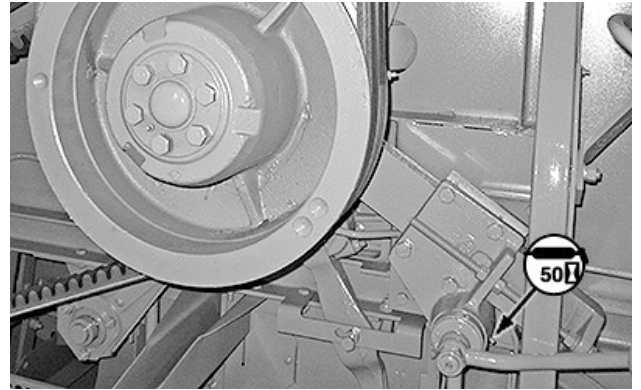
CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



Lubricate Fitting at Posi-Torq™ Upper Unit Support (Mechanical Drive)

Service Interval	Every 50 Hours
------------------	----------------

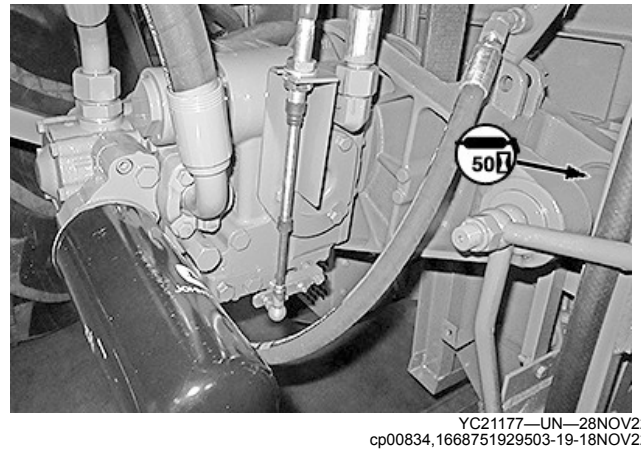
CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



Lubricate Fitting at Hydrostatic Pump Drive Pulley Support (Hydrostatic Drive)

Service Interval	Every 50 Hours
------------------	----------------

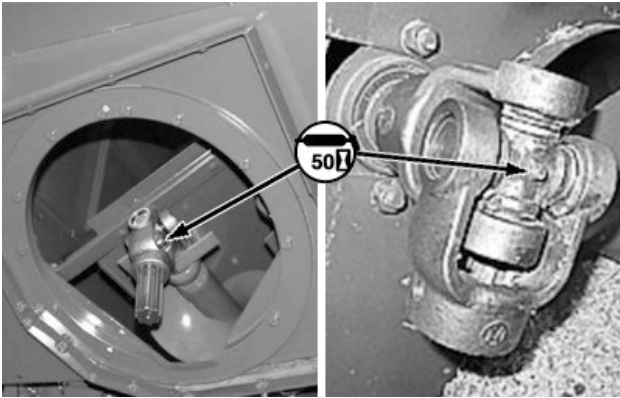
CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



Lubricate Fitting at Unloading Auger Universal Joint

Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21180—UN—28NOV22
cp00834,1668752673258-19-18NOV22

1. Loosen the bolt (A) and remove the cover (B).
2. Remove the fresh air filters (C) and clean them.
3. Use the compressed air to blow from inside out, or use a vacuum cleaner to suck up any dirt.

IMPORTANT: If using compressed air, do not approach the air wand too close to the filter element. Do not use excessive air pressure.

IMPORTANT: Whenever the filter element is in poor condition, clogged, or damaged, replace it.

NOTE: Clean the filter element for 4 times at most, then replace it.

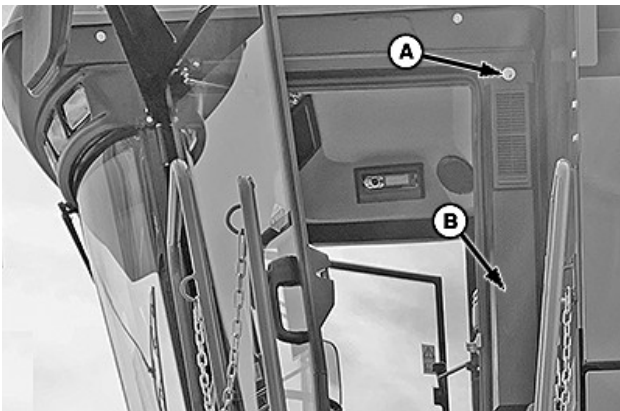
cp00834,1662534052291-19-07SEP22

Clean Fresh Air Filter

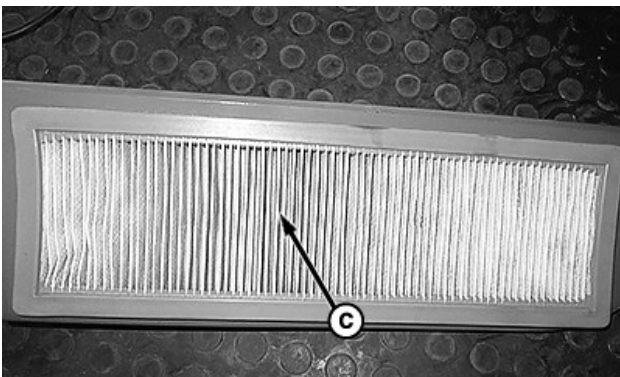
Service Interval	Every 50 Hours
------------------	----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

NOTE: The fresh air filter may require cleaning even daily in dusty conditions.



YC20586—UN—06SEP22



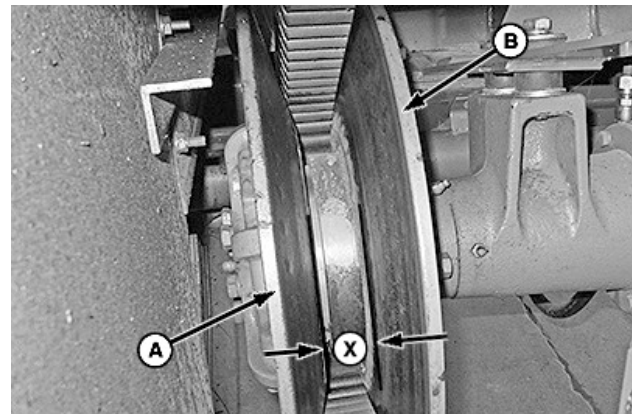
YC12835—UN—06DEC18

A—Bolt
B—Cover
C—Fresh Air Filter (2 used)

Check and Adjust Posi-Torq™ Lower Unit Clearance (Mechanical Drive)

Service Interval	Every 50 Hours
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CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



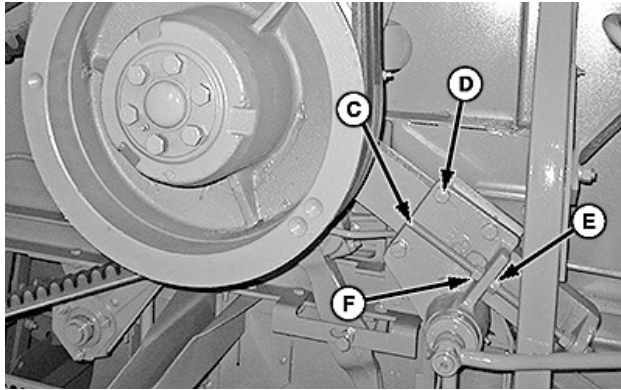
YC21178—UN—28NOV22

A—Sheave
B—Sheave
X—Clearance

NOTE: Before checking the clearance, pull the ground speed lever fully backward.

Measure the clearance (X) between the sheaves (A and B), the clearance should be 5 ± 1.5 mm.

IMPORTANT: Clearance must not exceed 6.5 mm.



YC21179—UN—28NOV22

C—Rod
D—Bolt (4 used)
E—Nut
F—Nut

If the clearance is out of range, loosen the bolts (D), then loosen or tighten the nuts (E and F) to adjust the clearance.

Tighten the bolts after adjustment.

Start the engine, push the ground speed lever forward and then pull the ground speed lever fully backward. Shut off engine and recheck the clearance, readjust as necessary.

cp00834,1668751992337-19-18NOV22

A—Wire Rope
B—Idler
C—Nut
D—Nut

1. Swing in the unloading auger.
2. Loosen nut (D).
3. Adjust nut (C) to tension the wire rope (A). Make sure that the wire rope can be pressed approximately 30—40 mm apart.
4. Retighten nut (D).

cp00834,1669096961615-19-22NOV22

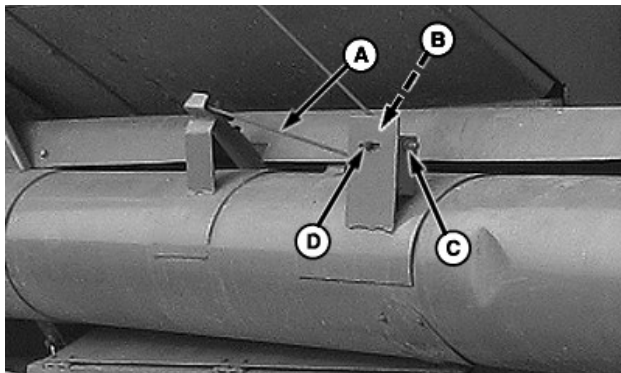
Check and Adjust Length of Wire Rope

Service Interval	Every 50 Hours
------------------	----------------

NOTE: Before using combine for the first time and at least once a week, check the length of wire rope.

CAUTION: Shut OFF engine, set park brake, and remove key.

Check the wire rope length. The wire rope can be pressed approximately 30—40 mm apart. Adjust the wire rope as necessary.



YC8227—UN—23JAN15

Adjust Length of Wire Rope

Lubrication and Maintenance—Every 100 Hours

Lubrication and Maintenance Chart—Every 100 Hours

NOTE: Service machine at intervals shown on this chart.

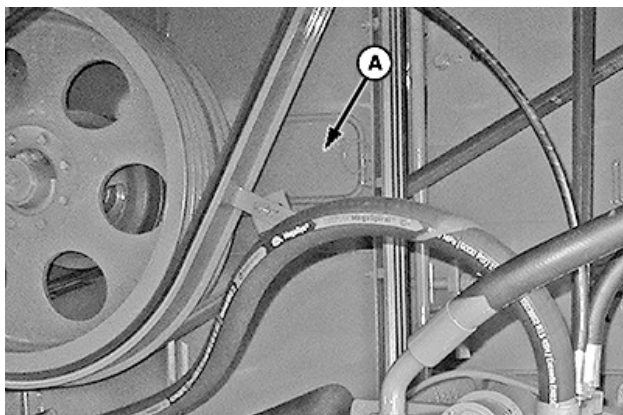
Every 100 Hours Service
Lubricate Fitting at Front Separator Bearing (for China market)
Lubricate Fitting at Rear Axle Support
Check Gear Case Transmission Oil
Check Final Drive Oil
Check Threshing Cylinder Speed Reduction Gear Grease (Option)

cp00834,1668755294948-19-21NOV22

Lubricate Fitting at Front Separator Bearing (for China market)

Service Interval	Every 100 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21300—UN—28NOV22



YC21181—UN—28NOV22

A—Cover

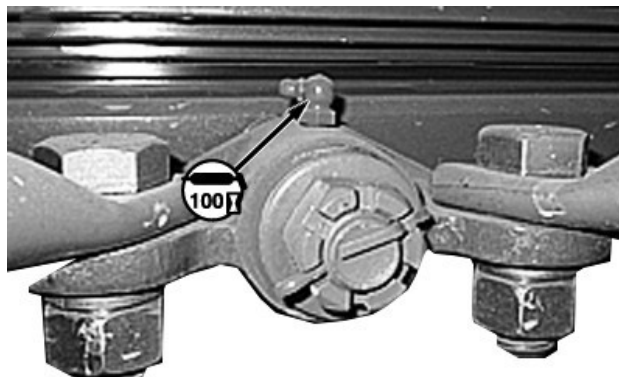
Remove the cover (A) on left-hand side of machine, then lubricate the fitting.

cp00834,1669166833162-19-22NOV22

Lubricate Fitting at Rear Axle Support

Service Interval	Every 100 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

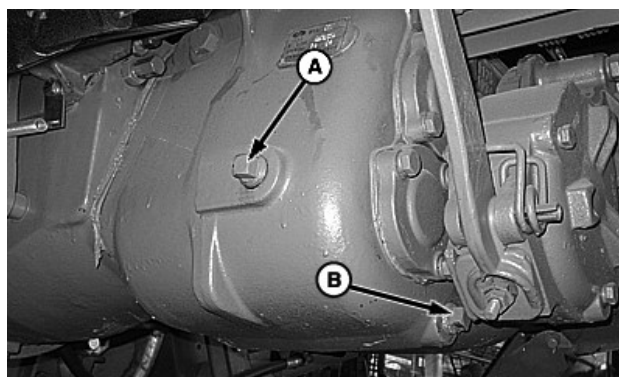


YC21182—UN—28NOV22
cp00834,1668755201112-19-18NOV22

Check Gear Case Transmission Oil

Service Interval	Every 100 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21183—UN—28NOV22

A—Filling Plug
B—Drain Plug

Remove the filling plug (A) to check the oil level. Add oil as needed.

Install and tighten the filling plug until oil flows out of the port.

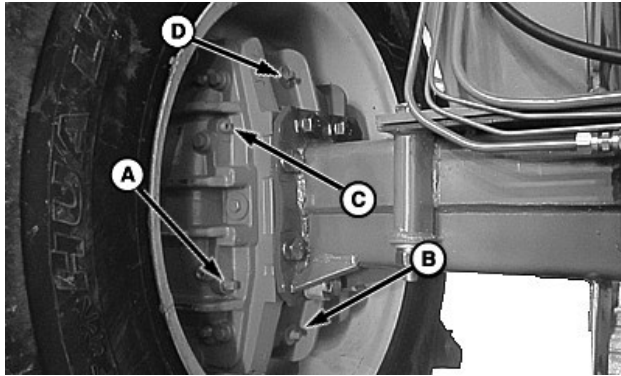
Gear Oil: GL-5 80W/90 gear oil

cp00834,1668755222873-19-18NOV22

Check Final Drive Oil

Service Interval	Every 100 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21184—UN—28NOV22

Right Side Final Drive Shown

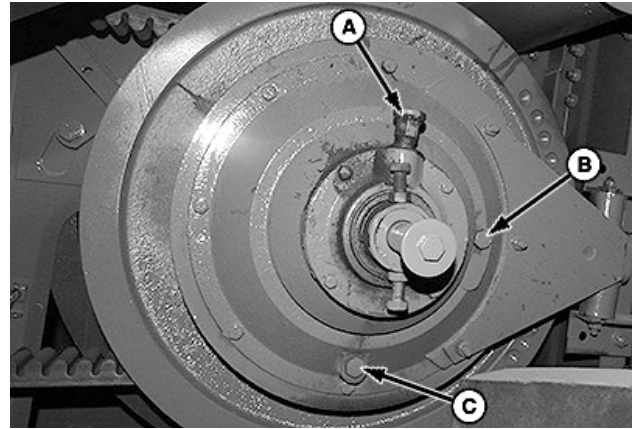
A—Oil Level Plug
B—Drain Plug
C—Filling Plug

Remove the oil level plug (A) to check the oil level.
Remove the filling plug (C) to add the oil as needed.

Install and tighten the oil level plug and the filling plug until oil flows out of the oil level port.

Gear Oil: GL-5 80W/90 gear oil

cp00834,1668755243699-19-18NOV22



YC21185—UN—28NOV22

A—Breather
B—Filling Plug
C—Drain Plug

Remove the filling plug (B) to check the grease level.
Add the grease as needed.

Install and tighten the filling plug until grease flows out of the port.

Grease: MOBILITH SHC 007 Grease

IMPORTANT: Check the grease level again after 15 minutes. Refill as necessary.

cp00834,1668755269216-19-18NOV22

Check Threshing Cylinder Speed Reduction Gear Grease (Option)

Service Interval	Every 100 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

IMPORTANT: Before filling the threshing cylinder speed reduction gear or checking the grease level, close the variable speed sheaves.

Lubrication and Maintenance—Every 200 Hours

Lubrication and Maintenance Chart—Every 200 Hours

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every 200 Hours Service
Lubricate Fitting at Clutch Pedal (Mechanical Drive)
Lubricate Fitting at Service Brake Pedals
Check and Tighten Wheel Bolts and Nuts* (See Break-In Period Service Section)
Check and Tighten Front Axle Bolts and Nuts* (See Break-In Period Service Section)
Check and Adjust Service Brake*
Check and Adjust Park Brake*
Check and Fill Rear Wheel Drive Final Drive Oil (Option)
Replace Fuel Filter Elements
Replace Fresh Air Filter
Replace Fuel Filter Elements
Check and Clean HVAC System*

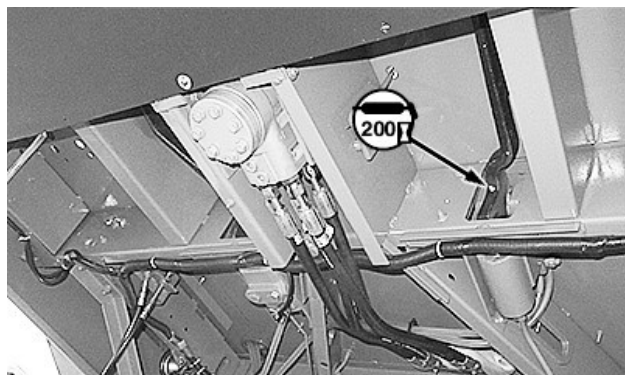
*Perform maintenance every 200 hours or every season, whichever comes first.

cp00834,1669019591402-19-21NOV22

Lubricate Fitting at Clutch Pedal (Mechanical Drive)

Service Interval	Every 200 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

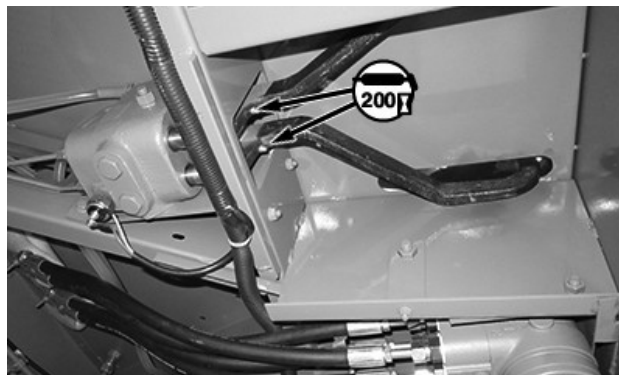


YC21186—UN—28NOV22
cp00834,1668755662195-19-18NOV22

Lubricate Fitting at Service Brake Pedals

Service Interval	Every 200 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21187—UN—28NOV22
cp00834,1668755687961-19-18NOV22

Check and Adjust Service Brake

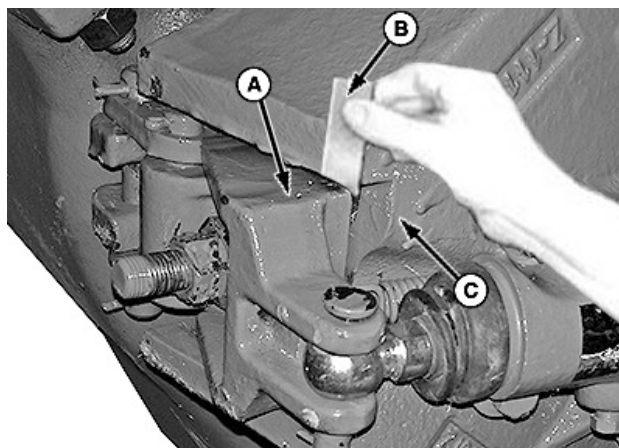
Service Interval	Every 200 Hours (Every Season)*
------------------	---------------------------------

*Check and adjust service brake every 200 hours or every season, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Check Service Brake

1. Park the combine on a level, flat surface and block the front wheels.
2. Shut off engine and remove key.



YC21188—UN—28NOV22

A—Service Brake Actuating Arm
B—Feeler Gauge
C—Brake Housing

3. Check the clearance between the service brake actuating arm (A) and the brake housing (C) with a feeler gauge (B). It must be to specification.

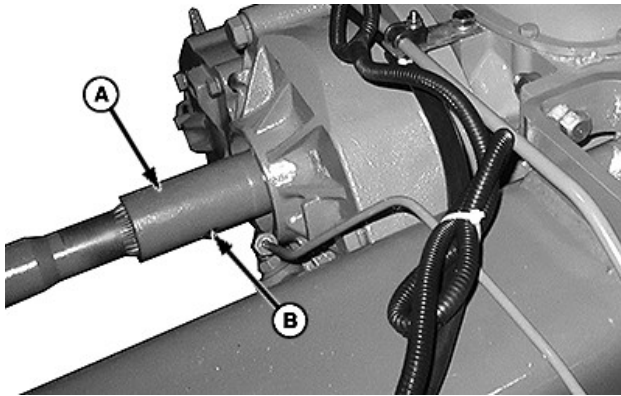
Specification

Brake Housing to Service Brake

Actuating Arm—Clearance. 3—5 mm
(0.12—0.20 in)

- Adjust if the clearance is out of specification.

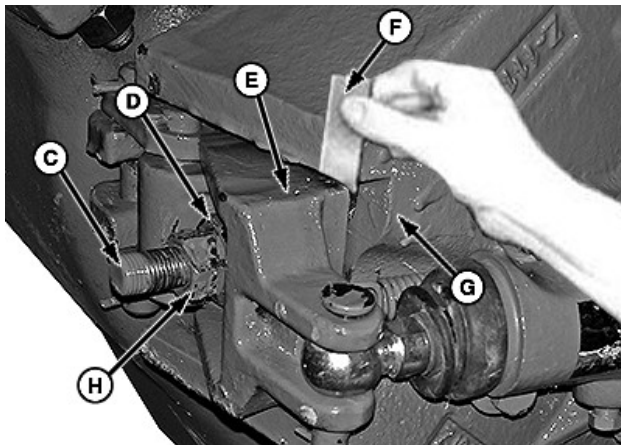
Adjust Service Brake



YC16775—UN—28JAN21

A—Coupling (2 used)
B—Spring Pin (2 used)

- Place the gearshift lever in the neutral position.
- Remove the spring pins (B) and slide couplings (A) away from the brake housing on both sides.



YC17627—UN—08JUN21

C—Adjusting Spindle
D—Adjusting Nut
E—Service Brake Actuating Arm
F—Feeler Gauge
G—Brake Housing
H—Lock Nut

- Insert a 3 mm feeler gauge (F) between the brake housing (G) and the service brake actuating arm (E).
- Loosen the lock nut (H).
- Tighten the adjusting nut (D), until the output shaft of the brake housing cannot be turned by hand, then tighten the lock nut.
- Remove the feeler gauge after adjustment.

- Adjust the service brake on the other side with the same method.
- Install couplings and the spring pins.

cp00834,1668755742546-19-18NOV22

Check and Adjust Park Brake

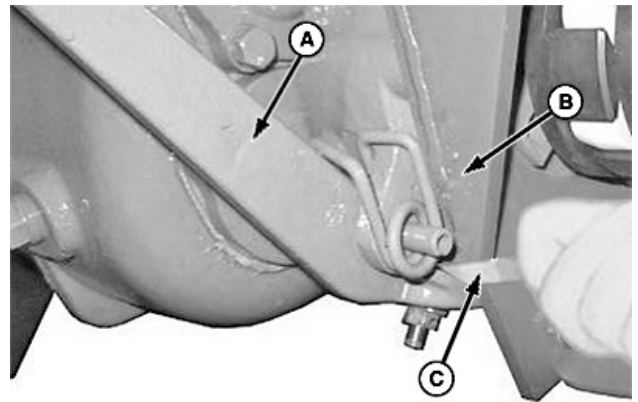
Service Interval	Every 200 Hours (Every Season)*
------------------	---------------------------------

*Check and adjust park brake every 200 hours or every season, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Check Park Brake

- Park the combine on a level, flat surface and block the front wheels.
- Shut off engine and remove key.



YC21189—UN—28NOV22

A—Park Brake Actuating Arm
B—Brake Housing
C—Feeler Gauge

- Check the clearance between the park brake actuating arm (A) and the brake housing (B) with a feeler gauge (C). It must be to specification.

Specification

Brake Housing to Park Brake

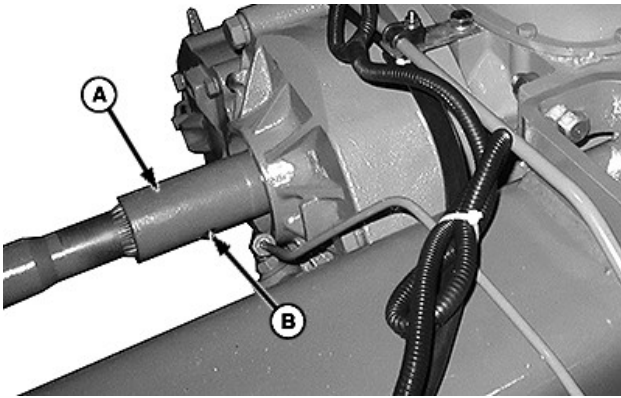
Actuating Arm—Clearance. 3—5 mm
(0.12—0.20 in)

- Adjust if the clearance is out of specification.

NOTE: There are two methods to adjust the park brake:

- Adjust at the park brake cable
- Adjust at the park brake housing

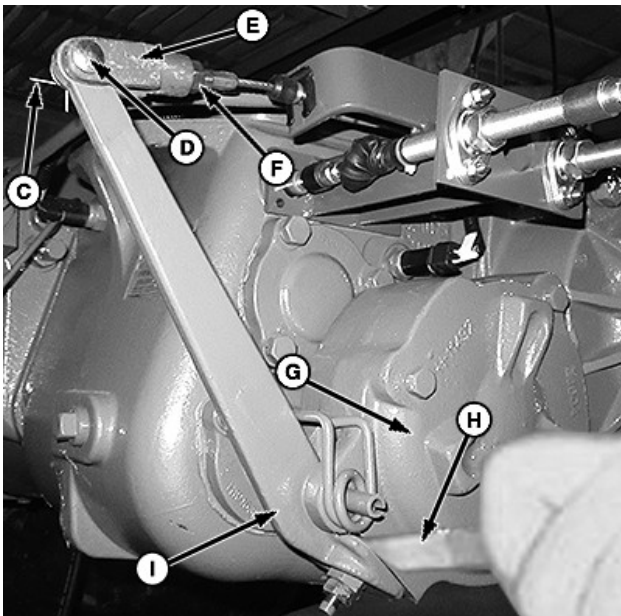
Adjust at the Park Brake Cable



YC16775—UN—28JAN21

A—Coupling (2 used)
B—Spring Pin (2 used)

1. Place the gearshift lever in neutral position.
2. Remove the spring pins (B) and slide couplings (A) away from the park brake housing on both sides.



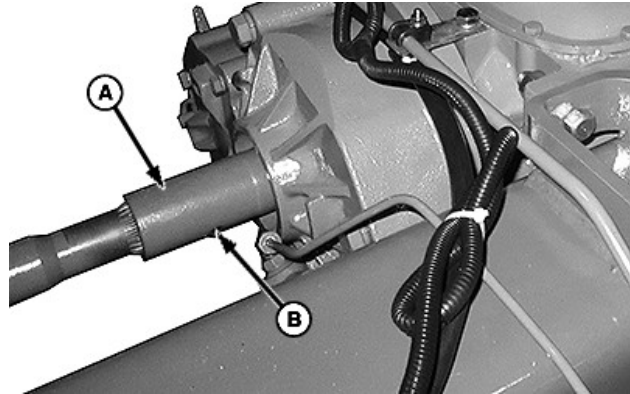
YC17629—UN—07JUN21

C—Cotter Pin
D—Clevis Pin
E—Yoke
F—Lock Nut
G—Park Brake Housing
H—Feeler Gauge
I—Park Brake Actuating Arm

3. Insert a 3 mm feeler gauge (H) between the park brake housing (G) and the park brake actuating arm (I).
4. Remove the cotter pin (C) and clevis pin (D).
5. Loosen the lock nut (F) and adjust the yoke (E).
6. Install yoke and check, until the output shaft of the brake housing cannot be turned by hand. Repeat the procedures (5 and 6) several times if necessary.

7. Tighten the lock nut.
8. Remove the feeler gauge after adjustment.
9. Install couplings and the spring pins.

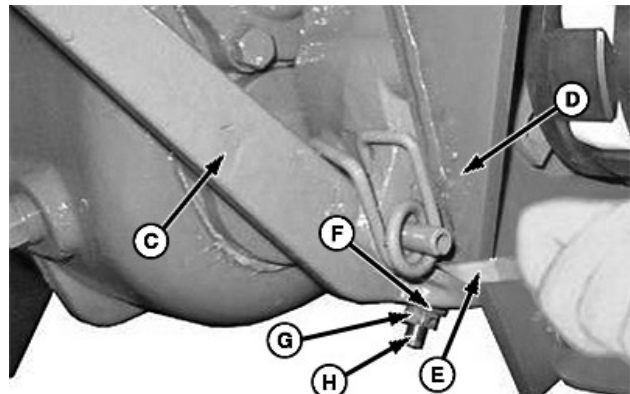
Adjust at the Park Brake Housing



YC16775—UN—28JAN21

A—Coupling (2 used)
B—Spring Pin (2 used)

1. Place the gearshift lever in neutral position.
2. Remove the spring pins (B) and slide couplings (A) away from the park brake housing on both sides.



YC17630—UN—07JUN21

C—Park Brake Actuating Arm
D—Park Brake Housing
E—Feeler Gauge
F—Adjusting Nut
G—Lock Nut
H—Adjusting Spindle

3. Insert a 3 mm feeler gauge (E) between the park brake housing (D) and the park brake actuating arm (C).
4. Loosen the lock nut (G).
5. Tighten the adjusting nut (F), until the output shaft of the brake housing cannot be turned by hand, then tighten the lock nut.
6. Remove the feeler gauge after adjustment.
7. Install couplings and the spring pins.

cp00834,1668755779028-19-18NOV22

Check and Fill Rear Wheel Drive Final Drive Oil (Option)

Service Interval	Every 200 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC17612—UN—01JUN21

A—Plug

1. Turn the rear wheel to make the plug (A) at the horizontal position.
2. Remove the plug to check the oil level. Add the oil as needed.

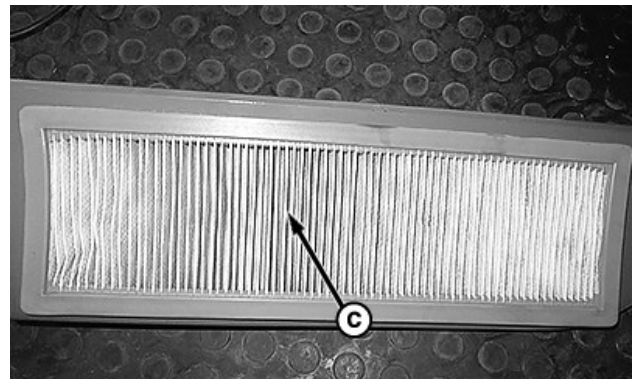
Gear Oil: GL-5 80W/90 gear oil

3. Install and tighten the filling plug until oil flows out of the port.

cp00834,1661835535343-19-30AUG22



YC20586—UN—06SEP22



YC12835—UN—06DEC18

A—Bolt
B—Cover
C—Fresh Air Filter (2 used)

1. Loosen the bolt (A) and remove the cover (B).
2. Remove the fresh air filters (C) and replace them.

cp00834,1662534120923-19-07SEP22

Replace Fresh Air Filter

Service Interval	Every 200 Hours*
------------------	------------------

*At every 4 cleanings or 200 hours, whichever happens first, replace the fresh air filter.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

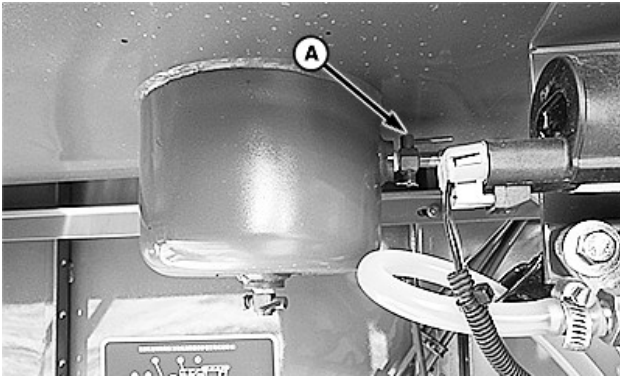
Replace Fuel Filter Elements

Service Interval	Every 200 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

NOTE: Both primary and secondary fuel filter elements must be replaced at the same time.

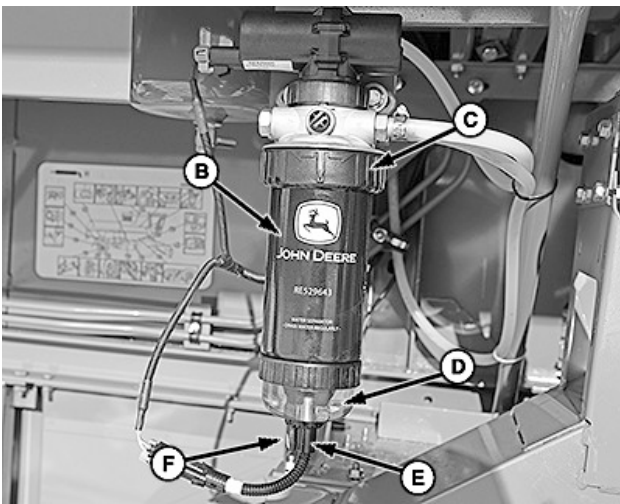
NOTE: After replacing the fuel filter elements, bleed the fuel system as necessary. See Bleed Fuel System in Engine Maintenance Section.



YC10701—UN—08DEC16

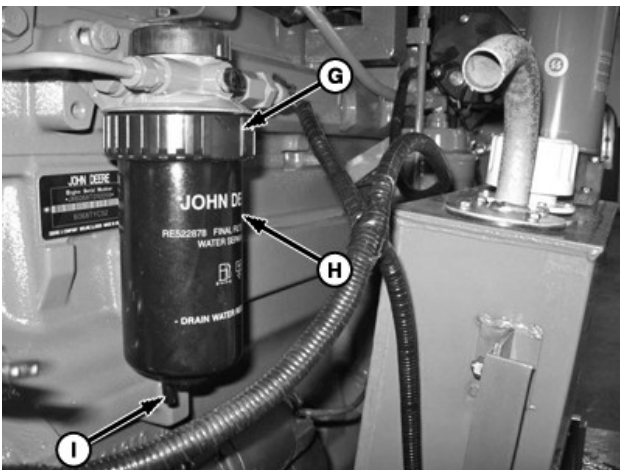
A—Fuel Shut-Off Tag

1. Close the fuel shut-off tag (A) under the fuel tank.



YC21196—UN—28NOV22

Replace Primary Fuel Filter Element



YC8116—UN—26JAN15

Replace Secondary Fuel Filter Element

- B—Primary Fuel Filter Element
- C—Retaining Ring
- D—Water Separator Bowl
- E—Water-In-Fuel Sensor Connector
- F—Drain Tag
- G—Retaining Ring
- H—Secondary Fuel Filter Element
- I—Drain Tag

2. Thoroughly clean the primary fuel filter and surrounding area.
 3. Disconnect the water-in-fuel sensor connector (E).
 4. Loosen the drain tag (F) to drain all fuel into a suitable container.
 5. Firmly grasp the retaining ring (C) and rotate it clockwise 1/4 turn (when viewed from the top). Remove the retaining ring with the primary fuel filter element (B).
 6. Inspect filter mounting base for cleanliness. Clean as required.
 7. Remove the water separator bowl (D) and discard the washers.
 8. Install the water separator bowl to the new primary fuel filter element with new washers.
 9. Install new filter element onto mounting base. Be sure that filter element is properly indexed and firmly seated on base. It may be necessary to rotate filter element for correct alignment.
 10. Align key on filter element with slot in filter base.
 11. Install retaining ring onto mounting base making certain dust seal is in place on filter base. Hand tighten ring counterclockwise (about 1/3 turn) until it "snaps" into the detent. DO NOT overtighten retaining ring.
- NOTE:** The proper installation is indicated when a "click" is heard and a release of the retaining ring is felt.
- A plug is provided with the new element for plugging the used element.
12. Connect the water-in-fuel sensor connector.
 13. Replace the secondary fuel filter element (H) with the same method.
 14. Open the fuel shut-off tag under the fuel tank.

cp00834,1668760356947-19-18NOV22

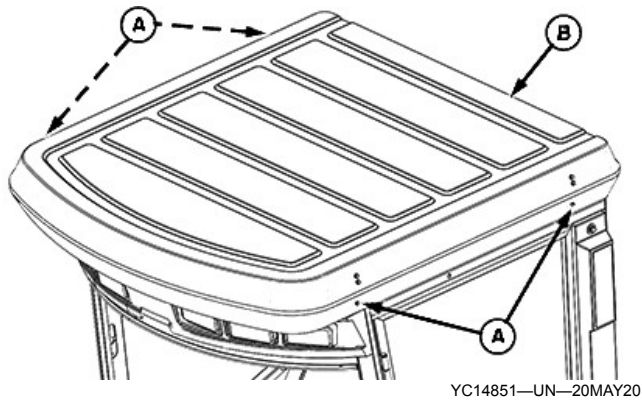
Check and Clean HVAC System

Service Interval	Every 200 Hours (Every Season)*
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*Check and adjust service brake every 200 hours or every season, whichever comes first.

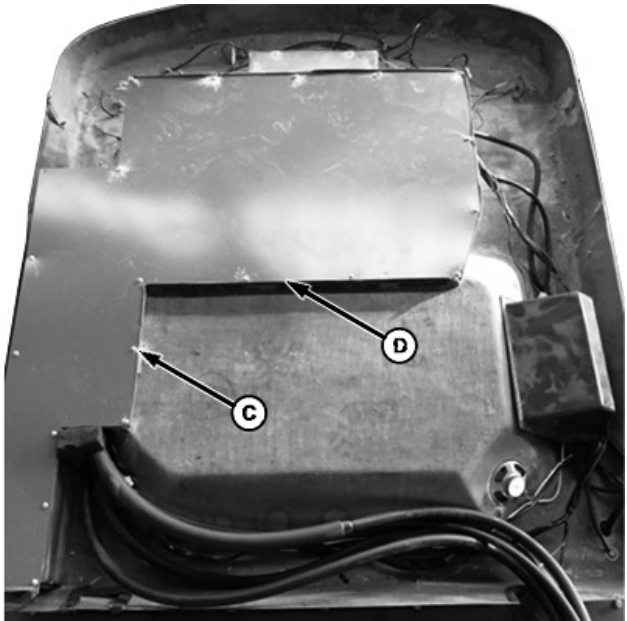
CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

1. Park the combine on a level, flat surface and block the front wheels.
2. Shut off engine and remove key.



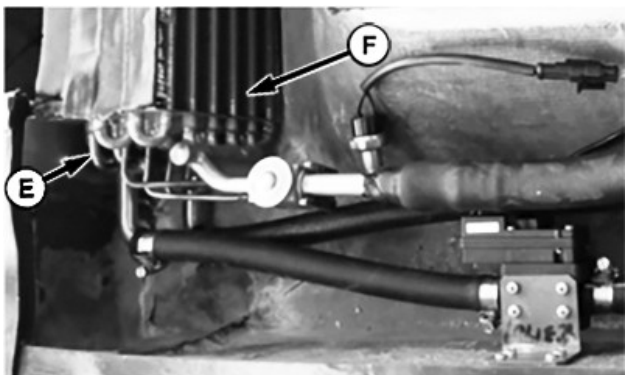
A—Bolt (4 used)
B—Top Roof

3. Remove all bolts (A).
4. Remove the top roof (B).



C—Screw (22 used)
D—Cover and Insulator

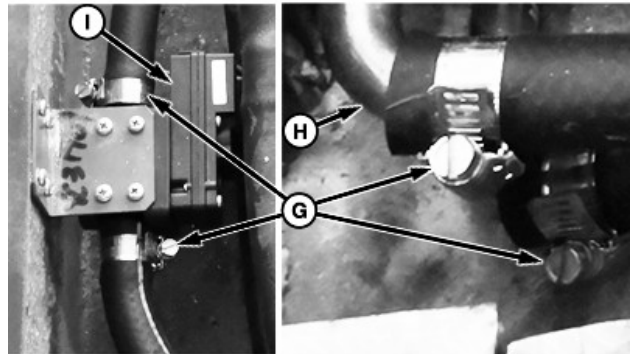
5. Remove all screws (C).
6. Remove the cover and insulator (D).



E—Heater Core

F—Air Conditioner Core

7. Clean the heater core (E) and the air conditioner core (F).



G—Clamp (4 used)
H—Heater Core
I—Control Valve

8. Check clamps (G) on the coolant hoses connected with the heater core (H) and the control valve (I), tighten to specification.

Specification

Clamps on Coolant

Hoses—Torque. 6 N·m

cp00834,1661844356517-19-30AUG22

Lubrication and Maintenance—Every Season

Maintenance Chart—Every Season

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every Season Service
Check and Tighten Wheel Bolts and Nuts ^a (See Break-In Period Service Section)
Check and Tighten Front Axle Bolts and Nuts ^a (See Break-In Period Service Section)
Check and Adjust Service Brake ^a (See Lubrication and Maintenance—Every 200 Hours Section)
Check and Adjust Park Brake ^a (See Lubrication and Maintenance—Every 200 Hours Section)
Check and Clean HVAC System ^a (See Lubrication and Maintenance—Every 200 Hours Section)
Change Hydraulic Oil and Replace Oil Filter ^b (See Lubrication and Maintenance—Every 500 Hours Section)
Change Hydrostatic Oil and Replace Oil Filter (Hydrostatic Drive) ^b (See Lubrication and Maintenance—Every 500 Hours Section)

^a Perform maintenance every season or every 200 hours, whichever comes first.

^b Perform maintenance every season or every 500 hours, whichever comes first.

cp00834,1669017865616-19-21NOV22

Lubrication and Maintenance—Every 375 Hours

Maintenance Chart—Every 375 Hours

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every 375 Hours Service
Change Engine Oil and Replace Oil Filter (See Break-In Period Service Section)

cp00834,1669017914270-19-21NOV22

Lubrication and Maintenance—Every 400 Hours

Maintenance Chart—Every 400 Hours

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

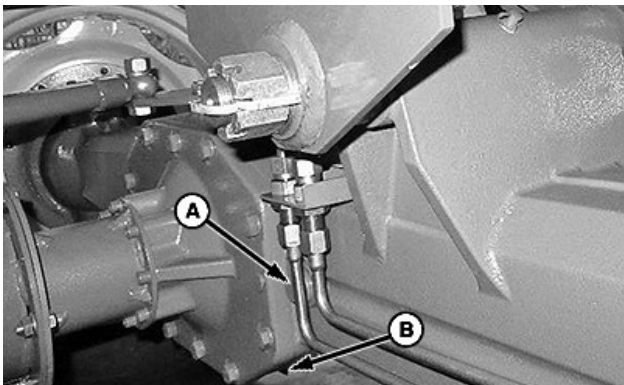
Every 400 Hours Service
Change Rear Wheel Drive Gear Case Oil (Option) (See Break-In Period Service Section)
Check and Fill Rear Wheel Drive Axle Oil (Option)

cp00834,1669017983952-19-21NOV22

Check and Fill Rear Wheel Drive Axle Oil (Option)

Service Interval	Every 400 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21190—UN—28NOV22

- A—Filling Plug
- B—Drain Plug

Remove the filling plug (A) to check the oil level. Add the oil as needed.

Install and tighten the filling plug until oil flows out of the port.

Gear Oil: GL-5 80W/90 gear oil

cp00834,1668756474611-19-18NOV22

Lubrication and Maintenance—Every 500 Hours (One Year)

Lubrication and Maintenance Chart—Every 500 Hours (One Year)

cp00834,1668756694979-19-18NOV22

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every 500 (One Year) Hours Service
Lubricate Fitting at Rear Wheel Bearings
Lubricate Fitting at Rear Axle Hitch
Change Engine Oil and Replace Oil Filter (See Break-In Period Service Section)
Change Hydraulic Oil and Replace Oil Filter ^a
Change Hydrostatic Oil and Replace Oil Filter (Hydrostatic Drive) ^a
Change Gear Case Transmission Oil (See Break-In Period Service Section)
Change Final Drive Oil (See Break-In Period Service Section)
Change Threshing Cylinder Speed Reduction Gear Grease (Option) (See Break-In Period Service Section)
Change Brake Fluid (See Break-In Period Service Section)
Change Separator Rotor Gear Case Oil (See Break-In Period Service Section)
Check Belt Tensioner Spring Tension and Belt Wear ^b
Check Crankcase Vent System ^b

^a Perform maintenance every 500 hours or every season, whichever comes first.

^b Perform maintenance every 500 hours or every year, whichever comes first.

cp00834,1668761814009-19-18NOV22

Lubricate Fitting at Rear Wheel Bearings

Service Interval	Every 500 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

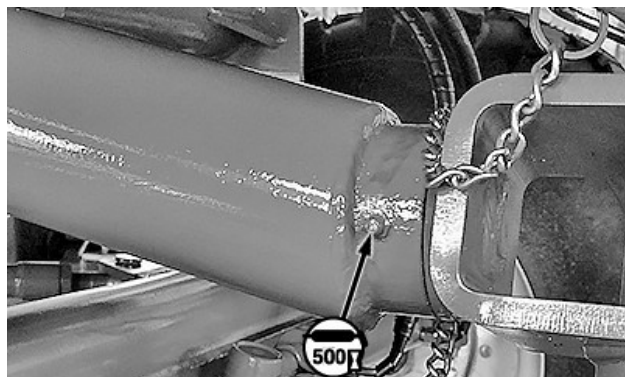


YC17621—UN—07JUN21

Lubricate Fitting at Rear Axle Hitch

Service Interval	Every 500 Hours
------------------	-----------------

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21191—UN—28NOV22
cp00834,1668756763155-19-18NOV22

Change Hydraulic Oil and Replace Oil Filter

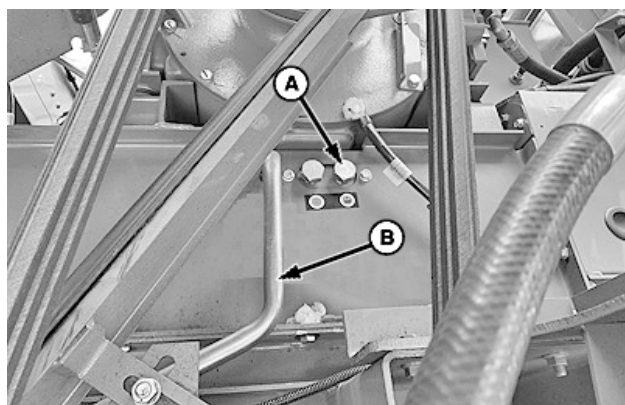
Service Interval	Every 500 Hours (Every Season)*
------------------	---------------------------------

*Change hydraulic oil and replace the oil filters every 500 hours or every season, whichever comes first.

John Deere Hy-Gard™ is the recommended oil. See Hydraulic/Hydrostatic Oil in Fuel, Coolant, and Lubricants Section.

NOTE: Always replace the hydraulic oil filter when changing hydraulic oil.

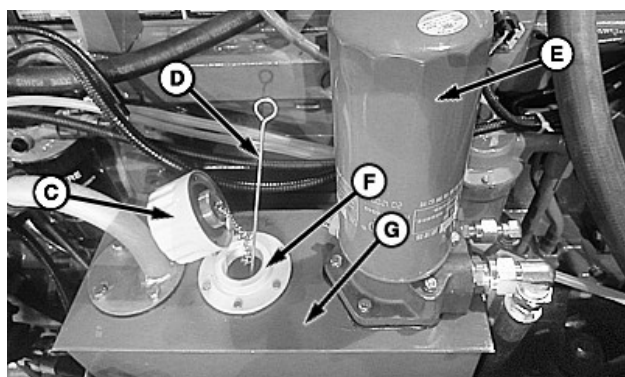
CAUTION: Lower the header to ground and retract all other hydraulic cylinders. Shut off engine, set park brake, and remove key.



YC21192—UN—28NOV22

A—Drain Plug
B—Oil Drain Tube

1. Loosen the drain plug (A) and drain the oil into a suitable container by the oil drain tube (B).



YC17795—UN—24JUN21



YC17796—UN—25JUN21

C—Filling Cap
D—Dipstick
E—Hydraulic Oil Filter Element
F—Filter Neck
G—Hydraulic Reservoir
H—Maximum Mark
I—Minimum Mark

2. Remove the hydraulic oil filter element (E) and replace with a new filter element.
3. Tighten the drain plug (A).
4. Remove the filling cap (C) and fill the reservoir with specified oil.

NOTE: Check the hydraulic oil capacity in Specifications Section.

5. Check the hydraulic oil level by the dipstick (D). The oil level must be between the minimum mark (I) and maximum mark (H) on the dipstick with the feeder house fully lowered.

6. Start engine and run to check for possible leaks.

cp00834,1668756790141-19-18NOV22

Change Hydrostatic Oil and Replace Oil Filter (Hydrostatic Drive)

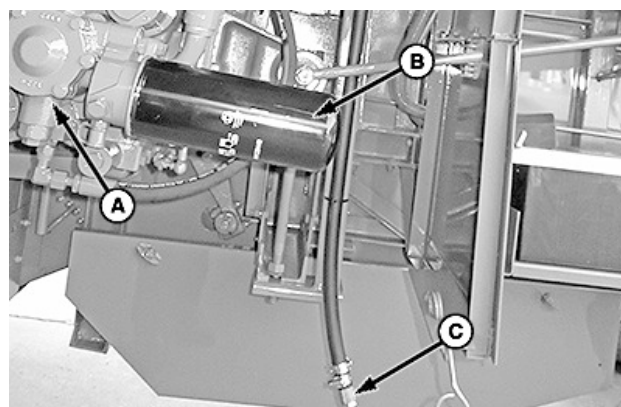
Service Interval	Every 500 Hours (Every Season)*
------------------	---------------------------------

*Change hydrostatic oil and replace the oil filters every 500 hours or every season, whichever comes first.

John Deere Hy-Gard™ is the recommended oil. See Hydraulic/Hydrostatic Oil in Fuel, Coolant, and Lubricants Section.

NOTE: Always replace the oil filters when changing hydrostatic oil.

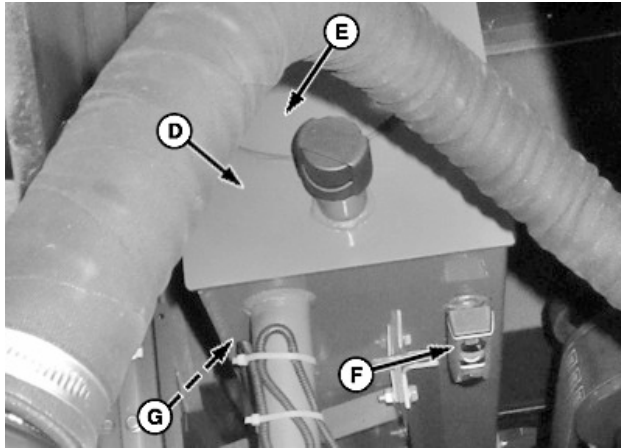
CAUTION: Shut off engine, set park brake, and remove key.



YC21193—UN—28NOV22

A—Hydrostatic Pump
B—Charge Oil Filter
C—Drain Plug

1. Remove the drain plug (A) and drain the oil into a suitable container.
2. Remove the charge oil filter (B) and replace with a new oil filter.



YC21194—UN—28NOV22

D—Hydrostatic Reservoir
E—Cap
F—Sight Glass
G—Filter Screen

3. Remove cap screws and cap (E).
4. Remove the filter screen (G) and replace with a new filter screen.
5. Apply silicon sealant-free gasket to the cap and cap screws.
6. Install cap and tighten cap screws.
7. Install and tighten the drain plug (A).



YC21195—UN—28NOV22

H—Filling Cap

8. Remove the filling cap (H) and fill the reservoir with specified oil.

NOTE: Check the hydraulic/hydrostatic oil capacity in Specifications Section.

9. Check the oil level. The oil level must be at top of sight glass (F) .
10. Start engine and run to check for possible leaks.

cp00834,1668757772359-19-18NOV22

Check Belt Tensioner Spring Tension and Belt Wear

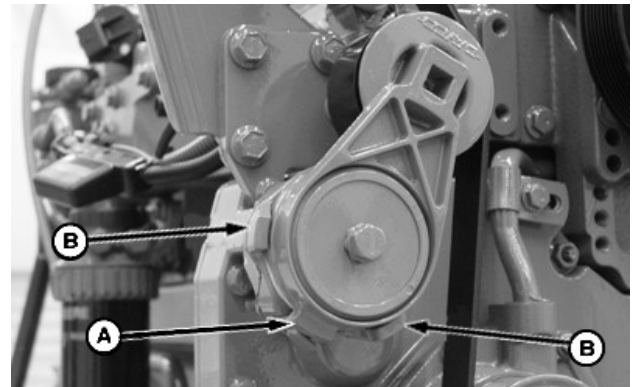
Service Interval	Every 500 Hours (One Year)*
------------------	-----------------------------

* Check fan drive belt tensioner every 500 hours or every year, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

Belt drive systems equipped with automatic (spring) belt tensioners cannot be adjusted or repaired. The automatic belt tensioner is designed to maintain proper belt tension over the life of the belt. If tensioner spring tension is not within specification, replace tensioner assembly.

Check Belt Wear



YC9734—UN—21MAR16

Belt Tensioner

A—Cast Stop
B—Cast Stop (2 used)

The belt tensioner is designed to operate within the limit of arm movement provided by the cast stops (A and B) when correct belt length and geometry are used. Visually inspect cast stops (A and B) on belt tensioner assembly.

If the cast stop (A) is hitting the cast stops (B), check mounting brackets (alternator, belt tensioner, idler, and so on) and the belt length.

Replace belt as needed.

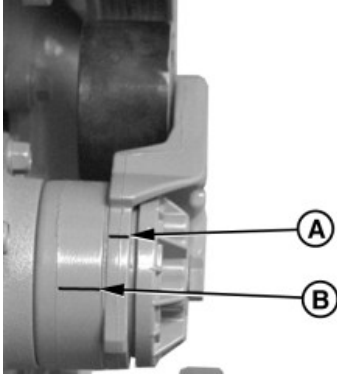
Check Tensioner Spring Tension

A belt tension gauge does not give an accurate measure of the belt tension when the automatic spring tensioner is used. Measure tensioner spring tension using a torque wrench and procedure outlined below:

1. Release tension on belt using a long-handled 1/2 inch drive tool in the square hole on the tensioner arm. Remove belt from pulleys.

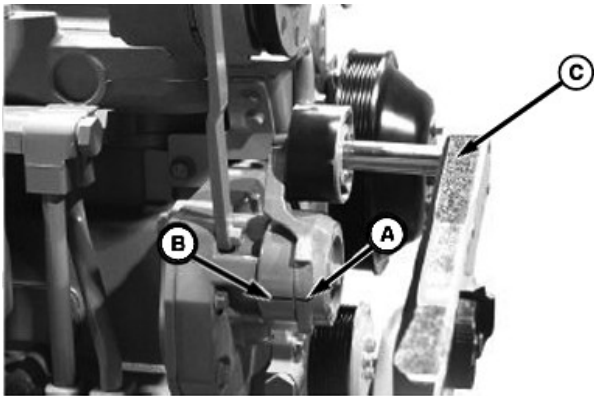
NOTE: While belt is removed, inspect pulleys and bearings. Rotate and feel for hard turning or any unusual sounds. If pulleys or bearings need replacement, see your John Deere dealer.

2. Release tension on the tensioner arm and remove the drive tool.



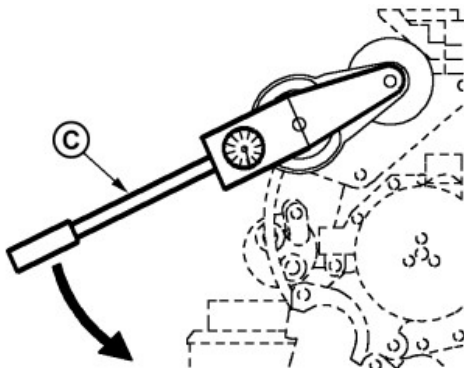
Marks on Tensioner

RG7977—UN—14NOV97



Align Marks

YC9735—UN—21MAR16



Align Torque Wrench with Pulley and Tensioner

RG12065—UN—28JAN02

A—Mark
B—Mark
C—Torque Wrench

3. Put a mark (A) on the swing arm of the tensioner as shown.

4. Measure 21 mm from mark (A) on the swing arm and put a mark (B) on tensioner mounting base.
5. Install torque wrench (C) so that it is aligned with centers of pulley and tensioner. Rotate the swing arm using a torque wrench until marks (A and B) are aligned.

NOTE: Threads on the belt tensioner roller cap screw are LEFT-HAND threads.

6. Record the torque wrench measurement and compare with specification. Replace tensioner assembly as required.

Specification

Spring Tension—Torque. 18—22 N·m
(13—16 lb·ft)

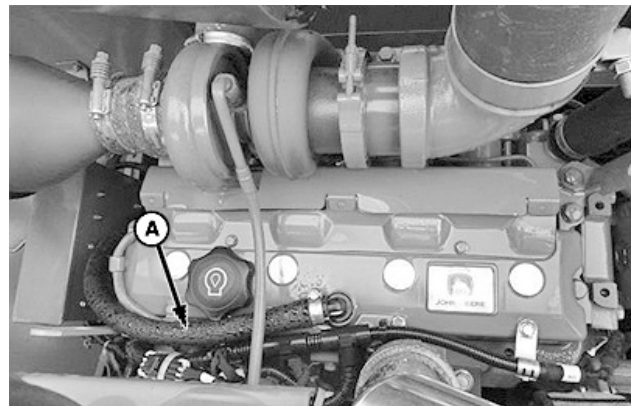
cp00834,1668764859146-19-18NOV22

Check Crankcase Vent System

Service Interval	Every 500 Hours (One Year)*
------------------	-----------------------------

* Check open crankcase vent every 500 hours or every year, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21197—UN—28NOV22

A—Crankcase Vent Tube

Remove and clean the crankcase vent tube (A).

Install the vent tube. Be sure that the O-ring fits correctly in the rocker arm cover for elbow adapter. Tighten hose clamp securely.

NOTE: If you operate engine in dusty conditions, check the system at shorter intervals.

cp00834,1668765717708-19-18NOV22

Lubrication and Maintenance—Every 800 Hours

Maintenance Chart—Every 800 Hours

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every 800 Hours Service
Change Rear Wheel Drive Final Drive Oil (Option) (See Break-In Period Service Section)

CP00834,0008E59-19-18AUG21

Lubrication and Maintenance—Every 1000 Hours (Two Years)

Maintenance Chart—Every 1000 Hours (Two Years)

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every 1000 Hours (Two Years) Service
Replace Front Separator Bearing (for export market)

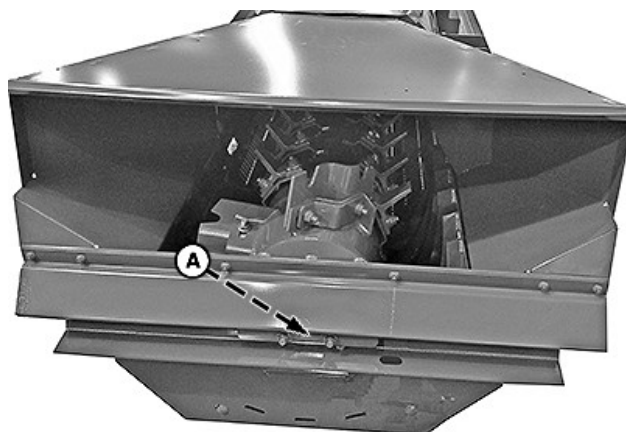
cp00834,1669017311558-19-21NOV22

Replace Front Separator Bearing (for export market)

Service Interval	Every 1000 Hours (Two Years)*
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*Replace the front separator bearing every 1000 hours or two years, whichever comes first.

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC16790—UN—08FEB21

A—Front Separator Bearing

1. Turn off the battery disconnect switch.
2. Move separator module to the service position. (See Move Separator Module to Service Position in this Section.)
3. Replace the front separator bearing (A).
4. Return separator module to the working position. (See Return Separator Module to Working Position in this Section.)

cp00834,1669017329766-19-21NOV22

Lubrication and Maintenance—Every 1600 Hours

Maintenance Chart—Every 1600 Hours

NOTE: Service machine at intervals shown on this chart. Also, perform service on items at multiples of the original requirement.

Every 1600 Hours Service
Change Rear Wheel Drive Axle Oil (Option) (See Break-In Period Service Section)

CP00834,0008E58-19-18AUG21

Lubrication and Maintenance—Every 3000 Hours (Three Years)

Maintenance Chart—Every 3000 Hours (Three Years)

NOTE: Service machine at intervals shown on this chart.

Every 3000 Hours (Three Years) Service
Flush and Refill Engine Cooling System

cp00834,1668848092403-19-19NOV22

Flush and Refill Engine Cooling System

Service Interval	Every 3000 Hours (Three Years)*
------------------	---------------------------------

*Flush and refill engine cooling system every 3000 hours or three years, whichever comes first.

NOTE: COOL-GARD™ is the recommended coolant. The drain interval may be extended to 5000 hours or 60 months of operation, provided that the coolant is tested annually AND additives are replenished, as needed, by adding a supplemental coolant additive (SCA).

If COOL-GARD™ is not used, the drain interval is reduced to 2000 hours or two years of operation.

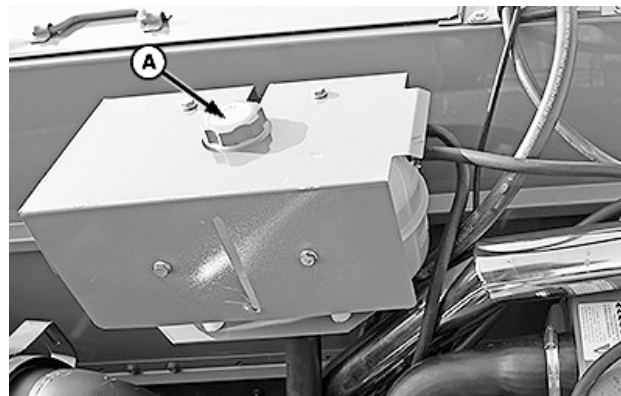
CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.

CAUTION: Only remove surge tank filler cap when cool enough to touch with bare hands. To relieve the pressure, slowly loosen the surge tank cap to the first stop before removing completely.



High-Pressure Fluids

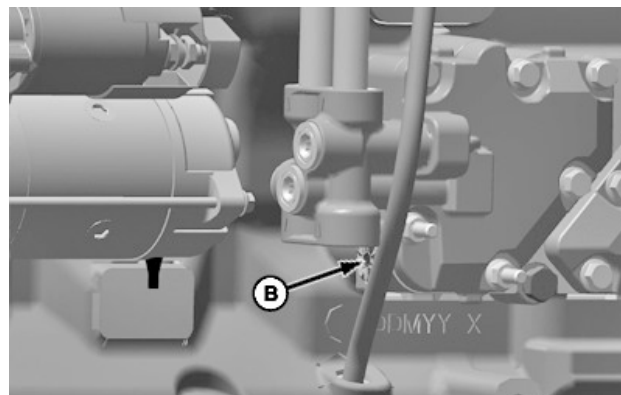
TS281—UN—15APR13



YC21198—UN—28NOV22

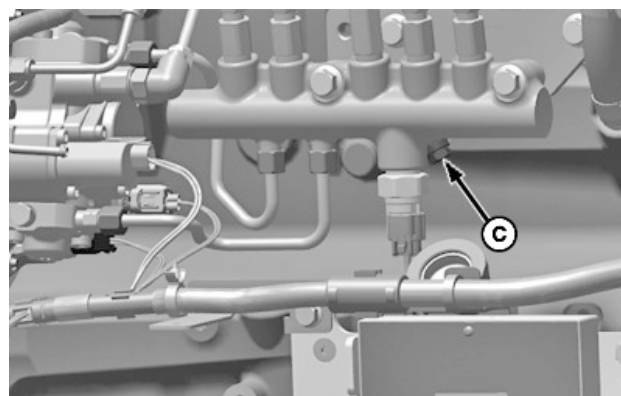
A—Surge Tank Cap

1. Slowly open the surge tank cap (A) to relieve pressure and allow coolant to drain faster.



YC21200—UN—28NOV22

Engine Block Coolant Drain Plug—Right Side of Engine

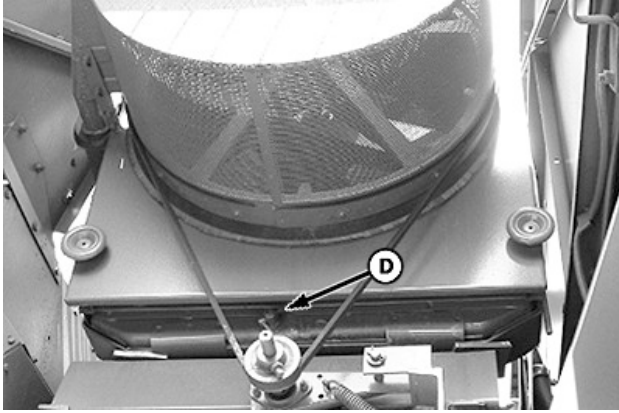


YC21199—UN—28NOV22

Engine Block Coolant Drain Plug—Left Side of Engine

- B—Right Side of Engine Block Coolant Drain Plug
C—Left Side of Engine Block Coolant Drain Plug

2. Remove the drain plugs (B and C) and drain all coolant from engine block.
3. Install and tighten the drain plugs.



YC21201—UN—28NOV22

D—Drain Valve

4. Connect a suitable hose to the drain valve (D).
5. Open the drain valve and drain all coolant from radiator.
6. Close the drain valve and remove the hose.
7. Fill the cooling system with clean water via the surge tank.
8. Install and close the surge tank cap.

⚠ CAUTION: Do not run engine longer than 10 minutes. Doing so may cause engine to overheat which may cause burns when radiator water is draining.

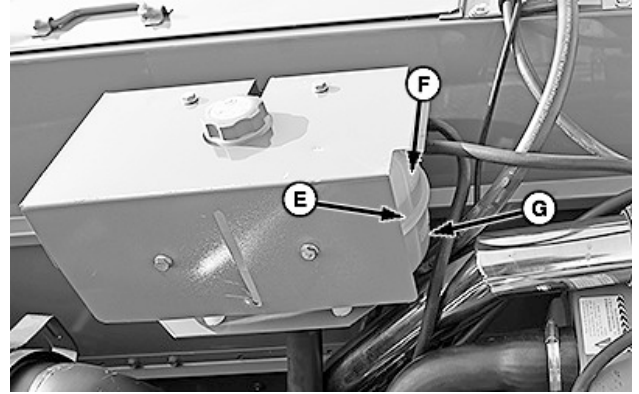
9. Start and run engine about 10 minutes.
10. Shut off engine.
11. Repeat the steps 1—6 to drain water from system.
12. Fill the cooling system with clean water and a heavy duty cooling system cleaner such as Restore or Restore Plus via the surge tank.

NOTE: Follow manufacturer's directions on label.

13. Install and close the surge tank cap.
14. Start and run engine about 10 minutes.
15. Shut off engine.
16. Repeat the steps 1—6 to drain water and cleaner from system.
17. Repeat the steps 7—11 to flush the system again with clean water.

⚠ CAUTION: Never fill the system when the engine is hot. Wait until engine cools down.

NOTE: Check the coolant capacity in Specifications Section.



YC21202—UN—28NOV22

E—Surge Tank
F—MAX Mark
G—MIN Mark

18. Fill the cooling system with the specified coolant. See Diesel Engine Coolant (engine with wet sleeve cylinder liners) in the Fuel, Coolant, and Lubricants Section for recommendations.

The coolant level should be between the MIN mark (G) and the MAX mark (F) on the surge tank (E).

19. Run engine until it reaches operating temperature.
20. After running engine, check coolant level and entire cooling system for leaks.

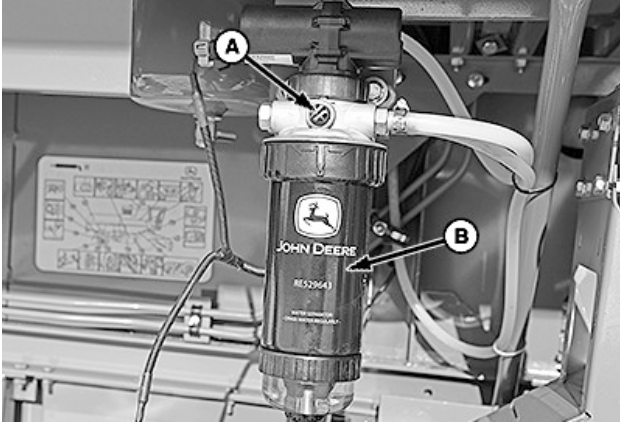
cp00834,1668848098517-19-19NOV22

Engine Maintenance—As Required

Bleed Fuel System

Bleed fuel system in the following situations:

- Fuel filter elements are replaced.
- Fuel tank has been run dry.
- After repairs to fuel system.
- Engine has been idle for a long time.

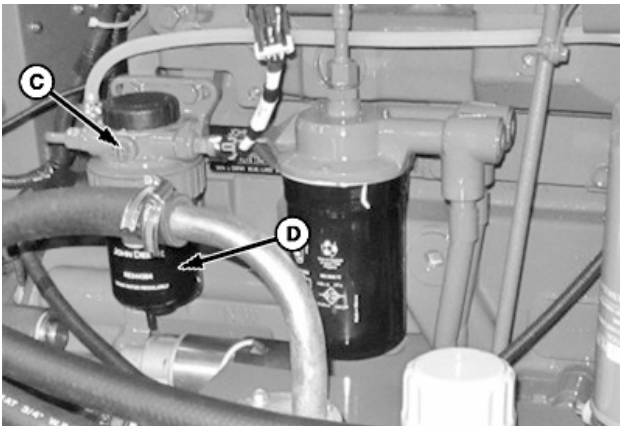


YC21203—UN—28NOV22

Bleed Fuel System at Primary Fuel Filter

A—Bleeding Screw
B—Primary Fuel Filter

1. Make sure that the fuel tank is full.
2. Start engine.
3. Loosen the bleeding screw (A) on the primary fuel filter (B).
4. Tighten the bleeding screw as soon as fuel flow is free from air bubbles.



YC21204—UN—28NOV22

Bleed Fuel System at Secondary Fuel Filter

C—Bleeding Screw
D—Secondary Fuel Filter

5. Bleed fuel system at the secondary fuel filter (D) with the same method.

cp00834,1668851417810-19-19NOV22

Drive System Maintenance—As Required

Wheel Lifting Devices (for export market)



Front Wheel

YC17363—UN—22APR21



Rear Wheel

YC17364—UN—22APR21

A—Lifting Device
B—Lifting Device

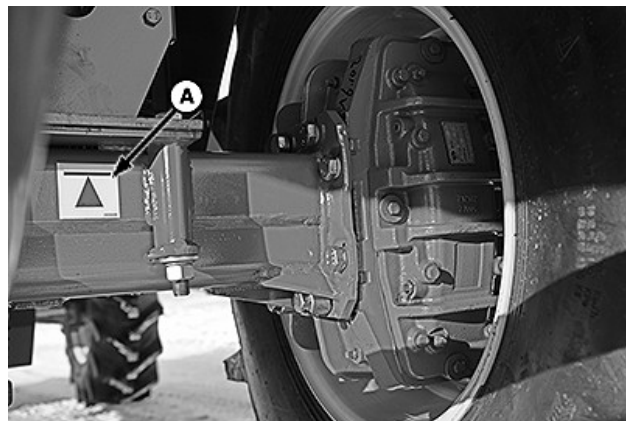
The lifting devices are installed at factory.

The lifting devices (A and B) on the wheels are used to lift machine.

cp00834,1669016426932-19-21NOV22

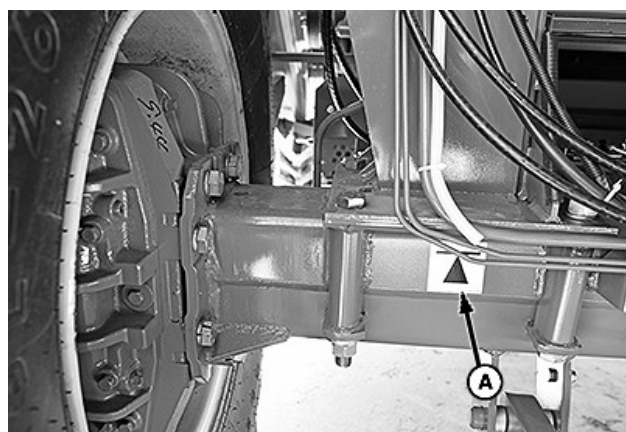
Jack Up Machine—Lifting Points

NOTE: This illustration shows the recommended lifting points for jacking up the machine. Use a stable jack with sufficient lifting force. See machine dimensions and weights in Specifications Section.



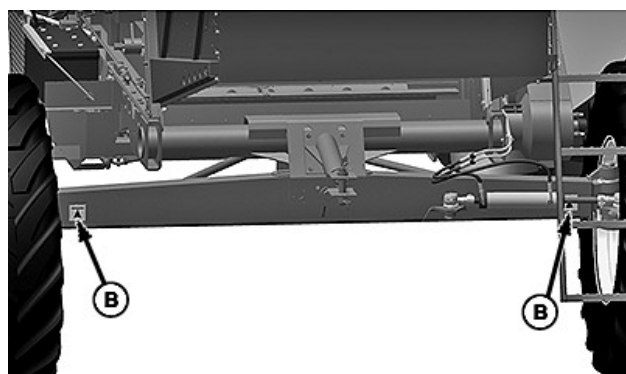
Front Axle Lifting Point (Left Side)

YC20448—UN—08AUG22



Front Axle Lifting Point (Right Side)

YC20447—UN—08AUG22



Rear Axle Lifting Points

YC20449—UN—08AUG22



YC20450—UN—08AUG22

Rear Axle Lifting Points (Rear Wheel Drive)

A—Front Axle Lifting Point Label (2 used)

B—Rear Axle Lifting Point Label (2 used)

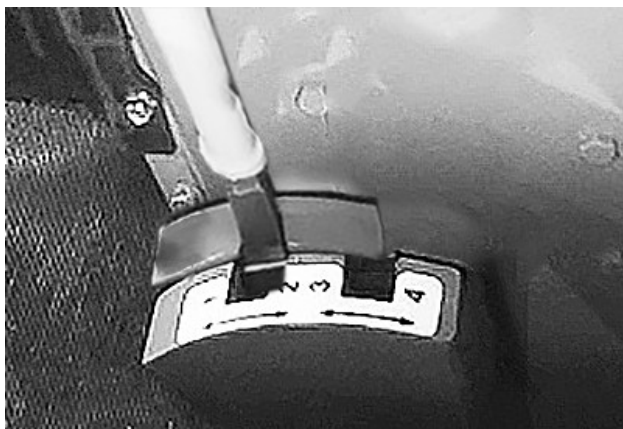
The lifting points are under the labels.

Jack up front axle or rear axle with approved lifting equipment under the lifting points.

cp00834,1659938959504-19-08AUG22

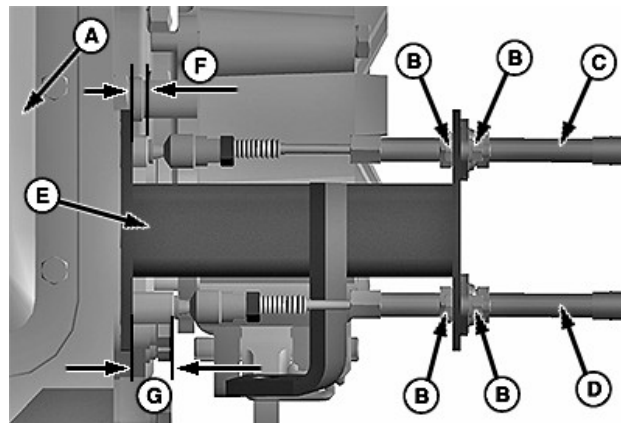
Adjust Gearshift Control Cable

CAUTION: Shut OFF engine, set park brake, and remove key.



YC18526—UN—06SEP21

1. Put the gearshift lever in the neutral position between the first gear and the second gear.



YC18354—UN—02SEP21

A—Gear Case

B—Nut (4 used)

C—Control Cable

D—Control Cable

E—Support

F—Dimension

G—Dimension

2. Loosen the nuts (B).

3. Measure the dimensions (F and G) to specifications.

Specification

Dimension (F) between the end of the shaft and the support

(E)—Length. 11 mm

Dimension (G) between the end of the shaft and the support

(E)—Length. 48 mm

NOTE: First adjust one control cable, then adjust the other control cable.

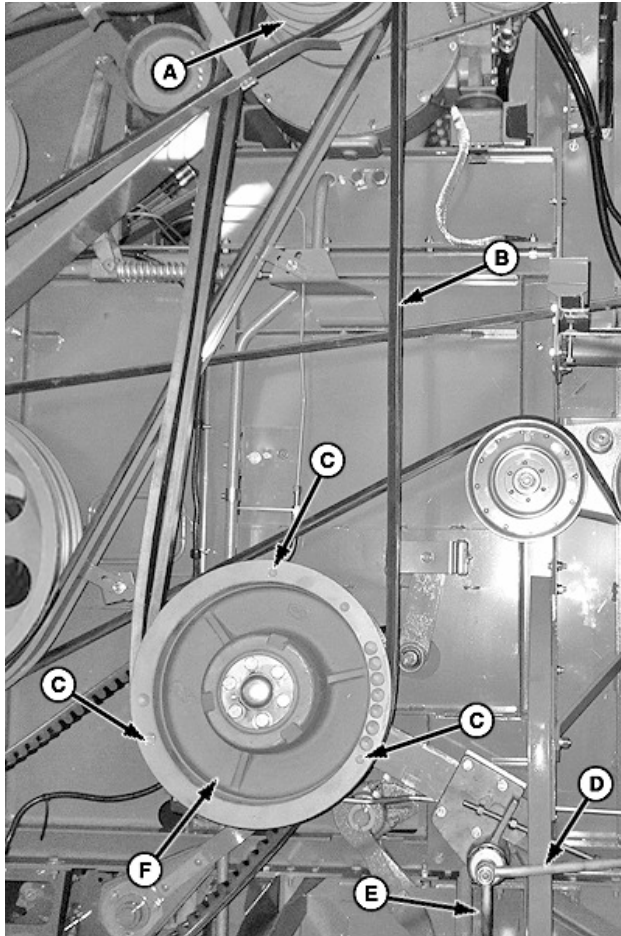
4. If the specifications are not met, adjust the dimensions by the nuts (B).

5. Tighten the nuts after adjustment.

CP00834,0008FDA-19-12OCT21

Posi-Torq™ Upper Unit Alignment Adjustment (Mechanical Drive)

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21205—UN—28NOV22

- A—Power Take-Off Pulley
- B—Drive Belt
- C—Point (3 used)
- D—Rod
- E—Rod
- F—Drive Pulley

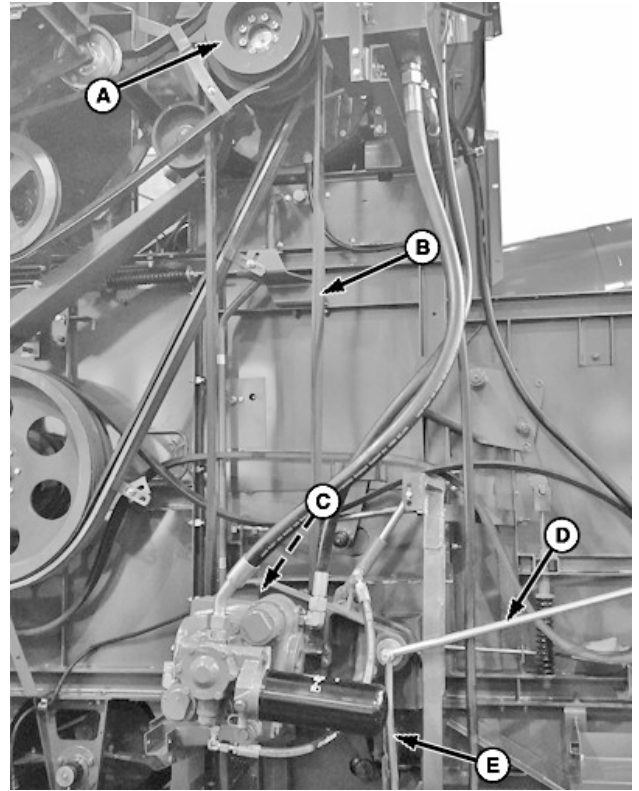
Select three points (C) on the outer surface of the drive pulley (F) symmetrically. Measure the distance between the three points and the side wall. The deviation should be less than 3 mm, that is the drive pulley aligns to the engine power take-off pulley (A).

If the deviation is more than 3 mm, adjust the length of the rods (D and E) by turning the nuts.

cp00834,1668854041437-19-19NOV22

Hydrostatic Pump Drive Pulley Alignment Adjustment (Hydrostatic Drive)

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21206—UN—28NOV22

- A—Power Take-Off Pulley
- B—Drive Belt
- C—Drive Pulley
- D—Rod
- E—Rod

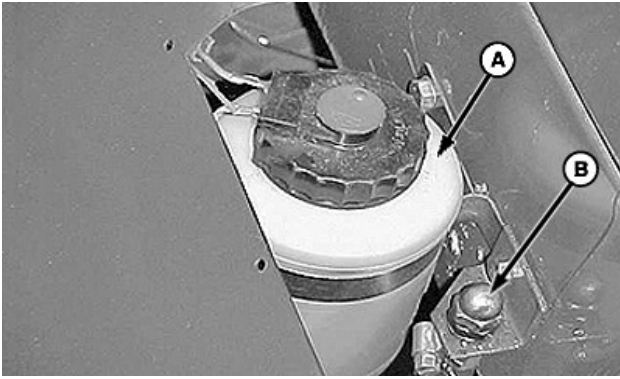
Select three points on the outer surface of the drive pulley (C) symmetrically. Measure the distance between the three points and the side wall. The deviation should be less than 3 mm, that is the drive pulley aligns to the engine power take-off pulley (A).

If the deviation is more than 3 mm, adjust the length of the rods (D and E) by turning the nuts.

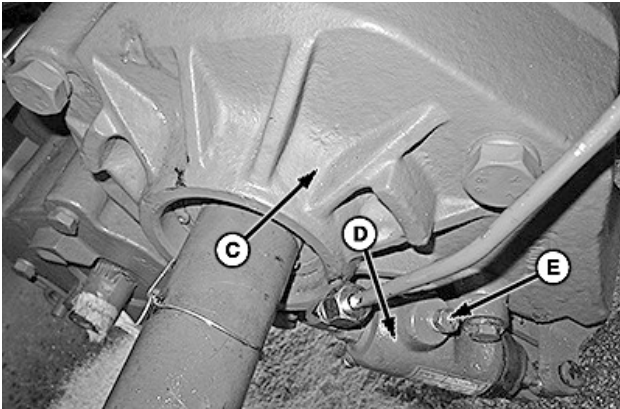
cp00834,1668854714874-19-19NOV22

Bleed Brake System

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21207—UN—28NOV22



YC21208—UN—28NOV22

Left Brake Cylinder Shown

- A—Brake Fluid Reservoir
- B—Bleeding Screw
- C—Brake Housing
- D—Brake Slave Cylinder (2 used)
- E—Drain Plug (2 used)

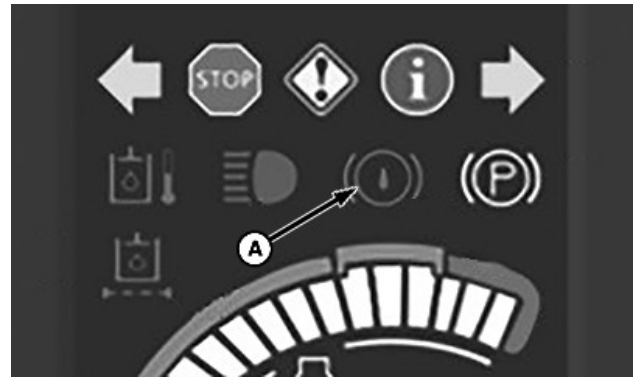
Bleed the brake system after the maintenance of the brake system.

NOTE: Bleeding can be performed at any brake slave cylinder.

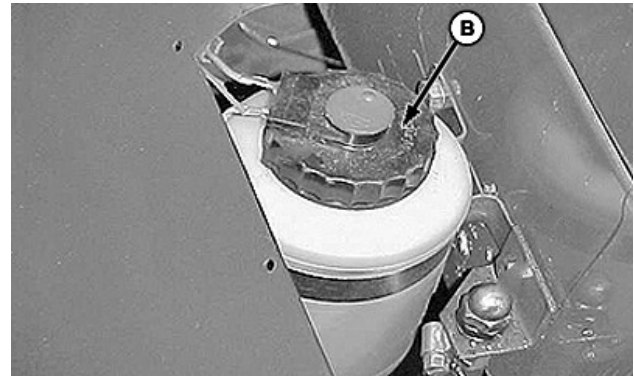
1. Loosen the bleeding screw (B) and the drain plug (E) at the brake slave cylinder.
2. Lock the two brake pedals together and depress the brake pedals several times until no air bubbles come out from the drain plug.
3. Tighten the bleeding screw and the drain plug.

cp00834,1668854862001-19-19NOV22

Fill Brake Fluid



YC18043—UN—16JUL21



YC21209—UN—28NOV22

- A—Brake Fluid Level Indicator
- B—Cap

If the brake fluid level is low, the brake fluid level indicator (A) turns on.

Remove the cap (B) and fill the brake fluid reservoir as necessary.

cp00834,1668854986001-19-19NOV22

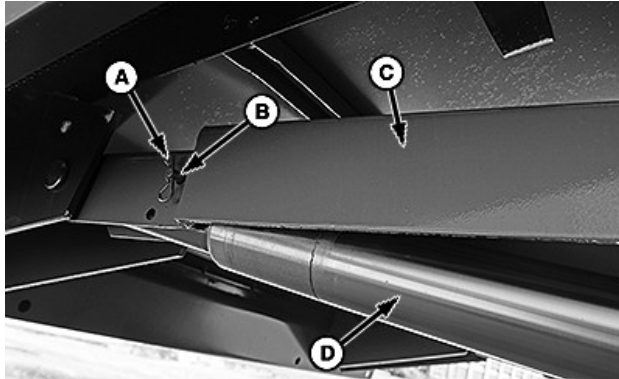
Header and Feeder House Maintenance—As Required

Lock Feeder House Safety Stop

CAUTION: When transporting with header or working under the feeder house, lock the feeder house safety stop.

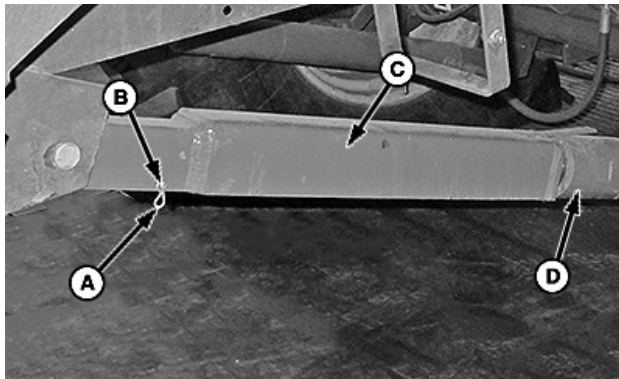
IMPORTANT: Unlock the safety stop before operating the machine.

NOTE: Only the left side hydraulic cylinder is equipped with the safety stop.



YC19411—UN—09JAN22

Unlocked Feeder House Safety Stop



YC19412—UN—09JAN22

Locked Feeder House Safety Stop

A—Cotter Pin (2 used)
B—Pin Fastener
C—Safety Stop
D—Hydraulic Cylinder

1. Lift header to the highest position.
2. Remove cotter pins (A) and pin fastener (B).
3. Lower the safety stop (C) on the hydraulic cylinder (D).
4. Insert the pin fastener into the lower hole and install cotter pins.

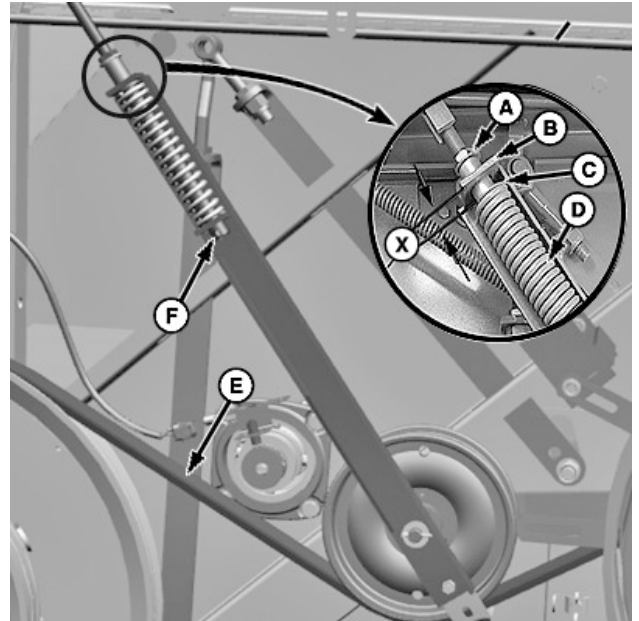
NOTE: Insert the pin fastener into the upper hole to unlock the feeder house.

5. Slightly lower header until the safety stop supports the feeder house.

CP00834,0008DAC-19-28DEC21

Check and Adjust Feeder House Drive Belt Tension

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21210—UN—28NOV22

A—Lock Nut
B—Support
C—Washer
D—Spring
E—Drive Belt
F—Tube
X—Distance

Engage the header drive, measure the distance (X) between the inner surface of the support (B) and the washer (C), the distance should be 7—12 mm.

If the distance is out of range, adjust the distance:

- Loosen the lock nut (A) and tighten the tube (F) to decrease the distance.
- Loosen the tube and tighten the lock nut to increase the distance.

NOTE: Use a suitable tool to turn the tube.

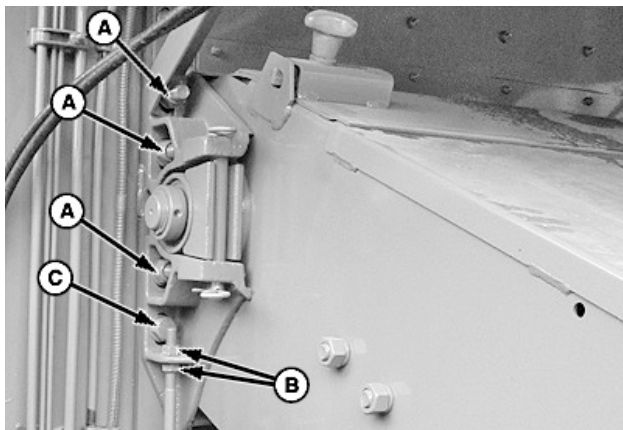
NOTE: Before adjustment, make sure that the header drive is engaged.

cp00834,1668855846172-19-19NOV22

Header Leveling Adjustment

CAUTION: Shut OFF engine, set park brake, and remove key.

NOTE: The adjustment can be performed only on the right side of the feeder house.



YC21212—UN—28NOV22

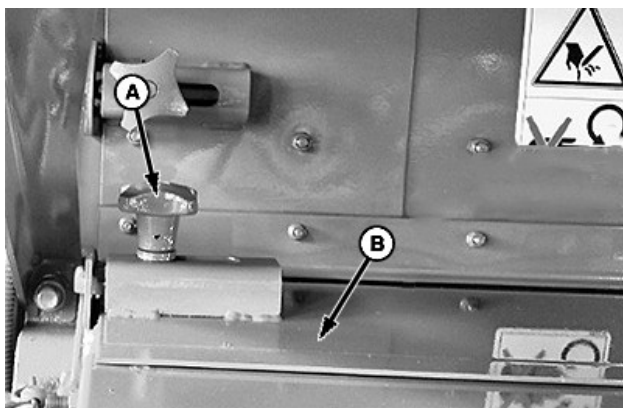
A—Nut (3 used)
B—Nut (2 used)
C—Bolt

Loosen the nuts (A) and bolt (C), adjust the nuts (B) to make the header parallel to the front axle.

cp00834,1668855934053-19-19NOV22

Clean Upper Feeder House Blockage

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21211—UN—28NOV22

Right-Hand Side of the Machine Shown

A—Handgrip Nut (2 used)
B—Inspection Cover

Loosen the handgrip nuts (A) on both sides, slide inwards together with latches, and remove the inspection cover (B) to clean the blockage.

cp00834,1668855919588-19-19NOV22

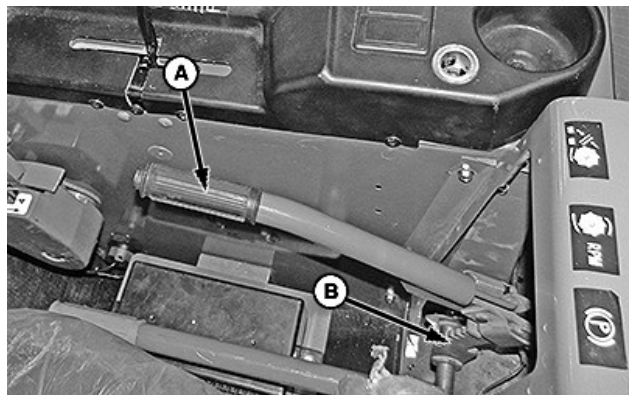
Threshing and Separating System Maintenance—As Required

Concave Clearance Basic Setting (Wheat)

NOTE: The basic setting has been set at the factory. The inlet clearance is 7—8 mm, the outlet clearance is 4—5 mm.

Reset the concave clearance every time the concave is changed. Check the basic setting at least once every harvesting season.

Ensure that the concave is parallel to the threshing cylinder side to side.



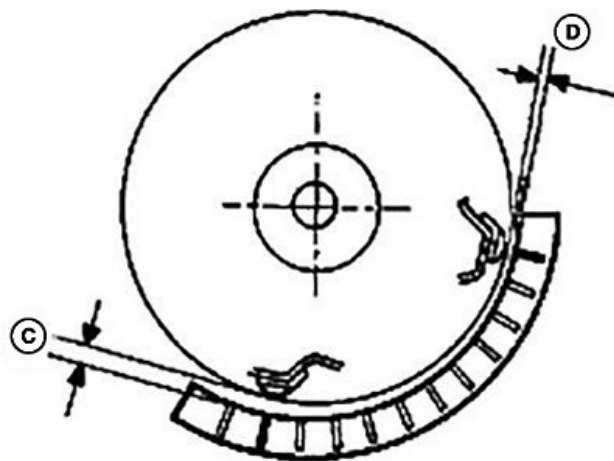
YC18045—UN—16JUL21

A—Concave Clearance Adjustment Lever
B—Sector

1. Shut OFF engine, set park brake, and remove key.
2. Remove the vinyl cover on the levers.
3. Slowly pull the concave clearance adjustment lever (A) up until it engages in the second notch from the top.

NOTE: Never set to the second notch by pushing down on the lever.

4. Verify that the lever is supporting the load of the concave by moving it side to side. There should be no play in the lever.



YC18046—UN—16JUL21

C—Inlet Clearance
D—Outlet Clearance

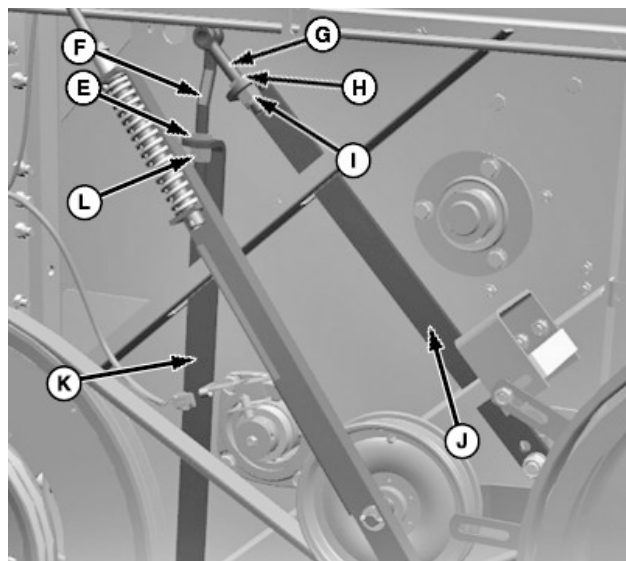
5. Remove the concave inspection window covers on both sides of the combine.
6. Clean the material over the full range of the concave.
7. Find the high bar with a mark that is made in the factory.

If the mark is worn down, rotate the threshing cylinder slowly by hand and verify the clearance between the threshing cylinder and concave until the high bar is identified. Mark the high bar with a mark like a paint dot or a center punch.

NOTE: Before measuring, make sure that the concave straps are under tension. If necessary, insert a pry bar between the rasp bar and the concave and pry it down.

8. Measure the clearance with a feeler gauge between the high bar of the rasp bar and the concave bar on both sides of the machine.
 - **Inlet Clearance (C):** Measure at the second concave bar from the front.
 - **Outlet Clearance (D):** Measure at the first concave bar from the rear.

If the measurements are not between 7 to 8 mm in the front and 4 to 5 mm in the rear, go to the next step.



YC21219—UN—28NOV22

Left-Hand Side Concave Clearance Adjustment Mechanism Shown

E—Nut
F—Eyebolt
G—Eyebolt
H—Nut
I—Nut
J—Strap
K—Strap
L—Nut

9. Adjust the concave straps (J and K) to achieve the desired clearance:

- Adjust the inlet clearance by turning nuts (E and L) on both sides of the machine.
- Adjust the outlet clearance by turning nuts (H and I) on both sides of the machine.

NOTE: When increasing the clearance, periodically insert a pry bar between the threshing cylinder and the concave and pry it down.

10. Verify that the nuts (E, H, I, and L) on the adjusting eyebolts are tight.
11. Cycle the concave once through the full range of travel and set the concave clearance adjustment lever to the second notch from the top. Re-verify the concave clearance.
12. Reinstall the concave inspection window covers on both sides of the combine. Ensure that the wing nuts are tight.

cp00834,1668907666389-19-19NOV22

Concave Clearance Basic Setting (Rice)

NOTE: The basic setting has been set at the factory. The inlet clearance is 17–18 mm, the outlet clearance is 14–15 mm.

Reset the concave clearance every time the concave is changed. Check the basic setting at least once every harvesting season.

Ensure that the concave is parallel to the threshing cylinder side to side.



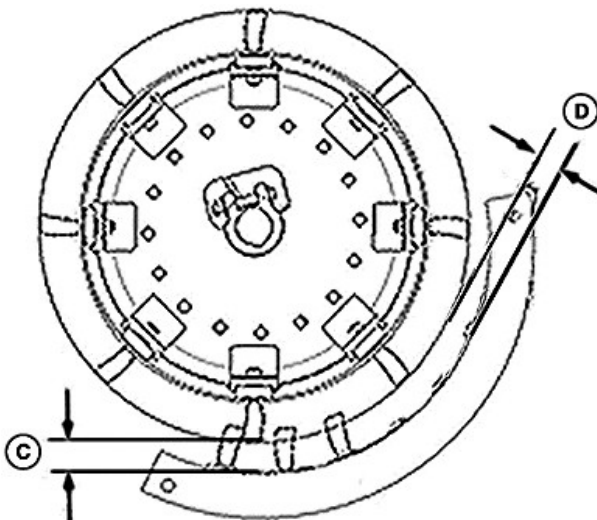
YC18045—UN—16JUL21

A—Concave Clearance Adjustment Lever
B—Sector

1. Shut OFF engine, set park brake, and remove key.
2. Remove the vinyl cover on the levers.
3. Slowly pull the concave clearance adjustment lever (A) up until it engages in the second notch from the top.

NOTE: Never set to the second notch by pushing down on the lever.

4. Verify that the lever is supporting the load of the concave by moving it side to side. There should be no play in the lever.



YC18048—UN—12SEP21

C—Inlet Clearance
D—Outlet Clearance

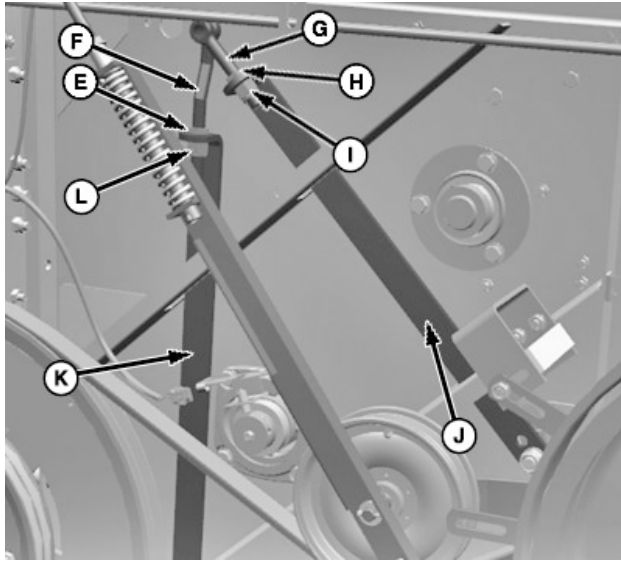
5. Remove the concave inspection window covers on both sides of the combine.
6. Clean the material over the full range of the concave.
7. Find the high bar with a mark that is made in the factory.

If the mark is worn down, rotate the threshing cylinder slowly by hand and verify the clearance between the threshing cylinder and concave until the high bar is identified. Mark the high bar with a mark like a paint dot or a center punch.

NOTE: Before measuring, make sure that the concave straps are under tension. If necessary, insert a pry bar between the rasp bar and the concave and pry it down.

8. Measure the clearance with a feeler gauge between the high bar of the rasp bar and the concave bar on both sides of the machine.
 - **Inlet Clearance (C):** Measure at the second concave bar from the front.
 - **Outlet Clearance (D):** Measure at the first concave bar from the rear.

If the measurements are not between 17 to 18 mm in the front and 14 to 15 mm in the rear, go to the next step.



YC21219—UN—28NOV22

Left-Hand Side Concave Clearance Adjustment Mechanism Shown

E—Nut
F—Eyebolt
G—Eyebolt
H—Nut
I—Nut
J—Strap
K—Strap
L—Nut

9. Adjust the concave straps (J and K) to achieve the desired clearance:
 - Adjust the inlet clearance by turning nuts (E and L) on both sides of the machine.
 - Adjust the outlet clearance by turning nuts (H and I) on both sides of the machine.

NOTE: When increasing the clearance, periodically insert a pry bar between the threshing cylinder and the concave and pry it down.

10. Verify that the nuts (E, H, I, and L) on the adjusting eyebolts are tight.
11. Cycle the concave once through the full range of travel and set the concave clearance adjustment lever to the second notch from the top. Re-verify the concave clearance.
12. Reinstall the concave inspection window covers on both sides of the combine. Ensure that the wing nuts are tight.

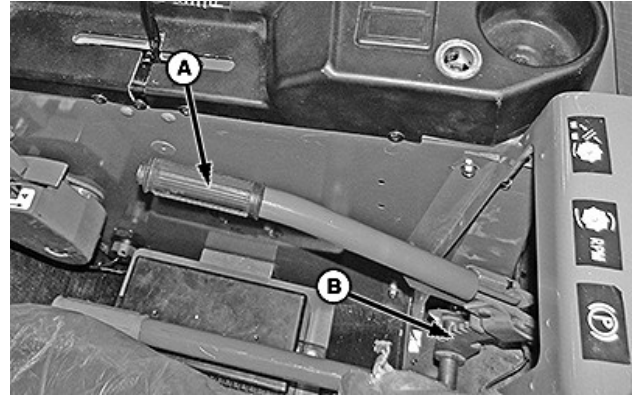
cp00834,1668907677142-19-19NOV22

Concave Clearance Basic Setting (Corn)

NOTE: The basic setting has been set at the factory. The inlet clearance is 22—23 mm, the outlet clearance is 19—20 mm.

Reset the concave clearance every time the concave is changed. Check the basic setting at least once every harvesting season.

Ensure that the concave is parallel to the threshing cylinder side to side.



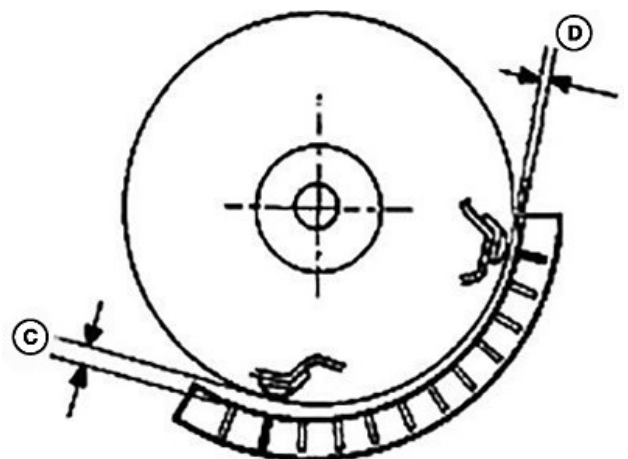
YC18045—UN—16JUL21

A—Concave Clearance Adjustment Lever
B—Sector

1. Shut OFF engine, set park brake, and remove key.
2. Remove the vinyl cover on the levers.
3. Slowly pull the concave clearance adjustment lever (A) up until it engages in the second notch from the top.

NOTE: Never set to the second notch by pushing down on the lever.

4. Verify that the lever is supporting the load of the concave by moving it side to side. There should be no play in the lever.



YC18046—UN—16JUL21

C—Inlet Clearance
D—Outlet Clearance

5. Remove the concave inspection window covers on both sides of the combine.
6. Clean the material over the full range of the concave.

7. Find the high bar with a mark that is made in the factory.

If the mark is worn down, rotate the threshing cylinder slowly by hand and verify the clearance between the threshing cylinder and concave until the high bar is identified. Mark the high bar with a mark like a paint dot or a center punch.

NOTE: Before measuring, make sure that the concave straps are under tension. If necessary, insert a pry bar between the rasp bar and the concave and pry it down.

8. Measure the clearance with a feeler gauge between the high bar of the rasp bar and the concave bar on both sides of the machine.

- **Inlet Clearance (C):** Measure at the second concave bar from the front.
- **Outlet Clearance (D):** Measure at the first concave bar from the rear.

If the measurements are not between 22 to 23 mm in the front and 19 to 20 mm in the rear, go to the next step.

- Adjust the outlet clearance by turning nuts (H and I) on both sides of the machine.

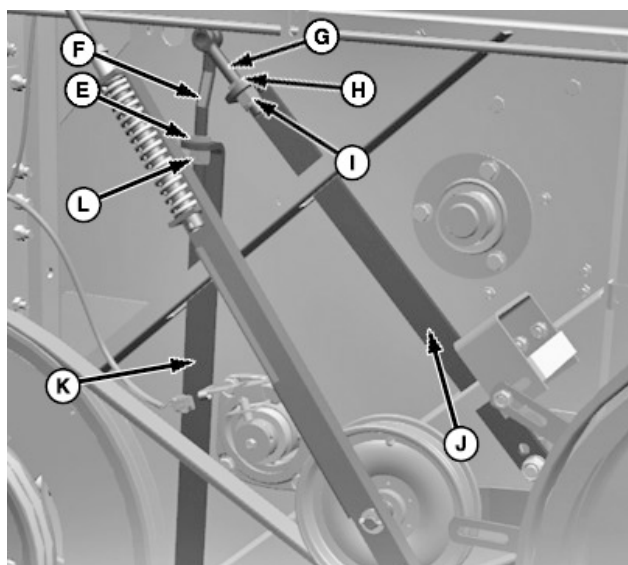
NOTE: When increasing the clearance, periodically insert a pry bar between the threshing cylinder and the concave and pry it down.

10. Verify that the nuts (E, H, I, and L) on the adjusting eyebolts are tight.
11. Cycle the concave once through the full range of travel and set the concave clearance adjustment lever to the second notch from the top. Re-verify the concave clearance.
12. Reinstall the concave inspection window covers on both sides of the combine. Ensure that the wing nuts are tight.

cp00834,1668907687750-19-19NOV22

Concave Leveling Adjustment

IMPORTANT: The adjustment should be performed on both sides at the same time.



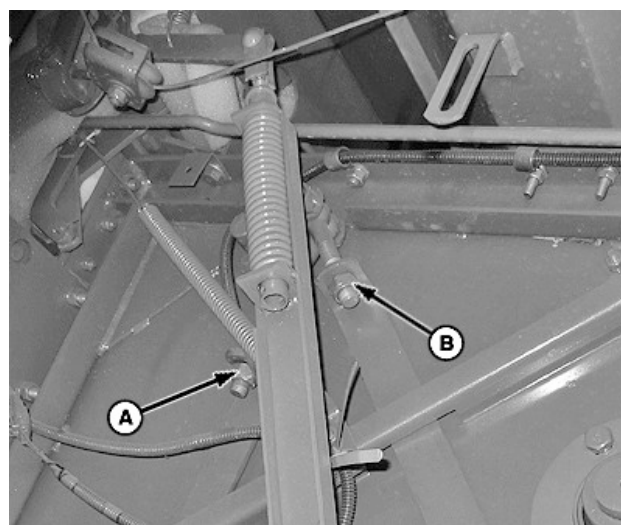
YC21219—UN—28NOV22

Left-Hand Side Concave Clearance Adjustment Mechanism Shown

E—Nut
F—Eyebolt
G—Eyebolt
H—Nut
I—Nut
J—Strap
K—Strap
L—Nut

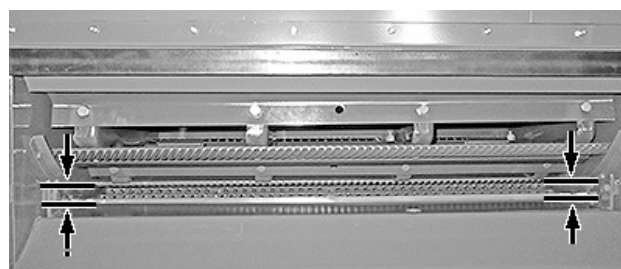
9. Adjust the concave straps (J and K) to achieve the desired clearance:

- Adjust the inlet clearance by turning nuts (E and L) on both sides of the machine.



YC21220—UN—28NOV22

Left-Hand Side of the Machine Shown



YC21221—UN—28NOV22

A—Nut (2 used)
B—Nut (2 used)

The concave should be parallel to the threshing cylinder. The concave has been adjusted at the factory.

Regularly check the concave leveling and adjust by turning nuts (A and B) on both sides as necessary.

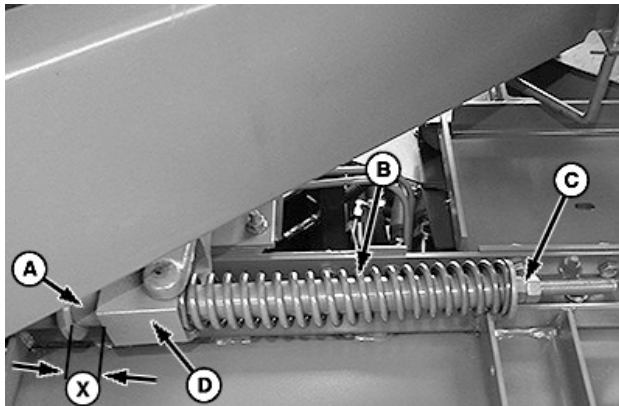
NOTE:

- Adjust the inlet clearance by turning nuts (B) on both sides of the machine.
- Adjust the outlet clearance by turning nuts (A) on both sides of the machine.

cp00834,1668908392880-19-19NOV22

Check and Adjust Threshing System Drive Belt Tension

CAUTION: Shut OFF engine, set park brake, and remove key before performing maintenance work.



YC21222—UN—28NOV22

- A—Adjusting Screw
B—Spring
C—Lock Nut (2 used)
D—Guide Block
X—Distance

Engage the threshing system, measure the distance (X) between the surface of the adjusting screw (A) and the guide block (D), the distance should be 23—27 mm.

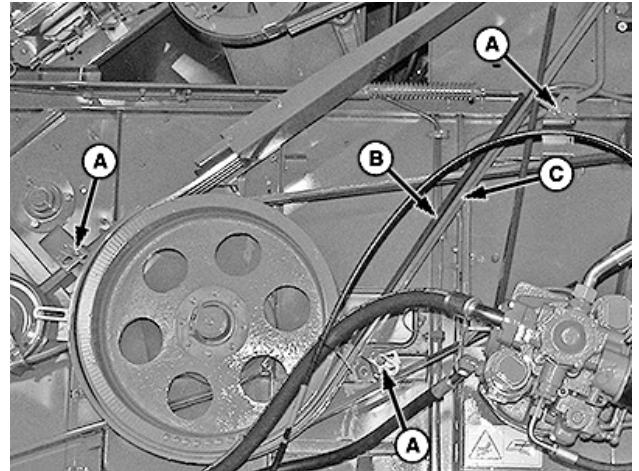
If the distance is out of range, loosen the lock nut (C) and turn the adjusting screw to adjust the distance. Tighten the lock nut after adjustment.

NOTE: Before adjustment, make sure that the threshing system is engaged.

cp00834,1668908732087-19-19NOV22

Adjust Threshing System Drive Belt and Belt Guide Clearance

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21223—UN—28NOV22

- A—Bolt (3 used)
B—Drive Belt
C—Belt Guide

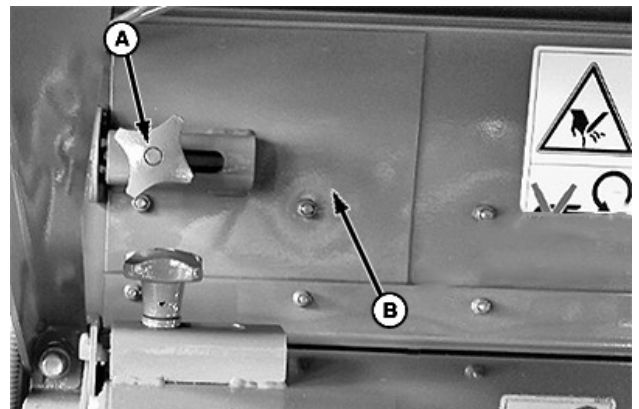
Engage the threshing system, the clearance between the drive belt (B) and the belt guide (C) should be 2—5 mm.

Adjust the clearance by turning the three bolts (A). Regularly check the clearance.

cp00834,1668908774767-19-19NOV22

Check Threshing Cylinder Blockage

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21224—UN—28NOV22

Right-Hand Side of the Machine Shown

- A—Handgrip Nut (2 used)
B—Inspection Cover

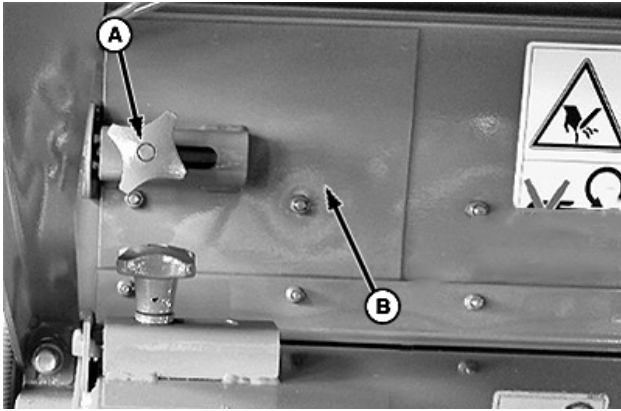
Loosen the handgrip nuts (A) on both sides, slide inwards together with latches, and remove the inspection cover (B) to check the blockage.

cp00834,1668908809681-19-19NOV22

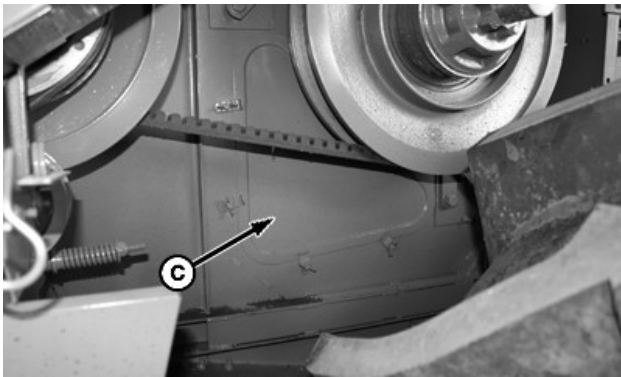
Clean Threshing Cylinder Blockage

CAUTION: Shut OFF engine, set park brake, and remove key.

IMPORTANT: Before cleaning the blockage, adjust the concave clearance to the maximum value.



Right-Hand Side of the Machine Shown



Right-Hand Side of the Machine Shown

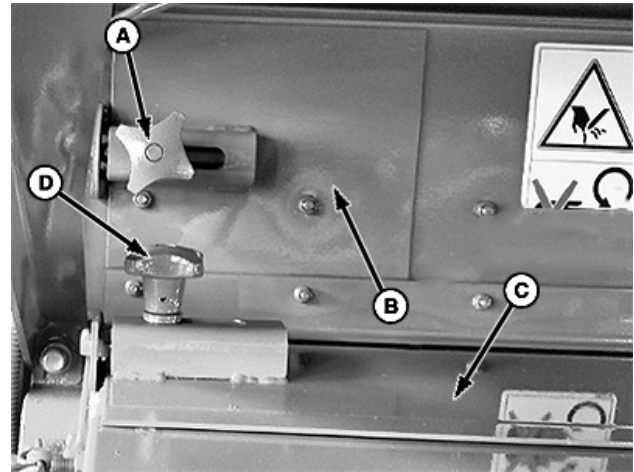
A—Handgrip Nut (2 used)
B—Front Inspection Cover
C—Side Inspection Cover (2 used)

Loosen the handgrip nuts (A) on both sides, slide inwards together with latches, and remove the front inspection cover (B) to clean the blockage.

Remove the side inspection covers (C) on both sides to clean the blockage.

cp00834,1668908846335-19-19NOV22

Clean Threshing Cylinder Blockage by Reversing Threshing Cylinder

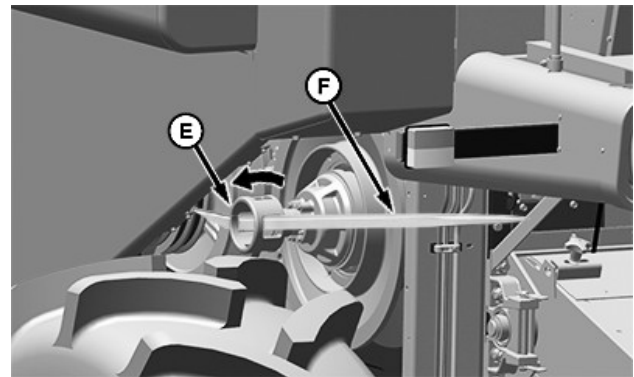


YC21226—UN—28NOV22

Right-Hand Side of the Machine Shown

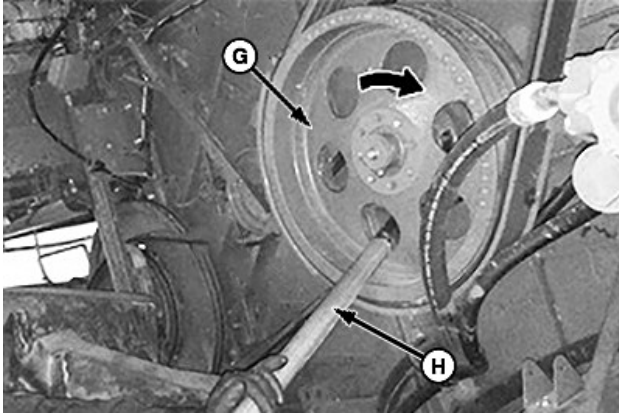
A—Handgrip Nut (2 used)
B—Inspection Cover
C—Inspection Cover
D—Handgrip Nut (2 used)

1. Disengage the threshing system.
2. Shut OFF engine, set park brake, and remove key.
3. Loosen the handgrip nuts (A and D) on both sides, slide inwards together with latches, and remove the inspection covers (B and C).



YC21227—UN—28NOV22

Threshing Cylinder (without threshing cylinder speed reduction gear, right-hand side)



YC21228—UN—28NOV22

E—Hub
F—Crowbar
G—Drive Pulley
H—Crowbar

Threshing Cylinder Without Cylinder Reduction:
Reverse the threshing cylinder by rotating the hub (E) counterclockwise with crowbar (F).

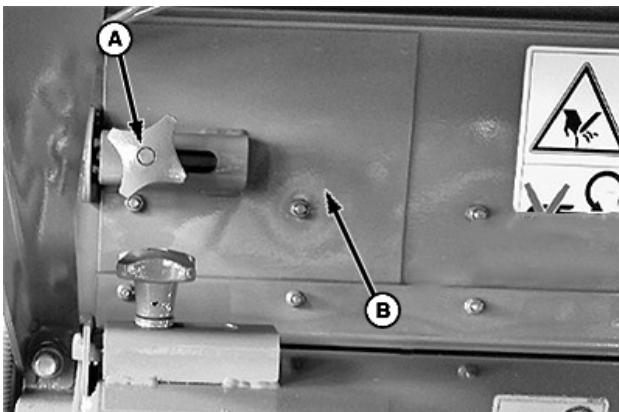
Threshing Cylinder With Cylinder Reduction:
Reverse the threshing cylinder by rotating the drive pulley (G) clockwise with crowbar (H).

NOTE: A crowbar can be used to assist reversing the threshing cylinder.

cp00834,1668908892001-19-19NOV22

Replace the Rasp Bar

NOTE: The rasp bar can be replaced without removing the threshing cylinder.



YC21224—UN—28NOV22

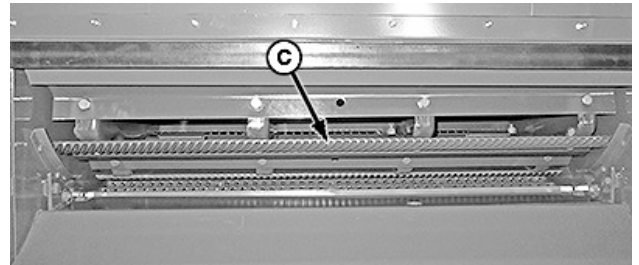
Right-Hand Side of the Machine Shown

A—Handgrip Nut (2 used)
B—Inspection Cover

1. Disengage the threshing system.
2. Shut OFF engine, set park brake, and remove key.
3. Loosen the handgrip nuts (A) on both sides, slide

inwards together with latches, and remove the inspection cover (B).

NOTE: The threshing cylinder is equipped with right-serrated and left-serrated rasp bars installed alternately.



YC21229—UN—28NOV22

C—Rasp Bar

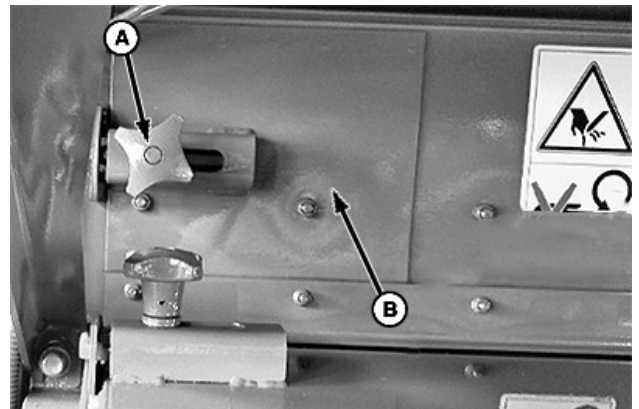
4. Replace the worn rasp bar and the mating rasp bar on the opposite side of the threshing cylinder at the same time.
5. Tighten the rasp bar attaching bolts.

IMPORTANT: Retighten the replacement rasp bar bolts after the first 10 hours' operation.

cp00834,1668909430430-19-19NOV22

Replace the Spike Tooth

NOTE: The spike tooth can be replaced without removing the threshing cylinder.



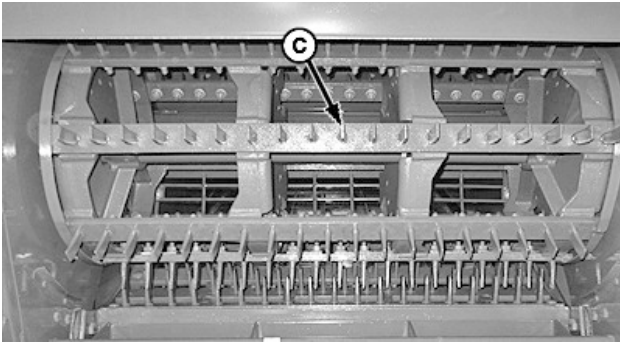
YC21224—UN—28NOV22

Right-Hand Side of the Machine Shown

A—Handgrip Nut (2 used)
B—Inspection Cover

1. Disengage the threshing system.
2. Shut OFF engine, set park brake, and remove key.
3. Loosen the handgrip nuts (A) on both sides, slide inwards together with latches, and remove the inspection cover (B).

IMPORTANT: Take care of the direction of the spike tooth during new spike tooth installation.



YC21230—UN—28NOV22

C—Spike Tooth

4. Replace the worn spike tooth and tighten the spike tooth attaching nut.

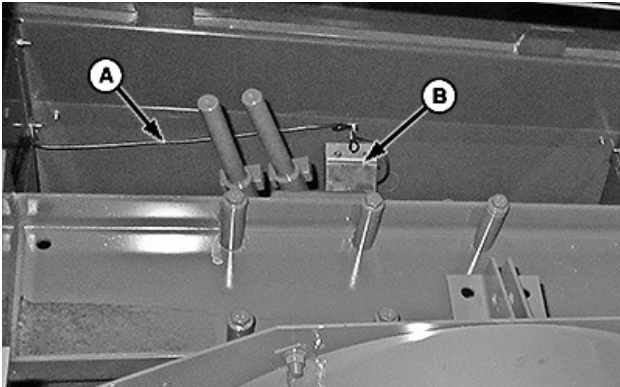
NOTE: A hammer can be used to assist replacing the spike tooth.

cp00834,1668909576085-19-19NOV22

Move Separator Module to Service Position

CAUTION: Shut OFF engine, set park brake, and remove key.

1. Turn off the battery disconnect switch.

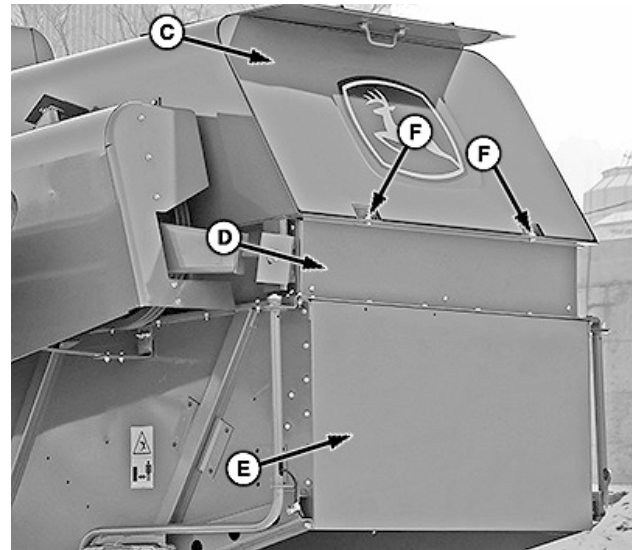


YC20561—UN—02SEP22

Disconnect Electrical Connector

A—Wiring Harness
B—Sensor

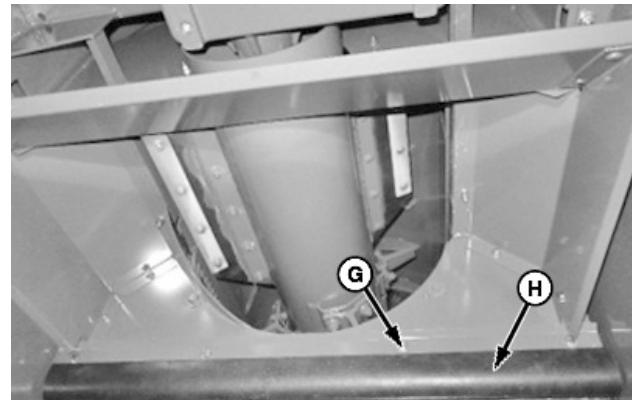
2. Disconnect electrical connector from sensor (B).
3. Disconnect wiring harness (A) from the rear cover.



YC21231—UN—28NOV22

C—Rear Cover
D—Support
E—Rear Cover
F—Cap Screw (2 used)

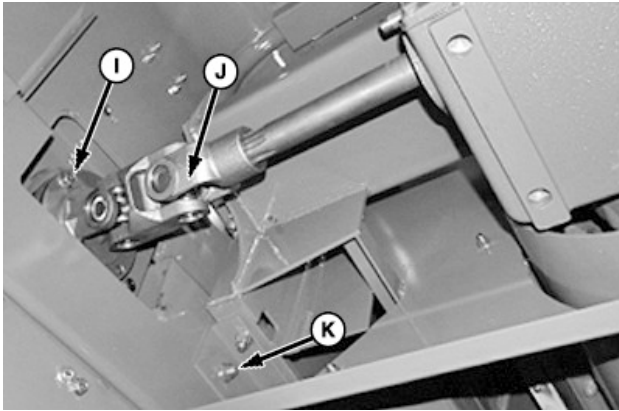
4. Remove cap screws (F) and the rear cover (C).
5. Remove cap screws and the rear cover (E).
6. Remove cap screws and the support (D).



YC21232—UN—28NOV22

G—Cap Screw (4 used)
H—Deflector

7. Remove cap screws (G) and deflector (H).

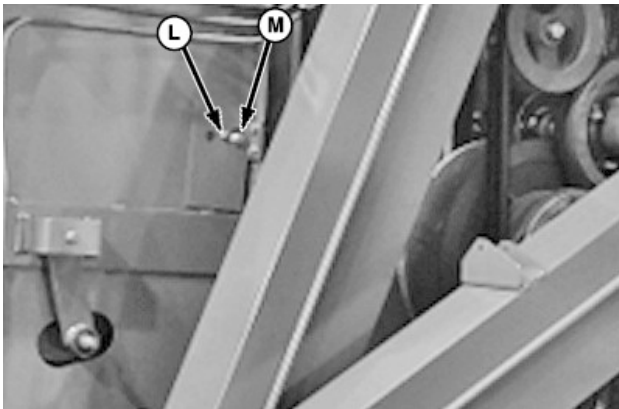


YC21233—UN—28NOV22

Remove Universal Joint

- I—Cap Screw (3 used)
- J—Universal Joint
- K—Cap Screw (4 used)

8. Remove cap screws (I) and universal joint (J).
9. Remove cap screws (K) on both sides.

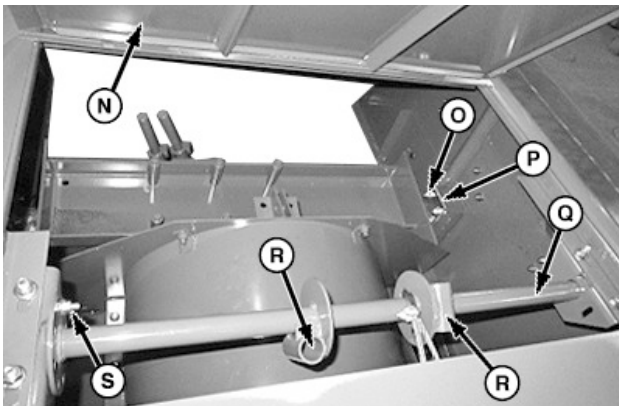


YC21234—UN—28NOV22

Right Side of Machine Shown

- L—Cap Screw (2 used)
- M—Cap Screw (2 used)

10. Remove cap screws (L and M) on both sides of the machine.



YC21235—UN—28NOV22

- N—Rear Access Door
- O—Cap Screw (6 used)

- P—Plate (2 used)
- Q—Shaft
- R—Tube (2 used)
- S—Cap Screw

11. Open the rear access door (N) on the machine.
12. Remove cap screws (O) and plates (P) on both sides.
13. Remove cap screw (S).
14. Insert two crowbars into the two tubes (R).

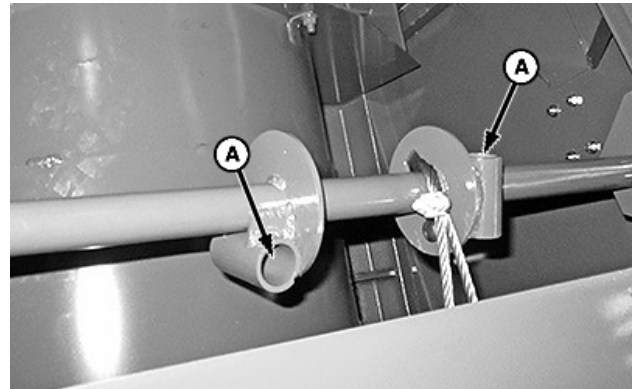
CAUTION: Separator is heavy. Support the separator when it is at the service position.

15. Turn the crowbars to move the separator out to the service position.

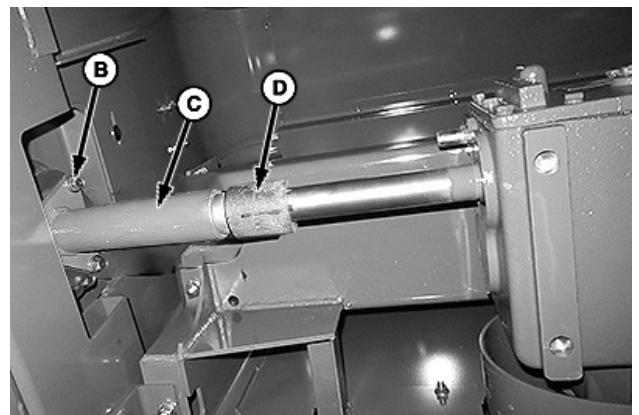
NOTE: Roll the separator out until it contacts with the stops.

cp00834,1668909769039-19-19NOV22

Return Separator Module to Working Position



YC20565—UN—02SEP22



YC20566—UN—02SEP22

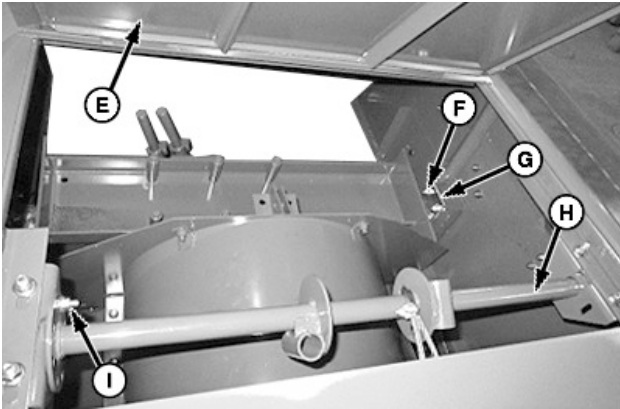
- A—Tube (2 used)
- B—Cap Screw (3 used)
- C—Special Tool
- D—Special Tool

1. Insert two two crowbars into the two tubes (A).

2. Turn the crowbars to move the separator module to the working position.
3. Install special tools (C and D).

NOTE: Move the separator module to align the two shafts as necessary.

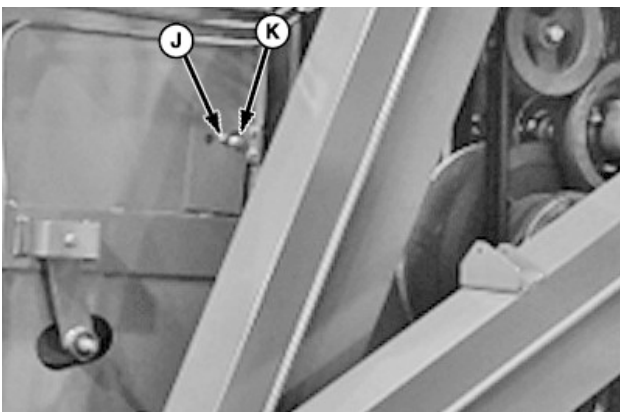
4. Install and tighten cap screws (B).



YC21236—UN—28NOV22

E—Rear Access Door
F—Cap Screw (6 used)
G—Plate (2 used)
H—Shaft
I—Cap Screw

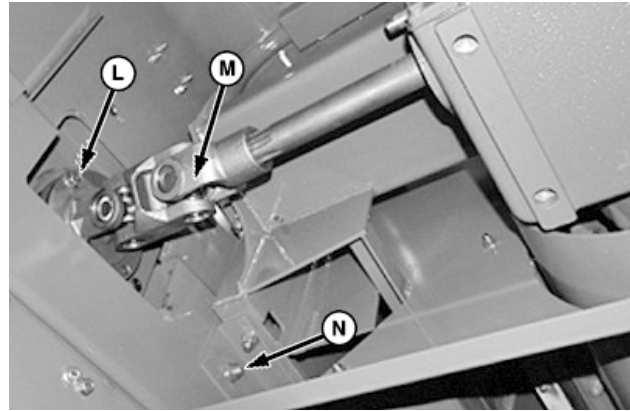
5. Install and tighten cap screw (I).
6. Install plates (G) and tighten cap screws (F) on both sides.
7. Close the rear access door (E).



YC21237—UN—28NOV22

J—Cap Screw (2 used)
K—Cap Screw (2 used)

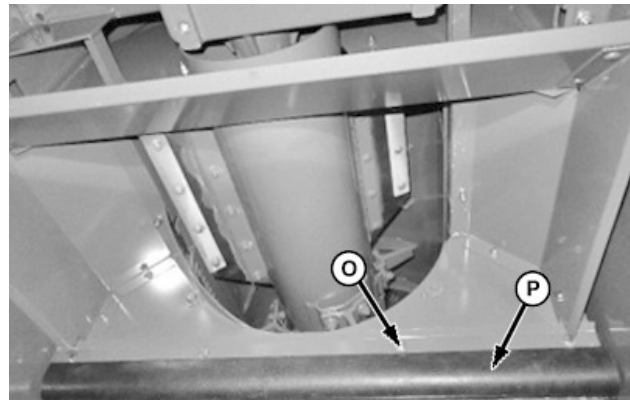
8. Install and tighten cap screws (J and K) on both sides of the machine.



YC21238—UN—28NOV22

L—Cap Screw (3 used)
M—Universal Joint
N—Cap Screw (4 used)

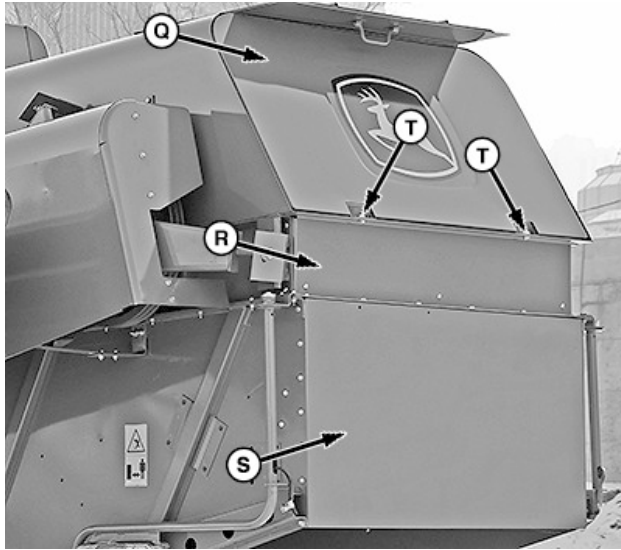
9. Install and tighten cap screws (N) on both sides.
10. Remove three cap screws and special tools.
11. Install universal joint (M).
12. Install and tighten cap screws (L).



YC21239—UN—28NOV22

O—Cap Screw (4 used)
P—Deflector

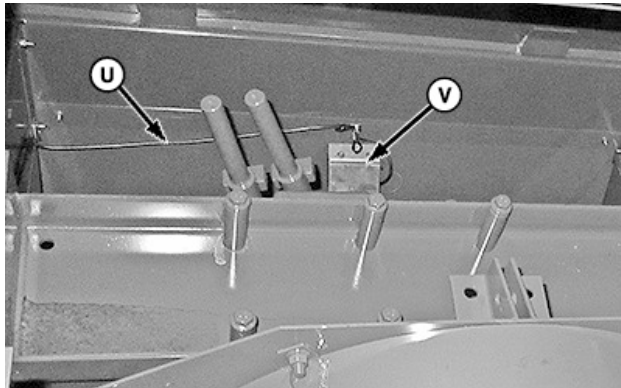
13. Install deflector (P) and tighten cap screws (O).



YC21240—UN—28NOV22

- Q—Rear Cover
R—Support
S—Rear Cover
T—Cap Screw (2 used)

14. Install the support (R) using cap screws.
15. Install rear covers (S and Q) using cap screws.



YC21241—UN—28NOV22

- U—Wiring Harness
V—Sensor

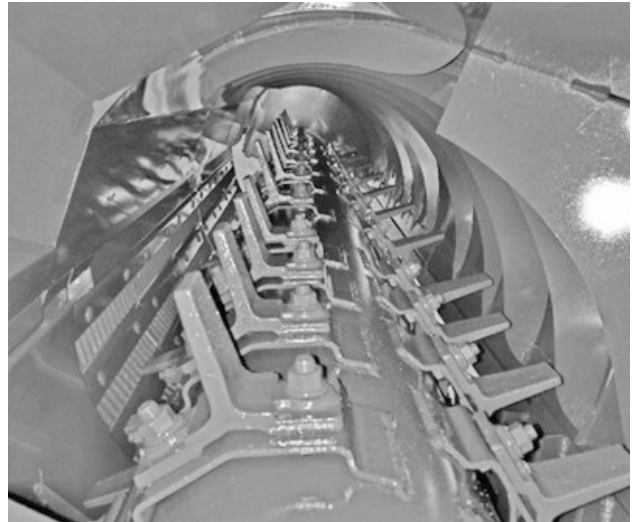
16. Connect wiring harness (U) to the rear cover.
17. Connect electrical connector to sensor (B).

cp00834,1668911293604-19-19NOV22

Clean Separator Blockage

CAUTION: Shut OFF engine, set park brake, and remove key.

1. Turn off the battery disconnect switch.
2. Move separator module to the service position.
(See Move Separator Module to Service Position in this Section.)



YC21242—UN—28NOV22

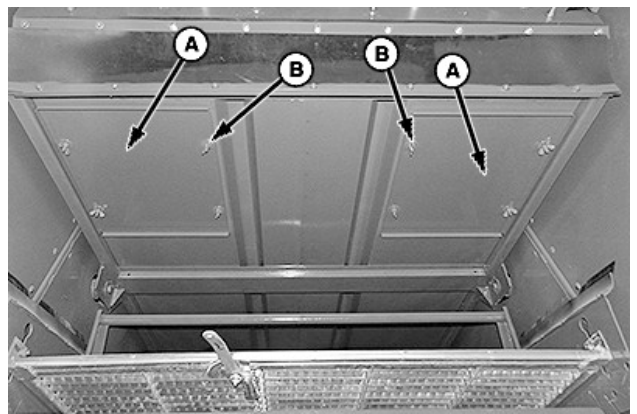
3. Clean the blockage.
4. Return separator module to the working position.
(See Return Separator Module to Working Position in this Section.)

cp00834,1668911397460-19-19NOV22

Clean Separator Grate

CAUTION: Shut OFF engine, set park brake, and remove key.

To avoid personal injury, be aware of the falling soil and debris when removing the plates.



YC21243—UN—28NOV22

- A—Plate (2 used)
B—Wing Nut (8 used)

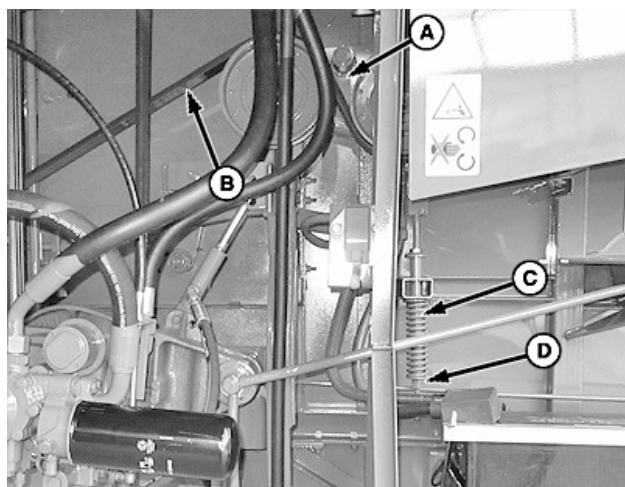
Check the separator grate regularly. Clean blockage as required.

Remove the wing nuts (B) and the plates (A) to clean the blockage.

cp00834,1668912793249-19-19NOV22

Adjust Separator Drive Belt Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



A—Tensioner
B—Drive Belt
C—Spring
D—Nut (2 used)

The separator drive belt (B) is tensioned automatically by the tensioner (A) with the action of the spring (C).

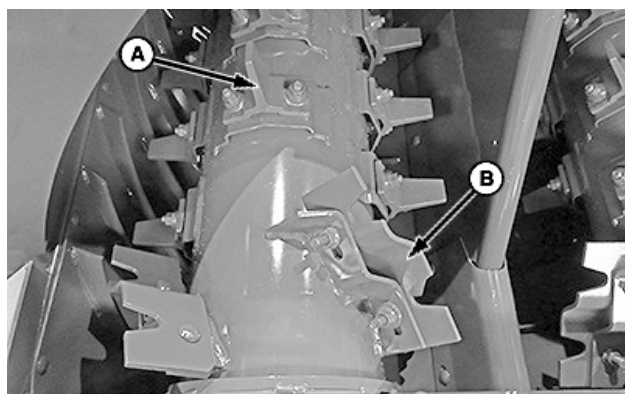
Adjust the length of the spring to 130—160 mm by turning nuts (D).

cp00834,1668913080270-19-19NOV22

Replace Separator Unit (Tube-Style Tine Separator)

CAUTION: Shut OFF engine, set park brake, and remove key.

1. Turn off the battery disconnect switch.
2. Move separator module to the service position.
(See Move Separator Module to Service Position in this Section.)



Tube-Style Tine Separator

A—Tine
B—Flow Divider

3. Replace the worn tine (A) and the worn flow divider (B) as necessary.

NOTE: Remove the separator top covers as necessary.

NOTE: To keep the balance, replace the opposite separator unit at the same time.

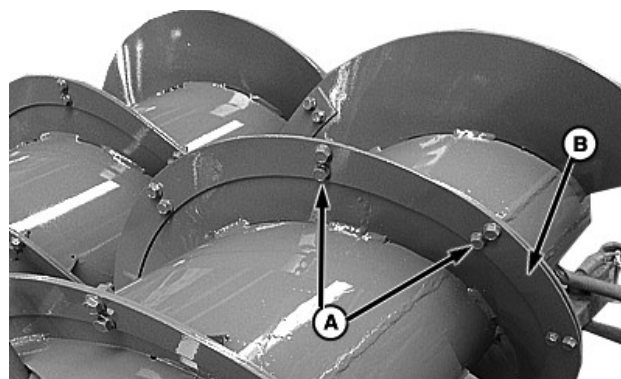
4. Return separator module to the working position.
(See Return Separator Module to Working Position in this Section.)

cp00834,1669007170927-19-20NOV22

Replace Wear Plate (Cage-Type Tine Separator)

CAUTION: Shut OFF engine, set park brake, and remove key.

1. Turn off the battery disconnect switch.
2. Move separator module to the service position.
(See Move Separator Module to Service Position in this Section.)



Cage-Type Tine Separator

A—Cap Screw (4 used)
B—Wear Plate

3. Remove cap screws (A).
4. Replace the wear plate (B) when seriously worn.

NOTE: Remove the separator top covers as necessary.

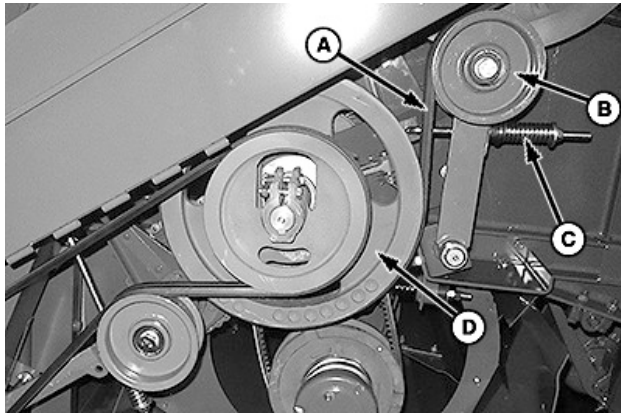
5. Return separator module to the working position.
(See Return Separator Module to Working Position in this Section.)

cp00834,1669007464510-19-20NOV22

Cleaning System Maintenance—As Required

Adjust Cleaning System Drive Belt Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21214—UN—28NOV22

- A—Drive Belt
- B—Tensioner
- C—Spring
- D—Drive Pulley

The drive belt (A) is tensioned by the tensioner (B) automatically with the action of the spring (C).

Adjust the spring length to 75 mm.

cp00834,1668856357856-19-19NOV22

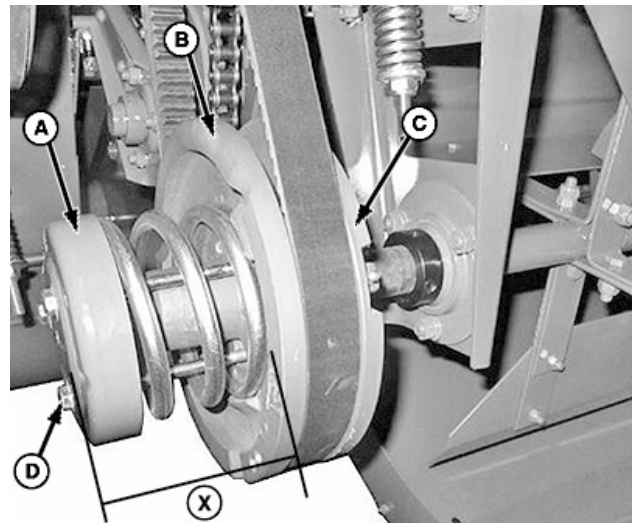
tensioner (E) automatically with the action of the spring (A).

Adjust the spring length by turning nuts (C and D) to minimize the impact on the adjustment mechanism under working conditions.

cp00834,1668856336170-19-19NOV22

Adjust Cleaning Fan Drive

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21216—UN—28NOV22

- A—Spring Retainer
- B—Sheave
- C—Sheave
- D—Bolt (3 used)
- X—Dimension

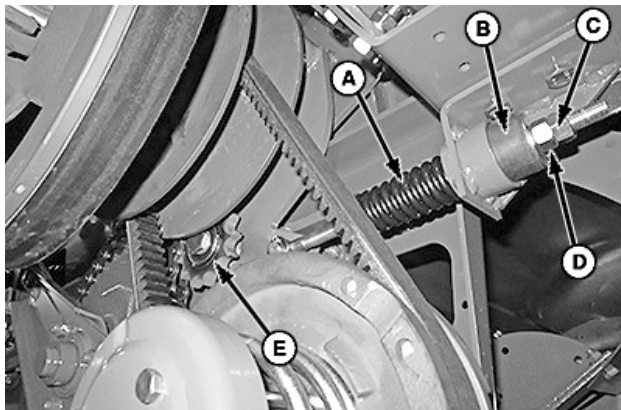
Adjust the three bolts (D) to make the dimension (X) 103 —105 mm when the sheaves (B and C) are totally closed.

NOTE: Measure the dimension from the outer surface of the spring retainer (A) to the outer surface of the sheave (B).

cp00834,1668856370296-19-19NOV22

Adjust Cleaning Shoe Drive Chain Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21215—UN—28NOV22

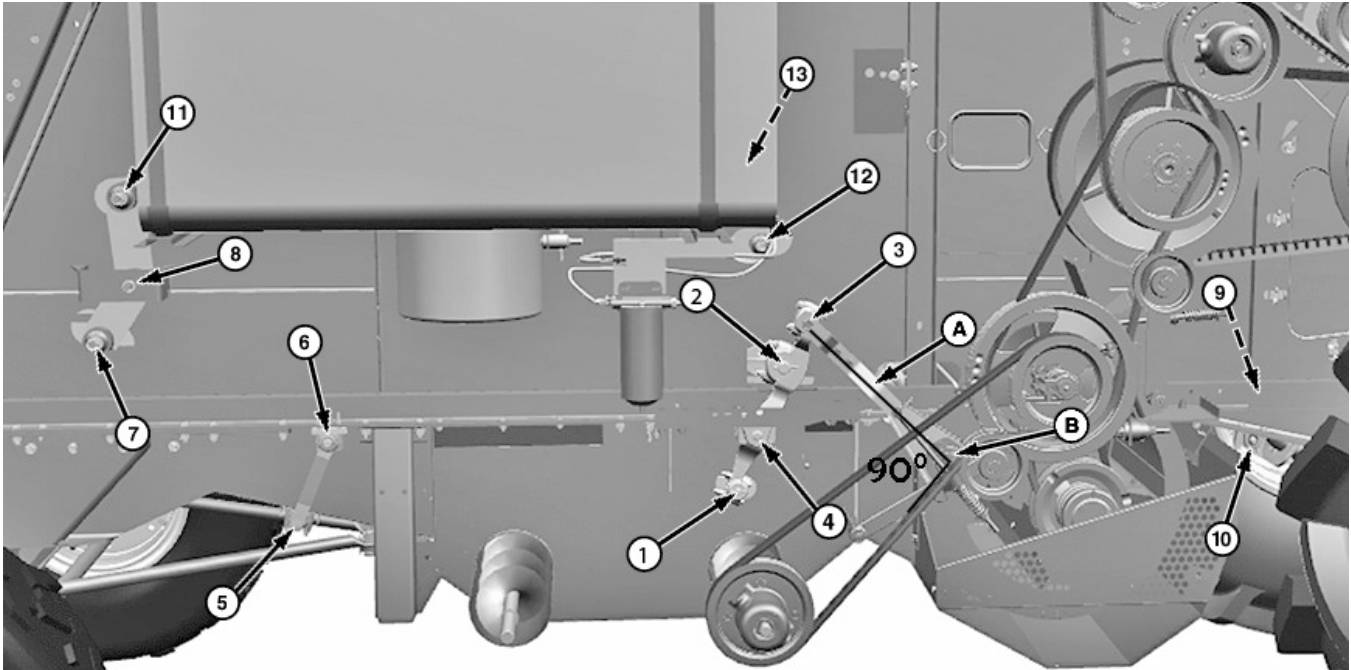
- A—Spring
- B—Rubber Bushing
- C—Nut
- D—Nut
- E—Tensioner

The cleaning shoe chain drive is tensioned by the

Replace Rubber Sleeve

CAUTION: Shut OFF engine, set park brake, and remove key.

NOTE: Replace the opposite rubber sleeve while the worn or broken rubber sleeve is replaced.



YC21217—UN—28NOV22

Rubber Sleeves (Right Side of the Machine Shown)

A—Cleaning Shoe Pitman

B—Crank

1—Rubber Sleeve

2—Rubber Sleeve

3—Rubber Sleeve

4—Rubber Sleeve

5—Rubber Sleeve

6—Rubber Sleeve

7—Rubber Sleeve

8—Rubber Sleeve

9—Rubber Sleeve

10—Rubber Sleeve

11—Rubber Sleeve

12—Rubber Sleeve

13—Rubber Sleeve

After replacing the rubber sleeves on the cleaning shoe pitman (A) and hangers, rotate the main drive sheave by hand until the centerline through the shoe pitman forms 90° angle with the line connecting the pivot shaft hub and the center of the crank (B), then tighten all the nuts.

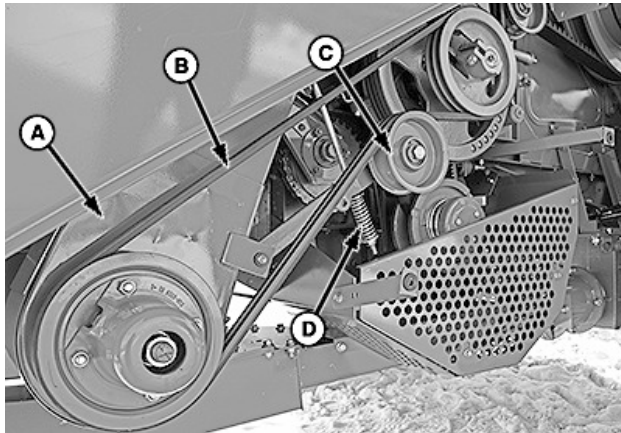
Follow the sequence (1—13) to replace all the rubber sleeves.

cp00834,1668856740209-19-19NOV22

Elevators and Unloading System Maintenance—As Required

Adjust Grain Elevator Drive Belt Tension

⚠ CAUTION: Shut OFF engine, set park brake, and remove key.



YC21246—UN—28NOV22

- A—Grain Elevator
- B—Drive Belt
- C—Tensioner
- D—Spring

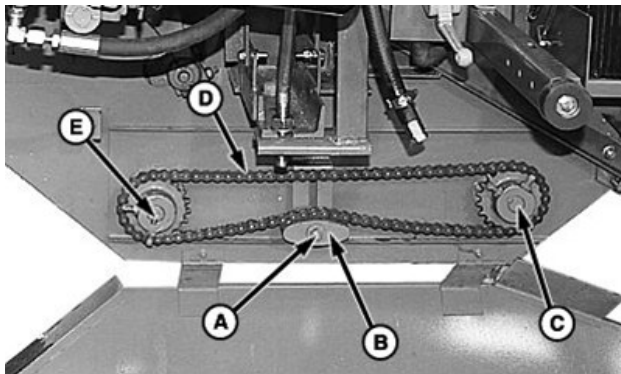
The drive belt (B) is tensioned by the tensioner (C) automatically with the action of the spring (D).

Adjust the spring length to 79—81 mm.

cp00834,1668914195212-19-19NOV22

Adjust Tailing Elevator Drive Chain Tension

⚠ CAUTION: Shut OFF engine, set park brake, and remove key.



YC21247—UN—28NOV22

- A—Nut
- B—Tensioner
- C—Lower Tailings Auger Shaft
- D—Drive Chain
- E—Lower Grain Auger Shaft

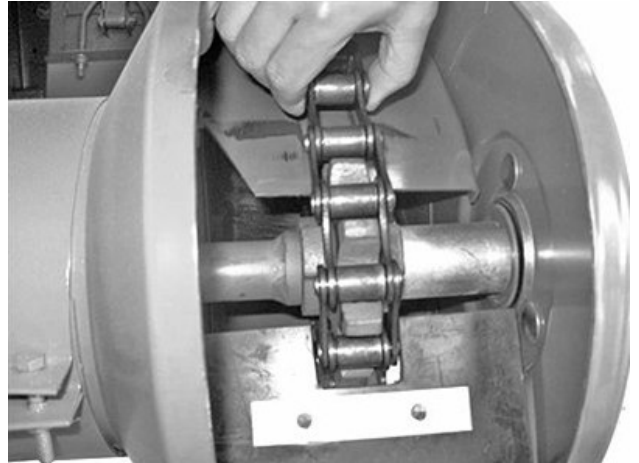
Loosen nut (A), move the tensioner (B) upward to tension the drive chain (D). Tighten the nut after adjustment.

cp00834,1668914256573-19-19NOV22

Check Elevator Conveyor Chain Tension

⚠ CAUTION: Shut OFF engine, set park brake, and remove key.

IMPORTANT: Check the clearance every day.



YC21248—UN—28NOV22

When the elevator conveyor chain is tensioned, the chain link can be moved left and right on the chain sprocket by hand.

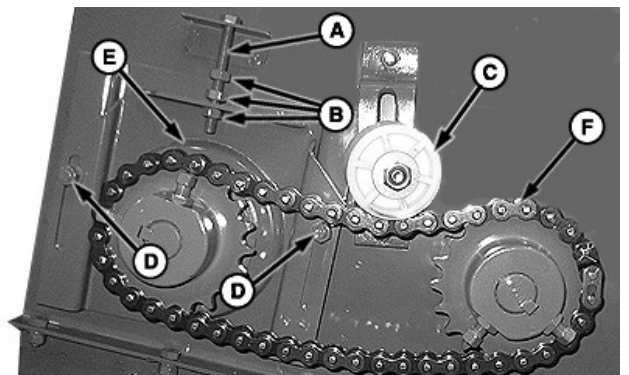
Usually the first chain link behind the chain sprocket can be lifted 6—10 mm. Adjust the elevator conveyor chain tension as necessary.

cp00834,1668914306285-19-19NOV22

Adjust Grain Elevator Conveyor Chain Tension

⚠ CAUTION: Shut OFF engine, set park brake, and remove key.

NOTE: Perform the adjustment on both sides at the same time.



YC8247—UN—05FEB15

- A—Bolt (2 used)
- B—Nut (6 used)
- C—Tensioner
- D—Nut (4 used)
- E—Bearing Housing (2 used)

F—Drive Chain

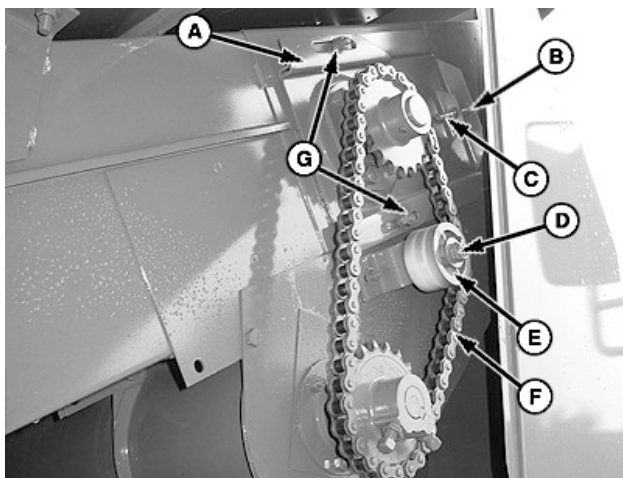
1. Loosen tensioner (C) to loosen the drive chain (F).
2. Loosen nuts (D) and adjust the position of the bearing housings (E) by turning nuts (B) on both sides.
3. Tighten nuts (B and D) and check the conveyor chain tension.
4. Tension the drive chain and tighten the tensioner (C).

cp00834,1669008221194-19-21NOV22

Adjust Tailing Elevator Conveyor Chain Tension

CAUTION: Shut OFF engine, set park brake, and remove key.

NOTE: Perform the adjustment on both sides at the same time.



YC21289—UN—28NOV22

Outside of the Tailing Elevator

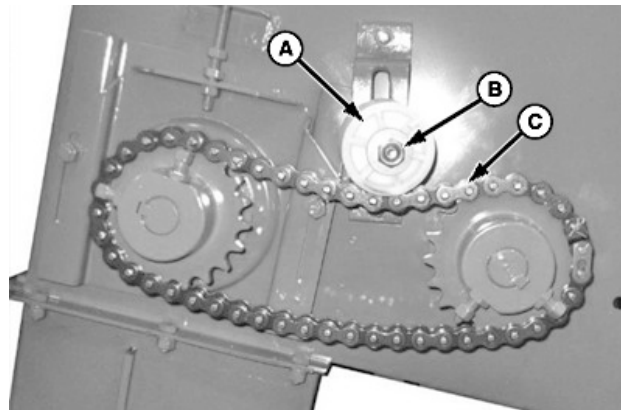
- A—Bearing Housing (2 used)
- B—Nut (6 used)
- C—Bolt (2 used)
- D—Nut
- E—Tensioner
- F—Drive Chain
- G—Nut (4 used)

1. Loosen nut (D) on the tensioner (E) to loosen the drive chain (F).
2. Loosen nuts (G) and adjust the position of the bearing housings (A) by turning nuts (B) on both sides.
3. Tighten nuts (B and G) and check the conveyor chain tension.
4. Tension chain and tighten the nut (D).

cp00834,1669008791256-19-21NOV22

Adjust Grain Leveling Auger Drive Chain Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21290—UN—28NOV22

- A—Tensioner
- B—Nut
- C—Drive Chain

Loosen nut (B) on the tensioner (A), tension the drive chain (C), and tighten the nut.

cp00834,1669008868397-19-21NOV22

Adjust Upper Tailing Auger Drive Chain Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21291—UN—28NOV22

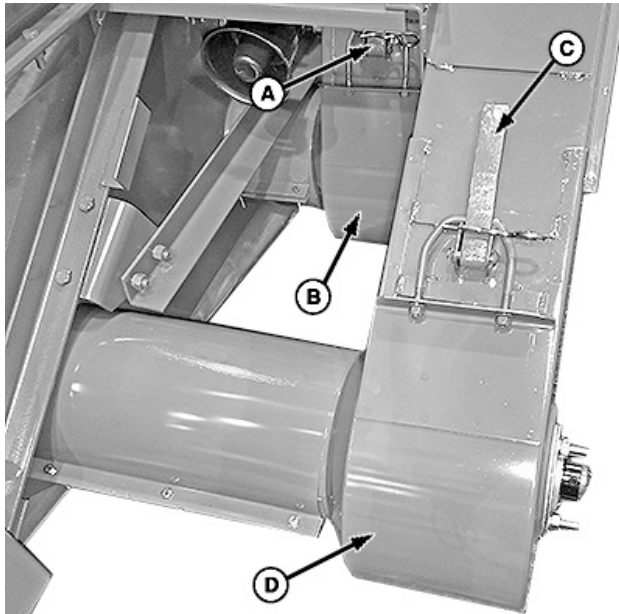
- A—Nut
- B—Tensioner
- C—Drive Chain

Loosen nut (A) on the tensioner (B), tension the drive chain (C), and tighten the nut.

cp00834,1669009405434-19-21NOV22

Clean Elevators

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21292—UN—28NOV22

- A—Handle
- B—Grain Elevator Door
- C—Handle
- D—Tailing Elevator Door

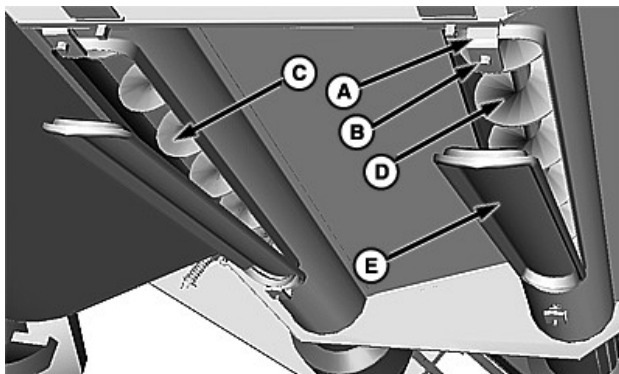
Before operating the machine every day or the harvesting crops change, clean the elevators.

Open the grain elevator door (B) and the tailing elevator door (D) by moving the handles (A and C).

cp00834,1669009889101-19-21NOV22

Clean Lower Grain Auger and Tailing Auger

CAUTION: Shut OFF engine, set park brake, and remove key.



YC8552—UN—24APR15

- A—Retaining Clip (2 used)
- B—Nut (2 used)
- C—Grain Auger
- D—Tailing Auger

E—Auger Cover (2 used)

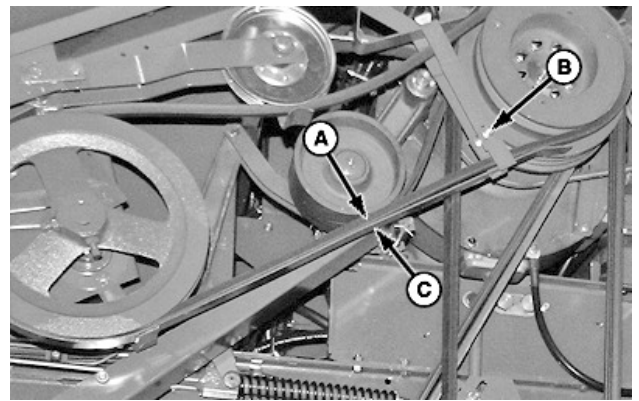
After operating the machine for some time or the harvesting crops change, clean the lower augers.

Remove nuts (B) and the retaining clips (A), open the auger covers (E) to clean the tailing auger (D) and the grain auger (C).

cp00834,1669009982875-19-21NOV22

Adjust Unloading System Drive Belt and Belt Guide Clearance

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21293—UN—28NOV22

- A—Drive Belt
- B—Nut (2 used)
- C—Belt Guide

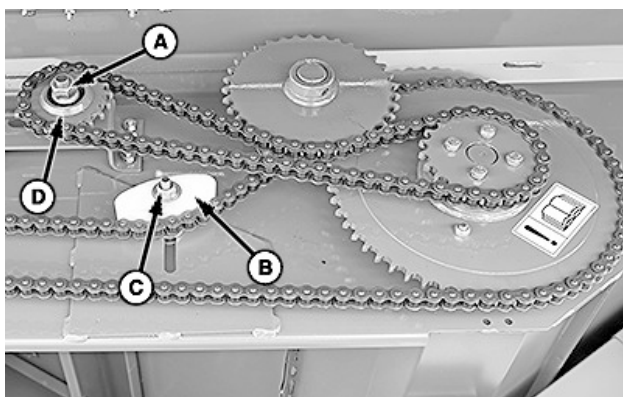
When the unloading system is engaged, the clearance between the drive belt (A) and the belt guide (C) should be 3—5 mm (0.12—0.20 in).

If the clearance value is out of range, loosen the nuts (B) and adjust the belt guide. Tighten the nuts after adjustment.

cp00834,1669010268088-19-21NOV22

Adjust Cross Auger/Unloading Impeller Drive Chain Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



A—Nut
B—Tensioner
C—Nut
D—Tensioner

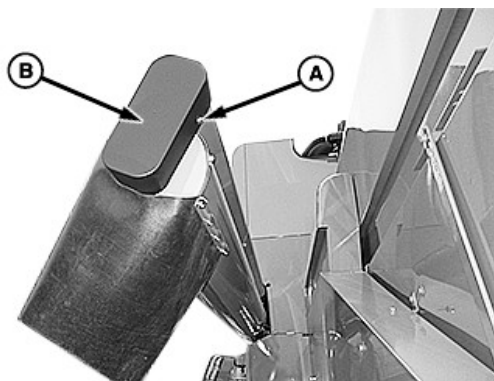
Loosen nuts (A and C), tension the drive chains, and tighten the nuts.

YC21295—UN—28NOV22

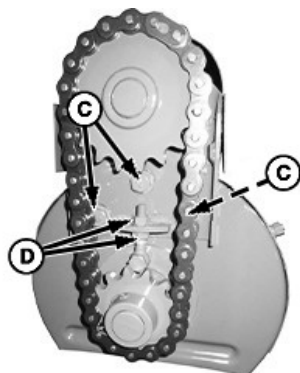
cp00834,1669011003707-19-21NOV22

Adjust Unloading Auger Drive Chain Tension

CAUTION: Shut OFF engine, set park brake, and remove key.



YC10851—UN—08DEC16



YC21296—UN—28NOV22

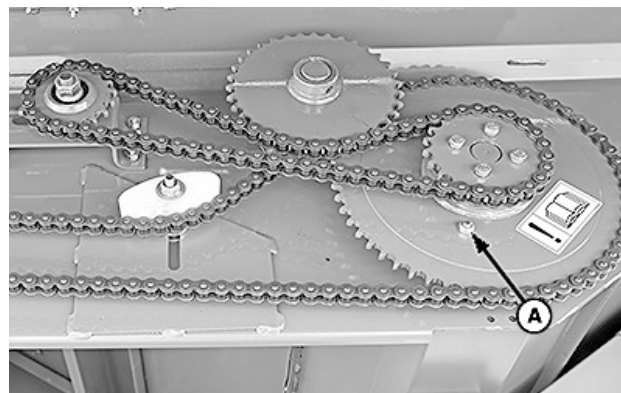
A—Cap Screw (2 used)
B—Cover
C—Nut (3 used)
D—Nut (2 used)

- 1.Remove cap screws (A) and cover (B).
- 2.Loosen nuts (C and D), tension the drive chain, and tighten the nuts.

cp00834,1669011322503-19-21NOV22

Replace Unloading Auger Drive Shear Bolt

CAUTION: Shut OFF engine, set park brake, and remove key.



YC21294—UN—28NOV22

A—Shear Bolt

The shear bolt (A) protect the unloading system.

Use only John Deere supplied shear bolt, see an authorized John Deere dealer for shear bolt.

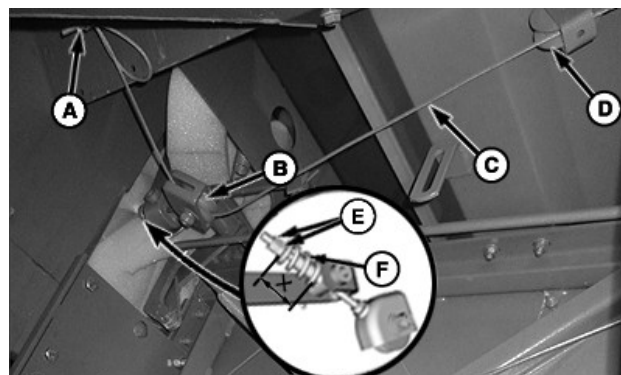
Specification

Unloading System Shear Bolt—Torque.	15 N·m (11 lb·ft)
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cp00834,1669010796871-19-21NOV22

Adjust Unloading Auger Automatic Cut-Out Device

CAUTION: Shut OFF engine, set park brake, and remove key.



YC8298—UN—06FEB15

A—Clamp

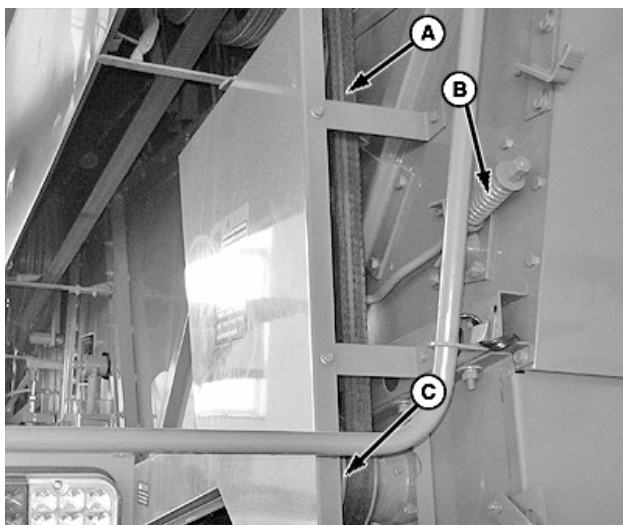
B—Pulley
C—Wire Rope
D—Guide Pulley
E—Nut (2 used)
F—Spring
G—Length (39 mm)

Swing out the unloading auger. Adjust nuts (E) to change length of spring (F) until the length (X) is 39 mm. If wire rope has stretched too much, adjust clamp (A) to shorten.

cp00834,1669012327255-19-21NOV22

Residue Maintenance—As Required

Adjust Straw Chopper Drive Belt Tension



A—Drive Belt
B—Spring
C—Drive Pulley

The straw chopper drive belt (A) is tensioned automatically by the tensioners at the action of spring (B). Adjust the length of the spring according to the working condition.

The adjustment principle is that the drive belt does not overheat under normal working load.

cp00834,1668856177284-19-19NOV22

Replace Straw Chopper Rotating Blades

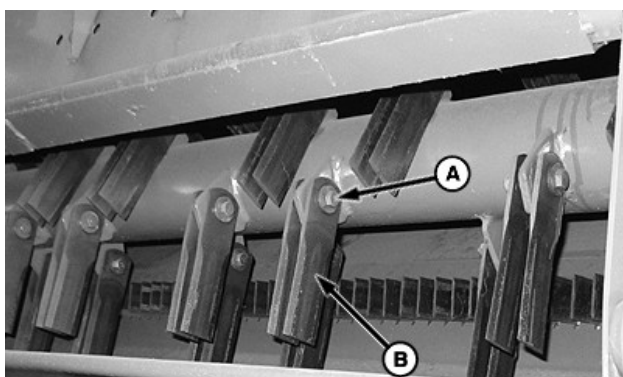
CAUTION: Shut OFF engine, set park brake, and remove key.

To avoid personal injury, secure the rotor before replacing the chopper blades.

IMPORTANT: Broken chopper blades can cause vibration.

Do not use blades that have been resharpened.

Do not use blades that have become blunt.



YC8240—UN—28JAN15

A—Self-Locking Nut and Bolt (10.9 Grade, M10×50)
B—Rotating Blade

Replace the broken blade and the opposite direction blade by the new ones with almost the same weight at the same time.

Remove the self-locking nut and bolt (A), replace the blade with a new one, and tighten bolt to specification.

Specification

Straw Chopper Rotating Blade

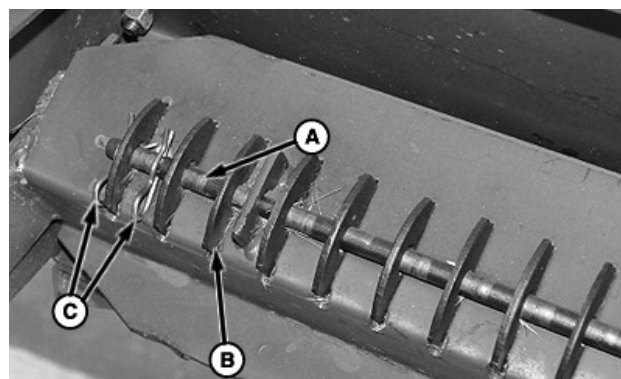
Bolt—Torque. 50 N·m

cp00834,1659688542788-19-05AUG22

Replace Straw Chopper Stationary Counter Blades

CAUTION: Shut OFF engine, set park brake, and remove key.

Be careful, the stationary counter blade is sharp.



YC8244—UN—04FEB15

A—Retaining Rod
B—Stationary Counter Blade
C—Cotter Pin (2 used)

1. Remove the cotter pins (C).
2. Pull the retaining rod (A) out.
3. Replace the broken or blunt blade with a new one.
4. Install the retaining rod and cotter pins.

cp00834,1659688548302-19-05AUG22

Troubleshooting

Feeder House

Symptom	Problem	Solution
Uneven or Bunched Feeding of Crop to Threshing Cylinder	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 header operator's manual.
	Floating drum arms bind up to the side sheet on one side.	Loosen and tension chain again. Straighten or replace bent parts.
	Feeder conveyor chain too tight and holds floating drum up.	Adjust conveyor chain to correct tension.
	Header drive belt slipping.	Adjust idler to tension the drive belt.
	Auger too far ahead of stripper.	Adjust auger back to stripper. See header operator's manual.
	Feeder conveyor 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 the feeder house bottom.
	Too great a distance between platform auger and feeder house front drum.	Add links to the 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 header operator's manual.

CP00834,0008B71-19-17MAR21

Threshing and Cleaning System

Symptom	Problem	Solution
Grain Not Threshed	Threshing speed too slow for crop.	Increase the threshing speed. After adjustment check the grain quality.
	Concave clearance too wide.	Reduce the concave clearance. After adjustment check the grain quality.
	Concave clearance not even from front to rear.	Adjust the concave leveling.
	Not enough material entering combine for proper threshing.	Increase the ground speed.

Troubleshooting

Symptom	Problem	Solution
Too Much Cracked Grain in Tank	Threshing speed too fast for crop.	Reduce the threshing speed. After adjustment check the grain quality.
	Concave clearance too small.	Increase the concave clearance. After adjustment check the grain quality.
	Excessive grain in tailings.	Slightly increase the sieve opening.
	Not enough material entering machine.	Increase the ground speed.
Dirty Grain Tank	Threshing not enough.	Increase the threshing speed. After adjustment check the grain quality.
		Reduce the concave clearance. After adjustment check the grain quality.
		Check the concave leveling.
	Cleaning fan speed too slow.	Increase the cleaning fan speed.
Loss of Grain Over Cleaning Shoe	Incorrect chaffer/sieve opening.	Check and calibrate chaffer/sieve opening.
	Incorrect distribution of chaff/grain on cleaning shoe.	Adjust the cleaning fan speed.

CP00834,0008B72-19-17MAR21

Ground Drive System (Mechanical Drive)

Symptom	Problem	Solution
Machine Will Not Move Forward or Reverse	Transmission out of gear.	Shift transmission.
	Posi-Torq™ lower unit not work.	Lubricate the Posi-Torq™ lower unit.
Transmission Hard to Shift or Will Not Shift	Clutch not disengaged.	Adjust the clutch clearance.
	Gearshift control cable out of adjustment.	Adjust the gearshift control cable.
	Damaged, dirty, rusty, or pinched gearshift control cable.	Inspect, clean, adjust, or replace the gearshift control cable.
	Internal transmission problem.	See your John Deere dealer.
Ground Travel Speed Erratic	Low hydraulic oil.	Check for leaks and correct. Fill the hydraulic oil reservoir.

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Ground Drive System (Hydrostatic Drive)

Symptom	Problem	Solution
Hydrostatic Drive Lever Will Not Go in Reverse	Bent or broken parts in control linkage.	Repair or replace as required.
Linkages Binding	Frozen or worn ball joints on control cable.	Lubricate or replace.
	Bell crank or pivots binding.	Lubricate or replace.
	Control cable kinked or frozen.	Replace if needed.
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 the oil 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 from hydrostatic pump shaft.	Replace the hydrostatic pump shaft seal.
Machine Will Not Move Forward or Reverse	Transmission out of gear.	Shift transmission.
	Low oil level.	Check for leaks and correct. Fill hydraulic reservoir.
	Air leak in system.	Tighten connections.
	Control linkages broken or loose.	Tighten loose linkages or replace as needed.
	Lack of charge flow or charge pressure.	See your John Deere dealer.
	Plugged oil filter.	Change the oil filter.
	Exceeding maximum operating pressure setting.	Shift to lower gear.
	Drive system unable to buildup pressure.	See your John Deere dealer.

Troubleshooting

Symptom	Problem	Solution
	Relief valve open.	See your John Deere dealer.
Transmission Hard to Shift or Will Not Shift	Hydrostatic drive lever not in neutral.	Move the hydrostatic drive lever to neutral.
	Gearshift control cable out of adjustment.	Adjust the gearshift control cable.
	Damaged, dirty, rusty, or pinched gearshift control cable.	Inspect, clean, adjust, or replace cable.
	Internal transmission problem.	See your John Deere dealer.
Ground Travel Speed Erratic	Low hydraulic oil.	Check for leaks and correct. Fill hydraulic reservoir.
	Plugged oil filter.	Change the hydrostatic charge oil filter.
	Exceeding maximum operating pressure setting.	Shift to lower gear or engage the rear-wheel drive.
	Hydrostatic drive lever creeps toward neutral.	See your John Deere dealer.
	System unable to keep charge pressure.	See your John Deere dealer.
Machine Will Not Stop When Hydrostatic Drive Lever is in Neutral Position	Control cable out of adjustment.	Adjust cable for neutral position.
Lack of Power or Lost Power. Machine Not Responding to Hydrostatic Drive Lever	Low hydraulic oil level.	Check for leaks and correct. Fill hydraulic reservoir.
	Plugged filter.	Change the hydrostatic charge oil filter.
	Lack of charge flow or charge pressure.	See your John Deere dealer.
	Drive system unable to keep or buildup pressure.	See your John Deere dealer.
	System detects ground drive faults.	See your John Deere dealer.

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Steering System

Symptom	Problem	Solution
Rear Wheels Wander During Transport Speeds	Toe-in out of adjustment.	Adjust toe-in.

Troubleshooting

Symptom	Problem	Solution
Steering Arms Do Not Contact Stops at Full Turns	Steering cylinder out of adjustment.	Adjust the steering cylinder.
Hard Steering	Low oil level in hydraulic reservoir.	Add hydraulic oil.

CP00834,0008B75-19-17MAR21

Brake System

Symptom	Problem	Solution
Spongy Brake Pedal Pressure	Low brake fluid level.	Add the brake fluid.
	Air in system.	Bleed the brake system.
Loss of Braking Power	Service brake not adjusted properly.	Adjust the service brake.
Parking Brake Not Holding	Park brake not adjusted properly.	Adjust the park brake.

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Engine

Symptom	Problem	Solution
Engine Will Not Crank	Weak battery.	Charge or replace battery.
	Corroded or loose battery connections.	Clean the battery terminals and connections.
	Defective battery disconnect switch or start safety switch.	Repair switch as required.
	Starter defective.	Replace starter.
Engine Hard to Start or Will Not Start	Starting system problem.	Starting system not strong enough to start engine Perform steps found in Engine Will Not Crank.
	Poor fuel quality.	Drain fuel and replace with quality fuel of the proper grade.
	Slow cranking speed.	Check for problem in the charging/starting system.
	Too high viscosity engine oil.	Drain engine oil and replace with correct viscosity oil.
	Electronic control system problem or basic engine problem.	See your John Deere dealer.
Engine Misfiring or Runs Irregularly	Poor fuel quality.	Drain fuel and replace with quality fuel of the proper grade.

Symptom	Problem	Solution
Lack of Engine Power	Electronic control system problem or basic engine problem.	See your John Deere dealer.
	Poor fuel quality.	Drain fuel and replace with quality fuel of the proper grade.
	Plugged fuel filter.	Replace the fuel filters.
	Engine overloaded.	Reduce the engine load.
	Improper engine oil.	Drain engine oil and replace with correct viscosity oil.
	Electronic control system problem or basic engine problem.	See your John Deere dealer.
	Engine is in derate because of an active diagnostic trouble code.	See your John Deere dealer.
Engine Emits Black or Gray Smoke	Engine is in derate because exhaust filter cleaning is required.	Engage the exhaust filter auto cleaning mode and request a manual exhaust filter cleaning.
	Engine overloaded.	Reduce the engine load.
	Improper type of fuel.	Use proper fuel.
	Air cleaner restricted or dirty.	Replace the air cleaner element as required.
	Defective muffler/exhaust piping (causing backpressure).	Replace muffler or defective piping.
	Electronic control system problem or basic engine problem.	See your John Deere dealer.
	Fuel injectors dirty.	See your John Deere dealer.
	High-pressure fuel pump out of time.	See your John Deere dealer.
Engine Emits White Smoke	Turbocharger not functioning.	See your John Deere dealer.
	Exhaust filter is cracked or damaged.	See your John Deere dealer.
	Engine compression too low.	Determine cause of low compression and repair as required. See your John Deere dealer.
	Improper type of fuel.	Use proper fuel.
	Low engine temperature.	Warm up engine to the normal operating temperature.

Symptom	Problem	Solution
	Defective thermostat(s).	Test thermostats; replace thermostats as required.
	Coolant entering combustion chamber (failed cylinder head gasket or cracked cylinder head).	Repair or replace as required. See your John Deere dealer.
	Electronic control system problem or basic engine problem.	See your John Deere dealer.
	Defective fuel injectors.	See your John Deere dealer.
	High-pressure fuel pump out of time.	See your John Deere dealer.
Engine Idles Poorly.	Poor fuel quality.	Drain fuel and replace with quality fuel of the proper grade.
	Air leak on suction side of air intake system.	Check hose and pipe connections for tightness; repair as required.
	Electronic control system problem or basic engine problem.	See your John Deere dealer.
Excessive Fuel Consumption.	Poor fuel quality.	Drain fuel and replace with quality fuel of the proper grade.
	Engine overloaded.	Reduce the engine load.
	Air cleaner restricted or dirty.	Replace the air cleaner element as required.
	Compression too low.	Determine cause of low compression and repair as required.
	Leaks in fuel supply system.	Locate source of leak and repair as required.
	Improper type of fuel.	Use the proper type of fuel.
	Poor fuel quality.	Drain fuel and replace with quality fuel of the proper grade.
	Improper valve clearance.	See your John Deere dealer.
	Fuel injectors defective.	See your John Deere dealer.
	High-pressure fuel pump out of time.	See your John Deere dealer.
	Improper turbocharger operation.	Inspect turbocharger. See your John Deere dealer.
	Low engine temperature.	Check thermostats.

Troubleshooting

Symptom	Problem	Solution
Fuel in Oil	Cracked cylinder head.	Locate crack, repair/replace components as required. See your John Deere dealer.
	Cracked or worn electronic unit injector O-ring.	Remove the suspected electronic unit injector and replace O-ring as required. See your John Deere dealer.
Low Fuel Pressure	Plugged fuel filter.	Replace the fuel filter.
	Restricted fuel line.	Locate restriction, repair as required.
	Faulty fuel transfer pump.	Remove the fuel transfer pump; repair/replace pump as required. See your John Deere dealer.
Fuel Aeration	Electronic unit injector hold-down clamp loose.	Tighten the hold-down clamp cap screw to proper torque. See your John Deere dealer.
	Cracked or worn electronic unit injector O-ring.	Remove the suspected electronic unit injector and replace O-ring as required. See your John Deere dealer.
Low Engine Oil Pressure	Low engine oil level.	Fill engine to the proper oil level.
	Engine oil level too high.	Fill engine to the proper oil level.
	Faulty engine oil pressure sensor.	Replace sensor. See your John Deere dealer.
	Clogged engine oil cooler or filter.	Remove and inspect oil cooler. See your John Deere dealer.
	Excessive engine oil temperature.	Remove and inspect the engine oil cooler. See your John Deere dealer.
	Defective engine oil pump.	Remove and inspect the engine oil pump. See your John Deere dealer.
	Incorrect engine oil.	Drain the engine oil and refill with correct oil.
	Broken fuel injectors.	Replace the fuel injectors. See your John Deere dealer.
	Clogged engine oil pump screen or cracked pick-up tube.	Remove the oil pan and clean the screen/replace pick-up tube.
High Oil Pressure	Excessive main or connecting rod bearing clearance.	Determine the bearing clearance. See your John Deere dealer.
	Improper engine oil classification.	Drain engine oil and refill with correct oil.

Symptom	Problem	Solution
Excessive Oil Consumption	Faulty engine oil pressure sensor.	Replace sensor. See your John Deere dealer.
	Plugged fuel injectors.	Replace the fuel injectors. See your John Deere dealer.
	Too low viscosity crankcase oil.	Drain engine oil and refill with correct viscosity oil.
	Engine oil level too high.	Drain engine oil until oil level is correct.
	External engine oil leak(s).	Determine source of oil leak(s) and repair as required.
	Oil control rings not seated.	See your John Deere dealer.
	Oil control rings worn or broken.	Replace piston rings. See your John Deere dealer.
	Scored cylinder liners or pistons.	Remove and inspect cylinders and liners; replace as required. See your John Deere dealer.
	Worn valve guides or stems.	Inspect and measure the valve stems and the valve guides; repair as required. See your John Deere dealer.
	Excessive engine oil pressure	See High Oil Pressure earlier in this section.
	Piston ring grooves excessively worn.	Remove and inspect pistons. See your John Deere dealer.
	Piston rings sticking in ring grooves.	Remove and inspect pistons. See your John Deere dealer.
	Insufficient piston ring tension.	Remove and inspect pistons. See your John Deere dealer.
	Piston ring gaps not staggered.	Remove and inspect pistons. See your John Deere dealer.
	Front and/or rear crankshaft oil seal faulty.	Replace oil seals. See your John Deere dealer.
Turbocharger "Whistles"	Air leak in intake manifold.	Check the intake manifold gasket and manifold; repair as required. See your John Deere dealer.
Oil on Turbocharger Compressor Wheel or in Compressor Housing (Oil Being Pushed or Pulled through Center Housing)	Excessive crankcase pressure.	Determine cause of the excessive crankcase pressure; repair as required. See your John Deere dealer.

Symptom	Problem	Solution
Oil in Intake Manifold or Dripping from Turbocharger Housing	Air intake restriction.	Determine cause of the intake restriction; repair as required. See your John Deere dealer.
	Drain tube restriction.	Determine cause of the drain tube restriction; repair as required. See your John Deere dealer.
	Excessive crankcase pressure.	Determine cause of the excessive crankcase pressure; repair as required. See your John Deere dealer.
	Air intake restriction.	Determine cause of the intake restriction; repair as required. See your John Deere dealer.
	Drain tube restriction.	Determine cause of the drain tube restriction; repair as required. See your John Deere dealer.
	Damaged or worn housing bearings.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Unbalance of rotating assembly.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Damage to turbine or compressor wheel or blade.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Dirt or carbon buildup on wheel or blade.	Check for the air intake leaks (post air filter). Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Bearing wear.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
Turbocharger Turbine Wheel Drag	Oil starvation or insufficient lubrication.	Determine cause of lack of lubrication; repair as required. See your John Deere dealer.
	Shaft seals worn.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Carbon buildup behind turbine wheel caused by coked oil or combustion deposits.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.

Symptom	Problem	Solution
Engine Overheats	Dirt buildup behind compressor wheel caused by air intake leaks.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Bearing seizure or dirty, worn bearings.	Inspect turbocharger; repair/replace as required. See your John Deere dealer.
	Engine overloaded.	Reduce the engine load.
	Low coolant level.	Fill the cooling system to the proper level, check radiator, and hoses for loose connections or leaks.
	Defective surge tank cap.	Replace the surge tank cap as required.
	Loose or defective fan belt.	Replace the fan belt as required. Check the belt tensioner.
	Low engine oil level.	Check the engine oil level. Add engine oil as required.
	Cooling system needs flushing.	Flush the cooling system.
	Defective thermostat(s).	Remove and check thermostats as required.
	Defective temperature gauge or sender.	Check the coolant temperature with thermometer and replace, if necessary.
	Incorrect grade of fuel.	Use correct grade of fuel.
	Radiator core dirty.	Clean radiator as required.
	Too low engine oil level.	Fill engine to the proper oil level.
	Damaged cylinder head gasket.	Replace the cylinder head gasket. See your John Deere dealer.
Coolant in Crankcase	Defective coolant pump.	Replace the coolant pump. See your John Deere dealer.
	Cylinder head gasket defective.	Replace the cylinder head gasket. See your John Deere dealer.
	Cylinder head or block cracked.	Locate crack, repair/replace components as required.
	Cylinder liner seals leaking.	Remove and inspect the cylinder liners. See your John Deere dealer.

Troubleshooting

Symptom	Problem	Solution
	Leaking oil cooler.	Pressure test to the oil cooler; repair/replace as required. See your John Deere dealer.
	Defective oil cooler O-rings.	Remove and inspect the oil cooler O-rings; replace as required. See your John Deere dealer.
	Faulty coolant pump seal; weep hole plugged; coolant leaking through bearing.	Replace the coolant pump seals. See your John Deere dealer.
Coolant Temperature Below Normal	Defective thermostat(s).	Test thermostats; replace thermostats as required.

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Electrical System

Symptom	Problem	Solution
Undercharged System	Excessive electrical load from added accessories.	Remove accessories or install higher output alternator.
	Excessive engine idling.	Increase engine rpm when the heavy electrical load is used.
	Poor electrical connections on battery, ground strap, starter, or alternator.	Inspect and clean as necessary.
	Defective battery.	Test battery.
	Defective alternator.	Test charging system.
Battery Will Not Charge	Loose or corroded connections.	Clean and tighten connections.
	Sulfated or worn-out battery.	See your John Deere dealer.
	Stretched belt or defective belt tensioner.	Adjust belt tension or replace belt.
Starter Will Not Crank	Engine drivelines engaged.	Disengage the engine drivelines.
	Loose or corroded connections.	Clean and tighten loose connections.
	Low battery output voltage or discharged battery.	Charge or replace battery.
	Faulty start circuit relay.	See your John Deere dealer.
	Blown fuse.	Replace fuse.
		Clean the battery terminals and connections.

Troubleshooting

Symptom	Problem	Solution
Starter Cranks Slowly	Defective battery disconnect switch.	Repair switch as required.
	Starter defective.	Replace starter.
	Low battery output.	Charge battery.
	Engine oil too heavy.	Use proper viscosity oil.
	Loose or corroded connections.	Clean and tighten loose connections.
Entire Electrical System Does Not Function	Faulty battery connection.	Clean and tighten connections.
	Sulfated or worn-out battery.	Replace battery.
	Blown fuse.	Replace fuse.

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Hydraulic System

Symptom	Problem	Solution
High Oil Loss	Loose connections or leaking hydraulic lines, hoses, or O-rings.	Tighten connections or replace damaged lines, hoses, or O-rings.
Hydraulic Cylinder Hard to Action or Will Not Action	Low hydraulic oil.	Check for leaks and correct. Fill hydraulic reservoir.
	Air leak in system.	Tighten connections.
	Hydraulic system unable to buildup pressure.	See your John Deere dealer.
	Relief valve open.	See your John Deere dealer.

CP00834,0008B79-19-17MAR21

Specifications

Specifications

4LZ-9 (C120) Full-Feeder Combine

Model	4LZ-9 (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	215R/215F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤3.0% (rice)	
Threshing Loss Rate (%)	≤2.5% (rice)	
Crushing Rate (%)	≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (rice)	
Cutting Width (mm)	4610	
Minimum Cross Radius (m)	8.3	
Dimension (mm, L x W x H)	9530 × 5000 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9180 (without cutting platform, mechanical drive) 9570 (without cutting platform, hydrostatic drive) 10485 (with cutting platform, mechanical drive, with rear wheel drive) 10380 (with cutting platform, mechanical drive) 10875 (with cutting platform, hydrostatic drive, with rear wheel drive) 10770 (with cutting platform, hydrostatic drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93
NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.		

4LZ-9A (C120) Full-Feeder Combine

Model	4LZ-9A (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	215R/215F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤1.2% (wheat) ; ≤3.0% (rice)	
Threshing Loss Rate (%)	≤1.0% (wheat) ; ≤2.5% (rice)	
Crushing Rate (%)	≤1.0% (wheat) ; ≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (wheat) ; ≤2.0% (rice)	
Cutting Width (mm)	4610	
Minimum Cross Radius (m)	8.3	
Dimension (mm, L x W x H)	9530 × 5000 × 3800 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9180 (without cutting platform, mechanical drive) 9570 (without cutting platform, hydrostatic drive) 10380 (with 215R, mechanical drive) 10500 (with 215F, mechanical drive) 10770 (with 215R, hydrostatic drive) 10890 (with 215F, hydrostatic drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93
NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, wheat-straw ratio of 0.6—1.2, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.		

Specifications

4LZ-9B (C120) Full-Feeder Combine

Model	4LZ-9B (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	218R/218F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤1.2% (wheat) ; ≤2.8% (rice)	
Threshing Loss Rate (%)	≤1.0% (wheat) ; ≤2.5% (rice)	
Crushing Rate (%)	≤1.0% (wheat) ; ≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (wheat) ; ≤2.0% (rice)	
Cutting Width (mm)	5405	
Minimum Cross Radius (m)	8.9	
Dimension (mm, L x W x H)	9600 × 5730 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9180 (without cutting platform) 10680 (with 218R) 10800 (with 218F)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥98%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93

NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, wheat-straw ratio of 0.6—1.2, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.

4LZ-9C (C120) Full-Feeder Combine

Model	4LZ-9C (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	212R/212F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤1.2% (wheat) ; ≤3.0% (rice)	
Threshing Loss Rate (%)	≤1.0% (wheat) ; ≤2.5% (rice)	
Crushing Rate (%)	≤1.0% (wheat) ; ≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (wheat) ; ≤2.0% (rice)	
Cutting Width (mm)	3725	
Minimum Cross Radius (m)	8.1	
Dimension (mm, L x W x H)	9530 × 4150 × 3800 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9180 (without cutting platform, mechanical drive) 9570 (without cutting platform, hydrostatic drive) 10060 (with 212R, mechanical drive) 10210 (with 212F, mechanical drive) 10450 (with 212R, hydrostatic drive) 10600 (with 212F, hydrostatic drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93

NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, wheat-straw ratio of 0.6—1.2, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.

Specifications

4LZ-9D (C120) Full-Feeder Combine

Model	4LZ-9D (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	218R/218F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤1.2% (wheat) ; ≤3.0% (rice)	
Threshing Loss Rate (%)	≤1.0% (wheat) ; ≤2.5% (rice)	
Crushing Rate (%)	≤1.0% (wheat) ; ≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (wheat) ; ≤2.0% (rice)	
Cutting Width (mm)	5405	
Minimum Cross Radius (m)	8.9	
Dimension (mm, L x W x H)	9600 × 5730 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9285 (without cutting platform) 10785 (with 218R) 10905 (with 218F)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93

NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, wheat-straw ratio of 0.6—1.2, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.

4LZ-9E (C120) Full-Feeder Combine

Model	4LZ-9E (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	218R/218F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤1.2% (wheat) ; ≤3.0% (rice)	
Threshing Loss Rate (%)	≤1.0% (wheat) ; ≤2.5% (rice)	
Crushing Rate (%)	≤1.0% (wheat) ; ≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (wheat) ; ≤2.0% (rice)	
Cutting Width (mm)	5405	
Minimum Cross Radius (m)	8.9	
Dimension (mm, L x W x H)	9530 × 5800 × 3800 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9570 (without cutting platform) 11070 (with 218R) 11190 (with 218F)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93

NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, wheat-straw ratio of 0.6—1.2, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.

4LZ-9F (C120) Full-Feeder Combine

Model	4LZ-9F (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	218R/218F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	

Specifications

Total Loss Rate (%)	≤1.2% (wheat) ; ≤3.0% (rice)	
Threshing Loss Rate (%)	≤1.0% (wheat) ; ≤2.5% (rice)	
Crushing Rate (%)	≤1.0% (wheat) ; ≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (wheat) ; ≤2.0% (rice)	
Cutting Width (mm)	5405	
Minimum Cross Radius (m)	8.9	
Dimension (mm, L x W x H)	9530 × 5800 × 3800 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9675 (without cutting platform) 11175 (with 218R) 11295 (with 218F)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93
NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, wheat-straw ratio of 0.6—1.2, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.		

4LZ-9G (C120) Full-Feeder Combine

Model	4LZ-9G (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	215R/215F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤3.0% (rice)	
Threshing Loss Rate (%)	≤2.5% (rice)	
Crushing Rate (%)	≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (rice)	
Cutting Width (mm)	4610	
Minimum Cross Radius (m)	8.3	
Dimension (mm, L x W x H)	9530 × 5000 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9180 (without cutting platform, mechanical drive) 10380 (with cutting platform, mechanical drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93
NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.		

4LZ-9H (C120) Full-Feeder Combine

Model	4LZ-9H (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	215R/215F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤3.0% (rice)	
Threshing Loss Rate (%)	≤2.5% (rice)	
Crushing Rate (%)	≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (rice)	
Cutting Width (mm)	4610	
Minimum Cross Radius (m)	8.3	

Specifications

Dimension (mm, L x W x H)	9530 × 5000 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9180 (without cutting platform, mechanical drive) 10485 (with cutting platform, mechanical drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93
<i>NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.</i>		

4LZ-9J (C120) Full-Feeder Combine

Model	4LZ-9J (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	215R/215F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤3.0% (rice)	
Threshing Loss Rate (%)	≤2.5% (rice)	
Crushing Rate (%)	≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (rice)	
Cutting Width (mm)	4610	
Minimum Cross Radius (m)	8.3	
Dimension (mm, L x W x H)	9530 × 5000 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9570 (without cutting platform, hydrostatic drive) 10770 (with cutting platform, hydrostatic drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93
<i>NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.</i>		

4LZ-9K (C120) Full-Feeder Combine

Model	4LZ-9K (C120) Full-Feeder Combine	
Type	Self-Propelled Full-Feeder Combine	
FEE Solutions Available	215R/215F Cutting Platform	
Gear (Operating in the Field)	First, Second, and Third Gear	
Feeding Rate (kg/s)	9.0	
Total Loss Rate (%)	≤3.0% (rice)	
Threshing Loss Rate (%)	≤2.5% (rice)	
Crushing Rate (%)	≤1.5% (rice)	
Impurity Rate (%)	≤2.0% (rice)	
Cutting Width (mm)	4610	
Minimum Cross Radius (m)	8.3	
Dimension (mm, L x W x H)	9530 × 5000 × 3970 (with cutting platform) 7230 × 3150 × 3800 (without cutting platform)	
Weight (Kg)	9570 (without cutting platform, hydrostatic drive) 10875 (with cutting platform, hydrostatic drive)	
Reliability	Mean Time Between Failures (MTBF)	≥50 Hours
	Availability	≥93%
Noise (dB)	Dynamic Ambient Noise	≤87
	Operator Ear Noise	≤93

Specifications

NOTE: Operating performance of combine is under conditions of standard feeding rate, no weeds above cutting line, crops upright, grain moisture content of 12%—20%, rice-straw ratio of 1.0—2.4, grain moisture content of 15%—28%.

4YL-6 (C120) Corn Combine

Model	4YL-6 (C120) Corn Combine
Type	Self-Propelled Corn Combine
FEE Solutions Available	206C Corn Header TR1688-JG1 Corn Header
Gear (Operating in the Field)	First, Second, and Third Gear
Row Number	6
Row Spacing (mm)	650
Total Loss Rate (%)	≤5%
Threshing Loss Rate (%)	≤1%
Crushing Rate (%)	≤5%
Impurity Rate (%)	≤3%
Minimum Cross Radius (m)	8.3
Dimension (mm, L x W x H)	10020 × 4230 × 3800 (206C) 9860 × 4130 × 3800 (TR1688-JG1)
Weight (Kg)	10680 (with 206C, mechanical drive) 10633 (with TR1688-JG1, mechanical drive) 11070 (with 206C, hydrostatic drive) 11023 (with TR1688-JG1, hydrostatic drive)
Mean Time Between Failures (MTBF)	≥50 Hours

NOTE: Under the condition of rated work load, grain moisture within 15%—25%, lowest ear height higher than 35 cm, hanging ear less than 15%, down stalk less than 5%, row spacing 650 mm, overall row offset within ± 100 mm, single row offset within ± 50 mm, stalk height high than 1.5 m, ear maturation same, and good harvesting condition, the performance can reach the requirements above.

4YL-6A (C120) Corn Combine

Model	4YL-6A (C120) Corn Combine
Type	Self-Propelled Corn Combine
FEE Solutions Available	206C Corn Header TR1688-JG1 Corn Header
Gear (Operating in the Field)	First, Second, and Third Gear
Row Number	6
Row Spacing (mm)	650
Total Loss Rate (%)	≤5%
Threshing Loss Rate (%)	≤1%
Crushing Rate (%)	≤5%
Impurity Rate (%)	≤3%
Minimum Cross Radius (m)	8.3
Dimension (mm, L x W x H)	10020 × 4230 × 3800 (206C) 9830 × 4130 × 3800 (TR1688-JG1)
Weight (Kg)	10680 (with 206C, mechanical drive) 10633 (with TR1688-JG1, mechanical drive)
Mean Time Between Failures (MTBF)	≥50 Hours

NOTE: Under the condition of rated work load, grain moisture within 15%—25%, lowest ear height higher than 35 cm, hanging ear less than 15%, down stalk less than 5%, row spacing 650 mm, overall row offset within ± 100 mm, single row offset within ± 50 mm, stalk height high than 1.5 m, ear maturation same, and good harvesting condition, the performance can reach the requirements above.

4YL-6B (C120) Corn Combine

Model	4YL-6B (C120) Corn Combine
Type	Self-Propelled Corn Combine
FEE Solutions Available	206C Corn Header TR1688-JG1 Corn Header
Gear (Operating in the Field)	First, Second, and Third Gear

Specifications

Row Number	6
Row Spacing (mm)	650
Total Loss Rate (%)	≤5%
Threshing Loss Rate (%)	≤1%
Crushing Rate (%)	≤5%
Impurity Rate (%)	≤3%
Minimum Cross Radius (m)	8.3
Dimension (mm, L x W x H)	10020 × 4230 × 3800 (206C) 9830 × 4130 × 3800 (TR1688-JG1)
Weight (Kg)	10680 (with 206C, mechanical drive) 10633 (with TR1688-JG1, mechanical drive)
Mean Time Between Failures (MTBF)	≥50 Hours
<i>NOTE: Under the condition of rated work load, grain moisture within 15%—25%, lowest ear height higher than 35 cm, hanging ear less than 15%, down stalk less than 5%, row spacing 650 mm, overall row offset within ± 100 mm, single row offset within ± 50 mm, stalk height high than 1.5 m, ear maturation same, and good harvesting condition, the performance can reach the requirements above.</i>	

4YL-6C (C120) Corn Combine

Model	4YL-6C (C120) Corn Combine
Type	Self-Propelled Corn Combine
FEE Solutions Available	206C Corn Header TR1688-JG1 Corn Header
Gear (Operating in the Field)	First, Second, and Third Gear
Row Number	6
Row Spacing (mm)	650
Total Loss Rate (%)	≤5%
Threshing Loss Rate (%)	≤1%
Crushing Rate (%)	≤5%
Impurity Rate (%)	≤3%
Minimum Cross Radius (m)	8.3
Dimension (mm, L x W x H)	10020 × 4230 × 3800 (206C) 9830 × 4130 × 3800 (TR1688-JG1)
Weight (Kg)	11070 (with 206C, hydrostatic drive) 11023 (with TR1688-JG1, hydrostatic drive)
Mean Time Between Failures (MTBF)	≥50 Hours
<i>NOTE: Under the condition of rated work load, grain moisture within 15%—25%, lowest ear height higher than 35 cm, hanging ear less than 15%, down stalk less than 5%, row spacing 650 mm, overall row offset within ± 100 mm, single row offset within ± 50 mm, stalk height high than 1.5 m, ear maturation same, and good harvesting condition, the performance can reach the requirements above.</i>	

4YL-6D (C120) Corn Combine

Model	4YL-6D (C120) Corn Combine
Type	Self-Propelled Corn Combine
FEE Solutions Available	206C Corn Header TR1688-JG1 Corn Header
Gear (Operating in the Field)	First, Second, and Third Gear
Row Number	6
Row Spacing (mm)	650
Total Loss Rate (%)	≤5%
Threshing Loss Rate (%)	≤1%
Crushing Rate (%)	≤5%
Impurity Rate (%)	≤3%
Minimum Cross Radius (m)	8.3
Dimension (mm, L x W x H)	10020 × 4230 × 3800 (206C) 9830 × 4130 × 3800 (TR1688-JG1)
Weight (Kg)	11070 (with 206C, hydrostatic drive) 11023 (with TR1688-JG1, hydrostatic drive)

Specifications

Mean Time Between Failures (MTBF)	≥50 Hours
NOTE: Under the condition of rated work load, grain moisture within 15%—25%, lowest ear height higher than 35 cm, hanging ear less than 15%, down stalk less than 5%, row spacing 650 mm, overall row offset within ± 100 mm, single row offset within ± 50 mm, stalk height high than 1.5 m, ear maturation same, and good harvesting condition, the performance can reach the requirements above.	

Threshing System

Threshing Speed (rpm)	350—1100 (without Threshing Cylinder Speed Reduction Gear) 130—390/ 350—1100 (with Threshing Cylinder Speed Reduction Gear)
Optional Threshing Cylinder Speed Reduction Gear Grease Capacity (Kg)	0.8

Separating System

Separator Rotor Speed Range (rpm)	500/700/800
Separator Rotor Drive Gear Case Capacity (L)	2.5 (adjustable gear case) 1.6 (non-adjustable gear case)

Cleaning System

Cleaning Fan Speed (rpm)	550—1150
Cleaning Fan Type	4-Blade Rotor
Cleaning Fan Diameter (mm)	500

Grain Handling

Grain Tank Capacity (L)	4200
Unloading Time (Min)	≤2.5

Ground Drive System

Ground Drive Type	Mechanical/Hydrostatic Drive with/without Rear Wheel Drive
Steering Type	Rear-Wheel Steering
Service Brake Type	Hydraulic
Front Wheel Tire Type	23.1-26 12 PR R-2 23.1-26 12 PR R-1 (option) 28L-26 12 PR R-2 (option)
Rear Wheel Tire Type	12.00-18 12PR 14.9-24-R2 (with rear wheel drive)
Front Wheel Tire Pressure	170 kPa (1.7 bar)
Rear Wheel Tire Pressure	420 kPa (4.2 bar) 230 kPa (2.3 bar)_with rear wheel drive
Minimum Ground Clearance (mm)	≥420 (4LZ-9A\9C\9D\9E\9F\9H\9K Full-Feeder Combine) 420 ~ 480 (4LZ-9 Full-Feeder Combine) ≥470 (4LZ-9B\9G\9J Full-Feeder Combine, flat type tire) ≥480 (4LZ-9B\9G\9J Full-Feeder Combine, adhesive tire) ≥470 (4YL-6\6A\6C Corn Combine, without rear wheel drive, flat type tire) ≥480 (4YL-6\6A\6C Corn Combine, without rear wheel drive, adhesive tire) ≥420 (4YL-6\6B\6D Corn Combine, with rear wheel drive)
Ground Speed (km/h)	1.05 ~ 20 (Full-Feeder Combine, Mechanical Drive) ≤20 (Corn Combine, Mechanical Drive) ≤24 (Hydrostatic Drive)
Gear Case Transmission Capacity (L)	6.6
Final Drive Capacity (L)	3.1, each
Brake System Capacity (L)	3
Brake Fluid Reservoir Capacity (L)	0.75
Rear Axle Capacity (Optional Rear Wheel Drive)	18 L
Rear Axle Drive Gear Case Capacity (Optional Rear Wheel Drive)	3.2 Kg
Rear Axle Final Drive Capacity (Optional Rear Wheel Drive)	1.5 L, each

Specifications

Engine

Manufacturer	Deere & Company
Engine Model	4045HYC15
Engine Type	John Deere PTE engine
Emission Grade	Stage IIIA
Aspiration	Air-to-Air Aftercooled, Turbocharged
Engine Firing Order	1-3-4-2
Rated Power (kW)	121
Rated Speed (rpm)	2400
Cylinder Number	4
Displacement (L)	4.5
Fuel Tank Capacity (L)	300
Engine Oil Capacity (L)	12.5
Cooling System Capacity (L)	32

Electrical System

Battery	Maintenance-Free Battery
Battery Voltage (V)	12—12.5 (Alternator is not working) 12.8—13.8 (Alternator is working)

Hydraulic System

Hydraulic Reservoir (L)	21.8
Hydraulic System (L)	25
Hydrostatic Reservoir (L)	33

HVAC System

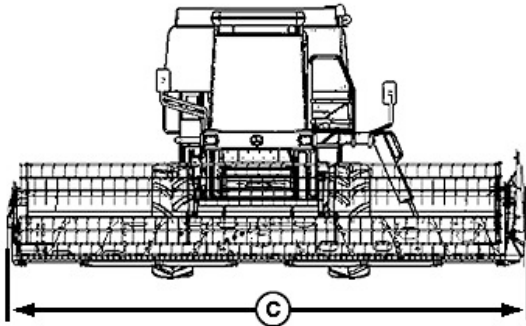
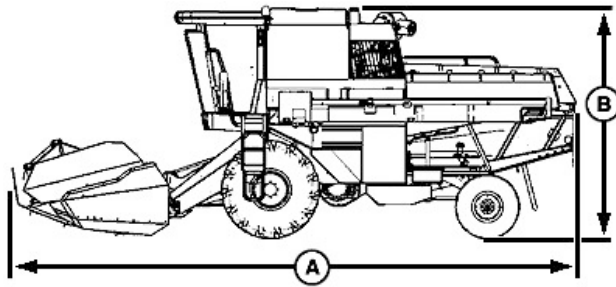
HVAC Mode	Heat and Cooling
Refrigerant Capacity (Kg)	1.8

Cab

Permission Passenger Amount	1
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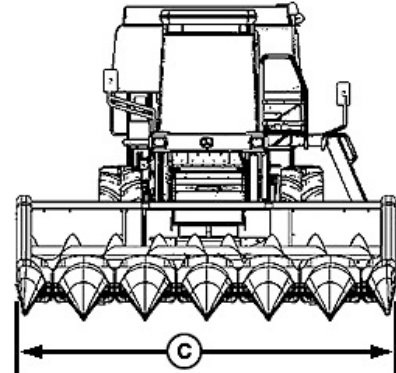
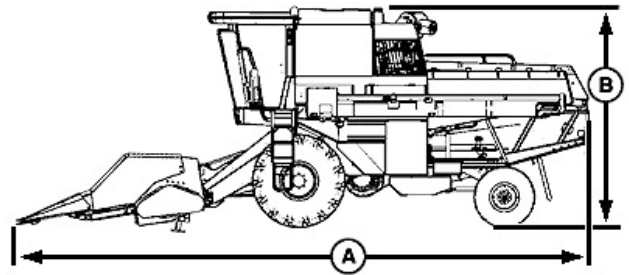
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Dimension Diagram



Machine with Cutting Platform

YC21298—UN—28NOV22



Machine with Corn Header

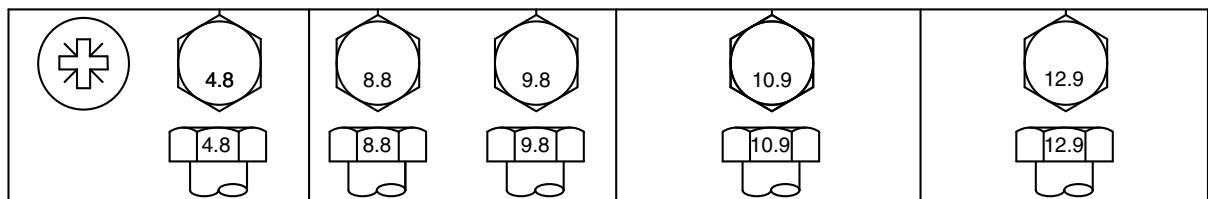
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A—Length
B—Height
C—Width

Model	Length	Width	Height
4LZ-9\9G\9H\9J\9K (C120) Full-Feeder Combine	9530	5000	3970
4LZ-9A (C120) Full-Feeder Combine	9530	5000	3800
4LZ-9B\9D (C120) Full-Feeder Combine	9600	5730	3970
4LZ-9C (C120) Full-Feeder Combine	9530	4150	3800
4LZ-9E\9F (C120) Full-Feeder Combine	9530	5800	3800
4YL-6\6A\6B\6C\6D (C120) Corn Combine (with 206C)	10020	4230	3800
4YL-6 (C120) Corn Combine (with TR1688-JG1)	9860	4130	3800
4YL-6A\6B\6C\6D (C120) Corn Combine (with TR1688-JG1)	9830	4130	3800

cp00834,1669095017942-19-21NOV22

Metric Bolt and Screw Torque Values



TS1742—UN—31MAY18

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
M6	3.6	31.9	3.9	34.5	6.7	59.3	7.3	64.6	9.8	86.7	10.8	95.6	11.5	102	12.6	112

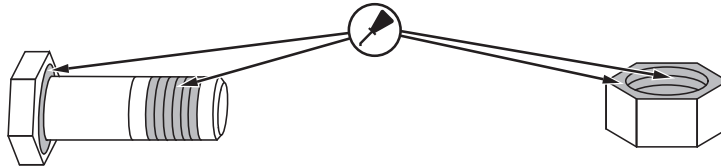
Specifications

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b		Hex Head ^a		Flange Head ^b	
	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft	N·m	lb·ft
M8	8.6	76.1	9.4	83.2	16.2	143	17.6	156	23.8	17.6	25.9	19.1	27.8	20.5	30.3	22.3
M10	16.9	150	18.4	13.6	31.9	23.5	34.7	25.6	46.8	34.5	51	37.6	55	40.6	60	44.3
M12	—	—	—	—	55	40.6	61	45	81	59.7	89	65.6	95	70.1	105	77.4
M14	—	—	—	—	87	64.2	96	70.8	128	94.4	141	104	150	111	165	122
M16	—	—	—	—	135	99.6	149	110	198	146	219	162	232	171	257	190
M18	—	—	—	—	193	142	214	158	275	203	304	224	322	245	356	263
M20	—	—	—	—	272	201	301	222	387	285	428	316	453	334	501	370
M22	—	—	—	—	365	263	405	299	520	384	576	425	608	448	674	497
M24	—	—	—	—	468	345	518	382	666	491	738	544	780	575	864	637
M27	—	—	—	—	683	504	758	559	973	718	1080	797	1139	840	1263	932
M30	—	—	—	—	932	687	1029	759	1327	979	1466	1081	1553	1145	1715	1265
M33	—	—	—	—	1258	928	1398	1031	1788	1319	1986	1465	2092	1543	2324	1714
M36	—	—	—	—	1617	1193	1789	1319	2303	1699	2548	1879	2695	1988	2982	2199

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



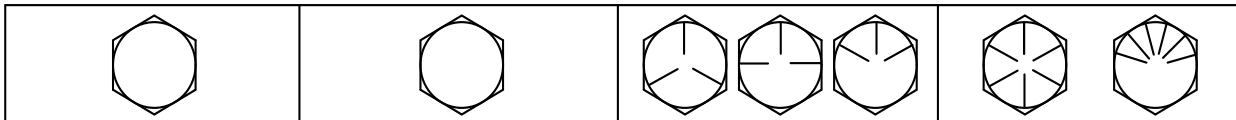
TS1741—UN—22MAY18

^aHex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.

^bHex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ2-19-09MAY22

Unified Inch Bolt and Screw Torque Values



TS1671—UN—01MAY03

Bolt or Screw Size	SAE Grade 1 ^a				SAE Grade 2 ^b				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d	
	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in	N·m	lb·in
1/4	3.1	27.3	3.2	28.4	5.1	45.5	5.3	47.3	7.9	70.2	8.3	73.1	11.2	99.2	11.6	103
													N·m	lb·ft	N·m	lb·ft

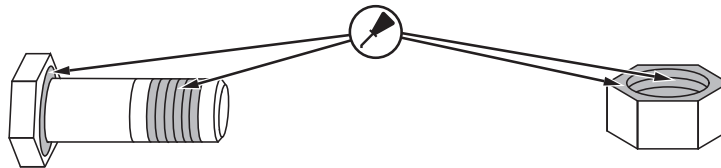
Specifications

Bolt or Screw Size	SAE Grade 1 ^a				SAE Grade 2 ^b				SAE Grade 5, 5.1 or 5.2				SAE Grade 8 or 8.2			
	Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d		Hex Head ^c		Flange Head ^d	
5/16	6.1	54.1	6.5	57.7	10.2	90.2	10.9	96.2	15.7	139	16.8	149	22.2	16.4	23.7	17.5
									N·m	lb·ft	N·m	lb·ft				
3/8	10.5	93.6	11.5	102	17.6	156	19.2	170	27.3	20.1	29.7	21.9	38.5	28.4	41.9	30.9
					N·m	lb·ft	N·m	lb·ft								
7/16	16.7	148	18.4	163	27.8	20.5	30.6	22.6	43	31.7	47.3	34.9	60.6	44.7	66.8	49.3
	N·m	lb·ft	N·m	lb·ft												
1/2	25.9	19.1	28.2	20.8	43.1	31.8	47	34.7	66.6	49.1	72.8	53.7	94	69.3	103	75.8
9/16	36.7	27.1	40.5	29.9	61.1	45.1	67.5	49.8	94.6	69.8	104	77	134	98.5	148	109
5/8	51	37.6	55.9	41.2	85	62.7	93.1	68.7	131	96.9	144	106	186	137	203	150
3/4	89.5	66	98	72.3	149	110	164	121	230	170	252	186	325	240	357	263
7/8	144	106	157	116	144	106	157	116	370	273	405	299	522	385	572	422
1	216	159	236	174	216	159	236	174	556	410	609	449	785	579	860	634
1-1/8	305	225	335	247	305	225	335	247	685	505	751	554	1110	819	1218	898
1-1/4	427	315	469	346	427	315	469	346	957	706	1051	775	1552	1145	1703	1256
1-3/8	564	416	618	456	564	416	618	456	1264	932	1386	1022	2050	1512	2248	1658
1-1/2	743	548	815	601	743	548	815	601	1665	1228	1826	1347	2699	1991	2962	2185

The nominal torque values listed are for general use only with the assumed wrenching accuracy of 20%, such as a manual torque wrench. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For lock nuts, for stainless steel fasteners, or for nuts on U-bolts, see the tightening instructions for the specific application.

Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original.

- Make sure that fastener threads are clean.
- Apply a thin coat of Hy-Gard™ or equivalent oil under the head and on the threads of the fastener, as shown in the following image.
- Be conservative with the amount of oil to reduce the potential for hydraulic lockup in blind holes due to excessive oil.
- Properly start thread engagement.



TS1741—UN—22MAY18

^aGrade 1 applies for hex cap screws over 6 in (152 mm) long, and for all other types of bolts and screws of any length.

^bGrade 2 applies for hex cap screws (not hex bolts) up to 6 in (152 mm) long.

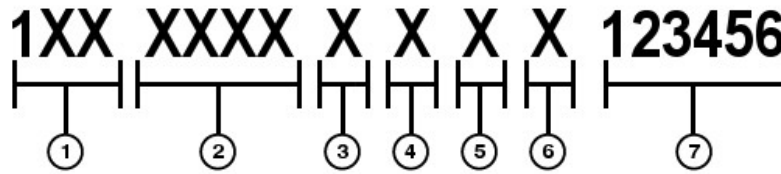
^cHex head column values are valid for ISO 4014 and ISO 4017 hex head, ISO 4162 hex socket head, and ISO 4032 hex nuts.

^dHex flange column values are valid for ASME B18.2.3.9M, ISO 4161, or EN 1665 hex flange products.

DX,TORQ1-19-09MAY22

Machine Identification Numbers

Interpreting Machine Serial Number



H105725—UN—22AUG12

Harvesting Manufacturing Facilities		
1	Manufacturer Code	CQ - John Deere Horizontina H0 - John Deere Harvester Works JZ - John Deere Domodedovo KM - Maschinenfabrik Kemper GmbH & Co. KG PY - John Deere India Pvt. Ltd SA - SABO Maschinenfabrik GmbH YC - John Deere (Jiamusi) Agricultural Machinery Co., Ltd. YH - John Deere (Harbin) Agriculture Machinery Co., Ltd Z0 - John Deere Werke Zweibrücken
2	Machine Model Identifier	
3	Model Identifier Suffix Machine Configuration Code Additional Machine Information	Example: N, T, W, etc.
4	Check Letter	Example: A, B, C, D, etc.
5	Calendar Year of Manufacture	Refer to Year of Manufacture Code table
6	Additional Information	
7	Manufacturing Serial Number	Example: 000001, 000127, etc.

Year of Manufacture Code							
Year	Code	Year	Code	Year	Code	Year	Code
2008	8	2018	J	2028	W	2038	8
2009	9	2019	K	2029	X	2039	9
2010	A	2020	L	2030	Y	2040	A
2011	B	2021	M	2031	1	2041	B
2012	C	2022	N	2032	2	2042	C
2013	D	2023	P	2033	3	2043	D
2014	E	2024	R	2034	4	2044	E
2015	F	2025	S	2035	5	2045	F
2016	G	2026	T	2036	6	2046	G
2017	H	2027	V	2037	7	2047	H

CP00596,00013C2-19-22AUG18

Identification Numbers

Your machine has these various identification plates. The letters and numbers stamped on these plates identify a component or assembly. ALL of these characters are needed when ordering parts or identifying a machine or component for any John Deere product support program. Also, they are needed for law enforcement to trace your machine if it is ever stolen. ACCURATELY record these characters in the spaces provided in each of the following photographs.

CP00596,00013C3-19-07AUG18

Machine Identification Plate

Machine Identification Plate for export market

JOHN DEERE		Constr. date		
Type / Model		Model year		
Typ Approval Nr.		Power rat. KW		
Product Identification Number		Version		
✱		PTAC KG		
○		PTRA KG		
Permissible Mass:		DEERE & COMPANY		
Max. total weight		MOLINE, ILLINOIS, USA		
Max. axle 1 load		MADE IN CHINA		
Max. axle 2 load				
Max. axle 3 load				

YC16829—UN—03FEB21

Machine Identification Plate for China market

JOHN DEERE			
Model	产品型号	Product Name	产品名称
		全喂入联合收割机	
Product Identification Number		制造编号	
Standard	执行标准	Production Date	制造日期
		年 月 日	
Power	功率	Feed Rate	喂入量
	kW	kg/s	质量
			kg
Overall Dimension		外形尺寸(长×宽×高)	
		mm	
John Deere (Jiamusi) Agricultural Machinery Co., Ltd.			
约翰·迪尔(佳木斯)农业机械有限公司			
No. 1 Lianmeng St., Xiangyang East District,			
Jiamusi, Heilongjiang, P.R. China			
黑龙江省佳木斯市向阳东区联盟街1号			
Made in China 中国制造			

YC16804—UN—28JAN21

JOHN DEERE			
Model	产品型号	Product Name	产品名称
		玉米联合收获机	
Product Identification Number		制造编号	
Standard	执行标准	Production Date	制造日期
		年 月 日	
Power	功率	Rows	行数
	kW		Mass
			kg
Overall Dimension		外形尺寸(长×宽×高)	
		mm	
John Deere (Jiamusi) Agricultural Machinery Co., Ltd.			
约翰·迪尔(佳木斯)农业机械有限公司			
No. 1 Lianmeng St., Xiangyang East District,			
Jiamusi, Heilongjiang, P.R. China			
黑龙江省佳木斯市向阳东区联盟街1号			
Made in China 中国制造			

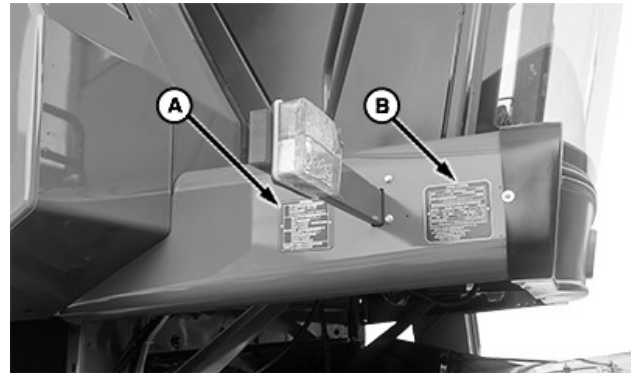
YC16805—UN—28JAN21

Record the Product Identification Number:

Provide the machine model and product identification number on the machine identification plate. Record the number on the blank space for later use.

cp00834,1669003366402-19-20NOV22

Machine Identification Plate and Environmental Plate Location



YC16836—UN—03FEB21

A—Environmental Plate
B—Machine Identification Plate

The environmental plate (A) and the machine identification plate (B) are located on the right-hand side of the cab platform.

NOTE: The environmental plate is only for China market.

cp00834,1669003408496-19-20NOV22

Interpreting Engine Serial Number



YC17128—UN—24MAR21

Sample Engine Serial Number Plate

Each engine has a 13 digit John Deere engine serial number identifying the producing factory, engine model designation, and a 6 digit sequential number.

Engine Serial Number (A)

4.5 L Example (PE4045L123456)

PE Factory Code Producing Engine
• PE Torreon, Mexico

4045 Number of Cylinders and Total Displacement
• 4045 4 Cylinders, 4.5 liters

L Emission Certification
• B Non-Certified
• C Tier 1/Stage 1
• D Tier 2/Stage II

4.5 L Example (PE4045L123456)

- L Tier 3/Stage III A
- R Interim Tier 4/Stage III B
- U or V Final Tier 4/Stage IV

123456 Engine Serial Number

Engine Model Number (B)

4.5 L Example (4045HYC15)

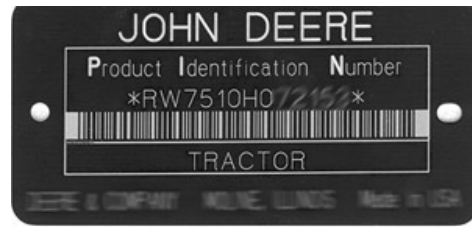
- H Engine Aspiration
- D Naturally aspirated
- T Turbocharged
- A Turbocharged and aftercooled, air-to-coolant
- H Turbocharged and aftercooled, air-to-air
- S Turbocharged and aftercooled, air-to-sea water

- YC User Type
- F OEM (John Deere Power Systems)
- XX Other letters are used to identify John Deere Equipment manufacturing locations

- 15 Engine Configuration
- 09 PSS (Series Turbochargers, DOC/DPF and SCR)
- 94 PVX (Single VGT Turbocharger)
- 95 PSX (Series Turbochargers and Aftertreatment)

cp00834,1668917580025-19-19NOV22

Keep Proof of Ownership

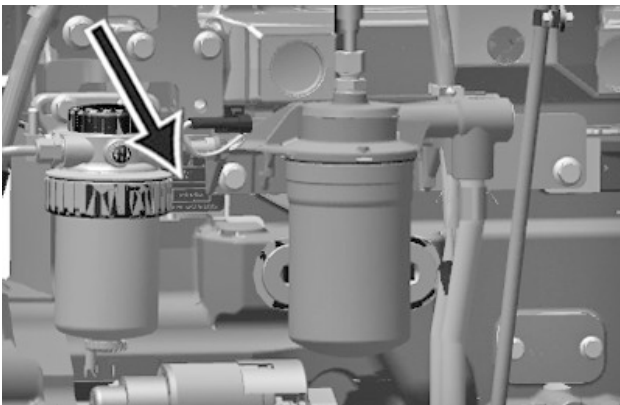


TS1680—UN—09DEC03

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

DX,SECURE1-19-18NOV03

Engine Serial Number Plate Location

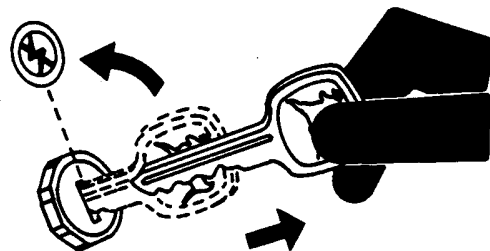


YC21218—UN—28NOV22

The engine serial number plate is located behind the secondary fuel filter on the engine.

cp00834,1668917841272-19-19NOV22

Keep Machines Secure



TS230—UN—24MAY89

1. Install vandal-proof devices.
2. When machine is in storage:
 - Lower equipment to the ground
 - Set wheels to widest position to make loading more difficult
 - Remove any keys and batteries
3. When parking indoors, put large equipment in front of exits and lock your storage buildings.
4. When parking outdoors, store in a well-lighted and fenced area.
5. Make note of suspicious activity and report any thefts immediately to law enforcement agencies.

6. Notify your John Deere dealer of any losses.

DX, SECURE2-19-18NOV03

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John.Deere Service Keeps You on the Job

John Deere Parts



TS100—UN—23AUG88

We help minimize downtime by putting genuine John Deere parts in your hands in a hurry.

That's why we maintain a large and varied inventory—to stay a jump ahead of your needs.

DX,IBC,A-19-04JUN90

School is never out for John Deere service technicians.

Training schools are held regularly to be sure our personnel know your equipment and how to maintain it.

Result?

Experience you can count on!

DX,IBC,C-19-04JUN90

Prompt Service



TS103—UN—23AUG88

Our goal is to provide prompt, efficient care when you want it and where you want it.

We can make repairs at your place or at ours, depending on the circumstances: see us, depend on us.

JOHN DEERE SERVICE SUPERIORITY: We'll be around when you need us.

DX,IBC,D-19-04JUN90

Well-Trained Technicians



TS102—UN—23AUG88

John Deere (Jiamusi) Agricultural Machinery Co., Ltd.

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