

**1450, 1550,
1450 CWS, 1550 CWS,
1450 WTS and
1550 WTS
Combines**



**OPERATOR'S MANUAL
1450, 1550, 1450 CWS, 1550 CWS,
1450 WTS and 1550 WTS Combines**

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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 which you should have received from your dealer.

INFORMATION:

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Identification Views

Combines Covered in This Manual



CQ203750 -UN-06APR01

Combines 1450, 1450 CWS, 1450 WTS, 1550, 1550 CWS and 1550 WTS

NOTE: Only models 1450 CWS, 1450 WTS, 1550 CWS and 1550 WTS are exported to Europe.

All features covered in this manual for CWS combines are also available for WTS combines. Features for WTS combines only are specified.

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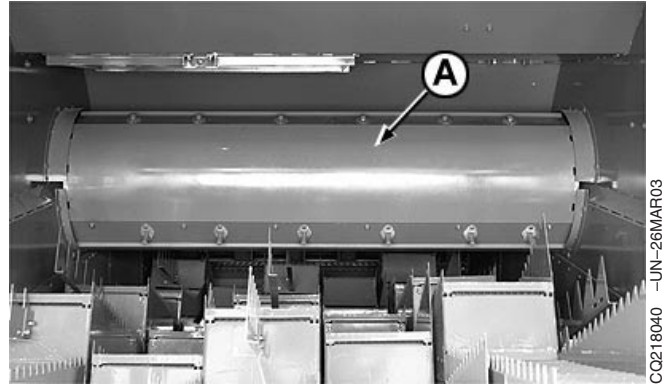
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WTS Combines

The exclusive John Deere Walker Tine Separator technology (WTS) provides you the optimal performance of your walker combine, mainly when working in tough material handling conditions.

Green and wet material are easily separated from the grain if you have the Power Separator™ installed in your machine.

The tines in the Power Separator™ gently spread out the straw over the walkers enhancing even more the separating capacity.



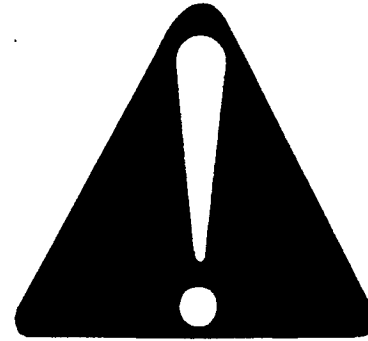
A—Power Separator

AG,CO03622,1359 -19-27MAR03-2/2

Safety

Recognize Safety Information

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



T81389 -UN-07DEC88

CQ,SGALERTA -19-13MAR02-1/1

Follow Safety Instructions

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety items 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.

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

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



TS201 -UN-23AUG88

CQ,SGMENSEG -19-13MAR02-1/1

Observe Road Traffic Regulations



CAUTION: Always observe local road traffic regulations when using public roads.



H28930 -UN-30JUN89

AG,GG05155,8 -19-13MAR02-1/1

Avoid Machinery Runaway

Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals.

Machine will start in gear if normal circuitry is bypassed.

NEVER start engine while standing on ground.

Start engine only from operator's seat, with transmission in neutral or park.

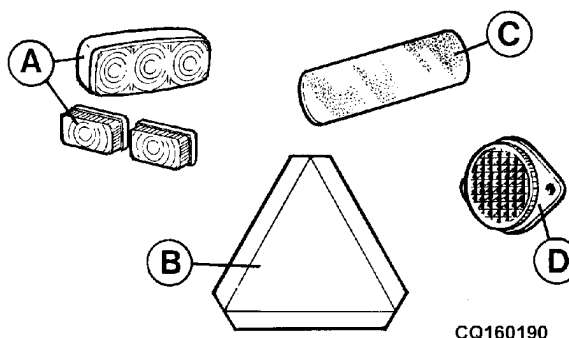
CQ,STBYPASS -19-14JUL98-1/1

Use Safety Lights and Devices

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

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

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



CQ160190 -UN-09SEP98

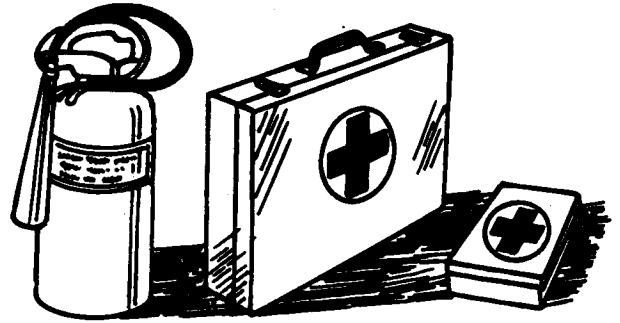
CQ,SGLUZ -19-13MAR02-1/1

Prepare for Emergencies

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

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



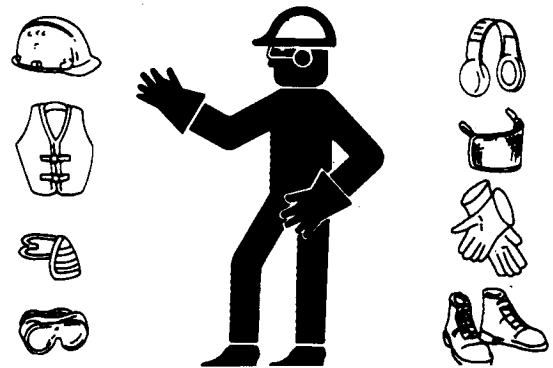
TS291 -UN-23AUG88

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

Wear Protective Clothing

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

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



TS206 -UN-23AUG88

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

Handle Fuel SafelyAvoid Fires

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

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

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



TS202 -UN-23AUG88

DX,FIRE1 -19-20NOV02-1/1

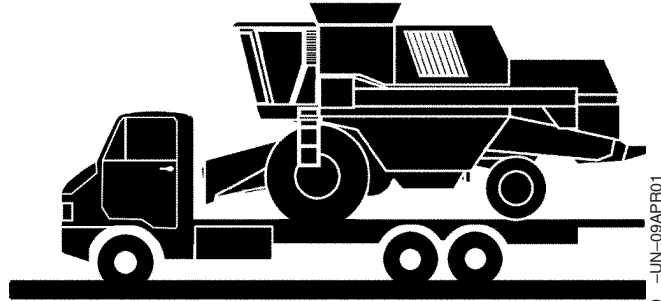
Check Machine Safety

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

AG,GG05155,9 -19-22JAN99-1/1

Transporting The Combine on a Truck

Whenever transporting the combine in a truck, make sure that all the shields are mounted correctly, in a way that they can not open accidentally during the transport.



CQ203970 -UN-08APR01

CQ203970

CO03622,0000061 -19-13MAR02-1/1

Driving The Combine

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.

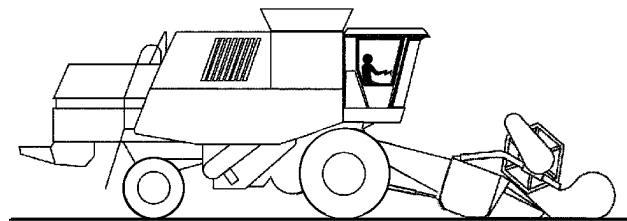
Attach harvesting units and other implements to combine with extreme care.

When making turns, always take into consideration the width of the attachment and the fact that the rear end of the combine 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.



CQ203780 -UN-06APR01

CQ203780

CQ,SGCACOND -19-13MAR02-1/1

Riders

Only allow the operator and one rider on the machine.

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

One rider is permitted, since the machine is equipped with a factory-approved passenger seat.



TS253 -UN-23AUG88

CQ,SGCAPASS -19-13MAR02-1/1

Stay Clear of Rotating Drivelines

Entanglement in rotating driveline can cause serious injury or death.

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

Wear close fitting clothing. Stop the engine before making adjustments or connections.



TS1644 -UN-22AUG95

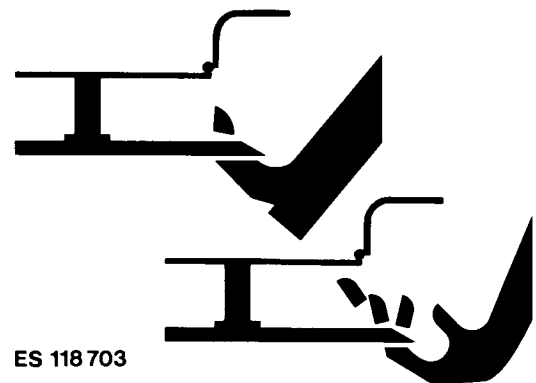
DX,PTO -19-27AUG02-1/1

Guards and Shields

Keep guards and shields in place at all times. Ensure that they are serviceable and installed correctly.

Always disengage main clutch, shut off engine and remove key before servicing or unclogging machine.

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



ES 118 703

ES118703 -UN-21MAR95

CQ,SGCADISP -19-13MAR02-1/1

Stay Clear of Harvesting Units

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



ES 118 704

ES118704 -UN-21MAR95

CQ,SGCAPLATA -19-13MAR02-1/1

Keep Hands Away From Knives

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

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

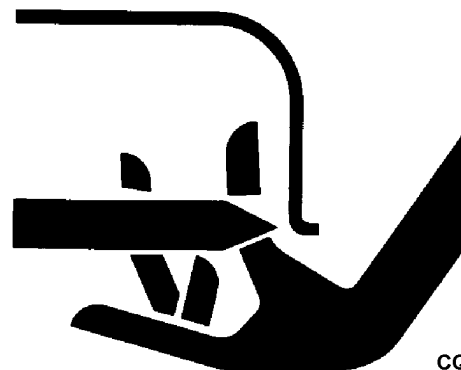


TS254 -UN-23AUG88

AG,SGCALAMIN -19-13MAR02-1/1

Stay Clear From Straw Chopper

The straw chopper has safety guards which surround dangerous rotating blades. The blades may continue to rotate for a short time after drive has been switched off. Stay clear of the straw chopper during operation. Disengage drive, shut off engine, remove key and wait until drive parts have stopped moving prior to servicing straw chopper.



CQ172130

CQ172130 -UN-11SEP98

MB03730,0001BD2 -19-20AUG02-1/1

Stay Clear of Auger

The auger located inside grain tank cannot be shielded completely against accidental contact. Use a rod to clear blockages and scoop or similar vessel to take grain samples. Never use hands or feet. Never enter grain tank when engine is running.

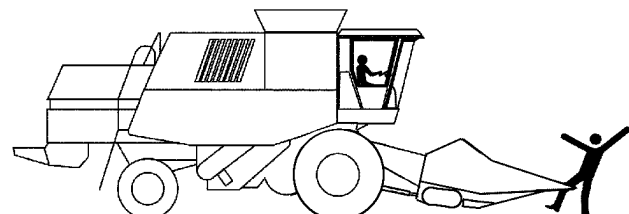


TS256 -UN-23AUG88

MB03730,0001BD5 -19-20AUG02-1/1

Transport With Header Installed

Before driving combine on public roads, header must be raised. It must not, however, obstruct operator's view of the road. Header height control must be in locked position.



UN-06APR01

CQ203760

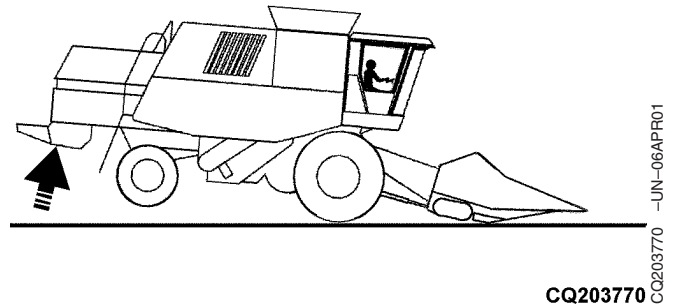
MB03730,0001BD6 -19-29AUG02-1/1

Ballasting for Safe Ground Contact

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

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

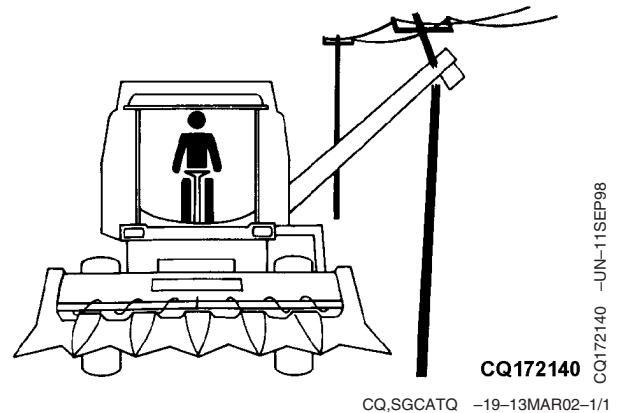
Observe the maximum permissible axle loads and total weights.



MB03730,0001BD7 -19-20AUG02-1/1

Swing in Grain Tank Unloading Auger

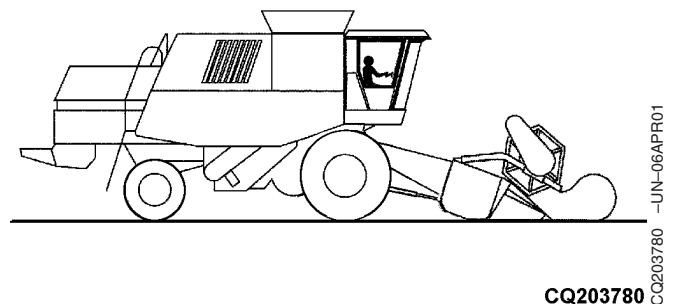
Swing in the grain tank unloading auger to its transport position before driving on public roads. Otherwise collisions may occur with roadside installations, e.g. telegraph poles, street lights, etc.



CQ,SGCATQ -19-13MAR02-1/1

Parking and Leaving the Combine

Lower headers or other equipment to the ground before leaving the combine. When leaving the combine, disengage separator/header drive, shut off engine, move gear shift lever to 1st gear, move hydro lever to neutral and apply parking brake, remove main switch key and lock the operator's cab (when equipped). Position chock blocks. Never leave combine unattended as long as engine is still running. Never leave the operator's platform/cab when driving.



MB03730,0001BD8 -19-28AUG02-1/1

Operating The Engine

Never operate the engine in a closed building.

Danger of asphyxiation!

When starting engine, ensure that the Hydro lever is in neutral position and parking brake is activated. Turn off separator, cutting platform and unloading auger drive switches.

The engine start system is protected by these switches.



TS220 -UN-23AUG88

AG,SGCAFUNC -19-19NOV02-1/1

Practice Safe Maintenance

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

Never lubricate or service machine while it is moving.

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

Disengage all power and operate the 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.

Disconnect battery ground cable (s) (-) before making adjustments on electrical systems or welding on machine.



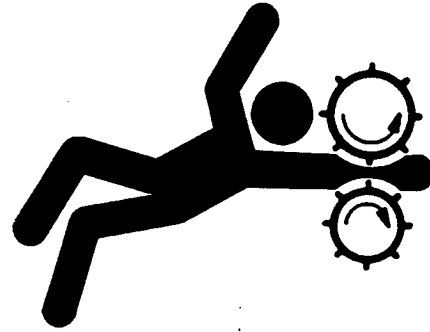
TS218 -UN-23AUG88

CQ,SGCAMANU -19-13MAR02-1/1

Service Machines Safely

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

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



TS228 -UN-23AUG88

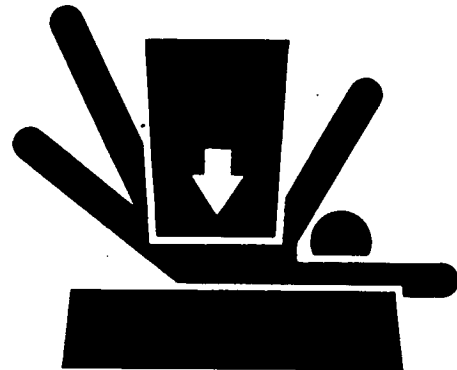
DX, LOOSE -19-04JUN90-1/1

Support machine securely

Always lower the attachment or implement to the ground before you work on the machine. If you must work on a lifted machine or attachment, securely support the machine or attachment.

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.



TS229 -UN-23AUG88

CQ, SGCAAPOIO -19-13MAR02-1/1

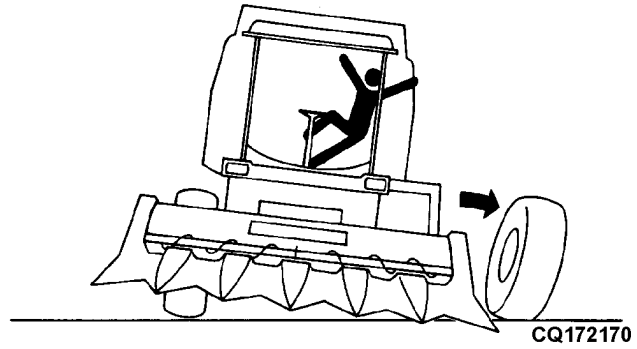
Servicing the Engine

Use the service platform when servicing the engine. Climbing onto other parts of the combine may result in accidents such as falling off the machine.

AG, GG05155, 11 -19-25JAN99-1/1

Retorque Wheel Nuts

Retorque machine wheel nuts and bolts as specified in section "Break-In Period". Failure to do this could result in a wheel falling off during operation, causing the combine to tip over with serious injury to the operator and extensive damage to the machine.



CQ172170

CQ172170 -UN-11SEP98

CQ,SGCAPORCA -19-13MAR02-1/1

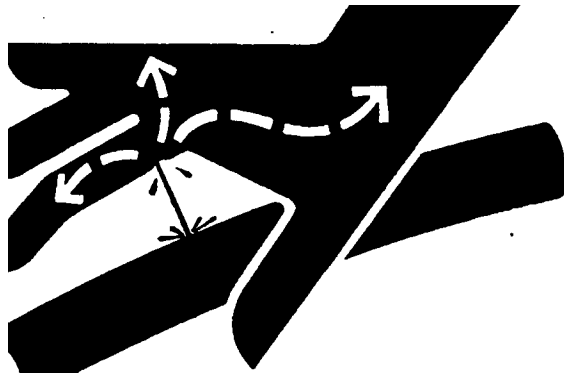
Avoid high-Pressure Fluids

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

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

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

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.



X9811 -UN-23AUG88

DX,FLUID -19-13MAR02-1/1

Prevent Battery Explosions

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

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

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



TS204 -UN-23AUG88

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

Handle Batteries Safely

Sealed batteries

Combines are equipped with sealed batteries, this type of batteries does not need maintenance.

An indicator on top of the battery shows charge level.

Lead-calcium batteries do not need water.

CQ,SGCAMANUS -19-13MAR02-1/2

Conventional batteries

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

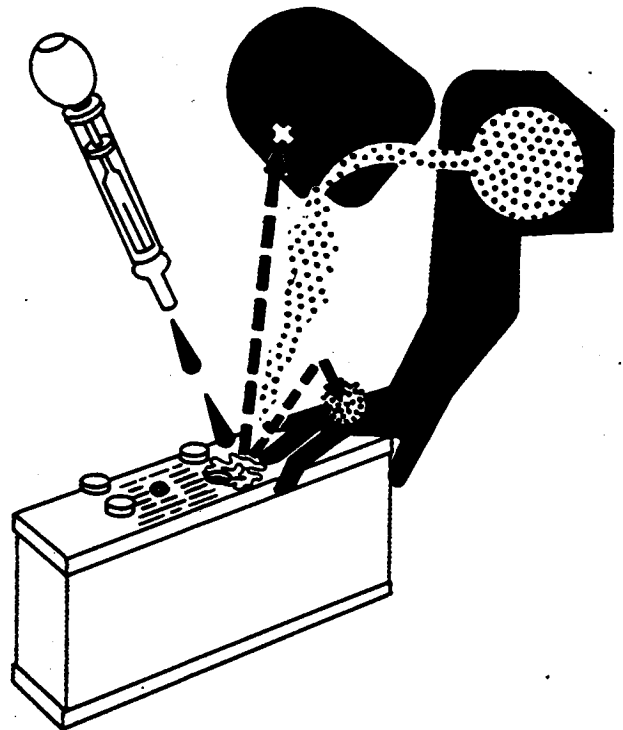
1. Fill the batteries in a well-ventilated area.
2. Wear eye protection and rubber gloves.
3. Avoid breathing in the fumes when electrolyte is added.
4. Avoid spilling or dripping electrolyte.
5. Use the proper jump start procedure.

If you spill acid on yourself:

1. Flush your skin with water.
2. Apply baking soda or lime to help neutralize the acid.
3. Flush your eyes with water for 10-15 minutes.
4. Get medical attention immediately.

If acid is swallowed:

1. Drink large amounts of water or milk.
2. Then drink milk of magnesia, beaten eggs or vegetable oil.
3. Get medical attention immediately.



TS203 -UN-23AUG88

CQ,SGCAMANUS -19-13MAR02-2/2

Service Tires Safely

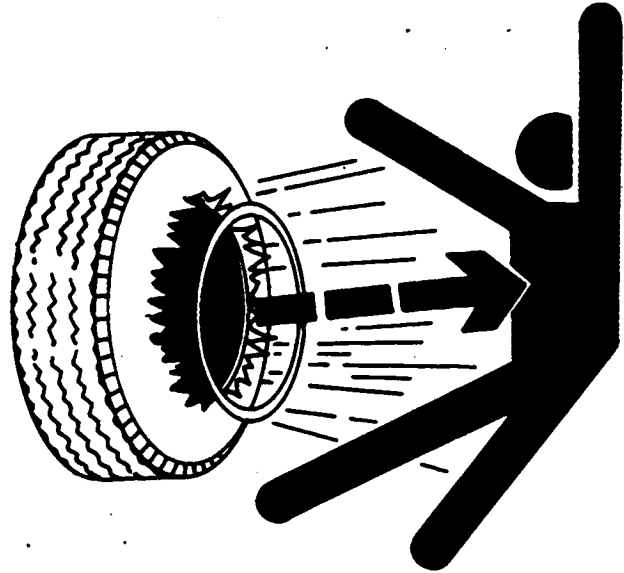
Explosive separation of a tire and rim parts can cause serious injury or death.

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

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

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

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



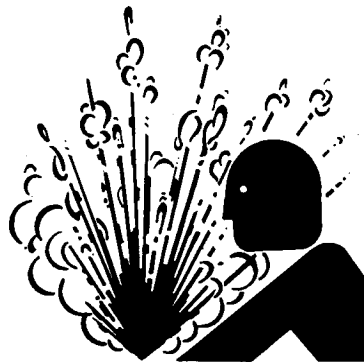
TS211 -UN-23AUG88

DX,RIM -19-24AUG90-1/1

Service Cooling System Safely

Danger of scalding!

With the engine shut off, first loosen the radiator cap or expansion tank cap only to the first stop to relieve the pressure before removing the cap completely.



TS281 -UN-23AUG88

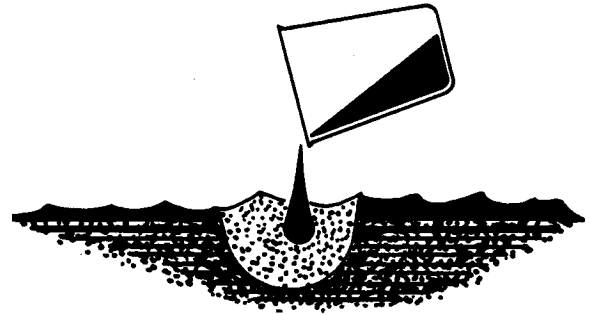
AG,GG05155,13 -19-13MAR02-1/1

Observe Environmental Protection Regulations

Be mindful of the environment and ecology.

Before draining any fluids, find out the correct way of disposing of them.

Observe the relevant environmental protection regulations when disposing of oil, fuel, coolant, brake fluid, filters and batteries.

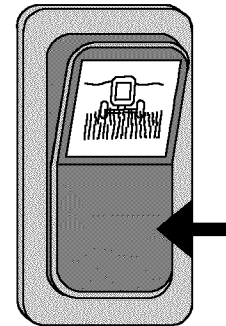


TS222 -UN-23AUG88

CQ,SGCAMEIO -19-13MAR02-1/1

Road Safety Tumbler Switch

IMPORTANT: Before driving combine on public roads, make sure that road safety switch is in road position. Also move harvesting unit and unloading auger to transport position. This ensures that all hydraulic functions — with the exception of the steering system — are not working.



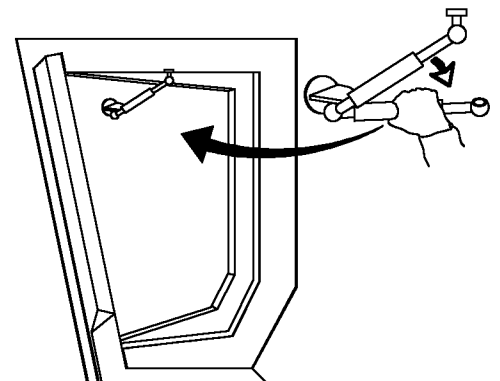
ZX 002418

ZX002418 -UN-16JUN95

AG,CO03622,1361 -19-13MAR02-1/1

Emergency Exit

The right-hand cab window may be used as an emergency exit. Disengage the gas-filled spring on the sidewall of the cab and open the window.



ZX 006004

ZX006004 -UN-03APR95

AG,CO03622,1362 -19-13MAR02-1/1

Remove Paint Before Welding or Heating

Avoid potentially toxic fumes and dust.

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

Remove paint before heating:

- Remove paint a minimum of 101 mm (4 in.) from area to be affected by heating. If paint cannot be removed, wear an approved respirator before heating or welding.
- If you sand or grind paint, avoid breathing the dust. Wear an approved respirator.
- If you use solvent or paint stripper, remove stripper with soap and water before welding. Remove solvent or paint stripper containers and other flammable material from area. Allow fumes to disperse at least 15 minutes before welding or heating.

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

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

Dispose of paint and solvent properly.



TS220 -UN-23AUG88

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

Safety Decals

Pictorial Safety Signs

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

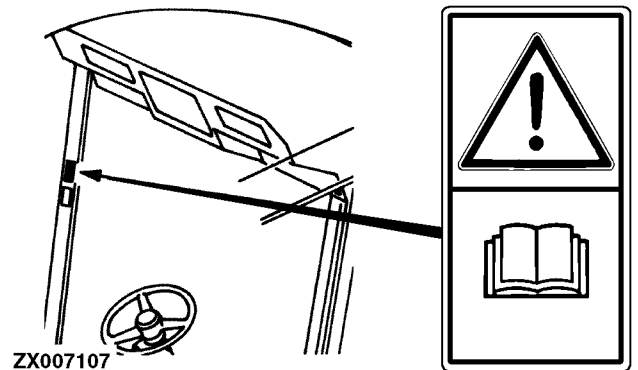


TS231 -19-07OCT88

AG.CO03622,1363 -19-13MAR02-1/1

Operator's Manual

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

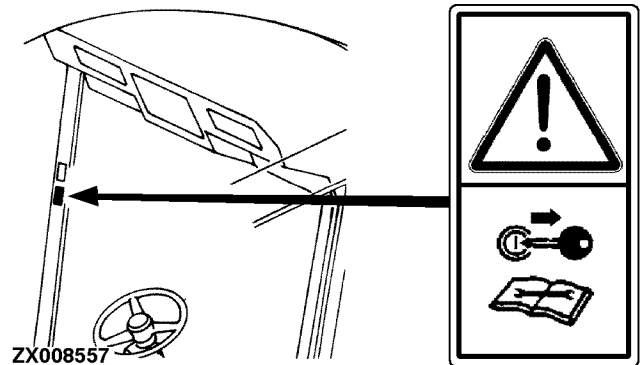


ZX007107 -UN-19JUN95

AG.CO03622,1364 -19-13MAR02-1/1

Repair and Maintenance

Before carrying out repair and maintenance work, shut off engine and remove key.



ZX008557 -UN-31JAN96

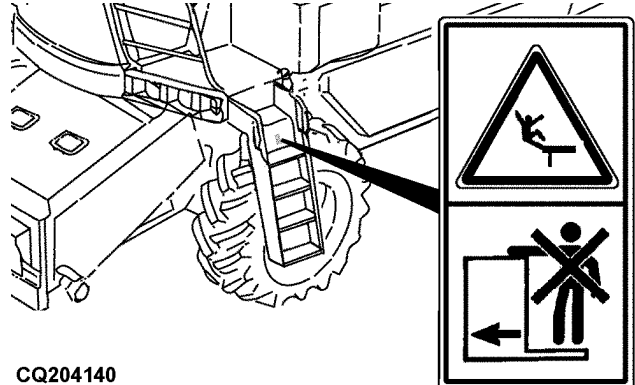
AG.CO03622,1365 -19-13MAR02-1/1

Front Access Ladder and Platform

Do not allow riders on access ladder or platform.

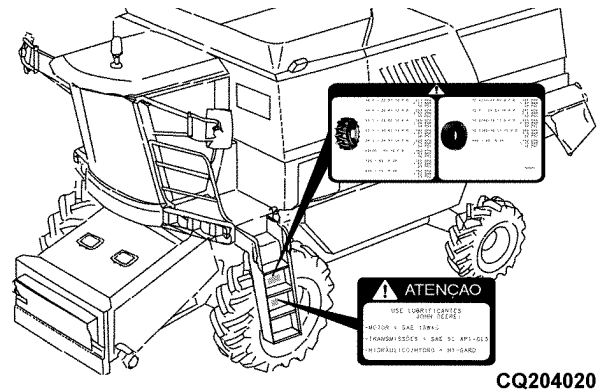
That is why there is an extra seat in the cab.

NOTE: There are also some decals which show the tire inflation pressure indicated for each tire size.



CQ204140

CQ204140 -UN-10APR01



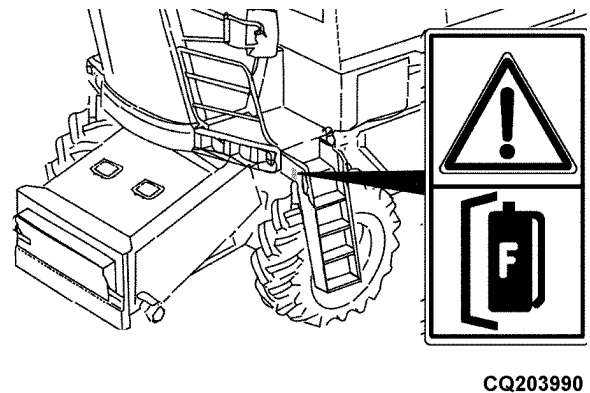
CQ204020

CQ204020 -UN-10OCT01

AG.CO03622,1366 -19-13MAR02-1/1

Fire Extinguisher

The machine must not be operated unless a fully-operational fire extinguisher is installed at this point.



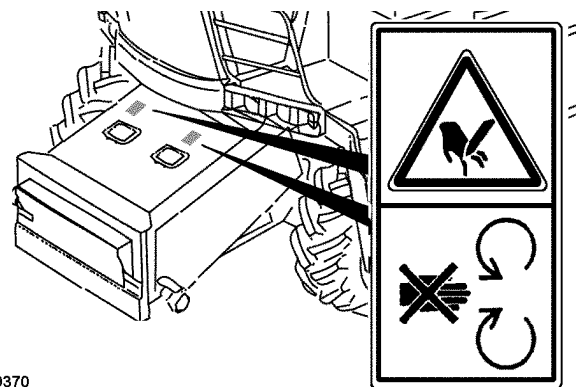
CQ203990

CQ203990 -UN-09APR01

AG.CO03622,1367 -19-13MAR02-1/1

Feeder House Drive, Right and Left-Hand Side

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



CQ209370

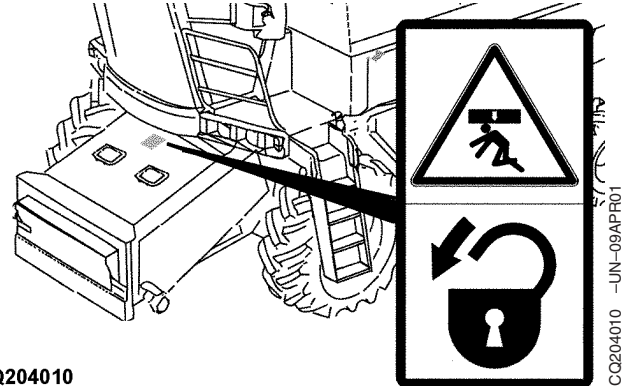
CQ209370 -UN-18OCT01

AG.CO03622,1368 -19-13MAR02-1/1

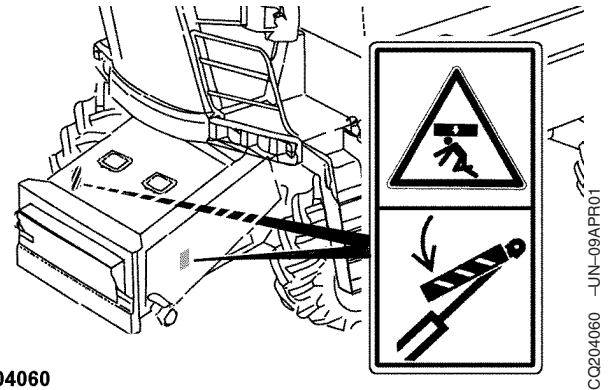
Below Feeder House

Before entering area of potential hazard, engage safety lock.

CQ204010



CQ204060



AG.CO03622,1369 -19-13MAR02-1/1

Unloading Auger

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



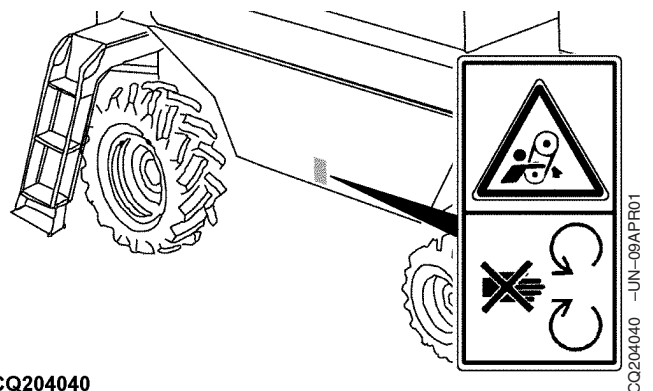
CQ204120

CO03622,0000062 -19-13MAR02-1/1

Left-Hand Side Guard, Fan and Walker Drive Guard

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

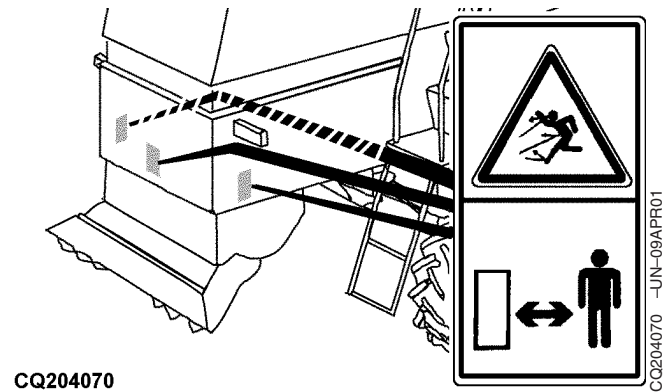
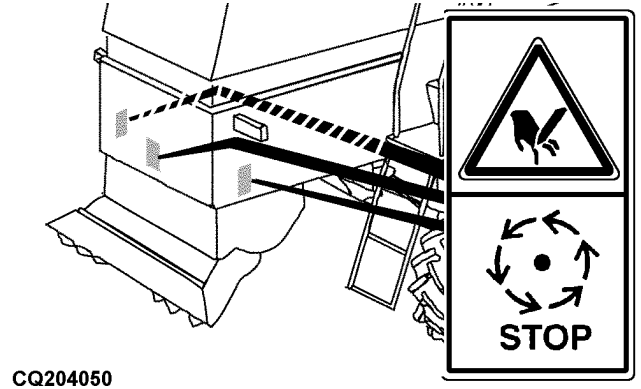
CQ204040



AG.CO03622,1371 -19-13MAR02-1/1

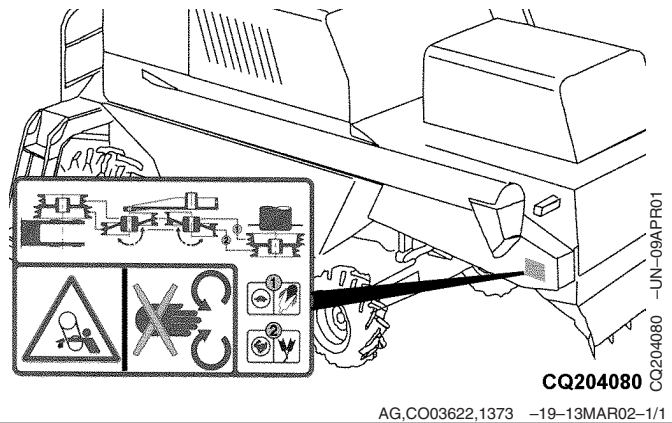
Chaff Spreader and Straw Chopper

Stay clear of these components when the engine is running. Do not touch any moving machine parts. Wait until all moving parts have stopped.



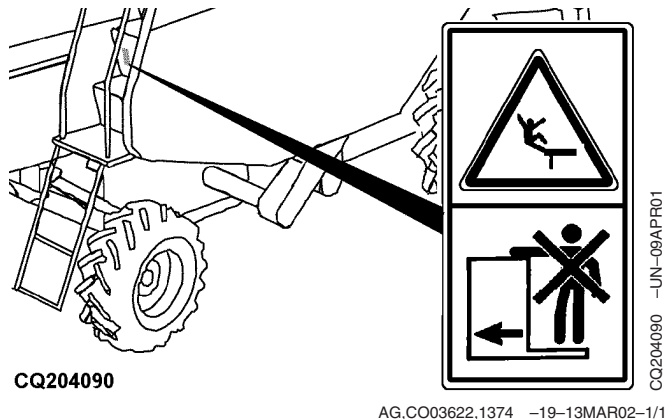
Straw chopper

Before switching straw chopper on or off, disengage all drives, shut off engine and remove ignition key.



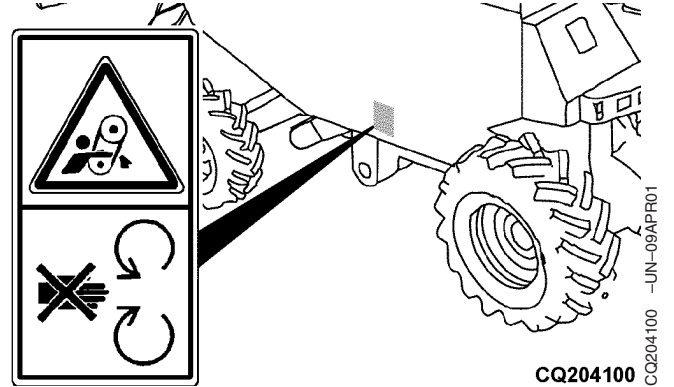
Rear Access Ladder and Service Platform

Do not allow riders on access ladder or platform.



Right-Hand Side Guard

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

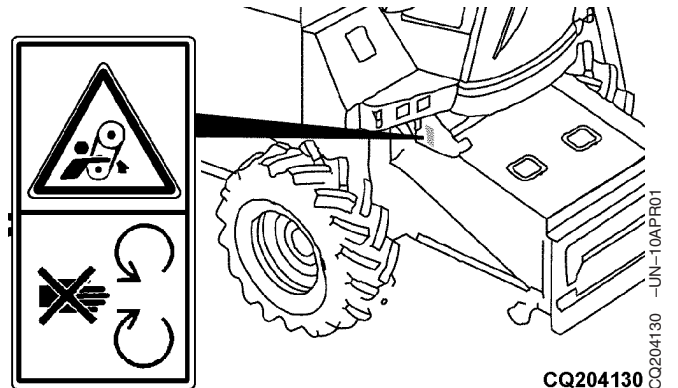


CQ204100

AG.CO03622,1375 -19-13MAR02-1/1

Hydraulic Reverser

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

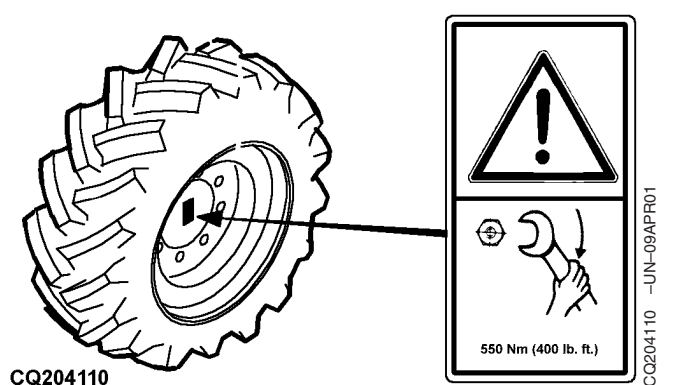


CQ204130

CO03622,0000063 -19-13MAR02-1/1

Front Wheel Attaching Nuts

Retighten rear wheel attaching nuts at specified intervals.



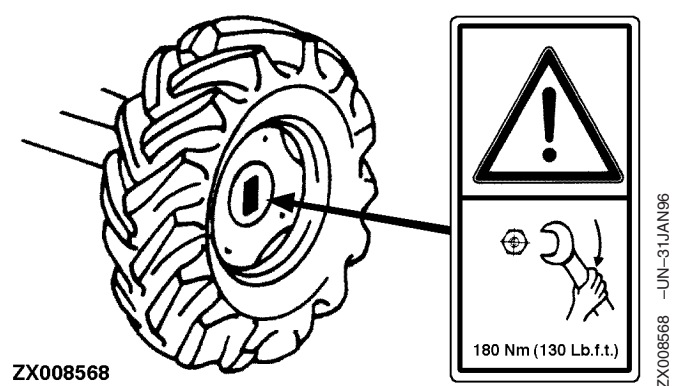
CQ204110

550 Nm (400 lb. ft.)

AG.CO03622,1376 -19-13MAR02-1/1

Rear Wheel Attaching Bolts

Retighten rear wheel attaching nuts at specified intervals.



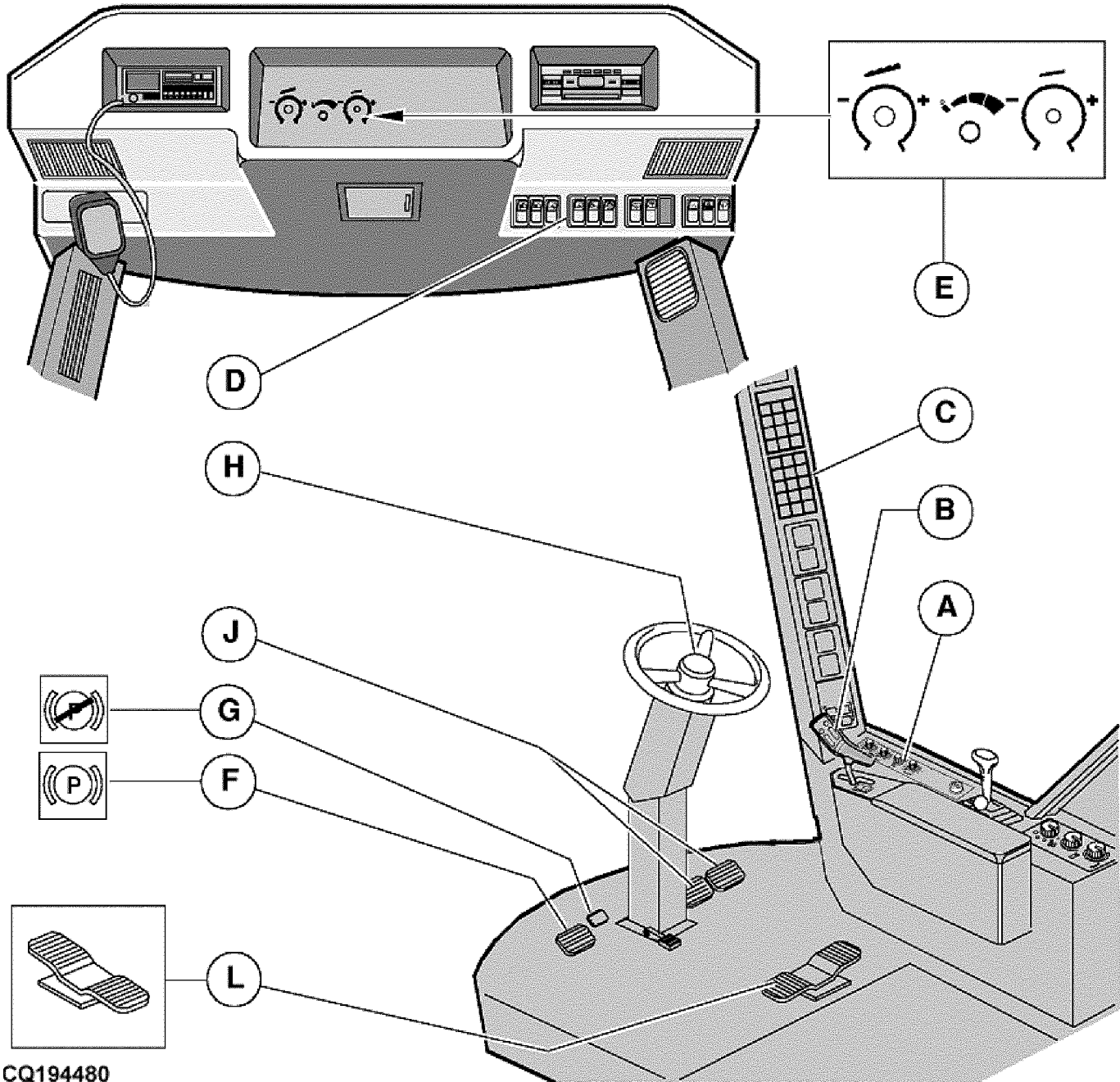
ZX008568

180 Nm (130 Lb.f.t.)

AG.CO03622,1377 -19-13MAR02-1/1

Controls and Instruments

General View of Controls and Instruments



CQ194480

A—Switch Console
B—Hydrostatic ground speed drive lever
C—Corner Post

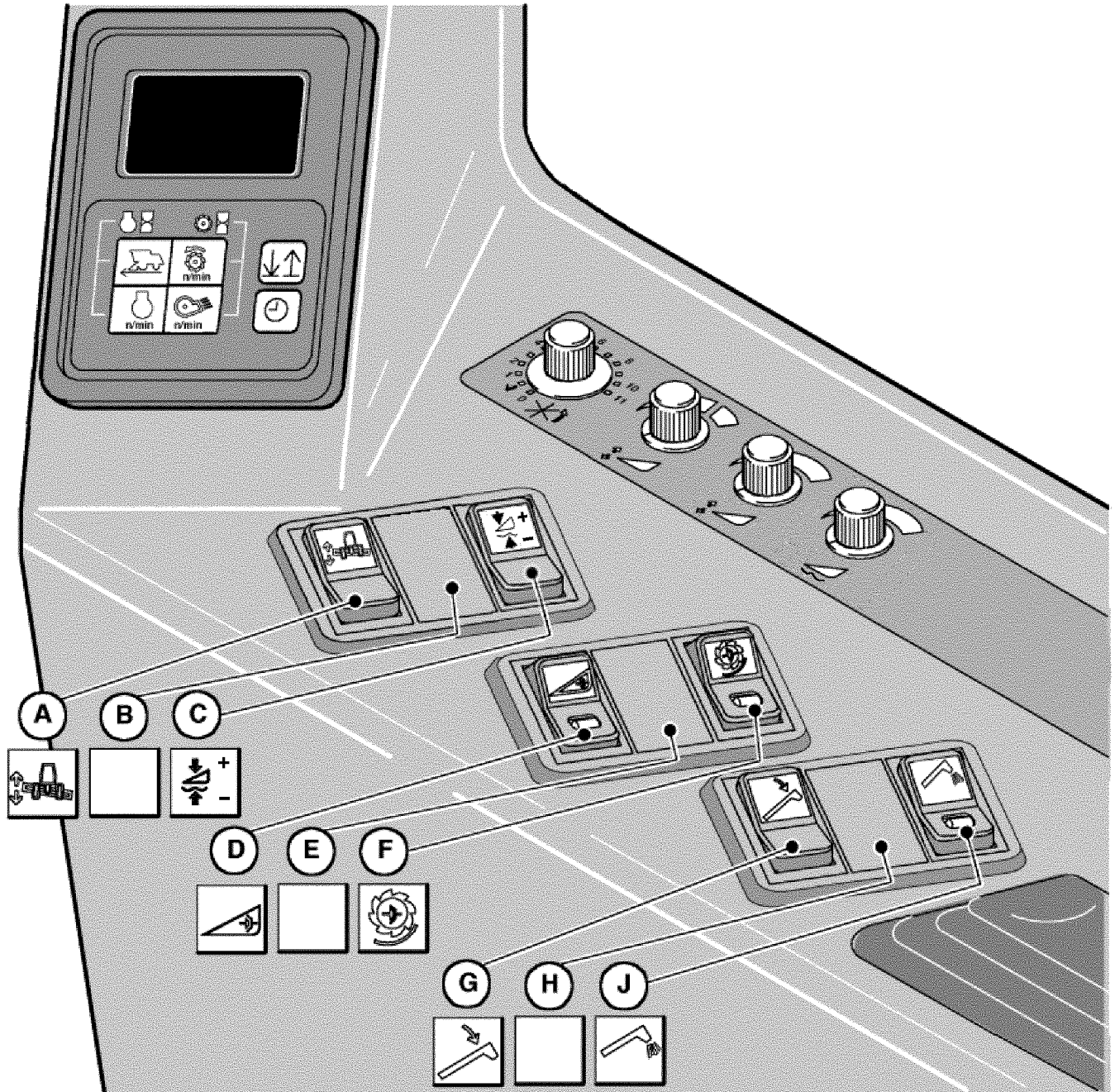
D—Roof switch console
E—Harvest Performance Monitor

F—Parking brake
G—Parking brake release pedal

H—Steering Column
J—Foot Brakes
L—Reverser

CQ194480 —UN-17FEB00

Switch Console



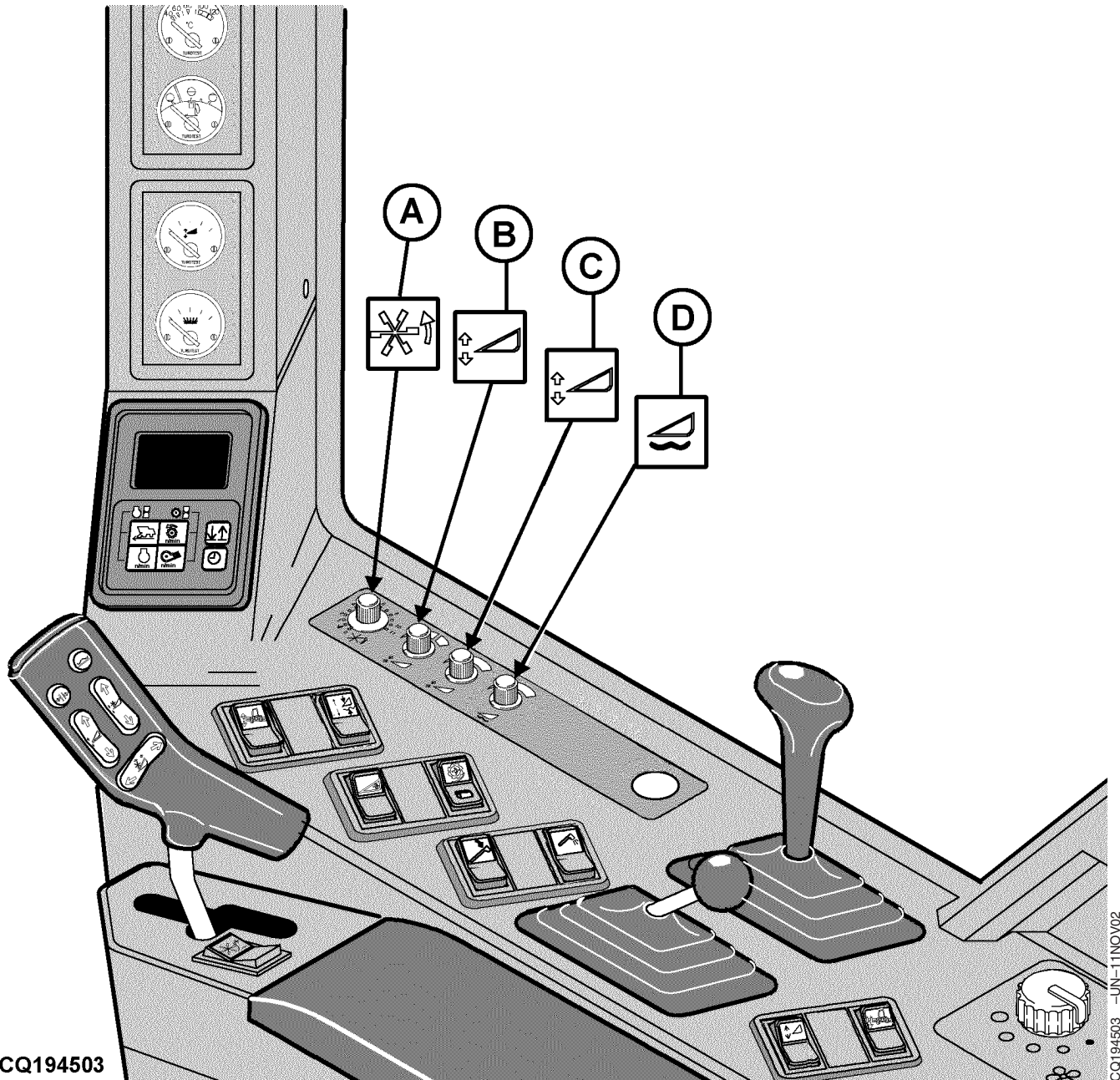
A—Switch, selector header tilt / reel fore-and-aft adjustment
B—Not used

C—Flex diverter valve switch (Only for 600 Series Flex Cutting Platforms)
D—Header engage switch

E—Not used
F—Separator engage switch
G—Unloading Auger Swing Tumbler Switch

H—Not used
J—Unloading auger engage switch

Potentiometers on Switch Console



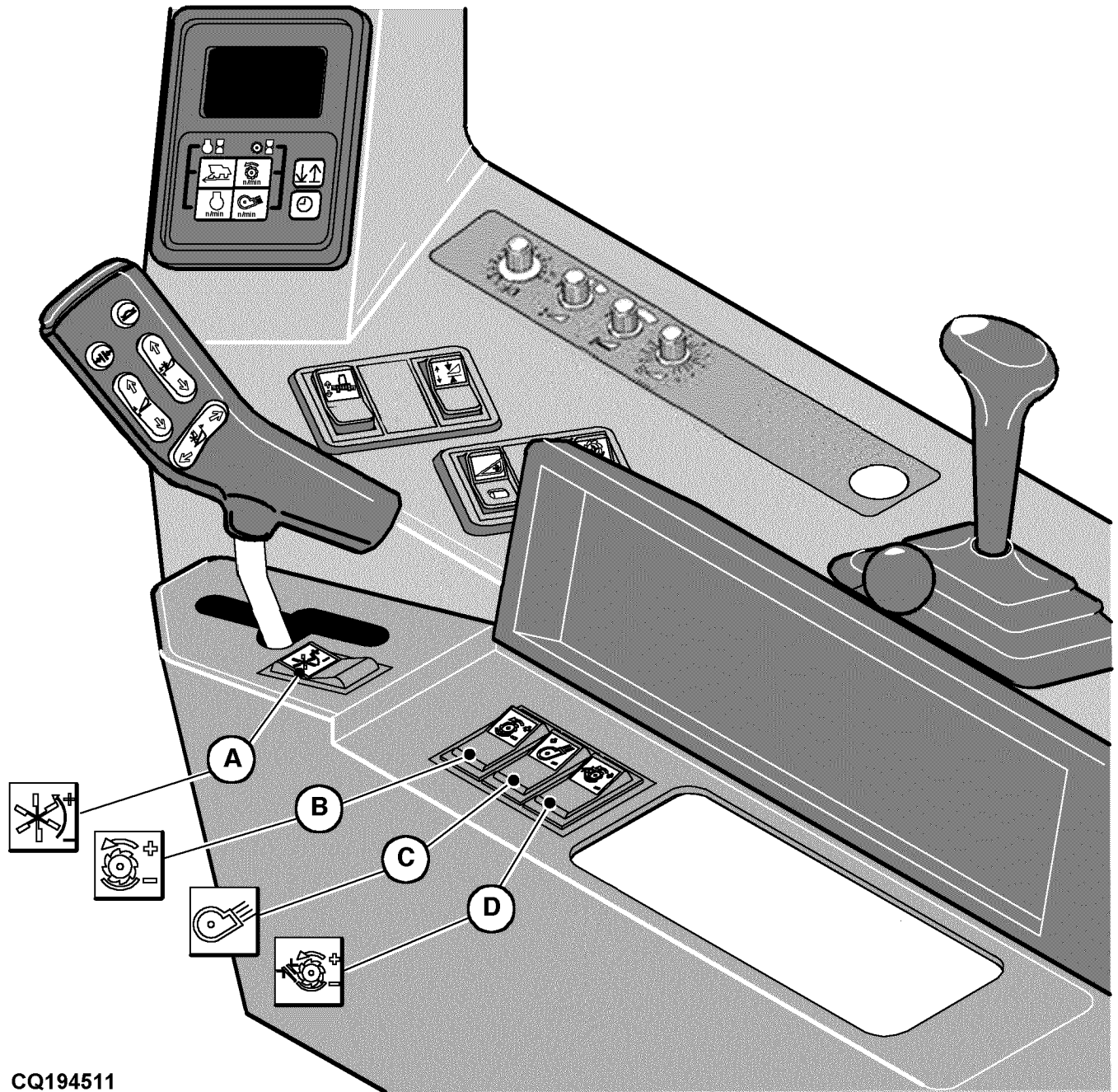
A—Switch, automatic reel speed control

B—DIAL-A-MATIC Switch™ (AHHC - Automatic Header Height Control — 300 Series Flex Cutting Platform)

C—Header height potentiometer (600 Series Platforms for 1450 CWS and 1550 CWS)

D—Float pressure potentiometer (300 and 600 Series Rigid Platforms — 1450 CWS and 1550 CWS)

Switch Console (Continued)



CQ194511

A—Reel speed switch

B—Threshing cylinder speed switch

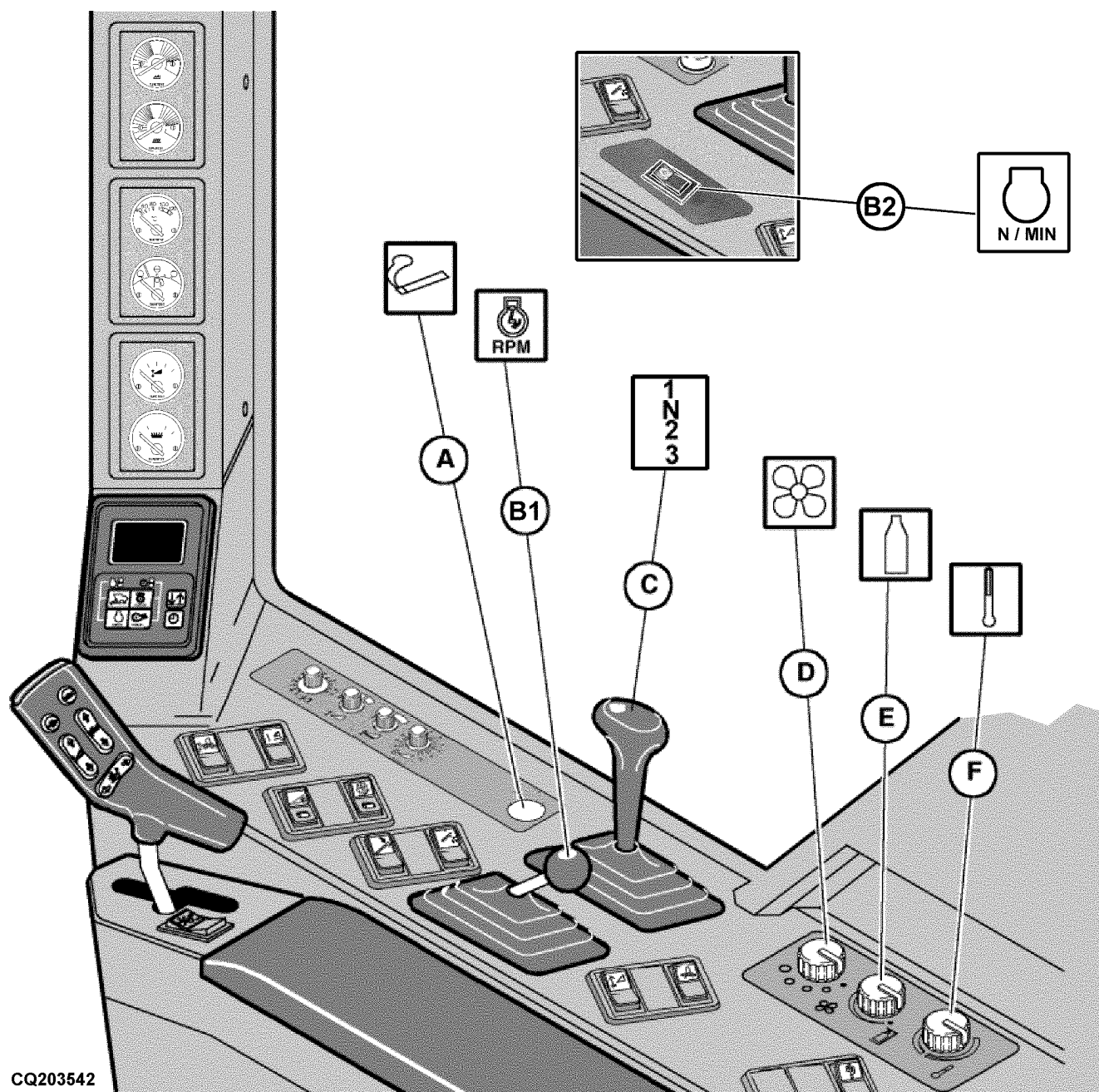
C—Fan Speed Switch

D—Concave clearance adjusting switch

AG,CO03622,1381 -19-13MAR02-1/1

CQ194511 -UN-17OCT01

Switch Console (Continued)



CQ203542

CQ203542 -UN-11NOV02

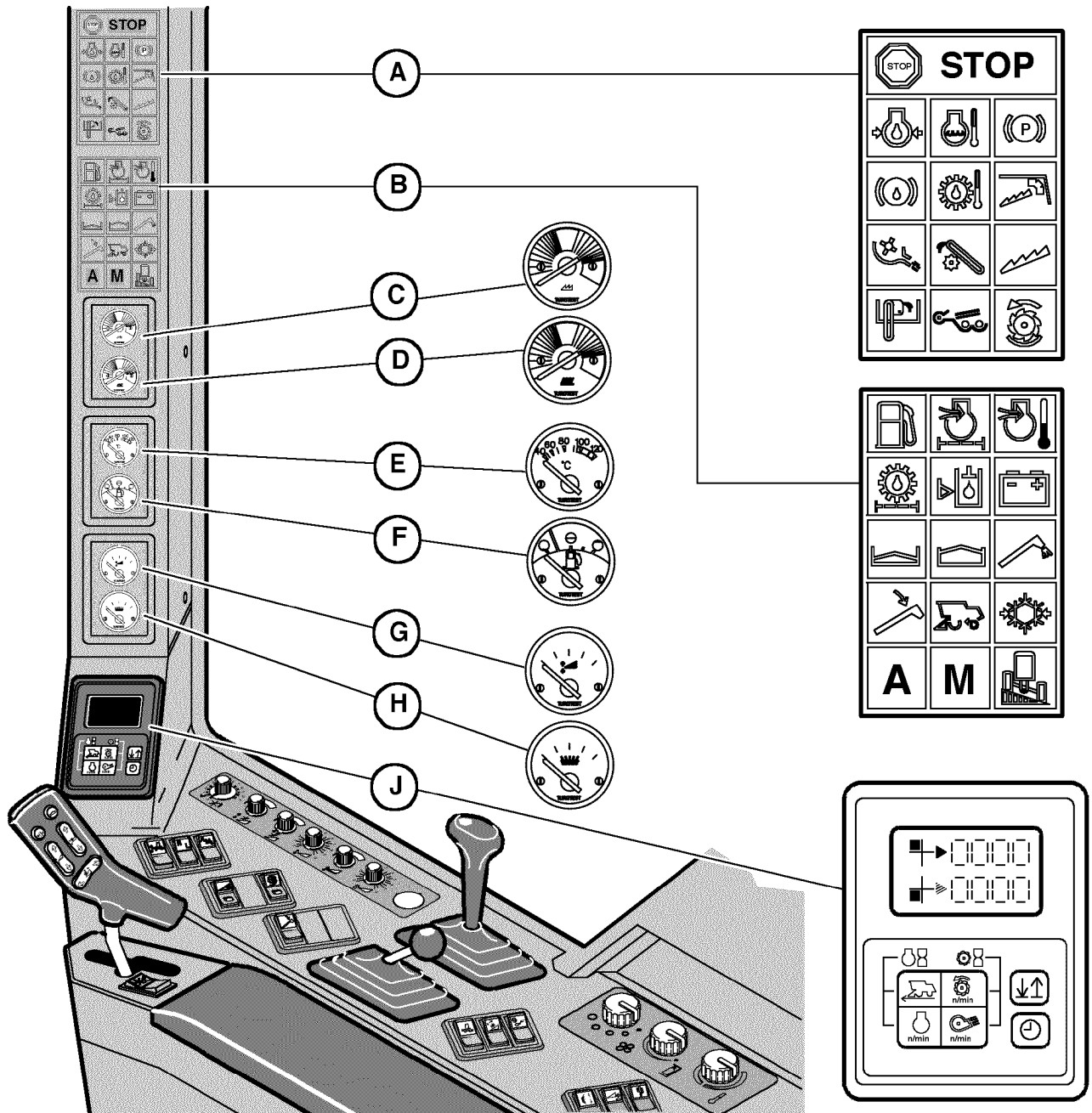
A—Cigarette lighter socket
B1—Throttle Lever (1450 and 1550)
B2—Throttle Rocker Switch (1450 CWS and 1550 CWS)

C—Gear shift lever
D—Fan switch (cab)

E—Cooling compartment control switch

F—Air conditioner/heater switch (1450 CWS and 1550 CWS)

Corner Post



A—Indicator lights I
B—Indicator lights II
C—Harvest performance monitor - Straw walker gauge

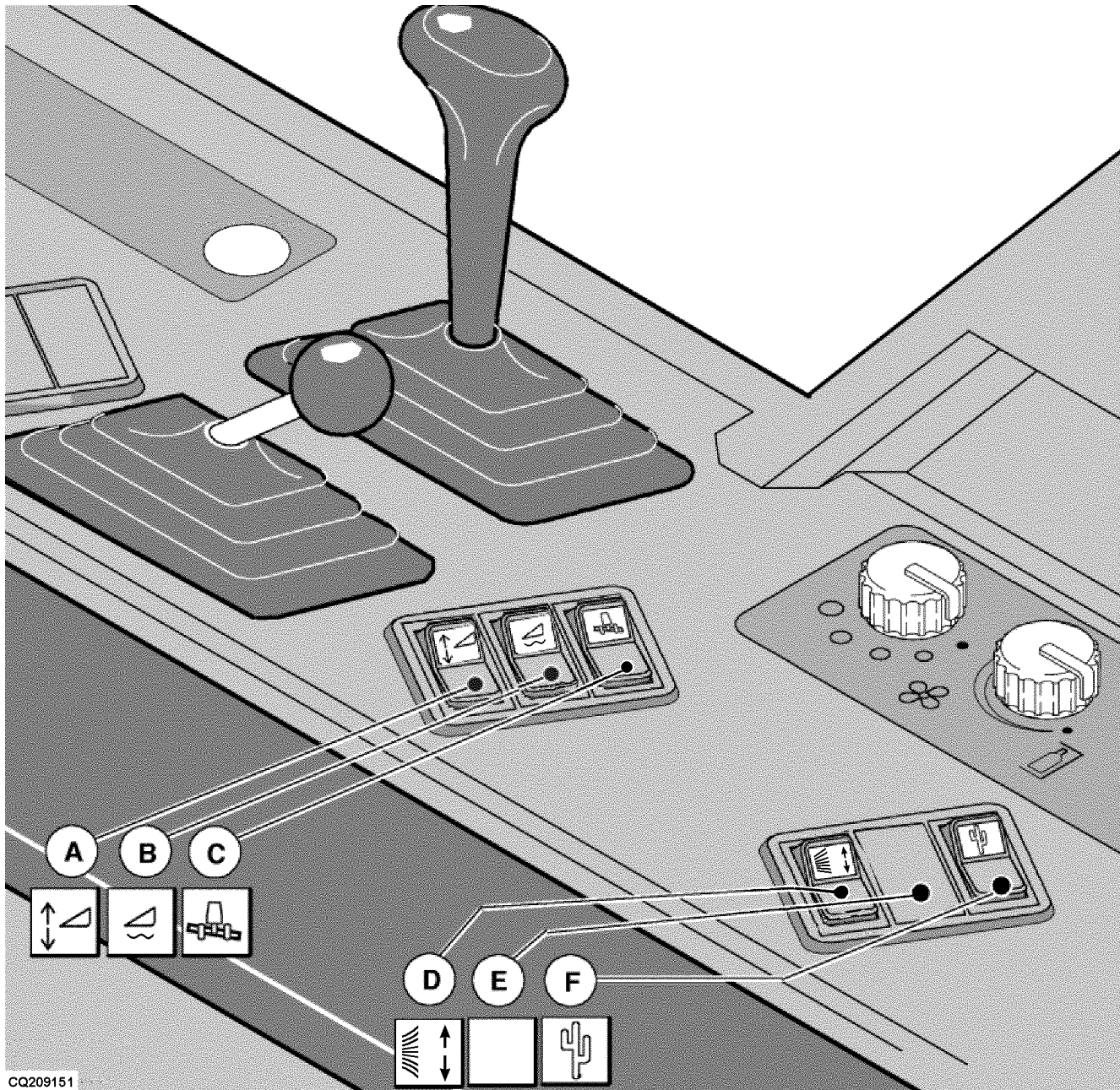
D—Harvest performance monitor - Sieve gauge
E—Coolant temperature

F—Fuel Gauge
G—Header height gauge (only CWS)

H—Distributor plate gauge (Option CWS)
J—Infotrak monitor

CO209351 -UN-11NOV02

Switch Console (Continued)



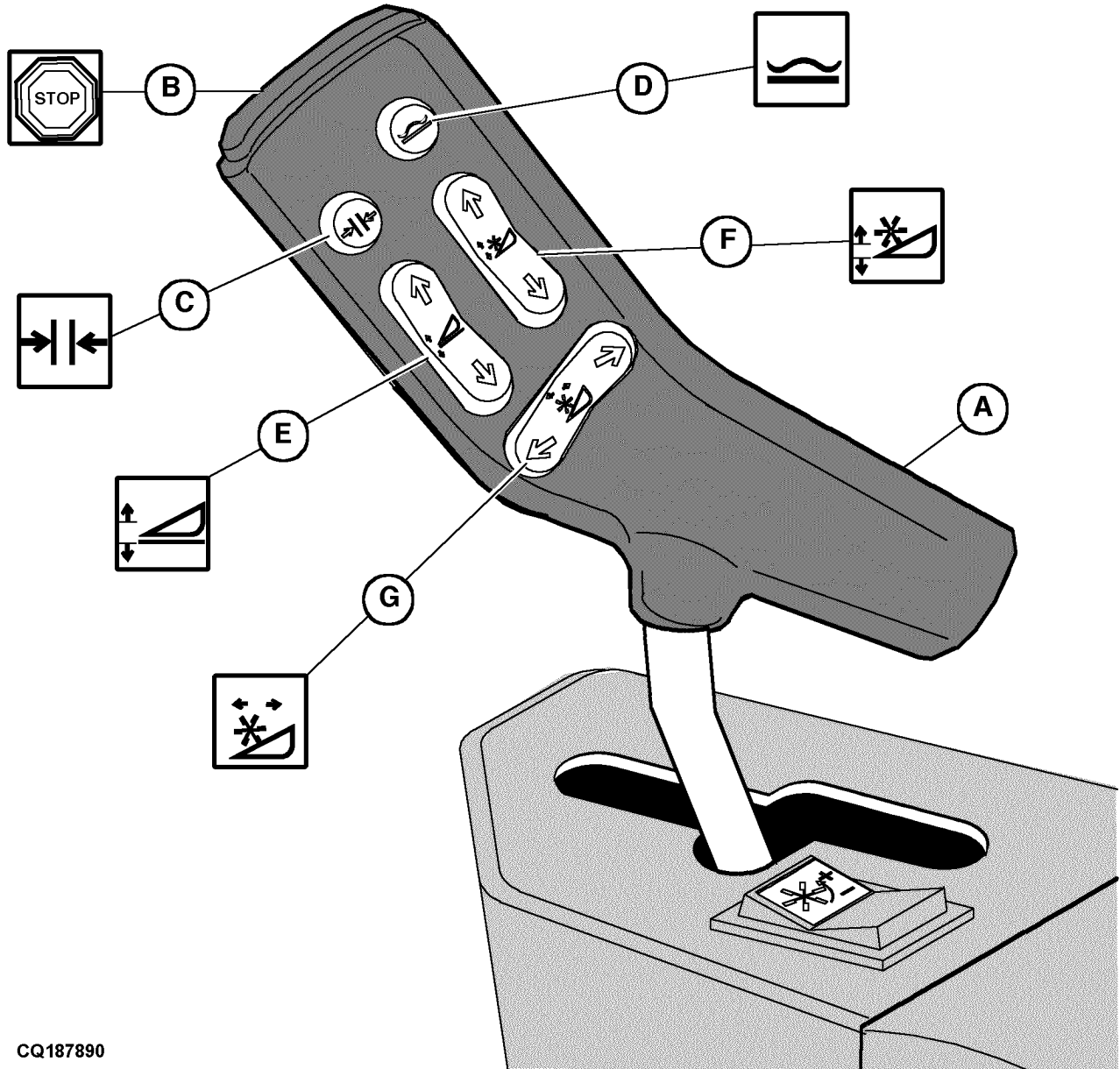
A—Automatic Header Height Control Switch - 600 Series Flex and Rigid Cutting Platform

B—Float Enable Switch (Rigid Cutting Platform — CWS)
C—Lateral Tilt Enable Switch (300 and 600 Series Flex Platforms)

D—Chopper Vane Adjustment Switch (Option CWS)

E—Not used
F—Demoisturizer switch

Hydrostatic ground speed drive lever



CQ187890

CQ187890 -UN-14JUL99

A—Forward/reverse lever
 B—Quick stop switch
 C—Return to cut switch
 D—End of cut (600 and 300 Series flex cutting platforms)

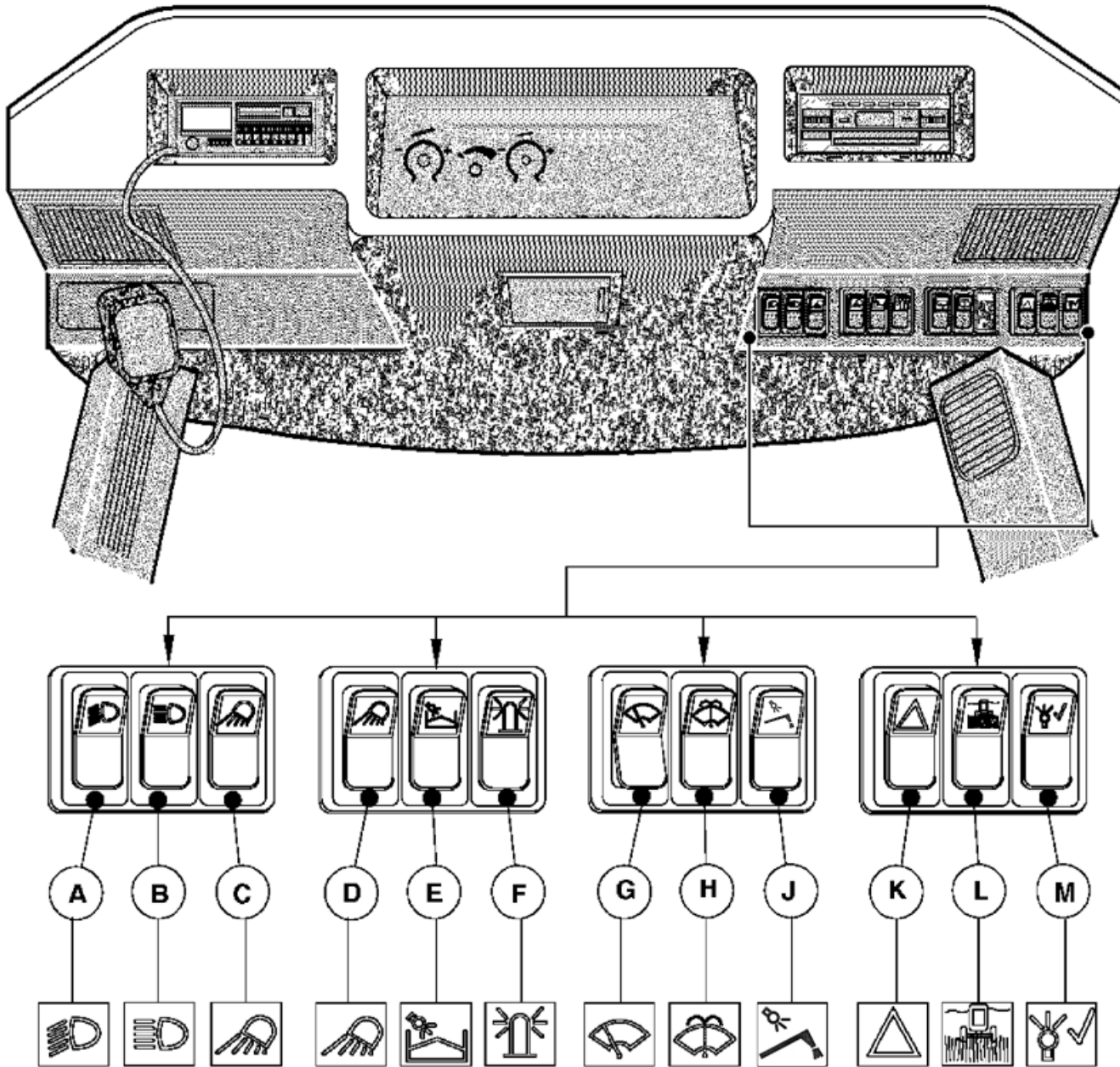
D—Return to cut/flotation (Rigid cutting platforms - CWS)

E—Raise/lower header (2 speeds)
 F—Reel height adjustment

G—Reel fore-and-aft adjustment and /or platform tilt

AG.CO03622,1385 -19-05NOV02-1/1

Roof Console



CQ194551

A—Parking light/headlights
B—Full and low-beam headlights
C—Cab roof work lights/unloading auger

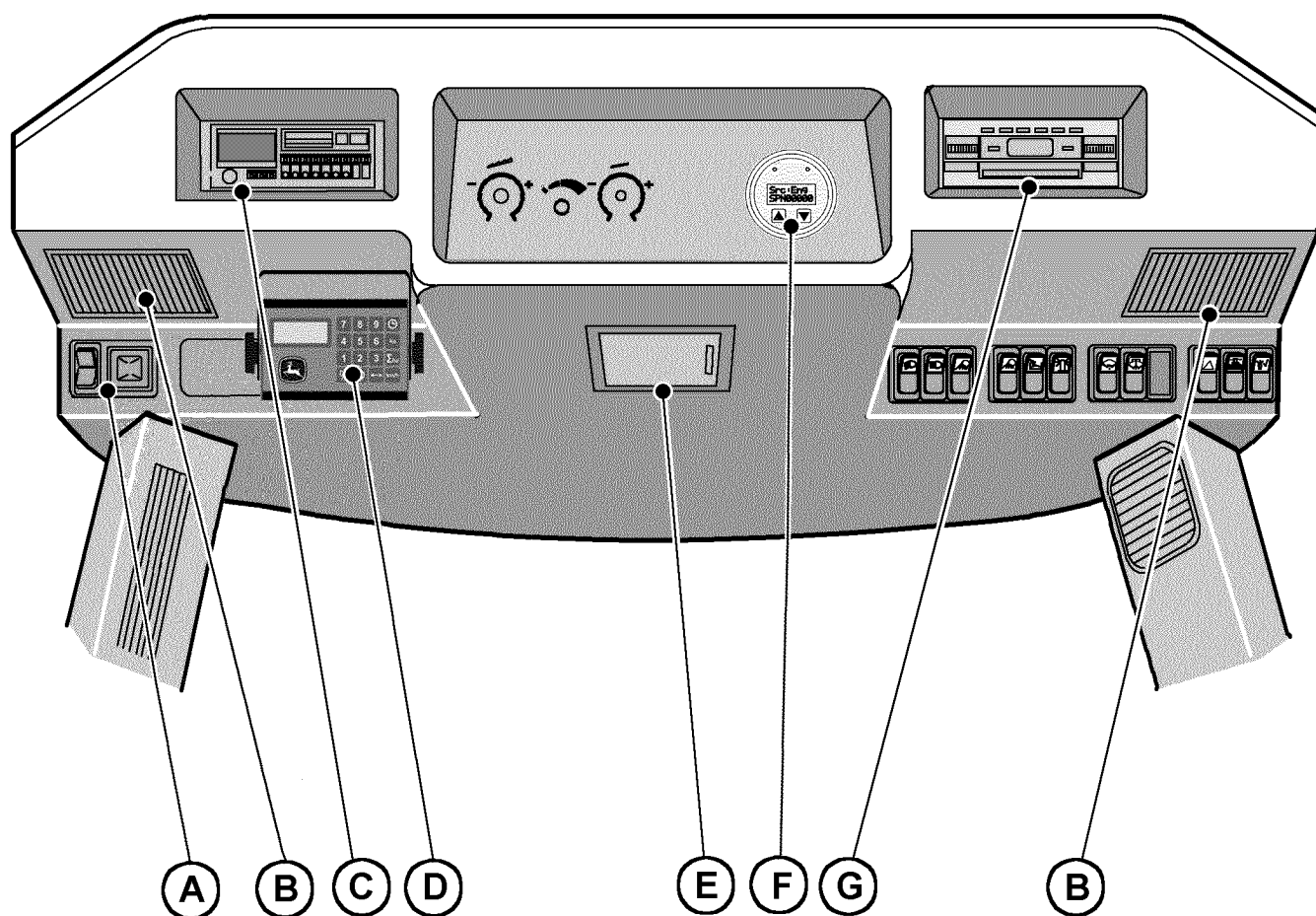
D—Operator's platform/rear work lights (option, on mirror bracket)
E—Grain Tank Light
F—Revolving hazard warning light

G—Windshield wiper
H—Windshield washer
J—Unloading auger light switch

K—Hazard warning lights
L—Road Safety Tumbler Switch
M—Indicator light test

CQ194551 -UN-07FEB02

Roof Console



CQ194561

A—Electrically adjustable
outside mirrors and mirror
heater (optional CWS)

B—Loudspeakers
C—Preparation for radio
D—Area Counter (CWS)

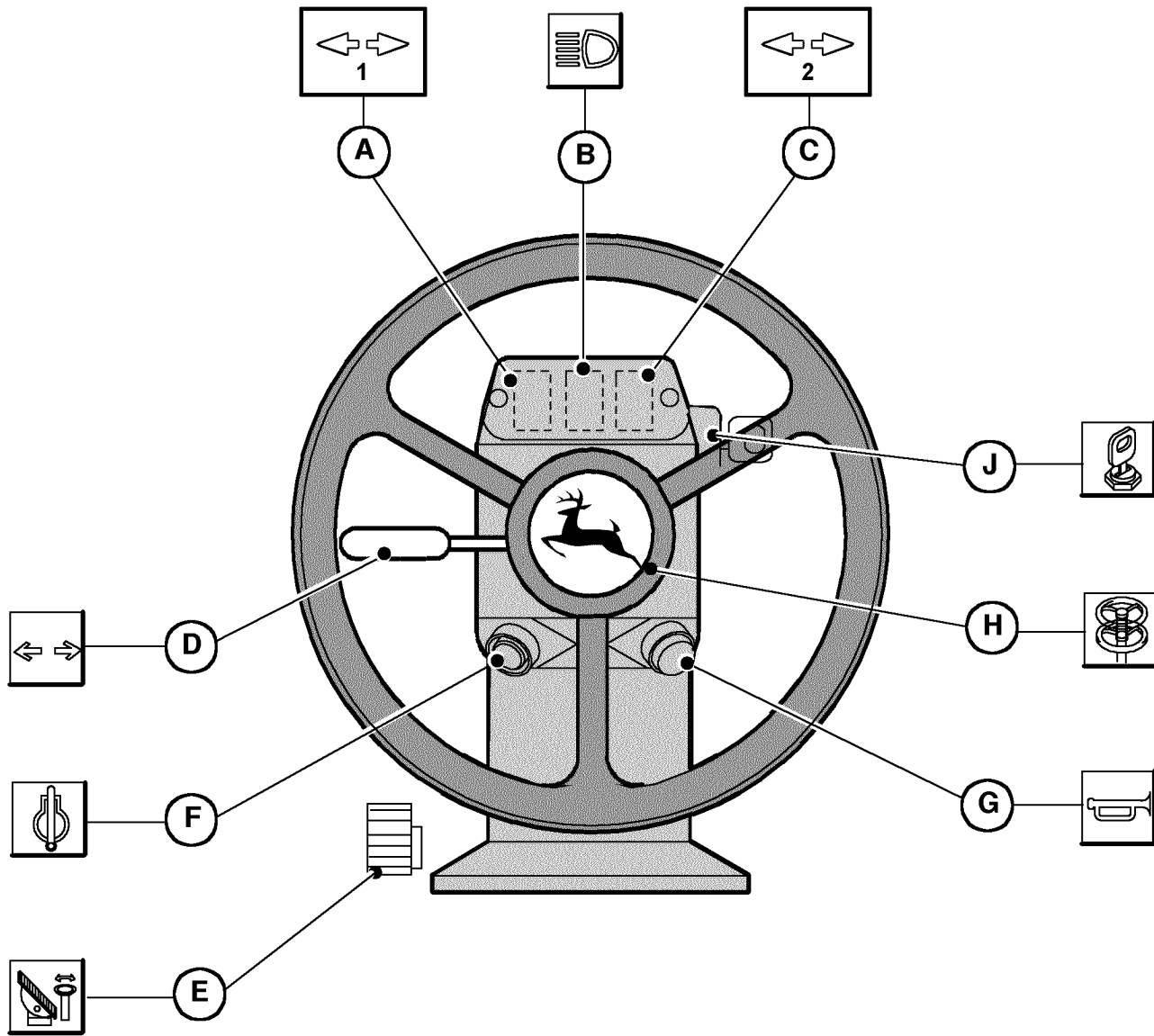
E—Interior Lighting
F—Diagnostic gauge — To
diagnose engine electronic
system failures (CWS)

G—Preparation for Citizens'
Band (optional)

NOTE: Dimensions for the installation of (C) and (G)
are the standard ones: 182 mm (7.17 in.) wide,
53 mm (2.1 in.) high.

CQ194561 -JUN-06NOV01

Steering Column



CQ203561

A—Turn-Signal Indicator Light
B—Full-Beam Indicator Light
C—Turn signal indicator light (trailer) or header lighting

D—Turn-Signal Lights
E—Pedal for horizontal steering column adjustment

F—Not used
G—Push button for horn
H—Knob for vertical steering column adjustment

J—Start key

AG,CO03622,1388 -19-19NOV02-1/1

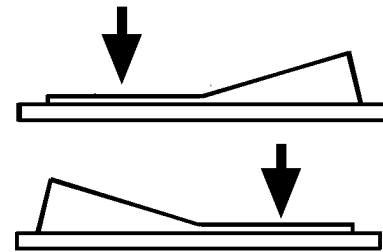
CQ203561 -UN-26OCT01

Types of Switches

There are two types of switches on the combine console

- Two-position Switch
- Three-position Switch

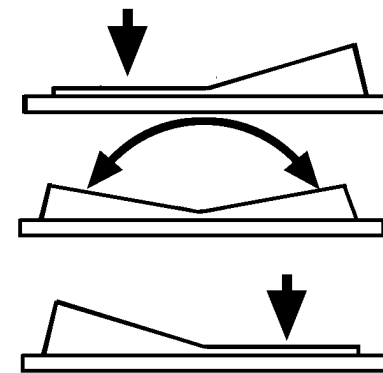
Observe carefully their position regarding the instructions given in this manual.



CQ187960

CO187960 -UN-14JUL99

Two-position Switch



CQ187970

CO187970 -UN-14JUL99

Three-position Switch

AG,CO03622,1392 -19-14JUL99-1/1

Header Drive Tumbler Switch (With Operating Lock)

NOTE: With this switch in the on position, the engine start system will be blocked.

Requirements:

- Engine running (low speed)
- Road safety switch in field position.
- Separator engaged

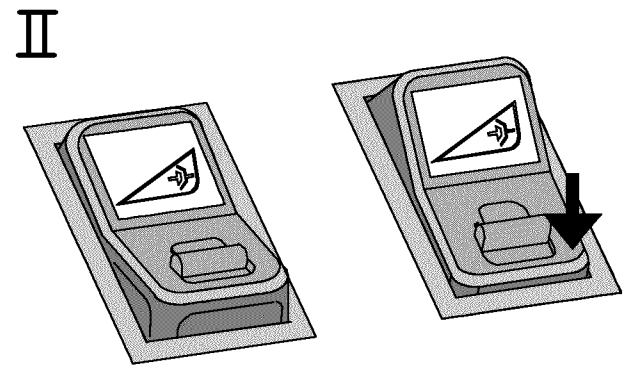
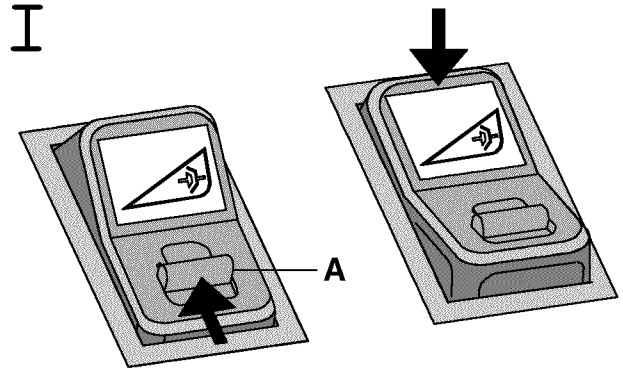
Engaging Header Drive (I):

Push up operating lock (A) and depress top part of switch (symbol).

Disengaging Header Drive (II):

Depress lower part of switch.

NOTE: For emergency stop, use the quick "STOP" switch on the multi-function lever. In this case the header disengages with the header drive switch in ON position, to reactivate this function is necessary turn OFF and ON again the header drive switch.



I—On
II—Off

ZX 002284

ZX002284 -UN-16JUN95

Separator Tumbler Switch (With Operating Lock)

NOTE: With this switch in the on position, the engine start system will be blocked.

Requirements:

- Engine running (low speed)
- Road safety switch in field position.

Engaging Separator Drive (I):

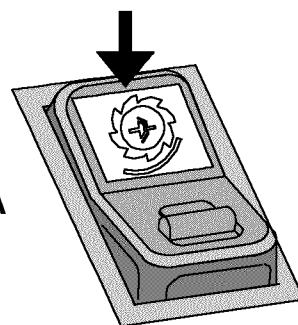
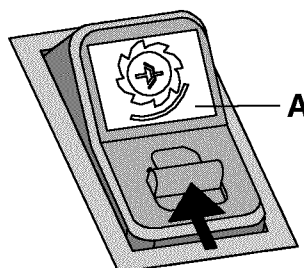
Push up operating lock (A) and depress top part of switch (symbol).

Disengaging Separator Drive (II):

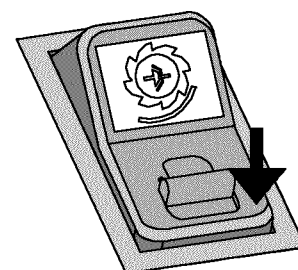
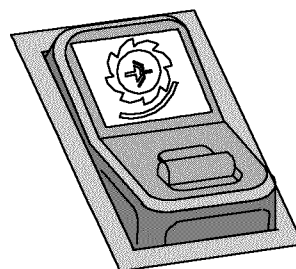
Depress lower part of switch.

I—On
II—Off

I



II



ZX 002285

ZX002285 -UN-16JUN95

AG.CO03622,1547 -19-07OCT02-1/1

Unloading Auger Swing Tumbler Switch (With Center Position)

Requirements:

- Engine running
- Road safety switch in field position.

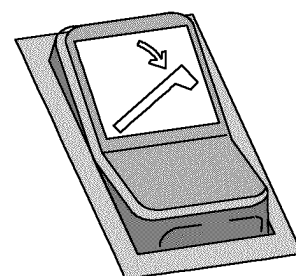
I — Swing drive shut off

II — Swing out unloading auger

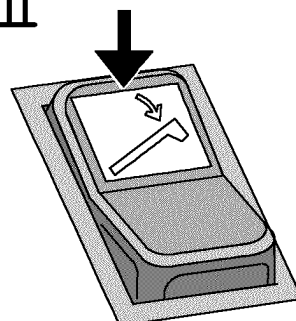
III — Swing in unloading auger

NOTE: The swing drive is shut off automatically as soon as auger end positions are reached (after approx. 20 seconds). Auger motion can be stopped in any position by moving switch back to center position.

I

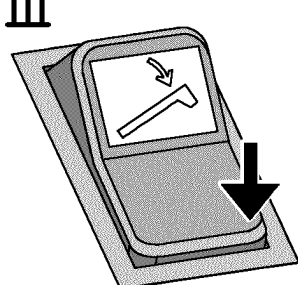


II



ZX009529

III



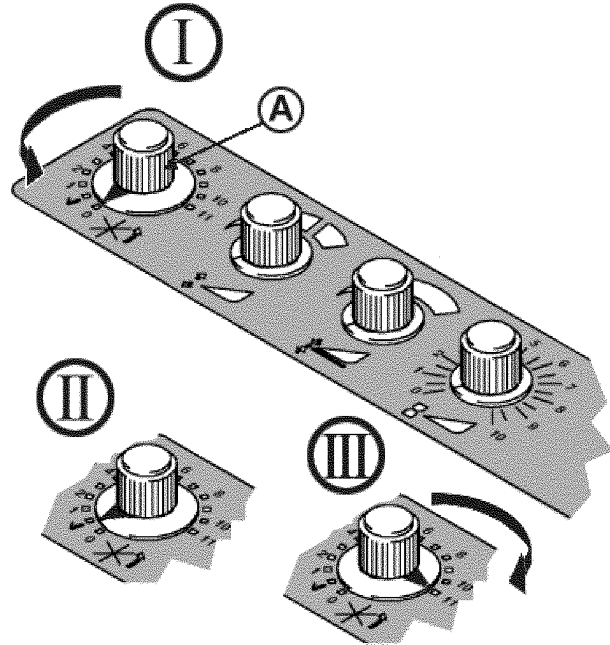
ZX009529 -UN-08NOV96

AG.CO03622,1548 -19-05NOV02-1/1

Reel Speed Control Switch (DIAL-A-SPEED™)

Reel speed-to-ground speed ratio may be preselected. Turning switch (A) clockwise changes ratio from 0.8—2.2 (shown on switch as 1—11). Turning switch all the way counterclockwise will de-activate reel speed control system.

- I—Reel speed control off
- II—Switch position for diagnosis/manual reel speed (refer to "Service-Electrical System")
- III—Reel speed is 2.2 times faster than ground speed



CQ194570

DIAL-A-SPEED is a trademark of Deere & Company

AG.CO03622,1550 -19-07OCT02-1/2

CQ194570 -UN-26SEP01

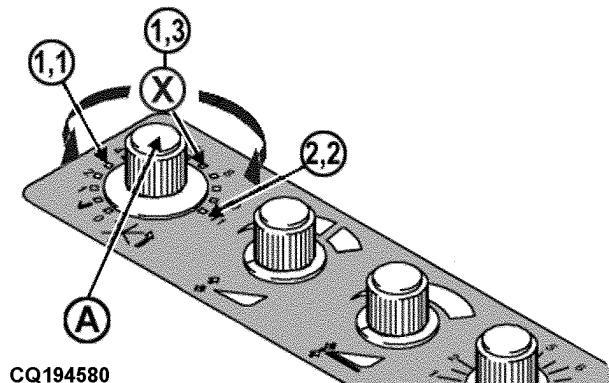
NOTE: Reel speed control system will only operate within a ground speed range from 1.2 km/h (0.75 mph) to approx. 10 km/h (6.25 mph).

Operation:

During operation, reel speed may be adapted to harvesting conditions.

When working in down and tangled grain crops and a reel speed faster than ground speed is desired, move switch (A) to area (X) (a ratio between 1.1 and 2.2; shown on switch as 3—11).

NOTE: With reel speed control system activated, the reel will continue to rotate at slowest speed when ground speed drops below operating range.



CQ194580

CQ194580 -UN-17FEB00

AG.CO03622,1550 -19-07OCT02-2/2

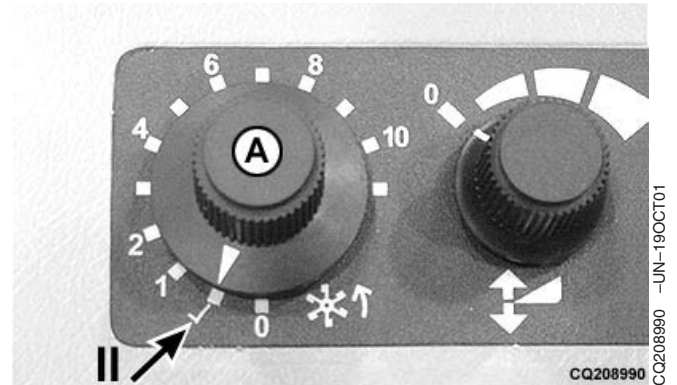
Adjustment, Reel Speed

Manual Mode

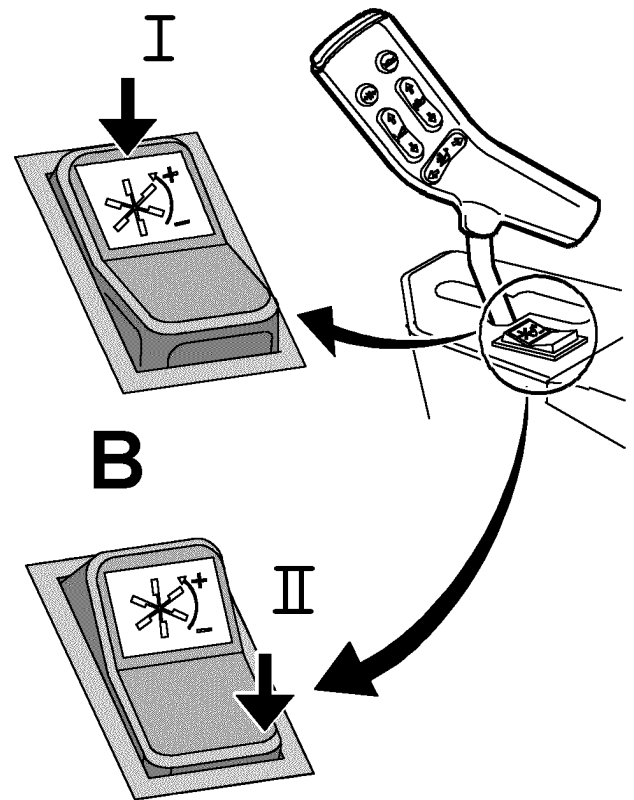
- Move Dial-A-Speed knob (A) to position II.
- Threshing engaged.
- Platform engaged.
- Adjust reel speed through switch (B) according to necessity.

IMPORTANT: Reel speed adjustment can only be done while reel is running.

I—Increase Reel Speed
II—Reduce Reel Speed



Move Dial-A-Speed knob (A) to position II.



Switch (B)

Continued on next page

MB03730,000037A -19-08MAR02-1/3

CQ208990 -UN-19OCT01

CQ208920 -UN-19OCT01

CQ208920

Automatic Mode

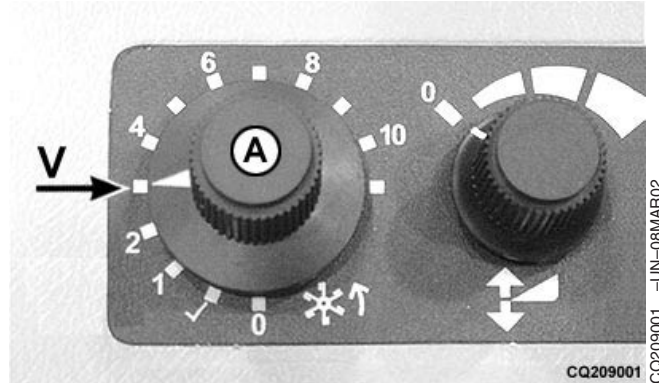
The Dial-A-Speed knob (A) also controls the ratio of the reel speed and ground speed.

To operate, start the engine and drive forward with the separator and header engaged.

Turn the Dial-A-Speed knob (A) to position V.

Watch the speed of the reel and adjust the Dial-A-Speed knob (A) in a position between 1 and 11 until you get the desired ratio to ground speed.

The reel will now speed up or slow down in relation to the ground speed.



Dial-A-Speed knob (A) in position V

MB03730,000037A -19-08MAR02-2/3

This system does not operate if ground speed is less than 1.2 Km/h (0,75 m.p.h.).

Turn the Dial-A-Speed knob (A) to position II.

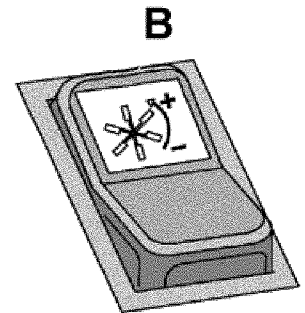
Use the manual reel speed switch (B) to get the desired reel speed.

The minimum reel speed can be increased when operating at slower speeds. To change the minimum speed:

Press the manual switch (B) to get the minimum reel speed desired for 2 or 3 seconds.

Return the Dial-A-Speed knob (A) to the prior setting and continue operating. This minimum speed is kept until the engine is shut off.

NOTE: It is not possible to select manual or automatic mode when knob (A) is indicating (0).



MB03730,000037A -19-08MAR02-3/3

Selector Switch for Header Tilt Adjustment and Fore-and-Aft Adjustment of Reel

This function can only be activated with road safety switch in field position and engine running.

Switch (A) changes the function of switch (B) as follows:

Manual Header Tilt Adjustment

- With switch (A) in position (I), rocker switch (B) adjusts the header tilt.

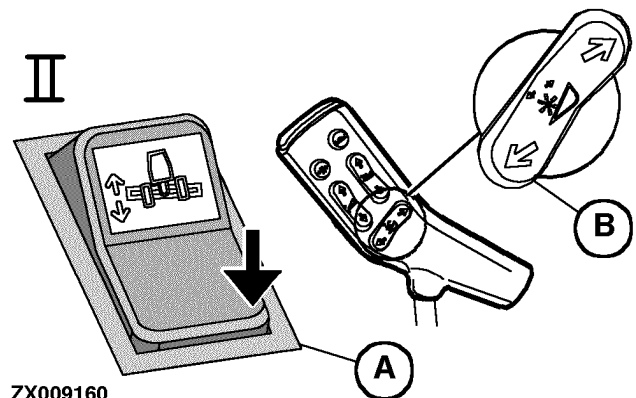
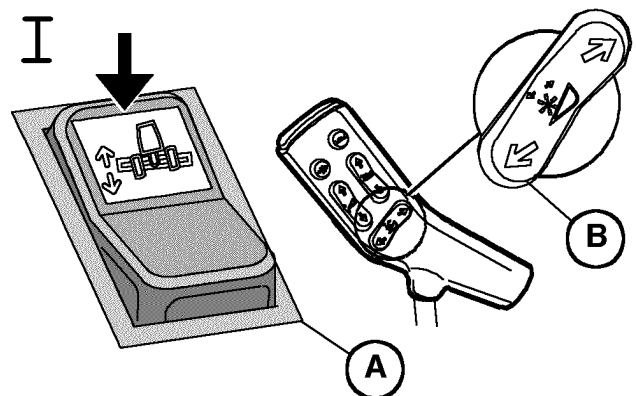
Operation:

When using the header tilt adjustment function, it is possible to manually adapt header position to ground contours regardless of combine tilt.

NOTE: When the header tilt adjustment is used, it will disable the automatic header control. Press return to cut switch to enable it again.

Fore-and-Aft Adjustment of Reel

- With switch (A) in position (II), rocker switch (B) controls fore-and-aft adjustment of the reel.



ZX009160

I—Header tilt adjustment
II—Reel Fore-And-Aft Adjustment

ZX009160 -UN-22MAY96

AG,CO03622,1389 -19-05FEB02-1/1

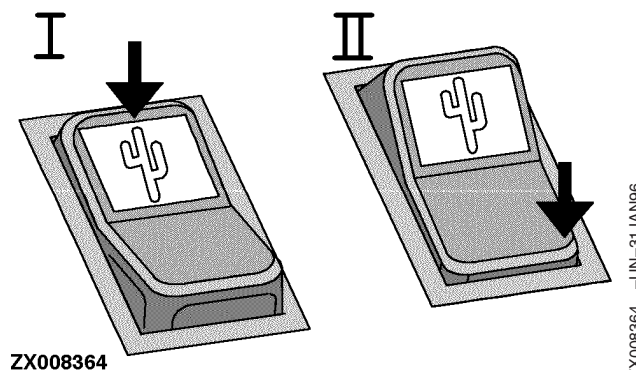
Demoisturizer Tumbler Switch

IMPORTANT: Operate the demoisturizer switch only when heater is switched on.

With heater switched on, cab air can be demoisturized by pressing the “demoisturizer” switch.

Cab air temperature can be regulated by means of rotary heater switch.

NOTE: This switch may be used to reduce the moisture in the air inside the cab if the windows are steamed up.



ZX008364

I—Mirror heater on
II—Mirror heater off

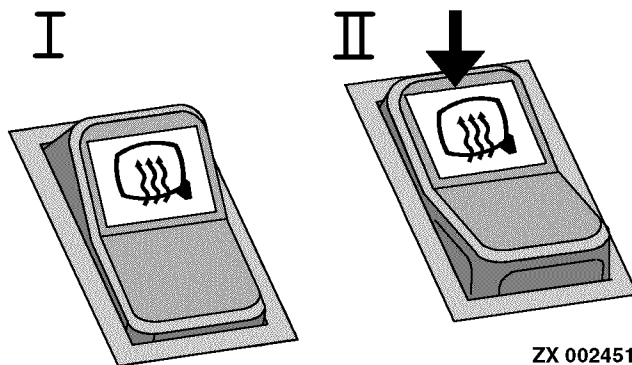
ZX008364 -UN-31JAN96

AG,CO03622,1390 -19-13MAR02-1/1

Mirror Heater Tumbler Switch (Option CWS)

Switching on mirror heater is only possible when starter switch is in "On" position (turned to position I or further).

- I—Mirror heater off
- II—Mirror heater on



ZX 002451

MB03730,00001F1 -19-13MAR02-1/1

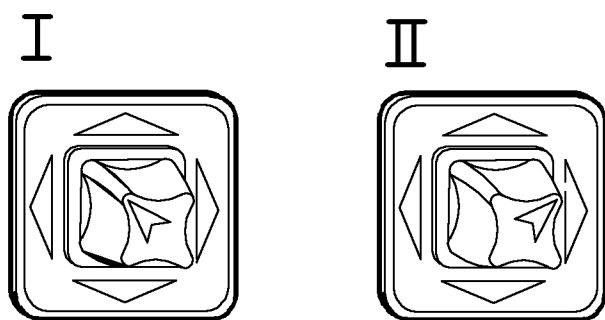
ZX002451 -UN-16JUN95

Switch for Electrically Adjustable Outside Mirrors (Option CWS)

Mirror adjustment is only possible when starter switch is in "On" position (turned to position I or further).

Move mirrors up/down or to the right/left according to arrows on switch.

- I—Adjusting l.h. outside mirror
- II—Adjusting r.h. outside mirror



ZX 002452

MB03730,00001F2 -19-13MAR02-1/1

ZX002452 -UN-16JUN95

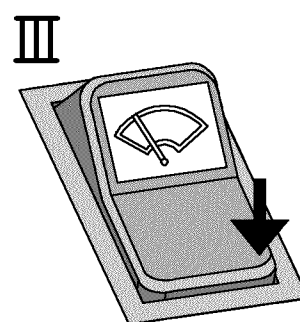
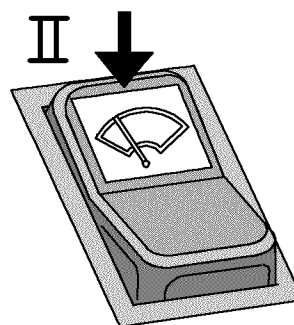
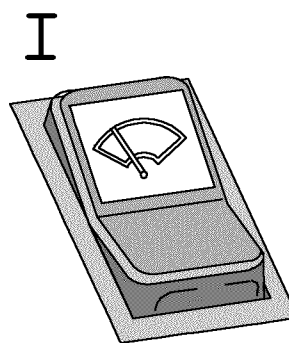
Windshield Wiper Switch

Ignition must be turned on for windshield wiper operation.

I— Windshield wiper off

II— Tumbler switch function Windshield wiper operates continuously.

III— Rocker switch function Windshield wiper completes one cycle (briefly touch switch to activate this function).



ZX 002317

ZX002317 -UN-16JUN95

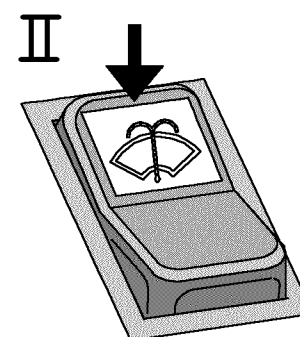
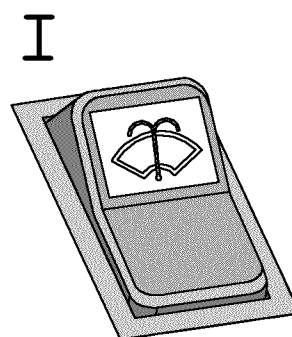
AG.CO03622,1391 -19-13MAR02-1/1

Windshield Washer Rocker Switch

Ignition must be turned on for windshield washer operation.

I—Windshield washer off

II—Windshield washer on



ZX 002318

ZX002318 -UN-16JUN95

AG.CO03622,1393 -19-13MAR02-1/1

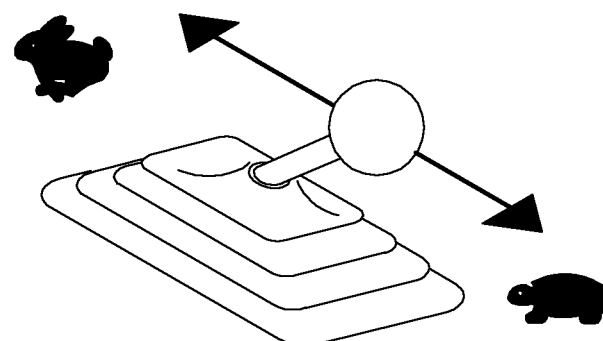
Throttle Lever (1450 and 1550)

Push throttle lever forward

— Increase engine speed (hare)

Pull throttle lever to the rear

— Reduce engine speed (Tortoise)



ZX 002310

ZX002310 -UN-16JUN95

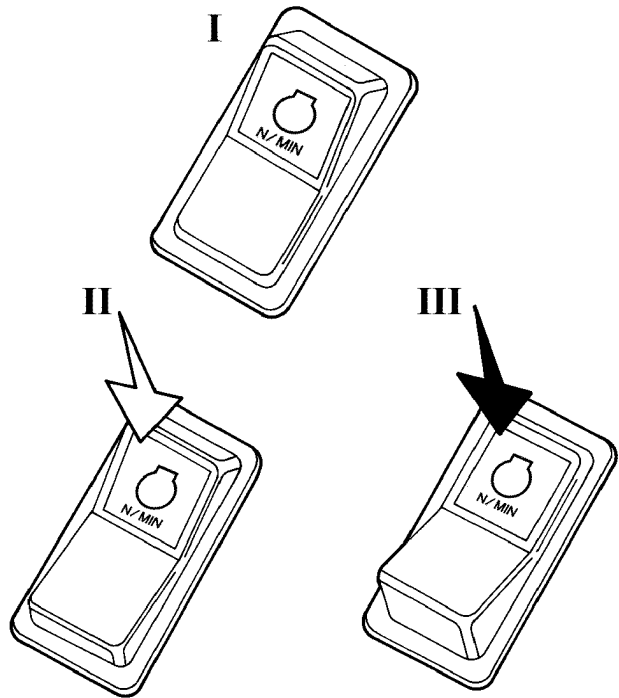
AG.CO03622,1640 -19-28AUG02-1/1

Throttle Rocker Switch (1450 CWS and 1550 CWS)

Press the rocker switch according to the illustration.

NOTE: With CWS combines, the engine speed goes always to 2250 rpm when the third gear is selected.

- I—Slow speed - 1300 rpm
- II—Medium speed - 1850 rpm
- III—Fast Speed - 2550 rpm



CQ203500

CO03622,0000064 -19-07OCT02-1/1

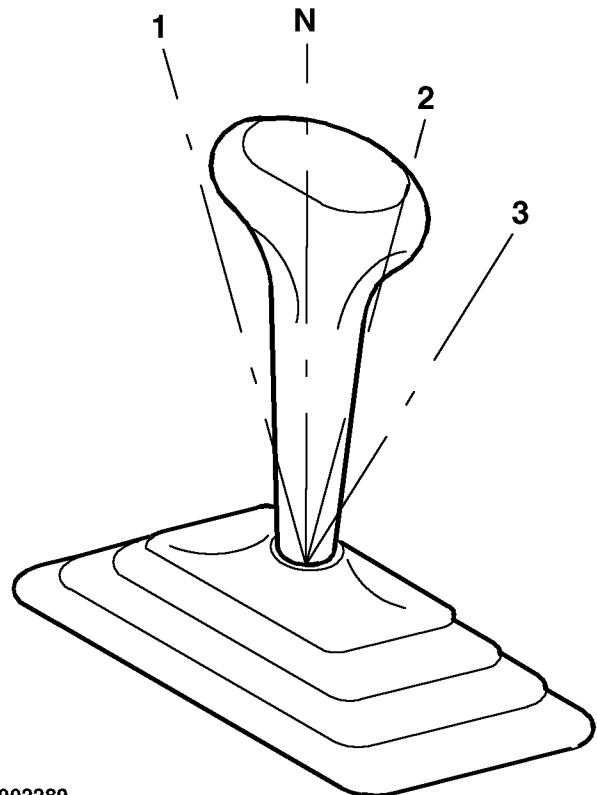
CC203500 -UN-30MAR01

Gear Shift Lever

Shift into desired gear with combine stationary (ground speed control lever in neutral position).

Select a suitable gear for road travel or field operation (in most cases the 2nd gear is best for harvesting).

NOTE: With CWS combines, the engine speed goes always to 2250 rpm when the third gear is selected.



ZX 002289

AG,CO03622,1641 -19-07OCT02-1/1

ZX002289 -UN-16JUN95

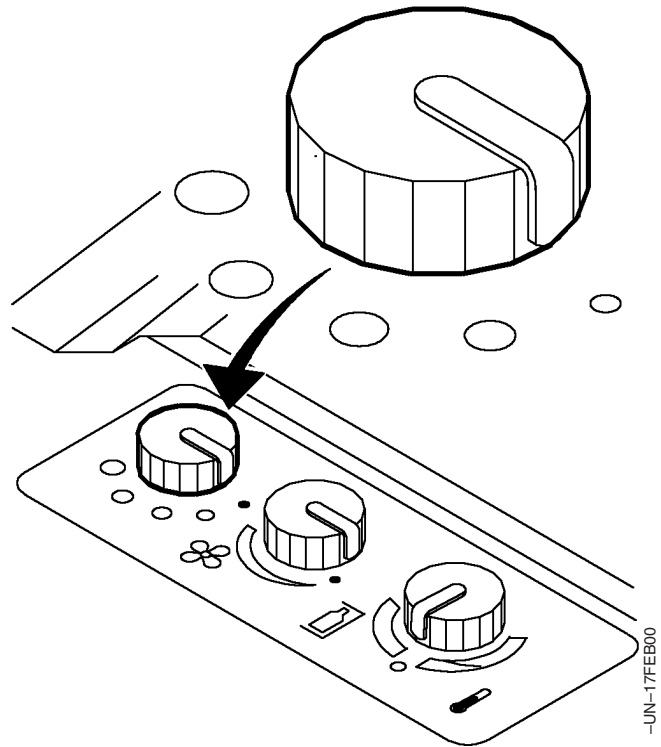
Rotary Fan Switch

IMPORTANT: Always switch on fan before heating or air conditioning system is set to work.

A four-speed rotary switch controls the fan which slightly pressurizes the cab. To switch on fan (only possible with ignition turned on), turn switch clockwise.

Position 0 — Fan off

Fan speed increases if switch is turned further to the right (clockwise).



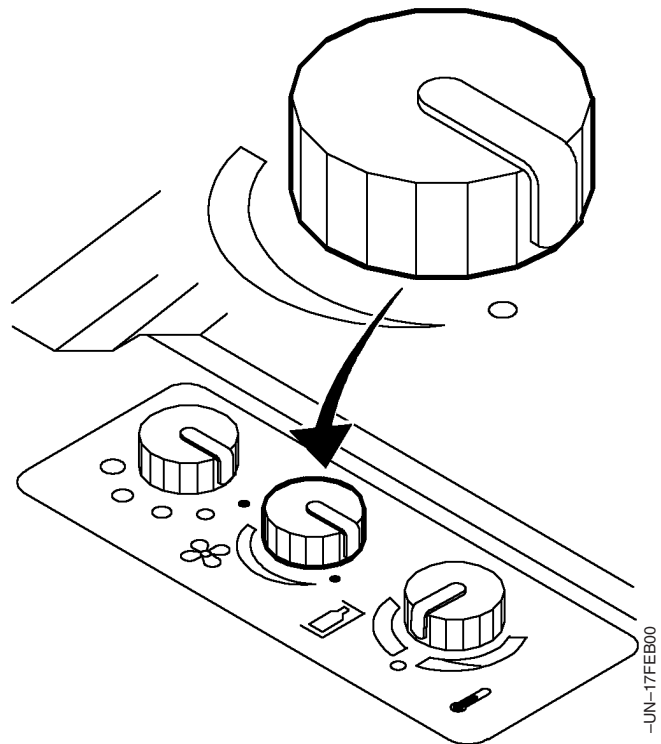
CQ194620

CQ194620 -UN-17FEB00

AG.CO03622,1642 -19-13MAR02-1/1

Rotary Switch - Cooling Compartment

A cooling compartment is located below the passenger seat. To increase cooling effect, turn switch clockwise.



CQ194630

CQ194630 -UN-17FEB00

AG.CO03622,1643 -19-13MAR02-1/1

Rotary Switch — Air Conditioning/Heater

I — Air Conditioning System

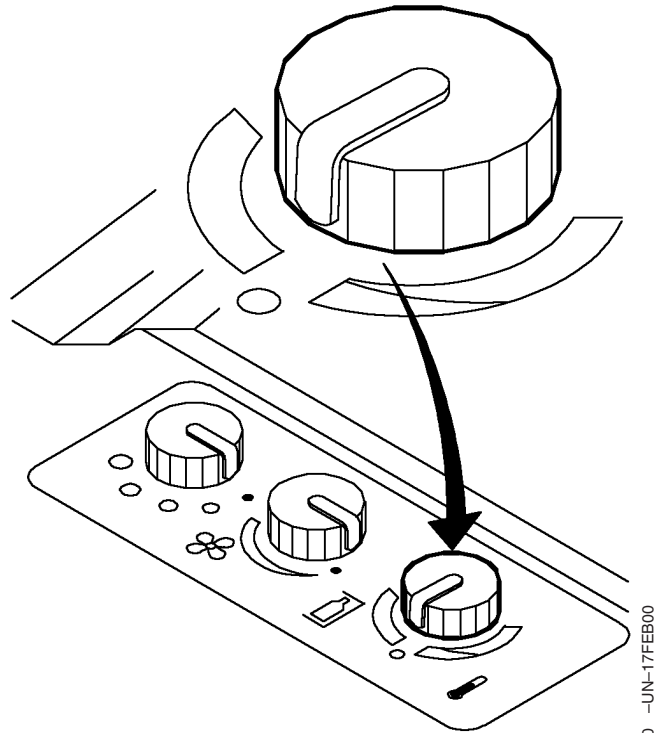
Before switching on the air conditioning system, the fan must be operating. Turn switch counterclockwise to switch on air conditioning. Turning switch all the way counterclockwise will give maximum cooling.

IMPORTANT: Operate air conditioning system several times each year — even in the cooler seasons — to lubricate all moving parts of the system.

II — Heater

Before switching on the heater, the fan must be operating. Turning switch clockwise will open heater valve. Turn switch all the way clockwise for maximum heating effect.

Also refer to “Demoisturizer Tumbler Switch”.



CQ194640

CQ194640 -UN-17FEB00

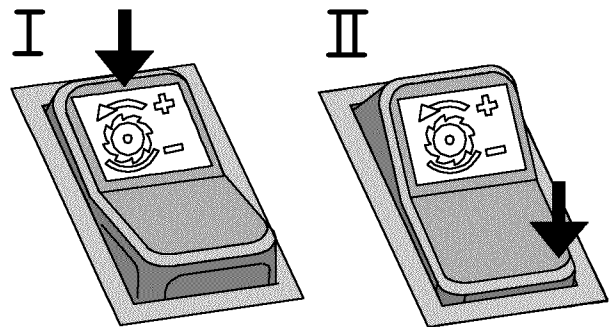
AG.CO03622,1644 -19-17MAY02-1/1

Cylinder Speed Switch

Cylinder speed adjustment is only possible with engine running, road safety switch in field position and separator engaged.

IMPORTANT: After changing cylinder speed, alarm speed must also be readjusted (refer to Section “Warning Devices and Monitors”).

NOTE: The current cylinder speed can be displayed on the infotrak monitor.



ZX 002324

ZX002324 -UN-16JUN95

I—Increase cylinder speed
II—Reduce cylinder speed

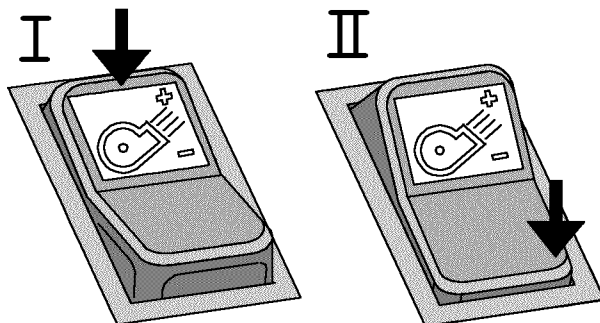
AG.CO03622,1647 -19-17MAY02-1/1

Fan Speed Switch

Fan speed adjustment is only possible with engine running, road safety switch in field position and separator engaged.

IMPORTANT: After changing fan speed, alarm speed must also be readjusted (refer to Section “Warning Devices and Monitors”).

NOTE: The current fan speed can be displayed on the infotrak monitor.



ZX 002326

I—Increase fan speed
II—Reduce fan speed

ZX002326 –UN–16JUN95

AG,CO03622,1648 –19–17MAY02–1/1

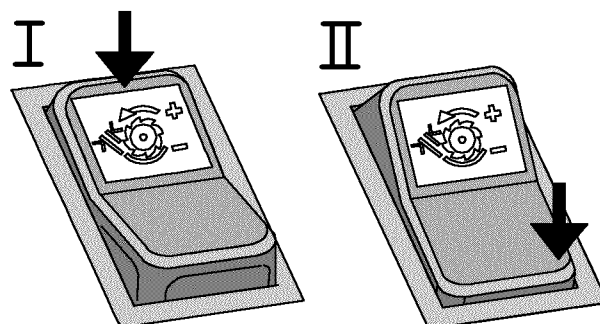
Concave Clearance Adjusting Switch

To adjust concave clearance, starter switch must be in position I or II.

NOTE: The current concave clearance can be displayed on the infotrak monitor. Briefly touch switch (top or bottom part) to display actual setting for 5 seconds.

The number 4 indicates minimum and the number 51 maximum concave clearance.

With manual adjustment, concave clearance is shown on infotrak monitor.



ZX 002325

I—Increases concave clearance
II—Reduces concave clearance

ZX002325 –UN–16JUN95

AG,CO03622,1649 –19–30OCT02–1/1

Unloading Auger Drive Switch

NOTE: With this switch in the on position, the engine start system will be blocked.

Requirements:

- Engine running
- Road safety switch in field position.

Engaging Unloading Auger Drive

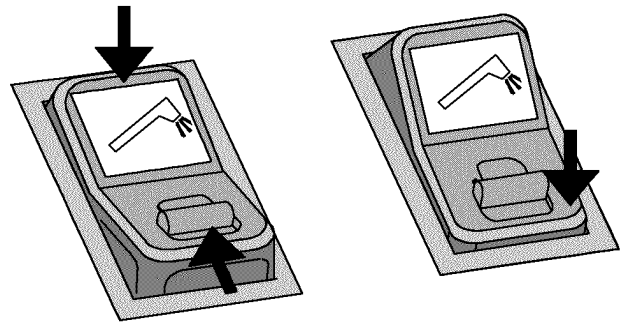
To engage the unloading auger drive, press the switch (end with figure). The indicator light comes on as soon as the drive is engaged.

NOTE: The system engages the unloading auger drive in any position, inclusively when it is totally swung in.

Disengaging Unloading Auger Drive

Depress lower part of switch.

NOTE: For emergency stop, use the quick "STOP" switch on the multi-function lever. In this case the unloading auger disengages with the unloading auger drive switch in ON position, to reactivate this function is necessary turn OFF and ON again the unloading auger drive switch.



CQ203510

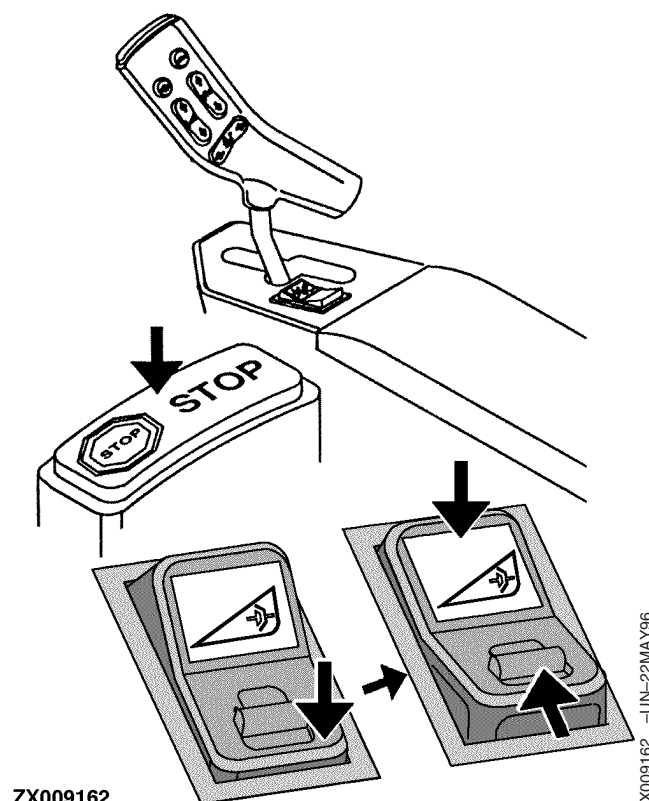
—UN—30MAR01
CQ203510

Quick “STOP” Switch

IMPORTANT: Header, reverser and unloading auger can be disengaged instantaneously with this switch in the event of malfunctions.

The reel will be also disengaged when the quick stop switch is activated.

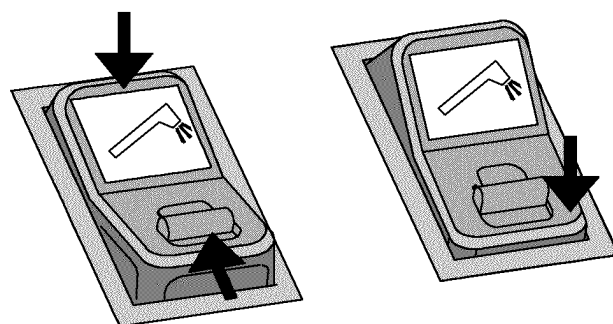
For reengaging any of the functions, turn the correspondent switch OFF and ON. Before doing so, make sure that the malfunction has been corrected.



ZX009162

Quick “STOP” Switch and Header Switch

ZX009162 -UN-22MAY96



CQ203510

Unloading Auger Drive Switch

CQ203510 -UN-30MAR01

CQ216420 -UN-06NOV02



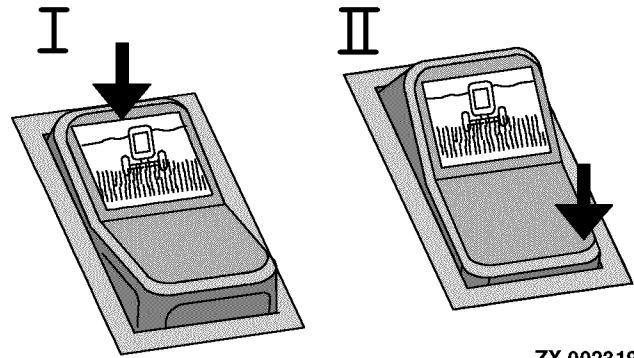
Engaging reverser

AG,CO03622,1651 -19-19NOV02-1/1

Road Safety Tumbler Switch (Red)

IMPORTANT: For road travel, road safety switch must be in road position (II). Before driving on public roads, also move header and unloading auger to transport position. This ensures that all hydraulic functions — with the exception of the steering system — are not working. With road safety switch in road position, it is also not possible to engage separator and header drives.

NOTE: If this switch will be off accidentally with any one of the transmissions set in motion, it is necessary to turn off and on the selected function(s). This system incorporates retain relays to execute the functions of operational security of the combine.



I—Field position
II—Road position

ZX 002319

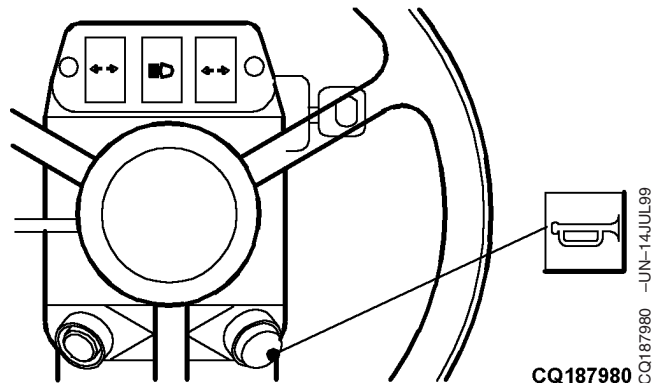
—UN—16JUN95

AG,CO03622,1394 —19—07OCT02—1/1

Horn Button



CAUTION: For safety reasons, sound horn before starting the engine or operating the combine.



CQ187980

—UN—14JUL99

AG,CO03622,1395 —19—13MAR02—1/1

Start key

The starter switch has 4 positions:

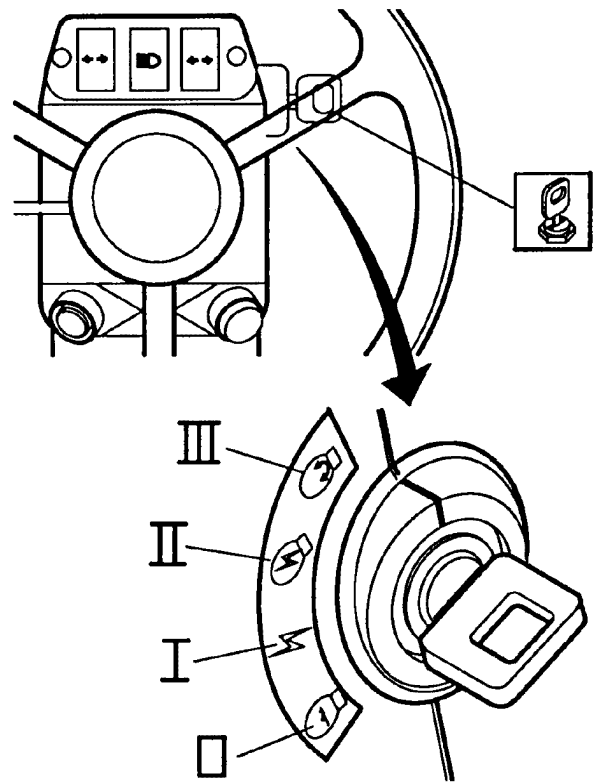
0 — Off

I — Circuits for electronic components, radio, Citizens' Band radio and INFO-TRAK on

II — Ignition on

III — Start position

NOTE: If one of the three drive switches (yellows) from the switch console is activated or the hydrostatic ground speed drive lever is not in neutral position it will not be possible start the combine.



CQ188000

CQ188000 -UN-14JUL99

AG.CO03622,1397 -19-19NOV02-1/1

Feeder House/Header Reverser

IMPORTANT: Reel must be raised before engaging reverser. Backing out a crop “slug” into a turning reel will bend it.

I — Disengage header drive (using header drive switch) and back up combine 1—2 m (3—6 ft). Run engine at slow idle speed.

II — Step on left-hand side of reverser pedal and hold pedal down to reverse feeder house and platform.

NOTE: The pedal must be held down or it will not shift.

III — Step on right-hand side of reverser pedal to disengage reverser function.

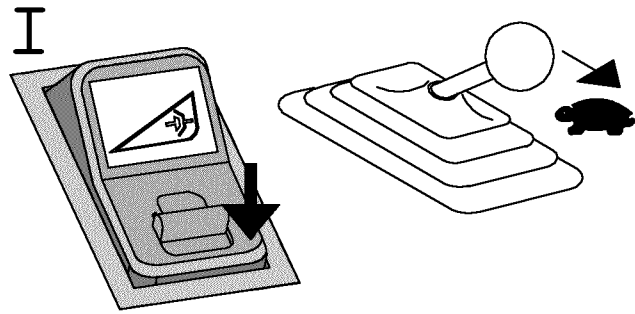
IV — Engage header for normal function.

Run engine at high speed and resume harvesting.

IMPORTANT: During reverser operation, never attempt to force “slugs” through combine by repeated cycling of reverser drive. Repeated cycling shortens the life of components.

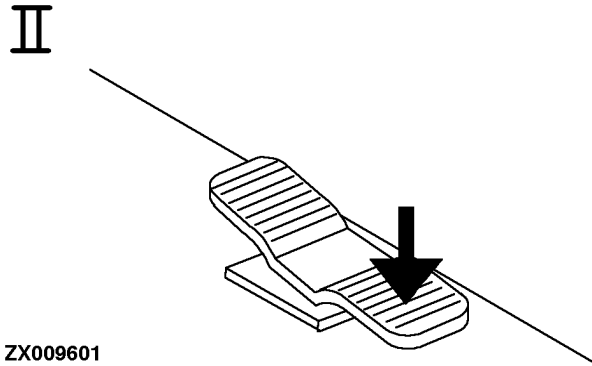
NOTE: The reverser works only with threshing engaged and header disengaged.

For emergency stop, use the quick “STOP” switch on the multi-function lever. In this case the reverser disengages with the pedal activated, to reengage the reverser is necessary deactivate and activate the pedal again.



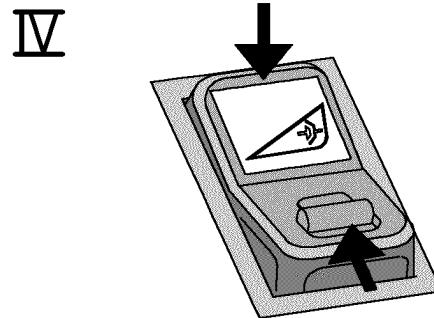
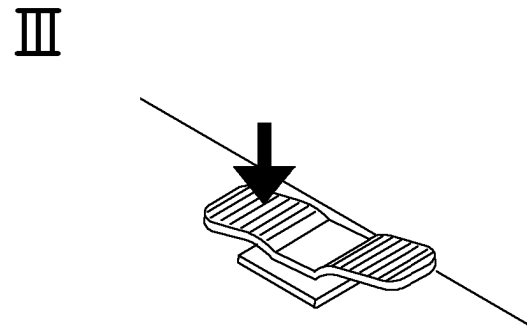
ZX 002453

ZX002453 -UN-16JUN95



ZX009601

ZX009601 -UN-08NOV96



CQ194681

CQ194681 -UN-07FEB02

Chopper Distributor Adjustment (Rocker Switch with Center Position) (Option CWS)

Adjustment is only possible with separator engaged.

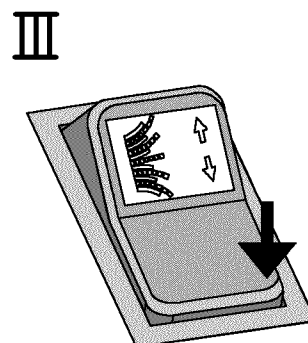
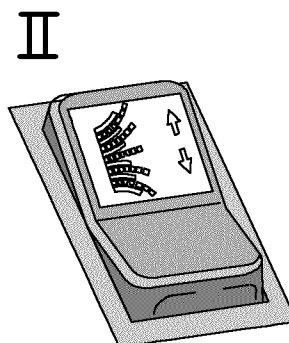
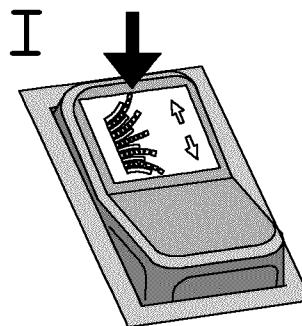
Operation:

In windy conditions and/or on slopes, straw distribution may be adapted to harvesting requirements after basic adjustment with regard to header width has been performed. When working on slopes, this switch is used to regulate the direction of straw distribution. This will avoid downhill straw accumulations. Corner post gauge (A) shows current direction of straw distribution.

I—Material is thrown to the right

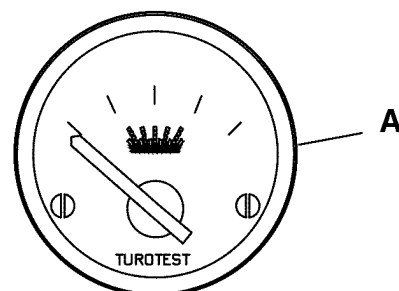
II—Off

III—Material is thrown to the left



ZX 002307

—UN—16JUN95



—UN—11NOV02

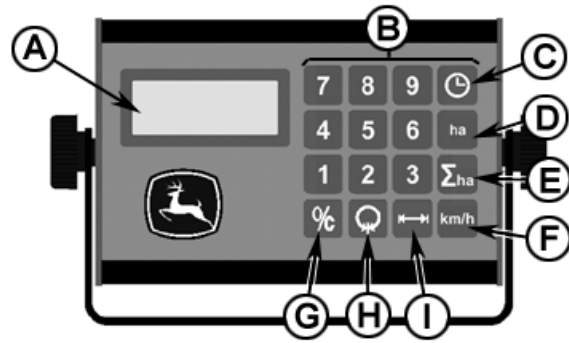
CO216481

MB03730,00001EF —19—11NOV02—1/1

Area Counter — Function Keys (CWS)

NOTE: This equipment operates only with the combine running and the threshing engaged.

- A—Digital display
- B—Keyboard
- C—Time consumption in hours/minutes
- D—Trip Counter
- E—Total Counter
- F—Speed
- G—Zeroing of the functions, time and area. This key is also used when encoding the figure 0
- H—Wheel circumference
- I—Encode of working width



CQ209471 —UN-05NOV01

MB03730,000020E —19-29MAY02-1/1

Area Counter — Setting up (CWS)

Two sets of information must be determined by the operator in order to make the system work. It is important that the following is precisely measured:

1. Circumference of the wheel to which the magnet is mounted.
2. Working width of the platform used.

These two figures are determined as follows:

Continued on next page

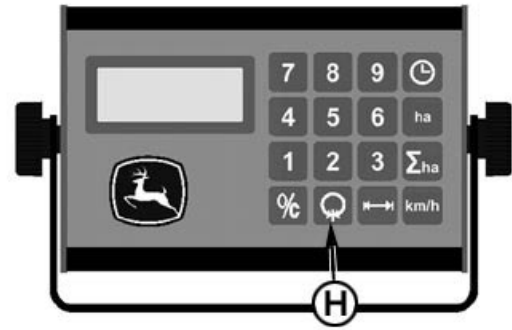
MB03730,0000210 —19-07OCT02-1/2

Wheel circumference is determined as follows:

1. Mark out in the field and on the tire.
2. Drive until the rear wheel has made 10 revolutions.
3. Mark out in the field again.
4. Now measure the distance between the two marks in metres and centimetres. Divide this distance by 10 the result being the effective wheel circumference.

NOTE: Remember to count revolutions of the rear right side wheel on which the magnet is mounted.

H—Wheel circumference



CQ209472 –UN–31OCT01

MB03730,0000210 –19–07OCT02–2/2

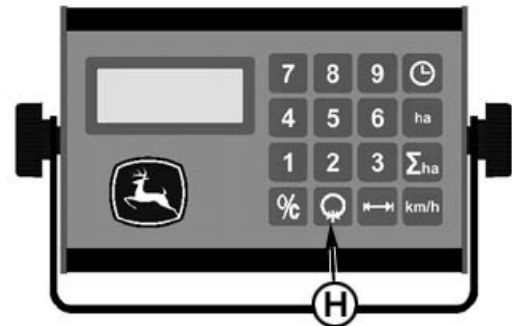
Area Counter — Encode of Wheel Circumference (CWS)

The wheel circumference is encoded in the following way:

Press key (H) and the last encoded wheel circumference is displayed together with an “o”.

Then encode the calculated wheel circumference.

H—Wheel circumference



CQ209472 –UN–31OCT01

MB03730,0000212 –19–04FEB02–1/1

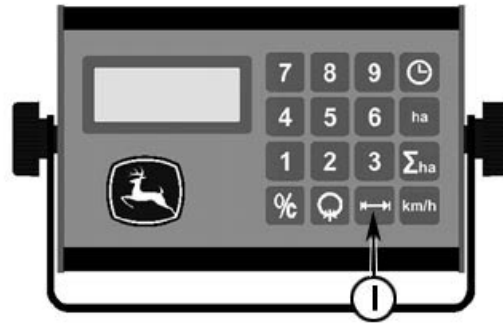
Area Counter — Encode of Working Width (CWS)

The working width is encoded as follows:

Press key (I) and the last encoded working width is displayed.

Then encode the measured or calculated value for the working width.

I—Encode of working width

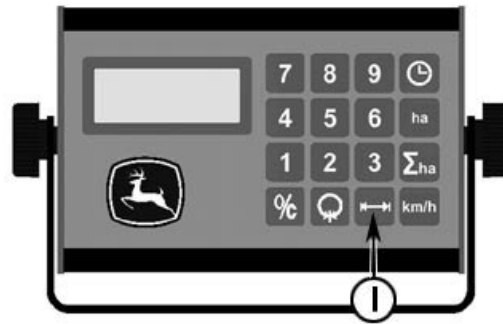


CQ209474 —UN-31OCT01

MB03730,0000213 —19-17MAY02-1/2

If the working width is unknown, it is advisable to travel for 5 turns, measure the harvested width, divide this by 5 and in this way determine the working width. Enter in centimetres. Example: 11.30 m shall be entered as 1130 cm.

IMPORTANT: When wheel circumference and working width are entered in centimetres, the monitor will calculate in the metric system (km/h, ha, etc.). If you want any of the functions to be calculated in the imperial system (mph, acres etc.) you will have to convert one or both of the figures in accordance with the table (see Area Counter — Error Indication).



I—Encode of working width

CQ209474 —UN-31OCT01

MB03730,0000213 —19-17MAY02-2/2

Area Counter — Function Keys (CWS)

Time in Hours and Minutes

When pressing the function key (C), time spent in hours and minutes (max. 99 hours and 59 minutes) will be displayed.

The time counter can be stopped and started by repeatedly pressing the key.

Flashing colon " : " indicates that the time counter is ON.

Constant colon " : " indicates that the time counter is OFF.

The time counter can be zeroed by pressing key (G) for at least 3 sec. (only when the time counter is stopped).

Preparation of the time counter:

Press key (C) and the last measured time consumption will be displayed. If the colon " : " flashes (time counter on), press key (C) again and the time counter is turned off (constant colon).

Zeroing of time:

Press key (G) for at least 3 sec. and the time counter is zeroed.

Start timing:

Press key (C) and the time counter turns on (colon flashes).

Area counter now counts hours and minutes, and can be stopped and started again at any time as required.

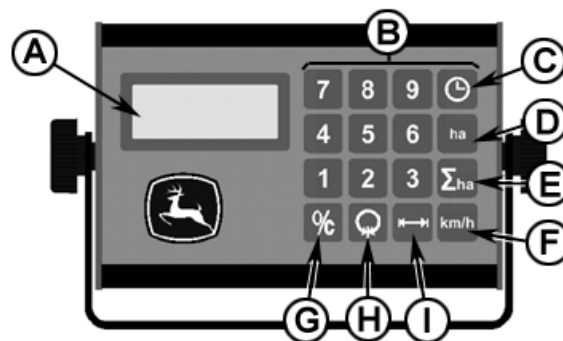
Trip Counter

When pressing the function key (D), area in ha is displayed.

From 0 to 99.99 ha (acres) area is shown with 2 decimals, and after this with 1 decimal from 100 to 999.9 ha (acres).

Preparation of the trip counter:

Press key (D) and the last measured area is displayed.



- A—Digital display
- B—Keyboard
- C—Time consumption in hours/minutes
- D—Trip Counter
- E—Total Counter
- F—Speed
- G—Zeroing of the functions, time and area. This key is also used when encoding the figure 0
- H—Wheel circumference
- I—Encode of working width

CQ209471 -UN-05NOV01

Press key (G) for at least 3 sec. Area trip counter is zeroed.

Total Counter

When pressing the function key (E), total area in ha (acres) is displayed (max. 9999).

This function is used for totalling area worked for instance during 1 month or 1 year.

Preparation of total counter:

Press key (E) and the last measured area is displayed.

Press key (G) for at least 3 sec. Area total counter is zeroed.

The two area meters are now ready for use, and even though another function is displayed during work, the area meters continue counting. Therefore the speed-function is normally chosen during work, and here an " r ", appears on the display, whenever the area meters are stopped.

The area meters automatically stop/start when the implement is lifted/lowered (feeder house sensor).

NOTE: For harvesting corn is necessary to readjust the sensor position to enable the area meter in a higher position in relation to ground.

By the end of each day you are able to see the day's result. At the beginning of next day the first mentioned area meter is cleared, while the other one automatically sums up the area worked during the week.

MB03730,0000214 -19-20NOV02-2/2

Area Counter — Speedometer (CWS)

When pressing this function key (F), actual speed is displayed with one decimal.

When the area meters are stopped an "r" appears on the left of the display.

After turning on the monitor, it always starts in the speed function.

Speed read out is zeroed 8 sec. after total stop.

F—Speed



CQ209475 -UN-31OCT01

MB03730,0000215 -19-13MAR02-1/1

Area Counter — Meter Counter (CWS)

By encoding a working width of 9999 you can use the area trip counter as metre counter.

The metre counter can only be used if the wheel circumference is encoded in cm. (speed is displayed in km/h).

Preparation of meter (distance) counter:

Press keys (I), 9, 9, 9 and 9 in this order.

Then function key is chosen:

Press key (D) and distance will be displayed in metres.

Distance counter is zeroed like area trip counter.



D—Trip Counter
I—Encode of working width

CQ209476 -UN-31OCT01

MB03730,0000219 -19-05FEB02-1/1

Area Counter — Fault Finding (CWS)

If it is suspected that one of the sensors is not operating correctly, the system can be checked as follows:

First a working width of 8888 is encoded.

Press keys (I), 8, 8, 8 and 8 in this order.

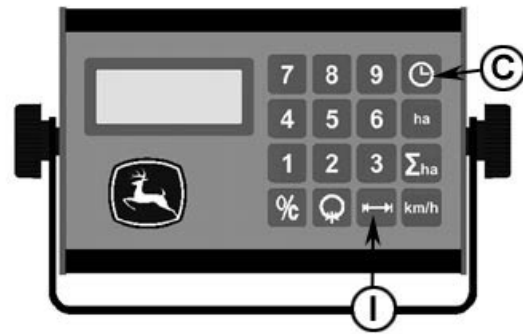
Then function key is chosen:

Press key (C) and the following will be displayed:

An " h " appears when the wheel sensor is activated.

An " r " appears when the feeder house sensor is activated.

NOTE: " r " appears when the area counters are off.



C—Time consumption in hours/minutes
I—Encode of working width

CO209478 –UN-31OCT01

WH03730,000021A –19-13MAR02-1/1

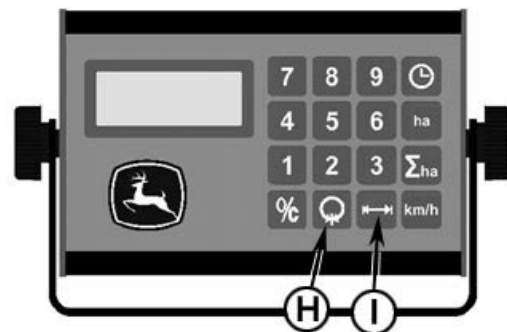
Area Counter — Error Indication (CWS)

When the word "FEJL" appears on the display, it is due to the area counter not being supplied by 12 V, but by a lower voltage than required. Therefore check both " + " and " - " to the monitor.

If a problem still exists, it is advisable to check the vehicle electrical system.

Conversion table from metric into imperial:			
Desired unit of measurement:		Value to be encoded:	
Speed	Area	H	I
Km/h	Hectares	cm.	cm.
Km/h	Acres	cm.	cm. x 2,741
mph	Hectares	cm. x 0,621	cm. x 1,610
mph	Acres	cm. x 0,621	cm. x 3,979

NOTE: Always measure the wheel circumference and working width in centimetres, and then convert them according to the table above.



H—Wheel circumference
I—Encode of working width

CO209479 –UN-31OCT01

MB03730,000021A –19-13MAR02-1/1

Warning Devices and Monitors

Indicator Lights I

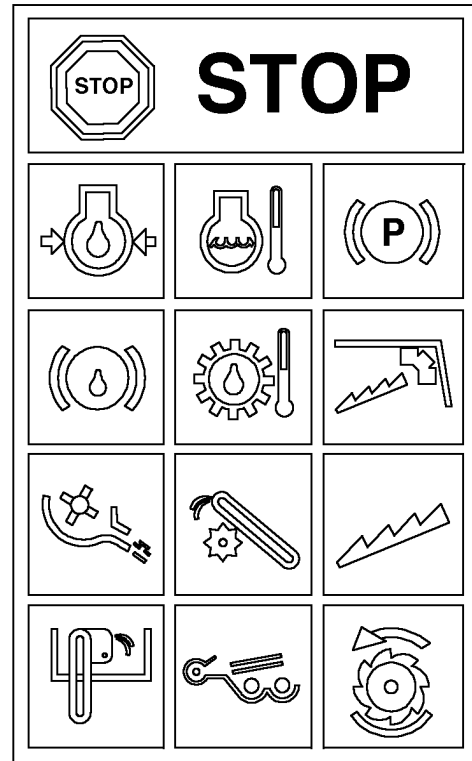
These lights monitor the most important combine functions (road and operating safety, engine).

Priority 1:

Red warning lights enable an acoustical warning signal.

As soon as one of the indicator lights glows, the “STOP” light will also glow and the buzzer will sound (intermittent tone).

NOTE: The acoustical warning signal sounds only with the engine running.



ZX009598

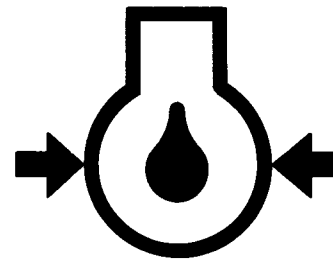
ZX009598 -UN-08NOV96

AG.CO03622,1399 -19-06NOV02-1/1

Engine Oil Pressure Indicator Light

lights up if engine oil pressure drops below 80 kPa (0.8 bar = 11.6 psi).

- Stop engine immediately.
- Remedy the fault



ZX 000 331

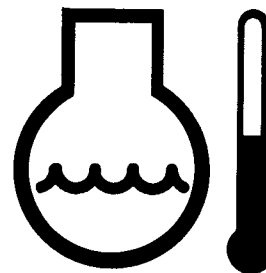
ZX000331 -UN-03APR95

AG.CO03622,1400 -19-13MAR02-1/1

Coolant Temperature Indicator Light

Lights up if coolant temperature exceeds 108°C (226°F) and/or if the charge air temperature exceeds 88°C (190°F).

- Run engine without load for a short period. If temperature will not drop, stop engine and remedy the fault.



ZX 000 332

ZX000332 -UN-03APR95

AG.CO03622,1401 -19-13MAR02-1/1

Parking Brake Indicator Light

Lights up if parking brake is applied and ground speed lever is not in neutral position. With this light on a intermittent warning signal will be heard.



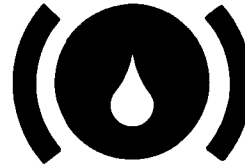
ZX 000 333

AG,CO03622,1402 -19-05NOV02-1/1

ZX000333 -UN-03APR95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



ZX 000 334

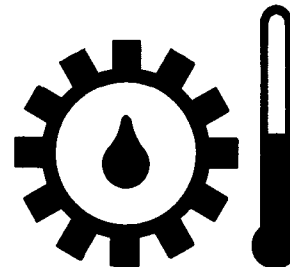
AG,CO03622,1403 -19-13MAR02-1/1

ZX000334 -UN-03APR95

Hydrostatic Transmission Oil Temperature Indicator Light

Lights up if oil temperature exceeds 95 °C (203 °F).

- Check reservoir oil level. Clean oil cooler, if necessary.
- Select a lower gear.



ZX 000 335

AG,CO03622,1404 -19-13AUG02-1/1

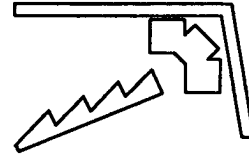
ZX000335 -UN-03APR95

Straw Warning Device Indicator Light

lights up if plugging occurs in the straw hood area.

IMPORTANT: In addition to the buzzer, the horn will also sound (continuous tone) until material accumulations have been removed.

- Disengage separator immediately.
- Shut off engine and wait until all moving parts have stopped, then remove accumulated material.



ZX 002331

ZX002331 -UN-02JUL96

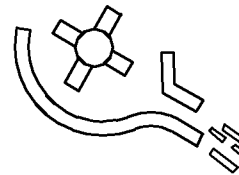
AG,CO03622,1405 -19-13MAR02-1/1

Straw Chopper Speed Indicator Light

Lights up if straw chopper speed drops more than 15% of the rated speed.

With Engine Shut Off and Separator Stopped:

- Check belt tension.
- Check straw chopper for plugging.



ZX 002332

ZX002332 -UN-16JUN95

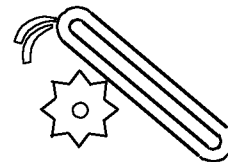
AG,CO03622,1406 -19-05NOV02-1/1

Tailings Elevator Indicator Light

Lights up if tailings elevator shaft speed drops more than 25% of the rated speed.

With Engine Shut Off and Separator Stopped:

- Check drive.
- Check elevator and augers for plugging.



ZX 002333

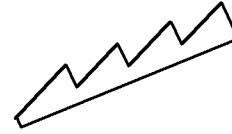
ZX002333 -UN-16JUN95

AG,CO03622,1407 -19-05NOV02-1/1

Straw Walker Indicator Light

Lights up if straw walker shaft speed drops more than 25% of the rated speed.

NOTE: On 1450 WTS and 1550 WTS combines (equipped with power separator) this light also lights up if the power separator speed drops more than 25% of the rated speed.



With Engine Shut Off and Straw Walkers Stopped:

ZX 002334

- Check drive.
- Check for plugging.

ZX002334 -UN-16JUN95

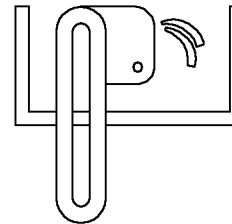
AG,CO03622,1408 -19-05NOV02-1/1

Clean Grain Elevator Indicator Light

Lights up if clean grain elevator shaft speed drops more than 25% of the rated speed.

With Engine Shut Off and Separator Stopped:

- Check drive.
- Check elevator and augers for plugging.



ZX 002335

ZX002335 -UN-16JUN95

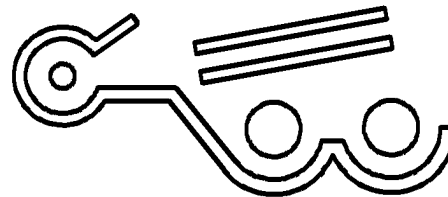
AG,CO03622,1409 -19-05NOV02-1/1

Fan Indicator Light

Lights up if fan speed drops more than 25% of the adjusted speed.

With Engine Shut Off and Separator Stopped:

- Check drive.
- Check for plugging.
- Check alarm speed. Readjust, if necessary (see instructions in this Section).



ZX009599

ZX009599 -UN-08NOV96

AG,CO03622,1410 -19-05NOV02-1/1

Threshing Cylinder Indicator Light

Lights up if threshing cylinder speed drops more than 25% of the adjusted speed.

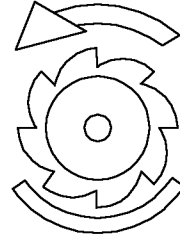
— Reduce ground speed.

With Engine Shut Off and Separator Stopped:

— Check drive.

— Check for plugging.

— Check alarm speed. Readjust, if necessary (see instructions in this Section).



ZX 002337

ZX002337 -JUN-16JUN95

AG.CO03622,1411 -19-05NOV02-1/1

Indicator Lights II

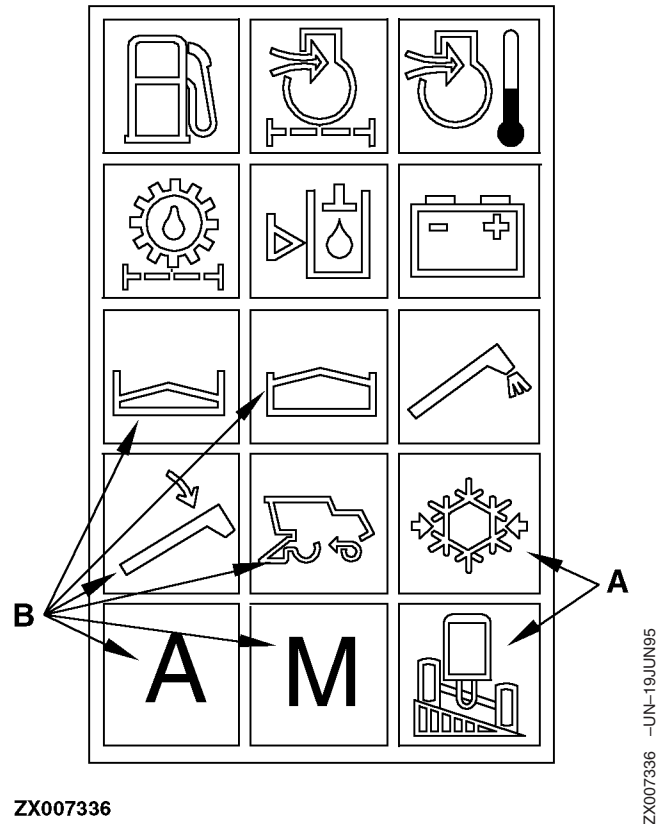
These indicator lights monitor combine functions with priority 2 and 3.

Priority 2:

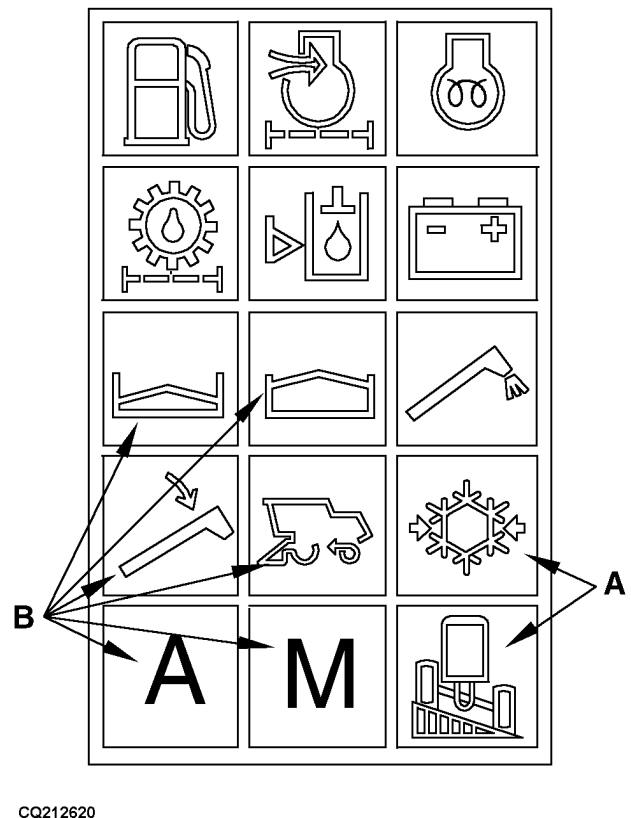
Yellow warning lights with acoustical warning signal (5-second signal)

Priority 3:

Yellow warning lights (A) and green warning lights (B) without acoustical warning signal



Indicator Lights II — 1450 and 1550



Indicator Lights II — 1450 CWS and 1550 CWS

Air Intake Temperature Indicator Light (1450 CWS and 1550 CWS)

If the ambient temperature is below 0°C , an air heater will be activated for 20 to 40 seconds after the start switch has been turned to position II. Wait to start the engine until the light goes off.

If there is any fault on the engine electronic system the indicator light will glow and a buzzer will sound. Check the fault codes at the engine diagnostic gauge.

CQ212630



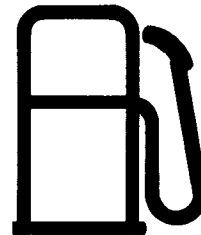
CQ212630 -UN-25MAR02

AG.CO03622,1413 -19-09OCT02-1/1

Fuel Level Indicator Light

Lights up if fuel reserve in tank is approx. 50 L (13.2 U.S. gal).

— Fill fuel tank. Capacity: 470 L (124.16 U.S. gal).



ZX 000 340

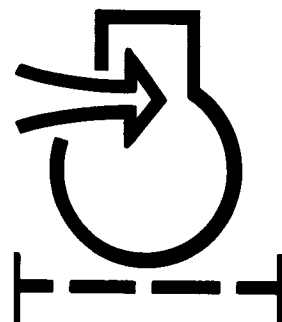
ZX000340 -UN-03APR95

AG.CO03622,1416 -19-13MAR02-1/1

Air Cleaner Indicator Light

lights up if air cleaner primary element is clogged and air flow restricted.

— Clean air cleaner element(s).



ZX 000 341

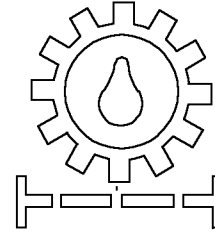
ZX000341 -UN-03APR95

AG.CO03622,1417 -19-13MAR02-1/1

Hydraulic Oil Filter Indicator Light

lights up if cleaning action of filters is not sufficient.

— Change hydraulic oil filter.



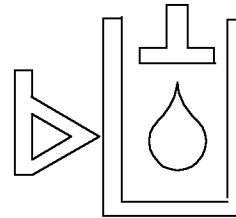
ZX 002339

AG,CO03622,1418 -19-13MAR02-1/1

ZX002339 -UN-16JUN95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



ZX 002340

AG,CO03622,1419 -19-13MAR02-1/1

ZX002340 -UN-16JUN95

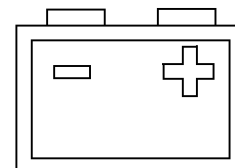
Alternator Indicator Light

lights up if alternator output voltage is not sufficient to charge the batteries.

— Check cables and connections at alternator and batteries.

— Check V-belt.

— Check voltage regulator of alternator.



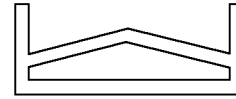
ZX 002341

AG,CO03622,1420 -19-13MAR02-1/1

ZX002341 -UN-16JUN95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



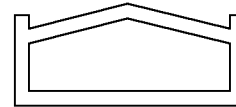
ZX 002342

AG.CO03622,1421 -19-13MAR02-1/1

ZX002342 -UN-16JUN95

Grain Tank Indicator Light (3/4)

Lights up when grain tank is 3/4 full.



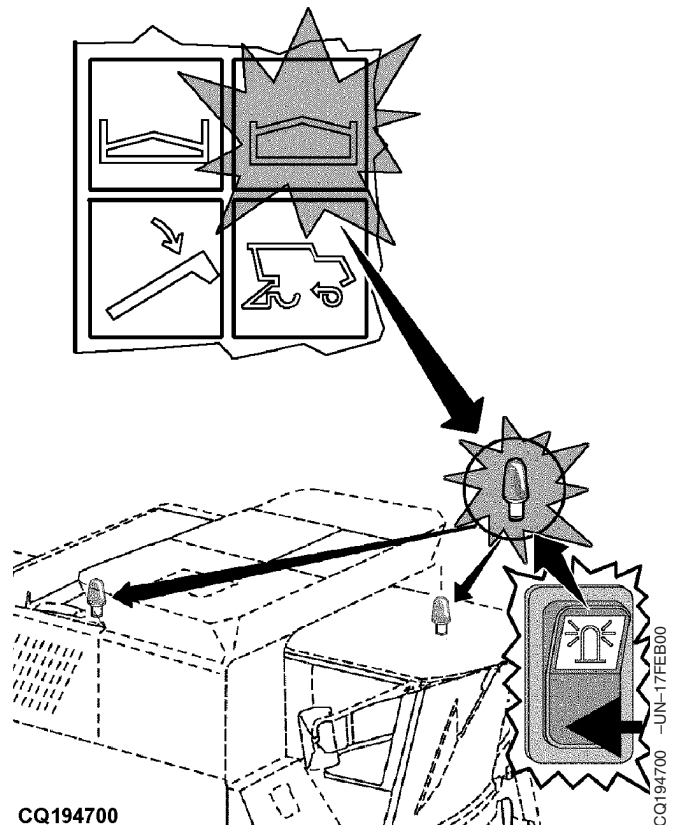
ZX 002343

AG.CO03622,1422 -19-13MAR02-1/1

ZX002343 -UN-16JUN95

Indicator Light For Grain Tank Three-Quarters Full, And Beacon Light Switch

The beacon light is switched on and at the same time the "3/4 full" indicator light is activated when the end of the switch without the symbol on it is pressed.



CQ194700

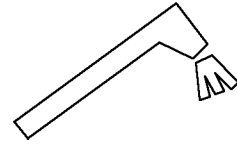
AG.CO03622,1423 -19-13MAR02-1/1

CQ194700 -UN-17FEB00

Grain Tank Indicator Light (Full)

lights up when grain tank is completely filled. This will be indicated by a five-second warning signal.

— Empty the grain tank.



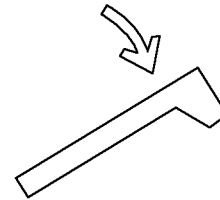
ZX 002344

AG,CO03622,1424 -19-13MAR02-1/1

ZX002344 -UN-16JUN95

Unloading Auger Drive Indicator Light

This light lights up whenever the unloading auger drive is switched on.



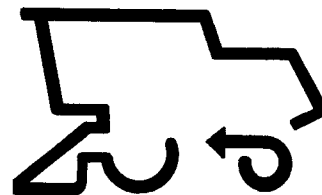
ZX 002348

AG,CO03622,1425 -19-13MAR02-1/1

ZX002348 -UN-16JUN95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



ZX 000349

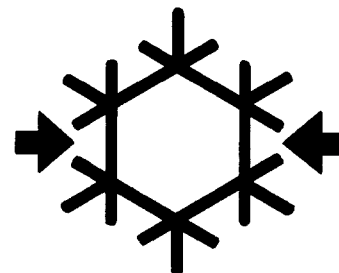
AG,CO03622,1426 -19-13MAR02-1/1

ZX000349 -UN-03APR95

Air Conditioner Indicator Light (High Pressure)

lights up if system pressure exceeds 2400 kPa (24 bar = 350 psi)

— Switch off air conditioning system and remedy the fault.



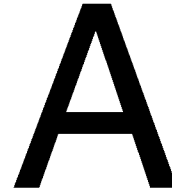
ZX 000350

AG,CO03622,1427 -19-13MAR02-1/1

ZX000350 -UN-03APR95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



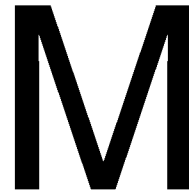
ZX 002345

AG,CO03622,1428 -19-13MAR02-1/1

ZX002345 -UN-16JUN95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



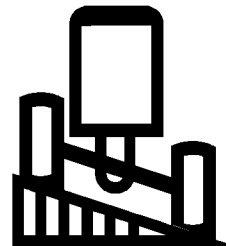
ZX 002346

AG,CO03622,1429 -19-13MAR02-1/1

ZX002346 -UN-16JUN95

Indicator light

NOTE: This indicator light is not used on the combines covered by this manual.



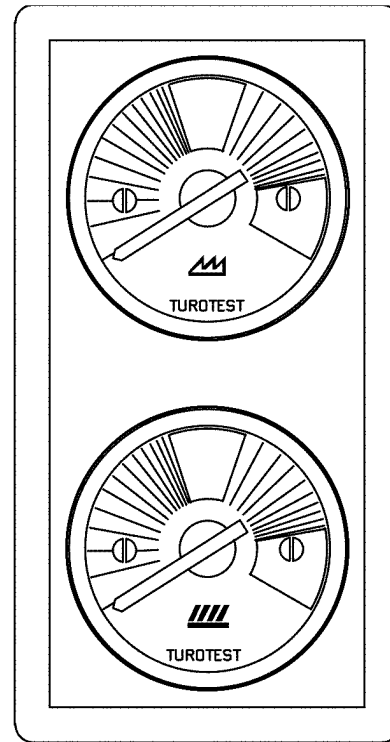
ZX 002347

AG,CO03622,1430 -19-13MAR02-1/1

ZX002347 -UN-16JUN95

Harvest Performance Monitor Gauge

For detailed information, refer to “Harvest Performance Monitor”.



CQ216490 -UN-11NOV02

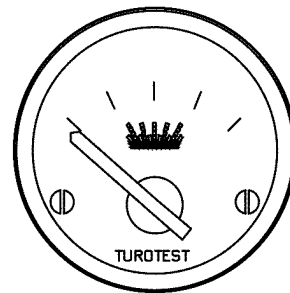
AG,CO03622,1431 -19-12NOV02-1/1

Distributor Plate Gauge (Option CWS)

Shows direction of straw distribution:

Needle in right-hand area = straw is thrown to the right

Needle in left-hand area = straw is thrown to the left

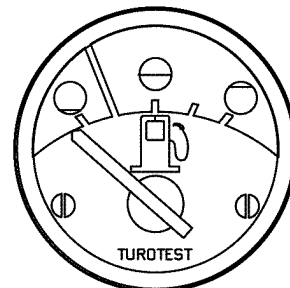


CQ216480 -UN-11NOV02

MB03730,00001F0 -19-12NOV02-1/1

Fuel Gauge

With ignition turned on, fuel level in tank is shown (0 — 1/1).



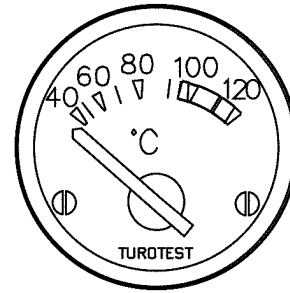
CQ216510 -UN-11NOV02

AG,CO03622,1432 -19-12NOV02-1/1

Coolant Temperature Gauge

With ignition turned on, engine coolant temperature is shown. During operation, needle should be in the yellow/green zone (40°C — 105°C) (140°F — 221°F).

If needle is in orange zone (105°C — 120°C) (221°F — 248°F), run engine without load for a short time. Stop engine, if necessary, and remedy the fault.

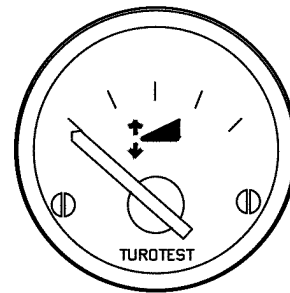


CQ216500 -JUN-11NOV02

AG,CO03622,1433 -19-12NOV02-1/1

Header Height Gauge (1450 CWS and 1550 CWS)

This gauge shows the header relative position in relation to ground.



CQ216520 -JUN-11NOV02

MB03730,0000020 -19-12NOV02-1/1

Rigid Platform - Ground Pressure Gauge (1450 CWS and 1550 CWS)

This gauge is placed into the cab on left cornerpost and shows the pressure of the platform floatation system.

For further information, refer to Section "Preparations and Field Operation."



CQ209170

CQ209170 -JUN-09OCT01

AG,CO03622,2547 -19-09OCT02-1/1

Cutterbar Pressure Gauge (1450 and 1550 with 600 Series Flex Platforms)

This gauge is placed into the cab on left cornerpost and shows the pressure of the cutterbar floatation system.

Recommended Pressures

Recommended Pressures	
Soil condition	Pressure
Extremely firm	62 - 70 bar (900 - 1015 PSI)
Normal	71 - 90 bar (1015 - 1300 PSI)
Soft	> 91 bar (> 1320 PSI)



MB03730,0000383 -19-09OCT02-1/1

Engine Electronic System Diagnostic Gauge (1450 CWS and 1550 CWS)

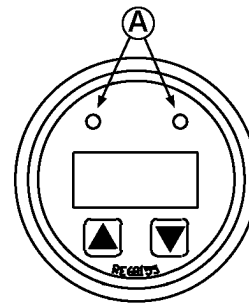
This gauge has two lights (A) that indicate the existence of active diagnostic trouble codes.

Red light activated: This means a corrective action is immediately required. Do not operate combine until the problem is corrected.

Yellow light activated: This means a diagnostic trouble code has been generate. Stop the combine when convenient and determine the cause.

The diagnostic trouble codes reading of the engine electronic system can be done as further description in this section.

For further information about the activated fault codes see your John Deere dealer.



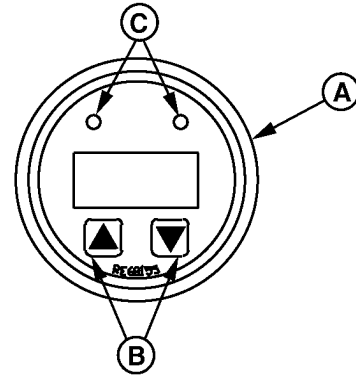
A—Lights

MB03730,0000206 -19-23OCT02-1/1

Viewing Active DTCs on Diagnostic Gauge

Accessing Active Diagnostic Trouble Codes (DTCs):

1. Scroll through the main menu of engine parameters by pressing **either** the right or the left touch switch
2. Select "SrvCodes" sub-menu by **simultaneously** pressing the right and the left touch switch.
3. Scroll through the "Srv Codes" sub-menu to view active DTCs by pressing **either** the right or the left touch switch until all codes are found.
4. In order to exit "SrvCodes" sub menu, **simultaneously** press the right and left touch switch.



A—Diagnostic gauge
B—Touch Switches
C—Lights

RG10031 –UN–28OCT99

DPSG,OUOD007,2842 –19–15NOV00–1/1

Area Counter (CWS)

The area counter can be operated quite simply and is able to monitor the following:

- Time
- Area
- Forward speed

All the functions within the chosen set of functions are calculated simultaneously. That means, that you can survey e.g. your speed, and at the same time the monitor counts area and time.

All encoded values and gathered data are stored in a memory, if power, deliberately or not, is cut off.

For further information, refer to Section "Controls and Instruments"



CQ209680

–UN–05NOV01
CQ209680

MB03730,000020C –19–17MAY02–1/1

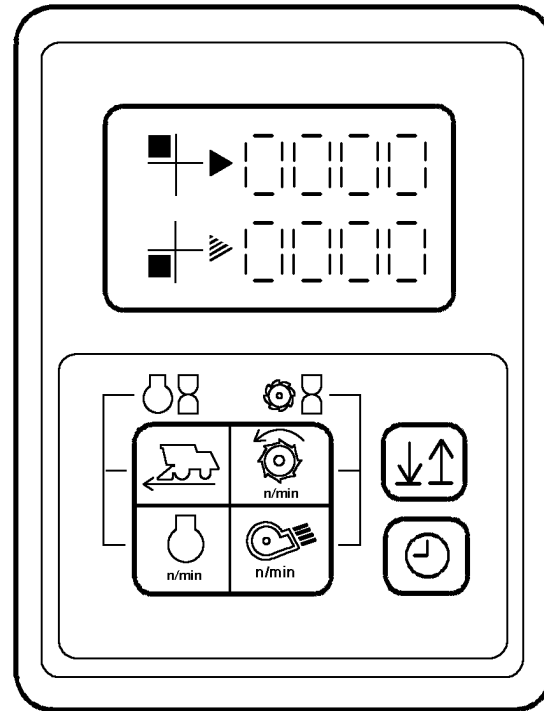
INFOTRAK™ Monitor

The infotrak monitor displays:

- Ground Speed (km/h):
- Speed:
 - Engine (rpm)
 - Threshing cylinder
 - Fan
- Time:
 - Engine
 - Separator
 - Hours
- Spacing:
 - Concave and cylinder
- Cutting platform failure diagnostics

By inputting certain specific machine data, the infotrak monitor is adjusted to the requirements of the combine and combine data center (depending on combine equipment).

In addition, error codes and service intervals are displayed.



ZX014262

ZX014262 –JUN–16JAN98

AG,CO03622,1437 –19–13AUG02–1/1

Infotrak Monitor Functions

A — Position Indicator:

shows relationship between display and key or key combination (I—VII) pressed previously.

When activating infotrak monitor (starter switch in position I or II), the position indicator will be in upper left-hand position.

B — Line indicator:

shows the active line on the display panel

C — Display Panel (4 Digits):

shows the figure called up previously.

Possibilities:

Ground and other speeds, operating or working hours, time

Additional displays: SERVICE information “SEU” and concave spacing

Error codes:

In the event of a malfunction or error by the operator when operating the combine or running an automatic function, a two or three-digit number followed by an **E** (Error) is displayed. E. g. 234 **E**.

D — Line selector switch:

changes active line on the display panel

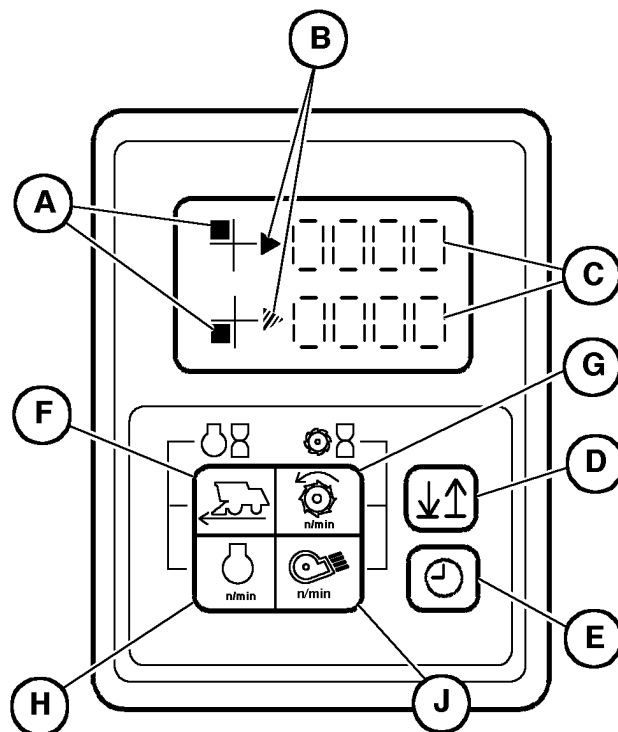
E — Clock:

press this key to display the time on the display panel

F — Key for ground speed display (I)

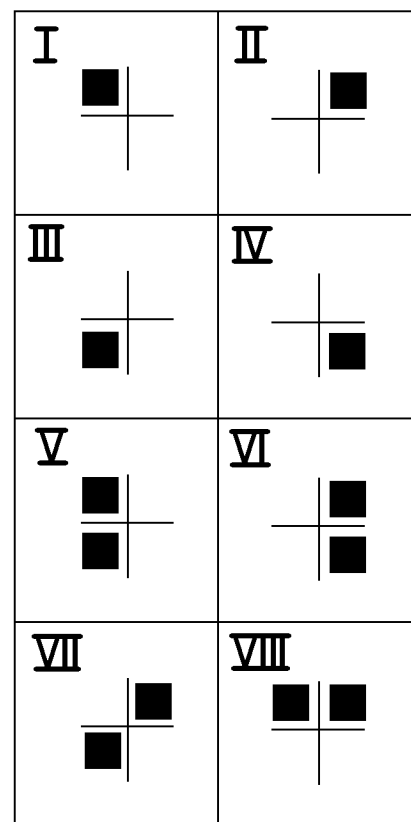
G — Key for cylinder speed display (II)

H — Key for engine speed display (III)



ZX014263

ZX014263 -UN-16JAN98



ZX011411

ZX011411 -UN-22APR97

J — Key for fan speed display (IV) and enter key for calibration modes

AG,CO03622,1438 -19-13AUG02-2/2

Infotrak Monitor Functions (Continued)

F + H — Key combination for operating hour display (engine) (V)

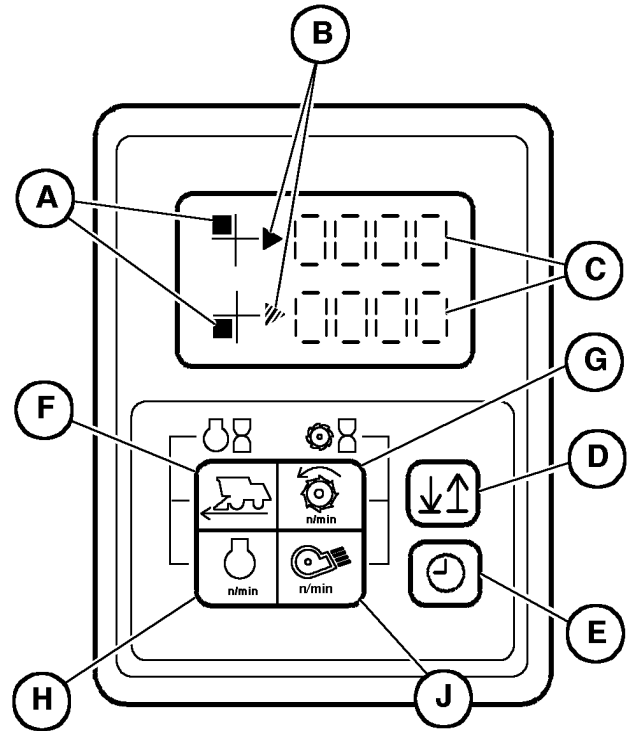
G + J — Key combination for working hours display (cylinder) (VI)

G + H — Key combination for deleting SERVICE information "SEU" (VII)

F + G — Key combination for activating input status (VIII)

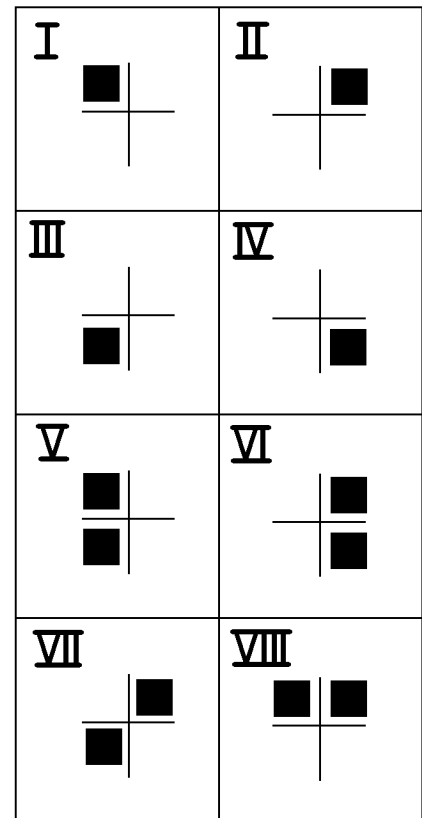
D + and engine start — Activation of ContourMaster diagnostic mode

E + ignition on — Setting clock



ZX014263

ZX014263 -UN-16JAN98



ZX011411

ZX011411 -UN-22APR97

Setting and Displaying Time

Make sure the keyswitch is OFF. Hold down clock switch (A) and, while holding it, turn the keyswitch ON. (I). In the display will initially appear "12Hr". If you continue to hold the touchswitch down, it will alternate every 3 seconds between '12Hr' and '24Hr'. This allows you to select either a 12 hour format or a 24 hour format. Release touchswitch when the desired format is displayed.

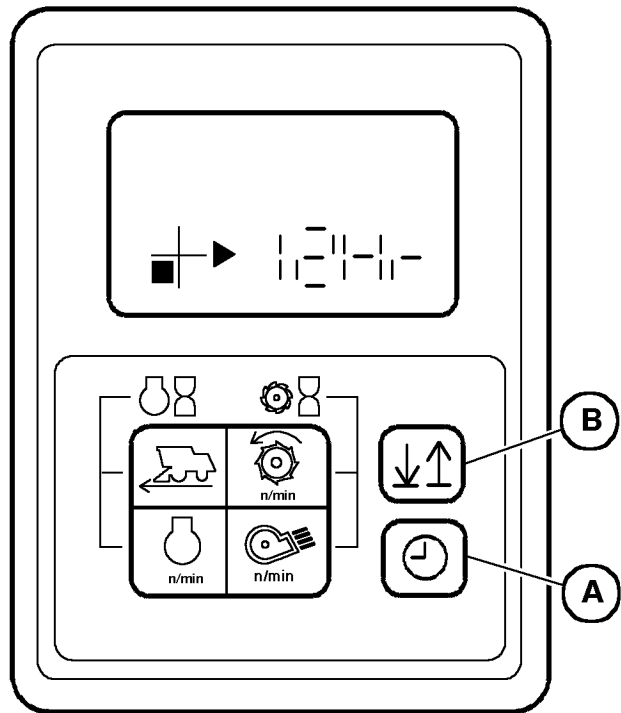
The clock should now be showing '12'. Depress switch (B) to increase the hours. The longer you hold it switch down, the faster the hours will increase.

NOTE: You can only increase (not decrease) the hours.

If you go past where you want to go, you will have to go full circle and try to catch it on the next pass. When you get close, you should let the switch up and then depress it again so it will increment at the slower rate. You'll catch on quickly.

Once you have the hours displayed properly, depress and release switch (A) and the display should show the minutes along with the hours. Again, as described before, depress switch (B) to increase the minutes. All other comments, above, apply. When the minutes are set the way you want them, depress switch (A) one last time and the clock is set.

NOTE: Clock must be readjusted whenever battery has been disconnected or battery switch has been in "Off" position.



ZX014264

ZX014264 -JUN-22JAN98

Input of Specific Machine Data

IMPORTANT: Each time different size drive wheels are installed or tire radius changes due to wear, the infotrak monitor must be calibrated accordingly.

Activate Input Status

Press key combination (A + B) and simultaneously turn starter switch from position (0) to position (I). The position indicator will move to upper left-hand position.

Data Input

Press key (A): displayed value will increase.

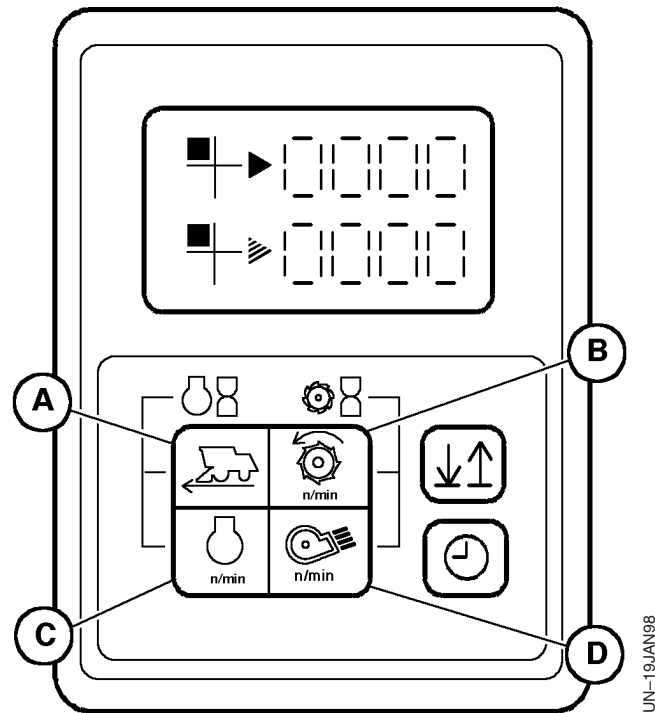
Press key (C): displayed value will decrease.

Data Storage

Press key combination (B + D). At the same time the position indicator will move to another field (upper right-hand, lower right-hand, lower left-hand field).

Deactivate Input Status

After input and storage of all data, turn starter switch to position (0).



ZX014265

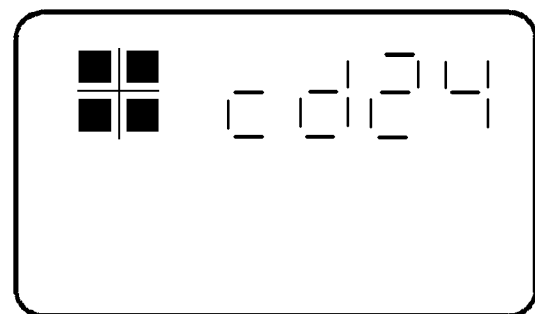
- A—Key for ground speed display
- B—Key for cylinder speed display
- C—Key for engine speed display
- D—Key for fan speed display

ZX014265 –UN–19JAN98

AG,CO03622,1441 –19–04FEB02–1/1

Software version

Press the keys for ground travel speed and threshing cylinder speed and at the same time turn the starter key from (0) to (I). The version of the software installed in the infotrak monitor is displayed, e.g. "cd24". All four display fields light up at the same time.



CQ208700

AG,CO03622,1442 –19–13MAR02–1/1

CQ208700 –UN–12SEP01

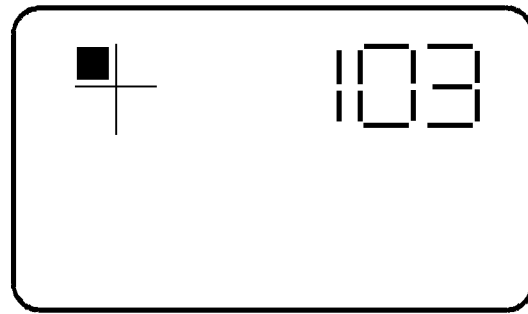
Machine Code

Input code for mph:

83 — Combine

Input code for km/h:

103 — Combine



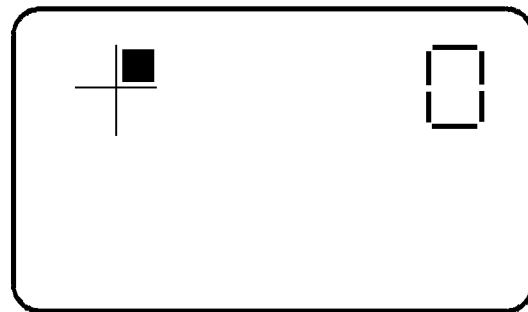
CQ208710

—UN-12SEP01

AG,CO03622,1443 —19-13MAR02-1/1

Transmission Speed Ratio Code

00 — Final drive (85/11)



CQ194720

—UN-26SEP01

AG,CO03622,1444 —19-13MAR02-1/1

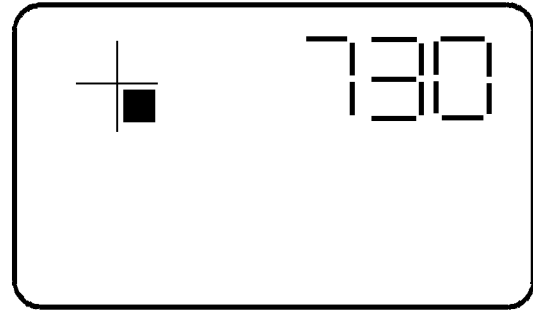
Tire Radius Code

For input of tire radius code, use actual tire radius. For machines with machine code 83, the radius must be keyed in inches. For machines with machine code 103, the radius must be keyed in in millimeters.

NOTE: For new tires, refer to a tire chart for correct radius values.

Front Tire	Tire Rolling Radius (mm)	Tire Rolling Radius (in)
28.1-26 (750/65 R26)	756	29.7
18.4-30 R1 10L	741	29.1
18.4-30 R1 12L	741	29.1
24.5-32	849	33.4
620/75R 30 (Radial)	810	31.8
(650/75 R32)	863	33.9
28.1/18-26 R1 14L	761	29.9
28L26 R1 12L	767	30.1
23.1/18-26 R2 10L	780	30.7
23.1/18-30	804	31.6
800/65R 32 (Radial)	861	33.8
30.5L32 R1	857	33.7
STEEL TRACK	315	12.4

With worn tires, refer to the following instructions to determine tire radius.



CQ194730

CQ194730 -UN-17FEB00

AG.CO03622,1445 -19-13MAR02-1/1

Determining Tire Radius

Requirements:

- Combine on solid ground.
- Cutting platform connected.
- Correct tire pressures.
- Combine steering wheels in straight-ahead position.

Mark tire and ground with dashes.

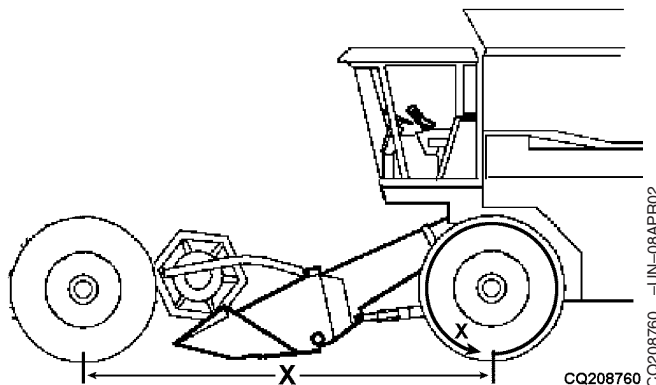
Drive combine until marked tire has completed one revolution.

Transfer tire mark to ground.

Measure distance (X) between ground marks.

Divide measured distance (X) by 6.28.

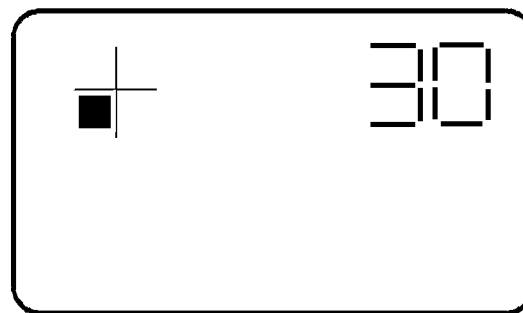
The value obtained is the tire radius for infotrak monitor input.



AG,CO03622,1446 -19-14MAR02-1/1

Engine Impulse Code

- 1450 CWS/1550 CWS (6068¹ engine/Saran, France) — Code 27
- 1450 (6068 engine/Rosario, Argentina) — Code 30
- 1550 (6081 engine/Rosario, Argentina) — Code 27



CQ194740

UN-17FEB00

¹Engine with BOSCH Injection Pump VP44

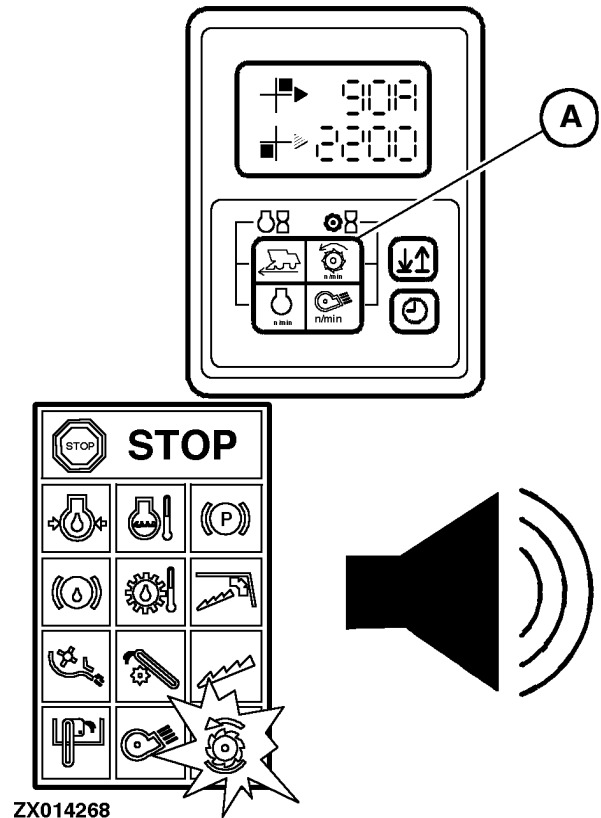
AG,CO03622,1447 -19-04FEB02-1/1

Setting Threshing Cylinder Alarm Speed

With engine running, engage separator.

Press key (A) to display cylinder speed. Continue to press key (A) (for approx. 2 seconds) until an "A" appears at the last digit of the displayed speed. Now alarm speed is 75% of the displayed speed.

If cylinder speed drops below alarm speed during operation, the cylinder speed indicator light will glow and a continuous warning signal will be heard.



AG,CO03622,1448 -19-29JUL99-1/1

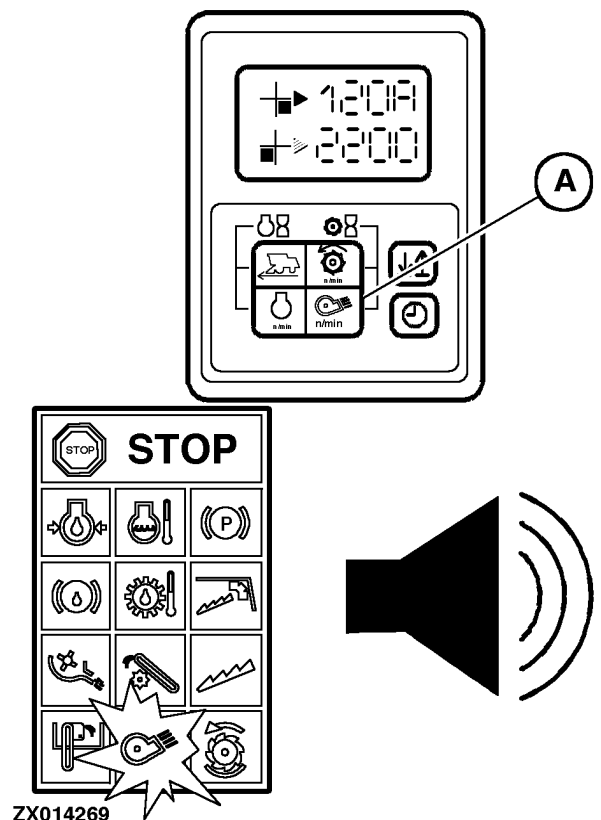
ZX014268 -UN-19JAN98

Setting Fan Alarm Speed

With engine running, engage separator.

Press key (A) to display fan speed. Continue to press key (A) (for approx. 2 seconds) until an "A" appears at the last digit of the displayed speed. Now alarm speed is 75% of the displayed speed.

If fan speed drops below alarm speed during operation, the fan speed indicator light will glow and a continuous warning signal will be heard.



AG,CO03622,1449 -19-13MAR02-1/1

ZX014269 -UN-19JAN98

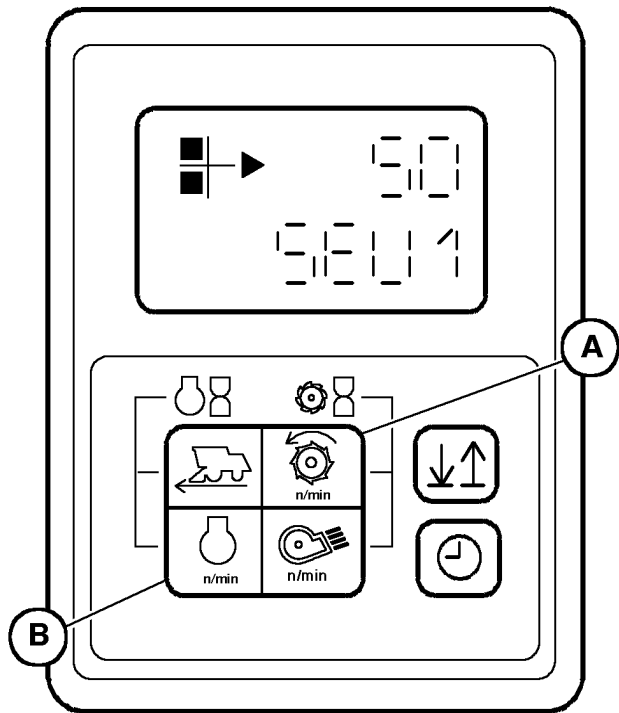
Infotrak Monitor Service Information

Every 50 hours of operation the infotrak monitor will display a SERVICE information (SEU).

IMPORTANT: Perform necessary service work, referring to “Periodic Services — Every 50 Hours of Operation”.

Press any key to delete SERVICE information immediately (it will reappear when ignition is turned on next time).

To delete SEU display definitely (i.e. until next 50 operating hours are completed) after service work has been carried out, press keys (A+B) simultaneously while turning on ignition.

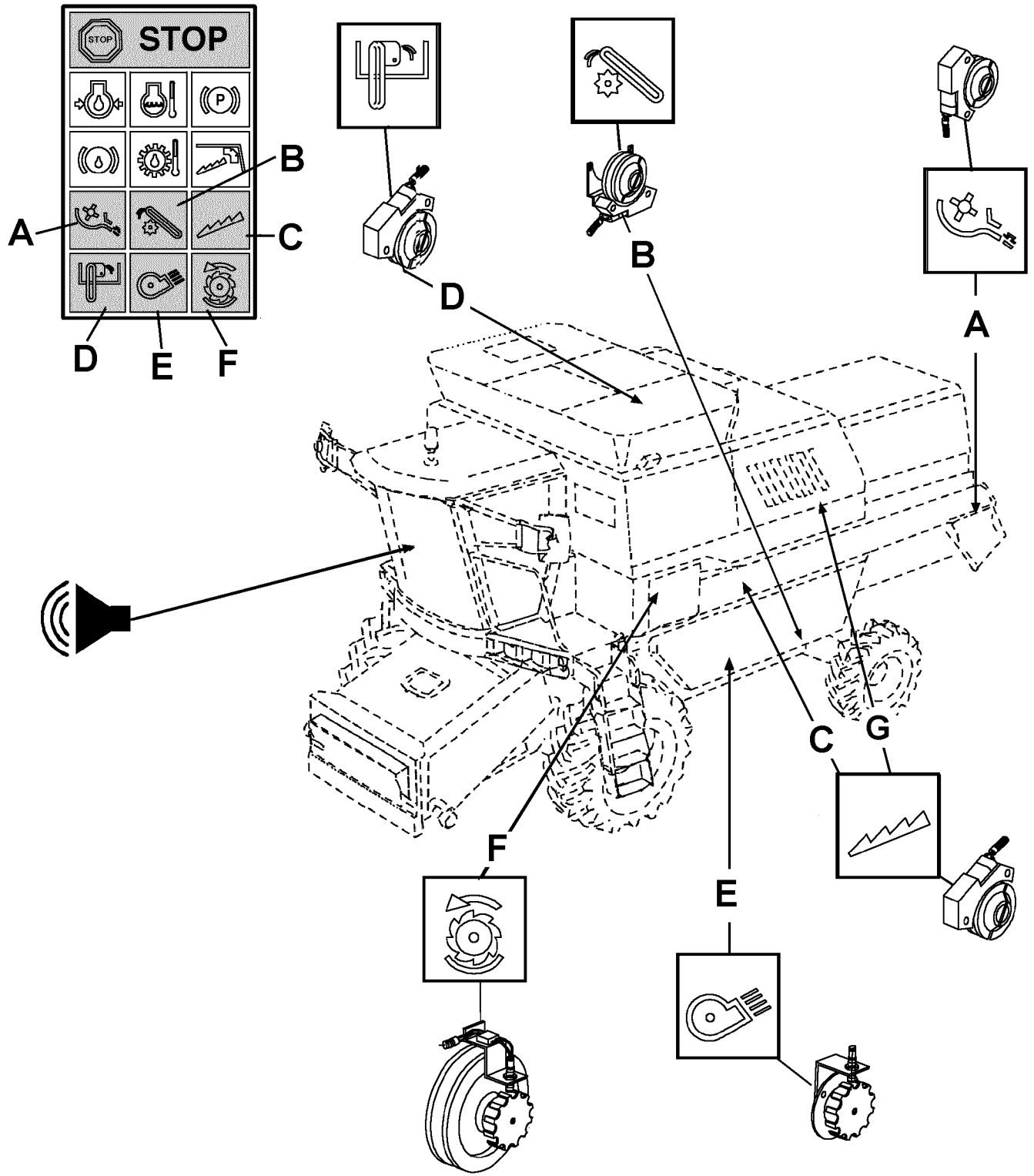


ZX014270

ZX014270 -JUN-16JAN98

AG,CO03622,1450 -19-29JUL99-1/1

Low Shaft Speed Monitor System — Protected Components



A—Straw chopper
B—Tailings elevator

C—Straw Walkers
D—Clean grain elevator

E—Fan
F—Threshing cylinder

G—Power Separator (1450
WTS and 1550 WTS)

CQ203981

—UN-07NOV02

Continued on next page

AG.CO03622,1451 —19-08NOV02-1/3

In the event of a malfunction, the low shaft speed monitor system activates corner post indicator lights and a intermittent acoustic warning signal.

With engine shut off, electrical circuit on and separator engaged, all five or six indicator lights must glow and the warning signal must keep mute. With engine running (at fast idle) and separator engaged, all indicator lights should go out and the warning signal must keep mute.

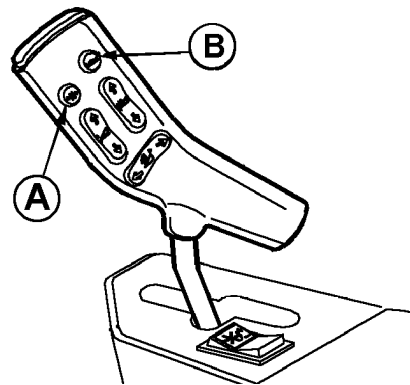
NOTE: Reset the alarm threshold at the Infotrak monitor every time the threshing cylinder and/or fan speed are altered.

The other shafts are adjusted in the factory with pre-set speeds.

AG,CO03622,1451 -19-08NOV02-2/3

There is the possibility to reprogram them using the following procedure:

1. With the engine running and the threshing engaged, set engine to maximum rpm.
2. Press switches (A) and (B) on the multifunction lever simultaneously for 3 seconds. An intermittent warning signal will be heard for 3 times and the indicator lights will also glow 3 times. When this happens the 5 shafts will be reprogrammed for a new condition.
3. To go back to standard adjustment, press the two switches for 6 seconds. The confirmation is given through an intermittent warning signal that will be heard 6 times and the indicator lights will also glow 6 times.

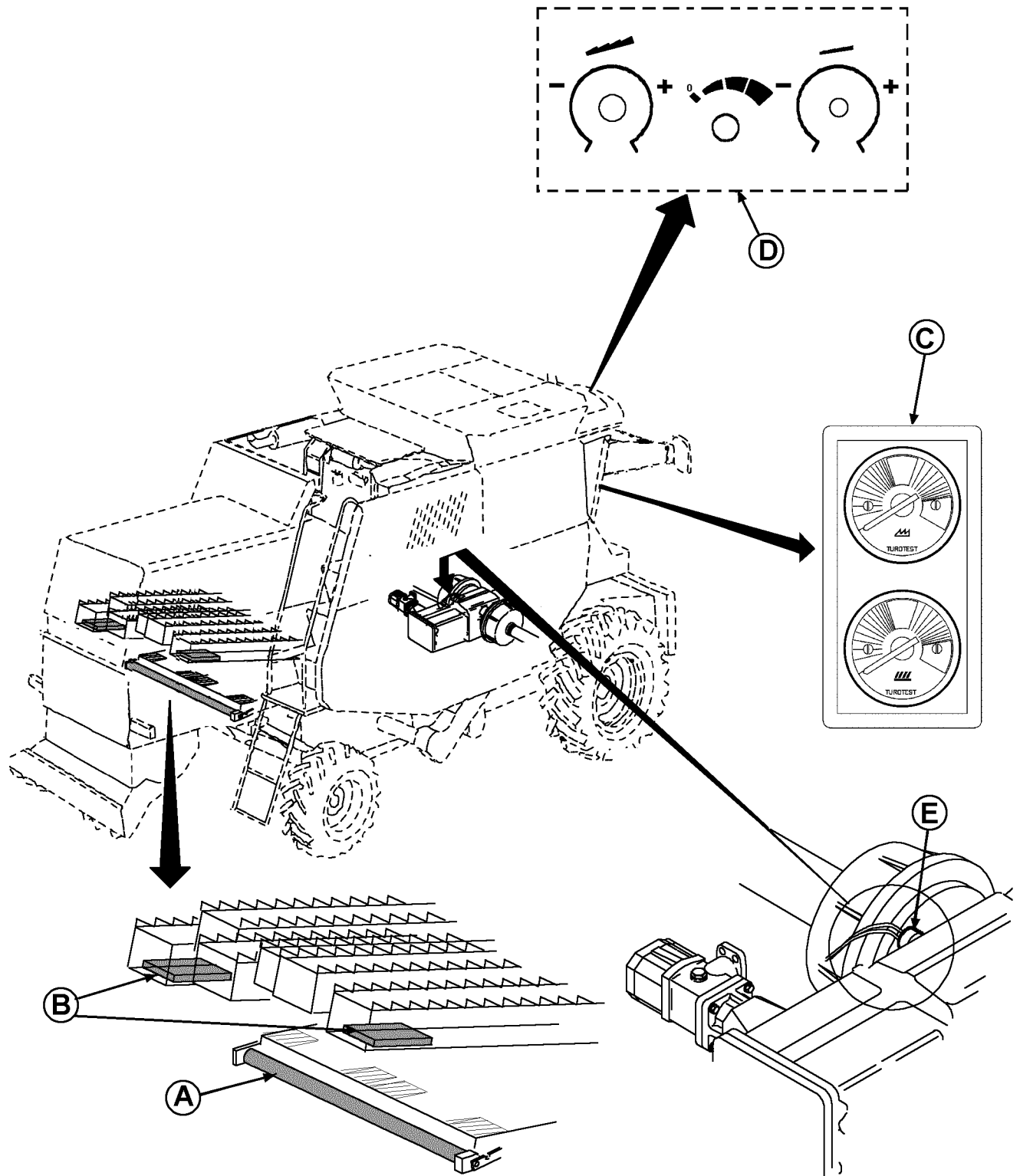


A—Return to cut
B—Return to cut/flotation

CO216450 -UN-08NOV02

AG,CO03622,1451 -19-08NOV02-3/3

Harvest Performance Monitor



A—Cleaning shoe sensor
B—Straw walker sensors

C—Display unit

D—Adjusting/selecting unit

E—Ground speed sensor

Continued on next page

AG.CO03622,1452 -19-11NOV02-1/2

General Description

The harvest performance monitor records the amount of grains that hit its sensors at the cleaning shoe (A) and straw walkers (B). Ground speed is measured via sensor (E). Once this factor has been taken into account, the loss rate is displayed at display unit (C). Display unit (C) indicates the loss level that is acceptable to the user in relation to the area harvested.

The performance monitor enables the operator to use maximum combine capacity within the performance

range selected by him. After the operator has adjusted the combine and cutting platform to suit the harvesting conditions, he must set the monitor to these conditions by means of the adjusting/selecting unit (D).

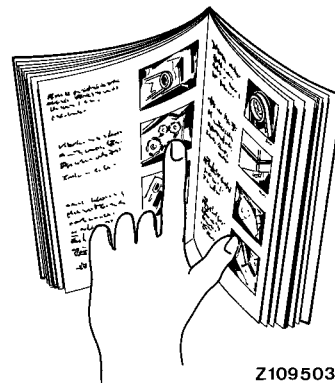
Incorrect adjustment and inadequate servicing of the combine always result in grain loss and reduced harvester performance. The causes of grain loss are dealt with in detail in the "Preparations and Field Operation" section. Particular attention should be paid to the information provided on "Determining Grain Losses" and "Prevention of Grain Losses — General".

AG,CO03622,1452 -19-11NOV02-2/2

Preliminary Adjustments On Combine Harvester

Before performing any adjustments on the harvest performance monitor, adjust the combine so that it is operating at peak efficiency. The adjustments must correspond to the relevant crop and field conditions.

For details, see "Preparations and Field Operation" section.



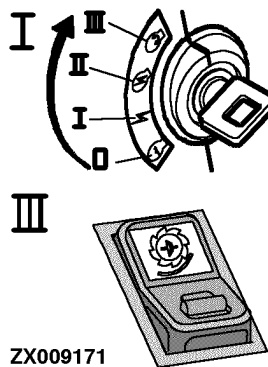
Z109503 -UN-22MAY95

AG,CO03622,1453 -19-17MAY02-1/1

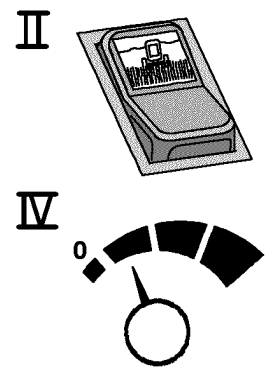
Switching on The Harvest Performance Monitor

The system can operate only when the:

- engine is running (I)
- road safety switch is in the field position (II)
- threshing unit is engaged (III)
- harvest performance monitor is switched on (IV)



ZX009171



ZX009171 -UN-22MAY96

AG,CO03622,1454 -19-13AUG02-1/1

Operational Adjustment of Harvest Performance Monitor I

Precondition: combine harvester is adjusted to peak efficiency.

While threshing, adjust potentiometers (A) and (B) one after the other so that the needle on display unit (C) moves to the center of the green sector (X) when there are grain losses.

I — Set potentiometer for straw walker losses:

- Use potentiometer (A) to bring the needle into the green sector (X).

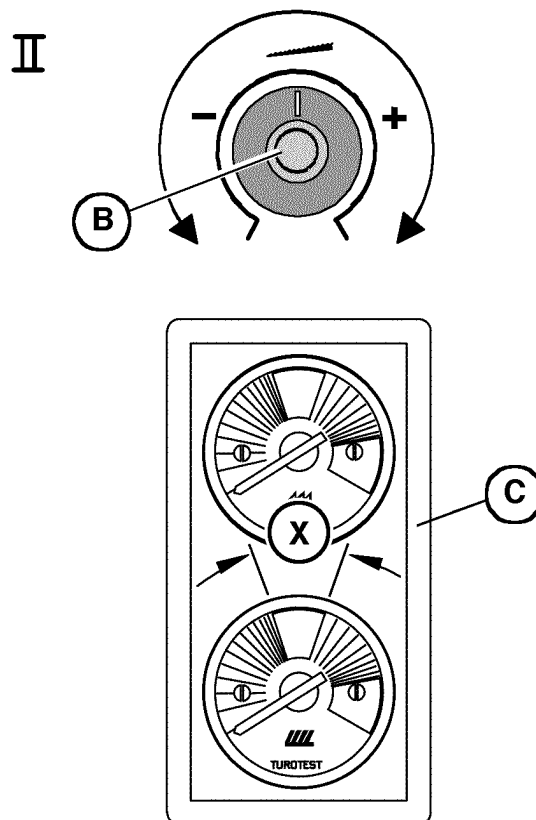
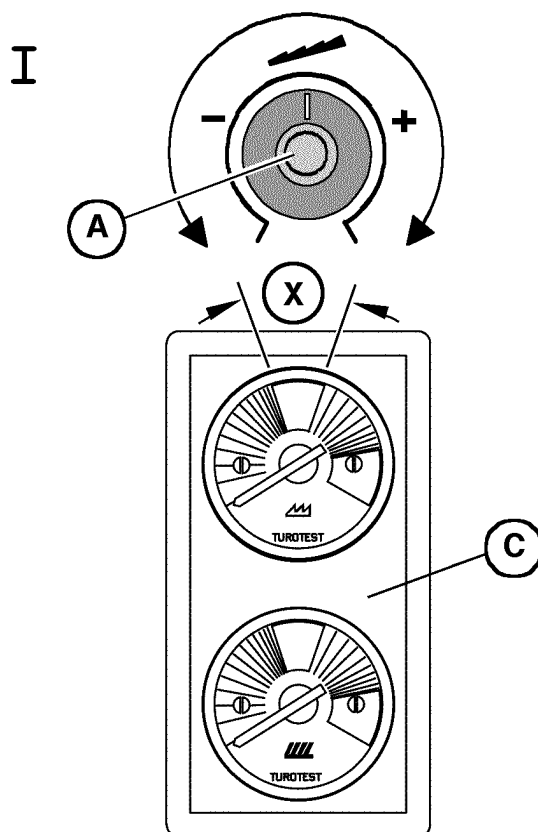
II — Set potentiometer for cleaning shoe losses:

- Use potentiometer (B) to bring the needle into the green sector (X).

Grain losses vary all the time. This means that the sensors on the cleaning shoe and straw walkers will transmit signals of varying intensity to the display unit. If these signals rise or fall in relation to the preset value, the needle on the display unit will swing to the left or right.

NOTE: If no losses occur (and therefore none are displayed) even at maximum sensitivity, leave the two potentiometers (A) and (B) set no higher than the “two o’clock” position.

- A—Potentiometer for straw walker sensitivity
 B—Potentiometer for cleaning shoe sensitivity
 C—Display unit
 X—Green sector

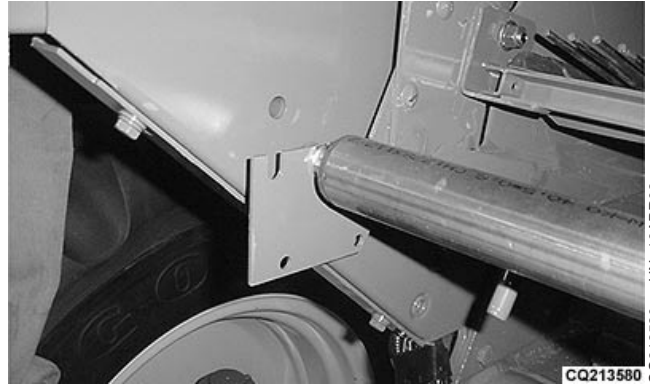


CO216460 -UN-11NOV02

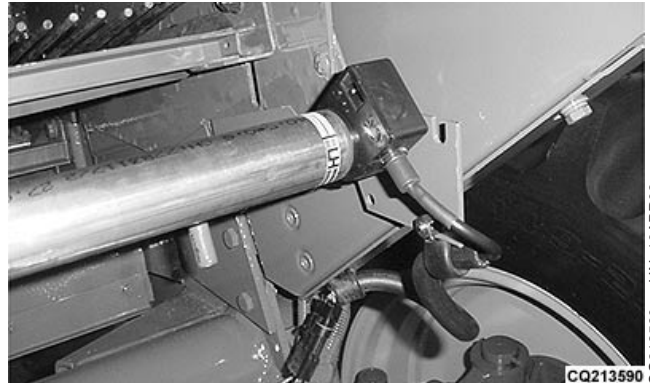
CO216470 -UN-11NOV02

Operational Adjustment of Harvest Performance Monitor (Continued)

1. If the needle moves towards “—” and stays there for more than 20 seconds, the combine harvester’s ground speed is too low, i.e the harvester is not working hard enough. In this case, increase the combine harvester’s ground speed until the needle returns to the center of the green sector.
2. If the needle moves towards “+” and stays there for more than 20 seconds, the combine harvester’s ground speed is too high and grain losses are increasing. Reduce the combine harvester’s ground speed until the needle returns to the green sector.
3. If the needle remains in the “+” sector even after ground speed has been reduced, this may be due to plugging at the straw walkers or sieve (cleaning shoe). In this case, check which of these components is causing the blockage by selecting them with the selector switch. If necessary, clean the relevant component. Once an acceptable performance level has been achieved, adjust the potentiometers of the display unit as described above.
4. If the harvesting conditions change during the course of the day (straw lying down or damp), or if the machine adjustment changes (fan speed), re-adjust the performance monitor. The sieve sensors may be moved fore-and-aft to any one of the three cut-outs in the sensor mountings (on right and left sides of combine).
5. Measure the losses from time to time to determine whether the combine harvester needs to be re-adjusted.



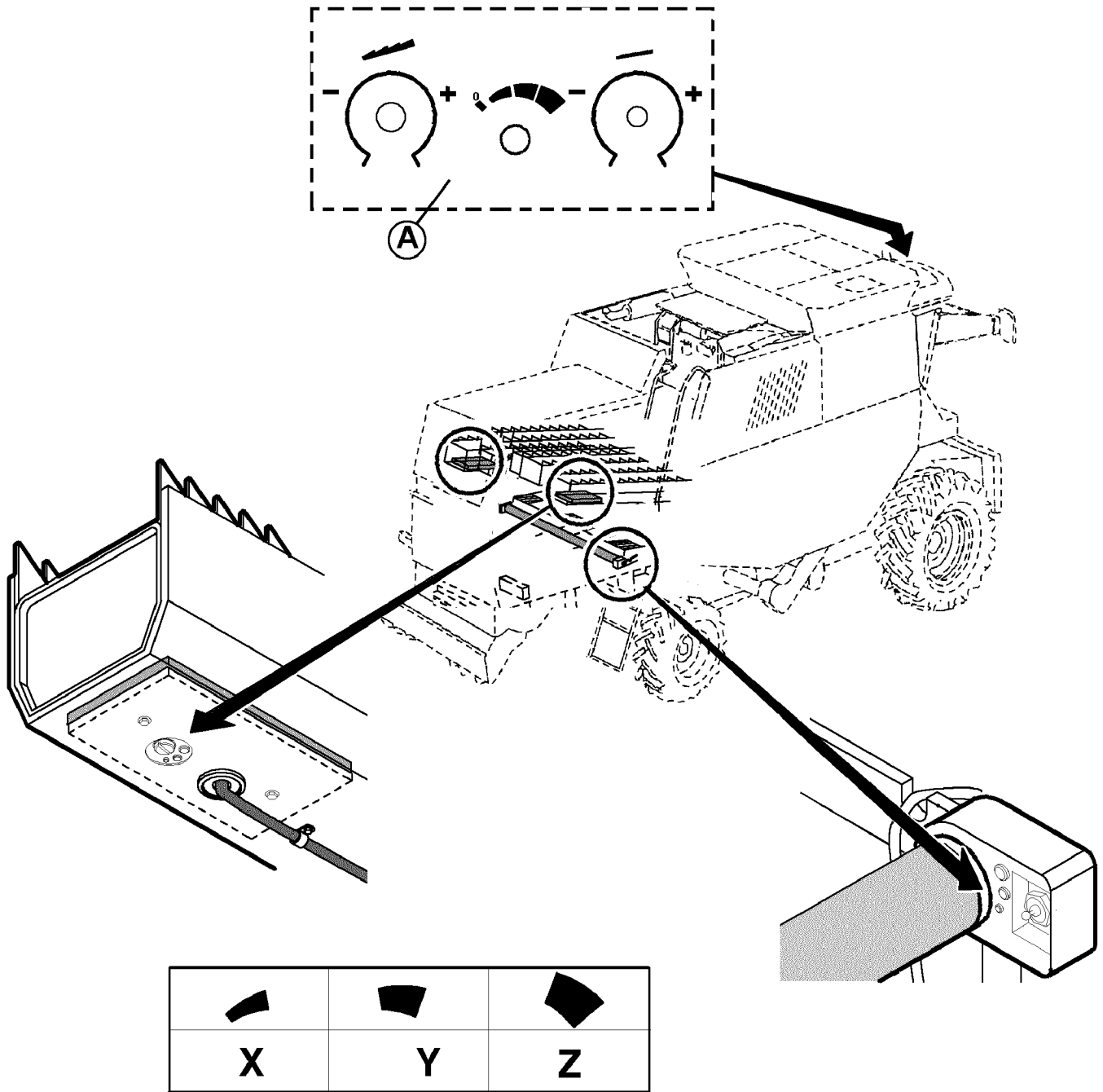
Sensor mounting, left



Sensor mounting, right

AG,CO03622,1456 -19-15APR02-1/1

Operational Adjustment of Harvest Performance Monitor I



CQ191880

CQ191880 -UN-01NOV99

Continued on next page

AG.CO03622,1457 -19-28OCT02-1/2

The amplification of the sensors signal is preselected in the cab at the adjusting/selecting unit of harvest performance monitor (A).

Sensor sensibility adjustment of cleaning shoes and straw walkers:

X — Higher sensor sensitivity for finer grain crops

Y — Medium sensor sensitivity for medium grain crops (covers a wide range of standard crops)

Z — Lower sensor sensitivity for coarse grain crops

NOTE: Always leave the sieve and straw walker sensors at a medium setting.

AG,CO03622,1457 -19-28OCT02-2/2

Operational Check of Harvest Performance Monitor

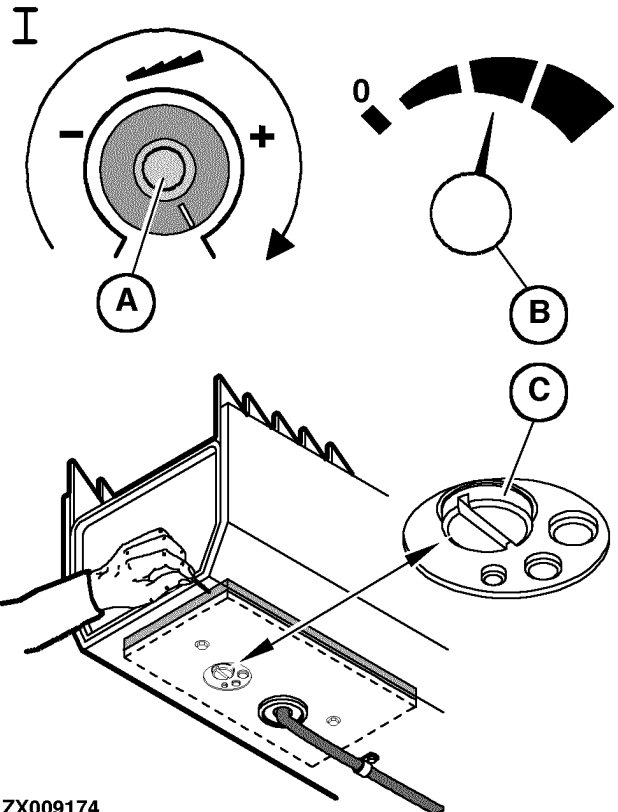


CAUTION: Do not start engine.

Move road safety switch to field position.
Turn starter switch from position (0) to position (II)
Switch threshing unit to ON position.

I — Check straw walker sensors:

- Turn potentiometer (A) clockwise as far as it will go.
- Set selector switch (B) to the position for medium-sized grains.
- Rotary switch (C) should be in the medium position at both sides.
- Actuate the left and right straw walker sensors by tapping them lightly with a hard object or by dropping kernels on them. A second person is required to observe the needle at the display. The needle must be seen to move.

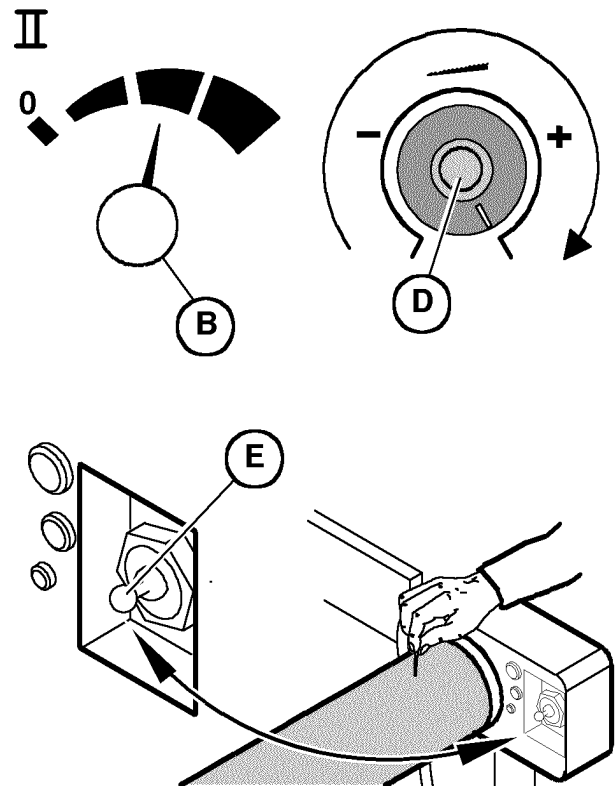


ZX009174

ZX009174 -UN-22MAY96

II — Check cleaning shoe sensor:

- Turn potentiometer (D) clockwise as far as it will go.
- Set selector switch (B) to the position for medium-sized grains.
- Tumbler switch (E) should be in the middle position.
- Check cleaning shoe sensor in the same way as the straw walker sensors.
- Switch on the parking light and check whether the display light is on.
- Switch off the parking light. Disengage the threshing unit and remove the switch key.



ZX009534

ZX009534 -UN-08NOV96

- A—Potentiometer for straw walker sensitivity
B—Selector switch
C—Rotary switch
D—Potentiometer for cleaning shoe sensitivity
E—Switch

Continued on next page

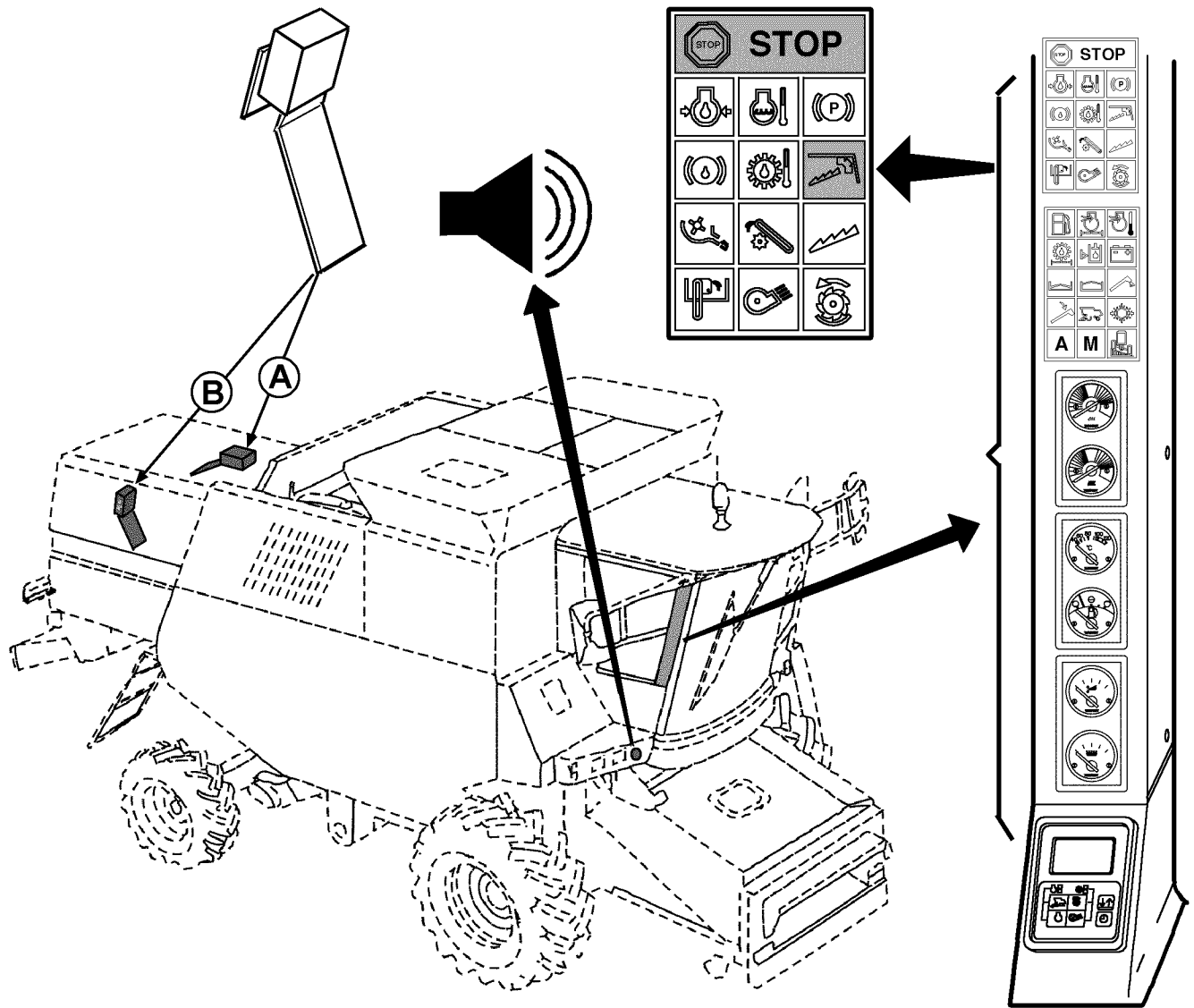
AG.CO03622,1458 -19-13AUG02-1/2

Warning Devices and Monitors

- If a fault occurs during the check described above, have the fault rectified by your John Deere dealer.

AG,CO03622,1458 -19-13AUG02-2/2

Straw warning device



A—Sending unit above straw walkers

B—Sending unit above straw deflector (chopper) at end of straw hood

Daily Checks

Check straw warning device daily with engine shut off and ignition turned on before operating the combine.

Press contacts by hand, moving them against solenoid to make sure signal sounds correctly.

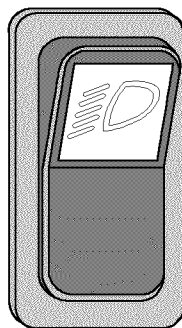
CQ194751 -UN-11NOV02

Lighting System and Signals

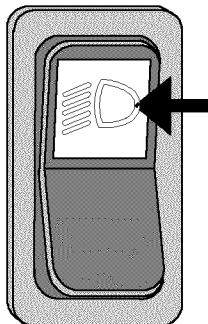
Parking Light and Headlight Tumbler Switch

- I—Light functions off
- II—Parking lights, indicator and instrument lighting on, plus clearance lights in certain countries only
- III—Headlight on, at starter switch positions I + II (ignition) only

I

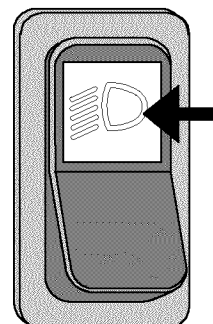


II



ZX008376

III



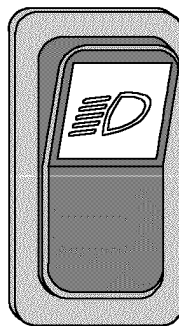
ZX008376 -UN-31JAN96

AG,CO03622,1435 -19-13MAR02-1/1

Full and Low-Beam Tumbler Switch

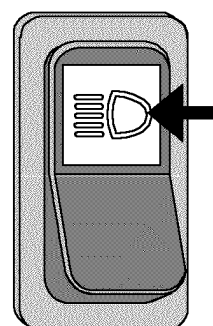
- I—Low-beam on
- II—Full-beam on

I



ZX008377

II

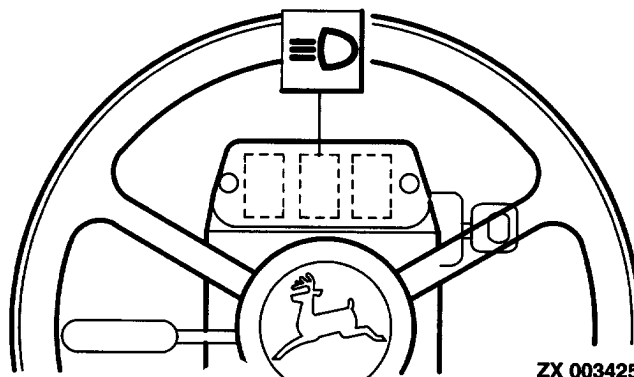


ZX008377 -UN-31JAN96

AG,CO03622,1436 -19-13NOV01-1/1

Full-Beam Indicator Light

The full-beam indicator light comes on when full-beam is selected.



ZX 003425

ZX003425 -UN-25AUG00

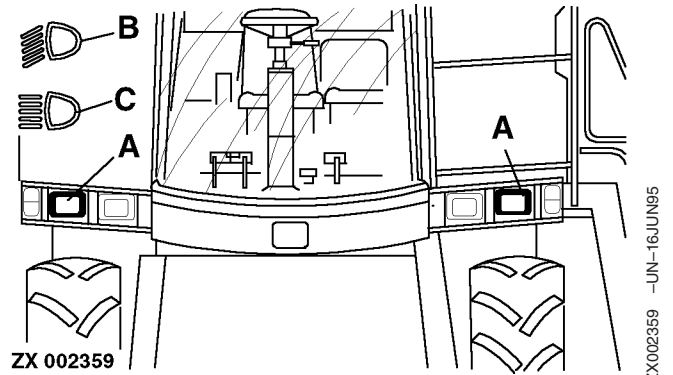
AG,CO03622,1460 -19-02AUG99-1/1

Headlights

Low and full-beam headlights are provided.

Always switch to low-beam when oncoming traffic appears.

- A—Headlights
- B—Low-beam
- C—Full-beam



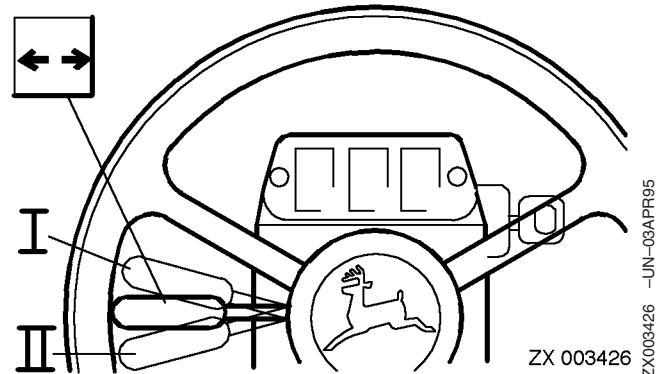
AG,CO03622,1461 -19-02AUG99-1/1

Turn-Signal Lights

Use the turn-signal switch when driving on public roads.

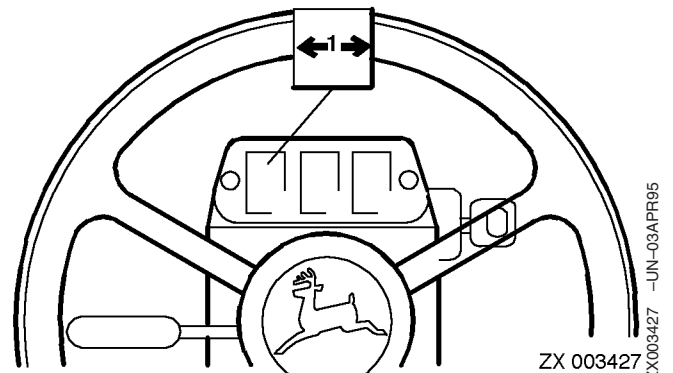
NOTE: The turn-signal switch is not self-cancelling.

- I—Right-hand turn
- II—Left-hand turn



AG,CO03622,1462 -19-15NOV02-1/1

Turn-Signal Indicator Light



AG,CO03622,1463 -19-05FEB02-1/1

Rear Turn-Signal Lights, Tail Lights and Stop Lights

Turn-Signal Lights

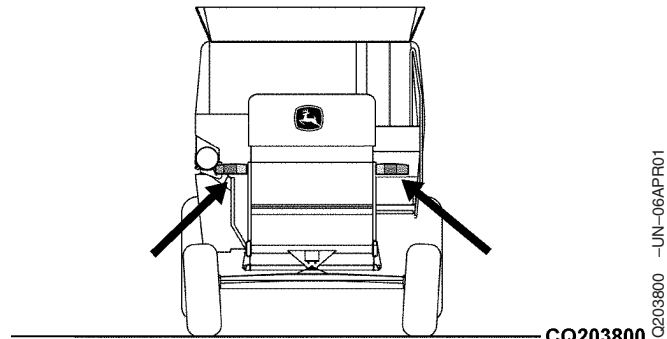
The turn-signal lights light up when the turn-signal switch or hazard warning switch are operated.

Tail Lights

The tail lights light up as soon as parking lights, low-beam headlights or full-beam headlights are selected.

Stop Lights

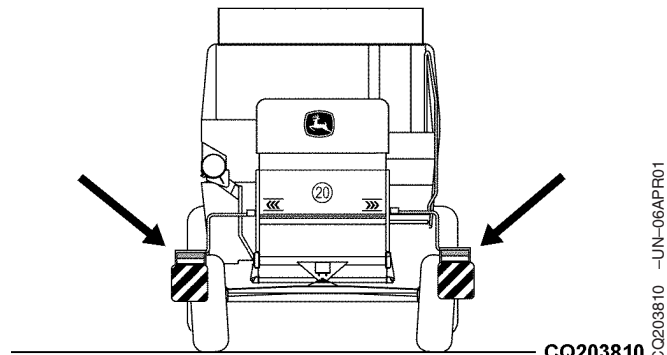
The stop lights light up when the brake pedals are depressed, provided the ignition is switched on.



1450 e 1550

CQ203800

—UN-06APR01



1450 CWS and 1550 CWS

CQ203810

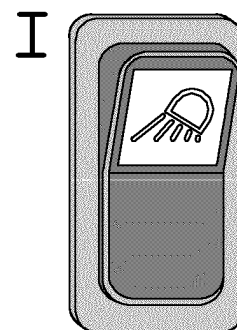
—UN-06APR01

AG.CO03622,1464 -19-15NOV02-1/1

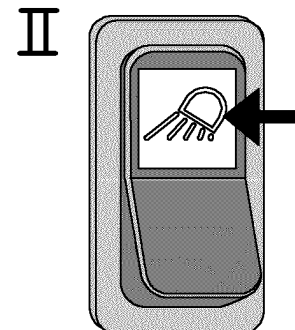
Tumbler Switch For Work Lights on Cab Roof and Unloading Auger

The work lights on cab roof and unloading auger can be switched ON separately with the ignition key in position I or II.

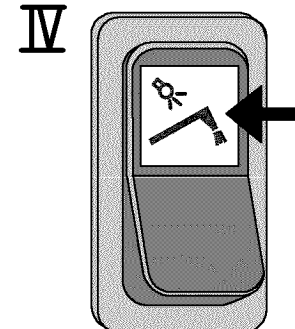
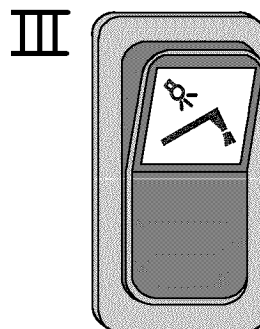
- I—Work lights on cab roof - OFF
- II—Work lights on cab roof - ON
- III—Work light at unloading auger - OFF
- IV—Work light at unloading auger - ON



ZX008378



ZX008378 -UN-31JAN96



CQ216440 -UN-07NOV02

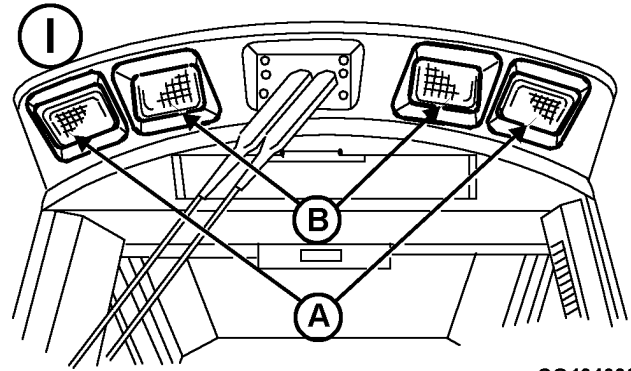
AG.CO03622,1465 -19-06NOV02-1/1

Work Lights on Cab Roof and Unloading Auger

The two work lights (A) are adjusted to the width of 6,10 m (20 pés). If necessary, adjust the width according to the header used.

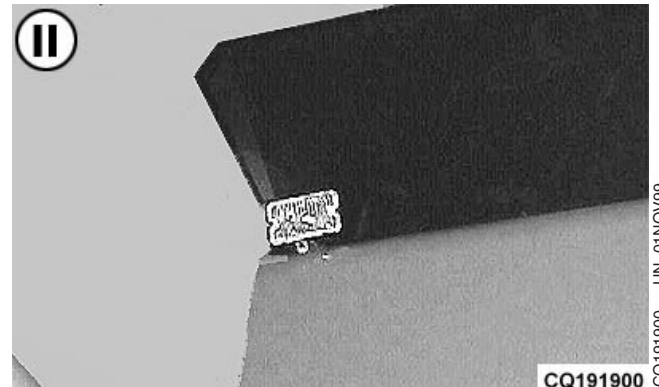
The work lights (B) illuminate the header center.

- I—Work lights on cab roof
- II—Work light at unloading auger



CQ194030

—UN-06DEC99



CQ191900

—UN-01NOV99

AG.CO03622,1466 —19-13AUG02-1/1

Tumbler Switch for Work Lights on Operator'S Platform and Mirror Arms

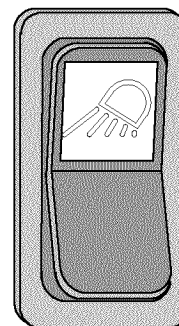
The two additional work lights on the operator's platform (inner lights), the work lights on the mirror arms and the rear lights can only be switched on when the road safety switch is in the field (off-road) position.



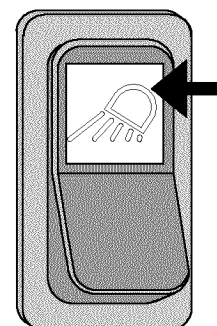
CAUTION: Work lights must be switched on only when operating in the field.

- I—Work lights on operator's platform and rear lights on
- II—Work lights on mirror arms on
- III—Off

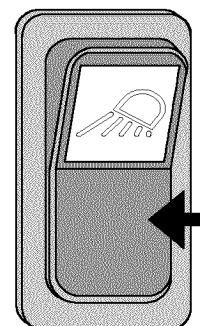
I



II



III



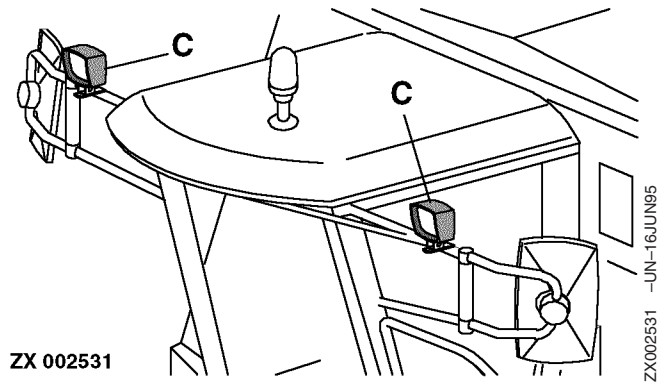
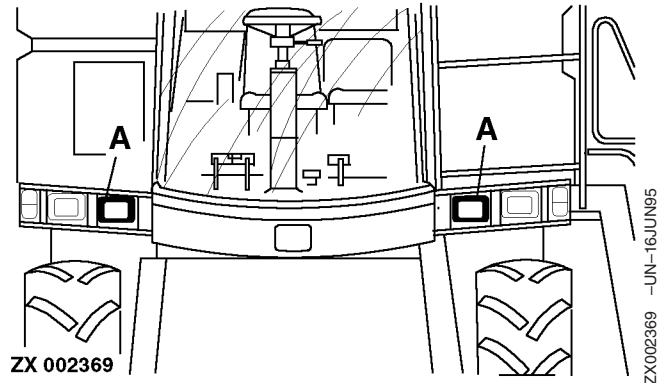
ZX009177

—UN-22MAY96

AG.CO03622,1487 —19-05NOV02-1/1

Work Lights on Operator's Platform And Mirror Arms

- A—Work lights on operator's platform
- C—Work lights on mirror arms



AG,CO03622,1467 -19-13MAR02-1/1

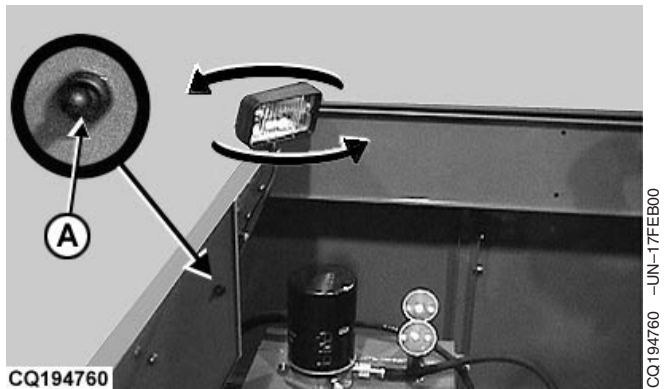
Engine Compartment Lighting

The engine compartment lighting should be used while servicing the engine at night. Switch on the light through the switch (A), nearby the light.

This light also has the rear light function.

This light is assembled in a support that turns according to the operator's needs, which may illuminate the engine or the rear hood.

NOTE: When you move the Hydro lever to the rear, the engine compartment lighting will turn on.

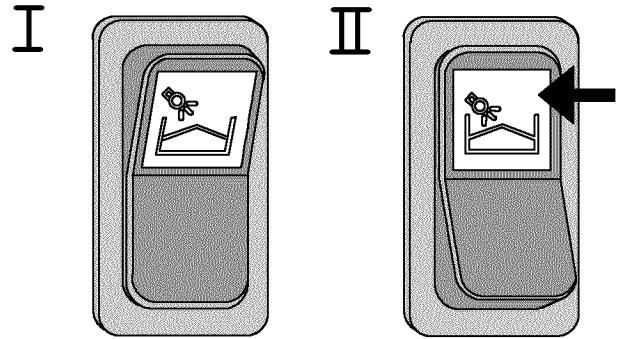


AG,CO03622,2853 -19-13MAR02-1/1

Tumbler Switch for Grain Tank Lighting

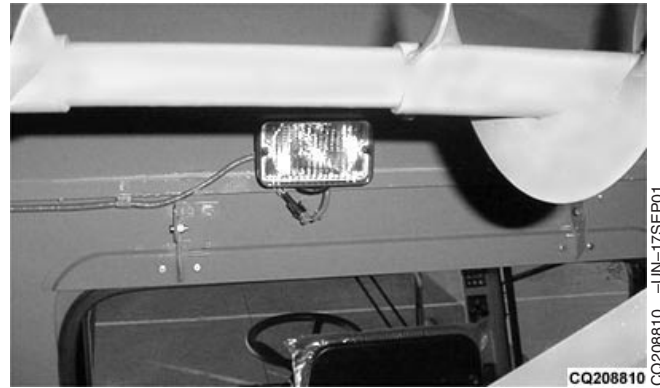
Grain tank lighting may be selected whenever the ignition is switched on.

- I—Grain tank light off
- II—Grain tank light on



ZX009178

ZX009178 -UN-22MAY96



CQ208810

CQ208810 -UN-17SEP01

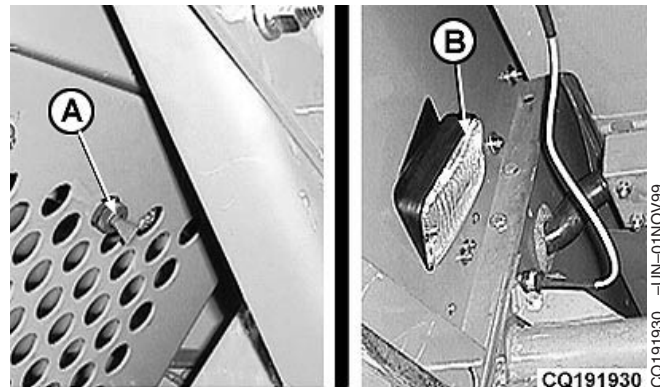
AG,CO03622,1468 -19-13MAR02-1/1

Light Inside Straw Hood

IMPORTANT: Switch on light inside straw hood only to perform service or maintenance work.

Turn on light (B) to illuminate the inside of the straw hood. Use switch (A) located outside of the shield.

- A—Switch
- B—Light



CQ191930

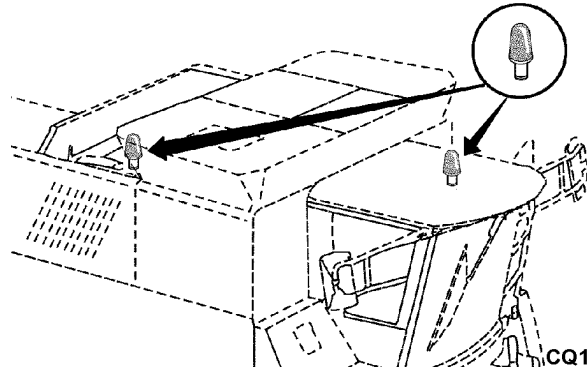
CQ191930 -UN-01NOV99

AG,CO03622,1469 -19-04FEB02-1/1

Beacon Lights

In some countries the beacon lights must be on while traveling on roads.

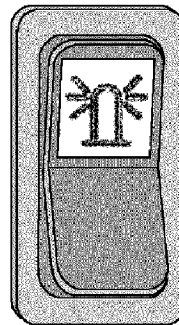
- I—Turn off beacon lights
- II—Turn on beacon lights
- III—Beacon lights turn on when grain tank is 3/4 full.



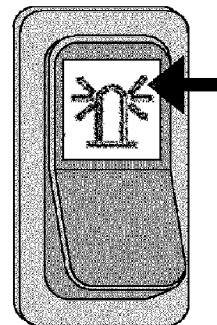
CQ192000

—UN-01NOV99

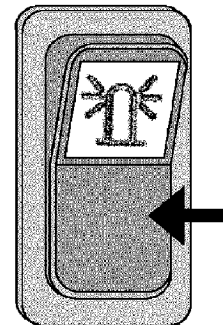
I



II



III



CQ208930

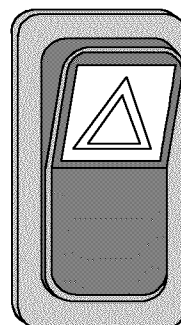
—UN-16OCT01

AG,CO03622,1470 —19-13MAR02-1/1

Tumbler Switch for Hazard Warning Lights

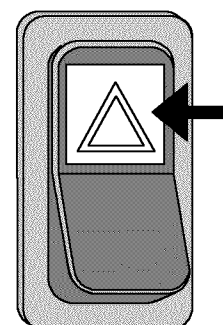
- I—Hazard warning lights off
- II—Hazard warning lights on

I



ZX008380

II



—UN-30JAN96

AG,CO03622,1471 —19-03AUG99-1/1

Using Hazard Warning Lights

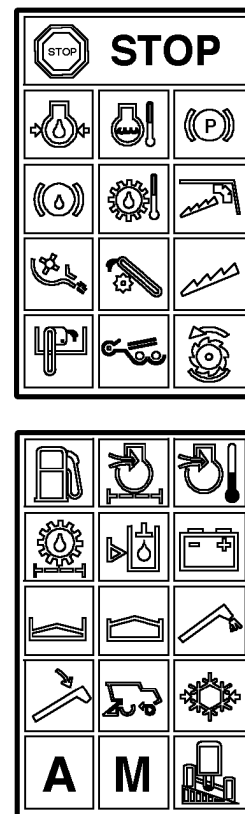
Road traffic regulations in some countries require that the hazard warning lights must be switched on whenever the combine is stopped at the side of the road.

AG.CO03622,1472 -19-03AUG99-1/1

Tumbler Switch for Indicator Light Bulb Test

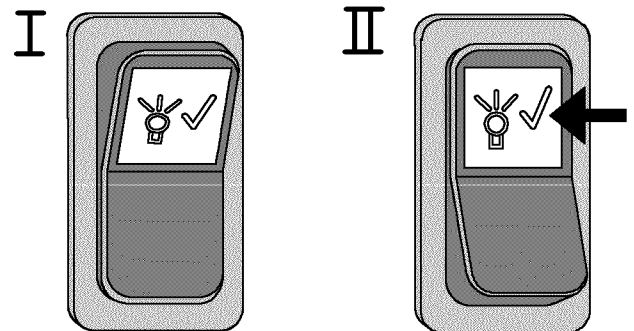
This test can only be performed with the ignition key in ON position.

- I—Indicator light bulb test off
- II—Indicator light bulb test on



CQ208940

UN-16OCT01



ZX008381

UN-30JAN96

AG.CO03622,1473 -19-13AUG02-1/1

Operator's Cab

Cab Ladder Access

The cab ladder can be adjusted in three different positions:

To swing ladder pull down latch (A) and turn it until it fits in one of the three positions.

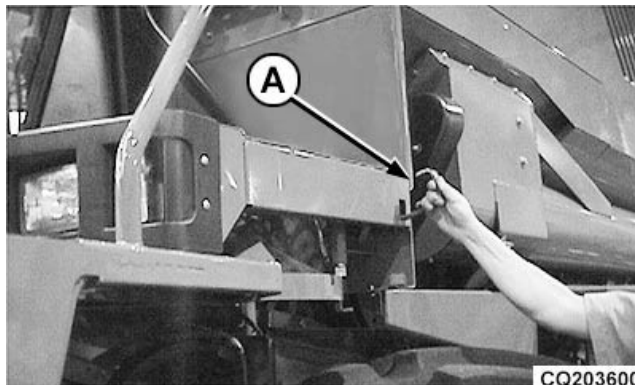
NOTE: With cab ladder in transport position (III) feeder house must remain raised. To lower feeder house is necessary place ladder in position (I) or (II).

A—Latch

I—Harvesting position

II—Harvesting position with small headers

III—Position for transport on roads (without cutting platform)



UN-04APR01



UN-04APR01



UN-04APR01

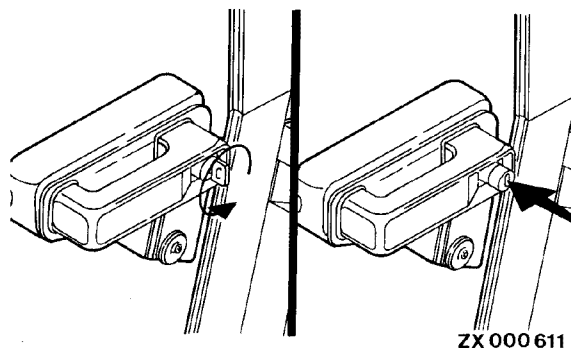


UN-04APR01

Opening Cab Door

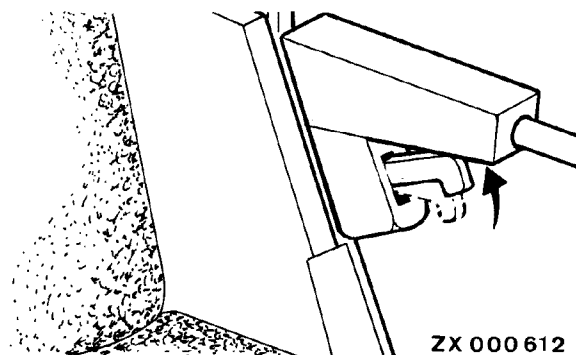
From outside: Unlock door with the ignition key. Press button and open door.

From inside: Pull up the door-opening lever.



ZX 000 611

ZX000611 -UN-03APR95



ZX 000 612

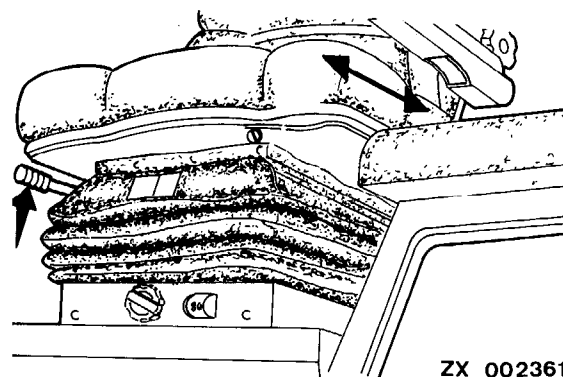
ZX000612 -UN-03APR95

AG.CO03622,1474 -19-03AUG99-1/1

Adjusting Mechanical Operator's Seat Position (CWS)

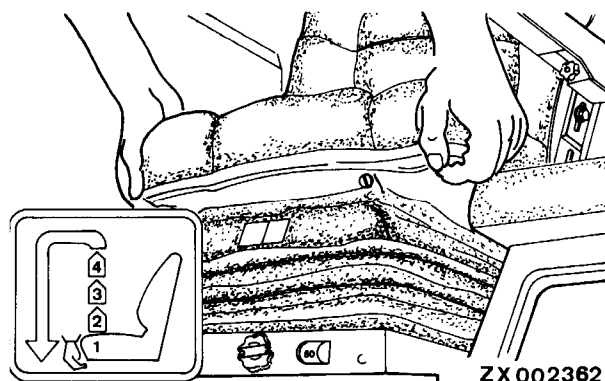
Pull up locking lever and slide seat forward or backward.

To adjust height of seat, grip seat with both hands and lift upward (three detent positions). Should the seat be raised above the third detent position, it will return to lowest position.



ZX 002361

ZX002361 -UN-03APR95



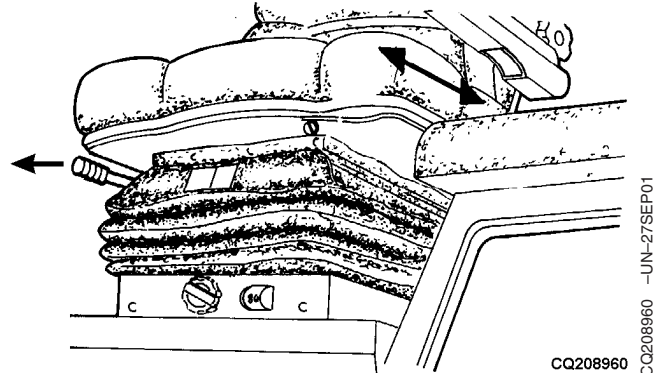
ZX 002362

ZX002362 -UN-03APR95

AG.CO03622,1475 -19-13NOV01-1/1

Adjusting Mechanical Operator's Seat Position

Pull locking lever to the side and slide seat forward or backward.

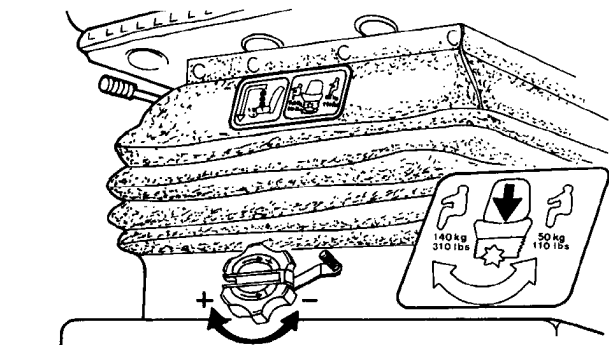


MB03730,00001EA -19-14MAR02-1/1

Adapting Seat to Operator's Weight

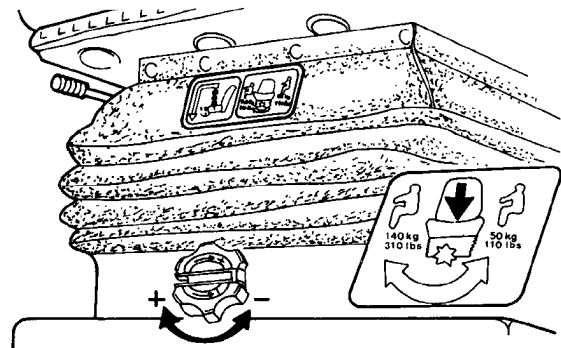
The seat can be adapted to the operator's weight.

Turn the crank to more weight (+) or less weight (-).



CQ194650

Adapting Mechanical Seat to Operator's Weight — 1450 CWS and 1550 CWS



CQ208970

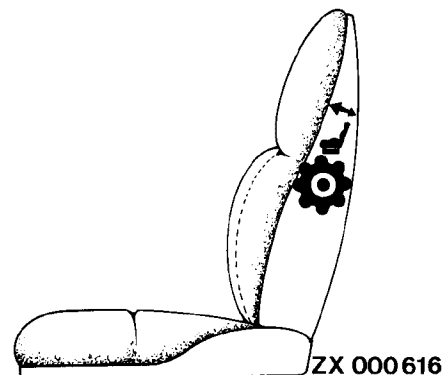
Adapting Mechanical Seat to Operator's Weight — 1450 and 1550

AG,CO03622,1476 -19-13AUG02-1/1

Adjusting Lumbar Support (Only Mechanical Seat — CWS)

An adjustable lumbar support is incorporated in backrest of operator's seat.

Use l.h. or r.h. handwheel to adjust lumbar support according to operator's requirements.



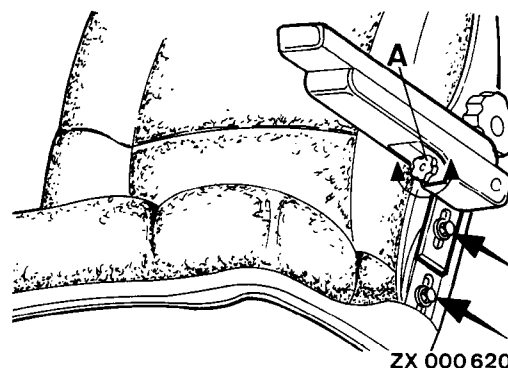
AG.CO03622,1477 -19-10SEP02-1/1

ZX000616 -UN-03APR95

Adjusting the Armrest

Adjust armrest angle by means of wheel (A).

Armrest height can also be adjusted at the hinge.



AG.CO03622,1478 -19-14MAR02-1/1

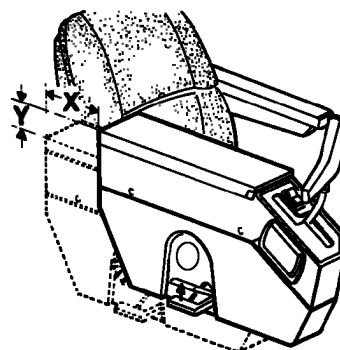
ZX000620 -UN-10APR95

R.H. Armrest — Fore-And-Aft Adjustment

From the rear position, the armrest can be moved approx. 160 mm (6.3 in.) forward (X).

In addition, armrest height is altered by approx. 80 mm (3.1 in.) (Y).

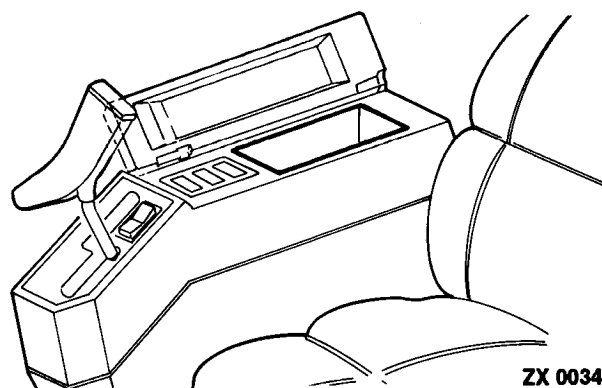
Raise locking lever. Move armrest into desired position and release locking lever.



AG.CO03622,1479 -19-14MAR02-1/1

CQ209030 -UN-28SEP01

R.H. Armrest Storage Compartment



AG.CO03622,1480 -19-03AUG99-1/1

ZX003430 -UN-03APR95

Cover of R.H. Armrest

Armrest cover can easily be removed to make notes:

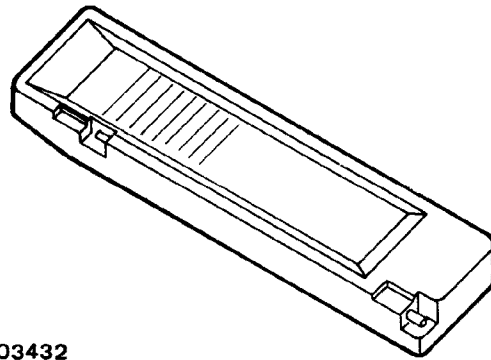
Open cover, grip at the front, press back, raise at the front and pull out.

The notes made with a pencil on the bottom of the cover may be removed by means of an eraser.



ZX 003431

ZX003431 -UN-03APR95

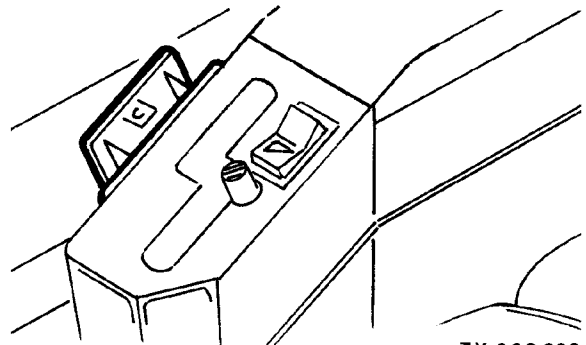


ZX 003432

ZX003432 -UN-03APR95

AG,CO03622,1481 -19-03AUG99-1/1

Ashtray



ZX 000 626

ZX000626 -UN-03APR95

AG,CO03622,1482 -19-03AUG99-1/1

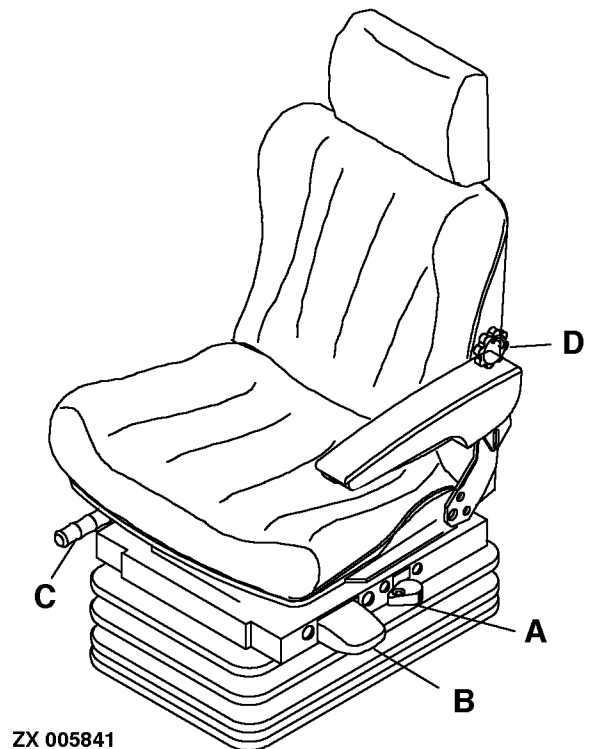
Air Comfort Seat (Option)

The seat's spring setting can be varied from soft to hard by means of lever (A).

After starting the engine, release lever (B) briefly to bring the seat to its central position.

To adjust the height, pull lever (B) upward or push it down.

- A—Spring setting adjustment
- B—Height and weight adjustment
- C—Horizontal adjustment
- D—Lumbar support adjustment



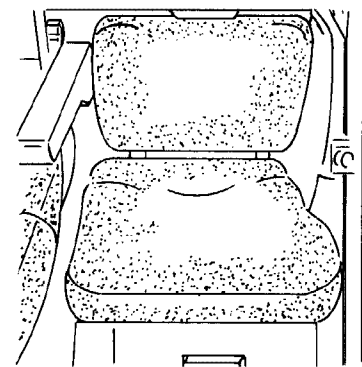
ZX 005841

ZX005841 -UN-03APR95

AG.CO03622,1483 -19-04FEB02-1/1

Passenger Seat

During the harvesting only the operator and one passenger more can be in the combine cab.



ZX 000 628

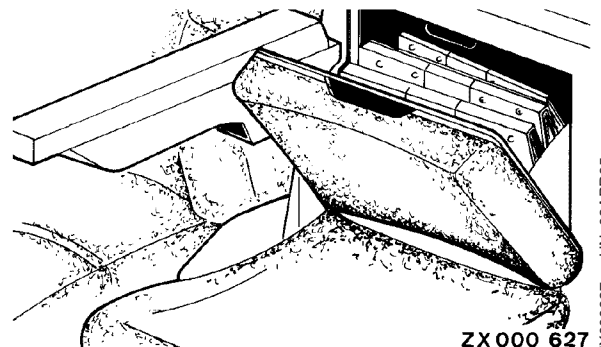
ZX000628 -UN-03APR95

AG.CO03622,1484 -19-13AUG02-1/1

Storage Compartment For Operator's Manuals

This storage compartment is located in the passenger seat backrest.

For access to compartment, pull backrest forward.



ZX 000 627

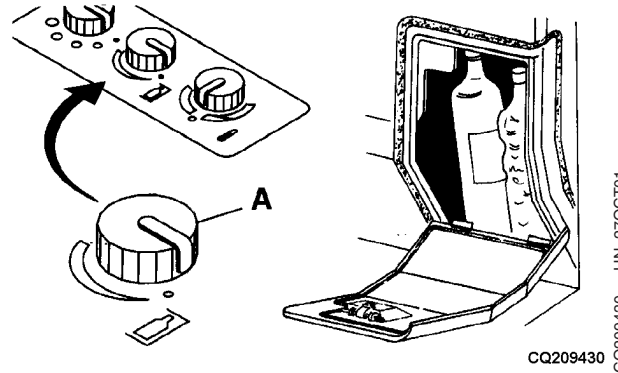
ZX000627 -UN-03APR95

AG.CO03622,1485 -19-15NOV02-1/1

Cooling Compartment

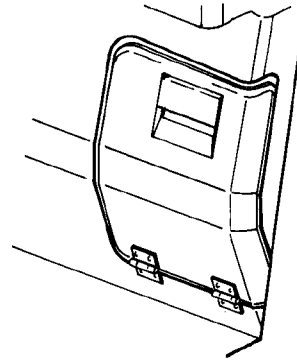
The cooling compartment is located below the passenger seat and provides space for bottles etc. two 1.5-L bottles).

To increase cooling effect, turn rotary switch (A) clockwise (also refer to "Controls and Instruments" section).



CQ209430

—UN-270C701



ZX 003434

—UN-03APR95

AG,CO03622,1486 —19-03AUG99-1/1

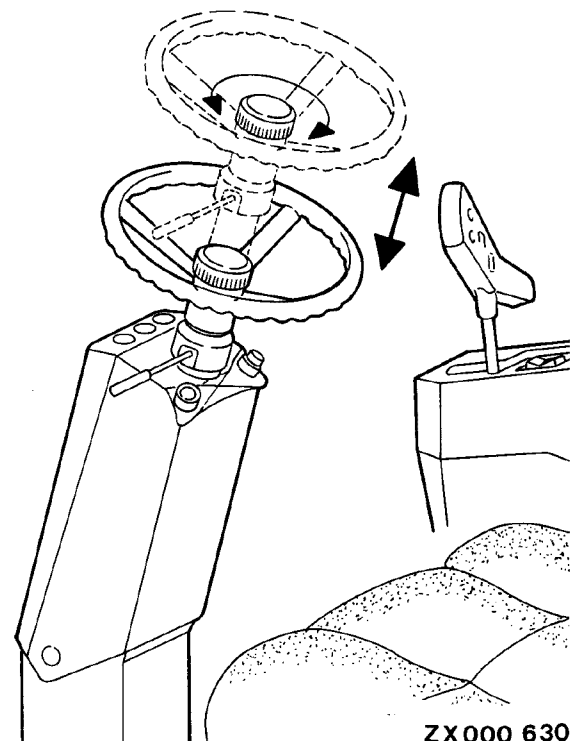
Steering Wheel Height Adjustment



CAUTION: Adjust steering wheel only when machine is stopped.

Loosen hub. Push or pull wheel to position. Tighten hub to lock.

Only a slight tightening of the hub is needed to hold steering wheel in position.



ZX000 630

—UN-03APR95

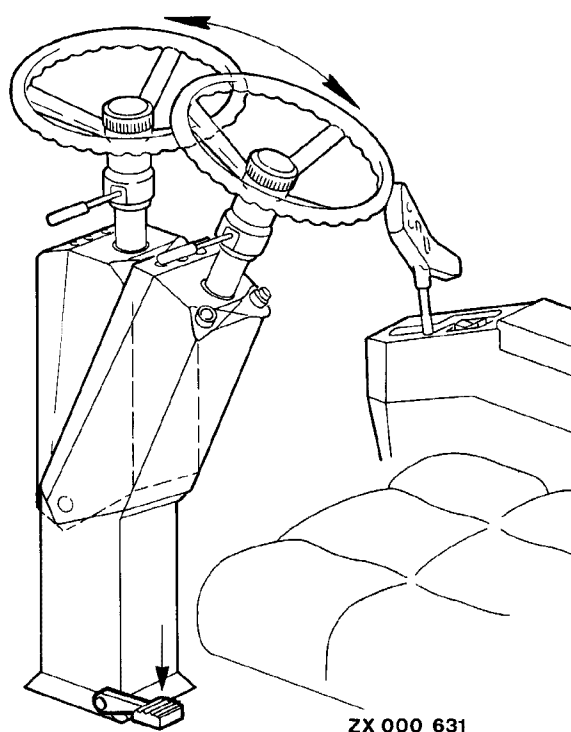
AG,CO03622,1488 —19-03AUG99-1/1

Steering Column Tilt Adjustment

CAUTION: Adjust column only when machine is stopped.

Column is spring loaded to the upright position. Do not step on pedal without holding steering wheel in both hands.

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



AG.CO03622,1489 -19-03AUG99-1/1

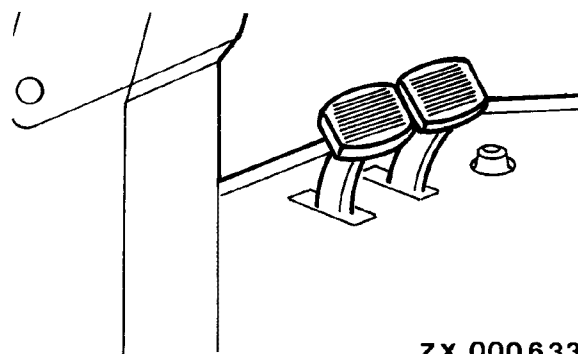
ZX000631 -UN-03APR95

Foot Brakes

For road travel, couple brake pedals.

For field operation, uncouple brake pedals.

For details refer to Section "Driving and Transporting".

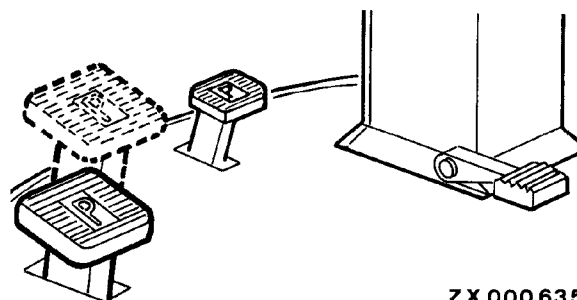


AG.CO03622,1490 -19-17MAY02-1/1

ZX000633 -UN-03APR95

Parking Brake

Apply parking brake when stopping combine harvester and when starting engine.

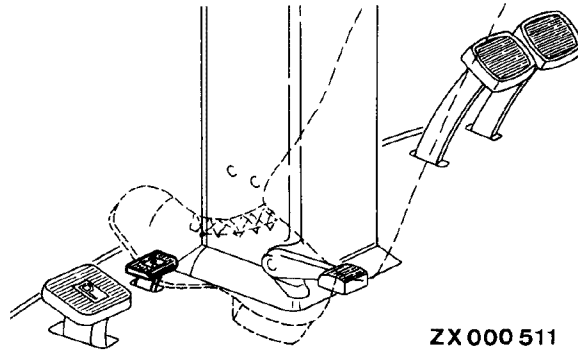


AG.CO03622,1491 -19-03AUG99-1/1

ZX000635 -UN-03APR95

Releasing Parking Brake

To release parking brake, depress release pedal.

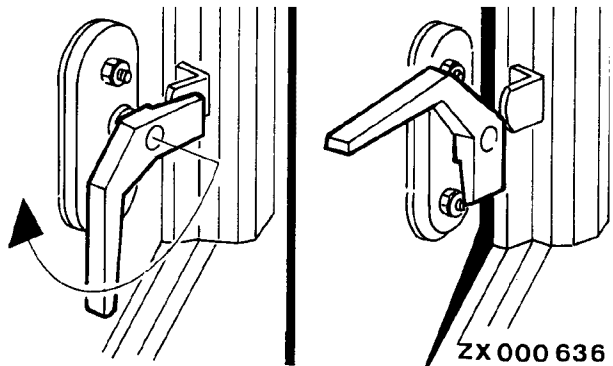


ZX000511 -UN-03APR95

AG,CO03622,1492 -19-03AUG99-1/1

Cab Side Window

To open, unlatch window.



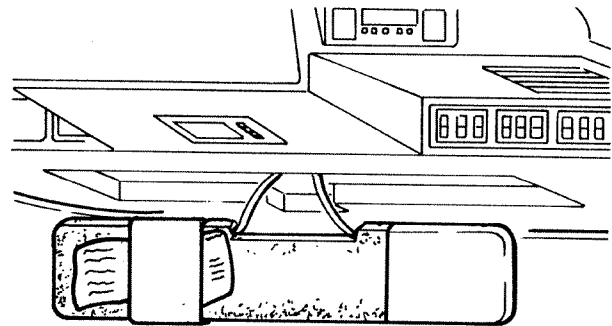
ZX000636 -UN-05APR95

AG,CO03622,1493 -19-03AUG99-1/1

Sun visor

Notes etc. may be stored on back sun visor.

Adjust sun visor to suit conditions.



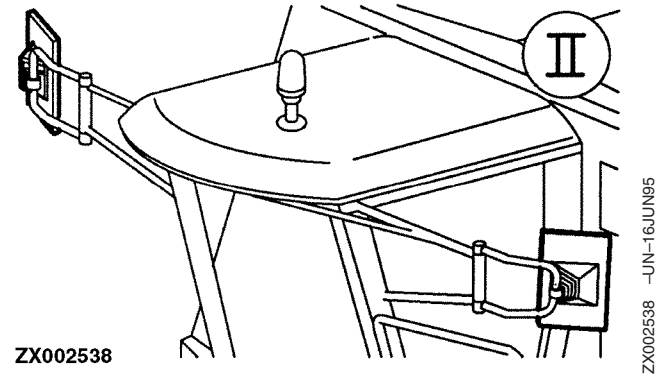
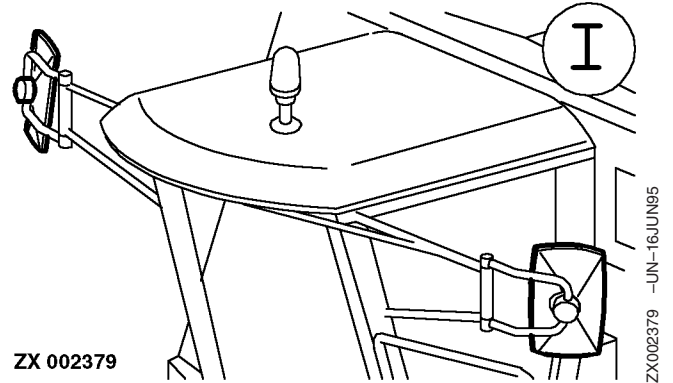
ZX002537 -UN-16JUN95

AG,CO03622,1494 -19-03AUG99-1/1

Outside Mirrors

Adjust outside mirrors as necessary.

- I—Manually adjustable outside mirrors
- II—Electrically adjustable outside mirrors — Option CWS

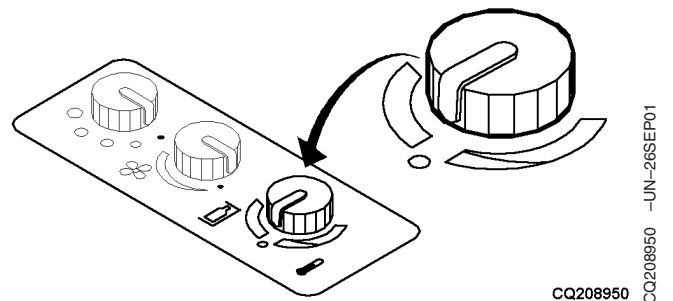


AG.CO03622,1495 -19-13NOV01-1/1

Turn On Heater (CWS)

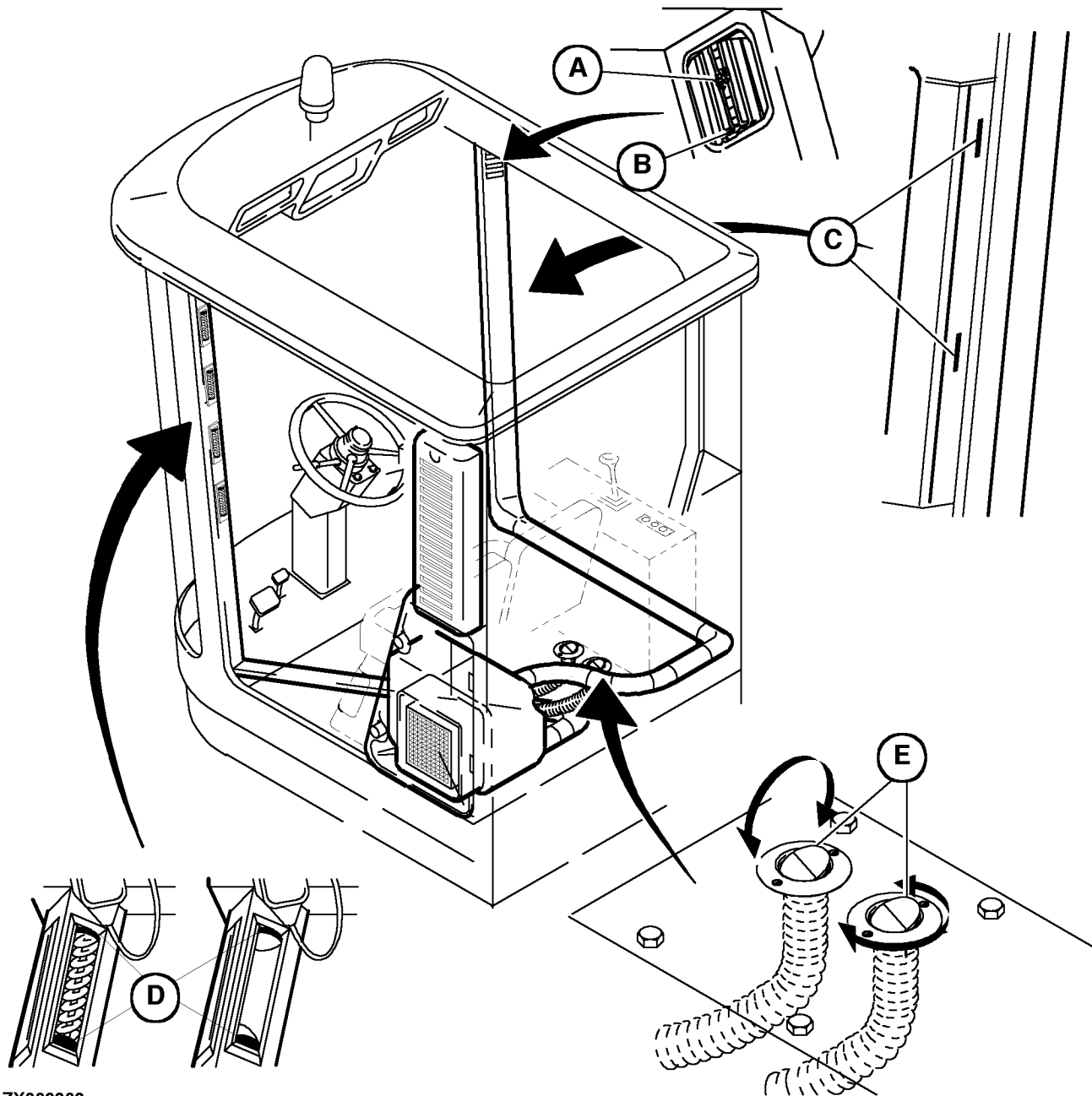
IMPORTANT: Always turn on fan before heater is set to work.

For temperature control, adjust knob.



AG.CO03622,1496 -19-14MAR02-1/1

Adjustable Air Louvers



ZX009303

A—Wheel to regulate amount of air

C—Air louvers

B—Air deflector screen adjustment

D—Wheel to regulate amount of air and to deflect air flow

E—Regulation of amount of air and air flow deflection

Adjust air louvers to prevent misting of windows.

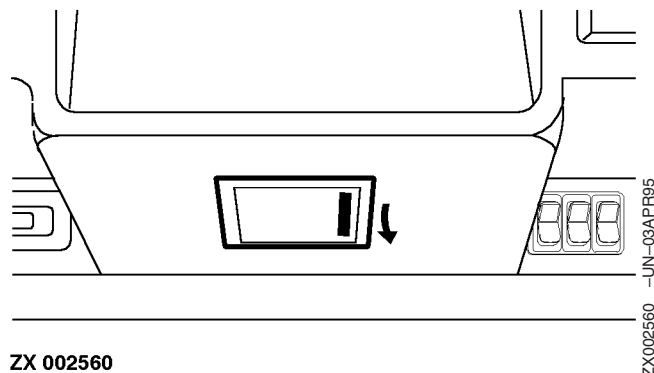
ZX009303 -UN-23MAY96

Interior Lighting

Turn knurled wheel forward — on

Knurled wheel in center position — off

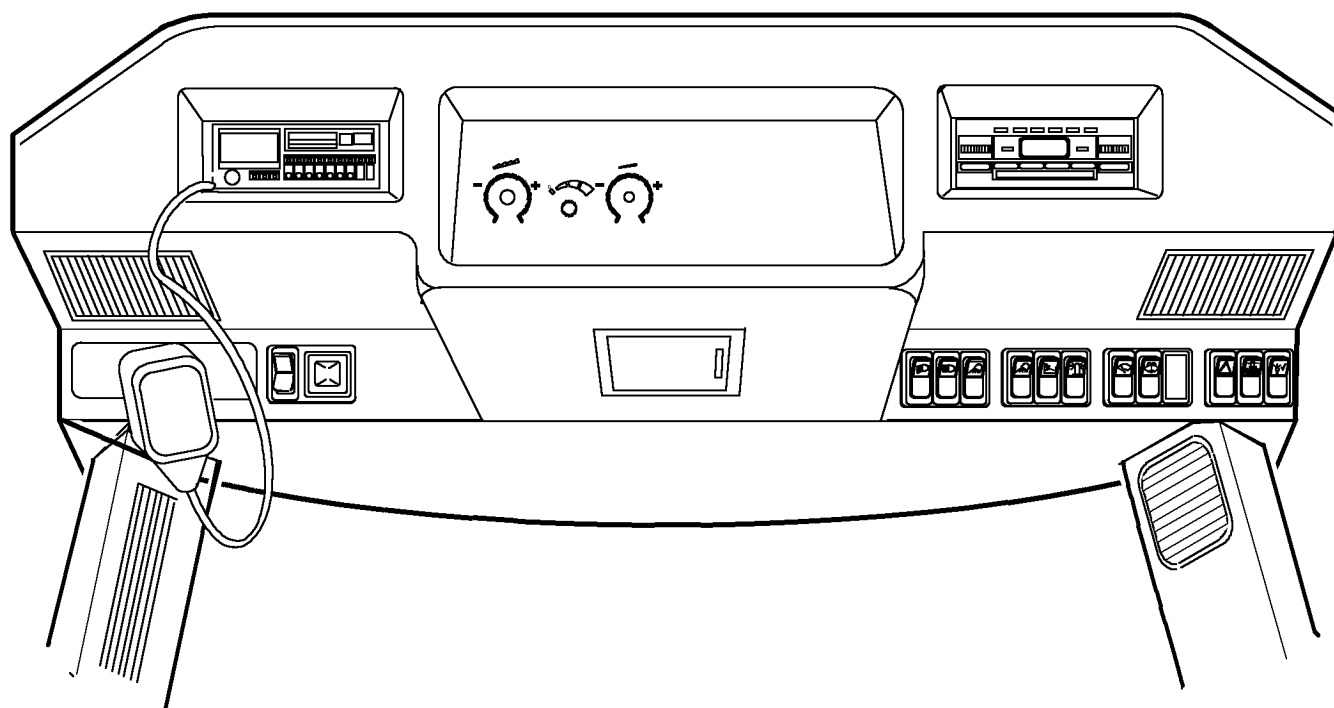
Turn knurled wheel backward — on



ZX 002560

AG.CO03622,1498 -19-04AUG99-1/1

Radio And Citizens' Band Radio (Special Equipment)



ZX014274

ZX014274 -UN-16JAN98

The combine can be fitted with a radio and Citizens' Band radio as special equipment.

For operation, refer to manufacturer's instructions.

NOTE: Dimensions for the installation of radio and CB radio are the standard ones: 182 mm (7.17 in.) wide, 53 mm (2.1 in.) high.

AG.CO03622,1499 -19-04FEB02-1/1

Pre-Starting Checks

Daily Checks

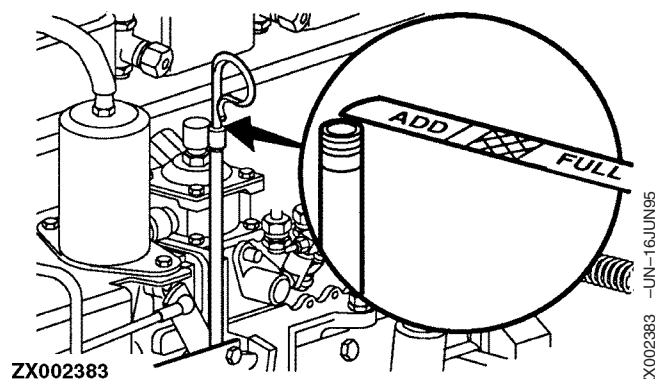
- ☐ Engine oil level
- ☐ Air compressor oil level
- ☐ Hydraulic System
- ☐ Radiator screen
- ☐ Cooling system
- ☐ Tires
- ☐ Hydrostatic system
- ☐ Fuel System
- ☐ Indicator light test
- ☐ Light functions
- ☐ Brakes
- ☐ Straw warning device
- ☐ Shift lock system (CWS)

AG,CO03622,1500 -19-04FEB02-1/1

Engine Oil Level

Do not operate the engine when oil level is below the low level mark on the dipstick.

The oil level should be between upper and lower marks on dipstick. Always check oil level with combine parked on level ground.

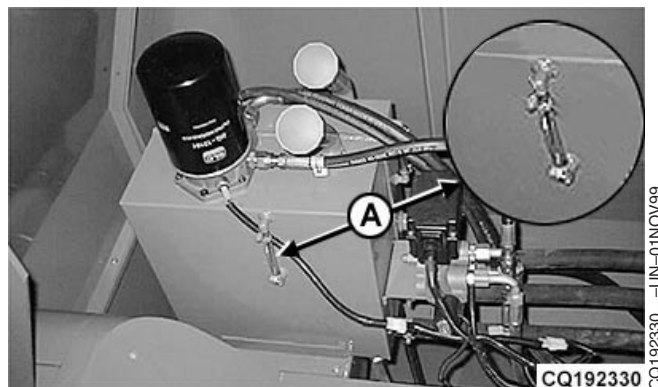


AG,CO03622,1501 -19-15NOV02-1/1

Hydraulic Oil Level

Retract all hydraulic cylinders and lower header to the ground.

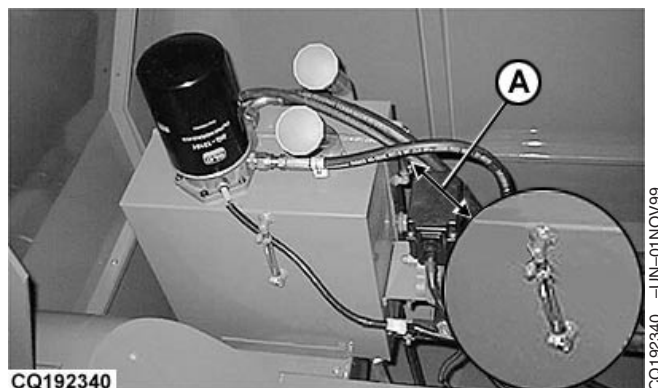
Oil must be visible at scale (A).



AG,CO03622,1502 -19-04AUG99-1/1

Hydrostatic Oil Level

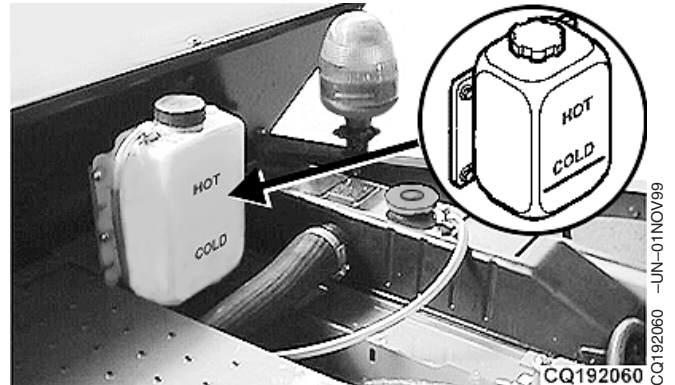
Oil must be visible at scale (A).



AG,CO03622,2192 -19-20OCT99-1/1

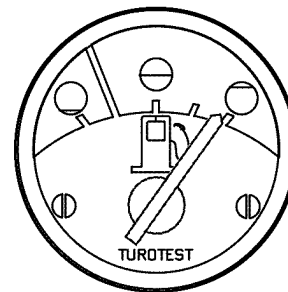
Coolant Level

Allow the engine to cool. Coolant level should be at the COLD mark.



Fuel Level

Turn the ignition on and check fuel level at the fuel gauge.



Windshield Washer Reservoir

Check and refill if necessary with clean water or automotive windshield washer solution.

Windshield washer reservoir capacity — 2,8 L (0.73 US gal)



After Long Storage Period

Bleed fuel system.

See "Service — Engine" section.

Tires

In addition to wearing rapidly, an underinflated tire can slip on the rim and cut the valve stem.

See “Wheels, Axles and Additional Weights” Section for the correct pressure.

A—Pressure Too Low
B—Pressure Too High
C—Correct Pressure

A



B



C



ZCQD1100

ZCQD1100 -UN-26JUN96

AG,CO03622,1506 -19-17MAY02-1/1

Fuel System

If necessary, drain water and sediment deposits from fuel system.

See “Service — Engine” section.

AG,CO03622,1507 -19-17MAY02-1/1

Lubricate Combine

Proceed according to the lubrication chart.

AG,CO03622,1508 -19-04AUG99-1/1

Checks In Operator’s Cab

For indicator light and light function checks, refer to “Lighting System and Signals” section.

AG,CO03622,1509 -19-17MAY02-1/1

Operating the Engine

Breaking In The Engine

The engine is ready for normal operation. However, be extra cautious during the first 100 operating hours.

Observe the following points:

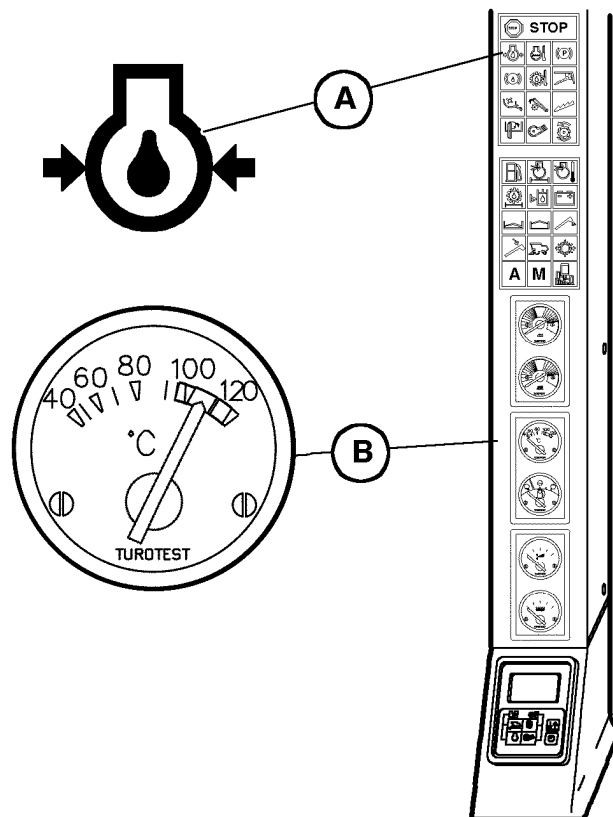
- Watch engine oil pressure (A) and coolant temperature (B) closely. If needle goes into the orange zone, reduce engine load immediately. Unless needle quickly drops, stop the engine and determine the cause.



CAUTION: Never remove radiator filler cap when engine is hot. Stop engine and wait until engine has cooled down. Turn filler cap to first stop to relieve pressure before removing cap completely (see “Service — Engine” section).

- Check engine oil level periodically, watching for any signs of leaks (see “Service — Engine” section).
- Until you become thoroughly familiar with the sound and feel of your new combine harvester, stay extra attentive and alert.
- During the first 20 operating hours, avoid high engine loads and do not idle the engine for more than 5 minutes.

See the recommended type of engine oil in the “Fuel, Lubricants and Coolant” Section.



CQ188091 -UN-11NOV02

AG.CO03622,1510 -19-11NOV02-1/1

Safety Rules For Starting Engine



CAUTION: Make sure that everybody is clear of the combine harvester. Sound the horn to warn other persons. Never run the engine in a closed building without using an exhaust pipe extension. Make sure there is plenty of ventilation.

AG.CO03622,1511 -19-04AUG99-1/1

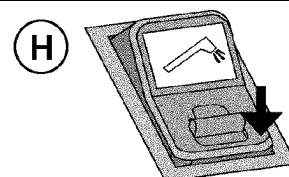
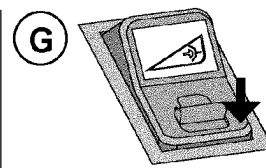
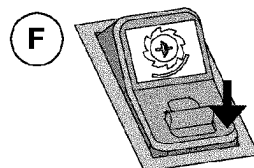
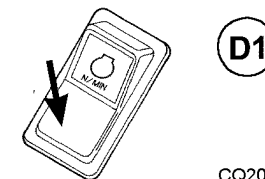
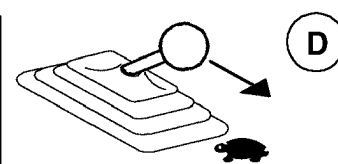
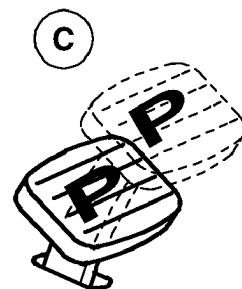
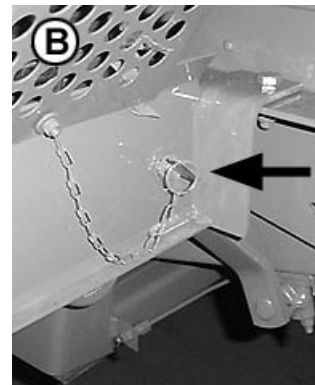
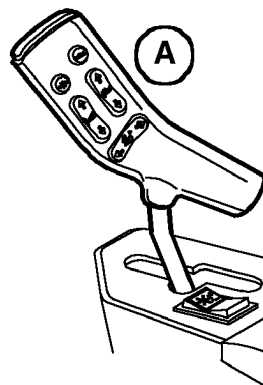
Before Starting the Engine

The forward/reverse lever must be in neutral (A).

Battery main switch must be on (B).

Other control positions:

- Apply parking brake (C).
- Pull throttle lever all the way back (D) (1450 and 1550).
- Place throttle rocker switch in position (D1) (1450 CWS and 1550 CWS).
- Turn off separator (F), cutting platform (G) and unloading auger drive (H) switches.

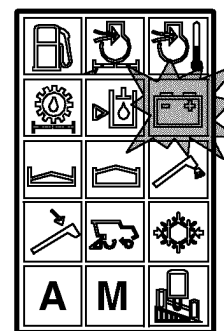
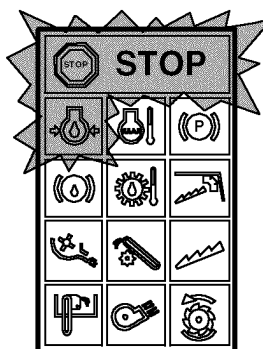


AG,CO03622,1512 -19-19NOV02-1/1

Turn On Ignition

The following **indicator lights** will glow:

- Warning (STOP) light
- Engine oil pressure
- Alternator indicator light



CQ209420

AG,CO03622,1513 -19-05NOV02-1/1

Starting the Engine



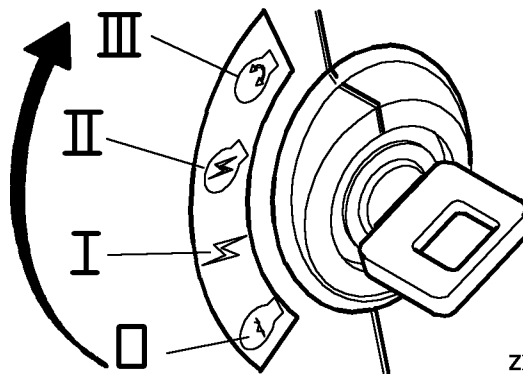
CAUTION: For safety reasons, sound horn before starting the engine or operating the combine. Start engine from operator's seat only.

Turn starter switch to position III. As soon as engine starts, release key. Never hold the key in the starting position for longer than 20 seconds.

If key switch is released to position I before engine starts, wait until engine stops turning before trying again.

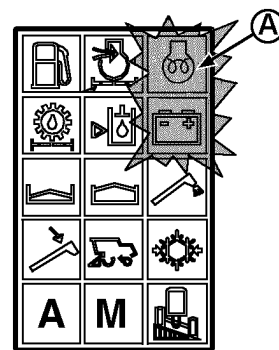
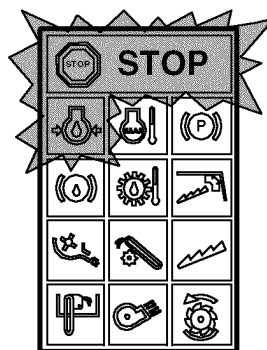
IMPORTANT: If engine does not start within 20 seconds, wait at least two minutes before trying again. Do not try to start engine more than four times.

NOTE: With temperatures lower than 0°C, an intake air heater is used to increase intake manifold air temperature to improve cold starting automatically through the ECU, after starter switch has been turned to position II. During this operation an indicator light (A) turns on. After this light turns off it is possible to start the engine (CWS).



ZX 002403

ZX002403 -UN-03APR95



CQ209452

CQ209452 -UN-06NOV02

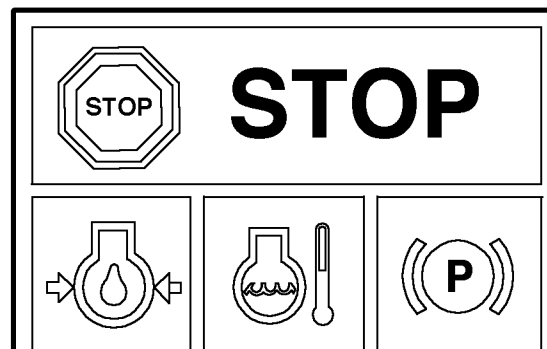
Indicator lights - Engines with ECU (CWS)

AG.CO03622,1514 -19-19NOV02-1/1

Engine Oil Pressure Indicator Light

Immediately after starting the engine, check that this indicator light goes out. If not, stop engine immediately and remedy the fault.

The other indicator lights should also go out.



ZX 002395

ZX002395 -UN-03APR95

AG.CO03622,1515 -19-04AUG99-1/1

Warming Up Engine

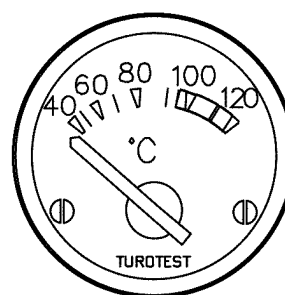
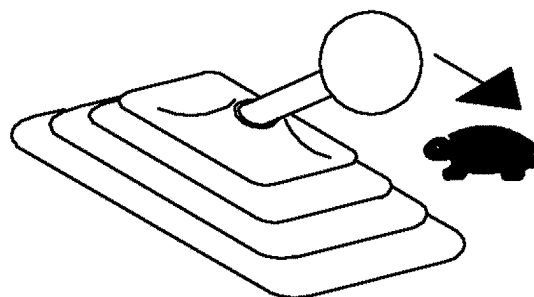
Move throttle lever back (1450 and 1550) until a speed of approx. 1200 rpm has been obtained.

Place throttle rocker switch (1450 CWS and 1550 CWS) in position I (1300 rpm).

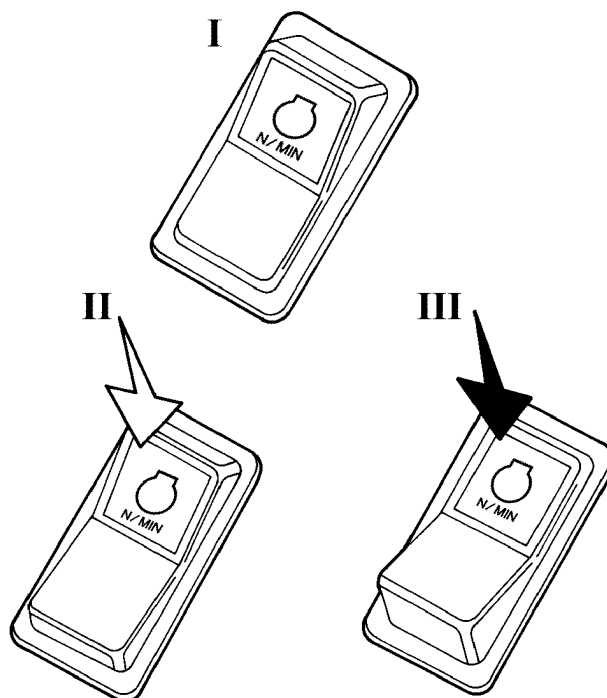
Run a cold engine for approx 1—2 minutes at this speed. At ambient temperatures below freezing, extend this warming up period to 2—4 minutes.

IMPORTANT: Never run engine without load for more than 5 minutes.

Do not increase engine speed to maximum rpm unless needle of coolant temperature gauge is in the yellow-green zone.



Throttle lever and temperature gauge



Throttle rocker switch

CQ203500

—UN-30MAR01

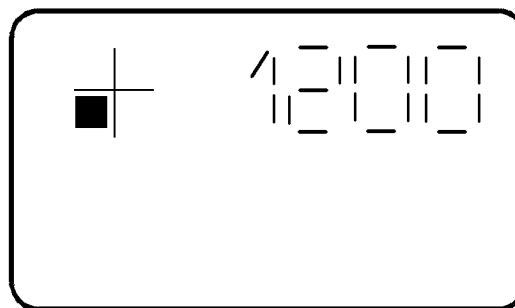
CQ212552 —UN-11NOV02

AG,CO03622,1516 —19-11NOV02-1/1

Idling The Engine

Allowing the engine to idle at low rpm uses fuel inefficiently and can cause a build-up of carbon in the engine.

If harvester must be left with the engine idling for more than 3—4 minutes, minimum engine speed should be 1200 rpm.



ZX012849

ZX012849 -JUN-02SEP97

AG.CO03622,1517 -19-14MAR02-1/1

Starting the Engine by Means of a Booster Battery

In very severe cold weather it may be necessary to connect an additional 12-volt battery in parallel with the harvester's batteries.



CAUTION: Gas given off by batteries is explosive. Avoid sparks or open flames near the batteries. Make sure batteries are properly connected (ground cable to negative pole and starter cable to positive pole).

IMPORTANT: Reversed polarity between the battery and alternator may result in severe damage to the electrical system. Always connect ground cable to negative pole last.



TS204 -JUN-23AUG88

AG.CO03622,1519 -19-14MAR02-1/1

Operating In Tropical Conditions

For composition and use of engine coolant, refer to "Fuel, Lubricants, Coolant and Capacities".

AG.CO03622,1520 -19-17MAY02-1/1

Stopping the Engine

IMPORTANT: Before finally shutting off the engine, run at slow idle for 1—2 minutes to allow engine to cool.

Put forward/reverse lever in neutral.

Disengage all drives.

Apply parking brake.

Lower header to ground.

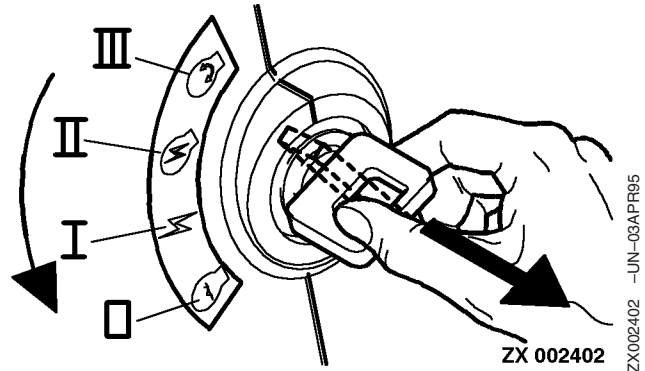
Set throttle lever to idle (1450 e 1550).

Set throttle switch in intermediate position (1450 CWS and 1550 CWS).

Turn starter switch to Position "0".



CAUTION: Always remove key before leaving operator's cab.



AG,CO03622,1521 -19-19NOV02-1/1

Stalling of Engine

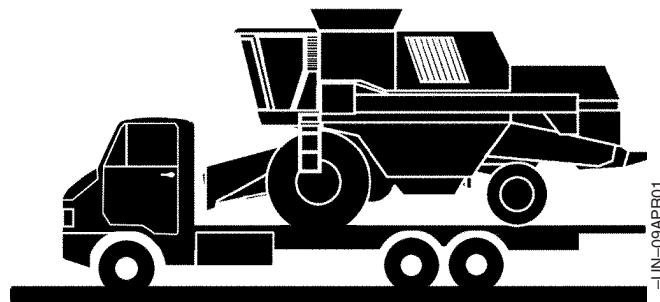
IMPORTANT: If engine stalls at operating temperature, restart it immediately to prevent overheating of certain engine parts. Before finally shutting off the engine, run at slow idle for 1-2 minutes.

AG,CO03622,1522 -19-04AUG99-1/1

Driving and Transporting the Combine

Transporting The Combine on a Truck

Whenever transporting the combine in a truck, make sure taht all the shields are mounted correctly, in a way that they can not open accidentally during the transport.



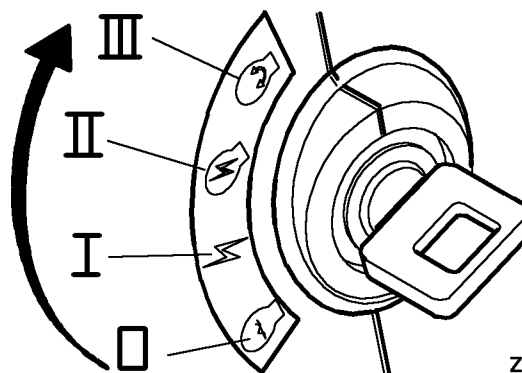
CQ203970

CO03622,0000061 -19-04FEB02-1/1

CO203970 -UN-09APR01

Starting the Engine

For details, refer to "Operating the Engine" section.



ZX 002403

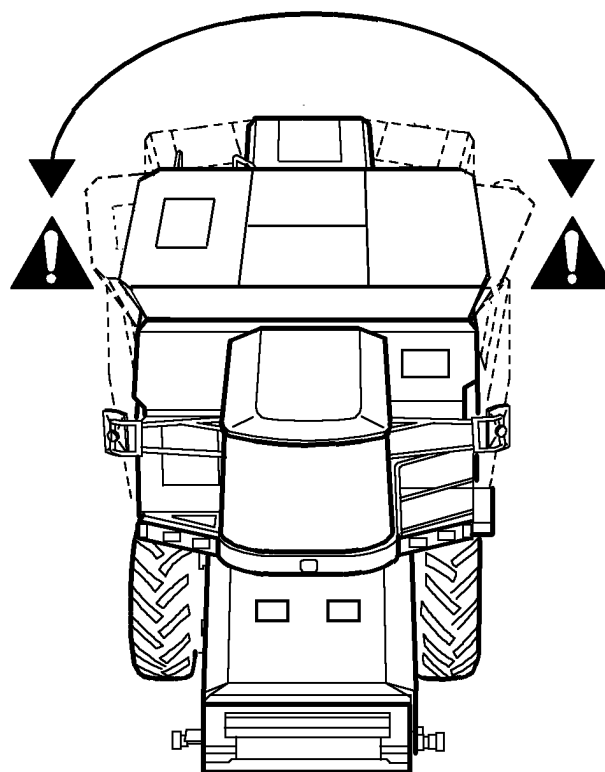
AG.CO03622,1523 -19-17MAY02-1/1

ZX002403 -UN-03APR95

Steering and Driving

CAUTION: Combine harvester swings out when changing direction. Take care on bends.

The steering wheels are located at the rear of the combine harvester. Therefore, familiarize yourself with the different steering characteristics.

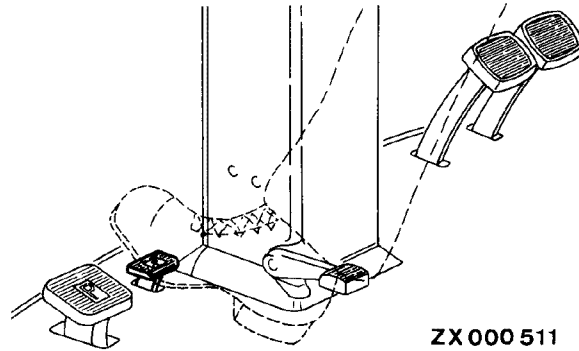


CQ192070

AG.CO03622,1524 -19-04AUG99-1/1

CO192070 -UN-01NOV99

Releasing Parking Brake



AG,CO03622,1525 -19-04AUG99-1/1

ZX000511 -UN-03APR95

Operating the Foot Brakes

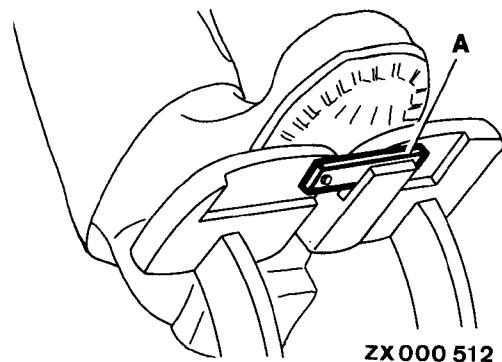
During road travel

CAUTION: For safety reasons, always couple brake pedals by means of pedal coupler (A) when driving on public roads. This ensures the brakes are actuated together.

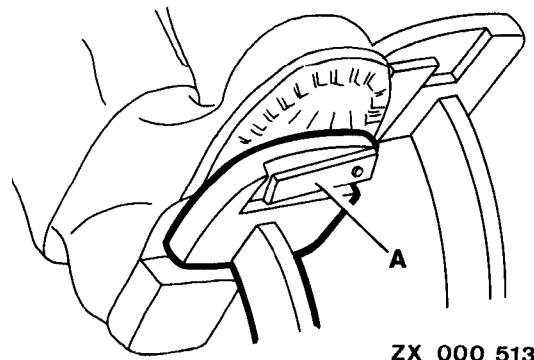
During field travel

CAUTION: When stopping the combine harvester, always depress both pedals simultaneously.

When negotiating sharp turns, use individual brakes to assist steering. For this purpose, disengage pedal coupler (A).



ZX000512 -UN-03APR95



ZX000513 -UN-03APR95

AG,CO03622,1526 -19-04AUG99-1/1

Engaging a Gear (1450 CWS and 1550 CWS)

Engage 3rd gear for road travel. In this gear the engine maximum rotation is reduced to 2250 rpm.

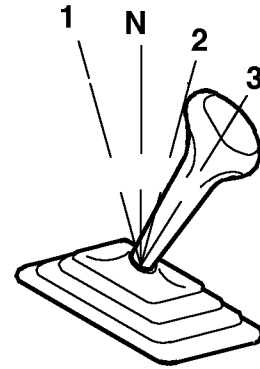
NOTE: The speed reduction is done by means of an switch (A) placed on gear box, connected to engine ECU.

Gears can only be changed with the hydro lever in neutral position or when traveling with a ground speed under 1,5 Km/h. During movement of the combine, the gear shifter cam is automatically locked in place by a solenoid.

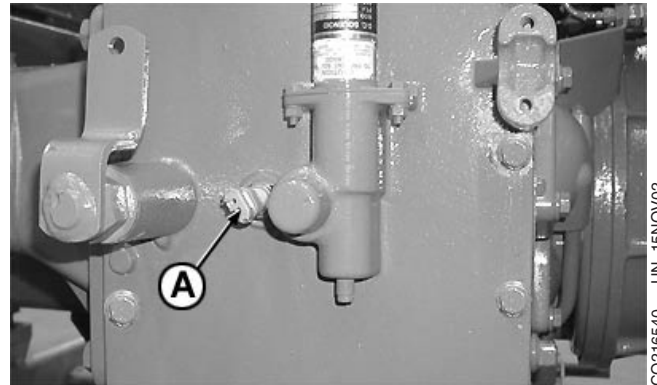
NOTE: Check proper solenoid function daily by listening to the solenoid action with the engine shut off, turning key switch ON and OFF in stages I and II. If a defect occurs, consult your John Deere dealer.

For field operation:

- Select a gear according to working conditions (preferably 2nd gear).



ZX 002405



ZX002405 -UN-03APR95

CQ216540 -UN-15NOV02

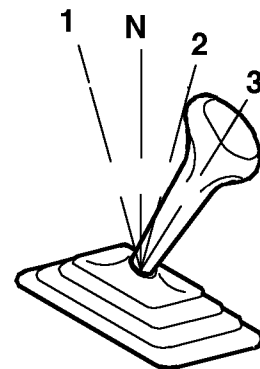
WH.CO03622,1527 -19-15NOV02-1/1

Engaging a Gear (1450 and 1550)

Engage 3rd gear for road travel.

For field operation:

- Select a gear according to working conditions (preferably 2nd gear).



ZX 002405

AG.CO03622,1527 -19-14AUG02-1/1

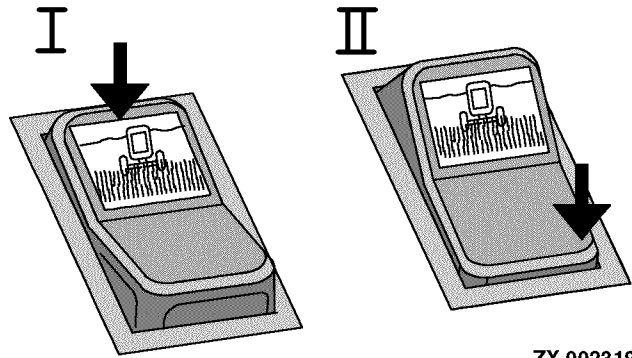
ZX002405 -UN-03APR95

Road Safety Tumbler Switch (Red)

Move header, unloading auger, grain tank cover and straw chopper to their transport positions.

IMPORTANT: During road travel, road safety switch must be in position (II). Thus all hydraulic functions with the exception of the steering system are shut off.

I—Field position
II—Road position



ZX 002319

—UN—16JUN95
ZX002319

AG,CO03622,1528 —19—07OCT02—1/1

Forward and Reverse Travel

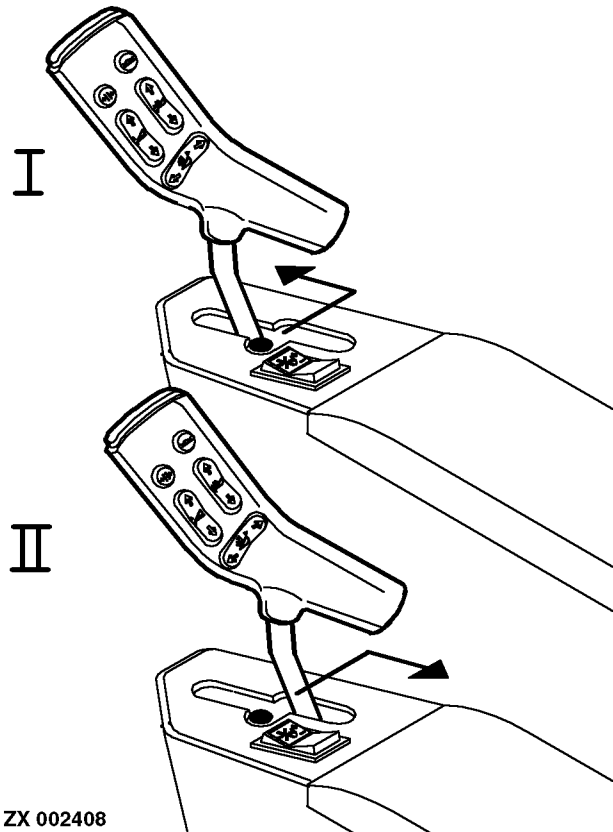
CAUTION: Always adapt ground speed of harvester to road or field conditions.

Forward travel (I)

Slowly pull forward/reverse lever from “Neutral” to “Forward”.

Reverse travel (II)

Slowly pull forward/reverse lever from “Neutral” to “Reverse”.



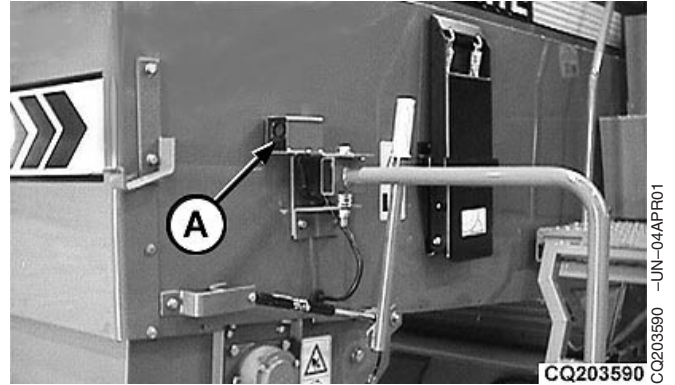
ZX 002408

—UN—16JUN95
ZX002408

AG,CO03622,1530 —19—13NOV01—1/1

Reverse Travel Alarm (CWS)

If the ground speed control lever is moved to the rear (reverse travel) while the engine is running, signal sending unit (A) emits an acoustic alarm signal.

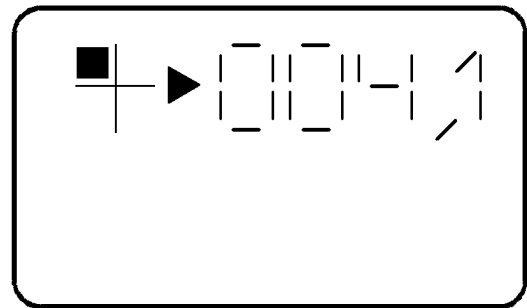


AG.CO03622,2649 -19-13NOV01-1/1

Choosing Correct Ground Speed

Never select a speed lower than the minimum speed for the individual speed range.

It is always better to choose a lower speed range as this will give a more efficient hydrostatic drive performance.



ZX014276

ZX014276 -UN-16JAN98

AG.CO03622,1531 -19-14MAR02-1/1

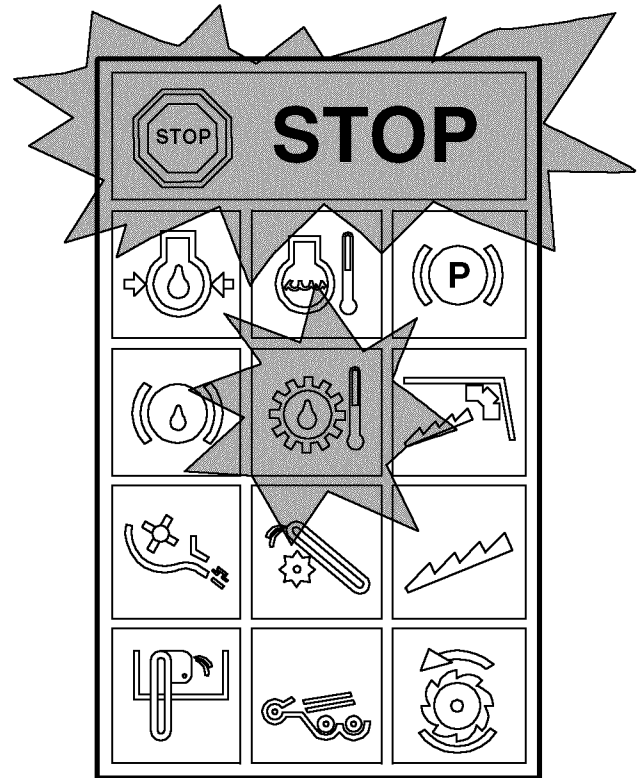
Avoid Overheating of Hydrostatic System

When hydrostatic oil temperature is too high, indicator light (A) and warning light (STOP) will glow, and at the same time the buzzer will be activated (intermittent warning signal).

In this case select a lower speed range, giving more efficient hydrostatic system operation and reducing the oil temperature.

IMPORTANT: If the ground speed drive stalls, never wait more than 5 seconds before shifting the control lever back to "Neutral". Then select a lower speed range.

NOTE: Drive wheel torque depends on oil pressure in hydrostatic system. If the pressure requirement exceeds the pressure in the hydrostatic system, a relief valve will open and the combine harvester will stop. As soon as the pressure requirement drops (i.e. a lower speed range is selected), the combine harvester will travel normally again.



ZX 002410

ZX002410 -UN-16JUN95

AG,CO03622,1532 -19-05NOV02-1/1

Transport Information



CAUTION: To reduce risk of electrical shock, no portion of machine should exceed a height of 4 m (13 ft).



CAUTION: Check local governmental regulations regarding driving or towing equipment on public roads. Use auxiliary lights and devices available from your John Deere dealer to warn other road users.

The combine harvester can be transported on a flatbed truck or by towing.

When towing, place the gear shift lever in neutral.

Do not exceed a maximum speed of 25 km/h (15 mph).

AG,CO03622,1533 -19-04AUG99-1/1

Transporting Under Own Power

Remove **header**, if overall width exceeds the legal limits (for details of removal, see “Cutting Platform OM”). Move the feeder house to transport position.

Move **straw chopper distributor plate** to transport position.

Empty the **grain tank**.

Swing in the **unloading auger**.

Raise and secure the **access ladder**.

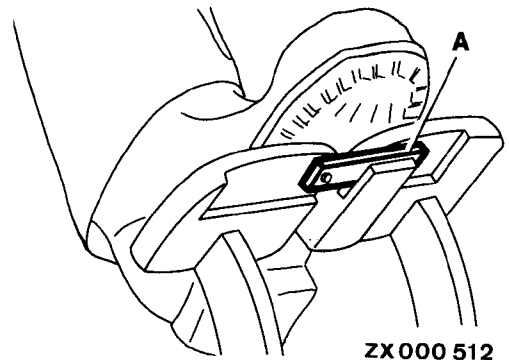
Switch on the **lights**, if necessary.

For general information on driving, see this Section.

AG.CO03622,1534 -19-14MAR02-1/2



CAUTION: For safety reasons, always couple brake pedals by means of pedal coupler (A) when driving on public roads. This ensures the brakes are actuated together.

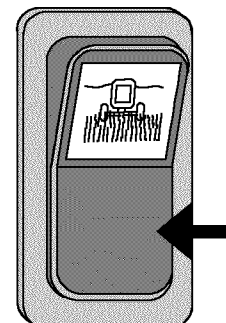


ZX000512 -UN-03APR95

AG.CO03622,1534 -19-14MAR02-2/2

Road Safety Tumbler Switch

IMPORTANT: During road travel, the road safety switch must be in the “road” position. Thus all hydraulic functions with the exception of the steering system are shut off.



ZX 002418

ZX002418 -UN-16JUN95

AG.CO03622,1535 -19-04FEB02-1/1

Towing the Harvester

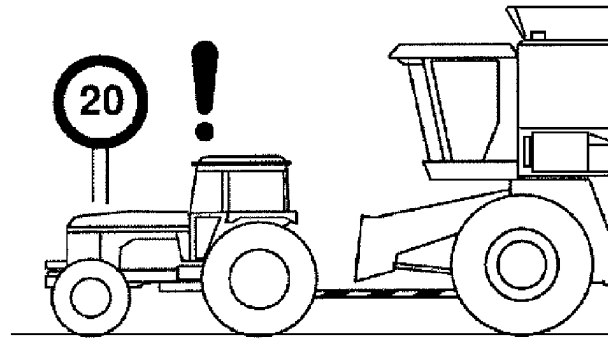
Prepare harvester as shown under "Transporting under Own Power".

CAUTION: Never tow harvester with a wire rope. Always use a suitable towbar. Connect towbar to towing eye on front axle.

Tow harvester at a safe and suitable speed, not to exceed 20 km/h (12.4 mph).

IMPORTANT: Towing at speeds higher than 20 km/h (12.4 mph) could damage tires, transmission and final drives.

Comply with local traffic regulations when towing the harvester, e.g. turn on flashing warning lights, display warning signs etc.



CQ192080

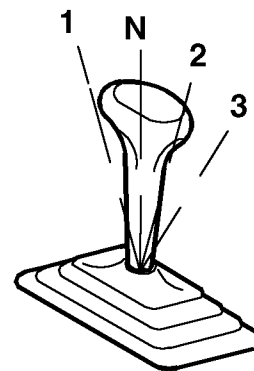
UN-01NOV99

AG.CO03622.1536 -19-15NOV02-1/3

Place gear shift lever in neutral position

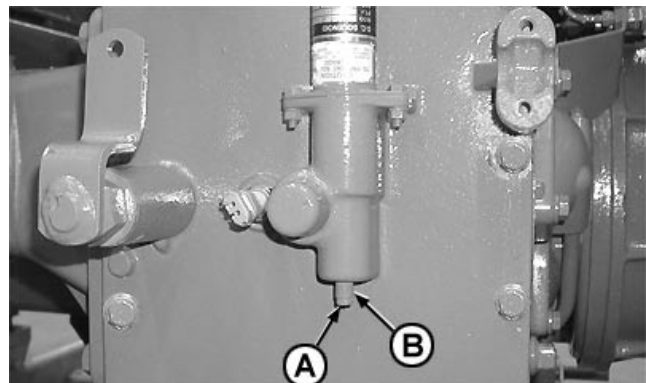
Only 1450 CWS and 1550 CWS.

In certain cases it may be necessary to disable the shift lock function to place the gear shift lever in neutral. It is necessary to remove the bushing (B) and turn the bolt (A) all the way in so the shifter cam is unlocked. In emergency cases, it would be possible to tow the machine for a short distance (less than 50 m) without following this procedure.



ZX 002422

UN-16JUN95



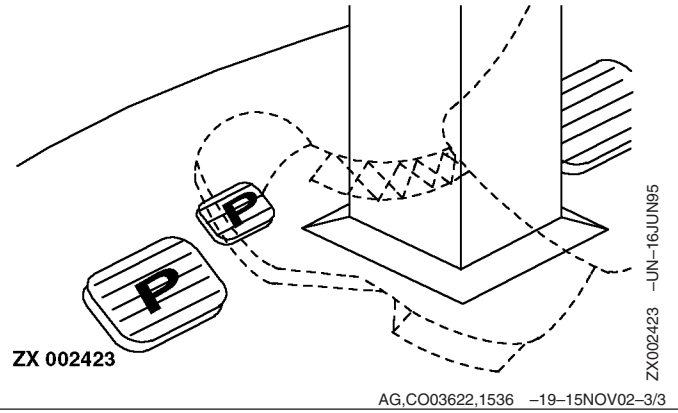
CQ216541 -UN-15NOV02

Continued on next page

AG.CO03622.1536 -19-15NOV02-2/3

IMPORTANT: During towing, it is essential that the three-speed transmission is in neutral.

Release parking brake



Wheels, Axles and Additional Weights

Tire Maintenance

Check tires daily for damage and correct tire pressure. Long life and satisfactory performance depend on proper tire inflation.

Have cuts or tears repaired as soon as possible, or change tire.

Protect tires from unnecessary exposure to sunlight, petroleum products and chemicals.

Drive carefully. Try to avoid rocks and sharp objects.

AG,CO03622,1537 -19-05AUG99-1/1

Tubeless Tires

The majority of front wheel tires and all rear wheel tires are tubeless. A small puncture in a tubeless tire can be repaired without disassembling the wheel, thus avoiding down time.

IMPORTANT: A permanent, inside-out repair should be made as soon as possible to prevent any further tire damage.

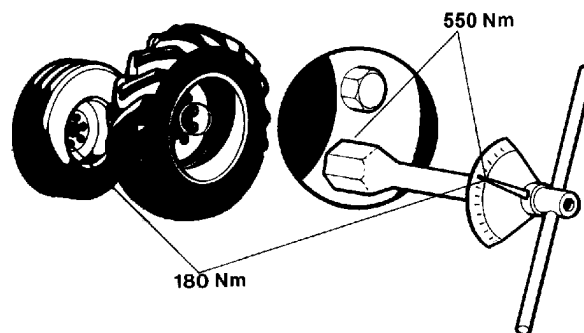
AG,CO03622,2659 -19-26JAN00-1/1

Tightening Wheel Nuts

Tighten the nuts after the first hours of operation and after 25 hours. Then tighten at the start of each harvesting season.

Front Wheels: 550 Nm (55 kgm; 400 ft-lb).

Rear Wheels: 180 Nm (18 kgm; 3,962.40 cm-lb).



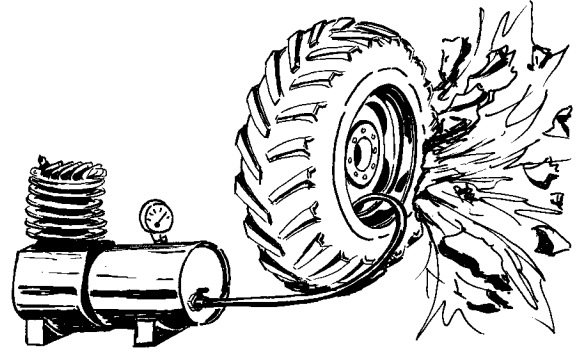
CQ204230

AG,CO03622,1540 -19-15NOV02-1/1

Mounting Tires



CAUTION: Failure to follow proper procedures when mounting a tire on a wheel or rim can produce an explosion which may result in serious injury or death. Do not attempt to mount a tire unless you have the proper equipment and experience to perform the job. Have it done by your John Deere dealer or a qualified tire repair service. When seating tire beads on rims, never exceed maximum inflation pressures specified by tire manufacturers for mounting tires. Inflation beyond this maximum pressure may break the bead, or even the rim, with dangerous explosive force. If both beads are not seated when the maximum recommended pressure is reached, deflate, reposition tire, relubricate bead and reinflate. Detailed agricultural tire mounting instructions, including the necessary safety precautions, are available from your local tire manufacturer agents.



Z 20924

Z20924 -UN-15AUG94

IMPORTANT: Never operate combine harvester with tires at shipping pressure. Keep valve caps screwed down on valve stems to prevent foreign material from accumulating in the valve core. Check tire pressure frequently, referring to tire pressure charts. Required pressure may vary as load changes with the installation of different header units.

AG.CO03622,1541 -19-05AUG99-1/1

Changing Tires

IMPORTANT: When changing drive wheels, tire radius may also change. If so, the Combine Harvester Computer must be adjusted to the new tire radius. For input of specific machine data, see "Warning Devices and Monitors" Section.

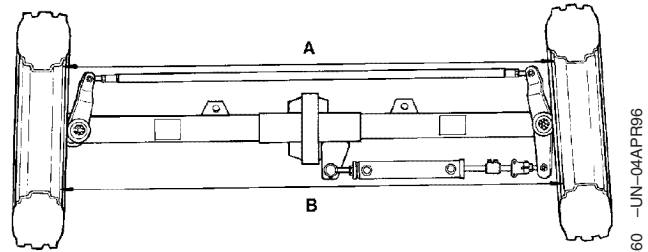
AG.CO03622,1542 -19-17MAY02-1/1

Rear Axle Toe-In

Whenever the combine becomes difficult to steer or the rear tires begin to wear unevenly, adjust the rear wheel toe-in.

Proceed as follows to check and adjust alignment:

- On a flat surface, straighten the rear wheels.
- Mark a point at the front center of each tire. Measure distance (A).
- Then mark the diametrically opposed point, i.e. the rear center of each tire.
- Measure distance (B). It should be 10 mm (0.4 in.) greater than distance (A).
- To adjust, loosen the locknuts at both ends of the tie rod and adjust the tie rod length.



ZCQD1860

ZCQD1860 -UN-04APR96

AG.CO03622,1543 -19-03DEC02-1/1

Tire Pressure**FRONT TIRES**

Size	bar	psi
18.4-30 R1 10L	2,11	30
18.4-30 R1 12L	2,53	36
23.1-30 R1 12L	1,97	28
23.1-26 R2 12L	1,69	24
28.1-26 R1 14L	2,25	32
28L26 R1 12L	1,83	26
750-65 R26*	1,62	23
24.5-32 R1 12L	1,83	26
30.5-32 R1 12L	1,4	20
620 / 75 R 30 *	1,62	23
650 / 75 R 32 *	1,69	24
800 / 65 R 32 *	1,4	20

* Radial Tires

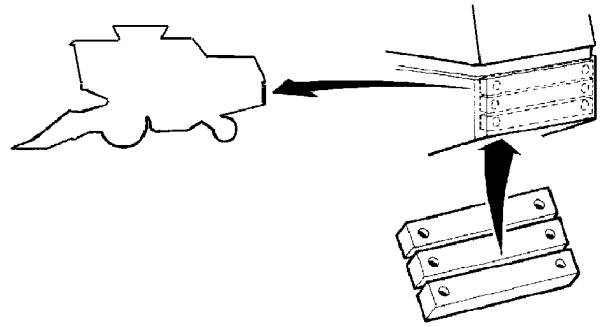
REAR TIRES

Size	bar	psi
12.4/11-24 R1 6L	1,97	28
12.4-24 R1 10L	2,8	40
10.5/80-18 R1 6L	2,25	32
10.5/80-18 R1 10L	3,8	54
16.9-24 R1 10L	1,83	26
16.9-24 R4 8L	1,83	26
440 / 65 R 24 *	1,6	23
540 / 65 R 24 *	1,26	18
14.9-24 R1 8L	1,59	23

* Radial Tires

Counterweights

Counterweights mounted in the rear shield improve combine stability when harvesting on slopes.



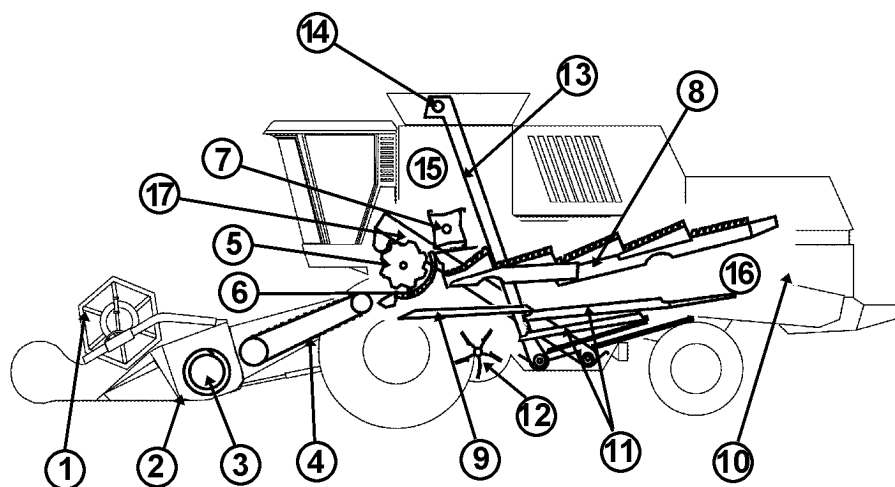
CQ192090

CQ192090 -UN-01NOV99

AG,CO03622,1545 -19-05AUG99-1/1

Preparations and Field Operation

Fundamentals of Combine Operation



CQ191730
UN-01OCT99
CQ191730

The reel (1) collects the crop and moves it toward the cutterbar (2) to be cut.

The crop is then directed to the cutting platform auger (3).

The auger moves the crop to the center of the header where the retractable pickups move it to the feeder house (4).

The feeder house carries the crop to the cylinder (5).

The cylinder and concave (6) thresh or separate the crop.

The beater (7) takes the larger straw from the cylinder and concave and throws it over the straw walkers (8).

The threshed grain, fine straw and some tailings (ear tips or husks) fall through the openings in the concave to the grain pan (9).

The alternating motion of the straw walkers separates the remaining grain from the straw. The grain falls through the straw walker openings (screens) into the troughs and from there passes to the grain pan. Straw leaves the combine via the straw chopper (10).

Threshed grain and fines are carried by the grain pan to the cleaner which consists of the chaffer and grain screen (11) and the fan (12). The fan blows out the fines and the clean grain falls through the screens.

The clean grain elevator (13) leads to the loading auger (14) which carries the grain to the grain tank (15).

Any tailings (ear tips or husks) fall through the upper screen extension (16) and are carried back to the separator (cylinder and concave) by the tailings elevator (17) for rethreshing.

AG.CO03622,1552 -19-10AUG99-1/1

Cutting and Harvesting Unit

This unit cuts and harvests the crop and then passes it to the cylinder and concave.

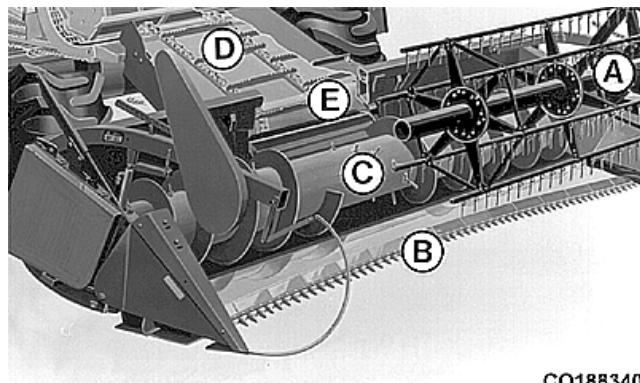
Components:

1. Cutting Platform

- A. Reel
- B. Cutterbar
- C. Auger

2. Elevator

- D. Conveyor
- E. Floating roller



AG,CO03622,1553 -19-11AUG99-1/1

Cutting Platform

The cutting platform functioning is described in its respective Operator's Manual.

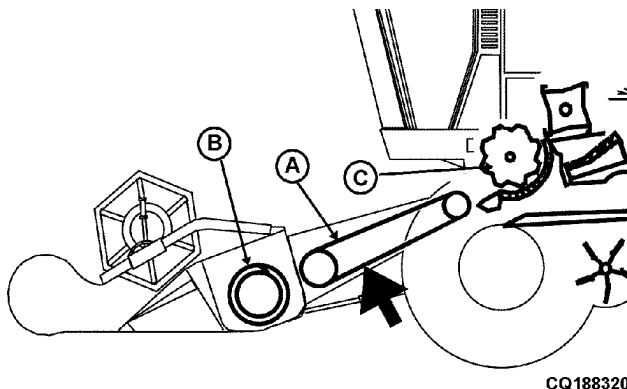


AG,CO03622,1554 -19-11AUG99-1/1

Feeder House Operation

Conveyor chain (A) receives the crop from auger (B) and forwards it to the cylinder (C).

(For feeder house adjustment, see "Service — Feeder House" section.)



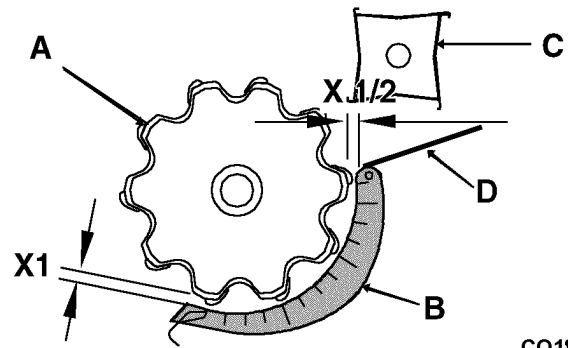
AG,CO03622,1555 -19-17MAY02-1/1

Separator

The separator is the most important component of the combine.

Always take great care when adjusting the separator. See "Separator and Cleaning Unit" section for details.

- A—Cylinder
- B—Concave
- C—Beater
- D—Concave extension



AG.CO03622,1556 -19-07OCT02-1/1

Adjustment of Cylinder and Concave

1. High cylinder speed
+ narrow concave spacing

= Good threshing action

Extreme adjustment:
Cylinder speed too high
+ concave spacing too narrow

= Overthreshing

2. Low cylinder speed
+ wide concave spacing

= Poor threshing action

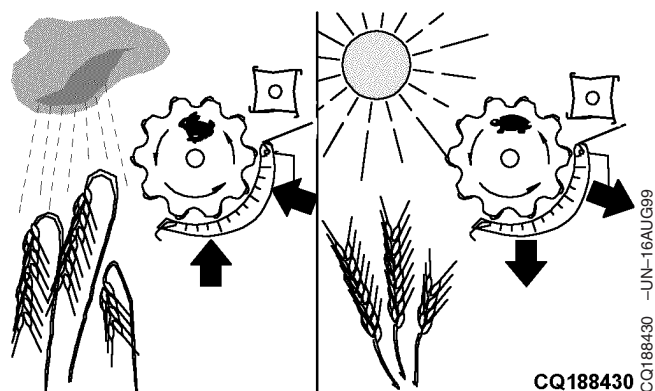
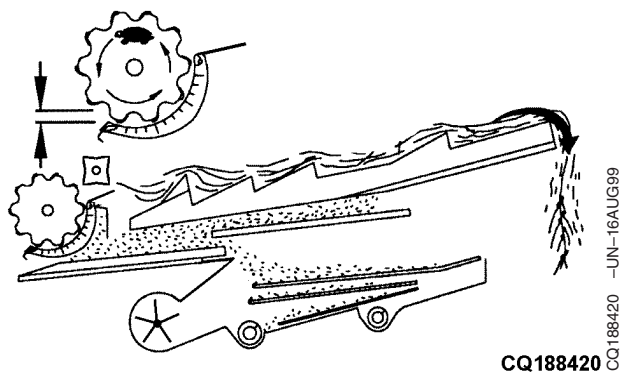
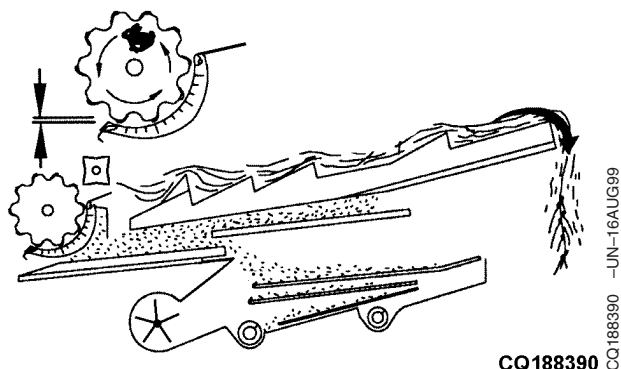
Extreme adjustment:
Cylinder speed too low
+ concave spacing too wide

= Underthreshing

3. Basic Adjustment

- Moist crop: Increase cylinder speed and/or reduce concave spacing.
- Dry crop: Reduce cylinder speed and/or increase concave spacing.

IMPORTANT: Cylinder speed and concave adjustments are the most important factors in obtaining good harvesting results.



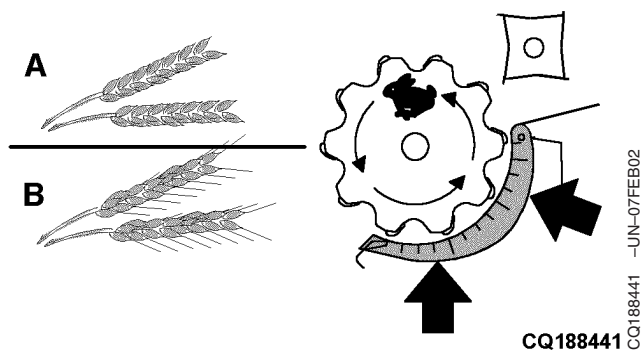
AG,CO03622,1557 -19-15NOV02-1/1

Adjusting Cylinder Speed and Concave for Normal Crop

Fine seeds and normal grain crops:

High cylinder speed and narrow concave spacing.

A—Wheat
B—Barley



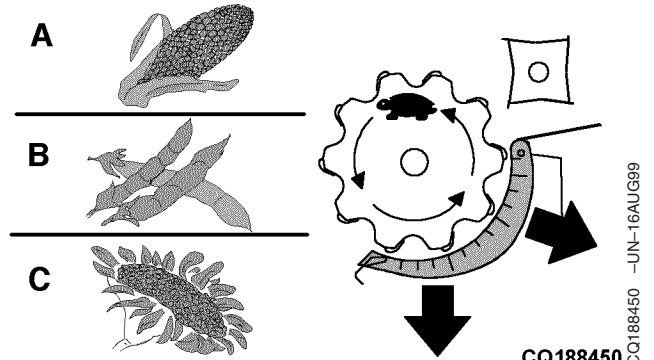
AG,CO03622,1558 -19-05FEB02-1/1

Adjusting Cylinder Speed and Concave for Coarse Crop

Coarse crop:

Low cylinder speed and wide concave spacing.

- A—Corn
- B—Beans
- C—Sunflowers



AG,CO03622,1559 -19-15NOV02-1/1

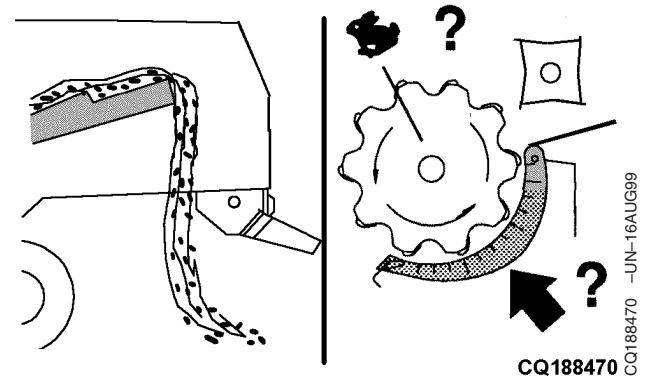
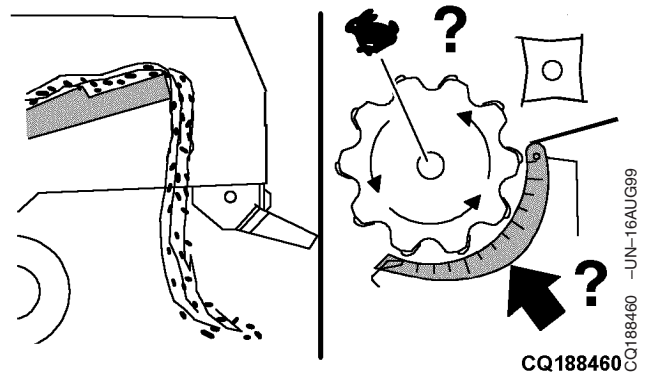
Separating Process

Threshed straw and any remaining grain are deflected and thrown onto the straw walkers. The agitating straw walker action removes the remaining grain which falls onto the grain pan.

Avoid “underthreshing”, whereby the straw walkers become overloaded and the separating action is too fast. As a result, grain passes over the straw walkers and out of the combine with the mass of the straw.

Check:

- Concave spacing narrow enough?
- Cylinder speed high enough?



AG,CO03622,1560 -19-05FEB02-1/1

Grain Cleaning Process

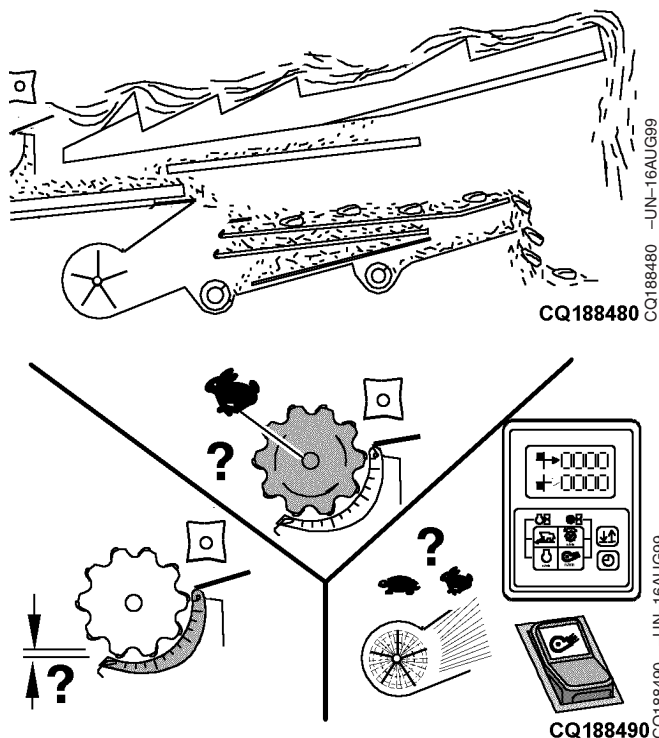
The effectiveness of the chaffer and grain sieve separating action is increased by an intensive fan blast. Thus the chaff, which is lighter than grain, is blown to the rear.

NOTE: The blast should be as strong as possible, but grain loss should be kept to a minimum.

As a result of "overthreshing", the cleaning unit becomes overloaded, resulting in poor separation of the grain from the chaff. A considerable amount of grain is lost, dropping to the ground with the straw at the rear of the combine.

Check:

- Concave spacing too narrow?
- Cylinder speed too high?
- Is intensity of blast adapted to sieve load?



AG.CO03622.1561 -19-17AUG99-1/1

Grain Recovery Process

Clean Grain

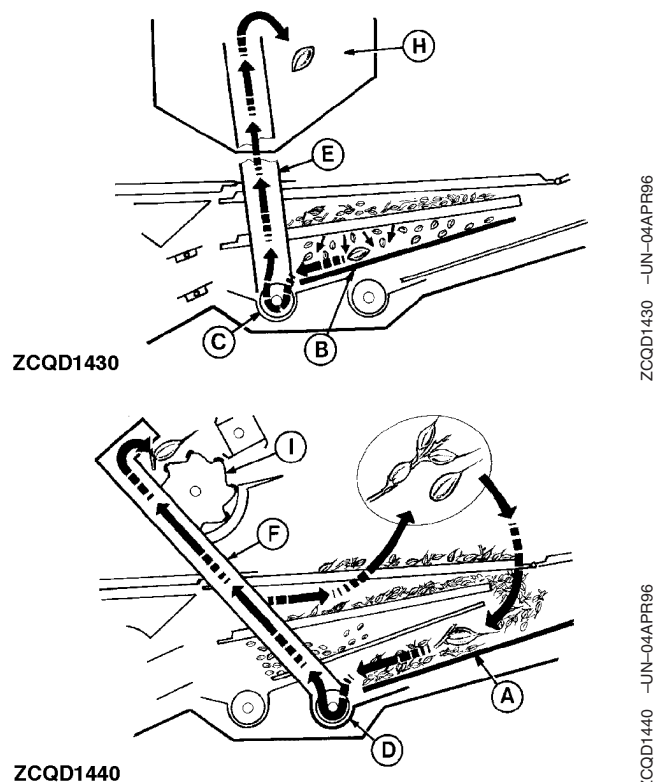
Grain passing through the grain screen falls on the grain collector (B).

From there it is carried to the lower grain auger (C) which transports it via the grain elevator (E) to the grain tank (H).

Rethreshing

Unthreshed pod, head or ear tips passing via the chaffer extension and carried beyond the end of the grain screen fall on the tailings collector (A). From there they slide to the lower tailings auger (D).

This material is then carried by the tailings elevator (F) to the front of the threshing cylinder where an auger uniformly distributes it in the separator.



AG.CO03622.1562 -19-17AUG99-1/1

Evaluating Threshing Action

To evaluate threshing action, pay attention to the following:

- Threshed straw
- Grain losses at rear of combine
- Grain tank sample
- Tailings



Z113559

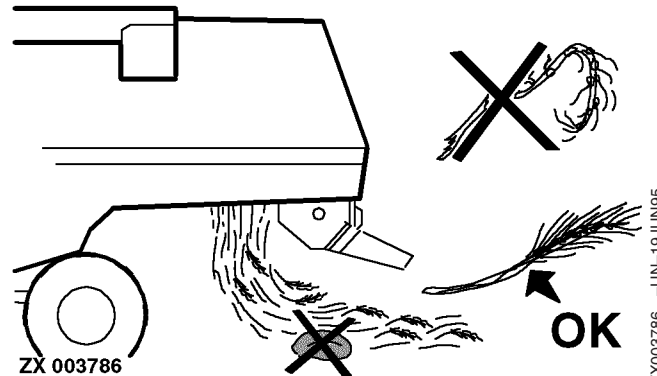
AG.CO03622,1563 -19-17AUG99-1/1

Z113559 -UN-22MAY95

Examining Threshed Straw and Grain Losses at Rear of Combine

Straw should not be broken or chewed.

A minimum amount of grain on the ground.



ZX 003786

AG.CO03622,1564 -19-17AUG99-1/1

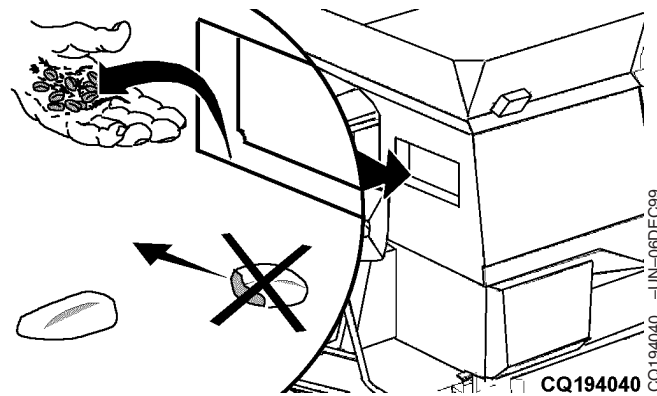
ZX003786 -UN-19JUN95

Grain Tank Sample

Open grain sample flap and take a sample.

Should the grain sample include too many cracked grains, check the following points:

- Excessive tailings?
- Cylinder speed too high?
- Concave spacing too narrow?



CQ194040

AG.CO03622,1565 -19-17AUG99-1/1

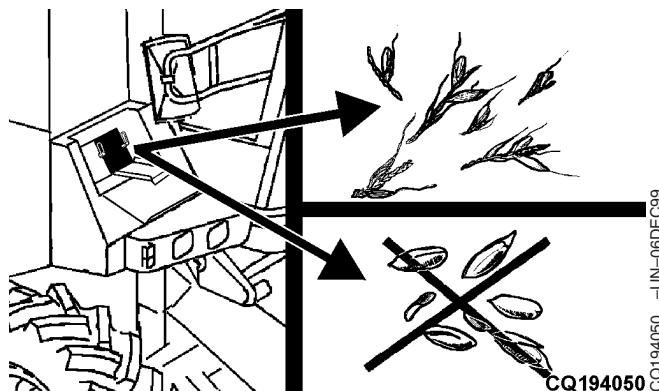
CQ194040 -UN-06DEC99

Examination of Tailings

Normally the tailings will consist of head or ear tips that have not been threshed and very small quantities of loose grains, wet straw and straw residue.

The amount of crop contained in two elevator paddles should be less than a half a handful.

NOTE: Always close the inspection window after the tailings examination.

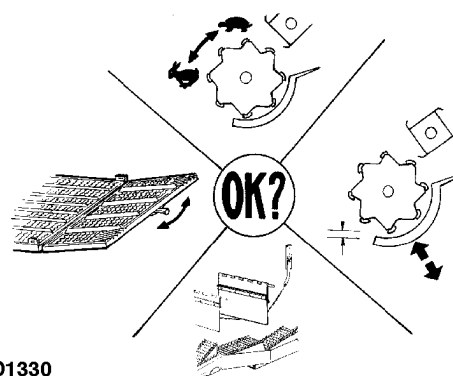


AG,CO03622,1566 -19-07OCT02-1/1

Inadequate Tailings

Check to see if:

- The chaffer extension is correctly adjusted
- The straw walker curtain is in the right position
- The opening between cylinder and concave is correct for the crop being harvested
- The cylinder speed is correct

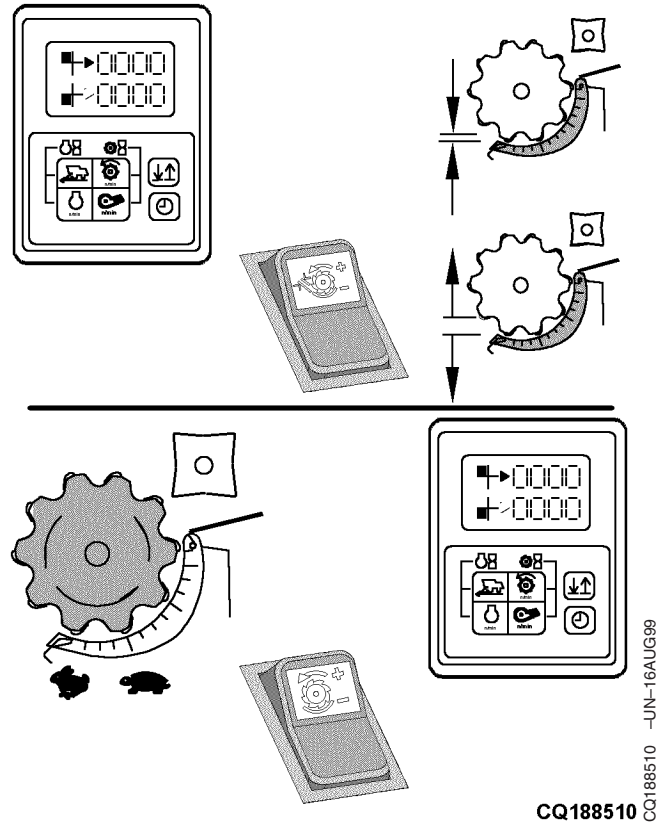


ZCQD1330 -UN-04APR96

AG,CO03622,1567 -19-17AUG99-1/1

Identifying Threshing Problems

If threshing action is not satisfactory (regardless of whether this is due to excessive tailings, incorrect adjustment of cleaning unit or other problems) refer to the following procedures.



AG.CO03622,1568 -19-13NOV01-1/1

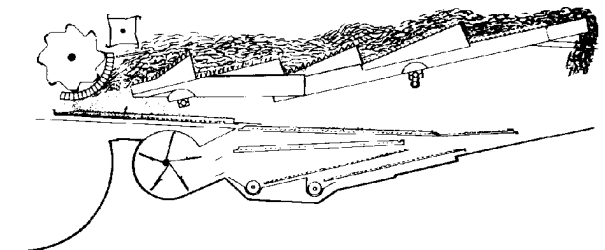
Overthreshing

Overthreshing can be caused by high cylinder speed or inadequate cylinder to concave spacing.

Overthreshing can be reduced by lower cylinder speed. As a rule, reduce the speed by only 5%. Check the result of this change before changing any other settings.

If the problem is not solved by a 10% reduction in cylinder speed, open the concave slightly. If these steps do not eliminate overthreshing, try reducing combine ground speed. A very high crop volume can cause overthreshing.

IMPORTANT: Always check results before attempting further adjustments. Never change any adjustment by more than 5% at a time.



ZCQD2080

ZCQD2080 -UN-04APR96

AG.CO03622,1569 -19-17AUG99-1/1

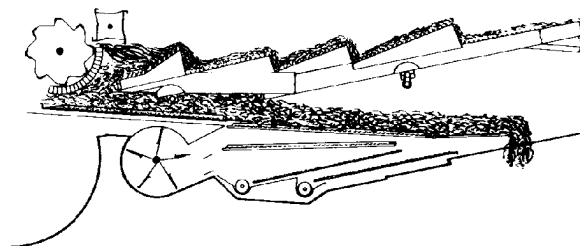
Underthreshing

Underthreshing is the result of low cylinder speed or excessive cylinder to concave spacing.

First increase cylinder speed by 5%. If this does not solve the problem, reduce the concave to cylinder spacing slightly. Check the result of each adjustment.

In certain conditions (low level of straw in the crop) underthreshing may not be solved by these adjustments alone. If this is the case, increase the combine ground speed by selecting a faster range.

IMPORTANT: Always check results before attempting further adjustments. Never change any adjustment by more than 5% at a time.



ZCQD2090

ZCQD2090 -UN-04APR96

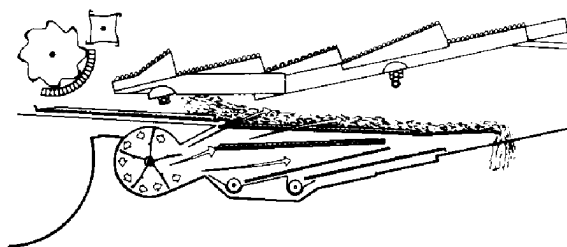
AG.CO03622,1570 -19-17AUG99-1/1

Adjusting Fan Speed

Before adjusting the fan speed, open chaffer and sieve to the maximum recommended openings for the crop being harvested (see "Combine Settings" chart). Then start with the lowest fan speed suggested and gradually increase the speed until the maximum amount of chaff is expelled without blowing grain out of the combine or into the tailings return.

Check the results carefully. After reaching the maximum acceptable fan speed, continue to make minor adjustments to the chaffer. If necessary, keep changing the fan speed until the best result is achieved.

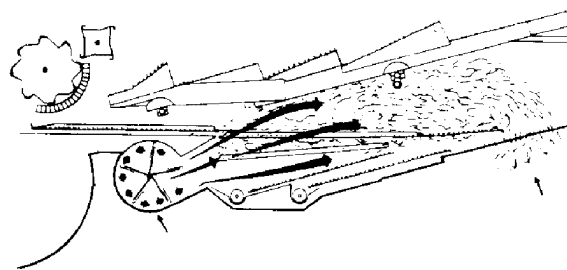
NOTE: Always check the result of one change at a time, before carrying out the next adjustment.



ZCQD1420

Fan blast too low, insufficient cleaning

ZCQD1420 -UN-04APR96



ZCQD1410

Fan blast too strong, grain is being lost

ZCQD1410 -UN-04APR96

AG.CO03622,1571 -19-17MAY02-1/1

Adjusting The Chaffer

Set the chaffer just wide enough to ensure that the grain falls through before passing the length of the chaffer. If the chaffer is opened too wide, it may overload the sieve with chaff and straw and increase the tailings. If the chaffer is not opened wide enough, excess grain will be moved to the tailings and some will be lost out of the rear of the combine.

Grain losses in the cleaning unit may be caused by:

1. Too little fan blast or too narrow chaffer openings, which results in a layer of straw or chaff on top of the grain.
2. Too much fan blast, which blows the grain out of the combine.

It is important to know which of these reasons is causing the cleaning shoe losses, as this will enable appropriate action to be taken.

Re 1.) The problem may be caused by overthreshing as well as too little air from the fan. Check the amount and condition of the straw.

If the straw appears to be excessively broken or chewed, the cylinder and concave must be adjusted to reduce overthreshing. If the straw is whole and unbroken, then more air is needed to suspend the straw and chaff so that the grain can drop through the sieve, or the chaffer needs to be opened slightly.

IMPORTANT: Always check the result of one change at a time, before carrying out the next adjustment.

Re 2.) If too much fan blast is the problem, then there will be very little chaff and straw on the cleaning shoe. Reduce fan speed and check the results.

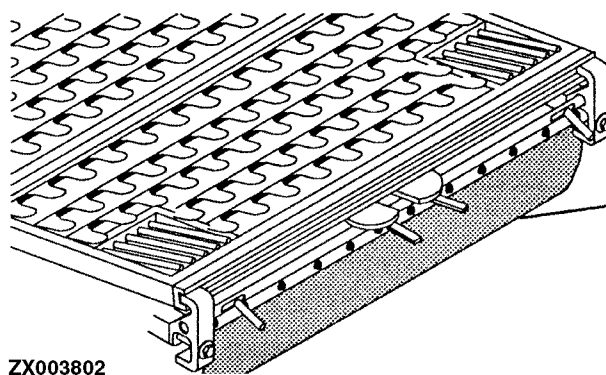
AG.CO03622,1572 -19-17AUG99-1/1

Sistema Slope Master

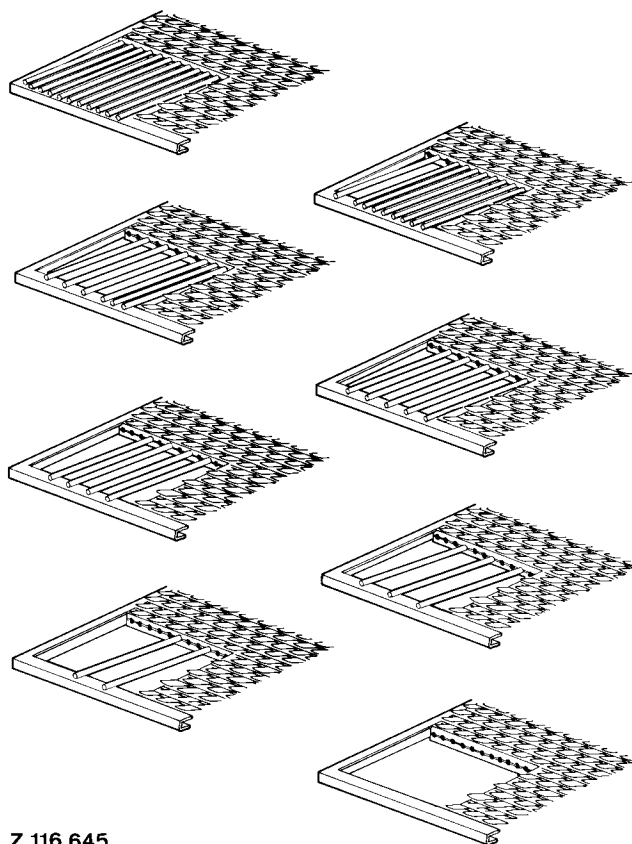
When operating the combine on a slope, special inserts at the left-hand and right-hand sides of the chaffer extension collect the grain rolling across the separator and return it via the tailings elevator.

Vary the openings in the inserts to suit the harvesting conditions, type of crop and combine tilt by adding or removing fingers. The combine is delivered from the factory with 11 fingers installed in the chaffer extension.

Any change in the number of fingers primarily affects the amount of tailings; i.e. if no fingers or only a few fingers are installed, a high percentage of tailings will occur; if all the fingers are installed, very little tailings occur.



ZX003802 -JUN-19JUN95



Z116645 -JUN-23MAY95

AG,CO03622,1573 -19-15NOV02-1/1

Adjusting the Sieve

Final cleaning is done by the sieve. It must be open far enough to allow the grain to fall through easily, but not so far that chaff and straw can fall through.

If the sieve is not open wide enough, the grain remains with the tailings. This leads to overthreshing and damages the grain excessively.

To adjust the sieve, open it until too much foreign material appears in the grain tank and then close the sieve slightly until the proportion of foreign material drops to an acceptable level.

AG,CO03622,1574 -19-17AUG99-1/1

Acceptable Grain Losses

Acceptable grain losses currently run at 1—1.5%. How this is calculated depends on the following factors:

- Harvesting conditions
- Urgency of harvest
- Time available for checking grain losses

AG.CO03622,1575 –19–17AUG99–1/1

What Does Loss of Grain Really Mean?

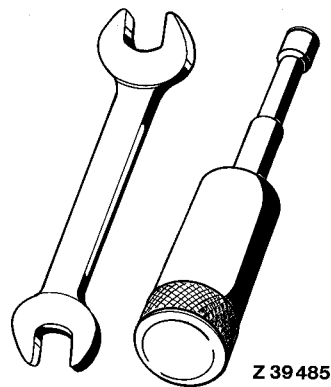
Given a grain yield of e.g. 5000 kg per hectare, a grain loss of 1% can mean a loss of 50 kg.

When a combine operates with a grain loss of 4% due to incorrect adjustments, this means that 200 kg of grain is lost per hectare.

AG.CO03622,1576 –19–17AUG99–1/1

Correct Adjustment = More Money

The examples show that thirty minutes spent in carrying out correct combine adjustments repays itself many times, as the above figures for just one hectare show.



Z39485 –UN–22MAY95

AG.CO03622,1577 –19–18AUG99–1/1

Determining Grain Losses

Example 1

Combine operates with a loss of 4%. Better adjustment reduces grain loss by 1% to 3%. Average yield per hectare is 5000 kg.

Operating at a rate of 2.5 hectares per hour, the combine can cover 20 hectares in 8 hours.

4% 20 ha x 200 kg = 4000 kg

3% 20 ha x 150 kg = 3000 kg

1000 kg less grain is lost

AG,CO03622,1578 -19-18AUG99-1/1

Determining Grain Losses

Example 2

The grain losses reduced to 3% in the first example are still too high. By reducing ground speed, losses can be reduced from 3% to 1.5%.

Operating at a rate of 2 hectares per hour, the combine can cover 16 hectares in 8 hours.

3,0% 16 ha x 150 kg = 2400 kg

1,5% 16 ha x 75 kg = 1200 kg

1200 kg less grain is lost

AG,CO03622,1579 -19-18AUG99-1/1

Explanation of Examples

2000 kg of grain saved corresponds to approximately 3 to 4 hectares in terms of contracting charges.

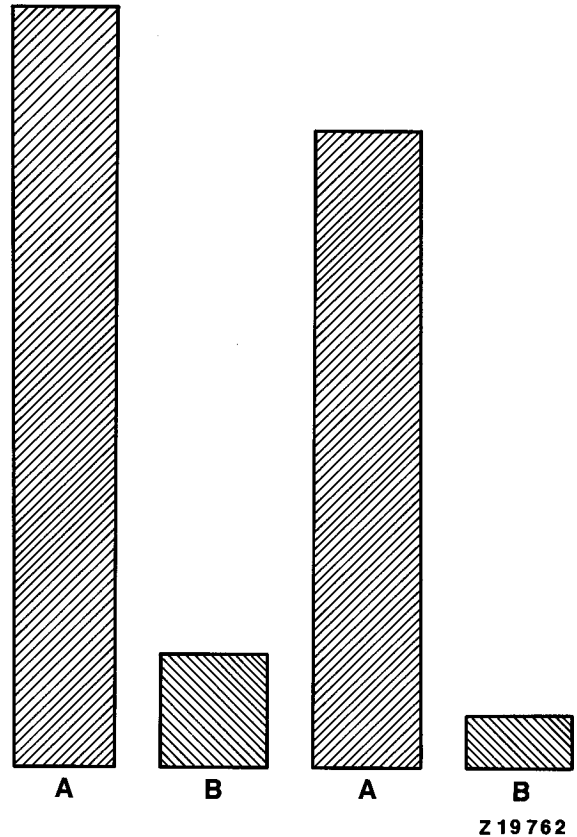
Reducing ground speed to prevent grain losses may even justify somewhat higher contracting charges per hectare.

If the operator or another person checks grain losses three times daily and achieves a reduction of 1 to 1.5%, only thirty minutes is required for this purpose.

However, 1% less grain loss means approx. 800—1000 kg of grain can be saved in an 8-hour working day.

Naturally, the combine can operate even more economically (especially when several combines are working in one field) if one person is employed specifically to check grain losses at all the machines.

A—Area performance
B—Losses in %



Z19762 —UN-22MAY95

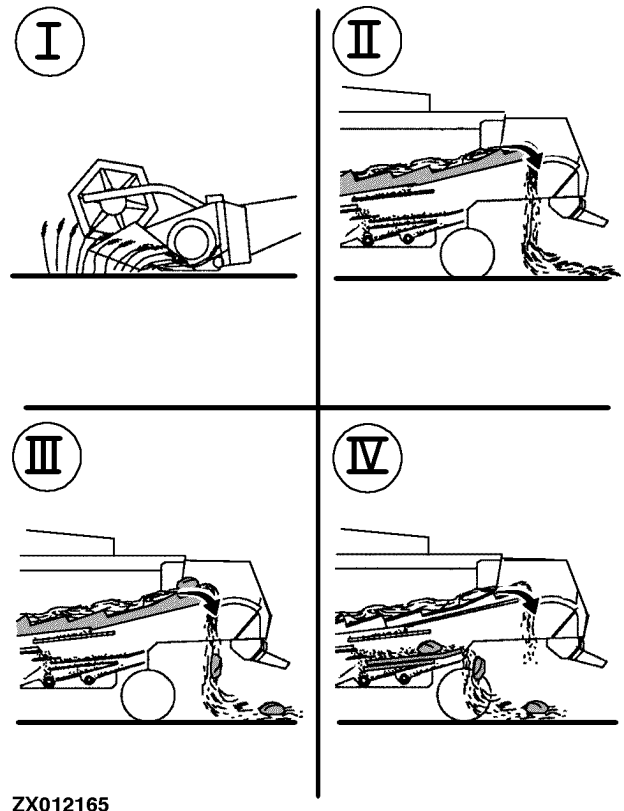
AG.CO03622,1580 —19-18AUG99-1/1

Causes of Grain Losses

After adjusting the combine to get the best results, any further loss of grain can be categorized according to the area where it occurs.

Grain losses fall into four groups:

- I. Cutting platform losses
- II. Threshing unit losses
- III. Straw walker losses
- IV. Sieve losses



ZX012165

ZX012165 —UN-24SEP97

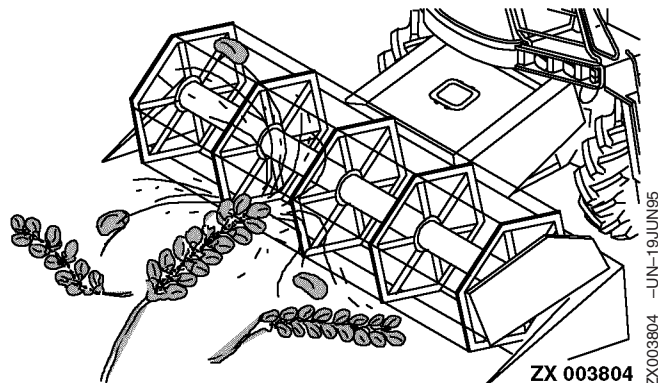
AG.CO03622,1581 —19-18AUG99-1/1

Cutting Platform Losses

Cutting platform losses are cut ears which fail to get picked up or grain shattered by the reel.

Determining Losses

Compare the number of grains in a certain area before and after the cutting platform has passed through.



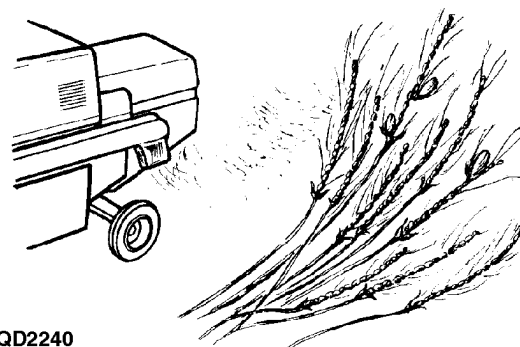
AG,CO03622,1582 -19-18AUG99-1/1

Threshing Unit Losses

Threshing unit losses are those grains which leave the rear end of the machine in partially threshed ears.

Determining Losses

Pick up ten threshed ears behind the combine and count the number of grains still on the ears. If three grains are found, this corresponds to a loss of 1% (based on an average yield of 30 grains per ear).

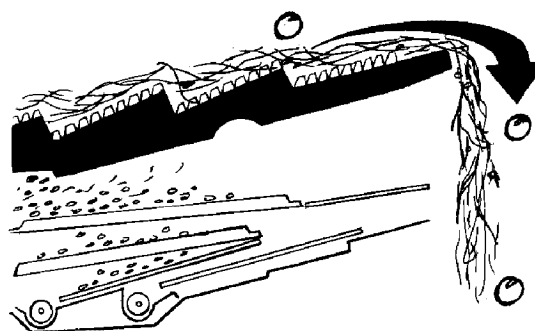


AG,CO03622,1583 -19-18AUG99-1/1

Straw Walker Losses

Straw walker losses are those grains carried with threshed straw over the straw walkers and out of the machine. Avoid underthreshing and excessive tailings.

If straw walker losses are not reduced once the cylinder and concave have been adjusted, then reduce ground speed.



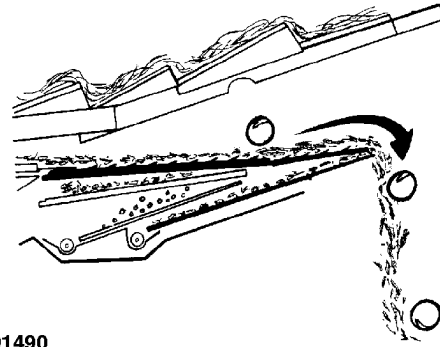
AG,CO03622,1584 -19-18AUG99-1/1

Sieve Losses

Sieve losses are those grains that are carried over the sieve and fall onto the ground due to incorrect sieve adjustment. With correct sieve adjustment, losses will be small and remain constant.

Sieve losses causes:

- Incorrect cleaning fan speed
- Incorrect air direction
- Sieves incorrectly adjusted
- Sieves overloaded because of the incorrect threshing unit adjustment



ZCQD1490

ZCQD1490 -UN-04APR96

AG.CO03622,1585 -19-14AUG02-1/1

Prevention of Grain Losses — General

There is no patent remedy when it comes to preventing grain losses. The threshing process is so complex that a certain relationship between “adjustment” and “result” must be found.

The combine operator must try to obtain the best results by referring to the summary provided below and the “Combine Settings” chart.

IMPORTANT: Grain losses rise with the amount of material passing along the straw walkers and therefore can be easily remedied by decreasing combine ground speed. However, do not underestimate the effect of other combine adjustments.

Reduce straw walker losses as follows:

- Keep openings in straw walkers clean
- Reduce weeds and green material (raise cutting platform)

- Material overthreshed (reduce cylinder speed)
- Straw walkers overloaded (reduce ground speed)

Reduce sieve losses as follows:

- Increase air blast from cleaning fan if layer of straws forms on sieves
- Reduce air blast (fan speed) if grain is blown over cleaning shoe
- Open lips of sieve
- Keep sieve clean
- Add or remove insert fingers when working on slope
- Reduce amount of chaff on sieves, avoid overthreshing
- Sieve overloaded, reduce amount of grain over sieves (reduce ground speed)

AG.CO03622,1586 -19-14AUG02-1/1

Threshing Adjustments — General Information

IMPORTANT: The Combine Settings Chart applies only for average conditions. Varying field and crop conditions may make it necessary to change the settings. The concave and cylinder settings are fundamental settings. They must be optimized to suit varying crop conditions.

Some threshing cylinder speeds will be only reached if the combine is equipped with the cylinder drive reduction gear (option).

NOTE: Use straw walker grids and sieves appropriate to the type of crop and harvesting conditions. See “Separator and Cleaning Unit” Section.

AG,CO03622,1587 -19-07OCT02-1/1

Basic Adjustments Charts

IMPORTANT: This charts indicate initial values. Different terrain and crop conditions may need subsequent adjustments.

Adjustments of chaffer extension are not indicated, it is recommended to adjust the extension 2mm more open than the chaffer or according to the amount of tailings.

The minimum value displayed on the INFOTRAK monitor to show the concave spacing is 4, in this position the front concave spacing should be 6mm and the rear 3mm.

NOTE: Always adjust the cylinder and fan speed with the engine at top speed.

AG,CO03622,1589 -19-29OCT02-1/1

Soybeans

Specification

—Cylinder speed 400 to 800 rpm
Concave Spacing - INFOTRAK
indication..... 30 to 51
Chaffer Opening 11 to 19 mm
Grain Screen Opening 8 to 12,5 mm
Fan Speed 800 to max. rpm



CQ177630

—UN-09FEB99
CQ177630

AG,CO03622,2860 -19-05NOV02-1/1

Wheat

Specification

—Cylinder speed 800 to 1000 rpm
Concave Spacing - INFOTRAK
indication..... 12 to 33
Chaffer Opening 11 to 19 mm
Grain Screen Opening 3 to 6,5 mm
Fan Speed 700 to 1100 rpm



CQ177640

—UN-09FEB99
CQ177640

AG,CO03622,2861 -19-05NOV02-1/1

Rice

Specification

—Cylinder speed..... 600 to 900 rpm
 Concave Spacing - INFOTRAK
 indication..... 12 to 33
 Chaffer Opening 16 to 19 mm
 Grain Screen Opening 5 to 9,5 mm
 Fan Speed..... 800 to max. rpm



CQ177650

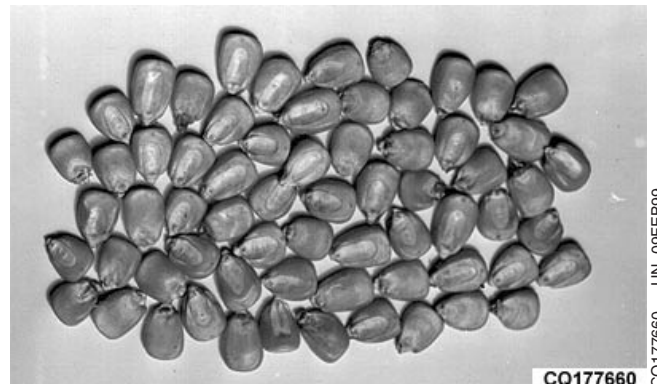
—UN-09FEB99

AG.CO03622,2862 -19-05NOV02-1/1

Corn

Specification

—Cylinder speed..... 200 to 600 rpm
 Concave Spacing - INFOTRAK
 indication..... 30 to 51
 Chaffer Opening 11 to 16 mm
 Grain Screen Opening 8 to 14 mm
 Fan Speed..... 800 to max. rpm



CQ177660

—UN-09FEB99

AG.CO03622,2863 -19-05NOV02-1/1

Beans

Specification

—Cylinder speed..... 200 to 600 rpm
 Concave Spacing - INFOTRAK
 indication..... 30 to 51
 Chaffer Opening 12,5 to 19 mm
 Grain Screen Opening 9,5 to 12.5 mm
 Fan Speed..... 850 to max. rpm



CQ177670

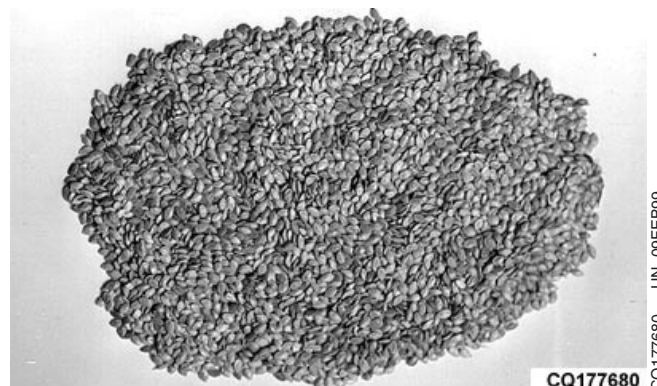
—UN-09FEB99

AG.CO03622,2864 -19-05NOV02-1/1

Herbage

Specification

—Cylinder speed..... 700 to 1000 rpm
 Concave Spacing - INFOTRAK
 indication..... 4 to 16
 Chaffer Opening 12,5 to 16 mm
 Grain Screen Opening 3 to 6,5 mm
 Fan Speed..... min. to 700 rpm



CQ177680

—UN-09FEB99

AG.CO03622,2865 -19-05NOV02-1/1

Sorghum

Specification

—Cylinder speed 600 to 900 rpm
 Concave Spacing - INFOTRAK
 indication..... 12 to 33
 Chaffer Opening 9,5 to 16 mm
 Grain Screen Opening 6,5 to 12,5 mm
 Fan Speed 700 to 1100 rpm



CQ177690

—UN-09FEB99
 CQ177690

AG,CO03622,2866 -19-05NOV02-1/1

Oats

Specification

—Cylinder speed 600 to 900 rpm
 Concave Spacing - INFOTRAK
 indication..... 12 to 33
 Chaffer Opening 16 to 19 mm
 Grain Screen Opening 6,5 to 12,5 mm
 Fan Speed 600 to 900 rpm



CQ177700

—UN-09FEB99
 CQ177700

AG,CO03622,2867 -19-05NOV02-1/1

Sunflowers

Specification

—Cylinder speed 200 to 600 rpm
 Concave Spacing - INFOTRAK
 indication..... 30 to 51
 Chaffer Opening 12,5 to 19 mm
 Grain Screen Opening 11 to 16 mm
 Fan Speed 700 to 900 rpm



CQ177710

—UN-09FEB99
 CQ177710

AG,CO03622,2868 -19-05NOV02-1/1

Barley

Specification

—Cylinder speed 800 to 1000 rpm
 Concave Spacing - INFOTRAK
 indication..... 12 to 33
 Chaffer Opening 12,5 to 19 mm
 Grain Screen Opening 6 to 12 mm
 Fan Speed 700 to 1100 rpm



CQ177720

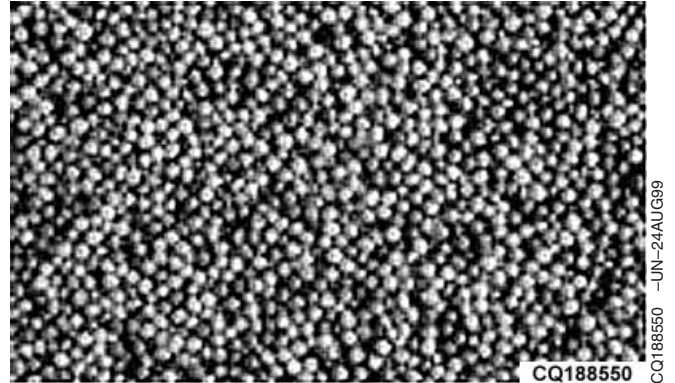
—UN-09FEB99
 CQ177720

AG,CO03622,2869 -19-05NOV02-1/1

Rape

Specification

—Cylinder speed..... 400 to 800 rpm
 Concave Spacing - INFOTRAK
 indication..... 4 to 16
 Chaffer Opening 5 to 10 mm
 Grain Screen Opening 3 to 5 mm
 Fan Speed..... min. to 800 rpm



CQ188550

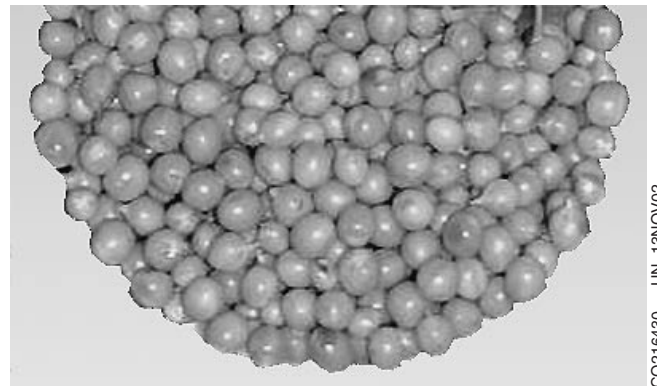
—UN-24AUG99

AG.CO03622,2870 —19-05NOV02-1/1

Pea

Specification

—Cylinder speed..... 200 to 600 rpm
 Concave Spacing - INFOTRAK
 indication..... 30 to 51
 Chaffer Opening 11 to 16 mm
 Grain Screen Opening 8 to 14 mm
 Fan Speed..... 800 to 1000 rpm



—UN-13NOV02

MB03730,000001F —19-05NOV02-1/1

Linseed

Specification

—Cylinder speed..... 800 to 1000 rpm
 Concave Spacing - INFOTRAK
 indication..... 4 to 16
 Chaffer Opening 12,5 to 16 mm
 Grain Screen Opening 3 to 6,5 mm
 Fan Speed..... 400 to 700 rpm

MB03730,000001E —19-05NOV02-1/1

Preparations Before Changing Crop

Clean the combine thoroughly:

- Feeder house
- Separator
- Straw walkers
- Chaffer and sieves
- Elevators
- Grain tank

When changing the header, remember to alter width-of-cut at the Combine Harvester Computer monitor.

NOTE: Reset the alarm threshold at the Combine Harvester Computer monitor every time the threshing cylinder and/or fan speed are altered.

AG.CO03622,1590 —19-17MAY02-1/1

Preparations for Harvesting Grain Crops

Check the height setting of the bottom feeder conveyor drum.

Concave: Install a grain-crop concave.

Check the straw walker grids.

Install a chaffer and chaffer extension as circumstances require.

Install a suitable grain sieve as circumstances require.

Straw chopper: Install counterknives.

Set the combine for grain harvesting after reading the “Basic Adjustment Chart” blocks in this section.

AG,CO03622,1591 –19–12SEP02–1/1

Preparations for Harvesting Corn

Change height setting of bottom feeder conveyor drum.

Install special kit for corn.

Straw chopper: Remove counterknives.

Set the combine for corn harvesting after reading the “Basic Adjustment Chart” block in this section.

AG,CO03622,1592 –19–17MAY02–1/1

Preparations for Harvesting Oil Seed Crops

IMPORTANT: When harvesting oil seed crops (e.g. sunflowers), clean separator and cleaning unit thoroughly EVERY DAY.

AG,CO03622,1593 –19–15NOV02–1/1

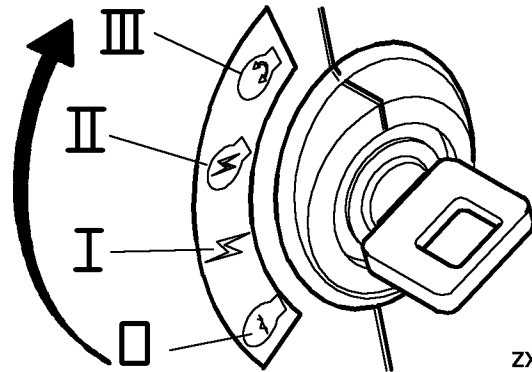
Operating the Combine

Prepare the combine for the type of crop to be harvested. See the information provided in this section. Prepare and install the header required for the crop to

be harvested. Read the operator's manual supplied with the header.

AG.CO03622,1601 -19-08OCT02-1/6

Start the engine and set it to a low rpm.



ZX 002403

ZX002403 -UN-03APR95

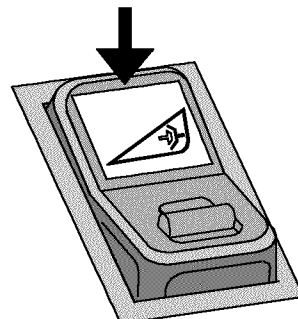
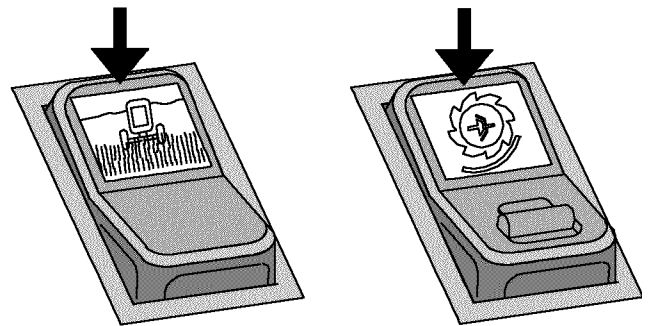
AG.CO03622,1601 -19-08OCT02-2/6

Move road safety switch to field position.

IMPORTANT: Switch on separator only when the engine is running at a low rpm.

Switch on separator.

Switch on header.



ZX 004374

ZX004374 -UN-19JUN95

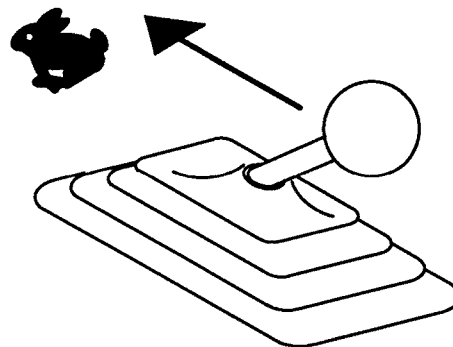
Continued on next page

AG.CO03622,1601 -19-08OCT02-3/6

Set engine to maximum rpm.

Using throttle lever for 1450 and 1550.

Using throttle rocker switch for 1450 CWS and 1550 CWS.

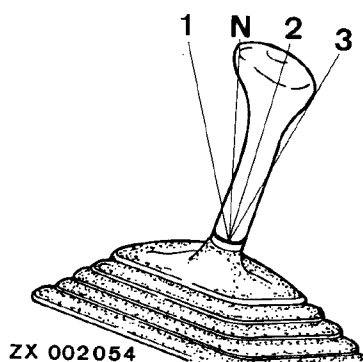


ZX002406

ZX002406 -UN-16JUN95

AG.CO03622,1601 -19-08OCT02-4/6

Engage a transmission gear.



ZX 002054

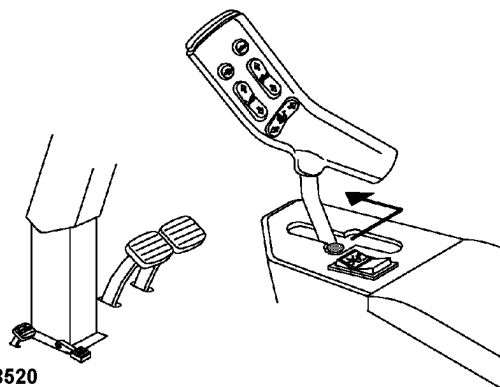
ZX002054 -UN-03APR95

AG.CO03622,1601 -19-08OCT02-5/6

NOTE: The second gear is best for all-around field performance. The third gear is not recommended for field operations, only for transport.

Move ground speed control to adapt ground speed to the harvesting conditions.

IMPORTANT: Hydrostatic stall conditions must be avoided, as they can cause the hydrostatic system to overheat in less than one minute.



CQ188520

CQ188520 -UN-16AUG99

AG.CO03622,1601 -19-08OCT02-6/6

Header Autofloat Control — Rigid Platforms (CWS)

IMPORTANT: The autofloat system is adjusted at the factory for a 14', 600 series rigid cutting platform. The system must be readjusted for other models or sizes of cutting platforms. See "Header Calibration Procedure" in section Service — Electrical System.

Requirements:

- Engine running (high speed) to enable autofloat.
- Road safety switch in field position.
- Threshing and platform engaged.
- Move float enable switch (H) to the position (II).

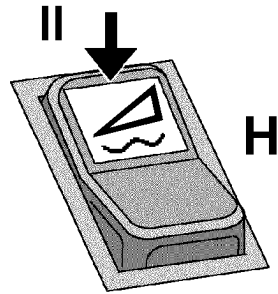
NOTE: Do not adjust header float unless hydraulic oil is at operating temperature.

To activate flotation press button (B). The platform pressure against the ground is adjusted by potentiometer (A2).

Autofloat Adjustment:

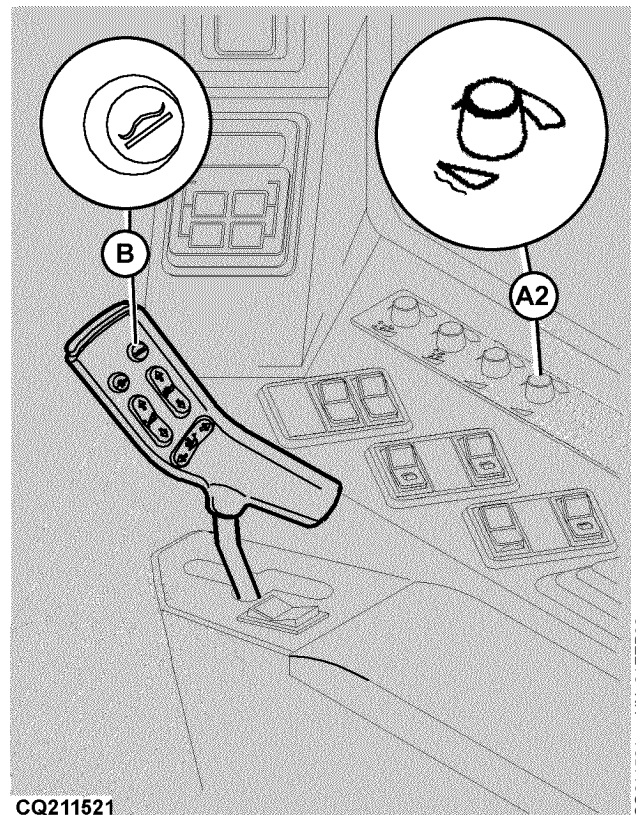
Use potentiometer (A2) to adjust desired header float.

- Turn clockwise — Increase ground pressure (lower header).
- Turn counterclockwise — Reduce ground pressure (raise header).



CQ211530

CQ211530 -UN-21FEB02



CQ211521

CQ211521 -UN-21FEB02

A2—Header autofloat potentiometer
B—Header autofloat button
H—Float enable switch

Continued on next page

MB03730,00002BA -19-19NOV02-1/2

NOTE: When platform autofloat button (B) is activated the header height automatic control is deactivated.

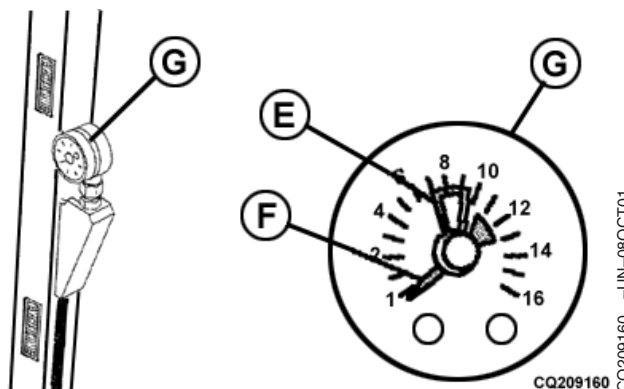
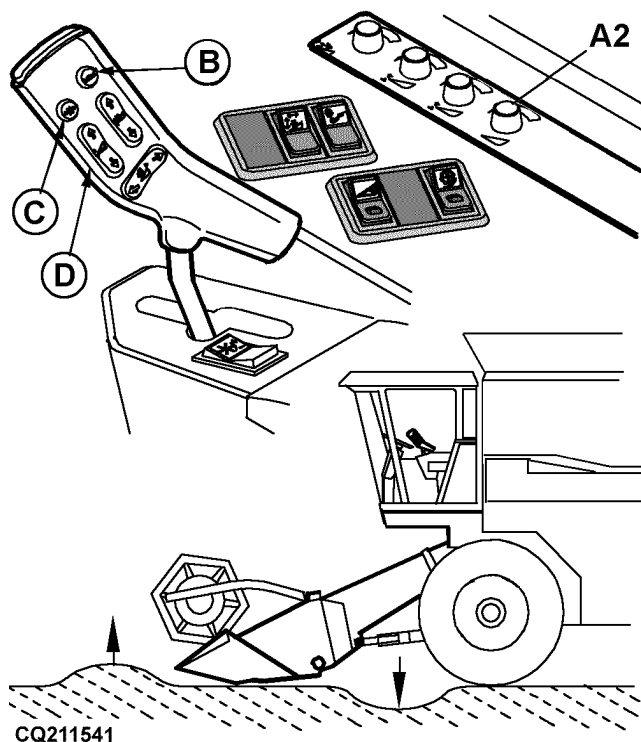
Operation:

Once the system is calibrated, it can be turned "ON" by pushing the resume-to-float button (B) on the hydro handle. The system should lower the header to the position where the float was calibrated, and then open the accumulator shutoff valve and do closed loop lift cylinder pressure control, turning "ON" and "OFF" the header raise/lower valves to keep the lift cylinder pressure set point. It can be tested by driving around on uneven ground and observing lift cylinder pressure in pressure gauge (G). With the float set point fully Clockwise (A2) the header ground pressure should be almost zero, with the lift cylinder pressure equal to the static weight of the header. With the float set point fully Counterclockwise 40% of the header weight should be on the ground, with lift cylinder pressure equal to 60 % of the static weight of the header. Drive through a ditch and see how well the system can maintain constant lift cylinder pressure. The system should be fairly fast in responding but not unstable.

NOTE: Needle (F) moves to the right when ground pressure (float) drops, and to the left when pressure raises.

The autofloat control may be deactivated by pressing button (D) or activating automatic header height control button (C).

- A2—Header autofloat potentiometer
- B—Header resume-to-float button
- C—Header height control button
- D—Switch, raise/lower header
- E—Adjustment window
- F—Needle
- G—Pressure gauge



Header Height Automatic Control — Rigid Platforms 600 Series (CWS)

IMPORTANT: Only for rigid platforms without rods, controlled by feeder house angle sensor.

Requirements:

- Engine running (high speed).
- Road safety switch in field position.
- Threshing and platform engaged.
- To enable header height control move switch (E) to position (II).

NOTE: Do not adjust the header height control before the oil is heated to avoid to have differences on the header height as the oil is heated.

To activate header height automatic control, press button (C). The distance between platform and ground is adjusted by the potentiometer (A1).

Header Height Settings:

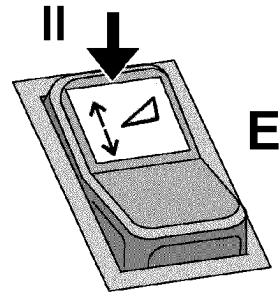
Use potentiometer (A1) to adjust desired header height.

- Turn clockwise — Increase height between platform and ground
- Turn counterclockwise — Reduce height between platform and ground

NOTE: When header height automatic control button (C) is activated the autofloat control is deactivated.

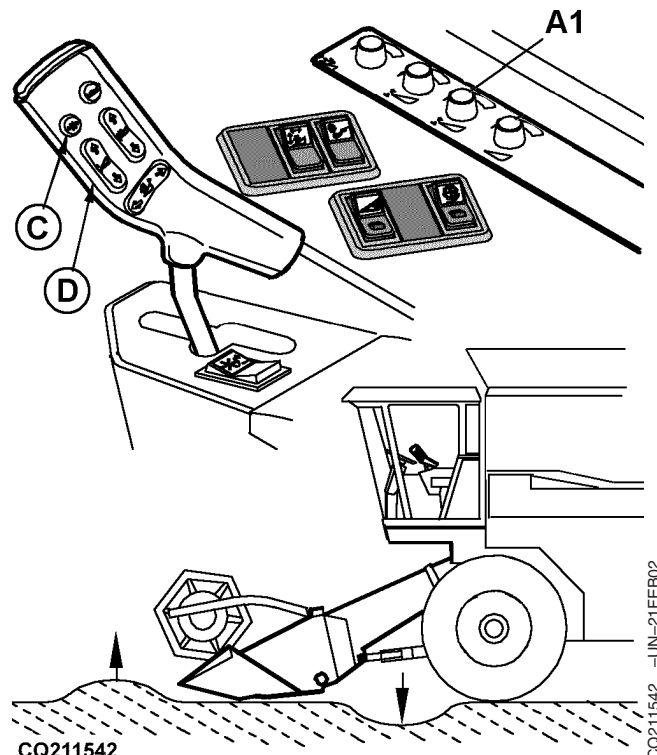
Example:

At the end of the field, raise header by actuating switch (D). After changing direction of combine travel, lower header using switch (D) or button (C) to return to header height mode.



CQ211550

CQ211550 -UN-21FEB02



CQ211542

CQ211542 -UN-21FEB02

- A1—Header height potentiometer
- C—Header height resume button
- D—Switch, raise/lower header
- E—Header height control switch

NOTE: The automatic header height control system may be deactivated by pressing button (D) or activating header autofloat system button (B).

MB03730,00002B9 -19-08OCT02-2/2

Header Height Automatic Control — Rigid Platforms 600 Series (CWS)

IMPORTANT: Only for rigid platforms with rods controlled by two sensors installed on platform.

Requirements:

- Engine running (high speed).
- Road safety switch in field position.
- Threshing and platform engaged.
- To enable header height and tilt control move switches (E) and (F) to position (II).

NOTE: Do not adjust the header height control before the oil is heated to avoid to have differences on the header height as the oil is heated.

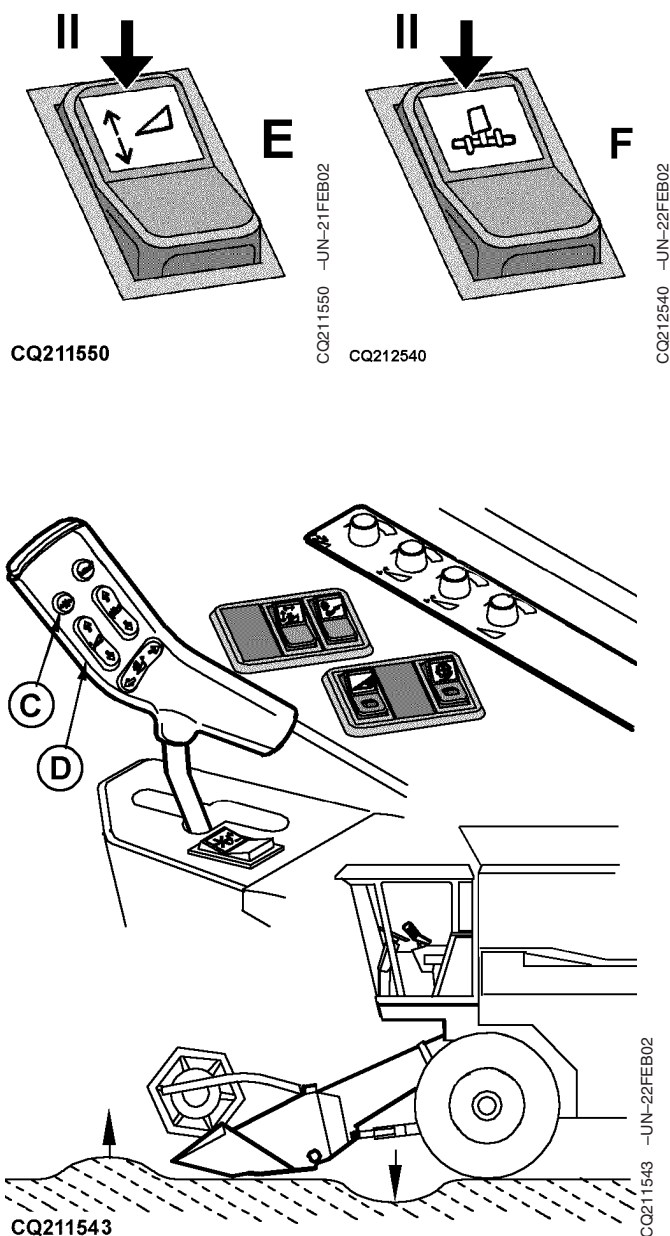
To activate header height automatic control, press button (C).

Header Height Settings:

See “Header Calibration Procedure (600 Series) Step by Step” in section “Service “ Electrical System”.

Example:

At the end of the field, raise header by actuating switch (D). After changing direction of combine travel, lower header using switch (D) or button (C) to return to header height mode.

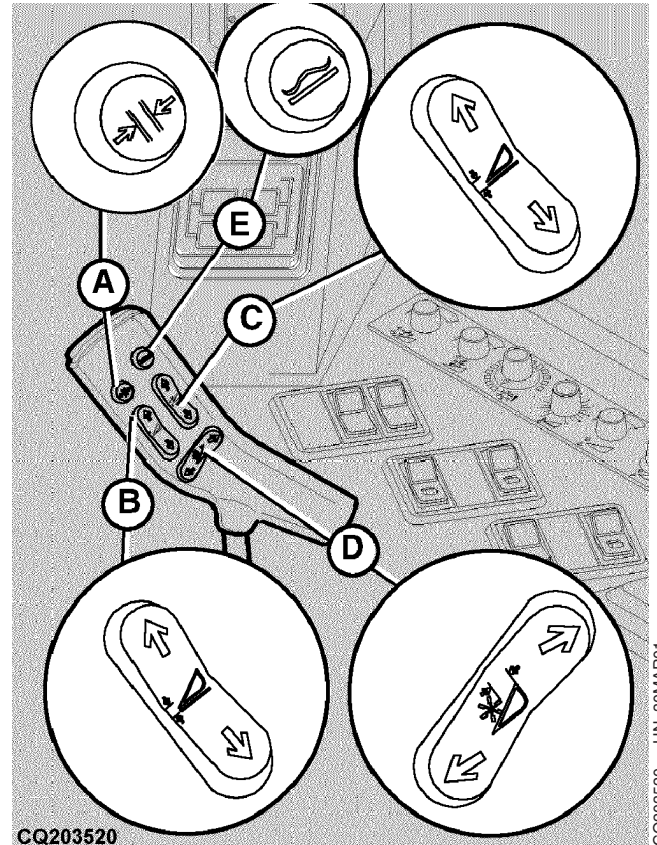


- C—Header height resume button
- D—Switch, raise/lower header
- E—Header height control switch
- F—Header lateral tilt enable switch

MB03730,0001BD9 -19-08OCT02-1/1

Header Function Resume Controls

- A—Header height resume control button
- B—Header raise rocker switch
- C—Reel height control rocker switch
- D—Reel horizontal control rocker switch
- E—End of cut / Autofloat



CQ203520

AG.CO03622.1603 -19-01MAR02-1/1

CQ203520 -UN-30MAR01

Feeder House

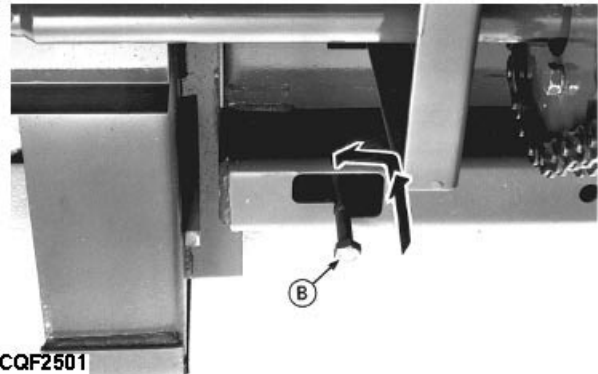
Cutting and Harvesting Unit—Cutting Platform Installation

Lower the feeder house and move inward the two bolts (B) on both sides of the feeder house. Slowly drive the combine up and move the two supports (A) into the header.

Move the two bolts (B) which should fit into the corresponding locations in the header as shown in the figure.



UN-01NOV99



UN-04APR96

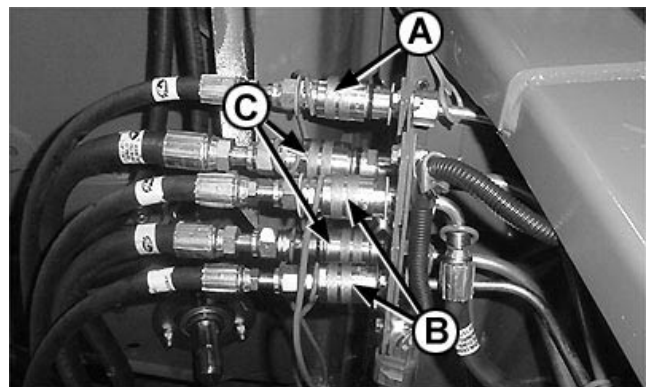
AG,CO03622,1628 -19-11MAR02-1/1

Hydraulic Connections

Connect the hydraulic hoses fitted with quick couplers.

NOTE: The hydraulic hoses are marked with different color rings to avoid wrong connections.

HOSES IDENTIFICATION	
Hose function	Identification ring color
A - Reel raise	Green
B - Reel fore/aft	Dark blue
B - Reel aft position	Blue light
C - Hydraulic reel drive	These hoses do not have identification rings because it is only possible to assemble each one on its correct position.



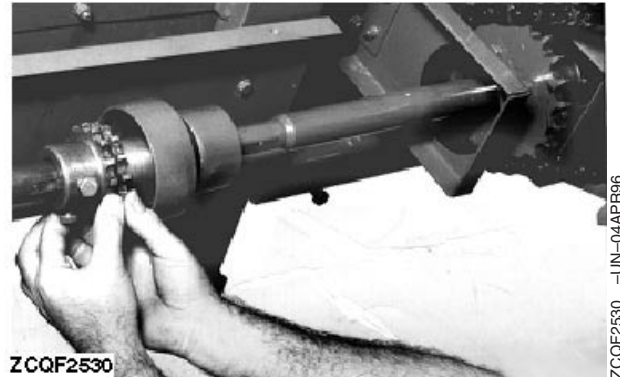
UN-10OCT02

A—Reel raise
B—Reel Fore-And-Aft Adjustment
C—Hydraulic Reel Drive

AG,CO03622,1630 -19-11OCT02-1/1

Sprockets (PC 300R)

Align the teeth of the two sprockets on both sides of the header.



ZCQF2530

ZCQF2530 -UN-04APR96

AG,CO03622,1631 -19-11OCT02-1/1

Installing the Chain and Shield (PC 300R)

Place the chain on the two sprockets on both sides of the header.

NOTE: Do not tie the chain. The protective shield will keep the chain on the sprockets. Push the protective shield on both sides of the combine.

IMPORTANT: Once installed the cutting platform, check its levelling.



ZCQF2540

ZCQF2540 -UN-04APR96



ZCQF2550

ZCQF2550 -UN-04APR96

AG,CO03622,1632 -19-11OCT02-1/1

Connecting the Transmission

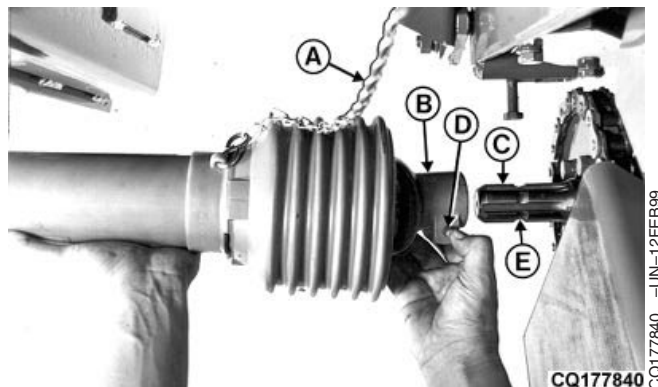
(Serie 300F and 600 Cutting Platforms, both sides)

By means of chain (A) remove the platform drive shaft from its transport position.

NOTE: To align it may be necessary make (B) turn.

Press pin (D) while push the shaft coupler (B) in shaft (C) until you feel the pin stops on top (E).

IMPORTANT: Once installed the cutting platform, check its levelling.

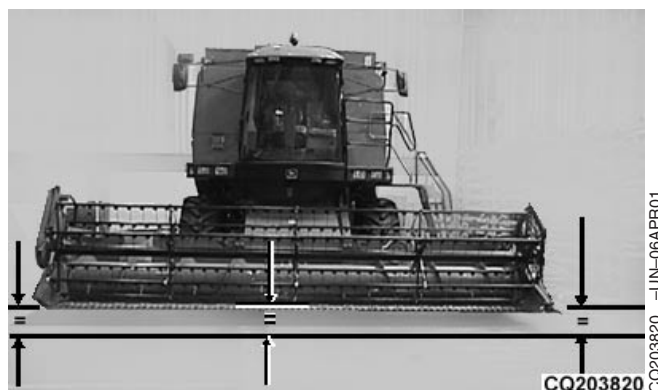


AG,CO03622,1633 -19-07OCT02-1/1

Checking Header Levelling

Periodically check the header to ensure it is level. To check:

- Park the combine on a level, flat surface.
- Make sure the front tire pressure is correct (see "Tire Pressure" in "Wheels, Axles and Additional Weights" Section).
- Completely raise the header.
- Stand in front of the header and check the header-to-chassis alignment or measure the height at both ends (see the illustration).



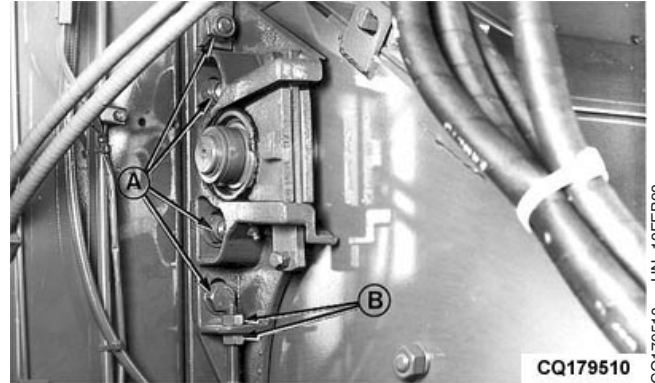
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AG,GG05155,285 -19-14AUG02-1/2

Levelling the Header

NOTE: The adjustment is made on the right side. For illustration purpose, hydraulic reverser has been removed.

- Loosen the 4 bolts (A).
- Turn nuts (B) until the header is level.
- Tighten bolts (A) and nuts (B).



Hydraulic reverser not illustrated

CQ179510

CO179510 -UN-19FEB99

AG,GG05155,285 -19-14AUG02-2/2

Locking Header Lift Cylinders



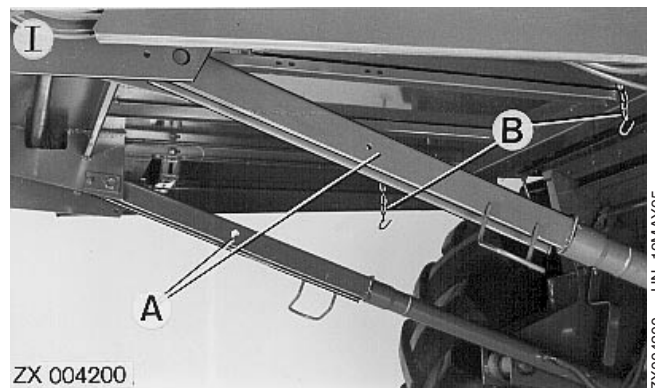
CAUTION: Always insert the safety rail before working on raised header.

IMPORTANT: Insert safety rail only when header is fully raised.

Before working on raised header, insert safety rail (A) above the lift cylinders.

Before starting field operation, remove safety rail (A) and secure it with chain (B).

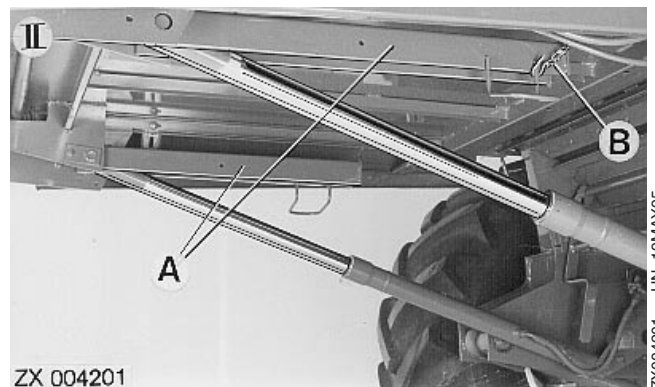
- A—Safety Rail
- B—Drive Chain
- I—Safety Rail Inserted
- II—Safety Rail Removed



ZX 004200

Locking Header Lift Cylinders

ZX004200 -UN-19MAY95



ZX 004201

Locking Header Lift Cylinders

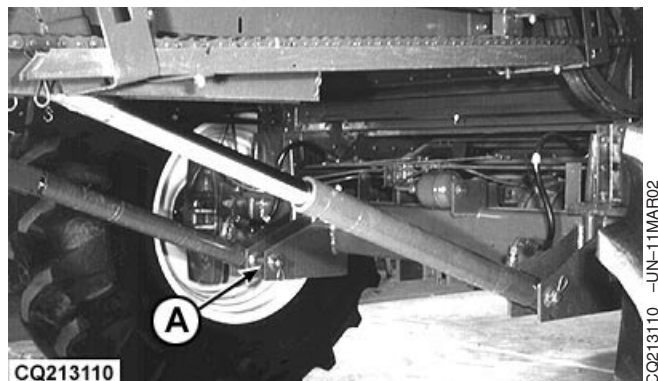
AG,CO03622,1623 -19-15NOV02-1/1

ZX004201 -UN-19MAY95

Feeder House Third Lift Cylinder

A third lift cylinder is available for field installation in position (A) for the following headers:

- 18' to 23' cutting platforms.
- 5, 6 and 8 lines corn headers.



AG,CO03622,1634 -19-09OCT02-1/1

Removing the Header

Reverse the assembly process steps to remove the header.

NOTE: Before disconnecting the hydraulic hoses, completely lower the reel to relieve circuit pressure and to facilitate reconnection.



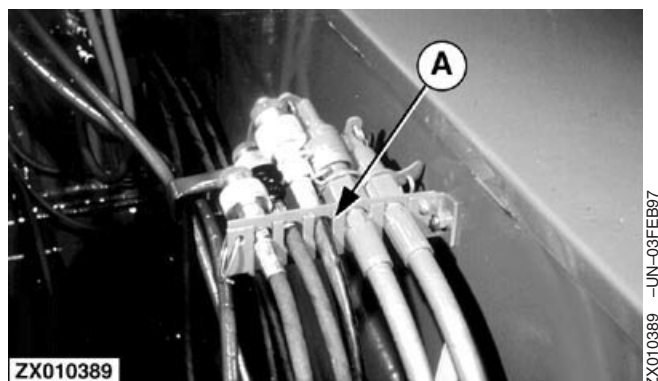
AG,GG05155,137 -19-08FEB99-1/1

Bracket For Hydraulic Hoses (300 Series Feeder House)

With header detached, the hydraulic hoses can be stored in the bracket (A) on r.h. side of the feeder house. This will prevent them from damage and dirt contamination during transport.

After removal of safety wire, the upper bracket part can be swung open.

IMPORTANT: After removal from the header, the two hoses for the reel drive should be coupled together to permit oil flow when header drive is accidentally engaged.



AG,CO03622,2180 -19-05FEB02-1/1

Adjusting Floating Drum Height (Only for Feeder House 300 Series)

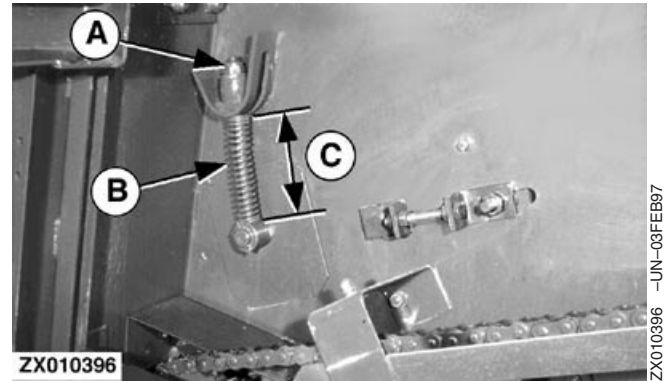
Adjust the height of spring (B) with nut (A) on both sides of the feeder house.

For Corn:

— Spring length (C) should be between 107 — 113 mm.

For Other Crops:

— Spring length (C) should be between 137 — 143 mm.



A—Adjusting Nuts
B—Spring
C—Spring length

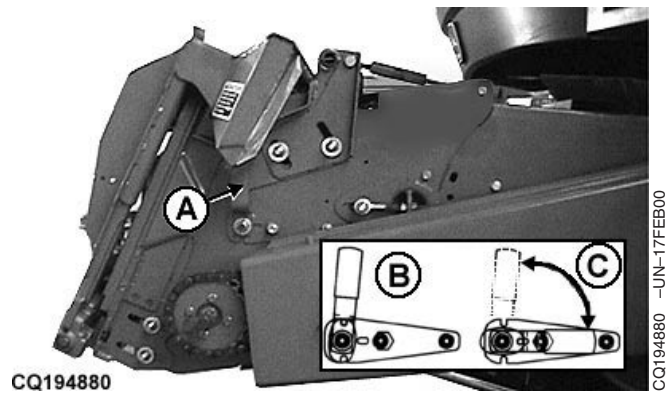
AG.CO03622,1635 —19-14AUG02-1/1

Adjusting Floating Drum Height (Only for Feeder House 600 Series)

The position of the lever is what determines the drum height.

For corn — The lever (A) should be in position (B) (vertical).

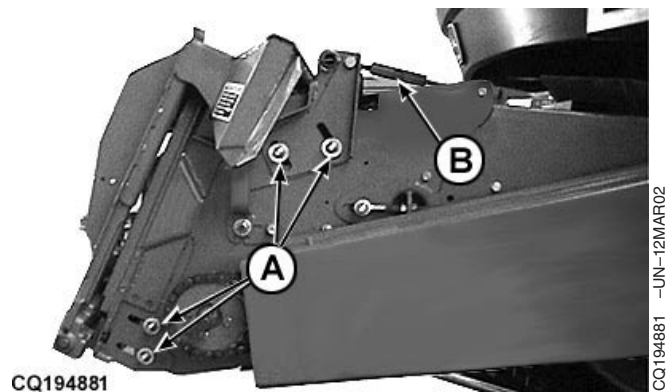
For other crops — The lever (A) should be in position (C) (horizontal).



AG.CO03622,2856 —19-11MAR02-1/1

Adjusting Feeder House Front Face Angle

To adjust feeder house front face angle is necessary loose bolts (A) and make the adjustment with nuts (B) in both sides of feeder house.

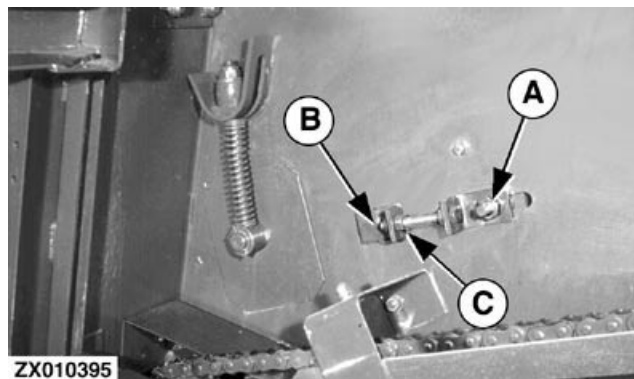


MB03730,000037D —19-11MAR02-1/1

Adjusting Tension of Feeder House Conveyor Chains — 300 Series

Loosen nut (A) on both sides. Turn nuts (B) and (C) evenly on both sides of the feeder house. Retighten them securely after the adjustment.

IMPORTANT: The chain tension will be ok, when the lowest slat slightly touches the floor of the feeder house.



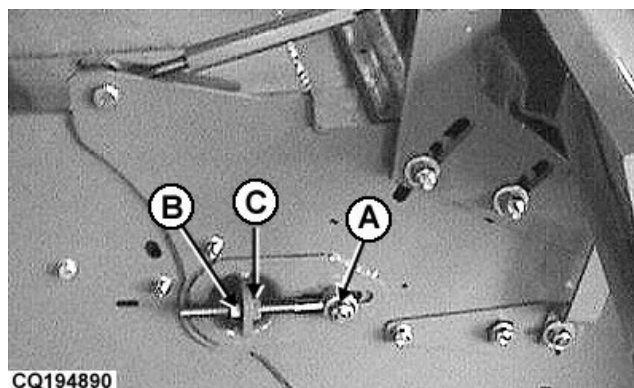
AG,GG05155,156 -19-11MAR02-1/1

Adjusting Tension of Feeder House Conveyor Chains (600 Series Feeder House)

Loosen nut (B) both sides and nut (C) and move bolt (A) as needed to obtain a good tension of the conveyor chains.

Retighten them securely after the adjustment.

IMPORTANT: The chain tension will be ok, when the lowest slat slightly touches the floor of the feeder house.



AG,CO03622,2857 -19-05FEB02-1/1

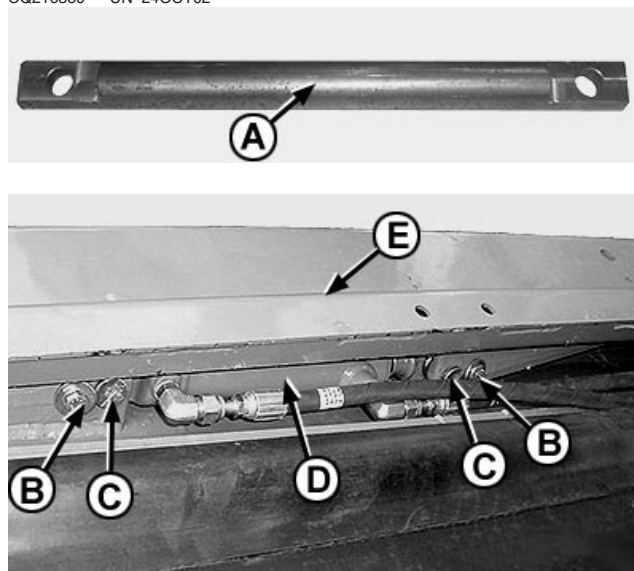
Header Lateral Tilt Locking – Only for Argentine

NOTE: To facilitate the installation of the lateral tilt locking (A), disengage header in order to move the front face (E) of feeder house.

Remove screws (B), pins (C) and hydraulic cylinder (D).

- A—Lateral Tilt Locking
- B—Attaching Screw
- C—Pins
- D—Hydraulic cylinder
- E—Feeder House Front Face

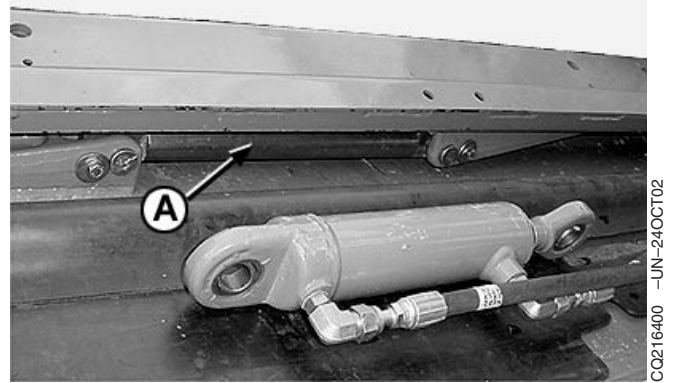
CQ216380 -UN-24OCT02



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MB03730,000001C -19-24OCT02-1/3

Install locking (A) in hydraulic cylinder position.



MB03730,000001C -19-24OCT02-2/3

CQ216400 -UN-24OCT02

Place the hydraulic cylinder next to the locking.



MB03730,000001C -19-24OCT02-3/3

CQ216410 -UN-24OCT02

Separator and Cleaning Unit

Cylinder Front Inspection Cover



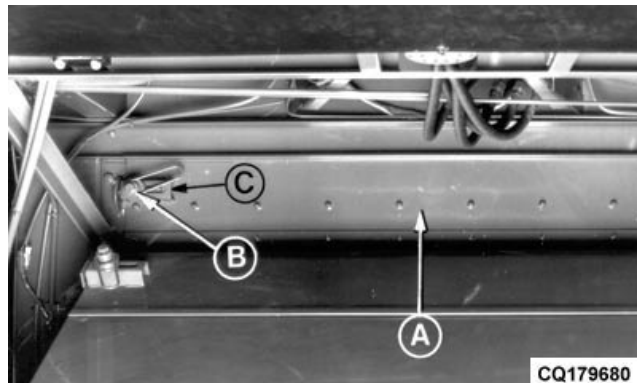
CAUTION: Before adjusting the machine or performing service work, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

Remove the two nuts (B) and pins (C) to open this cover (A).

A—Inspection cover

B—Nuts

C—Pins



CQ179680 -UN-19FEB99

AG,GG05155,306 -19-14AUG02-1/1

Cylinder Side Inspection Ports



CAUTION: Before adjusting the machine or performing service work, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

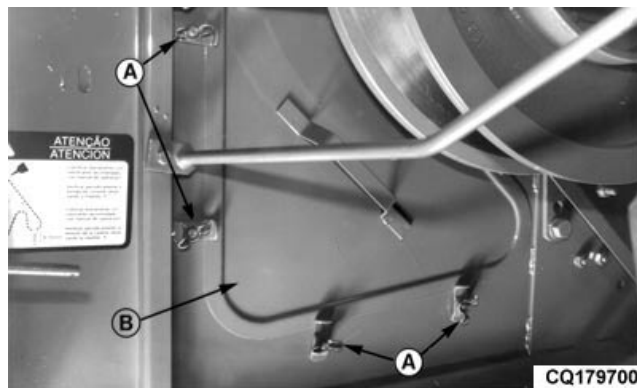
Open the side inspection ports to work on the cylinder.

Unscrew wing nuts (A) and pull off cover (B).

A — (1450 and 1550)—Wing nuts

A — (1450 CWS and 1550 CWS)—Nuts

B—Cap



CQ179700 -UN-19FEB99

AG,GG05155,307 -19-05FEB02-1/1

Opening Stone Trap Bottom Plate



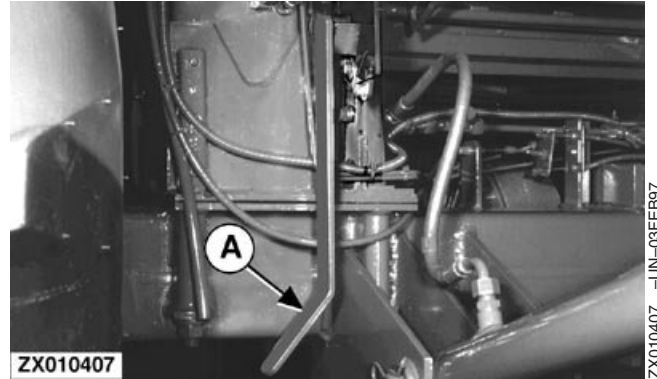
CAUTION: Watch out for falling stones when opening the bottom plate (B).

Periodically clean the stone trap.

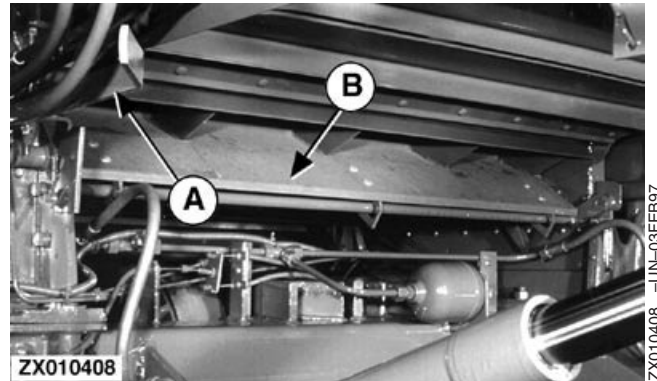
When lever (A) is in the “down” position, the plate (B) under the stone trap is closed.

— To clean the stone trap, pull lever (A) upward to swing down plate (B). Stone trap opens by itself.

— Pull lever (A) downward. A spring-loaded bolt holds the lever in this position.



Stone Trap Bottom Plate Closed



Stone Trap Bottom Plate Open

AG.CO03622,1637 -19-23AUG99-1/1

Cylinder Bars

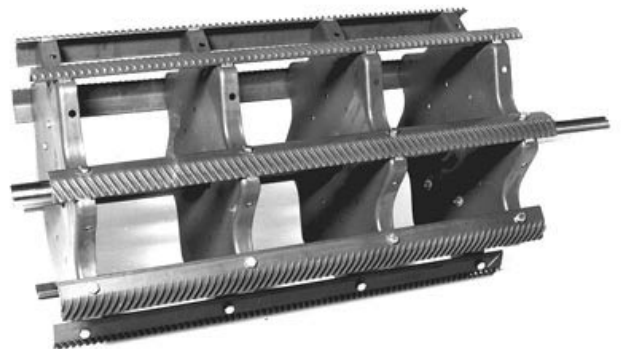
The cylinder has rasp bars with teeth alternately directed to the right and left. If a cylinder bar needs to be changed the opposite bar will also have to be changed in order to avoid unbalancing the cylinder.

To remove the bars, grind off and reweld in the same manner.

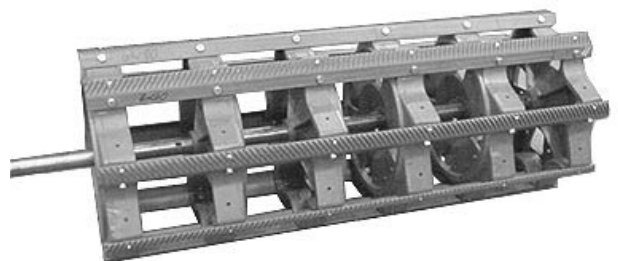
NOTE: On high inertia cylinders bars are not welded.

Tighten the bar bolts to 78 N•m (57 lb-ft).

IMPORTANT: After changing bars retighten the mounting bolts after the first five hours of operation.



Cylinder



High inertia cylinder

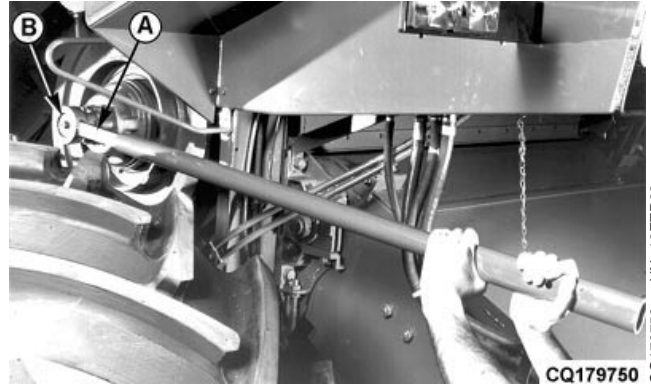
AG.GG05155,309 -19-05MAR02-1/1

Rotating Cylinder By Hand

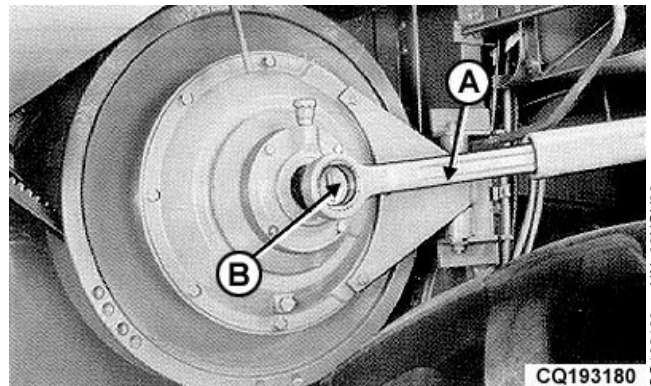
CAUTION: Stop the engine and remove the ignition key before turning the cylinder by hand.

Open the covers on the grain elevator and cylinder front inspection port.

Insert wrench (A) over spline (B) on the cylinder shaft. The wrench is stored in the tool box and the wrench extension is located near of the clean grain elevator housing.



Cylinder Drive without Reduction Gear



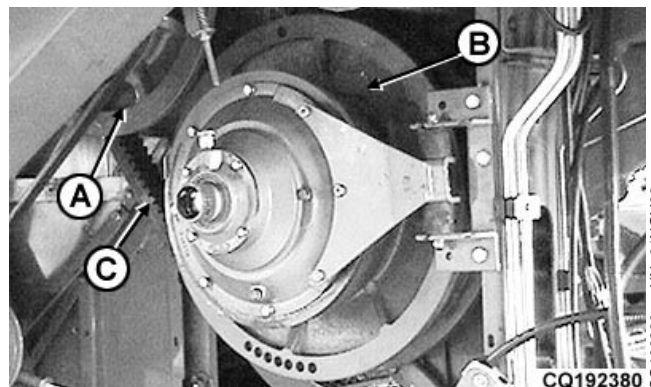
Cylinder Drive with Reduction Gear

AG,GG05155,310 -19-07OCT02-1/1

Cylinder Drive Reduction Gear (Option)

IMPORTANT: Adjustments to both sheaves on cylinder and beater variable drive should be performed by your John Deere dealer.

- A—Beater shaft variable sheaves
- B—Cylinder shaft variable sheaves
- C—Drive Belt



AG,CO03622,2189 -19-07OCT02-1/1

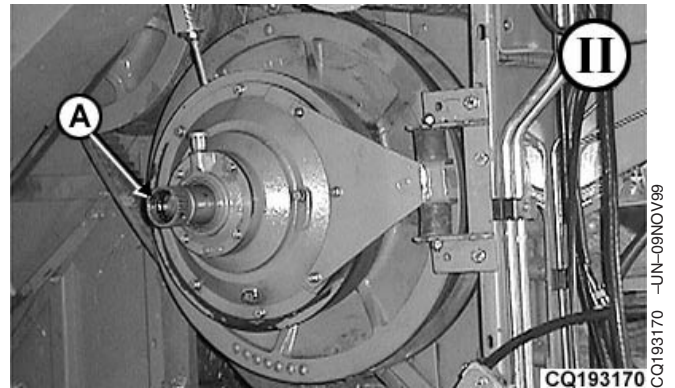
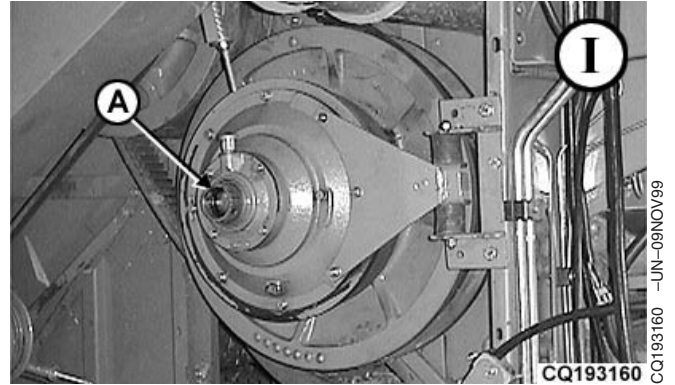
Cylinder Drive Reduction Gear (Option) — Operation

With the reduction gear, cylinder speed can be reduced by approx. 50% (when harvesting maize)

Cylinder speeds range as follows:

Position I — Shifter collar (A) pushed in for speeds to 380 — 1100 r/min.

Position II — Shifter collar (A) pushed out for speeds to 150 — 420 r/min.

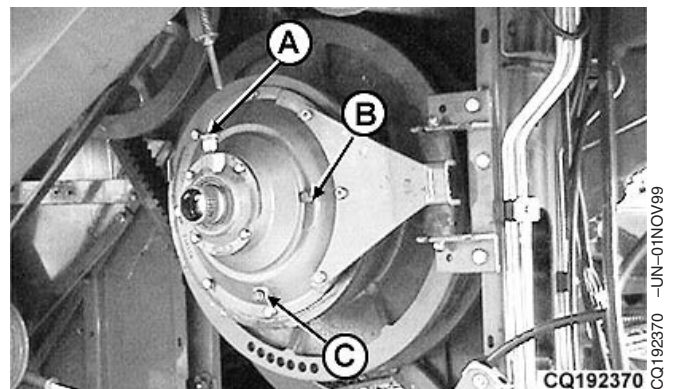


AG.CO03622,2728 —19-07OCT02-1/1

Cylinder Drive Reduction Gear Housing

Change oil in cylinder reduction gear after the first 100 hours of operation. Thereafter after every 800 hours of operation or after each harvesting season (whichever occurs first). Check oil level after every 200 hours of operation.

IMPORTANT: When checking oil level and topping off with oil, variable sheaves must be fully apart. The oil flows very slowly. After approx. 15 min. check oil level again and top off if necessary.



A—Breather Plug
B—Oil filler and level plug
C—Oil drain plug

AG.CO03622,2188 —19-05FEB02-1/1

Concave And Cylinder Alignment

At the factory the concave is horizontal and parallel to the cylinder.

Periodically check the concave-to-cylinder alignment so that the threshing unit can operate properly.



AG,GG05155,315 -63-24FEB99-1/1

Concave and Cylinder Clearance Adjustment

Before adjusting the concave and cylinder clearance through electrical system from the cab, a fine adjustment is necessary.

The electrical actuator should be completely closed so that the clearance between concave and cylinder is minimum. The infotrak monitor must display a concave clearance of "4".

By means of the pin (B) adjust the rear part of the concave and with pin (C) adjust the front part of the concave.

— Rear opening

— RASP-BAR CYLINDER — Allow 4-5 mm (0.16 to 0.2 in.) of play between the highest cylinder bar and the second concave bar from the rear.

— SPIKE-TOOTH CYLINDER — Allow 8-10 mm (0.3 to 0.91 mm) of play.

— Front opening

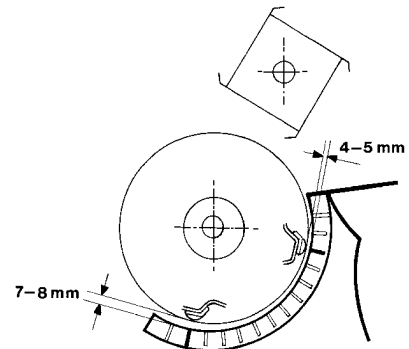
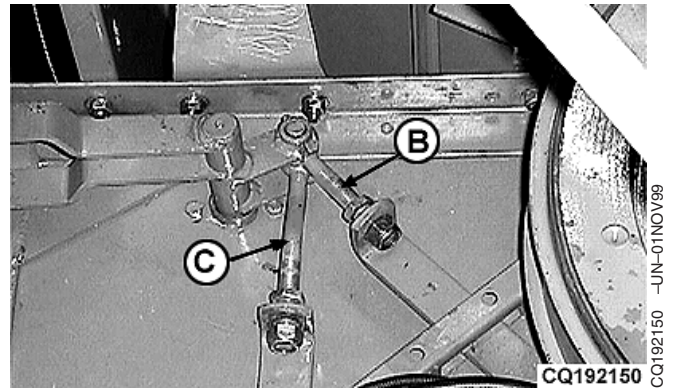
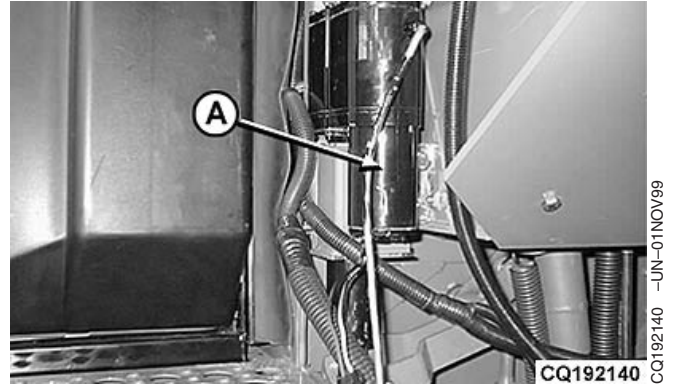
— RASP-BAR CYLINDER — Allow 7-8 mm (0.27 to 0.31 in.) of play between the highest cylinder bar (the one that projects the most) and the third concave bar from the rear.

— SPIKE-TOOTH CYLINDER — Allow 11-13 mm (0.43 to 0.5 in) of play.

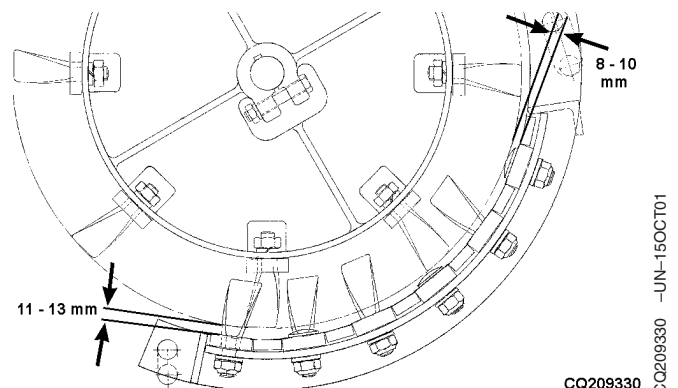
Repeat the adjustment on the other side.

NOTE: This adjustment should always be done when changing concave.

NOTE: Once the requirements have been met on the electrical actuator and pins, the remaining adjustments must be made using the Infotrak Monitor. See "Controls and Instruments" Section.



Concave and Rasp-Bar Cylinder Clearance Adjustment

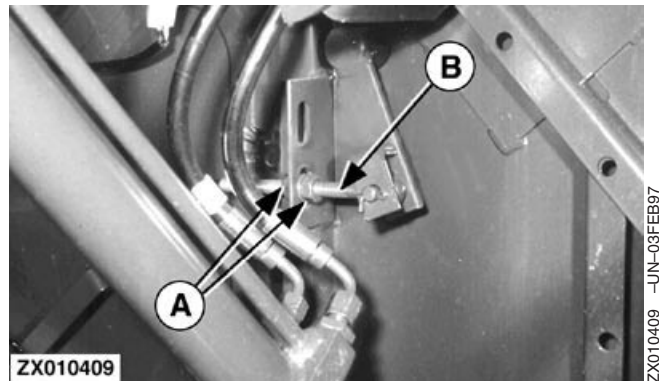
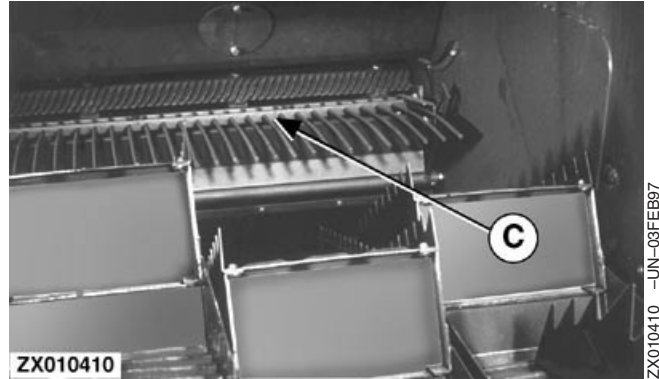


Concave and Spike-Tooth Cylinder Clearance Adjustment

Adjusting Concave Extension

Adjust with bolt (B) using nuts (A) on the left of the combine.

The distance between the beater and the finger rake (C) should be at least 70 mm (2.8 in.) in grain crops.

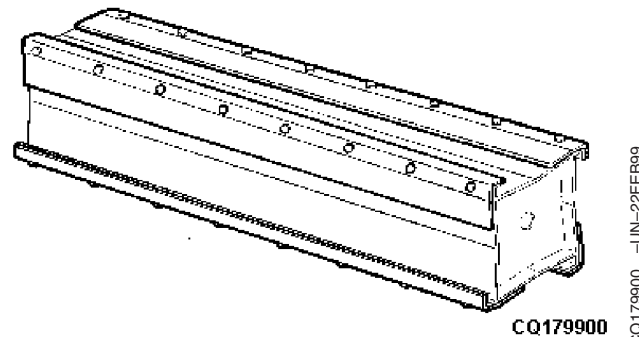


AG,CO03622,1653 -19-24AUG99-1/1

Special Beater Wear Plates

Rice combines are fitted with special wear plates in the beater. They are attached with special plated bolts.

IMPORTANT: Periodically check bolt head wear and change any excessively worn bolts to avoid damage to the combine caused by loose plates.

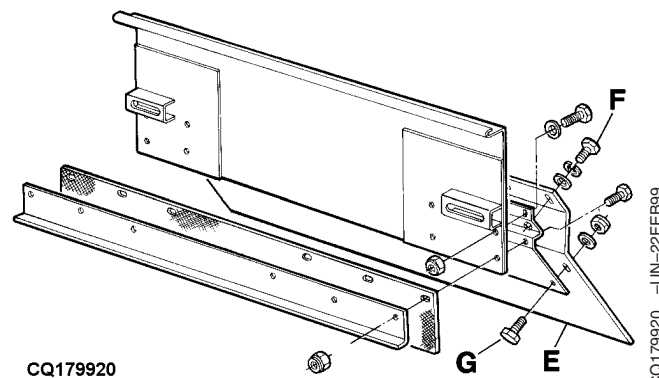


AG,GG05155,318 -19-24FEB99-1/1

Cylinder Baffle

IMPORTANT: Before harvesting corn, remove the cylinder baffle (E) located inside the inspection port.

Baffle (E) is attached by hex bolts (F) and (G).



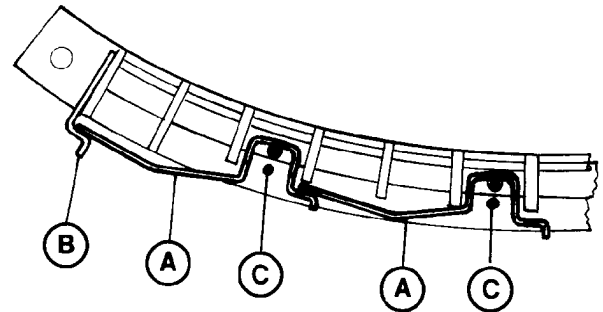
AG,GG05155,319 -19-24FEB99-1/1

Concave De-Awning Plates

De-awning plates are recommended for some crops such as: barley, wheat and peas, when these crops are showing difficulties of threshing.

NOTE: *It is not necessary to remove the concave to install the plates.*

- After harvesting, clean the chaff from the front support (B) to ensure that the de-awning plate fits properly in the concave.
- Attach the de-awning plate (A) with the mounting bolts (C).
- Use one plate to begin. Then install the second if needed.



CQ179940

AG.GG05155.320 -19-11OCT02-1/1

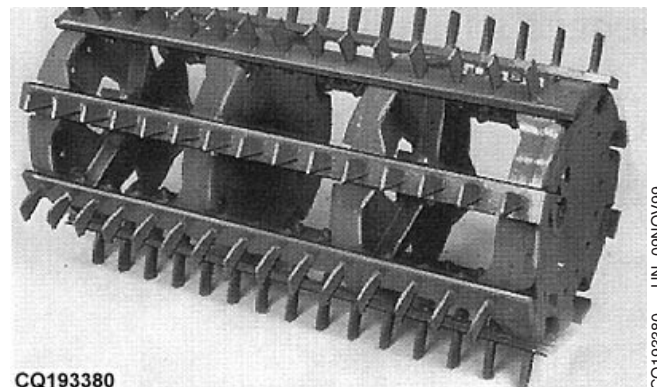
Rice Harvesting Attachment

This attachment consists of the rice cylinder and rice concave.

Threshing of the rice is accomplished through the friction and battering effect on the spiked teeth on rice concave and cylinder.

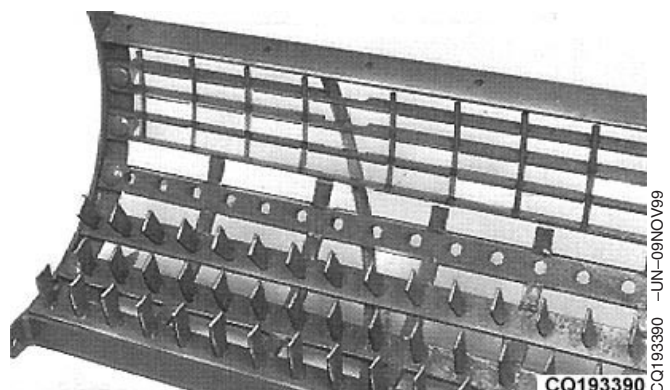
The rice concave can be equipped optionally with three or four rows of spiked teeth.

Using a hammer with a piece of hardwood, drive in new teeth. Firmly bolt down teeth. Install teeth with the elongated side to the rear, as seen in direction of rotation.



CQ193380

Spiked-Tooth Cylinder



Rice Concave with three Rows of Spiked Teeth

AG.CO03622.2227 -19-05MAR02-1/1

Rice Concave and Cylinder — Adjustment

Adjust cylinder as close to concave to possible. Clearance between cylinder concave teeth should be at least 4 mm.

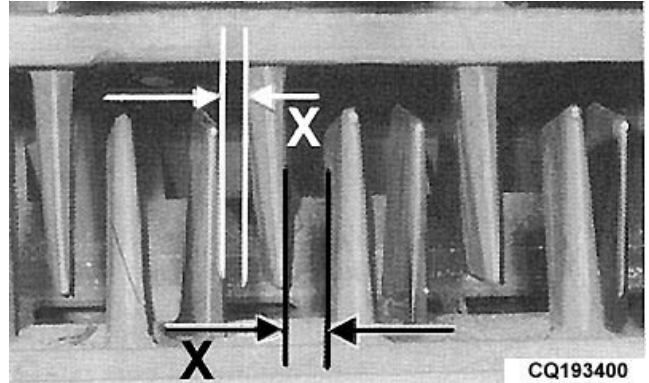
This side clearance of a cylinder spike tooth should be equal in relation to spiked teeth in the first, second, third and if, equipped, the fourth row of concave teeth.

If this clearance is not equal, the rice stalks will pass through unseparated on one side, while rice grains will be crushed up on the other side.

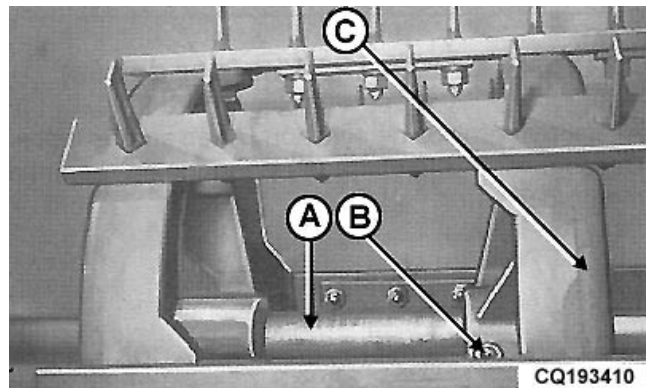
Adjust by positioning cylinder on separator shaft. After adjustment, lock cylinder on shaft with clamping screw (B).

NOTE: When machines leave assembly line they have a clearance between cylinder and concave teeth of 4 mm. However, if during harvest season it's necessary to adjust the clearance, ask for assistance at your John Deere dealer.

- A—Separator shaft
- B—Clamping screw
- C—Cylinder hub
- X—4 mm



CQ193400 —UN-09NOV99



CQ193410 —UN-09NOV99

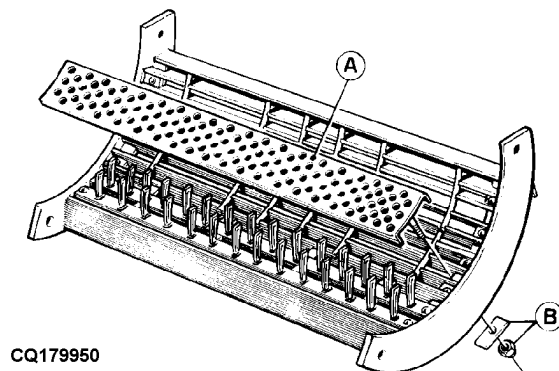
AG,CO03622,2228 —19-15NOV02-1/1

Tooth Concave Closure Plates

Can be used to harvest soy or other beans.

NOTE: It is not necessary to remove the concave to install the plates.

- Attach the closure plate with tabs and nuts (B).
- Use one plate to begin. Then install the second if needed.



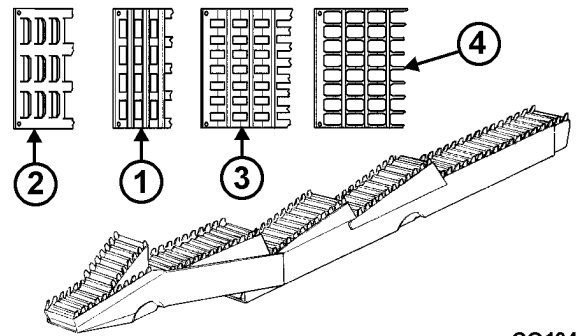
CQ179950

CQ179950 —UN-22FEB99

AG,GG05155,321 —19-24FEB99-1/1

Straw Walker Types

1. Straw walkers with grids having transverse rectangular openings are indicated for small grains such as wheat, etc.
2. Straw walkers with grids having “frog mouth” openings are indicated for large grains such as corn. They are supplied with the standard version combine. They are supplied with the standard version combine.
3. Straw walkers with grids having longitudinal openings are especially suited for wheat and peas.
4. “European” Straw walkers with grids having longitudinal openings are especially suited for wheat and peas.



CQ194060

CO194060 -UN-06DEC99

All the grids are replaceable from the front to the rear of the straw walkers to permit rapid conversion to handle various types of crops.

AG,GG05155,162 -19-05FEB02-1/1

Straw Walker Fishbacks

Fishbacks optimize loose grain separation from chaff by reducing the speed at which straw moves over the straw walkers.

There are two types of fishbacks: small and large. In the basic version only the small ones are installed in the second stage.

NOTE: To avoid loss, more fishbacks can be installed in the basic version for conditions in which it is difficult to separate the grain from chaff (i.e. weedy soy beans or other crops with heavy straw).



Straw Walker Fishbacks — Basic Version - 1450 e 1550



Straw Walker Fishbacks — Rice Version - 1450 and 1550

AG,GG05155,163 -19-09OCT02-1/1

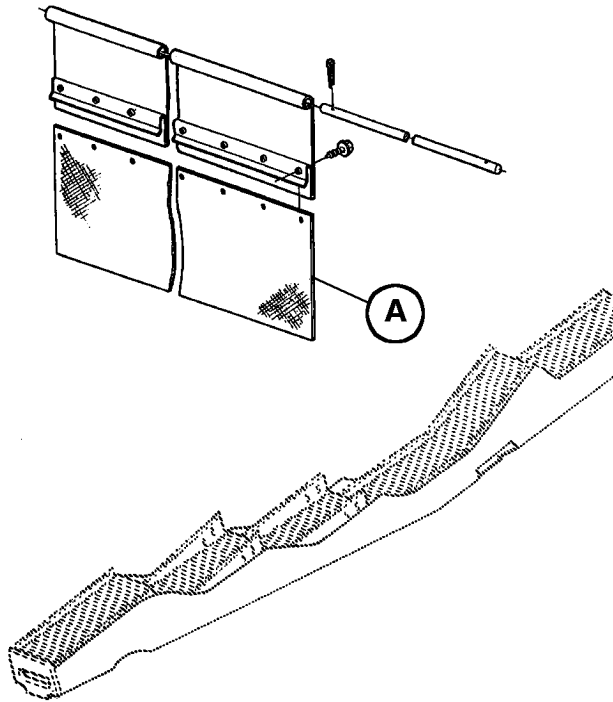
Straw Walker Curtain

The straw walker curtain (A) helps to slow material flow and allows more time for grain to separate from straw. It also prevents grain from being thrown out of the combine by the beater.

Under normal harvesting conditions, the curtain is free to swing in the slot (I).

For crops with high straw content, it may be necessary to set the curtain as high as possible (II), and lock it in this position with nut (B).

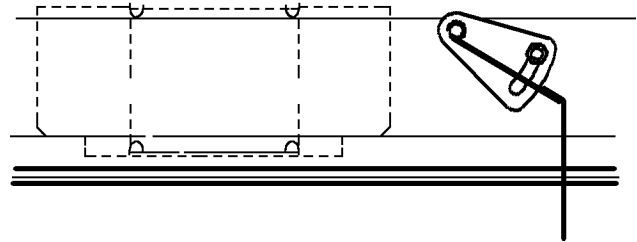
NOTE: *There are situations in which it is hard to separate grain (e.g. corn). In these cases we recommend the use of a second curtain, available as an attachment*



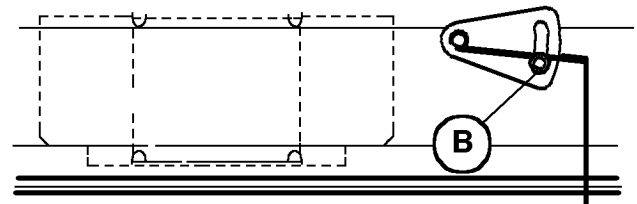
ZX010381

ZX010381 -UN-28JAN97

I



II

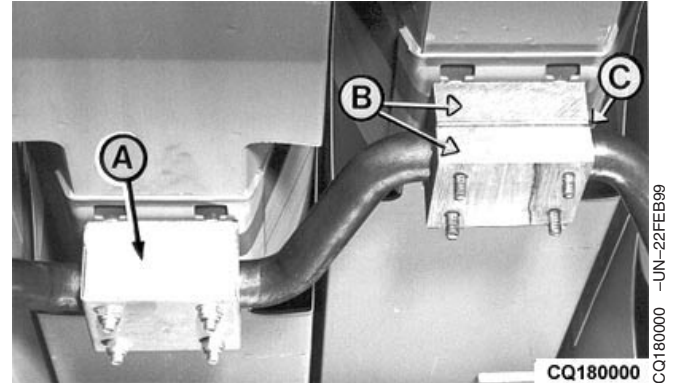


ZX010382

ZX010382 -UN-03FEB97

Adjusting Straw Walker Bearings

After a period of time, remove the nuts holding shield (A), remove the shield and adjust the gap between both halves (B) of the straw walker bearings by removing shims (C) as needed. Straw walker bearings may have an axial play but may not have radial play.

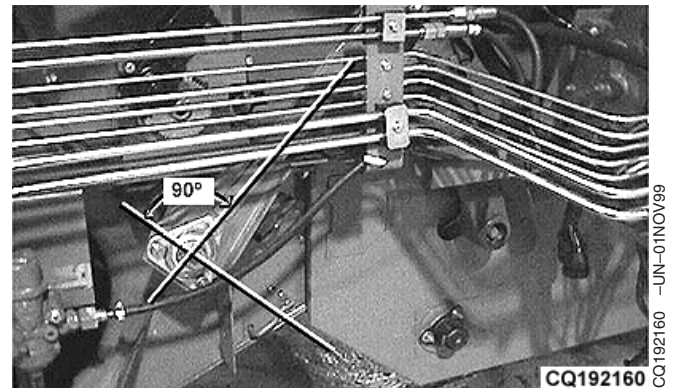


AG,GG05155,324 -19-13NOV01-1/1

Cleaner Arms And Connecting Rods

If the arm and connecting rod rubber bushings are changed, the bushing bolts should be tightened when the arms and connecting rods are in their center positions. The center position is determined by turning the beater drive pulley by hand until an imaginary connecting rod center line forms a 90° angle with a line between the center of the journal and the center of the crankshaft.

IMPORTANT: While checking the combine after each harvest, inspect the arm and connecting rod rubber bushings and replace any damaged ones. Change the bushings every 500 hours.

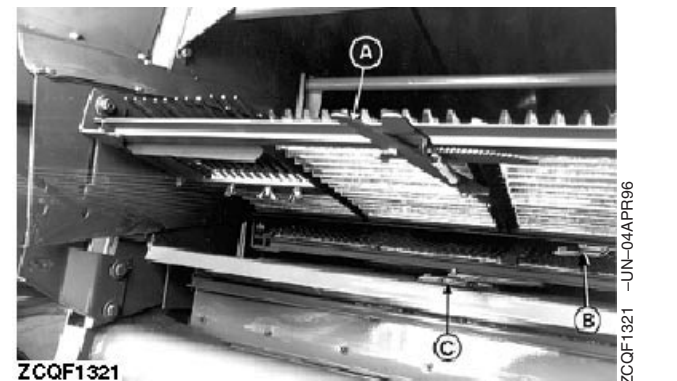


AG,GG05155,325 -19-24FEB99-1/1

Cleaner—Sieves

The sieves can be adjusted in the rear of the combine. Make the initial adjustment according to the basic adjustment charts (see in "Combine Settings" in "Preparation and Field Operation" Section.)

- A. Chaffer extension adjustment lever.
- B. Chaffer adjustment lever.
- C. Grain sieve adjustment lever.



AG,GG05155,164 -19-09FEB99-1/1

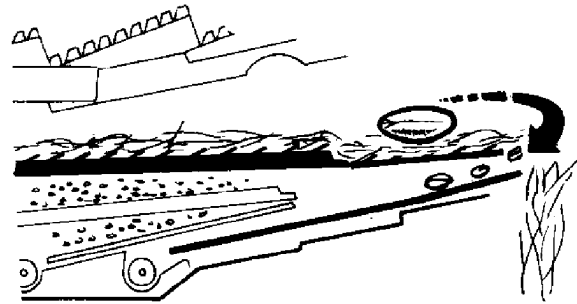
Chaffer Extension

Chaffer extension is installed in place of the conventional chaffer to optimize corn harvesting by means of longer adjustable fins to minimize blockages caused by cob pieces.

Recovers any head or ear tips that have not been fully threshed. Should be a little more open than the chaffer.

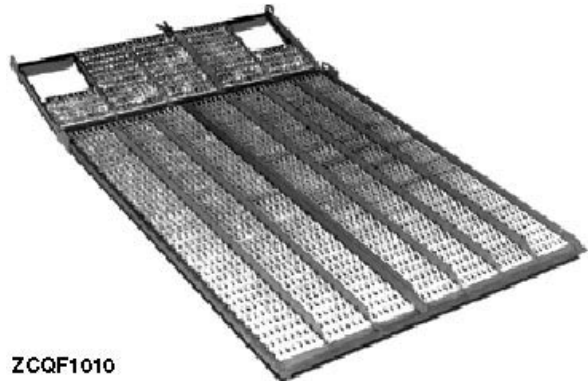
In hilly terrain the opening needs to be larger than normal. Further, there are two openings with inserts (grids) on the ends of the extension to capture material accumulating there when operating on slopes.

NOTE: In extremely hilly terrain a chaffer extension for corn can be used.



ZCQD2140 -UN-04APR96

ZCQD2140



ZCQF1010 -UN-04APR96

ZCQF1010

AG,CO03622,1655 -19-08OCT02-1/1

Adjusting The Chaffer Extension Angle

Loosen nut (A) on both sides of the chaffer extension.

Low: Dry crops and flat terrain.

High: Products that are difficult to shell (crops with weeds or in hilly terrain).



ZCQF2231 -UN-04APR96

ZCQF2231

AG,GG05155,165 -19-09FEB99-1/1

Chaffer Extension Inserts (Slope Master)

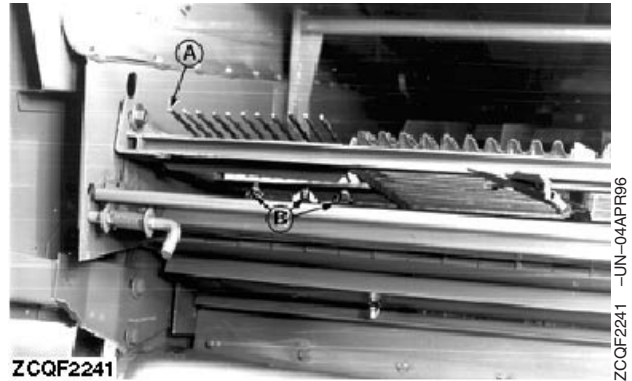
When working in hilly terrain material accumulates on the sides of the chaffer and its extension, making it difficult to separate grain and increasing losses.

To avoid losses, openings located on both sides and behind the chaffer extension collect any material not totally separated.

These openings can be increased or reduced depending on terrain and crop conditions.

Openings are varied by removing or inserting rods (A) after loosening wing nuts (B).

NOTE: Combine is delivered from the factory with 11 rods installed.



AG,GG05155,166 -19-09FEB99-1/1

Removing Chaffer Extension

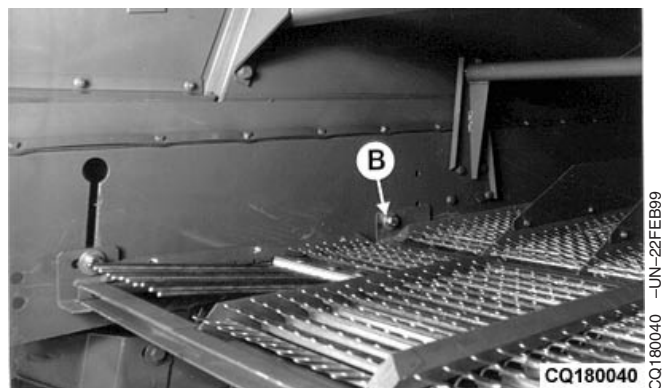
- Remove the mounting bolts (A).
- Pull the extension back to remove it.



AG,GG05155,326 -19-24FEB99-1/1

Removing Chaffer

- Remove the mounting bolts (B).
- Pull the chaffer back to remove it.



AG,GG05155,327 -19-24FEB99-1/1

Grain Retention Plate

Designed to capture head, pod or ear tips that have not been completely threshed and that were not collected by the chaffer extension.



AG,CO03622,1656 -19-24AUG99-1/1

CQ177530 -UN-09FEB99

Adjusting Grain Retention Plate

Release latch (B) on both sides and remove wing nuts (A) under the plate.

- Retracted: Easily threshed crops; flat terrain.
- Extended: Hard-to-thresh crops; hilly terrain.



AG,GG05155,168 -19-09FEB99-1/1

ZCQF2251 -UN-04APR96

ZCQF2251

Removing Grain Sieve

- Remove the mounting bolts (C).
- Pull the sieve back to remove it.



AG,GG05155,328 -19-24FEB99-1/1

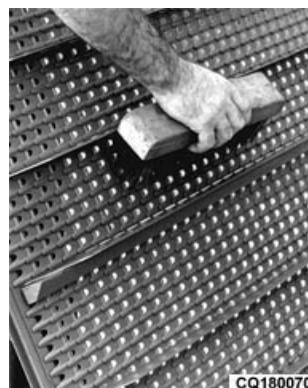
CQ180060 -UN-22FEB99

CQ180060

Cleaning The Chaffers And Sieves

Use a good brush to clean the sieves.

NOTE: Use an oil can to lubricate the fin joints with medium viscosity oil.



CQ180070 -UN-22FEB99

CQ180070



CQ180080 -UN-22FEB99

CQ180080

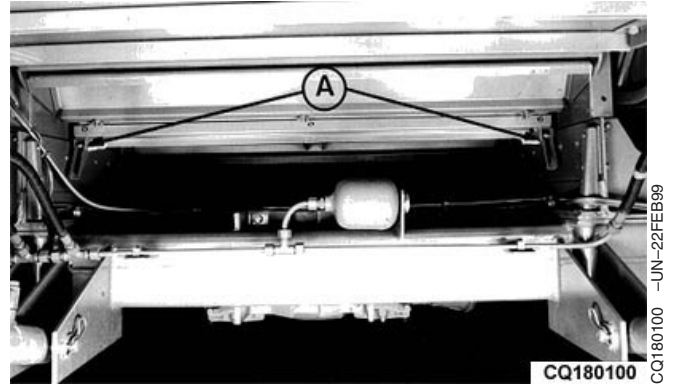
AG,GG05155,329 -19-24FEB99-1/1

Opening The Pan

The front of the pan (under the concave) can be removed for quick and easy cleaning.

NOTE: Clean the pan daily.

- Push latches (A) by hand.
- Pull out the pan to the front and remove it.



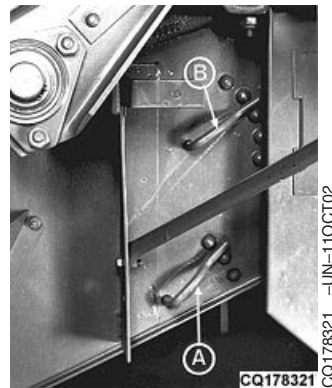
AG,GG05155,330 -19-24FEB99-1/1

Adjusting Air Flow Direction

IMPORTANT: To facilitate adjustment, first adjust the baffles and then regulate fan speed.

NOTE: For soy beans, wheat and corn, start with the lower baffle (A) in the first position (from the bottom) and the upper baffle (B) in the second position (from the bottom).

A—Lower Baffle
B—Upper Baffle



AG,GG05155,169 -19-11OCT02-1/1

Adjusting Fan Speed

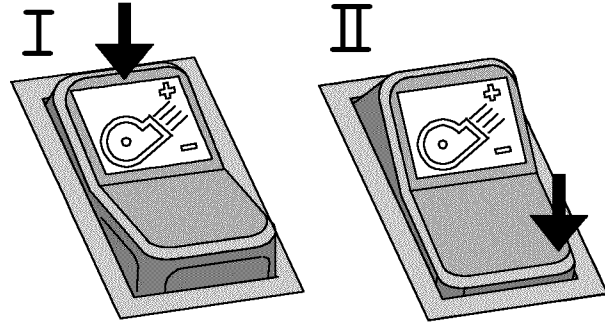
The fan speed can be increased or decreased by pressing the switch as illustrated. It is only possible with the engine running, threshing engaged and the road safety switch in field position.

IMPORTANT: After changing fan speed, alarm speed must also be readjusted (refer to Section “Warning Devices and Monitors”).

NOTE: The current fan speed can be displayed on the infotrak monitor.

The fan speed mechanism is protected by course limiter switches. The speed can change between 550 and 1150 rpm.

The change of the fan speed is slower than other speed changes because it is driven electrically and not hydraulically.



ZX 002326

I—Increase fan speed
II—Decrease fan speed

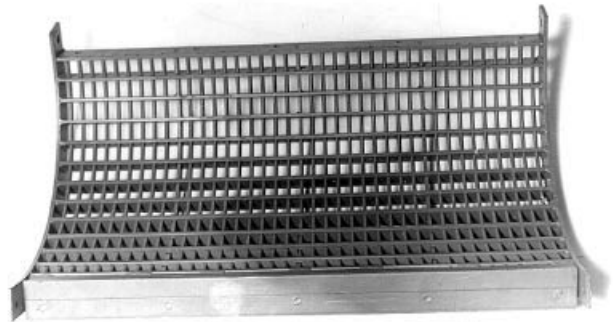
ZX002326 -UN-16JUN95

AG,CO03622,1657 -19-11OCT02-1/1

Corn Concave

To harvest corn the grain concave should be replaced with a special corn concave which has bigger openings.

NOTE: This corn concave is a part of the special kit for corn.



ZCQF1920

ZCQF1920 -UN-04APR96

AG,CO03622,2021 -19-25AUG99-1/1

Special Kit for Corn

This is a set of accessories recommended to optimize combine performance when harvesting corn.

The kit includes:

- Fan shields
- Second straw walker curtain
- Chaffer and extension for Corn
- Stone trap cover
- Cylinder filler plates
- Corn concave
- Rear hood protection for corn
- Set of fishbacks for straw walker

AG,CO03622,2022 -19-05FEB02-1/1

Chaff Spreader and Straw Chopper

Straw Chopper (Special Equipment)



CAUTION: Before adjusting the machine or performing service work, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop. Never let anyone stand behind the straw chopper while it is running—it is **DANGEROUS** to do so.

AG,CO03622,2023 -19-25AUG99-1/1

Operating Straw Chopper

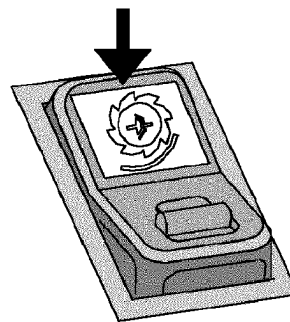
When engaging separator drive, proceed as follows:

Run engine at low-rated speed.

Road safety switch in field position

Push up operating lock and depress top part of switch (symbol).

Increase engine rpm to full load speed.



CQ192220

CC192220 -UN-01NOV99

AG,CO03622,2181 -19-14MAR02-1/1

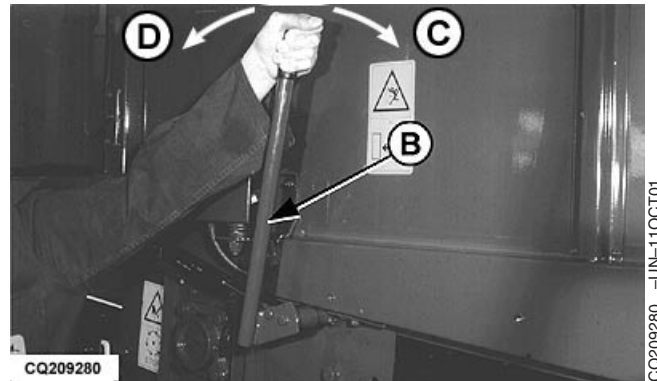
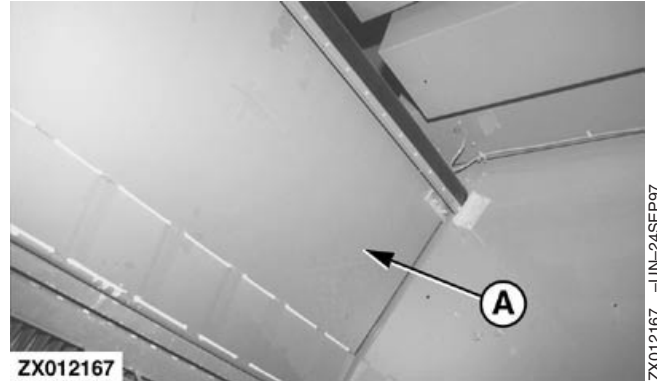
Engaging Straw Chopper (1450 CWS and 1550 CWS)

CAUTION: Before engaging the straw chopper, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

Before engaging the straw chopper, move deflector sheet (A) to position (C) by actuating lever (B).

In some cases when it is not necessary to chop the straw, it is possible to move deflector sheet (A) to position (D) and disengage the straw chopper.

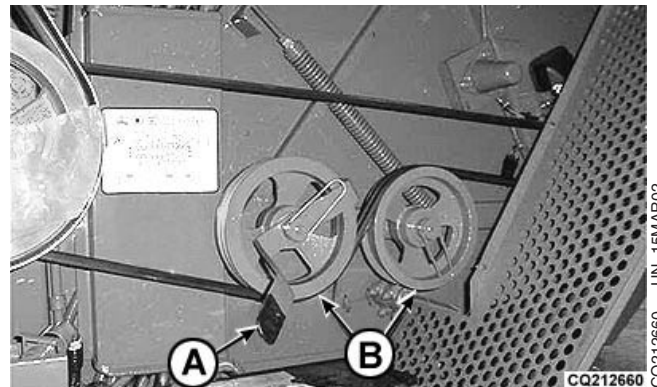
- A—Deflector sheet
- B—Lever
- C—Chop straw
- D—Do not chop straw



AG.CO03622,2024 -19-12MAR02-1/5

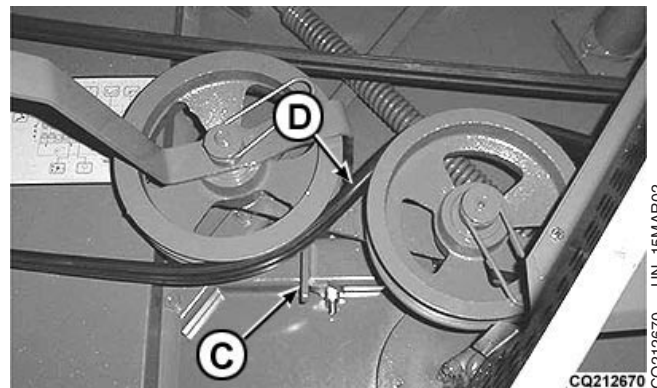
Disengaging Straw Chopper Drive:

With combine disengaged, raise adjust pulleys (B) by lever (A).



AG.CO03622,2024 -19-12MAR02-2/5

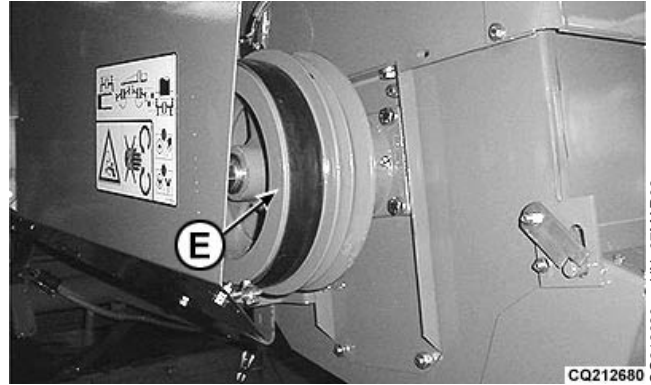
Turn the inferior chock (C) until the end of its course thus the mechanism of the adjust pulleys is supported when returning and remove belt (D) of the pulleys.



Continued on next page

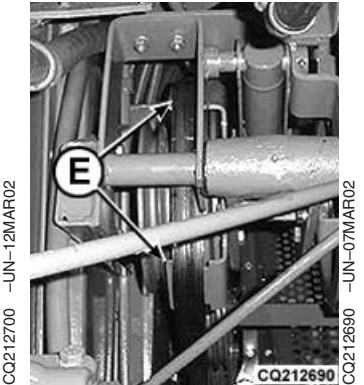
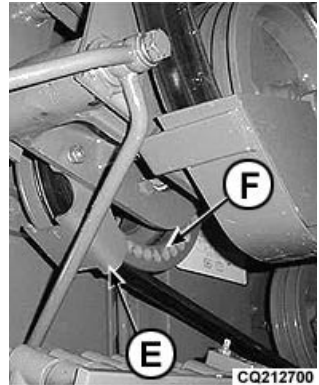
AG.CO03622,2024 -19-12MAR02-3/5

Make sure the belt is in the smallest diameter of straw chopper pulley (E).



AG,CO03622,2024 -19-12MAR02-4/5

Remove belt from intermediate drive pulley (F) and place it on the bracket (E).



AG,CO03622,2024 -19-12MAR02-5/5

Engaging Straw Chopper (1450 and 1550)

CAUTION: Before engaging the straw chopper, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

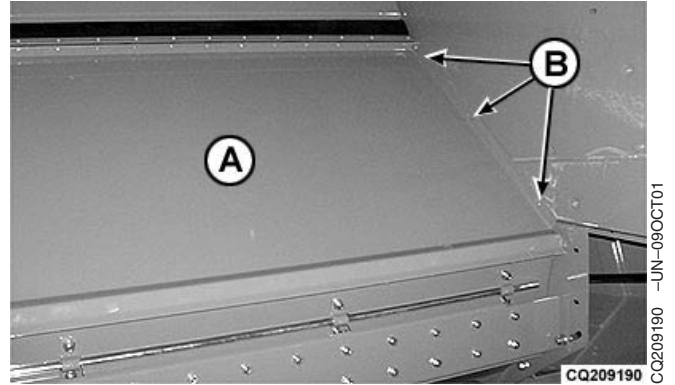
The deflector sheet (A) can be assembled in two positions. To do this, it is necessary to remove three bolts (B) on both sides of machine.

— With deflector sheet (A) in position I, the straw falls on the ground and is not chopped.

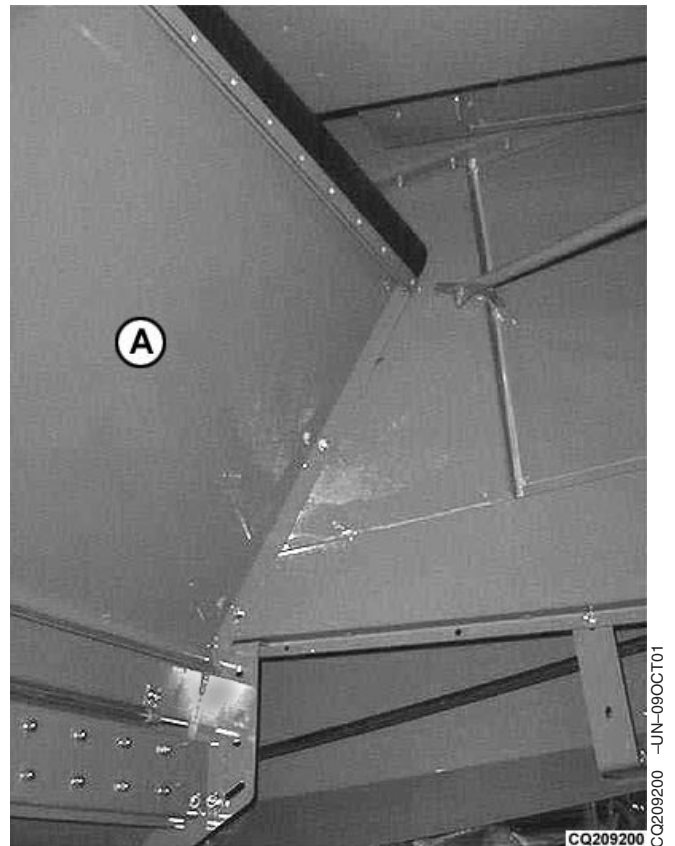
IMPORTANT: With deflector sheet (A) in position I, straw chopper must be disengaged (loosing belt) to avoid sheet damage by straw chopper knives.

With deflector sheet (A) in position II, straw chopper must be engaged.

— With deflector sheet (A) in position II, the straw from straw walkers falls in straw chopper and is chopped.



Deflector sheet (A) in position I

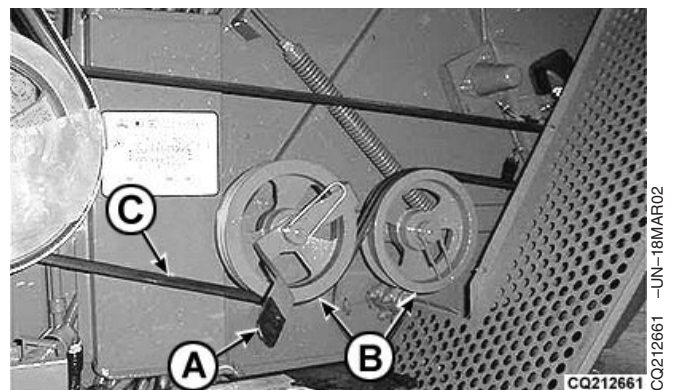


Deflector sheet (A) in position II

MB03730,00001F5 -19-17SEP02-1/3

Disengaging Straw Chopper Drive:

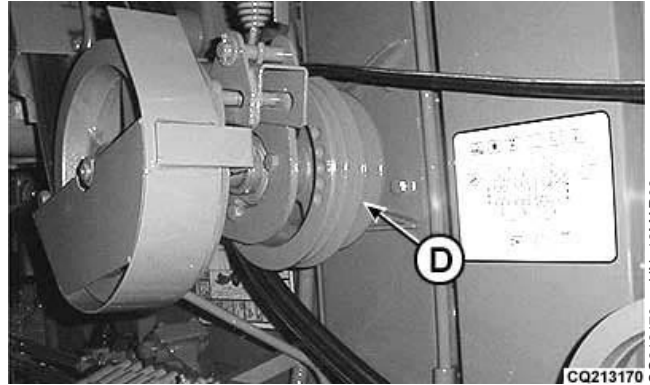
With combine disengaged, raise adjust pulleys (B) by lever (A) and remove belt (C).



Continued on next page

MB03730,00001F5 -19-17SEP02-2/3

Also remove belt from intermediate drive pulley (D)



CQ213170 -UN-18MAR02

CQ213170

MB03730,00001F5 -19-17SEP02-3/3

Reducing Straw Chopper Rotation Speed

When harvesting corn or sunflowers the rotor speed should be reduced.

To reduce the speed:

— Open the side shields (A) and (B) as described in Section “Service—Drives and Shields”.

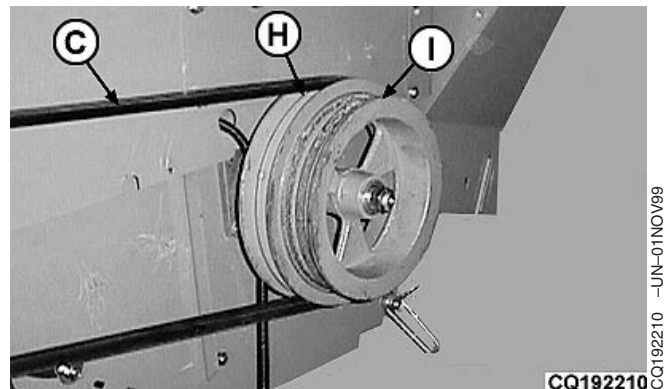
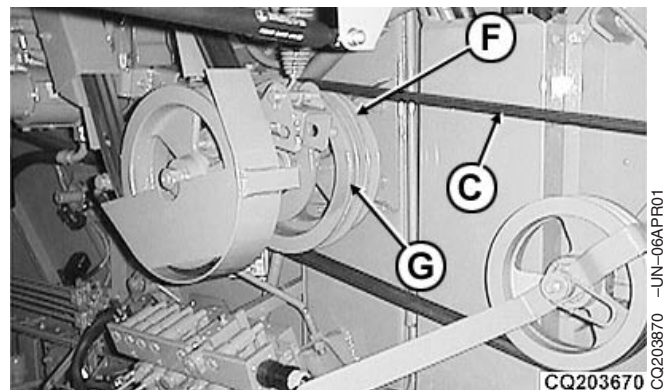
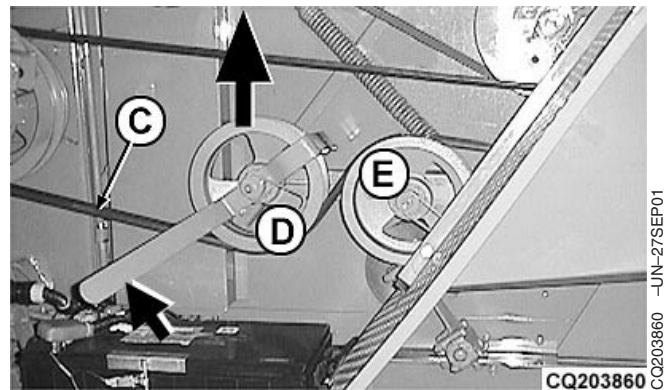
— Loosen and remove belt (C) by moving the idler pulley (D) upward through lever. Invert the position of the pulleys (D) and (E), place pulleys with internal side facing outside. In this manner the correct alignment of the idler pulleys will be obtained with both speeds.

— Place the drive belt on part (G) or (F) according to the crop to be harvested. The smaller diameter of drive pulley (F) is recommended for corn and sunflowers, while the bigger diameter of drive pulley (G) is recommended for most of the crops.

— Repeat the procedure on the straw chopper, placing the drive belt on parts (H) or (I) according to the crop to be harvested.

The bigger diameter of driven pulley (H) is recommended for corn, while the smaller diameter of driven pulley (I) is recommended for most of the crops.

- A—Shield
- B—Shield
- C—Drive Belt
- D—Idler Pulley
- E—Idler Pulley
- F—Smaller Diameter of Drive pulley
- G—Bigger Diameter of Drive pulley
- H—Bigger Diameter of Driven pulley
- I—Smaller Diameter of Driven pulley



Illustrated position for corn

Adjusting Counter-Knives (CWS)

The length of chopped material can be modified by pivoting the counter-knives to a different angle.

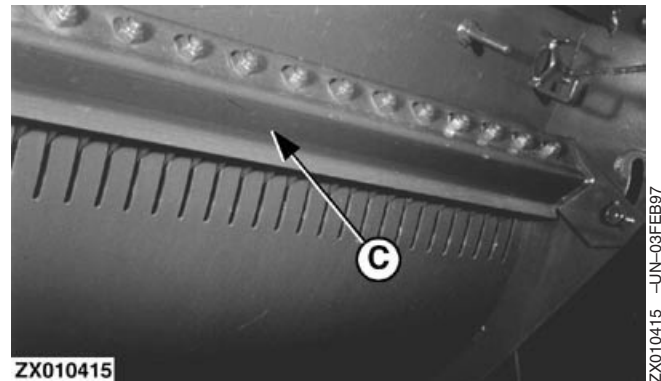
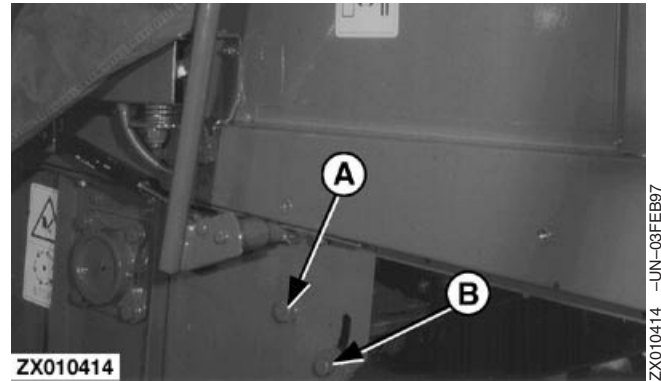
IMPORTANT: Counter-knives should only be moved inward as far as absolutely necessary to prevent waste of engine power.

Recommended counter-knife positions:

- 1—Counter-knives horizontal for dry straw.
- 2—Counter-knives at slight angle for damp straw and weeds.
- 3—Counter-knives at extreme angle for rape and pea straw.

To adjust the counter-knives, slacken off screws (A) and (B) at both sides.

Adjust the angle of the counter-knives by pulling on crossmember (C).



Adjusting Counter-Knives (1450 and 1550)

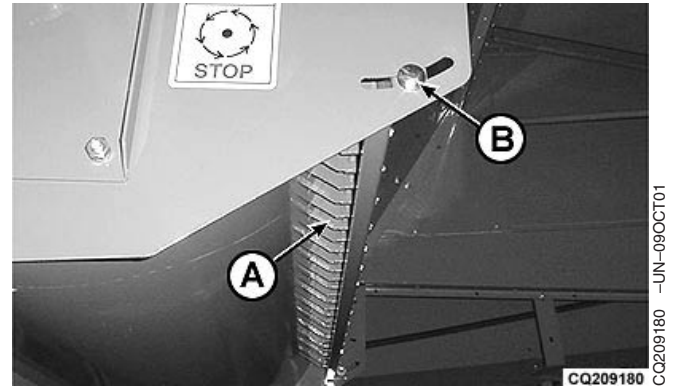
The length of chopped material can be modified by pivoting the counter-knives to a different angle.

IMPORTANT: Counter-knives should only be moved inward as far as absolutely necessary to prevent waste of engine power.

Recommended counter-knife positions:

- 1—Counter-knives horizontal for dry straw.
- 2—Counter-knives at slight angle for damp straw and weeds.
- 3—Counter-knives at extreme angle for rape and pea straw.

To adjust the counter-knives (A), slacken off screws (B) at both sides.



AG,CO03622,2041 -19-14MAR02-1/1

Chopping Corn and Sunflowers

IMPORTANT: To chop corn straw and sunflower stems, it is necessary to reduce rotor speed. All the counter-knives must be removed, but the counter-knife crossmember must remain in place. See “Reducing Straw Chopper Rotation Speed” in this Section to reduce rotor speed.

AG,CO03622,2042 -19-17MAY02-1/1

Replacing Rotating Knives

CAUTION: Always jam the rotor to prevent accidents when replacing rotating knives.

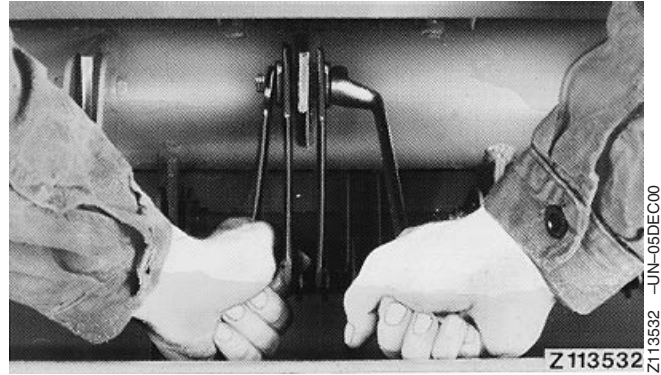
IMPORTANT: Note the following to avoid unbalancing the straw chopper.

Excessive vibration may be caused by broken knives. Remove the broken knife (together with the knife that is directly opposite) at once, and install replacement knives.

Do not sharpen knives that go dull. Instead, turn them round or replace them. This ensures that all the knives on the rotating knife shaft weigh approximately the same.

Always use screws of 10.9 grade with self-locking nuts. Tighten the cap screws to 65 N•m (47 lb-ft).

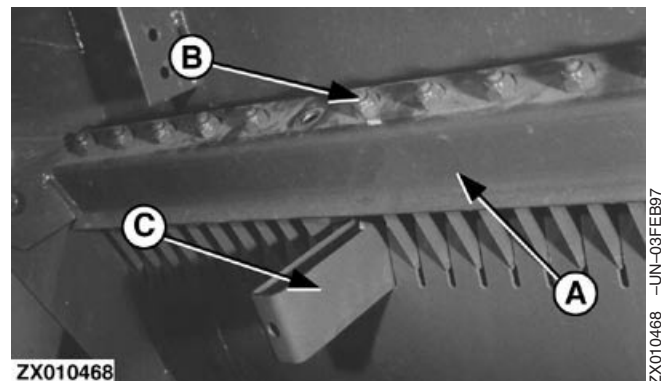
Install the screws from right to left (in direction of forward travel).



AG,CO03622,2047 -19-30AUG99-1/1

Replacing Counter-Knives

The counter-knives are bolted to the crossmember (A). Remove bolt (B) to remove counter-knife (C).

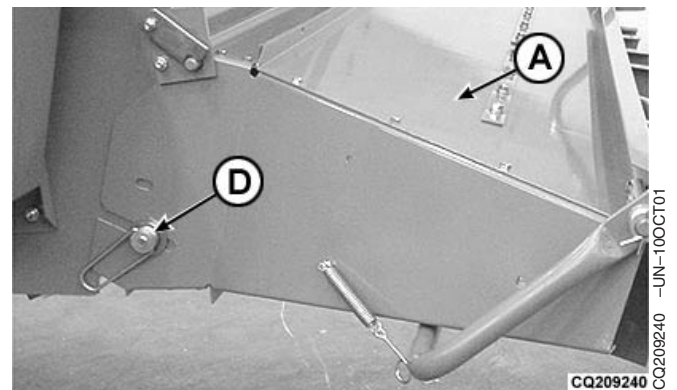
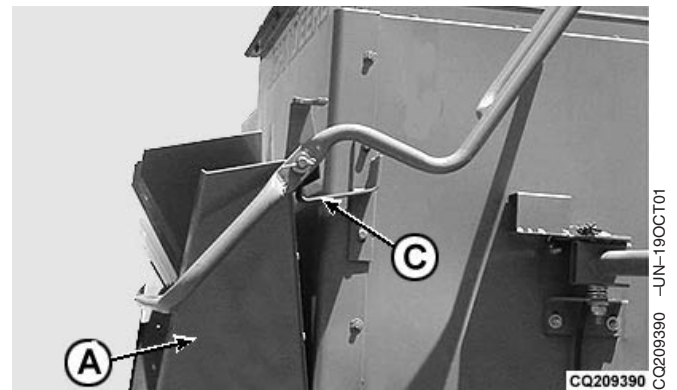
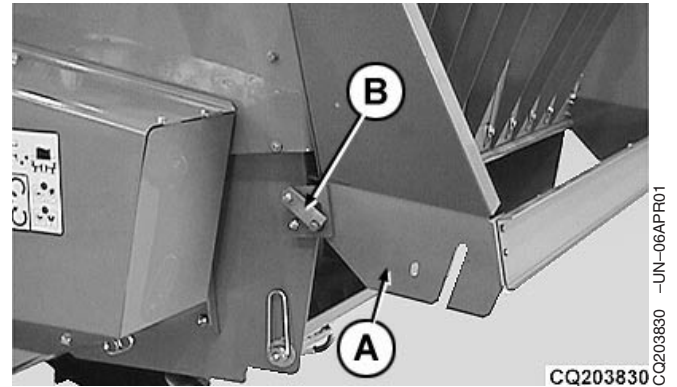


AG,CO03622,2048 -19-30AUG99-1/1

Moving Straw Distributor Into Operating Position

- Release latch (B) on each side to unlock straw distributor (A) from its transport position.
- Lift straw distributor (A) out of brackets (C) and move it down into operating position.
- Attach straw distributor (A) by means of attaching screws (D), then tighten securely on both sides.

A—Straw Distributor
B—Latch
C—Bracket
D—Attaching Screw

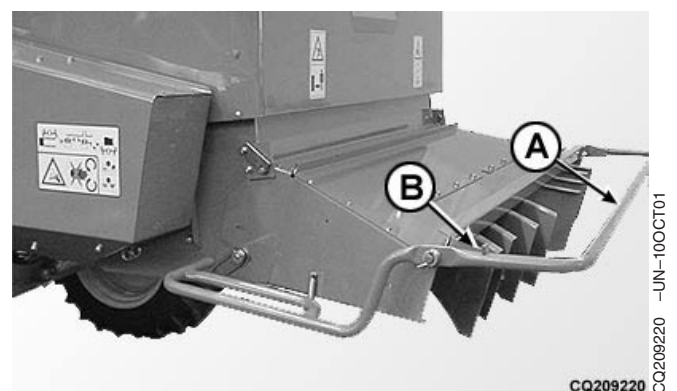


AG.CO03622,2025 -19-14MAR02-1/1

Relocating Guard Rail (CWS)

Disconnect retaining spring (C) and swing guard rail (A) as shown. Connect retaining spring again.

Secure guard rail (A) in this position with stops (B).

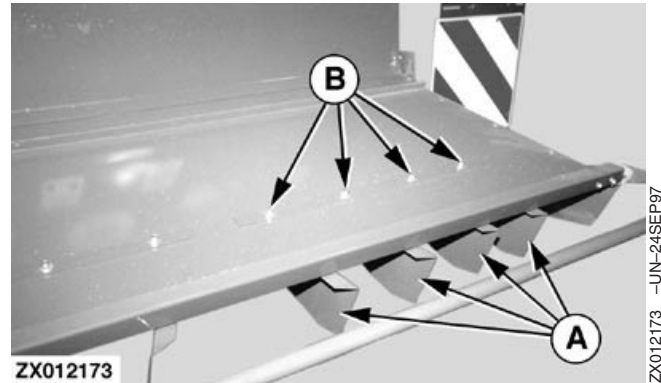


AG.CO03622,2026 -19-14AUG02-1/1

Adjusting Straw Deflectors

Each straw deflector (A) can be adjusted individually. First slacken off self-locking nut (B), then adjust straw deflectors (A) as required to regulate width of chopped material.

NOTE: The closer the top of deflectors (A) are to the middle, and the further apart they are at the bottom, the wider the spread of chopped material.

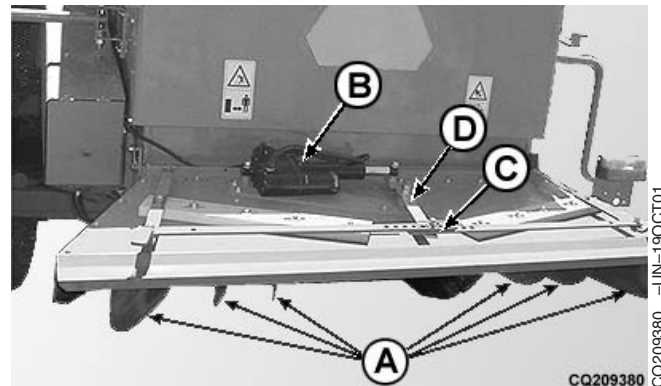


AG,CO03622,2040 -19-30AUG99-1/1

Adjusting Straw Deflectors — Electrical Straw Distributor (Option CWS)

Straw deflectors (A) are adjusted centrally by means of electric motor (B). The adjustment is made from the operator's cab.

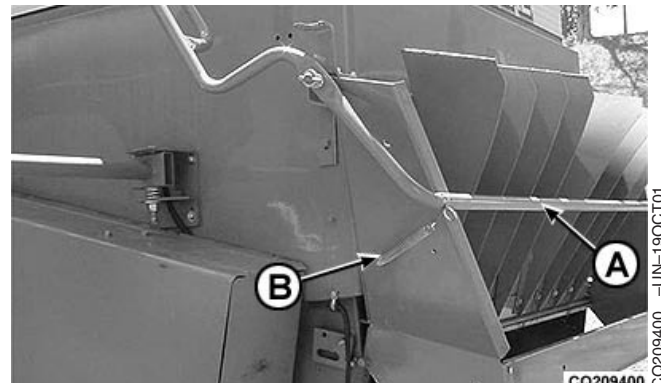
If the moisture of the straw changes, the spreading width can be changed quickly by moving slotted strips (C) at motor adjusting lever (D). Push slotted strips (C) outward for a wider spread, or inward for a narrower spread.



MB03730,00001F9 -19-14MAR02-1/1

Driving on Public Roads

CAUTION: It is forbidden to drive the combine on public roads with straw distributor in operating position and with straw chopper engaged. In certain countries guard rail (A) must be installed in the position shown opposite. Secure guard rail by means of retaining spring (B).

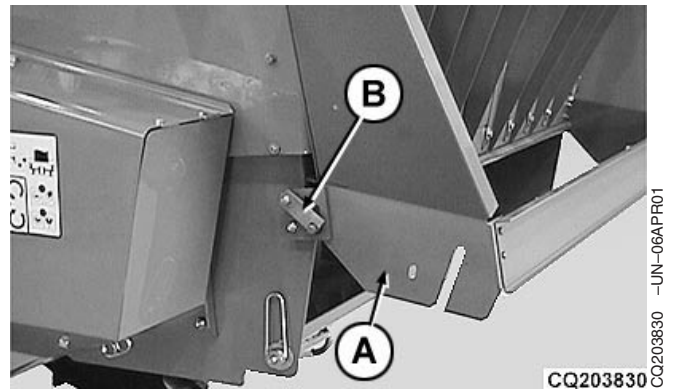
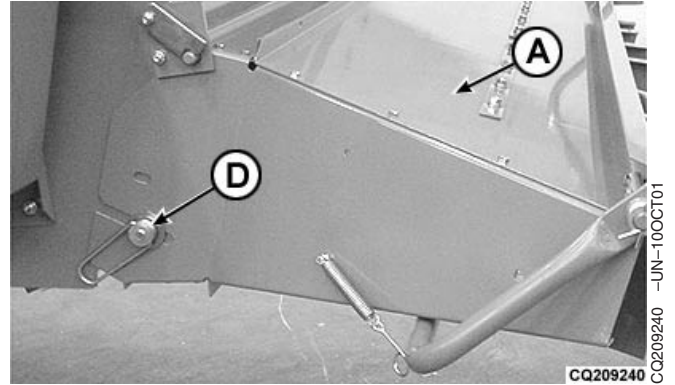


AG,CO03622,2045 -19-14MAR02-1/1

Moving Straw Distributor Into Transport Position

- Loosen attaching screws (D) on both sides of straw distributor (A).
- Swing straw distributor (A) upward and secure by means of brackets (C).
- Latch straw distributor on both sides (B).

A—Straw Distributor
B—Latch
C—Bracket
D—Attaching Screw



AG.CO03622,2046 -19-14MAR02-1/1

Chaff Spreader Drive (1450 and 1550)

To access to chaff spreader is required to remove the shield (A). See "Service — Drives and Shields".

The chaff spreader is driven from the rear left-hand straw walker shaft. Drive belt (B) is tensioned by means of two pulleys (C) which are under spring (D) tension.

- There is no adjustment.
- With insufficient belt tension, replace spring..

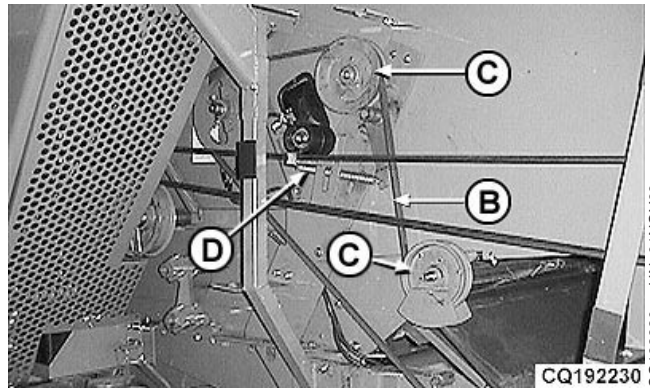


CAUTION: NEVER operate the combine without shields installed correctly!

- A—Shield
B—Drive Belt
C—Pulley
D—Spring



CQ192240 -UN-01NOV99



CQ192230 -UN-01NOV99

AG,CO03622,2182 -19-17MAY02-1/1

Folding Down the Chaff Spreader (1450 and 1550)

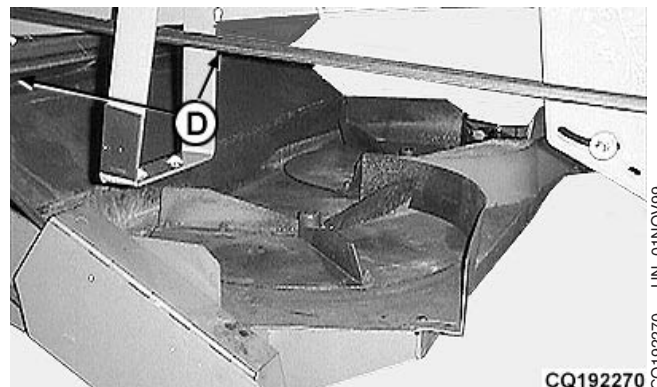
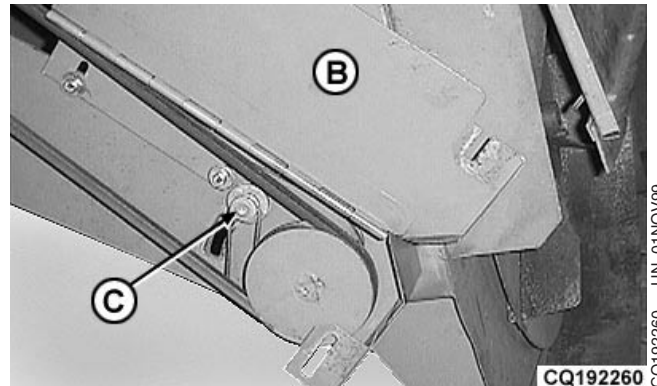
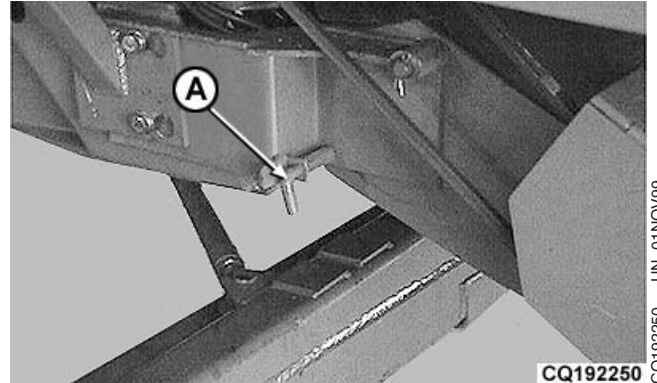


CAUTION: The Chaff Spreader is heavy and even being mounted, it's safe that two people fold down the chaff spreader.

— It's recommended to fold down the chaff spreader when it's necessary to work on the sieves and also on the straw walkers. It will make the access easier. It will make the access easier.

— Push out the handles (A) in both sides of the chaff spreader.

— Pull up the shield (B), loosen nut (C) and release lockers (D) and fold down the mechanism slowly until it gets in its position (Folded).



Chaff Spreader (1450 and 1550) — Placing Back in Working Position

Proceed the opposite procedure of folding down the chaff spreader to place it back in working position.

AG,CO03622,2184 -19-01MAR02-1/1

Chaff Spreader (1450 CWS and 1550 CWS)

The chaff spreader can be used both in vertical and horizontal position according to the culture that will be harvested:

Vertical Position

This position is indicated for cultures with smaller chaff size.

Horizontal Position:

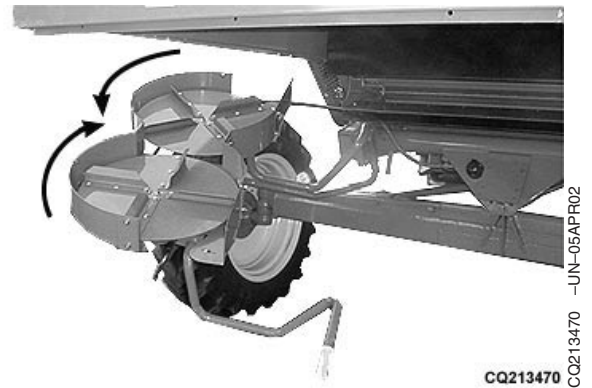
This position is indicated for cultures with larger chaff size.

MB03730,0001BB0 -19-05APR02-1/1

Chaff Spreader (1450 CWS and 1550 CWS) — Vertical Position



Chaff spreader in vertical position

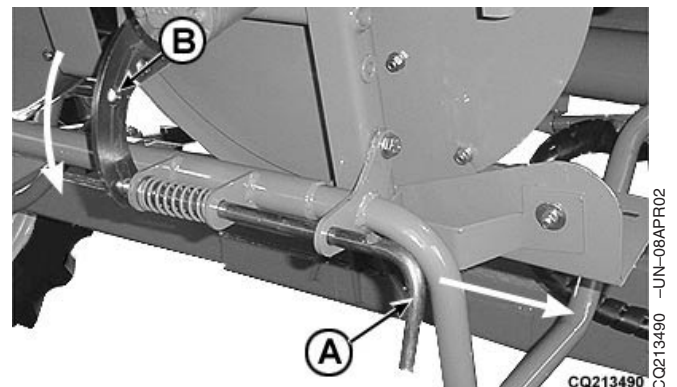


Rotation direction of disks and deflector sheets position for vertical position

MB03730,0001BB1 -19-05APR02-1/1

Chaff Spreader (1450 CWS and 1550 CWS) — Changing from Vertical to Horizontal Position

Pull pin (A) and turn chaff spreader to horizontal position until pin drops in hole (B).



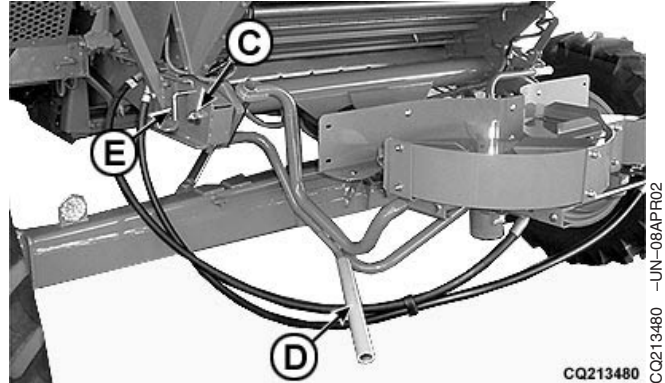
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MB03730,0001BB2 -19-29MAY02-1/5

Loose nut (C) turning at least one revolution.

Put lever (D) that is placed in tool box, on chaff spreader frame pin.

Pull pin (E) and lower chaff spreader with lever (D) until pin drops in other hole.

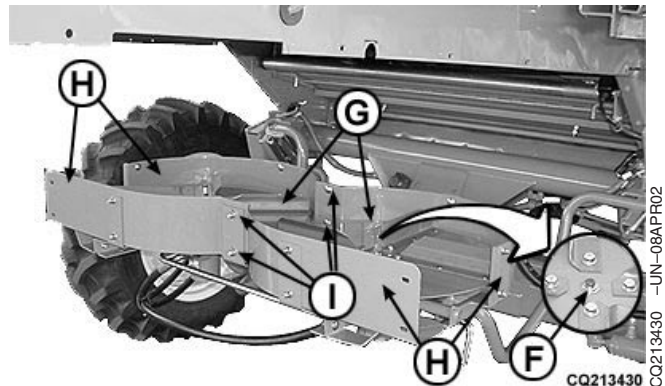


MB03730,0001BB2 -19-29MAY02-2/5

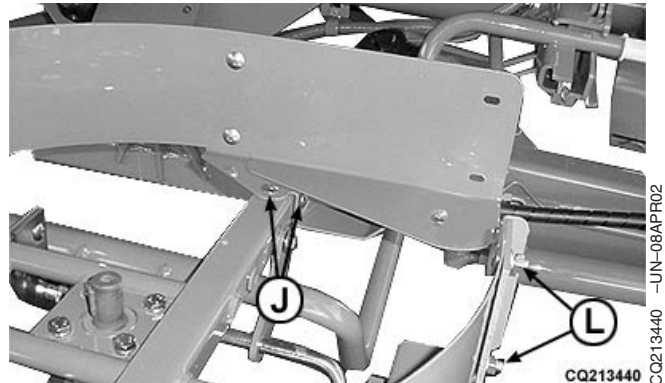
Remove central bolt (F) from both disks (G) and remove disks.

Remove deflector sheets (H) by loosening bolts (I), (J), (L) and (M).

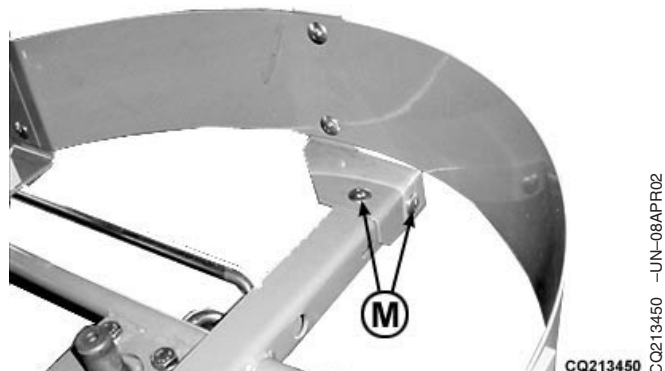
Invert position of disks (G) and deflector sheets (H).



Disks and deflector sheets assembled for horizontal position



Deflector sheet assembled for horizontal position

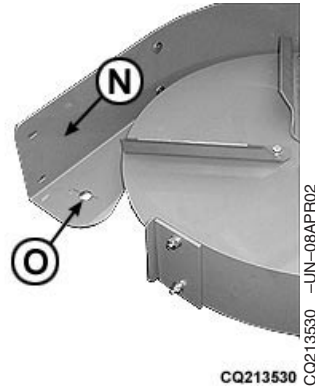


Deflector sheet assembled for horizontal position

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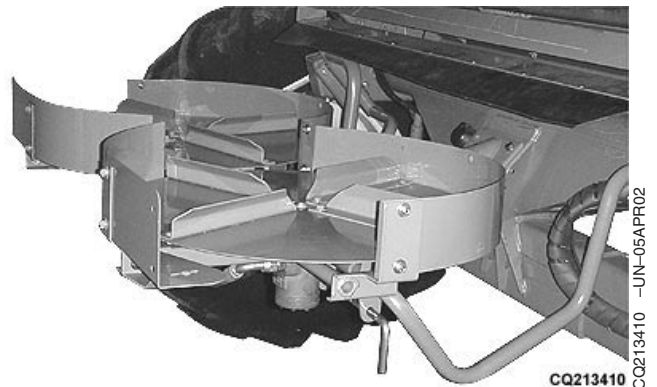
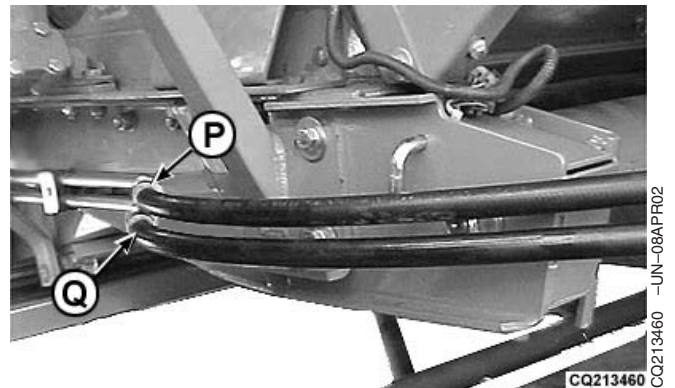
MB03730,0001BB2 -19-29MAY02-3/5

Deflector sheet (N) has also an adjustment in order to change chaff flow direction. The adjustment is done by loosening bolt (O) in both sides of chaff spreader.

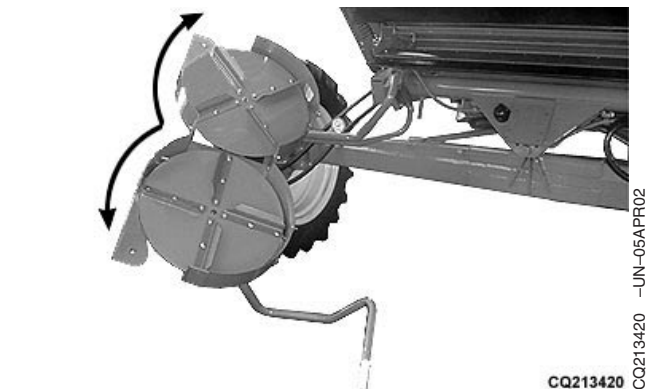


MB03730,0001BB2 -19-29MAY02-4/5

Invert hoses (P) and (Q) to invert chaff spreader disks rotation direction.



Chaff spreader in horizontal position



Rotation direction of disks and deflector sheets position for horizontal position

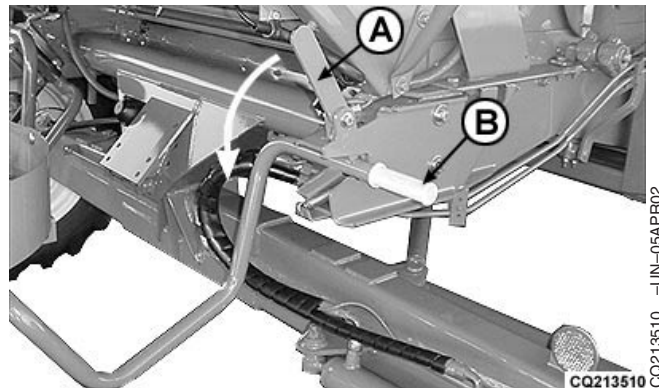
MB03730,0001BB2 -19-29MAY02-5/5

Chaff Spreader (1450 CWS and 1550 CWS) — Lateral Swing

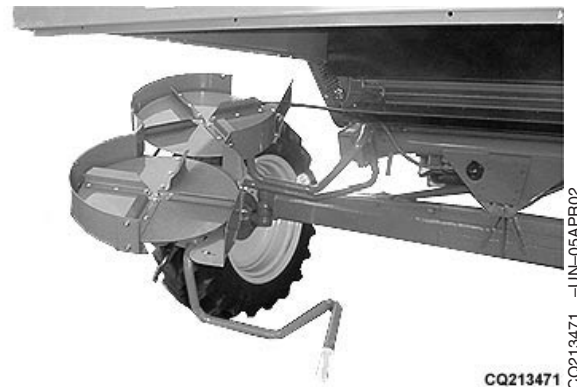
The lateral swing of chaff spreader can be done with spreader both in vertical and horizontal position. If chaff spreader is in vertical position it is necessary to dislocate only the set of disks to horizontal position to make possible the spreader swing.

MB03730,0001BB3 -19-05APR02-1/2

Pull lever (A) to release arm (B) and swing spreader.



CQ213510 -UN-05APR02



CQ213471 -UN-05APR02

Lateral swing of chaff spreader

MB03730,0001BB3 -19-05APR02-2/2

Chaff Spreader (1450 CWS and 1550 CWS) — Speed Adjustment

The speed adjustment is done through handle (A) and depend on the following items:

- Moisture of culture
- Amount of chaff
- Desired covering area

NOTE: *The chaff should be thrown uniformly over the rear tire.*

With the product very dry is necessary to reduce the chaff spreader speed to prevent the high dispersion of chaff.



MB03730,0001BB4 -19-05APR02-1/1

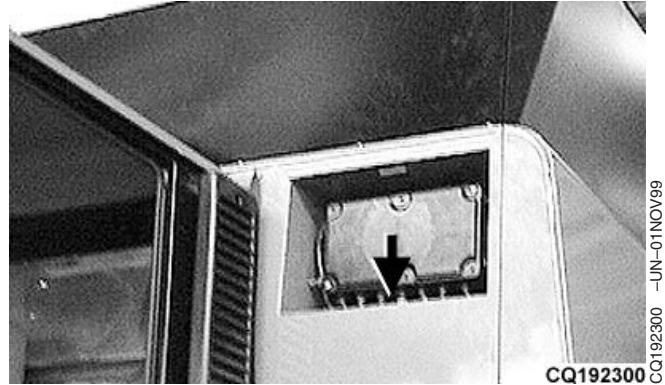
Grain Tank Loading and Unloading

Grain Tank Window

In the grain tank front wall there is a window to inspect the clean grain.

Between the grain tank wall and the electrical box, there is a space where a hand can be put in order to take clean grain samples..

NOTE: There is also a window behind the seat in the operator's cab.



AG,CO03622,2027 -19-27AUG99-1/1

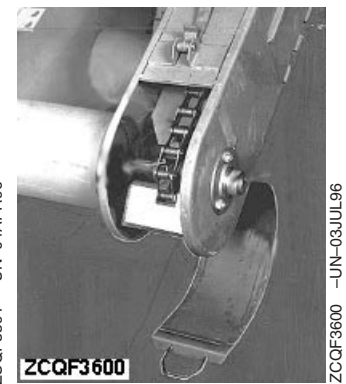
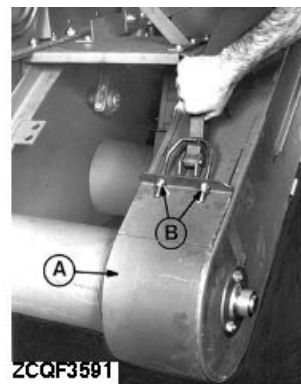
Lower Elevator Inspection Door

Open the elevator doors (A) at the end of each working day and run the elevators to clean them out. Also clean the elevators when changing crops while harvesting seeds.

Leave the doors open when not harvesting. Tighten nuts (B) as needed.

NOTE: When closing the lower inspection doors make sure that they fit perfectly to avoid grain losses.

Check elevator chains tensioning after the first hours of operation.



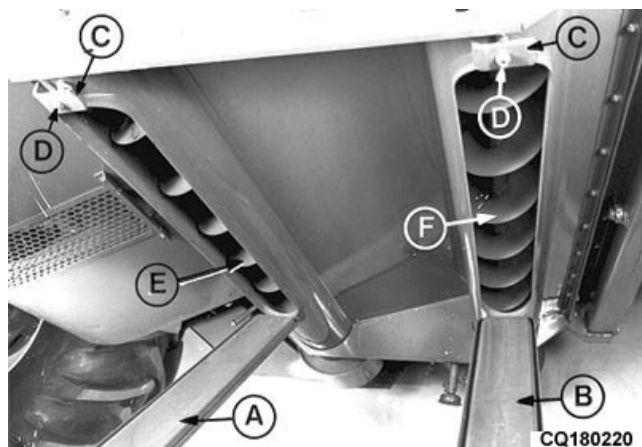
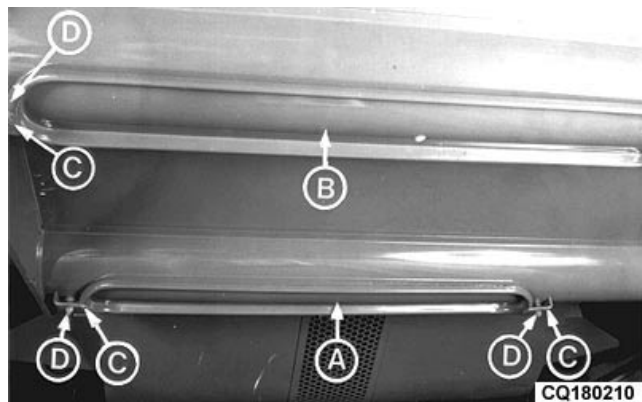
AG,CO03622,2049 -19-07OCT02-1/1

Elevator Augers

IMPORTANT: Thoroughly clean these areas when changing crops while harvesting seeds and at the end of the harvesting period.

Remove nuts (D) and clamps (C). Remove covers (A) and (B).

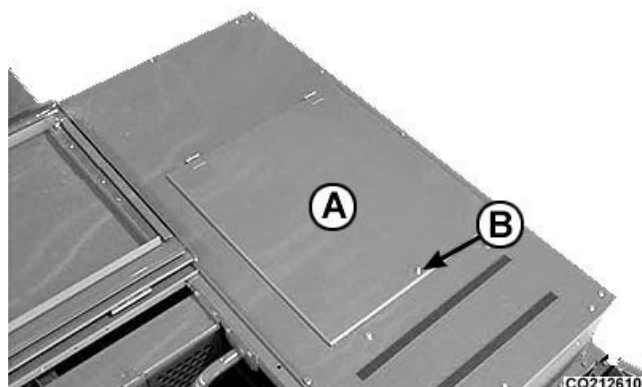
- A—Grain Elevator Auger Cover
- B—Tailings Elevator Auger Cover
- C—Clamps
- D—Hex Nuts
- E—Grain Auger
- F—Tailings Auger



AG,GG05155,335 -19-24FEB99-1/1

Clean Grain Elevator Upper Cover

Remove nut (B) to open upper cover (A).



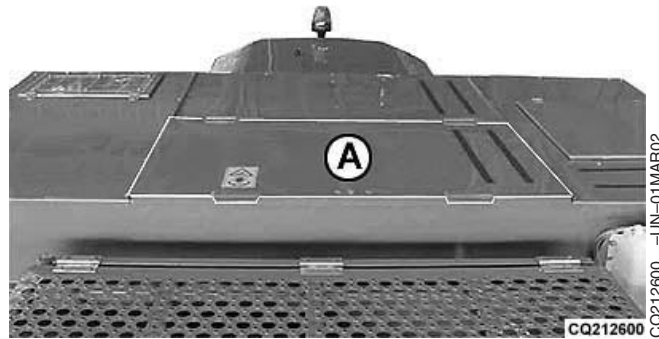
AG,CO03622,2050 -19-01MAR02-1/1

Grain Tank Cover

The grain tank has a cover. Access to the interior is via hatch (A).



CAUTION: Avoid accidents! Stop the engine before entering the tank for any reason.



AG,CO03622,2051 -19-01MAR02-1/1

Grain Tank Extension (Option CWS)

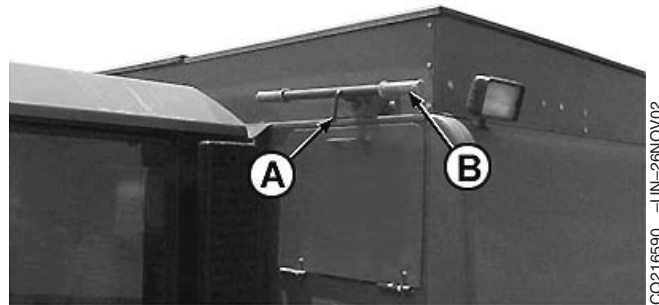
The grain tank extension has two positions, one for transport and another for harvesting.



CAUTION: The grain tank extension must be in transport position when the combine is transported on roads due the height limit.

Road position:

Pull locking lever (A) and turn lever (B) 180° counterclockwise until pin (A) fits into the hole.



Grain tank extension - transport position

Harvesting position:

Pull locking lever (A) and turn lever (B) 180° clockwise until pin (A) fits into the hole.



Grain tank extension - harvesting position

MB03730,0000021 -54-26NOV02-1/1

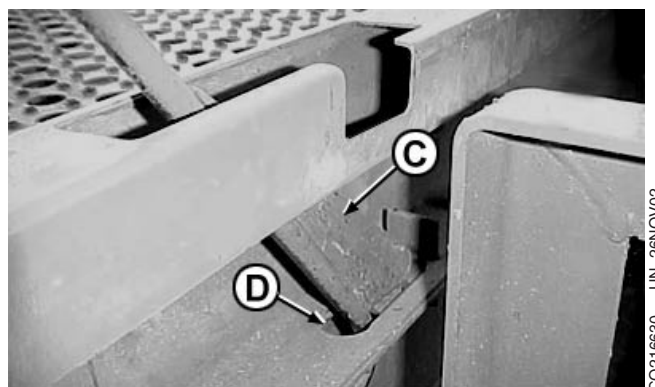
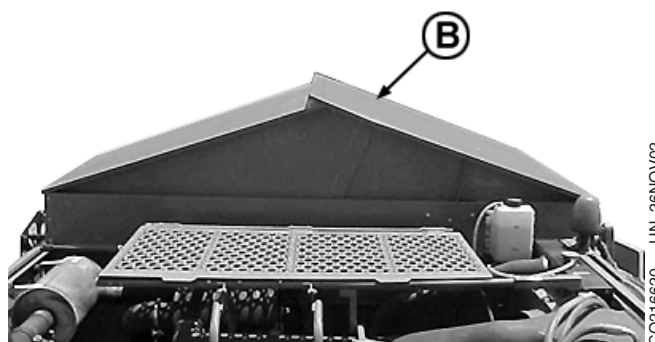
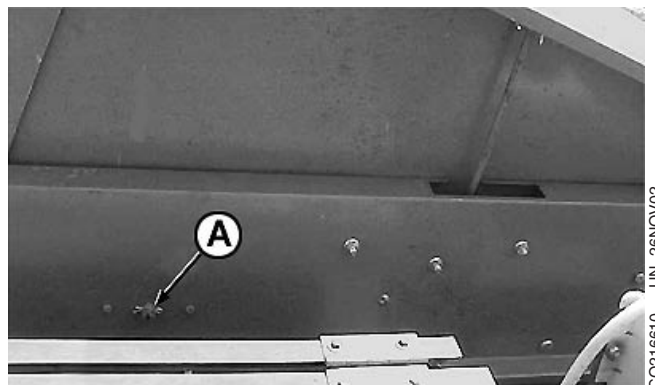
Access to Grain Tank (Option CWS)

For accessing the grain tank is necessary to follow the procedure below:

1. With an open end wrench, turn pin (A) counterclockwise until cover (B) is free to be raised.
2. Cover (B) should be raised until bar (C) goes through hole (D) to lock the cover in open position.

Closing the cover:

1. Turn pin (A) counterclockwise again closing the cover until the bar (C) is released.



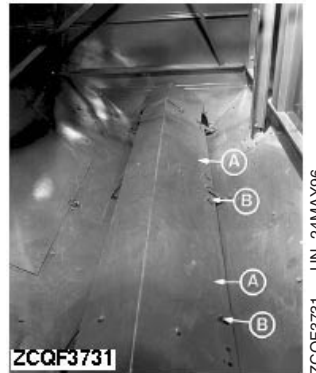
MB03730,0000022 -54-26NOV02-1/1

Lower Auger Covers

The cover plates (A) can be adjusted as required. Loosen hex nuts (B) to adjust.

NOTE: *It is recommend to leave the covers more closed for wet conditions and more open for dry condition.*

Covers should be more closed at the right side (clean grain elevator side).

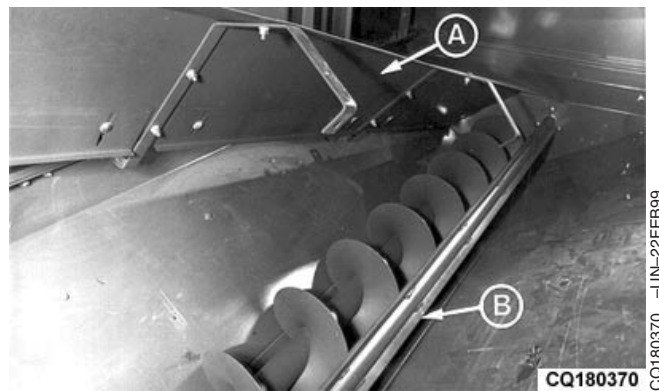


AG,CO03622,2052 -19-12NOV02-1/1

Auger Feeder

The grain tank unloading auger has a fluted cylinder to supply a continuous flow of material.

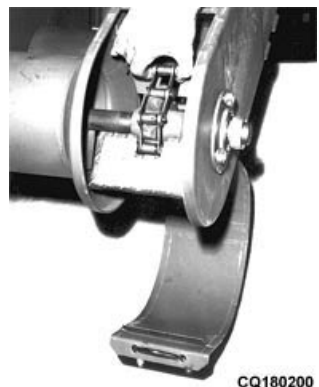
A—Cap
B—Auger Feeder



AG,GG05155,340 -19-15NOV02-1/1

Checking Elevator Conveyor Chain Tension

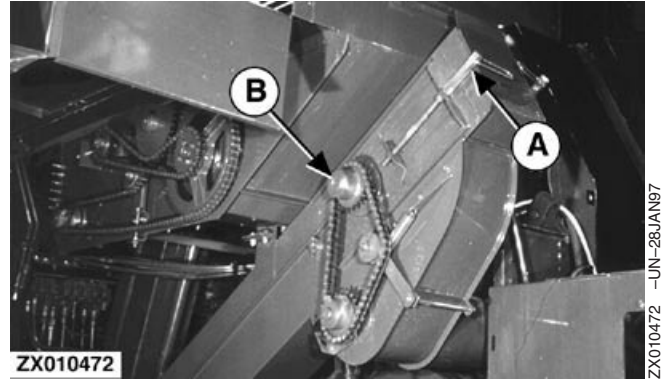
The elevator conveyor chains should be tightened so that the first chain link behind the sprocket can be moved 6 to 10 mm (0.2 to 0.4 in.).



AG,GG05155,334 -19-24FEB99-1/1

Adjusting Tailings Elevator Conveyor Chain

To adjust tension turn both handles (A) at the head of the elevator. This changes position of bearing housings (B) in their guides, tensioning chain. (See “Checking Elevator Conveyor Chain Tension” in this Section).



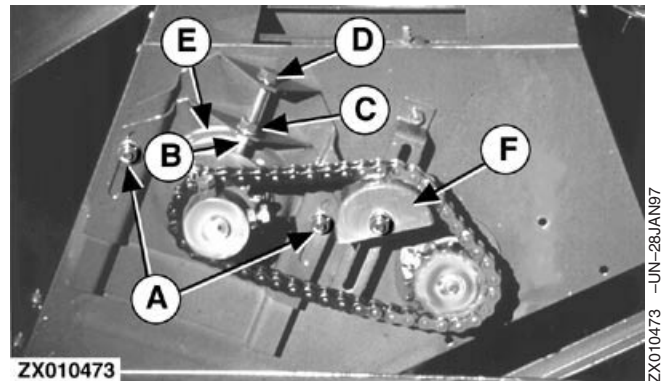
AG,CO03622,2054 -19-17MAY02-1/1

Adjusting Clean Grain Elevator Conveyor Chain

Loosen idler (F) and nuts (A) on both sides of the elevator. Loosen nut (B) and locknut (C) on tightener bolt (D). Adjust chain tension by using the tightener bolt (D) to move the bearing housing (E). Then tighten nut (B) and locknut (C).

Adjust both bearing housings equally. (See “Checking Elevator Conveyor Chain Tension” in this Section).

Tighten nuts (A). Adjust idler (F).



- A—Hex Nut
- B—Hex Nut
- C—Locknut
- D—Tightener Bolt
- E—Bearing Housing
- F—Tensioner sprocket

AG,CO03622,2055 -19-15NOV02-1/1

Fuel, Lubricants and Coolant

Fuel



CAUTION: Never fill tank when engine is running. During filling of tank, smoking is strictly prohibited!

The quality and cleanliness of the fuel is an important factor in obtaining dependable performance and satisfactory engine life. Use commercial diesel fuel which should be in accordance with Standard EN590.

Engine oil and oil filter change interval must be reduced by 50% if diesel fuel with a sulfur content greater than 0.5% is used.

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

IMPORTANT: The fuel tank cap is sealed and the tank is vented through a special vent. Therefore it is always necessary to replace it with an original vent.

CQ, COMBUST -19-13NOV01-1/1

Handle Fuel Safely Avoid Fires

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

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

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



TS202 -UN-23AUG88

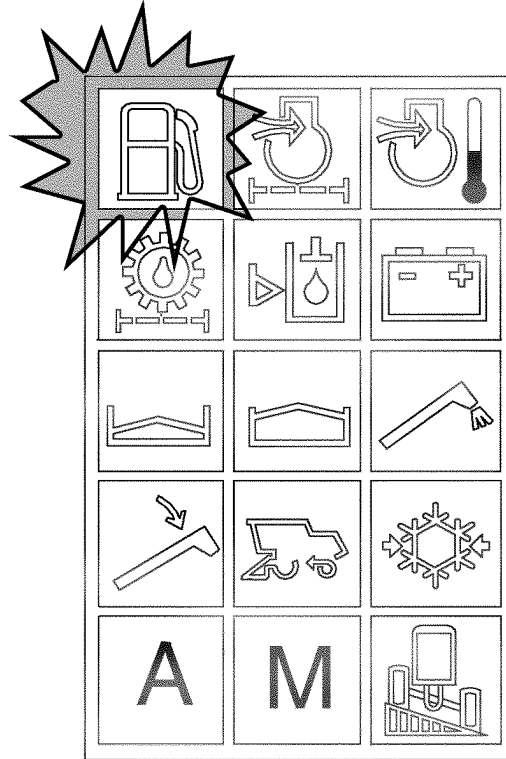
DX,FIRE1 -19-03MAR93-1/1

Filling Fuel Tank

⚠ CAUTION: Be careful when handling fuel. Stop the engine and, above all, do not smoke.

Fill the fuel tank at the end of each day of operation to avoid moisture condensation. Total capacity: 470 L (124 U.S. gal).

Lights up if fuel reserve in tank is approximately 50 L (13.2 U.S. gal)



CQ203530

AG.CO03622.2056 -19-14AUG02-1/1

CQ203530 -UN-30MAF01

Diesel Engine Oil (CWS)

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

The following oil is preferred:

- John Deere PLUS-50®

It is possible to extend the oil change period when using John Deere PLUS-50 oil, see "Lubrication Chart, Periodic Service".

The following oil is also recommended:

- John Deere TORQ-GARD SUPREME®

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

- API Service Classification CG-4
- API Service Classification CF-4
- ACEA Specification E3
- ACEA Specification E2
- CCMC Specification D5
- CCMC Specification D4

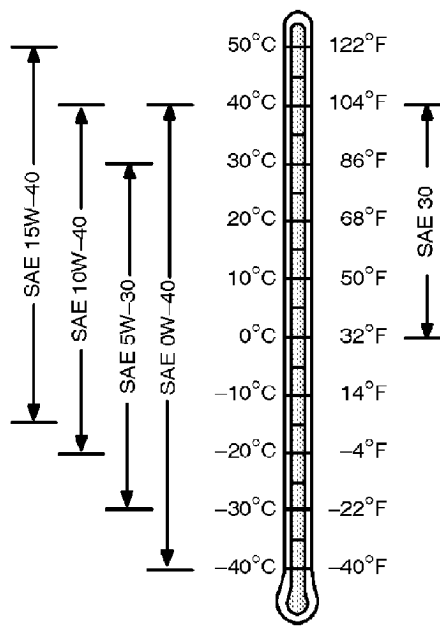
Multi-viscosity diesel engine oils are preferred.

If diesel fuel with sulfur content greater than 0.5% is used, reduce the service interval by 50%.

Extended service intervals may apply when John Deere preferred engine oils are used. Consult your John Deere dealer for more information.

ENGINE BREAK-IN OIL

New engines are filled at the factory with John Deere ENGINE BREAK-IN OIL. During the break-in period, add John Deere ENGINE BREAK-IN OIL as needed to maintain the specified oil level.



TS1661 -UN-10OCT97

NOTE: During the break-in period a higher-than-usual oil consumption should be considered as normal.

IMPORTANT: During the first 100 hours, under NO circumstances use John Deere PLUS-50 oil or any oil that meets the following: API specification CG-4, API specification CF-4, ACEA specification E2, ACEA specification E3 or CCMC specification D5. These oils do not satisfy the requirements for breaking in the engine.

Change the oil and filter after the first 100 hours of operation of a new or rebuilt engine.

CQ,ENOIL -19-07NOV02-2/2

Diesel Engine Oil SAE 15W-40 (1450 and 1550)

Multi-viscosity diesel engine oil (SAE 15W-40) is from the highest performance level, made with high quality basics and special additives.

It is indicated to service classification API SF/CF-4 or higher.

It also meets MBB228.3, MF 6610.00, VW505.00, Caterpillar TO-2, Allison C-3, Mack EO-K/2 and Cummins NTC 400 specifications. It is also approved by MWM, Perkins, Scania and Volvo.

The following oil is also preferred:

- John Deere PLUS-50®

It is possible to extend the oil change period when using John Deere PLUS-50 oil, see "Lubrication Chart, Periodic Service".

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

- API Service Classification CG-4
- API Service Classification CF-4
- CCMC Specification D5

- Mercedes Benz MB228.3

ENGINE BREAK-IN OIL

New engines are filled at the factory with John Deere ENGINE BREAK-IN OIL. During the break-in period, add John Deere ENGINE BREAK-IN OIL as needed to maintain the specified oil level.

NOTE: During the break-in period a higher-than-usual oil consumption should be considered as normal.

IMPORTANT: During the first 100 hours, under NO circumstances use John Deere PLUS-50 oil or any oil that meets the following: API specification CG-4, API specification CF-4, ACEA specification E2, ACEA specification E3 or CCMC specification D5. These oils do not satisfy the requirements for breaking in the engine.

Change the oil and filter after the first 100 hours of operation of a new or rebuilt engine.

PLUS-50 is a registered trademark of Deere & Company.

CQ, ENOILBR -19-07NOV02-1/1

Crankcase Capacities, Including Filter Change

- 1450 — Engine 6.8 L - 20 L (5.01 U.S. gal)
- 1550 — Engine 8.1 L -28.5 L (7.52 U.S. gal)
- 1450 CWS — Engine 6.8 L - 32 L (8.45 U.S. gal)
- 1550 CWS — Engine 6.8 L - 32 L (8.45 U.S. gal)

AG,CO03622,2057 -19-15NOV02-1/1

Air Compressor Crankcase Capacity

All the combines covered by this manual:

- 0,37 L (370 ml)

AG,CO03622,2191 -19-20OCT99-1/1

Engine Coolant



CAUTION: Dangerous if swallowed. Life risk!
Basic substance: Ethylene Glycol. If swallowed, call a doctor immediately. Avoid breathing it !
Do not keep it in open recipients or without a locking device. Wash yourself completely after having held the product. Excessive contact may cause serious problems to children. Keep out of reach of children.

— The concentrate antifreeze John Deere is a cooling antifreeze formed with special organic components.

— Developed to fulfill the requirements of current heavy duty engines.

— Provides protection against corrosion of the water pump.

— Stops cavitation and avoids freezing in winter and overheating in summer.

Characteristics:

- The use of John Deere Conditioner will be necessary if the engine has been used for a long time.
- Evaluate the amount of SCA (Supplemental Coolant Additives) annually or add SCA following the instructions given in the operator's manual, for the first time.
- The same product that engines are filled up in assembly line.
- Composition without phosphate

Biodegradable

Applications:

Recomendable for all John Deere Engines.

Using guidelines:



Engine Concentrate Cooling Antifreeze TY16034

CQ190750

CO190750 -UN-02SEP99



CAUTION: Never remove the radiator cover with the engine hot. Remove the ignition key to prevent accidental engine start.

1. Verify the cooling system to make sure that all connections are tighten and all components are in satisfactory conditions.
2. Inspect the thermostatic valves to make sure they are opening in the appropriate temperatures.
3. Drain the cooling system completely and fill it again with water. With the radiator cover open, start the engine for about 10 minutes.
4. Stop the engine. Drain the cooling system again. If the system still will be dirty, clean the radiator with a good quality cleaner to remove the rust, scales and sediments.
5. Previously mix in a recipient the cooling liquid TY 16034 with water of low mineral text, in the ratio of 1/2 of cooling liquid and 1/2 of water. Add the solution up to 25 mm above of the level in the radiator. The cooling liquid TY 16036 already comes diluido, being enough only to place it in the radiator.
6. Start the engine again with the radiator cover open, to mix the cooling liquid and to expel the air. Stop the engine and leave it to be cool.
7. Verify the cooling liquid level. If necessary, it needed add more solution.

REFRIMOTOR -19-15AUG02-2/2

Cooling System Capacity

Engine Coolant:

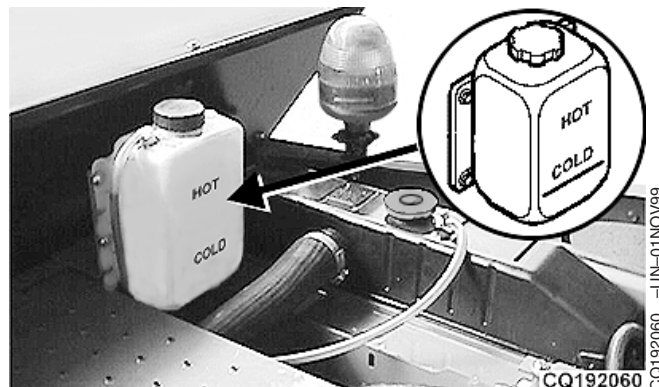
1450 CWS — Approximately 30 L (7.92 U.S. gal.)

1450 — Approximately 30 L (7.92 U.S. gal.)

1550 CWS — Approximately 30 L (7.92 U.S. gal.)

1550 — Approximately 38 L (10.03 U.S. gal.)

NOTE: The capacities of the cooling system are given approximately, therefore when supplying the system, the cooling level must be verified in the expansion tank of the radiator.



AG,CO03622,2058 -19-15AUG02-1/1

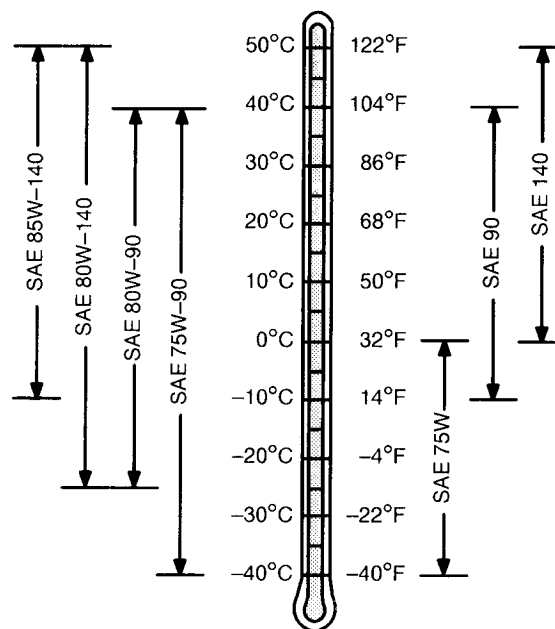
Transmission Oil

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

The following oils are preferred:

- John Deere GL-5 GEAR LUBRICANT
- John Deere EXTREME-GARD™

Other oils may be used if they meet API Service Classification GL-5.



TS1653 -UN-14MAR96

EXTREME-GARD is a trademark of Deere & Company.

DX,GEOIL -19-15NOV02-1/1

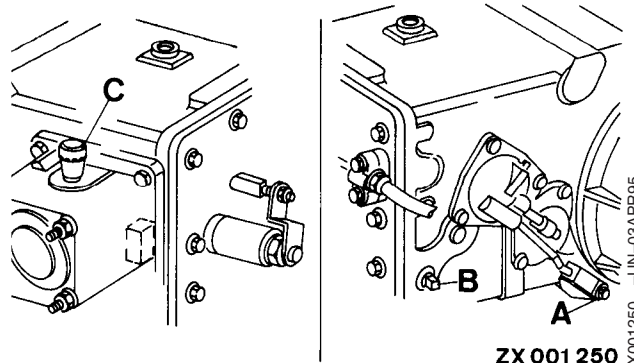
Use of Transmission Oil

Transmission

Capacity: 9 L (2.37 U.S. gal)

Recommended oil SAE 90.

- A—Drain Screw
- B—Level Plug
- C—Oil filler plug



ZX001250 -UN-03APR95

AG,CO03622,2060 -19-15NOV02-1/1

Final Drives

Recommended oil SAE 90.

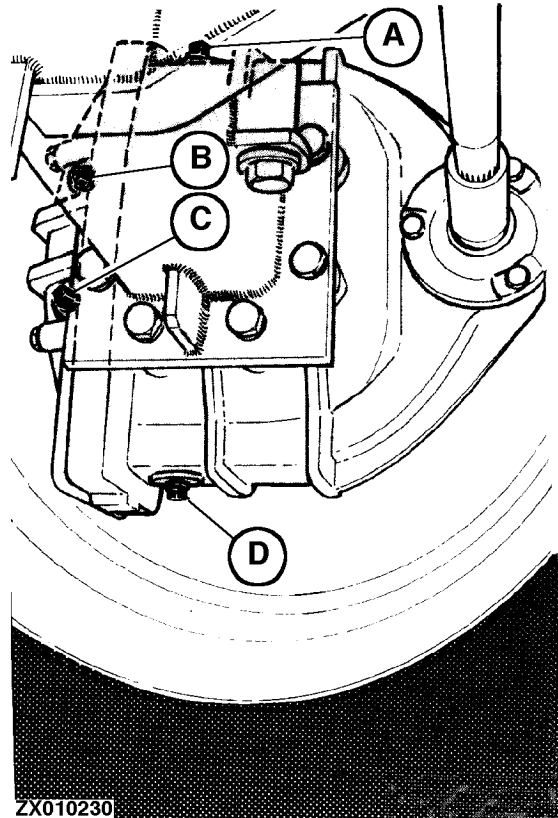
Capacity Final Drive Standard (each):

- 3 L (0.8 U.S. gal)

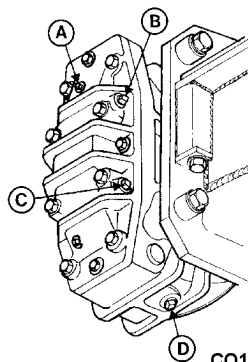
Capacity Final Drive Heavy Duty (each):

- 4.8 L (1.2 U.S. gal)

A—Oil Fill Cap
B—Breather Plug
C—Level Plug
D—Drain Screw



Standard Final Drive - 1450 and 1450 CWS



Heavy Duty Final Drive - 1550 and 1550 CWS

AG,CO03622,2061 -19-23OCT02-1/1

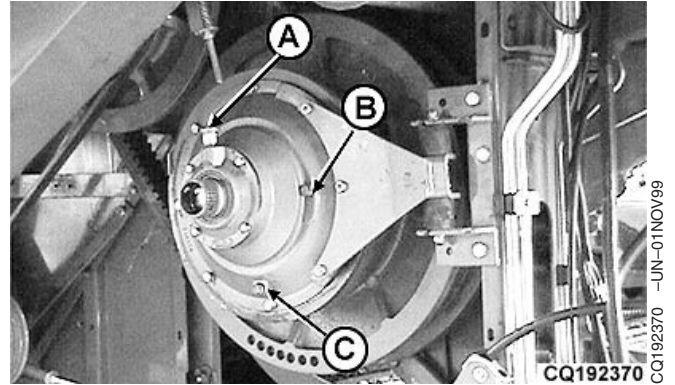
Cylinder Drive Reduction Gear

Recommended oil SAE 90.

Capacity:

- 1.6 L (0.42 U.S. gal)

A—Breather Plug
B—Oil filler and level plug
C—Oil drain plug



AG.CO03622,2187 -19-23OCT02-1/1

Chaff Spreader Gear Box (1450 and 1550)

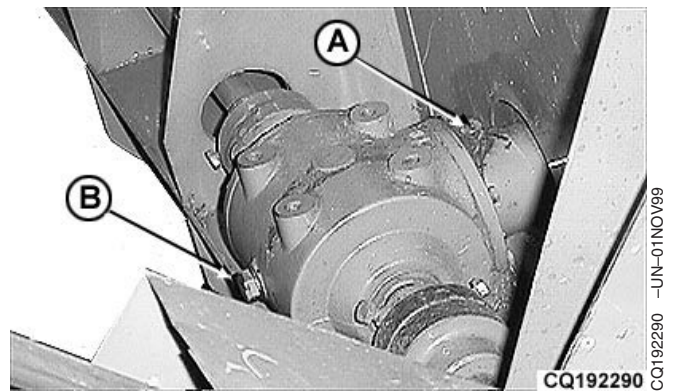
Recommended oil SAE 90.

Capacity (each):

- 0.55 L (0.14 U.S. gal)

NOTE: To fill up the chaff spreader gear box it's necessary to fold down chaff spreader, for details see "Chaff Spreader and Straw Chopper" Section.

A—Oil filler plug
B—Oil drain plug



AG.CO03622,2185 -19-23OCT02-1/1

System Hydraulic Oil

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

The following oils are preferred:

- John Deere HY-GARD®
- John Deere Low Viscosity HY-GARD®

The following oils are also recommended:

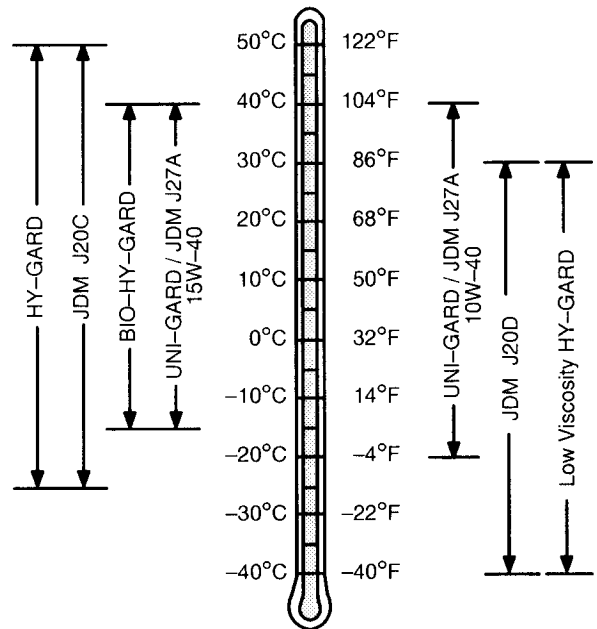
- John Deere UNI-GARD™
- John Deere BIO-HY-GARD™¹

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

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D
- John Deere Standard JDM J27A

IMPORTANT: Do not use engine oil for this application.

Arctic oils (such as Military Specification MIL-L-46167B) may be used at temperatures below -30°C (-22°F).



TS1650 -UN-14MAR96

HY-GARD is a trademark of Deere & Company
 UNI-GARD is a trademark of Deere & Company
 BIO-HY-GARD is a trademark of Deere & Company

¹BIO-HY-GARD meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. BIO-HY-GARD should not be mixed with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.

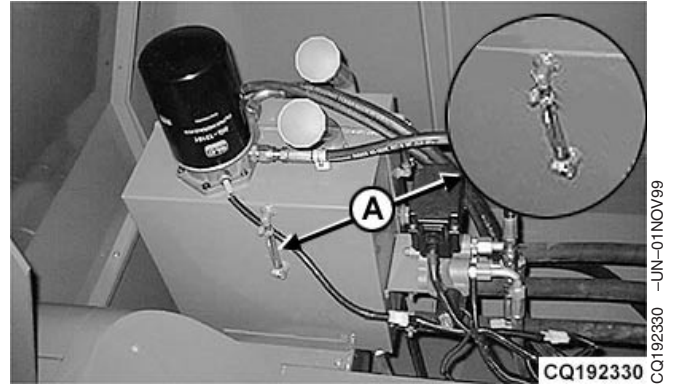
CQ, OLEOHIDR -19-15NOV02-1/1

Hydraulic System Oil - Capacity

Capacity (for all combines covered by this manual):

— 29 L (7.6 U.S. gal)

Check oil level at scale (A).



AG.CO03622,2064 -19-11OCT02-1/1

Hydrostatic Oil

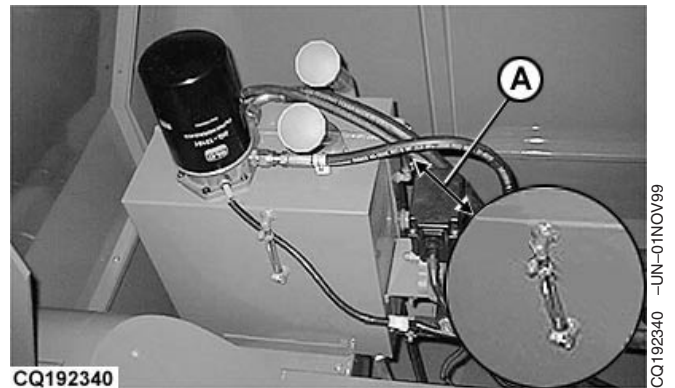
Capacity (for all combines covered by this manual):

— 24 L (6.3 U.S. gal)

Check oil level at scale (A).

Recommended oil:

John Deere Hy-Gard® oil.



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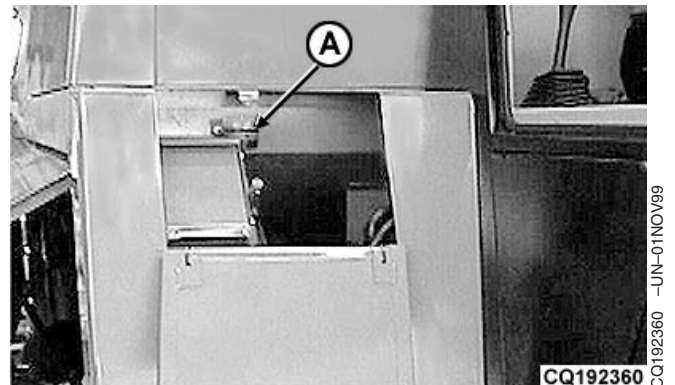
AG.CO03622,2065 -19-28MAY02-1/1

Brake Fluid for Brake System

The brake fluid reservoir (A) is located at the right front next to the tailings elevator.

IMPORTANT: Use only brake fluid that meets SAE Standard J 1703 (DOT 4).

- **Complete system:** 1.0 L (0.26 U.S. gal)
- **Reservoir:** 0.5 L (0.13 U.S. gal)



AG.CO03622,2067 -19-15NOV02-1/1

Grease

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

The following greases are preferred:

- John Deere SD POLYUREA GREASE

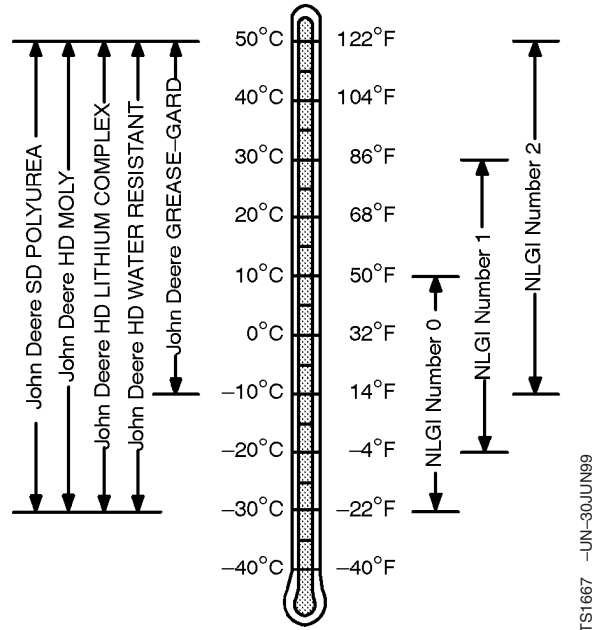
The following greases are also recommended:

- John Deere HD MOLY GREASE
- John Deere HD LITHIUM COMPLEX GREASE
- John Deere HD WATER RESISTANT GREASE
- John Deere GREASE-GARD

Other greases may be used if they meet the following:

- NLGI Performance Classification GC-LB

IMPORTANT: Some types of grease thickener are not compatible with others.



DX,GREA1 -19-07JUL99-1/1

Alternative and Synthetic Lubricants

Conditions in certain geographical areas may require lubricant recommendations different from those printed in this manual.

Some John Deere brand coolants and lubricants may not be available in your location.

Consult your John Deere dealer to obtain information and recommendations.

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

The temperature limits and service intervals shown in this manual apply to both conventional and synthetic oils.

Re-refined base stock products may be used if the finished lubricant meets the performance requirements.

DX,ALTER -19-15AUG02-1/1

Storing lubricants

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

Use clean containers to handle all lubricants.

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

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

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

DX,LUBST -19-15NOV02-1/1

Use Genuine John Deere Parts

Genuine John Deere parts have been specifically designed for John Deere machines.

Other parts are neither examined nor released by John Deere. Installation and use of such products could have negative effects upon the design characteristics of the machine and thereby affect its safety.

Avoid this risk by using only genuine John Deere parts.



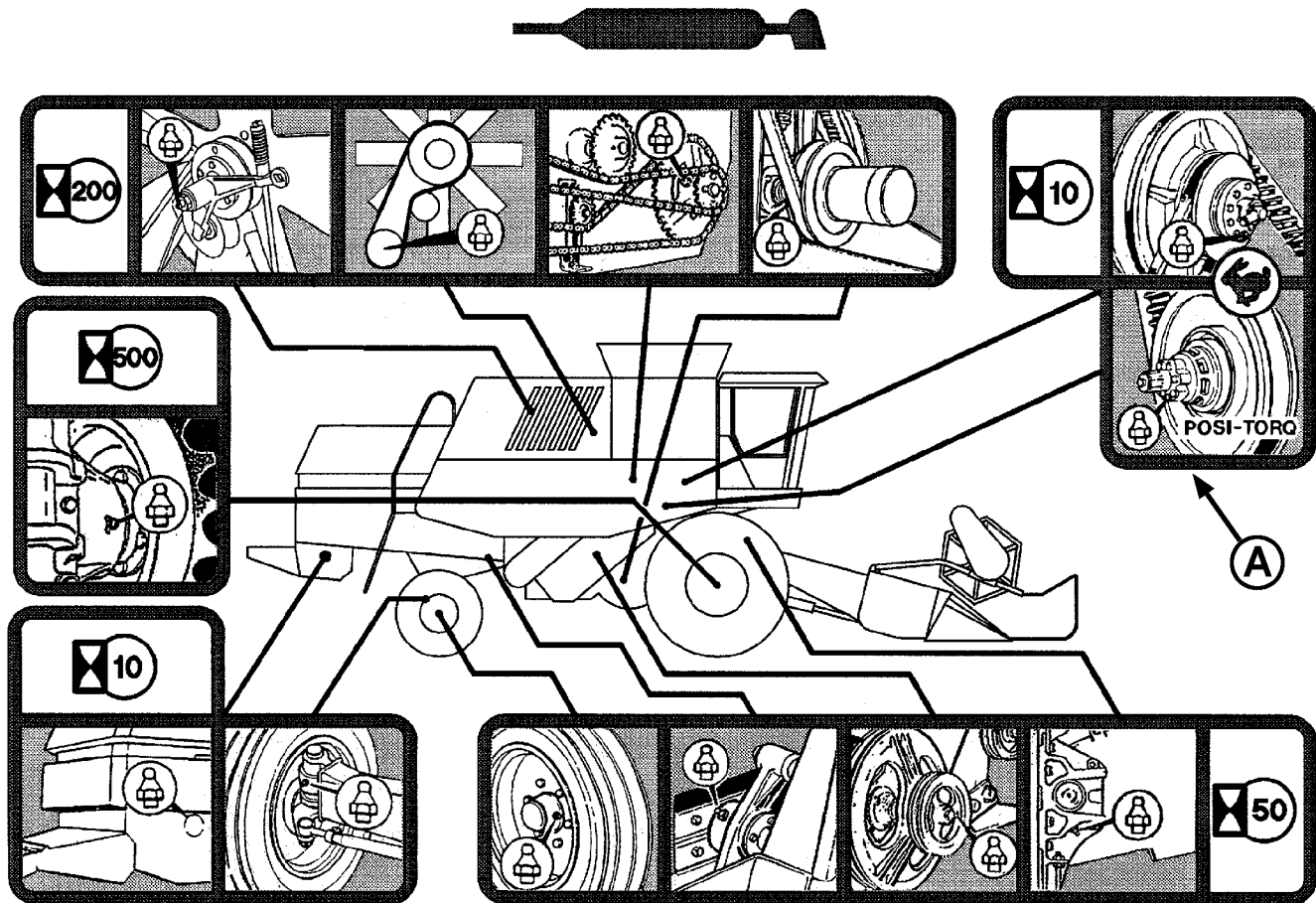
CQ203420

CQ203420 -UN-22MAR01

CQ,PCORIGIN -19-02SEP99-1/1

Lubrication Chart, Periodic Service

Lubrication Points — Right Side



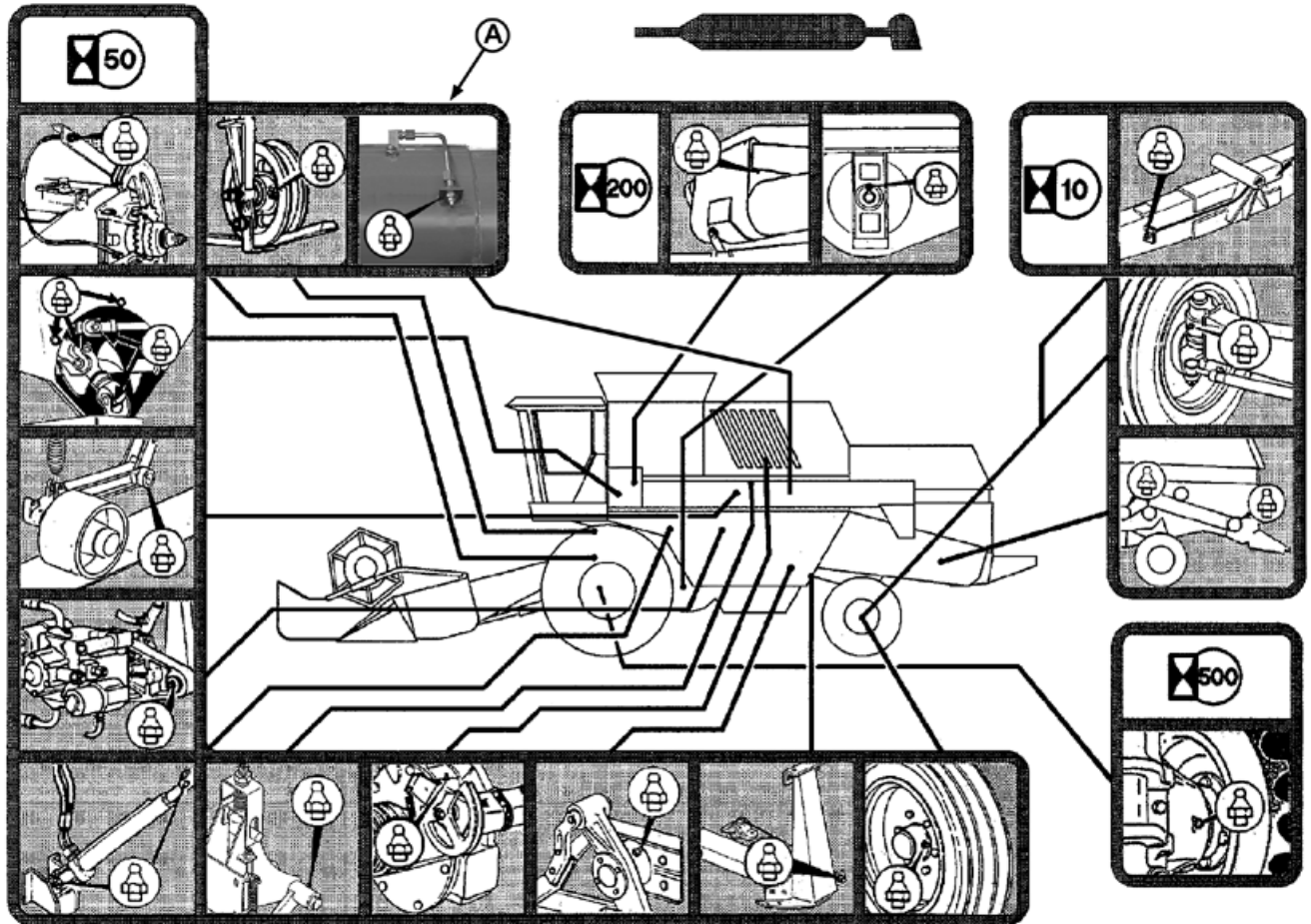
A—Only machines without
cylinder reduction gear

IMPORTANT: POSI-TORQ must be lubricated with
the half pulleys closed, as
illustrated.

CO208273 -UN-12NOV02

WH03730,00001F7 -19-12NOV02-1/1

Lubrication Points — Left Side



A—Only extra long unloading tube.

CQ209262 —UN-12NOV02

MB03730,0001BDA —19-12NOV02-1/1

Service During The Break-In Period

DURING THE FIRST 100 HOURS OF OPERATION

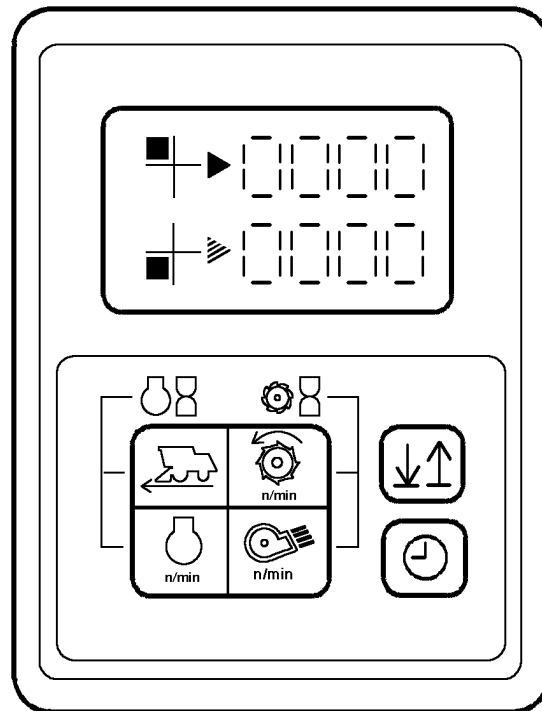
- ☐ Perform service daily or once every 10 operating hours (see this section and "Fuel, Lubricants, Coolant and Capacities").
- ☐ Do not idle the engine unnecessarily.
- ☐ Check coolant temperature repeatedly.
- ☐ Check engine oil and coolant level frequently. Look for signs of leaks.
- ☐ If it becomes necessary to top off with engine oil during the break-in period, select an oil of a viscosity corresponding to the seasonal requirements and the information in this section.
- ☐ Check that the hoses and hose clamps in the air intake system are secure.
- ☐ Check drive belts and adjust if necessary.

AG,GG05155,210 -19-17MAY02-1/1

Service Intervals

Observe the infotrak monitor and perform all service work at the intervals stated in the following pages. Make use of the keys for SERVICE hours (see "Warning Devices and Monitors" section).

IMPORTANT: The service intervals recommended here apply for normal operating conditions. If the combine harvester is used in abnormally difficult conditions, carry out service work more often.



ZX014262

ZX014262 -JUN-16JAN98

AG,CO03622,2073 -19-17MAY02-1/1

Every 10 Horas

- ☐ Engine oil level
- ☐ Air compressor, oil level
- ☐ Hydraulic system level
- ☐ Cooling system level
- ☐ Radiator screen
- ☐ Tires
- ☐ Hydrostatic drive oil level
- ☐ Fuel System
- ☐ Light functions
- ☐ Lubricate the 10 hours lubrication points.
- ☐ Check shift lock solenoid operating function (CWS)

After first 10 hours only:

- ☐ Retighten retaining screws between steering cylinder mounting and rear axle to 24 kgm (240 Nm; 174 lb-ft).

After first 40 hours only:

- ☐ Change oil of air compressor.

After first 50 hours only:

- ☐ Retighten front wheel nuts to 55 kgm (550 Nm; 400 lb-ft).
- ☐ Retighten rear wheel nuts to 18 kgm (180 Nm; 130 lb-ft).
- ☐ Retighten final drive retaining screws to 35 kgm (350 Nm; 252 lb-ft).
- ☐ Retighten retaining screws on 3-speed transmission.
- ☐ Retighten retaining screws on front axle.
- ☐ Lubricate the 50 hours lubrication points.
- ☐ Change gear box oil.

AG,GG05155,211 -19-08OCT02-1/1

After The First 100 Hours

Includes work described under "Every 10 Hours".

- ☐ Change engine oil and filter.
- ☐ Change final drives oil.
- ☐ Change hydraulic filter.
- ☐ Change hydraulic oil. (Only if not using John Deere **Hy-Gard**® oil).
- ☐ Change hydrostatic system filter.
- ☐ Change hydrostatic system oil. (Only if not using John Deere **Hy-Gard**® oil).
- ☐ Check drive belts tension and adjust if necessary.
- ☐ Check fuel system
- ☐ Check connections on fuel injection lines.
- ☐ Check that the hoses and hose clamps in the air intake system are secure.
- ☐ Check belts and chains.
- ☐ Check play of final drive flanged axle bearings.

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AG,GG05155,212 -19-17JUN02-1/1

Every 100 Horas

Includes work described under "Every 10 Hours".

- ☐ Clean operator's cab air filters.
- ☐ Check play of final drive flanged axle bearings.

MB03730,0001C17 -19-28MAY02-1/1

Every 200 Horas

Includes work described under "Every 10 Hours".

- ☐ Retighten front wheel nuts to 55 kgm (550 Nm; 400 lb-ft).
- ☐ Retighten rear wheel nuts to 18 kgm (180 Nm; 130 lb-ft).
- ☐ Change oil of air compressor.
- ☐ Correct setting of foot park brake.
- ☐ If necessary, readjust handbrake bowden cable.
- ☐ Check that screw unions and hose connections on turbocharger are secure.
- ☐ Check oil level in 3-speed transmission.
- ☐ Check oil level in final drives.
- ☐ Check level of brake fluid.

AG,GG05155,213 -19-19SEP02-1/1

Every 250 Horas

Includes work described under "Every 10 Hours".

- ☐ **(1450 and 1550)** Drain engine oil from crankcase and fill with new engine oil. Replace engine oil filter. (When using other oil than John Deere PLUS-50 or ACEA E5 oil specifications).
This interval can be extended to 375 hours for engines using John Deere PLUS-50 or ACEA E5 oil specifications.
- ☐ **(1450 CWS and 1550 CWS)** Drain engine oil from crankcase and fill with new engine oil. Replace engine oil filter. (When using other oil than John Deere PLUS-50 or ACEA E5 oil specifications).
This interval can be extended to 500 hours for engines using John Deere PLUS-50 or ACEA E5 oil specifications.

WH03730,0000203 -19-08MAR02-1/1

Every 500 Horas

Includes work described under "Every 10 Hours".

- ☐ Change hydraulic filter.
- ☐ Change hydraulic oil. (Only if not using John Deere **Hy-Gard**® oil).
- ☐ Replace fuel final filter.
- ☐ Replace filter element in water trap.
- ☐ Flush and drain radiator.
- ☐ Change gear box oil.
- ☐ Change hydrostatic transmission filter
- ☐ Change hydrostatic transmission oil. (Only if not using John Deere **Hy-Gard**® oil).
- ☐ Check brakes

HY-GARD is a registered trademark of Deere & Company

AG,GG05155,214 -19-17JUN02-1/1

Every 750 Horas

- ☐ **1550** - First adjustment of engine valve tappets.

MB03730,000001A -19-07OCT02-1/1

Every 1000 Horas

- ☐ Change final drives oil.
- ☐ **1450, 1450 CWS and 1550 CWS** - First adjustment of engine valve tappets.

MB03730,0001C18 -19-17JUN02-1/1

Every 1500 Horas

- ☐ Change hydraulic and hydrostatic transmission oil. (If using John Deere **Hy-Gard**® oil).

HY-GARD is a registered trademark of Deere & Company

MB03730,0001C15 -19-28MAY02-1/1

Every 2000 Horas

- ☐ Check adjustment of engine valve tappets.

MB03730,000001B -19-07OCT02-1/1

After Each Harvesting Season

Combine

Store the combine in a dry, sheltered area.

Carefully wash the interior and exterior of the combine. Powder and chaff fragments attract moisture and cause rust. To facilitate cleaning, run the combine for a few minutes with all inspection openings and doors open and the fan at maximum speed.

Clean with water, compressed air or a commercial vacuum.

Clean the augers and elevators and leave the elevator inspection doors open.

Thoroughly clean grain tank and unloading auger.

Coat the bottom of the feeder house with grease or oil to prevent rust.

Lubricate the combine according to the instructions in the grease chart.

Lubricate all joints and fittings that do not have zerks. Lubricate the adjusting bolt threads.

Loosen all belts to avoid stress points.

Clean and lubricate chains with oil or grease to prevent rust.

Clean the screens and grain pan with a good brush.

Lubricate the fin joints with an oil can.

Disengage the header and place it on wooden blocks.

Fully retract all hydraulic cylinders.

Inflate the tires and place the combine on jackstands to remove the weight from the tires.

Retouch any painted surfaces needing attention.

Make a note of all repair and maintenance work needed before the start of the next season.

To ensure work is done quickly and safely during the off season make an appointment with your John Deere dealer.

Engine



CAUTION: Do not use petroleum spirits to clean the engine.

Clean the outside of the engine with a good solvent.

Clean the outside of the radiator with a brush and water or compressed air.

Change the engine oil and filter.

Drain the oil when the engine is hot.

Run the engine for a few minutes.

Drain the fuel tank and rinse it with clean fuel.

Then, fill it completely.

Check the fuel filters and clean or change them as needed.

Clean the engine air intake and change the air cleaner primary and safety elements.

Check the battery electrolyte level and, if necessary, add distilled water (batteries not sealed).

Coat the cable terminals with petroleum jelly or grease.

Periodically run the engine at half throttle for about 30 minutes.

Belts



CAUTION: Never install belts with the engine running.

When installing a belt, loosen the idler pulleys. Never force the belt over the outside of the pulley as this could cause one or more strands to break and weaken the belt.

New belts stretch. For this reason check the tension of new belts several times during the initial days of use. Belts that are too tight or too loose can be damaged.

Never use a harsh product to clean belts. Never use turpentine or similar solvents. Clean belts with a rag

soaked in a solution of liquid ammonia or soap and water.

The service life of a belt also depends on pulley condition. A damaged pulley can also damage the belt.

Slight fraying of the outer belt layer does not mean a damaged belt. These frayed areas can be cut off.

IMPORTANT: After the end of harvesting, remove the belts and store them in a cool, dry area.

AG,GG05155,216 -19-16FEB99-1/1

Chains



CAUTION: Do not work on chains when the engine is running.

A chain drive will work longer without problems if installed and maintained correctly. The following information is important for keeping the machine in good condition and for reducing repair costs.

Check the chains frequently, primarily during the initial hours of operation. Adjust the idlers so that they maintain proper chain tension. The total deflection range of a chain should be 2% of the distance between the centers of the drive and driven sprockets.

For example:

If the distance between the shafts of the drive sprocket and idler sprocket is 250 mm (24.99 cm.), the chain should not hang by more than 5 mm (0.20 in.). This distance is measured in the center of the chain span

on the side opposite the idler sprocket. Make sure there is no chain deflection on the idler sprocket side before measuring the chain deflection on the opposite side.

A chain with excessive deflection will result in rapid and excessive wear of the chain rollers, sprocket teeth and chain-driven components.

A chain that is too tight can damage the bearings and shafts. Also, the chain itself wears faster.

Proper chain lubrication is important. Lubrication primarily reduces friction, cools and lessens the effect of minor impacts. The lubricant should penetrate between the plates in order to reach the remaining components (pins, caps and rollers).

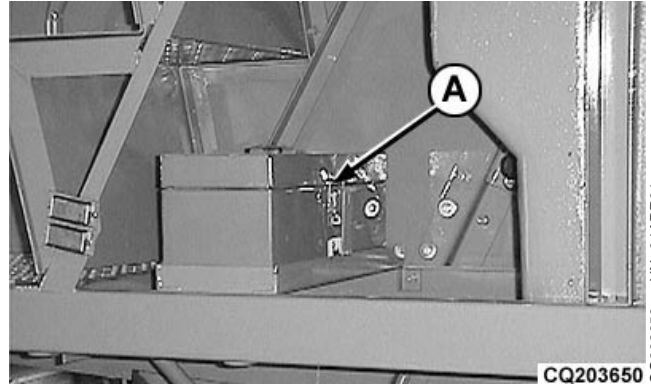
A graphite lubricant or medium-viscosity pure mineral oil is recommended.

AG,GG05155,217 -19-15NOV02-1/1

Service — Engine

Tool Box

To perform basic maintenance services and some adjustments, goes along with your combine a tool box (A), located under the ladder of the rear right service platform.

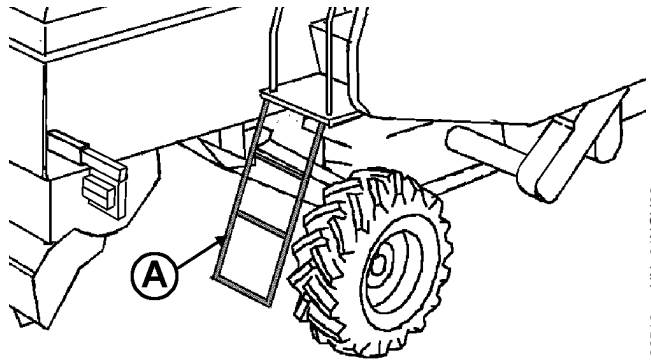


CO03622,0000068 -19-14MAR02-1/1

Access to Engine

Via rear service platform

Access to the engine is via the rear right service platform. Use ladder (A).



CQ192510

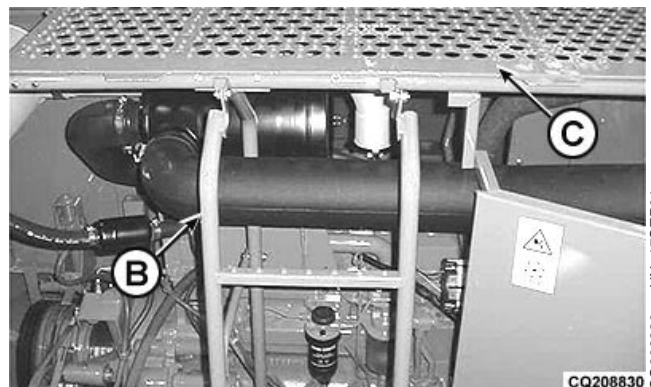
AG,CO03622,2074 -19-14MAR02-1/2

Via Grain Tank

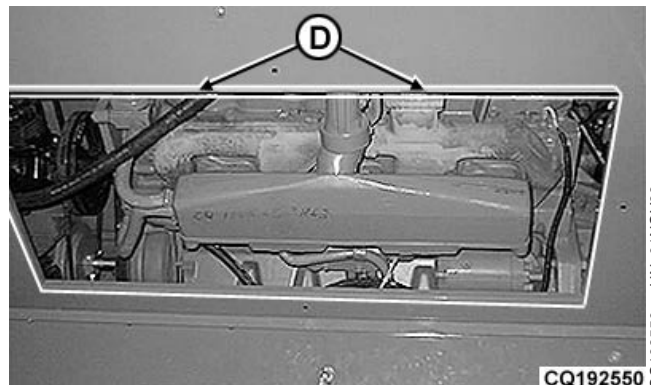
The engine compartment can be reached through ladder (B). Get to the deck (C) and then access to the grain tank.

Open service hatch (D) to gain access to the injection pump and the engine.

CAUTION: If it is really necessary to get into the grain tank, shut off engine and remove key!



CQ208830



CQ192550

AG,CO03622,2074 -19-14MAR02-2/2

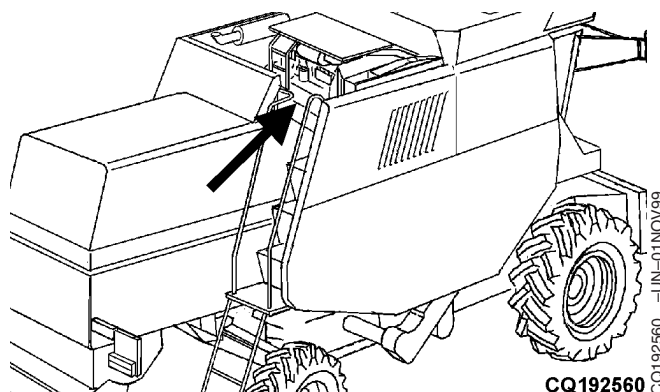
Engine Compartment



CAUTION: A combination of dirt, oil and chaff in the engine compartment represents a fire hazard.

Keep engine and engine compartment clean at all times.

If necessary, clean engine compartment by blowing out dirt with compressed air. Wipe clean any soil deposits.



AG.CO03622,2075 -19-14MAR02-1/1

Adjusting Engine Valve Tappets

NOTE: Have valve tappet clearances checked by your John Deere dealer and get him to carry out any adjustments that might be necessary.

Have valve tappet clearances checked by your John Deere dealer according to Engine/Combine model.

Engine 6.8 L — Combines 1450, 1450 CWS and 1550 CWS

After the first 1000 hours of operation and every 2000 hours thereafter.

Engine 8.1 L — Combines 1550

After the first 750 hours of operation and every 2000 hours thereafter.



AG.CO03622,2077 -19-14MAR02-1/1

Checking Engine Crankcase Oil Level

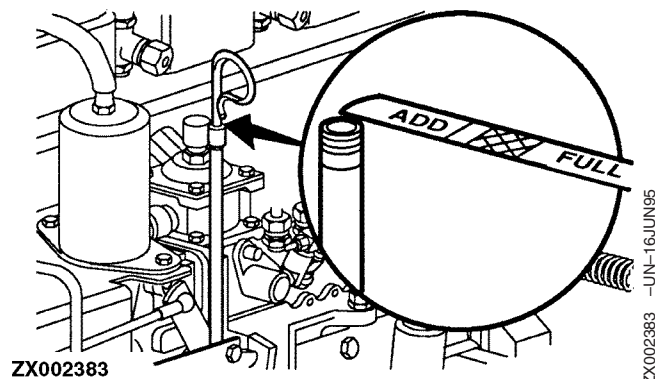
To prevent interruption of lubrication oil circulation when the engine is in an inclined position, never allow oil to drop below minimum oil level.

IMPORTANT: It is vital to maintain the engine oil at the correct level to ensure a long service life. Check oil level with combine standing on level ground.

Before removing dipstick, clean surrounding area thoroughly.

Check engine crankcase oil level after every 10 hours of operation.

The oil level should be between upper and lower marks on dipstick



AG,CO03622,2078 -19-14MAR02-1/1

Changing Oil and Filter

IMPORTANT: Observe the utmost cleanliness when installing replacement filter element or changing the oil.

Run the engine for approx. 5 minutes to heat up oil.

Then shut engine off.

Drain oil while it is still warm.

Open oil drain plug (A) or (B) and drain oil from crankcase.

Remove oil filter (see arrow).

Throw away sealing ring and clean mounting surface where sealing ring is fitted. Apply a thin coat of oil to new sealing ring and install it together with the new oil filter. When sealing ring is just touching the mounting surface, tighten filter manually by another 1/2 to 3/4 of a revolution. Do NOT overtighten filter.

Close oil drain plug (A) or (B) again.

Fill engine crankcase with oil of the specified viscosity and quality.

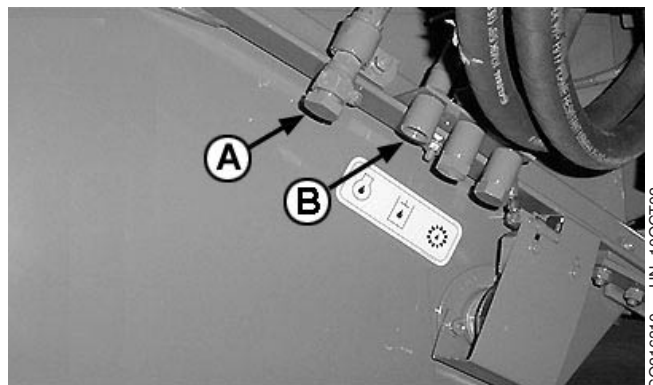
Capacity (with filter change):

- 1450 — Engine 6.8 L — 20 L (5.01 U.S. gal.)
- 1550 — Engine 8.1 L — 28.5 L (7.52 U.S. gal.)
- 1450 CWS — Engine 6.8 L — 32 L (8.45 U.S. gal.)
- 1550 CWS — Engine 6.8 L — 32 L (8.45 U.S. gal.)

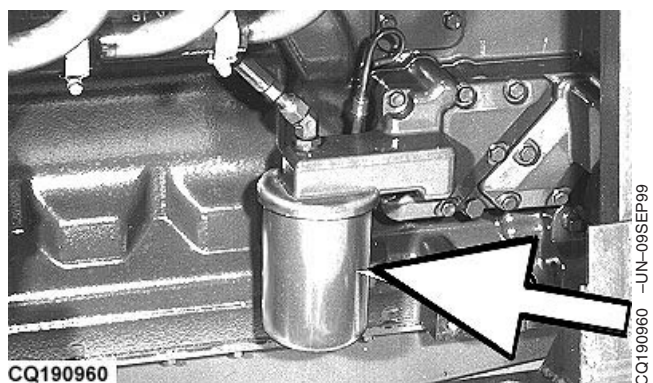
NOTE: The actual capacity may vary slightly from the figure stated above. Fill crankcase until the oil is up to the upper mark on the dipstick. Do not overfill!

IMPORTANT: Directly after completing an oil change and/or filter change, crank the engine for 30 seconds. This ensures that all the engine components are thoroughly lubricated when the engine is started.

Start the engine and check for leaks.

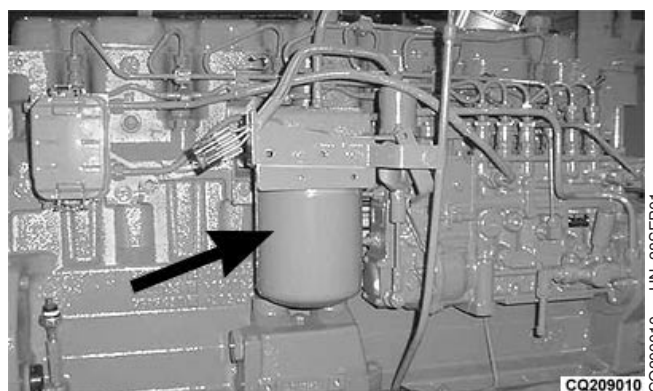


CO216310 —UN—10OCT02



CO190960 —UN—09SEP99

Filter — Engine 6.8 L



CO209010 —UN—28SEP01

Filter — Engine 8.1 L

A—Oil draining - 1550

B—Oil draining - 1450, 1450 CWS and 1550 CWS

Shut off engine and wait 10 minutes before checking the oil level. The oil should still be up to the upper mark on the dipstick.

AG,CO03622,2079 -19-11OCT02-2/2

Changing Oil of Air Compressor

Open the Filler neck and oil level (A) and Drain plug (B), letting the oil get into a suitable recipient.

Tighten drain plug (B).

Fill with the recommended oil. See section “Fuel, Lubricants and Coolant”.

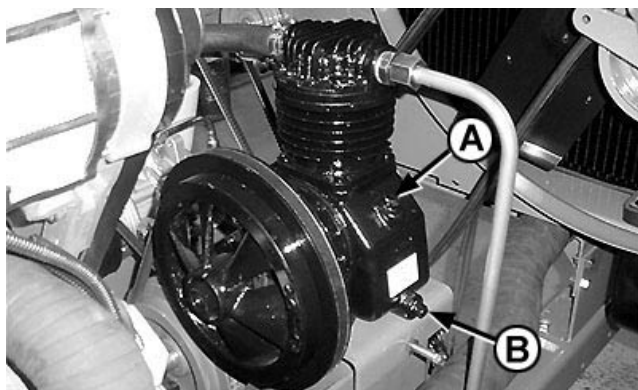
Air compressor crankcase capacity:

0,37 L (370 ml ; 0.097 U.S. gal)

Check on the dipstick the oil level.

The oil level should be between upper and lower marks on dipstick

NOTE: *At the first 50 hours of operation the air compressor will have a higher oil consumption, because of this it is very important to check the oil level daily and refill, if necessary. After the first oil change the consumption will be reduced to minimum.*



A—Filler neck and oil level
B—Drain Plug

AG,CO03622,2190 -19-11OCT02-1/1

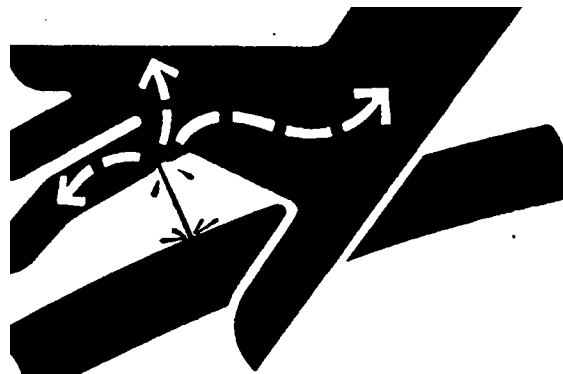
Avoid high-Pressure Fluids

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

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

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

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.



X9811 -UN-23AUG88

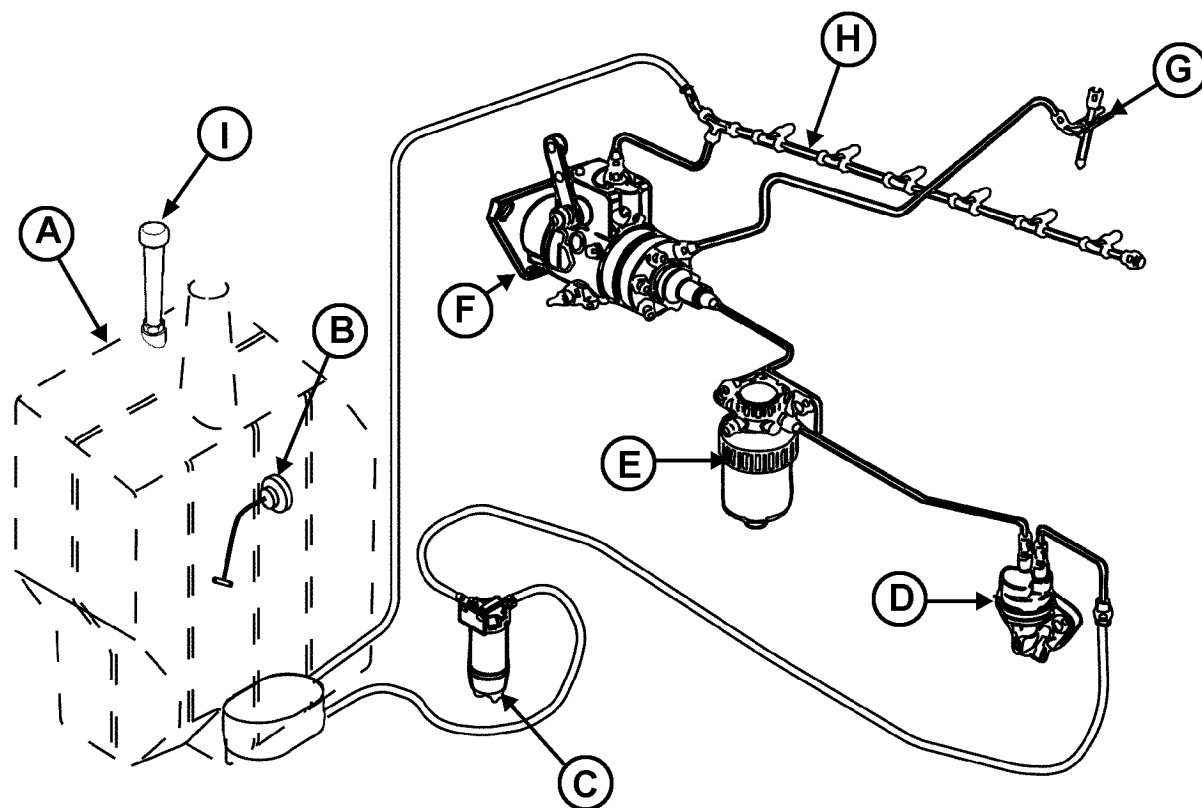
DX,FLUID -19-15AUG02-1/1

Do Not Modify Fuel System

IMPORTANT: Modification or alteration of the injection pump, injection pump timing or fuel injectors in ways not recommended by the manufacturer will terminate the warranty obligation to the purchaser. See warranty information inside front cover. Do not attempt to service injection pump or fuel injectors yourself. Special training and special tools are required. Consult your John Deere dealer. Never steam clean or spray water on a warm injection pump. This could cause damage to pump parts.

AG,GG05155,222 -19-15NOV02-1/1

Fuel System on 6.8 L Engines (1450)



Enngine 6.8 L — 1450

A—Fuel tank

B—Fuel gauge sending unit

C—Water trap

D—Mechanical fuel transfer
pump

E—Fuel filter

F—Injection pump

G—Injection nozzle

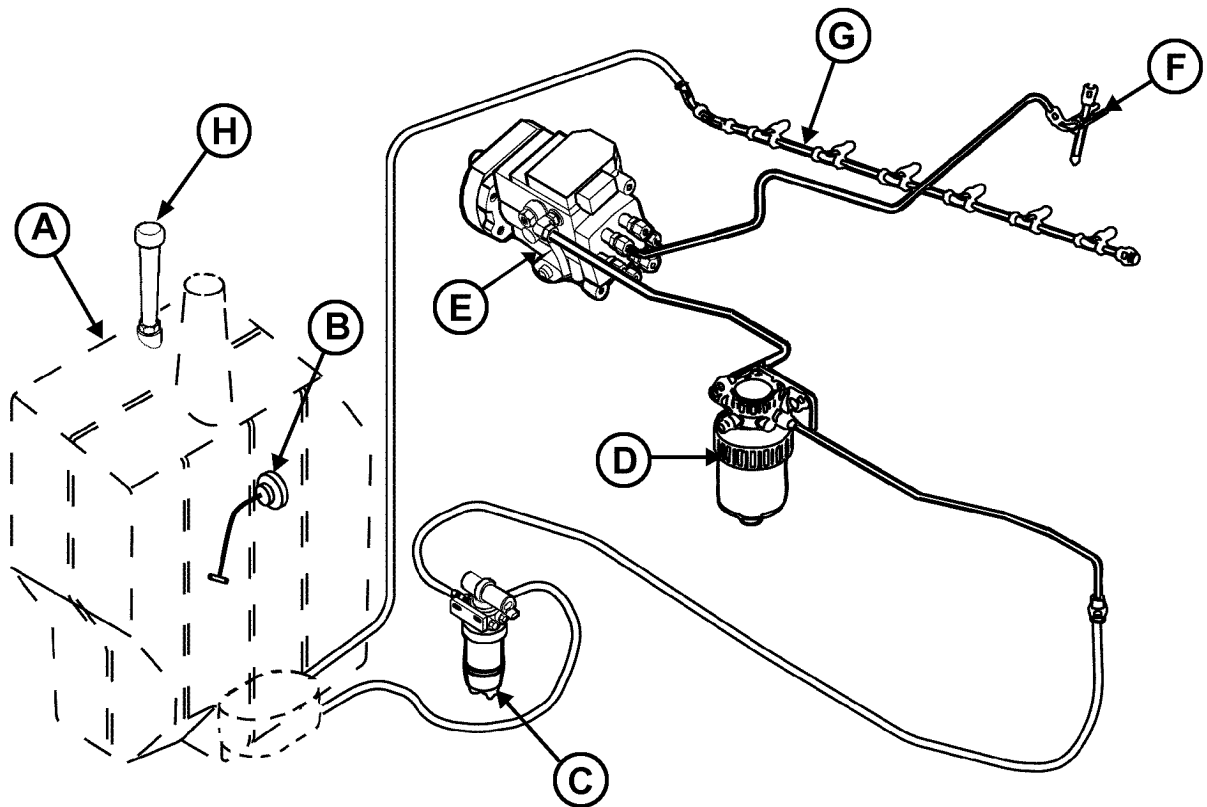
H—Return line

I—Fuel tank breather

CO194112 -UN-11OCT02

AG,CO03622,2080 -19-11OCT02-1/1

Fuel System on 6.8 L Engine (1450 CWS and 1550 CWS)



6.8 L Engine - 1450 CWS and 1550 CWS

A—Fuel tank
B—Fuel gauge sending unit
C—Water trap and fuel transfer pump

D—Fuel filter
E—Injection pump

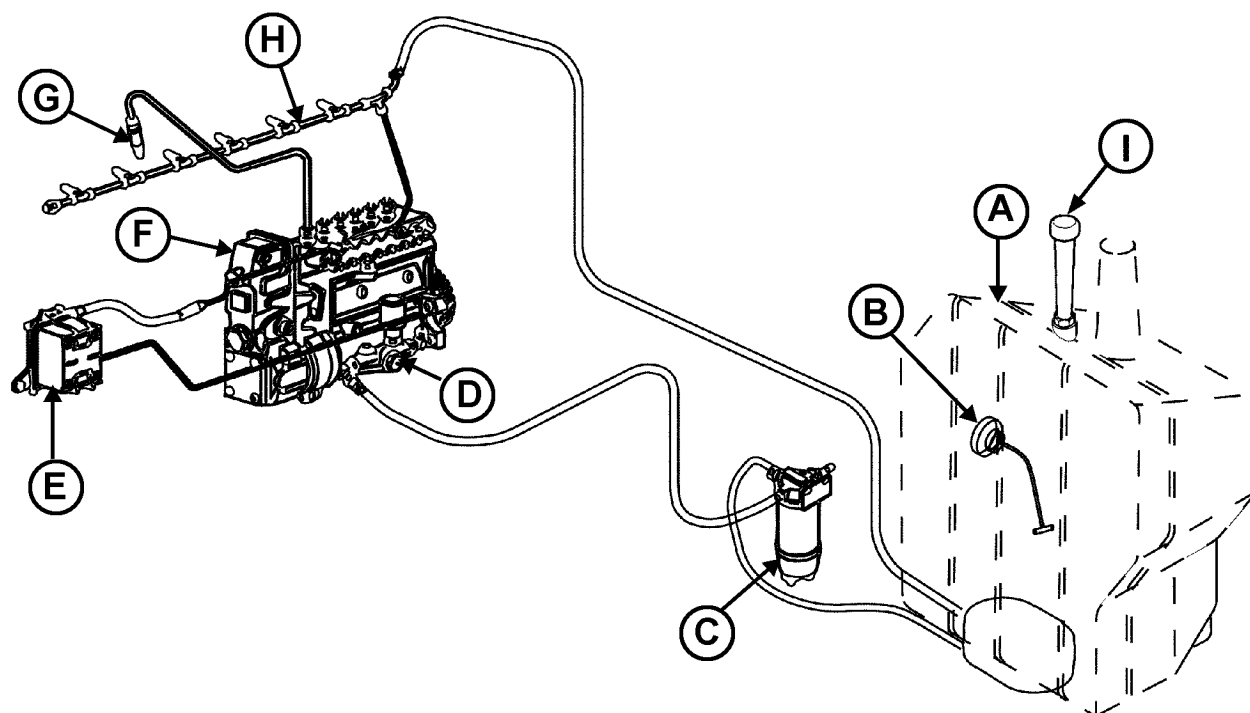
F—Injection nozzle
G—Return line

H—Fuel tank breather

CO203661 -UN-11OCT02

CO03622,0000069 -19-11OCT02-1/1

Fuel System on 8.1 L Engines (1550)



Ennigne 8.1 L — 1550

- | | | | |
|---------------------------|---------------------------------|--------------------|----------------------|
| A—Fuel tank | D—Mechanical fuel transfer pump | F—Injection pump | H—Return line |
| B—Fuel gauge sending unit | E—Fuel filter | G—Injection nozzle | I—Fuel tank breather |
| C—Water trap | | | |

AG,CO03622,2081 -19-11OCT02-1/1

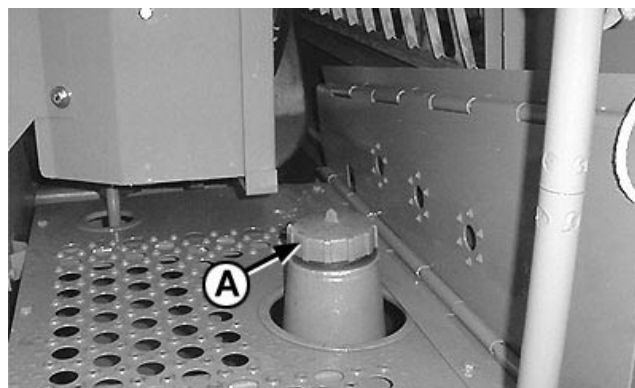
CO194121 -UN-11OCT02

Fuel Tank Cap

The fuel tank filler neck is closed with a tank cap (A).

The fuel tank cap is sealed. To vent the tank there is a special vent.

Clean dust and chaff from the surrounding area before removing tank cap.



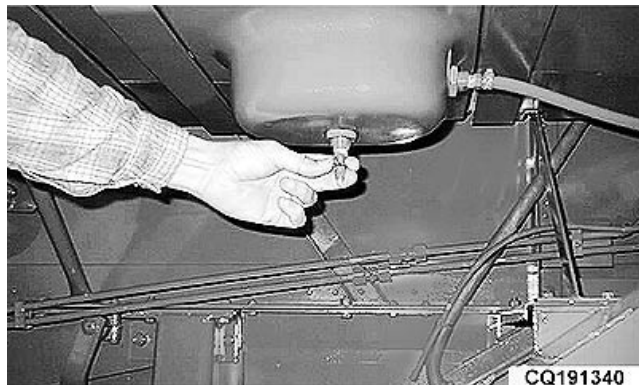
CO216330 -UN-10OCT02

AG,CO03622,2082 -19-11OCT02-1/1

Fuel Tank Water Trap

There is a water trap at the bottom of the fuel tank.

Every day before starting work, drain water and sediment deposits until the fuel flowing out is clean.



CQ191340

CO191340 -UN-09SEP99

AG.CO03622,2083 -19-14MAR02-1/1

Cleaning The Fuel System Water Trap (1450 e 1550)

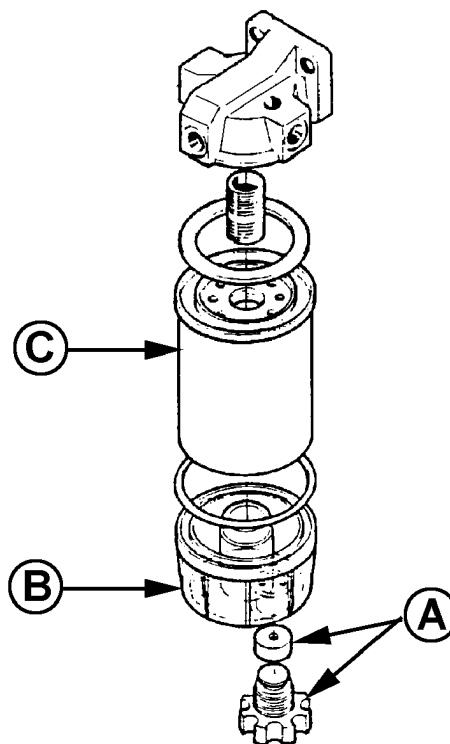
When water and sediment are visible at the sight-glass (B), shut off the engine and open drain cock (A). Trap the contaminated fuel as it emerges in a suitable container. Then close drain cock (A) again. To clean the filter further, proceed as follows:

Unfasten sight-glass (B).

Unfasten filter insert (C) and clean it thoroughly in clean diesel fuel. When the insert has been washed between 5 and 10 times, throw it away and use a new insert.

Once the filter has been cleaned, re-assemble in the reverse order.

- A—Drain Cock
- B—Sight-Glass
- C—Filter Insert



CQ192580

CO192580 -UN-01NOV99

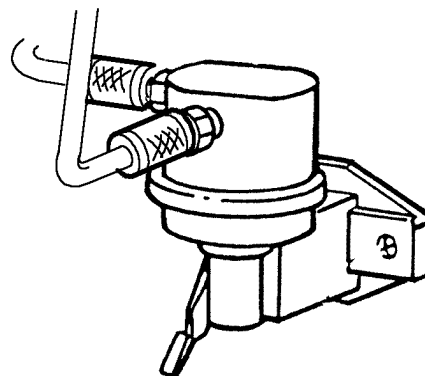
Water trap 1450 and 1550

AG.CO03622,2085 -19-08OCT02-1/1

Mechanical Fuel Transfer Pump — 6.8 L Engines

This pump is maintenance-free.

If a defect occurs, consult your John Deere dealer.



ZX009249

ZX009249 -UN-10JUN96

AG,CO03622,2086 -19-14MAR02-1/1

Cleaning The Fuel System Water Trap (1450 CWS and 1550 CWS)

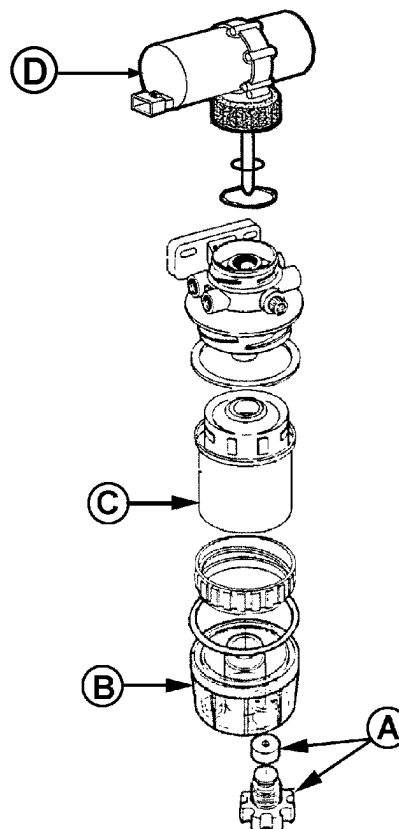
When water and sediment are visible at the sight-glass (B), shut off the engine and open drain cock (A). Trap the contaminated fuel as it emerges in a suitable container. Then close drain cock (A) again. To clean the filter further, proceed as follows:

Unfasten sight-glass (B).

Unfasten filter insert (C) and clean it thoroughly in clean diesel fuel. When the insert has been washed between 5 and 10 times, throw it away and use a new insert.

Once the filter has been cleaned, re-assemble in the reverse order.

- A—Drain Cock
- B—Sight-Glass
- C—Filter Insert
- D—Fuel Pump



CQ203670

Water Trap 1450 CWS and 1550 CWS

CQ203670 -UN-04APR01

CO03622,000006A -19-08OCT02-1/1

Emptying Fuel Filter — 6.8 L Engines (1450) and 8.1 L Engines (1550)

⚠ CAUTION: Always remove ignition key before performing maintenance work on fuel filter. Avoid fire hazards!

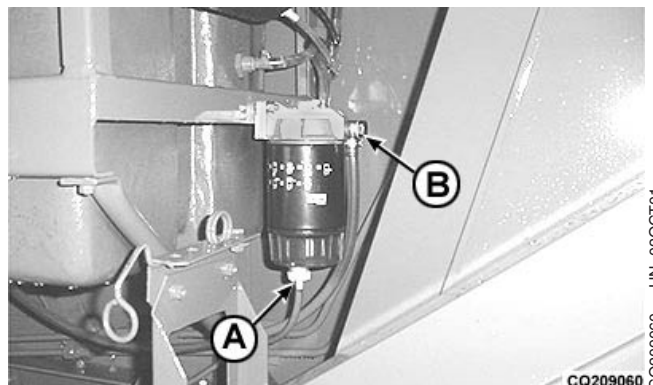
Slacken off drain screw (A).

Open bleed screw (B).

Retighten drain screw as soon as the water and sediment deposits have drained off.

Then retighten bleed screw.

If necessary follow bleed fuel system procedure.



Fuel Filter - 1450 and 1550

CQ209060

—UN-02OCT01

AG.CO03622,2087 —19-15NOV02-1/1

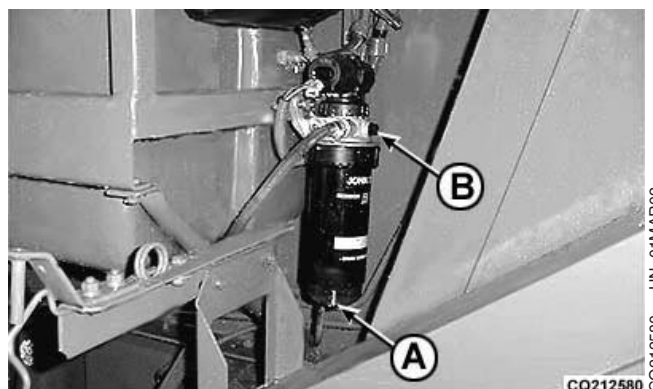
Emptying Fuel Filter — 6.8 L Engines (1450 CWS and 1550 CWS)

Ignition ON.

Slacken off drain screw (A).

Open bleed screw (B), the fuel system will be bled automatically.

Retighten drain screw as soon as the water and sediment deposits have drained off.



Fuel Filter - 1450 CWS and 1550 CWS

CQ212580

—UN-01MAR02

MB03730,00001EC —19-15NOV02-1/1

Bleeding The Fuel System

General Information

Bleed the fuel system:

- After every filter change
- Whenever the fuel tank has run dry
- After repair work on the fuel system
- If the engine has not been run for a while

AG,CO03622,2092 -19-09SEP99-1/1

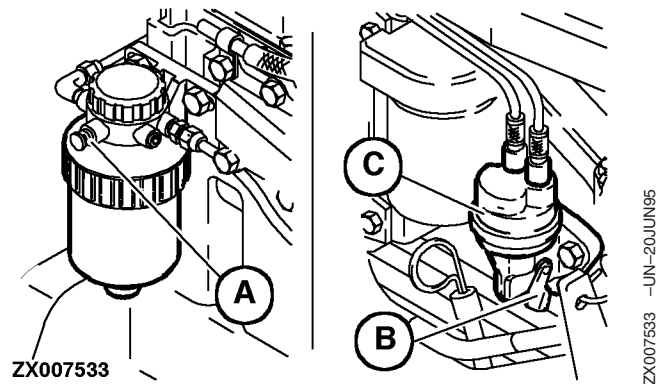
Bleed the Fuel System — 6.8 L Engine (1450)

Then slacken off bleed screw (A).

Operate primer piston (B) manually at fuel transfer pump (C) until the fuel emerging from bleed screw (A) is free of air bubbles.

Then retighten bleed screw.

NOTE: If no resistance is felt when moving the primer piston, turn engine over with starting motor to change position of primer pump cam.



AG,CO03622,2094 -19-07FEB02-1/1

Replacing Fuel Filter Element— 6.8 L Engines (1450, 1450 CWS and 1550 CWS)



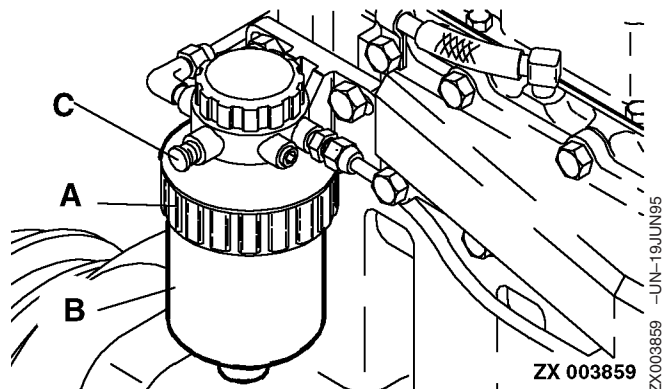
CAUTION: Always remove ignition key before performing maintenance work on fuel filter. Avoid fire hazards!

Unfasten ring (A) and remove filter element (B).

Align keys on filter element with slots in filter base.

Hand tighten until the retaining ring (A) fits into the lock position.

Slacken off bleed screw (C) (see “Bleeding Fuel System”). Tighten bleed screw by hand.



AG,CO03622,2088 -19-14MAR02-1/1

Bleed the Fuel System - 8.1 L Engine (1550)

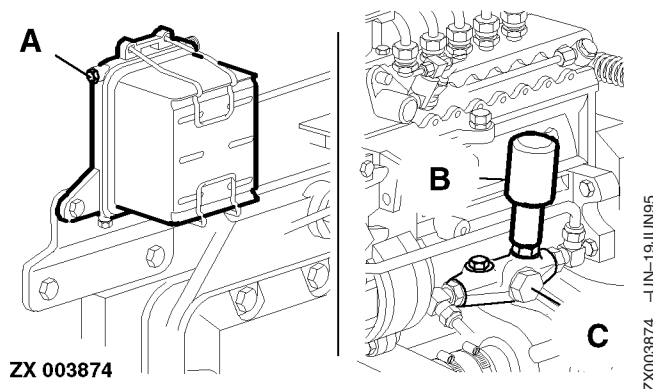
First bleed the water separator.

Then slacken off bleed screw (A).

Operate primer piston (B) manually at fuel transfer pump (C) until the fuel emerging from bleed screw (A) is free of air bubbles.

Then retighten bleed screw.

NOTE: If no resistance is felt when moving the primer piston, turn engine over with starting motor to change position of primer pump cam.



ZX003874 -UN-19JUN95

AG,CO03622,2095 -19-14MAR02-1/1

Replacing Fuel Filter Element 8.1 L Engine (1550)



CAUTION: Always remove ignition key before performing maintenance work on fuel filter. Avoid fire hazards!

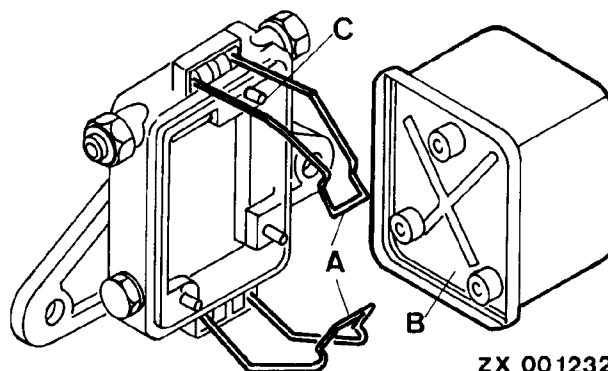
IMPORTANT: Impurities trapped in the groove or in the cavity of spring pin (C) might be flushed into the injection system where they could damage the pump or injectors.

Replace filter elements after every 200 hours of operation or at the end of every harvesting season.

To empty filter element, slacken off bleed screw and remove drain screw.

Release retaining springs (A). Pull off filter (B) and install new filter.

Bleed air from filter every time the filter is changed and whenever the fuel system has run dry as a result of a fuel shortage.



ZX001232 -UN-03APR95

AG,CO03622,2090 -19-14MAR02-1/1

Checking Injection Nozzles

IMPORTANT: Never attempt to remove injection nozzles. Special tools are required

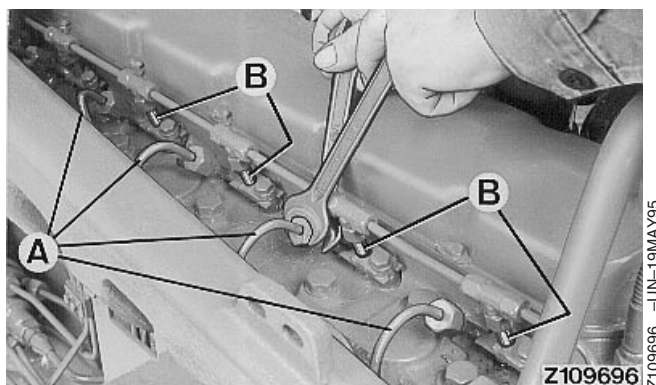
If the engine is running rough, this indicates that the injection nozzles are clogged or not operating properly. Consult your John Deere dealer.

AG,CO03622,2091 -19-09SEP99-1/1

Bleed at Fuel Injection Nozzles — Engine Without ECU

If the engine will still not start despite carrying out the previous steps, proceed as follows:

- Place hand throttle lever at “fast idle”.
- Using two open-ended wrenches, loosen fuel lines (A) on at least three injection nozzles (B).
- Turn over engine with starter motor until the fuel flowing out of the loosened fuel injector connections is free of air bubbles. Retighten connections.



AG,CO03622,2096 -19-01MAR02-1/1

Bleed the Fuel System — Engine using ECU

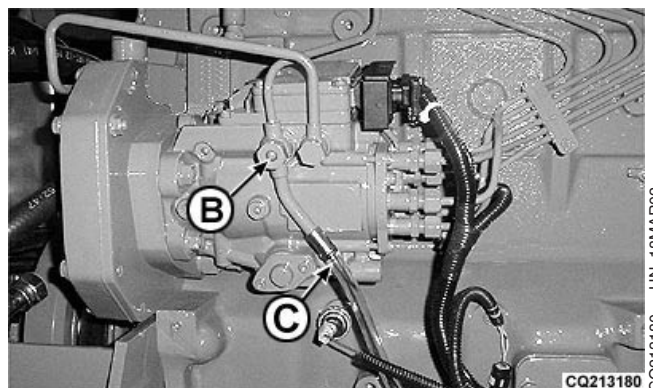
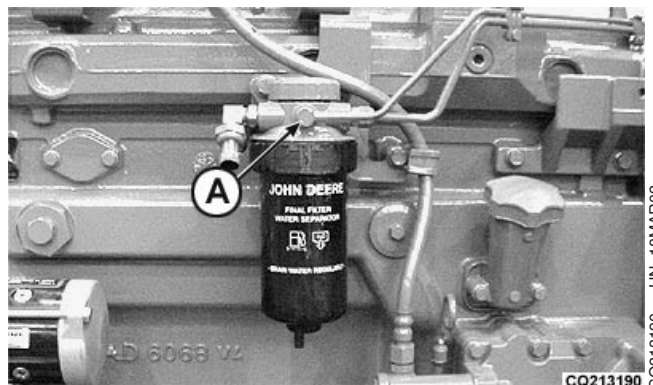
NOTE: This fuel system can only be bled by the electric transfer pump or at the injection nozzles. Bleeding should not be performed at any location on the Bosch VP44 injection pump.

Bleed Using Electric Transfer Pump

Bleeding is automatically performed by a small orifice (A) inside the filter base connected to the overflow valve (B) on injection pump. This system allows air to escape continually through the fuel return line (C) when ignition is ON.

1. Ignition ON.
2. Allow 40 seconds for electric transfer pump to complete priming.
3. If additional system bleeding is required, bleed the circuit by loosening fuel line connections at injection nozzles.

A—Bleed Orifice in Filter Base
B—Overflow Valve
C—Fuel Return Line



Injection pump (VP44)

Continued on next page

MB03730,00001E7 -19-01MAR02-1/2

Bleed at Fuel Injection Nozzles

1. Place throttle lever in half-throttle position.
On engines equipped with electric fuel shut-off solenoid, energize solenoid.

IMPORTANT: Always use a backup wrench when loosening or tightening fuel lines at nozzles and/or injection pump to avoid damage.

2. Using two open-end wrenches, loosen two fuel line connections at injection nozzles.
3. Crank engine over with starting motor for 15 seconds (but do not start engine) until fuel free from bubbles flows out of loosened connection. Retighten connection to specifications.

Specification

—Fuel Injection Nozzle Delivery

Lines Torque 27 N.m (20 lb-ft)

4. Repeat procedure for remaining injection nozzles (if necessary) until all air has been removed from fuel system.



RG7725 -UN-08JAN97

Nozzle Fuel Pressure Line

MB03730,00001E7 -19-01MAR02-2/2

Engine Coolant



CAUTION: Danger of scalding. Do not loosen or remove the radiator filler cap when coolant temperature is near or above boiling point. Always loosen the cap slightly to relieve pressure before removing cap completely.

Add coolant only when the engine is shut off.

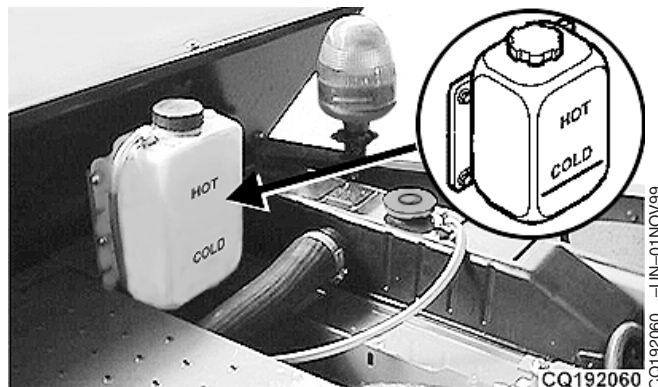
When the engine is cool, the coolant level should be up to the "COLD" mark.

Checking coolant quality

IMPORTANT: Regardless of the season, use only John Deere COOL-GARD in the cooling system.

Check condition of coolant mixture before the winter season. Coolant should protect engine against frost down to -36°C (-35°F).

Never use any cooling system sealing additives.



AG.CO03622,2097 -19-15AUG02-1/1

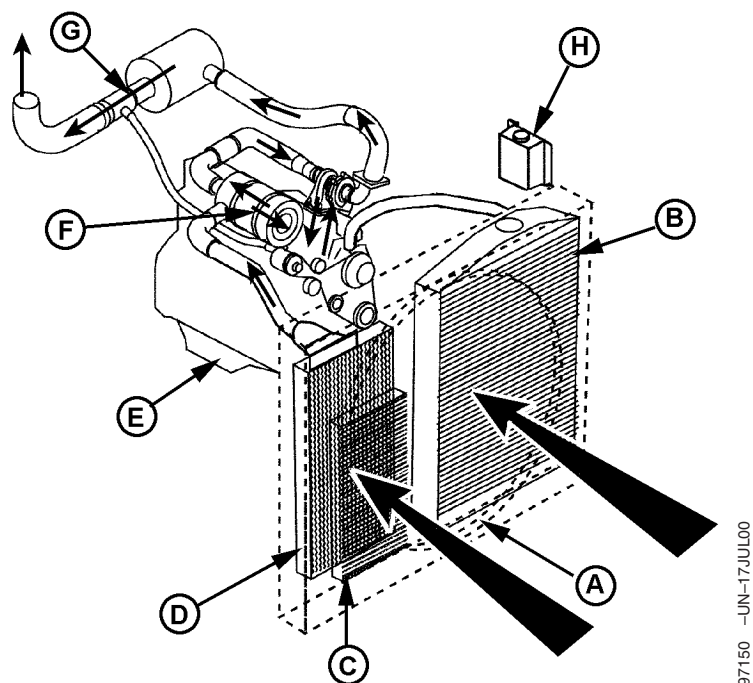
Radiator Coolant Level

Check the level and, if needed, add soft, clean water and coolant concentrate in the proportions indicated in the Lubrication and Periodic Maintenance section.

IMPORTANT: Top off the radiator when the engine is off and cool.

AG.CO03622,2098 -19-09SEP99-1/1

Cooling, Air Intake and Exhaust System (1450)



CQ197150

CQ197150 -UN-17JUL00

A—Rotary screen
B—Radiator
C—Condenser (air conditioning system)

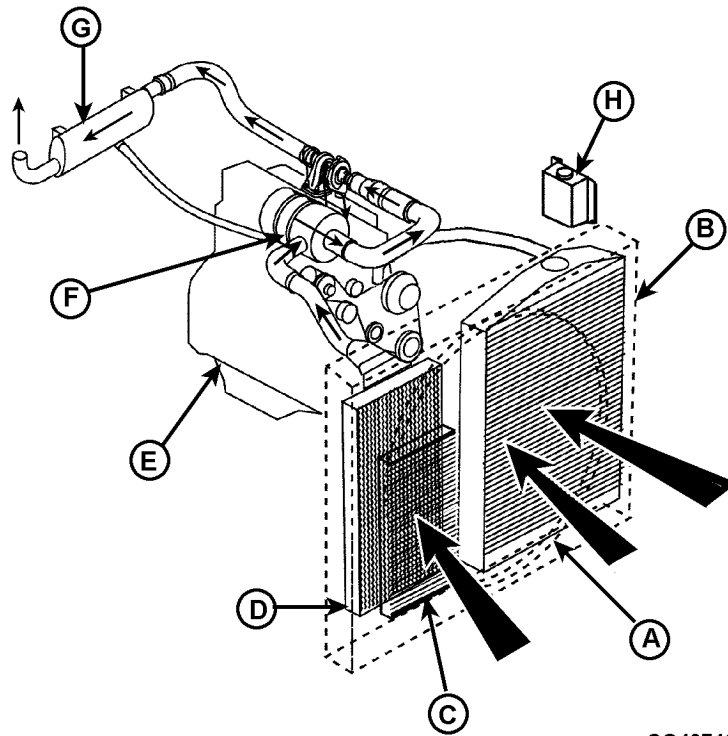
D—Hydrostatic oil cooler
E—Engine

F—Air filter
G—Muffler

H—Expansion tank

AG,CO03622,2100 -19-14MAR02-1/1

Cooling, Air Intake and Exhaust System (1550)



A—Rotary screen
B—Radiator
C—Condenser (air conditioning system)

D—Hydrostatic oil cooler
E—Engine

F—Air filter
G—Muffler

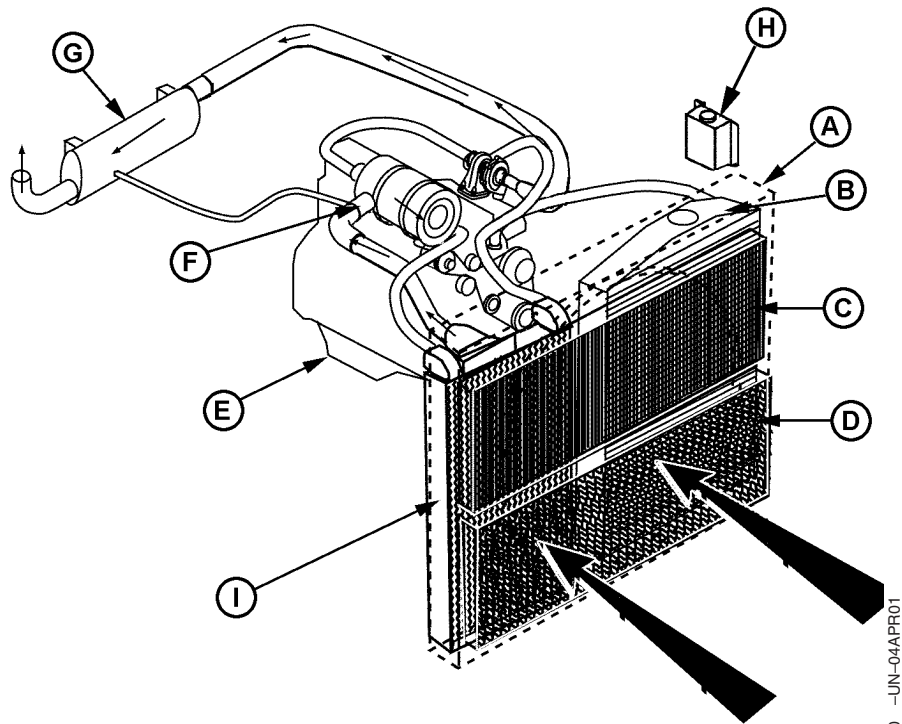
H—Expansion tank

CQ197160

CQ197160 -UN-17JUL00

AG,CO03622,2263 -19-14MAR02-1/1

Cooling, Air Intake and Exhaust System (1450 CWS and 1550 CWS)



CQ203690

CQ203690 -UN-04APR01

A—Rotary screen
B—Radiator
C—Condenser (air conditioning system)

D—Hydrostatic oil cooler
E—Engine

F—Air filter
G—Muffler

H—Expansion tank
I—Aftercooler Radiator

CO03622,000006B -19-14MAR02-1/1

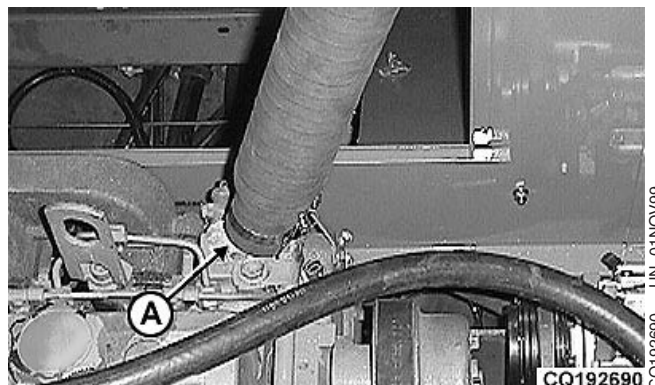
Replacing Thermostat



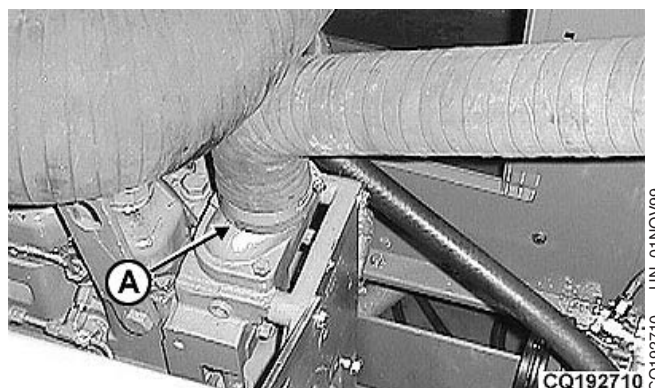
CAUTION: Danger of scalding. Always loosen the cap slightly to relieve pressure before replacing thermostat.

IMPORTANT: See your John Deere dealer to execute this job.

When the thermostat (A) is replaced it is also necessary to replace the coolant.



Engine 6.8 L - 1450, 1450 CWS and 1550 CWS



Engine 8.1 L - 1550

AG.CO03622.2197 -19-09OCT02-1/1

Checking Belt Tensioner Spring Tension And Belt Wear

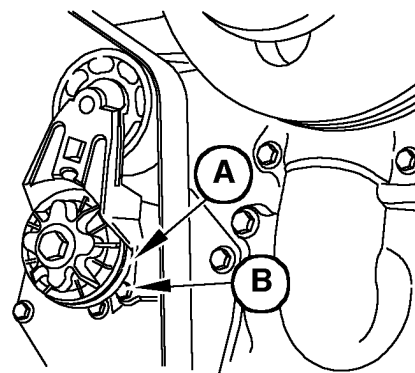
Belt drive systems equipped with automatic (spring) belt tensioners cannot be adjusted or repaired. The automatic belt tensioner is designed to maintain proper belt tension over the life of the belt. If tensioner spring tension is not within specification, replace tensioner assembly.

Checking Belt Wear

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 is used.

1. Visually inspect cast stops (A and B) on belt tensioner assembly. If the tensioner stop on swing arm (A) is hitting the fixed stop (B), check mounting brackets (alternator, belt tensioner, idler pulley, etc.) and the belt length. Replace belt as needed.

ZX009274



ZX009274 -UN-10JUN96

AG.CO03622.2199 -19-15MAR02-1/1

Checking Tensioner Spring Tension

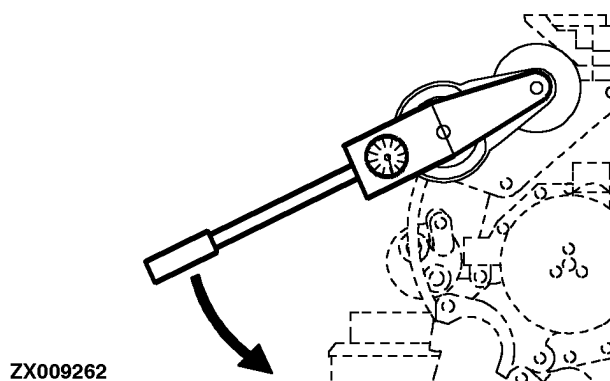
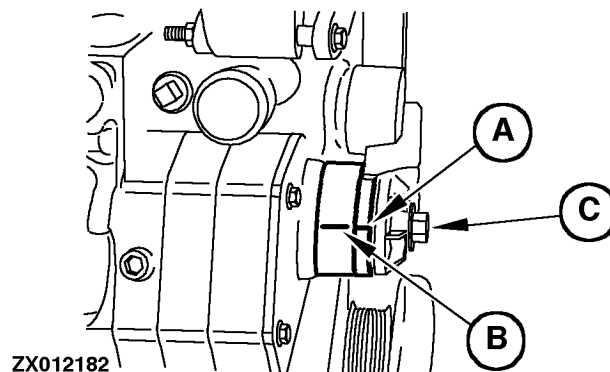
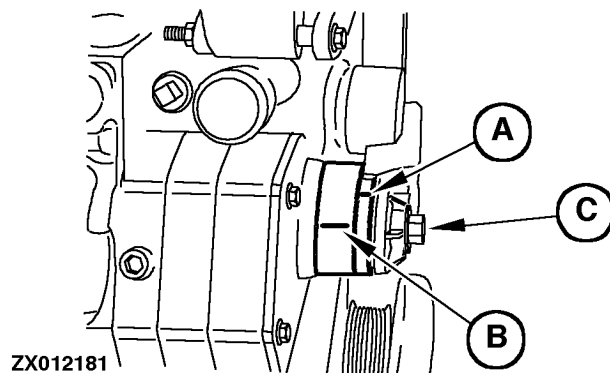
A belt tension gauge will not give an accurate measure of the belt tension when automatic spring tensioner is used. Measure tensioner spring tension using a torque wrench and procedure outlined below:

1. Release tension on belt using a long-bar and adequate wrench applied on cap screw (C) provided with left-hand thread. Remove belt from pulleys.
2. Release tension on cap screw (C), then remove bar and wrench.
3. Put a mark (A) on swing arm of tensioner as shown.
4. Measure 20 mm (0.79 in.) from (A) and put a mark (B) on tensioner mounting base.
5. Rotate the swing arm using a torque wrench applied on cap screw (C) until marks (A and B) are aligned.

NOTE: Before rotating, the torque wrench must be aligned with the tensioner fastening cap screw.

6. Record torque wrench measurement and compare with specification below. Replace tensioner assembly as required.

Spring Tension Specification - 20 N•m (14.8 lb-ft)



Replacing Fan/Alternator V-Belt

Refer to “Checking Belt Tensioner Spring Tension” to determine if V-belt needs replacing.

1. Release tension on belt.
2. Remove V-belt from pulleys and discard belt.
3. Install new belt, be sure that belt is correctly seated in all pulley grooves.
4. Apply tension to belt with tensioner.
5. Start engine and check belt alignment.

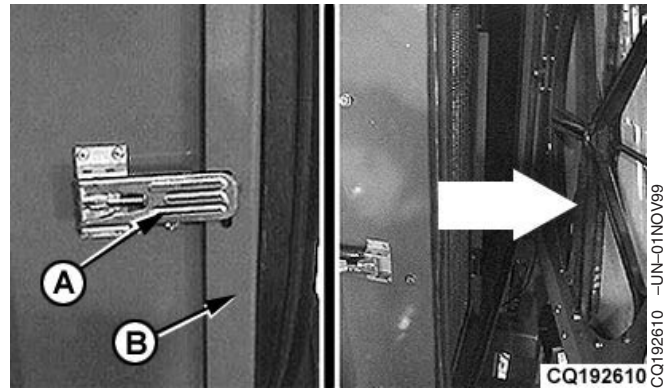
AG.CO03622,2201 –19–17MAY02–1/1

Cleaning Rotary Screen, Oil Cooler, Condenser and Radiator



CAUTION: Shut off engine and remove key before cleaning rotary screen.

Pull latch (A) and open rotary screen door (B).



Continued on next page

AG.CO03622,2101 –19–09OCT02–1/2

Check the rotary screen daily to be certain it turns freely.

Clean the rotary fan screen with a brush and compressed air when dirt and chaff build up on or behind the screen.

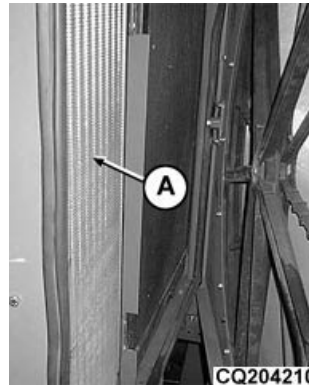
Pull oil cooler and condenser (A) out.

Clean oil cooler, condenser and radiator.

To clean with compressed air, blow from the inside out.

Clean out dirt from lower vacuum ducts (B) and (C).

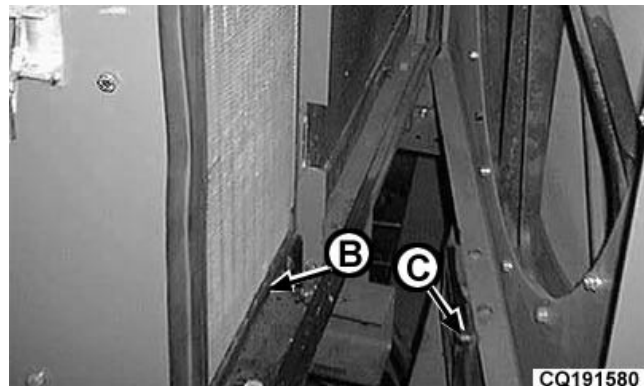
IMPORTANT: When using high pressure air or water, be careful of fin damage to coolers. Use a fin comb to straighten bent fins. Bent fins will decrease cooler performance.



1450 e 1550



1450 CWS and 1550 CWS



CQ191580

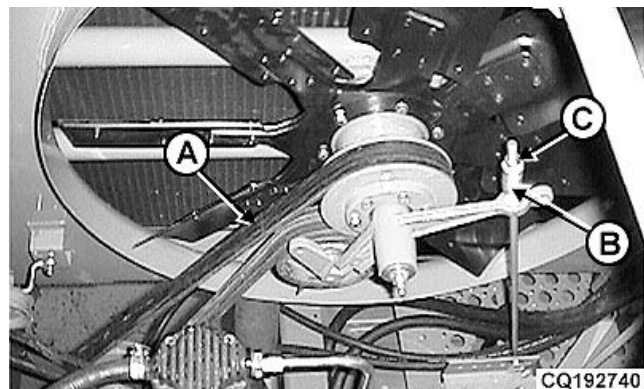
AG,CO03622,2101 -19-09OCT02-2/2

Replacing (Engine) Cooling Fan Belt

CAUTION: Shut off engine and remove key.

To remove belt (A), it is necessary to release spring (B) tension by loosening jam nut (C).

Remove pulley.

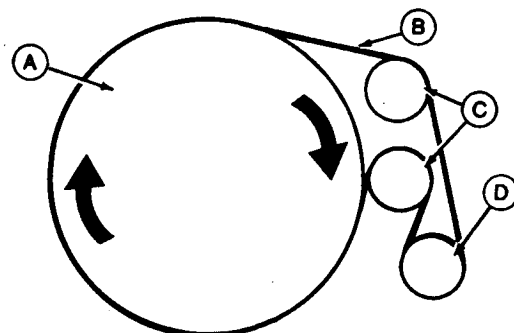


CQ192740

AG,CO03622,2202 -19-15MAR02-1/1

Rotary Screen Belt Routing

- A—Rotary screen
- B—Drive Belt
- C—Idlers
- D—Drive sheave



H39170

H39170 -UN-11OCT88

AG,CO03622,2203 -19-15MAR02-1/1

Replacing Rotary Screen Drive Belt

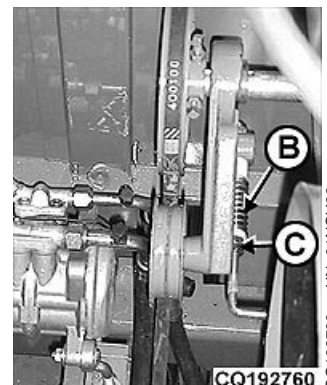
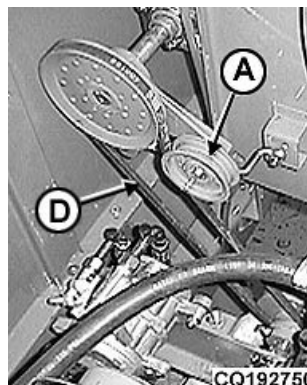


CAUTION: Shut off engine and remove key.

Pull up on spring loaded idler (A) loosening spring (B) through nut (C) to remove rotary screen drive belt (D).

NOTE: To start this procedure the fan belt should be removed in advance.

- A—Idler Pulley
- B—Spring
- C—Nut
- D—Drive Belt

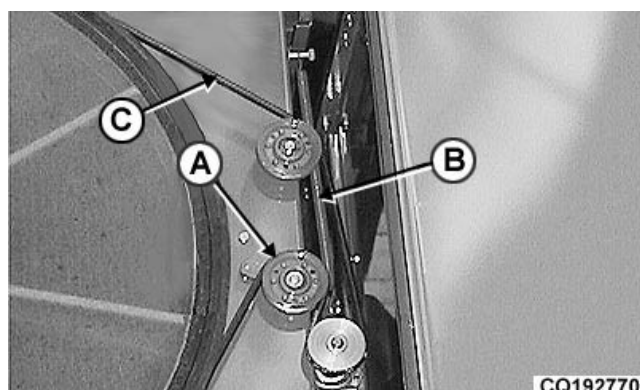


AG,CO03622,2204 -19-15AUG02-1/1

Replacing Rotary Screen External Drive Belt

To remove belt (C), loosen idler pulley (A) releasing spring (B).

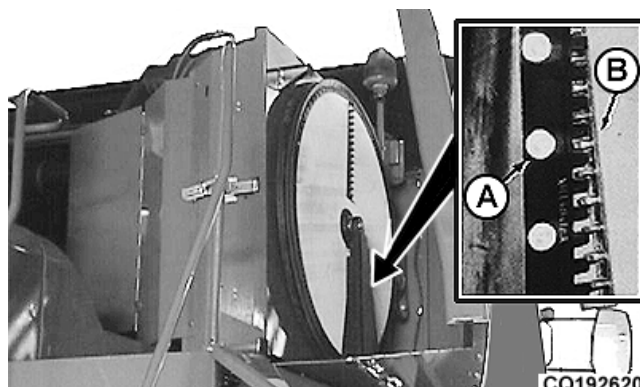
- A—Idler Pulley
- B—Spring
- C—Drive Belt



AG,CO03622,2205 -19-15MAR02-1/1

Adjust Rotatory Screen Knife Comb

Loosen nuts (A) and position knife comb so rake bar (B) passes through comb without interference.



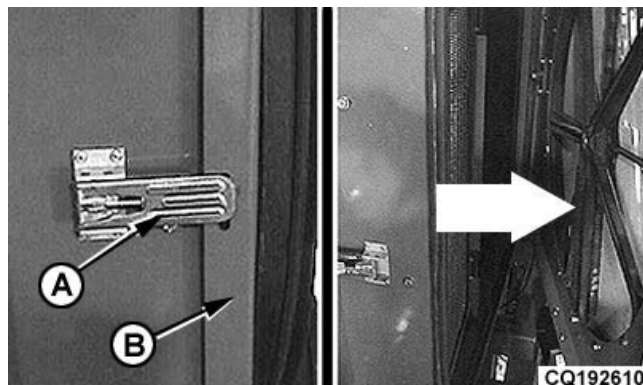
AG,CO03622,2103 -19-15MAR02-1/1

Replacing Rotary Screen Rake Bar



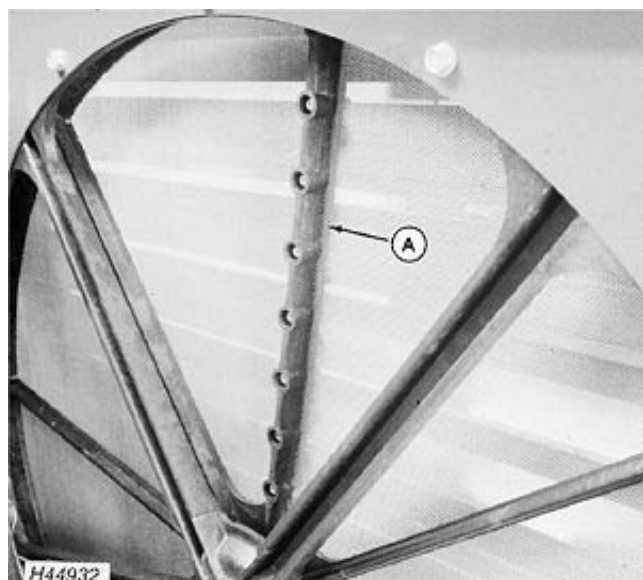
CAUTION: Shut off engine and remove key.

Pull latch (A) and open rotary screen door (B).



AG,CO03622,2104 -19-15MAR02-1/2

Remove screws from rake bar support (A). Remove rake bar.



AG,CO03622,2104 -19-15MAR02-2/2

Flushing Sequence — Cooling System

Drain and flush the cooling system at least every two years.

Having drained off all coolant, close drain tap or replace plug. Fill system with clean water.

Start engine and run until it reaches operating temperature.

Turn cab heater on and leave on until cleaning of cooling system is finished. Stop engine and drain system immediately before rust and sediment deposits settle.

Close drain tap or replace plug. Clean system with commercial cooling system cleaner, following the instructions supplied with the cleaner.

Drain cooling system cleaner and refill system again with clean water. Shut off engine when water reaches operating temperature and drain system again.

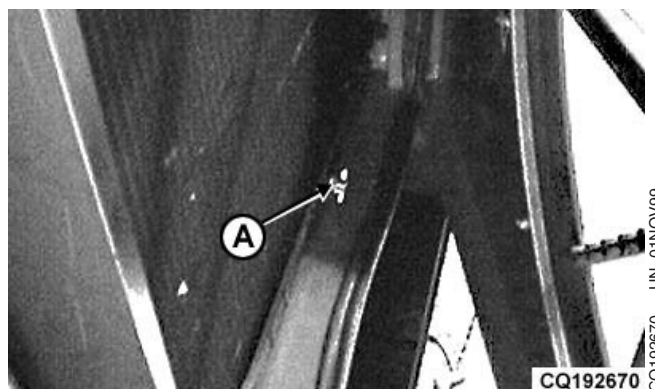
Refill system with the specified coolant.

IMPORTANT: The cooling system must always be filled with John Deere coolant indicated. See “Fuel, Lubricants, Coolants”.

AG.CO03622,2114 -19-17MAY02-1/1

Radiator Drain

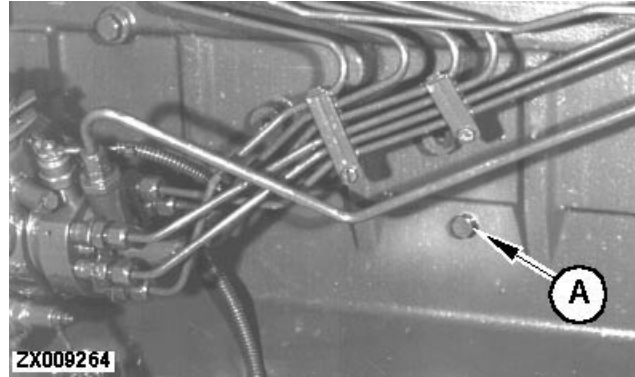
A—Radiator Drain



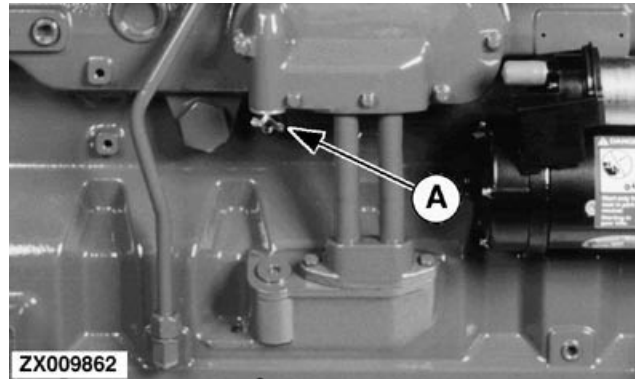
AG.CO03622,2194 -19-15MAR02-1/1

Drain Plug For Engine Coolant

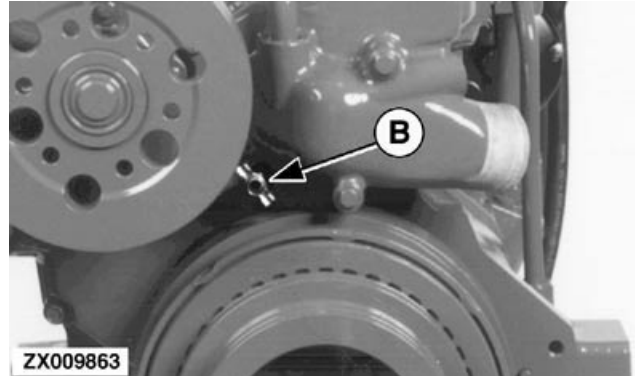
A—At engine block
B—At coolant pump



Engine 6.8 L - 1450, 1450 CWS and 1550 CWS



Engine 8.1 L - 1550



Engine 8.1 L - 1550

AG,CO03622,2195 -19-22OCT99-1/1

Removing Air Filter

IMPORTANT: To clean out engine air filter element, shut off engine and remove key.

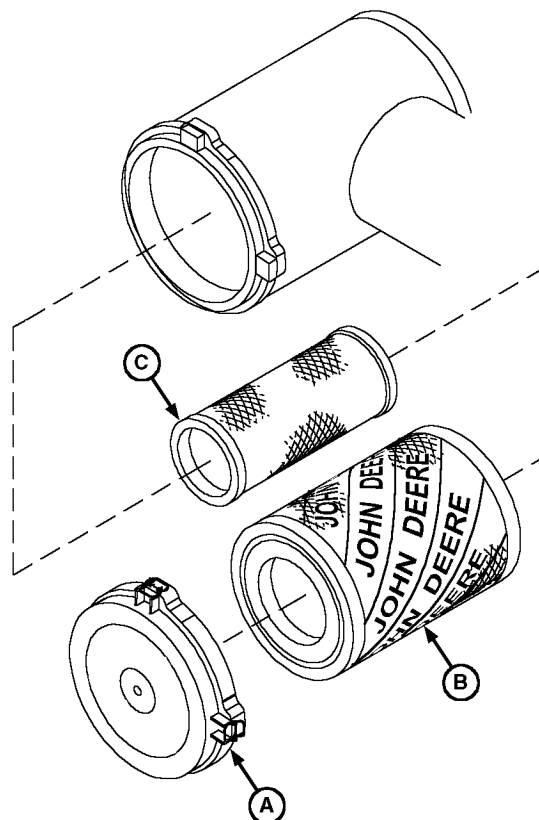
Perform the service on the air filter only when the air filter indicator light remains on.

Remove cover (A) to remove primary element (B)..

Clean, wash or replace the primary element (B). Neither clean nor wash the safety element (C). Install a new one if it is necessary.

IMPORTANT: NEVER run the engine without air cleaner element installed.

- A—Cap
- B—Primary filter
- C—Safety element



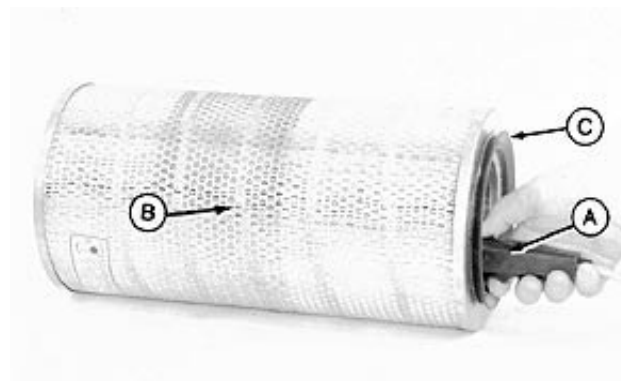
CQ203960

CQ203960 -UN-06APR01

AG.CO03622,2116 -19-15MAR02-1/1

Inspecting Element

1. Hold a bright light inside element (A) and check carefully for holes. Discard any element which shows the slightest hole.
2. Be sure outer screen (B) is not dented. Vibration would quickly wear a hole in filter.
3. Be sure filter gasket (C) is in good condition. If gasket is damaged or missing, replace element.

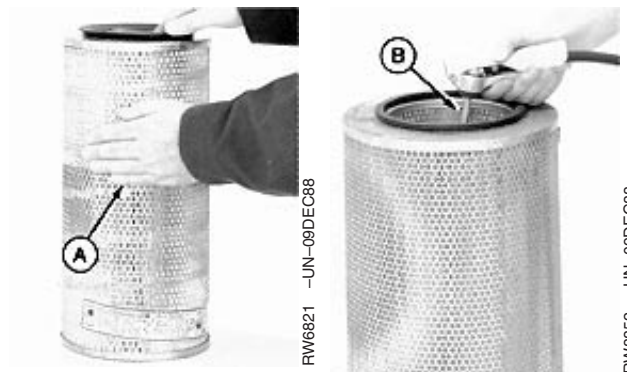


RW6824 -UN-09DEC88

AG.CO03622,2117 -19-15MAR02-1/1

Cleaning Element

1. Pat sides of element (A) gently to loosen dirt. Do not tap element against a hard surface.
2. Blow inside the element with compressed air (B) from inside to outside. Pressure should not exceed to 5 kg/cm² (70 lb in²).



RW6821 -UN-09DEC88

RW8852 -UN-09DEC88

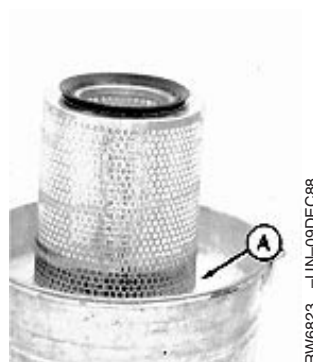
AG,CO03622,2118 -19-15MAR02-1/1

Washing Element

First rinse the filter element under running water to remove as much dirt as possible.

Then soak element for 15 minutes in lukewarm water, not above 32°C (90°F). If necessary, add a non-alkaline household detergent and wash filter.

Rinse filter element in clean running water with a pressure not exceeding 200 kPa (2 bar; 30 psi). Allow filter element to dry.



RW6823 -UN-09DEC88

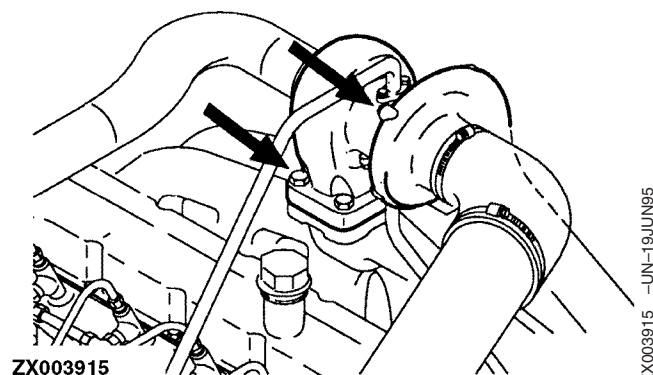
IMPORTANT: Never wash element in fuel or a strong cleaning agent. Change both primary and secondary air cleaner elements at least every 1200 operating hours.

AG,CO03622,2119 -19-15MAR02-1/1

Turbocharger

All engine types are equipped with a turbocharger.

Carefully check all connections and attaching points of the turbocharger every 250 hours. Any lube oil leaks at the turbocharger or its lube oil feed line must be rectified at once.



ZX003915

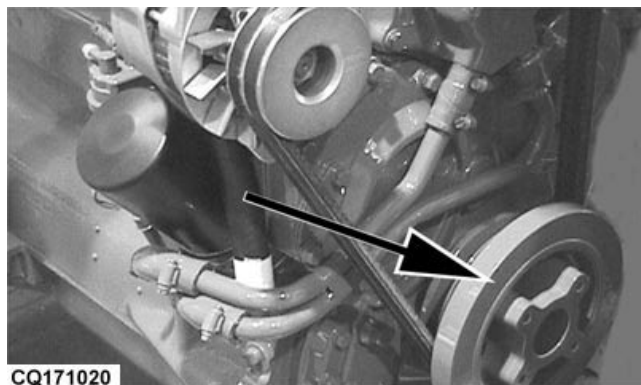
ZX003915 -UN-19JUN95

AG,CO03622,2122 -19-15MAR02-1/1

Crankshaft Damper Inspection

IMPORTANT: The engine crankshaft damper cannot be repaired. It must be replaced after 4500 hours or 5 years, whichever occurs first.

Ask your John Deere dealer to inspect the engine crankshaft damper.



CQ171020 -UN-23SEP98

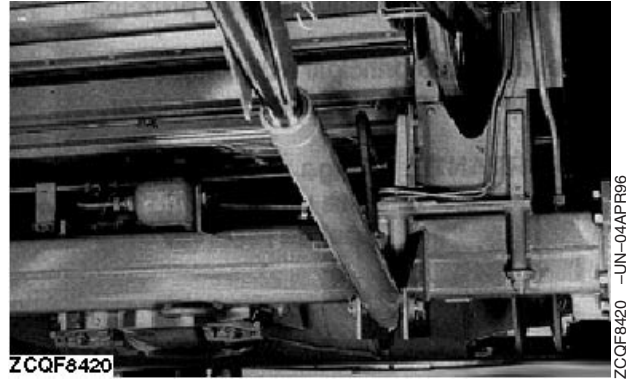
MB03730,00001E3 -19-15MAR02-1/1

Service — Compressed Air System

Compressed Air System Reservoir

The reservoir is located inside the front axle.

Maximum pressure: 570 kPa; 5,7 bar; 82.7 psi.

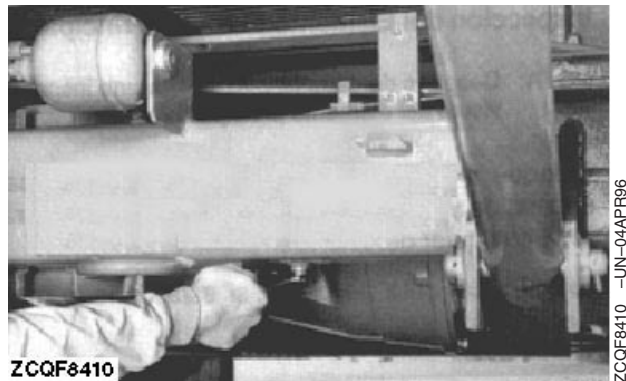


AG,CO03622,2120 -19-15MAR02-1/1

Draining The Air Reservoir

Drain off contaminants periodically.

With the engine off, drain accumulated water by turning the drain valve located on the lower left side of the front axle.



AG,CO03622,2123 -19-15MAR02-1/1

Air Hose

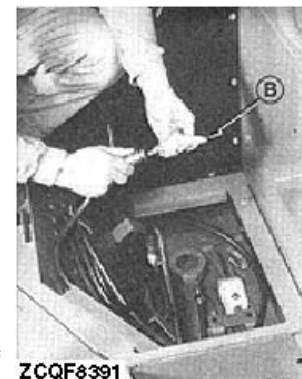
The air hose is wound up inside the tool box cover, located in the operator's station.

AG,CO03622,2124 -19-21SEP99-1/1

Using Compressed Air

To inflate the tires, connect valve (A) to the hose quick-coupler.

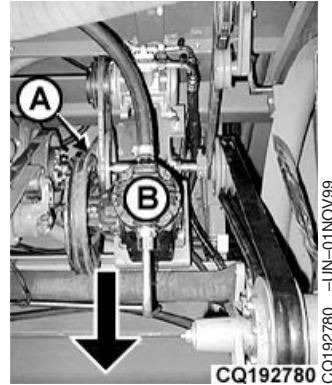
To use compressed air for cleaning, connect nozzle (B) to the hose quick-coupler.



AG,CO03622,2125 -19-15MAR02-1/1

Adjusting Compressor Drive Belt Tension

Compressor drive belt (A) tension can be adjusted by loosening compressor (B) fixing screws then sliding it (see arrow).

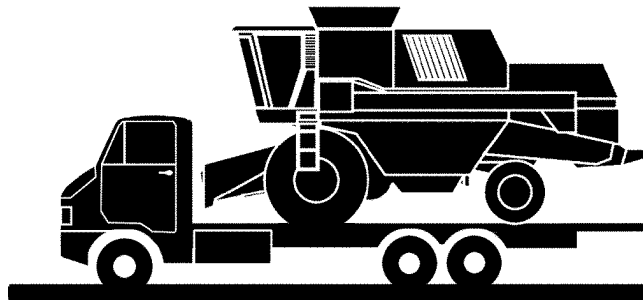


AG.CO03622,2126 -19-15MAR02-1/1

Service — Drives and Shields

Transporting The Combine on a Truck

Whenever transporting the combine in a truck, make sure taht all the shields are mounted correctly, in a way that they can not open accidentally during the transport.



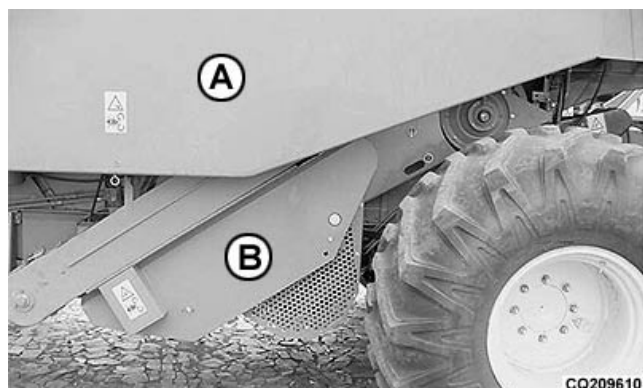
CQ203970

CO03622,0000061 -19-15MAR02-1/1

CQ203970 -UN-08APR01

Right Side Shields

- A—Large Side Shield
- B—Fan Shield



CQ209610

AG,CO03622,2206 -19-13NOV01-1/1

CQ209610 -UN-01NOV01

Opening The Large Side Shield

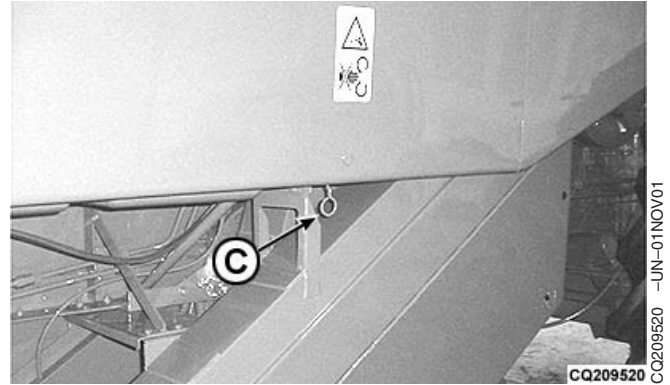
Pull the spring latch (C) down or turn lock.

The gas cylinders (D) will support the shield once shields are released from the spring latch. The shield will open enough to allow safe service on the combine side.

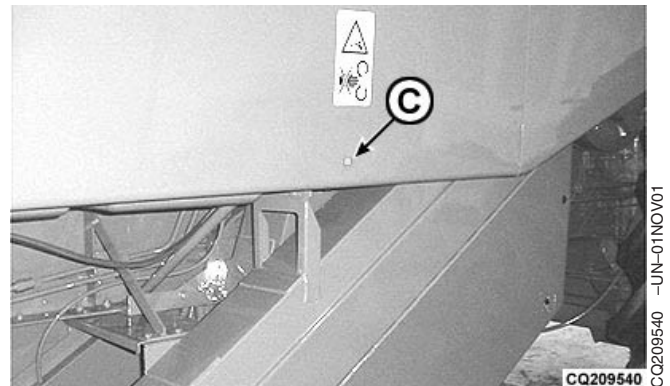
To close, lower the shield and fit it in spring latch (C) or turn lock.

C—Latch (1450 and 1550) — Lock (1450 CWS and 1550 CWS)

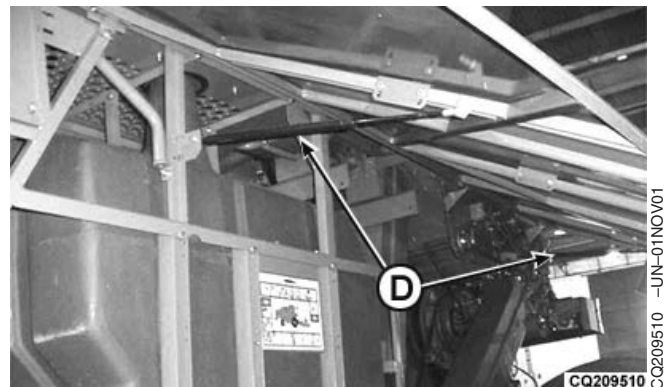
D—Gas cylinders



Large Side Shield (1450 and 1550)



Large Side Shield (1450 CWS and 1550 CWS)



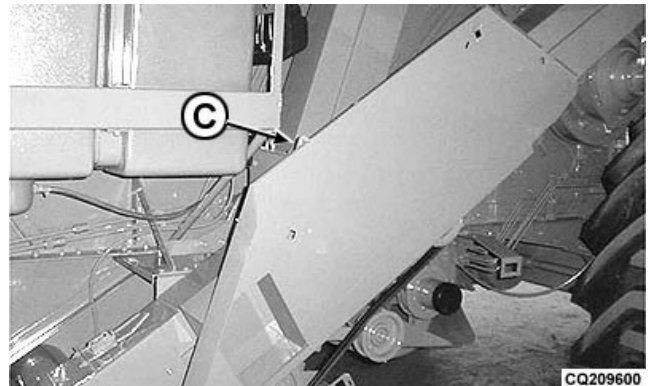
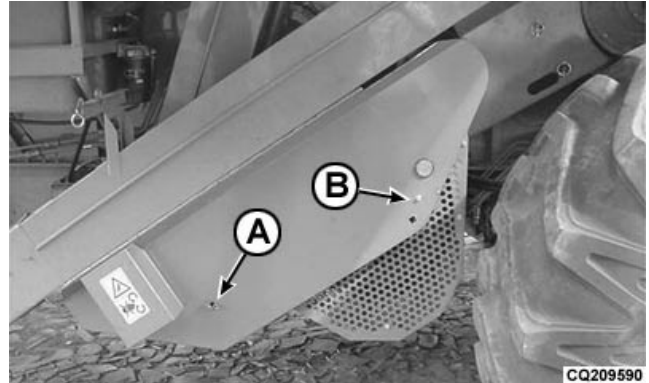
AG,CO03622,2207 -19-13NOV01-1/1

Opening The Fan Shield

Turn the latches (A) and (B) or lock and lift the shield.

Secure the cover by means of the spring (C).

- A—Latch
- B—Latch (1450 and 1550) — Lock (1450 CWS and 1550 CWS)
- C—Spring

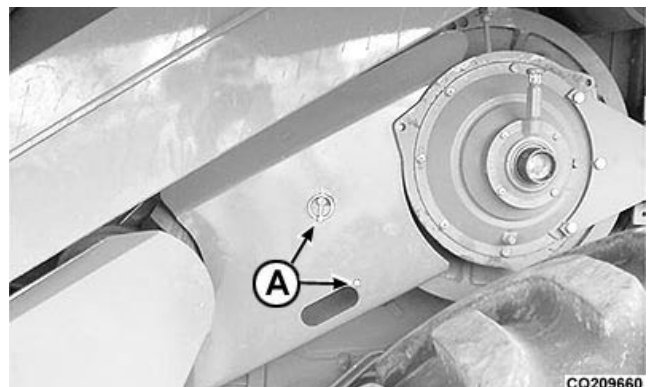


AG,CO03622,2208 -19-13NOV01-1/1

Threshing Cylinder Pulley Shield — CWS

To remove shield, it is necessary to remove pin and turn lock (A).

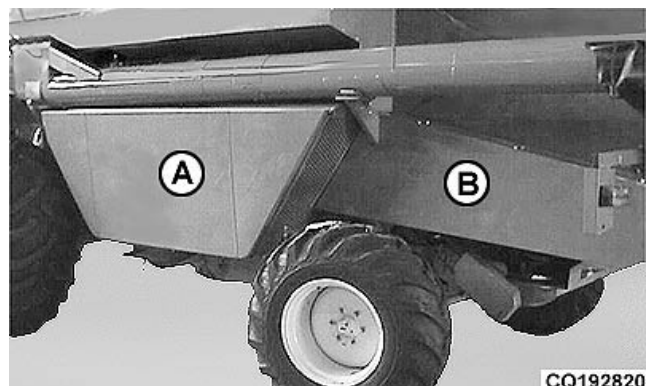
- A—Pin and lock



MB03730,0000205 -19-15MAR02-1/1

Left Side Shields

- A—Large Side Shield
- B—Straw Chopper and Chaffer Spreader Idler Pulleys Shield



AG,CO03622,2209 -19-15MAR02-1/1

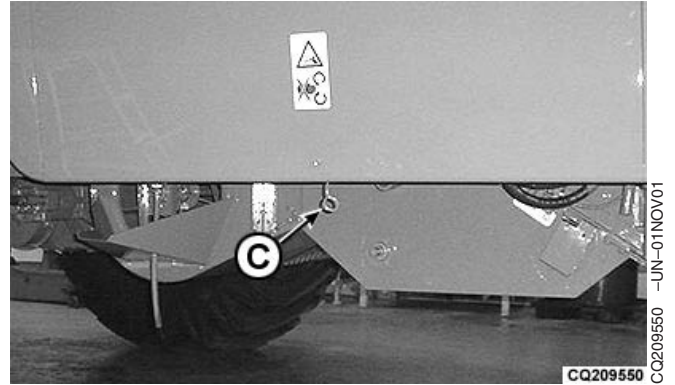
Opening The Large Side Shield

Pull the spring latch (C) down or turn lock.

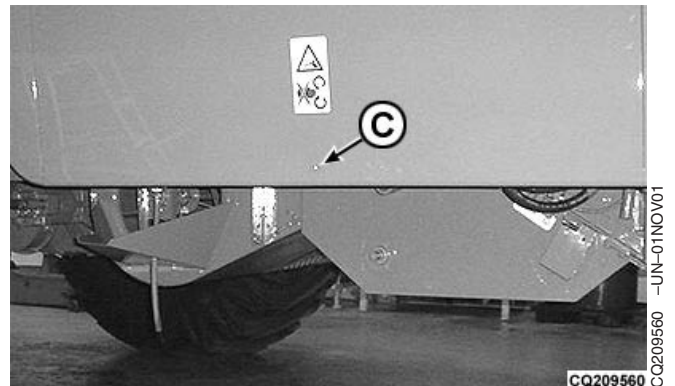
The gas cylinders (D) will support the shield once shields are released from the spring latch. The shield will open enough to allow safe service on the combine side.

To close, lower the shield and fit it in spring latch (C) or turn lock.

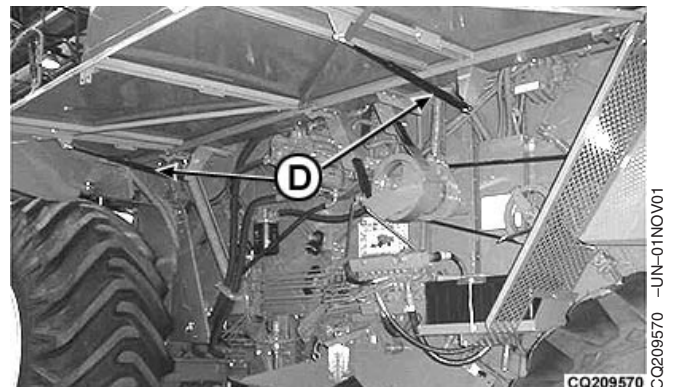
- C—Latch (1450 and 1550) — Lock (1450 CWS and 1550 CWS)
- D—Gas cylinders



Large Side Shield (1450 and 1550)



Large Side Shield (1450 CWS and 1550 CWS)

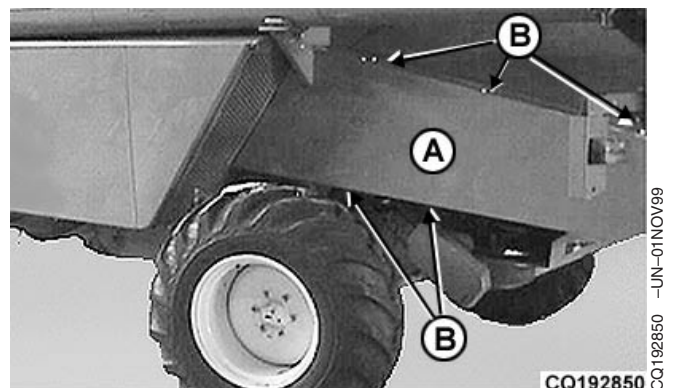


AG,CO03622,2210 -19-13NOV01-1/1

Opening The Straw Chopper and Chaff Spreader Idler Pulley Shield

To remove shield (A), remove bolts (B).

To install the shield back, perform the inverse procedure.

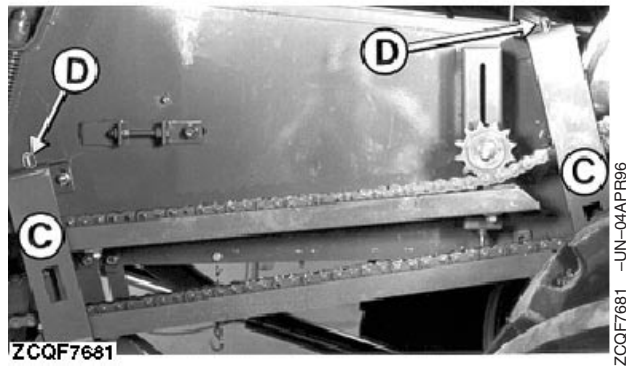


AG,CO03622,2211 -19-15MAR02-1/1

Opening The Header Drive Shield

Turn latches (A) and remove shield (B).

- A—Latches
- B—Shield
- C—Brackets
- D—Alignment pins



AG,CO03622,2129 -19-04MAR02-1/1

Drive Chain Tension

During the first few hours of operation, check that the tension on the chains is correct.

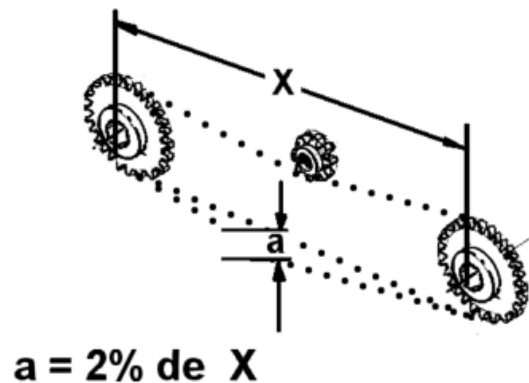
The flex on a chain should be about 2% of the distance between the shafts of the drive sprocket and idler sprocket, flexion being measured on section of chain opposite the tensioner.

The chain must not hang on side with the tensioner.

Example: If the distance between the shafts of the drive sprocket and idler sprocket is 250 mm (10 in.), the chain should not hang by more than 5 mm (0.2 in.).

Loose chains cause premature and excessive wear on the roller elements of the chain links, the sprocket teeth and possibly the drive components of the machine.

Chains that are too tight cause excessive pressure on the chain, the bearings and the shafts.



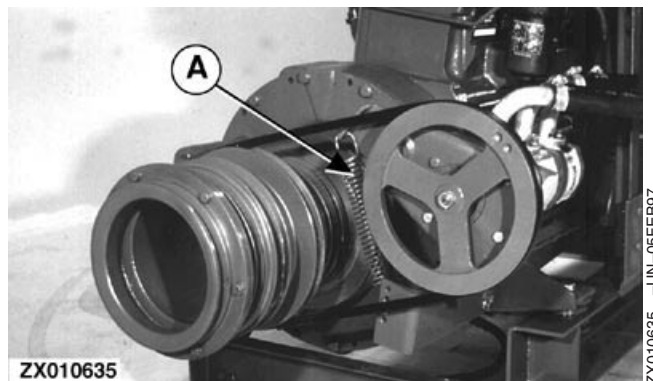
CQ188760

UN-19AUG99

AG,GG05155,603 -19-04MAR02-1/1

Adjusting Hydraulic Pump Belt Tension

Spring (A) maintains belt tension.



ZX010635

UN-05FEB97

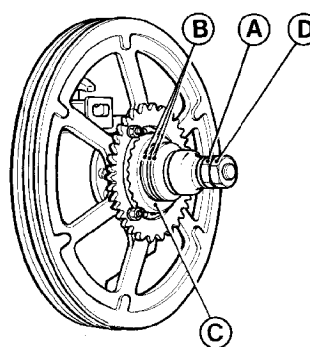
AG,CO03622,2131 -19-15MAR02-1/1

Adjusting Feeder House Slip Clutch

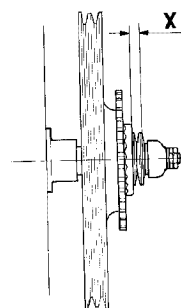
The slip clutch is adjusted with hex nut (A) against three disk springs (B) which press on clutch (C).

First loosen locknut (D) and hex nut (A). Then tighten nut (A) until distance (X) is 17.2 mm (0.68 in.). Next, tighten locknut (D) to 140-160 N•m (102.2 to 116.8 lb-ft).

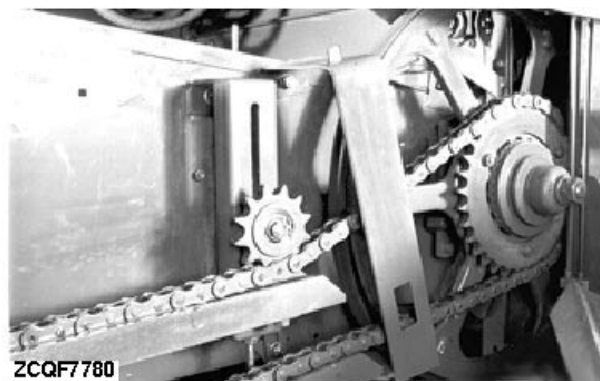
- A—Hex Nut
- B—Disk Spring
- C—Clutch
- D—Locknut
- X—17.2 mm (17.27 mm.)



ZCQD3941



UN-04APR96



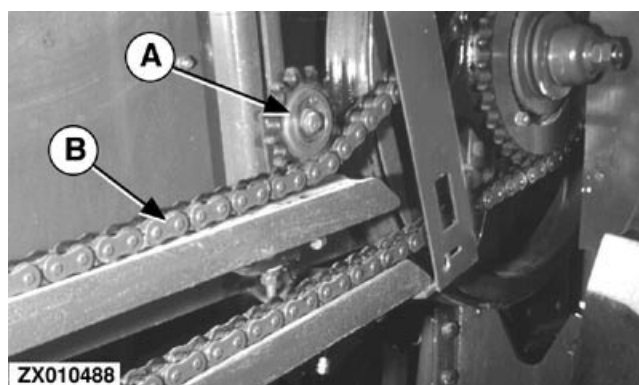
ZCQF7780

UN-04APR96

AG,CO03622,2133 -19-27FEB02-1/1

Adjusting Header Drive Chain

Move sprocket (A) to tighten chain (B).



ZX010488

UN-28JAN97

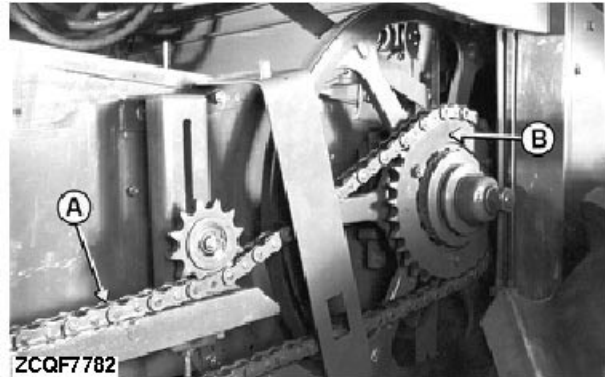
AG,CO03622,2134 -19-15MAR02-1/1

Replacing Feeder House Drive Belt

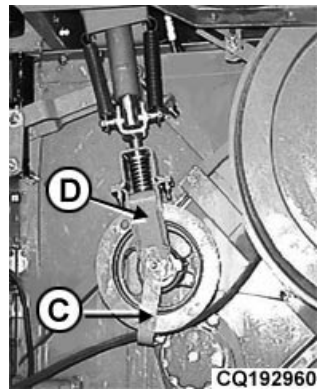
Remove the header drive shield. Then loosen the header drive chain (A) and remove sprocket (B) from the feeder house upper shaft.

Remove guide (C).

- A—Header Drive Chain
- B—Sprocket
- C—Guide
- D—Belt Idler



ZCQF7782 -UN-04APR96

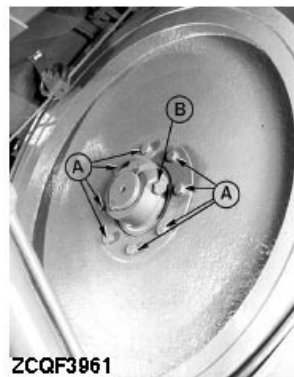


CQ192960 -UN-01NOV99

AG,CO03622,2135 -19-15MAR02-1/4

Remove Mounting Bolts:

Remove mounting bolts (A) and locking bolt (B).



ZCQF3961 -UN-24MAY96

AG,CO03622,2135 -19-15MAR02-2/4

Remove Pulley:

Remove beater pulley (B).



ZCQF3971 -UN-04APR96

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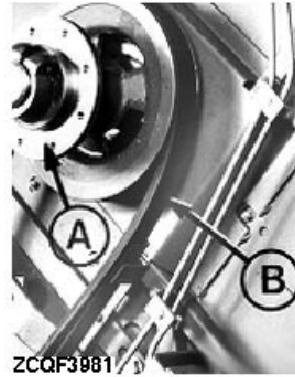
AG,CO03622,2135 -19-15MAR02-3/4



CAUTION: This pulley weighs about 40 kg (88 lb) and is difficult to handle.

Reverse the above sequence to install a new belt.

A—Hub
B—Drive Belt



AG.CO03622,2135 -19-15MAR02-4/4

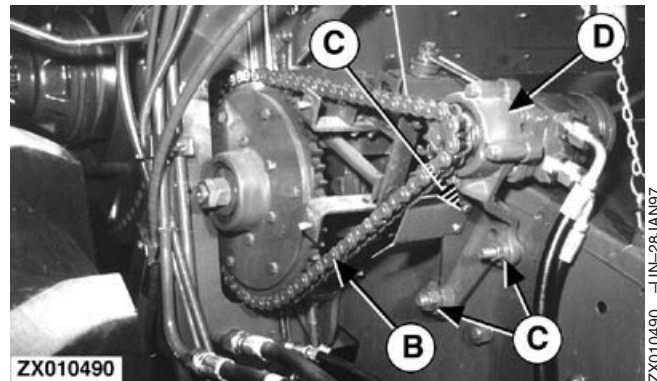
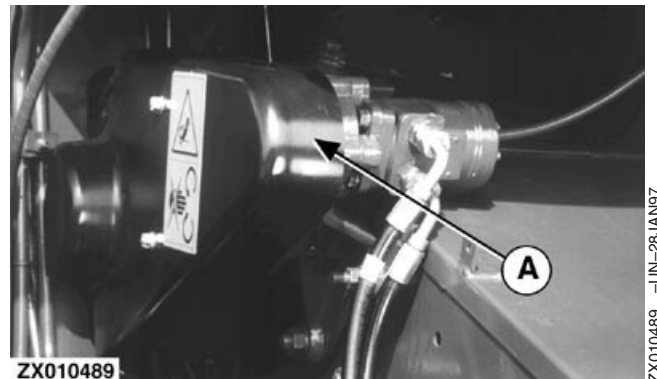
Feeder House Hydraulic Reverser Drive Chain Guard

Lift off guard (A).

Adjust drive chain (B) tension as follows:

- Loosen hex. nuts (C).
- Swing hydraulic motor (D) to the front and adjust chain tension as described in “Drive Chains” in this Section.
- Retighten hex. nuts (C).
- Reinstall guard (A).

A—Drive Shield
B—Drive Chain
C— Nuts
D—Hydraulic Motor



AG.CO03622,2136 -19-17MAY02-1/1

Replacing Threshing Unit Drive Belt

See your John Deere dealer when the threshing unit drive belt needs to be changed. The following instructions cover only removal of the belt from the beater pulley. This is for removal of the beater pulley in order to remove the cylinder feeder drive belt.

- Move the unloading auger to the unloading position.
- Disengage the threshing lever to loosen the belt.
- Loosen guide (C) and remove belt (D)

Reverse these steps to reinstall the belt.



C—Belt Guide
D—Threshing Unit Belt

AG,GG05155,313 -19-15MAR02-1/1

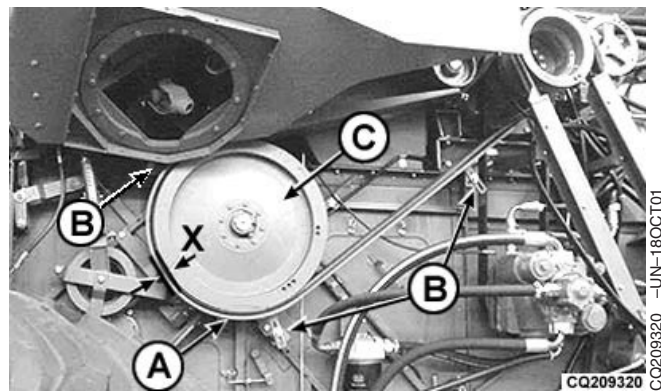
Adjusting Threshing Unit Belt Guide

NOTE: Shut off engine before adjusting belt guide to avoid accidents.

To adjust, it is necessary to loosen bolts in slotted supports (B).

With the belt tightened, there should be a play (X) of 2-5 mm (0.08 to 0.2 in.) between the belt and the guide (A).

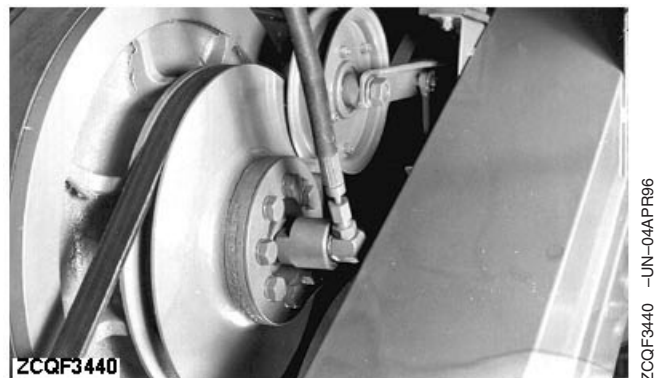
- A—Belt Guide
B—Slotted Support (3)
C—Pulley
X—2 to 5 mm (0.08 to 0.2 in.) Play



AG,CO03622,2137 -19-05FEB02-1/1

Adjusting Hydraulic Variable Speed Drive

IMPORTANT: When required, see your John Deere dealer for adjustment of the drive pulley halves on the cylinder and beater shaft.



AG,CO03622,2138 -19-15MAR02-1/1

Replacing Cylinder Variable Drive Belt— Combines With Posi-Torq Cylinder Drive

General Information

With the engine at top speed and the threshing unit engaged, use the cylinder speed control switch to fully open the beater shaft pulley (lowest cylinder speed). Disengage the threshing unit and stop the engine.



CAUTION: Do not adjust belt while the engine is running.

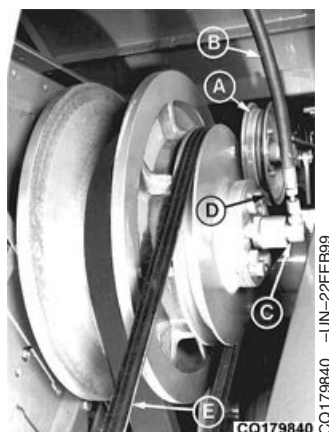
AG,GG05155,317 -19-05MAR02-1/4

IMPORTANT: Before any disassembly, thoroughly clean the area around the connector (C) and hydraulic hose (B).

Remove hydraulic hose (B) and connector (C). Loosen and remove the clean grain elevator drive belt (D) and the separator and cleaner drive belt (E).

Remove the idler (A). Move the support and bolt down and secure in this position.

- A—Idler Pulley
- B—Hydraulic Hose
- C—Connector
- D—Clean Grain Elevator Drive Belt
- E—Separator and Cleaner Drive Belt



Continued on next page

AG,GG05155,317 -19-05MAR02-2/4

Removing Drive Belt

Push the beater lower pulley half inward as far as possible.

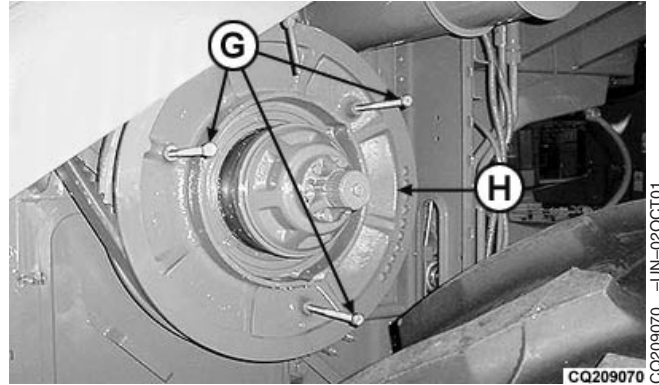
There are three M12 x 150 bolts (G) in the tool box. Insert these into the threaded holes in the outer half (H) of the cylinder shaft pulley. When the bolt ends touch the inner half the two halves will begin to separate and stay in that position.

NOTE: To remove, check that the belt is completely seated in the bottom of the cylinder shaft pulley slot.

With your hand pull the belt over the outer half of the beater shaft pulley (do not force).

Pull the belt off over the cylinder shaft pulley.

Reverse these steps to install the new belt.



Continued on next page

AG,GG05155,317 -19-05MAR02-3/4

IMPORTANT: After changing the belt, remove the three bolts and store them in the tool box.

Removing Belt on Machines with Reduction Gear

Rotate threshing cylinder through the half pulley (A) or using a wrench (See Rotating Cylinder By Hand) until the three holes (B) of reduction gear (C) are aligned with threaded holes of outer half pulley (A).

Remove nuts (D), (E) and support (F).

There are three M12 x 150 bolts (G) with nuts and washers in the tool box. Insert these into the threaded holes in the outer half pulley (A) of the cylinder shaft. Evenly tighten the three nuts (H) to separate the two halves.

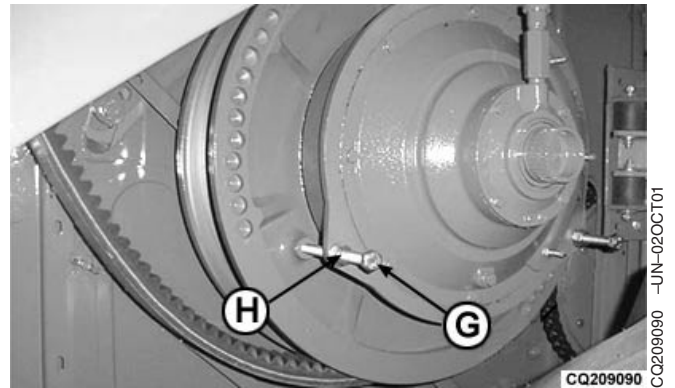
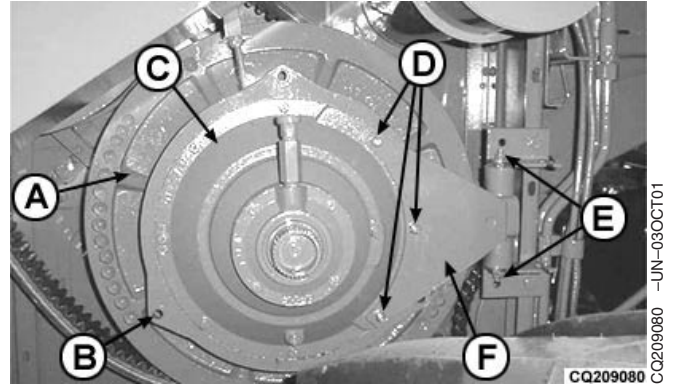
NOTE: To remove, check that the belt is completely seated in the bottom of the cylinder shaft pulley slot.

With your hand pull the belt over the outer half of the beater shaft pulley (do not force).

Pull the belt off over the cylinder shaft pulley.

Reverse these steps to install the new belt.

IMPORTANT: After changing the belt, remove the three bolts and store them in the tool box.

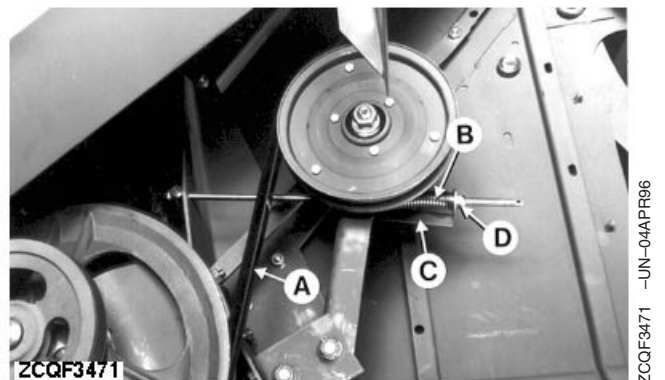


AG,GG05155,317 -19-05MAR02-4/4

Straw Walker V-Belt Tension

Belt tension (A) is correct when the length of spring (B) is equal to the length of tab (C). Adjust with nut (D).

- A—Drive Belt
- B—Spring
- C—Indicator Tab
- D—Adjusting Nuts



AG,CO03622,2139 -19-15MAR02-1/1

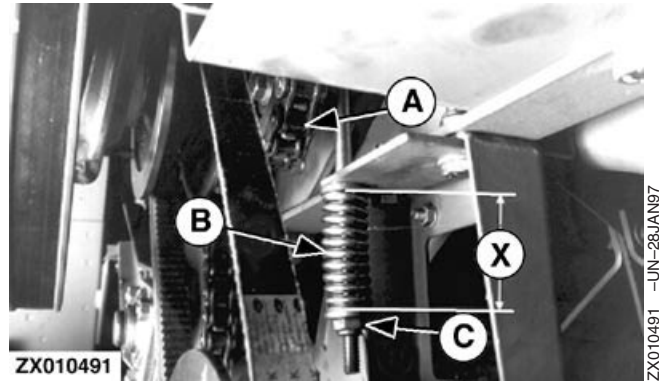
Adjusting Straw Walker Drive Chain Tension

Adjust the tension of chain (A) with the idler sprocket.

Spring (B) should have a length (X) of 70 mm (2.75 in.).

Adjust with hex nut (C).

- A—Drive Chain
- B—Spring
- C—Adjusting Nuts
- X—70 mm (2.75 in.)

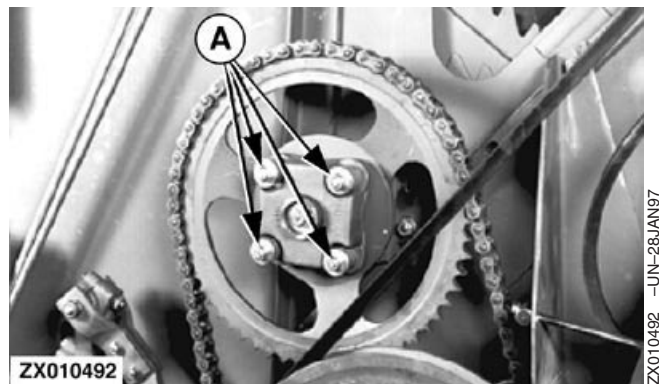


AG,CO03622,2140 -19-15MAR02-1/1

Adjusting Straw Walker Slip Clutch

The straw walkers are protected by a slip clutch.

Adjust by tightening the four nuts (A) to 40 N•m (29 lb-ft).

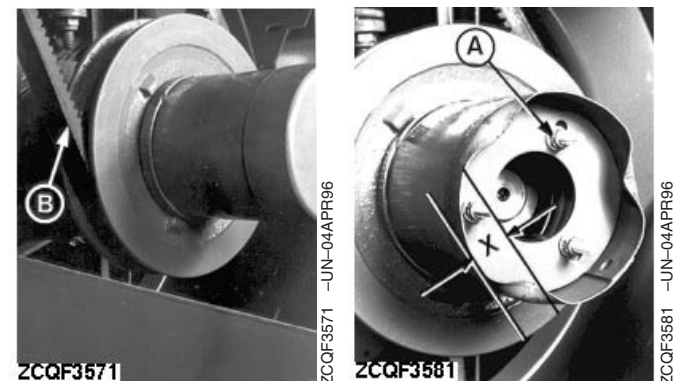


AG,CO03622,2141 -19-15MAR02-1/1

Adjusting Fan Variable Speed Drive Belt Tension

The fan drive belt (B) is correctly adjusted when distance (X), as measured from the outer edge of the spring box to the spring retaining washer, is 20 to 30 mm (0.79 to 1.18 in.).

Adjust nuts (A) to change this dimension.



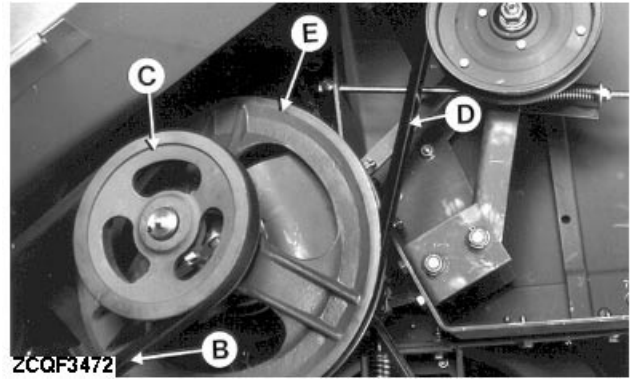
AG,CO03622,2142 -19-15MAR02-1/1

Replacing Fan/Alternator V-Belt

IMPORTANT: Only adjust fan speed with the engine running.

Remove the elevator drive belt (B) and pulley (C).
Remove belt (D). Loosen mounting bolt and remove the pulley (E).

- B—Drive Belt
- C—Pulley
- D—Drive Belt
- E—Pulley



ZCQF3472 -UN-04APR96

AG,CO03622,2143 -19-26SEP02-1/2

Remove pivot arm (A) and bolt (B) on both sides of yoke (C).

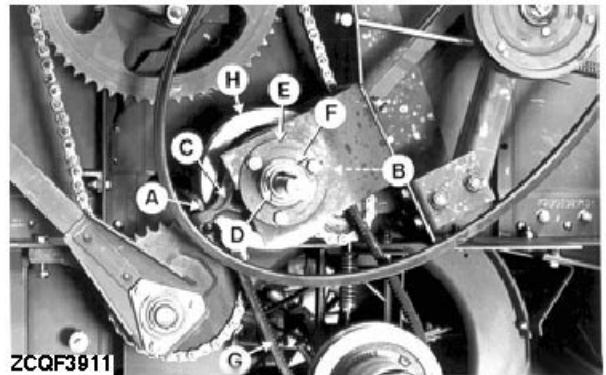
Remove snap ring (D) and take out flange (E) with bearing (F).

Remove belt (G) from the lower fan drive unit. Remove belt (G) over outer variable pulley (H) and yoke (C). The belt comes out over the bearing support opening (I). Pull the belt out through the opening.

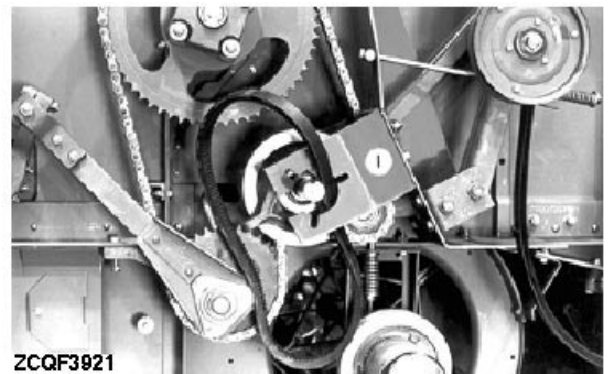
Reverse these steps to install the new belt.

NOTE: Make sure the upper pulley lugs are correctly connected. First put the belt on the upper unit.

- A—Pivot Arm
- B—Looking Bolt
- C—Yoke
- D—Snap Ring
- E—Bearing Support Flange
- F—Bearing
- G—Drive Belt
- H—Outer Variable Pulley
- I—Bearing Support



ZCQF3911 -UN-04APR96



ZCQF3921 -UN-04APR96

AG,CO03622,2143 -19-26SEP02-2/2

Adjusting Tailings Elevator Drive Belt Tension

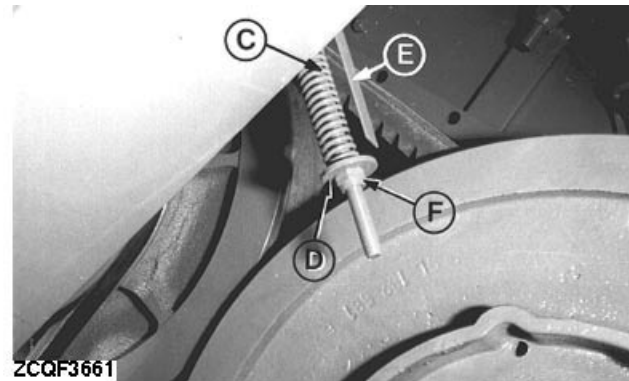
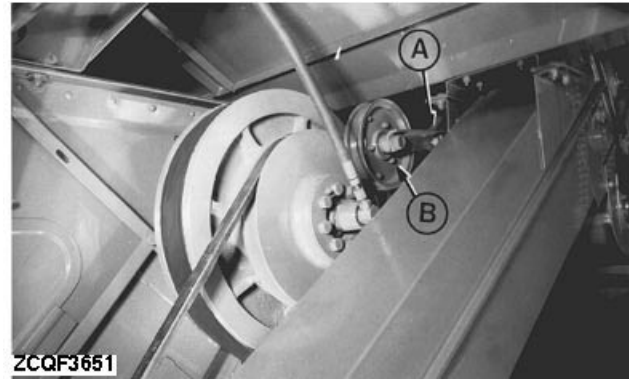
The tailings elevator is driven by the beater pulley via the elevator slip clutch.

Belt (A) is tensioned by idler pulley (B).

To obtain proper tension backing washer (D) should be level with indicator tab (E).

Adjust with nut (F).

- A—Drive Belt
- B—Idler Pulley
- C—Spring
- D—Backing Washer
- E—Indicator Tab
- F—Adjusting Nuts



AG,CO03622,2144 -19-15MAR02-1/1

Adjusting Tailings Elevator Slip Clutch

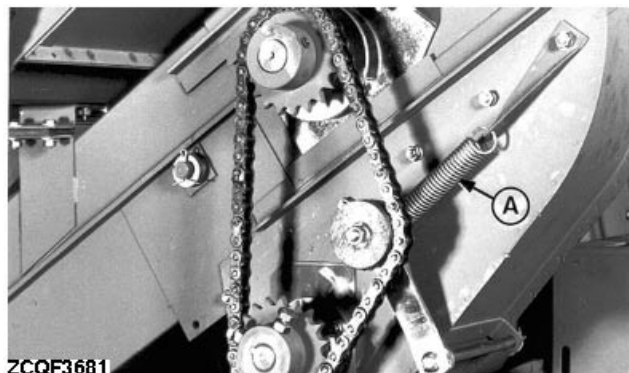
The slip clutch is correctly adjusted when spring (A) measures 60 mm (2.36 in.).



AG,CO03622,2145 -19-15MAR02-1/1

Adjusting Tailings Auger Drive

The chain is automatically tightened by spring (A).

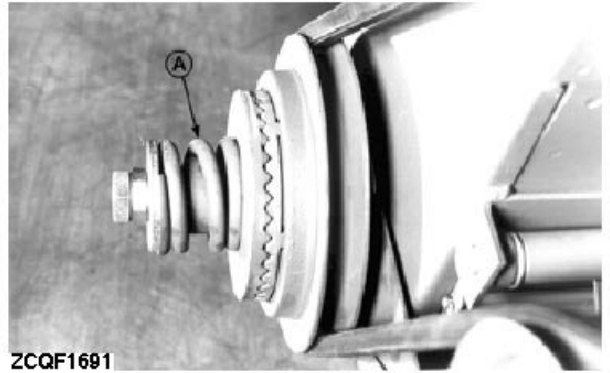


AG,CO03622,2146 -19-15MAR02-1/1

Adjusting Clean Grain Elevator Slip Clutch

The slip clutch is correctly adjusted when spring (A) measures 59 mm (5.89 cm.).

NOTE: Do not lubricate the slip clutch.



ZCQF1691

ZCQF1691 -UN-04APR96

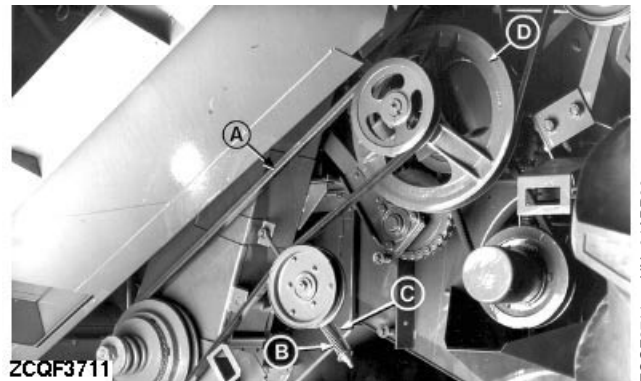
AG.CO03622,2147 -19-15MAR02-1/1

Clean Grain Elevator Drive Belt

The clean grain elevator is driven by belt (A) from the straw walker drive (D).

The belt tension is correct when spring (B) is as long as indicator tab (C).

- A—Drive Belt
- B—Spring
- C—Indicator Tab
- D—Straw Walker Drive



ZCQF3711

ZCQF3711 -UN-04APR96

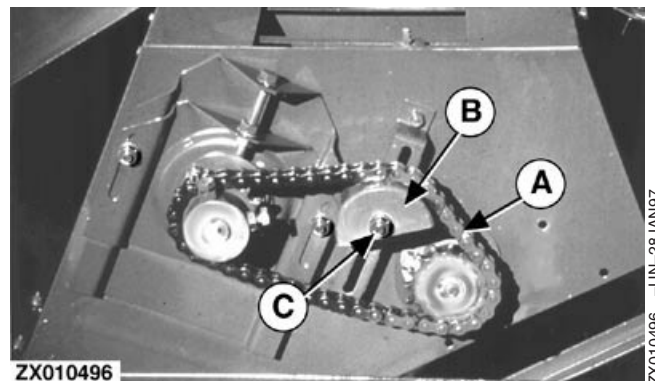
AG.CO03622,2148 -19-15MAR02-1/1

Adjusting Upper Auger Drive Chain

Remove the wing nut and open the cover.

To adjust chain tension (A) using idler (B), loosen nut (C) from the bolt and move idler (B) as needed.

- A—Drive Chain
- B—Tensioner sprocket
- C—Locking Bolt



ZX010496

ZX010496 -UN-28JAN97

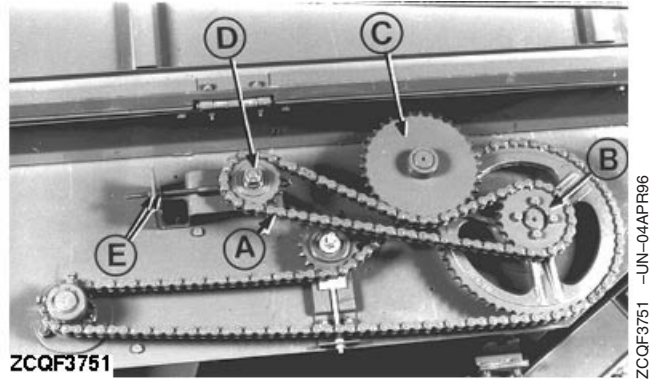
AG.CO03622,2150 -19-15MAR02-1/1

Adjusting Unloading Paddle Drive Chain

The unloading paddle is driven by chain (A) running from lower unloading auger sprocket (B) to sprocket (C).

Chain (A) can be tightened by moving sprocket (D) with adjusting nuts (E).

- A—Drive Chain
- B—Sprocket
- C—Sprocket
- D—Idler Sprocket
- E—Adjusting Nuts



AG,CO03622,2151 -19-15MAR02-1/1

Adjusting Unloading System Drive

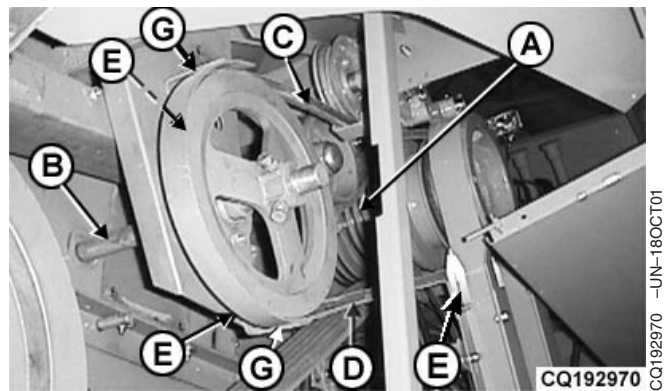
Left Side Of The Combine

NOTE: Shut off engine before adjusting belt guide to avoid accidents.

The system is driven by belt (C) from the engine pulley (A) and the jackshaft (B).

Adjust belt guide (D) with supports (G) after loosening bolts (E) to obtain uniform spacing of 3 to 5 mm (0.1 to 0.2 in.) between the belt and guide with the belt tightened.

Run machine and verify the adjustment between the belt and guide.



- A—Engine Pulley
- B—Jackshaft
- C—Drive Belt
- D—Belt Guide
- E—Bolts
- G—Supports

Continued on next page

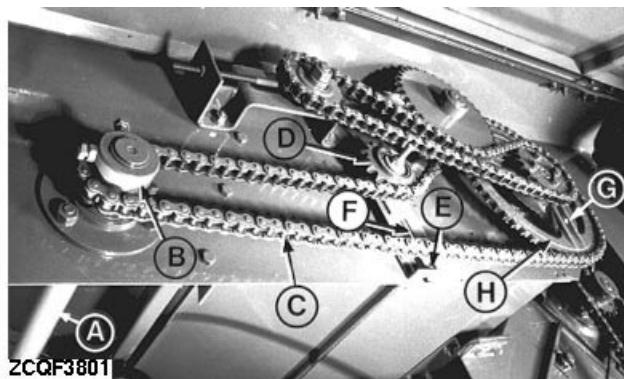
AG,CO03622,2152 -19-15MAR02-1/2

Sprocket (B) is on jackshaft (A) on the right side of the combine. Chain tension is adjusted with idler sprocket (D). Loosen hex nut (E) and position the idler sprocket with bolt (F).

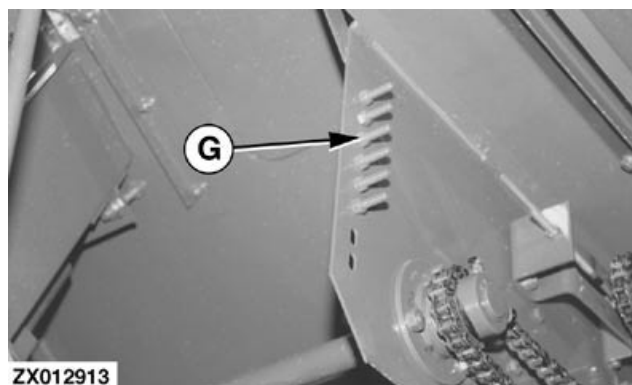
IMPORTANT: Bolt (G) is a shear bolt which will break in order to protect the drive system. Always replace with original JOHN DEERE part. Tighten it enough to bring the drag arm smoothly in contact with sprocket (H). Tighten shear bolt (G) using a screwdriver while holding lock nut with a spanner.

NOTE: Six replacement shear bolts (G) are supplied with the combine.

- A—Jackshaft
- B—Sprocket
- C—Drive Chain
- D—Sprocket
- E—Hex Nut
- F—Tightener Bolt
- G—Shear Bolt
- H—Unloading Auger Shaft Sprocket



—UN-04APR86



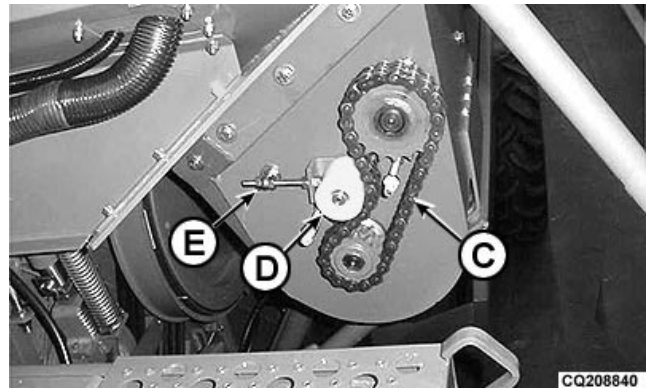
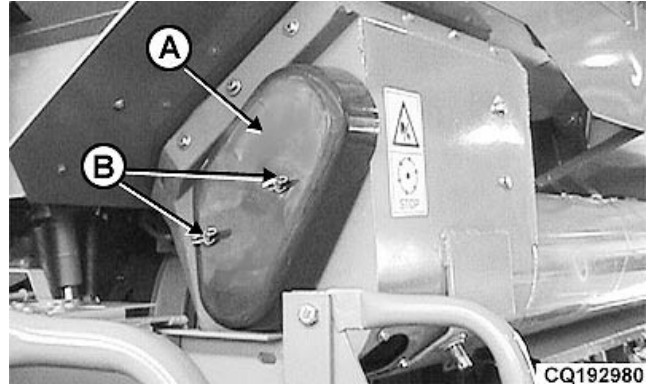
—UN-24SEP97

Adjusting Unloading Tube Auger Drive Chain

Remove drive shield (A) by taking out nuts (B).

Unloading tube auger is driven via grain tank unloading auger by means of chain (C). Adjust tension of chain (C) by means of tensioner sprocket (D) through nuts (E). Put drive shield back on its place.

- A—Drive Shield
- B—Nut
- C—Drive Chain
- D—Tensioner sprocket
- E—Nuts



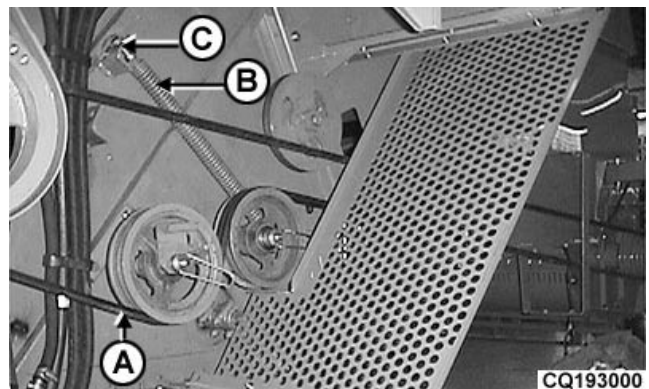
AG,CO03622,2153 -19-05FEB02-1/1

Tensioning Straw Chopper Intermediate Drive Belt

The correct tension of the belt (A) is obtained by means of spring (B).

To adjust it use adjusting bolt (C).

- A—Drive Belt
- B—Spring
- C—Adjusting Bolt



AG,CO03622,2212 -19-15MAR02-1/1

Service — Electrical System

Specifications, Electrical System

Specification	
—Alternators.....	01
Alternator Output.....	120 A
Number of batteries.....	01
Battery voltage.....	12 V
Battery capacity.....	150 AH

AG,CO03622,2154 -19-28SEP99-1/1

Prevent Battery Explosions

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

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

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



TS204 -UN-23AUG88

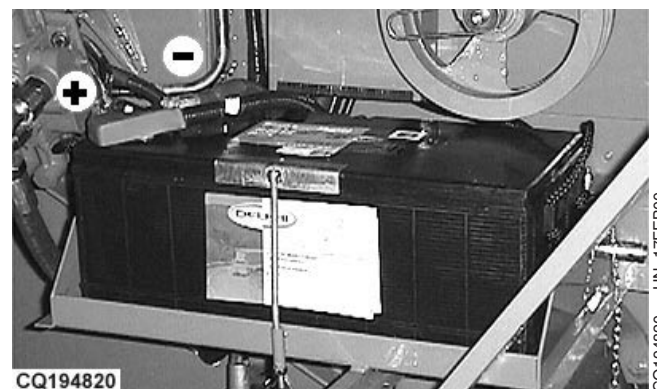
DX,SPARKS -19-03MAR93-1/1

Removing the Battery

CAUTION: When performing services at electrical system **ALWAYS** turn off the battery switch

CAUTION: When removing the battery, first disconnect the negative (-) cable and then the positive (+) cable.

NOTE: When reconnecting the battery cables, first connect the positive (+) cable and then the negative (-).

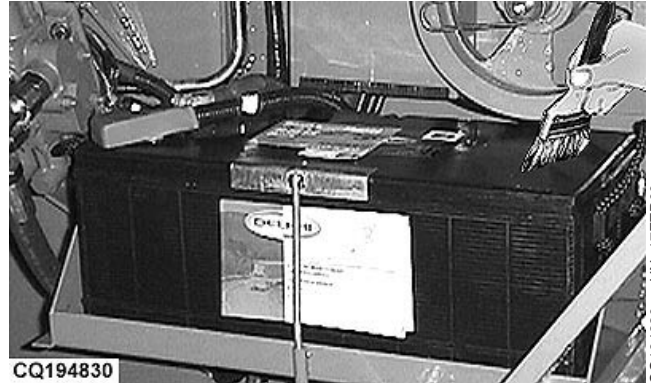


CQ194820 -UN-17FEB00

AG,CO03622,438 -19-15MAR02-1/1

Cleaning the Battery

- Clean the battery each week.
- Use a brush to remove any corrosion from the terminals.
- Apply grease or petroleum jelly to the battery terminals and cables.



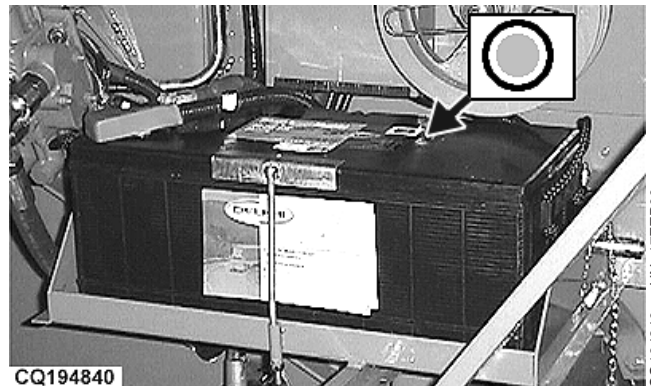
AG,CO03622,439 -19-26SEP02-1/1

Battery Electrolyte Level

Check the electrolyte level each week.

Check Test Indicator:

- Green:** Battery voltage is good.
- Dark:** Battery voltage is not good. Charge battery until Test Indicator turns on green.
- Light:** Low level of electrolyte. Replace battery and check combine electrical system.



AG,CO03622,440 -19-15MAR02-1/1

Storing the Battery

At the end of the harvesting season store the battery in a cool, dry place.

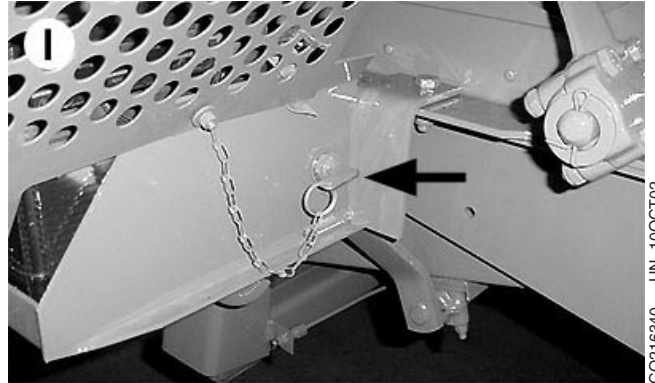
Inspect the battery every 30 days.

If necessary, recharge the battery.

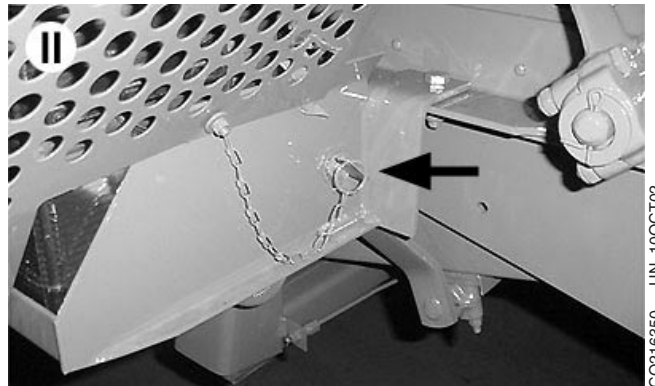
AG,CO03622,441 -19-03FEB99-1/1

Battery Switch

- I—Battery switch off
- II—Battery switch on



CQ216340 -UN-10OCT02

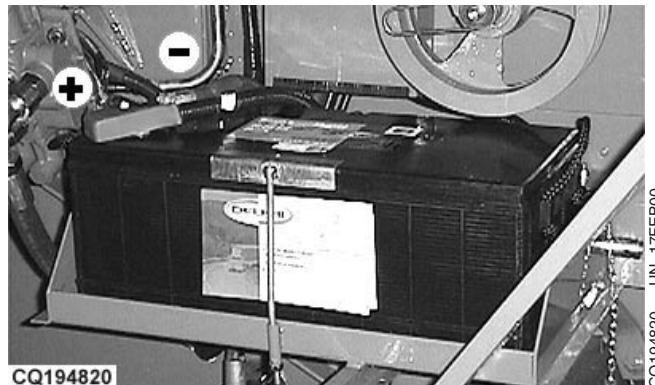


CQ216350 -UN-10OCT02

AG,CO03622,2156 -19-15MAR02-1/1

Installing and Connecting the Battery

IMPORTANT: Make sure battery is connected to the correct poles. The positive cable (from starter motor) to the positive (+) poles, the negative cable (from ground) to the negative () poles. Reversed polarity will result in permanent damage to the electrical system.



CQ194820

CQ194820 -UN-17FEB00

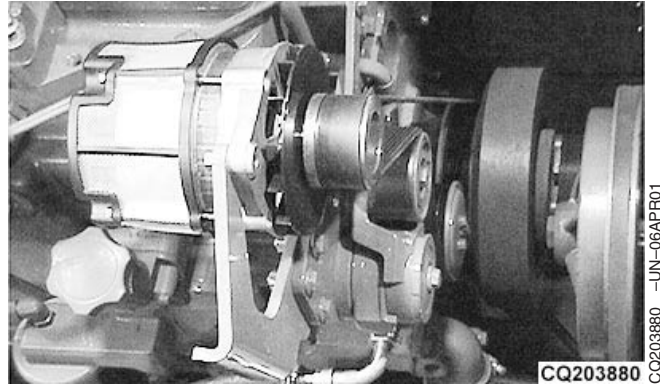
AG,CO03622,2213 -19-15MAR02-1/1

Alternator

IMPORTANT: When working on the electrical system, always disconnect the ground cable. This prevents damage from occurring.

NOTE: Tensioning of the drive belt is described in the "Service — Engine" Section.

Have alternator checked by a specialist workshop once every year.



AG,CO03622,2214 -19-15MAR02-1/1

Starting Motor

IMPORTANT: When working on the electrical system, always disconnect the ground cable. This prevents damage from occurring.

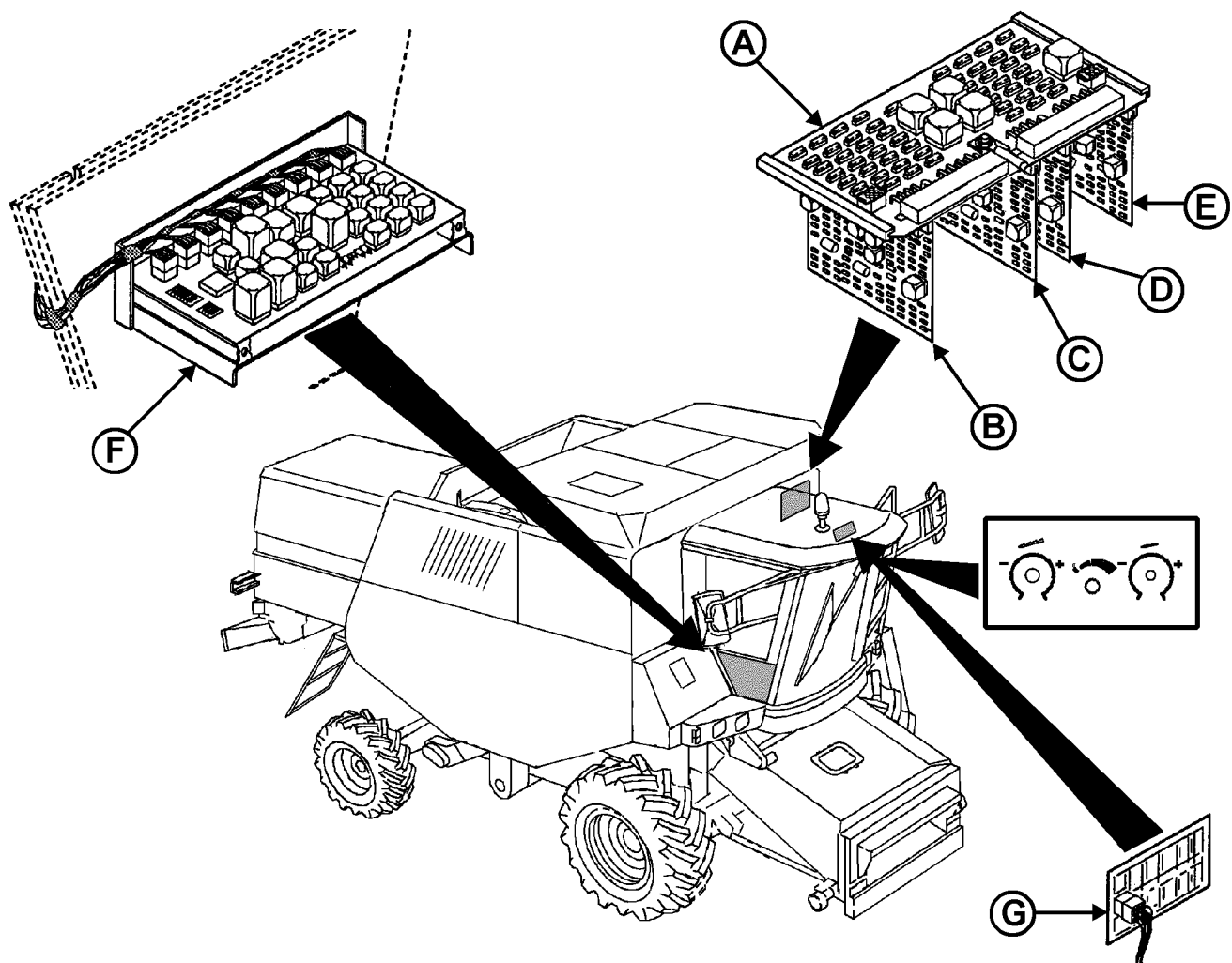
If the starting motor does not function or operates only sluggishly, the fault may lie not in the starting motor but in one of the causes suggested below.

If the remedies suggested fail to improve starting motor operation, see your local John Deere dealer. Have starting motor inspected by a specialist workshop once every year.

- ☐ **Loose, dirty or corroded connections:** Clean and tighten all connections.
- ☐ **Low battery output:** Check electrolyte level and specific gravity of battery. Recharge battery if necessary. See "Battery Electrolyte Level"
- ☐ **Run down battery:** Recharge battery.
- ☐ **Engine crankcase oil of wrong viscosity:** Drain and refill crankcase with specified oil.
- ☐ **Low environment temperature (Europe and United States):** An intake air heater is used to increase intake manifold air temperature to improve cold starting automatically through the ECU. Indicator light goes out when it is possible to turn start key.
- ☐ **Defective start safety relay:** Replace relay.

AG,CO03622,2215 -19-17MAY02-1/1

Electronic Boards



CQ193050

—JUN-09NOV99

A—Fuse board

B—Speed and warning signals
monitoring board

C—Reel speed board

D—Auxiliary relay board

E—Cutting Platform control
board

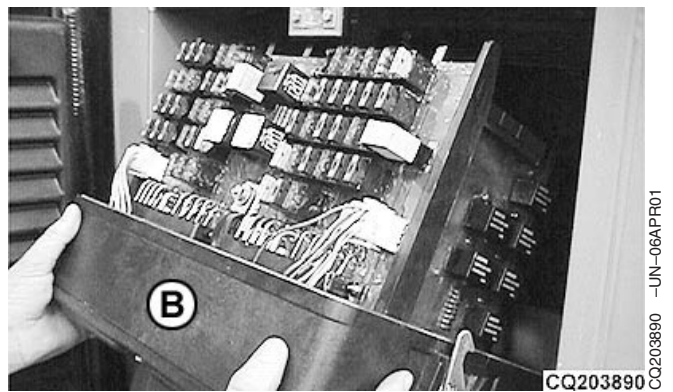
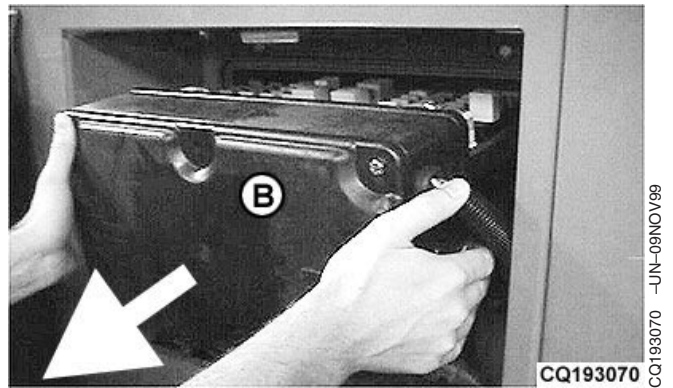
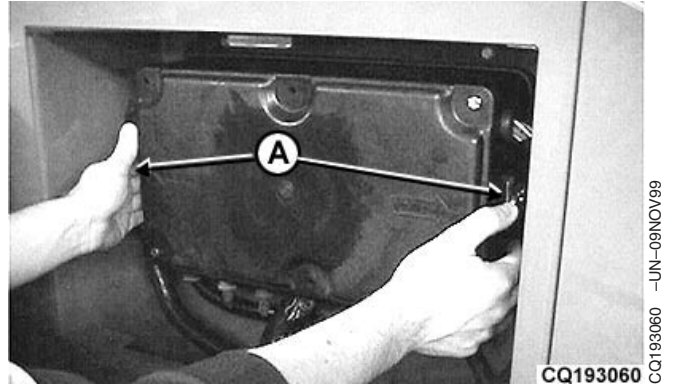
F—Relay and Diode Board

G—Harvest performance
monitor board

AG,CO03622,2216 —19-05NOV02-1/1

Removing Electrical Box

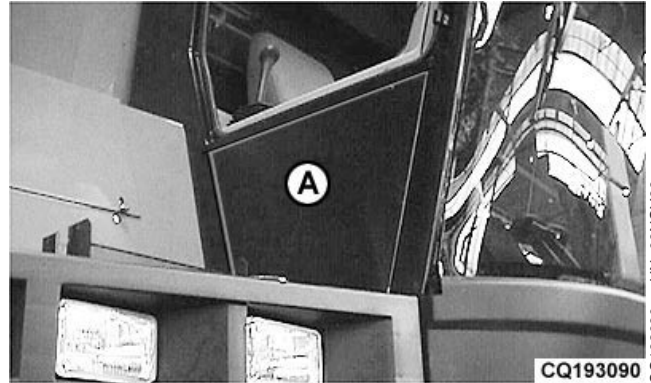
- Remove cover of electrical box (not illustrated).
- Loosen latches (A) on both sides of the box.
- Slowly and carefully remove the electrical box (B) as illustrated.



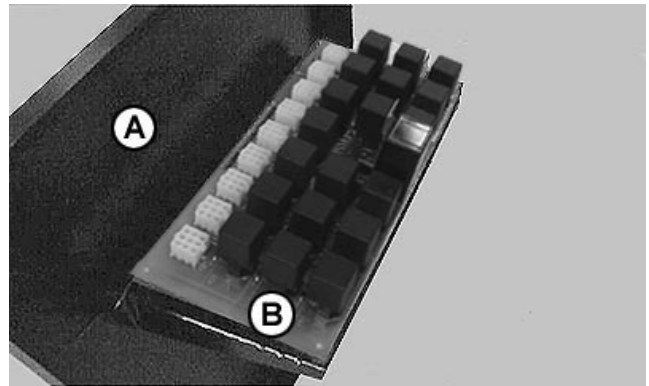
AG.CO03622,2217 -19-15MAR02-1/1

Access to the Relay Diode Board

- Remove cover(A).
- The Relay diode board (B) is integrated with inner side of the cover (A).



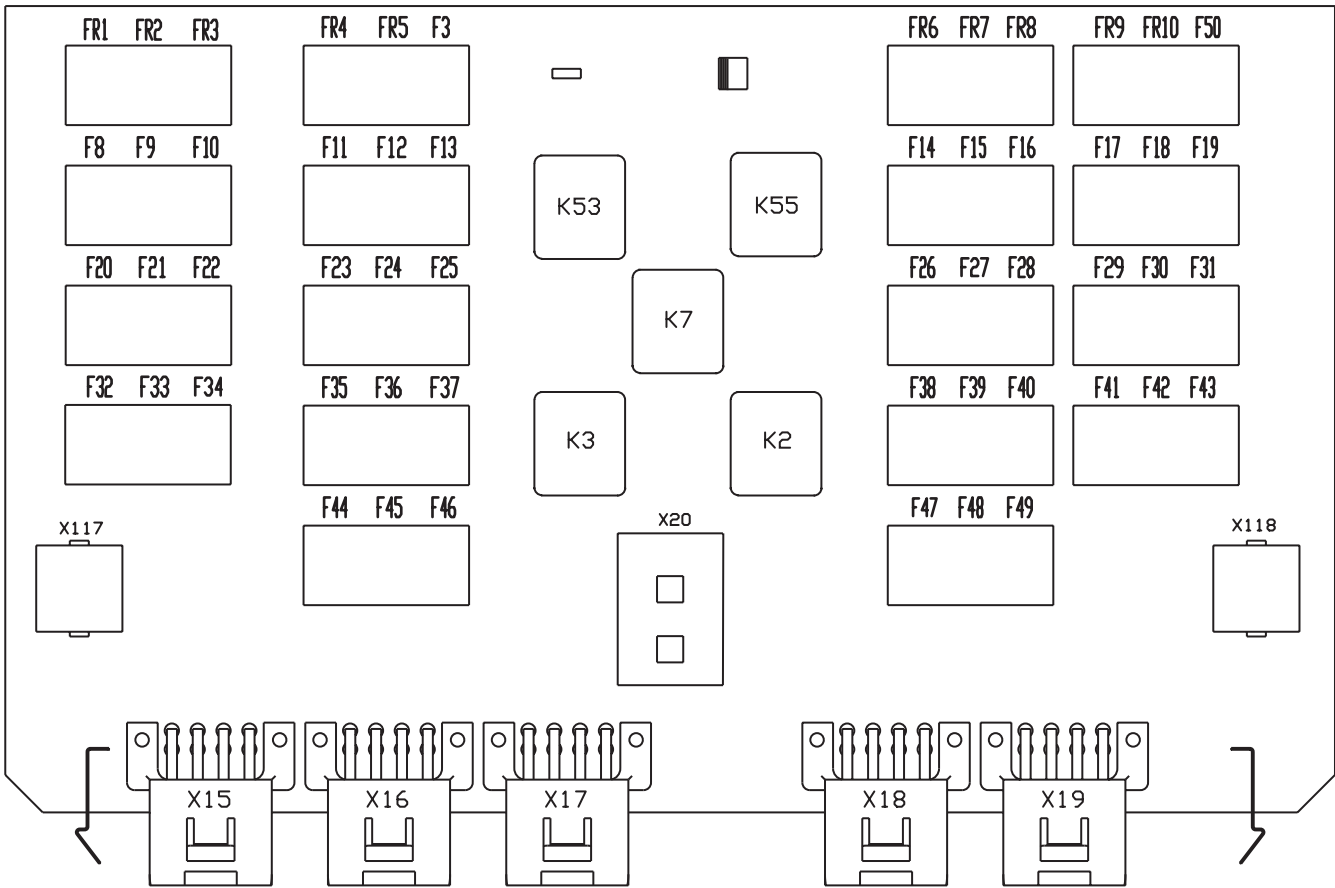
UN-09NOV99
CQ193090



UN-28NOV02
CQ193101

AG,CO03622,2218 -19-28NOV02-1/1

Fuses On Fuse Board



CQ216560
512 X 388

CQ216560 -UN-19NOV02

F8—7.5 A fuse, fan and cylinder speed adjustment	F20—7.5 A fuse, unloading tube light	F32—15 A fuse, horn	F45—7.5 A fuse, left-hand high beam
F9—15 A fuse, chopper distributor adjustment (Option CWS)	F21—30 A fuse, air conditioning system	F33—30 A fuse, starter switch	F46—7.5 A fuse, right-hand high beam
F10—7.5 A fuse, Low shaft speed monitor system	F22—15 A fuse, windshield wipers, grain tank light and cab	F34—15 A fuse, Safety switch	F47—7.5 A fuse, radio, CB, clock
F11—7.5 A fuse, harvest performance monitor	F23—15 A fuse, brake lights, reel speed adjustment	F35—7.5 A fuse, straw warning device, electronic infotrak monitor	F48—7.5 A fuse, D+ alternator
F12—15 A fuse, header and reverser drive	F24—7.5 A fuse, reverse travel	F36—7.5 A fuse, electrically adjustable outside mirrors (optional CWS)	F49—7.5 A fuse, engine shut-off solenoid (1450 and 1550)
F13—7.5 A fuse, cutting platform controls	F25—30 A fuse, Gear box blocking (CWS)	F37—15 A fuse, radio, CB, clock	F50—7.5 A fuse, indicator lights, temperature gauge
F14—7.5 A fuse, Power supply of cutting platform control board	F26—15 A fuse, beacon lights	F38—15 A fuse, cigarette lighter socket	FR1—7.5 A fuse, Spare
F15—7.5 A fuse, raising/lowering header	F27—30 A fuse, concave adjustment	F39—Not used	FR2—7.5 A fuse, Spare
F16—7.5 A fuse, grain tank unloading system	F28—7.5 A fuse, Power supply of cutting platform control board	F40—7.5 A fuse, left parking light	FR3—7.5 A fuse, Spare
F17—7.5 A fuse, threshing and splitter main power supply	F29—30 A fuse, work lights on cab roof	F41—7.5 A fuse, right parking light	FR4—7.5 A fuse, Spare
F18—Not used	F30—30 A fuse, fan adjustment	F42—7.5 A fuse, dash panel lighting	FR5—15 A fuse, Spare
F19—Not used	F31—15 A fuse, hazard warning flashers, sieves and engine compartment lighting	F43—7.5 A fuse, right-hand low beam	FR6—15 A fuse, Spare
		F44—7.5 A fuse, left low-beam	FR7—15 A fuse, Spare
			FR8—30 A fuse, Spare
			FR9—30 A fuse, Spare
			FR10—30 A fuse, Spare
			F3—Fuse Tester

IMPORTANT: Never use fuses stronger than those specified. If fuses keep blowing in one circuit, have the electrical

system inspected by your John Deere dealer.

AG.CO03622,2219 -19-19NOV02-2/2

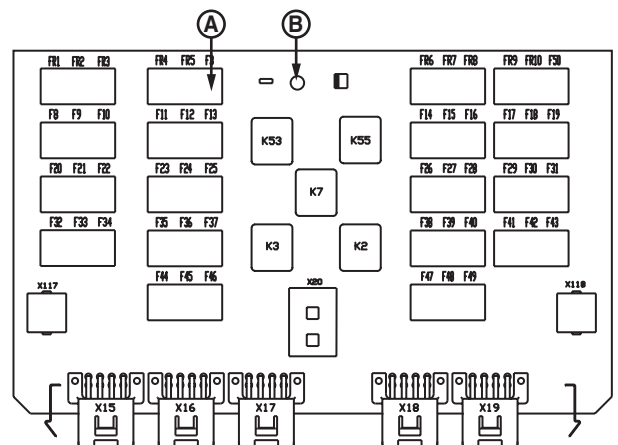
Fuse Tester

To test the fuses, a tester was placed in the proper fuse circuit, where it can be verified if it is functioning or not.

Remove any fuse that assumes that it can be with a defect and insert it in slot. (A). If the led (B) lights up is because the fuse is functioning perfectly.

NOTE: It is not necessary to turn on the ignition key of the colheitadeira to proceed the test, however the interruptor of the battery has to be on.

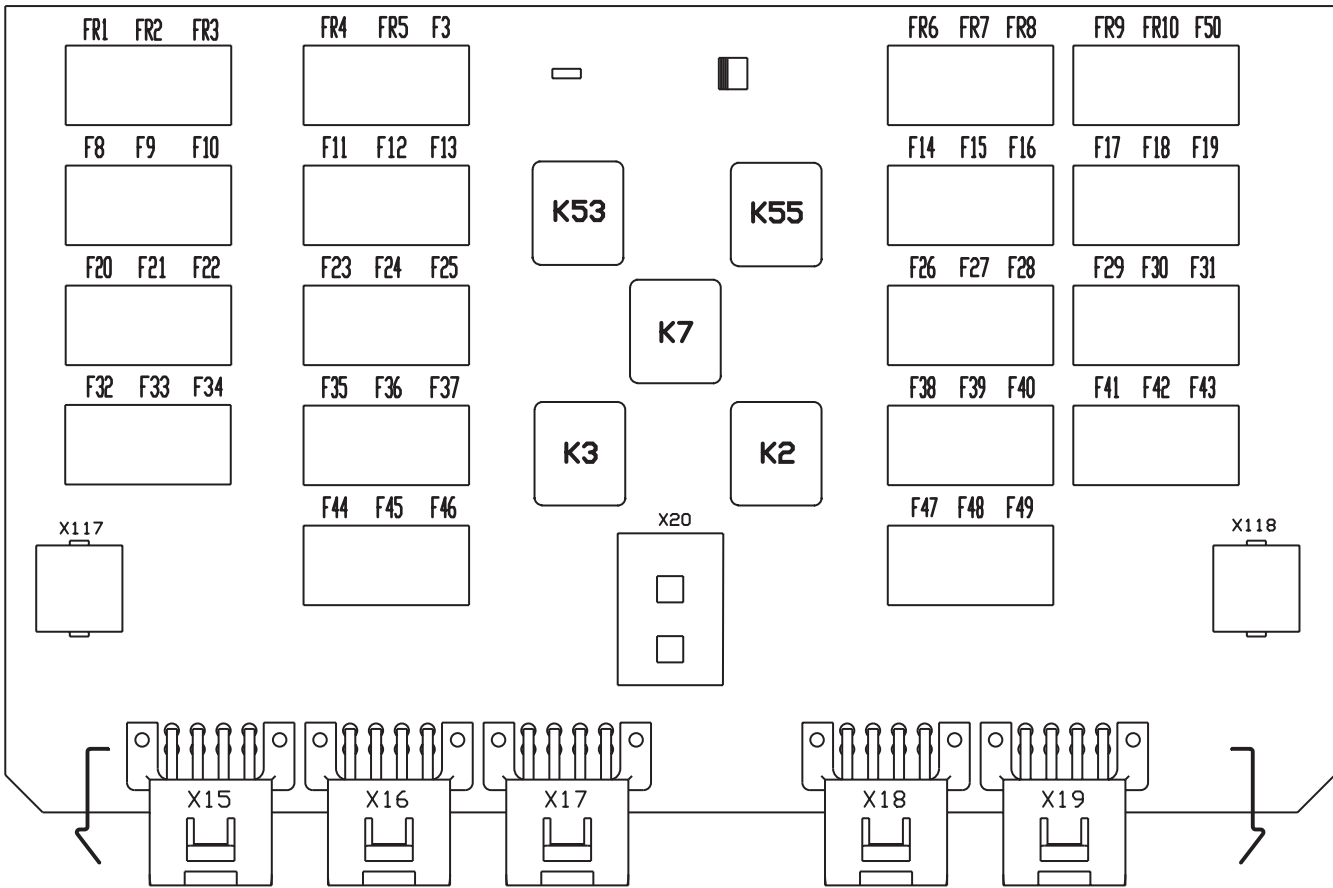
A—Fuse Tester
B—Luminous diode



CO216570 -UN-19NOV02

CO03622,000006D -19-19NOV02-1/1

Relays On Fuse Board



CQ216561
512 X 388

K02—Power supply relay
K03—Power supply relay

K07—Work light relay

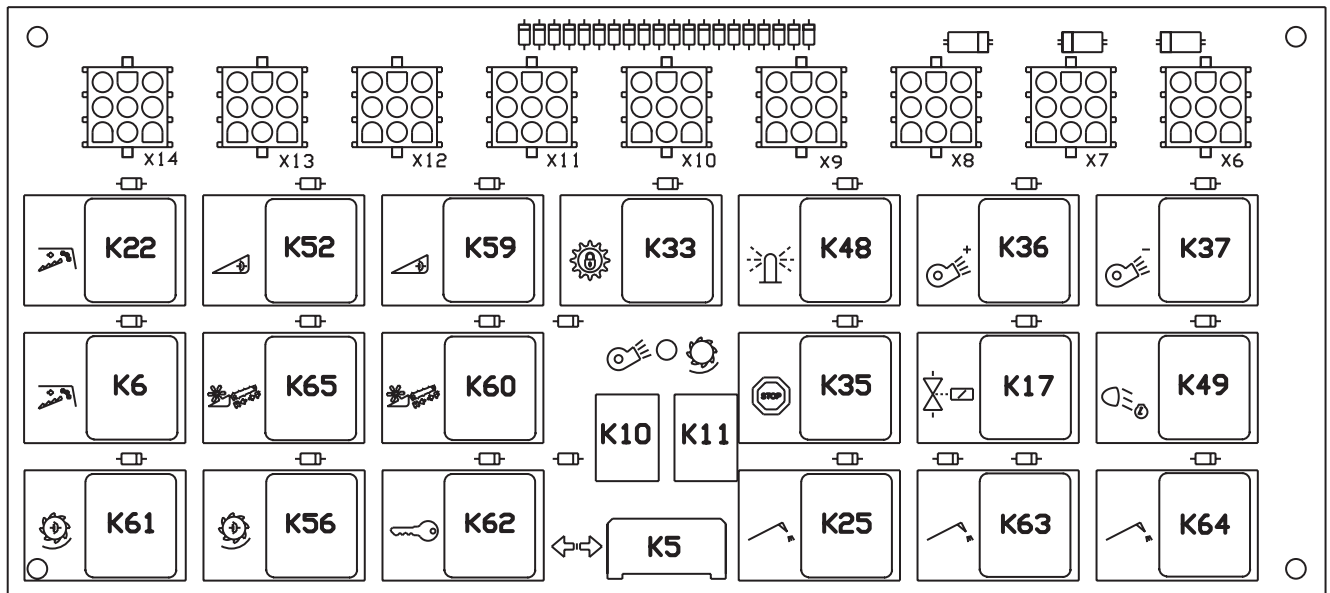
K53—Threshing unit relay

K55—Field/road relay

CQ216561 —UN—19NOV02

AG,CO03622,2264 —19—19NOV02—1/1

Relay and Diode Board

CQ216550
512 X 268

CQ216550 -UN-19NOV02

K05—Directional lights relay
 K06—Horn relay # 2 positions
 K10—Fan speed alarm relay
 K11—Cylinder speed alarm relay
 K17—Splitter relay
 K22—Horn relay # 1
 K25—Unloading auger relay

K33—Auxiliary relay, gear box blocking (Only CWS)
 K35—Emergency stop relay
 K36—Relay, increasing speed of fan
 K37—Relay, decreasing speed of fan
 K48—Beacon light relay

K49—Rear light relay
 K52—Cutting platform drive self retain relay
 K56—Separator drive relay
 K59—Cutting platform switching on relay
 K60—Reverser relay
 K61—Separator drive self retain relay

K62—Start lock relay
 K63—Unloading auger drive self retain relay
 K64—Unloading auger drive relay
 K65—Reverser self retain relay

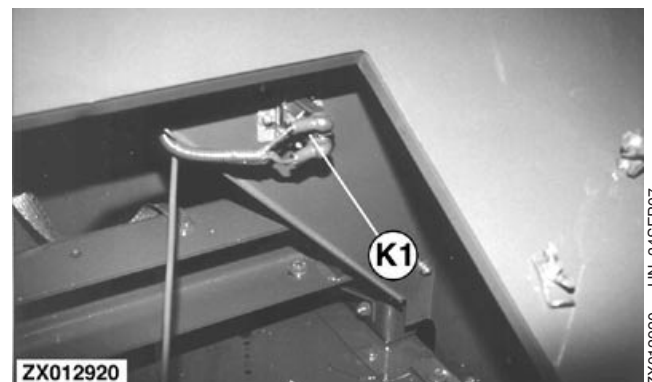
AG,CO03622,2221 -19-19NOV02-1/1

Starting Motor Relay (1450 and 1550)

K 1 — Relay, Starting Motor

The solenoid switch of the starting motor is supplied with power via relay. It is attached to the left-hand rear grain tank support.

Access is possible via an opening in the grain tank bottom.

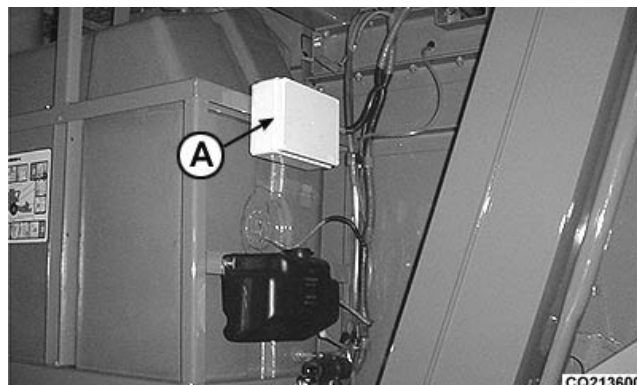


ZX012920 -UN-24SEP97

WH,CO03622,2223 -19-03JUN02-1/1

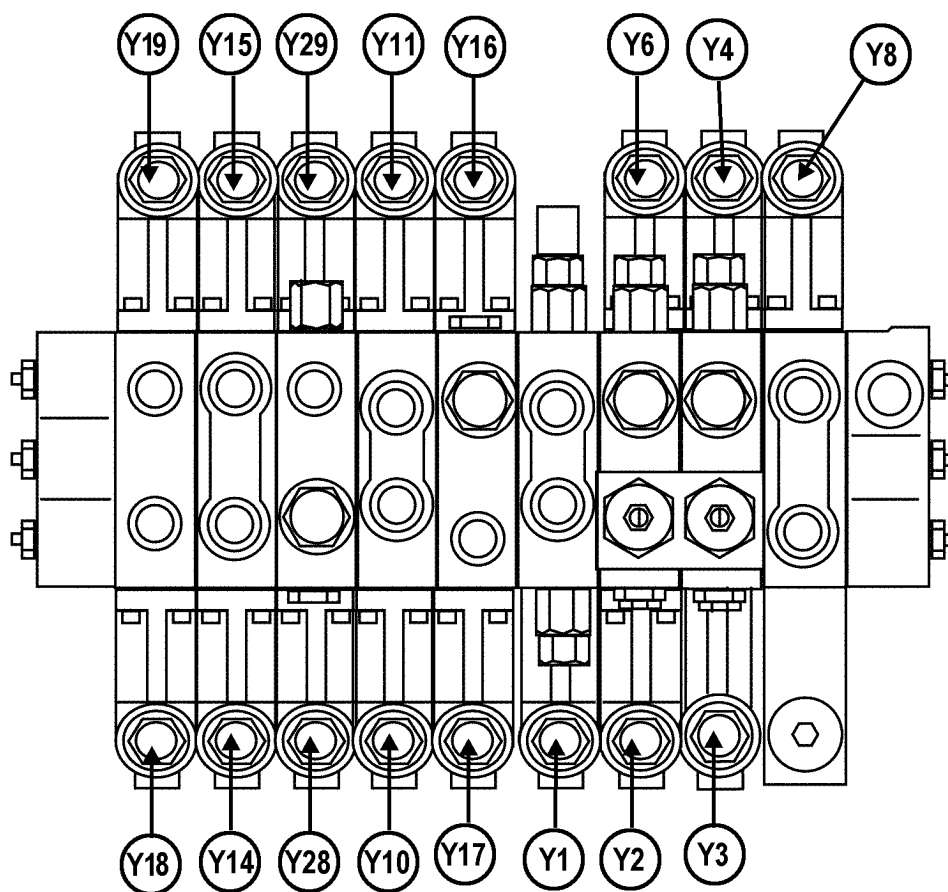
Starting Motor Relay (1450 CWS and 1550 CWS)

The solenoid switch of the starting motor is supplied with power via relay K1. It is located in the electrical box (A) near the fuel tank.



AG,CO03622,2223 -19-15APR02-1/1

Solenoid Valves (Main Hydraulic Block)



CQ209290

—UN-15OCT01

Y1—Splitter
Y2—Header fast raise
Y3—Header slow raise
Y4—Header fast lowering
Y6—Header slow lowering

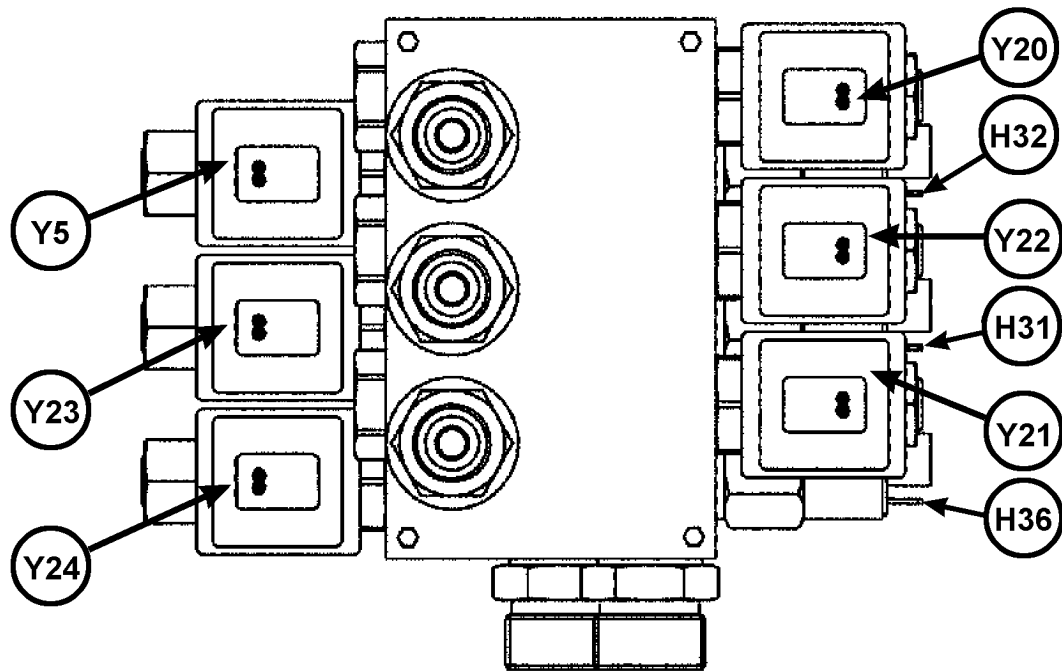
Y8—Hydraulic reverser
Y10—Swinging in unloading auger
Y11—Unloading tube swinging
Y14—Lateral tilt to right side

Y15—Lateral tilt to left side
Y16—Reel rear position
Y17—Reel forward position
Y18—Reel lowering
Y19—Reel raise

Y28—Decreasing threshing cylinder variator speed
Y29—Increasing threshing cylinder variator speed

AG,CO03622,2245 -19-05FEB02-1/1

Solenoid Valves (Secondary Hydraulic Block)



CQ209340

—UN—15OCT01

H31—Pressure Switch (35 bar)
H32—Pressure Switch (12 bar)
H36—Pressure Switch (12 bar)

Y5—Switching off unloading
auger
Y20—Switching on unloading
auger

Y21—Activate Header
Y22—Activate Separator

Y23—Deactivate Separator
Y24—Deactivate Header

AG.CO03622,2854 —19—15MAR02—1/1

Error Codes, INFOTRAK Monitor

Whenever the infotrak monitor displays a three-digit number followed by an “E”, a malfunction or error by the operator is indicated. The cause of a machine malfunction may be a broken wire etc.

IMPORTANT: If no solution is given or if the problem cannot be eliminated, consult your John Deere dealer.

Error code	Problem	Solution
101E	Counter of engine operating hours in infotrak monitor is defective	
102E	Working hour counter of infotrak monitor is defective.	
122E	Concave cannot be adjusted, sensor signals not in correct area (too low)	Check fuse (F27)
123E	Concave cannot be adjusted, sensor signals not in correct area (too high)	Check fuse (F27)
128E	No reaction from infotrak monitor	
129E		
130E	Adjusting motor cannot reduce fan speed to the desired rpm	Check fuses (F8, F30)
131E	Variator cannot reduce cylinder speed to the desired rpm	Check fuse (F8)
132E	Adjusting motor can not reduce concave clearance to desired gap	Check fuse (F27)
135E	Adjusting motor cannot increase fan speed to the desired rpm	Check fuses (F8, F30)
136E	Variator cannot increase cylinder speed to the desired rpm	Check fuse (F8)
137E	Adjusting motor cannot increase concave clearance to desired gap	Check fuse (F27)
139E	With EPROM versions 7 or 9	Engine speed at “automatic machine adjustment” is less than 2000 rpm, or the separator is switched off.

AG,CO03622,2225 -19-05NOV02-1/1

Automatic Header Control System Error Codes

Error code	Error Message	Solution
200	System not calibrated	
201	Header height not calibrated	
202	Header float not calibrated	
203	Header sensors not available	0028
209	Slow raise valve driver circuit fault	0025
210	Slow lower valve driver circuit fault	0025
211	Fast raise valve driver circuit fault	0025
212	Fast lower valve driver circuit fault	0025
213	Tilt left valve driver circuit fault	0026
214	Tilt right valve driver circuit fault	0026
215	Flex pressure diverter valve circuit fault	0024
216	Accumulator shutoff valve circuit fault	0024
218	Sensor power fault	0006
220	Height control setting fault	0010
221	Float control setting fault	0011
224	Feederhouse angle sensor fault	0013
225	Header height sensor (left) fault	0014
226	Header height sensor (right) fault	0015
227	Cylinder pressure sensor fault	0016
232	Raise/lower rocker switch fault	0008
233	Manual tilt switch fault	0008
234	Flex pressure switch fault	0009
235	Reel raise/lower switch fault	0008
236	Reel fore/aft switch fault	0008
240	Flex height sensor fault	0021
241	Reel raise/lower position sensor fault	0019
242	Reel fore/aft position sensor fault	0020
243	Reel raise valve driver circuit fault	0026
244	Reel lower valve driver circuit fault	0026
245	Reel fore valve driver circuit fault	0026
246	Reel aft valve driver circuit fault	0026
247	Reel raise/lower setpoint position not reached	
248	Reel fore/aft setpoint position not reached	

Header Test Procedures

Display Address / Test Procedure	Circuit Description	Display / Specification	RELATED FAULT CODE
1	Recall codes / Clear codes	Mode Nos. 3 - 23	all
2	Global intermittent circuit mode	Modes numbers 3 —23	none
3	Battery voltage to logic circuit	12.3 — 13.5 volts (normal)	none
4	Battery voltage to valves	12.3 — 13.5 volts (normal)	none
5	Battery voltage to valves	12,3 — 13.5 volts (normal)	none
6	Sensor power (600 Series and Rigid)	4.8 — 5.2 volts	218
7	Flex pad #5 voltage (300 Series Flex)	0.0 — 5.0 volts	none
8	Manual Reel, Tilt and Raise/Lower rocker switch status	Code: xxx0 - R/L Switch "OFF" xxx1 - Slow Raise xxx2 - Slow Lower xxx3 - Fast Raise xxx4 - Fast Lower xxx5 - R/L Switch Error xx0x - Tilt Switch Off xx1x - Tilt Left xx2x - Tilt Right. xx5x - Tilt Switch Error x0xx - Reel R/L Off x1xx - Reel Raise x2xx - Reel Lower x5xx - Reel R/L Error 0xxx - Reel F/A Off 1xxx - Reel Fore 2xxx - Reel Aft 5xxx - Reel F/A Error	232, 233, 235, 236
9	Manual flex pressure increase/decrease switch status (600 Series)	0000 - Pressure "OFF" 0001 - Pressure Increase 0002 - Pressure Decrease 0005 - Switch Error	234
10	Height control setting (Rigid)	0.50 — 4.50 volts	220
11	Float control setting (Rigid)	0.50 — 4.50 volts	221
12	Flex pad #6 voltage (300 Series Flex)	0.0 — 5.0 volts	none
13	Feeder house angle sensor (Rigid)	0.25 — 4.75 volts	224
14	Left header height sensor (600 Series) Right header height sensor (300 Series Flex)	0.25 — 4.75 volts (600 Series) 0.0 — 5.0 volts (300 Series Flex)	225 (600 Series) none (300 Series Flex)
15	Right header height sensor (600 Series) Left header height sensor (300 Series Flex)	0.25 — 4.75 volts (600 Series) 0.0 — 5.0 volts (300 Series Flex)	226 (600 Series) none (300 Series Flex)

Continued on next page

MB03730,000035B -19-14NOV02-1/3

Display Address / Test Procedure	Circuit Description	Display / Specification	RELATED FAULT CODE
16	Lift cylinder pressure sensor (Rigid)	0.24 — 4.76 volts	227
17	Header height sensor # 2	0.0 — 5.0 volts	none
18	Header height sensor # 3	0.0 — 5.0 volts	none
19	Reel raise/lower position	0.50 — 4.50 volts	241
20	Reel fore/aft position (Not Used)	0.50 — 4.50 volts	242
21	Flex head height sensor (600 Series) Volt sensor # 1 (300 Series Flex)	0.25 — 4.75 volts (600 Series) 0.0 — 5.0 volts (300 Series Flex)	240 (600 Series) none (300 Series Flex)
22	Resume switch positions	Code: 0000 - all off 0xx1 - resume float 0x1x - resume height 01xx - auto enable	none
23	Float, tilt, height, and reel enable switch positions	Code: 0000 - all "OFF" xxx1 - reel on xx1x - height on x1xx - tilt on 1xxx - reel "ON"	none
23 (Only for 300 Series)	Float, tilt, height, and reel enable switch positions	xx1x - Pos 1 xx2x - Pos 2 xx3x - Pos 3	none
24	Accumulator shutoff and flex pressure diverter valve status	Code: 00x0 - accum valve off 00x1 - accum valve on 000x - diverter valve off 001x - diverter valve on	215, 216
25	Height Valve Command	Code: 0000 - Valve off 0001 - Slow raise command 0002 - Slow lower command 0003 - Fast raise command 0004 - Fast lower command - - - - Valve disabled	209, 210, 211, 212
26	Reel, Tilt, and Unload Valve Commands	Code: 0000 - all off xxx1 - unloading valve on xx1x - tilt left xx2x - tilt right x1xx - reel raise x2xx - reel lower 1xxx - reel fore 2xxx - reel aft	217, 213, 214
27	Flex Pressure, Tilt and Height Operating Modes	Code: 0xxx - 5xxx pressure modes x0xx - x6xx tilt modes xx00 - xx17 height modes	none

Display Address / Test Procedure	Circuit Description	Display / Specification	RELATED FAULT CODE
28	Platform Type, Reel Operating Modes	Code: 1xxx - middle height sensor x1xx - mechanical height sensors xx0x - xx7x reel f/a modes xxx0 - xxx7 reel r/l modes	203
29	Failure Overriding Modes	Code: 0 - 4095	none
30	Header calibration mode		none
31	Float calibration mode		none
32	Header Type	0 - flex platform with 5-pad 1 - 600 Series flex platform 2 - Rigid platform (All) 3 - Corn head	none
33	Raise Time - Exit Cut	0.0 - 5.0 seconds (default 3)	none
34	Height Set Point	0 — 250 (default 35)	none
35	Height Deadband Adjustment	50 — 250 (default 105)	none
36	Tilt Deadband Adjustment	50 — 250 (default 150)	none
37	Flex platform fast raise	0 - fast lower/raise platform 1 - slow lower/raise platform	none
38	Calibration error codes (600 Series)		
87	Software version	xxxx - (typical: 4)	none

MB03730,000035B -19-14NOV02-3/3

AHC Calibration Procedure (600 Series)

IMPORTANT: Make sure that the skid plates are parallel to the ground before starting the calibration procedure. Header angle adjustment dependent on tire size and is described in section “Feeder House”.

The header height sensors are calibrated by the AHC in the header calibration procedure. All other components of the automatic header control system are calibrated in the combine calibration procedure. The header calibration procedure must be performed when a header is initially installed or when header height sensors are replaced.

Continued on next page

AG,CO03622,2235 -19-19NOV02-1/2

Header selection:

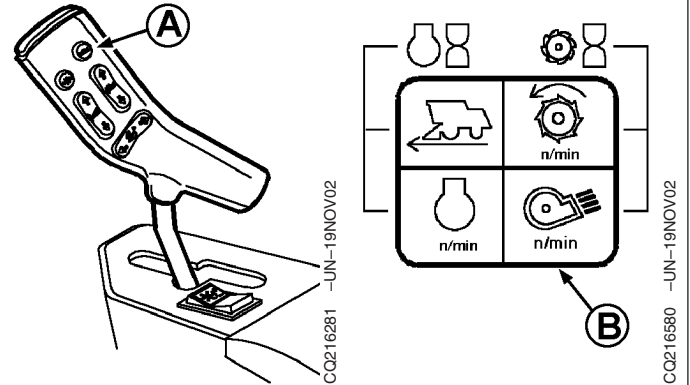
The types of headers supported are:

- 0 — 300 Series Flex Platforms
- 1 — 600 Series Flex Platforms
- 2 — Rigid Cutting Platforms
- 3 — Corn Heads

To change the header type stored in AHC memory, do the following:

1. Go to diagnostic mode 32. The current header type will be displayed.
2. With the ignition key in position II and the road safety switch activated, push the resume to float button (A) on the hydro handle. The AHC will scroll through the available types of headers. Release the resume to float button when the desired header type is displayed.
3. Press the fan speed button (B) on the tach to store the new header type.

NOTE: The following is a step by step procedure which shows operator action and system response. In the display messages, “r” and “l” stand for: “right” and “left” or “raise” and “lower”..



Header Calibration Procedure (Series 600) — Step by Step

Step	Action	GO TO:
Prepare Header for Calibration.	Hook up header to the combine and ensure header harness is connected to main vehicle harness. Check that the header height sensors are in working condition. Move the machine onto a level concrete surface.	GO TO Step 1
1 — Select Diagnostic Mode	The cornerpost tach is used to provide diagnostic mode. While pressing the up/down button on the tach, turn the combine key switch on and start the combine. The tach should display: -- dIA	OK: GO TO Step 2. NOT OK: Check cornerpost tach.
2 — Select AHC	Press the up/down button on the tach to obtain the "AHC" display. The tach should display: -- AHC	OK: GO TO Step 3. NOT OK: GO TO AHC Test Procedure No. 3
3 — Enter header calibration mode.	Press the fan speed button on the tach to access the "AHC" diagnostic mode. The tach should display: 0000 AHC Press the up/down button on the tach twice to obtain mode 2. The tach should display: 0002 AHC Press the fan speed button on the tach to obtain the header calibration mode 30. The tach should display: 0030 Hdr	OK: GO TO Step 4. NOT OK: Check tach.
4 — Calibrate height system and return-to-cut system. Establish sensor minimum settings	With the raise/lower rocker switch on the multifunction lever, lower the header until it rests on the concrete. The left and right sides of the header should contact the ground at the same time as the header is lowered. Press the fan speed button on the tach. The tach should display: 0030 H - d Press the resume to height button on the multifunction lever. The tach should display: 0030 H - U	OK: GO TO Step 5. NOT OK: Header does not raise or lower, check system hydraulics. NOT OK: Display does not change to "H-U", make sure raise/lower rocker switch is off. See Test Procedure No. 8. NOT OK: Display "E5X", "E7X", "E8X" or "E9X" indicates an error. Go to Test Procedure No. 32 NOT OK: Display does not change from "r-d". Go to Test Procedure No. 23

Step	Action	GO TO:
5 — Establish sensor maximum settings.	Use the raise switch on the multifunction lever to raise the header full up. Press and hold the resume to height button on the multifunction lever. The tach should display: 0030 EOC	OK: GO TO Step 6. NOT OK: Display "E5X", "E7X", "E8X" or "E9X" indicates an error. GO TO: Test Procedure No. 32.
6 — Store header calibration data in AHC.	Press the fan speed button on the tach to store all calibration values. If no errors occurred during calibration, the following will be displayed: EOC E00 END If any errors occurred during calibration, previous calibration values are kept and the following will be displayed: EOC Err END	OK: Calibration is done. GO TO Step 7 NOT OK: If errors occurred, GO TO Test Procedure 32.
7 — Reset to normal operation.	The key switch must be turned Off to return the AHC to normal operation at the next start-up.	

AG,CO03622,2236 -19-04MAR02-2/2

Rigid Platform Calibration Procedure (600 Series)

The pressure sensor is calibrated for the header floatation installed on the combine in the float system calibration procedure. The float calibration procedure must be performed when a header is initially hooked up if the ground pressure (float) mode of operation will be used.

The following is a step by step procedure that shows operator action and system response.

Continued on next page

MB03730,00002BB -19-19NOV02-1/3

Step	Action	GO TO:
Prepare Header for Calibration.	Hook up header to the combine. Move the machine onto a level concrete surface.	GO TO Step 1.
1 - Select Diagnostic Mode	The cornerpost tach is used to provide diagnostic mode. While pressing the up/down button on the tach, turn the combine key switch "ON" and start the combine. The tach should display: -- dIA	OK: GO TO Step 2. NOT OK: Check cornerpost tach.
2 - Select AHC	Press the up/down button on the tach to obtain the "AHC" display. The tach should display: -- AHC	OK: GO TO Step 3. NOT OK: GO TO AHC Test Procedure No. 3.
3 - Enter float calibration mode.	Press the fan speed button on the tach to access the "AHC" diagnostic mode. The tach should display: 0000 AHC Press the up/down button on the tach twice to obtain mode 2. The tach should display: 0002 AHC Press the fan speed button on the tach to jump to header calibration mode 30. Then press the tach up/down button to obtain the float calibration mode 31. The tach should display: 0031 FLO	OK: GO TO Step 4. NOT OK: Check tach.
4 - Calibrate float system.	With the raise/lower rocker switch on the multifunction lever, lower the header until it is about 100 mm above ground level (the header must not touch the ground). Press the fan speed button on the tach. The tach should display: 0031 HFL Press the resume to float button on the multifunction lever. The tach should display: 0031 EOC	OK: GO TO Step 5. NOT OK: Header does not raise or lower, check system hydraulics. NOT OK: Display does not change to "HFL", make sure raise/lower rocker switch is off. See Test Procedure No. 8. NOT OK: Display "E5X" or "E39" indicates an error. GO TO Test Procedure No. 37. NOT OK: Display does not change from "HFL". GO TO Test Procedure No. 23.

Continued on next page

MB03730,00002BB -19-19NOV02-2/3

Step	Action	GO TO:
5 - Store header calibration data in AHC.	Press the fan speed button on the tach to store all calibration values. If no errors occurred during calibration, the following will be displayed: EOC E00 END If any errors occurred during calibration, previous calibration values are kept and the following will be displayed: EOC Err END	OK: Calibration is done. GO TO Step 6. NOT OK: If errors occurred, GO TO Test Procedure 37.
6 - Reset to normal operation.	The key switch must be turned "OFF" to return the AHC to normal operation at the next start-up.	

MB03730,00002BB -19-19NOV02-3/3

AHC Calibration Error Codes (600 Series)

NOTE: The error code numbers during calibration are grouped by system component according to the table. Each error code describes a particular problem during calibration. Corrective action may include going to other test procedures as listed.

Error code	System Component
E02	Calibration
E11 - E14	Height Setting
E21 - E24	Float Setting
E39	Pressure Sensor
E51 - E56	Feeder house Angle Sensor
E71 - E76	Left Height Sensor
E81 - E86	Right Height Sensor
E91 - E96	Flex Header Height Sensor

Continued on next page

MB03730,0000347 -19-04FEB02-1/3

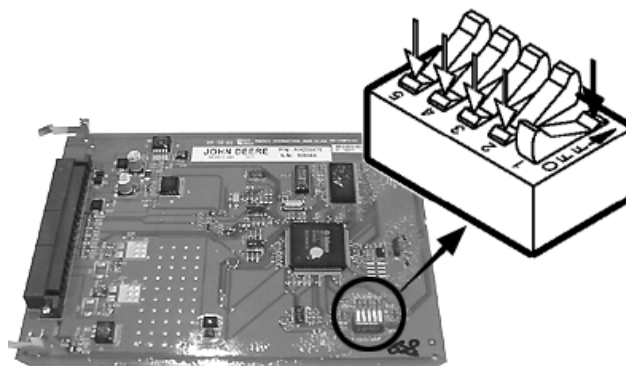
ERROR CODE	DESCRIPTION OF ERROR	CORRECTIVE ACTION
E02	Header calibration cannot be done with this type of header	Check header type, Mode No. 32.
E11	Height setting pot voltage less than 0.5 V.	Go to Test Procedure No. 10
E12	Height setting pot voltage greater than 4.5 V.	Go to Test Procedure No. 10
E13	Height setting pot voltage going in the wrong direction.	Repeat calibration moving pot constantly in the correct direction. If error reappears then go to Test Procedure No. 10.
E14	Height setting pot voltage range less than 2.0 V.	Go to Test Procedure No. 10
E21	Float setting pot voltage less than 0.5 V.	Go to Test Procedure No. 11
E22	Float setting pot voltage greater than 4.5 V.	Go to Test Procedure No. 11
E23	Float setting pot voltage going in the wrong direction.	Repeat calibration moving pot constantly in the correct direction. If error reappears then go to Test Procedure No. 11.
E24	Float setting pot voltage range less than 2.0 V.	Go to Test Procedure No. 11
E39	Pressure sensor voltage reading less than 1.0 V (30 bar).	Go to Test Procedure No. 16
E51	Feeder house angle pot voltage less than 0.25 V.	Go to Test Procedure No. 13
E52	Feeder house angle pot voltage greater than 4.75 V.	Go to Test Procedure No. 13
E53	Feeder house angle pot voltage going in the wrong direction.	Repeat calibration moving feeder house constantly in the correct direction. If error reappears then go to Test Procedure No. 13.
E54	Feeder house angle pot voltage range less than 2.0 V.	Go to Test Procedure No. 13
E55	Feeder house angle pot lower voltage greater than 2.5 V.	Go to Test Procedure No. 13
E56	Feeder house angle pot upper voltage less than 2.5 V.	Go to Test Procedure No. 13
E71	Left height sensor voltage less than 0.25 V.	Go to Test Procedure No. 14
E72	Left height sensor voltage greater than 4.75 V.	Go to Test Procedure No. 14
E73	Left height sensor voltage going in the wrong direction.	Repeat calibration. If error reappears then go to Test Procedure No. 14.
E74	Left height sensor voltage range less than 2.0 V.	Go to Test Procedure No. 14
E75	Left height sensor lower voltage greater than 2.5 V.	Go to Test Procedure No. 14
E76	Left height sensor upper voltage less than 2.5 V.	Go to Test Procedure No. 14
E81	Right height sensor voltage less than 0.25 V.	Go to Test Procedure No. 15
E82	Right height sensor voltage greater than 4.75 V.	Go to Test Procedure No. 15

ERROR CODE	DESCRIPTION OF ERROR	CORRECTIVE ACTION
E83	Right height sensor voltage going in the wrong direction.	Repeat calibration. If error reappears then go to Test Procedure No. 15.
E84	Right height sensor voltage range less than 2.0 V.	Go to Test Procedure No. 15
E85	Right height sensor lower voltage greater than 2.5 V.	Go to Test Procedure No. 15
E86	Right height sensor upper voltage less than 2.5 V.	Go to Test Procedure No. 15
E91	Flex head height sensor voltage less than 0.25 V.	Go to Test Procedure No. 21
E92	Flex head height sensor voltage greater than 4.75 V.	Go to Test Procedure No. 21
E93	Flex head height sensor voltage going in the wrong direction.	Repeat calibration. If error reappears then go to Test Procedure No. 21.
E94	Flex head height sensor voltage range less than 2.0 V.	Go to Test Procedure No. 21
E95	Flex head height sensor lower voltage greater than 2.5 V.	Go to Test Procedure No. 21
E96	Flex head height sensor upper voltage less than 2.5 V.	Go to Test Procedure No. 21

MB03730.0000347 -19-04FEB02-3/3

Dipswitches On Reel Speed Control Board

Switch 1 in “OFF” position, switches 2-5 in position according to tire radius.



CQ216530 -UN-12NOV02

Front Tire	Tire Rolling Radius	S1	S2	S3	S4	S5
28.1-26 (750/65 R26)	756	OFF	ON	OFF	OFF	OFF
18.4-30 R1 10L	741	OFF	ON	OFF	OFF	OFF
18.4-30 R1 12L	741	OFF	ON	OFF	OFF	OFF
24.5-32	849	OFF	ON	ON	ON	OFF
620/75R 30 (Radial)	810	OFF	ON	ON	OFF	OFF
(650/75 R32)	863	OFF	ON	ON	ON	OFF
28.1/18-26 R1 14L	761	OFF	ON	OFF	ON	OFF
28L26 R1 12L	767	OFF	ON	OFF	ON	OFF
23.1/18-26 R2 10L	780	OFF	ON	ON	OFF	OFF
23.1/18-30	804	OFF	ON	ON	OFF	OFF
800/65R 32 (Radial)	861	OFF	ON	ON	ON	OFF
30.5L32 R1	857	OFF	ON	ON	ON	OFF
STEEL TRACK	315	OFF	OFF	OFF	OFF	OFF

AG,CO03622,2238 -19-12NOV02-1/1

Error Codes, Reel Speed Control Board

0 — Luminous diode off

X — Luminous diode on

Continued on next page

AG,CO03622,2240 -19-05NOV02-1/3

IMPORTANT: If no solution is given or if the problem cannot be eliminated, consult your John Deere dealer.

Error code	Problem	Solution
A—0 B—0 C—0 D—0	No voltage	Check fuse (F36)
A—X B—0 C—0 D—0	No ground speed signal	Check sending unit at 3-speed transmission
A—0 B—X C—0 D—0	Ground speed signal not within operating range	See "Operating Range of Reel Speed Control System" in "Controls and Instruments" section
A—X B—X C—0 D—0	No reel speed signal	Check sending unit at cutting platform
A—X B—0 C—X D—0	Error "Bit 1" at reel speed control switch	
A—X B—0 C—X D—0	Error "Bit 2" at reel speed control switch	
A—X B—X C—X D—0	Error "Bit 4" at reel speed control switch	
A—0 B—0 C—0 D—X	Error "Bit 8" at reel speed control switch	
A—X B—0 C—0 D—X	Option A, electrical output 1 grounded	
A—X B—X C—0 D—X	Reel does not accelerate	
A—0 B—0 C—X D—X	Reel speed control switch not in diagnostic position	See "Reel Speed Control Switch" in "Controls and Instruments" section

Service — Electrical System

A—0 B—X C—X D—X	Fault not found	
A—X B—X C—X D—X	All contacts to reel speed control switch open	

AG,CO03622,2240 -19-05NOV02-3/3

Service — Hydraulic System

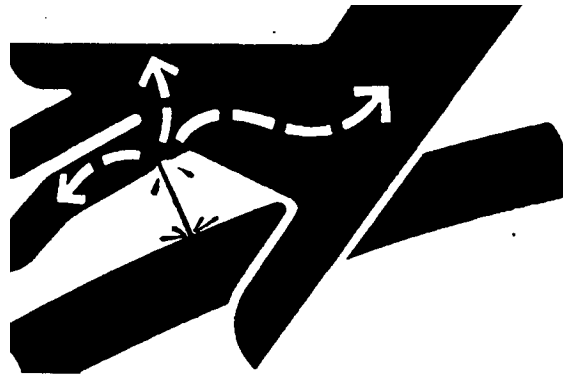
Avoid high-Pressure Fluids

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

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

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

If an accident occurs, see a doctor immediately. Any fluid injected into the skin must be surgically removed within a few hours or gangrene may result. Doctors unfamiliar with this type of injury should reference a knowledgeable medical source.



X9811 -UN-23AUG88

DX,FLUID -19-05FEB02-1/1

Hydraulic System Description

The machine is equipped with a so-called “open-center hydraulic system”, i.e. with engine running at constant speed the hydraulic pump conveys a constant amount of hydraulic oil.

The hydraulic pump is a triple pump:

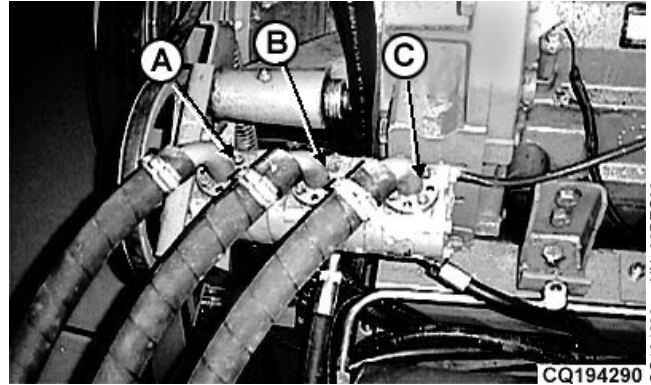
- Pump (A) conveys 28.6 L/min. (7.55 gpm)
- Pump (B) conveys 28.6 L/min. (7.55 gpm)
- Pump (C) conveys 10.6 L/min. (2.80 gpm)

If no pressure oil is required, the pressure valves direct pressure-free oil back to the tank.

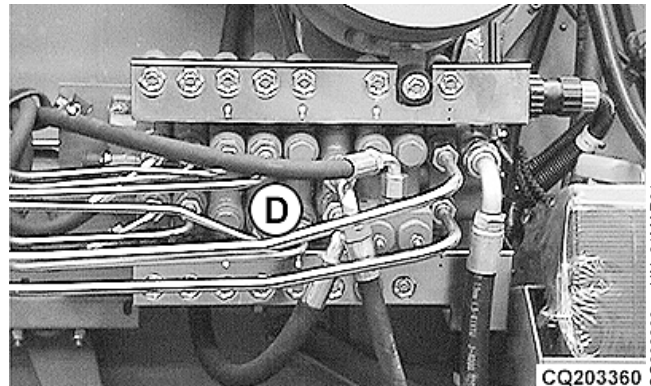
The main hydraulic valve block (D) is located on the left side of the combine near to the battery.

The secondary hydraulic valve block (E) is located a few inches away and above from main hydraulic valve block (D).

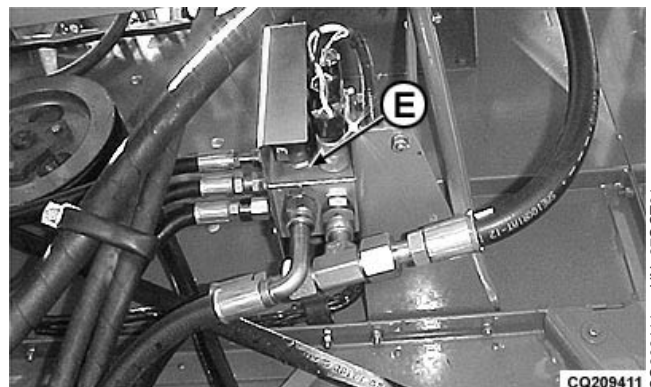
- A—Pump (Hydraulic System)
- B—Pump (Reel Drive)
- C—Pump (Steering System)
- D—Primary hydraulic valve block
- E—Secondary hydraulic valve block



CQ194290 —UN-09DEC09



CQ203360 —UN-21MAR01



CQ209411 —UN-27OCT01

AG,CO03622,2273 —19-15MAR02-1/1

Pressure Relief Valves

IMPORTANT: Have pressure relief valves serviced by your John Deere dealer only.

The Main hydraulic valve block is equipped with four pressure relief valves which have been tested and set at the factory.

The secondary hydraulic valve block is controlled by relief valve (B) from main hydraulic valve block.

— Relief valve (A) restricts the maximum system pressure for lowering the cutting platform to 7000 kPa (70 bar; 1019 psi.).

— Relief valve (B) restricts the system pressure in the secondary circuit to 12000 kPa (120 bar; 1747 psi).

Secondary circuit includes the following functions:

- ☐ Reel raise
- ☐ Reel fore-and-aft
- ☐ Grain tank discharge tube swinging.
- ☐ Threshing cylinder speed variator
- ☐ Cutting platform lateral tilt system

— Relief valve (C) restricts the system pressure in the primary circuit to 19500 kPa (195 bar; 2830 psi).

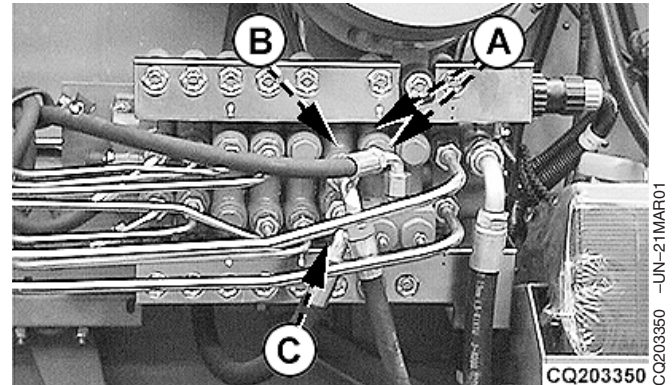
Primary circuit includes the following functions:

- ☐ Cutting platform reverser
- ☐ Lowering/raising header

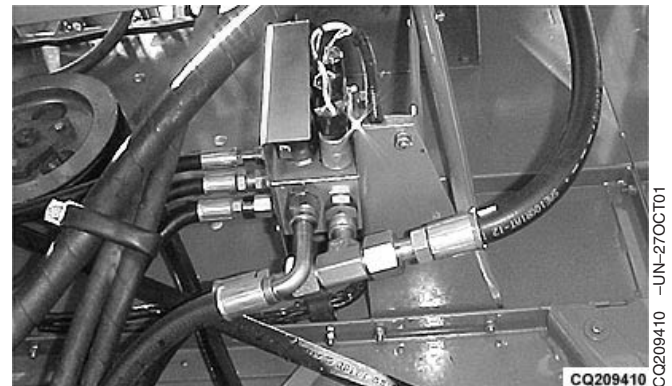
The following functions are controlled by secondary hydraulic valve block:

- ☐ Separator drive
- ☐ Unloading auger drive
- ☐ Header drive

If header cannot be raised to the desired height, relevant pressure relief valve may be defective. If this or a similar defect occurs, consult your John Deere dealer.



Primary hydraulic valve block



Secondary hydraulic valve block

Functions of the Valves on the Block

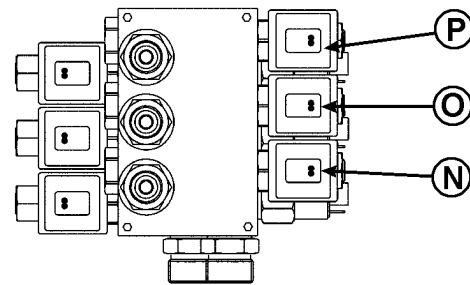
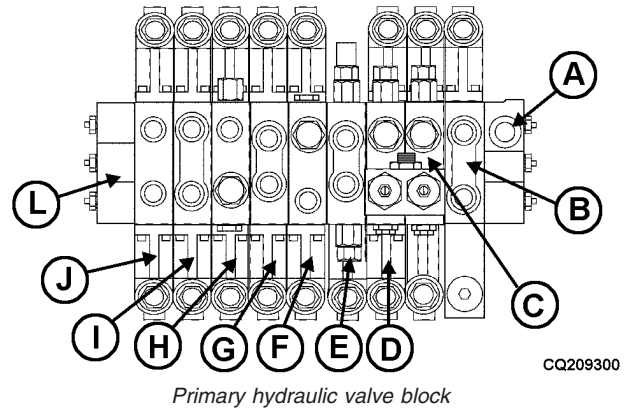
The main hydraulic valve block controls 6, 7 or 8 functions of the combine through individual modules (valves) depending upon the configuration and combine model:

- 1450/1550 (without lateral tilt and without reel forward and backward system) = 6 functions
- 1450 CWS (without lateral tilt) = 7 functions
- 1450 with lateral tilt = 8 functions
- 1550 CWS (without lateral tilt) = 7 functions
- 1550 with lateral tilt = 8 functions

The secondary hydraulic valve block controls three functions of the combine.

NOTE: See detailed list of the valves (solenoids) in "Service — Electrical System".

- A—Return to reservoir
- B—Hydraulic reverser
- C—DIAL-A-MATIC (Automatic Height Header Control)
- D—Header lower/raise (manual)
- E—Inlet Port And Flow Divider
- F—Reel raise
- G—Reel fore-and-aft
- H—Threshing cylinder speed variator
- I—Header lateral tilt
- J—Unloading tube swinging
- L—Pressure check port block
- N—Cutting platform drive
- O—Separator drive
- P—Unloading auger drive



Cutting Platform Raising and Lowering Speed Adjustment

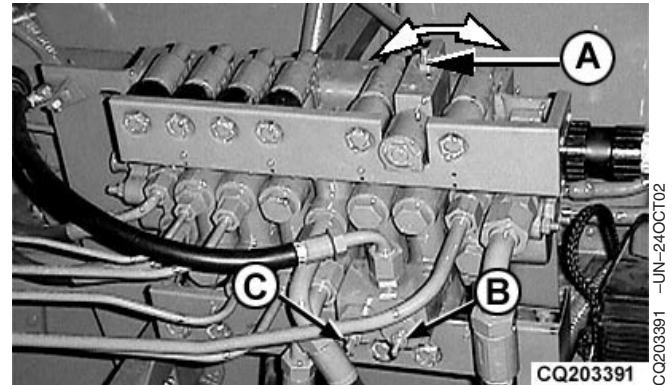
Adjusting Slow Raising Speed

This adjustment is done through the screw (A) located on the primary hydraulic valve block.

- Turn screw clockwise to decrease speed.
- Turn screw counterclockwise to increase speed.

The screw is adjusted in the assembly line with a speed considered medium, which means nor fast neither slow.

The adjustment of the **slow and fast lowering** speed can be done in the same way through its respective valves (B) and (C).



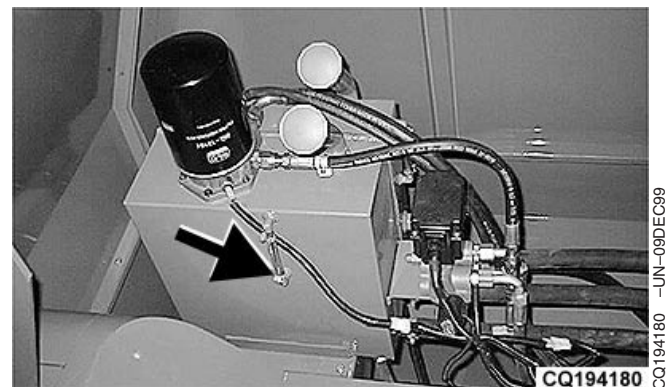
A—Adjusting slow raising speed
B—Adjusting slow lowering speed
C—Adjusting fast lowering speed

MB03730,000001D —19-24OCT02-1/1

Hydraulic System Reservoir Oil Level

Check the hydraulic reservoir oil level periodically. If necessary, add the recommended oil (see “Fuel, Lubricants, Coolant and Capacities” Section).

NOTE: Before checking the level, lower the cutting platform to the ground and place the unloading auger in the transport position and lower the reel.



AG,CO03622,2266 —19-17MAY02-1/1

Changing The Hydraulic Oil and Filter

Change the hydraulic oil filter:

- ☐ According to specified times in section “Lubrication Chart, Periodic Service”.
- ☐ Whenever the hydraulic filter restriction indicator lights.

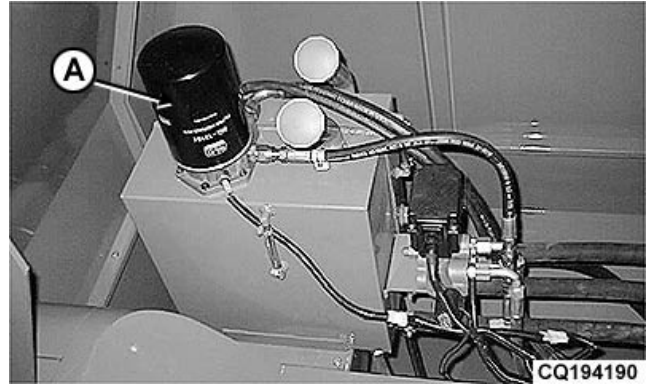
IMPORTANT: Observe utmost cleanliness when installing filter.

Loosen and remove filter (A).

Dispose of filter properly and replace with a genuine John Deere filter.

- Coat filter sealing surface with oil.
- Tighten filter (A) element by hand until sealing ring touches filter housing sealing surface and then tighten a further 3/4 to 1-1/4 turns. Do not overtighten.
- Start engine and check for leaks.

Retighten if necessary.



AG,CO03622,2267 -19-28MAY02-1/1

Draining The Hydraulic System Oil

The hydraulic system must be completely drained when changing oil.

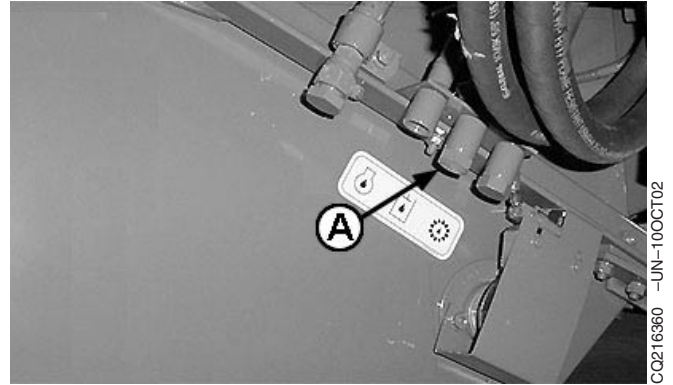
1. Lower the header to the ground, lower the reel completely and place the unloading auger in the transport position (closed).
2. Remove the hydraulic reservoir drain plug (A) and drain the oil into an appropriate container.

NOTE: *The hydraulic reservoir drain plug (A) is located below the fuel tank at right-hand side of combine.*

3. Disconnect the hoses from all hydraulic cylinders, the control return hose and the reel drive system hoses from the flow regulating valve. Let the oil flow out of these points.

NOTE: *Before disconnecting the hoses clean the connections thoroughly.*

4. After draining all oil, replace all connections and reinstall the reservoir drain plug (A).

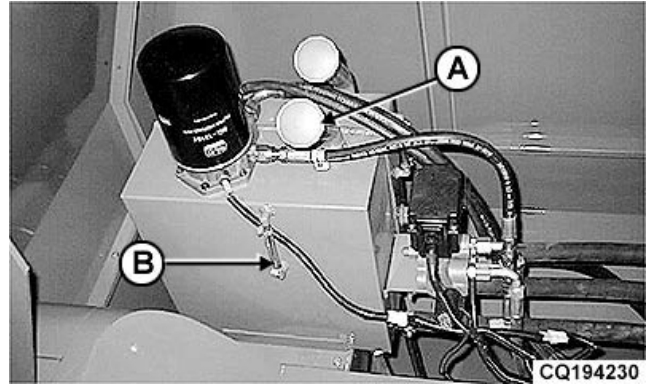


AG.CO03622,2268 -19-11OCT02-1/1

Refilling The Hydraulic System

NOTE: Always use specified oil (see “Fuel, Lubricants, Coolant and Capacities” Section). Carefully clean area around filler neck before filling with fresh oil.

1. Pour fresh hydraulic oil in at the filler neck (A) until the oil comes up to the center of the sight glass (B).
2. Start the combine engine and let it run for 15 seconds. Then turn the steering wheel in both directions several times to bleed off the air.
3. Move the header lift, reel lift and unloading auger drive several times in both directions.
4. Engage the threshing unit and the header and activate the cylinder speed control several times.
5. Inspect all lines and connections for leaks. Obey all safety rules.
6. With the header and reel lowered and the unloading auger in transport position, add oil to the reservoir until the correct level is reached.



UN-09DEC09
CQ194230

AG,CO03622,2269 -19-30SEP02-1/1

Bleeding Reel Raise and Lower System

If the reel cylinder hoses are disconnected or if the reel is not level, all the trapped air needs to be removed from the circuit and cylinders.

To remove the air, loosen the reel left cylinder upper drain plug (A). Then lift the reel. Replace the plug when oil begins to flow out of the drain plug without bubbles.



ZCQF6671

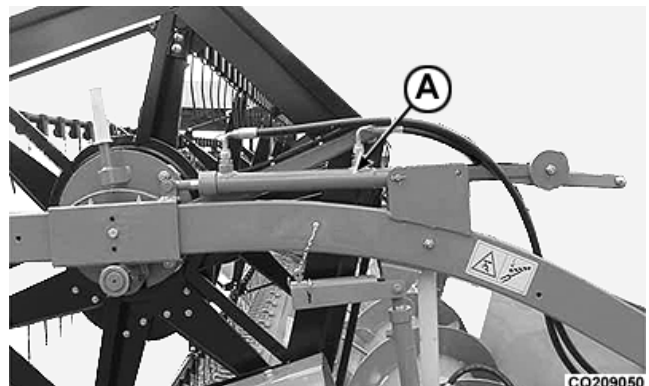
UN-04APR96
ZCQF6671

AG,CO03622,2270 -19-15MAR02-1/1

Bleeding Reel Forward and Backward Hydraulic Circuit

To bleed reel forward and backward cylinders (A), it is necessary to follow the following procedure:

- Move cylinders forward and keep for 15 seconds.
- Move cylinders backward and keep for 15 seconds.
- Repeat this procedure 2 or 3 times and the cylinders will be bled automatically.



CQ209050

UN-02OCT01
CQ209050

MB03730,00001EB -19-15MAR02-1/1

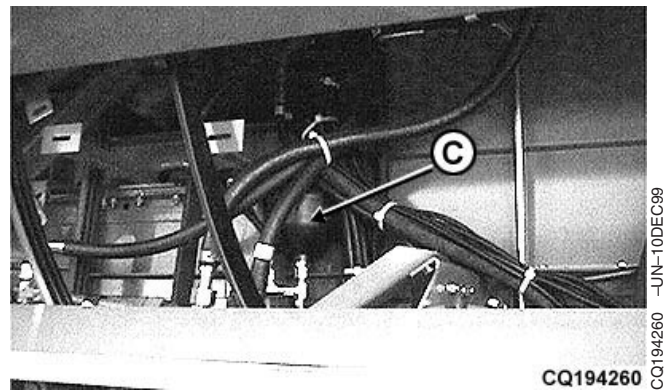
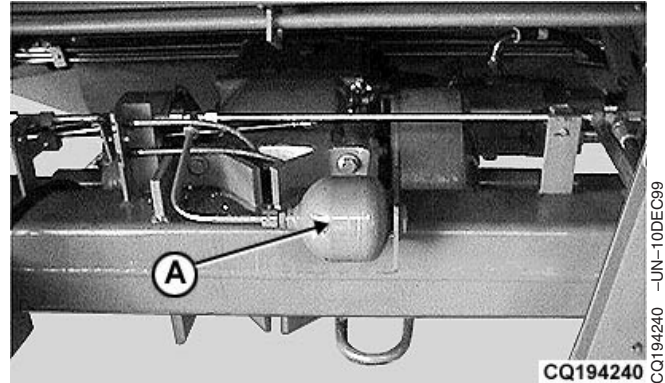
Accumulators



CAUTION: If necessary, have accumulator changed by your local John Deere dealer.

A—Header Raising System Accumulator

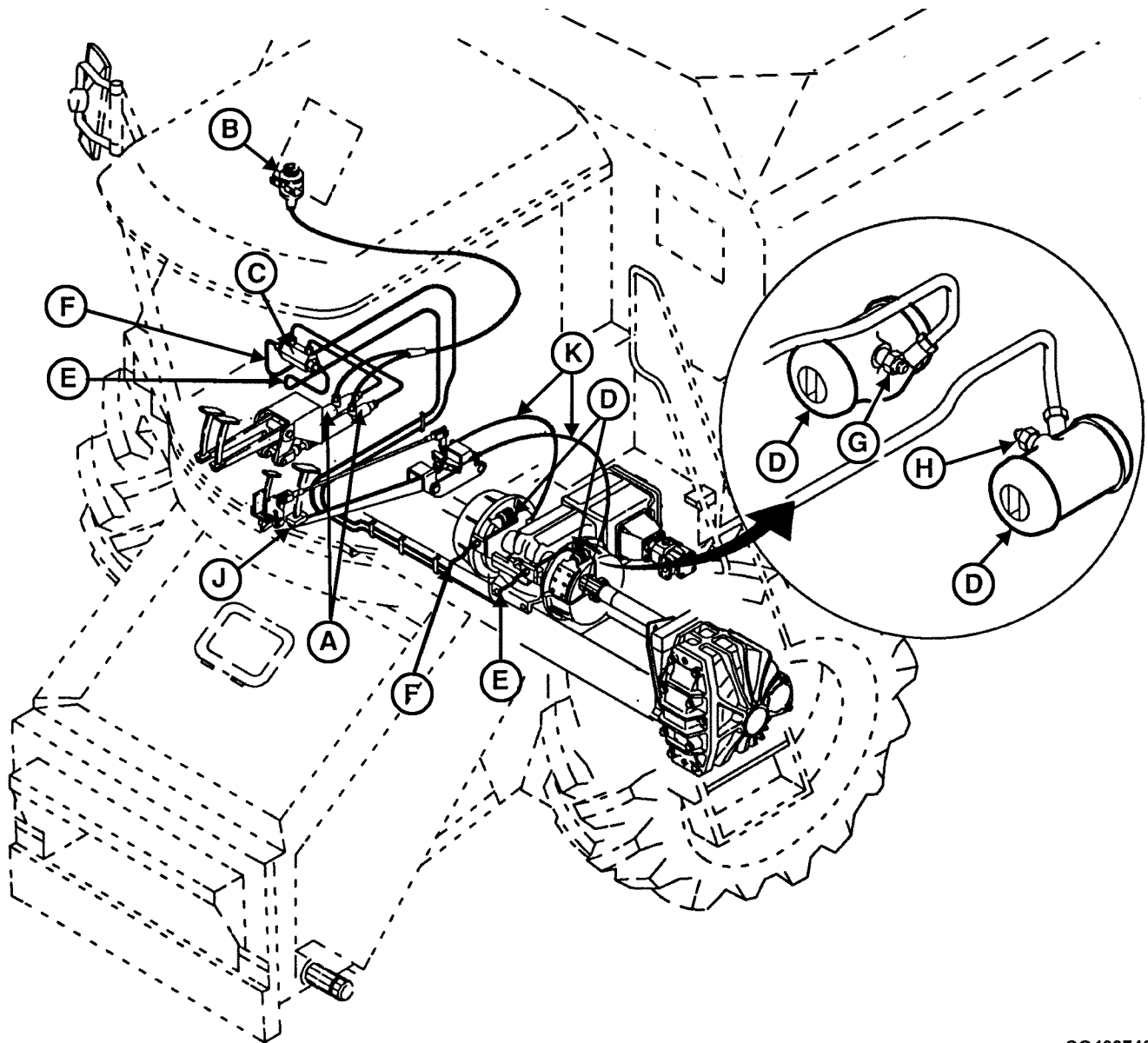
C—Separator and Straw Chopper Drive Accumulator



AG,CO03622,2271 -19-15MAR02-1/1

Service - Ground Speed Drive and Brakes

Brake System



CQ193740

CQ193740 -UN-29NOV99

A—Brake master cylinder (2 used)
B—Brake fluid reservoir
C—Equalizing valve

D—Brake slave cylinder (2 used)
E—L.h brake line
F—R.h. brake line

G—R.h. bleed screw
H—L.h. bleed screw
J—Parking brake operating assembly

K—Parking brake bowden cables (2 used)

AG,CO03622,2250 -19-15MAR02-1/1

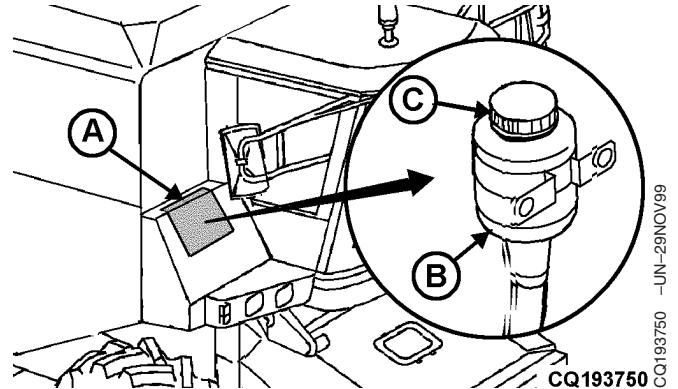
Brake Fluid Reservoir

The reservoir (B) is mounted inside the combine, near the tailings inspection window. To access the reservoir, remove inspection window (A) and remove reservoir cap (C).

To compensate for fluid losses fill the reservoir with specified brake fluid only.

Check the fluid level after 200 hours of operation.

- A—Inspection window — tailings
- B—Brake fluid reservoir
- C—Reservoir cap



AG,CO03622,2251 -19-17MAY02-1/1

Adjusting Foot Brakes



CAUTION: In case of any leakage or malfunction of the brake system see your John Deere dealer.

When depressing brake pedals drum brake is adjusted automatically and thus further adjustment is not necessary.

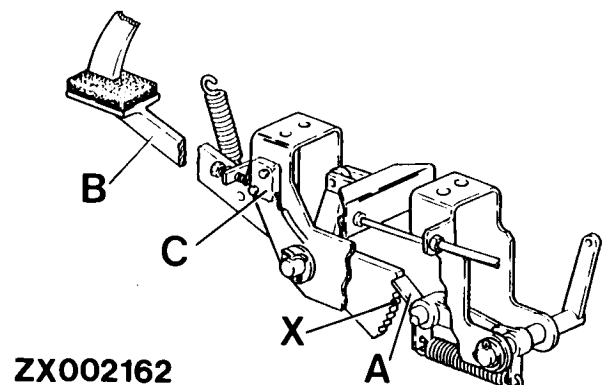
AG,CO03622,2252 -19-26NOV99-1/1

Parking Brake

Basic Adjustment

With parking brake released the latch (A) of brake pedal (B) engages the first tooth of the quadrant and the pedal bottoms against cab floor. Maximum pedal travel should not go beyond the fourth tooth (X) of the brake quadrant.

When parking brake is released, indicator light switch (C) is activated by the adjusting screw on the pedal.

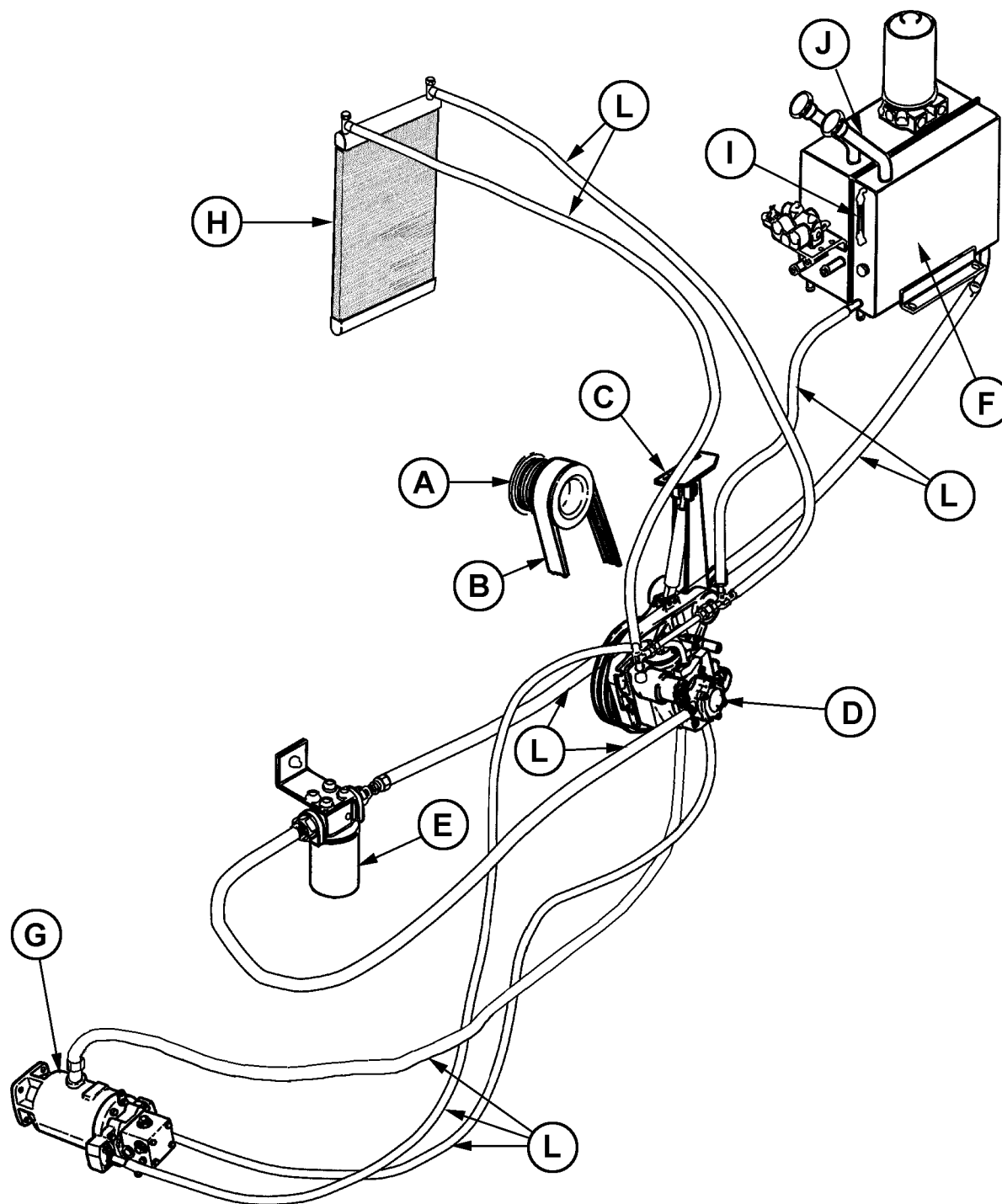


- A—Latch
- B—Pedal
- C—Indicator light switch
- X—Max. position (fourth tooth of pedal)

ZX002162 -UN-04APR95

AG,CO03622,2253 -19-15MAR02-1/1

Hydrostatic Drive Components (1450 and 1550)



CQ203320

A—Engine power takeoff
B—Multi “V” belt
C—Idler hydraulic cylinder

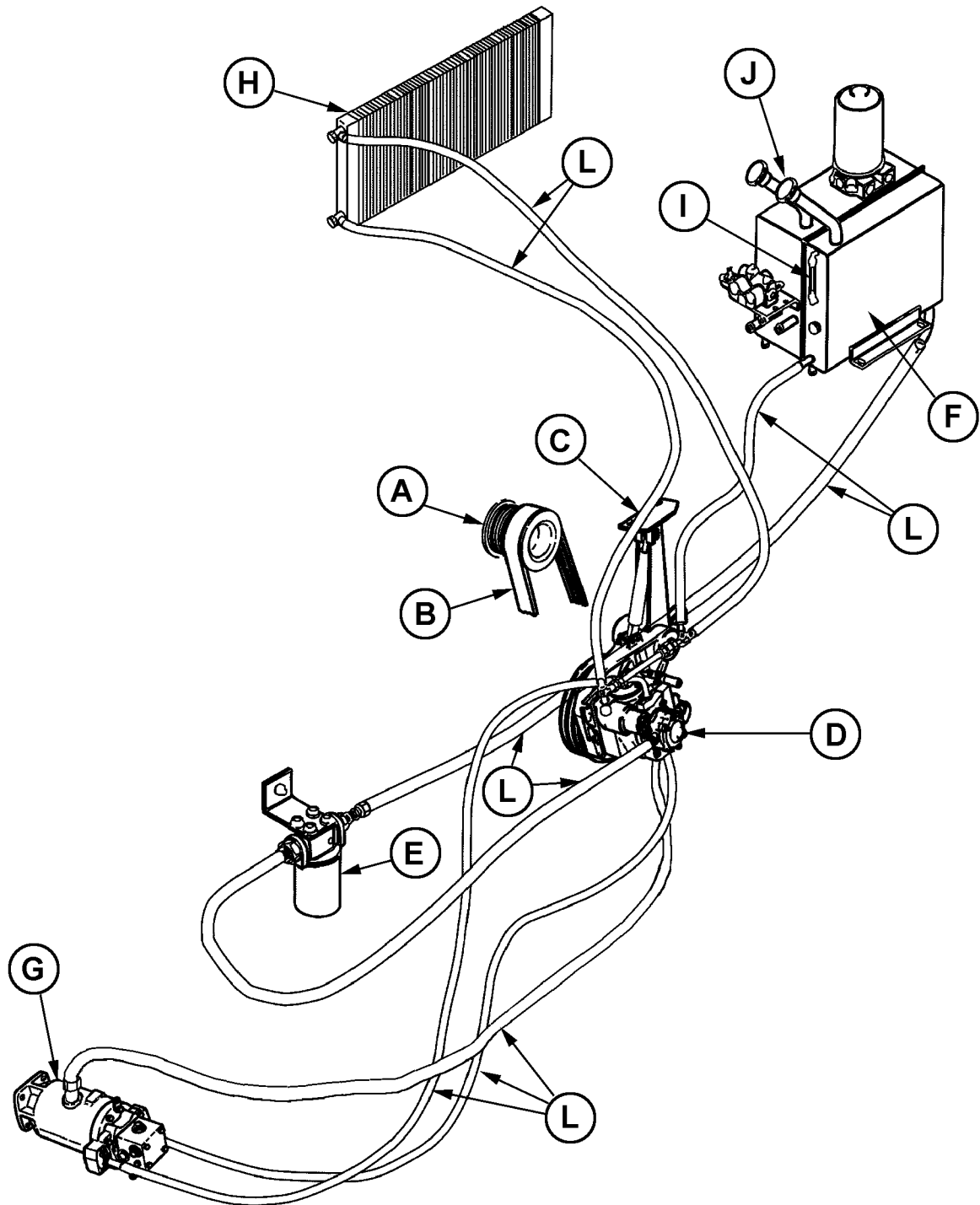
D—Hydrostatic pump
E—Oil filter
F—Oil reservoir

G—Hydrostatic motor
H—Oil cooler
I—Level indicator

J—Oil filler neck
L—Hoses

CQ203320 -UN-21MAR01

Hydrostatic Drive Components (1450 CWS and 1550 CWS)



CQ203330

A—Engine power takeoff
B—Multi “V” belt
C—Idler hydraulic cylinder

D—Hydrostatic pump
E—Oil filter
F—Oil reservoir

G—Hydrostatic motor
H—Oil cooler
I—Level indicator

J—Oil filler neck
L—Hoses

CQ203330 —UN-21MAR01

Changing Hydrostatic Drive Oil And Filter

Change hydrostatic oil and filter according to specified times in section "Lubrication Chart, Periodic Service".

Filter change

IMPORTANT: Observe utmost cleanliness when installing filter. Install the new filter immediately after removing the used one.

Loosen and remove filter.

Dispose of filter properly and replace with a genuine John Deere filter.

For installation of new filter, proceed as follows:

- Coat filter sealing surface with oil.
- Tighten filter element by hand until sealing ring touches filter housing sealing surface and then tighten a further 3/4 to 1-1/4 turns. Do not overtighten.
- Start engine and check for leaks. Retighten if necessary.
- Check level of hydraulic oil, and top up if necessary.

Oil change

Always have this done by your local John Deere dealer, who alone is familiar with the relevant rules and regulations.

IMPORTANT: Always use specified oil (see "Fuel, Lubricants, Coolant and Capacities" Section).



AG,CO03622,2255 -19-28MAY02-1/1

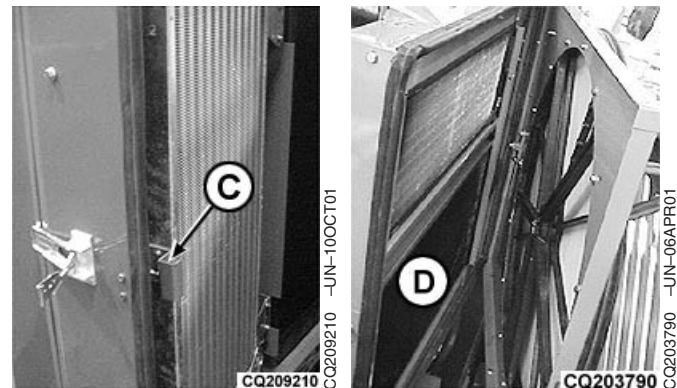
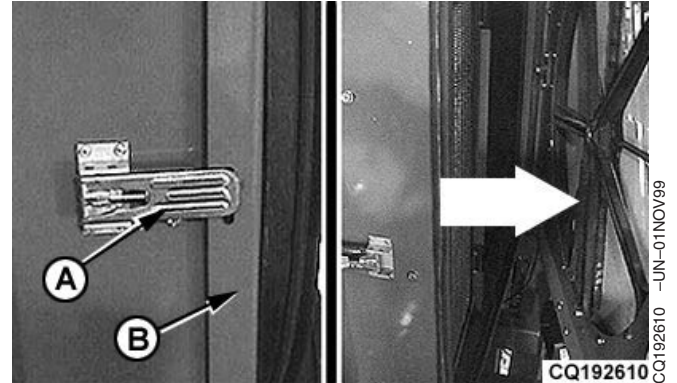
Cleaning Oil Cooler

⚠ CAUTION: Shut off engine and remove key before cleaning the oil cooler.

Pull latch (A) and open rotary screen door (B).

Pull up tap (C) then, free access to the oil cooler can be obtained (1450 and 1550).

Free access to the oil cooler (D) (1450 CWS and 1550 CWS).



1450 e 1550

1450 CWS and 1550 CWS

AG.CO03622,2256 -19-15MAR02-1/1

Transmission

Change oil after the first 50 hours of operation.

Thereafter change oil every 500 hours of operation or before every harvesting season (whichever occurs first).

Check oil level every 250 hours of operation.

IMPORTANT: Always use specified oil.

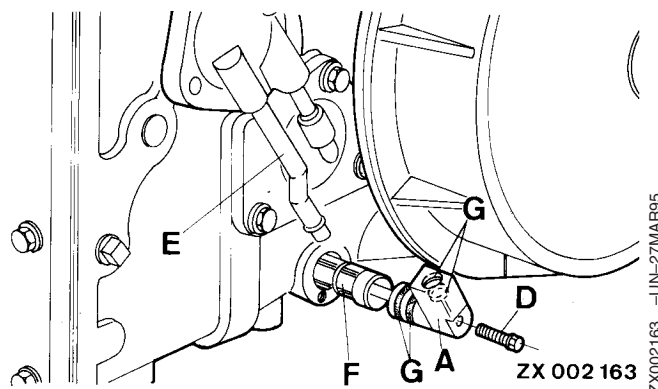
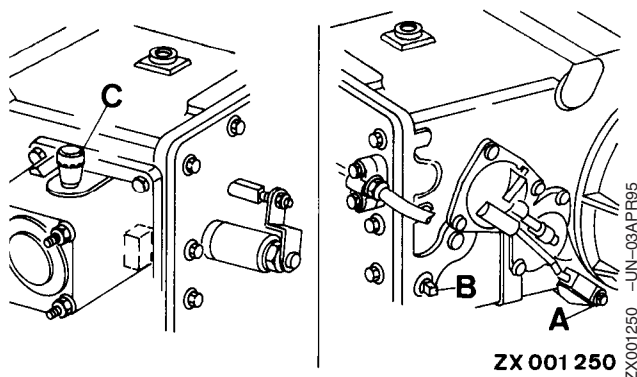
Oil change

Remove cap screw (D).

Remove drain plug (A) from transmission housing and take out line (E).

Check filter (F) and O-rings (G), and replace if necessary.

IMPORTANT: When reinstalling, make sure filter (F) is seated correctly in transmission housing.



- A—Oil drain plug
- B—Check plug
- C—Filler and bleed plug
- D—Locking Bolt
- E—Line
- F—Screen
- G—O-rings

AG,CO03622,2115 -19-06JUN02-1/1

Final Drives

The combine has two final drive units, one at each end of the front axle.

Change oil every 1000 hours of operation.

IMPORTANT: Every 100 hours, check the oil level and play of the final drive flanged axle bearings. Clean the vent daily.

Capacity of Standard Final Drive - 1450 and 1450 CWS (each one):

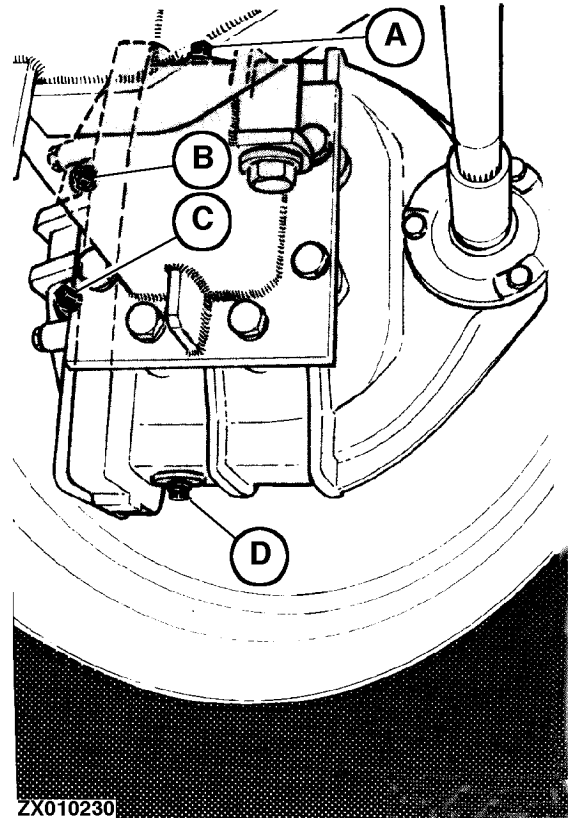
- 3 L (0.79 U.S.gal)

Capacity of Heavy Duty Final Drive -1550 and 1550 CWS (each one):

- 4.8 L (1.26 U.S.gal)

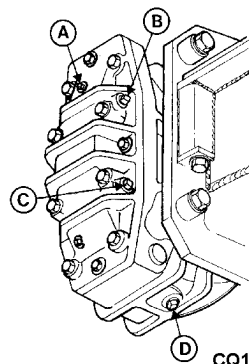
IMPORTANT: Always use specified oil (see “Fuel, Lubricants, Coolant and Capacities” Section). Carefully clean area around filler neck before filling with fresh oil.

- A—Oil Fill Cap
- B—Breather Plug
- C—Oil Level Check Plug
- D—Drain Plug



ZX010230

Standard Final Drive - 1450 and 1450 CWS



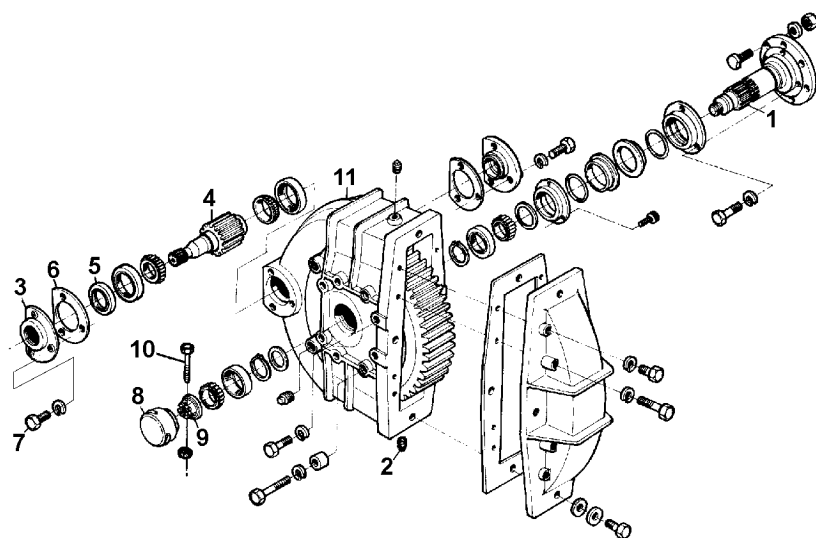
CQ179340

Heavy Duty Final Drive - 1550 and 1550 CWS

CQ179340 -UN-19FEB99

ZX010230 -UN-18FEB97

Adjusting Play of Final Drive Flanged Axle Bearings



CQ206870

CQ206870 -UN-26JUN01

1—Flanged Axle
2—Drain Screw
3—Bearing Housing

4—Drive Pinion
5—Shaft Seal
6—Shim

7—Locking Bolt
8—Cap
9—Nut

10—Locking Bolt
11—Housing

It is necessary to check play of final drive flanged axle bearings at the first 100 hours of operation, every 500 hours and at the end of each harvest season. For rice combines which work with tracks, the track is not assembled on the final drive, but on the front axle. In this case it is only necessary to check play after the first 500 hours.

When checking the adjustment, it is necessary to remove the front wheel of the machine and push the flanged axle (1) up and down. If there is play, adjust bearings as follows:

1. Drain final drive housing oil through drain screw (2).
2. Remove final drive housing from machine.
3. Remove bearing housing (3) and shaft seal (5) of drive pinion (4).
4. Install drive pinion bearing housing (3), without shaft seal (5). Take care of assembling the same

shim (6). Tighten bearing housing screws (7) to 60 Nm (44 lb-ft).

5. Remove flanged axle nut cap (8) and bolt (10) or key (according to final drive housing assembled in the machine).
6. Check nut (9) torque, it should be 100 Nm (74 lb-ft) for Standard final drives and 150 Nm (110 lb-ft) for Heavy Duty final drives.
7. Rotate flanged axle (1) several times. Using a lead hammer, lightly tap both sides of flanged axle to seat bearing cups.
8. Check flanged axle (1) rolling drag torque through nut (9), it should be 7 to 13 Nm (5 to 10 lb-ft). Adjust rolling drag torque, if necessary, by loosening or tightening nut (9).

Continued on next page

MB03730,00001D3 -19-30SEP02-1/2

NOTE: If necessary loosen nut (9). Make sure to loosen bearings also. If necessary use a lead hammer and lightly tap both sides of flanged axle to seat bearing cups.

9. Repeat this procedure until the correct torque is obtained.
10. Tighten nut (9) until one of the grooves matches with the hole of flanged axle (1) and install the locking bolt (10). Seal and install nut cap (8).

11. Remove drive pinion bearing housing (3) and install shaft seal (5).
12. Install drive pinion bearing housing (3), taking care to use the same shim (6). Tighten bearing housing screws (7) to 60 Nm (44 lb-ft).
13. Repeat this procedure with the other final drive.

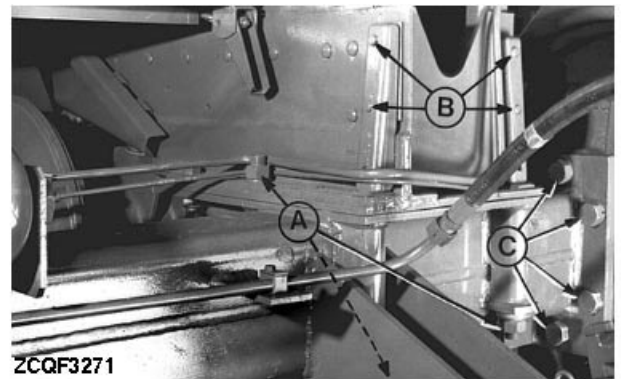
MB03730,00001D3 -19-30SEP02-2/2

Tightening Front Axle Attaching Screws

Tighten as follows:

- Nuts (A) to 300 N•m (218 lb-ft).
- Bolts (B) to 200 N•m (145 lb-ft).
- Bolts (C) to 250 N•m (182 lb-ft)..

NOTE: Tighten during the first 25 hours of operation and then at the start of each harvesting season.

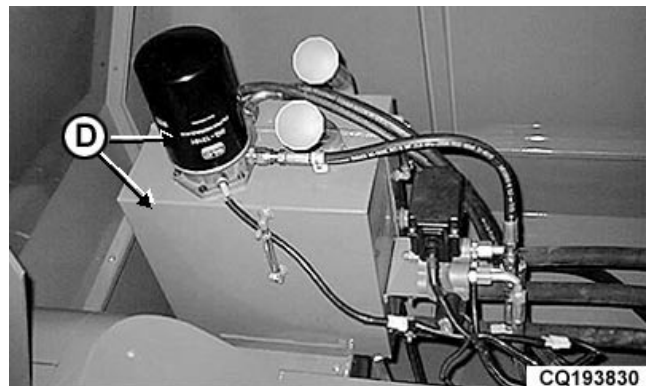
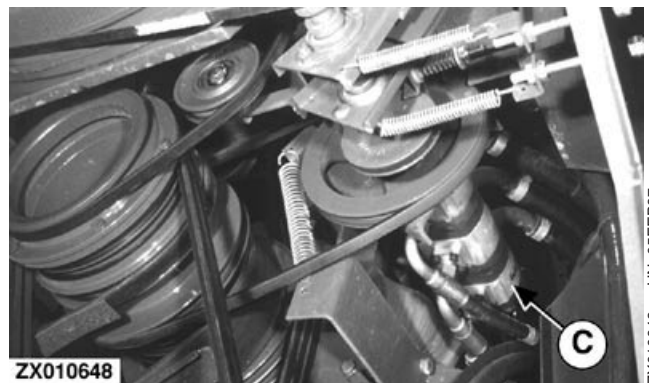
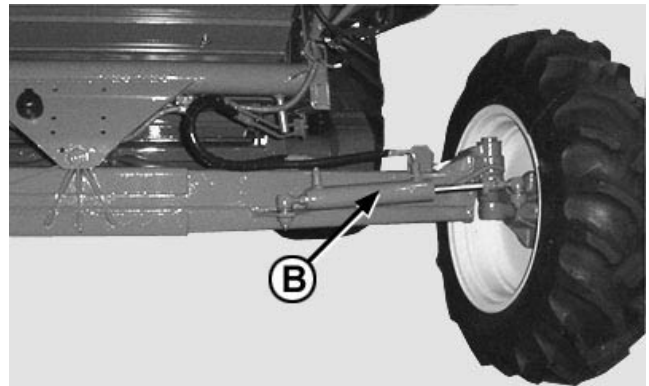
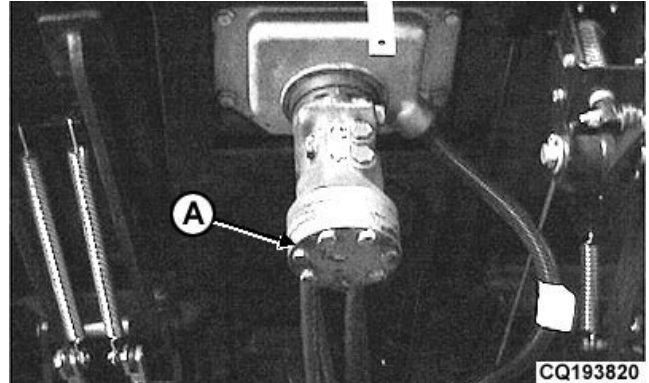


ZCQF3271 -UN-04APR96

AG.CO03622,2258 -19-15MAR02-1/1

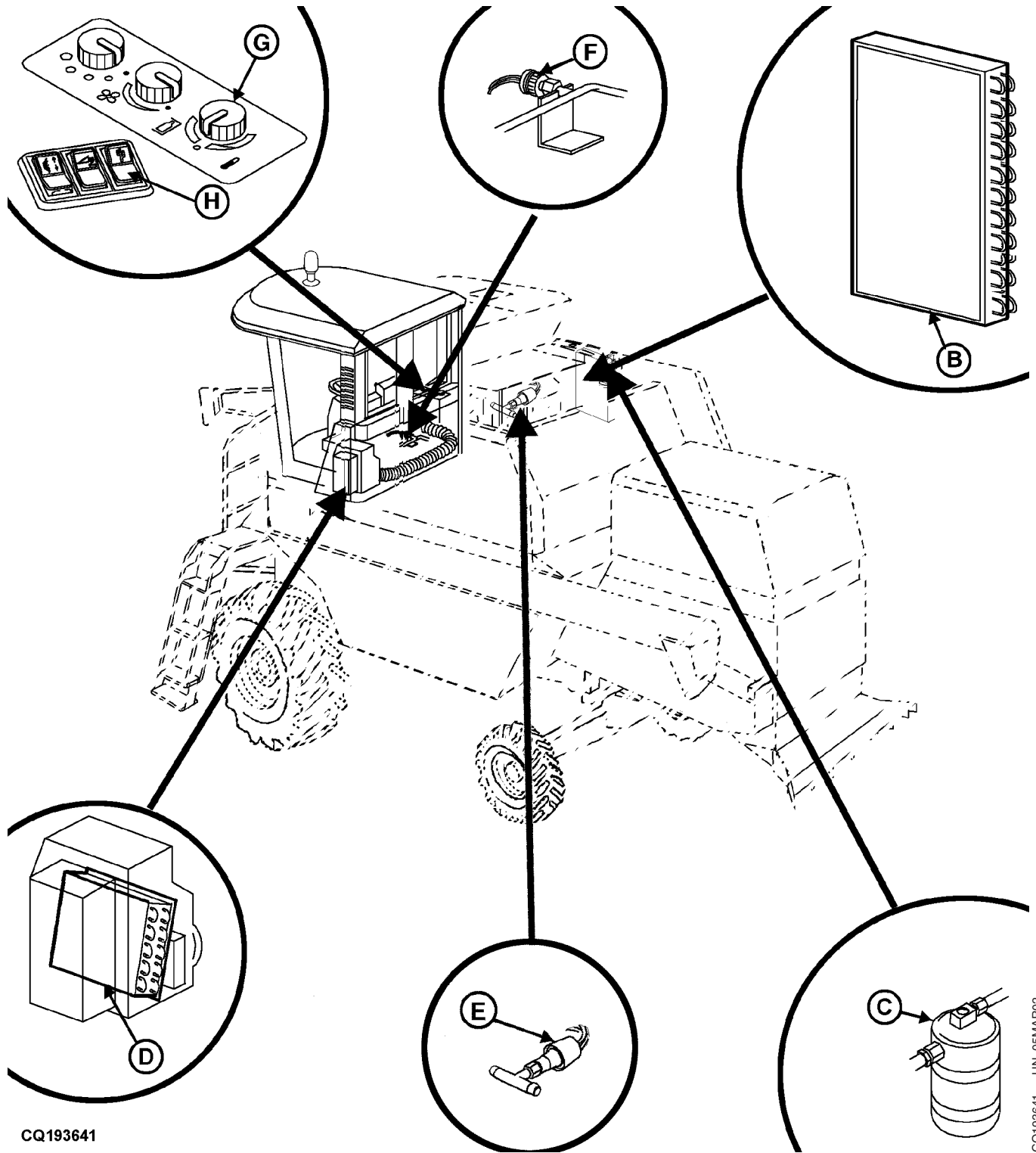
Steering System Components

- A—Steering Valve
- B—Steering Cylinder
- C—Steering System Pump
- D—Hydraulic Oil Tank And Filter



Service — Air Conditioning and Heating

Air Conditioning System Components



CQ193641

CQ193641 —UN—05MAR02

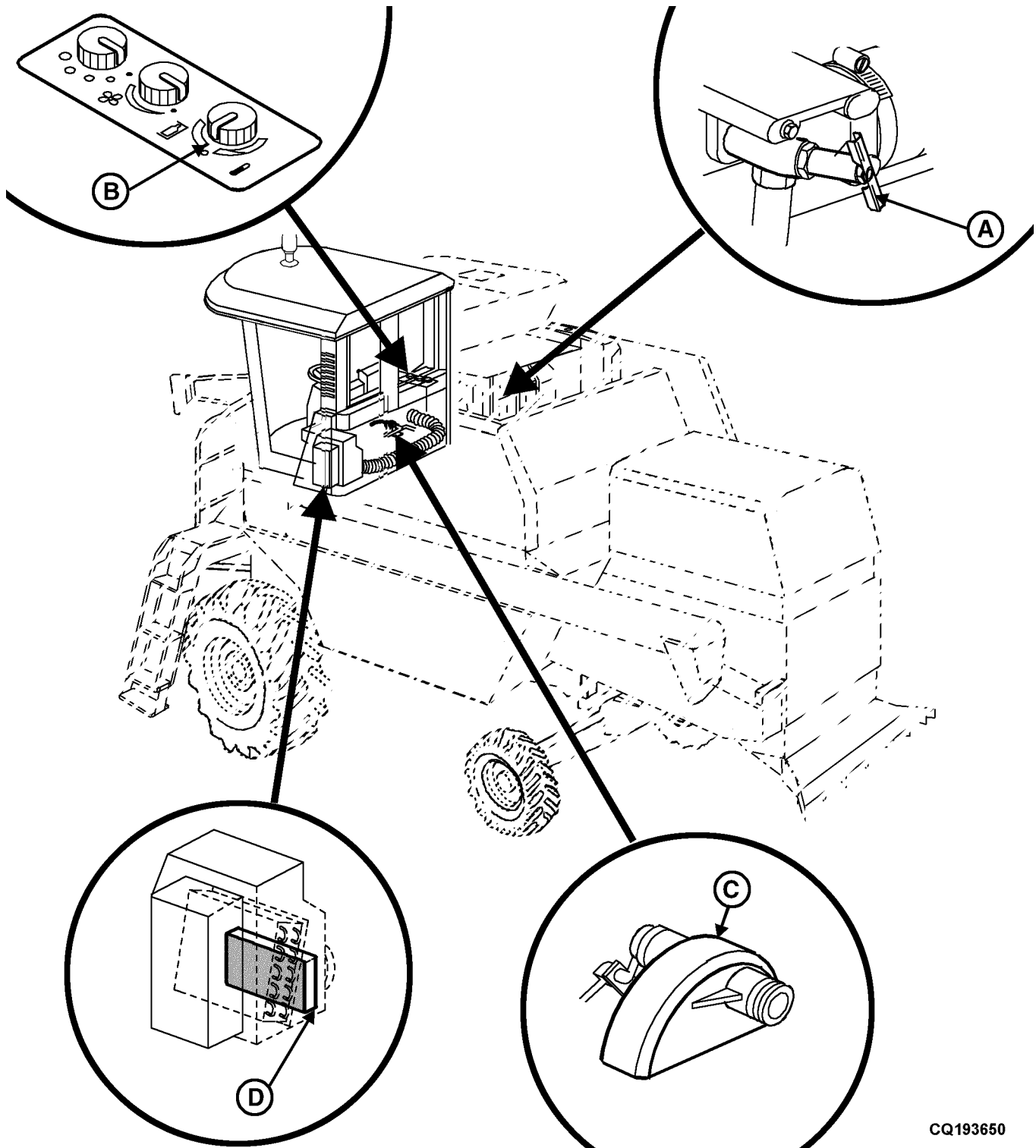
B—Condenser
C—Receiver-drier

D—Evaporator
E—High pressure switch

F—Low pressure switch
G—Air conditioning/heater
rotary switch

H—Demoisturizer switch

Heater Components



A—Heater valve at cylinder block

B—Air conditioning/heater rotary switch

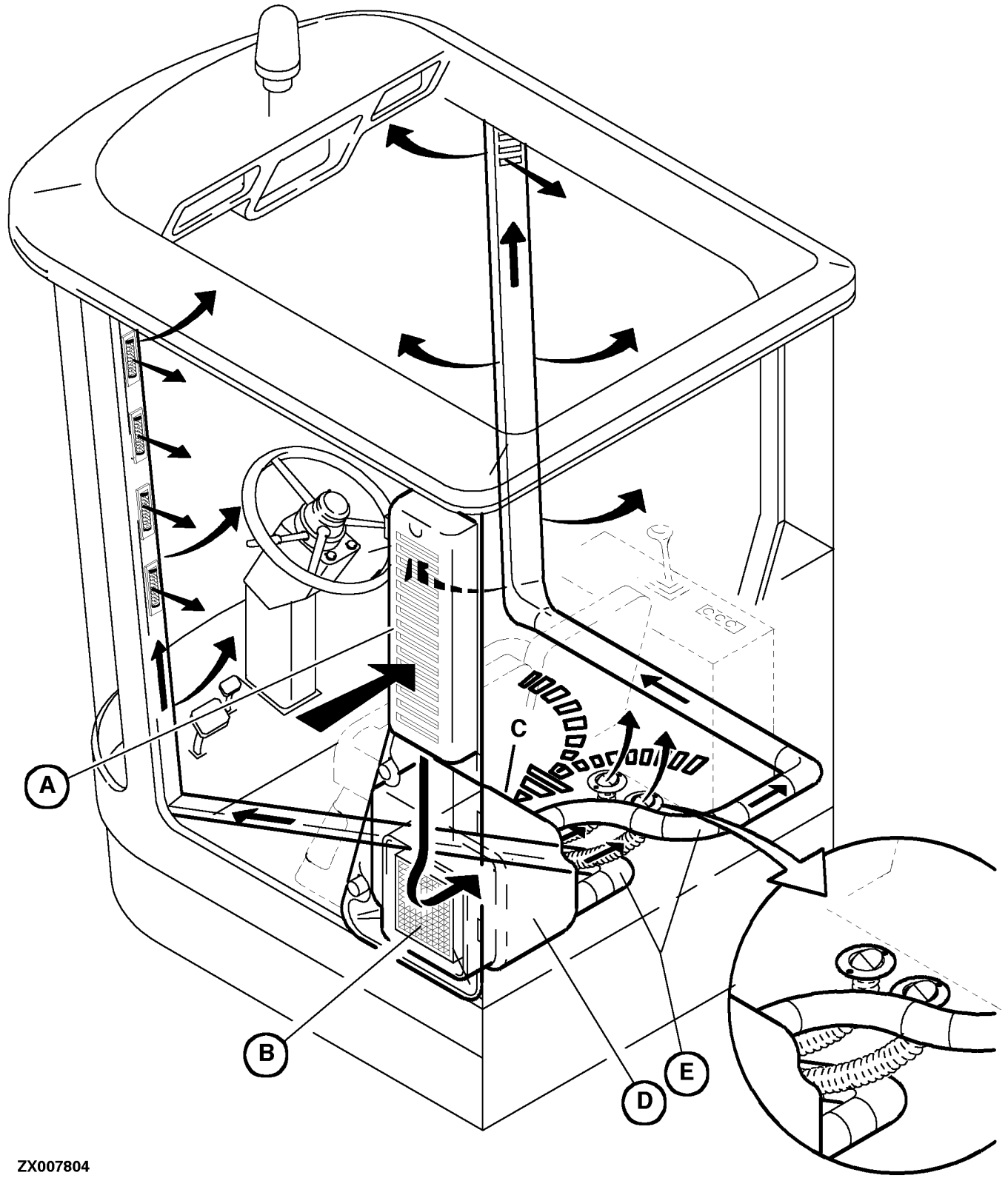
C—Heater valve in cab

D—Radiator

CQ193650

CQ193650 —UN—18NOV99

Air Intake And Distribution



ZX007804

A—Air intake channel
B—Air (main) filter

C—Recirculating air filter

D—Fan

E—Air outlet channels

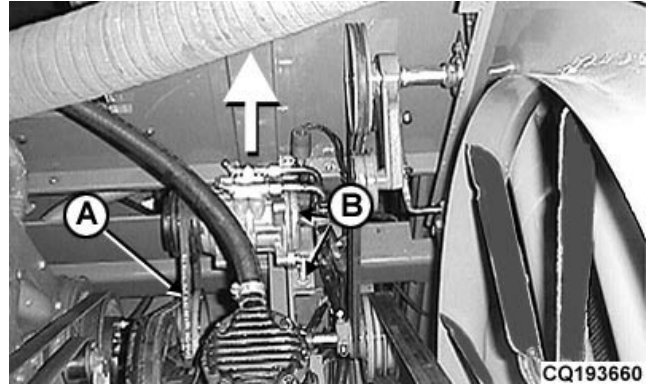
ZX007804 —UN-22MAY96

Compressor Drive Belt

Tension of drive belt (A) is obtained when the compressor is moved onto the direction of the arrow.

Loosen bolts (B) and displace compressor as indicated.

Tighten firmly the screws (B).



AG,CO03622,2246 -19-15MAR02-1/1

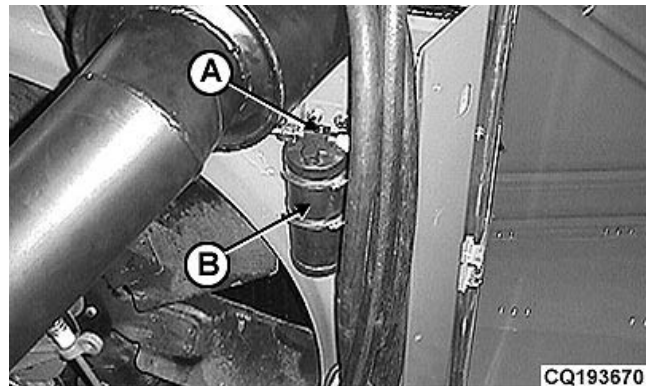
Refrigerant Level

IMPORTANT: The air conditioning system operates using R134a refrigerant (tetra-fluorethane). This substance does not contain any chlorine atoms, so it does not have a detrimental effect on the ozone in the Earth's atmosphere.

Even so, the refrigerant must never be discharged straight into the air. It must be trapped in a recycling unit. For this reason, never separate any line connections, and always have service and repair work done only by a John Deere dealer who has the appropriate recovery and recycling equipment.

Check refrigerant level every 100 hours. With air conditioning system controls set for maximum cooling and with the engine running, check sight glass (A) at receiver-drier (B).

If refrigerant appears cloudy or foamy, refrigerant level is low and system should be recharged by your John Deere dealer.

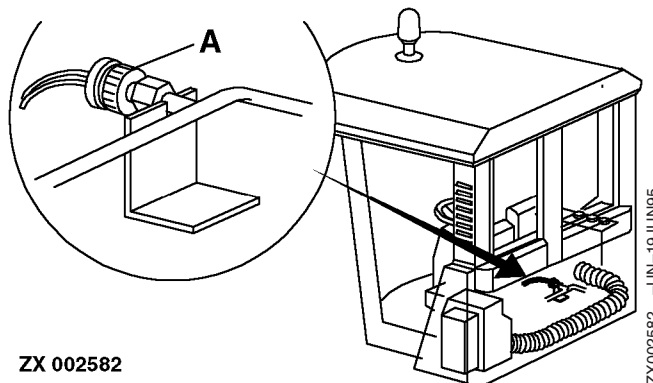


AG,CO03622,2160 -19-15MAR02-1/1

Low Pressure Switch

IMPORTANT: Use the highest comfortable fan speed and adjust the air conditioning system to an intermediate setting. Do not operate the air conditioning system at maximum output when the fan is at its lowest speed setting.

The air conditioning system is equipped with a low pressure switch (A) which switches off the system in the event of a refrigerant leak. Some leakage through air conditioning hoses cannot be avoided. Check refrigerant level every 100 hours of operation. When necessary, have system recharged by your John Deere dealer.



ZX 002582

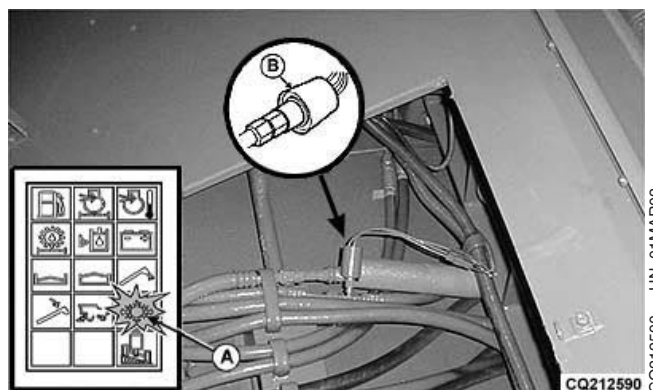
AG,CO03622,2161 -19-15MAR02-1/1

High Pressure Switch

Light (A) indicates that the high pressure switch (B) has stopped the air conditioning system. Stop the combine harvester and clean the condenser (see "Service — Engine").

The switch is located under the lower cover of grain tank.

If the indicator light remains on after the condenser has been cleaned, see your John Deere dealer.



CQ212590

AG,CO03622,2162 -19-17MAY02-1/1

Cleaning Condenser

Clean condenser from time to time (see "Service — Engine").

AG,CO03622,2163 -19-17MAY02-1/1

Cab Filters

The operator's cab is equipped with two reusable dry-type filter elements.

Clean these elements every 100 hours of operation or whenever air flow is noticeably reduced. The

recirculating filter may not require as frequent cleaning as the fresh air (main) filter.

Daily remove coarse dirt with hand brush furnished with the machine.

AG,CO03622,2164 -19-29SEP99-1/1

Removing Paper (Main) Filter Element

IMPORTANT: Thoroughly clean paper filter element (with compressed air) every 100 hours of operation. Clean more frequently when operating under dusty conditions (clean daily, if necessary).

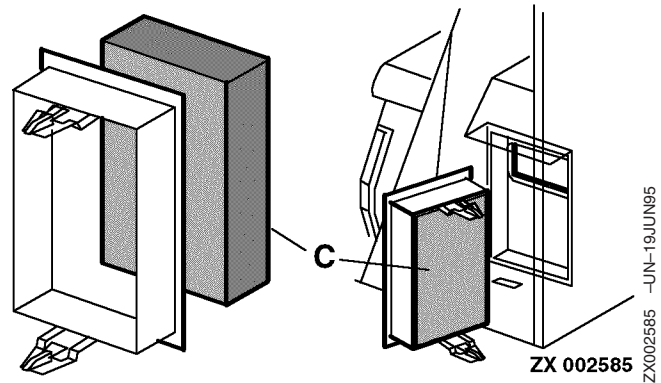
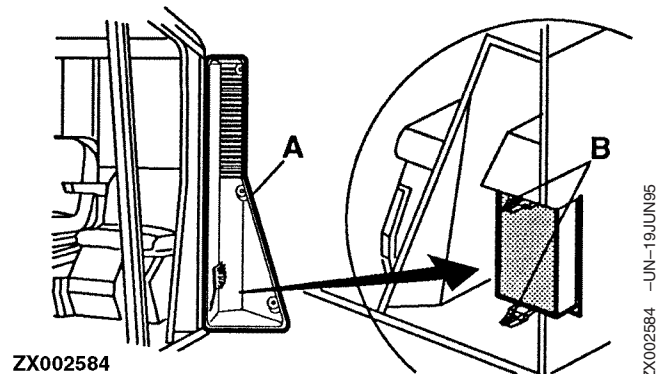
NOTE: Replace filter element after it has been washed six times.

Open service cover (A).

Disengage fasteners (B).

Lift out filter housing with element (C).

When reinstalling, make sure filter element is in correct position.



AG,CO03622,2165 -19-06JUN02-1/1

Cleaning Paper Filter Elements

As a provisional measure during operation, tap element on palm of hand or on a flat soft surface.



Z 63398

Continued on next page

AG,CO03622,2166 -19-15FEB02-1/3

Cleaning with Compressed Air

Direct compressed air through filter in opposite direction of arrows on filter [maximum pressure 200 kPa (2 bar; 30 psi)].



Z 63399

Z63399 -UN-04APR95

AG,CO03622,2166 -19-15FEB02-2/3

Washing the Filter

IMPORTANT: Never wash element in fuel or strong detergents. Never install a wet or damp element.

Hold filter element under running water to remove any coarse dirt.

Soak element for approx. 15 min. in lukewarm water, using a mild non-sudsing detergent. Wash element.

Rinse element in warm water [pressure not exceeding 200 kPa (2 bar; 28 psi)]. Shake filter and allow to dry.



Z 63400

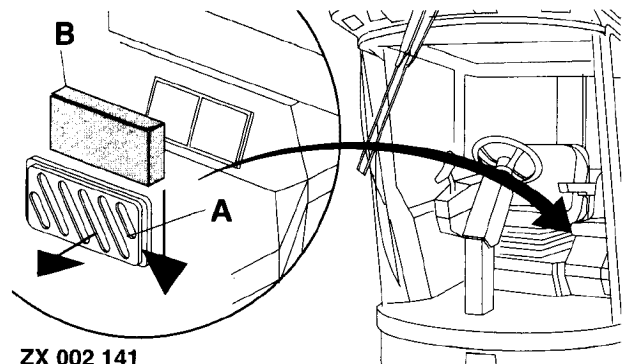
Z63400 -UN-04APR95

AG,CO03622,2166 -19-15FEB02-3/3

Removing Cab Recirculating Filter

Press down grille (A) and pull out to the top.

Lift out filter element (B).



ZX 002 141

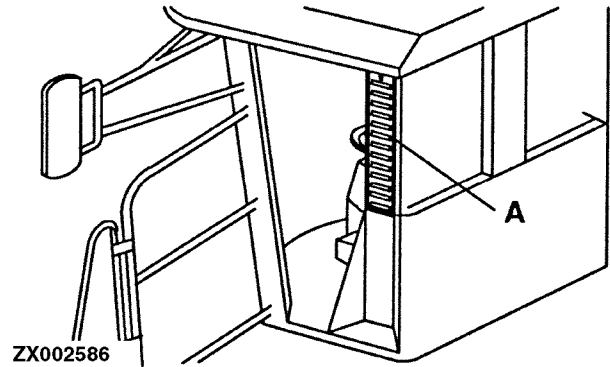
ZX002141 -UN-03APR95

AG,CO03622,2168 -19-15MAR02-1/1

Air Intake Opening

A fine mesh screen (A) covers the air intake opening. Keep screen clear of chaff and leaves.

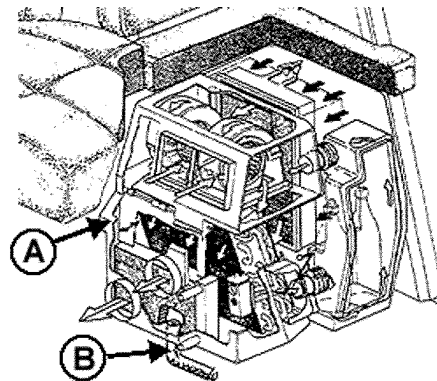
Use hand brush located in main filter service cover.



AG,CO03622,2169 -19-15MAR02-1/1

Condensed Water Drain Hose

If water is accumulating in housing (A), the condensed water drain hose (B) may be blocked. Check if hose is bent or blocked.



AG,CO03622,2170 -19-15MAR02-1/1

Storage

After The Season

If possible, store the combine harvester in a dry, sheltered place.

Clean the combine harvester thoroughly inside and out. Chaff and dirt will attract moisture, which leads to corrosion.

NOTE: Should a high-pressure washer be used for cleaning, do not direct pressurized water at the bearings.

Remove all V-belts.

Clean the drive belts thoroughly. Do not use aggressive cleaning agents. Do not use petrol, benzene, turpentine or similar cleaning solvents.

The recommended procedure is to use a rag dipped in:

- liquid ammonia,
- soap-suds, or a
- 1:10 mixture of glycerine spirit

Store drive belts in a dry, cool and dark area, avoiding distortion or tensioning of belts.

Thoroughly clean all drive chains and coat them with heavy oil to prevent corrosion.

Clean out augers and elevators, leaving upper flaps open.

Thoroughly clean grain tank and unloading auger.

Thoroughly clean all sieves.

Grease feeder house conveyor bottom to prevent corrosion. Lubricate combine thoroughly as indicated in the lubricating charts. Grease threads of adjusting screws etc. Release tension in springs.

Touch up all parts where paint is damaged.

Support the header with blocks to level it or lower header onto a horizontal, dry base. Lower the feeder house.

Grease bare metal surfaces of hydraulic cylinder piston rods well and retract rods as far as possible.

Block up combine, taking the load off the tires. Leave tires inflated.

If combine is stored outside, jack it up on supports and remove wheels. Store wheels in a cool, dark and dry room.

Coat all lever linkages and bearing points without grease fittings with oil.

List all service work to be done before the next season and have it carried out in good time. Your John Deere dealer is in a better position to carry out necessary service and repairs during the off-season.

AG,CO03622,2171 -19-30SEP99-1/1

After The Season — Engine

If the combine harvester is to be stored for some time (during the winter months), metal parts of the engine must be protected from corrosion and the fuel system must be protected from gum-type deposits.

Protect engine, fuel system etc. as follows

- Thoroughly clean outside of engine with a safe solvent.



CAUTION: Do not use gasoline !

- Drain, flush and refill cooling system with fresh coolant every two years (refer to "Fuel, Lubricants, Coolant and Capacities" section).

IMPORTANT: Use only John Deere recommended coolant in the cooling system.

- Open rotary radiator screen and carefully clean radiator fins, using compressed air or a weak water jet.

- Drain engine oil and replace filter element. Drain oil while still warm. Refill crankcase with oil of specified quality and viscosity (refer to "Fuel, Lubricants, Coolant and Capacities" section).

- Drain fuel tank and flush it with clean fuel.

- Check fuel filters and clean them. Replace them if necessary.

- Fill up the fuel tank to avoid condensation.

- Clean the engine air intake and change the air cleaner primary and safety elements.

- Coat the cable terminals with petroleum jelly or grease.

- Periodically run the engine at half throttle.

AG,CO03622,2172 -19-17MAY02-1/1

After The Season — Air Conditioning System

Clean condenser.

Remove compressor drive belt and store with the other belts.

AG,CO03622,2173 -19-30SEP99-1/1

Removing Combine From Storage

Before the beginning of each harvesting season, the combine harvester should undergo a thorough check. By ensuring that the machine is in really good condition, costly breakdowns will be avoided.

Thoroughly clean the combine harvester inside and out, if this was not done after the last harvesting season. Reinstall all belts and check belt tension.

Re-adjust chain tension and make sure the chains on the grain and tailings elevators are in a clean condition.

Clean the slip clutches. Then adjust the spring tension (see under "Slip Clutch" in the "Service - Drives and Shields" section).

Close elevator flaps.

Lubricate complete combine harvester in accordance with the lubrication charts.

Afterwards run combine harvester at half-speed for about an hour. Check all bearings for overheating.

Check tire inflation pressures.

Go over the complete combine harvester and make sure that all bolts are tight and cotter pins are in place.

AG.CO03622,2174 -19-17MAY02-1/1

Removing Combine From Storage — Engine

Check all hoses clamps and the coolant level.

Drain engine oil if it has not been done at the end of the harvest season. See "Fuel, Lubricants and Coolant".

Check all seals and coolant level.

Check battery charge and electrolyte level. Recharge battery if necessary.

Crank engine during 5 seconds without starting. It will assure complete engine lubrication.

Procedure:

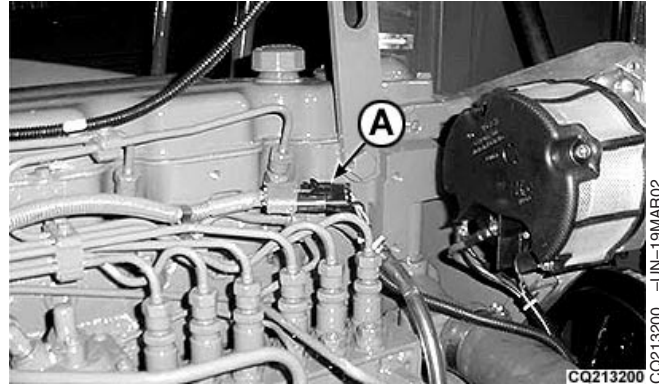
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AG.CO03622,2175 -19-02OCT02-1/3

1450 e 1550

This procedure is possible by disconnecting fuel supply solenoid connector (A) and crank engine.

A—Connector



1550

AG,CO03622,2175 -19-02OCT02-2/3

1450 CWS and 1550 CWS

With combines using ECU is necessary to disconnect connector (A) by pulling lock latch (B) from ECU (C) and crank engine during 5 seconds.

Put the connector back.

Start engine and run it for approx. 5 minutes at half-rated speed.

Check all lines and seals for leaks. See your John Deere dealer if necessary.



1450 CWS and 1550 CWS

A—Connector
B—Lock latch
C—ECU

AG,CO03622,2175 -19-02OCT02-3/3

Removing Combine From Storage — Air Conditioning System

An annual service of the air conditioning system is necessary to assure satisfactory performance.

Clean or replace dry-type paper filter.

Clean or replace recirculating air filter.

Install and tension compressor drive belt.

Check refrigerant level in the sight glass.

It is a good idea to have your John Deere dealer check the entire system at the beginning of each season.



CAUTION: The air conditioning system should be serviced only by your John Deere dealer.

AG,CO03622,2176 -19-30SEP99-1/1

Specifications

Combines 1450 CWS, 1550 CWS, 1450 and 1550 — Specifications

The combine specifications are divided in blocks as follows:

AG,CO03622,2260 -19-26NOV99-1/1

Feeder House

Specification

—Conveyor chains - 1450 and	
1450 CWS	3
Conveyor chains - 1550 and	
1550 CWS	4
Slats - 1450 and 1450 CWS	2 - serrated, bolted "T" slats
Slats - 1550 and 1550 CWS	3 - serrated, bolted "T" slats
Fixed speed	510 rpm
Length	1,8 m
Lateral tilt (only with 600R series)	+/- 4 degrees optional
Vertical tilt (header tilt)(only with	
600R series)	+/- 9 degrees standard
Reverser	hydraulic (16 hp), foot actuated

AG,CO03622,2872 -19-05NOV02-1/1

Separator

Specification

—Cylinder diameter	610 mm
Cylinder width	1300 mm (1450 CWS/1450)
Cylinder width	1560 mm (1550 CWS/1550)
No. of rasp bars	08
Cylinder speed range, standard	380-1100 rpm
Cylinder dual range drive	150-420, 400-1100 rpm
Cylinder drive	variator, POSI-TORQ®
Concave width	1300 mm (1450 CWS/1450)
Concave width	1560 mm (1550 CWS/1550)
Concave wrap	112°
Concave area	0,77 m ² (1450 CWS/1450)
Concave area	0,93 m ² (1550 CWS/1550)
Concave adjustment - electric	4 to 51
Beater speed	865 ± 15 rpm
Beater, turn diameter	380 mm
No. of beater wings	04

AG,CO03622,2874 -19-05NOV02-1/1

Specifications

Stone Trap

Specification

—Actuation 1 lever

AG,CO03622,2875 -19-13NOV01-1/1

Straw Walkers

Specification

—No. of walkers 05 (1450 CWS/1450)
No. of walkers 06 (1550 CWS/1550)
No. of walker steps 05
Walker length 3715 mm (146.25 in.)
Walker throw 150 mm (5.90 in.)
Walker area 4,83 m²(51.98 sq ft) (1450 CWS/1450)
Walker area 5,79 m²(62.32 sq ft) (1550 CWS/1550)

AG,CO03622,2876 -19-23FEB00-1/1

Cleaning System

Specification

—Chaffer area incl. extension 2,45 m²(26.37 sq ft)(1450 CWS/1450)
Chaffer area incl. extension 2.95 m²(31.75 sq ft) (1550 CWS/1550)
Grain sieve area 1,88 m²(20.23 sq ft) (1450 CWS/1450)
Grain sieve area 2,38 m²(25.61 sq ft) (1550 CWS/1550)
Total cleaning area 4,60 m²(49.51 sq ft) (1450 CWS/1450)
Total cleaning area 5.60 m²(60.27 sq ft) (1550 CWS/1550)
Fan speed range 550—1150 rpm
Fan diameter 580 mm (22.83 in.)
Number of fan blades 05
Fan speed adjustment electrically from cab

AG,CO03622,2877 -19-15NOV02-1/1

Grain Tank

Specification

—1450 - Capacity 5500 L
1450 CWS - Capacity 6000 L
1550 and 1550 CWS with
standard extension - Capacity 6000 L
1550 CWS with adjustable
extension - Capacity 6800 L
Unloading rate 3300 L/min

AG,CO03622,2878 -19-09OCT02-1/1

Capacities — General

Specification	
—Oil Pan Engine 6.8 L (1450).....	20 L
Oil Pan Engine 8.1 L (1550)	28.5 L
Oil Pan Engine 6.8 L (1450 CWS).....	32 L
Oil Pan Engine 6.8 L (1550 CWS).....	32 L
Oil Pan Air Compressor (All Models)	0.37 L
Standard Final Drive (1450).....	3 L
Heavy Duty Final Drive (1450 CWS, 1550 CWS and 1550).....	4.8 L
Engine Cooling System (1450, 1450 CWS and 1550 CWS).....	30 L
Engine Cooling System (1550)	38 L
Threshing cylinder speed reductor hub (All Models)	1.6 L
Chaff spreader drive hub (All Models).....	0.55 L (each one)
Brake system including reservoir (All Models).....	1 L
Brake fluid reservoir (All Models)	0.5 L
Transmission (All Models)	9,6 L
Fuel Tank (All Models)	470 L
Windshield washer solution reservoir (All Models)	2.8 L
Hydraulic System reseroir (All Models)	29 L
Hydrostatic Oil reservoir (All Models).....	24 L

CO03622,0000071 -19-08APR02-1/1

Electrical System

Specification	
—Alternator.....	12V/120A
Starting motor	12V
Battery	12V - 150 A
Main switch.....	standard

AG,CO03622,2879 -19-13NOV01-1/1

Specifications

Hydraulic System

Specification

—Type of pump..... triple section, belt driven
Full flow
67.8 L/min
Hydraulic pressure..... 195 bar / 120 bar
Hydraulic valves electro-hydraulic

MB03730,000021B -19-09OCT02-1/1

Transmission

Specification

—Type 3 speeds (CWS - with shift lock)

AG,CO03622,2880 -19-09OCT02-1/1

Steering System

Specification

—Type hydrostatic
Steering column..... height and tilt adjustment

AG,CO03622,2881 -19-13NOV01-1/1

Sound Level

Specification

—Max. sound level at operator's
ear in accordance with Directive
86/188 EEC. Measurement
method in accordance with
ISO5131 with cab closed
(average value) 79 dB (A)

AG,CO03622,2882 -19-23FEB00-1/1

Weight—Without Header¹

Specification

—1450 CWS Aprox. 10.000 Kg (22046.23 lbs)
1450 Aprox. 10.000 Kg (22046.23 lbs)
1550 Aprox. 11.400 Kg (25132.7 lbs)
1550 CWS Aprox. 11.400 Kg (25132.7 lbs)

¹Weights here shown are aproximate values of machines with all accessories and attachments.

AG,CO03622,2884 -19-23FEB00-1/1

Engine 1450

	Specification
—Type	6068TJ04
Number of cylinders	6
Displacement	6.8 L
Bore	106.5 mm
Stroke	127 mm
Power	134 kW (179.7 hp)
Rated speed	2200 rpm
Maximum torque	690 N.m at 1600 rpm
Radiator screen	self-cleaning
Fuel tank capacity	470 L

AG,CO03622,2885 -19-10MAY02-1/1

Engine 1450 CWS

	Specification
—Type	CD6068HCQ60
Number of cylinders	6
Displacement	6.8 L
Bore	106.5 mm
Stroke	127 mm
Power	133 kW (178.36 hp) @ 2400 rpm according to ECE R24, DIN70020 (net power)
Rated speed	2400 rpm
Maximum torque	720 N.m at 1800 rpm
Radiator screen	self-cleaning
Fuel tank capacity	470 L
Injection System	injection pump with Bosch VP44 electronic governor

AG,CO03622,2886 -19-12NOV02-1/1

Engine 1550

Specification

—Type 6081AJ01
 Number of cylinders 6
 Displacement 8.1 L
 Bore 116 mm
 Stroke 129 mm
 Power 168 kW (225.3 hp)
 Rated speed 2200 rpm
 Maximum torque 1013 N.m at 1400 rpm
 Radiator screen self-cleaning
 Fuel tank capacity 470 L

CO03622,0000072 -19-07OCT02-1/1

Engine 1550 CWS

Specification

—Type CD6068HCQ61
 Number of cylinders 6
 Displacement 6.8 L
 Bore 106.5 mm
 Stroke 127 mm
 Power 167 kW (225 hp) @ 2400 rpm
 according to ECE R24, DIN70020
 (net power) - With Torque Curve
 Selector
 Rated speed 2400 rpm
 Maximum torque 808 N.m at 1800 rpm
 Radiator screen self-cleaning
 Fuel tank capacity 470 L
 Injection System injection pump with Bosch VP44
 electronic governor

AG,CO03622,2887 -19-12NOV02-1/1

Wheels - 1450

Specification

—Option 01 23.1 - 30 — 12.4 - 24
 Option 02 28.1 - 26 — 12.4 - 24
 Option 03 24.5 - 32 — 16.9 - 24
 Option 04 23.1 - 26 — 16.9 - 24
 Option 05 Without front wheels* — 16.9 -
 24

*To be used with rice tracks.

AG,CO03622,2888 -19-13NOV01-1/1

Specifications

Wheels -1550

Specification

—Option 01 28.1 - 26 — 16.9 - 24
Option 02 30.5 - 32 — 16.9 - 24

AG,CO03622,2891 -19-23FEB00-1/1

Wheels - 1450 CWS

Specification

—Option 01 23.1-26 — 12.4-24
Option 02 23.1-26 — 16.9-24
Option 03 23.1-26 — 440/65R24
Option 04 23.1-26 — 540/65R24
Option 05 23.1-30 — 12.4-24
Option 06 24.5-32 — 16.9-24
Option 07 28.1-26 — 12.4-24
Option 08 28.1-26 — 16.9-24
Option 09 28.1-26 — 440/65R24
Option 10 28.1-26 — 540/65R24
Option 11 620/75R30 — 12.4-24
Option 12 620/75R30 — 16.9-24
Option 13 620/75R30 — 440/65R24
Option 14 620/75R30 — 540/65R24
Option 15 650/75-32 —12.4-24
Option 16 650/55R32 — 12.4-24
Option 17 650/55R32 — 16.9-24
Option 18 650/55R32 — 440/65R24
Option 19 650/55R32 — 540/65R24
Option 20 750/65-26 — 440/65-24
Option 21 800/65R32 — 12.4-24
Option 22 800/65R32 — 16.9-24
Option 23 800/65R32 — 440/65R24
Option 24 800/65R32 — 540/65R24

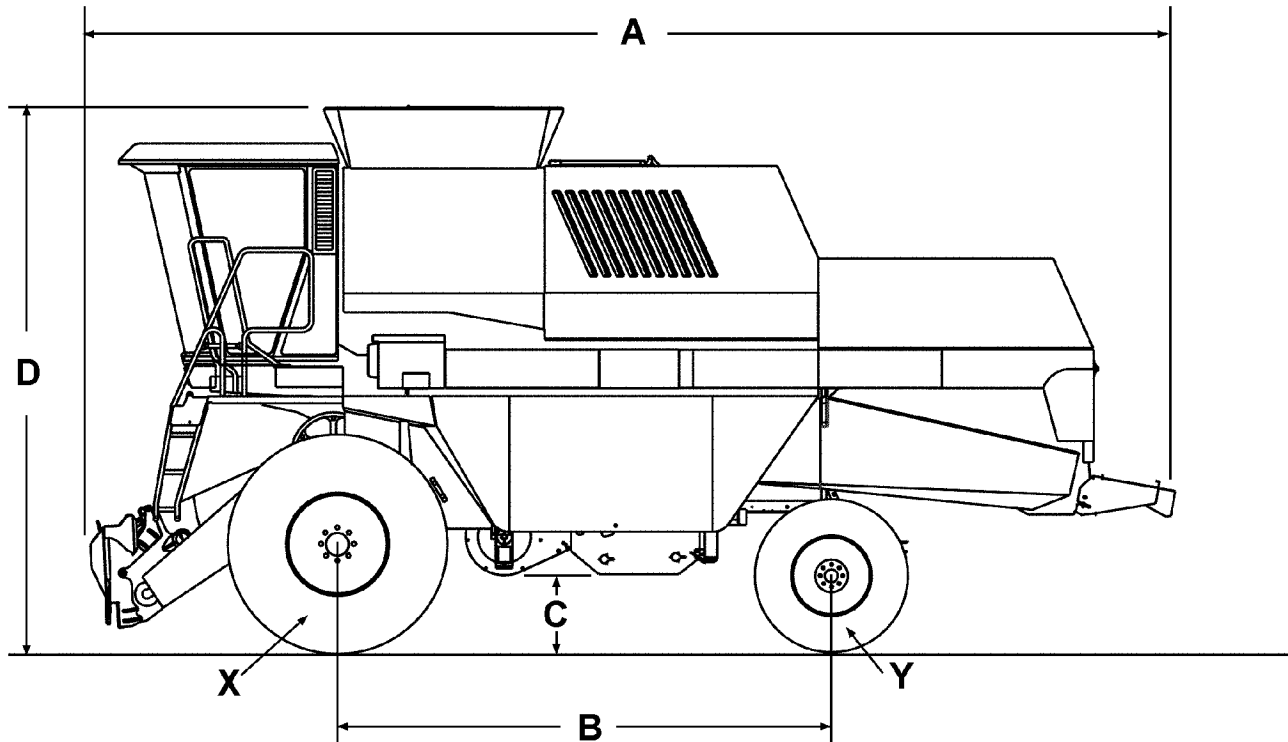
AG,CO03622,2889 -19-07MAR02-1/1

Wheels -1550 CWS

	Specification
—Option 01	23.1-30 — 16.9-24
Option 02	24.5-32 — 16.9-24
Option 03	28.1-26 — 12.4-24
Option 04	28.1-26 — 16.9-24
Option 05	28.1-26 — 440/65R24
Option 06	28.1-26 — 540/65R24
Option 07	30.5L32R1 — 16.9-24
Option 08	620/75R30 — 12.4-24
Option 09	620/75R30 — 16.9-24
Option 10	620/75R30 — 440/65R24
Option 11	620/75R30 — 540/65R24
Option 12	650/75R32 — 12.4-24
Option 13	650/75R32 — 16.9-24
Option 14	650/75R32 — 440/65R24
Option 15	650/75R32 — 540/65R24
Option 16	800/65R32 — 12.4-24
Option 17	800/65R32 — 16.9-24
Option 18	800/65R32 — 440/65R24
Option 19	800/65R32 — 540/65R24

AG.CO03622,2890 -19-06MAR02-1/1

Dimensions 1450 and 1550



CQ203710

Side View

A—Total length

C—Bottom to the ground

X—Front tires

Y—Rear tires

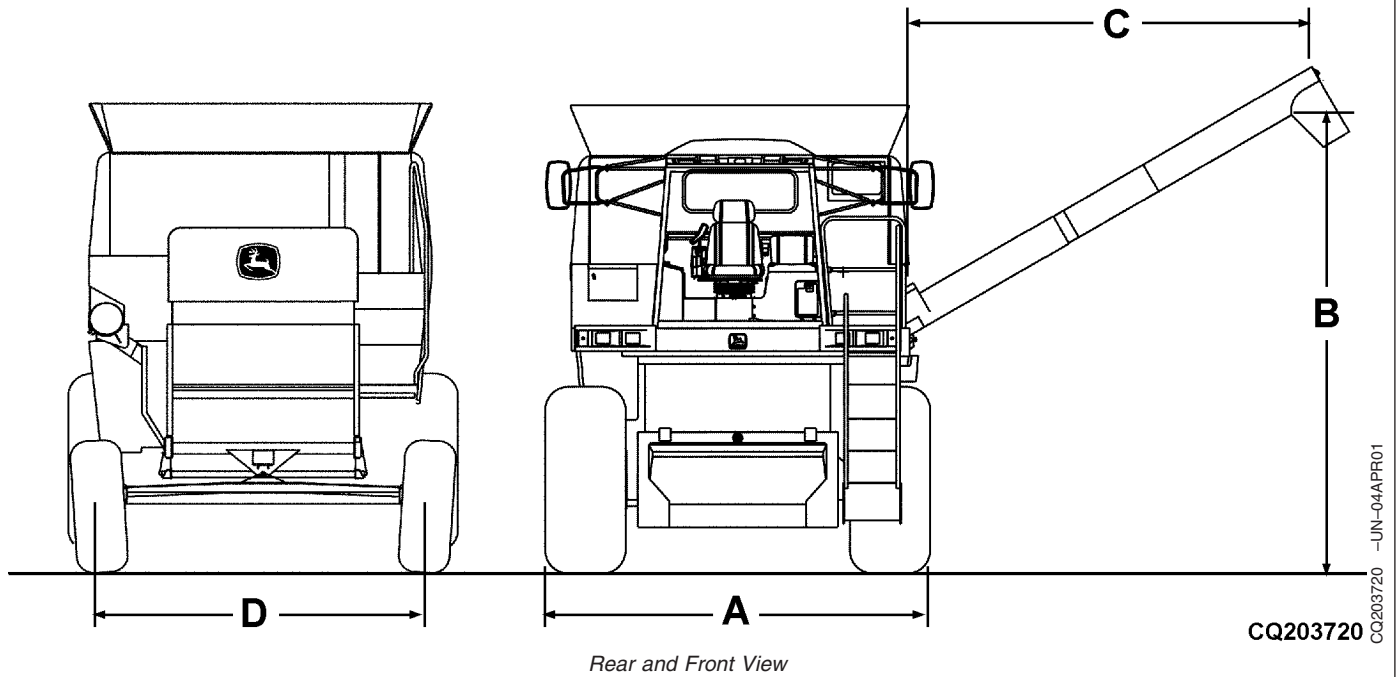
B—Distance from front to rear axle

D—Total height

Model	X	Y	A	B	C	D
1450	23.1-26	16.9-24	7,965 mm	3,570 mm	490 mm	3,760 mm
1450	23.1-30	12.4-24	7,965 mm	3,570 mm	530 mm	3,795 mm
1450	24.5-32	16.9-24	7,965 mm	3,570 mm	580 mm	3,850 mm
1450	28.1-26	12.4-24	7,965 mm	3,570 mm	465 mm	3,730 mm
1550	28.1-26	16.9-24	7,965 mm	3,720 mm	475 mm	4,035 mm
1550	30.5L32R1	16.9-24	7,965 mm	3,720 mm	575 mm	4,160 mm

AG,CO03622,2177 -19-05NOV02-1/1

Dimensions 1450 and 1550 (Continued)

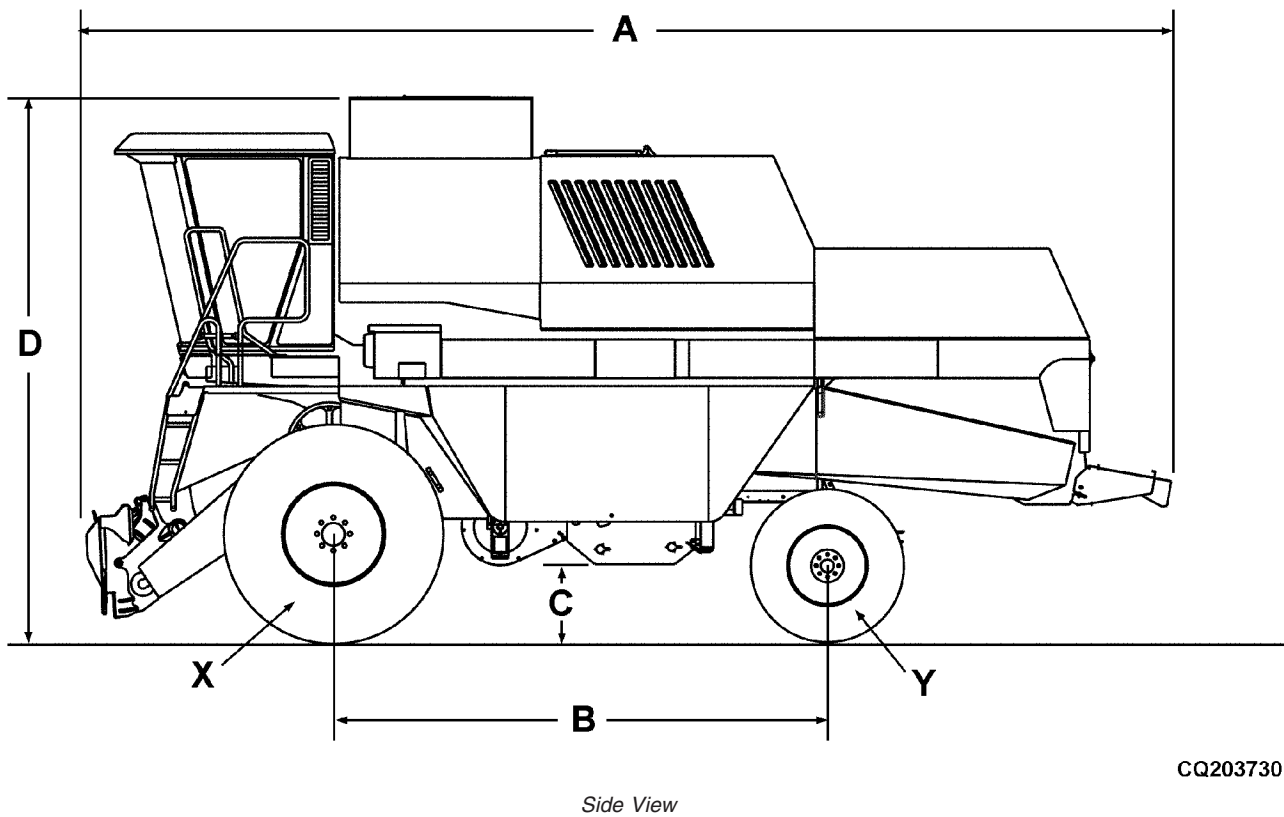


A—Front axle width C—Unloading auger tube(1450 D—Rear axle width Y—Rear tires
B—Height of unloading point - long / 1550 - extra long) X—Front tires

Model	X	Y	A	B	C	D
1450	23.1-26	16.9-24	3,370 mm	4,168 mm	3,713 mm	2800 mm
1450	23.1-30	12.4-24	3,275 mm	4,200 mm	3,713 mm	2800 mm
1450	24.5-32	16.9-24	3,300 mm	4,258 mm	3,713 mm	2,370 mm
1450	28.1-26	12.4-24	3,640 mm	4,148 mm	3,713 mm	2800 mm
1550	28.1-26	16.9-24	3,785 mm	4,675 mm	4,217 mm	2800 mm
1550	30.5L32R1	16.9-24	3,940 mm	4,795 mm	4,217 mm	2800 mm

AG.CO03622,2178 -19-05NOV02-1/1

Dimensions 1450 CWS and 1550 CWS



CQ203730

—UN—08NOV01
CQ203730

A—Total length

B—Distance from front to rear
axle

C—Bottom to the ground

D—Total height

X—Front tires

Y—Rear tires

Continued on next page

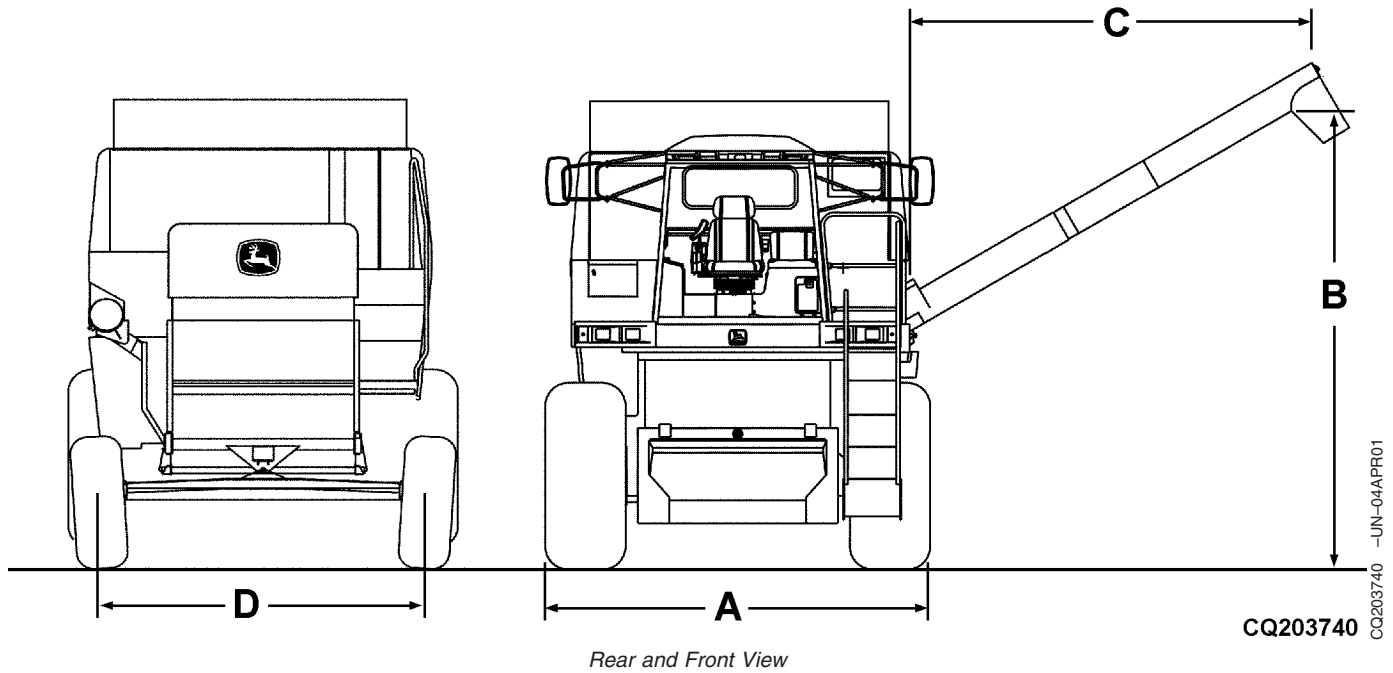
CO03622,0000073 —19—05NOV02—1/2

Specifications

Model	X	Y	A	B	C	D
1450 CWS	23.1-26	16.9-24	7,965 mm	3,570 mm	490 mm	3,875 mm
1450 CWS	23.1-30	12.4-24	7,965 mm	3,570 mm	530 mm	3,910 mm
1450 CWS	24.5-32	16.9-24	7,965 mm	3,570 mm	580 mm	3,965 mm
1450 CWS	28.1-26	12.4-24	7,965 mm	3,570 mm	470 mm	3,855 mm
1450 CWS	620/75R30	440/65-24	7,965 mm	3,570 mm	530 mm	3,910 mm
1450 CWS	650/75-32	12.4-24	7,965 mm	3,570 mm	580 mm	3,965 mm
1450 CWS	750/65-26	440/65-24	7,965 mm	3,570 mm	470 mm	3,855 mm
1550 CWS	23.1-30	16.9-24	7,965 mm	3,720 mm	510 mm	3,900 mm
1550 CWS	24.5-32	16.9-24	7,965 mm	3,720 mm	560 mm	3,950 mm
1550 CWS	28.1-26	16.9-24	7,965 mm	3,720 mm	475 mm	3,845 mm
1550 CWS	30.5L32R1	16.9-24	7,965 mm	3,720 mm	575 mm	3,970 mm
1550 CWS	620/75R30	440/65-24	7,965 mm	3,720 mm	510 mm	3,900 mm
1550 CWS	650/75-32	540/65-24	7,965 mm	3,720 mm	565 mm	3,952 mm
1550 CWS	800/65-32	540/65-24	7,965 mm	3,720 mm	560 mm	3,950 mm

CO03622,0000073 -19-05NOV02-2/2

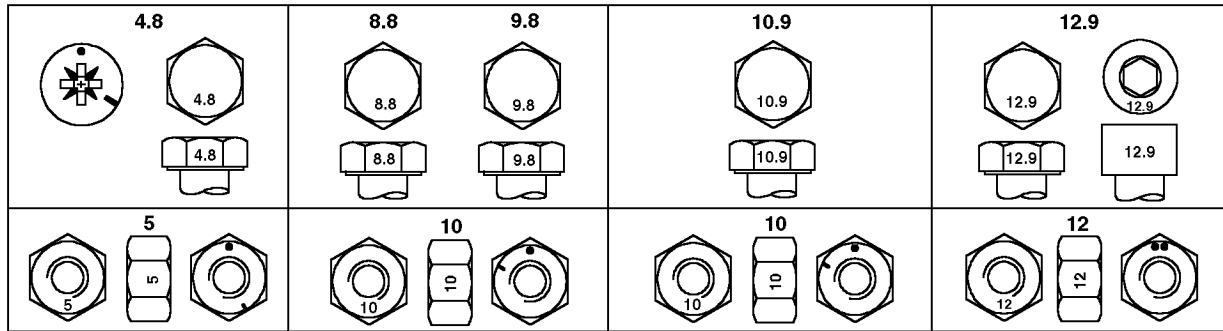
Dimensions 1450 CWS and 1550 CWS (Continued)



A—Front axle width
B—Height of unloading point
C—Unloading auger tube(1450
- long / 1550 - extra long)
D—Rear axle width
X—Front tires
Y—Rear tires

Model	X	Y	A	B	C	D
1450 CWS	23.1-26	16.9-24	3,370 mm	4,168 mm	3,713 mm	2800 mm
1450 CWS	23.1-30	12.4-24	3,275 mm	4,200 mm	3,713 mm	2800 mm
1450 CWS	24.5-32	16.9-24	3,300 mm	4,258 mm	3,713 mm	2,370 mm
1450 CWS	28.1-26	12.4-24	3,640 mm	4,148 mm	3,713 mm	2800 mm
1450 CWS	620/75R30	440/65R24	3,275 mm	4,200 mm	3,713 mm	2800 mm
1450 CWS	650/75-32	12.4-24	3,300 mm	4,258 mm	3,713 mm	2800 mm
1450 CWS	750/65-26	440/65-24	3,640 mm	4,148 mm	3,713 mm	2,370 mm
1550 CWS	23.1-30	16.9-24	3,420 mm	4,730 mm	4,217 mm	2800 mm
1550 CWS	24.5-32	16.9-24	3,450 mm	4,780 mm	4,217 mm	2800 mm
1550 CWS	28.1-26	16.9-24	3,785 mm	4,675 mm	4,217 mm	2800 mm
1550 CWS	30.5L32R1	16.9-24	3,940 mm	4,795 mm	4,217 mm	2800 mm
1550 CWS	650/75-32	440/65-24	3,450 mm	4,785 mm	4,217 mm	2800 mm
1550 CWS	620/75R30	440/65-24	3,420 mm	4,730 mm	4,217 mm	2800 mm
1550 CWS	800/65.32	540/65-24	3,940 mm	4,780 mm	4,217 mm	2800 mm

Metric torque values



Top, Property Class and Head Markings; Bottom, Property Class and Nut Markings

	Class 4.8		Class 8.8 or 9.8		Class 10.9		Class 12.9	
Size	Lubricated ^a N•m(lb-ft)	Dry ^b N•m(lb-ft)	Lubricated ^a N•m(lb-ft)	Dry ^b N•m(lb-ft)	Lubricated ^a N•m(lb-ft)	Dry ^b N•m(lb-ft)	Lubricated ^a N•m(lb-ft)	Dry ^b N•m(lb-ft)
M6	4.7 (3.5)	6 (4.4)	9 (6.6)	11.5 (8.5)	13 (9.5)	16.5 (12.2)	15.5 (11.5)	19.5 (14.5)
M8	11.5 (8.5)	14.5 (10.7)	22 (16)	28 (20.5)	32 (23.5)	40 (29.5)	37 (27.5)	47 (35)
M10	23 (17)	29 (21)	43 (32)	55 (40)	63 (46)	80 (59)	75 (55)	95 (70)
M12	40 (29.5)	50 (37)	75 (55)	95 (70)	110 (80)	140 (105)	130 (95)	165 (120)
M14	63 (46)	80 (59)	120 (88)	150 (110)	175 (130)	220 (165)	205 (150)	260 (190)
M16	100 (74)	125 (92)	190 (140)	240 (175)	275 (200)	350 (255)	320 (235)	400 (300)
M18	135 (100)	170 (125)	265 (195)	330 (245)	375 (275)	475 (350)	440 (325)	560 (410)
M20	190 (140)	245 (180)	375 (275)	475 (350)	530 (390)	675 (500)	625 (460)	790 (580)
M22	265 (195)	330 (245)	510 (375)	650 (480)	725 (535)	920 (680)	850 (625)	1080 (800)
M24	330 (245)	425 (315)	650 (480)	820 (600)	920 (680)	1150 (850)	1080 (800)	1350 (1000)
M27	490 (360)	625 (460)	950 (700)	1200 (885)	1350 (1000)	1700 (1250)	1580 (1160)	2000 (1475)
M30	660 (490)	850 (625)	1290 (950)	1630 (1200)	1850 (1350)	2300 (1700)	2140 (1580)	2700 (2000)
M33	900 (665)	1150 (850)	1750 (1300)	2200 (1625)	2500 (1850)	3150 (2325)	2900 (2150)	3700 (2730)
M36	1150 (850)	1450 (1075)	2250 (1650)	2850 (2100)	3200 (2350)	4050 (3000)	3750 (2770)	4750 (3500)

^a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

^b "Dry" means plain or zinc plated without any lubrication.

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

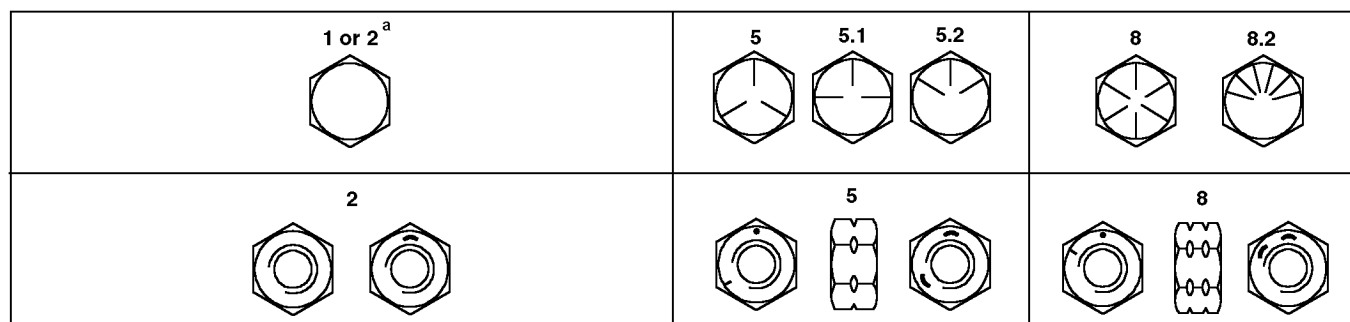
Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class.

Fasteners should be replaced with the same or higher property class. If higher property class fasteners are used, these should only be tightened to the strength of the original.

Make sure fastener threads are clean and you properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

Unified Inch Bolt and Cap Screw Torque Values



Top, SAE Grade and Head Markings; Bottom, SAE Grade and Nut Markings

Size	Grade 1 (No Mark)		Grade 2 ^a (No Mark)		Grade 5, 5.1 or 5.2		Grade 8 or 8.2	
	Lubricated ^b N•m(lb-ft)	Dry ^c N•m(lb-ft)	Lubricated ^b N•m(lb-ft)	Dry ^c N•m(lb-ft)	Lubricated ^b N•m(lb-ft)	Dry ^c N•m(lb-ft)	Lubricated ^b N•m(lb-ft)	Dry ^c N•m(lb-ft)
1/4	3.8 (2.8)	4.7 (3.5)	6 (4.4)	7.5 (5.5)	9.5 (7)	12 (9)	13.5 (10)	17 (12.5)
5/16	7.7 (5.7)	9.8 (7.2)	12 (9)	15.5 (11.5)	19.5 (14.5)	25 (18.5)	28 (20.5)	35 (26)
3/8	13.5 (10)	17.5 (13)	22 (16)	27.5 (20)	35 (26)	44 (32.5)	49 (36)	63 (46)
7/16	22 (16)	28 (20.5)	35 (26)	44 (32.5)	56 (41)	70 (52)	80 (59)	100 (74)
1/2	34 (25)	42 (31)	53 (39)	67 (49)	85 (63)	110 (80)	120 (88)	155 (115)
9/16	48 (35.5)	60 (45)	76 (56)	95 (70)	125 (92)	155 (115)	175 (130)	220 (165)
5/8	67 (49)	85 (63)	105 (77)	135 (100)	170 (125)	215 (160)	240 (175)	305 (225)
3/4	120 (88)	150 (110)	190 (140)	240 (175)	300 (220)	380 (280)	425 (315)	540 (400)
7/8	190 (140)	240 (175)	190 (140)	240 (175)	490 (360)	615 (455)	690 (510)	870 (640)
1	285 (210)	360 (265)	285 (210)	360 (265)	730 (540)	920 (680)	1030 (760)	1300 (960)
1-1/8	400 (300)	510 (375)	400 (300)	510 (375)	910 (670)	1150 (850)	1450 (1075)	1850 (1350)
1-1/4	570 (420)	725 (535)	570 (420)	725 (535)	1280 (945)	1630 (1200)	2050 (1500)	2600 (1920)
1-3/8	750 (550)	950 (700)	750 (550)	950 (700)	1700 (1250)	2140 (1580)	2700 (2000)	3400 (2500)
1-1/2	990 (730)	1250 (930)	990 (730)	1250 (930)	2250 (1650)	2850 (2100)	3600 (2650)	4550 (3350)

^a Grade 2 applies for hex cap screws (not hex bolts) up to 6 in. (152 mm) long. Grade 1 applies for hex cap screws over 6 in. (152 mm) long, and for all other types of bolts and screws of any length.

^b "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings.

^c "Dry" means plain or zinc plated without any lubrication.

DO NOT use these values if a different torque value or tightening procedure is given for a specific application. Torque values listed are for general use only. Check tightness of fasteners periodically.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical grade.

Fasteners should be replaced with the same or higher grade. If higher grade fasteners are used, these should only be tightened to the strength of the original.

Make sure fastener threads are clean and you properly start thread engagement. This will prevent them from failing when tightening.

Tighten plastic insert or crimped steel-type lock nuts to approximately 50 percent of the dry torque shown in the chart, applied to the nut, not to the bolt head. Tighten toothed or serrated-type lock nuts to the full torque value.

Declaration of Conformity

John Deere Brasil S.A.
Av. Jorge A. D. Logemann, 600
98920-000 Horizontina - RS Brasil



The Combine:
Models 1450 CWS and 1550 CWS

comply with the EU provisions:
98/37/EECMachine Directive
89/336/EECEMC Directive
and EN632 Combines and Forage Harvesters

Horizontina 01 July 2000

A handwritten signature in black ink, reading 'Jerry W. Hansen', is written over a horizontal dotted line. Below the signature, the name 'Jerry W. Hansen' is printed in a bold, sans-serif font. Underneath the printed name, the title 'Manager Engineering Combines' is written in a smaller, italicized, sans-serif font.

Jerry W. Hansen
Manager Engineering Combines

CQ207130 -UN-16JUL01

CQDCCWS -19-10JUL01-1/1

Safety Note Regarding the Subsequent Installation of Electrical and Electronic Appliances and/or Components

The machine is equipped with electronic components whose function may be influenced by electromagnetic radiation from other appliances. Such influences may be hazardous, so take the following safety instructions into account:

If electrical and electronic appliances are subsequently installed on the machine and connected to the onboard system, the user must verify whether the installation affects the electronics or other components. This applies particularly to:

- Area counter
- Personal Computer
- GPS (Global Positioning System) receiver

In particular, subsequently installed electrical/electronic components must comply with the relevant edition of EMC Directive 89/336/EEC, and be CE marked. If

mobile communication systems (e.g. radio communication, telephone) are to be installed subsequently, the following extra requirements must be met:

- The device shall be installed securely;
- Portable or mobile devices may be operated in the vehicle only if connected to a fixed outside antenna;
- Transmitters shall be installed separately from the vehicle's electronics;
- The antenna must be installed in a professional manner, with a good ground connection between the antenna and the vehicle ground.

Wiring, installation and maximum permissible current supply must be as stated in the installation instructions of the machine manufacturer.

AG,CO03622.2262 -19-20AUG02-1/1

Serial Number

Type Plates

Serial numbers identifying combine harvester components or assemblies are stamped on components or factory serial number plates.

These numbers and letters are required when ordering parts or components for the combine harvester.

To ensure that you always have these numbers at hand, enter the appropriate serial numbers in the spaces provided in each illustration.

AG.CO03622,2179 -19-04OCT99-1/1

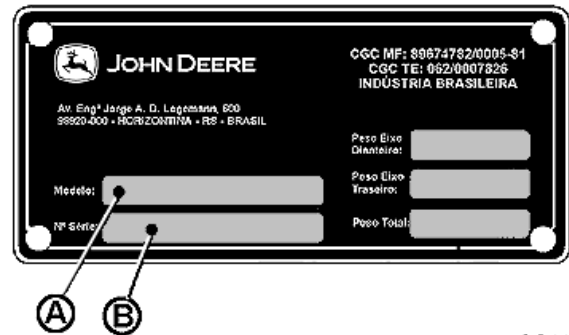
Product Identification Number - Combines 1450 and 1550

The product identification number is located under the operator's platform on the front right-hand side.

Enter the appropriate serial numbers in the spaces provided below.

*													*
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A—Model
B—Serial Number



CQ204180 -UN-10APR01

AG.CO03622,2247 -19-15MAR02-1/1

Product Identification Number - Combines 1450 CWS and 1550 CWS

The product identification number is located under the operator's platform on the front right-hand side.

Enter the appropriate serial numbers in the spaces provided below.

*														*
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JOHN DEERE		BAUJAHR	
TYP		AUSFÜHRUNG	
HOMOL. NR.		LEISTUNG KW	
GEH. NR.		ABS.COEF.	
ZUL. GESAMTGEWICHT	KG	P.T.C.	KG
ZUL. ACHSLAST/STÜTZLAST VORN	KG	P.T.R.	KG
ZUL. ACHSLAST HINTEN	KG	RECEPTION DES MINES	
TECHNISCH ZULÄSSIGE ANHÄNGELAST	KG	ORLEANS LE	
UNGEbremst	KG	INSPECTION CODES	
UNABHÄNGIGE BREMSUNG	KG		
AUFLAUFGEbremst	KG		
HYDRAUL. O. PNEUMAT. GEbremst	KG		
ZUL. STÜTZLAST ANHÄNGER	KG		

CE **DEERE & COMPANY**
MOLINE, ILLINOIS, USA
MADE IN BRAZIL

775310

CQ204190

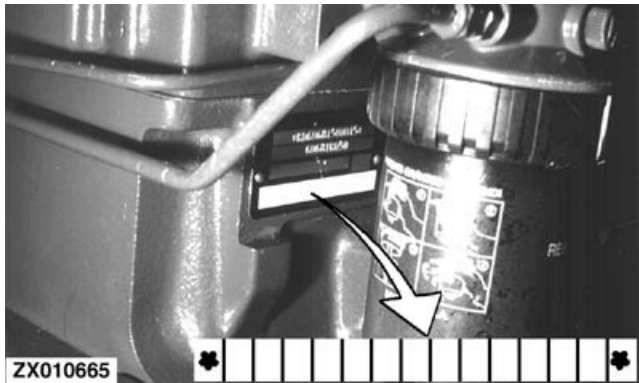
—UN—10APR01

A—Model
B—Serial Number

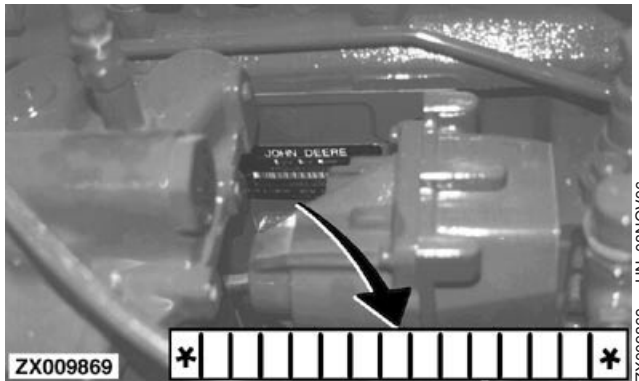
AG,CO03622,2859 —19—15MAR02—1/1

Engine Serial Number

The engine serial number is located on the engine block.



Engine 6.8 L — 1450, 1450 CWS and 1550 CWS

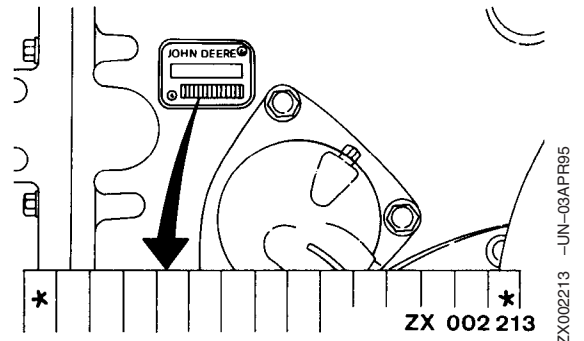


Enngine 8.1 L — 1550

AG,CO03622,2248 —19—20AUG02—1/1

Three-Speed Transmission Serial Number

The three-speed transmission serial number is located on right-hand side of transmission.



AG.CO03622,2249 -19-15MAR02-1/1

ZX002213 -UN-03APR95

Serial Number

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