

**2254, 2256, 2258,
2264 and 2266
Combines**

**John Deere Werke Zweibrücken
OMZ92501 Issue K6**

**European Edition
Printed in Germany
ENGLISCH**

Introduction

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 the safety signs on your machine may also be available in other languages (see your John Deere dealer to order).

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

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

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

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

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

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

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

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

Predelivery Inspection

Dealer's name _____ Town _____		Dealer's Account No. _____	J.D. Branch No. _____
Servicing Dealer, if not identical with above — Name, Address _____			
Customer (initials and surname) _____		Street + No. _____	
Town and Postcode _____		Vehicle Registration No. _____	
Delivery Day _____ Month _____ Year _____ Date _____	Machine Name _____		A = Farmer B = Contractor C = Commercial D = Community E = Home Owner
Product Identification No. (Serial No.) _____	Customer Group A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D <input type="checkbox"/> E <input type="checkbox"/>		

TO THE DEALER

THE FOLLOWING PREDELIVERY SERVICE MUST be performed by you. Refer to the Operator's Manual for detailed information.

- | | | |
|---|--|---|
| <input type="checkbox"/> 1. Lubricate all grease fittings. | <input type="checkbox"/> 3. Check tire pressures; adjust if necessary. | <input type="checkbox"/> 4. Adjust combine for crop to be harvested. |
| <input type="checkbox"/> 2. Tighten all wheel bolts and nuts to specified torque. | | <input type="checkbox"/> 5. Adjust accumulators for crop to be harvested. |

The following inspections have been made at the factory. Prior to delivery the following items must be rechecked by you. Refer to the Operator's Manual and the Technical Manual for detailed information. Mark the YES box if condition WAS FOUND acceptable, or NO, if not. If the answer is NO, give a short explanation in the "COMMENTS" column. Following this, make corrections if necessary prior to delivery.

- | | | |
|---|--|---|
| <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> 1. Engine crankcase oil level correct?</p> <p><input type="checkbox"/> <input type="checkbox"/> 2. Engine coolant level correct?</p> <p><input type="checkbox"/> <input type="checkbox"/> 3. Hydraulic oil level correct?</p> <p><input type="checkbox"/> <input type="checkbox"/> 4. Lights OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 5. Steering OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 6. Foot brakes OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 7. Parking brake OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 8. Gauges, acoustic warning devices and monitors functioning properly?</p> <p><input type="checkbox"/> <input type="checkbox"/> 9. Transmission operating correctly?</p> | <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> 10. Hydrostatic ground speed drive operating correctly?</p> <p><input type="checkbox"/> <input type="checkbox"/> 11. Engine shut-off device operating correctly?</p> <p><input type="checkbox"/> <input type="checkbox"/> 12. Reverser operating correctly?</p> <p><input type="checkbox"/> <input type="checkbox"/> 13. Final drive oil level OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 14. Transmission oil level OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 15. Fast idle speed of engine correct (2350 + 50 rpm)?</p> <p><input type="checkbox"/> <input type="checkbox"/> 16. Straw walkers functioning correctly?</p> | <p>Yes No</p> <p><input type="checkbox"/> <input type="checkbox"/> 17. All rubber seals in separator area and cleaning unit OK?</p> <p><input type="checkbox"/> <input type="checkbox"/> 18. All belts and chains adjusted correctly?</p> <p><input type="checkbox"/> <input type="checkbox"/> 19. All guards, shields etc. installed?</p> <p><input type="checkbox"/> <input type="checkbox"/> 20. Paint and decals smooth and neat?</p> <p><input type="checkbox"/> <input type="checkbox"/> 21. Have all controls and safety rules etc. been explained to the operator?</p> |
|---|--|---|

COMMENTS: _____

Delivery Report and Operator's Manual OMZ92501 Issue K6 were handed over to the customer together with the machine. _____

Dealer — Service Technician **Date**

DISTRIBUTION:
 1—white = JD Sales Branch, 2—green = Factory, 3—yellow = JD Dealer, 4—blue = Servicing Dealer, 5—pink = Customer

ZX.CHECKLISTEZX-19-01NOV96

**PRODUCT IDENTIFICATION NUMBER AND
COMPONENT SERIAL NUMBERS**

Code	Component
A344	Rear right wheel-drive
B344	Rear left wheel drive
0330	Three-speed transmission
A314	Right-hand final drive
B314	Left-hand final drive
0400	Engine
5731	Cylinder drive
0200	Operator's cab
5460	Intermediate transmission
5840	Straw chopper
5843	Chaff spreader
5180	Feeder house

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+-----+
|                                           |
|                JOHN DEERE                |
|-----+-----+-----+-----+-----+
| I  PRODUCT IDENTIFICATION NUMBER I  |
| I                                 I  |
| I                                 I  |
|-----+-----+-----+-----+
|                                           |
|                KOMPONENT                |
|-----+-----+-----+-----+
| I  CODE          SERIAL-NO           I  |
| I               I                   I  |
| I               I                   I  |
| I               I                   I  |
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|-----+-----+-----+-----+
|                JOHN DEERE WERKE ZWEIBRUECKEN                |
| IZWEIGNIEDERLASSUNG DER DEERE & COMPANY I                    |
| I                MADE IN GERMANY                             I  |
|-----+-----+-----+-----+
|                ZX006364                |
    
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-JUN-22-JUN95
ZX006364

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

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A John Deere ILLUSTRATION® Manual

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Hillmaster

ZX009520 -UN-08NOV96



Standard

ZX009519 -UN-08NOV96

ZX,OMXZC0001970-19-01NOV96

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.

Follow recommended precautions and safe operating practices.



DX.ALERT -19-03MAR93

T81389 -UN-07DEC88

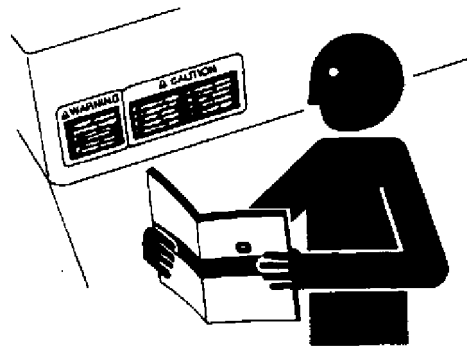
FOLLOW SAFETY INSTRUCTIONS

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

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

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

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



DX.READ -19-03MAR93

TS201 -UN-23AUG88

UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



DX.SIGNAL -19-03MAR93

TS187 -19-30SEP88



OBSERVE ROAD TRAFFIC REGULATIONS

Always observe local road traffic regulations when using public roads.



H28930 -UN-30JUN89

FX,ROAD -19-01MAY91



CAUTION: 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.

DX,BYPAS -19-26JAN90

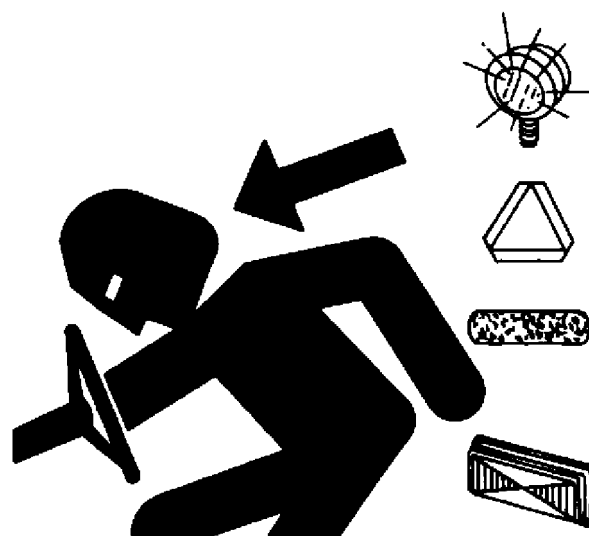


USE SAFETY LIGHTS AND DEVICES

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

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

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



TS951
-UN-12APR90

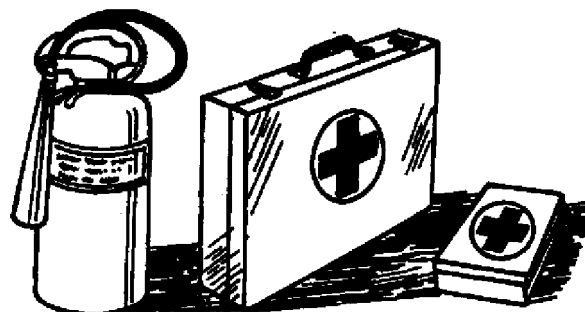
ZX,FLASH -19-01OCT91

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



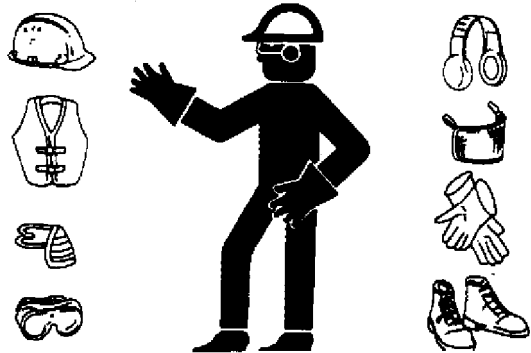
WEAR PROTECTIVE CLOTHING

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

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

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

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



DX,WEAR -19-10SEP90

TS206 -UN-23AUG88

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.



DX,FIRE1 -19-03MAR93

TS202 -UN-23AUG88

STORE ATTACHMENTS SAFELY

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

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



DX,STORE -19-03MAR93

TS219 -UN-23AUG88

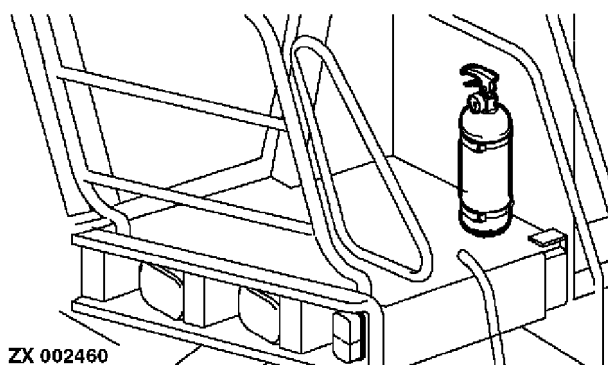


FIRE EXTINGUISHER

A 6 kg (13 lb) general purpose fire extinguisher meeting local legal requirements has to be installed on the left-hand side of the operator's platform.

Maintain fire extinguisher to keep it in operational condition.

Keep the engine clean and free of dust, chaff and straw to prevent the possibility of a fire.



ZX 002460

ZX, FIREXZCO -19-27MAY94

ZX002460 -UN-16JUN95

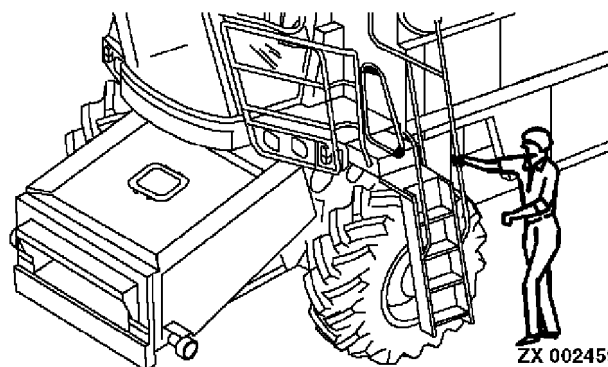
CHECK MACHINE SAFETY

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

FX, READY -19-28FEB91

MOUNT AND DISMOUNT SAFELY

Use handrail when mounting or dismounting the combine.



ZX 002459

ZX, HANDLEXZCO -19-27JAN92

ZX002459 -UN-16JUN95

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.



ZX, PASSENGER -19-02OCT91

TS253 -UN-23AUG88

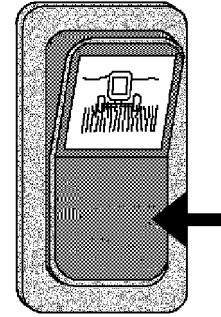


ROAD SAFETY SWITCH

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 exception of the steering system — are not working.

ZX 002418



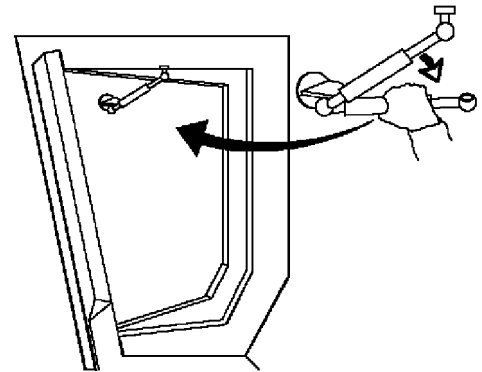
ZX, SWITCHXZCO -19-01MAR95

ZX002418 -UN-16JUN95

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



ZX, OMSPFH003293-19-01MAY94

ZX006004 -UN-03APR95



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.

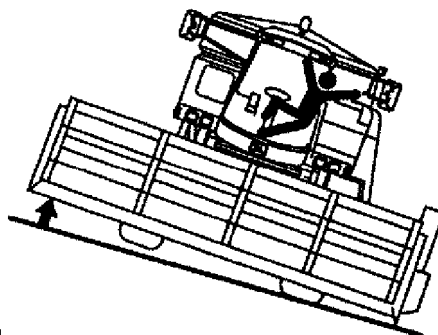
Always adapt ground speed to road or field conditions. Avoid making sharp turns when driving up or down slopes or when driving across a slope. Be especially careful when turning on slopes with full grain tank.

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.



ZX002461

ZX002461 -JUN-16/JUN95

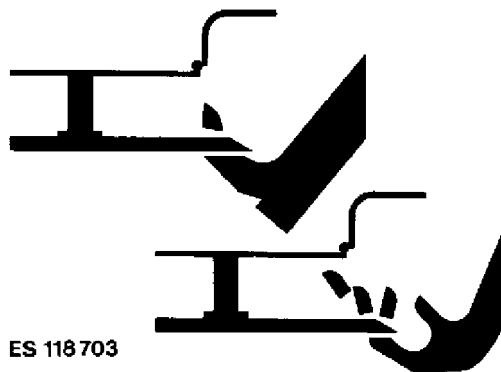
ZX,DRIVEXZCO -19-27JAN92

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 removing any guards or shields.

Keep hands, feet and clothing away from moving parts.



ES 118 703

ES118703 -UN-21/MAR95

FX,DEVICE -19-04DEC90



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.



FX,CUT -19-21DEC90

ES118704 -UN-21MAR95

STAY CLEAR OF ROTATING DRIVELINES

Entanglement in rotating driveline can cause serious injury or death.

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

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

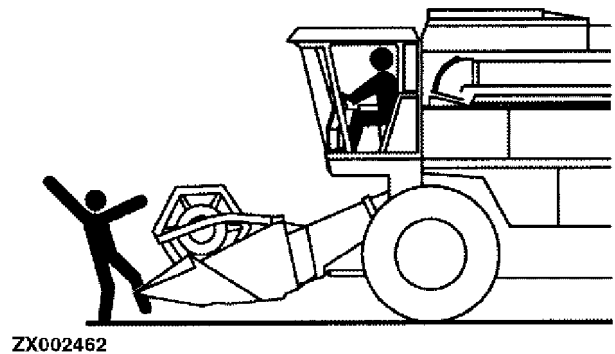


DX,PTO -19-12SEP95

TS1644 -UN-22AUG95

TRANSPORT WITH HARVESTING UNIT INSTALLED

Before driving combine on public roads, harvesting unit must be raised and secured in this position. It must not, however, obstruct operator's view of the road. Remove crop dividers (if equipped) and install protective cover.

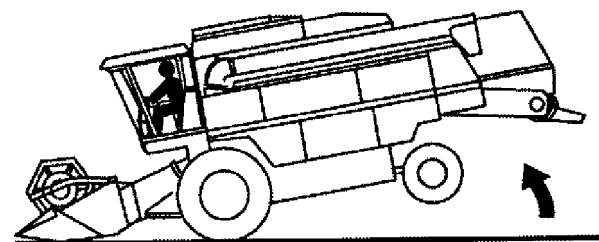


ZX,HEADERXZCO -19-27JAN92

ZX002462 -UN-16JUN95

BALLASTING FOR SAFE GROUND CONTACT

Operating, steering and braking performance of the combine can be considerably affected by attachments which alter the center of gravity of the machine. To maintain safe ground contact, ballast the combine at the rear end as necessary. Observe the maximum permissible axle loads and total weights.



ZX,WEIGHTXZCO -19-27JAN92

ZX002463 -UN-16JUN95

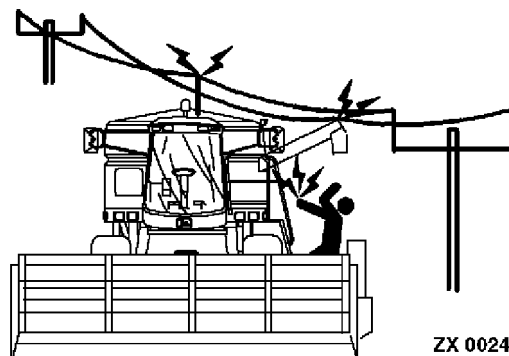


RADIO AERIAL

If radio aerial is not secured in its transport position before driving on public roads, it may come into contact with low-hanging electrical cables. This would result in the operator suffering a severe electrical shock.

To avoid electrical shock, no portion of the machine should be higher than 4 m.

Before transporting machine, bend aerial or remove it.



ZX,ANTENNAZXCO -19-27JAN92

ZX002464 -UN-16JUN95

PARKING AND LEAVING THE COMBINE

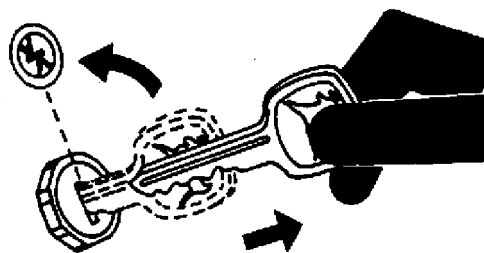
Lower harvesting unit to the ground.

Before leaving the combine, disengage harvesting unit and separator. Shut off engine and move gear shift lever to neutral. Apply parking brake, remove key and lock the operator's cab. Position chock blocks.

NOTE: Use only chock blocks provided with the machine.

Never leave combine unattended as long as engine is running.

Never leave the operator's cab when driving.



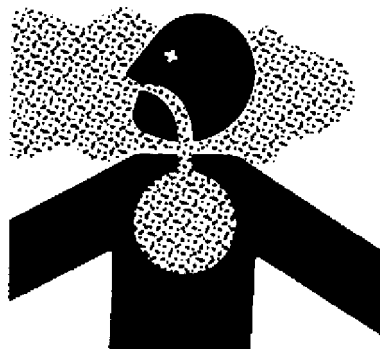
ZX,PARKXZCO -19-13APR92

TS230 -UN-24MAY89

WORK IN VENTILATED AREA

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

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



DX,AIR -19-04JUN90

TS220 -UN-23AUG88



PRACTICE SAFE MAINTENANCE

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

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

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

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

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



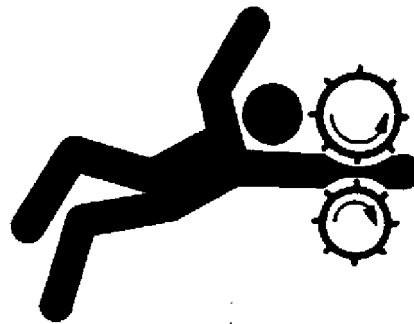
DX.SERV -19-03MAR93

TS218 -UN-23AUG88

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.



DX.LOOSE -19-04JUN90

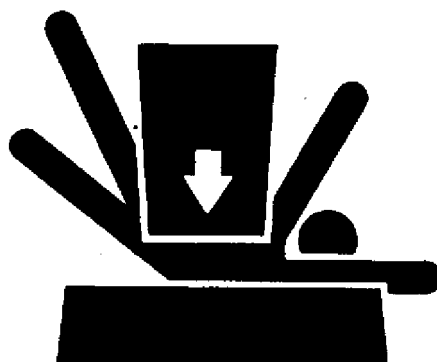
TS228 -UN-23AUG88



SUPPORT MACHINE PROPERLY

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.

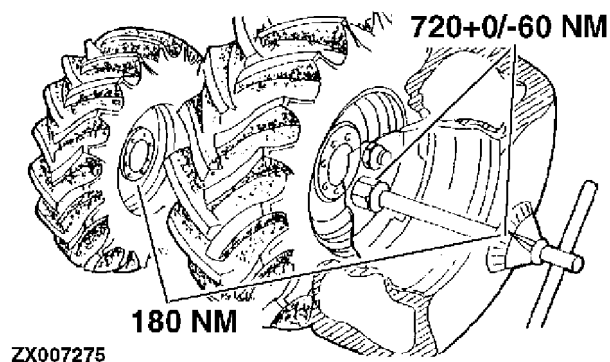


DX,LOWER -19-04JUN90

-UN-23AUG68
TS229

RETORQUE WHEEL NUTS

Retorque wheel nuts as specified in Sections "Wheels and Ballast" and "Lubrication, Periodic Services". Failure to do this could result in a wheel falling off during operation, causing the machine to tip over with serious injury to the operator and extensive damage to the machine.



ZX,NUTS -19-01MAR95

-UN-19JUN95
ZX007275



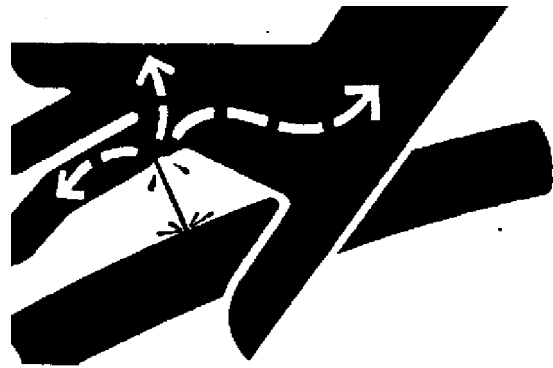
AVOID HIGH-PRESSURE FLUIDS

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

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

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

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



-JUN-23AUG88
X9811

DX,FLUID -19-03MAR93

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).



-JUN-23AUG88
TS204

DX,SPARKS -19-03MAR93



PREVENT ACID BURNS

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

Avoid the hazard by:

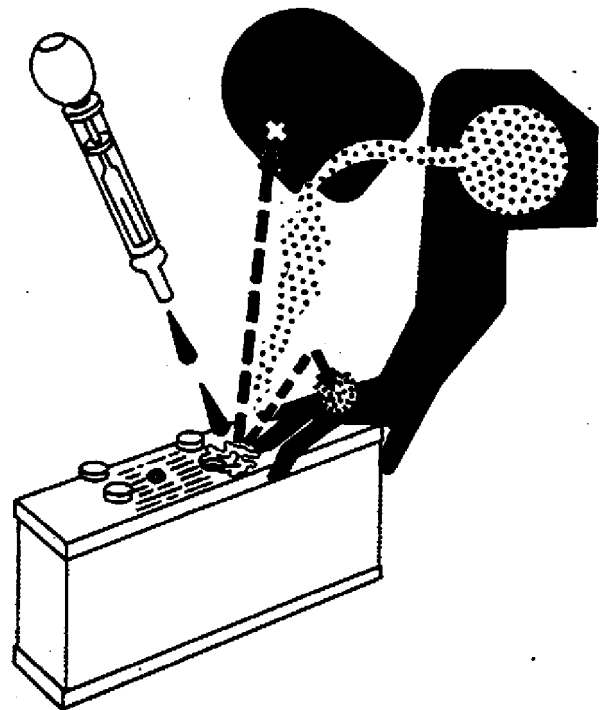
1. Filling batteries in a well-ventilated area.
2. Wearing eye protection and rubber gloves.
3. Avoiding breathing fumes when electrolyte is added.
4. Avoiding spilling or dripping electrolyte.
5. Use proper jump start procedure.

If you spill acid on yourself:

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

If acid is swallowed:

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



DX,POISON -19-21APR93

T5203 -UN-23AUG88



SERVICE TIRES SAFELY

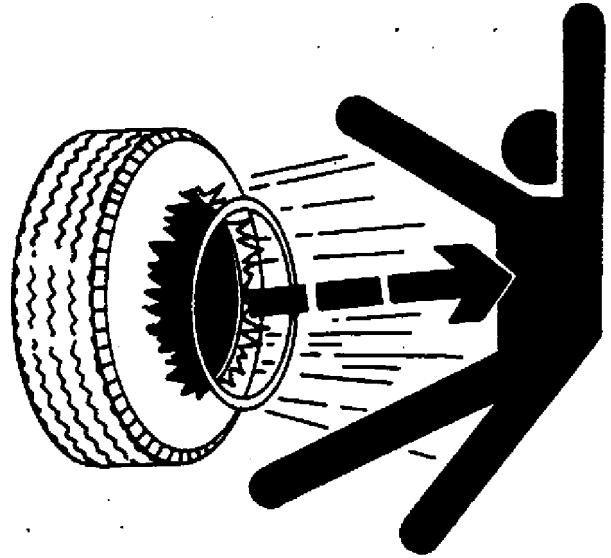
Explosive separation of a tire and rim parts can cause serious injury or death.

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.



DX,RIM -19-24AUG90

-UN-23AUG88

TS211

SERVICE COOLING SYSTEM SAFELY

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

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



DX,RCAP -19-04JUN90

-UN-23AUG88

TS281



DISPOSE OF WASTE PROPERLY

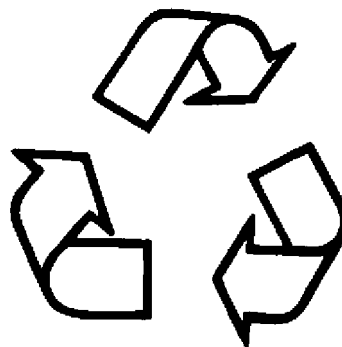
Improperly disposing of waste can threaten the environment and ecology. Potentially harmful waste used with John Deere equipment include such items as oil, fuel, coolant, brake fluid, filters, and batteries.

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

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

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

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



TSS1133 -UN-26NOV90

DX, DRAIN -19-03MAR93

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.

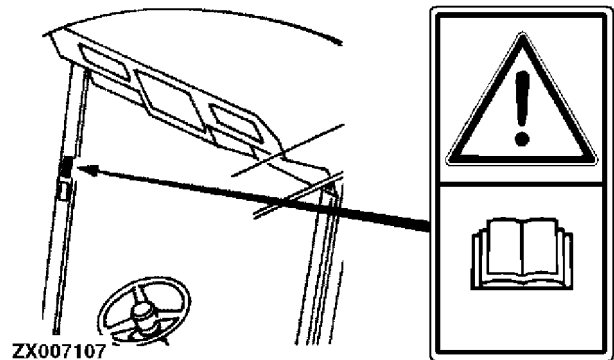


FX,WBZ -19-19NOV91

TS231 -19-07OCT88

OPERATOR'S MANUAL

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



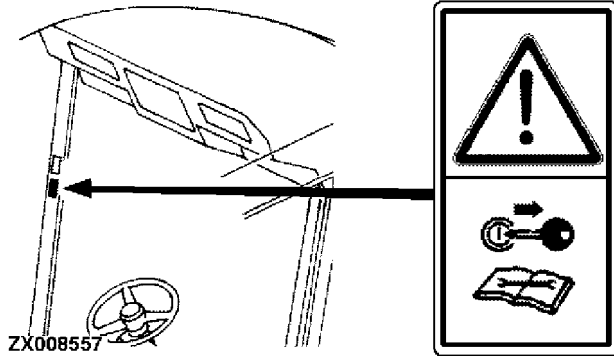
ZX007107

ZX,OM -19-01MAR95

ZX007107 -UN-19JUN95

REPAIR AND MAINTENANCE

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



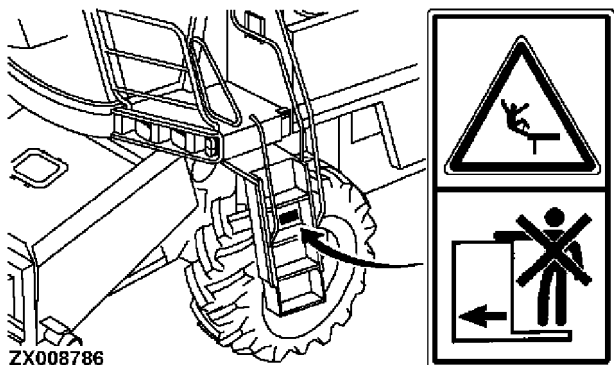
ZX008557

ZX,MAINTENANCE -19-01JAN96

ZX008557 -UN-31JAN96

FRONT ACCESS LADDER AND PLATFORM

Do not allow riders on access ladder or platform.



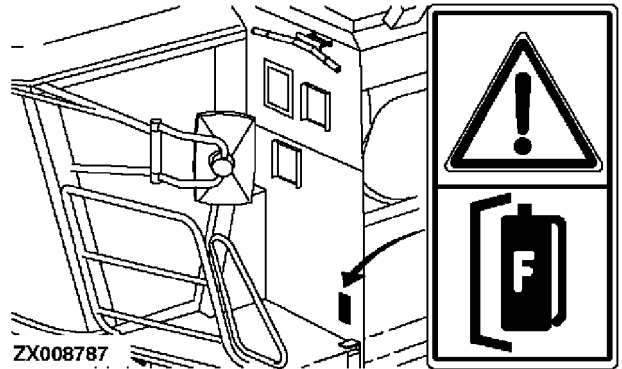
ZX008786

ZX,RIDER1 -19-02MAY96

ZX008786 -UN-22MAY96

FIRE EXTINGUISHER

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

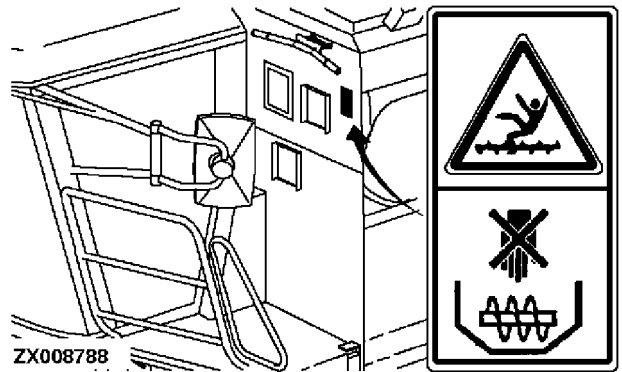


ZX,OMXZC0006500-19-02MAY96

-UN-22MAY96
ZX008787

GRAIN TANK

Never reach into grain tank or enter tank when the engine is running.

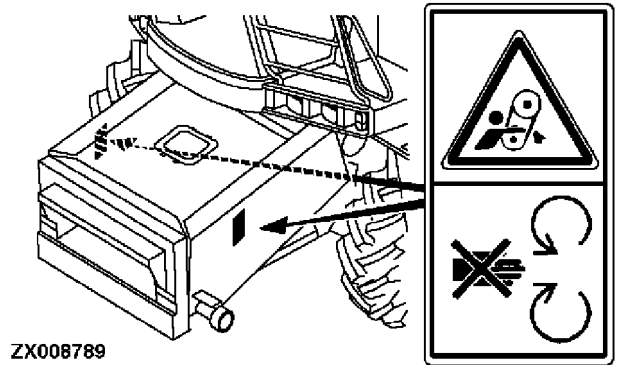


ZX,GRAINTANK -19-02MAY96

-UN-22MAY96
ZX008788

FEEDER HOUSE DRIVE, RIGHT AND LEFT-HAND SIDE

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

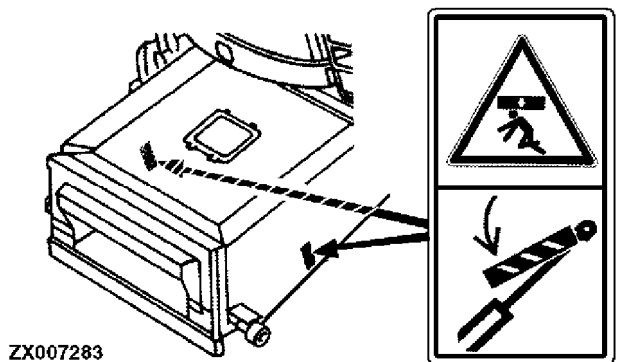


ZX,FEEDER1 -19-02MAY96

-UN-22MAY96
ZX008789

BELOW FEEDER HOUSE

Before entering area of potential hazard, engage safety lock.

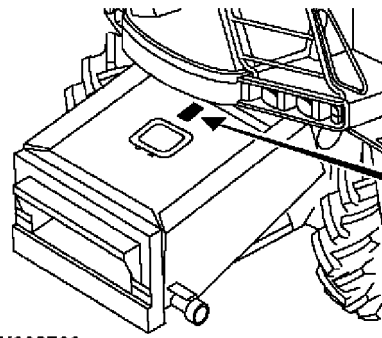


ZX,FEEDER2 -19-01MAR95

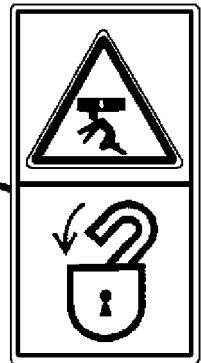
-UN-19JUN95
ZX007283

BETWEEN FEEDER HOUSE AND OPERATOR'S PLATFORM

Before entering area of potential hazard, close accumulator shut-off valve.



ZX008790

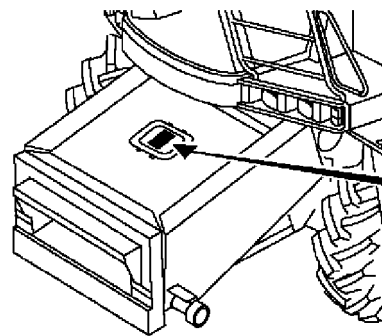


ZX008790 -UN-22MAY96

ZX.FEEDER3 -19-02MAY96

FEEDER HOUSE CONVEYOR CHAIN

Potential hazard caused by rotating machine parts.



ZX008791

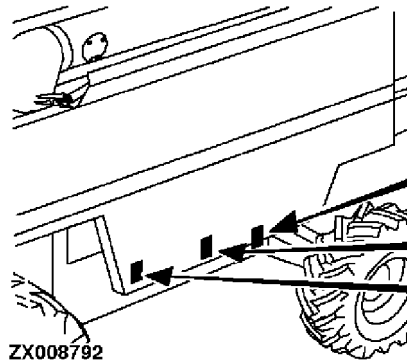


ZX008791 -UN-22MAY96

ZX.FEEDER4 -19-02MAY96

LEFT-HAND SIDE GUARD, FAN AND WALKER DRIVE GUARD

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



ZX008792

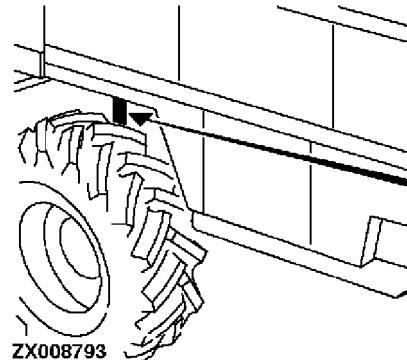


ZX008792 -UN-22MAY96

ZX.LEFTSIDE -19-02MAY96

HEADER DRIVE GUARD

Do not open guard when the engine is running.



ZX008793

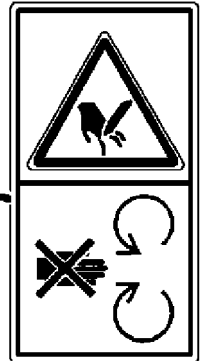
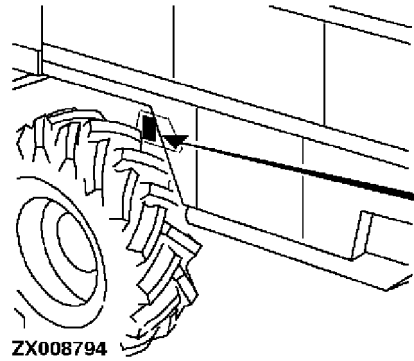


ZX008793 -UN-22MAY96

ZX.FRONTEND -19-02MAY96

THRESHING CYLINDER SERVICE COVER, LEFT-HAND SIDE

Potential hazard caused by rotating machine parts.

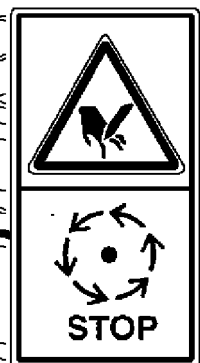
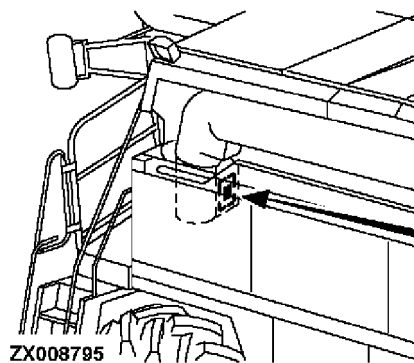


ZX,RASPBAR1 -19-02MAY96

ZX008794 -UN-22MAY96

CLEANING COVER, GRAIN TANK UNLOADING AUGER

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

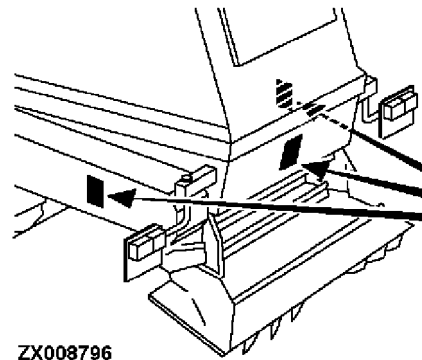


ZX,CLEANING -19-02MAY96

ZX008795 -UN-22MAY96

STRAW CHOPPER AND CHAFF SPREADER

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

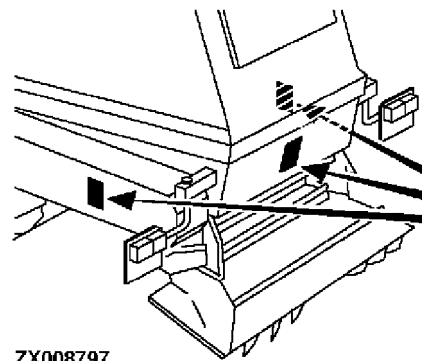


ZX,STRAW1 -19-02MAY96

ZX008796 -UN-22MAY96

STRAW CHOPPER AND CHAFF SPREADER

Stay clear of these components when the engine is running.

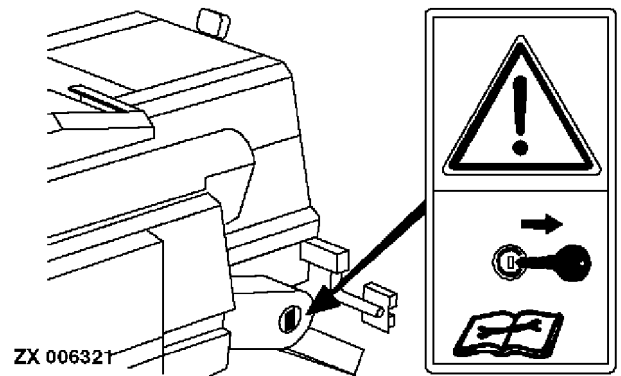


ZX,STRAW2 -19-02MAY96

ZX008797 -UN-22MAY96

STRAW CHOPPER

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



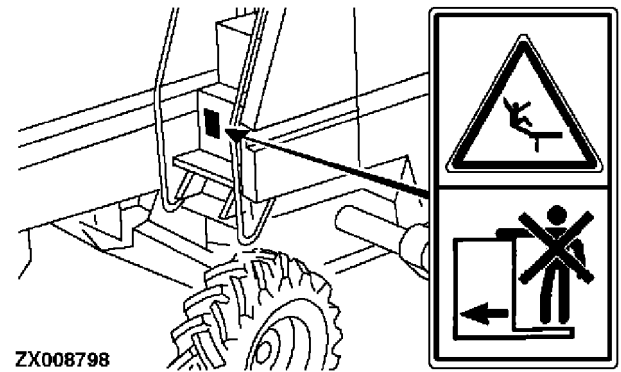
ZX 006321

ZX,OMXZCO003403-19-15JUN94

ZX006321 -UN-19JUN95

REAR ACCESS LADDER AND SERVICE PLATFORM

Do not allow riders on access ladder or platform.



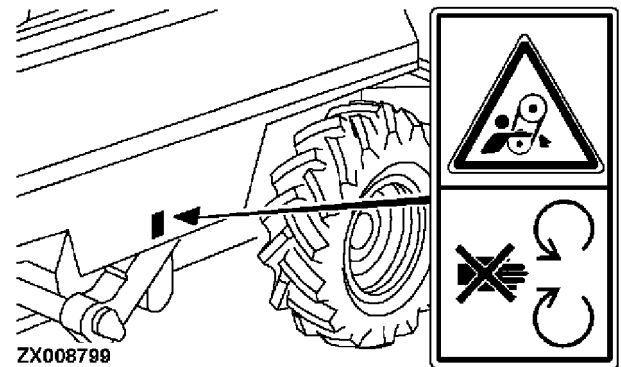
ZX008798

ZX,RIDER2 -19-02MAY96

ZX008798 -UN-22MAY96

RIGHT-HAND SIDE GUARD

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



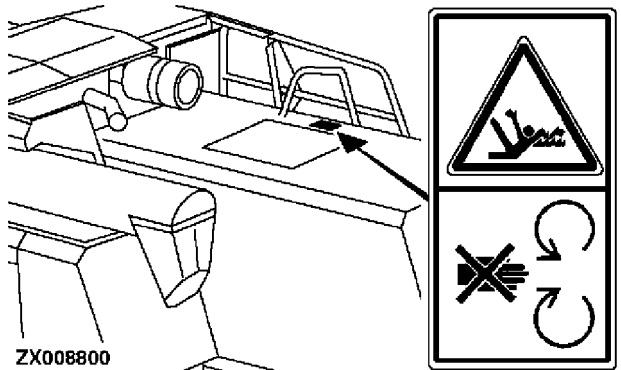
ZX008799

ZX,RIGHTSIDE -19-02MAY96

ZX008799 -UN-22MAY96

ACCESS TO STRAW WALKERS

Do not reach into straw walkers while engine is running.



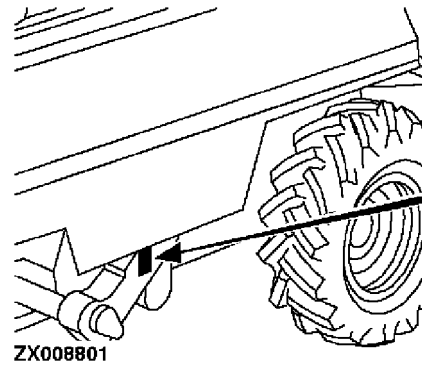
ZX008800

ZX,OMXZCO003506-19-02MAY96

ZX008800 -UN-22MAY96

ELEVATORS

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

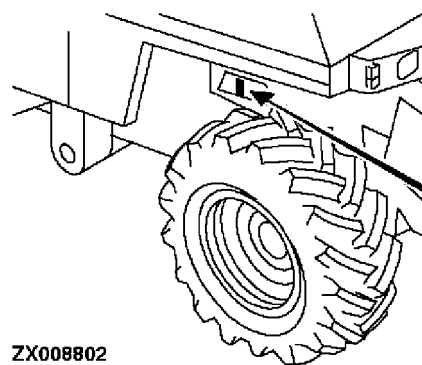


ZX008801 -UN-22MAY96

ZX.ELEVATOR -19-02MAY96

THRESHING CYLINDER SERVICE COVER, RIGHT-HAND SIDE

Potential hazard caused by rotating machine parts.

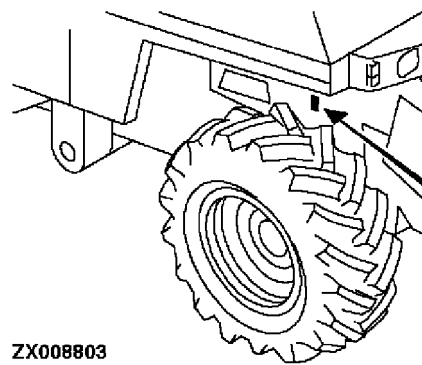


ZX008802 -UN-22MAY96

ZX.RASPBAR2 -19-02MAY96

CYLINDER DRIVE GUARD RIGHT-HAND SIDE

Never open or remove the guard while the engine is running.

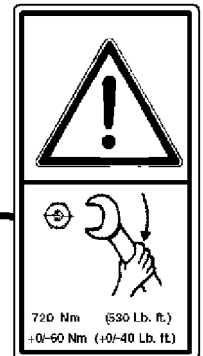
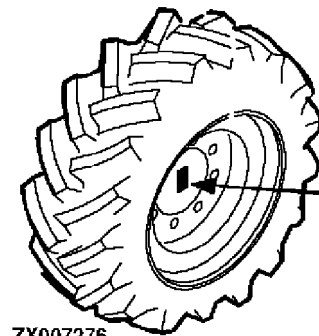


ZX008803 -UN-22MAY96

ZX.RASPBAR3 -19-02MAY96

FRONT WHEEL ATTACHING NUTS

Retighten front wheel attaching nuts at specified intervals.

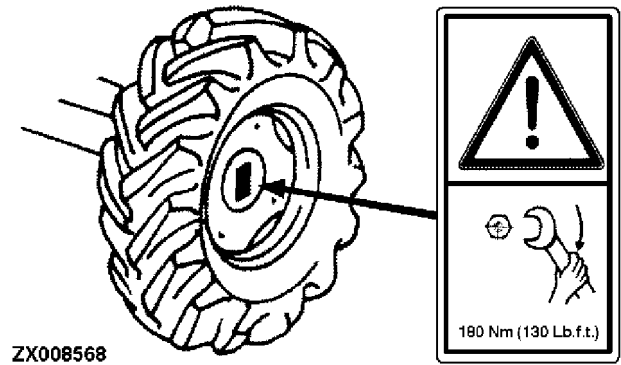


ZX007276 -UN-19JUN95

ZX.FRONTWHEEL -19-01MAR95

REAR WHEEL ATTACHING BOLTS

Retighten rear wheel attaching bolts at specified intervals.



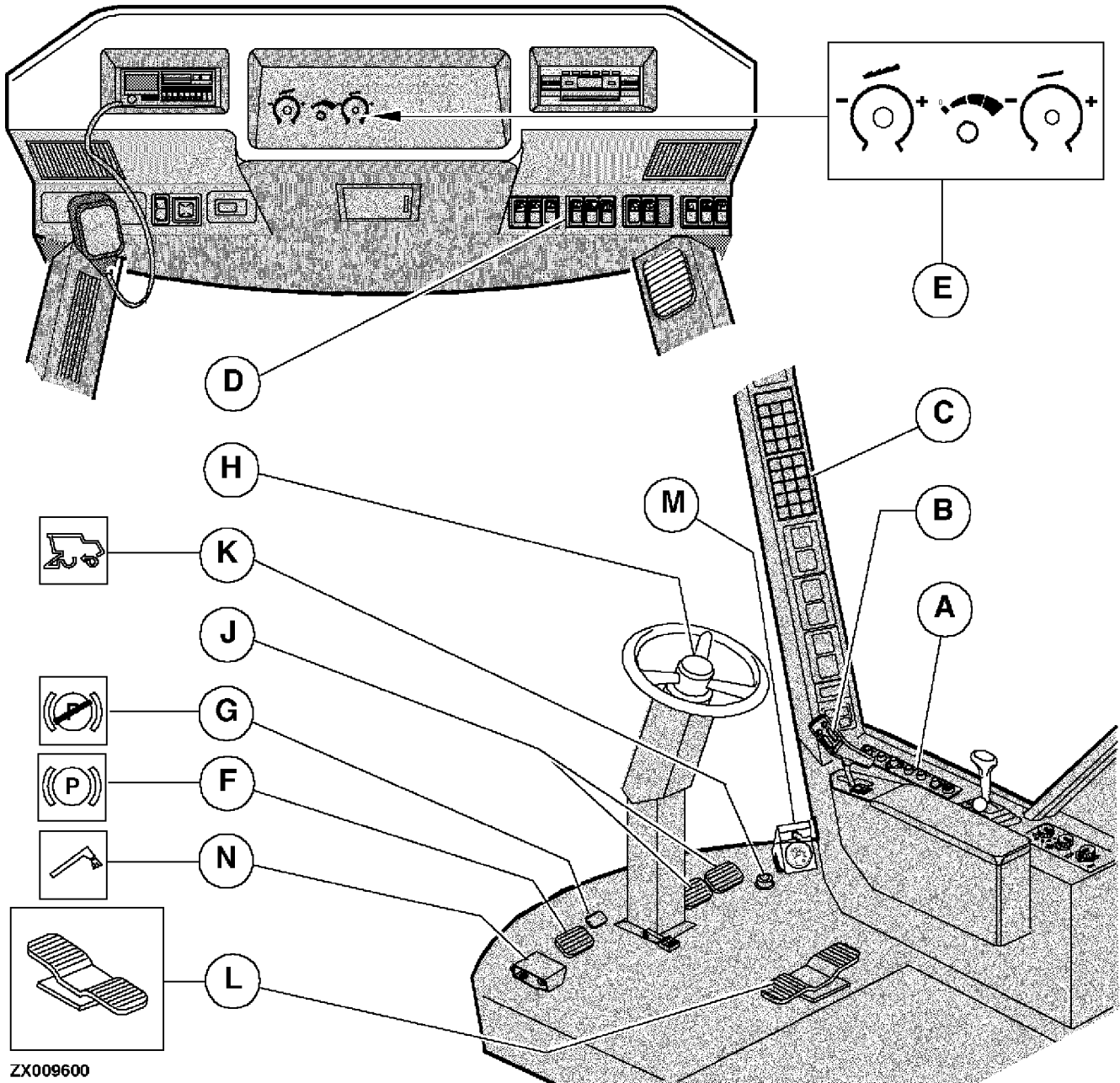
ZX008568

ZX, REARWHEEL -19-01JAN96

ZX008568 -JUN-31-JAN96

Controls and Instruments

GENERAL VIEW OF CONTROLS AND INSTRUMENTS



ZX009600

A—Switch console
 B—Multi-function lever
 C—Corner post instruments
 D—Roof switch console
 E—Harvest performance monitor

F—Parking brake
 G—Parking brake release pedal
 H—Steering column

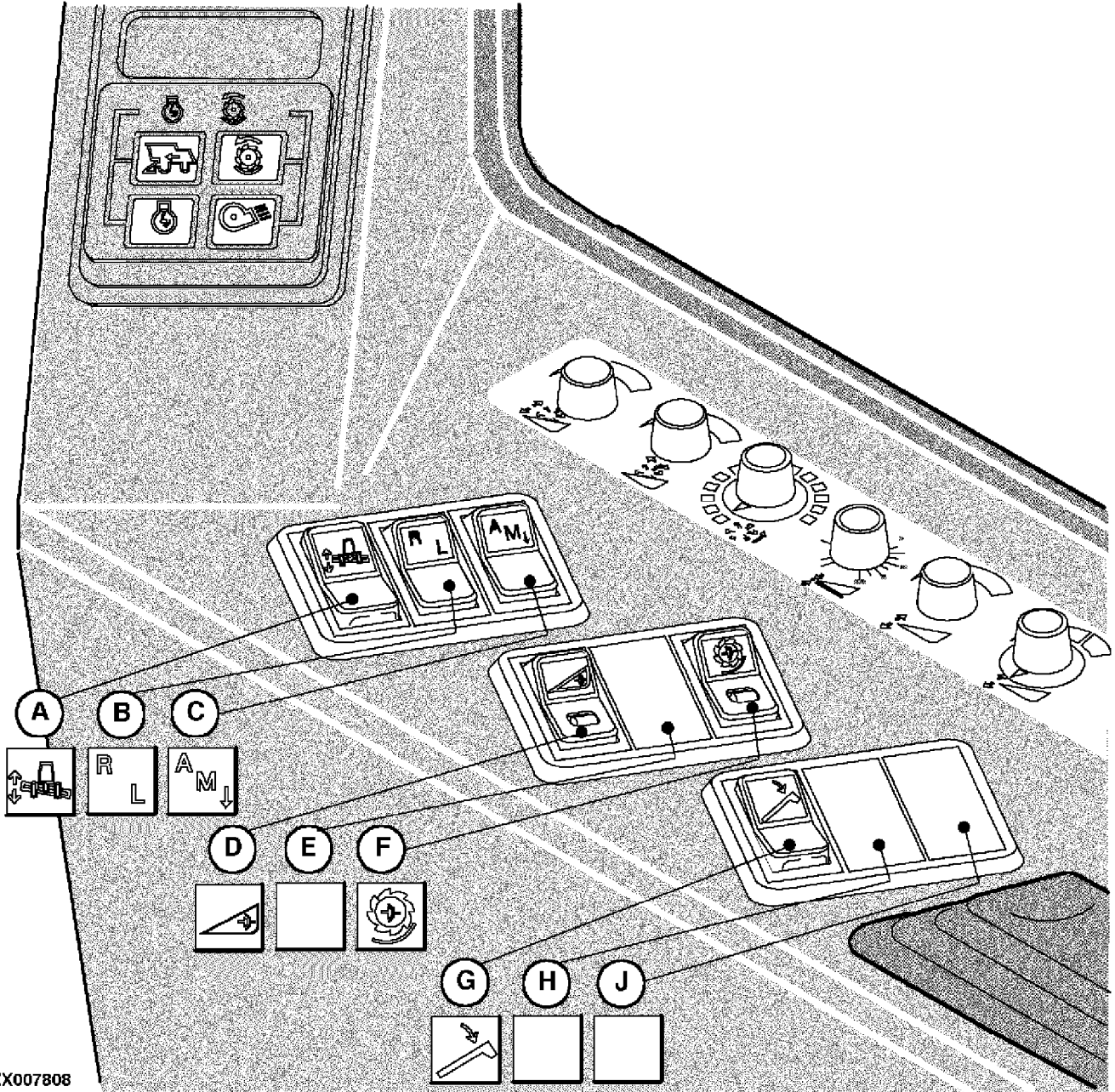
J—Foot brakes
 K—Four-wheel-drive
 L—Reverser
 M—Header ground pressure gauge

N—Foot-operated switch, unloading auger drive

ZX009600
 -UN-08NOV96

ZX.OMXZC0001439-19-01NOV96

SWITCH CONSOLE



ZX007808

-UN-22MAY96
ZX007808

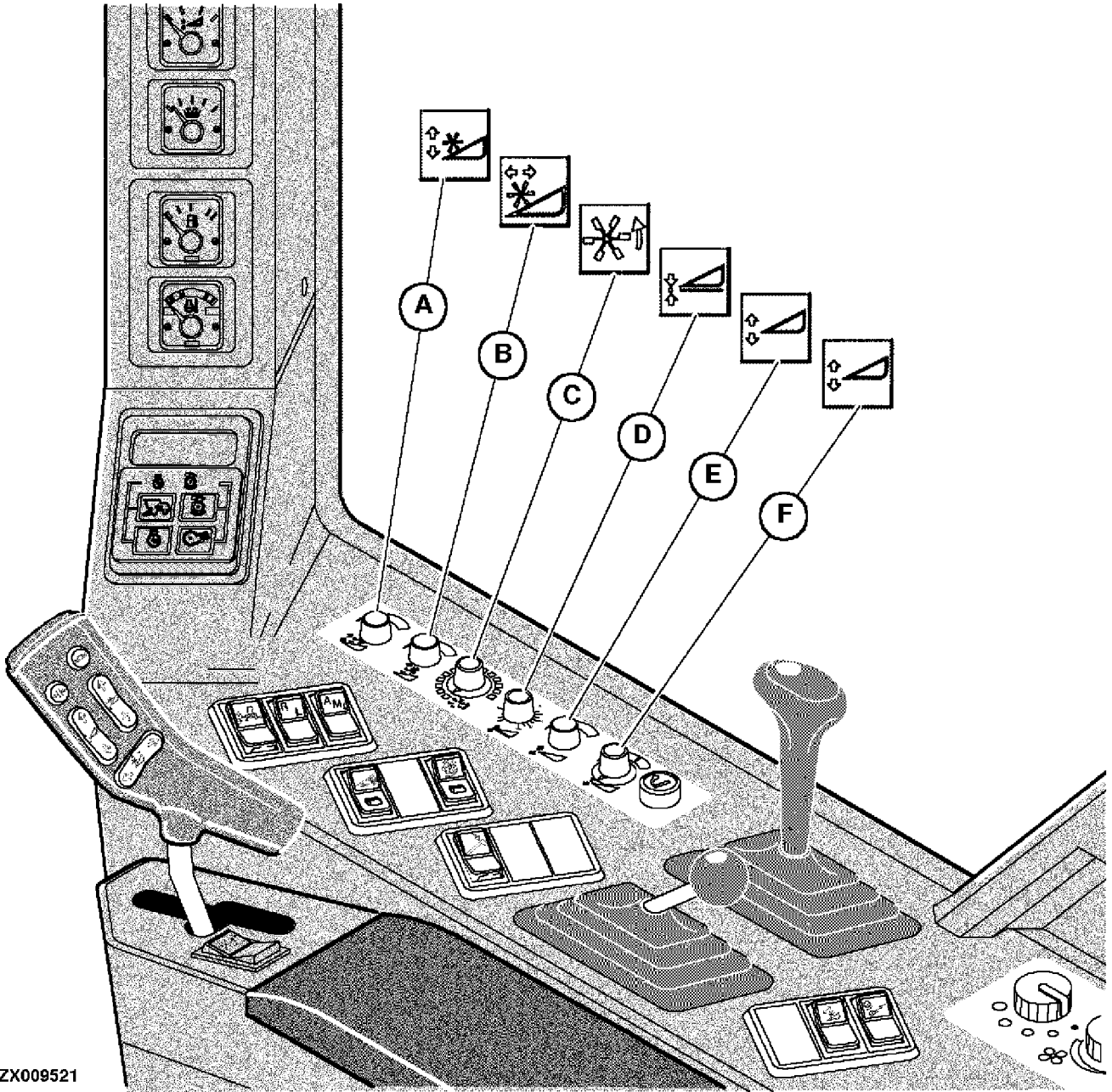
A—Switch, header parallel/reel fore-and-aft adjustment
B—Switch for manual levelling

C—Switch for automatic levelling
D—Header drive switch

E—Not used
F—Separator drive switch
G—Unloading auger swing switch

H—Not used
J—Not used

SWITCH CONSOLE (CONTINUED)



ZX009521

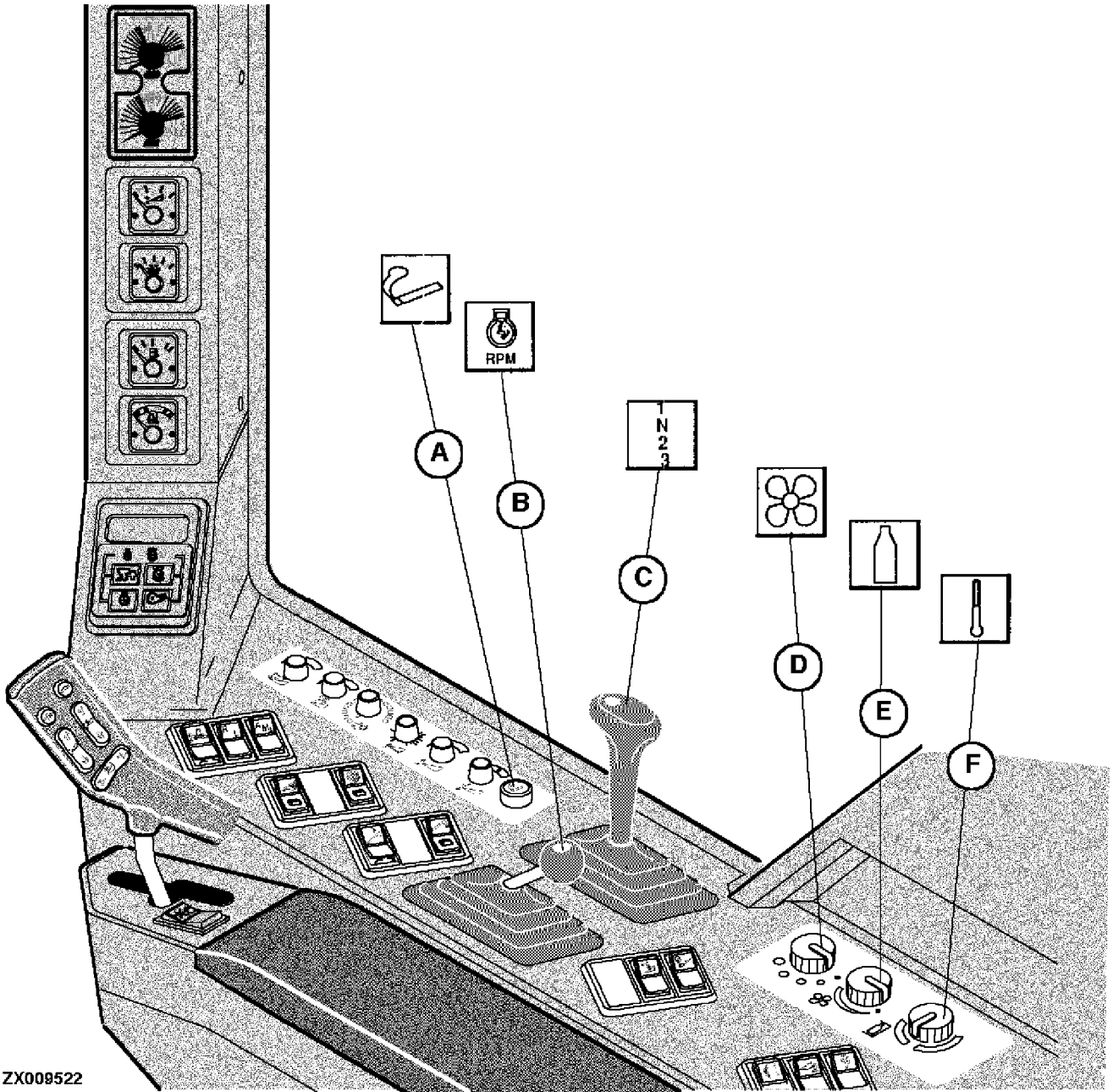
ZX009521
-UN-08NOV96

A—Potentiometer, reel height
resume control
B—Potentiometer, reel
fore-and-aft resume
control

C—Switch, automatic reel
speed control
D—Potentiometer, header
float

E—Potentiometer, header
height resume control
F—Switch, DIAL-A-MATIC™,
automatic
header height control

SWITCH CONSOLE (CONTINUED)



ZX009522

ZX009522 -UN-08NOV96

A—Cigarette lighter
B—Throttle lever

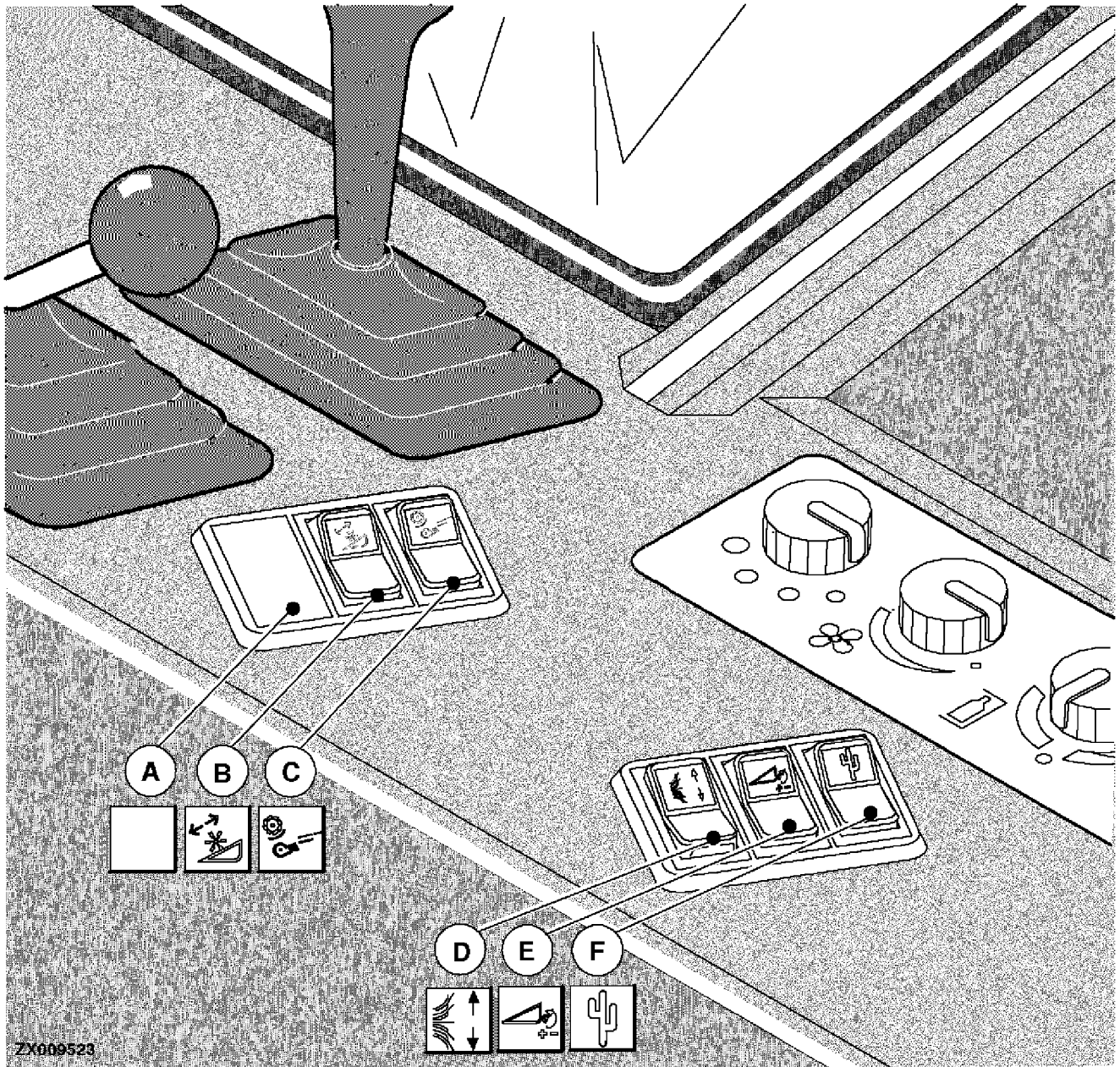
C—Gear shift lever
D—Fan switch

E—Cooling compartment
switch

F—Air conditioner/heater
switch

ZX.OMXZC0001442-19-01NOV96

SWITCH CONSOLE (CONTINUED)



ZX009523

ZX009523 -UN-08NOV96

A—Not used
B—Header function resume control switch

C—Switch for automatic machine adjustments
D—Switch, chopper distributor adjustment

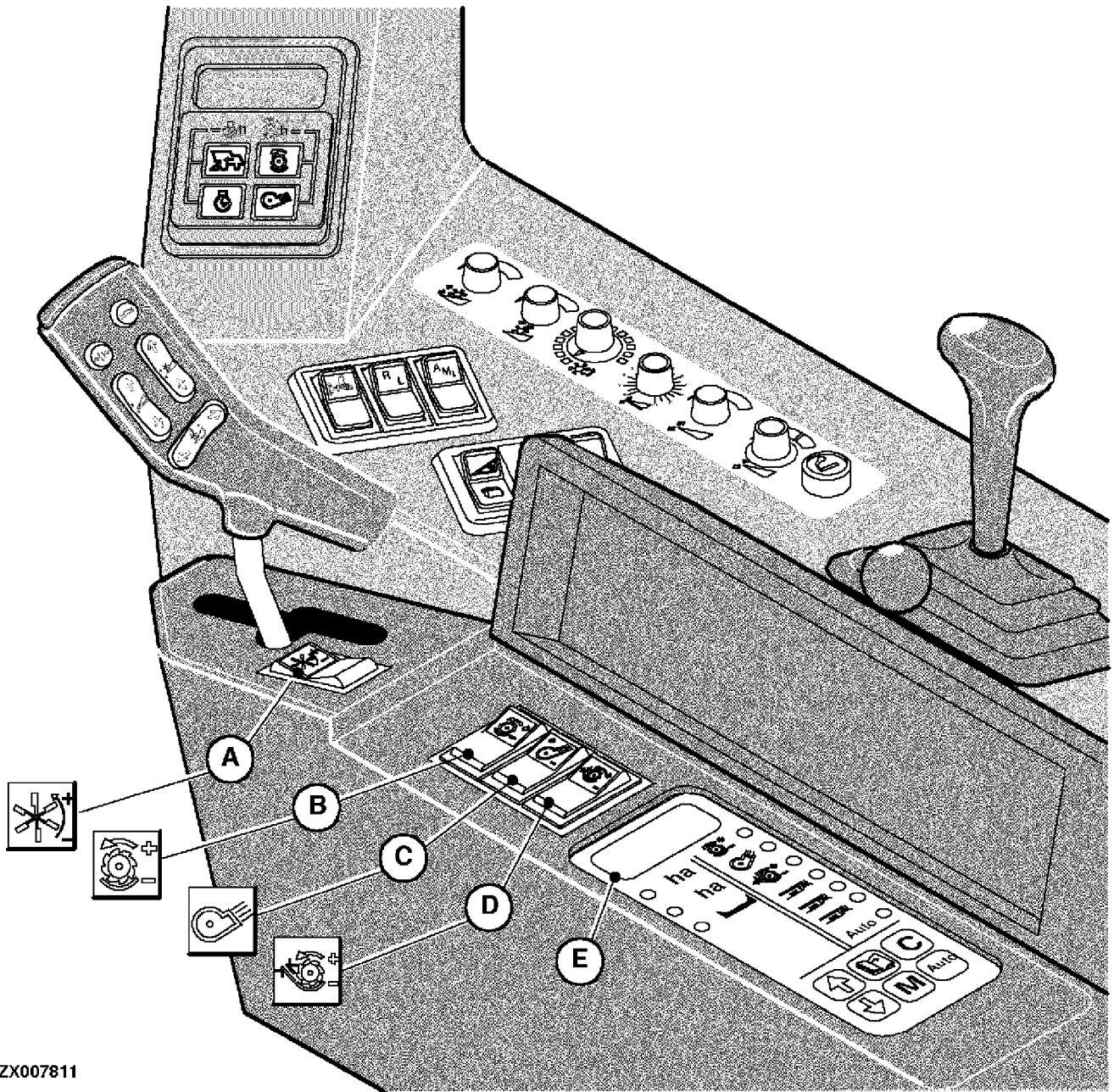
E—Selector switch, reel lift/feeder house variator

F—Demoisturizer switch

NOTE: All of the above functions are optional.

ZX.OMXZC0001443-19-01NOV96

SWITCH CONSOLE (CONTINUED)



ZX007811

A—Reel speed switch
B—Threshing cylinder speed switch

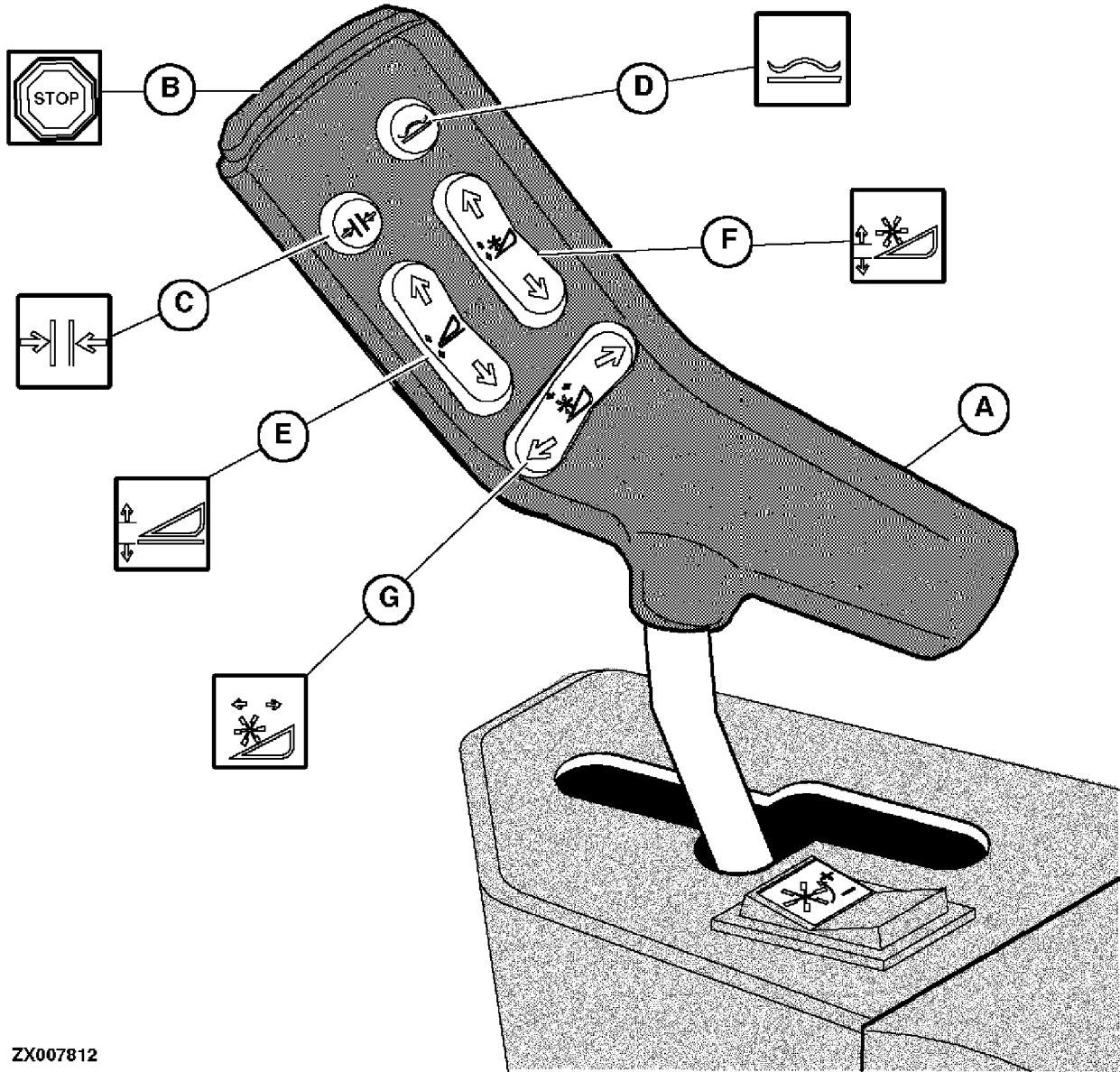
C—Fan speed switch
D—Concave clearance adjusting switch

E—Combine data center and area counter (option)

ZX.OMXZCO001444-19-02MAY96

ZX007811 -JUN-22MAY96

MULTI-FUNCTION LEVER



ZX007812

A—Forward/reverse lever
B—Quick-stop switch for automatic functions, header
C—Automatic function resume control (option) for:
 •Reel height
 •Reel fore-and-aft
 •Header height

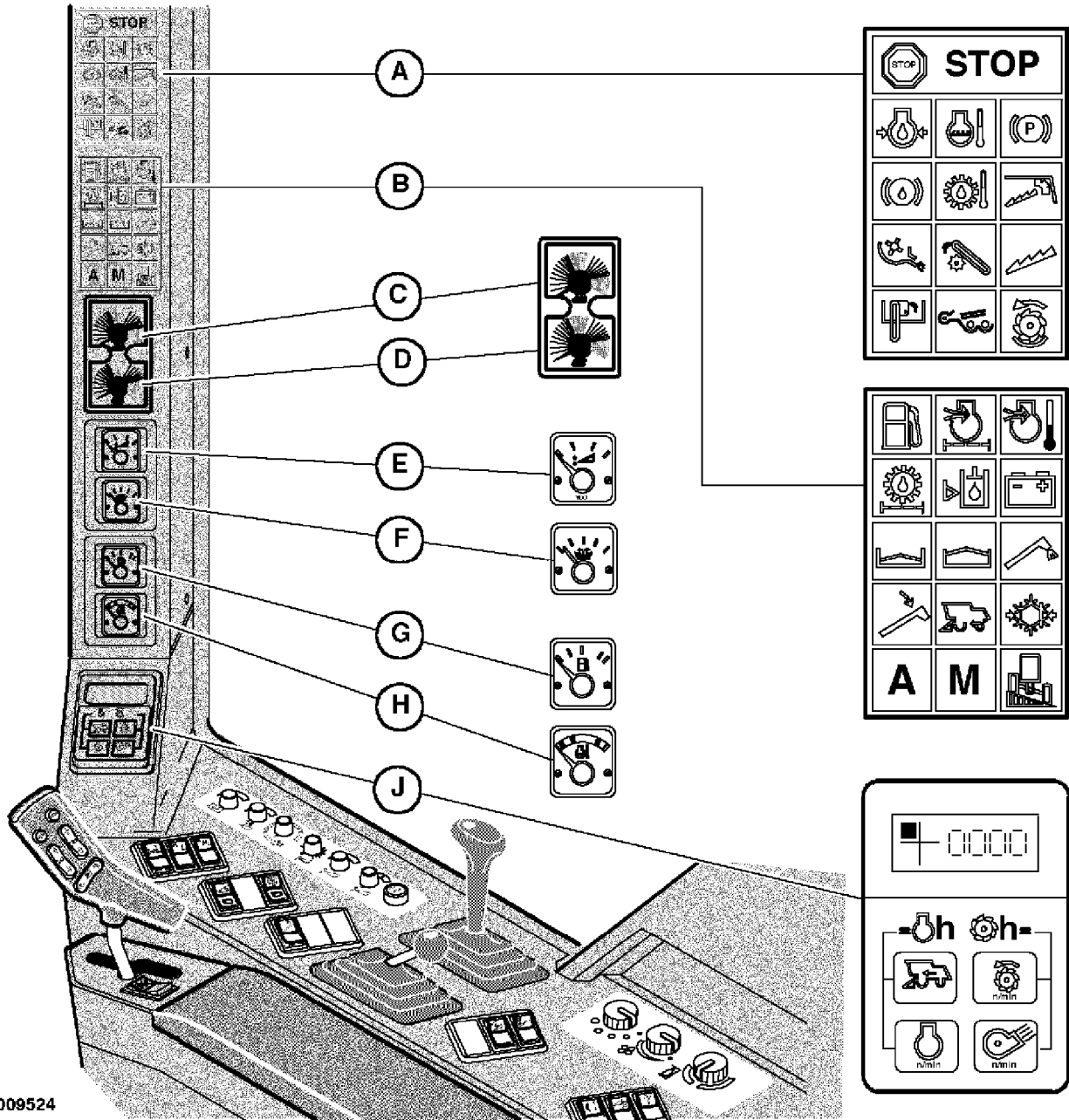
D—Header float control (option)
E—Raise/lower header (2 speeds)

F—Reel height adjustment
G—Reel fore-and-aft adjustment

ZX007812 -UN-22MAY96

ZX,OMXZC0001445-19-02MAY96

CORNER POST



ZX009524

A—Indicator lights I
 B—Indicator lights II
 C—Harvest performance monitor
 Straw walker gauge (optional)

D—Harvest performance monitor
 Sieve gauge (optional)
 E—Header height gauge

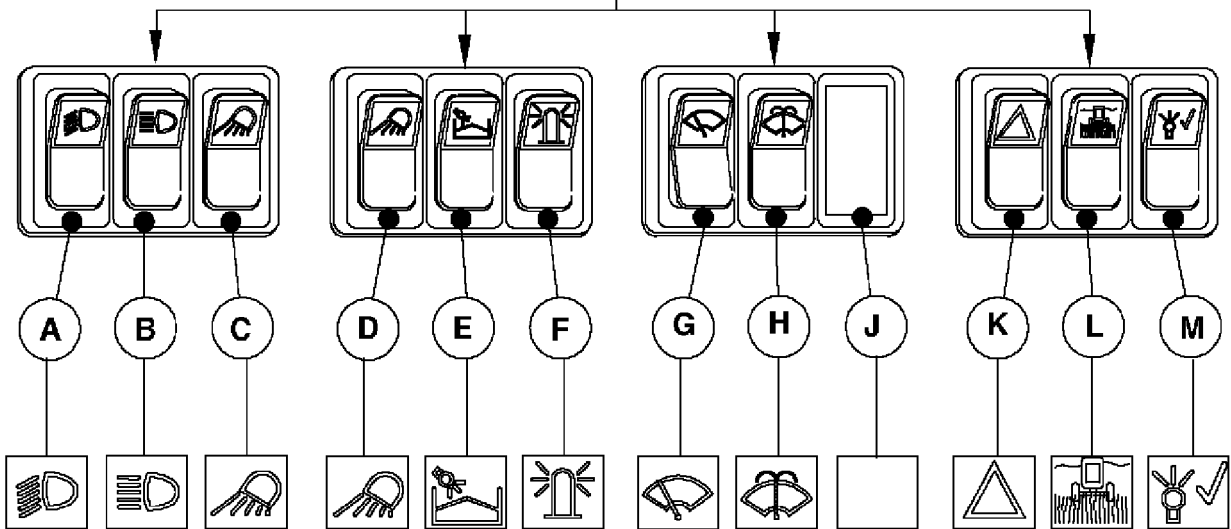
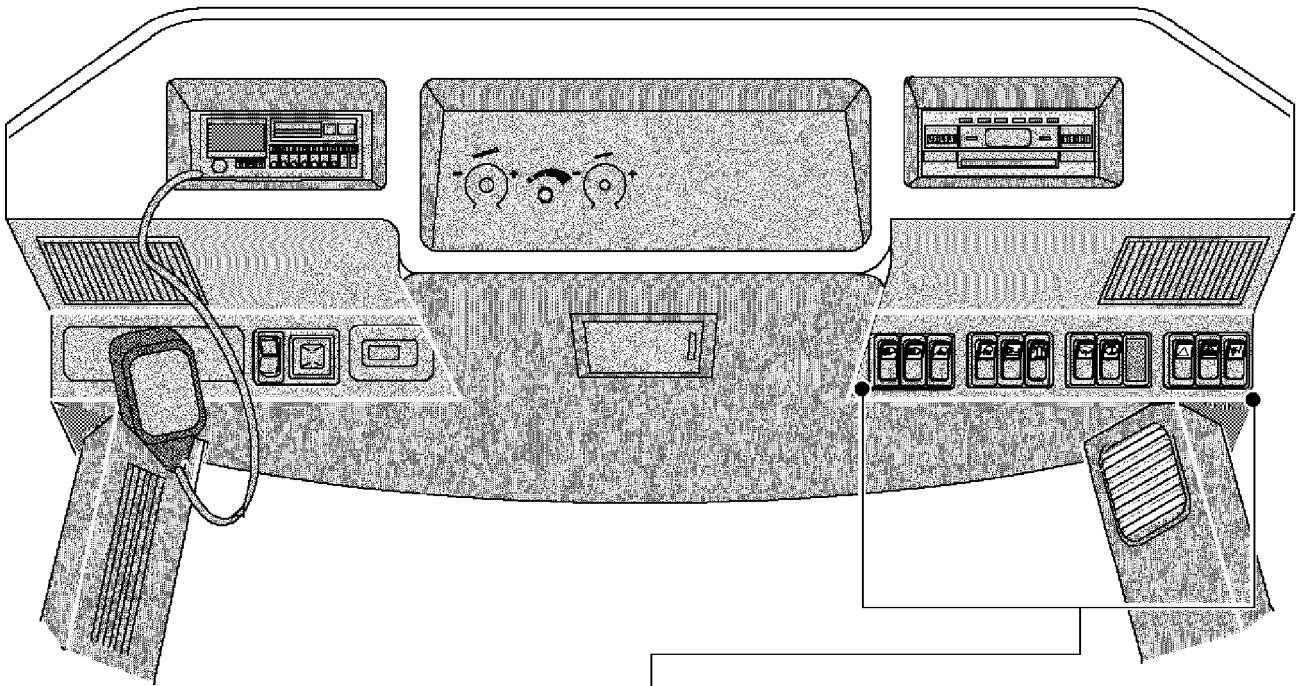
F—Distributor plate gauge (option)
 G—Fuel gauge

H—Coolant temperature gauge
 J—Infotrak monitor

ZX009524 -UN-08NOV96

ZX.OMXZC0001446-19-01NOV96

ROOF SWITCH CONSOLE



ZX007814

A—Parking/low-beam headlights
 B—High-beam headlights
 C—Cab roof work lights (option, on unloading auger)

D—Operator's platform/rear work lights (option, on mirror bracket)
 E—Grain tank lighting

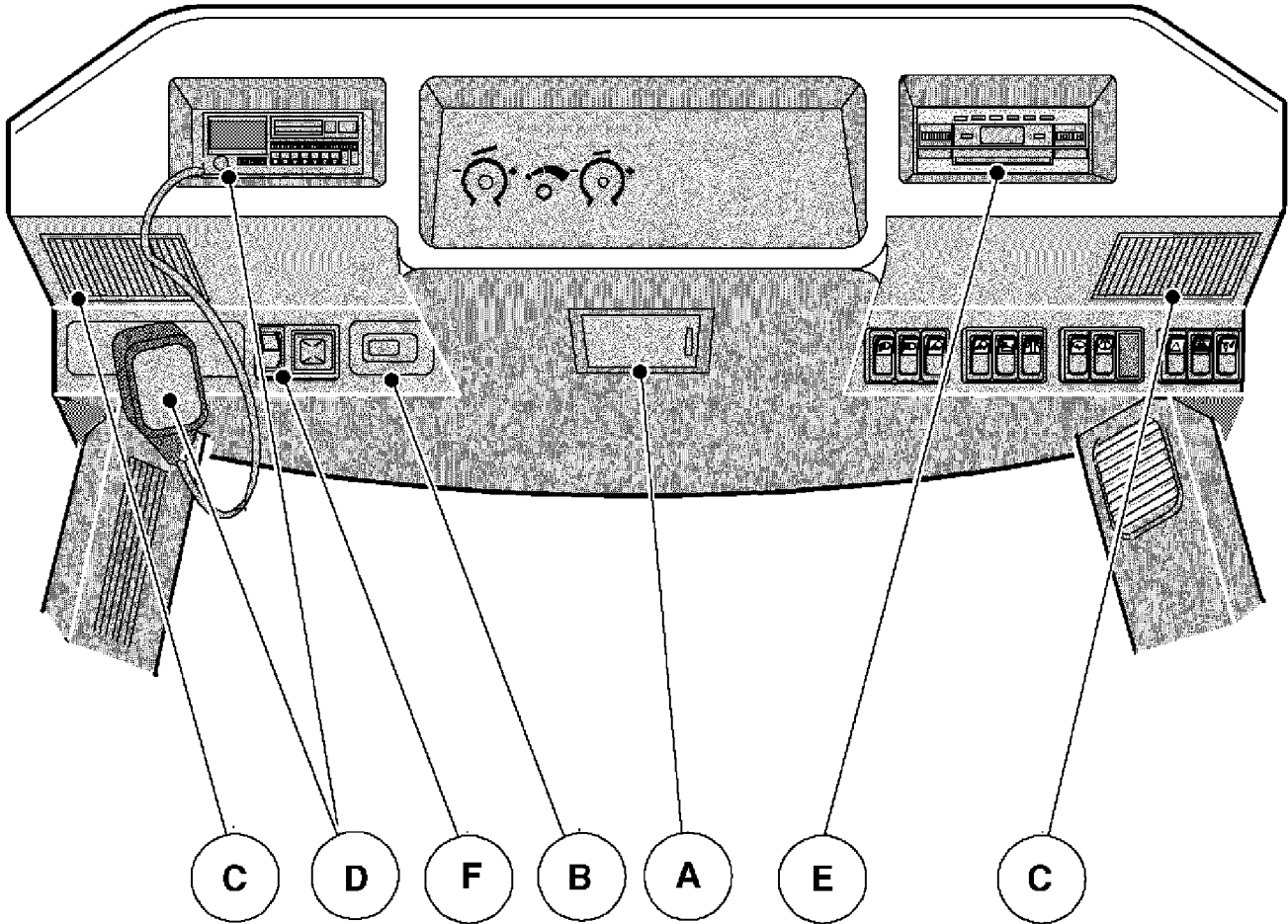
F—Revolving hazard warning light (option)
 G—Windshield wiper
 H—Windshield washer

J—Not used
 K—Hazard warning lights
 L—Road safety switch
 M—Indicator light test

ZX007814 -UN-22MAY96

ZX.OMXZC0001447-19-02MAY96

ROOF CONSOLE



ZX 007815

A—Interior lighting
B—Digital clock

C—Loudspeakers
D—Citizens' Band (option)

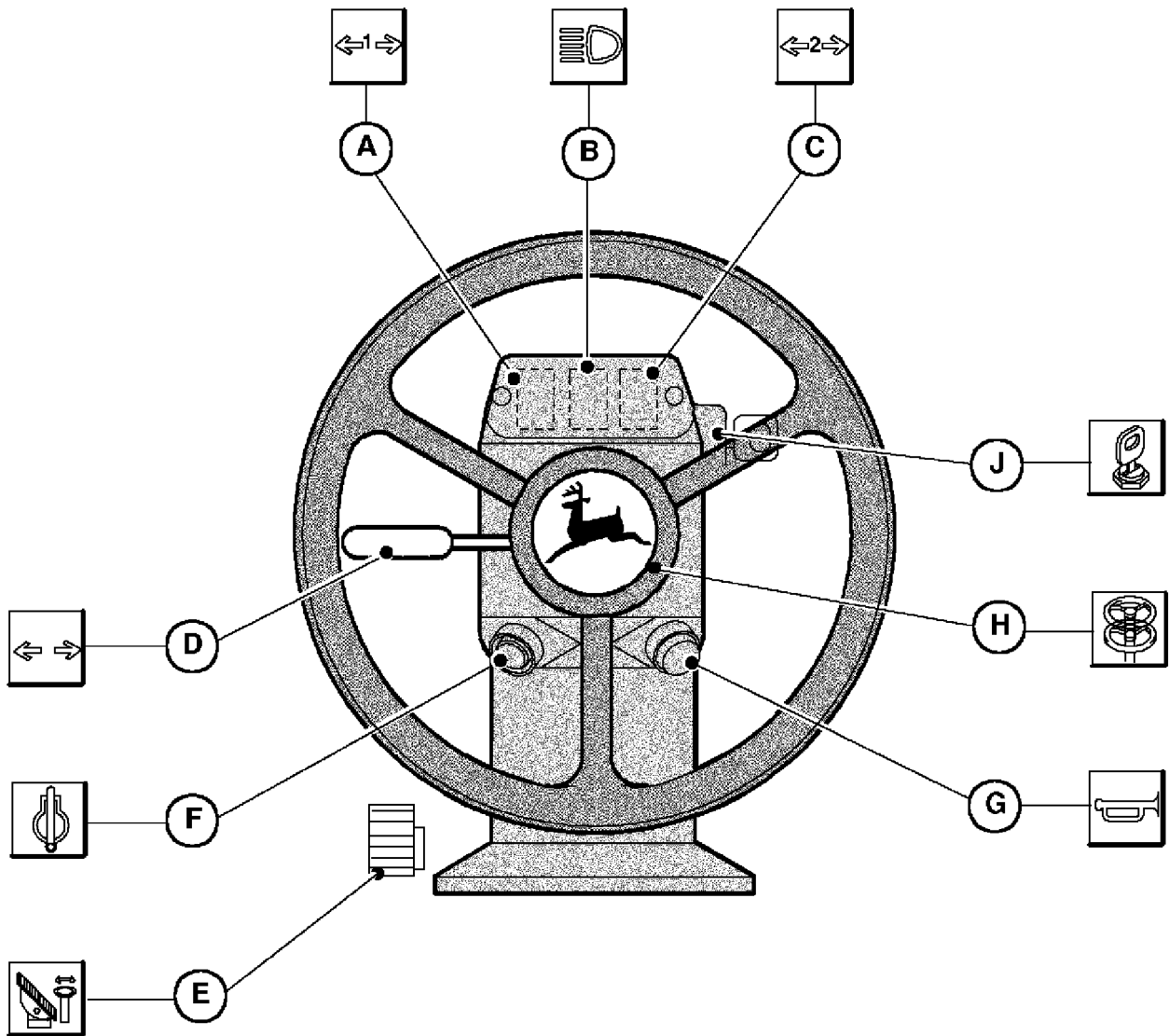
E—Radio (option)
F—Electrically adjustable
outside mirrors and
mirror heater (option)

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

ZX007815 -UN-22MAY96

ZX,OMXZCO001448-19-02MAY96

STEERING COLUMN



ZX007817

A—Turn signal indicator light
 B—Full-beam indicator light
 C—Turn signal indicator light
 (trailer) or header lighting

D—Turn signal switch
 E—Pedal for horizontal
 steering column
 adjustment

F—Push button for ether
 starting aid
 G—Push button for horn

H—Knob for vertical steering
 column adjustment
 J—Starter switch

ZX007817 -UN-22MAY96

ZX,OMXZC0001450-19-02MAY96

SELECTOR SWITCH FOR PARALLEL ADJUSTMENT OF HEADER AND FORE-AND-AFT ADJUSTMENT OF REEL

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

NOTE: On combines without automatic leveling system, this switch is used for header parallel adjustment (on slopes up to 11%).

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

Parallel Adjustment of Header

- With switch (A) in position (I), rocker switch (B) adjusts the header to make it parallel.

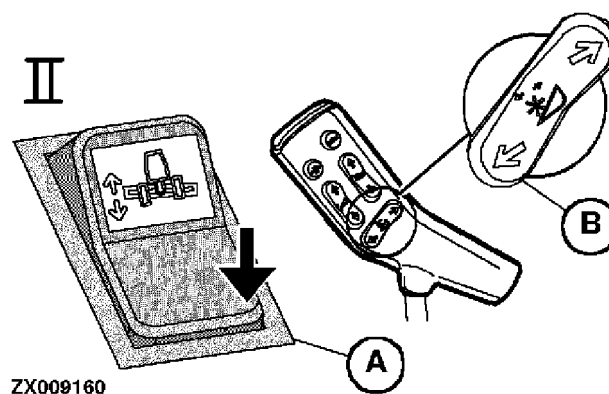
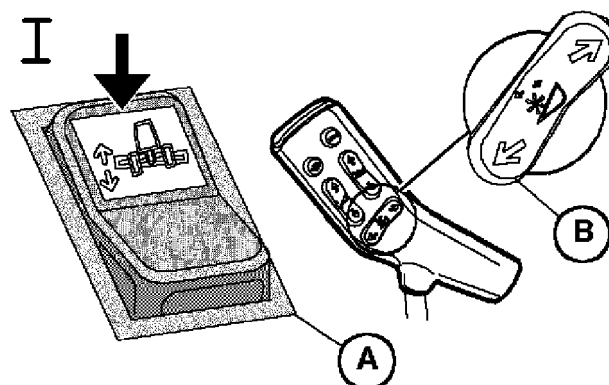
Operation:

With leveling system activated, automatic header control may be overcome by actuating this switch. If, for example, the combine is working on a 6% slope and one wheel passes through a depression in the ground, the header is not able to follow ground contours automatically.

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

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—Parallel adjustment of header
II—Fore-and-aft adjustment of reel

ZX009160 -JUN-22MAY96

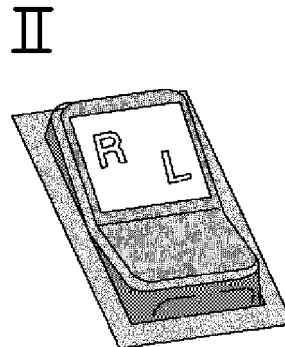
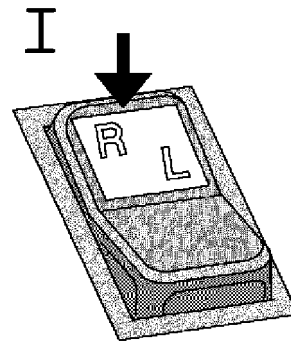
ZX.OMXZC0006501-19-02MAY96

**MANUAL LEVELING CONTROL ROCKER SWITCH (WITH CENTER POSITION)
(SPECIAL EQUIPMENT)**

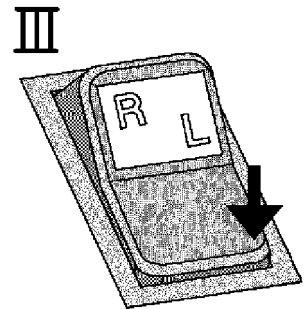
Combine tilt adjustment is only possible with engine running and road safety switch in field position.

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

- I—Combine tilts to the right
- II—Off
- III—Combine tilts to the left



ZX007324



-UN-19JUN95
ZX007324

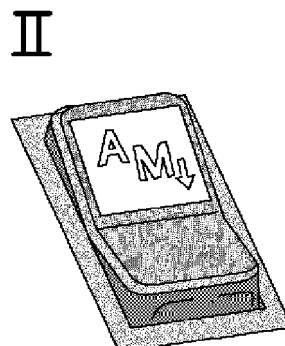
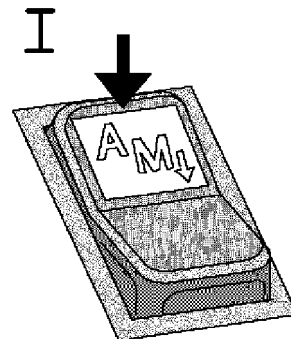
ZX,OMXZCO001470-19-01MAR95

**AUTOMATIC LEVELING CONTROL
TUMBLER SWITCH (SPECIAL EQUIPMENT)**

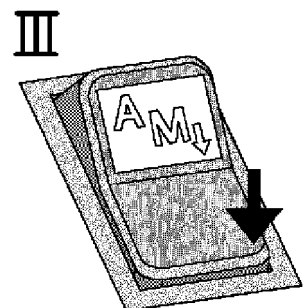
The automatic leveling system will only operate with engine running and road safety switch in field position.

! CAUTION: Before driving combine on public roads, move switch to position (III) to make sure that a transport height of 4 m (13.12 ft) is not exceeded.

- I—Automatic leveling system on (field travel)
- II—Automatic leveling system off (manual)
- III—Lowering position (changing from field to road)



ZX007325



-UN-19JUN95
ZX007325

ZX,OMXZCO001471-19-01MAR95

OPERATING WITH HILLMASTER LEVELING SYSTEM

CAUTION: Particular care must be taken when turning the combine on slopes. Never turn combine faster than the leveling system can keep combine in level position. Always turn uphill! When the yellow indicator light (C) glows (tilt limit has been reached), take extreme care!

IMPORTANT: Before actuating manual leveling control switch, make sure that parking brake is released.

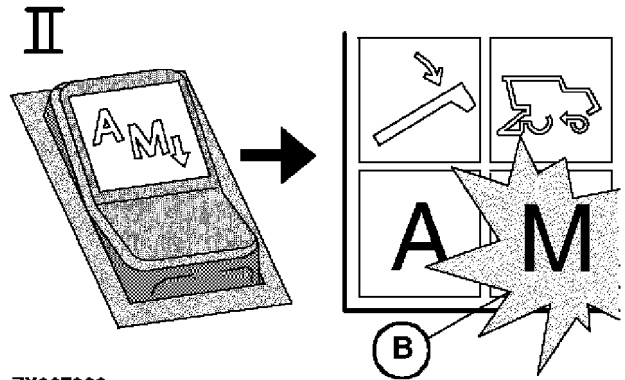
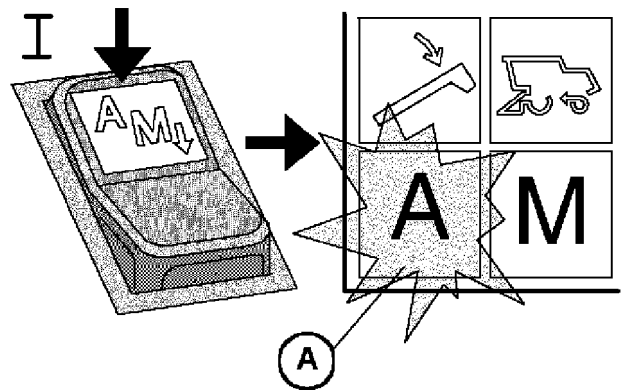
IMPORTANT: When parking the combine, do not park too close to other machines or walls of storage buildings. This is important as combine may tilt due to internal loss of oil pressure when parked for some time. This may cause damage to combine and adjacent machines or walls.

The hillmaster combine is designed for slopes up to 11%.

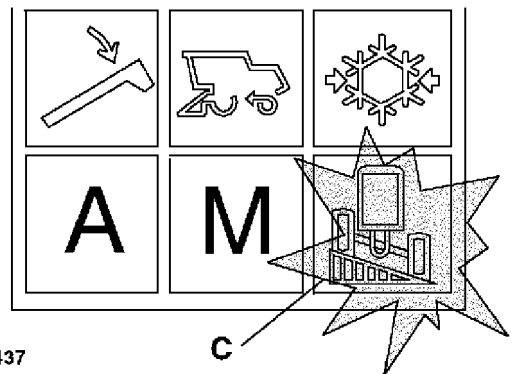
With automatic operation the green indicator light (A) of indicator light unit II will glow.

With manual operation the green indicator light (B) of indicator light unit II will glow.

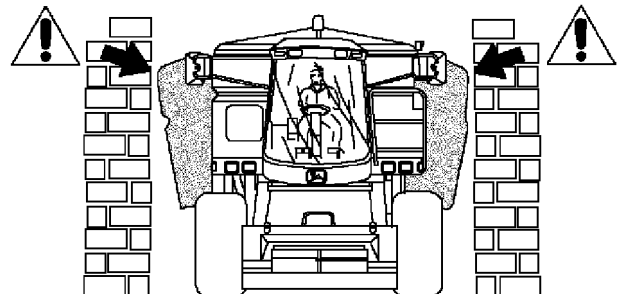
- I—Automatic operation
- II—Manual operation



ZX007326



ZX 002437



ZX 002438

-UN-19JUN95
ZX007326

-UN-16JUN95
ZX002437

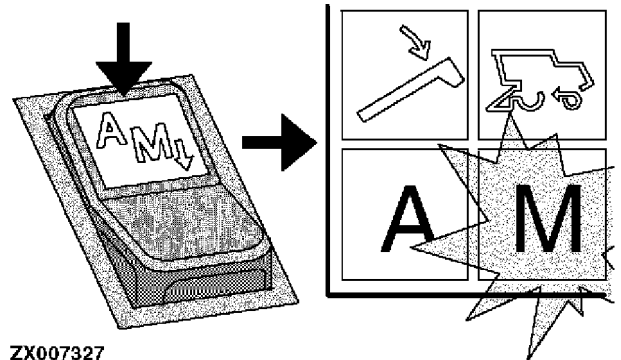
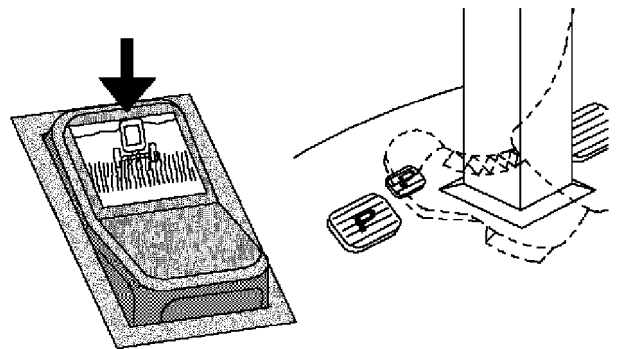
-UN-16JUN95
ZX002438

DAILY PREPARATIONS BEFORE DRIVING HILLMASTER COMBINE

Before driving the hillmaster combine, the following tests have to be performed for safety reasons.

Requirements:

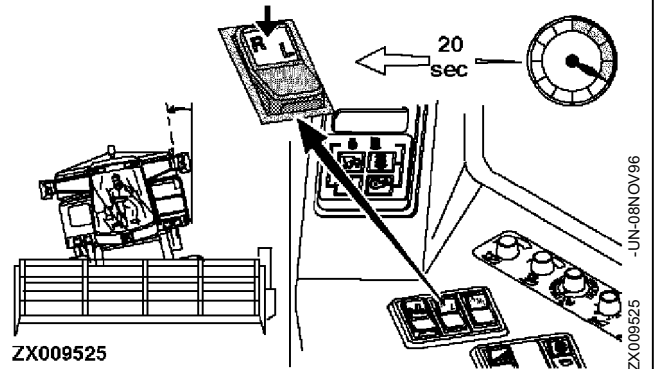
- Engine running (high speed)
- Road safety switch in field position
- Parking brake released
- Automatic leveling control switch in position for manual operation



ZX,OMXZC0001791-19-01MAR95

Test 1

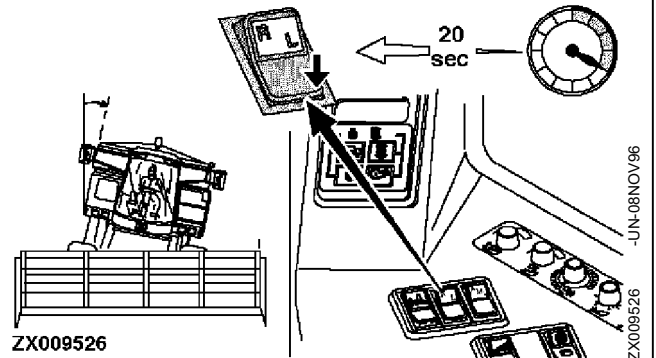
Move manual leveling control switch to right-hand tilt position for 20 seconds — combine will tilt to the right



ZX,OMXZC0001792-19-01NOV96

Test 2

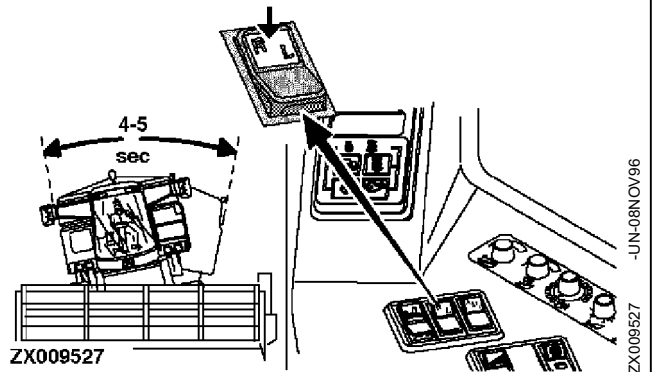
Move manual leveling control switch to left-hand tilt position for 20 seconds — combine will tilt to the left



ZX,OMXZC0001793-19-01NOV96

Test 3

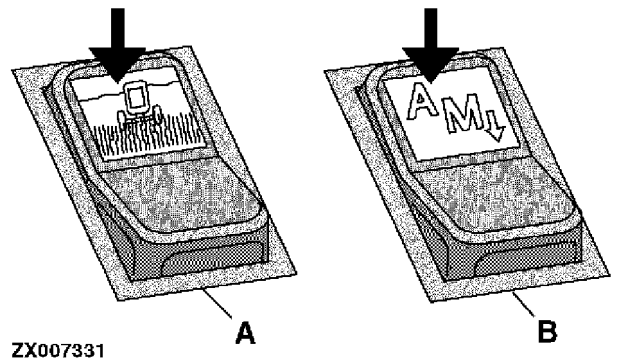
By operating manual leveling control switch, bring combine from maximum left tilt to maximum right tilt — the time required to do this should be 4—5 seconds.



OPERATING WITH AUTOMATIC LEVELING CONTROL

When working in the field, move road safety switch (A) to field position and leveling control switch (B) to position for automatic operation. Now the combine will automatically level on slopes up to 11%.

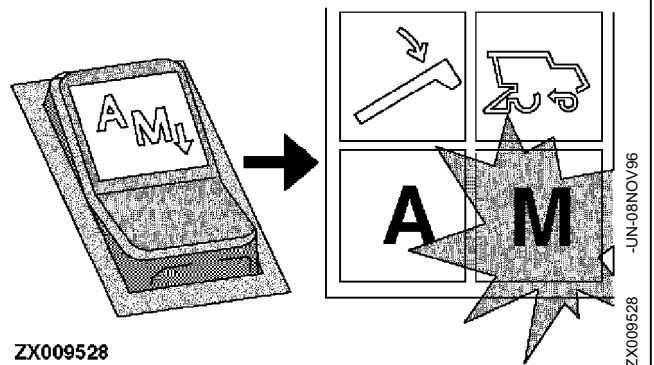
NOTE: If hillmaster combine was in transport configuration, prepare combine for field operation. Refer to "Changing from Road Travel to Field Operation".



OPERATING WITH MANUAL LEVELING CONTROL

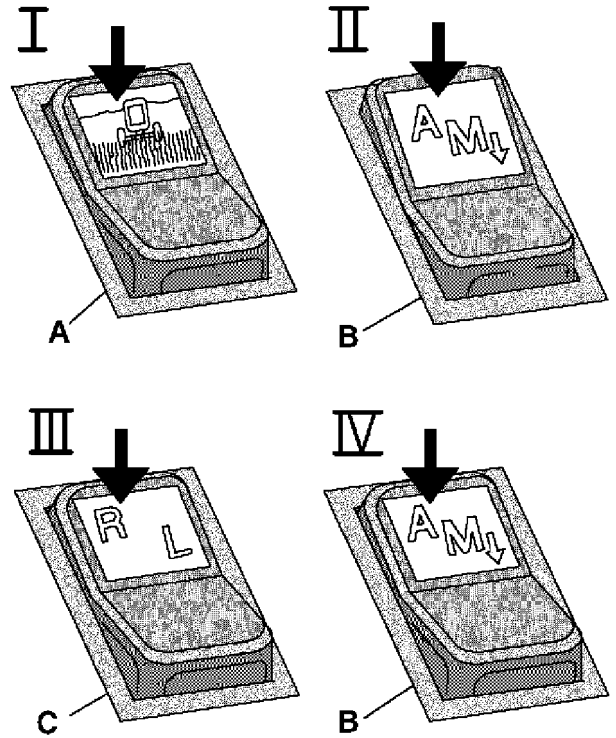
This function is used to change from:

- Road travel to field operation
- Field operation to road travel



Changing from Road Travel to Field Operation

- I—Move road safety switch (A) from road to field position.
- II—Move leveling control switch (B) from lowering to manual position.
- III—Press manual leveling control switch (C) to move combine to maximum right-hand tilt position (keep switch pressed for approx. 20 seconds).
- IV—Move switch (B) to automatic position. Now the combine will level automatically.



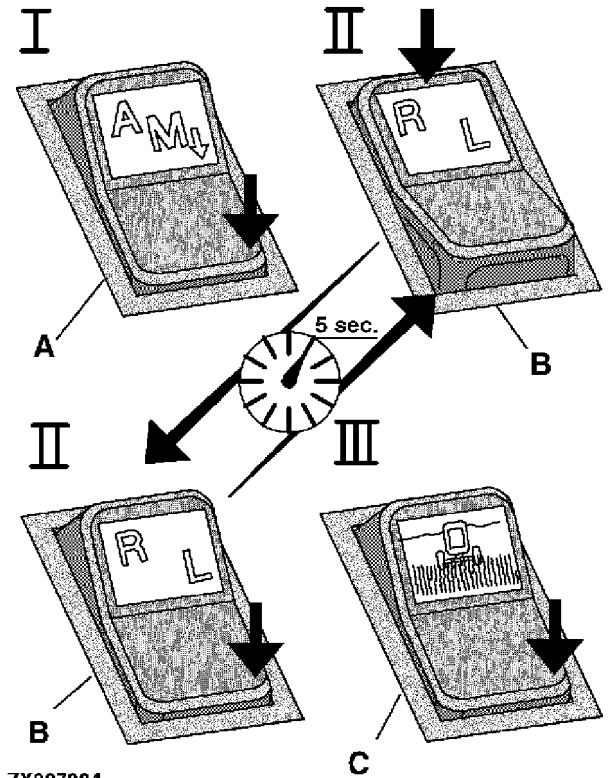
ZX007333

ZX,OMXZCO001797-19-01MAR95

-UN-19JUN95
ZX007333

Changing from Field Operation to Road Travel

- I—Move leveling control switch (A) from automatic to lowering position.
- II—Using manual leveling control switch (B), lower combine. Alternately press top and bottom part of switch (B) for approx. 5 seconds until combine is completely lowered.
- III—Move road safety switch (C) from field to road position.



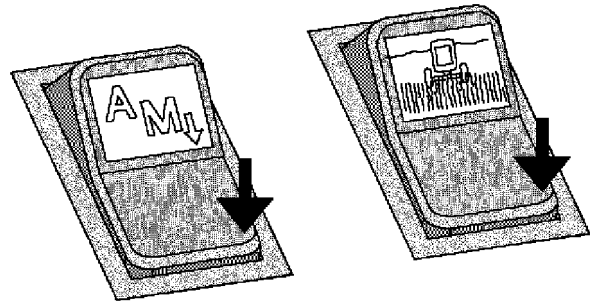
ZX007334

ZX,OMXZCO001798-19-01MAR95

-UN-19JUN95
ZX007334

HILLMASTER COMBINE ROAD TRAVEL

CAUTION: When driving hillmaster combine on public roads, make sure that automatic leveling control switch is in “lowering” position and road safety switch in “road” position.



ZX007335

ZX.OMXZC0001799-19-01MAR95

ZX007335 -JUN-19JUN95

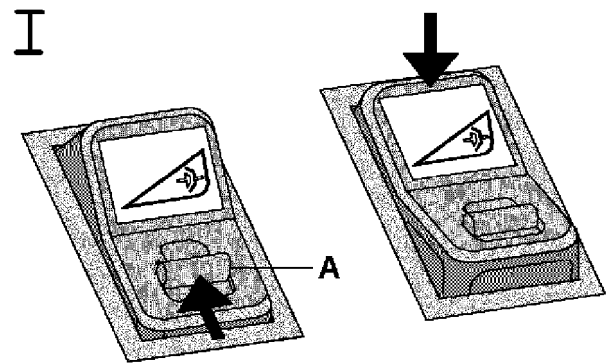
HEADER DRIVE TUMBLER SWITCH (WITH OPERATING LOCK)

Requirements:

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

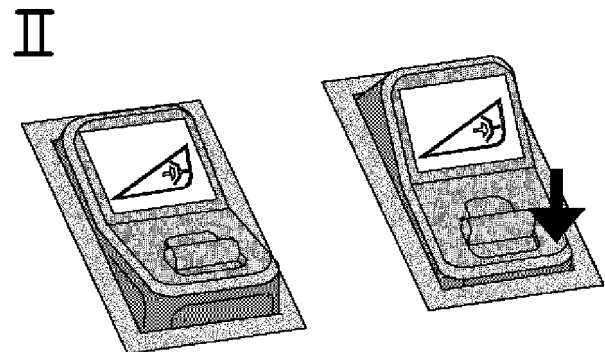
Engaging Header Drive (I):

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



Disengaging Header Drive (II):

Depress lower part of switch.



- I—On
- II—Off

ZX 002284

ZX.OMXZC0001454-19-20JUL92

ZX002284 -JUN-16JUN95

SEPARATOR TUMBLER SWITCH (WITH OPERATING LOCK)

Requirements:

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

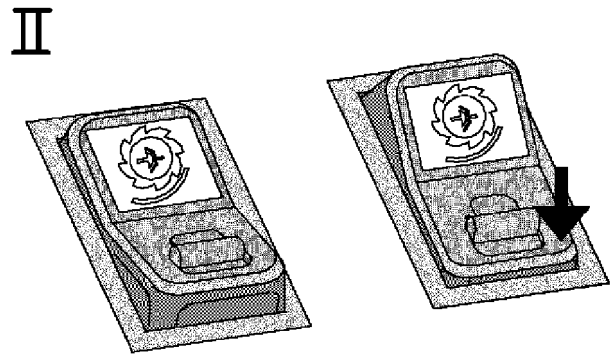
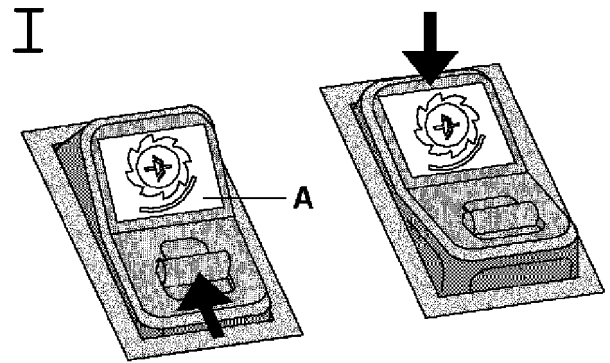
Engaging Separator Drive (I):

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



ZX 002285

ZX,OMXZC0001455-19-20JUL92

-UN-16JUN95
ZX0002285

UNLOADING AUGER SWING TUMBLER SWITCH (WITH CENTER POSITION)

Requirements:

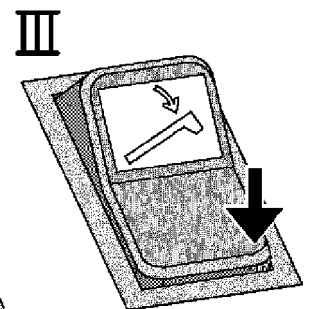
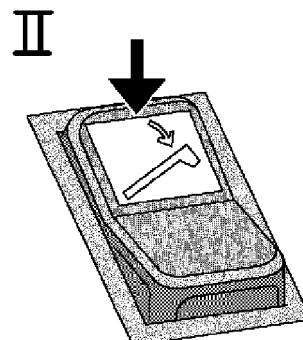
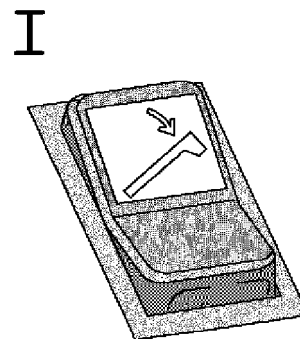
- Engine running
- Road safety switch in field position

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.



ZX009529

ZX,OMXZC0001456-19-01NOV96

-UN-08NOV96
ZX009529

HEADER FUNCTION RESUME CONTROL TUMBLER SWITCH (OPTION)

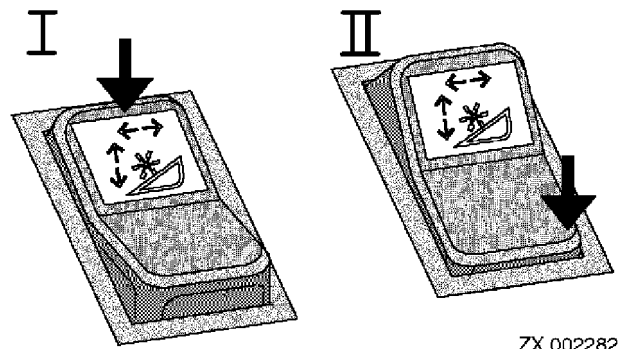
Requirements:

- Engine running
- Road safety switch in field position

Switch on resume control electronics.

Possible Adjustments:

- Reel height resume control
- Reel fore-and-aft resume control
- Header height resume control



I—On
II—Off

ZX 002282

-JUN-16-JUN95
ZX002282

ZX,OMXZC0001452-19-13NOV92

TUMBLER SWITCH FOR AUTOMATIC MACHINE ADJUSTMENTS (OPTION)

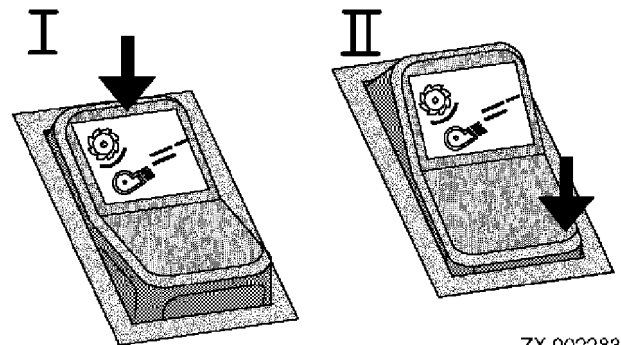
Requirements:

- Engine running (max. speed)
- Separator engaged

Switch on automatic machine adjustments.

Possible Adjustments:

- Threshing cylinder speed
- Fan speed
- Concave clearance



I—On
II—Off

ZX 002283

-JUN-16-JUN95
ZX002283

ZX,OMXZC0001453-19-13NOV92

CHOPPER DISTRIBUTOR ADJUSTMENT (ROCKER SWITCH WITH CENTER POSITION) (SPECIAL EQUIPMENT)

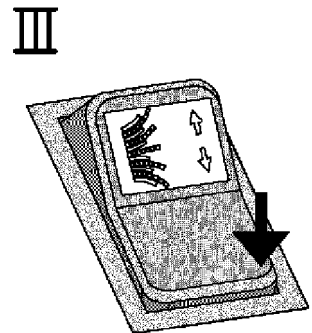
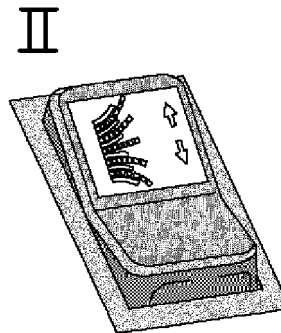
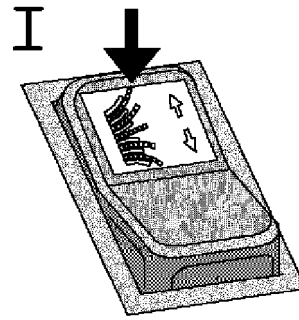
Adjustment is only possible with separator engaged.

Operation:

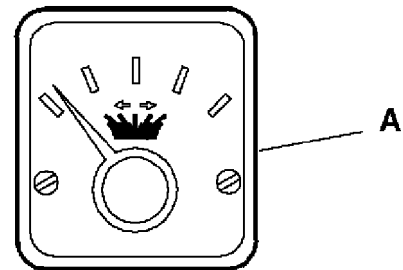
In windy conditions and/or on slopes, straw distribution may be adapted to harvesting requirements after basic adjustment with regard to header width has been performed. When working on slopes, this switch is used to regulate the direction of straw distribution. This will avoid downhill straw accumulations.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

NOTE: This switch can be connected to the front of the switch console. The wiring is long enough to permit the switch to be placed either to the right of the "header drive" switch or to the right of the "unloading auger swing" switch.

- I—Material is thrown to the right
- II—Off
- III—Material is thrown to the left



ZX 002307



ZX 002448

ZX,OMXZC0001476-19-02MAY96

-UN-16JUN95

ZX002307

-UN-16JUN95

ZX002448

REEL LIFT/FEEDER HOUSE VARIATOR TUMBLER SWITCH (SPECIAL EQUIPMENT FOR CORN)

Use switch (A) to change function of switch (B):

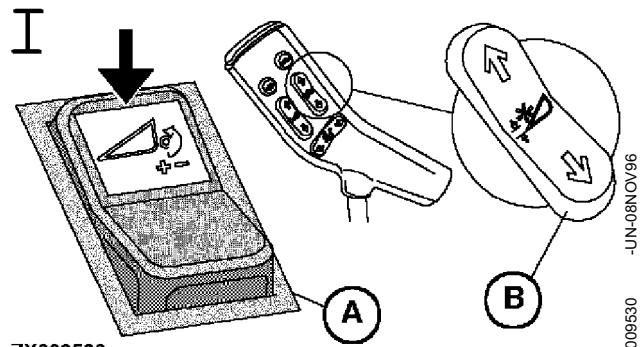
Corn Harvest — Feeder House Variator

- In position (I) of switch (A), feeder house and header speed are altered by means of switch (B).

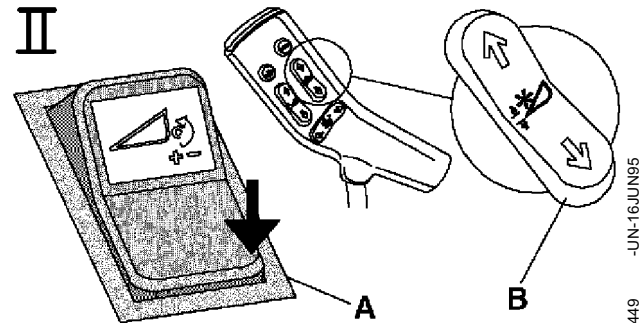
Grain Harvest — Reel Lift

- In position (II) of switch (A), reel height is adjusted by means of switch (B) (grain harvest).

I—Feeder house variator
II—Reel lift



ZX009530



ZX 002449

ZX,OMXZCO001477-19-01NOV96

-UN-08NOV96

ZX009530

-UN-16JUN95

ZX002449

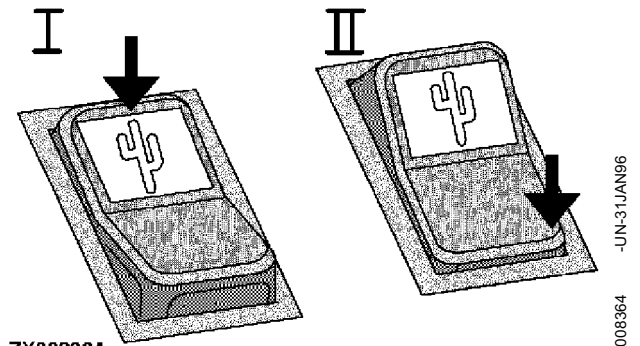
DEMOISTURIZER TUMBLER SWITCH (WITH AIR CONDITIONING SYSTEM ONLY)

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—Demoisturizer switch on
II—Demoisturizer switch off

ZX,OMXZCO001478-19-01JAN96

-UN-31JAN96

ZX008364

POTENTIOMETER FOR REEL HEIGHT RESUME CONTROL (OPTION)

Requirements:

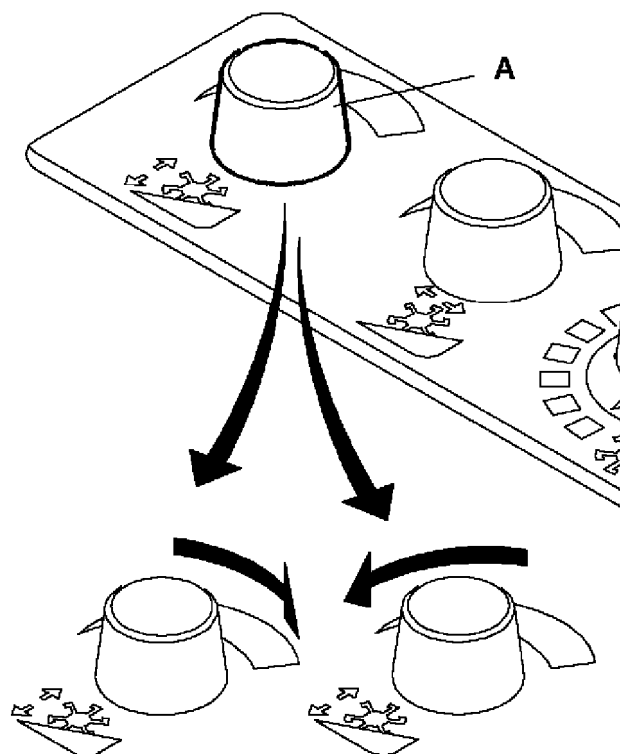
- Electronic system of header function resume controls must be switched on
- Resume controls must be activated

NOTE: Once resume controls are activated, all three resume functions may be adjusted.

Adjustment:

Use potentiometer (A) to obtain desired reel height resume setting.

- Turn clockwise — desired reel height position increases
- Turn counterclockwise — desired reel height position decreases



ZX 002290

ZX,OMXZCO001458-19-20JUL92

-UN-16JUN95

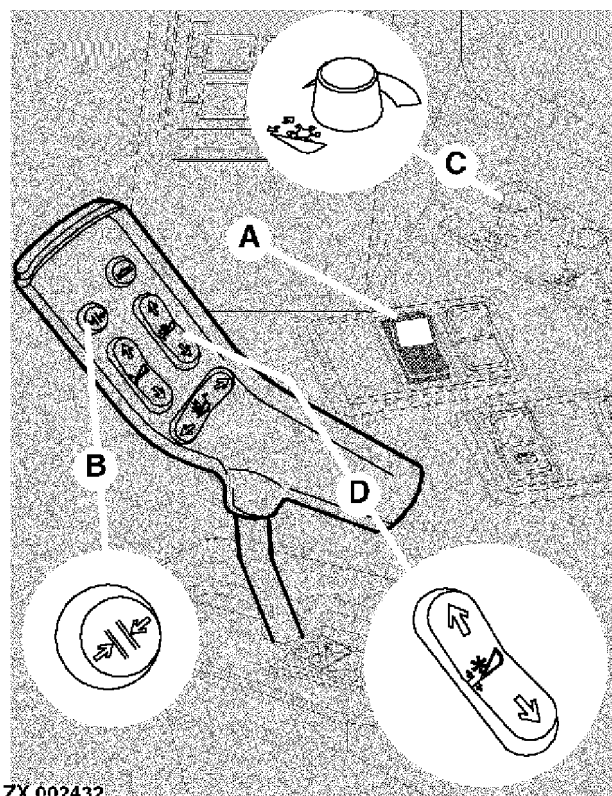
ZX002290

Operation:

Use switch (A) to switch on function resume controls and button (B) to activate the electronic system. Now move reel to desired position by means of potentiometer (C).

If switch (D) was pressed to change reel height, the reel position preselected by means of potentiometer (C) may be obtained again by pressing button (B).

- A—Header function resume control switch
- B—Button for automatic resume control
- C—Potentiometer for reel height resume control
- D—Reel height adjusting switch



ZX 002432

ZX,OMXZCO001786-19-01MAR95

-UN-16JUN95

ZX002432

POTENTIOMETER FOR REEL FORE-AND-AFT RESUME CONTROL (OPTION)

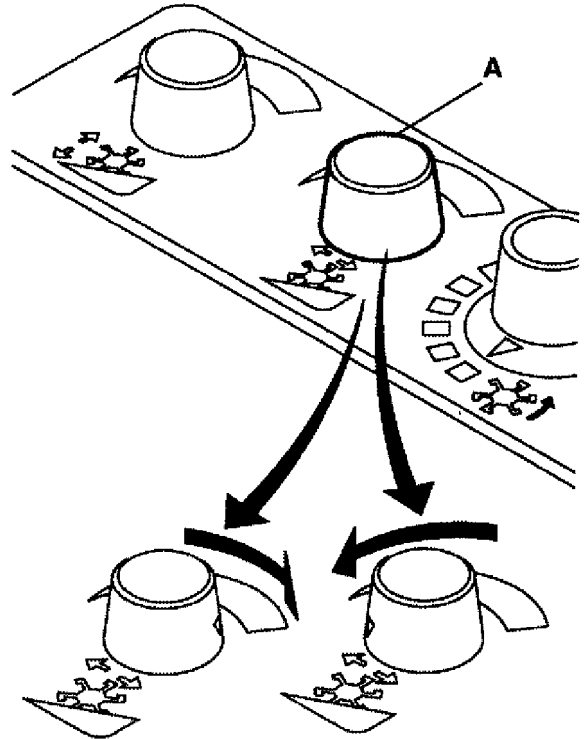
Requirements:

- Electronic system of header function resume controls must be switched on
- Resume controls must be activated

Adjustment:

Use potentiometer (A) to obtain desired reel fore-and-aft resume setting.

- Turn clockwise — reel is moved to the front
- Turn counterclockwise — reel is moved to the rear



ZX002291

ZX.OMXZC0001459-19-10JUN92

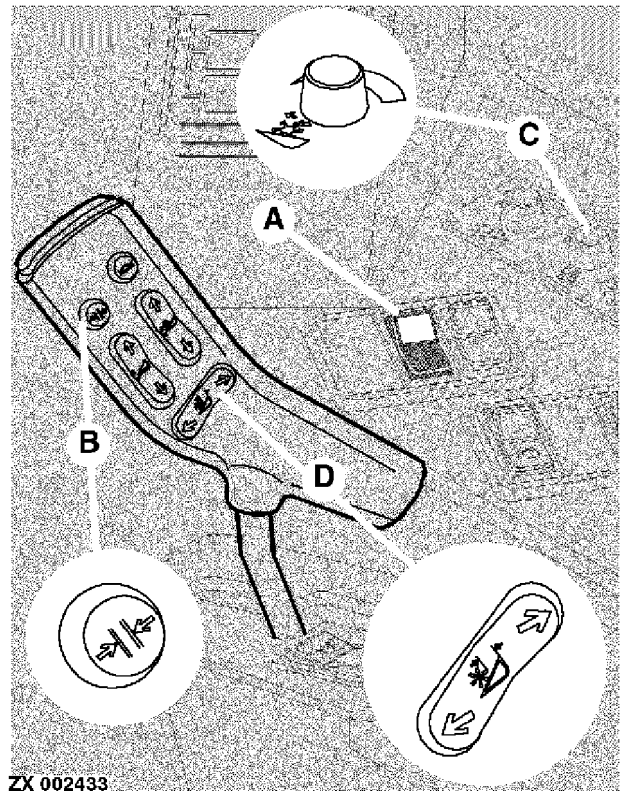
-UN-16JUN95
ZX002291

Operation:

Use switch (A) to switch on function resume controls and button (B) to activate the electronic system. Now move reel to desired horizontal position by means of potentiometer (C).

If switch (D) was pressed to change horizontal reel position, the reel position preselected by means of potentiometer (C) may be obtained again by pressing button (B).

- A—Header function resume control switch
- B—Button for automatic resume control
- C—Potentiometer for reel fore-and-aft resume control
- D—Switch for horizontal reel adjustment



ZX 002433

ZX.OMXZC0001787-19-01MAR95

-UN-16JUN95
ZX002433

ROTARY SWITCH FOR HEADER HEIGHT RESUME CONTROL (OPTION)

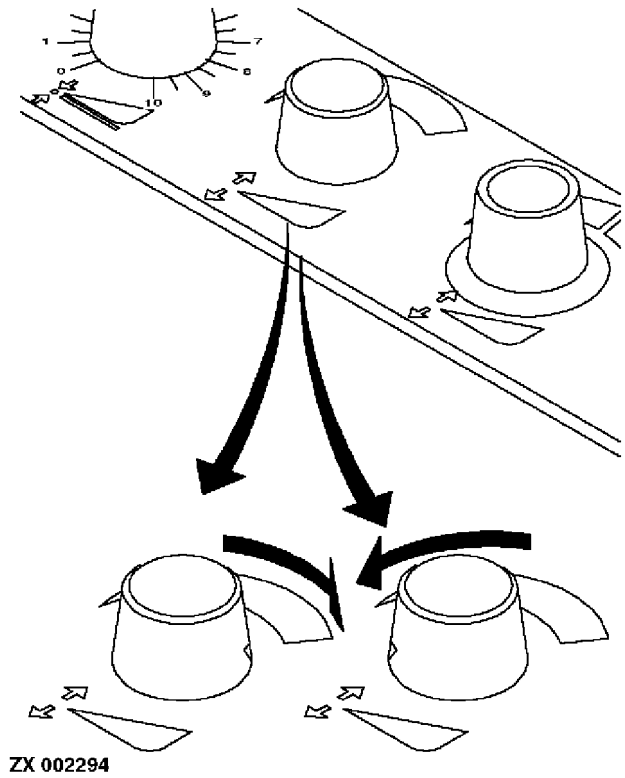
Requirements:

- Electronic system of header function resume controls must be switched on
- Resume controls must be activated
- Header must be within the range of header height gauge

Adjustment:

Use potentiometer (A) to obtain desired header height resume setting.

- Turn clockwise — desired header height position increases
- Turn counterclockwise — desired header height position decreases



-UN-16JUN95
ZX002294

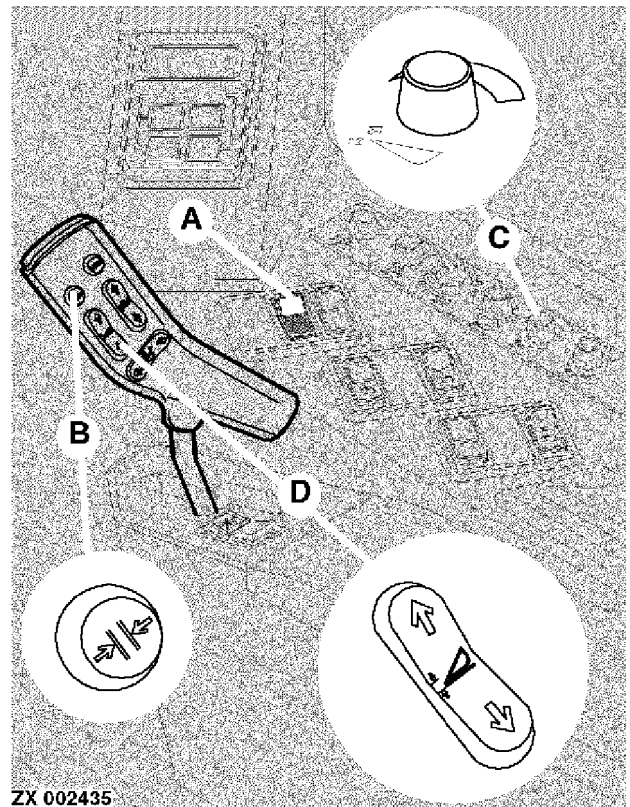
ZX.OMXZC0001462-19-10JUN92

Operation:

Use switch (A) to switch on function resume controls and button (B) to activate the electronic system. Now move header to desired height position by means of potentiometer (C).

If switch (D) was pressed to change header height, the header position preselected by means of potentiometer (C) may be obtained again by pressing button (B).

- A—Header function resume control switch
- B—Button for automatic resume control
- C—Potentiometer for header height resume control
- D—Switch, raise/lower header



-UN-16JUN95
ZX002435

ZX.OMXZC0001789-19-01MAR95

HEADER FUNCTION RESUME CONTROL BUTTON

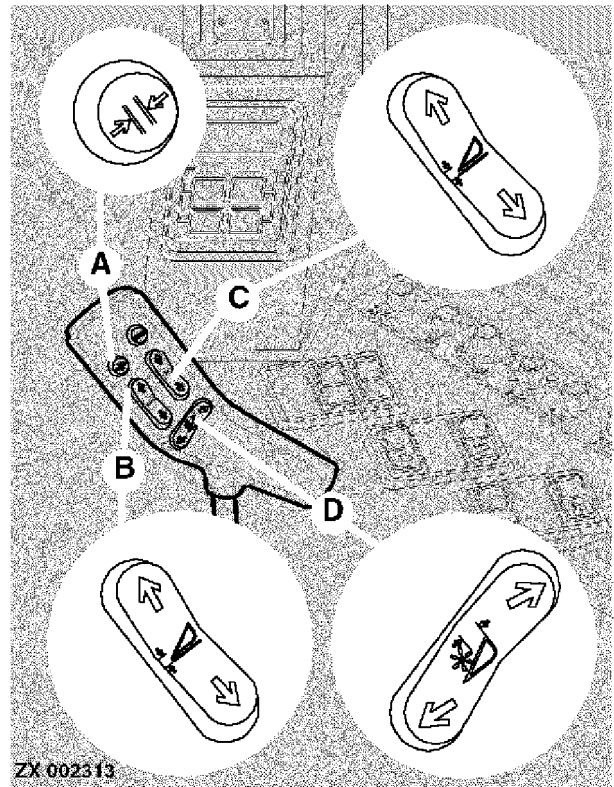
When pressing button (A), the following functions are performed:

- Reel height resume control
- Reel fore-and-aft resume control
- Header height resume control

The electronic control system will move reel and header back to preselected positions.

NOTE: All reel and header positions obtained by pressing button (A) may be overcome by means of rocker switches (B, C and D).

- A—Resume control button
- B—Rocker switch, raise/lower header
- C—Rocker switch, reel height adjustment
- D—Rocker switch, reel fore-and-aft adjustment



ZX 002313

-UN-16JUN95
ZX002313

ZX.OMXZCO001486-19-27JAN92

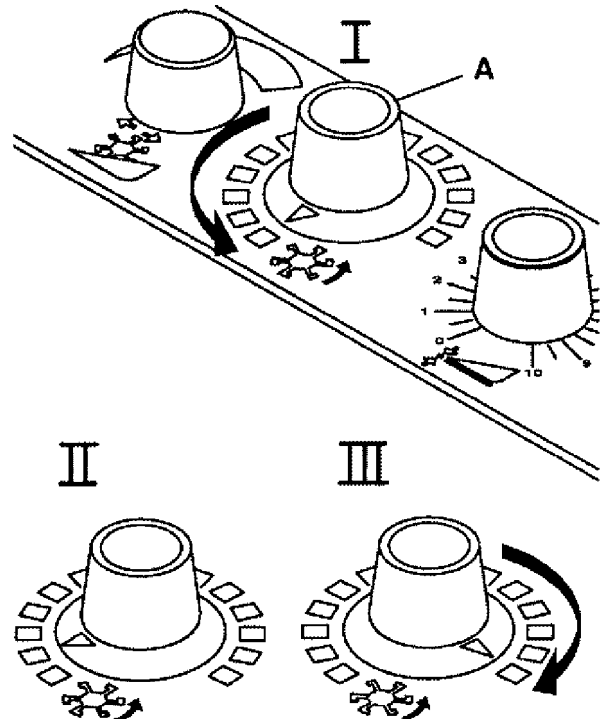
REEL SPEED CONTROL SWITCH (OPTION)

NOTE: Reel speed can also be controlled when using 825 cutting platforms equipped with hydrostatic reel drive.

Reel speed-to-ground speed ratio may be preselected. Turning switch (A) clockwise changes ratio from 0.8—2.2. Turning switch all the way counterclockwise will deactivate reel speed control system.

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).

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



ZX002292

-UN-16JUN95
ZX002292

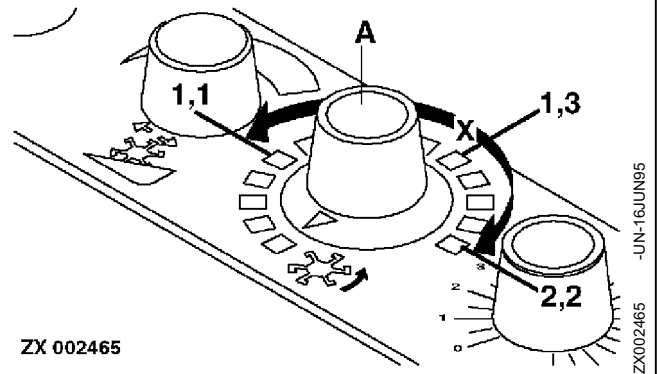
ZX.OMXZCO001460-19-02MAY96

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) (from 1.1—2.2).

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



ZX,OMXZC0001831-19-24MAR92

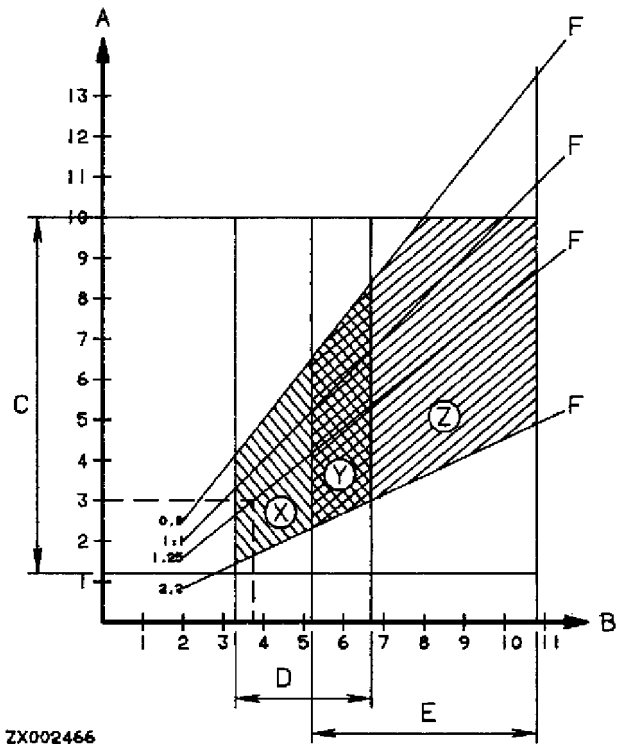
OPERATING RANGE OF REEL SPEED CONTROL SYSTEM

IMPORTANT: To prolong the service life of the electric motor (slip clutch) of the reel speed control system, the latter must be switched off whenever the point at which combine ground speed bisects the reel speed ratio lies outside the areas "X", "Y" and "Z".

At a ground speed of 3 km/h (1.86 mph), it is not possible to operate with a speed ratio of 0.8. (Intersection of dotted horizontal line and speed ratio characteristic is not within the operating range of gears.)

When selecting a ratio of 1.25 (with the same ground speed), the intersection of characteristics is within operating range of gear T = 13. A reel speed of 3.75 km/h (2.33 mph) is obtained.

NOTE: To change gears, refer to cutting platform operator's manual.



- A—Combine ground speed (km/h)
- B—Peripheral reel speed (km/h)
- C—Ground speed range in which electronic reel speed control system is operating
- D—Reel speed range with gear T = 13
- E—Reel speed range with gear T = 21
- F—Characteristics of speed ratios
- X—Operating range of reel speed control system obtained with gear T = 13 ONLY
- Y—Operating range of reel speed control system obtained with BOTH gears (T = 13 and T = 21)
- Z—Operating range of reel speed control system obtained with gear T = 21 ONLY

ZX,OMXZCO001832-19-01MAR95

HEADER AUTOFLOAT CONTROL (OPTION)

IMPORTANT: Readjust float whenever changing harvesting units or when ground conditions change.

Requirements:

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

NOTE: Do not adjust header float unless hydraulic oil is at operating temperature.

Autofloat Adjustment

Use potentiometer (A) to adjust desired header float.

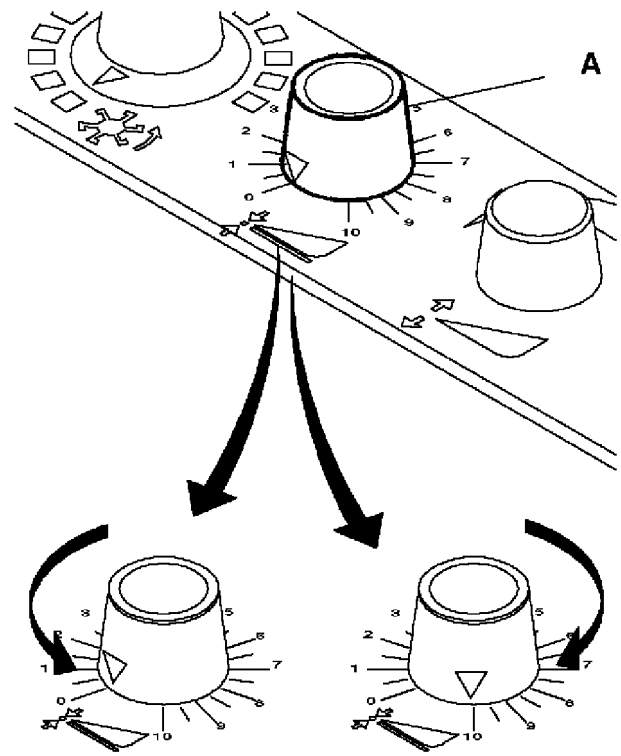
- Turn clockwise — Increase ground pressure (lower header)
- Turn counterclockwise — Reduce ground pressure (raise header)

NOTE: When ground pressure is increased, header lowering speed will also increase.

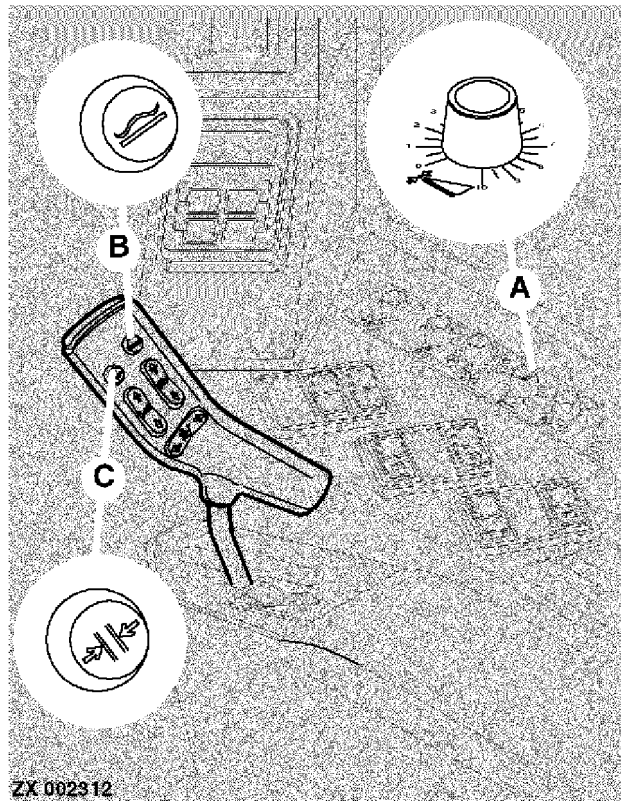
With autofloat system activated, the preselected ground pressure (float) may be obtained again by pressing button (B). The ground pressure setting will remain until button is released.

NOTE: When header autofloat button (B) is pushed, header height resume control (C) will be overcome.

- I—Autofloat system off
- II—Autofloat system on
- A—Header autofloat potentiometer
- B—Header autofloat button
- C—Header height resume button



ZX 002293



ZX 002312

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ZX002293

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ZX002312

Control:

To adjust desired ground pressure (float), actuate switch (A) to lower header to the ground. Turn potentiometer (B) all the way clockwise.

Keep button (C) pressed and turn potentiometer (B) counterclockwise until header is just raised off the ground. Move adjustment window (E) until its r.h. edge is flush with needle (F) of pressure gauge (G). Now turn potentiometer (B) clockwise until needle (F) is in the center of adjustment window (E). While in operation, the needle should move about inside the window.

NOTE: Needle (F) moves to the right when ground pressure (float) drops, and to the left when pressure rises.

Field Operation:

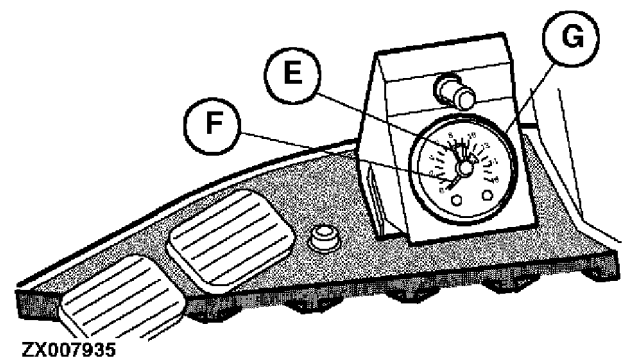
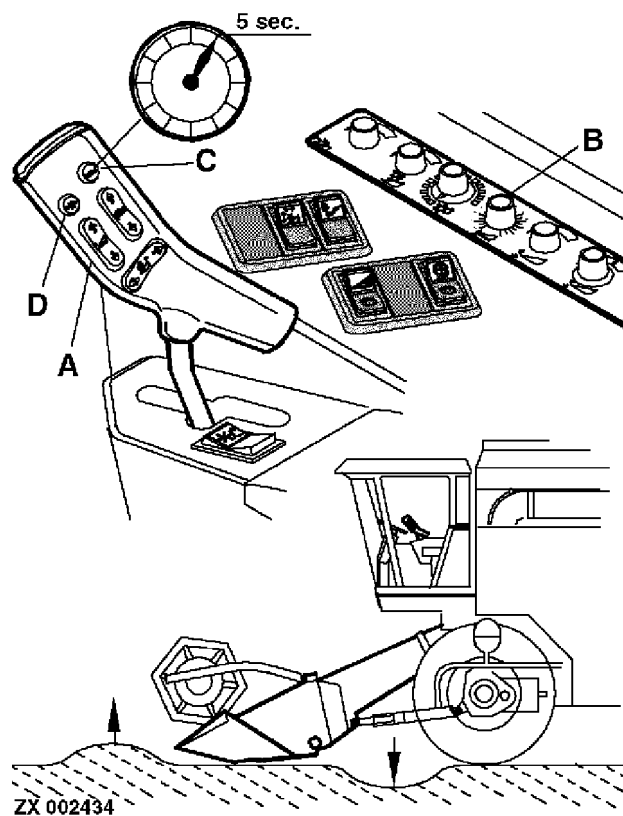
- In case of ground depressions, the ground pressure will drop; pressing button (C) for approx. 5 seconds will lower the header until the preselected pressure is reached once again.
- In case of obstacles, the ground pressure will increase; pressing button (C) for approx. 5 seconds will raise the header until the preselected pressure is reached once again.

The selected ground pressure (float) may be changed any time during operation as described above.

Example:

At the end of the field, raise header by actuating switch (A). After changing direction of combine travel, lower header using switch (A) or button (D). Now press button (C) for at least five seconds to obtain float setting preselected by potentiometer (B).

NOTE: Header autofloat system may be deactivated by switch (A). The header height resume control may also be deactivated by the autofloat system, i.e. a selected header height is changed with autofloat system activated.



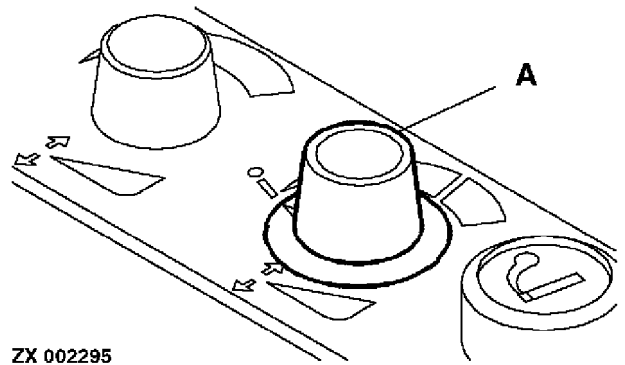
- A—Switch, raise/lower header
- B—Header autofloat potentiometer
- C—Header autofloat button
- D—Header height resume button
- E—Adjustment window
- F—Needle
- G—Pressure gauge

DIAL-A-MATIC™ ROTARY SWITCH — AUTOMATIC HEADER HEIGHT CONTROL

DIAL-A-MATIC™ automatic header height control is designed for use with 900 Series Flex Platforms. The correct relation of header to ground is maintained automatically over uneven ground.

Most adjustments can be made in the cab with switch (A).

Refer to the header Operator's Manual for additional information.



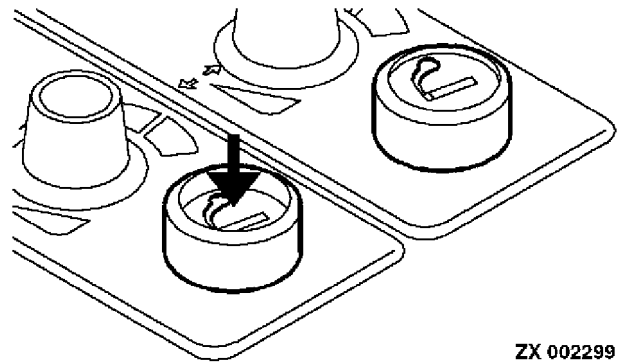
ZX 002295

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ZX002295

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CIGARETTE LIGHTER

Press cigarette lighter insert into socket and wait until it is released automatically (only with ignition turned on).



ZX 002299

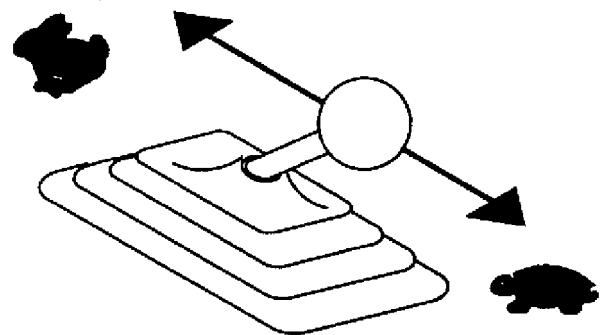
-UN-16JUN95
ZX002299

ZX,OMXZCO001464-19-27JAN92

THROTTLE LEVER

Push throttle lever forward
— Increase engine speed (hare)

Pull throttle lever to the rear
— Reduce engine speed (Tortoise)



ZX 002310

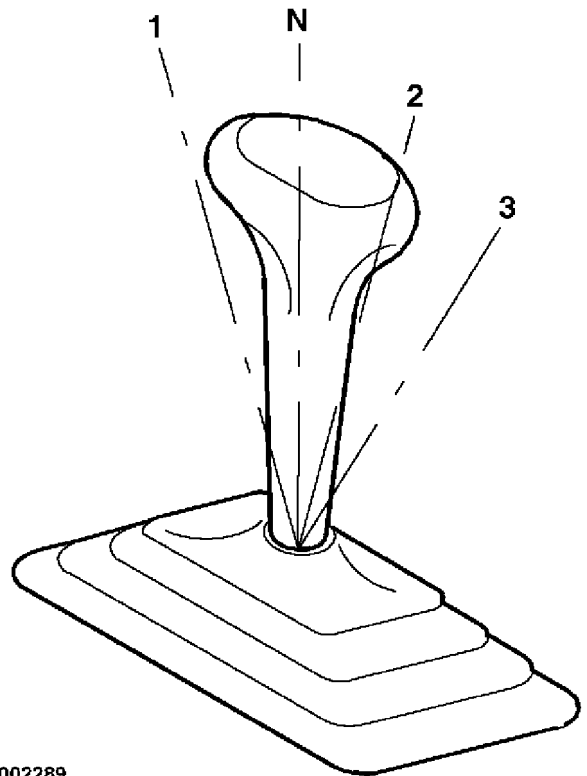
-UN-24MAR95
ZX002310

ZX,OMXZCO001465-19-27JAN92

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).



ZX 002289

ZX,OMXZCO001466-19-27JAN92

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ZX002289

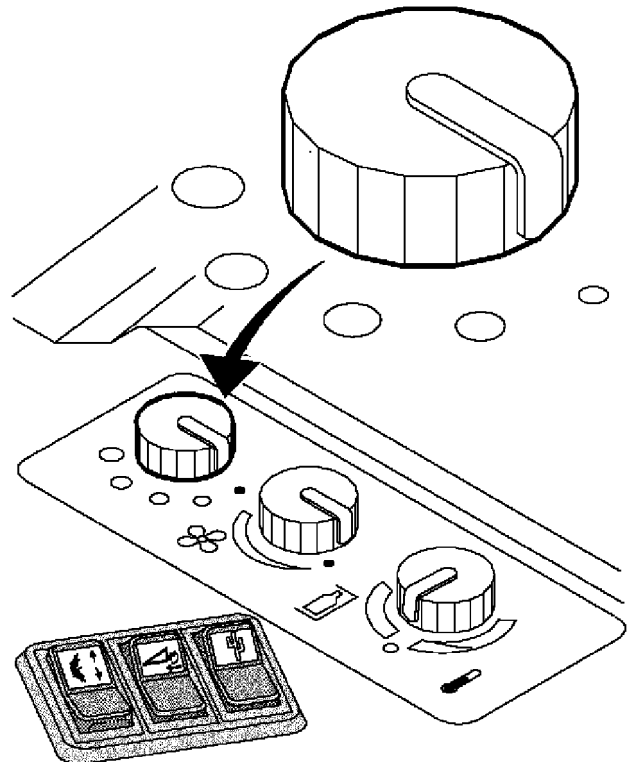
ROTARY FAN SWITCH

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).



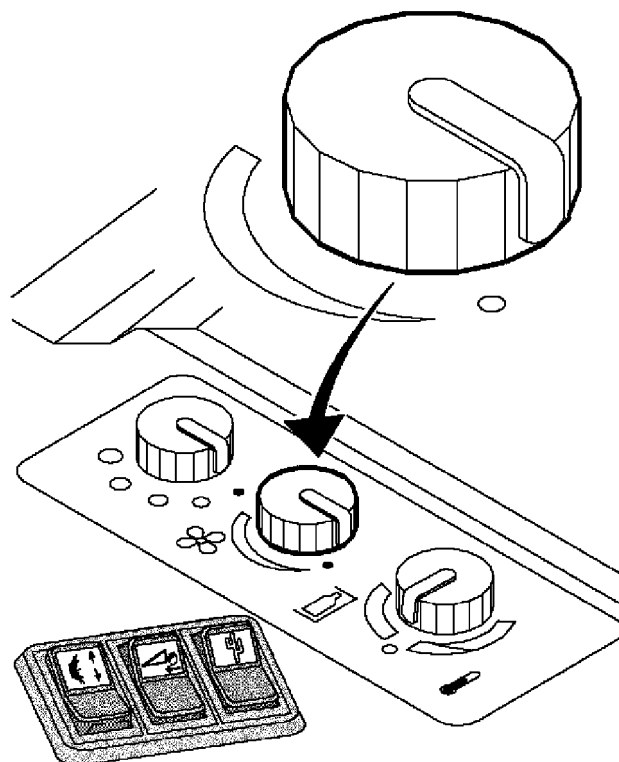
ZX009531

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ZX009531

ROTARY SWITCH — COOLING COMPARTMENT (WITH AIR CONDITIONING ONLY)

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



ZX009532

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ZX009532

ZX,OMXZCO001468-19-01NOV96

ROTARY SWITCH — AIR CONDITIONING/HEATER

I — Air Conditioning System

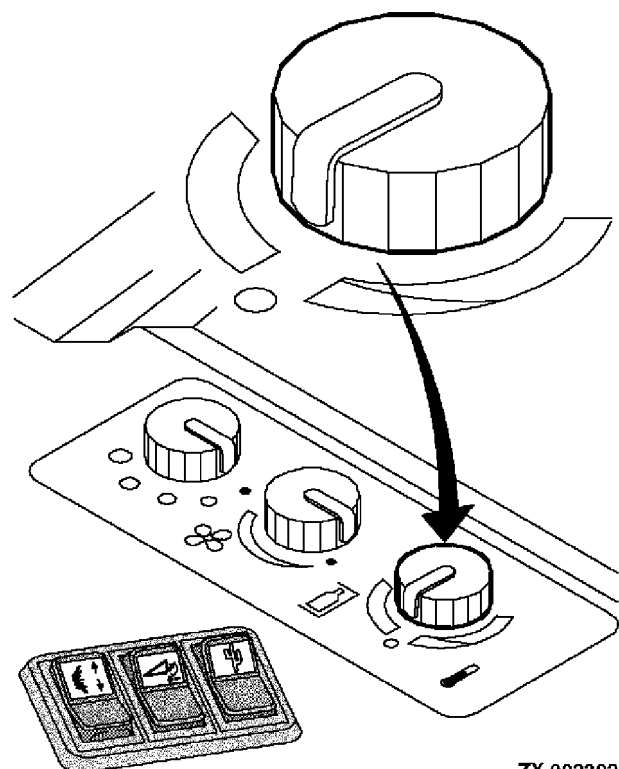
Before switching on the air conditioning system, the fan must be operating. Turn switch counterclockwise to switch on air conditioning. Turning switch all the way counterclockwise will give maximum cooling.

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”.



ZX 002302

-UN-16JUN95
ZX002302

ZX,OMXZCO001469-19-27JAN92

REEL SPEED ROCKER SWITCH (WITH CENTER POSITION)

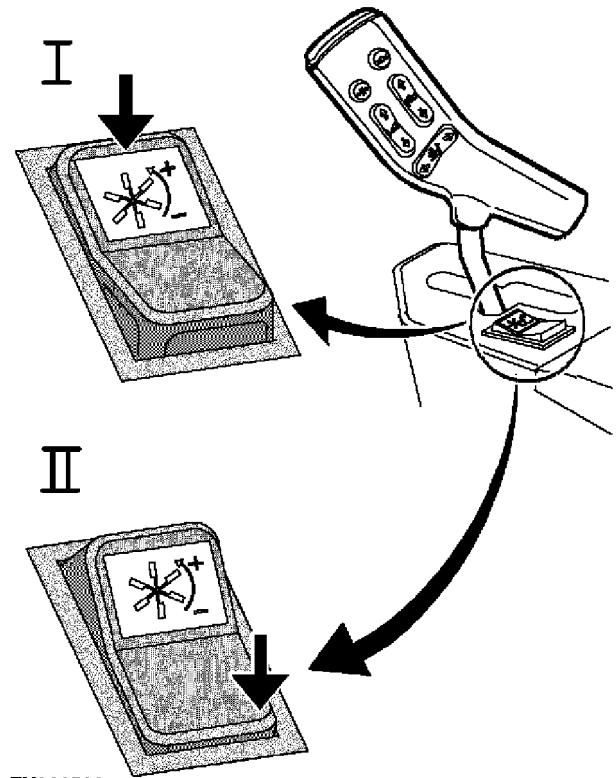
IMPORTANT: Operate the switch only when the reel is rotating.

NOTE: When the reel speed control system is switched on, the reel speed rocker switch can be used to bypass the control system. When the rocker switch is released, the reel speed control system operates normally again.

NOTE: Reel speed can also be controlled when using 825 cutting platforms equipped with hydrostatic reel drive.

Reel speed adjustment is only possible with engine running, road safety switch in field position, separator engaged and header drive switched on.

- I—Increase reel speed
- II—Reduce reel speed



ZX009533

ZX,OMXZC0001479-19-01NOV96

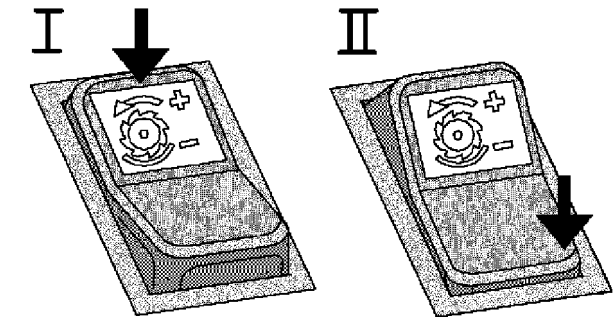
-UN-08NOV96
ZX009533

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

- I—Increase cylinder speed
- II—Reduce cylinder speed

ZX,OMXZC0001480-19-14NOV92

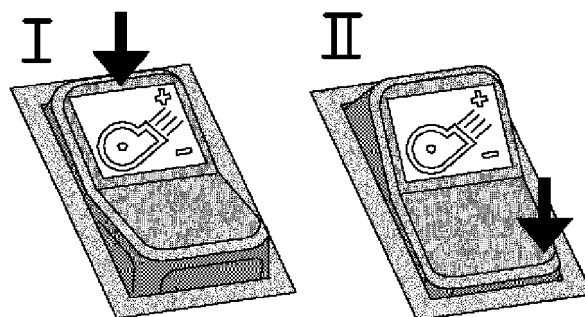
-UN-16JUN95
ZX002324

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

ZX,OMXZCO001482-19-14NOV92

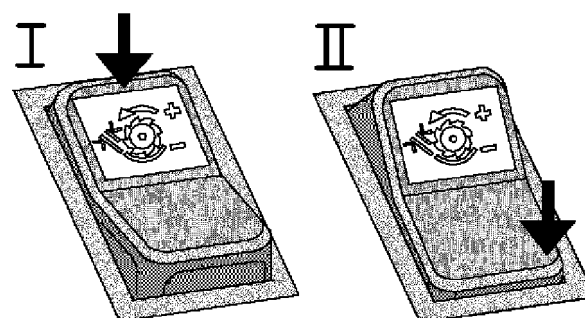
-UN-16JUN95
ZX002326

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 in millimetres on the infotrak monitor. Briefly touch switch (top or bottom part) to display actual setting for 5 seconds.

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



ZX 002325

I—Increase concave clearance
II—Reduce concave clearance

ZX,OMXZCO001481-19-01MAR95

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ZX002325

FOOT-OPERATED SWITCH FOR UNLOADING AUGER DRIVE

Requirements:

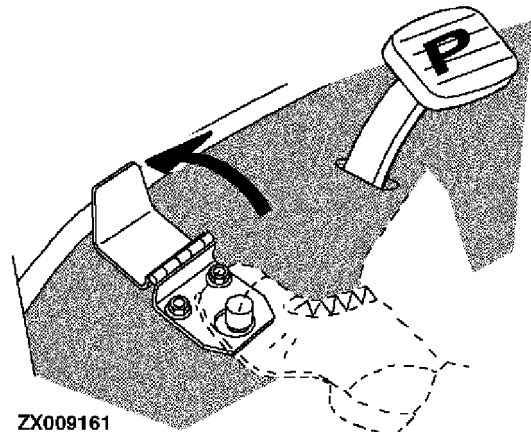
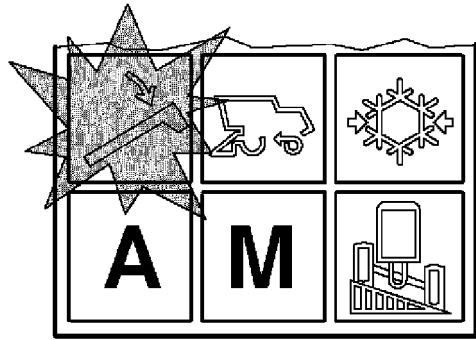
- Engine running
- Road safety switch in field position

Engaging Unloading Auger Drive

To engage the unloading auger drive, press the foot-operated switch. The indicator light comes on as soon as the drive is engaged.

Disengaging Unloading Auger Drive

To disengage the unloading auger drive, press the foot-operated switch once again.



ZX009161

ZX,OMXZC0006502-19-02MAY96

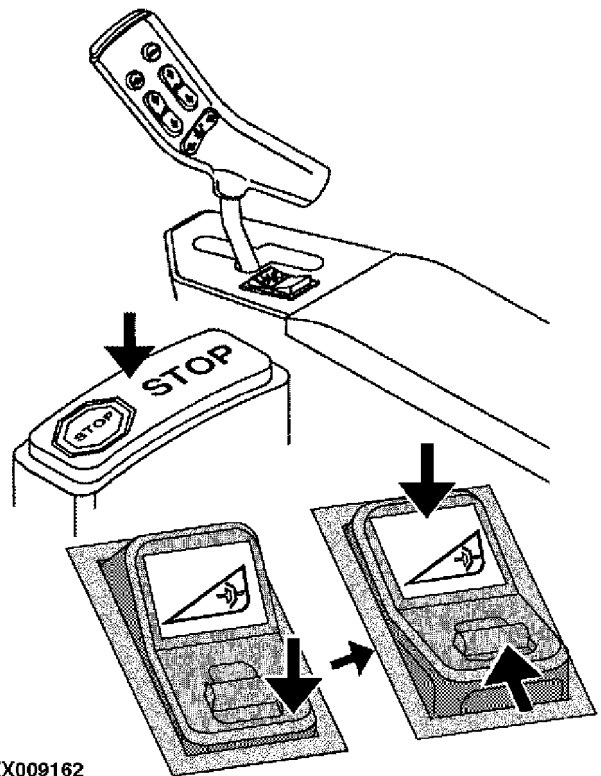
ZX009161 -UN-22MAY96

EMERGENCY CUT-OFF (STOP) SWITCH IN MULTI-FUNCTION LEVER

IMPORTANT: Header drive can be disengaged by this switch in the event of malfunctions.

When actuating cut-off switch, the automatic reel and header resume control functions are also interrupted.

To re-engage header drive, first switch off header drive switch, then switch on again. Before doing so, make sure that the malfunction has been corrected.



ZX009162

ZX,OMXZC0001484-19-02MAY96

ZX009162 -UN-22MAY96

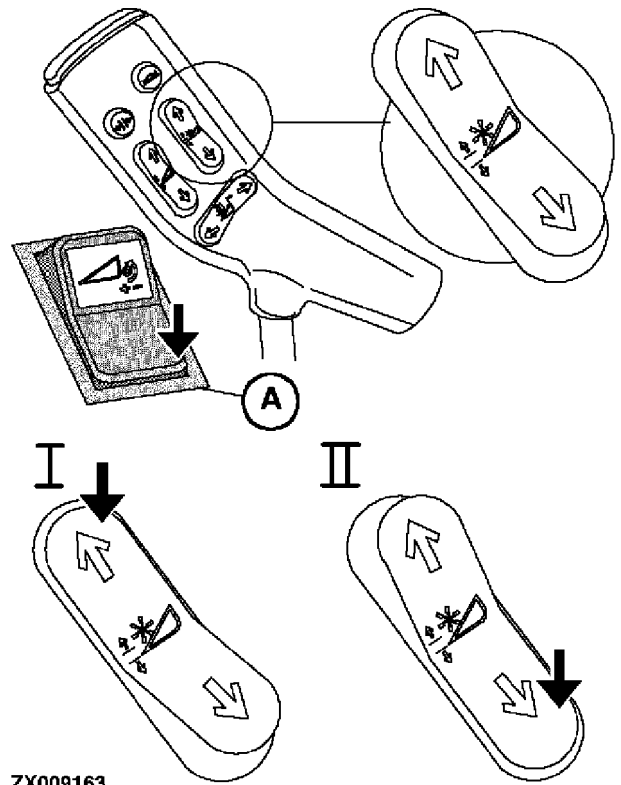
ROCKER SWITCH, REEL HEIGHT ADJUSTMENT/FEEDER HOUSE VARIATOR

NOTE: Setting feeder house variator by means of this switch is optional.

Adjustment of reel height/feeder house and header speeds is only possible with engine running and road safety switch in field position.

Reel Height Adjustment Function for Grain Harvest

- A—Tumbler switch, reel lift/feeder house variator
- I—Raise reel
- II—Lower reel



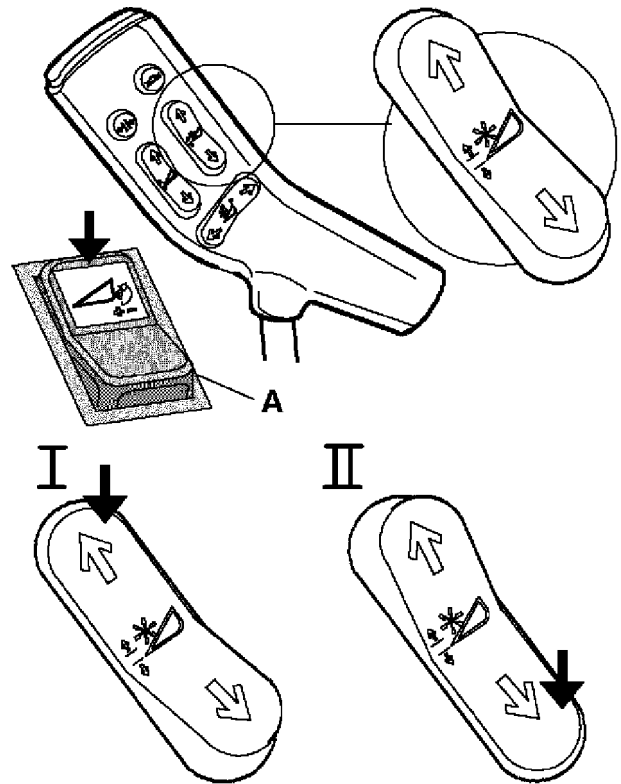
ZX009163

ZX,OMXZC0001487-19-02MAY96

ZX009163 -UN-22MAY96

Feeder House Variator Function for Corn (Maize) Harvest

- A—Tumbler switch, reel lift/feeder house variator
- I—Increase feeder house speed
- II—Reduce feeder house speed



ZX009164

ZX,OMXZC0001800-19-02MAY96

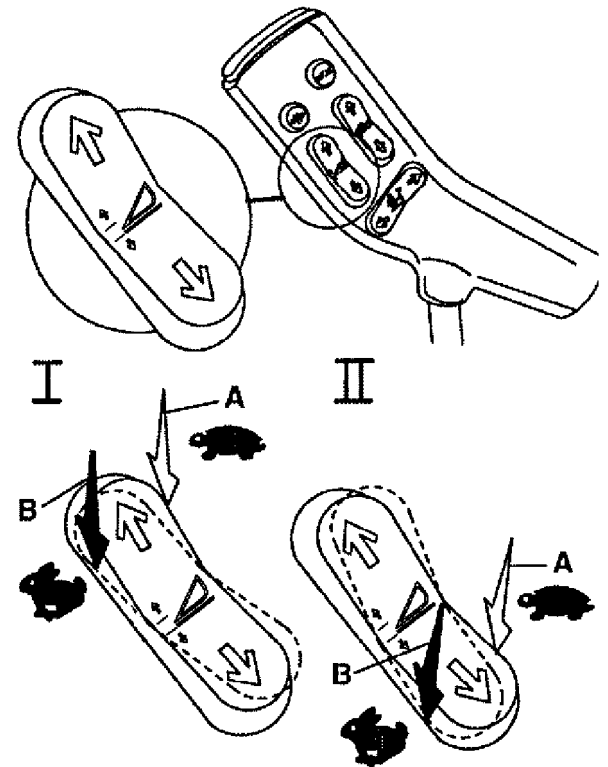
ZX009164 -UN-22MAY96

ROCKER SWITCH, RAISE/LOWER HEADER

Raising or lowering header is only possible with engine running and road safety switch in field position.

Two speeds are available for raising and lowering header

- I —Raise header
 - A—Slow speed (1st stage of switch)
 - B—Fast speed (2nd stage of switch)
- II—Lower header
 - A—Slow speed (1st stage of switch)
 - B—Fast speed (2nd stage of switch)



ZX009165

ZX,OMXZC0001488-19-02MAY96

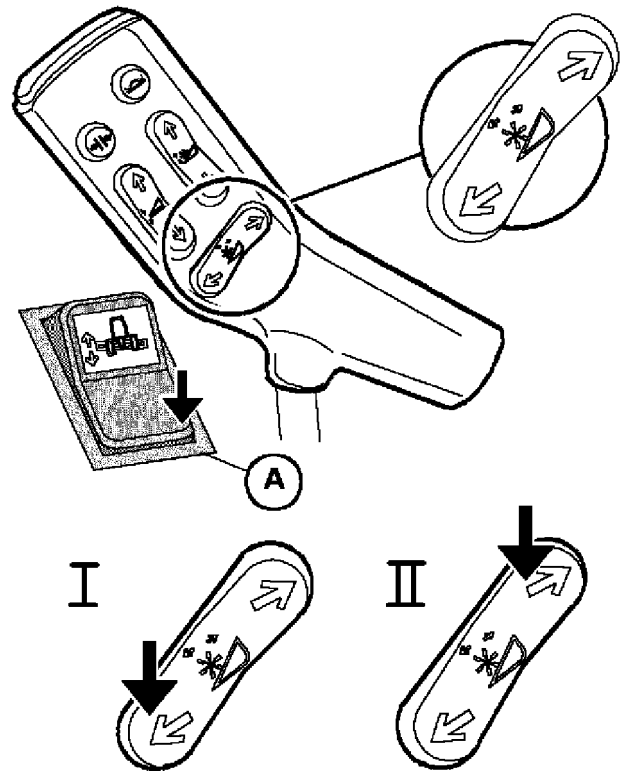
-UN-22MAY96
ZX009165

ROCKER SWITCH, REEL FORE-AND-AFT ADJUSTMENT AND HEADER PARALLEL ADJUSTMENT

Fore-and-Aft Adjustment of Reel

Reel fore-and-aft adjustment is only possible with the engine running, the road safety switch in field position and switch (A) pressed at the end without the symbol on it.

- A—Tumbler switch, adjust header parallel and reel fore-and-aft
- I—Move reel to the rear
- II—Move reel forward



ZX009166

ZX,OMXZC0001489-19-02MAY96

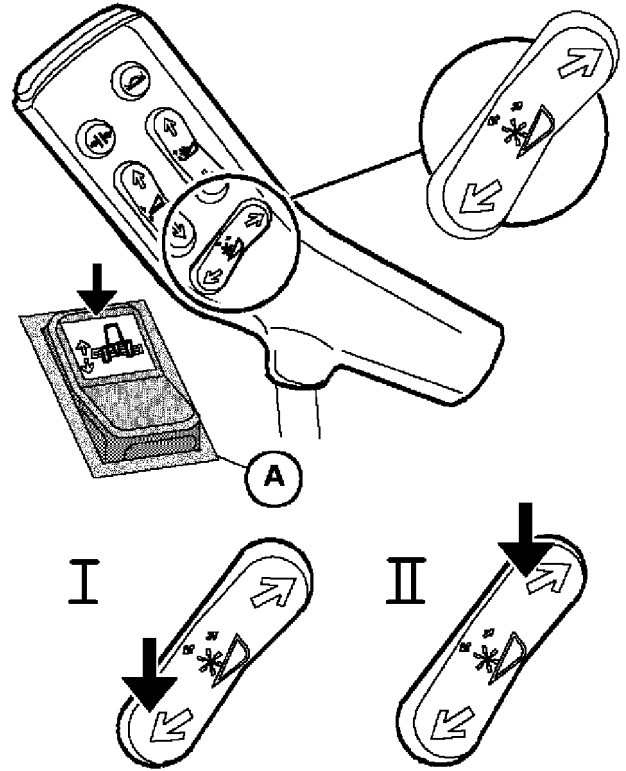
-UN-22MAY96
ZX009166

ROCKER SWITCH, REEL FORE-AND-AFT ADJUSTMENT AND HEADER PARALLEL ADJUSTMENT

Header Parallel Adjustment

Header parallel adjustment is only possible with the engine running, the road safety switch in field position and switch (A) pressed at the end with the symbol on it.

- A—Tumbler switch, adjust header parallel and reel fore-and-aft
- I—Header tilts to the left
- II—Header tilts to the right



ZX009167

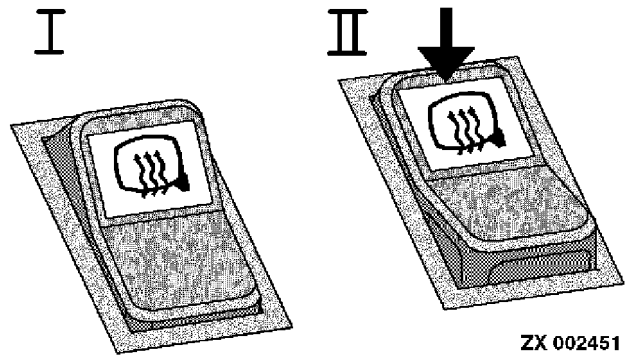
ZX,OMXZC0006503-19-02MAY96

-UN-22MAY96
ZX009167

MIRROR HEATER TUMBLER SWITCH (OPTION)

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

ZX,OMXZC0001801-19-13NOV92

-UN-16JUN95
ZX002451

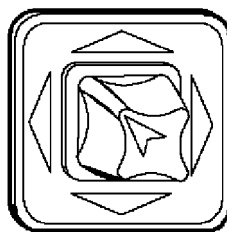
SWITCH FOR ELECTRICALLY ADJUSTABLE OUTSIDE MIRRORS (OPTION)

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.

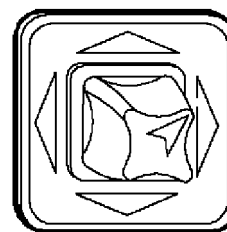
- I—Adjusting l.h. outside mirror
- II—Adjusting r.h. outside mirror

I



ZX 002452

II



ZX002452 -JUN-16-JUN95

ZX,OMXZCO001802-19-10JUN92

WINDSHIELD WIPER TUMBLER/ROCKER SWITCH

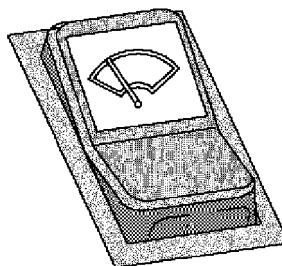
Ignition must be turned on for windshield wiper operation.

I— Windshield wiper off

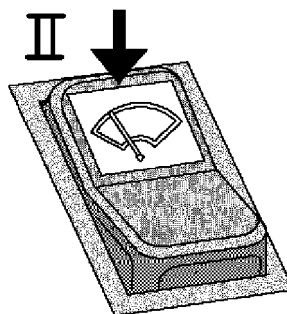
II— Tumbler switch function
Windshield wiper operates continuously.

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

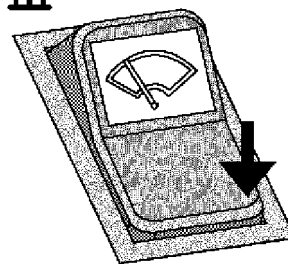
I



II



III



ZX 002317

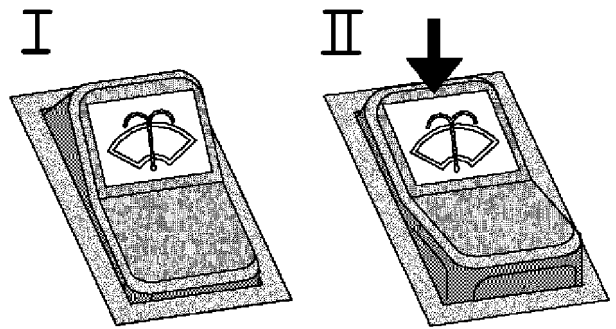
ZX,OMXZCO001490-19-27JAN92

ZX002317 -JUN-16-JUN95

WINDSHIELD WASHER ROCKER SWITCH

Ignition must be turned on for windshield washer operation.

- I—Windshield washer off
- II—Windshield washer on



ZX 002318

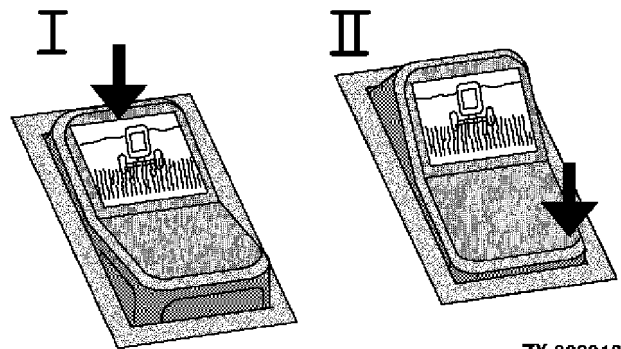
-UN-16JUN95
ZX002318

ZX,OMXZCO001491-19-27JAN92

ROAD SAFETY TUMBLER SWITCH

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.



ZX 002319

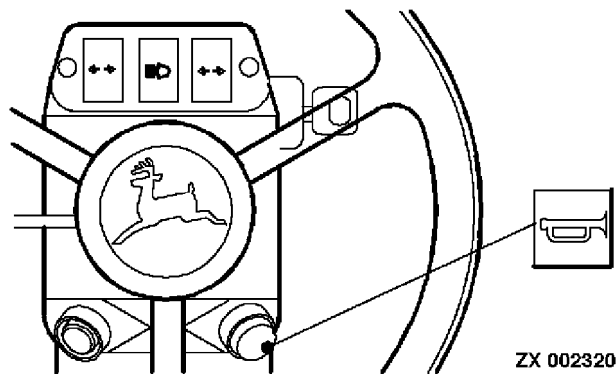
-UN-16JUN95
ZX002319

- I—Field position
- II—Road position

ZX,OMXZCO001492-19-27JAN92

HORN BUTTON

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



ZX 002320

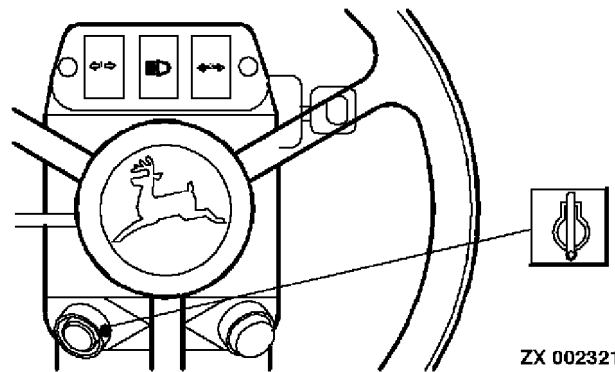
-UN-03APR95
ZX002320

ZX,OMXZCO001493-19-13NOV92

COLD WEATHER STARTING AID BUTTON

The starting aid will only operate with:

- Ground speed drive lever in neutral position
- Ignition turned on



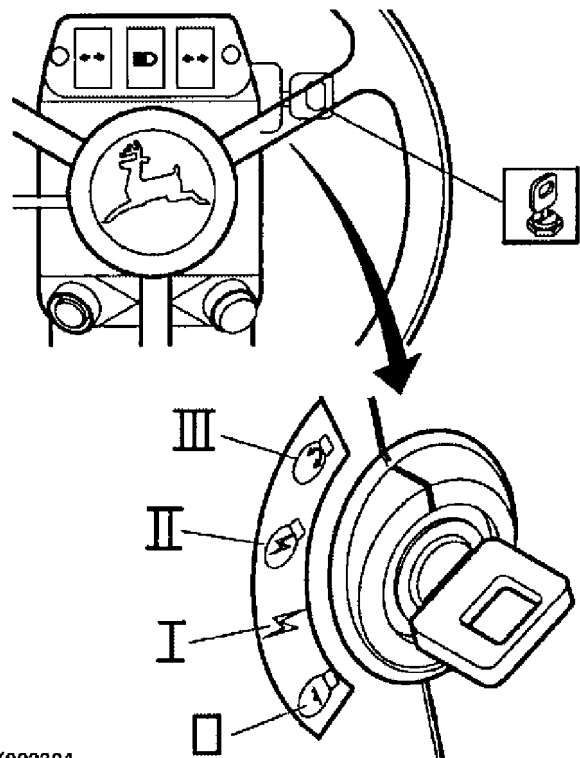
-UN-03APR95
ZX002321

ZX,OMXZC0001494-19-04DEC92

STARTER SWITCH

The starter switch has 4 positions:

- 0 — Off
- I — Circuits for electronic components, radio and Citizens' Band radio on
- II — Ignition on
- III — Start position



-UN-03APR95
ZX002394

ZX,OMXZC0001495-19-04DEC92

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 or emergency cut-off 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.

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

III — Engage header drive. Run header and feeder house in reverse to free “slug”.

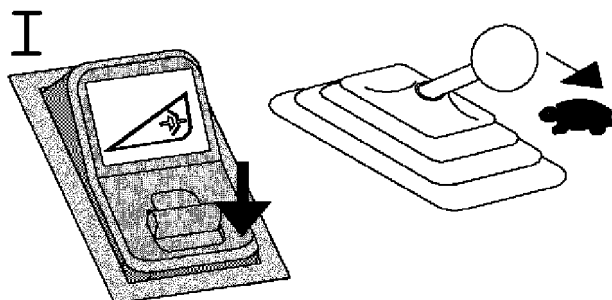
As soon as crop accumulations have been completely removed from machine, disengage header drive.

IV — Step on right-hand side of reverser pedal. Momentarily engage header drive to shift to forward operation again.

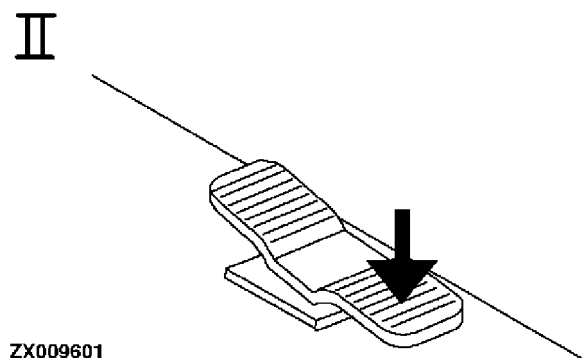
Repeat this procedure to shift to forward operation, if necessary.

Run engine at high speed and resume harvesting.

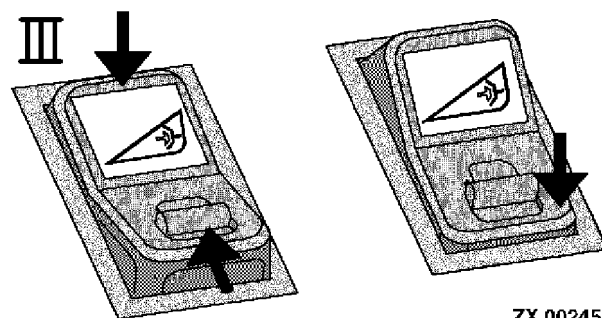
IMPORTANT: During reverser operation, never attempt to force “slugs” through combine by repeated cycling of reverser drive. Repeated cycling shortens the life of components.



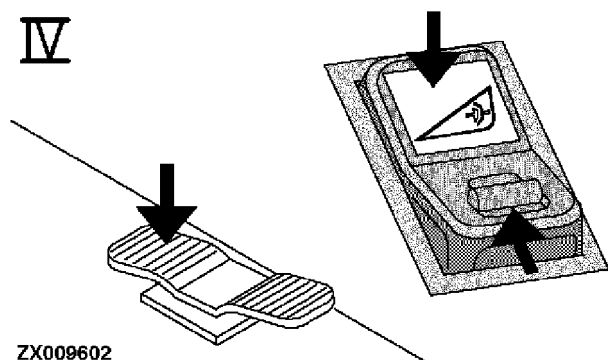
ZX 002453



ZX009601



ZX 002455



ZX009602

Warning Devices and Monitors

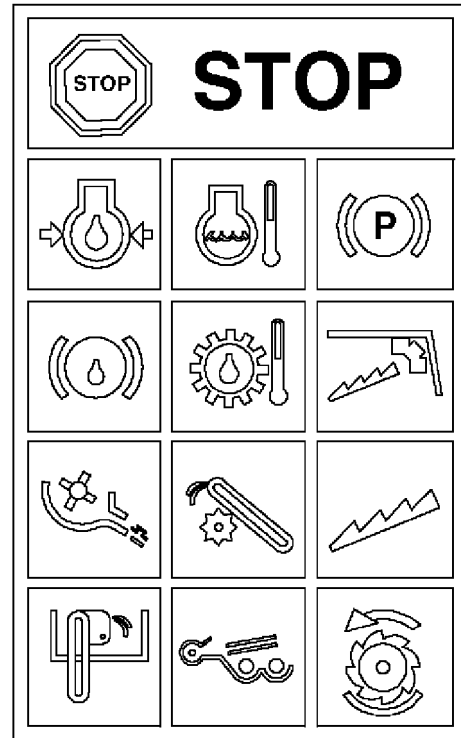
INDICATOR LIGHTS I

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

Priority 1:

Red warning lights with continuous acoustical warning signal

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



ZX009598

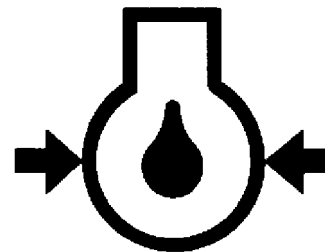
ZX,OMXZC0001496-19-01NOV96

ZX009598 -UN-08NOV96

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 000331

ZX,OMSPFH000169-19-26MAR91

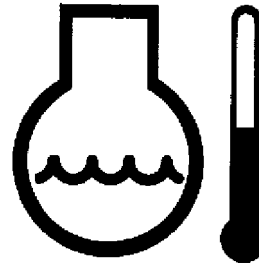
ZX000331 -UN-03APR95

COOLANT TEMPERATURE AND CHARGE AIR TEMPERATURE INDICATOR LIGHT

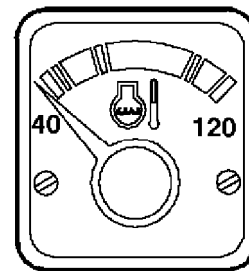
lights up if coolant temperature exceeds 108°C (226°F) and/or if the charge air temperature exceeds 88°C (190°F).

NOTE: If this indicator light comes on, check the coolant temperature gauge. If the needle is in the yellow/green zone (40°C— 105°C; 140°F — 221°F), coolant temperature is OK and the charge air temperature is too high.

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



ZX 000 332



ZX 002468

ZX,OMSPFH000170-19-01NOV96

-UN-03APR95

ZX000332

-UN-03APR95

ZX002468

PARKING BRAKE INDICATOR LIGHT

lights up if parking brake is applied and ground speed lever is not in neutral position.



ZX 000 333

ZX,OMSPFH000171-19-18JAN91

-UN-03APR95

ZX000333

BRAKE FLUID INDICATOR LIGHT

lights up if brake fluid level in reservoir is too low.

— Top up reservoir immediately.
— If a leak is the cause of brake fluid loss, have it repaired at once.



ZX 000 334

ZX,OMSPFH000172-19-01MAR93

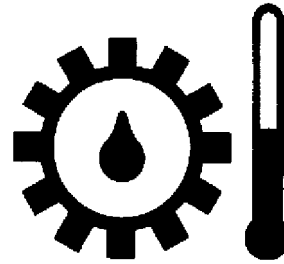
-UN-03APR95

ZX000334

HYDRAULIC OIL TEMPERATURE INDICATOR LIGHT

lights up if oil temperature exceeds 88°C (190°F).

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



ZX 000335

ZX,OMXZCO001497-19-27JAN92

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

ZX,OMXZCO001498-19-27JAN92

ZX002331 -UN-02JUL96

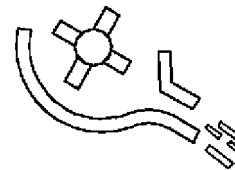
STRAW CHOPPER SPEED/CHAFF SPREADER INDICATOR LIGHT

lights up if a straw chopper malfunction (speed drop) occurs.

With Engine Shut Off and Chopper Rotor Stopped:

- Check belt tension.
- Check straw chopper for plugging.
- Check chaff spreader drive.

ZX 002332



ZX,OMXZCO001499-19-13NOV92

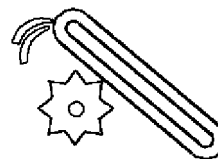
ZX002332 -UN-16JUN95

TAILINGS ELEVATOR INDICATOR LIGHT

lights up if a tailings elevator malfunction (speed drop) occurs.

With Engine Shut Off and Separator Stopped:

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



ZX 002333

ZX.OMXZCO001500-19-10JUN92

ZX002333
-UN-16JUN95

STRAW WALKER INDICATOR LIGHT

lights up if a straw walker malfunction (speed drop) occurs.

With Engine Shut Off and Straw Walkers Stopped:

- Check drive.
- Check for plugging.



ZX 002334

ZX.OMXZCO001501-19-10JUN92

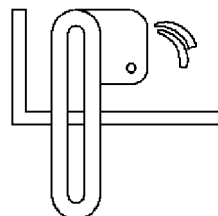
ZX002334
-UN-16JUN95

CLEAN GRAIN ELEVATOR INDICATOR LIGHT

lights up if a clean grain elevator malfunction (speed drop) occurs.

With Engine Shut Off and Separator Stopped:

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



ZX 002335

ZX.OMXZCO001502-19-10JUN92

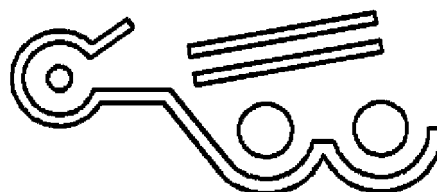
ZX002335
-UN-16JUN95

FAN INDICATOR LIGHT

lights up if speed drops to alarm speed or even lower.

With Engine Shut Off and Separator Stopped:

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



ZX009599

-JUN-08NOV96

ZX009599

ZX.OMXZCO001503-19-01NOV96

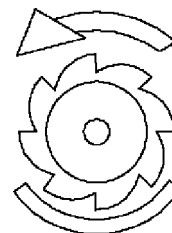
THRESHING CYLINDER INDICATOR LIGHT

lights up if speed drops to alarm speed or even lower.

- 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

-JUN-16JUN95

ZX002337

ZX.OMXZCO001504-19-10JUN92

INDICATOR LIGHTS II

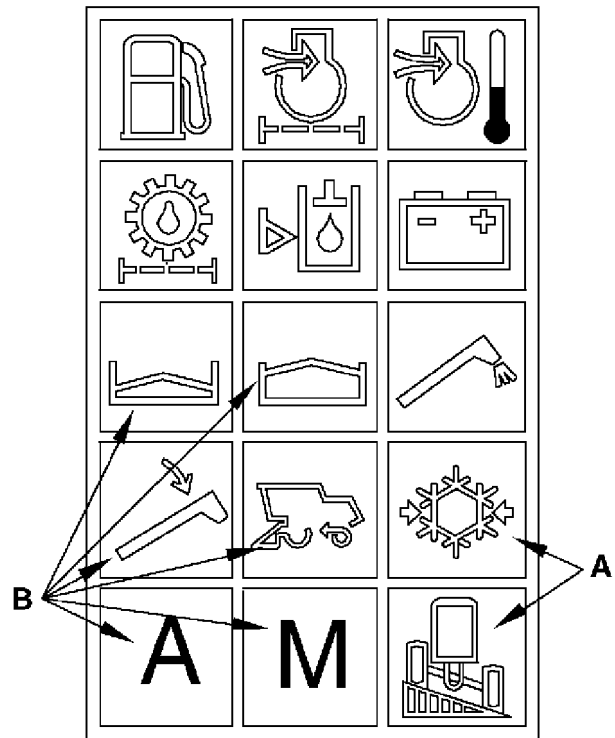
These indicator lights monitor combine functions with priority 2 and 3.

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



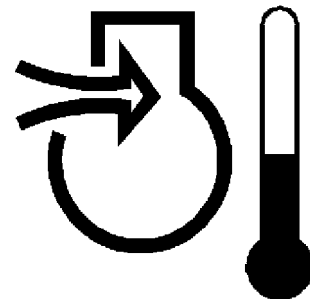
ZX007336

ZX,OMXZCO001505-19-01MAR95

-UN-19JUN95
ZX007336

INTERCOOLER INDICATOR LIGHT

NOTE: This indicator light is not used.



ZX007337

ZX,OMXZCO004086-19-02MAR95

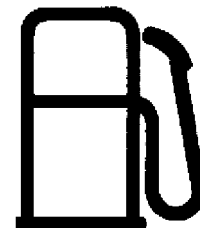
-UN-19JUN95
ZX007337

FUEL LEVEL INDICATOR LIGHT

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

— Fill fuel tank. Capacity:

- 2254, 2256, 2258, 2264: 450 L (119 U.S. gal)
- 2266: 550 L (145.3 U.S. gal)



ZX 000 340

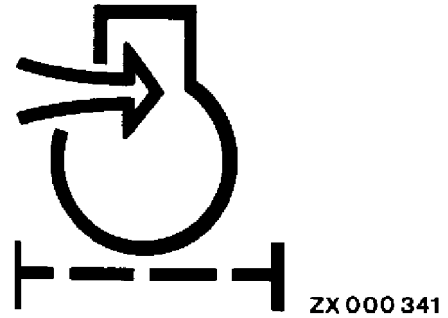
ZX,OMXZCO001506-19-01NOV96

-UN-03APR95
ZX000340

AIR CLEANER INDICATOR LIGHT

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

- Clean air cleaner element(s).



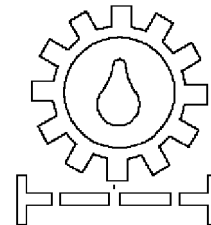
ZX,OMSPFH000180-19-18JAN91

ZX000341 -UN-03APR95

HYDRAULIC OIL FILTER INDICATOR LIGHT

lights up if cleaning action of filters is not sufficient (i.e. if a pressure difference of 270 kPa (2.7 bar; 39.2 psi) occurs in the return line between the filter inlet and outlet).

- Change hydraulic oil filter at machines's solenoid valve block at the end of the working day.



ZX,OMXZCO001507-19-04DEC92

ZX002339 -UN-16JUN95

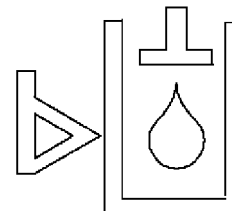
HYDRAULIC OIL LEVEL INDICATOR LIGHT

lights up if hydraulic oil level drops below minimum.

- Add hydraulic oil.

If larger quantities of oil are lost suddenly (e.g by leakage) and hydraulic oil level drops below minimum, "STOP" light of indicator light unit I will glow and the buzzer will sound (continuous tone).

- Shut off engine immediately.



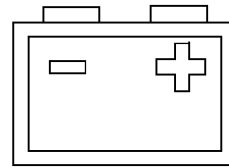
ZX,OMXZCO001508-19-27JAN92

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.



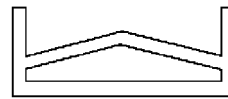
ZX 002341

ZX,OMXZCO001509-19-27JAN92

-UN-16JUN95
ZX002341

GRAIN TANK INDICATOR LIGHT (1/2)

lights up when grain tank is 1/2 full.



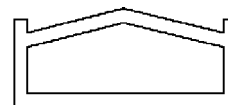
ZX 002342

ZX,OMXZCO001510-19-27JAN92

-UN-16JUN95
ZX002342

GRAIN TANK INDICATOR LIGHT (3/4)

lights up when grain tank is 3/4 full.



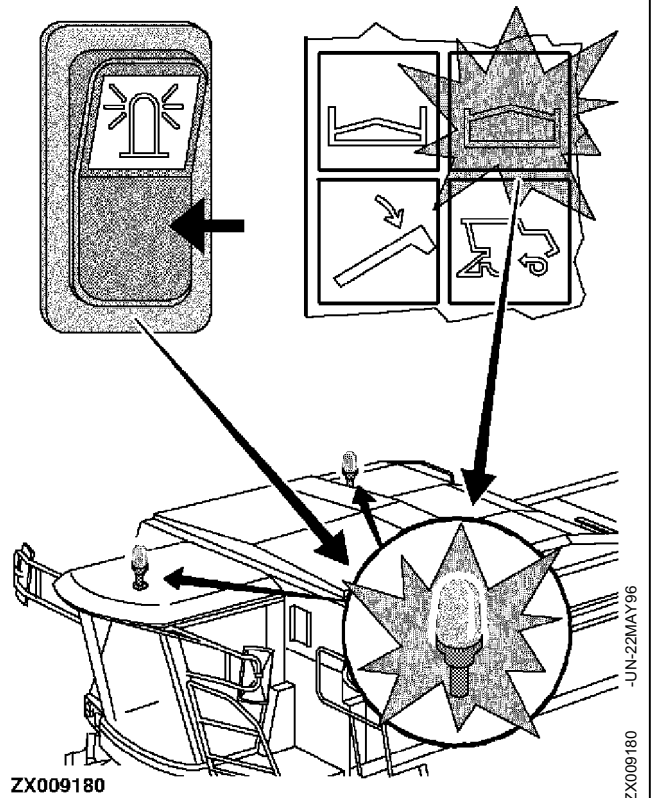
ZX 002343

ZX,OMXZCO001511-19-27JAN92

-UN-16JUN95
ZX002343

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.

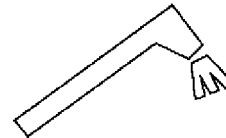


ZX,OMXZCO006544-19-02MAY96

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.

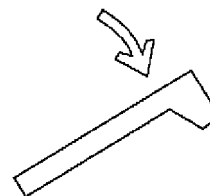


ZX 002344

ZX,OMXZCO001512-19-27JAN92

UNLOADING AUGER DRIVE INDICATOR LIGHT

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



ZX 002348

ZX,OMXZCO006504-19-02MAY96

FOUR WHEEL DRIVE INDICATOR LIGHT

lights up as soon as four wheel drive is switched on.



ZX 000349

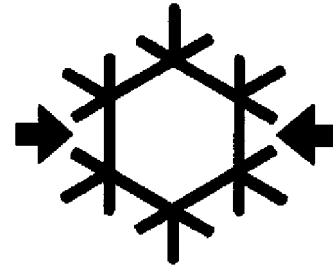
ZX,OMSPFH000187-19-18JAN91

-UN-03APR95
ZX000349

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

ZX,OMSPFH000188-19-26MAR91

-UN-03APR95
ZX000350

LEVELING SYSTEM INDICATOR LIGHT (AUTOMATIC OPERATION)

lights up as soon as automatic leveling system is switched on.



ZX 002345

ZX,OMXZCO001513-19-27JAN92

-UN-16JUN95
ZX002345

LEVELING SYSTEM INDICATOR LIGHT (MANUAL OPERATION)

lights up as soon as leveling system is switched to manual operation.



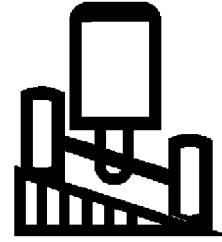
ZX 002346

ZX,OMXZCO001514-19-27JAN92

-UN-16JUN95
ZX002346

TILT LIMIT INDICATOR LIGHT

lights up as soon as maximum tilt position has been reached (with leveling system switched on).



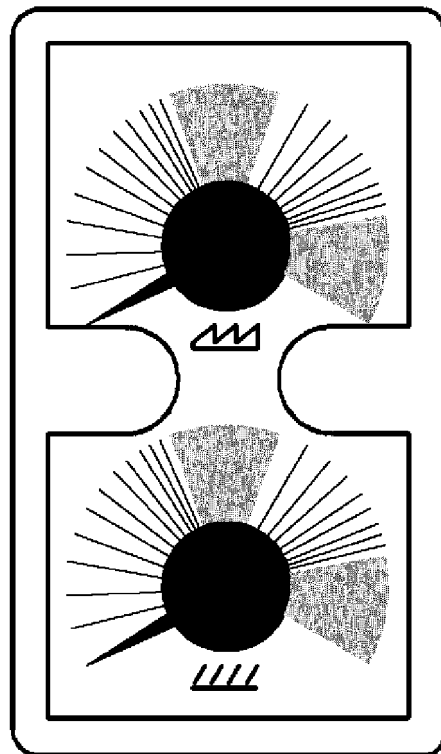
ZX 002347

ZX,OMXZCO001515-19-27JAN92

ZX002347 -UN-16-JUN95

HARVEST PERFORMANCE MONITOR GAUGE

For detailed information, refer to "Harvest Performance Monitor".



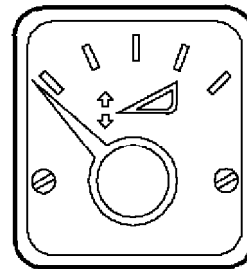
ZX009168

ZX,OMXZCO006505-19-02MAY96

ZX009168 -UN-22MAY96

HEADER HEIGHT GAUGE

shows header height in relation to the ground.



ZX 002349

ZX,OMXZCO001517-19-27JAN92

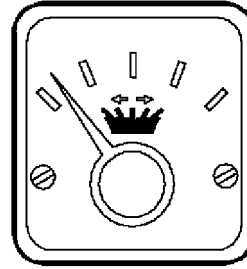
ZX002349 -UN-03APR95

DISTRIBUTOR PLATE GAUGE

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



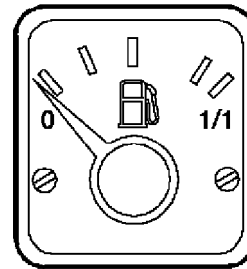
ZX 002457

ZX.OMXZC0001804-19-24MAR92

ZX002457 -UN-16JUN95

FUEL GAUGE

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



ZX 002467

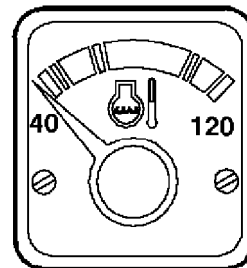
ZX_OMMD1 000516-19-25APR91

ZX002467 -UN-03APR95

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.



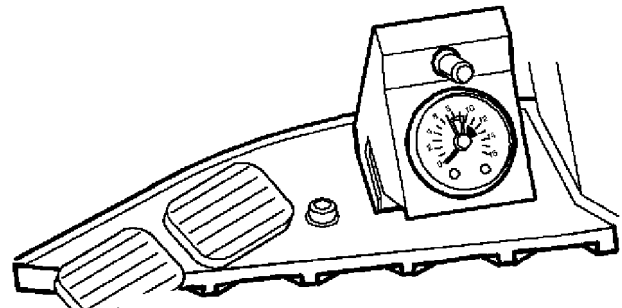
ZX 002468

ZX.OMXZC0001863-19-13APR92

ZX002468 -UN-03APR95

GROUND PRESSURE GAUGE

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



ZX 006903

ZX.OMUSFH003822-19-01NOV94

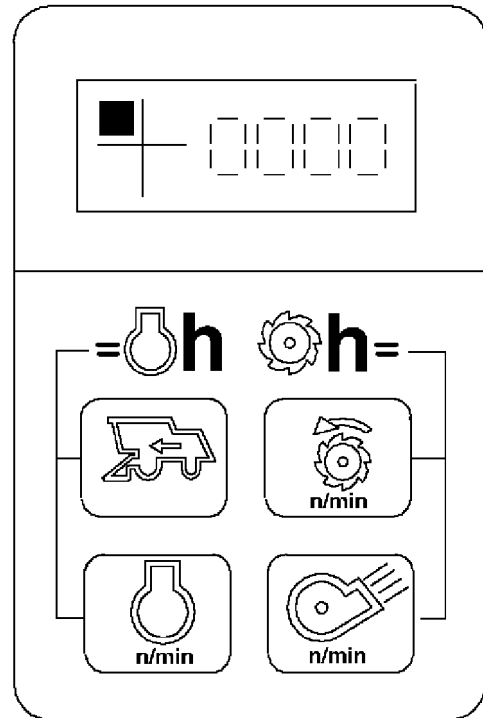
ZX006903 -UN-03APR95

INFOTRAK MONITOR

The infotrak monitor displays ground and other speeds, concave spacing, operating and working hours.

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

In addition, error codes and service intervals are displayed.



ZX 002351

ZX,OMXZC0001544-19-14NOV92

ZX002351 -UN-16JUN95

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.

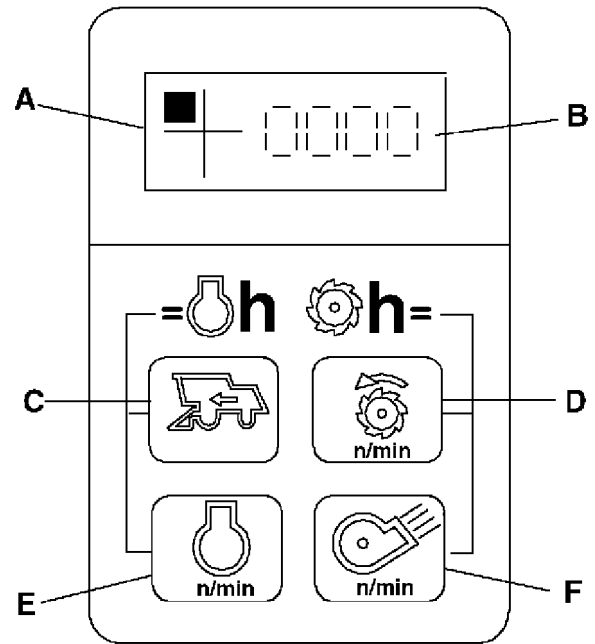
B — Display Panel (4 Digits):

shows the figure called up previously.

Possibilities: Ground and other speeds, operating or working hours

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. 122**E**.



ZX 002352

C — Key for ground speed display (I)

D — Key for cylinder speed display (II)

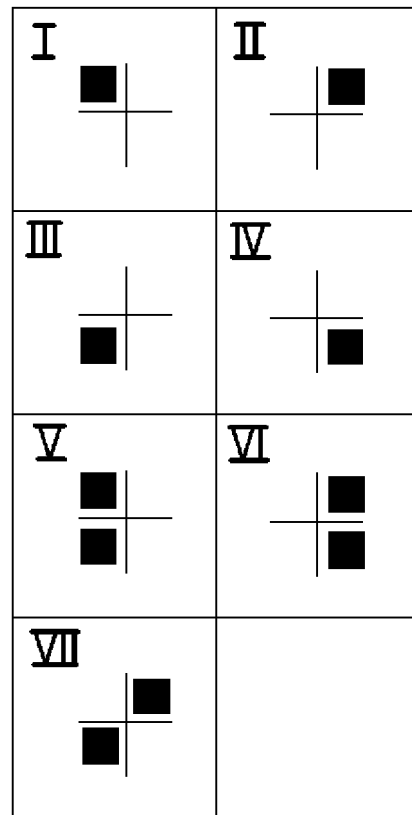
E — Key for engine speed display (III)

F — Key for fan speed display (IV)

C + E — Key combination for operating hour display (engine) (V)

D + F — Key combination for working hour display (cylinder) (VI)

D + E — Key combination for deleting SERVICE information "SEU" (VII)



ZX 002353

ZX,OMXZCO001519-19-01MAR95

-UN-16JUN95
ZX002352

-UN-16JUN95
ZX002353

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. This will also ensure correct area counter operation.

Activate Input Status

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

Data Input

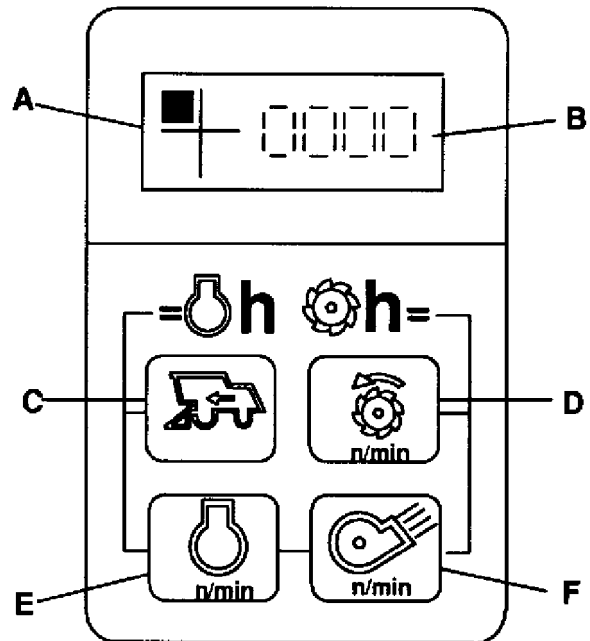
Press key (C): displayed value will increase.
Press key (E): displayed value will decrease.

Data Storage

Press key combination (D + F). 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).



ZX 002352

- A—Position indicator
- B—Display panel
- C—Key for ground speed display
- D—Key for cylinder speed display
- E—Key for engine speed display
- F—Key for fan speed display

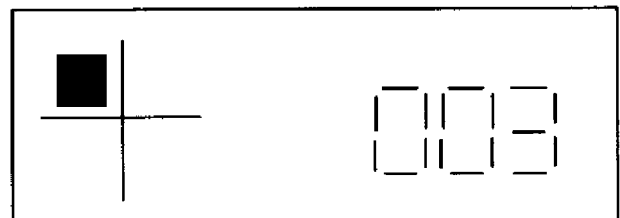
ZX,OMXZC0001834-19-14NOV92

-UN-28APR95
ZX002352

MACHINE CODE

Input code for mph:
03 — Combine

Input code for km/h:
23 — Combine



ZX 002483

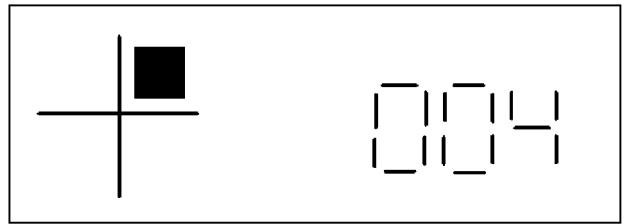
ZX,OMXZC0001835-19-13APR92

-UN-28APR95
ZX002483

TRANSMISSION SPEED RATIO CODE

04 — Final drive (104/11)

02 — Planetary final drive



ZX010116

ZX.OMXZC0007347-19-21NOV96

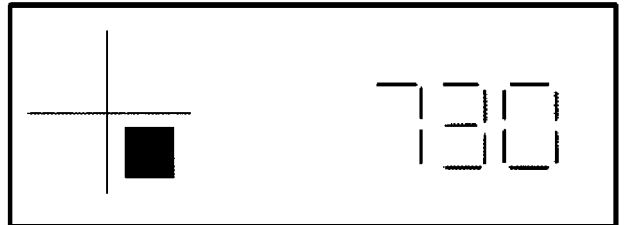
ZX010116
-JUN-22NOV96

TIRE RADIUS CODE

For input of tire radius code, use actual tire radius. For machines with machine code 03, the radius must be keyed in in inches. For machines with machine code 23, the radius must be keyed in in millimeters.

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

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



ZX000532

ZX.OMXZC0001837-19-13APR92

ZX000532
-JUN-16JUN95

DETERMINING TIRE RADIUS

Requirements:

- Combine on solid ground
- Correct tire pressures
- Combine steering wheels in straight-ahead position

Mark tire and ground with dashes.

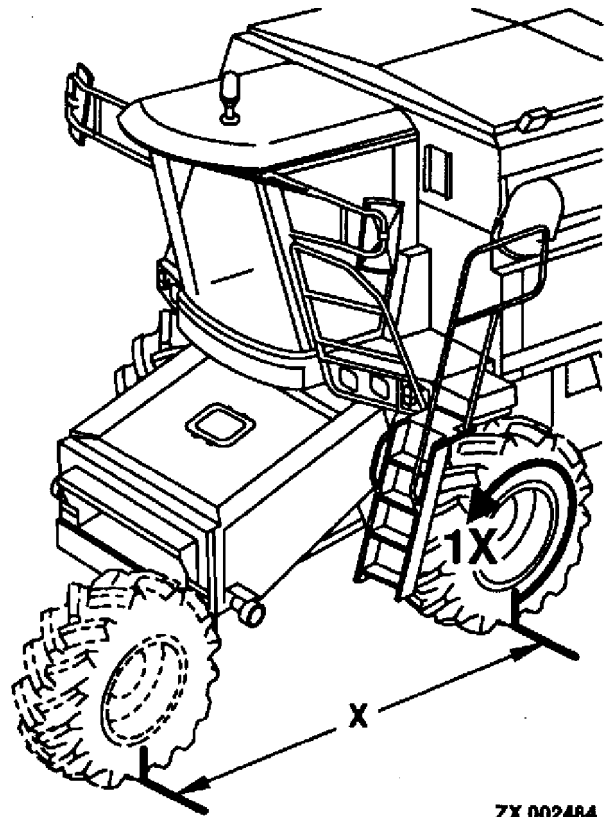
Drive combine until marked tire has completed one revolution.

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.



ZX 002484

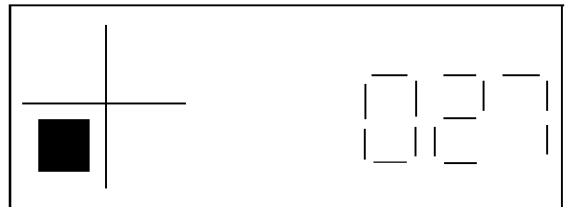
ZX,OMXZC0001838-19-14NOV92

ZX002484 -UN-28APR95

ENGINE IMPULSE CODE

24 — 2254 combine

27 — 2256—2266 combines



ZX 002485

ZX,OMXZC0001839-19-01NOV96

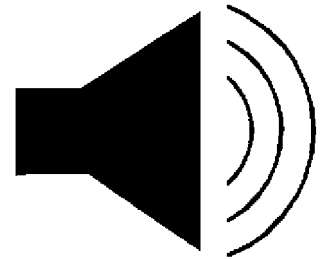
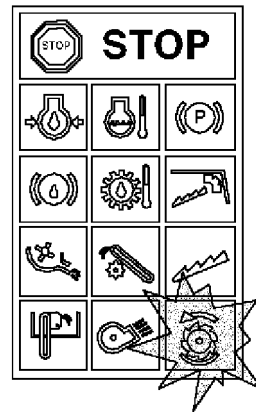
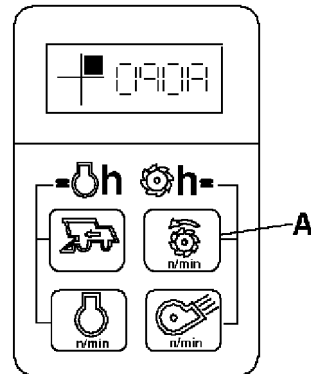
ZX002485 -UN-16JUN95

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.



ZX 002354

ZX,OMXZC0001520-19-14NOV92

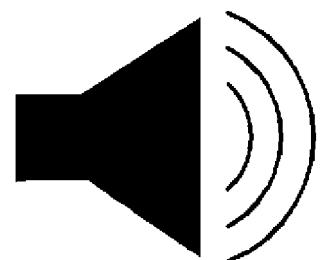
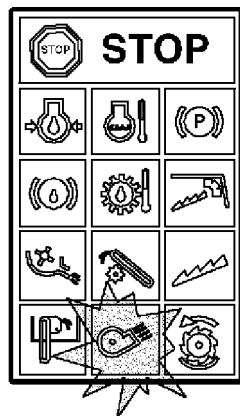
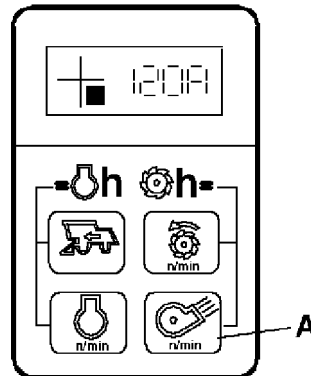
-UN-16JUN95
ZX002354

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.



ZX 002469

ZX,OMXZC0001833-19-14NOV92

-UN-16JUN95
ZX002469

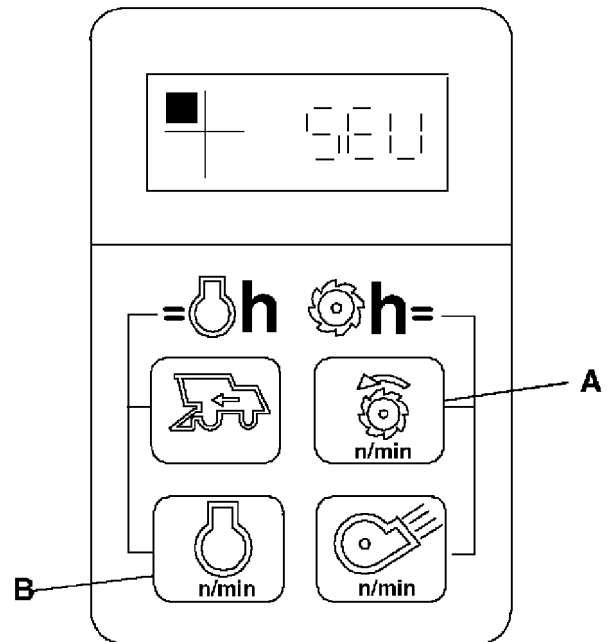
INFOTRAK MONITOR SERVICE INFORMATION

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.

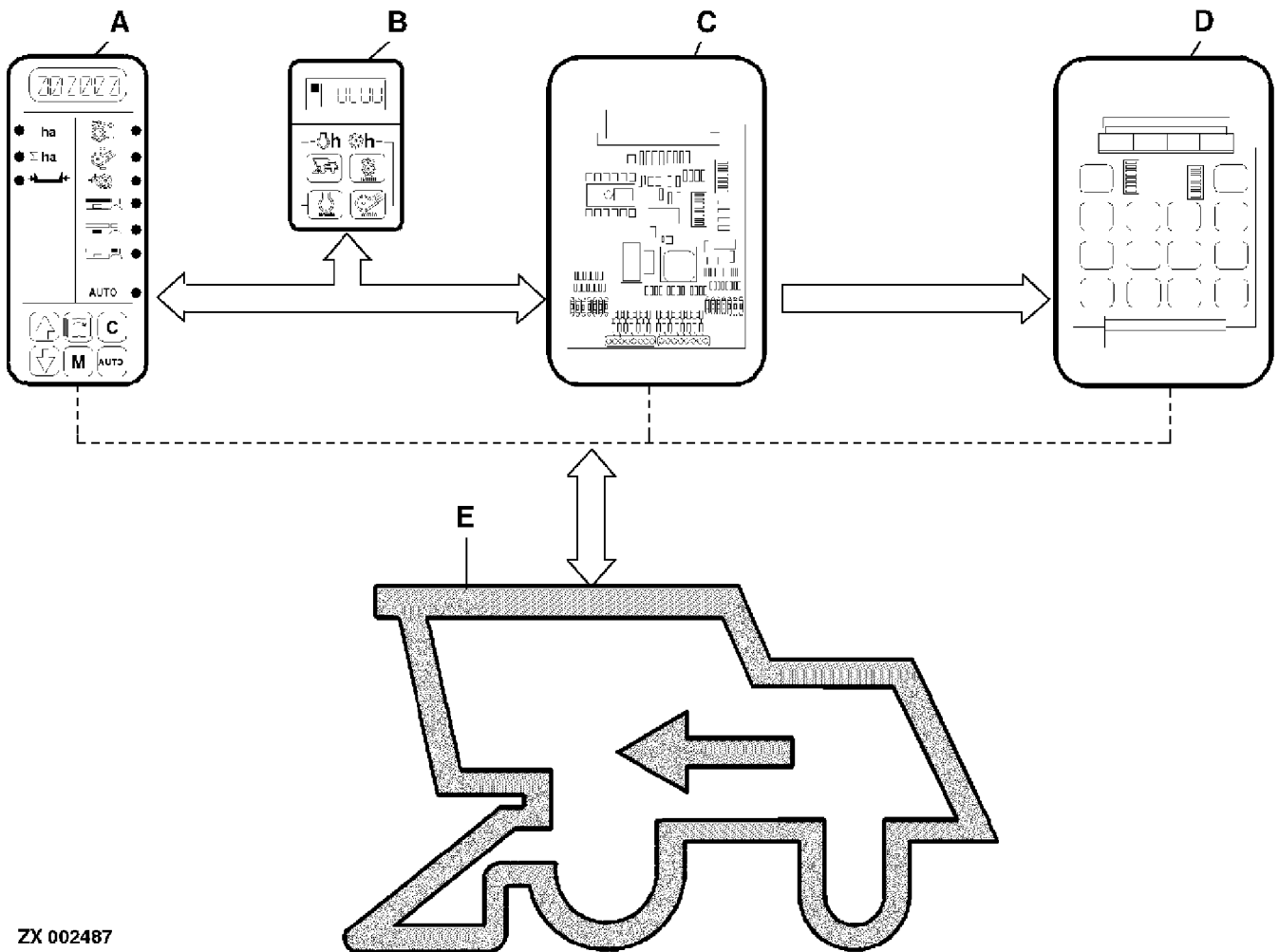


ZX 002355

ZX,OMXZC0001521-19-14NOV92

ZX002355 -UN-16JUN95

SYSTEM COMPONENTS (“AREA COUNTER” AND “AUTOMATIC MACHINE ADJUSTMENTS”)



ZX 002487

A—Combine data center
 B—Infotrak monitor
 C—Control board (for automatic machine adjustments only)

D—Relay board
 E—Combine (Sensors, switches, solenoids, motors)

General Information

The harvesting area is calculated by using travel distance of combine and cutting width.

Automatic adjustments are carried out depending on the crop selected by the combine data center.

Data or signals are transferred between the above components. The actual values (speeds, spacing) and error codes (in case of malfunctions) are displayed on the infotrak monitor.

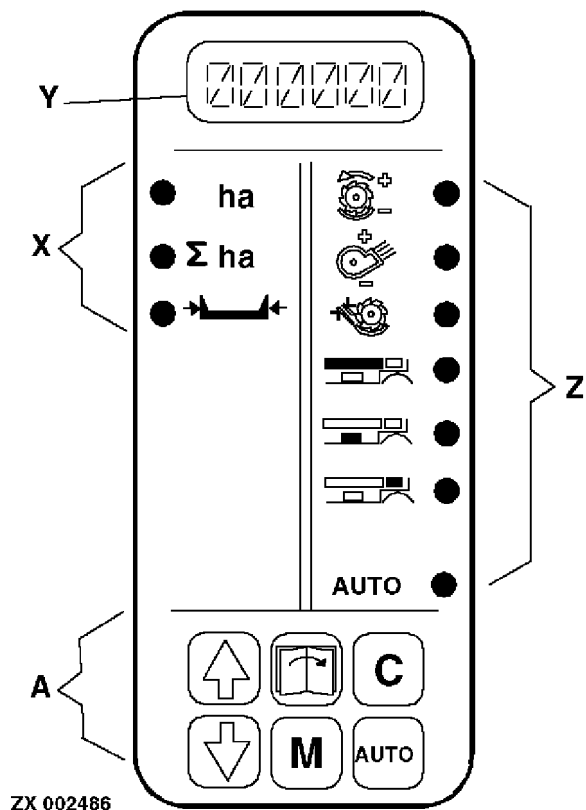
ZX,OMXZCO001840-19-14NOV92

COMBINE DATA CENTER (OPTION)

Combine data center is switched on with starter switch in position (I).

Functions:

- A—Controls (6 keys)
- X—Area counter
- Y—Display (6 digits)
- Z—Setting unit

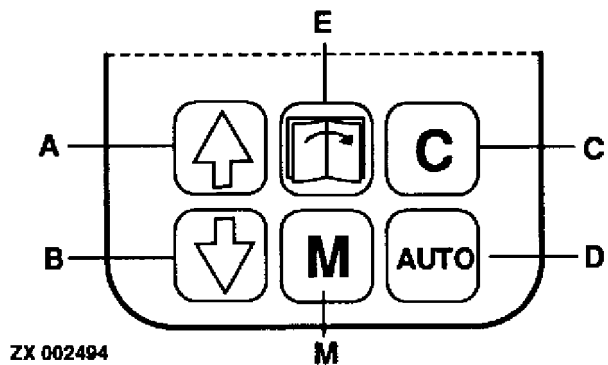


ZX,OMXZCO001841-19-20JUL92

ZX002486 -UN-16JUN95

CONTROL KEYS

- A—Up
- B—Down
- C— • Clear
- Calibrate
- Cancel
- D—Automatic function (AUTO)
- E—Page change
- M— • Modify
- Memory

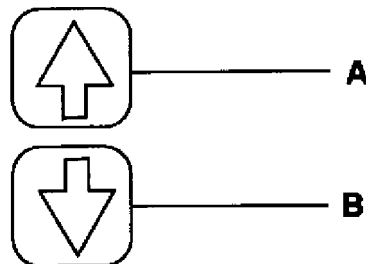


ZX,OMXZCO001847-19-20JUL92

ZX002494 -UN-28APR95

Keys A and B

These keys are used to run through the various functions of area counter, display panel or setting unit. If "Modify" mode is activated by pressing key (M), displayed values may be increased or decreased at given increments by pressing these keys.



ZX 002513

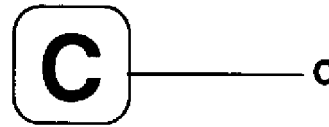
ZX,OMXZCO001848-19-20JUL92

ZX002513 -UN-28APR95

Key C

This key is used to set data center displays to “zero” (e.g. area, header width) and to clear crop settings created by the operator.

This key is also used to interrupt automatic settings, to leave the automatic or modify mode and for input of partial header width.



ZX 002516

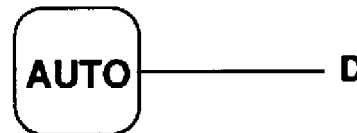
ZX,OMXZCO001851-19-20JUL92

-UN-27APR95
ZX002516

Key D

This key is used to activate automatic functions for setting combine components according to the values of the previously selected crop (cylinder speed, fan speed and concave spacing). During the setting procedure, the “AUTO” light of the setting unit will glow. The light will go out as soon as the setting procedure is completed.

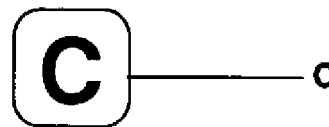
NOTE: During the setting procedure, the automatic mode may be left by pressing key (C).



ZX 002517

ZX,OMXZCO001852-19-20JUL92

-UN-28APR95
ZX002517



ZX 002516

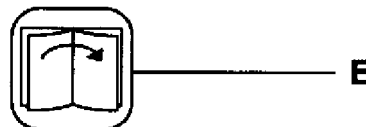
-UN-27APR95
ZX002516

Key E

This key is used to “jump” from one unit of combine data center to another:

- From area counter to display
- From display to setting unit
- From setting unit back to area counter

This key is also used for the “Select Language” mode.



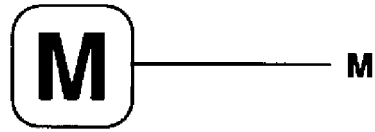
ZX 002514

ZX,OMXZCO001849-19-20JUL92

-UN-27APR95
ZX002514

Key M

If a certain setting (e.g. fan speed for a crop version created by the operator or header width) is to be changed, select the corresponding function and press key (M). Now the setting can be changed, using the "arrow" keys. The new setting is saved by pressing key (M) once again.



ZX 002515

ZX,OMXZCO001850-19-20JUL92

ZX002515
-UN-27APR95

AREA COUNTER

Requirements:

- Starter switch in position (I) or (II).
- Infotrak monitor correctly programmed
- The area counter "ON" switch must be set for relevant crop (see "Feeder House" Section), and the header must be at its operating height. (The display gives a reading even without these preconditions being met).

Setting Instructions

Display (A) of area counter always lights up when unit is switched on.

Area Counter:

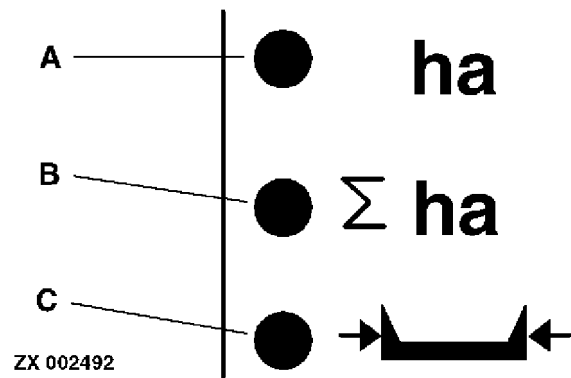
- Area-per-day values can only be cleared, but not changed.
- Total area values can neither be cleared nor changed.
- The smallest area per day that can be displayed is 0.001 hectare or 0.001 acre.
- The smallest total area that can be displayed is 0.1 hectare or 0.1 acre.

Header Width:

- The smallest setting increment for header width is 0.1 m or 0.5 ft.

When full width of header is not used during operation, partial width may be set in 1/4 increments. Header width will return to the previously saved value if header moves out of range of header height gauge.

NOTE: The displayed measurement units for width and area are determined by infotrak monitor programming (see this Section).



A—Area-per-day function light
B—Total area function light
C—Header width function light

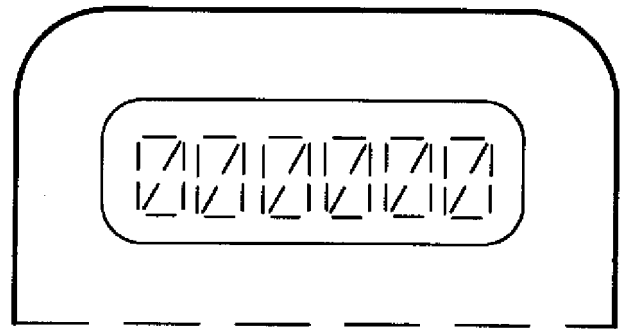
ZX002492 -JUN-16-JUN95

DISPLAY

With ignition turned on, the following data are displayed:

- Preloaded settings for various crops
- Area counter data (area, total area, header width)
- Preloaded crops (9), crops created by the operator (14)
- Languages available:

German	DEUTSC
French	FRANCA
Spanish	ESPANI
Italian	ITALIA
Dutch	NEDERL
Danish	DANSK
Swedish	SVENSK
English	ENGLIS



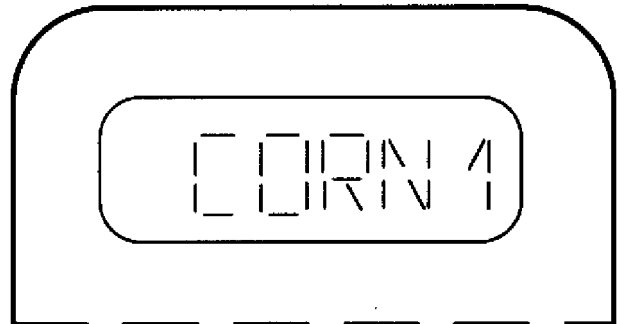
ZX 002488

ZX002488 -UN-28APR95

ZX,OMXZCO001842-19-20JUL92

Factory-Loaded Crops

- Barley
- Corn
- Beans
- Peas
- Wheat
- Rye
- Sunflowers
- Oats
- Rape



ZX 002489

ZX002489 -UN-28APR95

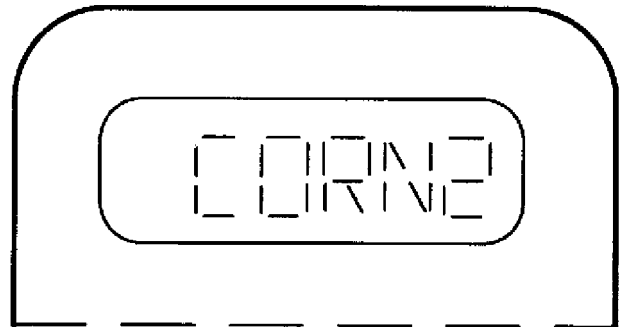
NOTE: The names of the factory-loaded (permanent memory) crops end with a number 1.

ZX,OMXZCO001843-19-20JUL92

Crop Codes Created by the Operator

For each of the previously mentioned crops (all of which are entered into the memory at the factory), the operator may enter one modified crop into the data center memory, including all necessary settings according to harvesting conditions. The names of these crop versions, created by the operator, end with a number 2.

NOTE: The crops entered into data center memory by the operator may be recorded on the bottom of right-hand armrest.



ZX 002490

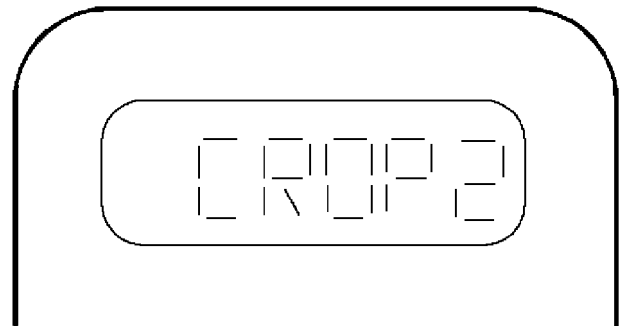
ZX002490 -UN-28APR95

ZX,OMXZC0001844-19-13NOV92

Special Crops

The operator may enter five additional special crops into the data center memory. These crops are named CROP1 — CROP5.

NOTE: The crops entered into data center memory by the operator may be recorded on the bottom of right-hand armrest.



ZX 002491

ZX002491 -UN-16JUN95

ZX,OMXZC0001910-19-01MAR95

SETTING UNIT

Requirements:

To start automatic setting of functions (A, B and C):

- Engine must be running (throttle lever pushed all the way forward)
- Separator must be engaged
- Switch for automatic machine adjustments must be ON

Setting Instructions

Values of functions (A—F) for the previously selected crop are displayed and may be changed as follows:

Function	Increments	Setting range
A	10 rpm	150—1150 rpm
B	10 rpm	600—1750 rpm
C	1 mm *	4—52 mm
D	1 mm (1/16 in.)	0—25 mm (0—1 in.)
E	1 mm (1/16 in.)	0—20 mm (0—1-1/4 in.)
F	1 mm (1/16 in.)	0—20 mm (0—1-1/4 in.)

NOTE: Concave spacing (*) is displayed in millimetres only. The figures in brackets are displayed in machine code 03.

Values of functions (A—F) for crops ending with a number “1” (e.g. “CORN1”) are factory loaded (permanent memory) and cannot be changed.

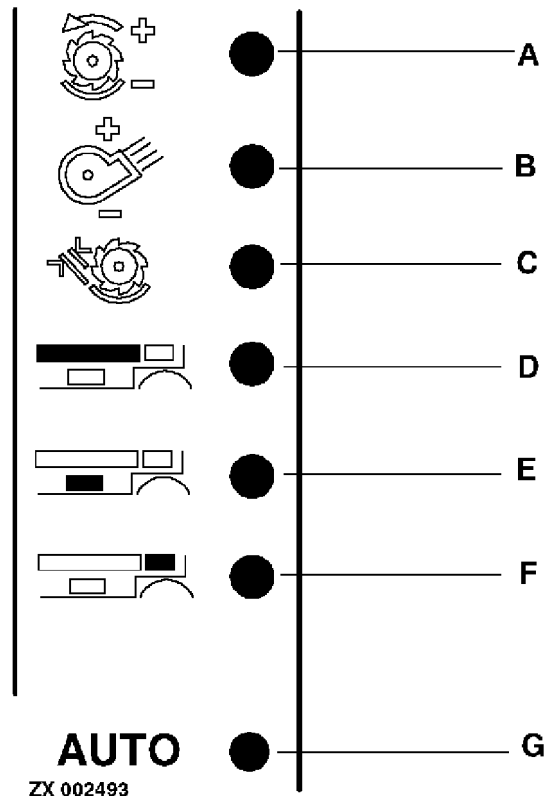
Values of functions (A—F) for crops ending with a number “2” (e.g. “CORN2”) may be cleared or changed.

Values of functions (A—F) for “CROP1” to “CROP5” may also be cleared or changed.

Functions (A—C) are set automatically by pressing the “AUTO” key (if the above requirements are met).

Values of functions (D—F) are only displayed. Setting must be carried out manually.

Lights (A—C) and (G) will glow during automatic setting procedure.

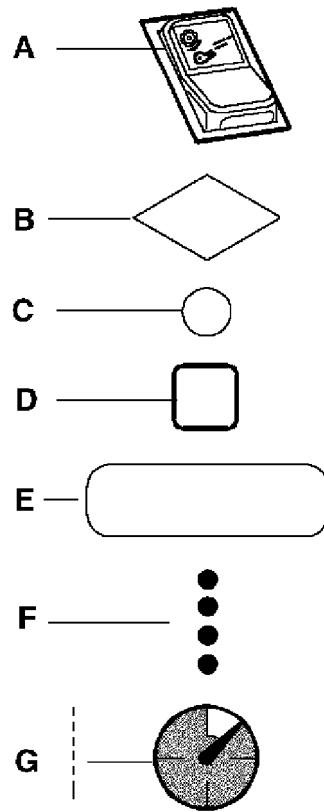


- A—Cylinder speed function light
- B—Fan speed function light
- C—Concave spacing function light
- D—Chaffer function light
- E—Sieve function light
- F—Chaffer extension function light
- G—Automatic function light

OPERATIONAL DIAGRAMS

Explanation of Symbols:

- A—Switch on automatic machine adjustments
- B—Shows the combine data center unit to be selected:
 - X-Area counter
 - Y-Display
 - Z-Setting unit
- C—Shows individual functions of area counter/setting unit (blue light)
- D—Shows the key to be pressed (bold enclosure)
- E—Display information
- F—Shows possible choices
- G—Shows time required for individual procedure



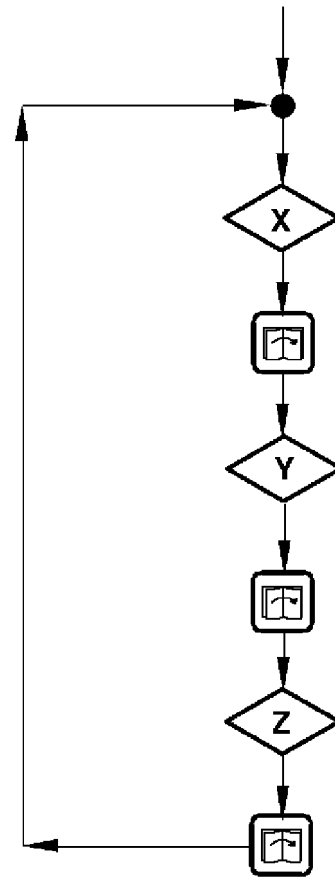
ZX 002518

ZX,OMXZCO001853-19-21JUL92

ZX002518 -UN-16JUN95

SELECTING COMBINE DATA CENTER UNITS

- Turn starter switch to position (I).
- Combine data center will switch to area counter (X).
- Press "PAGE" key.
- Combine data center will switch to display (Y).
- Press "PAGE" key.
- Combine data center will switch to setting unit (Z).



ZX 002328

ZX002328 -UN-16JUN95

ZX,OMXZCO01854-19-21JUL92

SELECTING AREA COUNTER FUNCTIONS

- Select "Area Counter" unit.

Light of "Area" function will glow.

The harvesting area (for each day) is displayed.

- Press "Down" key.

Light of "Total Area" function will glow.

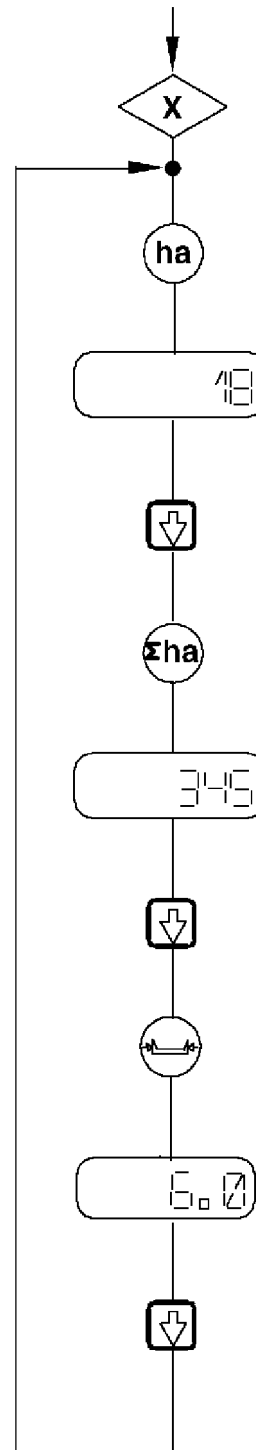
The total harvesting area is displayed.

- Press "Down" key.

Light of "Header Width" function will glow.

Header width (cutting width) is displayed.

NOTE: Running through the various crop displays or setting unit functions is done in a similar way as described above.



ZX 002519

ZX002519 -UN-16JUN95

ZX,OMXZCO001983-19-21JUL92

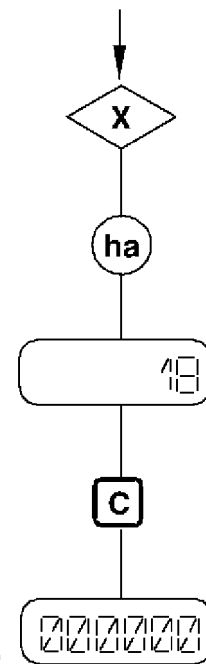
CLEARING "AREA" DISPLAY

- Select "Area Counter" unit.
- Select "Area" function.

The harvesting area for the day will be displayed.

- Press key (C) ("Clear").

Display will change to "zero".



ZX 002520

ZX002520 -JUN-16-JUN95

ZX,OMXZCO001855-19-21JUL92

CHANGING HEADER WIDTH

- Select "Area Counter" unit.
- Select "Header Width" function.

The current header width (cutting width) will be displayed.

- Press "Modify" key (M).

An "M" will appear at the left of the display.

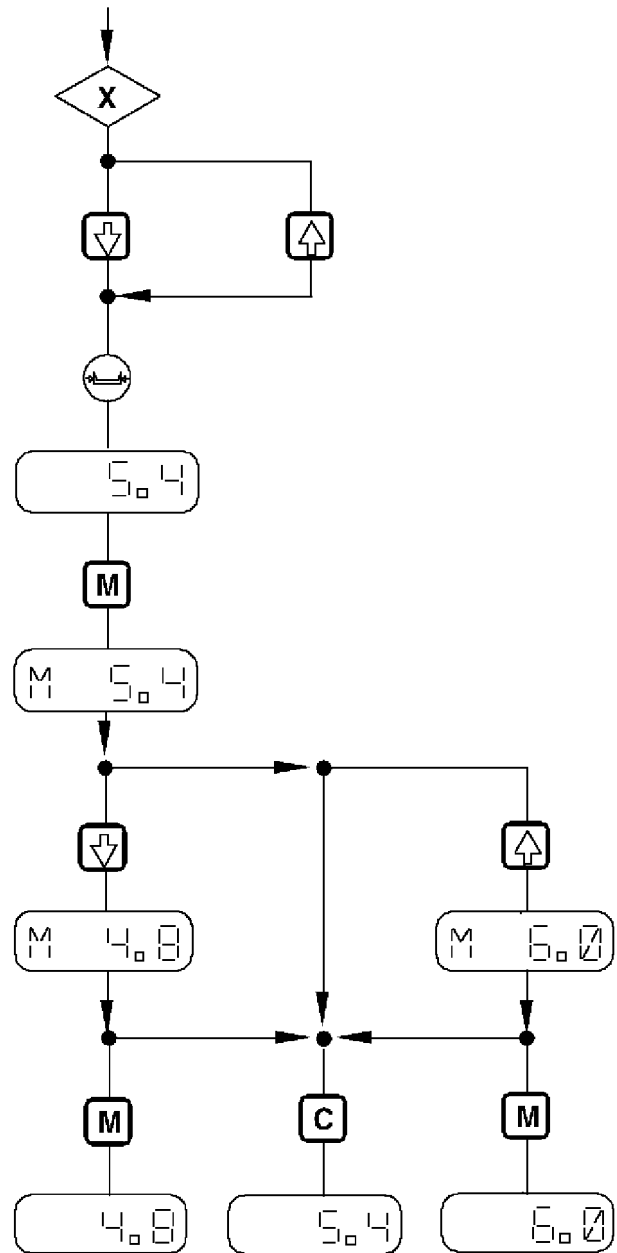
- Press "Up" or "Down" key.

The changed header width will be displayed.

- Press key (M) again.

The displayed setting is saved; the "M" at the left of the display will disappear.

NOTE: After pressing the "M" key, it is always possible to interrupt the setting of the new header width by pressing "Cancel" key (C). The previous header width will be displayed once again.



ZX 002521

-JUN-16JUN95
ZX002521

ZX,OMXZCO001984-19-21JUL92

SETTING PARTIAL HEADER WIDTH

- Select "Area Counter" unit.
- Select "Header Width" function.

The current header width will be displayed.

- Press "Calibrate" key (C).

"3/4" will be displayed = 3/4 of the previous header width (cutting width).

- Press "Calibrate" key (C).

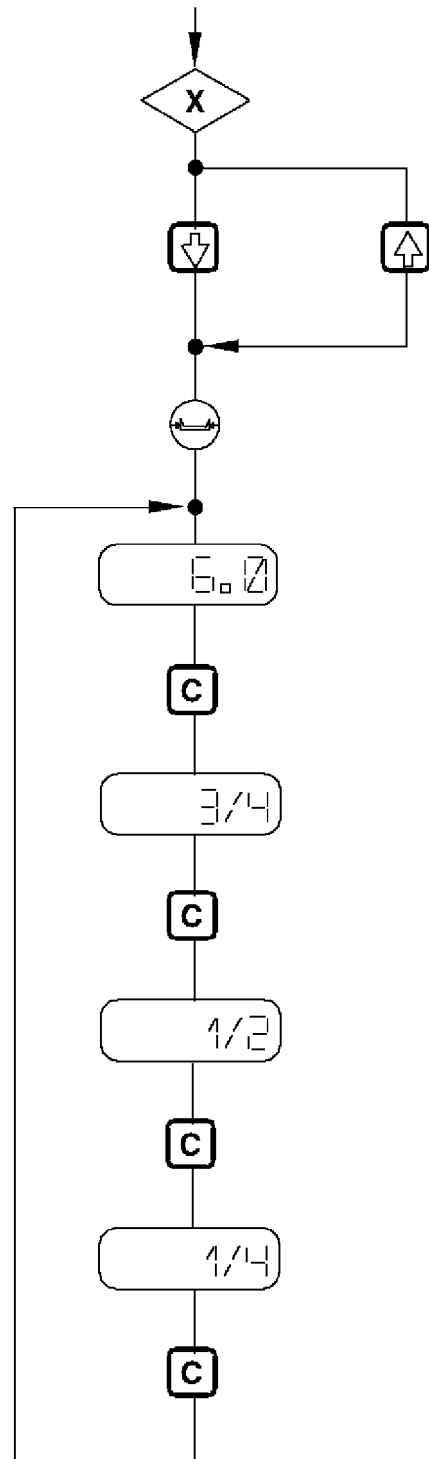
"1/2" will be displayed = 1/2 of the previous header width (cutting width).

- Press "Calibrate" key (C).

"1/4" will be displayed = 1/4 of the previous header width (cutting width).

- Press "Calibrate" key (C).

The cutting width saved previously will be displayed.



ZX 002522

ZX002522 -UN-16JUN95

ZX,OMXZCO001856-19-21JUL92

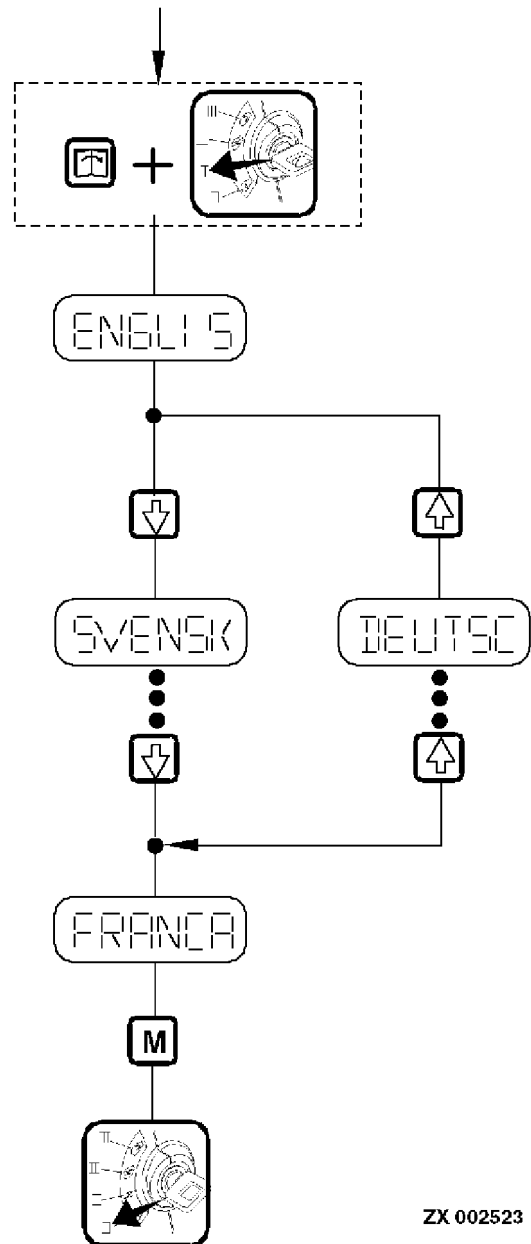
SELECTING LANGUAGE

- Press “Page” key while turning starter switch to position (I).

The language saved previously will be displayed.

- Press “Up” or “Down” key until desired language is displayed.
- Press “Memory” key (M).
- Turn starter switch to position (0).

The desired language is saved.



ZX 002523

ZX,OMXZCO001857-19-21JUL92

ZX002523 -UN-16JUN95

SELECTING CROP

NOTE: This procedure is required to start automatic settings and to change to a different crop.

- Select "Display" unit.

The crop selected previously will be displayed.

- Press "Up" or "Down" key until desired crop is displayed.

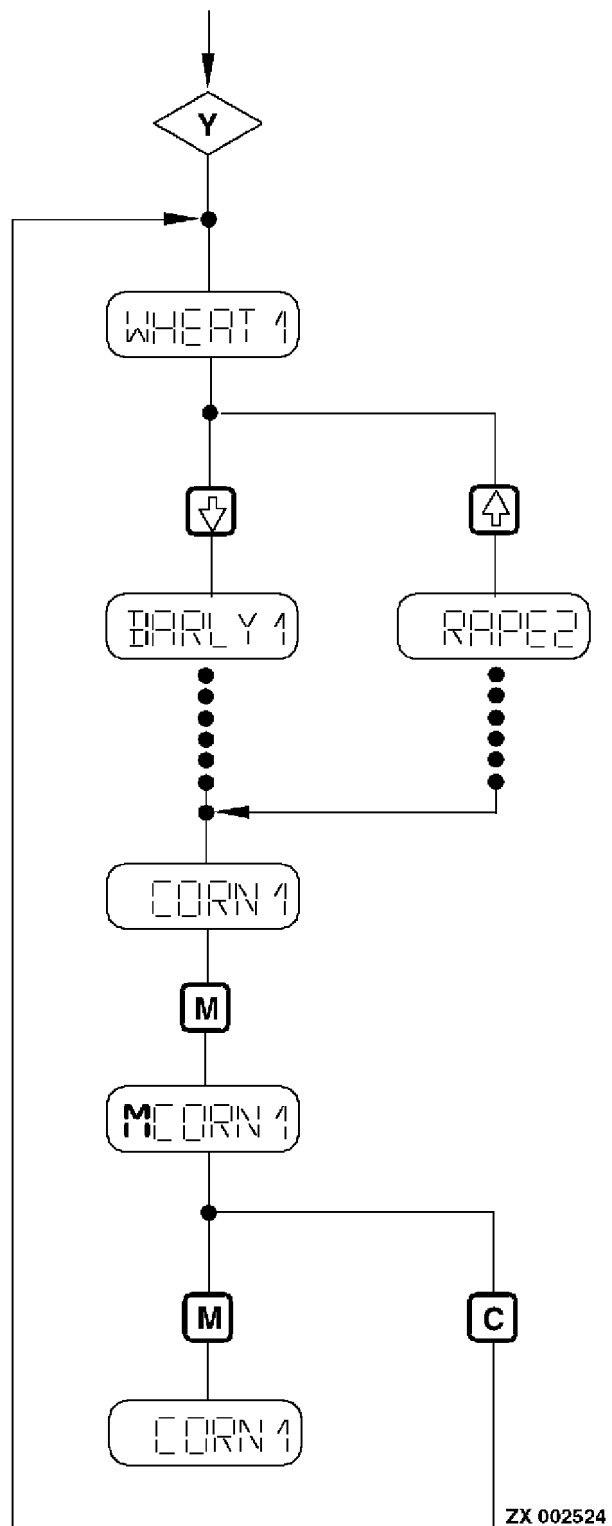
- Press "Modify" key (M).

A flashing "M" will appear at the left of the display.

- Press key (M) again.

The selected crop is saved; the "M" at the left of the display will disappear.

NOTE: After pressing the "M" key, it is possible to interrupt crop selecting procedure by pressing "Cancel" key (C).



ZX002524 -UN-16/JUN95

AUTOMATIC MACHINE SETTING ACCORDING TO CROP SELECTED

- Separator must be engaged.
- Switch on function "Automatic Machine Adjustments".
- Select "Display" unit.

The selected crop will be displayed.

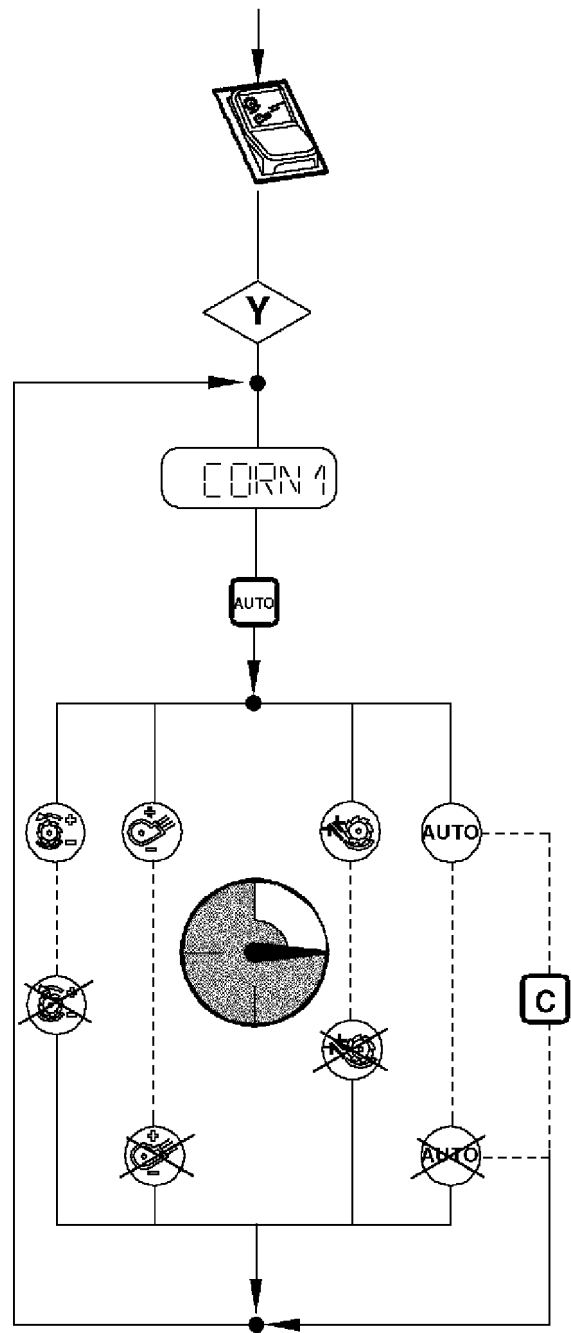
- Press "AUTO" key.

Lights of functions

- Cylinder speed
 - Fan speed
 - Concave spacing and
 - Automatic operation ("AUTO")
- will glow until the corresponding setting is completed.

After setting procedure for all functions is completed, the "AUTO" light will go out.

NOTE: It is possible to interrupt setting procedure by pressing "Cancel" key (C).



ZX 002525

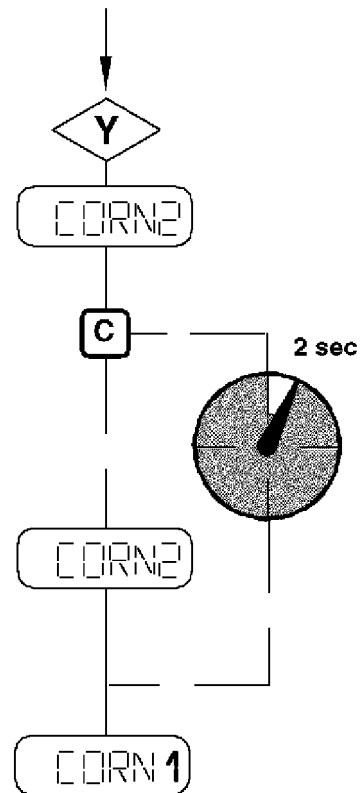
ZX002525 -UN-16.JUN95

ZX,OMXZCO001960-19-21JUL92

CLEARING CROPS CREATED BY THE OPERATOR

- Select "Display" unit.
- Select crop to be cleared (ending with a number "2" or named "CROP1"—"CROP5").
- Press "Clear" key (C) for 2 seconds.

Display will change to crop version ending with a number "1".



ZX007339

ZX,OMXZCO001986-19-01MAR95

ZX007339 -UN-19JUN95

READING SETTINGS FOR SELECTED CROP

- Select "Display" unit.

The previously selected crop will be displayed.

- Select "Setting Unit" function.

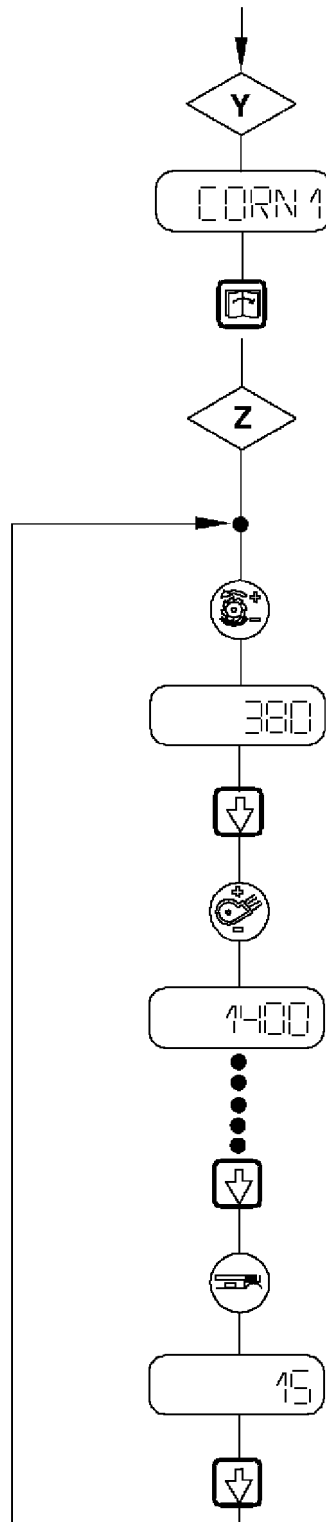
- Select "Cylinder Speed" function.

The cylinder speed for the selected crop is displayed.

- Select "Fan Speed" function.

The fan speed for the selected crop is displayed.

NOTE: The remaining settings may be displayed in the same way.



ZX 002527

ZX002527 -UN-16.JUN95

CHANGING CROP SETTINGS

(Crops Created by the Operator)

- Select "Display" unit.

The previously selected crop will be displayed.

- Select "Setting Unit" function.

- Select "Cylinder Speed" function.

The cylinder speed for the selected crop is displayed.

- Press "Modify" key (M).

An "M" will appear at the left of the display.

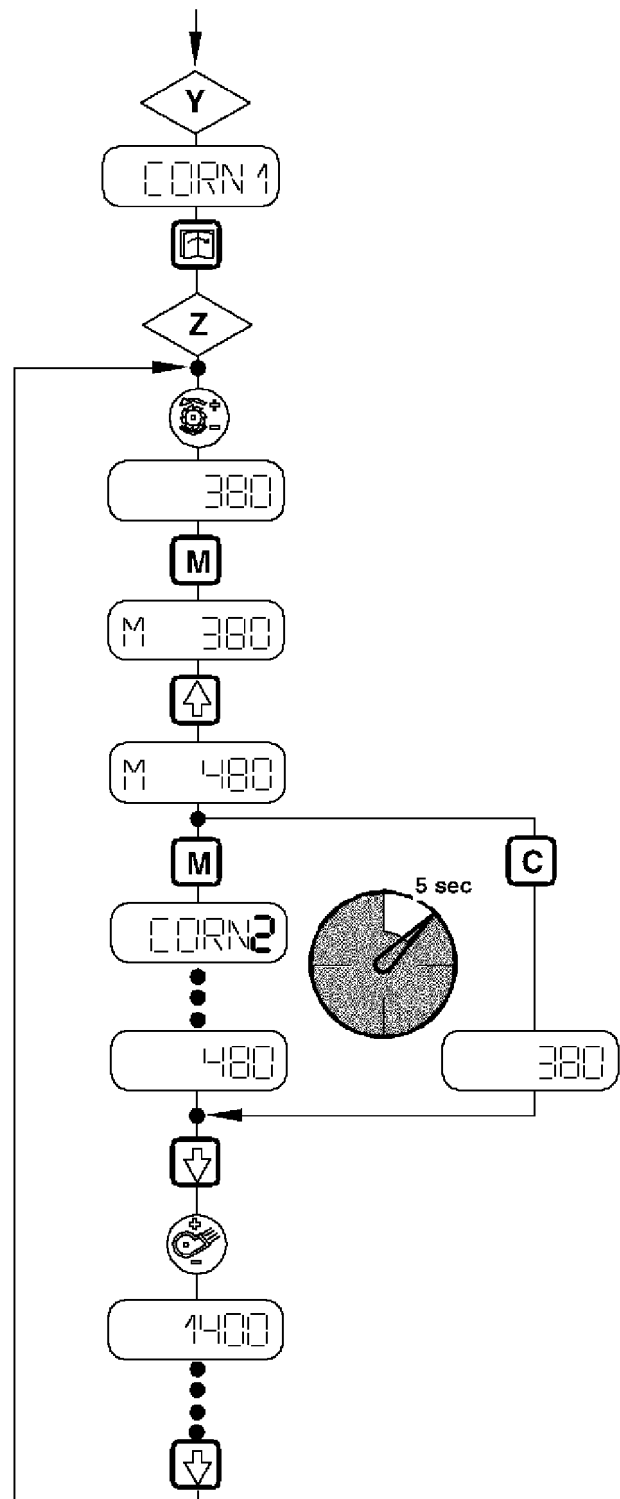
- Press "Up" or "Down" key until desired display appears.

NOTE: At this time it is possible to interrupt changing procedure by pressing "Cancel" key (C).

- Press key (M) again.

The crop created by the operator is saved (indicated by a "2" behind the crop name); the "M" at the left of the display will disappear.

NOTE: The values for the remaining functions are changed in the same way.



ZX 002528

ZX002528 -UN-16.JUN95

ZX,OMXZCO001987-19-21JUL92

INDIVIDUAL SETTING OF CHANGED VALUES (AUTOMATIC SETTING)

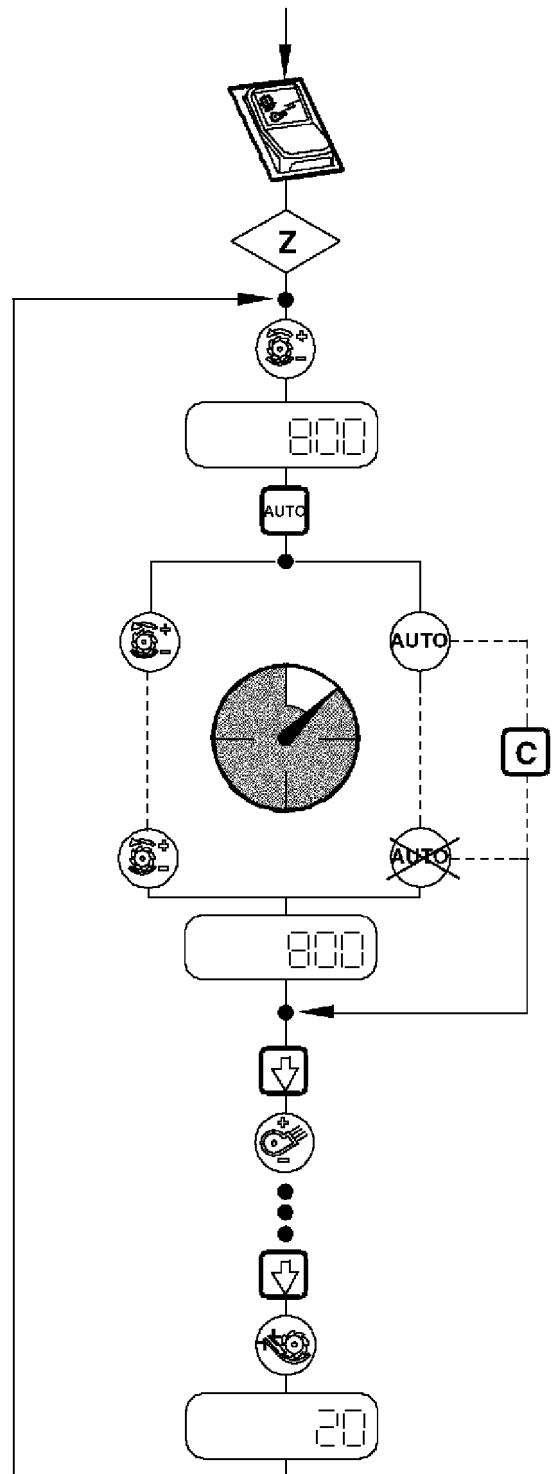
- Separator must be engaged.
- Switch on function "Automatic Machine Adjustments".
- Select "Setting Unit" function.
- Select "Cylinder Speed" function.

The corresponding value is displayed.

- Press "AUTO" key.

The light of the selected function and the "AUTO" light will glow during automatic setting procedure.

NOTE: It is possible to interrupt setting procedure by pressing "Cancel" key (C).

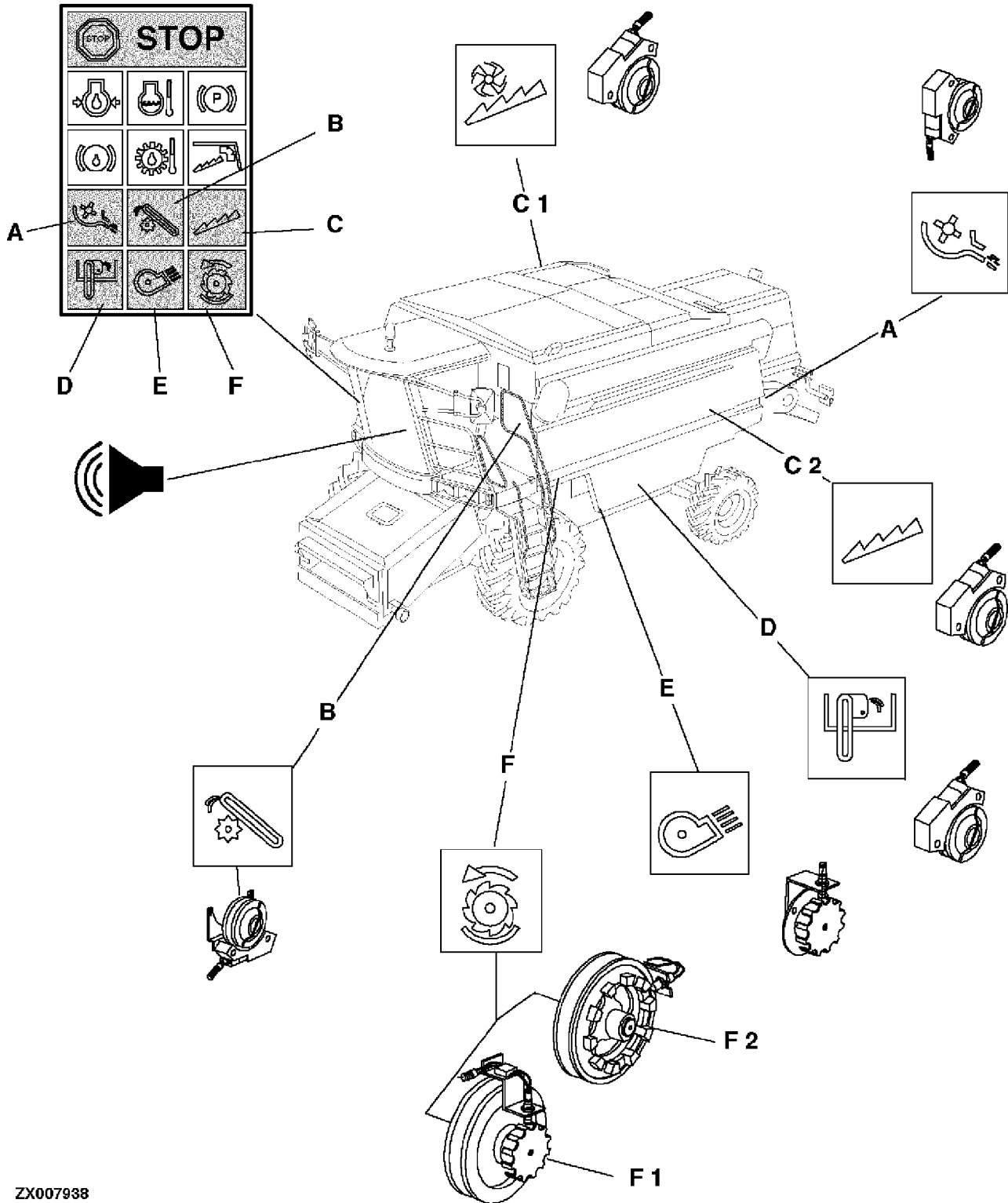


ZX 002529

ZX002529 -UN-16JUN95

ZX,OMXZCO001859-19-21JUL92

LOW SHAFT SPEED MONITOR SYSTEM — PROTECTED COMPONENTS



ZX007938

ZX,OMXZC0001971-19-02MAY96

Warning Devices and Monitors

A—Straw chopper/chaff
spreader (option)
B—Tailings elevator
C—Straw walkers

C1—With cross-shaker
C2—Without cross-shaker
D—Clean grain elevator

E—Fan
F—Threshing cylinder
F1—Second cylinder with
constant speed

F2—Second cylinder with
variable speed

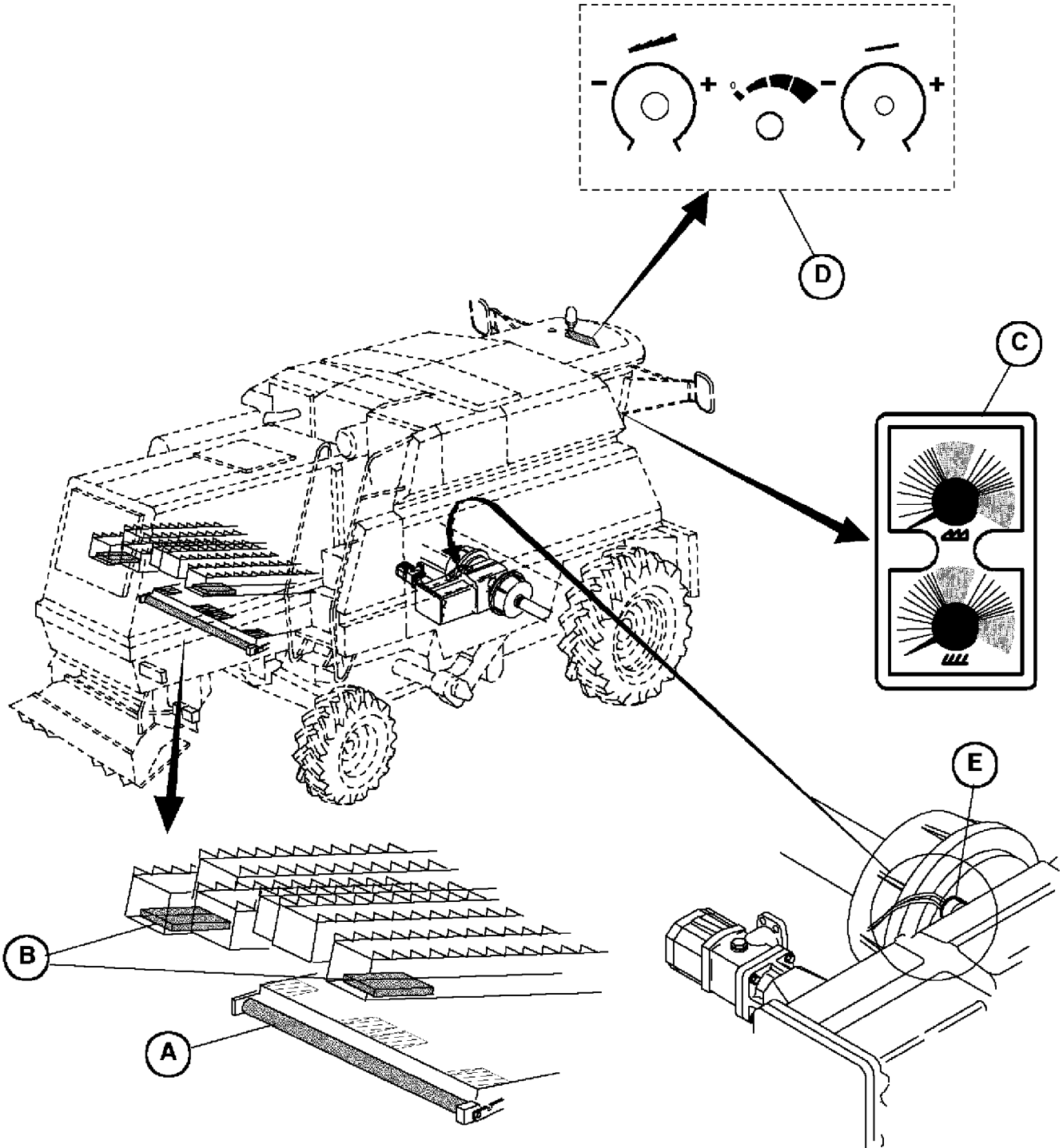
In the event of a malfunction, the low shaft speed monitor system activates corner post indicator lights and a continuous acoustic warning signal.

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

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

ZX,OMXZC0001988-19-13NOV92

HARVEST PERFORMANCE MONITOR



ZX007939

A—Cleaning shoe sensor
B—Straw walker sensors

C—Display unit

D—Adjusting/selecting unit

E—Ground speed sensor

ZX,OMXZCO001973-19-02MAY96

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).

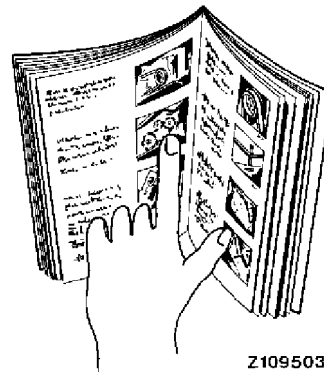
Incorrect adjustment and inadequate servicing of the combine always result in grain loss and reduced harvester performance. The causes of grain loss are dealt with in detail in the "Preparations and Field Operation" section. Particular attention should be paid to the information provided on "Determining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

ZX,OMXZC0001974-19-02MAY96

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

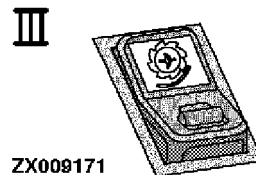
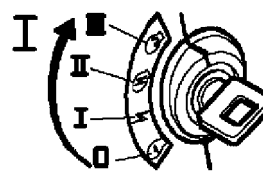
-UN-22MAY95
Z109503

ZX,OMXZC0001975-19-13NOV92

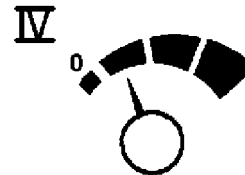
SWITCHING ON THE HARVEST PERFORMANCE MONITOR

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



-UN-22MAY96
ZX009171

ZX,OMXZC0001976-19-02MAY96

OPERATIONAL ADJUSTMENT OF HARVEST PERFORMANCE MONITOR

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).

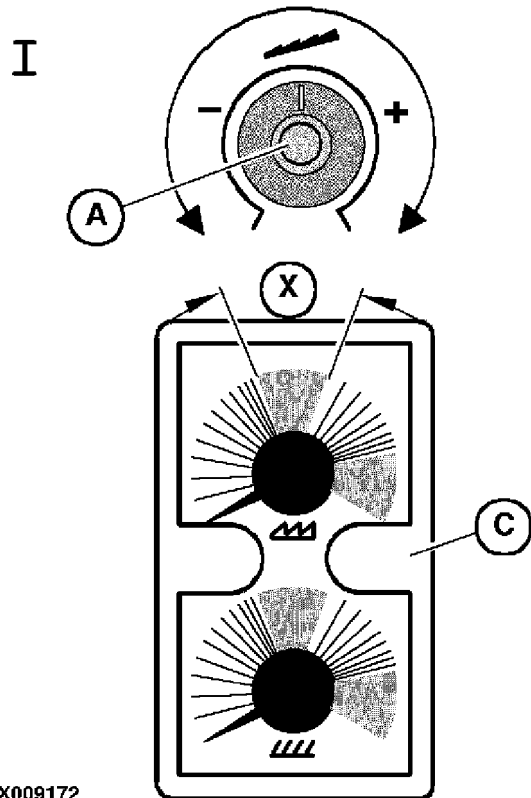
II — Set potentiometer for cleaning shoe losses:

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

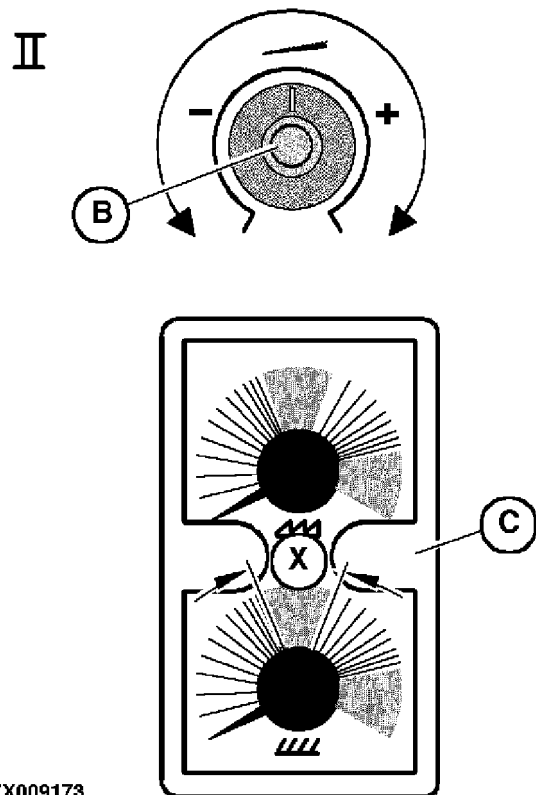
Grain losses vary all the time. This means that the sensors on the cleaning shoe and straw walkers will transmit signals of varying intensity to the display unit. If these signals rise or fall in relation to the preset value, the needle on the display unit will swing to the left or right.

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



ZX009172



ZX009173

ZX009172 -UN-22MAY96

ZX009173 -UN-22MAY96

ZX,OMXZC0001980-19-02MAY96

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.

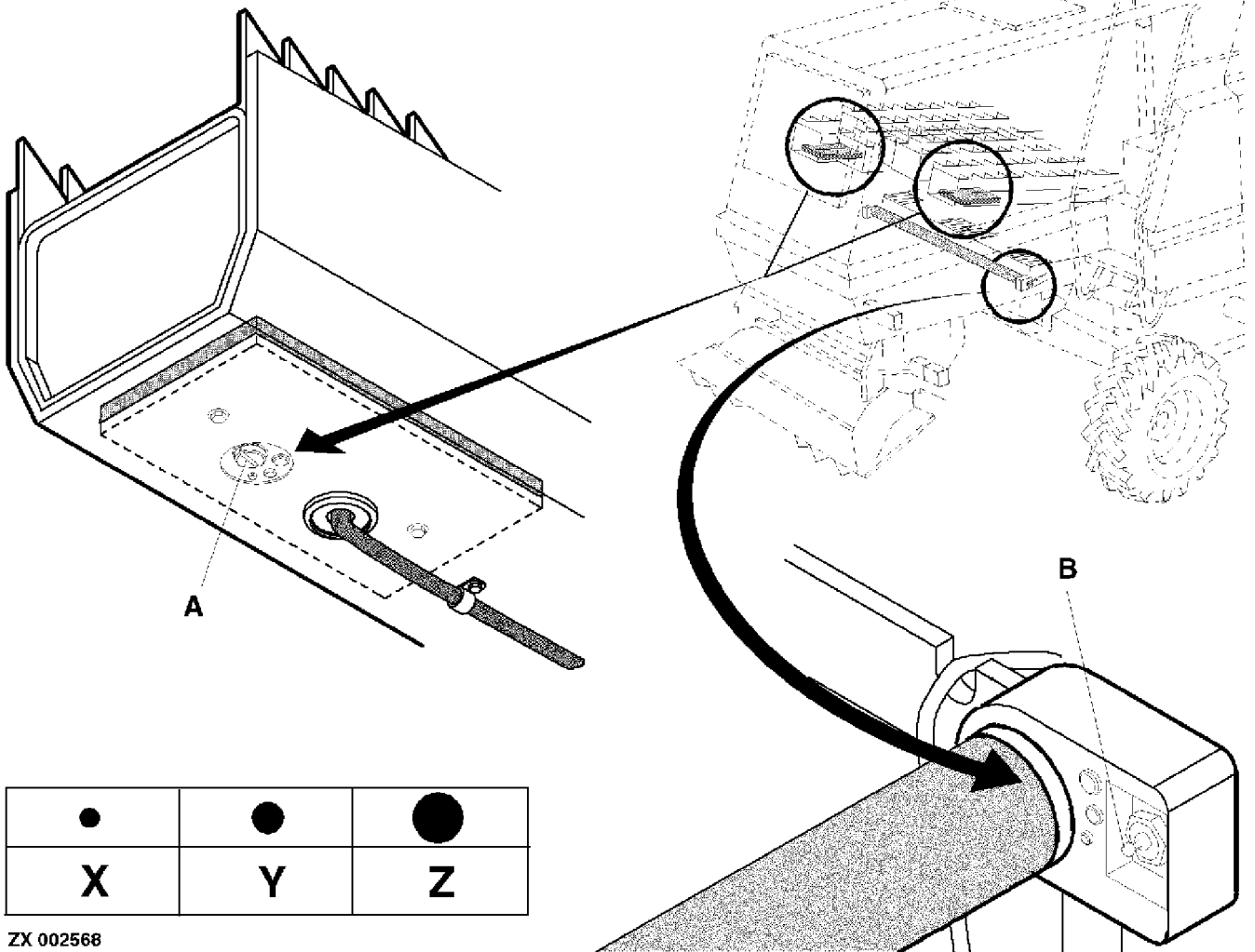
3. If the needle remains in the “+” sector even after ground speed has been reduced, this may be due to

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), re-adjust the performance monitor. Measure the losses from time to time to determine whether the combine harvester needs to be re-adjusted.

ZX,OMXZC0001981-19-02MAY96

SETTING SENSOR SENSITIVITY



ZX 002568

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

ZX,OMXZC0001978-19-13NOV92

ZX002568 -JUN-19-JUN95

OPERATIONAL CHECK OF HARVEST PERFORMANCE MONITOR

CAUTION: Before carrying out the operational check, remove fuse F23. This prevents the cylinder from being switched on while at the same time ensuring that the harvest performance monitor is supplied with power.

Start the engine.
Put road safety switch in field position.
Switch threshing unit to ON position.

I — Check straw walker sensors:

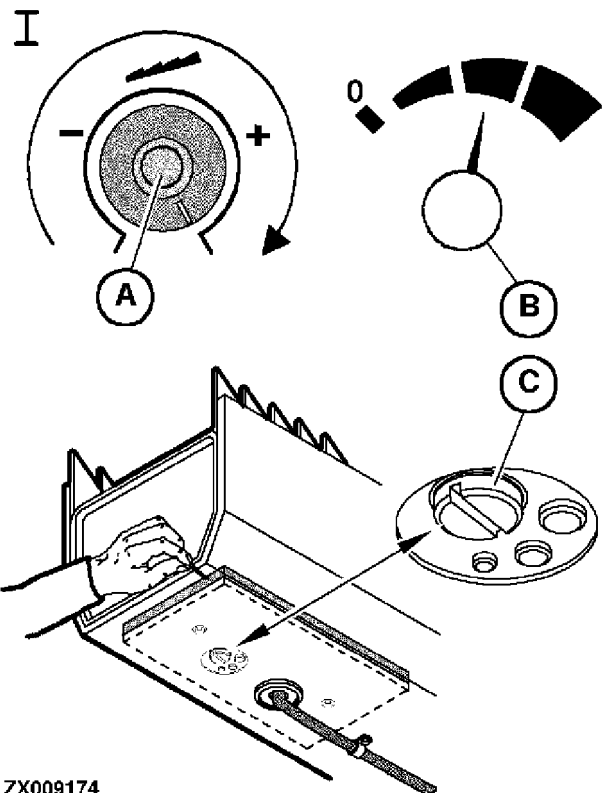
- Turn potentiometer (A) clockwise as far as it will go.
- Set selector switch (B) to the position for medium-sized grains.
- Rotary switch (C) should be in the medium position at both sides.
- Actuate the left and right straw walker sensors by tapping them lightly with a hard object or by dropping kernels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

II — Check cleaning shoe sensor:

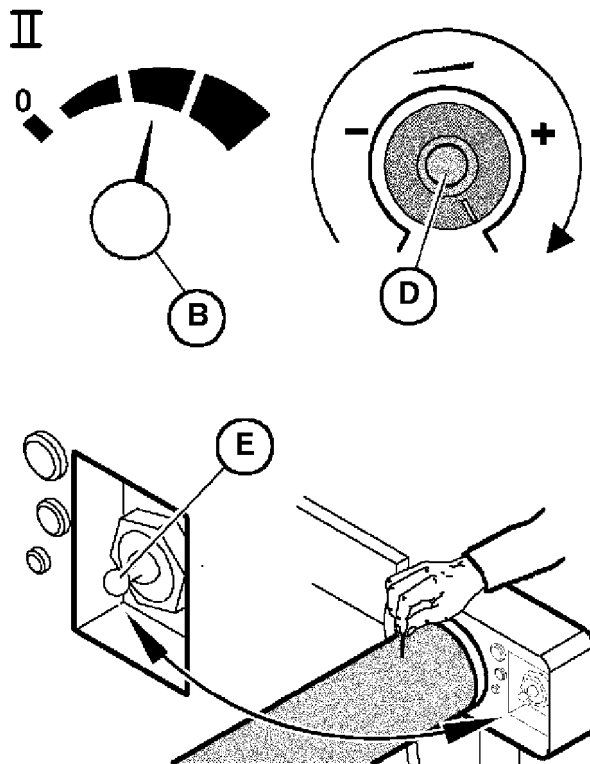
- Turn potentiometer (D) clockwise as far as it will go.
- Set selector switch (B) to the position for medium-sized grains.
- Tumbler switch (E) should be in the middle position.
- Check cleaning shoe sensor in the same way as the straw walker sensors.
- Switch on the parking light and check whether the display light is on.
- Switch off the parking light. Disengage the threshing unit and remove the switch key.
- If a fault occurs during the check described above, have the fault rectified by your John Deere dealer.

NOTE: Once the operational check is completed, put fuse F23 back in place.

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



ZX009174



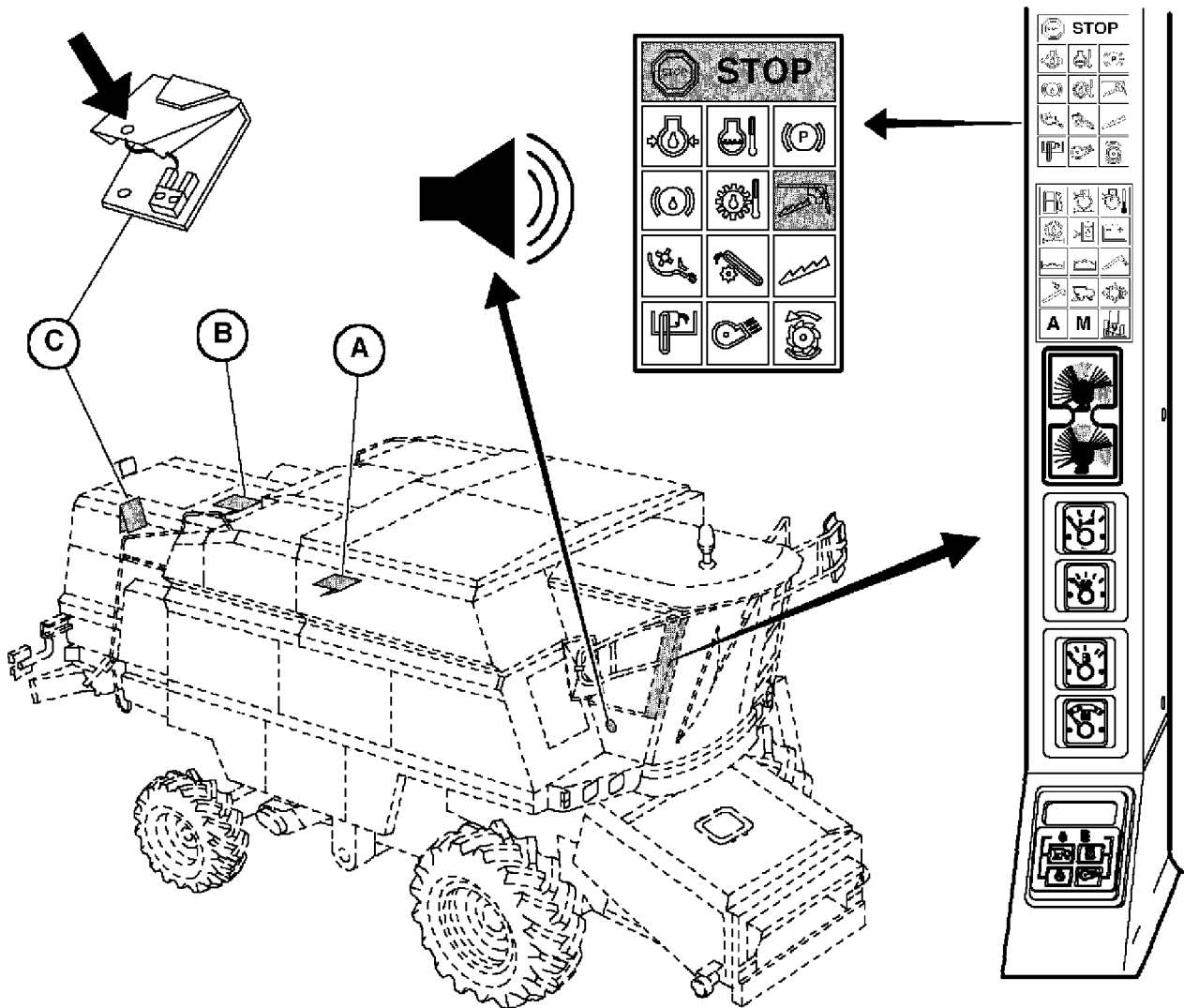
ZX009534

ZX009174 -UN-22MAY96

ZX009534 -UN-08NOV96

ZX.OMXZC0001982-19-01NOV96

STRAW WARNING DEVICE



ZX009176

A—Sending unit above straw walkers, below engine compartment

B—Sending unit above straw walkers, in front of cross shaker

C—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.

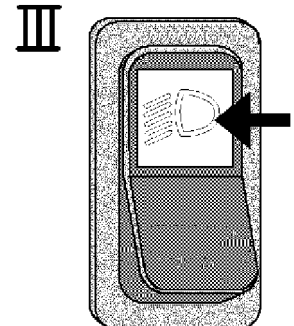
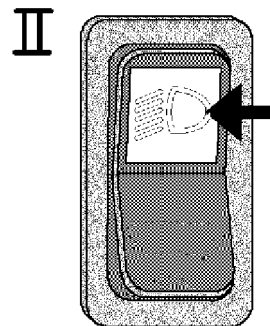
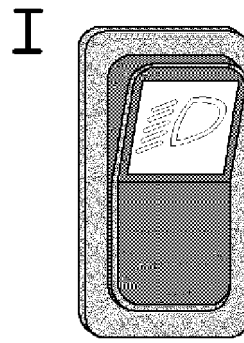
ZX009176 -UN-22MAY96

ZX,OMXZC0001972-19-02MAY96

Lighting System and Signals

PARKING LIGHT AND LOW-BEAM TUMBLER SWITCH

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



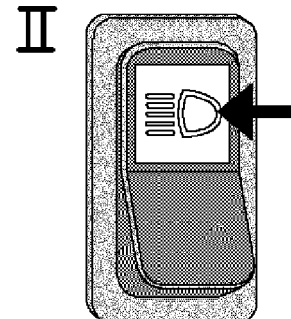
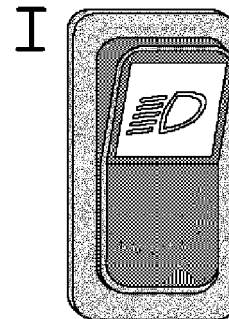
ZX008376

-UN-31JAN96
ZX008376

ZX.OMXZCO001522-19-01JAN96

FULL-BEAM TUMBLER SWITCH

- I—Full-beam off
- II—Full-beam on (only when low-beam is selected)



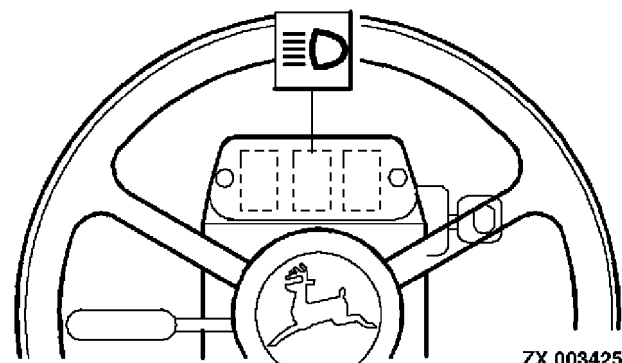
ZX008377

-UN-31JAN96
ZX008377

ZX.OMXZCO001523-19-01JAN96

FULL-BEAM INDICATOR LIGHT

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



ZX 003425

-UN-03APR95
ZX003425

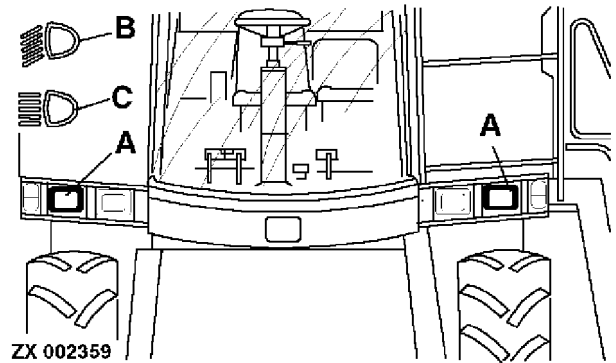
ZX.OMXZCO001524-19-01AUG92

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



ZX.OMXZC0001525-19-01AUG92

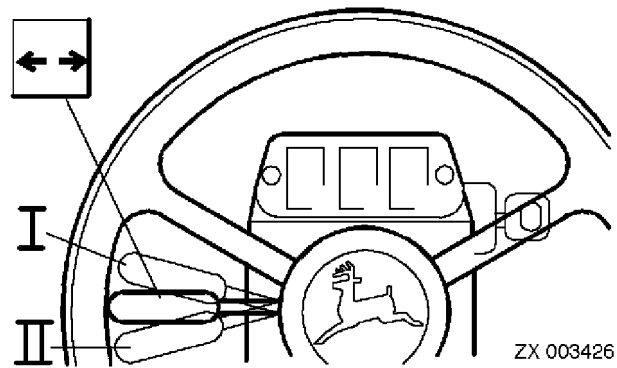
-UN-16/JUN95
ZX002359

TURN-SIGNAL SWITCH

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

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

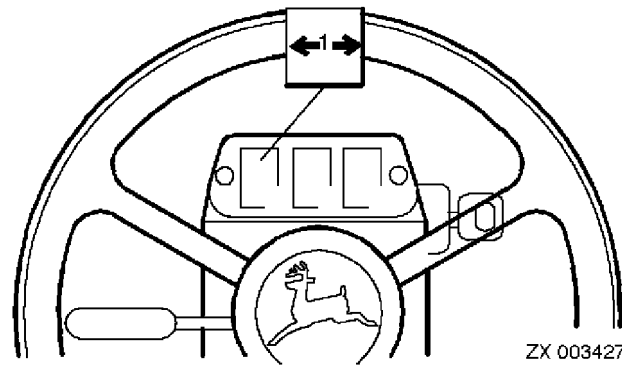
- I—Right-hand turn
- II—Left-hand turn



ZX.OMXZC0001526-19-01AUG92

-UN-03/APR95
ZX003426

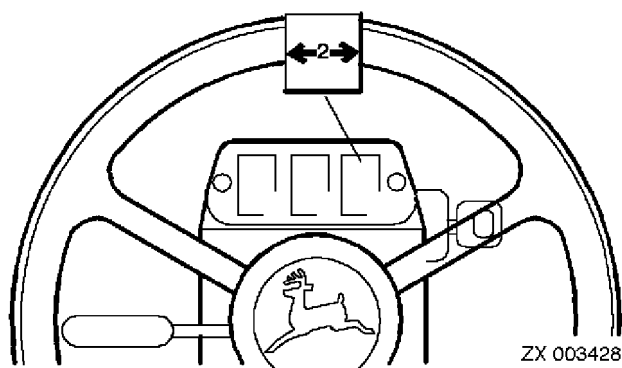
TURN-SIGNAL INDICATOR LIGHTS



ZX.OMXZC0001527-19-01AUG92

-UN-03/APR95
ZX003427

TRAILER TURN-SIGNAL INDICATOR LIGHTS



ZX.OMXZC0001528-19-01AUG92

-UN-03/APR95
ZX003428

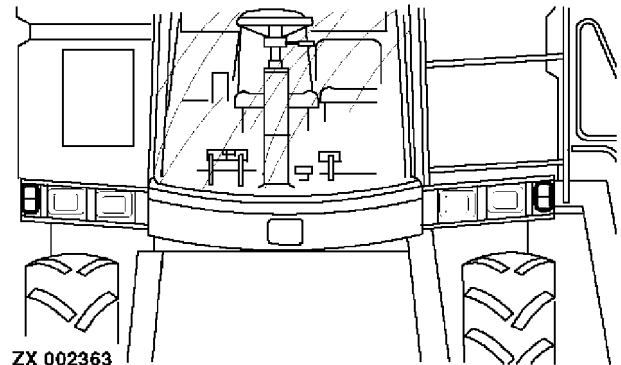
FRONT TURN-SIGNAL AND CLEARANCE LIGHTS

Clearance Lights

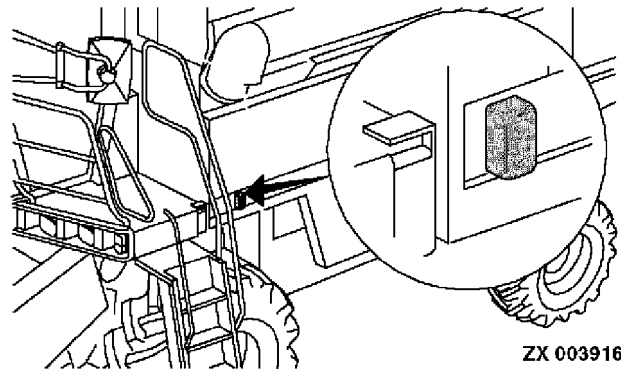
The clearance lights light up as soon as parking lights, low-beam headlights or full-beam headlights are selected.

Turn-Signal Lights

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



-JUN-16/JUN95
ZX002363



-JUN-19/JUN95
ZX003916

ZX,OMXZC0001529-19-01AUG92

REAR TURN-SIGNAL LIGHTS, TAIL LIGHTS AND STOP LIGHTS

Turn-Signal Lights

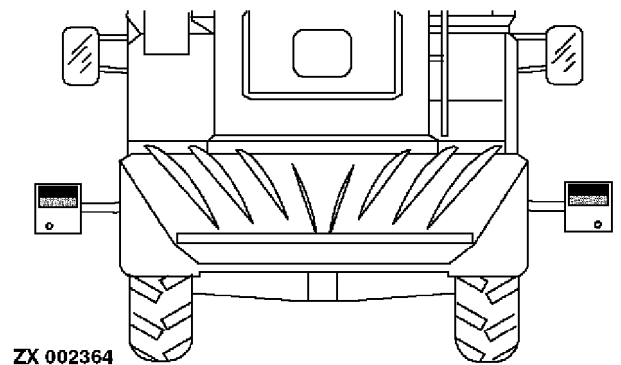
The turn-signal lights light up when the turn-signal switch or hazard warning switch are operated.

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.

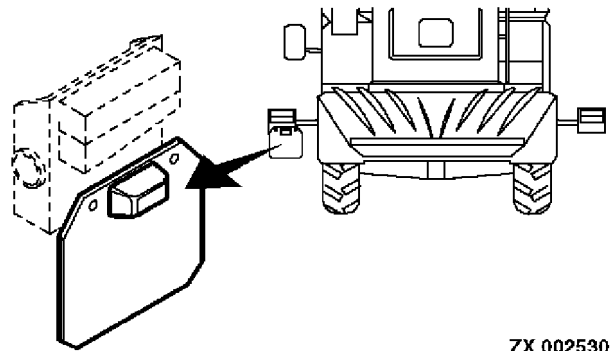


-JUN-16/JUN95
ZX002364

ZX,OMXZC0001530-19-01AUG92

REGISTRATION PLATE LIGHT (CERTAIN COUNTRIES ONLY)

The registration plate light always lights up when parking lights, low-beam headlights or full-beam headlights are selected.



ZX 002530

ZX.OMXZC0001961-19-01AUG92

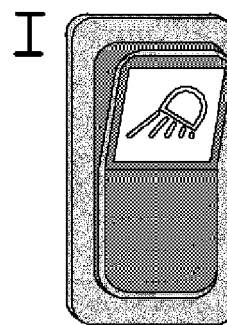
-JUN-16-JUN95
ZX002530

TUMBLER SWITCH FOR WORK LIGHTS ON CAB ROOF AND UNLOADING AUGER

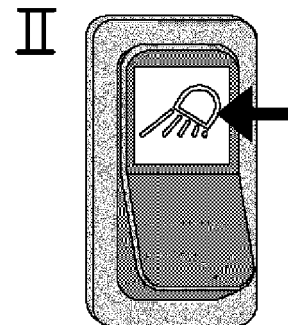
The work lights on the cab roof and at the unloading auger can only be switched on when the engine is running and the parking lights are switched on.

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

- I—Work lights off
- II—Work lights on



ZX008378



-JUN-31-JAN96
ZX008378

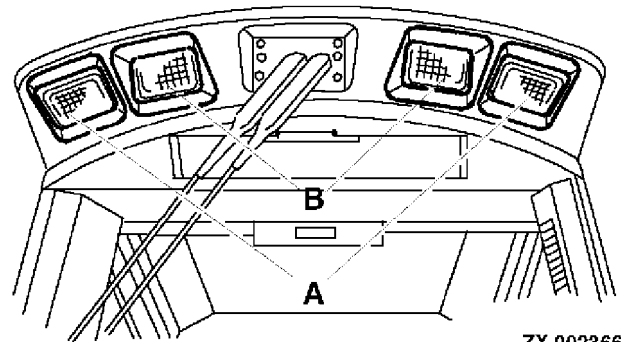
ZX.OMXZC0001531-19-02MAY96

WORK LIGHTS ON CAB ROOF AND UNLOADING AUGER

The two outer work lights (A) are set to a width of 6.10 m (20 ft.) before leaving the factory. If necessary, reset the width to match that of the harvesting unit. See "Service — Electrical System".

Work lights (B) illuminate the center of the harvesting unit.

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



ZX 002366

-UN-16JUN95
ZX002366



ZX007341

-UN-21JUN95
ZX007341

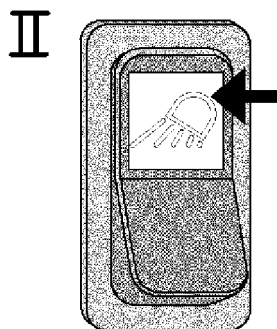
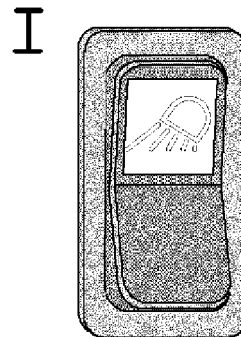
ZX,OMXZCO001532-19-01MAR95

TUMBLER SWITCH FOR WORK LIGHTS ON OPERATOR'S PLATFORM AND MIRROR ARMS AND FOR REAR LIGHTS

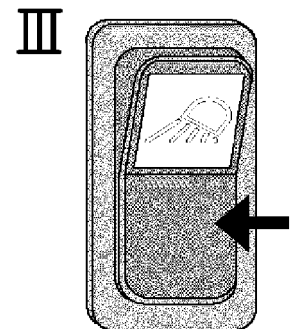
The two additional work lights on the operator's platform (inner lights), the work lights on the mirror arms and the rear lights can only be switched on when the road safety switch is in the field (off-road) position.

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

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



ZX009177

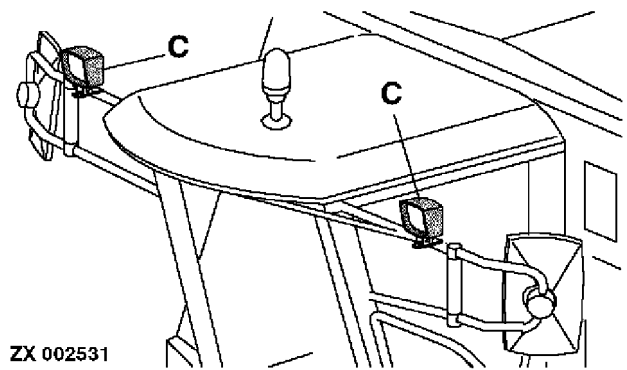
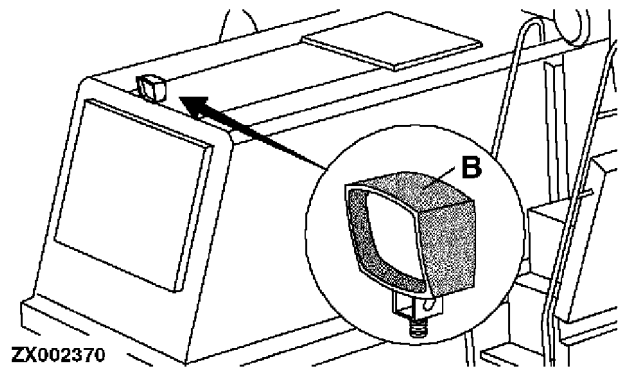
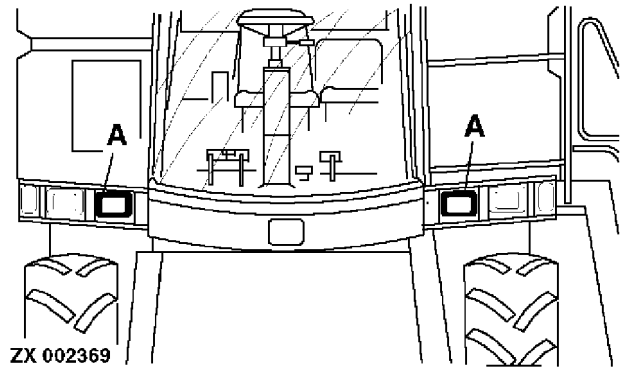


-UN-22MAY96
ZX009177

ZX,OMXZCO001533-19-02MAY96

WORK LIGHTS ON OPERATOR'S PLATFORM AND MIRROR ARMS, AND REAR LIGHTS

- A—Work lights on operator's platform
- B—Rear lights
- C—Work lights on mirror arms (primarily for maize harvesting)

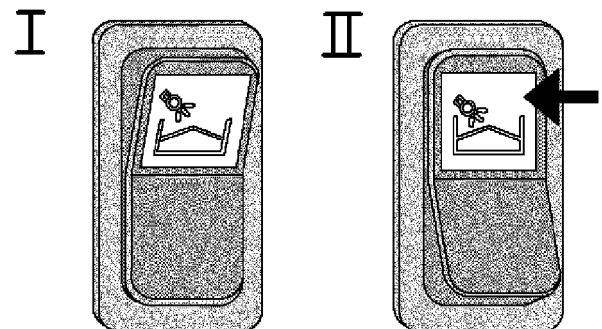


ZX,OMXZC0001534-19-01AUG92

TUMBLER SWITCH FOR GRAIN TANK LIGHTING

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

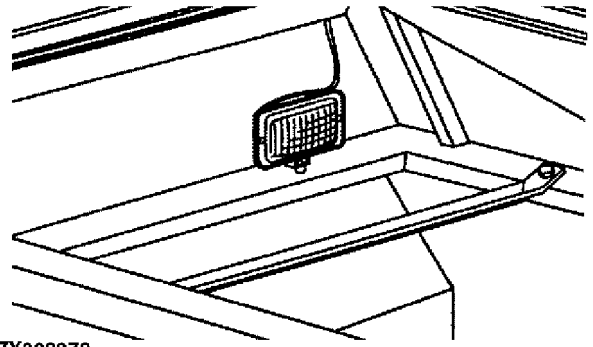
- I—Grain tank light off
- II—Grain tank light on



ZX009178

ZX,OMXZC0001535-19-02MAY96

GRAIN TANK LIGHTING



ZX002372

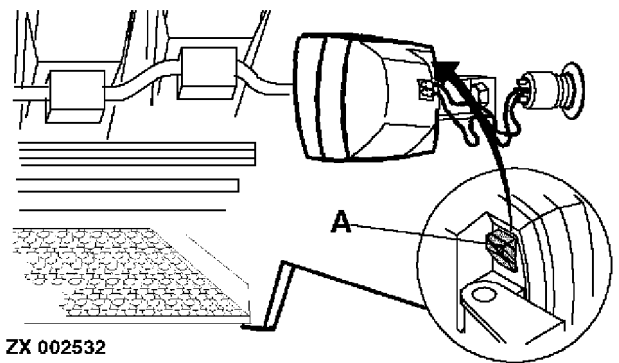
ZX,OMXZC0001536-19-01AUG92

-UN-16JUN95
ZX002372

LIGHT INSIDE STRAW HOOD

IMPORTANT: Switch on light inside straw hood only to perform service or maintenance work. It represents a FIRE HAZARD.

Switch (A) at the rear of the light can be used to select the light only when the ignition is switched on.



ZX 002532

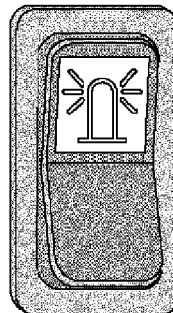
ZX,OMXZC0001962-19-01AUG92

-UN-16JUN95
ZX002532

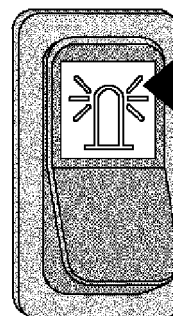
TUMBLER SWITCH FOR BEACON LIGHTS

- I —Beacon lights off
- II —Beacon lights on (only with ignition on)
- III—Beacon lights on if “grain tank 3/4 full” indicator lights up during operation (see “Warning Devices and Monitors” Section)

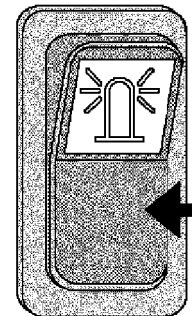
I



II



III



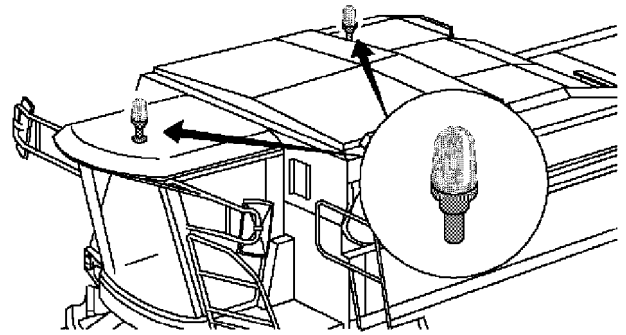
ZX009179

ZX,OMXZC0001537-19-02MAY96

-UN-22MAY96
ZX009179

BEACON LIGHT FOR DRIVING ON PUBLIC ROADS

In certain countries, the beacon lights must be switched on when driving on public roads.



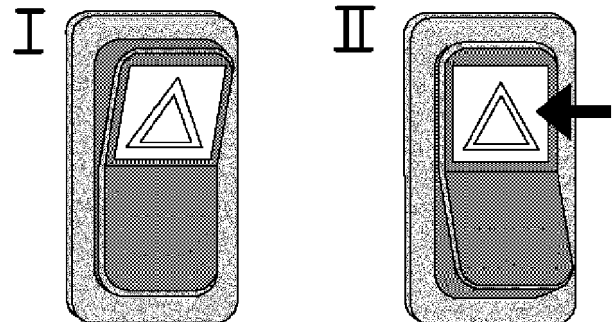
ZX 002374

ZX,OMXZC0001538-19-01AUG92

-UN-16/JUN95
ZX002374

TUMBLER SWITCH FOR HAZARD WARNING LIGHTS

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



ZX008380

ZX,OMXZC0001539-19-02MAY96

-UN-30/JAN96
ZX008380

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.

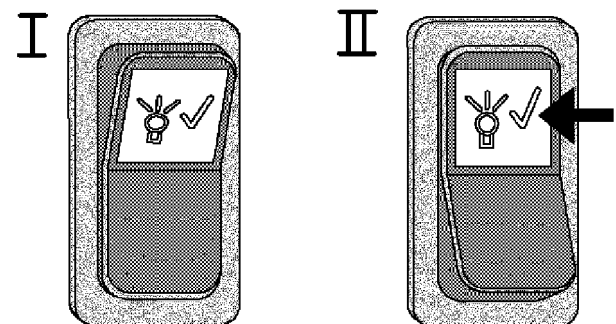
ZX,OMXZC0001540-19-01AUG92

TUMBLER SWITCH FOR INDICATOR LIGHT BULB TEST

This test can be performed only when the ignition is switched on.

Indicator light blocks (I) and (II) are tested.

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



ZX008381

ZX,OMXZC0001541-19-02MAY96

-UN-30/JAN96
ZX008381

Operator's Cab

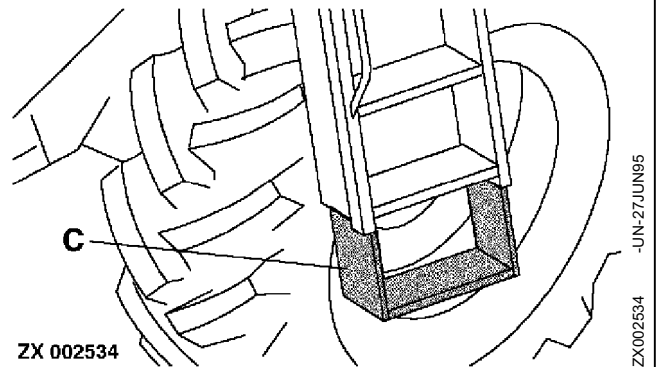
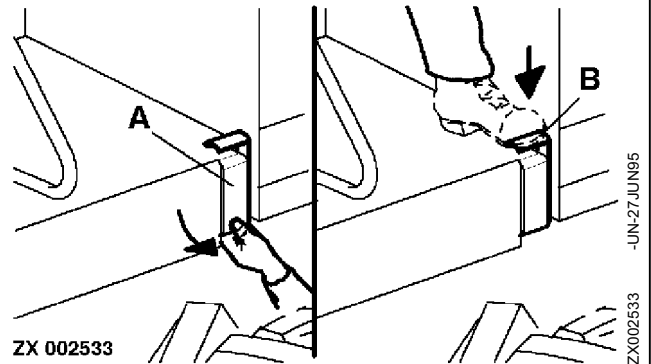
ACCESS LADDER TO OPERATOR'S CAB

CAUTION: Do not ascend or descend the ladder while the combine is in motion.

The access ladder may be turned forward or to the side either from the operator's platform or from ground level.

- From ground level: pull up flap (A) and turn access ladder.
- From operator's platform: press flap (B) and turn access ladder.

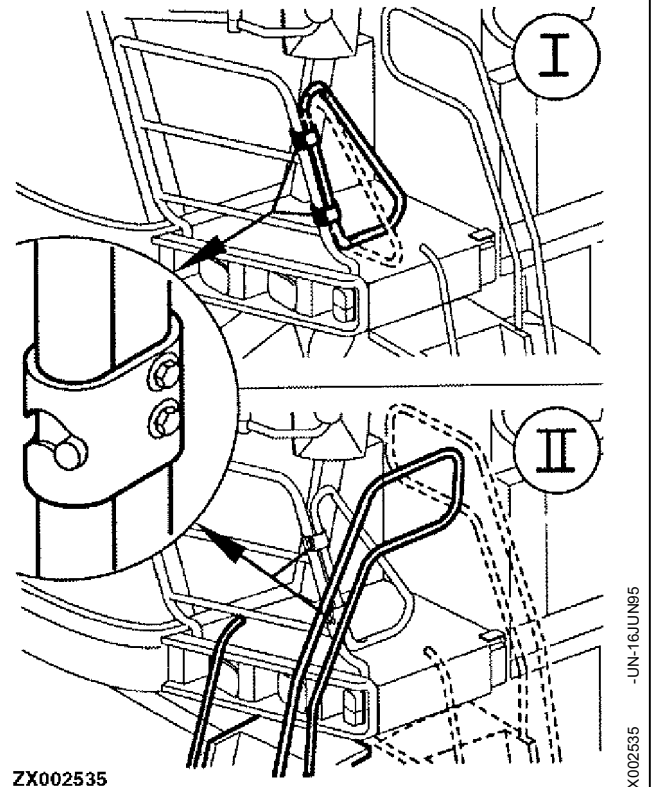
In muddy conditions, the distance between the bottom of the ladder and the ground may be altered by removing the lowest step (C).



ZX,OMXZC0001963-19-01AUG92

POSITIONS OF ACCESS LADDER AND HANDRAIL

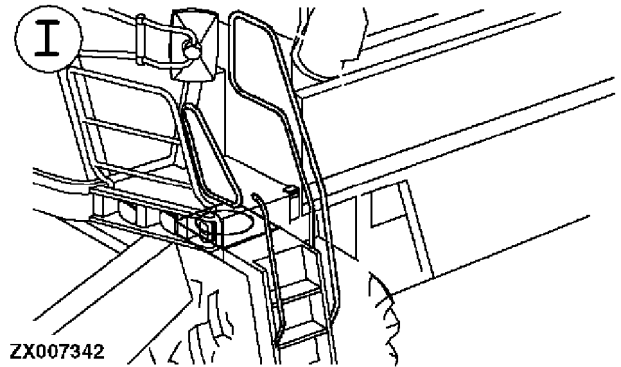
- I—Position for operations in the field
- II—Position for driving on roads and transport on a flatbed carrier



ZX,OMXZC0001964-19-01AUG92

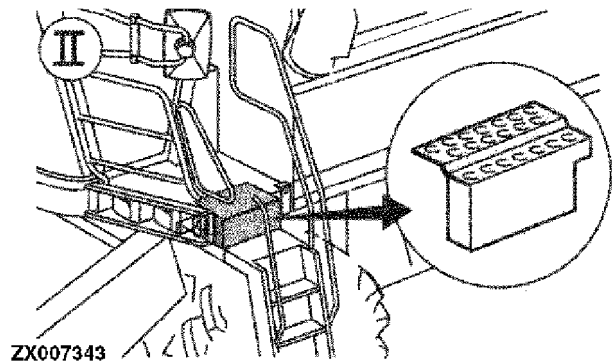
POSITIONS OF ACCESS LADDER IN RELATION TO TIRE SIZES

I — Position for combines with overall width less than 3 m (9.8 ft) with 18.4-30, 18.4-34 and 20.8-34 tires. 150 mm (5.9 in.) further in than Position (II).



-UN-19JUN95
ZX007342

II — Position for combines with overall width up to 3.3 m (10.8 ft).

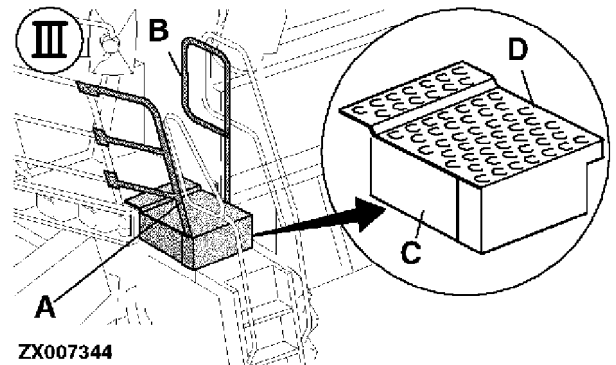


-UN-19JUN95
ZX007343

III — Position for combines with dual tires or Terra Tires. 40 mm (1.57 in.) further out than Position II.

NOTE: Additional handrails (A) and (B), two right-angled profiles (C) and cover (D) must be fitted when dual wheels and Terra Tires are used.

- A—Front handrail
- B—Rear handrail
- C—Right-angled profile
- D—Cover



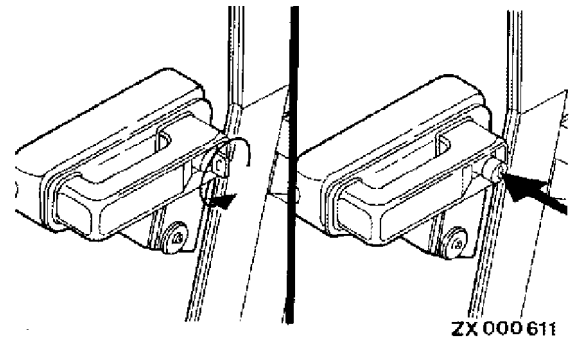
-UN-19JUN95
ZX007344

ZX,OMXZCO001989-19-01MAR95

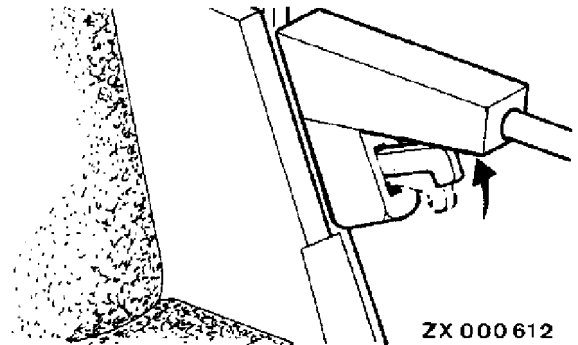
OPENING CAB DOOR

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

From inside: Pull up the door-opening lever.



-UN-03APR95
ZX000611



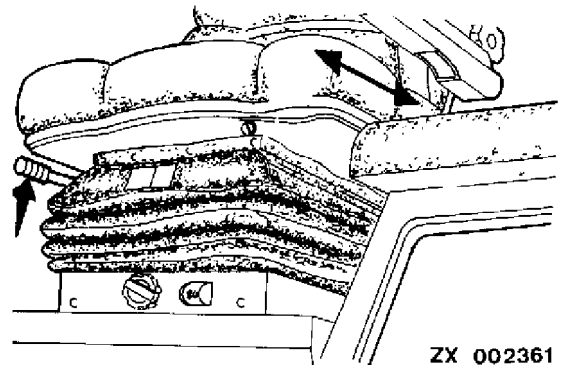
-UN-03APR95
ZX000612

ZX,OMXZC0001998-19-01AUG92

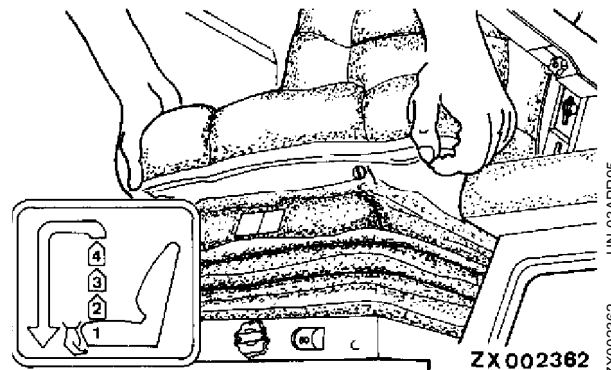
ADJUSTING OPERATOR'S SEAT POSITION

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.



-UN-03APR95
ZX002361



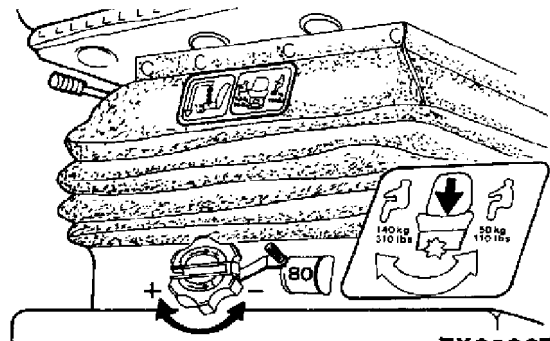
-UN-03APR95
ZX002362

ZX,OMSPFH000230-19-11MAY92

ADAPTING SEAT TO OPERATOR'S WEIGHT

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

Turn the crank until the operator's weight is shown on the scale.



ZX002377

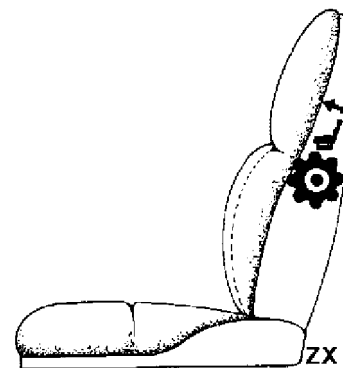
ZX.OMXZC0001542-19-01AUG92

-UN-03APR95
ZX000616

ADJUSTING LUMBAR SUPPORT

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.



ZX 000 616

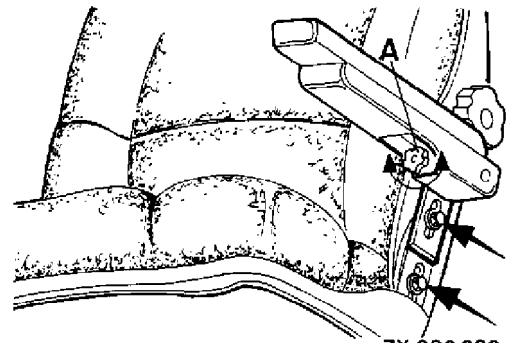
ZX.OMSPFH000232-19-26MAR91

-UN-03APR95
ZX000620

ADJUSTING THE ARMREST

Adjust armrest angle by means of wheel (A).

Armrest height can also be adjusted at the hinge.



ZX 000 620

ZX.OMXZC0001999-19-01AUG92

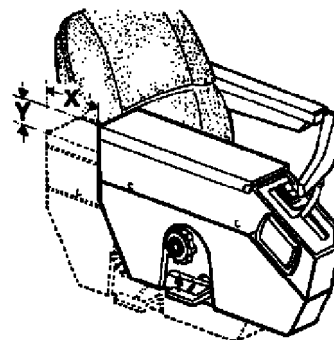
-UN-10APR95
ZX000621

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.



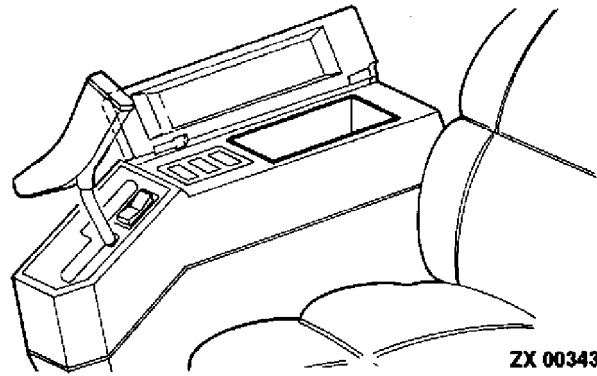
ZX000621

ZX.OMSPFH000235-19-26MAR91

-UN-03APR95
ZX000621

R.H. ARMREST STORAGE COMPARTMENT

Combines without combine data center.



ZX 003430

-UN-03APR95
ZX003430

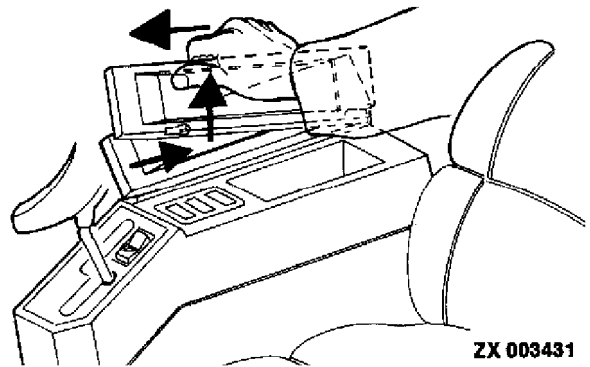
ZX,OMXZC0001990-19-01AUG92

COVER OF R.H. ARMREST

Armrest cover can easily be removed to make notes:

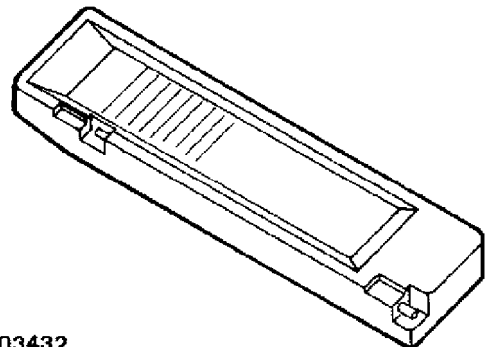
Open cover, grip at the front, press back, raise at the front and pull out.

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



ZX 003431

-UN-03APR95
ZX003431

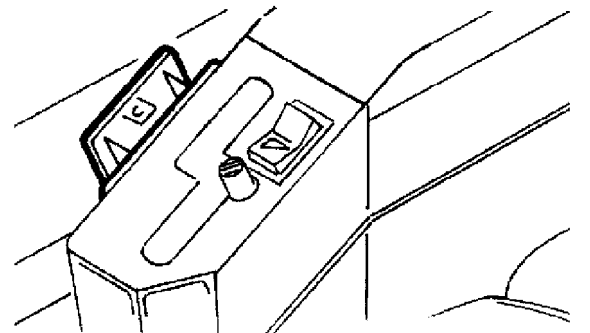


ZX 003432

-UN-03APR95
ZX003432

ZX,OMSPFH000238-19-11MAY92

ASHTRAY



ZX 000626

-UN-03APR95
ZX000626

ZX,OMSPFH000239-19-26MAR91

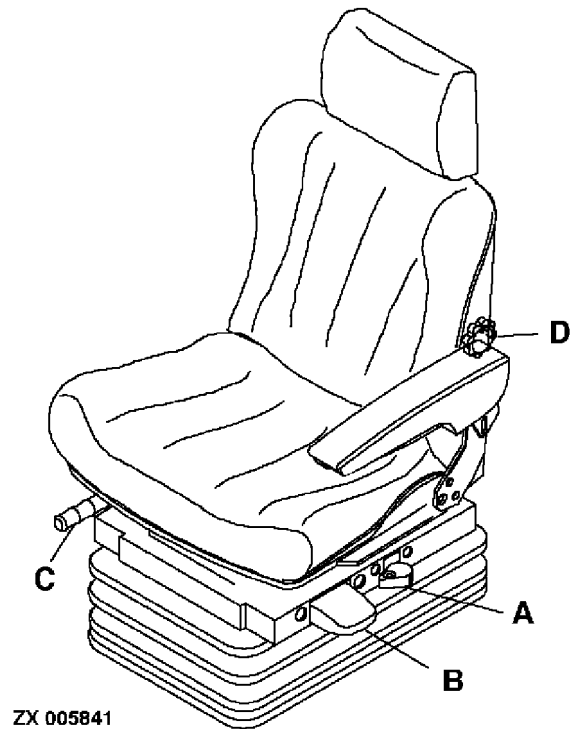
AIR COMFORT SEAT

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



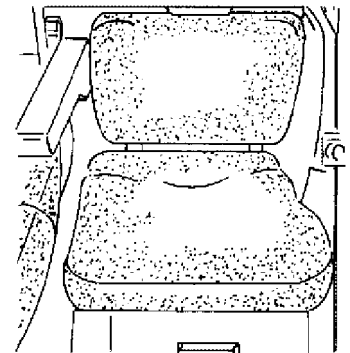
ZX 005841

ZX_OMSPFH003237-19-01MAY94

ZX005841 -UN-03APR95

PASSENGER SEAT

During operation, only the operator and an additional person are allowed in the cab.



ZX 000 628

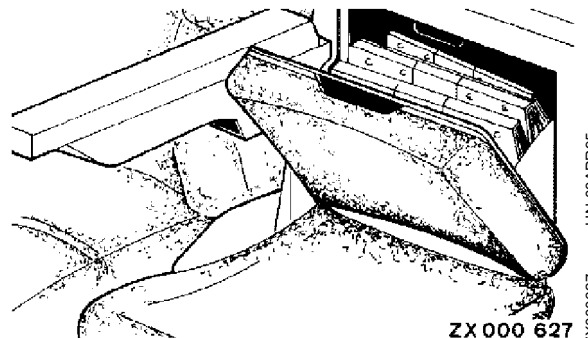
ZX_OMSPFH000240-19-26MAR91

ZX000628 -UN-03APR95

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

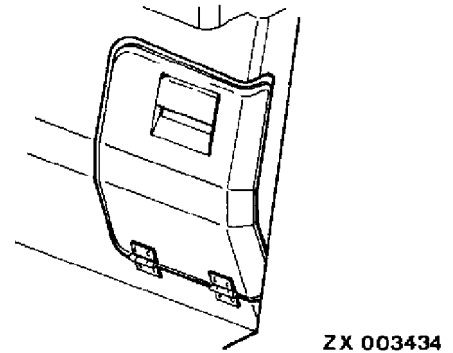
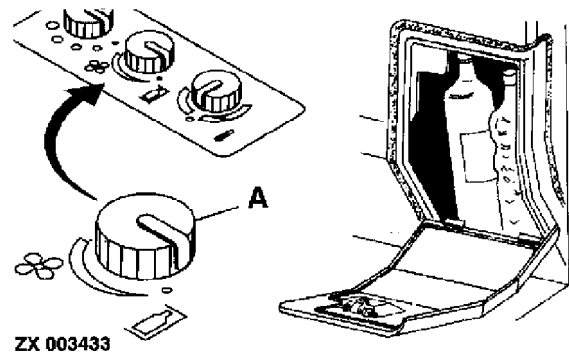
ZX_OMSPFH000241-19-26MAR91

ZX000627 -UN-03APR95

COOLING COMPARTMENT

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

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



ZX,OMXZCO001545-19-01MAR95

-UN-19APR95
ZX003433

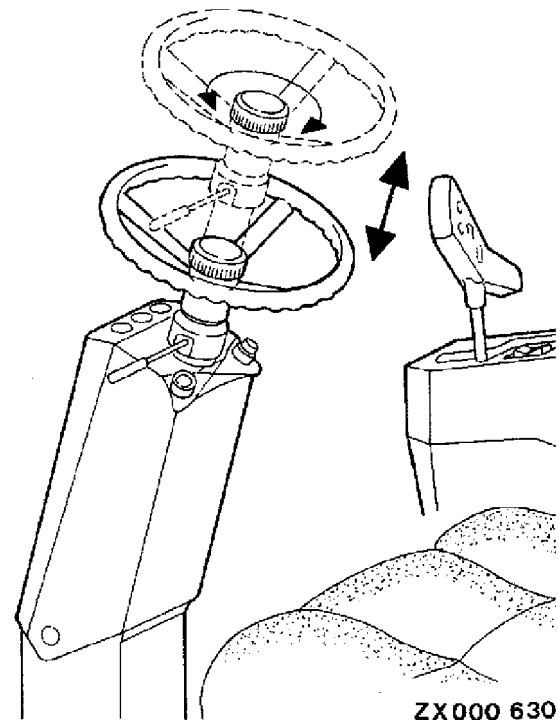
-UN-03APR95
ZX003434

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.



ZX,OMSPFH000261-19-26MAR91

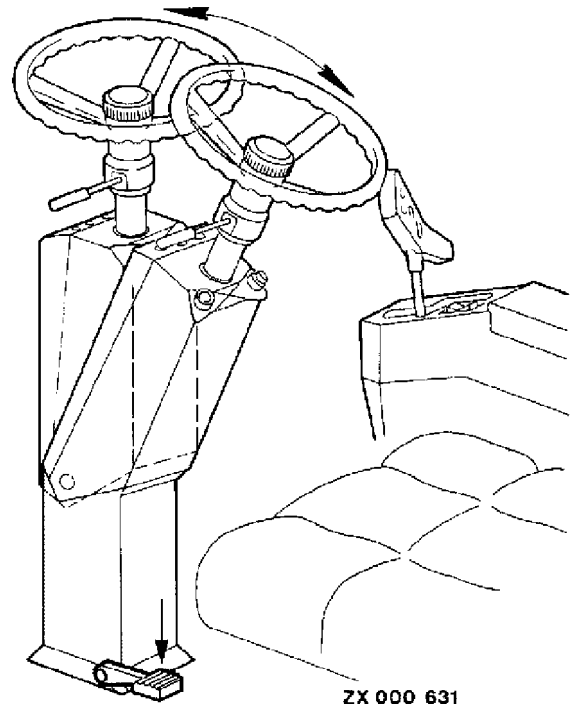
-UN-03APR95
ZX000630

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.



ZX 000 631

ZX,OMSPFH000262-19-26MAR91

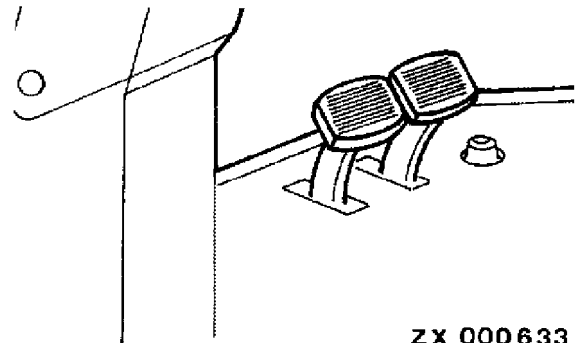
ZX000631 -UN-03APR95

FOOT BRAKES

For road travel, couple brake pedals.

For field operation, uncouple brake pedals.

For details refer to Section "Driving and Transporting".



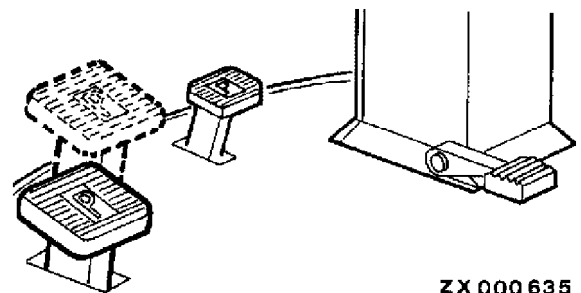
ZX 000 633

ZX,OMSPFH000243-19-02OCT91

ZX000633 -UN-03APR95

PARKING BRAKE

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



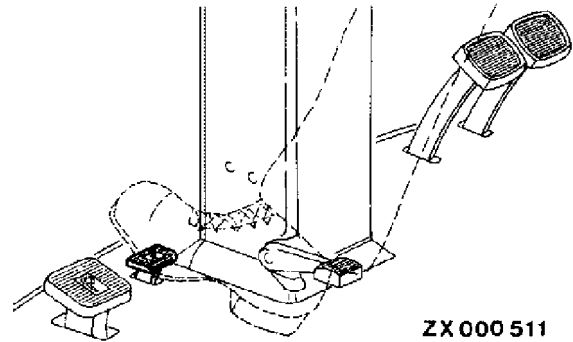
ZX 000 635

ZX,OMXZCO002365-19-13NOV92

ZX000635 -UN-03APR95

RELEASING PARKING BRAKE

To release parking brake, depress release pedal.

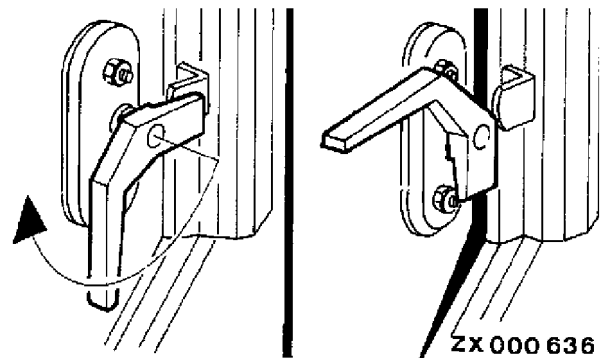


ZX,OMSPFH000245-19-26MAR91

ZX000511 -UN-03APR95

CAB SIDE WINDOW

To open, unlatch window.



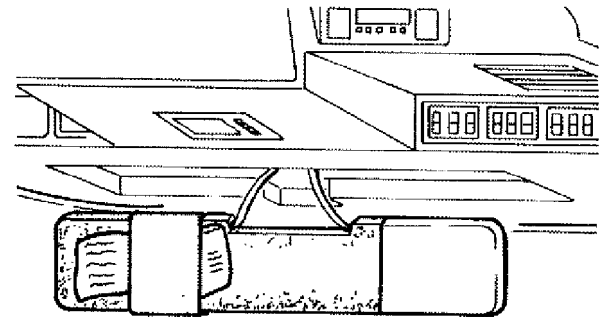
ZX,OMSPFH000246-19-18JAN91

ZX000636 -UN-05APR95

SUN VISOR

Notes etc. may be stored on back sun visor.

Adjust sun visor to suit conditions.



ZX002537

ZX,OMXZC0001991-19-01AUG92

ZX002537 -UN-16JUN95

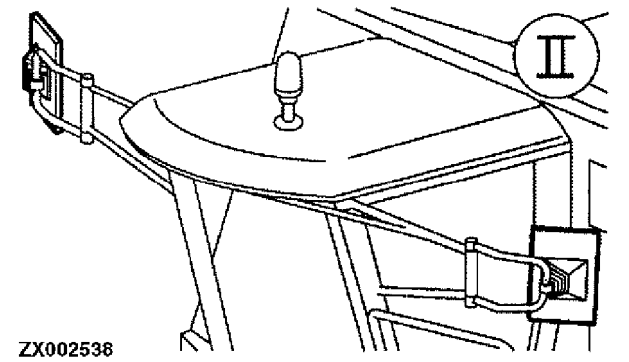
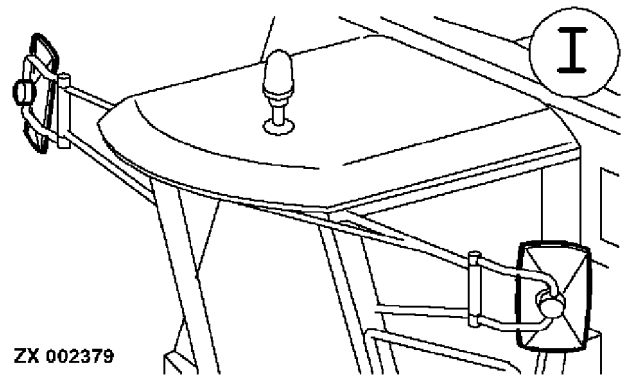
OUTSIDE MIRRORS

Adjust outside mirrors as necessary.

Electrically-adjustable outside mirrors are available as an option at either side.

NOTE: Details of how to operate the electrically-adjustable outside mirrors are provided in the "Controls and Instruments" section.

- I—Hand-adjustable outside mirrors
- II—Electrically-adjustable outside mirrors

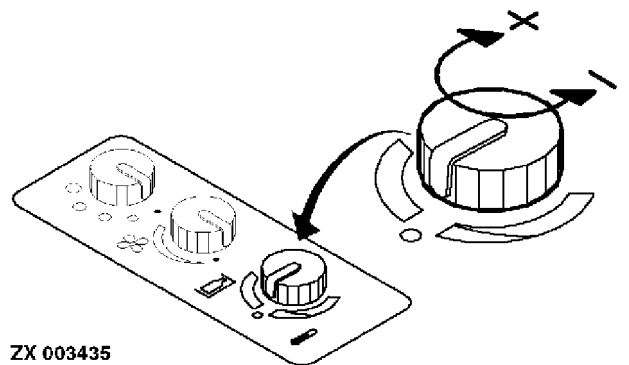


ZX,OMXZC0001546-19-01AUG92

TURN ON HEATER

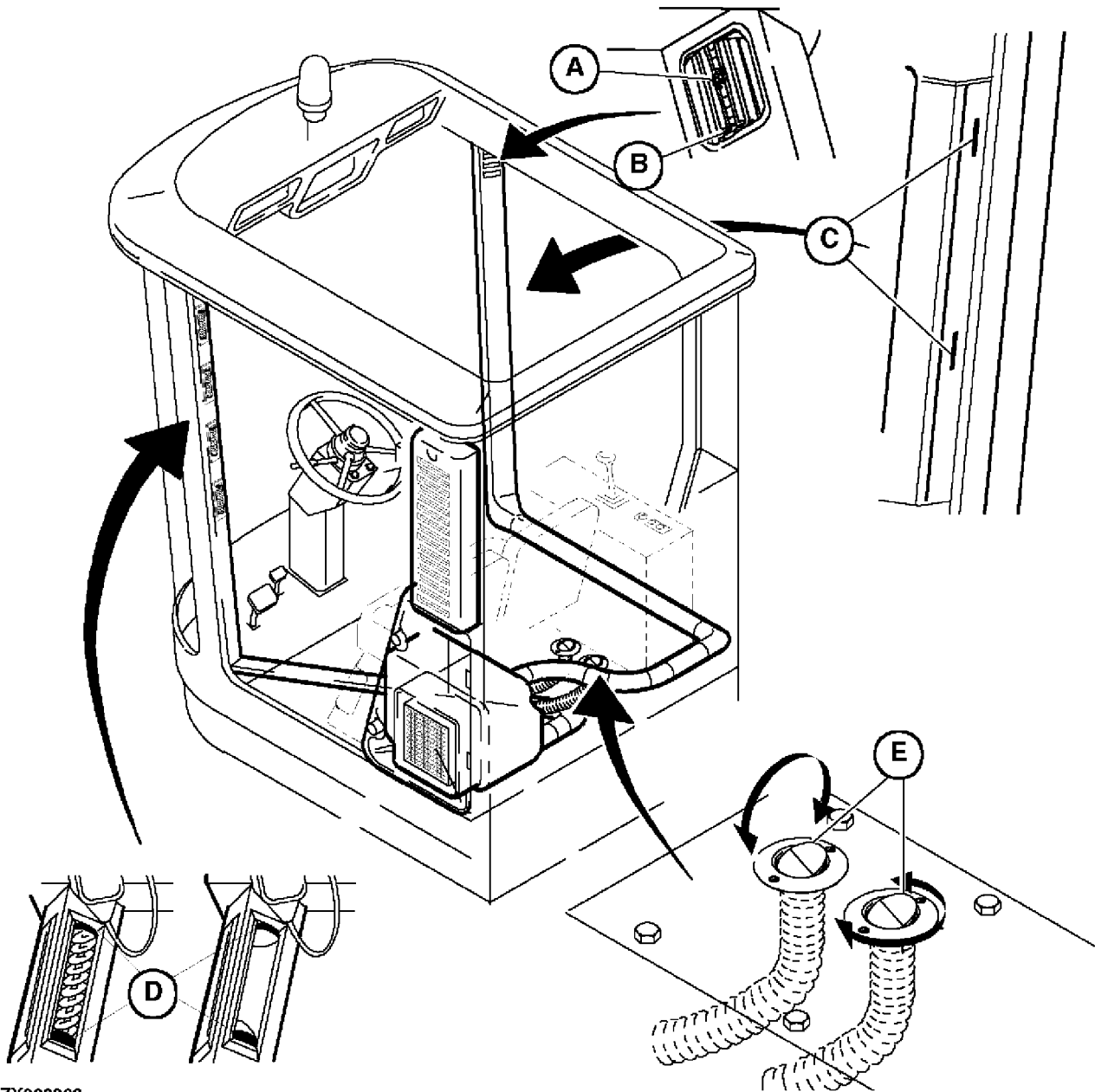
IMPORTANT: Always turn on fan before heater is set to work.

For temperature control, adjust knob.



ZX,OMSPFH000251-19-11MAY92

ADJUSTABLE AIR LOUVERS



ZX009303

A—Wheel to regulate amount of air

B—Air deflector screen adjustment

C—Air louvers
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.

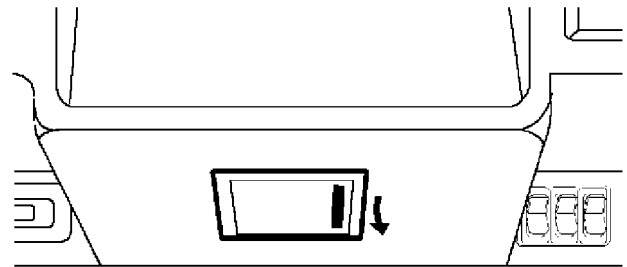
ZX009303 -UN-23MAY96

INTERIOR LIGHTING

Turn knurled wheel forward — on

Knurled wheel in center position — off

Turn knurled wheel backward — on



ZX 002560

ZX,OMXZC0001992-19-01AUG92

-UN-03APR95
ZX002560

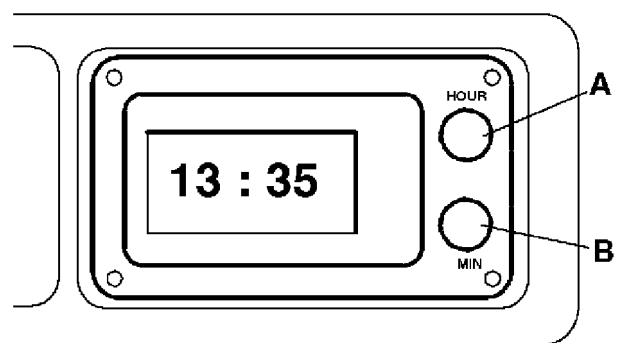
DIGITAL CLOCK

The time is displayed whenever the ignition is switched on.

The time display can be adjusted by means of buttons (A) and (B).

NOTE: The time display becomes dimmer when the parking lights are switched on.

The digital clock must be reset every time the battery is disconnected or switched off and on at the battery switch.



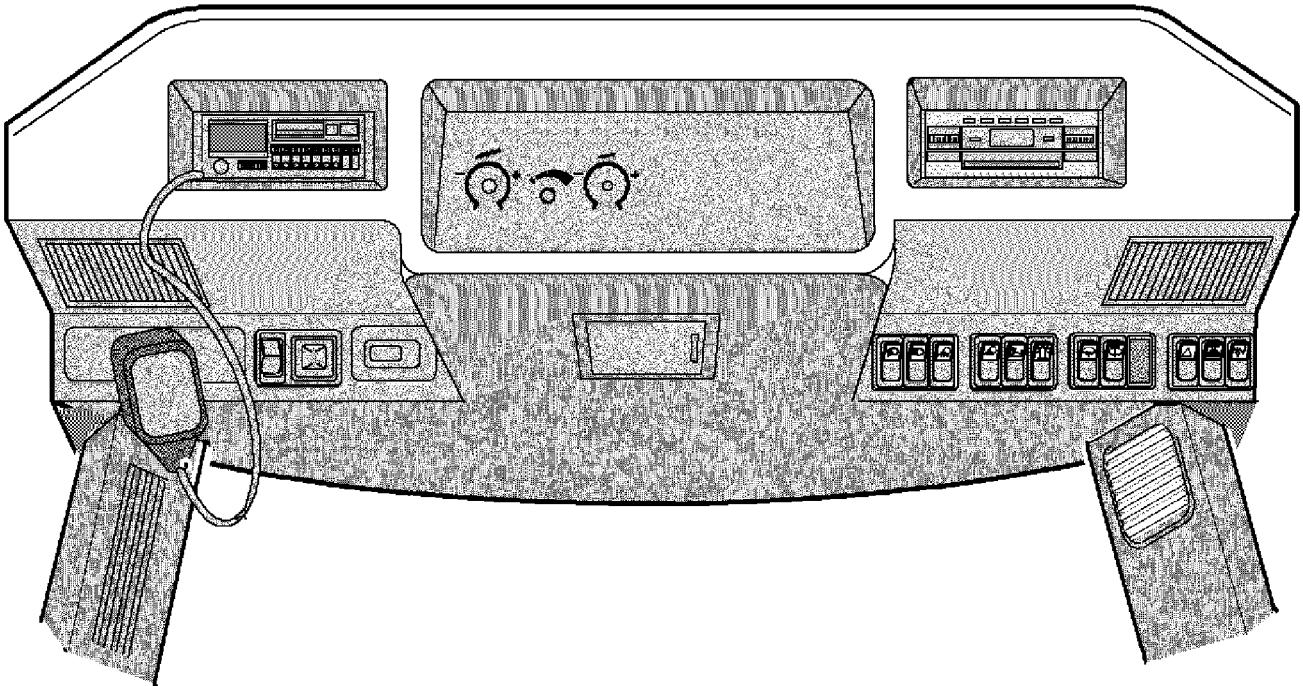
ZX 002561

A—Hour setting
B—Minute setting

ZX,OMXZC0001993-19-02MAY96

-UN-03APR95
ZX002561

RADIO AND CITIZENS' BAND RADIO (SPECIAL EQUIPMENT)



ZX009169

ZX009169 -UN-22MAY96

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

For operation, refer to manufacturer's instructions.

NOTE: A radio installation kit including two loudspeakers and an aerial is available as special equipment.

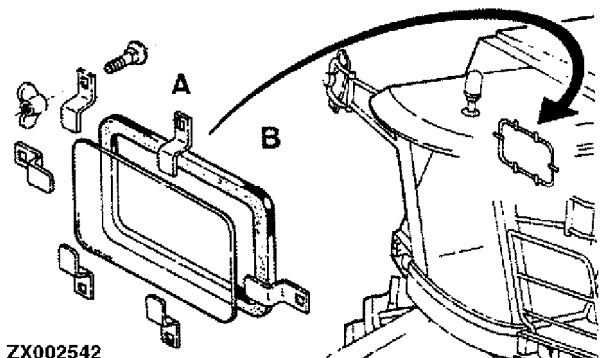
NOTE: Dimensions for the installation of radio and CB radio are the standard ones: 182 mm (7.17 in.) wide, 53 mm (2.1 in.) high.

ZX,OMXZCO001549-19-02MAY96

CLEANING REAR WINDOW OF CAB THROUGH THE GRAIN TANK

CAUTION: Shut off engine (first empty grain tank, if necessary). Remove battery cable from negative terminal, and switch off battery main switch if necessary.

Release clamps (A) and take out panel (B), then clean the outside of the cab window.



ZX002542

ZX002542 -UN-16JUN95

ZX,OMXZCO001966-19-13NOV92

Pre-Starting Checks

DAILY CHECKS

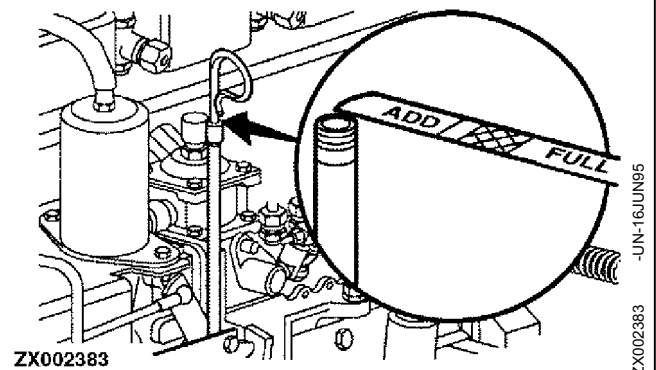
- Engine
- Hydraulic system
- Radiator screen
- Cooling system
- Tires
- Hydrostatic system
- Fuel system
- Indicator light test
- Light functions
- Brakes
- Straw warning device

ZX.OMXZC0001551-19-01AUG92

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 kept between the upper and lower marks. Always check oil level with combine parked on level ground.

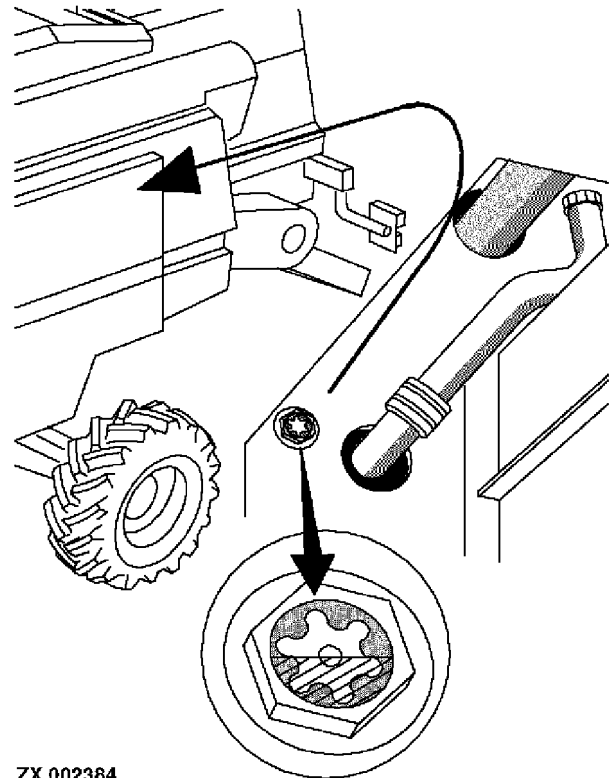


ZX.OMXZC0001552-19-01AUG92

HYDRAULIC OIL LEVEL

Retract all hydraulic cylinders and lower header to the ground.

Oil must be visible at sight glass.

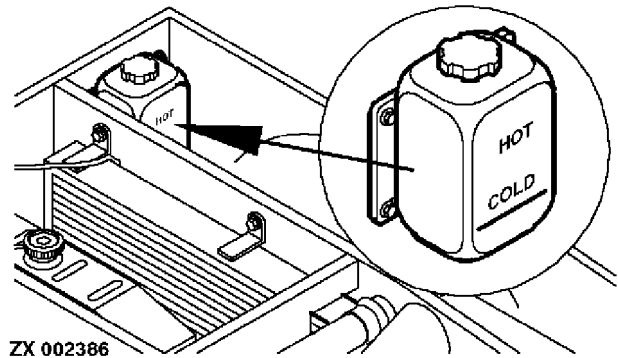


ZX.OMXZC0001553-19-13NOV92

Pre-Starting Checks

COOLANT LEVEL

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



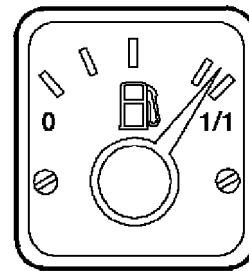
ZX 002386

ZX.OMXZC0001555-19-01AUG92

-UN-16/JUN95
ZX002386

FUEL LEVEL

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



ZX 002387

ZX.OMXZC0001556-19-01AUG92

-UN-03/APR95
ZX002387

AFTER LONG STORAGE PERIOD

Bleed fuel system.

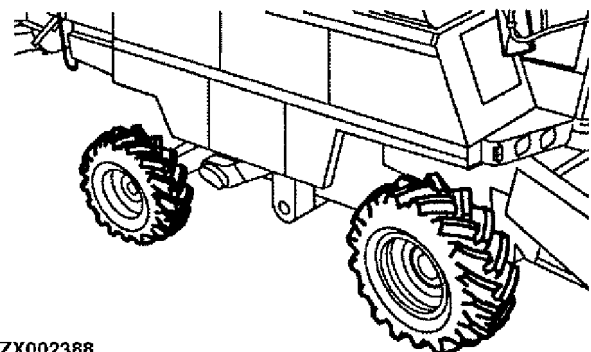
Refer to "Service - Engine".

ZX.OMSPFH000105-19-01OCT91

TIRES

Check tires daily for cuts or tears and obvious signs of low pressure.

Measure the tire pressure at least once a week using an accurate tire pressure gauge.



ZX002388

ZX.OMXZC0001557-19-01AUG92

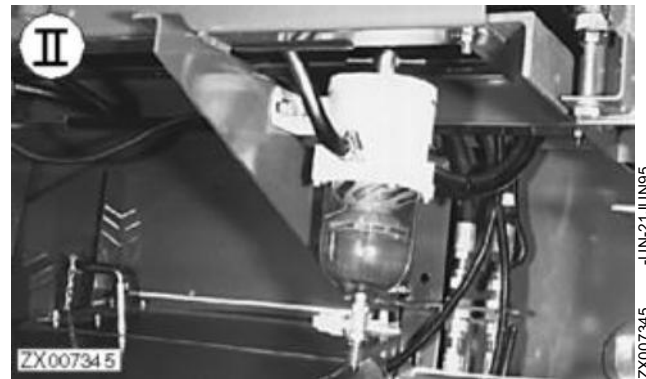
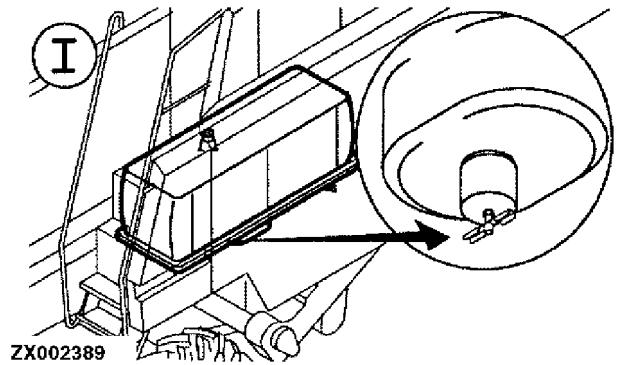
-UN-16/JUN95
ZX002388

FUEL SYSTEM

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

See "Service — Engine" section.

- I—Fuel tank separator
- II—Water trap



ZX,OMXZC0001558-19-01MAR95

LUBRICATE COMBINE

Proceed according to the lubrication chart.

ZX,OMXZC0001559-19-01AUG92

CHECKS IN OPERATOR'S CAB

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

ZX,OMXZC0001560-19-01AUG92

Operating the Engine

BREAKING IN THE ENGINE

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

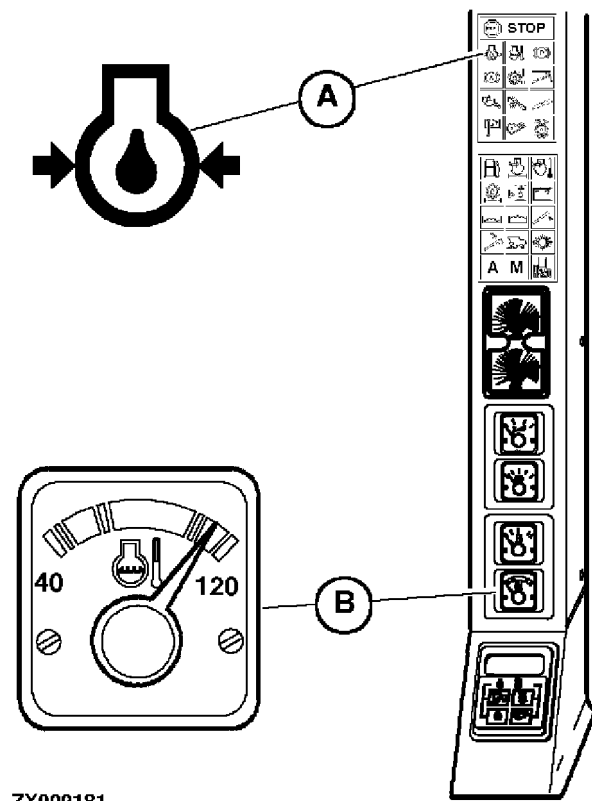
Observe the following points:

- 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.



ZX009181

ZX009181 -UN-22MAY96

ZX,OMXZC0001561-19-02MAY96

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.



Z19828

Z19828 -UN-04APR95

ZX,OMXZC0001562-19-01AUG92

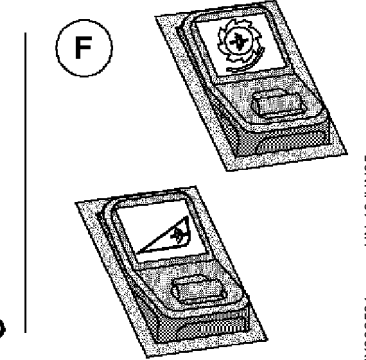
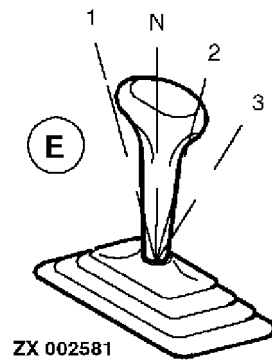
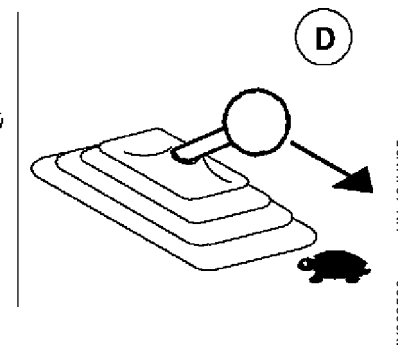
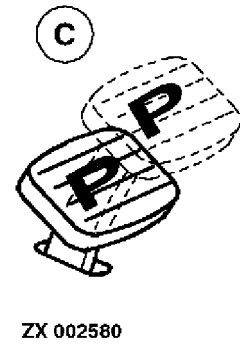
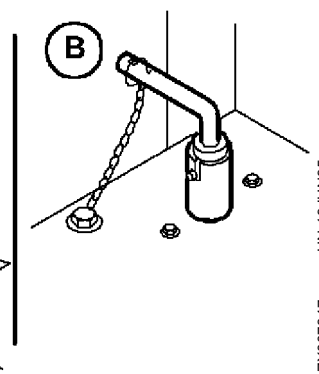
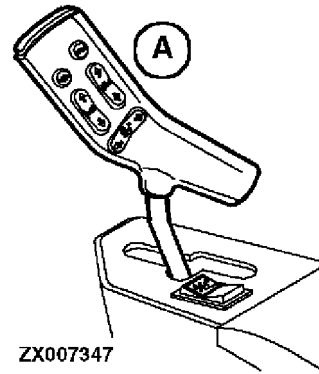
BEFORE STARTING THE ENGINE

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)
- Put gear shift lever in neutral (E)
- Disengage separator and cutting platform (F)



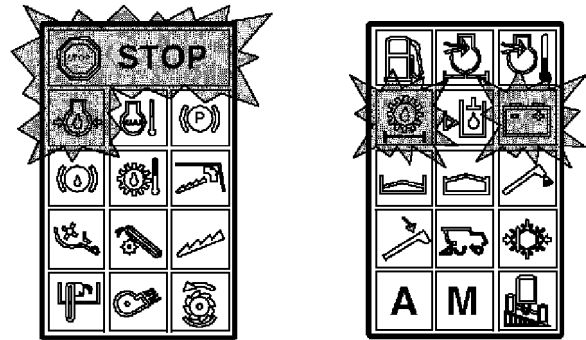
ZX,OMXZCO001563-19-01MAR95

TURN ON IGNITION

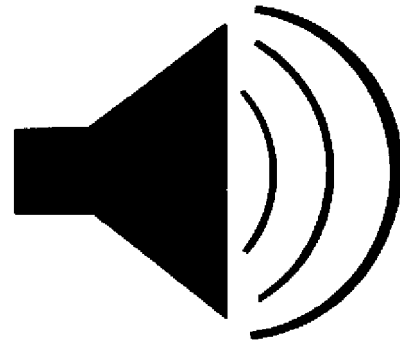
The following **indicator lights** will glow:

- Warning (STOP) light
- Engine oil pressure
- Alternator indicator light
- Hydraulic/hydrostatic oil filter

In addition, the **buzzer** will sound (continuous signal).



ZX007348



Z22052

ZX,OMXZCO001564-19-01MAR95

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ZX007348

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Z22052

STARTING THE ENGINE

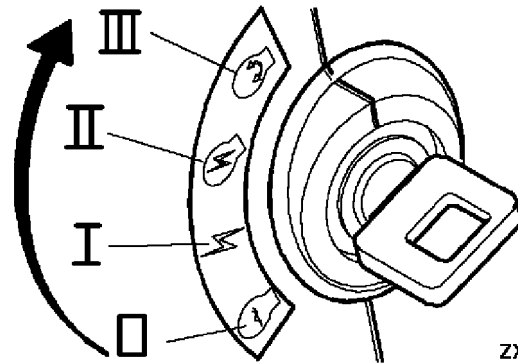
CAUTION: Start engine from operator's seat only.

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: At ambient temperatures below 5°C (40°F), use the cold weather starting aid (see instructions in this Section).



ZX 002403

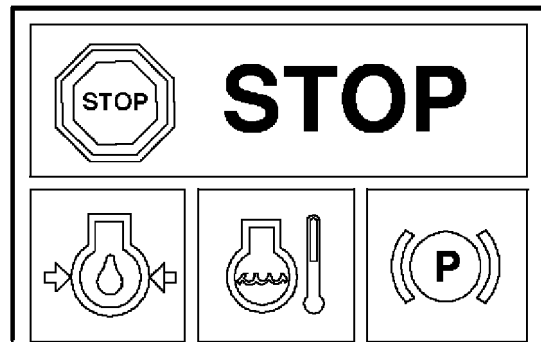
ZX,OMXZCO001565-19-01AUG92

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ZX002403

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

ZX,OMXZC0001566-19-01AUG92

ZX002395 -UN-03APR95

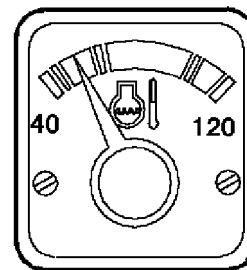
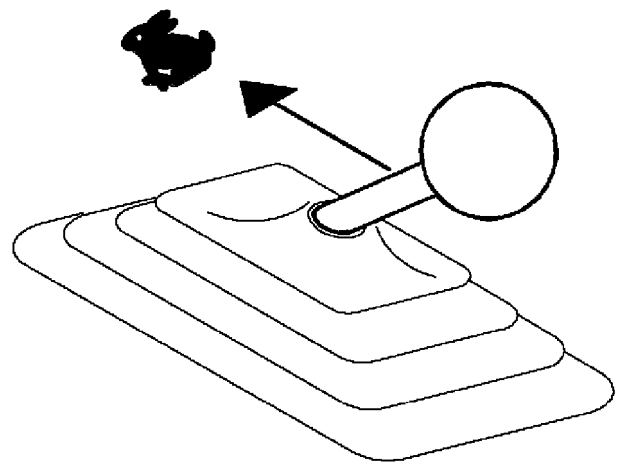
WARMING UP ENGINE

Move throttle lever forward until a speed of approx. 1200 rpm has been obtained.

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.



ZX 002396

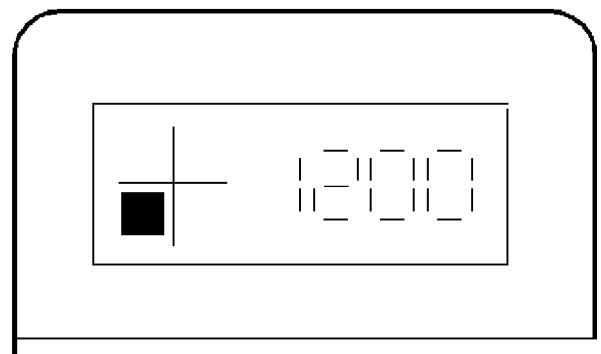
ZX,OMXZC0001567-19-01AUG92

ZX002396 -UN-03APR95

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.



ZX 002397

ZX,OMXZC0001568-19-01AUG92

ZX002397 -UN-03APR95

COLD WEATHER STARTING AIDS

With the ether starting aid system, ether starting fluid is injected into the intake manifold while cranking the engine.

Ether has a low ignition point and heat generated in the combustion chamber is able to ignite it. Heat from this ignition then ignites the fuel-air mixture (diesel fuel) and normal combustion takes place.

ZX,E291 -19-26MAR91

COLD WEATHER STARTING PROCEDURE WITH ETHER STARTING AID



CAUTION: Starting fluid is highly flammable. **DO NOT** use near fire, sparks or flames. Read the caution information on the container. Protect container against damage. **DO NOT** carry extra or empty ether cans inside the operator's cab.

IMPORTANT: To assure proper lubrication, operate engine at approximately 1200 rpm with no load for 1 to 2 minutes. Extend this period to 2 to 4 minutes when operating at temperatures below freezing point.

If starting fluid has not been used for several days, remove the fluid can. Check fluid and valve operation by reinstalling and depressing the spray nozzle. If no fluid is emitted, use a new can.

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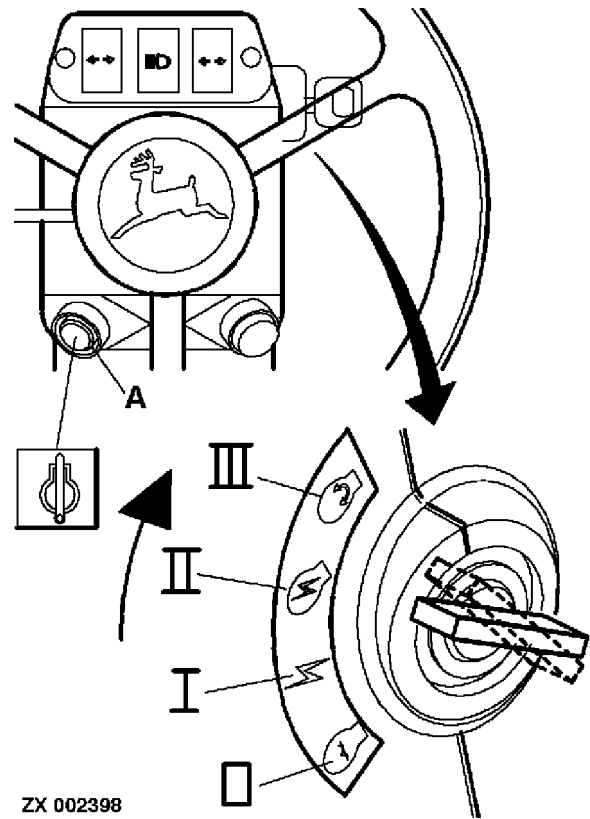
INSTRUCTIONS FOR USING COLD WEATHER STARTING AID

Turn starter switch to position II (ignition).

IMPORTANT: To prevent damage to the engine, inject starter fluid into the engine only when the engine is turning over.

Turn starter switch to position III. As soon as the engine starts to turn over, press ether starting aid button (A).

As soon as the engine catches, release both the starter switch and the ether starting aid button.



ZX 002398

ZX,OMXZC0001569-19-13NOV92

ZX002398 -UN-10APR95

ELECTRICAL COOLANT PREHEATER

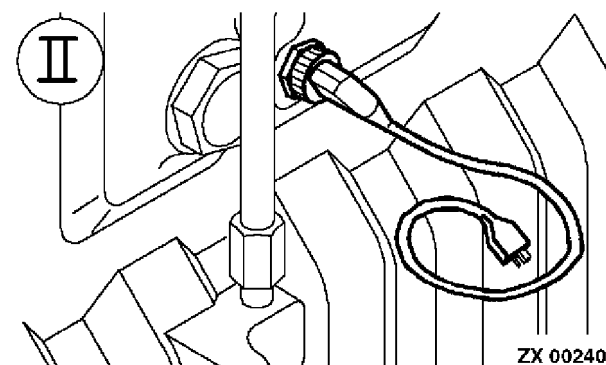
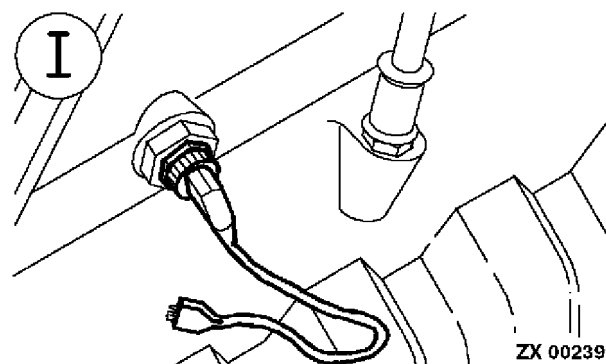
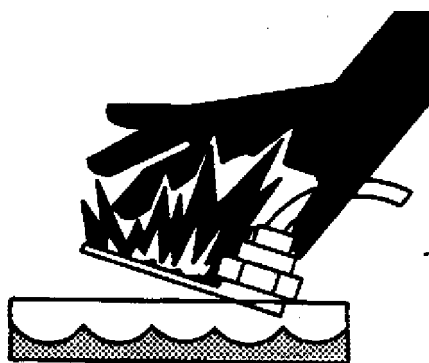
CAUTION: To avoid shock, always use a 3-wire, heavy-duty electrical cord when connecting up the coolant preheater. Also ensure it is properly grounded.

NEVER energize the coolant preheater unless it is first submerged in coolant. If the heater is energized in the air, the element sheath could burst causing personal injury.

Connect coolant heater to a 220-volt electrical outlet.

In extremely cold weather, it may take as long as 5 to 8 hours to heat the engine. The coolant heater has a 1000-watt heating element.

I—6.8 L (414 cu in.)
II—7.6 L (466 cu in.)



ZX,OMXZC0001570-19-01AUG92

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TS210

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ZX002399

-UN-16JUN95

ZX002400

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 -UN-23AUG88

ZX,OMXZC0001994-19-13NOV92

OPERATING IN TROPICAL CONDITIONS

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

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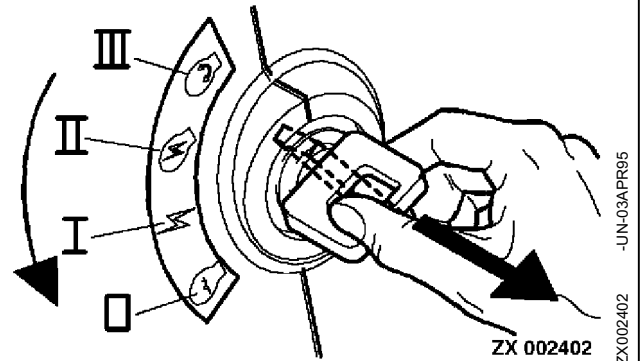
STOPPING THE ENGINE

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.
Put gear shift lever in neutral.
Apply parking brake.
Lower header to ground.
Set throttle lever to idle.

Turn starter switch to Position "0".

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



ZX.OMXZC0001571-19-01AUG92

STALLING OF ENGINE

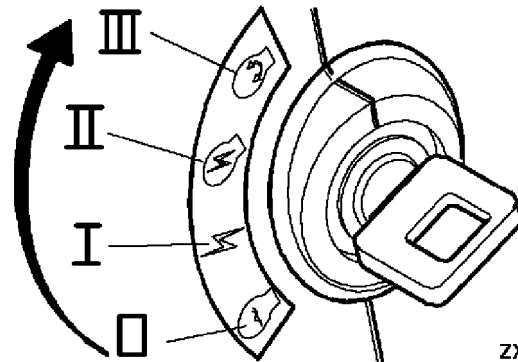
IMPORTANT: If engine stalls at operating temperature, restart it immediately to prevent overheating of certain engine parts. Before finally shutting off the engine, run at slow idle for 1-2 minutes.

ZX.OMSPFH000120-19-22DEC91

Driving and Transporting Harvester

STARTING THE ENGINE

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



ZX 002403

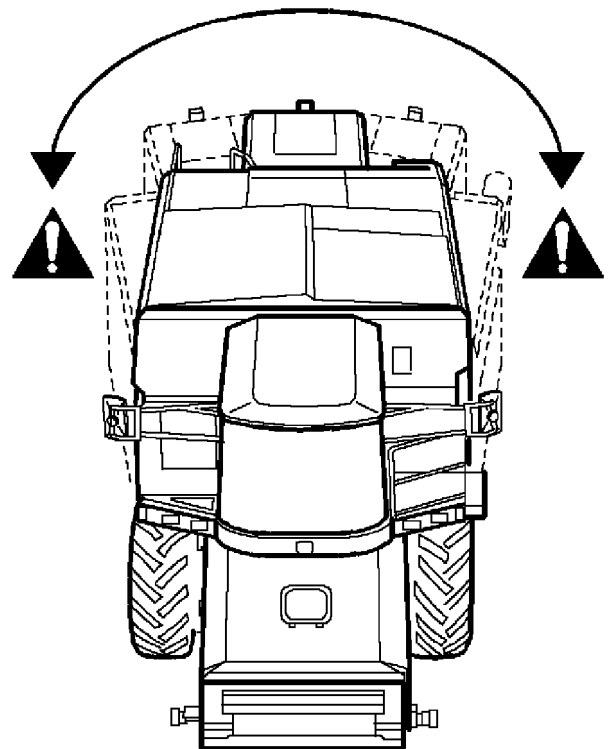
ZX.OMXZC0001572-19-01AUG92

-UN-03APR95
ZX002403

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.

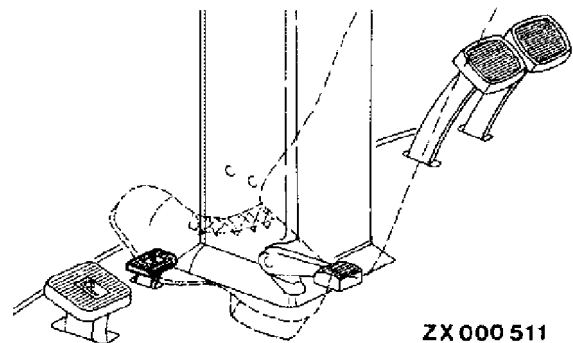


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RELEASING PARKING BRAKE



ZX 000 511

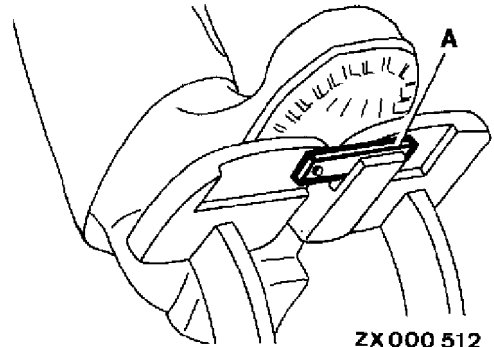
ZX.OMSPFH000124-19-26MAR91

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ZX000511

OPERATING THE FOOT BRAKES

During road travel

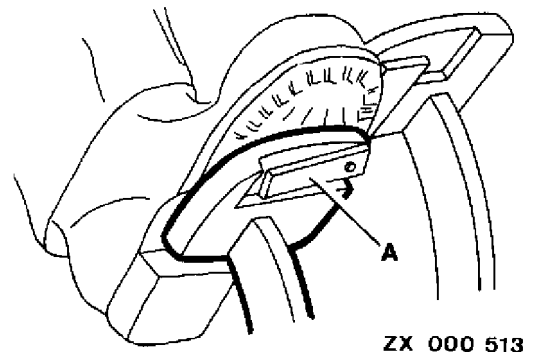
- CAUTION:** For safety reasons, always couple brake pedals by means of pedal coupler (A) when driving on public roads. This ensures the brakes are actuated together.



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).



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ZX000512

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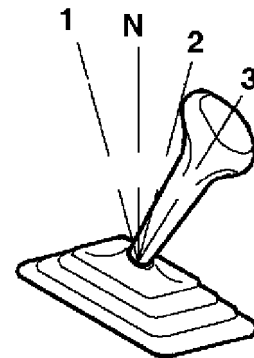
ZX000513

ENGAGING A GEAR

Engage 3rd gear for road travel.

For field operation:

- Select a gear according to working conditions (preferably 2nd gear).
- Do not use 3rd gear unless four-wheel drive is engaged.



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-UN-03APR95

ZX002405

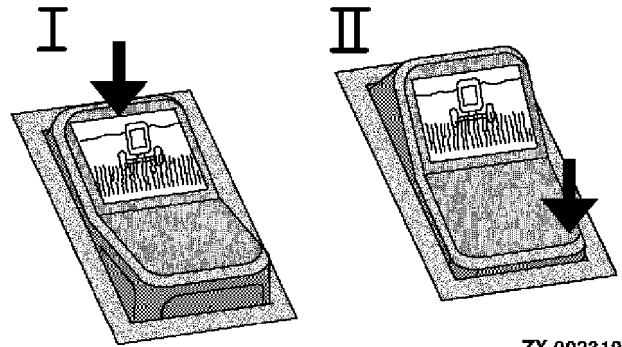
ROAD SAFETY SWITCH

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



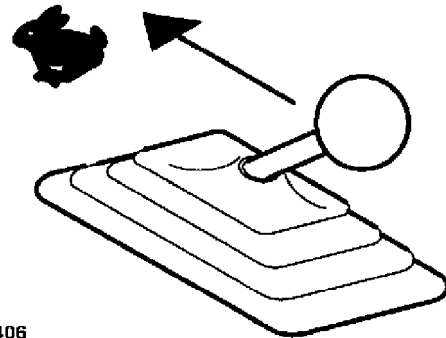
ZX 002319

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ZX002319

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ADJUSTING ENGINE SPEED

Move throttle lever forward to obtain maximum engine speed.



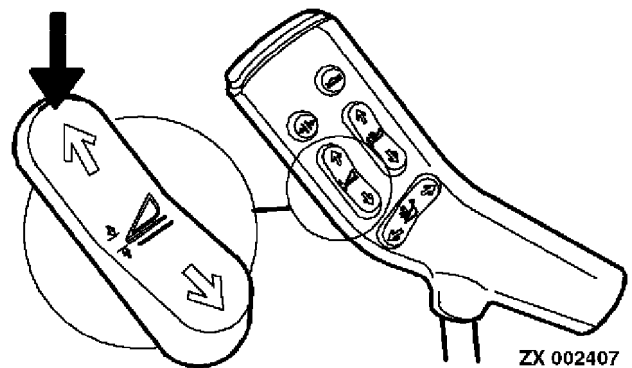
ZX002406

-JUN-05-APR95
ZX002406

ZX,OMXZC0001577-19-01AUG92

RAISING HEADER

Raise header to highest position.



ZX 002407

-JUN-16-JUN95
ZX002407

ZX,OMXZC0001578-19-13NOV92

FORWARD AND REVERSE TRAVEL

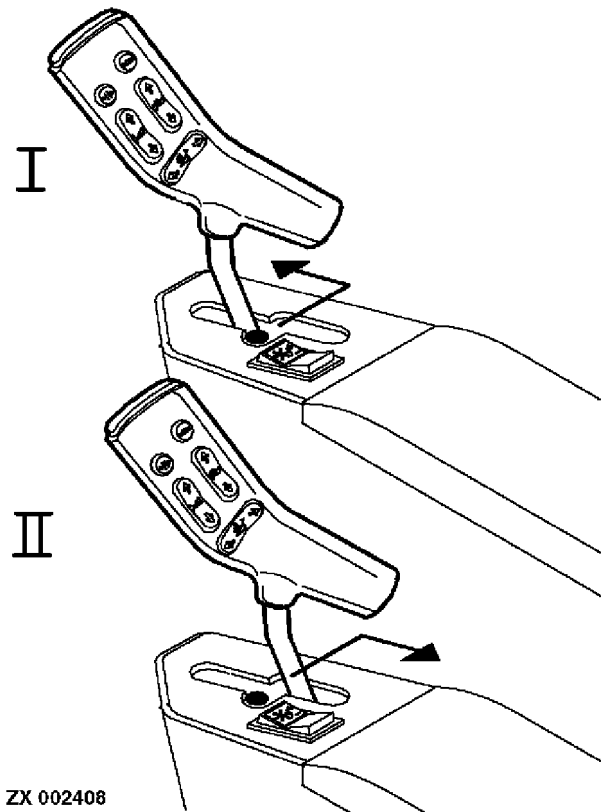
⚠ CAUTION: Always adapt ground speed of harvester to road or field conditions.

Forward travel (I)

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

Reverse travel (II)

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



ZX 002408

ZX,OMXZC0001579-19-13NOV92

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ZX002408

REVERSE TRAVEL ALARM

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.



ZX006327

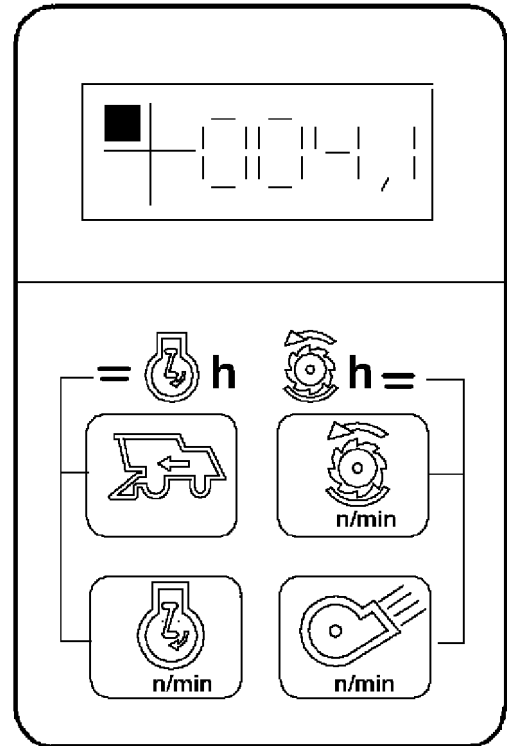
ZX,OMXZC0003408-19-02MAR95

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ZX006327

CHOOSING CORRECT GROUND SPEED

Never select a speed lower than the minimum speed for the individual speed range. For the minimum continuous speed, see "Specifications".

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



ZX 002409

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ZX002409 -UN-16JUN95

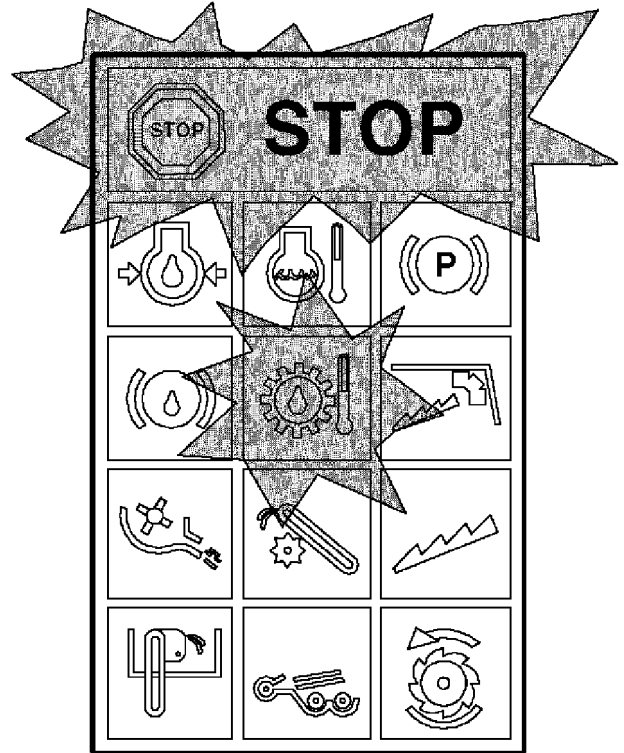
AVOID OVERHEATING OF HYDROSTATIC SYSTEM

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 (continuous 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 -JUN-16JUN95

ZX,OMXZC0001581-19-01AUG92

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), or 20 km/h (12 mph) in Germany.

ZX,OMXZC0001996-19-01AUG92

TRANSPORTING UNDER OWN POWER

Remove **header**, if overall width exceeds the legal limits (for details of removal, see relevant operator's manual). Move the feeder house to transport position.

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

Empty the **grain tank**.

Bring in the **unloading auger**.

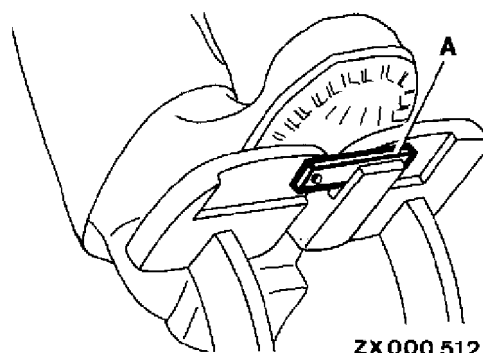
Pivot and secure the **access ladder**.

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

For general information on driving, see this Section.

ZX.OMXZC0001583-19-01AUG92

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.



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FOUR-WHEEL DRIVE

IMPORTANT: Do not switch 4-wheel drive on or off while driving in 3rd gear (road gear) at maximum travel speed.

Move ground speed control lever to a position midway between neutral and max. speed before switching 4-wheel drive on or off.

NOTE: The road safety switch must be in the field (off-road) position before four-wheel drive can be engaged.

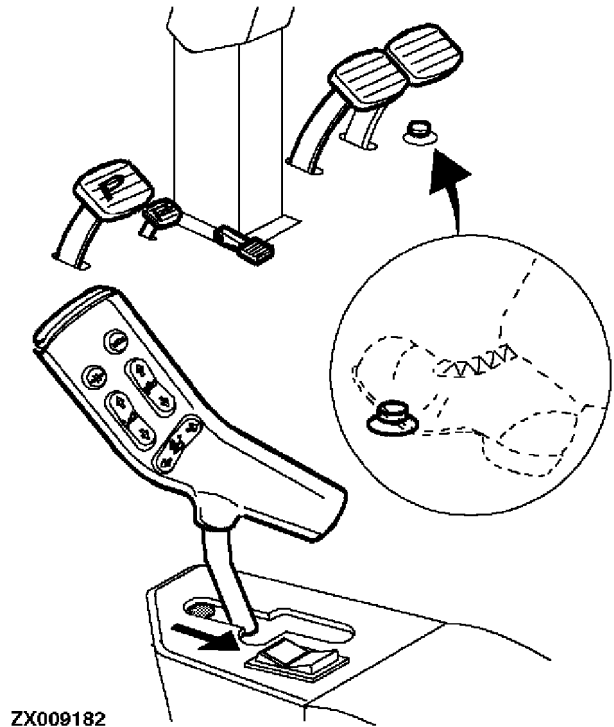
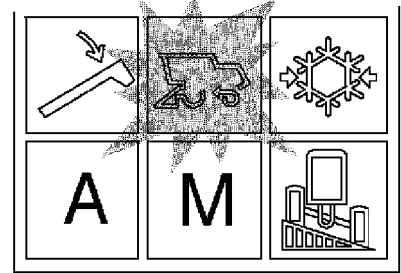
The 4-wheel drive system is designed for use in conditions where traction is poor or when needed to improve steering control.

To engage the drive, depress the foot switch.

To disengage the drive, depress foot switch once again.

It is not necessary to engage 4-wheel drive when driving the combine harvester unless conditions are soft or muddy.

In most conditions, it is normal for front wheels to spin before rear wheels spin. When this occurs, shift into 3rd gear. In extremely muddy conditions, it may be necessary to apply both brakes momentarily to increase hydrostatic pressure.



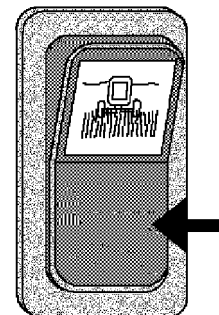
ZX009182 -UN-22MAY96

ZX,OMXZC0001582-19-02MAY96

ROAD SAFETY 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

ZX,OMXZC0001588-19-01AUG92

TOWING THE HARVESTER

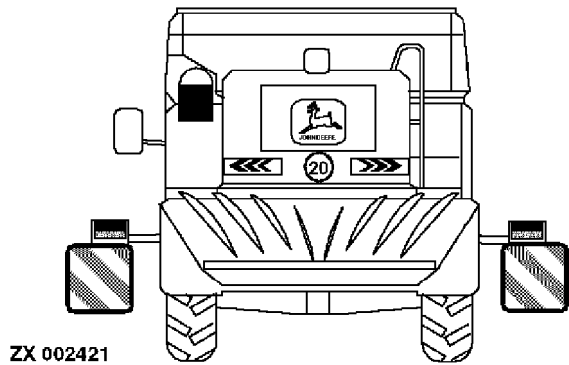
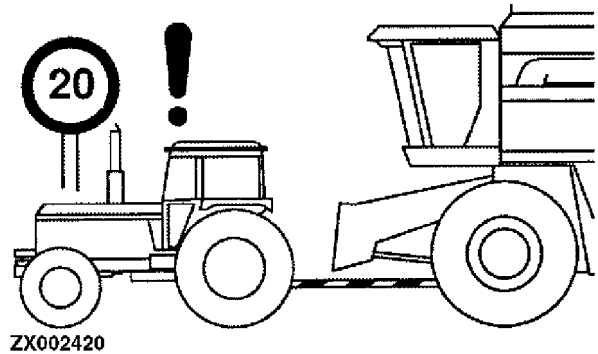
Prepare harvester as shown under "Transporting under Own Power".

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.



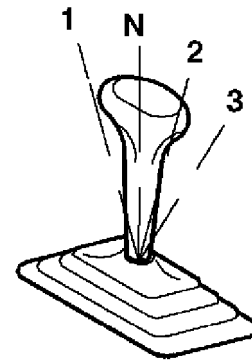
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ZX002420

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ZX002421

Place gear shift lever in neutral position

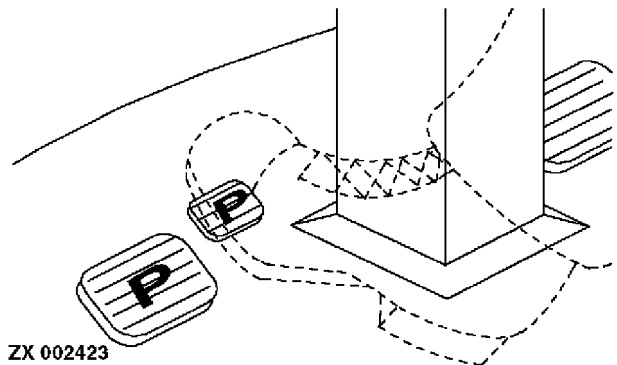
IMPORTANT: During towing, it is essential that the three-speed transmission is in neutral.



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-UN-16JUN95
ZX002422

Release parking brake

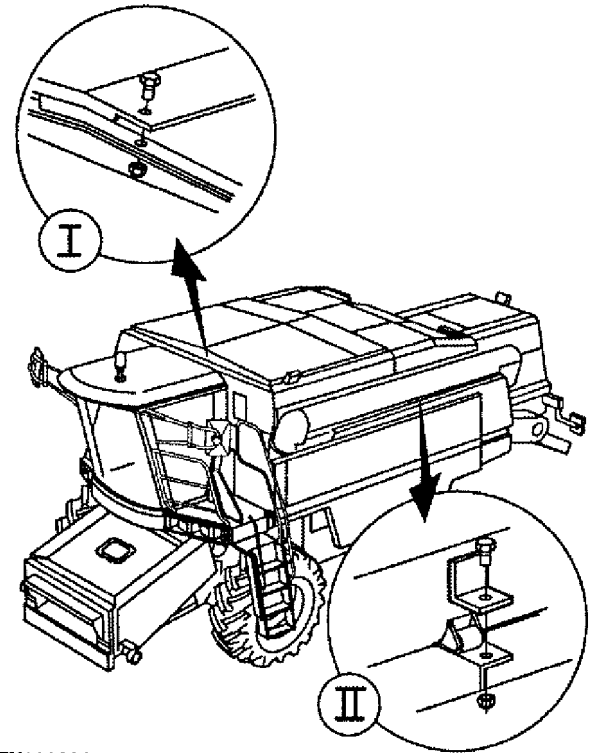


ZX,OMXZC0001592-19-01AUG92

-UN-16JUN95
ZX002423

GUARDS FOR TRANSPORT ON TRUCK

Attach guards (I) and (II) before transporting the harvester on a truck. Remove guards when no longer needed.



ZX003921

ZX,OMXZC0001997-19-01AUG92

ZX003921 -UN-19JUN95

Wheels, Axles and Additional Weights

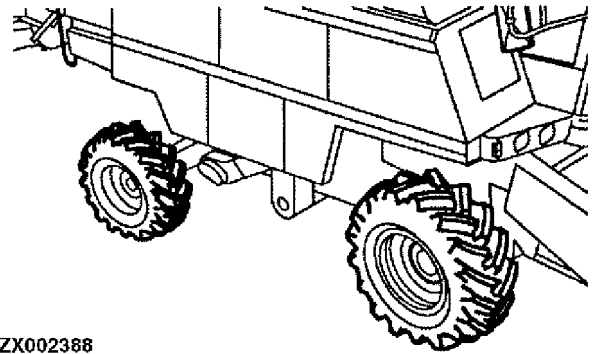
TIRE MAINTENANCE

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.



ZX002388

ZX002388 -UN-16JUN95

ZX,OMXZC0002000-19-01AUG92

TUBELESS TIRES

The majority of front wheel tires and all rear wheel tires (except drive 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.

ZX,OMSPFH001142-19-01OCT91

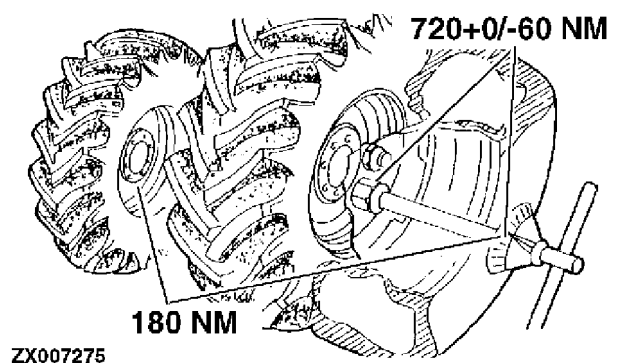
WHEEL BOLTS AND NUTS

Rear wheels

After the first hour of operation and again after the first 20 to 25 hours of operation, check and tighten rear wheel bolts to 180 N·m (130 lb-ft).

Front wheels

After the first hour of operation and again after the first 20 to 25 hours of operation, check and tighten front wheel nuts to 720 +0/-60 N·m (531 +0/-44 lb-ft).



ZX007275

ZX007275 -UN-19JUN95

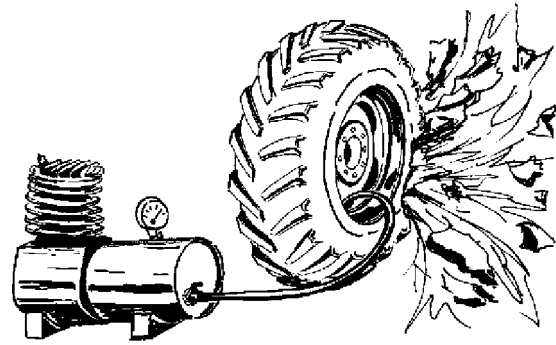
ZX,OMXZC0002001-19-01MAR95

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

ZX,OMSPFH001144-19-01NOV94

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.

ZX,OMXZC0002002-19-01AUG92

CHANGING TIRES

IMPORTANT: When changing drive wheels, tire radius may also change. If so, the infotrak monitor must be adjusted to the new tire radius.

For input of specific machine data, see “Warning Devices and Monitors” section.

ZX,OMXZC0002003-19-01AUG92

DRIVE WHEELS FOR 2254, 2256 AND 2258 COMBINES AND HILLMASTERS

SIZE	CODE NO.	2254	2254 HM	2256	2256 HM	2258	2258 HM	FINAL DRIVE	WIDTH mm (ft)
18.4-34	16 PR	•	•	•	•	•	•	104/11	3000 (9.8)
20.8-34*	14 PR	•		•		•		104/11	3000 (9.8)
24.5-32	12 PR	•	•	•	•	•	•	104/11	3300 (10.8)
	12 PR	•		•		•		104/11	3500 (11.5)**
	12 PR	•		•		•		Planetary	3850 (12.6)
30.5-32	12 PR	•	•	•	•	•	•	104/11	3500 (11.5)
	12 PR	•		•		•		Planetary	3850 (12.6)
66X43.00-25	10 PR	•		•		•		Planetary	4584 (15.0)

* Combines with overall width less than 3 m (9.8 ft) only, ** with axle extension and re-inforced final drive.

ZX,OMXZC0002004-19-21NOV96

**DRIVE WHEELS FOR 2254, 2256 AND 2258 COMBINES
AND HILLMASTERS (CONTINUED)**

RADIAL TIRES

SIZE	CODE NO.	2254	2254 HM	2256	2256 HM	2258	2258 HM	FINAL DRIVE	WIDTH mm (ft)
620/75 R34	170 A8	•	•	•	•	•	•	104/11	3200 (10.5)
	170 A8	•		•		•		104/11	3500 (11.5)*
	170 A8	•		•		•		Planetary	3850 (12.6)
24.5 R 32	167 A8	•	•	•	•	•	•	104/11	3300 (10.8)
	167 A8	•		•		•		104/11	3500 (11.5)*
	167 A8	•		•		•		Planetary	3850 (12.6)
30.5 LR 32	167 A8	•	•	•	•	•	•	104/11	3500 (11.5)
	167 A8	•		•		•		Planetary	3850 (12.6)
	172 A8	•	•	•	•	•	•	104/11	3500 (11.5)
	172 A8	•		•		•		Planetary	3850 (12.6)

DUAL TIRES

SIZE	CODE NO.	2254	2254 HM	2256	2256 HM	2258	2258 HM	FINAL DRIVE	WIDTH mm (ft)
18.4-38 with 24.5-32	14	•		•		•		104/11 HM	4610 (15.1)
18.4-38 with 620/75 R34	14	•		•		•		104/11 HM	4578 (15.0)

* With axle extension and re-inforced final drive.

ZX,OMXZC0002005-19-01NOV96

DRIVE WHEELS FOR 2264 AND 2266 COMBINES AND HILLMASTERS

SIZE	CODE NO.	2264	2264 HM	2266	2266 HM	FINAL DRIVE	WIDTH mm (ft)
18.4-34*	16 PR	•		•		104/11	3000 (9.8)**
	16 PR		•		•	104/11	3000 (9.8)**
24.5-32	12 PR	•		•		104/11	3500 (11.5)
	12 PR		•		•	104/11	3535 (11.6)
	12 PR	•		•		Planetary	3850 (12.6)
30.5-32	12 PR	•		•		104/11	3500 (11.5)
	12 PR		•		•	104/11	3830 (12.5)
	12 PR	•		•		Planetary	3850 (12.6)
66X43.00-25	10 PR	•		•		Planetary	4584 (15.0)

* On 2264 and 2266, rim pressed in 178 mm (7.00 in); on 2264HM and 2266HM, rim pressed in 197 mm (7.75 in.) ** Does not apply with re-inforced feeder house drive.

ZX,OMXZC0002006-19-01NOV96

DRIVE WHEELS FOR 2264 AND 2266 COMBINES AND HILLMASTERS (CONTINUED)

RADIAL TIRES

SIZE	CODE NO.	2264	2264 HM	2266	2266 HM	FINAL DRIVE	WIDTH mm (ft)
620/75 R 34	170 A8	•		•		104/11	3500 (11.5)
	170 A8		•		•	104/11	3535 (11.6)
	170 A8	•		•		Planetary	3850 (12.6)
24.5 R 32	167 A8	•		•		104/11	3500 (11.5)
	167 A8		•		•	104/11	3535 (11.6)
	167 A8	•		•		Planetary	3850 (12.6)
30.5 LR 32	167 A8	•		•		104/11	3500 (11.5)
	167 A8		•		•	104/11	3830 (12.6)
	167 A8	•		•		Planetary	3850 (12.6)
	172 A8	•		•		104/11	3500 (11.5)
	172 A8		•		•	104/11	3830 (12.6)
	172 A8	•		•		Planetary	3850 (12.6)

DUAL TIRES

SIZE	CODE NO.	2264	2264 HM	2266	2266 HM	FINAL DRIVE	WIDTH mm (ft)
18.4-38 with 24.5-32	14	•		•		104/11 HM	4610 (15.1)
18.4-38 with 620/75 R34	14	•		•		104/11 HM	4578 (15.0)

ZX,OMXZCO002009-19-01NOV96

STEERED WHEELS FOR 2254, 2256 AND 2258 COMBINES AND HILLMASTERS

SIZE	CODE NO.	2254	2254 HM	2256	2256 HM	2258	2258 HM	COMMENT
12.5-80-18	10 PR	•	•	•	•			
14.5/75-20	8 PR	•	•	•	•	•	•	
16.0/70-20	10 PR	•	•	•	•	•	•	
14.9-24	8 PR	•	•	•	•	•	•	Pressed in 45 mm (1.77 in)
	8 PR	•	•	•	•	•	•	4WD only Pressed in 101 mm (3.98 in)
16.5/85-24	8 PR	•	•	•	•	•	•	
500/60-22.5	10 PR	•	•	•	•	•	•	

ZX,OMXZC0002007-19-01NOV96

STEERED WHEELS FOR 2264 AND 2266 COMBINES AND HILLMASTERS

SIZE	CODE NO.	2264	2264 HM	2266	2266 HM	COMMENT
14.5/75-20	8 PR	.	.	.	.
16.0/70-20	10 PR	.	.	.	.
14.9-24	8 PR	.	.	.	.	Pressed in 45 mm (1.77 in)
	8 PR	.	.	.	.	4WD only Pressed in 101 mm (3.98 in)
16.5/85-24	8 PR	.	.	.	.	Valve on inside for 4WD and with rigid or adjustable axles
	8 PR	Valve on outside within 3.3 m with rigid or adjustable axles
500/60-22.5	10 PR	

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TIRE PRESSURE

FRONT WHEELS

SIZE	CODE NO.	kPa	bar	psi
18.4-34	16 PR	350	3.5	50.8
20.8-34	14 PR	290	2.9	42.1
24.5-32	12 PR	210	2.1	30.5
30.5-32	12 PR	140	1.4	20.3
66X43.00-25	10 PR	170	1.7	24.7
620/75 R 34	170 A8	190	1.9	27.6
24.5 R 32	167 A8	190	1.9	27.6
30.5 LR 32	167 A8	190	1.9	27.6
30.5 LR 32	172 A8	210	2.1	30.5
18.4-38	14	320	3.2	46.4

REAR WHEELS

SIZE	CODE NO.	kPa	bar	psi
12.5/80-18	10 PR	250	2.5	36.3
14.5/75-20	8 PR	180	1.8	26.1
16.0/70-20	10 PR	200	2.0	29.0
14.9-24	8 PR	210	2.1	30.5
16.5/85-24	8 PR	190	1.9	27.6
500/60-22.5	10 PR	150	1.5	21.8

ZX,OMXZC0002008-19-01NOV96

ADJUSTING REAR AXLE WIDTH



CAUTION: When changing axle widths, rear frame of the combine harvester must be raised and supported properly.

Left-Hand Side

Block front wheels. Raise rear axle until tires are approx. 25 mm (1 in.) off the ground. Remove the clamping screws on the l.h. end of the rear axle. Also remove the screws from the steering cylinder support.

Pull the axle tube out to the desired position, then retighten the clamping screws and steering cylinder support screws. Lower the rear axle.

Make sure that the clamping screws are tightened to 240 N·m (170 lb-ft).

No more than 6 pairs of holes should be visible at each end; never set the rear axle wider than this.

Right-Hand Side

Make the adjustment on r.h. side in the same way as for the l.h. side.

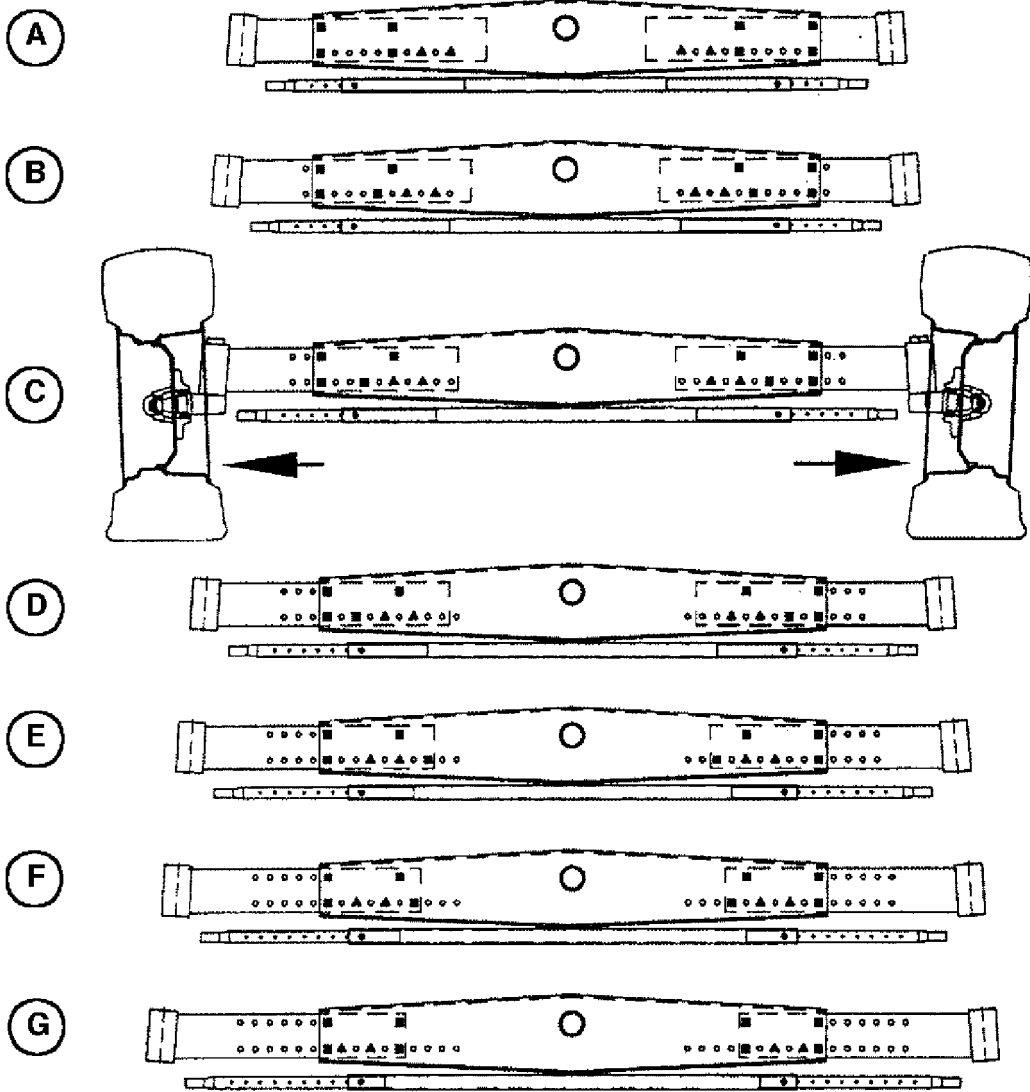
Position of Rear Axle

To prevent the rear wheels from coming into contact with the combine harvester, the rear axle must be set to specific positions, which vary according to the tires that are used (see following illustration).

ZX,OMXZC0004134-19-02MAR95

PAIRS OF HOLES VISIBLE WITH ADJUSTABLE REAR AXLE

■ = X
▲ = Y



ZX007403

A—0 pairs of holes visible at each side
B—1 pair of holes visible at each side
C—2 pairs of holes visible at each side

D—3 pairs of holes visible at each side
E—4 pairs of holes visible at each side

F—5 pairs of holes visible at each side
G—6 pairs of holes visible at each side

X—Position of clamping screws
Y—Position of steering cylinder supports

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ZX,OMXZCO004133-19-02MAR95

**PAIRS OF HOLES VISIBLE WITH
ADJUSTABLE REAR AXLE (CONTINUED)**

DRIVEN WHEELS	TREAD WIDTH	10.5/80-18 Valve on outside	12.5/80-18 Valve on outside	14.5/75-205 Valve on outside	16.0/70-20 Valve on outside
18.4-34	2.506 m 8.22 ft	A	A		
18.4-34 ***	2.468 m 8.10 ft	A	A		
20.8-34 **	2.73 m 8.95 ft			C	C
620/75 R34	2.666 m 8.75 ft			B	C
620/75 R34	2.834 m 9.29 ft			C	D
620/75 R34 *	3.216 m 10.55 ft			F	F
24.5-32	2.828 m 9.28 ft			C	D
24.5-32 *	3.178 m 10.42 ft			G	G
30.5-32	2.964 m 9.72 ft			D	E
30.5-32 *	3.022 m 9.91 ft			E	F
66x43.00-25 *	3.532 m 11.59 ft			G	G

* Planetary drive ** For 5-walker machines only

*** For 6-walker machines only

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**PAIRS OF HOLES VISIBLE WITH
ADJUSTABLE REAR AXLE (CONTINUED)**

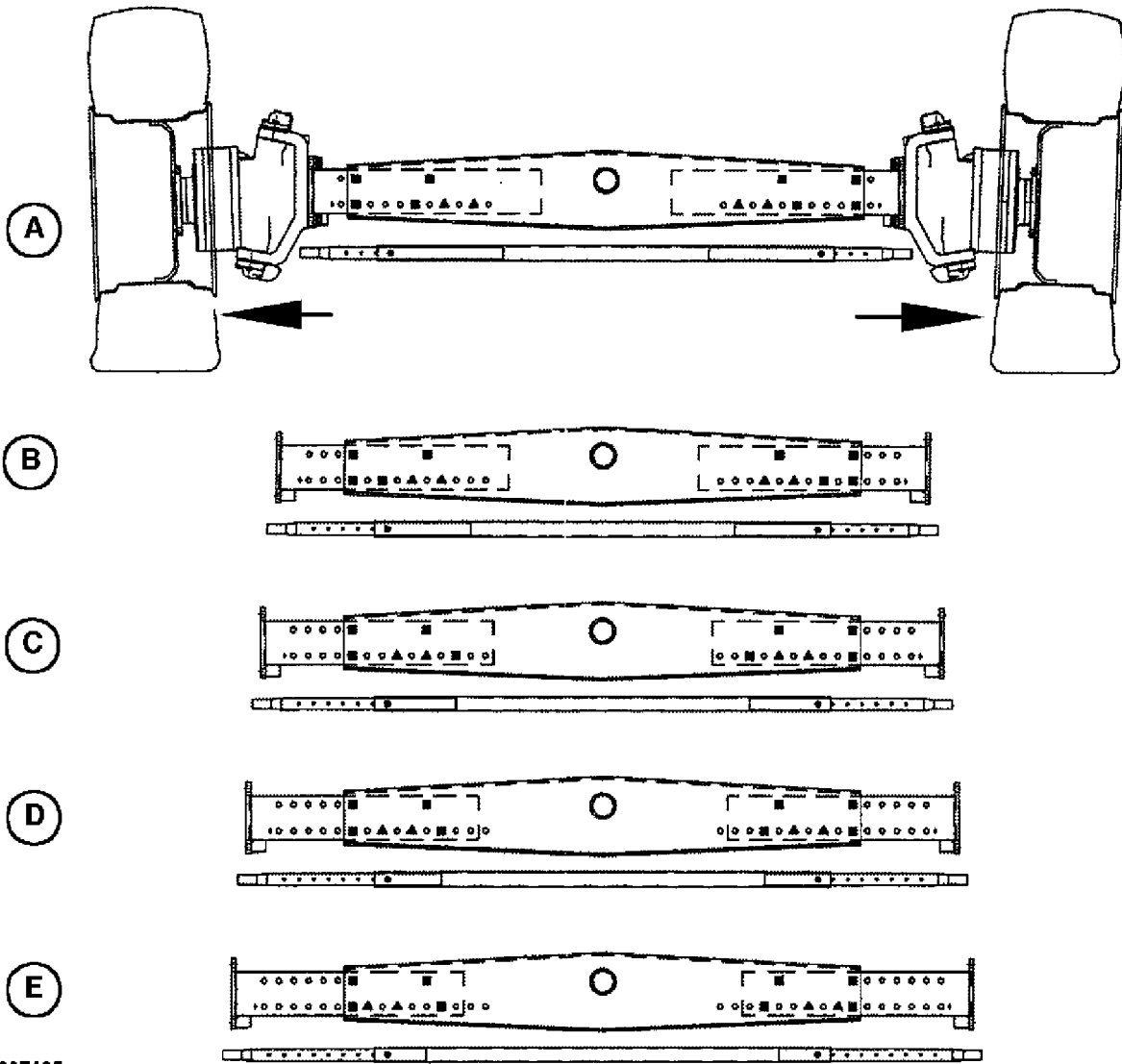
DRIVEN WHEELS	TREAD WIDTH	14.9-24 Valve on inside	16.5/85-24 Valve on inside	500/60-22.5 Valve on outside
20.8-34 **	2.43 m 7.97 ft	A Valve on outside		
20.8-34 **	2.73 m 8.95 ft	B	B	
620/75 R34	2.666 m 8.75 ft	C	B Adjust steer- ing angle	
620/75 R34	2.834 m 9.29 ft	C	C	
620/75 R34 *	3.216 m 10.55 ft	G	F	F
24.5-32	2.828 m 9.28 ft	C	C	C
24.5-32 *	3.178 m 10.42 ft	F	F	F
30.5-32	2.964 m 9.72 ft	D	D	D
30.5-32 *	3.022 m 9.91 ft	E	D	D
66x43.00-25 *	3.532 m 11.59 ft	G	G	G

* Planetary drive ** For 5-walker machines only

ZX,OMXZC0004141-19-01NOV96

PAIRS OF HOLES VISIBLE WITH DRIVEN REAR AXLE

■ = X
▲ = Y



ZX007405

A—1 pair of holes visible at each side
B—3 pairs of holes visible at each side

C—4 pairs of holes visible at each side
D—5 pairs of holes visible at each side

E—6 pairs of holes visible at each side
X—Position of clamping screws

Y—Position of steering cylinder supports

ZX007405 -UN-19JUN95

ZX,OMXZCO004137-19-02MAR95

PAIRS OF HOLES VISIBLE WITH DRIVEN REAR AXLE (CONTINUED)

DRIVEN WHEELS	14.9-24 Valve on outside	16.5/85-24 Valve on inside	500/60-22.5 Valve on outside
620/75 R34 *	E	C	C
24.5-32	C		
24.5-32 *	E	C	C
30.5-32	C	C	
30.5-32 *	D	C	C
66x43.00-25 *	F	E	E

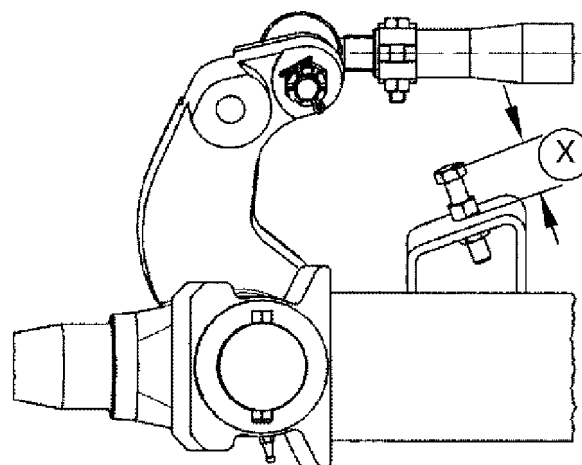
IMPORTANT: For field use, at least 3 pairs of holes must be visible at each side.

* Planetary final drives

ZX,OMXZCO004138-19-01MAR95

ADJUSTING THE STEERING ANGLE

On 6-walker combine harvesters with an overall width up to 3.3 m (10.8 ft) and 16.5/85-24 rear tires, adjust steering angle (X) to 20 mm (0.78 in.).



ZX007404

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REAR WHEEL WEIGHTS AND HOOD WEIGHTS

IMPORTANT: When driving Hillmaster machines without cutting platforms or straw choppers on public roads in Germany, wheel weights must be installed.

Depending on the combine type and the equipment fitted to it, it may be necessary to use rear wheel weights or hood weights.

		Wheel weights	Hood weights
2254 2256 2258	with straw chopper	none	none
	without straw chopper	none	7
2254HM 2256HM 2258HM	with straw chopper	none	none
	without straw chopper	2	7
2264 2266	with straw chopper	none	none
	without straw chopper	none	7
2264HM 2266HM	with straw chopper	none	none
	without straw chopper	2	7

*NOTE: Wheel weights are 75 kg (165 lb) each;
hood weights are 45 kg (100 lb) each.*

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Preparations and Field Operation

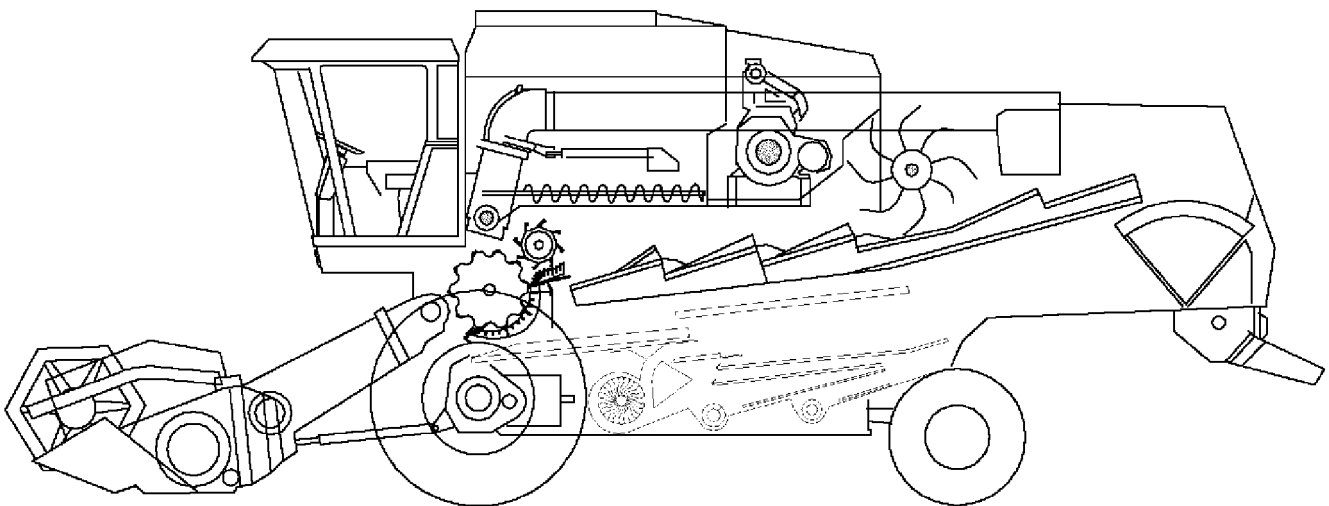
CHOICE OF HARVESTING TIME

Make sure the crop is ripe enough to be harvested.

Unripe crops impair the harvesting operation and may result in faults in the machine.

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AVOIDING GRAIN LOSSES



ZX 004377

Loss of grain or grain damage contribute to loss of profits. Depending upon the harvesting conditions and crop moisture content, perform all necessary adjustments.

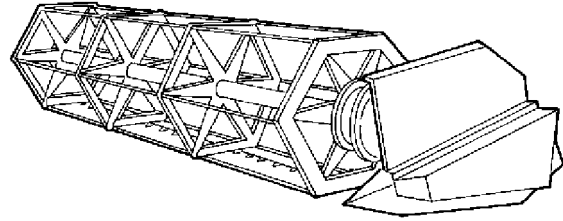
Pay particular attention to the following:

- Grain losses in front of cutting platform
- Excessive tailings
- Cracked grain in grain tank
- Chaff in grain tank
- Grain loss from straw walkers
- Grain loss from sieve
- Grain losses on the ground
- Unthreshed grain

ZX.OMXZC0002013-19-13NOV92

CUTTING PLATFORM OPERATION

Cutting platform operation is described in a separate operator's manual.



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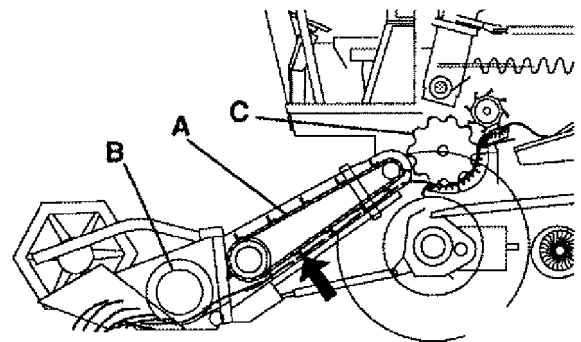
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FEEDER HOUSE OPERATION

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.)



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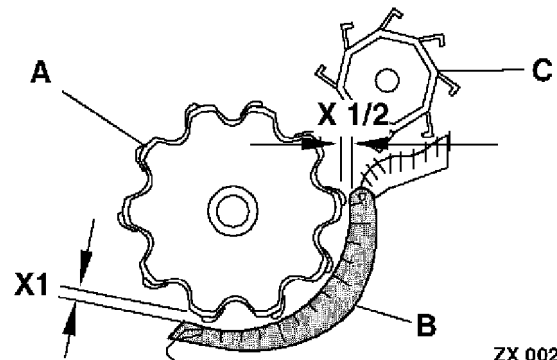
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SEPARATOR

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—Second cylinder



ZX 002594

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ZX002594

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:

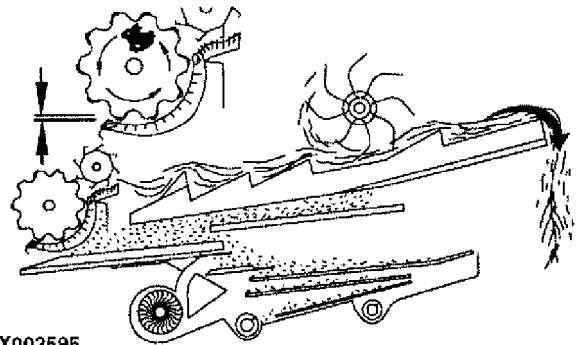
- Cylinder speed too low
+ concave spacing too wide

= Underthreshing

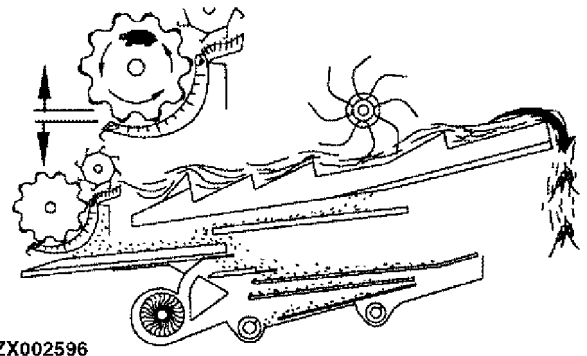
3. Basic adjustment:

- Moist crop: Increase cylinder speed and/or reduce concave spacing.
- Dry crop: Reduce cylinder speed and/or increase concave spacing.

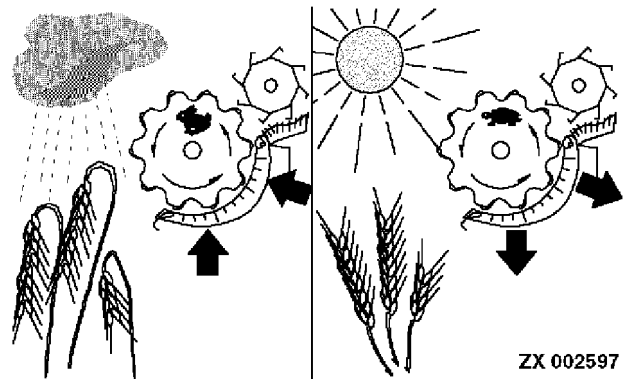
IMPORTANT: Cylinder speed and concave adjustments are the most important factors in obtaining good harvesting results.



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ZX002595



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ZX002596



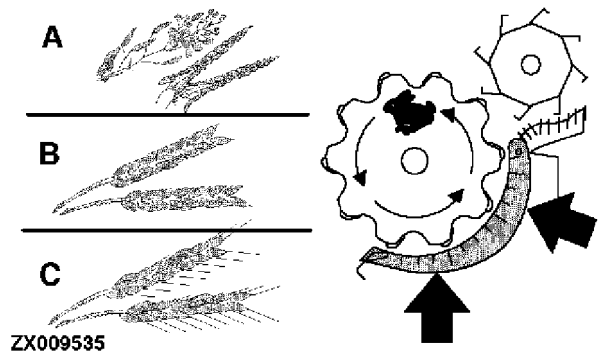
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ADJUSTING CYLINDER SPEED AND CONCAVE FOR NORMAL CROP

Fine seeds and normal grain crops:
High cylinder speed and narrow concave spacing.

- A—Rape
- B—Wheat
- C—Barley



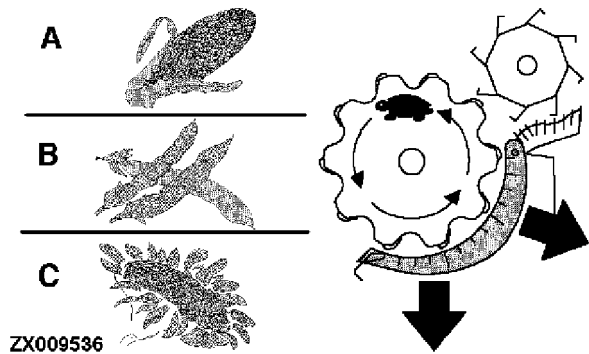
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ZX,OMXZC0002018-19-01NOV96

ADJUSTING CYLINDER SPEED AND CONCAVE FOR COARSE CROP

Coarse crop:
Low cylinder speed and wide concave spacing.

- A—Maize
- B—Beans
- C—Sunflowers



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SEPARATING PROCESS

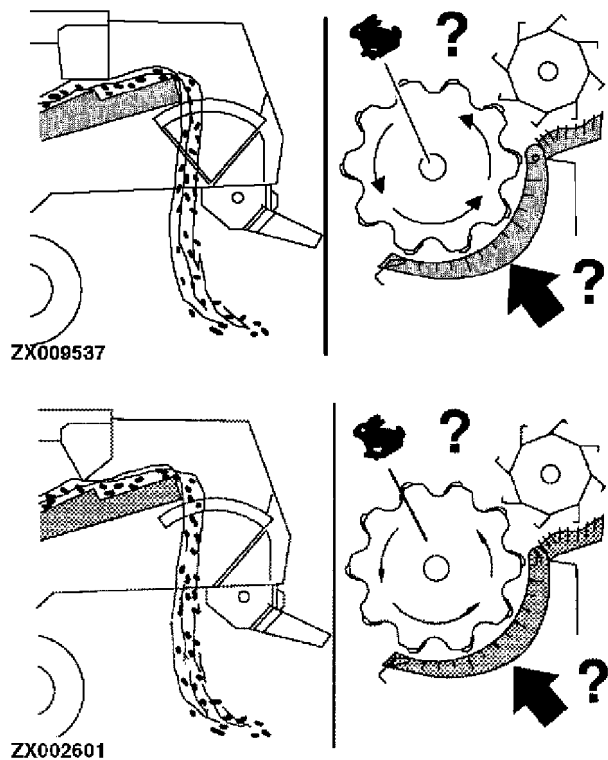
Threshed straw and any remaining grain are threshed again by the second cylinder, then deflected and thrown onto the straw walkers. The agitating straw walker action removes the remaining grain which falls onto the grain pan.

After the first third of straw walker length, the straw is agitated and spread by the cross shaker. This action results in the saving of additional grain. Finally, the straw reaches the last walker step and falls to the ground.

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?



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GRAIN CLEANING PROCESS

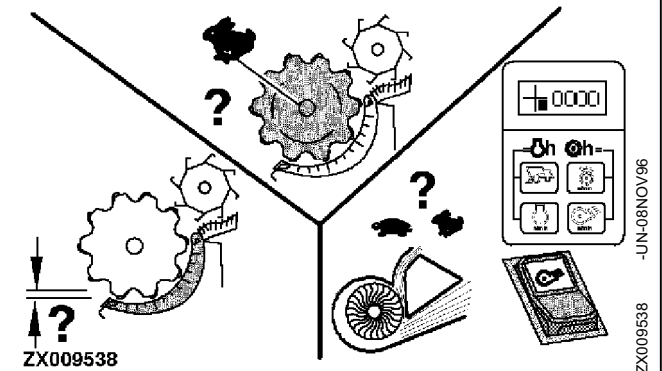
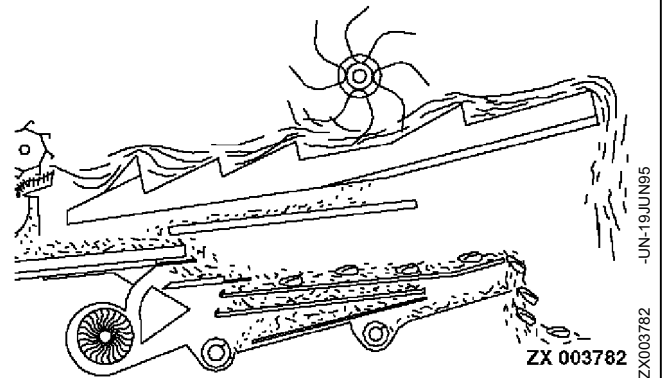
The effectiveness of the chaffer and grain sieve separating action is increased by an intensive fan blast. Thus the chaff, which is lighter than grain, is blown to the rear.

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?

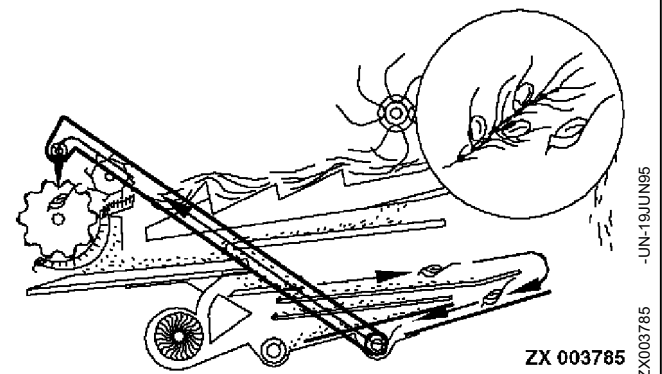
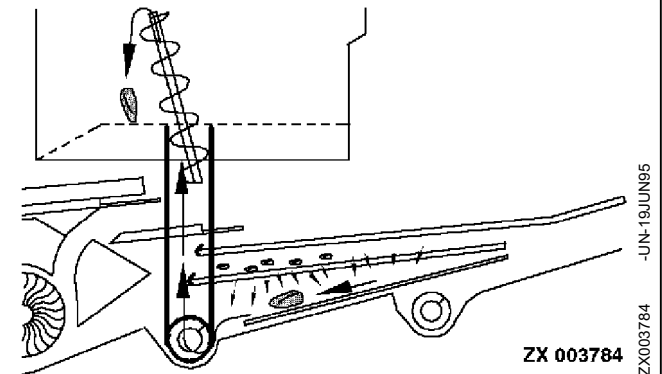


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GRAIN RECOVERY PROCESS

The grain falls onto the grain pan, primarily in the first half of the grain sieve, and is passed on to the clean grain auger and grain elevator before finally entering the grain tank.

Unthreshed grain heads and a small amount of chaff move over the end of the grain sieve and are forwarded to the lower tailings auger via the return pan. The tailings elevator conveys this material back to the center of the threshing cylinder, where it is rethreshed.

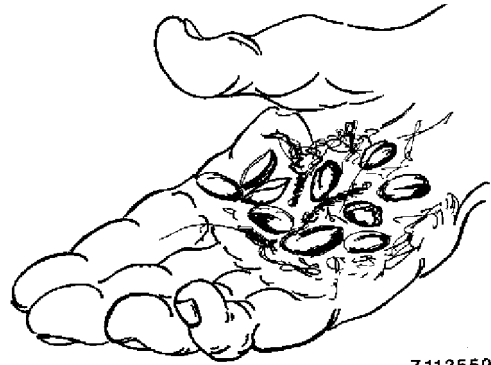


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EVALUATING THRESHING ACTION

To evaluate threshing action, pay attention to the following:

- Threshed straw
- Grain losses at rear of combine
- Grain tank sample
- Tailings



Z 113559

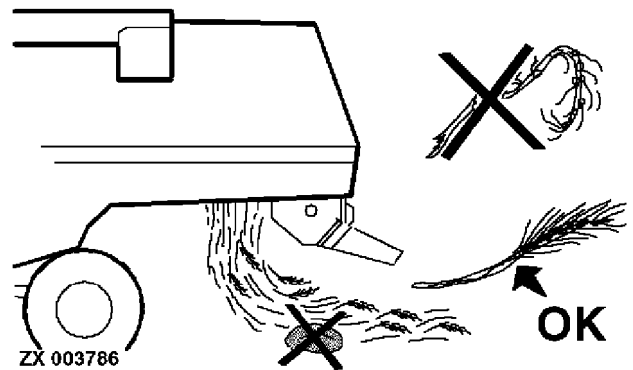
ZX,OMXZC0002023-19-01AUG92

-UN-22MAY95
Z113559

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

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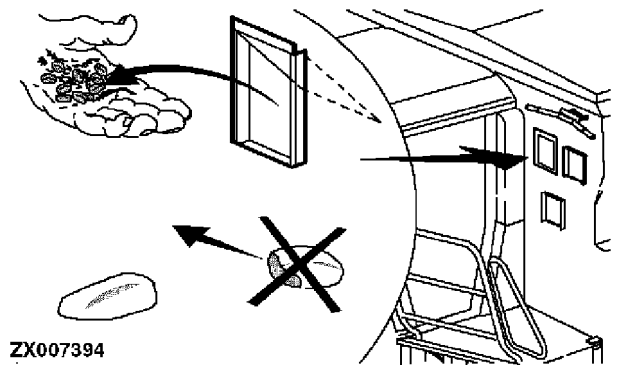
-UN-19JUN95
ZX003786

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?



ZX007394

ZX,OMXZC0002025-19-01MAR95

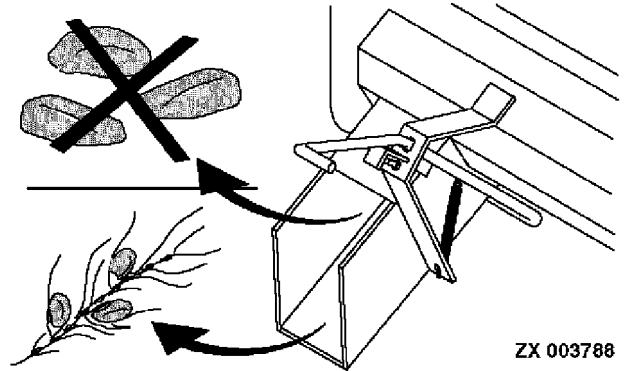
-UN-19JUN95
ZX007394

CHECKING TAILINGS

Each paddle on the tailings elevator should convey only a small amount of tailings (no more than half a handful).

The tailings should consist mainly of unthreshed heads.

The tailings should not consist of loose grain, straw or chaff.



ZX 003788

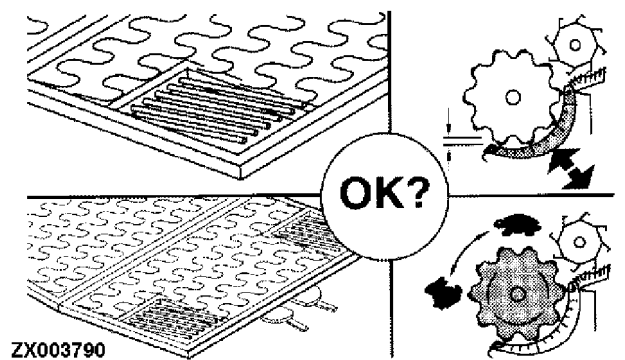
ZX,OMXZC0002026-19-01AUG92

-UN-19JUN95
ZX003788

TAILINGS PROBLEMS

Check the following:

- Correct number of insert fingers in chaffer extension?
- Correct sieve adjustment?
- Position of chaffer extension correct?
- Position of concave correct?
- Cylinder speed correct?



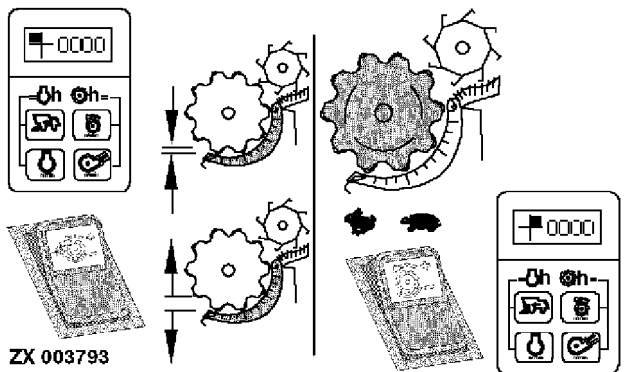
ZX003790

ZX,OMXZC0002027-19-01AUG92

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ZX003790

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 pages.



ZX 003793

ZX,OMXZC0002028-19-01AUG92

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ZX003793

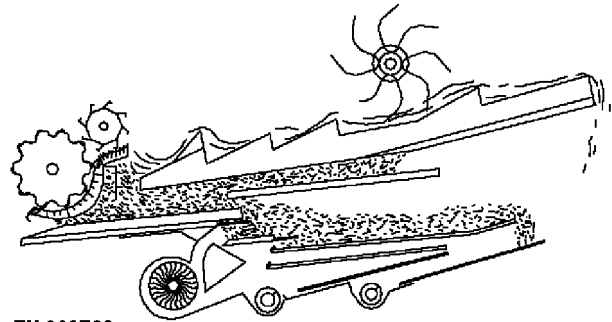
OVERTHRESHING

Overthreshing is caused by too high cylinder speed and too narrow spacing between cylinder and concave.

Overthreshing may be reduced by slowing the cylinder by about 5%. Check the result of this change before trying any other adjustments. If reducing the cylinder speed by 10% does not help, try opening the concave slightly.

If overthreshing cannot be reduced by these measures, try slowing down the ground speed. Too much material causes overloading of the cylinder and may also cause overthreshing.

IMPORTANT: Always check the result of one change at a time, before carrying out the next adjustment.



ZX 003798

ZX003798 -UN-19JUN95

ZX,OMXZC0002029-19-13NOV92

UNDERTHRESHING

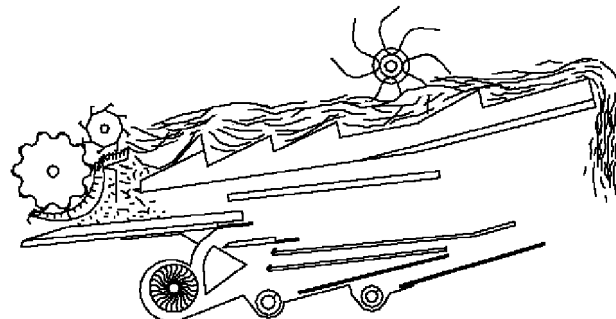
Undertreshing is caused by too slow cylinder speed and excessively wide concave spacing. Try increasing the cylinder speed by about 5%.

If this does not correct the problem, narrow the concave spacing slightly.

Check result after each adjustment.

Under certain harvesting conditions (not enough straw), it is possible that these adjustments will not be sufficient. If this is so, increase ground speed of combine.

IMPORTANT: Always check the result of one change at a time, before carrying out the next adjustment.



ZX 003799

ZX003799 -UN-19JUN95

ZX,OMXZC0002030-19-13NOV92

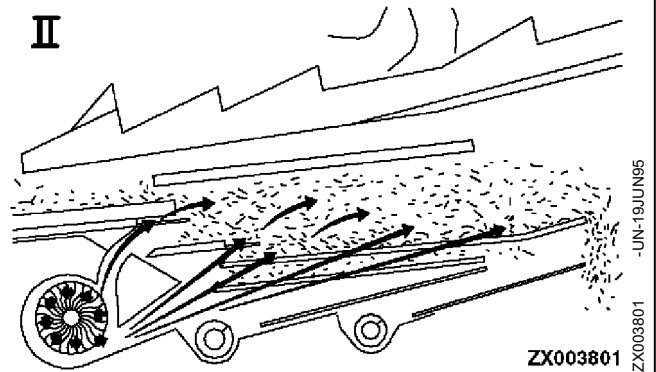
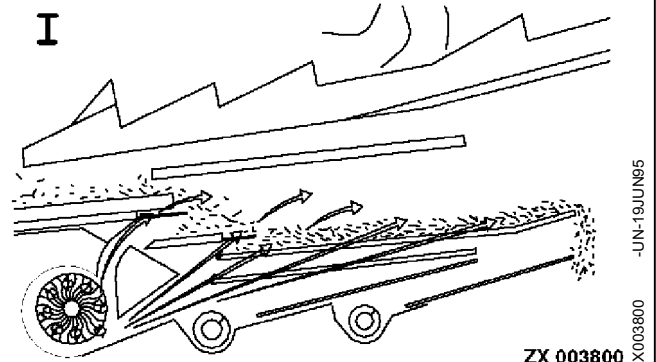
ADJUSTING FAN SPEED

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.

IMPORTANT: Always check the result of one change at a time, before carrying out the next adjustment.

- I—Fan blast too low, insufficient cleaning
- II—Fan blast too strong, grain is being lost



ZX,OMXZC0002031-19-13NOV92

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.

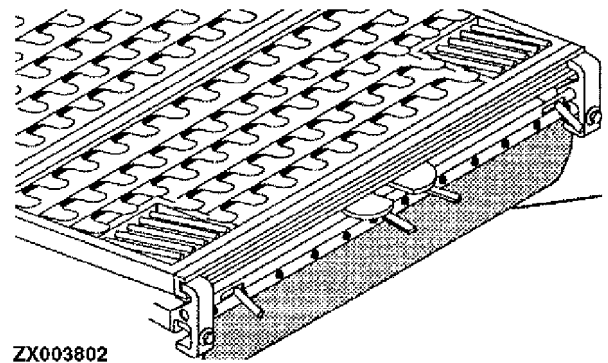
ZX,OMXZC0002032-19-13NOV92

SLOPE MASTER SYSTEM

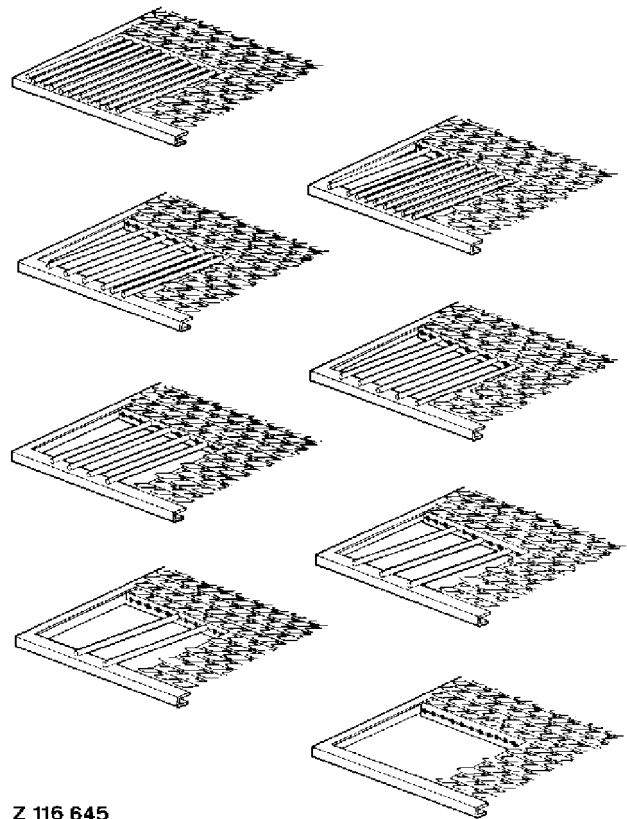
When operating the combine on a slope, special inserts at the left-hand and right-hand sides of the chaffer extension collect the grain rolling across the separator and return it via the tailings elevator.

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



Z 116 645

Possible installation positions

ZX,OMXZCO002033-19-01AUG92

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ZX003802

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Z116645

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.

ZX,OMXZC0002034-19-13NOV92

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

ZX,OMXZC0002035-19-04DEC92

WHAT DOES LOSS OF GRAIN REALLY MEAN?

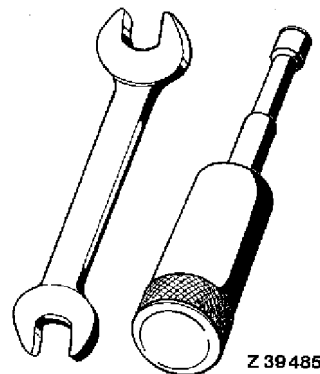
Given a grain yield of e.g. 5000 kg per hectare, a grain loss of 1% can mean a loss of 50 kg.

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.

ZX,OMXZC0002036-19-01AUG92

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.



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Z39485

ZX,OMXZC0002037-19-01AUG92

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

ZX,OMXZC0002038-19-02MAY96

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

ZX,OMXZC0002039-19-02MAY96

Explanation of Examples

8 hr 16 ha 4.0% loss = 3200 kg
 8-3/4 hr 16 ha 1.5% loss = 1200 kg

2000 kg less
 grain is lost

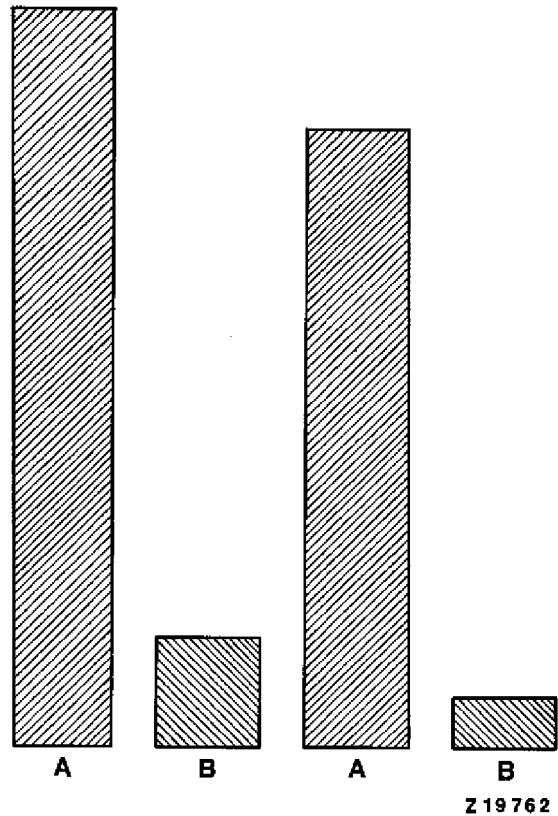
2000 kg of grain saved corresponds to approximately 3 to 4 hectares in terms of contracting charges.

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 %

Z-19762 -UN-22MAY95

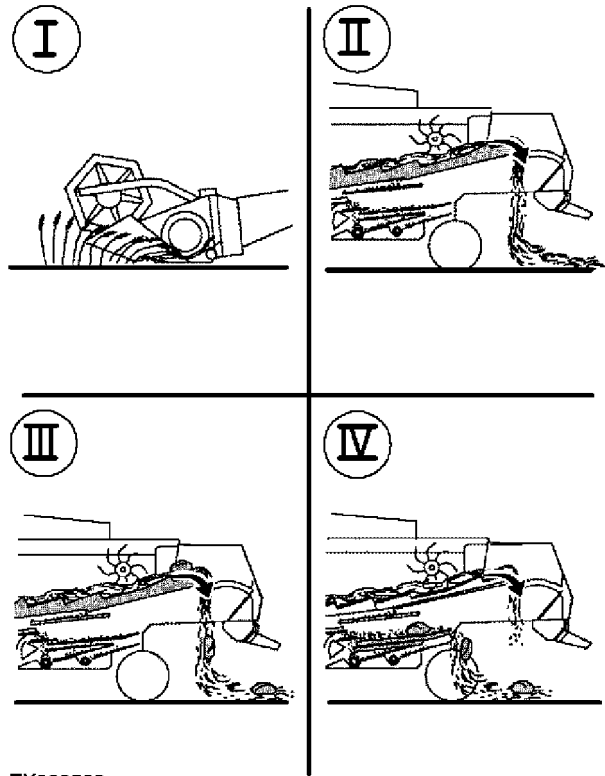
ZX,OMXZC0002040-19-01AUG92

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



ZX009539

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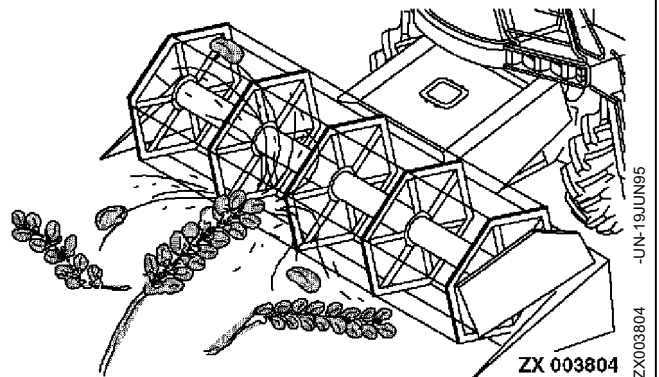
ZX009539 -UN-08NOV96

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.



ZX 003804

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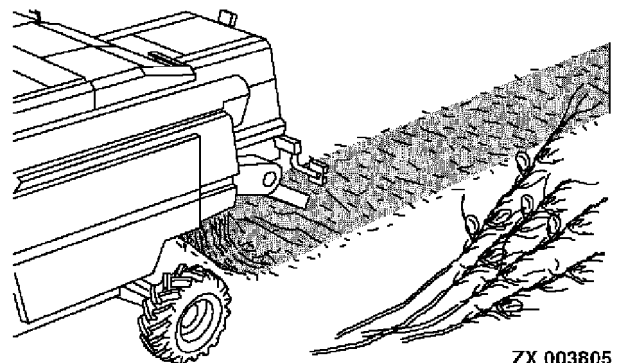
ZX003804 -UN-19JUN95

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).



ZX 003805

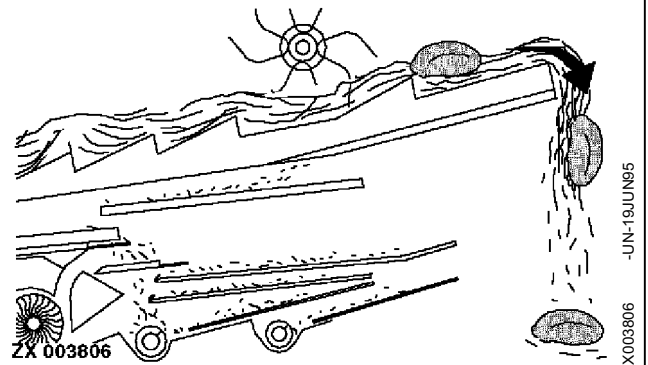
ZX,OMXZC0002043-19-01AUG92

ZX003805 -UN-19JUN95

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.

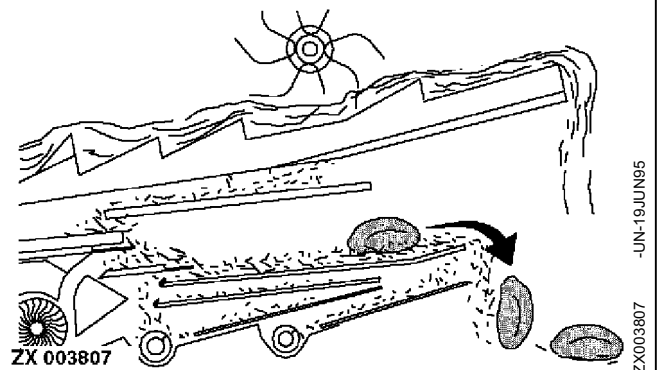
If straw walker losses are not reduced once the cylinder and concave have been adjusted, then reduce ground speed.



ZX,OMXZC0002044-19-13NOV92

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.



ZX,OMXZC0002045-19-13NOV92

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)

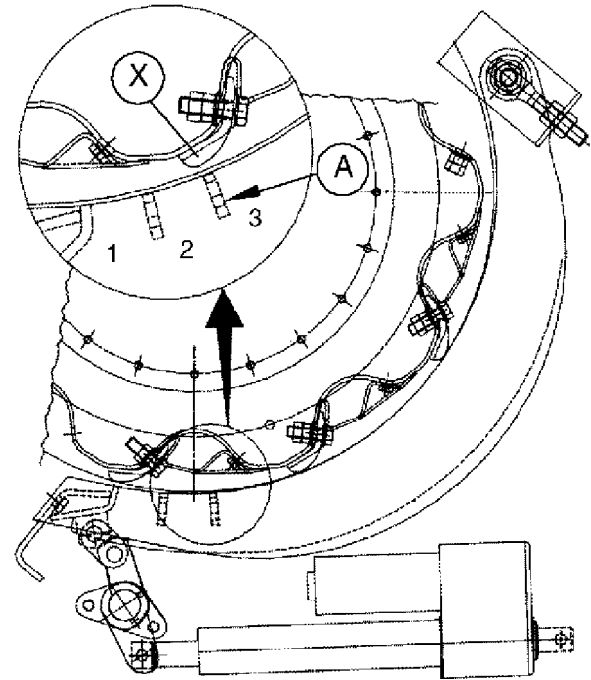
THRESHING ADJUSTMENTS — GENERAL INFORMATION

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.

When adjusting concave clearance, either automatically or by hand, the reference points are the 3rd bar (A) and the top cylinder rasp bar (identified by punch mark "X") respectively.

NOTE: Use straw walker grids and sieves appropriate to the type of crop and harvesting conditions. See "Separator and Cleaning Unit" section.



ZX007395

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ZX,OMXZC0002367-19-01MAR95

COMBINE SETTINGS AND AUTOMATIC ADJUSTMENTS

CROP	CYLINDER SPEED rpm	FAN SPEED rpm	CONCAVE SPACING mm (in.)	CHAFFER mm (in.)	GRAIN SIEVE mm (in.)	CHAFFER EXTENSION mm (in.)
Wheat	900	1350	10 (0.39)	12 (0.47)	5 (0.20)	16 (0.63)
Barley (winter)	950	1300	7 (0.28)	12 (0.47)	7 (0.28)	16 (0.63)
Rape	600	1000	30 (1.18)	5 (0.20)	1 (0.04)	5 (0.20)
Maize	380	1400	30 (1.18)	15 (0.59)	10 (0.39)	18 (0.71)
Peas	380	1300	25 (0.98)	10 (0.39)	7 (0.28)	12 (0.47)
Oats	950	1300	15 (0.59)	12 (0.47)	7 (0.28)	16 (0.63)
Pinto beans	380	1300	20 (0.79)	18 (0.71)	10 (0.39)	20 (0.79)
Rye	900	1300	15 (0.59)	10 (0.39)	5 (0.20)	14 (0.55)
Sun- flowers	320	900	30 (1.18)	10 (0.39)	3 (0.12)	15 (0.59)

ZX,OMXZC0002053-19-01MAR95

ADDITIONAL COMBINE SETTINGS

CROP	CYLINDER SPEED rpm	FAN SPEED rpm	CONCAVE SPACING mm (in.)	CHAFFER mm (in.)	GRAIN SIEVE mm (in.)	CHAFFER EXTENSION mm (in.)
Broad beans	320	1450	20 (0.79)	14 (0.55)	10 (0.39)	18 (0.71)
Buckwheat	675	1470	14 (0.55)	14 (0.55)	10 (0.39)	18 (0.71)
Safflower	690	1300	14 (0.55)	10 (0.39)	5 (0.20)	12 (0.47)
Flax	860	800	6 (0.24)	10 (0.39)	5 (0.20)	12 (0.47)
Grass seed	810	670	6 (0.24)	12 (0.47)	5 (0.20)	16 (0.63)
Millet	860	880	10 (0.39)	10 (0.39)	5 (0.20)	12 (0.47)
Trefoil (bird's foot)	860	880	6 (0.24)	7 (0.28)	5 (0.20)	10 (0.39)
Clover	770	810	6 (0.24)	10 (0.39)	3 (0.12)	12 (0.47)
Caraway	590	810	20 (0.79)	6 (0.24)	3 (0.12)	10 (0.39)
Lespedeza (Japanese clover)	810	810	6 (0.24)	10 (0.39)	5 (0.20)	12 (0.47)
Lupins	400	1120	20 (0.79)	10 (0.39)	5 (0.20)	12 (0.47)
Alfalfa	810	670	6 (0.24)	8 (0.31)	3 (0.12)	10 (0.39)
Corn/cob mix (cracked grain)	750	1400	30 (1.18)	—	—	—
Corn/cob mix (whole grain)	450	1400	32 (1.26)	—	—	—

Continued on next page

ADDITIONAL COMBINE SETTINGS (CONTINUED)

CROP	CYLINDER SPEED rpm	FAN SPEED rpm	CONCAVE SPACING mm (in.)	CHAFFER mm (in.)	GRAIN SIEVE mm (in.)	CHAFFER EXTENSION mm (in.)
Beet seed	630	980	16 (0.63)	14 (0.55)	10 (0.39)	18 (0.71)
Mustard	670	980	10 (0.39)	10 (0.39)	6 (0.24)	12 (0.47)
Sorghum	720	1200	12 (0.47)	12 (0.47)	6 (0.24)	16 (0.63)
Soya beans	550	1450	20 (0.79)	10 (0.39)	6 (0.24)	12 (0.47)
Vetch	680	980	16 (0.63)	14 (0.55)	10 (0.39)	18 (0.71)

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PREPARATIONS BEFORE CHANGING CROP

Clean the combine thoroughly:

- Feeder house
- Separator
- Straw walkers
- Chaffers
- Elevators
- Grain tank

When changing the header, remember to alter width-of-cut at the combine data center.

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

NOTE: Every time the header is changed, get your John Deere dealer to check and if necessary re-adjust the charge pressure of the lift system accumulators.

ZX,OMXZCO002368-19-02MAY96

PREPARATIONS FOR HARVESTING GRAIN CROPS

Check the height setting of the bottom feeder conveyor drum.

The area counter "ON" switch at the feeder house must be set for the relevant crop. Use the upper slot for harvesting grain crops (see "Feeder House" section).

Install stripper on cylinder inspection flap.

Remove cylinder filler plates.

Concave: Install a universal concave or 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: Remove the additional belt pulley. Install counterknives or cross-strips.

Set the combine for grain harvesting automatically by means of the combine data center or make the adjustments manually after reading the figures in the table in this section.

ZX,OMXZC0004130-19-01NOV96

PREPARATIONS FOR HARVESTING RYE

Set the combine for rye harvesting automatically by means of the combine data center or make the adjustments manually after reading the figures in the table in this section.

Use an extra-long, variable-height crop divider (available from your John Deere dealer).

ZX,OMXZC0006876-19-01NOV96

PREPARATIONS FOR HARVESTING PEAS

Replace grain pan inserts and grain elevator inspection door.

Set the combine for pea harvesting automatically by means of the combine data center or make the

adjustments manually after reading the figures in the table in this section.

NOTE: Set the cylinder speed to 390 - 400 rpm.

ZX,OMXZC0002369-19-01MAR95

PREPARATIONS FOR HARVESTING CORN

Change height setting of bottom feeder conveyor drum.

The area counter "ON" switch at the feeder house must be set for the relevant crop. Use the lower slot for harvesting corn (see "Feeder House" section).

Remove stripper from cylinder inspection flap.

Install cylinder filler plates.

Concave: Install a corn concave or cover the rear section of the standard concave with special concave inserts.

Replace the straw walker grids.

Install a chaffer and chaffer extension as circumstances require.

Use a round-hole grain sieve.

Straw chopper: Install an additional belt pulley. Remove cross-strips and counterknives.

Set the combine for corn harvesting automatically by means of the combine data center or make the adjustments manually after reading the figures in the table in this section.

ZX,OMXZCO002370-19-01NOV96

PREPARATIONS FOR HARVESTING CORN/COB MIX (CCM)

Convert bottom feeder conveyor drum, cylinder inspection flap, cylinder, concave and straw chopper as for harvesting corn.

Replace the second straw walker grid with a Graepel-type grid.

Remove the grain sieve.

Use a Graepel-type chaffer.

Replace the chaffer extension with a tine mounting.

If necessary, cover the tailings inlet so that the crop can reach the pan.

Read the combine settings from the table in this section.

If the throughput rate is very high, it may be necessary to remove the blast deflector plate (windboard) underneath the grain sieve.

ZX,OMXZCO002371-19-01MAR95

PREPARATIONS FOR HARVESTING OIL SEED CROPS

IMPORTANT: When harvesting oil seed crops (e.g. rape, sunflower), clean the combine's separator and cleaning unit thoroughly EVERY DAY.

The area counter "ON" switch at the feeder house must be set for the relevant crop. Use the lower slot for harvesting rape and sunflowers (see "Feeder House" section).

NOTE: When harvesting rape, set the chaffer to 8 mm (0.31 in.) and the chaffer extension to 10 mm (0.39 in.).

ZX.OMXZC0002372-19-01NOV96

OPERATING THE COMBINE

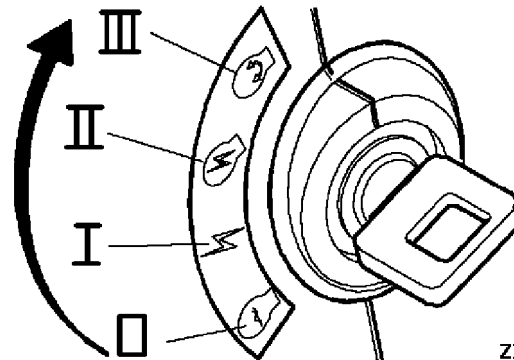
Prepare the combine for the type of crop to be harvested. See the information provided in this section.

NOTE: The following instructions apply to a combine equipped with all the options.

Prepare and install the header required for the crop to be harvested. Read the operator's manual supplied with the header.

ZX.OMXZC0002373-19-13NOV92

Start the engine and set it to a low rpm.



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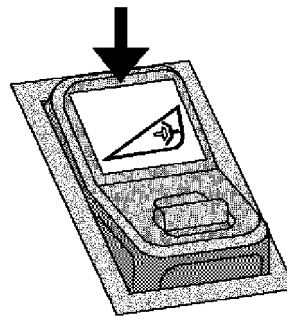
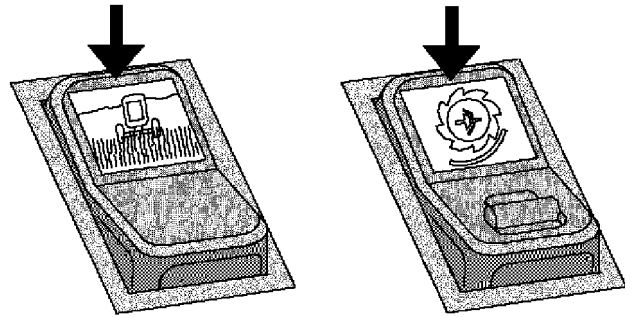
Preparations and Field Operation

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.

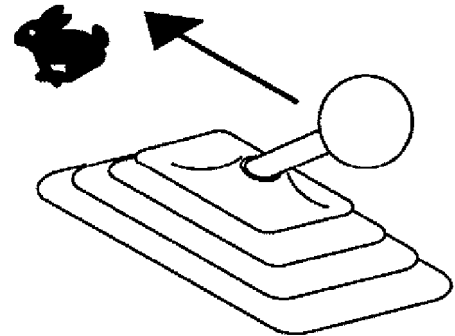


ZX 004374

ZX,OMXZC0002375-19-13NOV92

-UN-19JUN95
ZX004374

Set engine to maximum rpm.



ZX002406

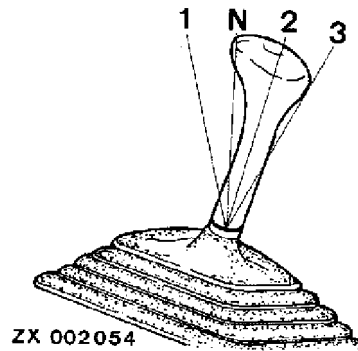
ZX,OMXZC0002376-19-13NOV92

-UN-16JUN95
ZX002406

Engage a transmission gear.

NOTE: The second gear is best for all-around field performance. Depending on field conditions and temperature, third gear (especially with rear wheel drive) can be used for field operations, but only if hydrostatic oil does not overheat.

Watch indicator light and listen for warning signal. Operation with overheated hydrostatic oil will cause serious damage.



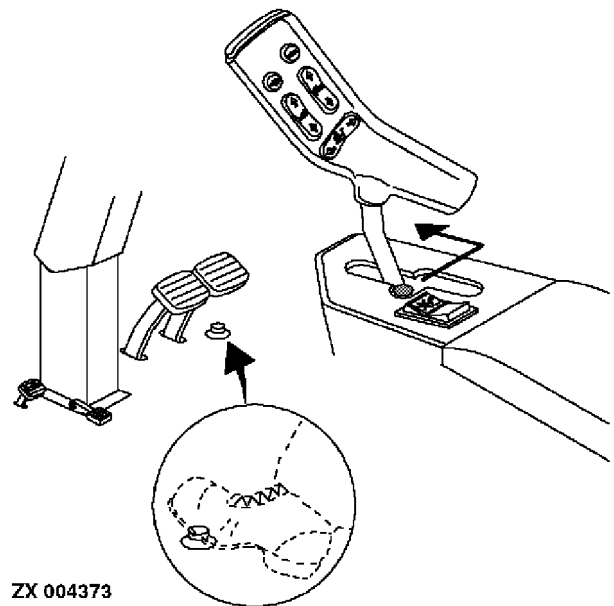
ZX002054 -JUN-03APR95

ZX_OMSPFH000544-19-01OCT91

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.

If necessary, select four-wheel drive (see "Driving and Transporting Harvester" section).



ZX004373 -JUN-19JUN95

ZX_OMXZCO002377-19-13NOV92

HEADER FLOAT CONTROL

Lower header to the ground (manual control).

Turn potentiometer (A) clockwise as far as it will go.

Press button (B) and hold it down.

Turn potentiometer (A) counterclockwise until the header slowly starts to rise from the ground.

Turn potentiometer back one or two marks until the header or lifting guards are touching the ground again.

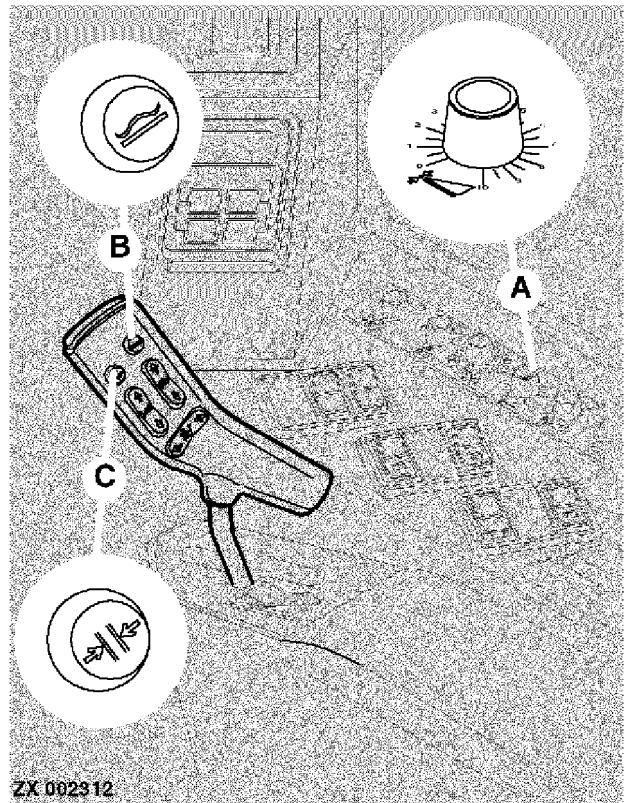
Release button (B).

During combine operations, adjust the float setting to suit the ground conditions.

The system is activated only when button (B) is depressed.

To resume the previously selected float height, hold down button (B) for at least 5 seconds.

On uneven ground, hold down button (B) for no longer than 1 minute, otherwise the preselected header height will be lost.



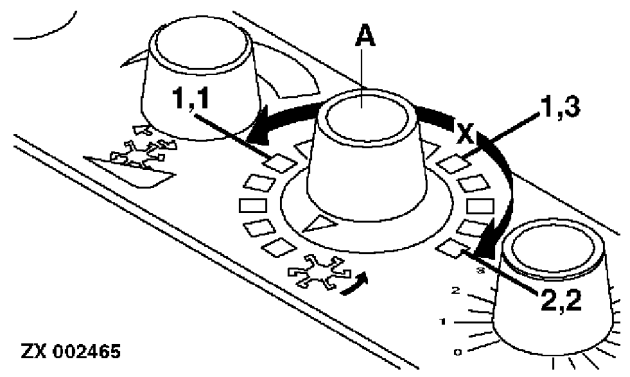
ZX 002312

-UN-16JUN95
ZX002312

- A—Header float control potentiometer
- B—Header float control button
- C—Header height resume control button

ZX,OMXZCO002128-19-13NOV92

Switch on the reel speed control and select the correct ratio.



ZX 002465

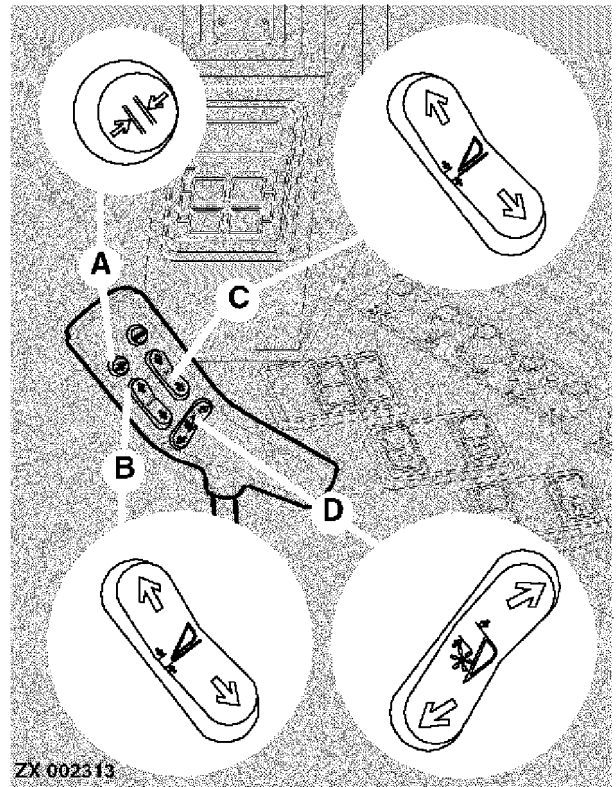
-UN-16JUN95
ZX002465

ZX,OMXZCO002378-19-13NOV92

ADJUSTING HEADER FUNCTION RESUME CONTROLS

- Reel height resume control
- Reel horizontal position resume control
- Header height resume control

- A—Header height resume control button
- B—Header raise/lower rocker switch
- C—Reel height control rocker switch
- D—Reel horizontal control rocker switch



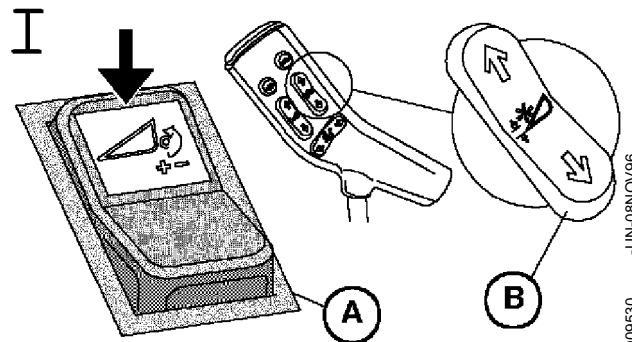
ZX 002313

-UN-16JUN95
ZX002313

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On combines with feeder house variator, turn switch (A) to variator operation when harvesting corn.

- I—Switch position for feeder house variator

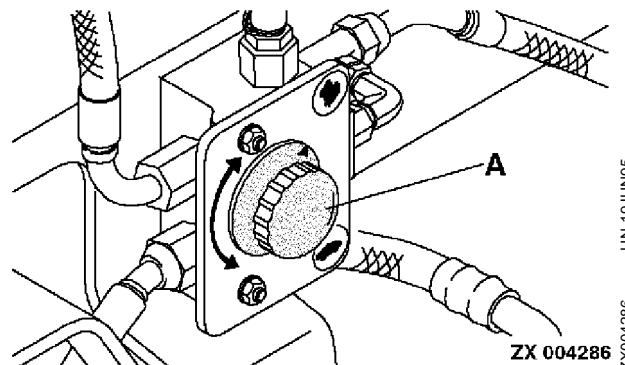


ZX009530

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ZX009530

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Adapt the throwing width of the chaff spreader to suit the width of the cutting platform.



ZX 004286

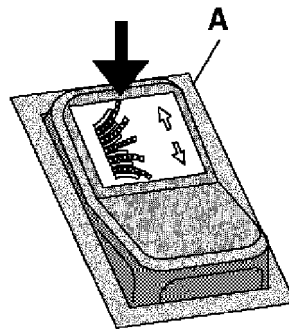
-UN-19JUN95
ZX004286

ZX,OMXZC0002383-19-13NOV92

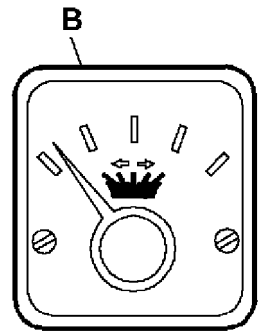
Preparations and Field Operation

Adjust straw chopper deflector to suit the conditions. The following equipment options are available:

- Individual adjustment of straw deflectors
- Mechanical adjustment, centrally
- Electrical adjustment, centrally
 - A—Rocker switch
 - B—Display unit



ZX 004015



ZX004015 -UN-19JUN95

ZX.OMXZC0002384-19-13NOV92

Feeder House

ELECTRICAL AND HYDRAULIC CONNECTIONS FOR HEADERS

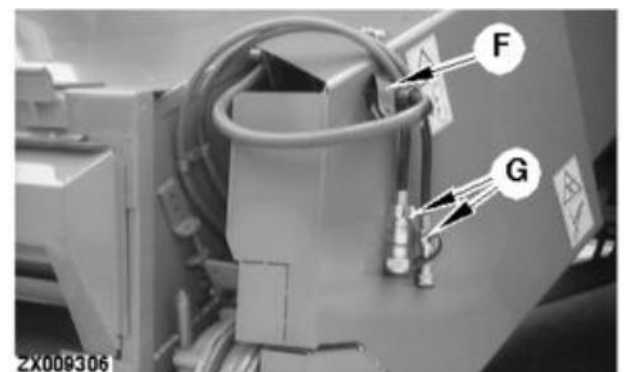
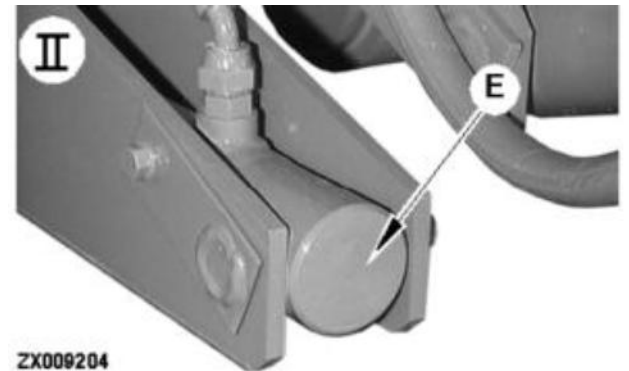
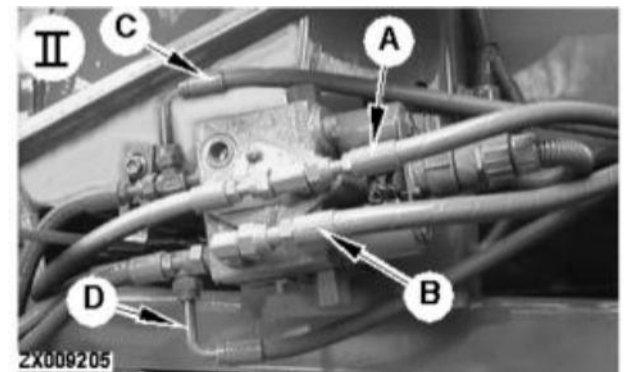
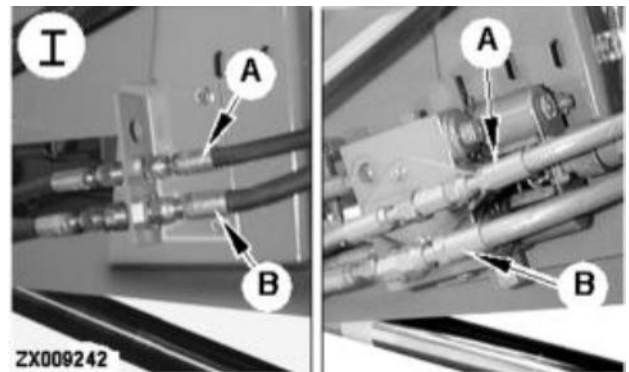
CAUTION: Make sure the ground is firm before removing the feeder house.

IMPORTANT: Before removing the feeder house, disconnect hoses (A) and (B). Seal the open ends of the hoses with O-rings and metal plugs.

On Hillmaster machines, the two hydraulic hoses (C) and (D) also have to be disconnected and sealed with plastic plugs. Remove one pin from hydraulic cylinder (E).

When header is removed, secure the electrical connection in socket (F) and the hydraulic hoses in clamps (G).

- I—Standard combine
- II—Hillmaster combine
- A—Hose connection
- B—Hose connection
- C—Hose connection (Hillmaster only)
- D—Hose connection (Hillmaster only)
- E—Hydraulic cylinder (Hillmaster only)
- F—Socket for electrical connection
- G—Clamps for hydraulic hoses



ZX,OMXZC0002266-19-02MAY96

SECURING HEADER LIFT CYLINDERS

CAUTION: Always insert the safety rail before working on raised header.

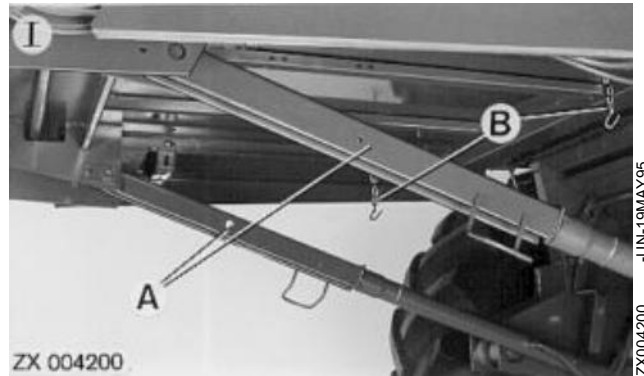
IMPORTANT: Insert safety rail only when header is fully raised.

Before working on raised header, insert safety rail (A) above the lift cylinders.

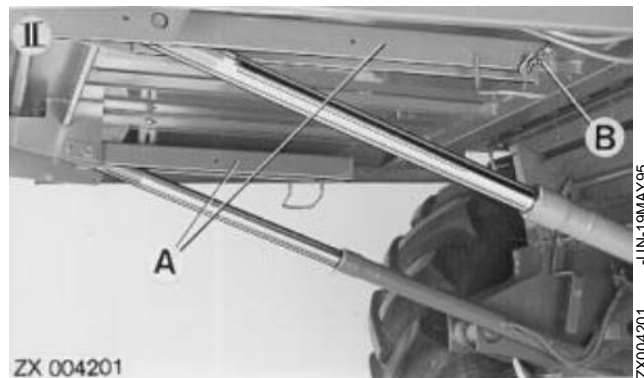
Before commencing field operation, remove safety rail (A) and secure it with chain (B).

NOTE: One or two safety rails are fitted, depending on national equipment standards.

- A—Safety rail
- B—Chain
- I—Safety rail inserted
- II—Safety rail removed



Safety rail inserted



Safety rail removed

ZX,OMXZC0002267-19-15APR94

SERVICE FLAPS

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.

Four clips for opening the catches are included with the machine. When service work is completed, put the clips back in the service box.

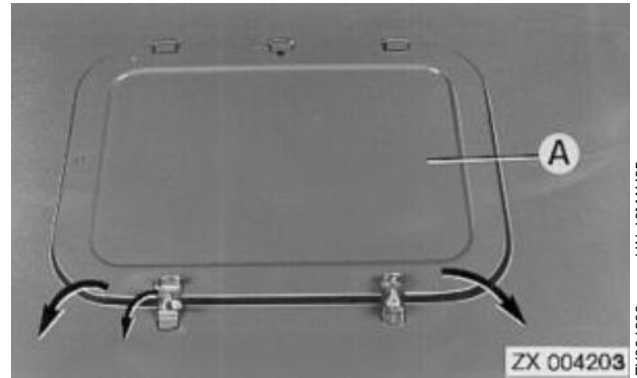
- A—Service flap, upper feeder house shaft
- B—Service flap, separator



ZX,OMXZC0002268-19-01NOV96

Feeder House

A—Service flap, feeder house center



ZX,OMXZC0002269-19-05OCT92

ZX004203 -UN-19MAY95

TENSION OF FEEDER CONVEYOR CHAIN

Checking chain tension

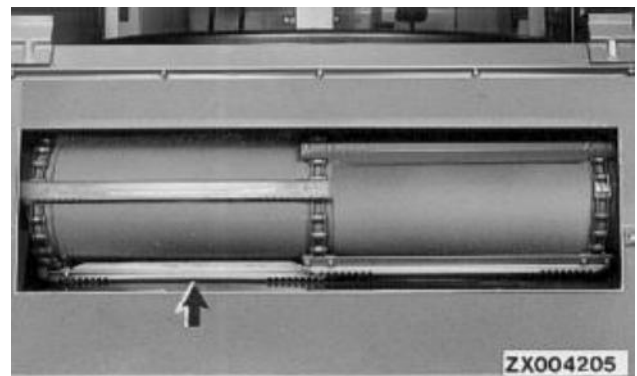
Chain tension is correctly adjusted when the chain can be raised 30 to 40 mm (1-3/16 to 1-37/64 in.) by exerting a force of approx. 300 N (66 lb) halfway between upper and lower feeder conveyor shafts.

A further check is possible with the header removed. The third slat (as seen from the front) should lightly contact the floor of the feeder house.



ZX,OMXZC0002270-19-05OCT92

ZX004204 -UN-19MAY95

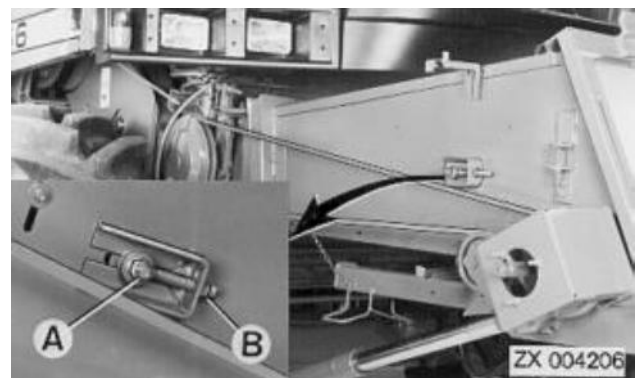


ZX004205 -UN-19MAY95

ADJUSTING TENSION OF FEEDER CONVEYOR CHAIN

IMPORTANT: This adjustment must be carried out equally on both sides.

To adjust tension of conveyor chain, loosen hex. nut (A) on both sides. Then turn adjusting nut (B) until correct chain tension has been obtained. Finally tighten all nuts.

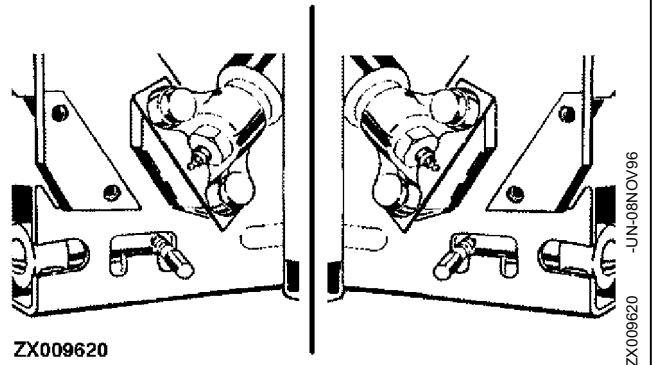


ZX,OMXZC0002271-19-05OCT92

ZX004206 -UN-19MAY95

PIVOTING SHIELD GUIDE ROLLS

The guide rolls on the pivoting shield prevent the pivoting shield from rising above the surfaces of the feeder house during reversing. They also act as additional supports when the shield is being pivoted.



ZX.OMXZC0006981-19-01NOV96

ADJUSTING HEIGHT OF BOTTOM FEEDER CONVEYOR DRUM

IMPORTANT: This adjustment must be carried out equally on both sides.

The required height depends on the type of crop:

- Normal grain crops: Lower
- Corn, rape etc.: Higher

IMPORTANT: Adjust length (X):

- Normal grain crops: 50 mm (1.97 in.)
- Corn, rape etc.: 34 mm (1.3 in.)



X—Adjusted length

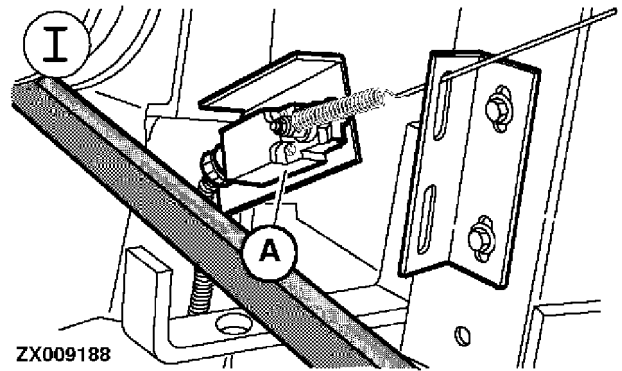
ZX.OMXZC0002272-19-01MAR95

ADJUSTING THE AREA COUNTER SWITCH

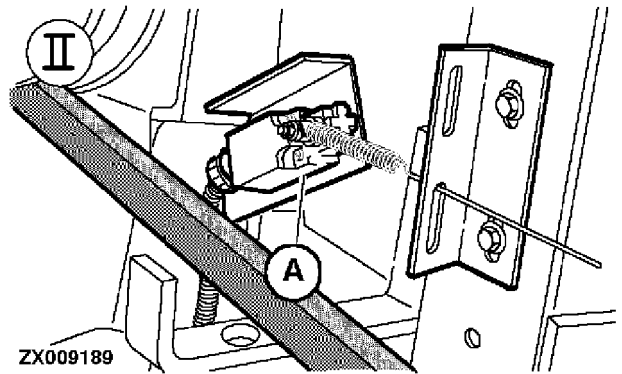
In grain crops, use the upper slot for end-switch (A).

In rape, corn (maize) and sunflowers, use the lower slot for end-switch (A).

- I—Adjustment for grain crops
- II—Adjustment for rape, corn (maize) and sunflowers



ZX009188 -UN-22MAY96



ZX009189 -UN-22MAY96

ZX,OMXZC0006507-19-02MAY96

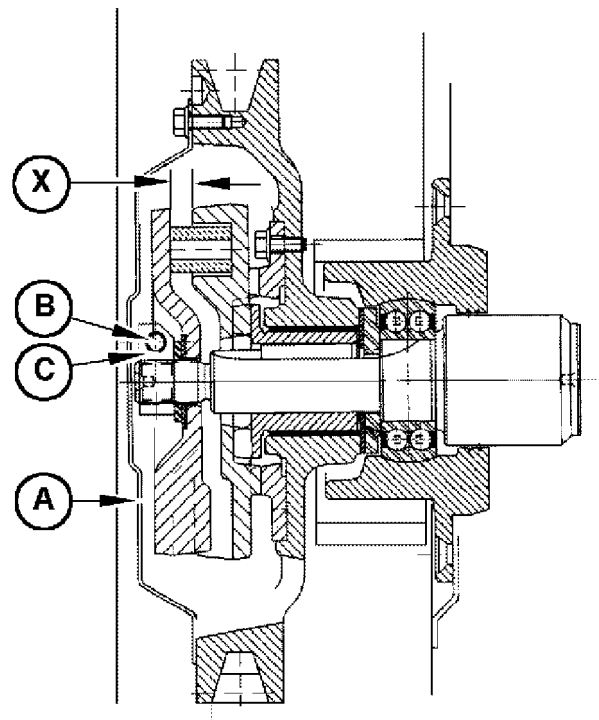
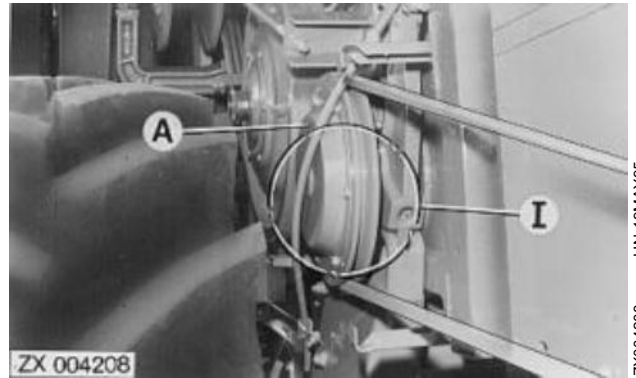
SLIP CLUTCH ON UPPER FEEDER SHAFT

Remove cover (A).

Adjust slip clutch:

- Loosen clamping screw (B).
- Adjust length (X) to 12 mm (0.47 in.) at clamping nut (C).
- Tighten clamping screw (B).
- Install cover (A) and side guard.

- A—Cover
- B—Clamping screw
- C—Clamping nut
- X—Adjusted length 12 mm (0.47 in.)
- I—Slip clutch

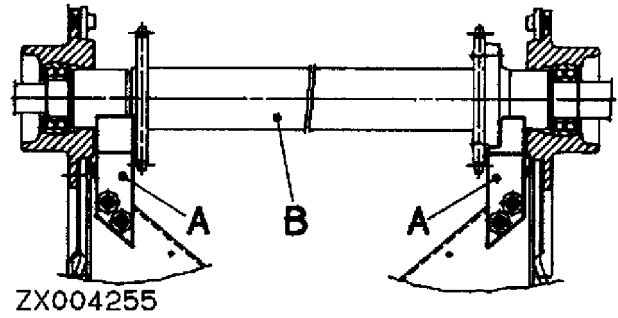


ZX009540

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STRIPPER ON TOP FEEDER HOUSE SHAFT

On both sides, adjust stripper (A) as closely as possible to top shaft (B).



ZX004255

ZX.OMXZC0002274-19-05OCT92

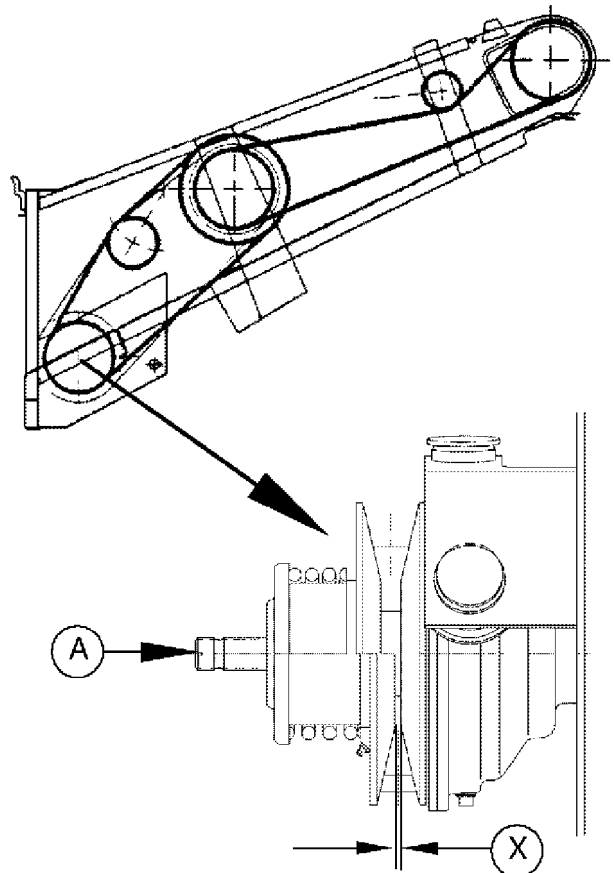
ZX004255 -UN-22MAY95

ADJUSTING BOTTOM UNIT OF FEEDER HOUSE VARIATOR

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.

Run the header drive shaft (A) at the slowest speed.

With the combine stationary and all functions switched off, adjust gap (X) to 3-6 mm (0.12-0.24 in.) by means of the tensioning device.



ZX007398

ZX.OMXZC0002276-19-01MAR95

ZX007398 -UN-19JUN95

ADJUSTING REVERSER SHIFTER FORK AND CONTROL CABLE

Sit in the operator's seat and depress the right side of the reverser pedal.

Raise feeder house and lower safety rail. All adjustments are made under the feeder house.

Remove cotter pin, pin (A) and washer from yoke (B).

Remove pin (C).

⚠ CAUTION: Bellcrank is spring-loaded and could pinch fingers if released accidentally.

Pull bellcrank (D) away and hold it firmly.

Using a suitable wrench, loosen lock nuts (E) and (F) on shifter fork (G).

Relax hold on bellcrank (D). Push shifter fork (G) in as far as possible.

Hold shifter fork (G) in firmly and screw down lock nut (F) until spacer (H) is tight against washer (J).

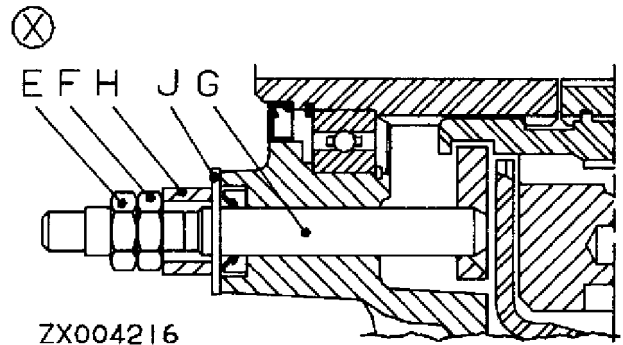
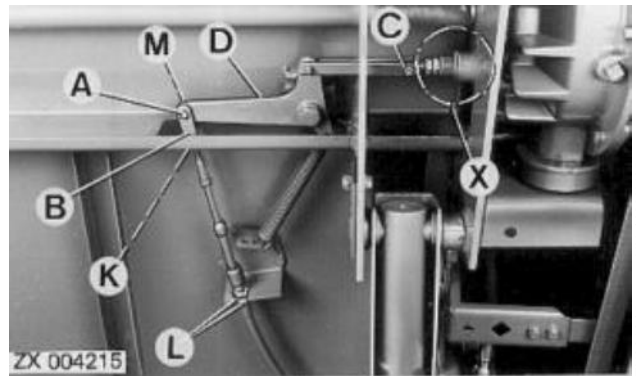
Tighten lock nut (F) further by one complete turn.

Tighten lock nut (E) with the wrench. Be careful not to turn lock nut (F).

Reinsert pin (C) through bellcrank (D) and shifter fork (G).

Use lock nut (K) on yoke or lock nuts (L) to adjust the yoke until the end of the slot furthest from nut (K) is aligned with hole (M) in the arm.

Reinstall pin (A), washer (J) and the cotter pin.



- A—Pin
- B—Yoke
- C—Pin
- D—Bellcrank
- E—Lock nut
- F—Lock nut
- G—Shifter fork
- H—Spacer
- J—Washer
- K—Yoke lock nut
- L—Cable lock nuts
- M—Hole in arm

Separator and Cleaning Unit

SERVICE FLAPS

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.

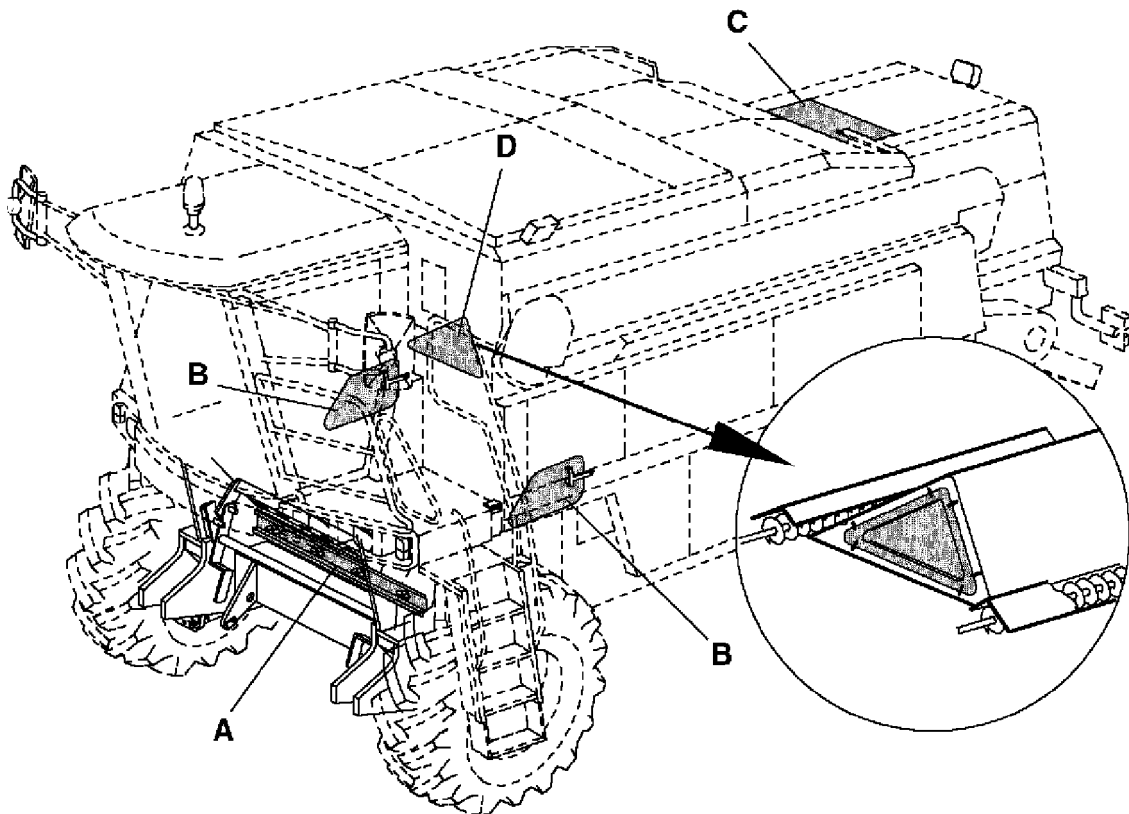
Four clips for opening the catches are included with the machine. When service work is completed, put the clips back in the service box.

- A—Service flap, upper feeder house shaft
- B—Service flap, separator



-JUN-30MAY96
ZX009203

ZX,OMXZC0002268-19-01NOV96



ZX 004219

- A—Access to grain pan
- B—Access to concave and cylinder (left and right)
- C—Access to cross-shaker and rear straw walkers
- D—Access to curtain

-JUN-19JUN95
ZX004219

ZX,OMXZC0002279-19-05OCT92

OPENING STONE TRAP BOTTOM PLATE

CAUTION: Watch for falling stones when bottom plate swings downward.

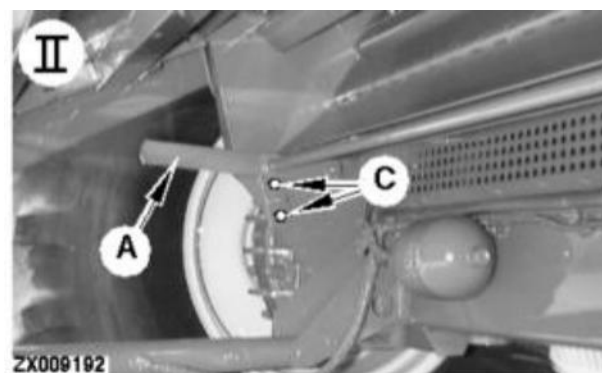
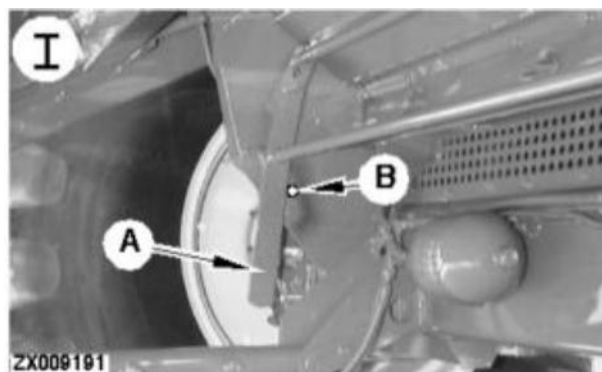
Remove any stones that have been collected.

Pull lever (A) upward. Access to the lever is from either side. The stone trap opens by itself.

When closing the stone trap, push lever (A) beyond the engagement point as far as stop (B).

The engagement point can be adjusted at slots (C).

- A—Lever
- B—Stop
- C—Slots
- I—Bottom plate closed
- II—Bottom plate open



-UN-30MAY96
ZX009191

-UN-30MAY96
ZX009192

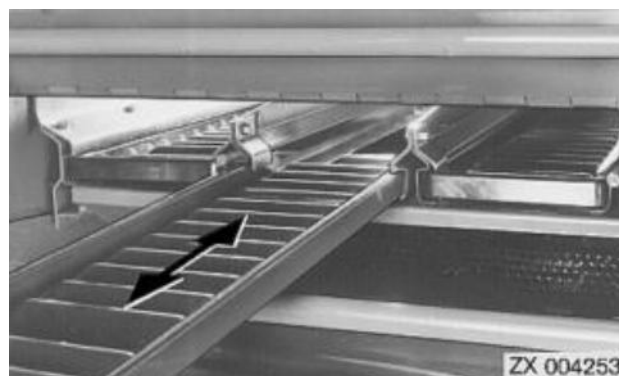
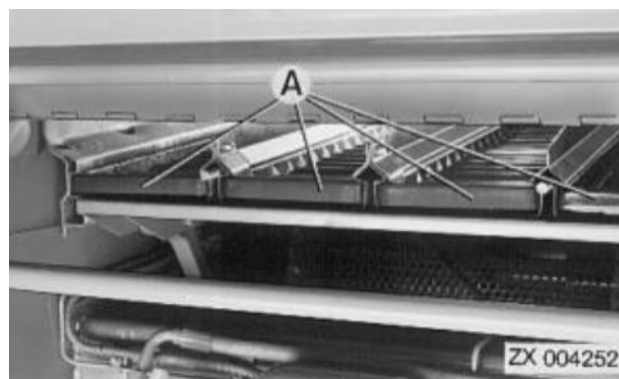
ZX,OMXZC0002280-19-02MAY96

GRAIN PAN INSERTS

Open the grain pan cleaning flap, take out inserts (A) and clean them.

IMPORTANT: Before reinstalling the inserts, clean the surface of the grain pan thoroughly. On combine harvesters with 5 straw walkers, pay attention to the width of the inserts.

NOTE: Special inserts are available for harvesting peas.



-UN-19MAY95
ZX004252

-UN-19MAY95
ZX004253

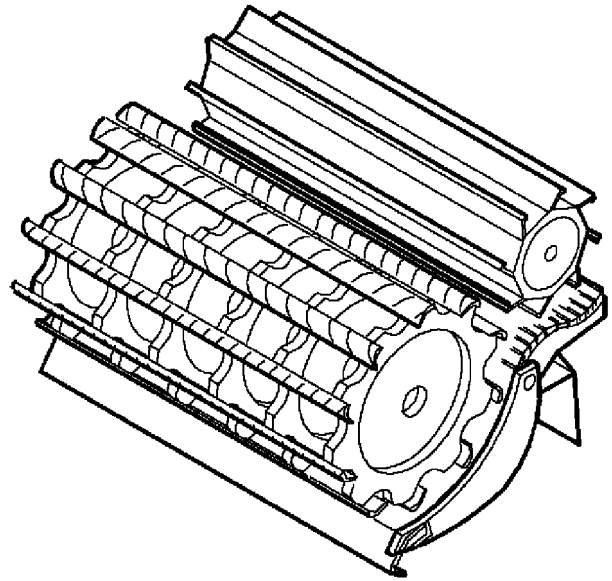
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CYLINDER RASP BARS

The cylinder is equipped with right-serrated and left-serrated rasp bars, installed alternately. When replacing a rasp bar, replace the corresponding bar on the opposite side as well to maintain proper cylinder balance.

Rasp bars can be replaced without removing the cylinder.

IMPORTANT: After the first 10 hours of operating with new rasp bars, retighten the attaching screws to 140 N·m (103 lb-ft).



ZX 004254

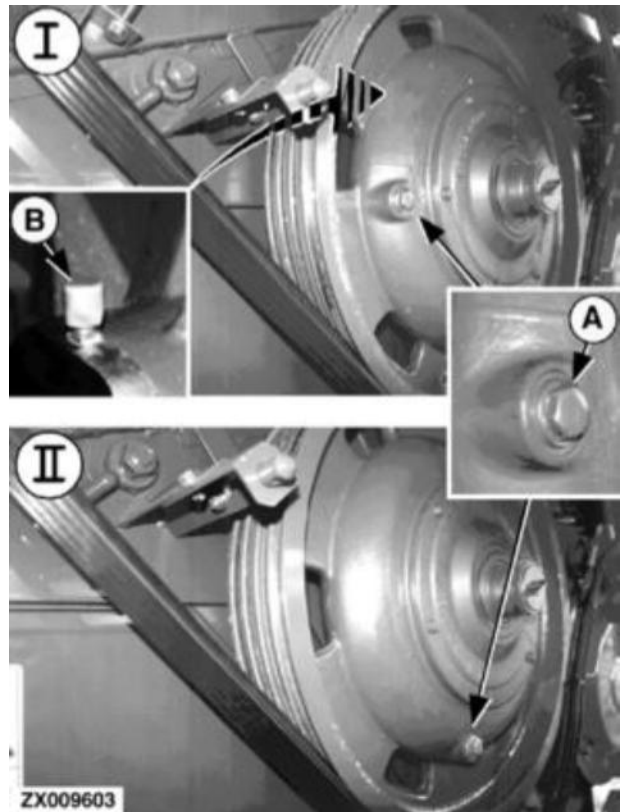
ZX004254 -UN-19JUN95

ZX,OMXZC0002282-19-01MAR95

CYLINDER DRIVE REDUCTION GEAR

Change oil in cylinder drive reduction gear after the first 100 hours of operation, and thereafter every 1000 hours of operation or after each harvesting season (whichever occurs first). Check oil level after every 250 hours of operation.

- I—Filler neck and level screw
- II—Drain screw
- A—Filler neck, check and drain screw
- B—Bleed fitting



ZX009603

ZX009603 -UN-08NOV96

ZX,OMXZC0002284-19-21NOV96

CYLINDER DRIVE REDUCTION GEAR (SPECIAL EQUIPMENT)

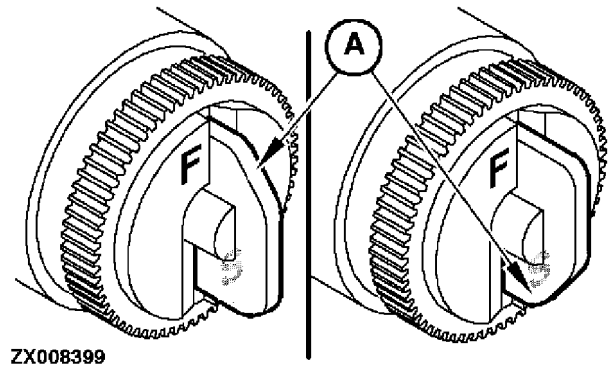
The cylinder drive reduction gear allows the cylinder speed to be reduced by about half. It is used to harvest corn (maize) and sunflowers.

The angled end of lug (A) indicates the position to which the camshaft is set:

- F-Lock position
- S-Select position

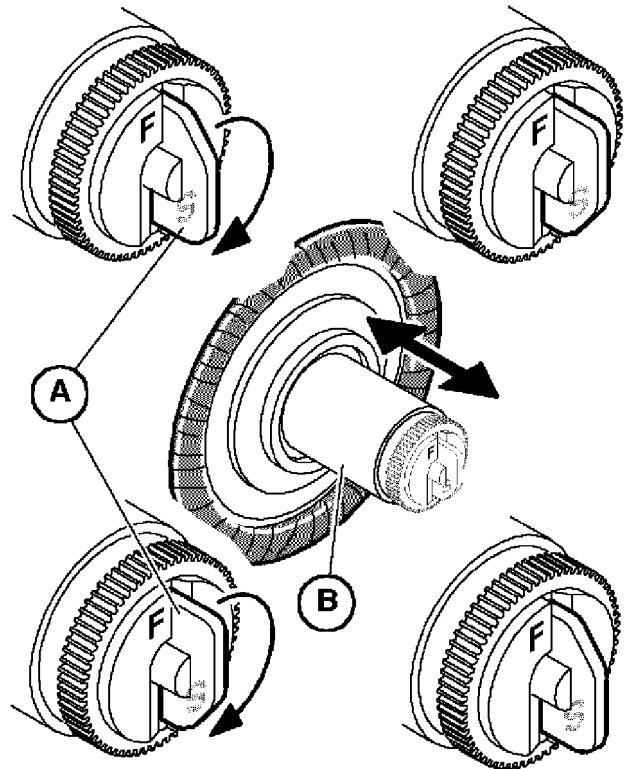
Changing Speeds

- Turn lug (A) from position "F" to position "S".
- Pull out shifter sleeve (B) (reduction gear disengaged) for speeds in the 370—1110 rpm range
- Push in shifter sleeve (B) (reduction gear engaged) for speeds in the 150—440 rpm range.
- Turn lug (A) from position "S" to position "F".



ZX008399

ZX008399 -UN-22NOV95



ZX008400

ZX008400 -UN-22NOV95

ZX,OMXZCO002283-19-02MAY96

TURNING CYLINDER (SPECIAL EQUIPMENT)

CAUTION: Perform cleaning work only when the machine is stationary.

Open the inspection flaps at the front of the feeder house and cylinder.

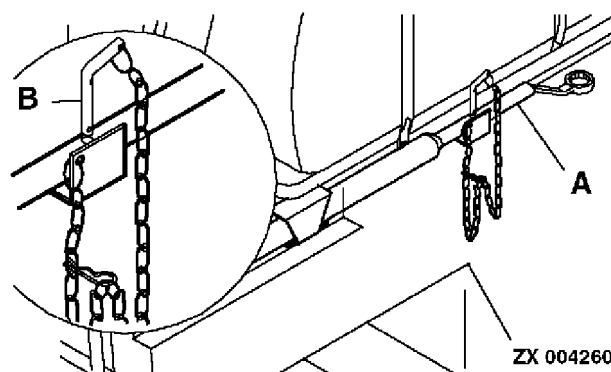
Unfasten retaining pin (B) and take out turning key (A) (located near fuel tank).

Insert turning key (A) onto the cylinder shaft stub (C).

NOTE: On combine harvesters without reduction gear, insert adapter (D) onto shaft stub (C). On combine harvesters with reduction gear, turning key (A) fits directly onto shifter sleeve (E).

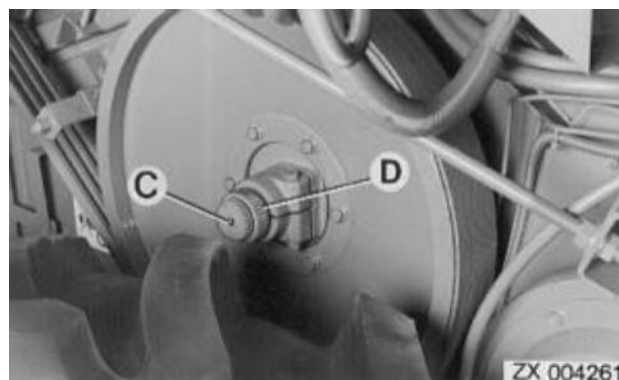
Turn the cylinder as required.

- A—Turning key
- B—Retaining pin
- C—Shaft stub
- D—Adapter
- E—Shifter sleeve



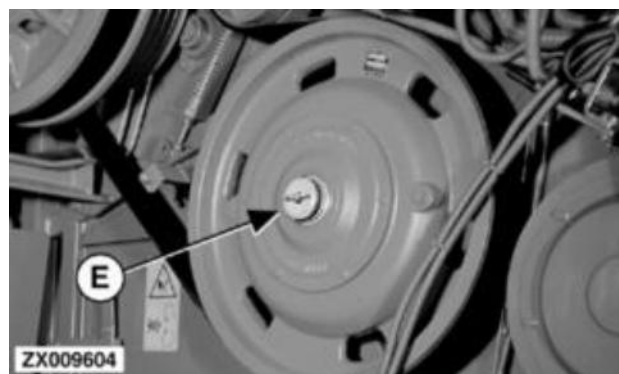
-UN-19JUN95

ZX004260



-UN-19MAY95

ZX004261



-UN-08NOV96

ZX009604

ZX,OMXZC0002285-19-01NOV96

CYLINDER FILLER PLATES

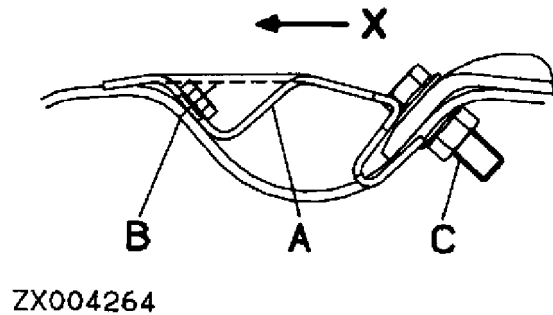
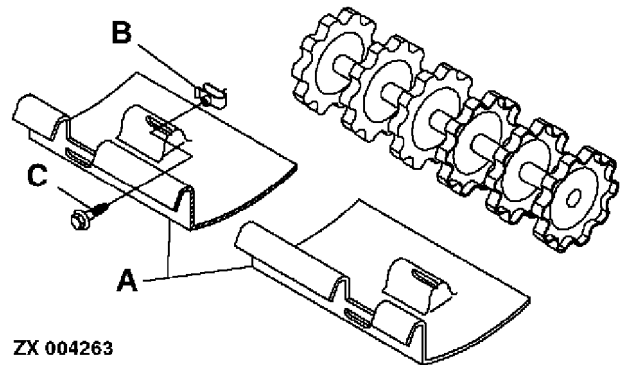
To harvest corn, the cylinder must be fitted with filler plates (A). These prevent cobs from clogging the rasp bars; they also deflect stones into the stone trap.

Tighten screws (C) to 50 N·m (35 lb-ft), and retighten them after the first half hour of operation.

IMPORTANT: Make sure the filler plates have been removed before harvesting grain crops.

NOTE: Leave clips (B) in place, as they suffer damage in the removal process.

- A—Filler plate
- B—Clip
- C—Cap screw
- X—Direction of rotation



ZX,OMXZC0002286-19-05OCT92

-UN-19JUN95

ZX004263

-UN-22MAY95

ZX004264

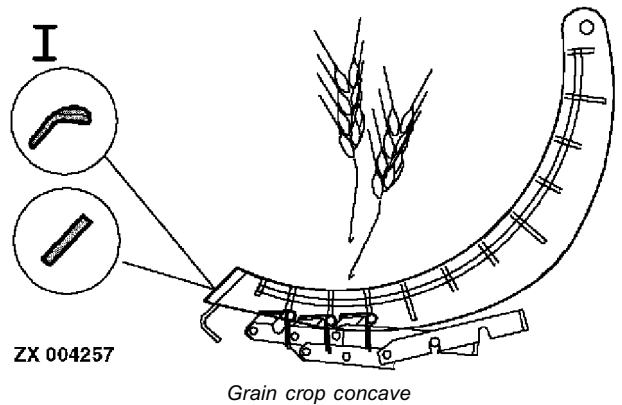
CONCAVE

Three different concaves are available, providing ideal threshing and cleaning characteristics for every type of crop.

I. Grain crop concave

Two-position (engaged/disengaged) de-awning plates are integrated into the grain crop concave.

Either a booster bar or a special rasp bar may be installed at the concave inlet.



ZX,OMXZC0002287-19-05OCT92

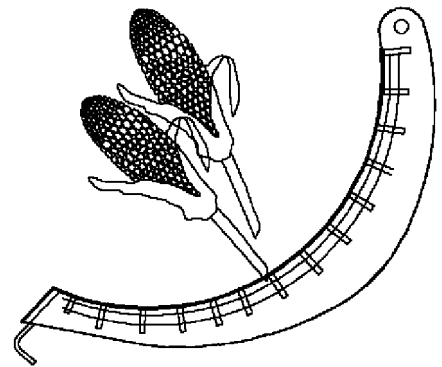
-UN-19JUN95

ZX004257

II. Corn concave

This concave may also be used for harvesting sunflowers.

II



Corn concave

ZX 007406

ZX.OMXZC0002288-19-02MAR95

ZX007406 -UN-19JUN95

III. Universal concave

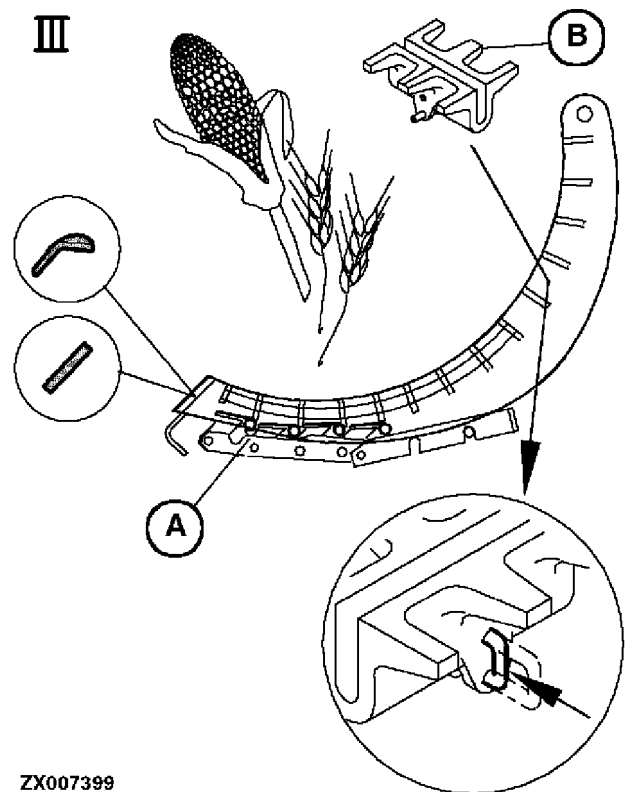
Either a booster bar or a special rasp bar may be installed at the concave inlet.

The corn concave has integral de-awning plates (A) which can be engaged or disengaged.

The rear part of the concave can be shielded by concave inserts (B) for corn harvesting.

IMPORTANT: Concave inserts (B) must be removed for harvesting grain crops.

III



Universal concave

ZX007399

ZX.OMXZC0002289-19-02MAR95

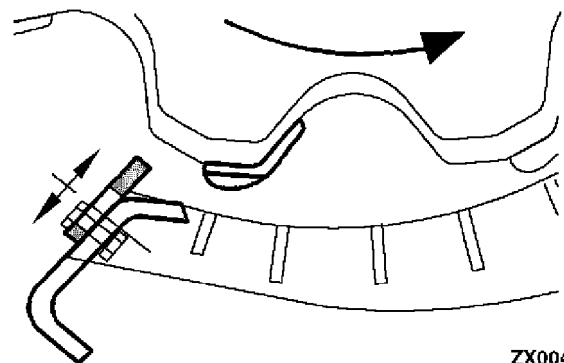
ZX007399 -UN-19JUN95

BOOSTER BAR

CAUTION: Perform cleaning work only when the machine is stationary.

If the crop requires aggressive threshing, the booster bar can be moved closer to the drum.

If a gentler threshing is required, the booster bar can be moved back.



ZX004267

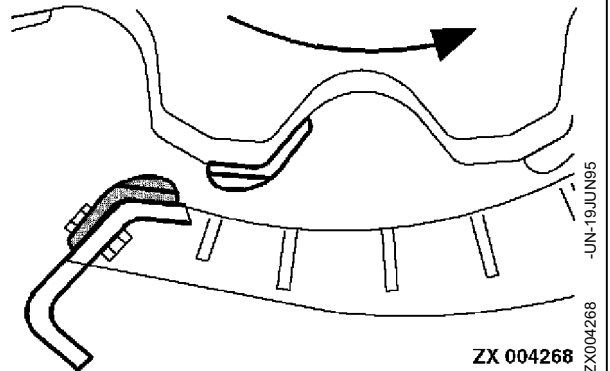
ZX.OMXZC0002290-19-05OCT92

ZX004267 -UN-19JUN95

SPECIAL RASP BAR

CAUTION: Perform cleaning work only when the machine is stationary.

When dealing with crops that are difficult to thresh, such as durum wheat and certain types of barley, a special rasp bar can help with de-awning.

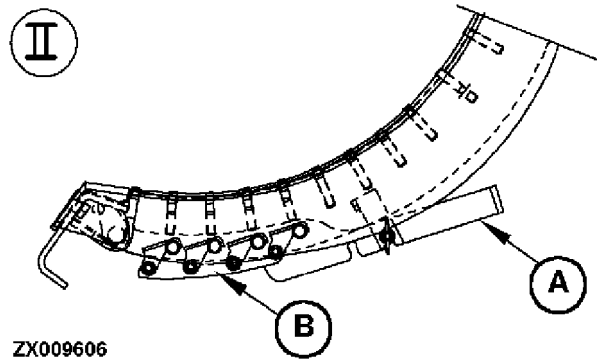
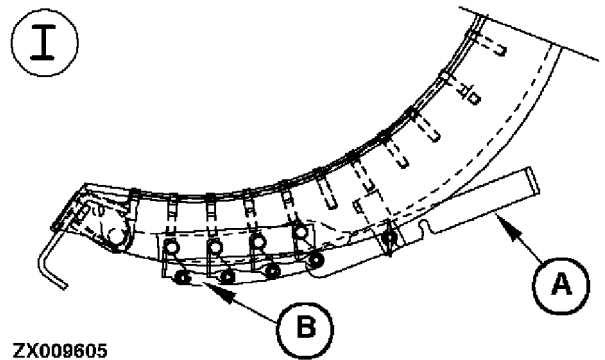


ZX.OMXZC0002291-19-04DEC92

DE-AWNING PLATES ON CONCAVE

De-awning plates (B) can be moved into operating position or moved back by means of lever (A). The lever is reached through the left service opening on the concave.

- A—Lever
- B—De-awning plates
- I—De-awning plates moved back
- II—De-awning plates in operating position



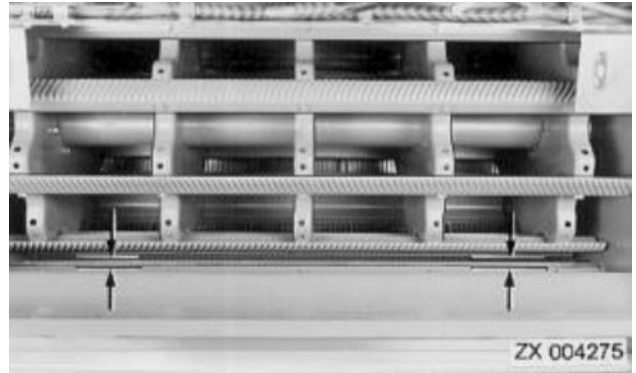
ZX.OMXZC0002292-19-01NOV96

CONCAVE SETTINGS

Horizontal setting

The concave leaves the factory in a horizontal position parallel to the cylinder.

Check the setting at regular intervals, also when fine adjustments have been carried out.



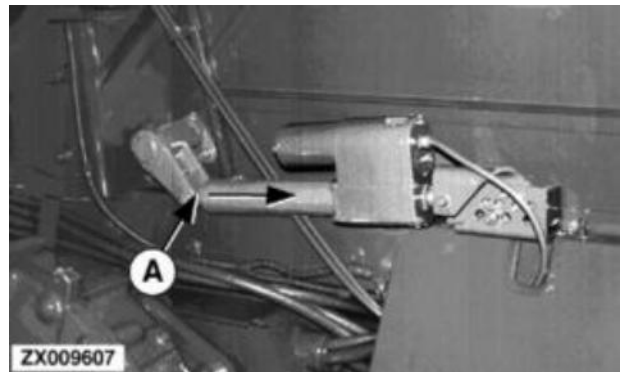
ZX,OMXZC0002293-19-05OCT92

-JUN-19MAY95
ZX004275

CHANGING THE CONCAVE

IMPORTANT: Before changing the concave, adjust it to give the minimum clearance (spindle (A) fully retracted). The infotrak monitor must display a concave clearance of "4".

Once it is removed, do not make any changes to the adjusting motor's spindle, either electrically or manually.



ZX,OMXZC0002294-19-01NOV96

-JUN-08NOV96
ZX009607

CONCAVE ADJUSTMENT

IMPORTANT: Concave must always be horizontal and parallel to cylinder. Speed and clearance determine effectiveness of threshing.

NOTE: Under certain circumstances, it may be a good idea to open the rear of the concave further at the two adjusting screws.

OPENINGS	FRONT	REAR
MINIMUM GAP	3-5 mm	2- 6 mm
MAXIMUM GAP	47-53 mm	20-26 mm

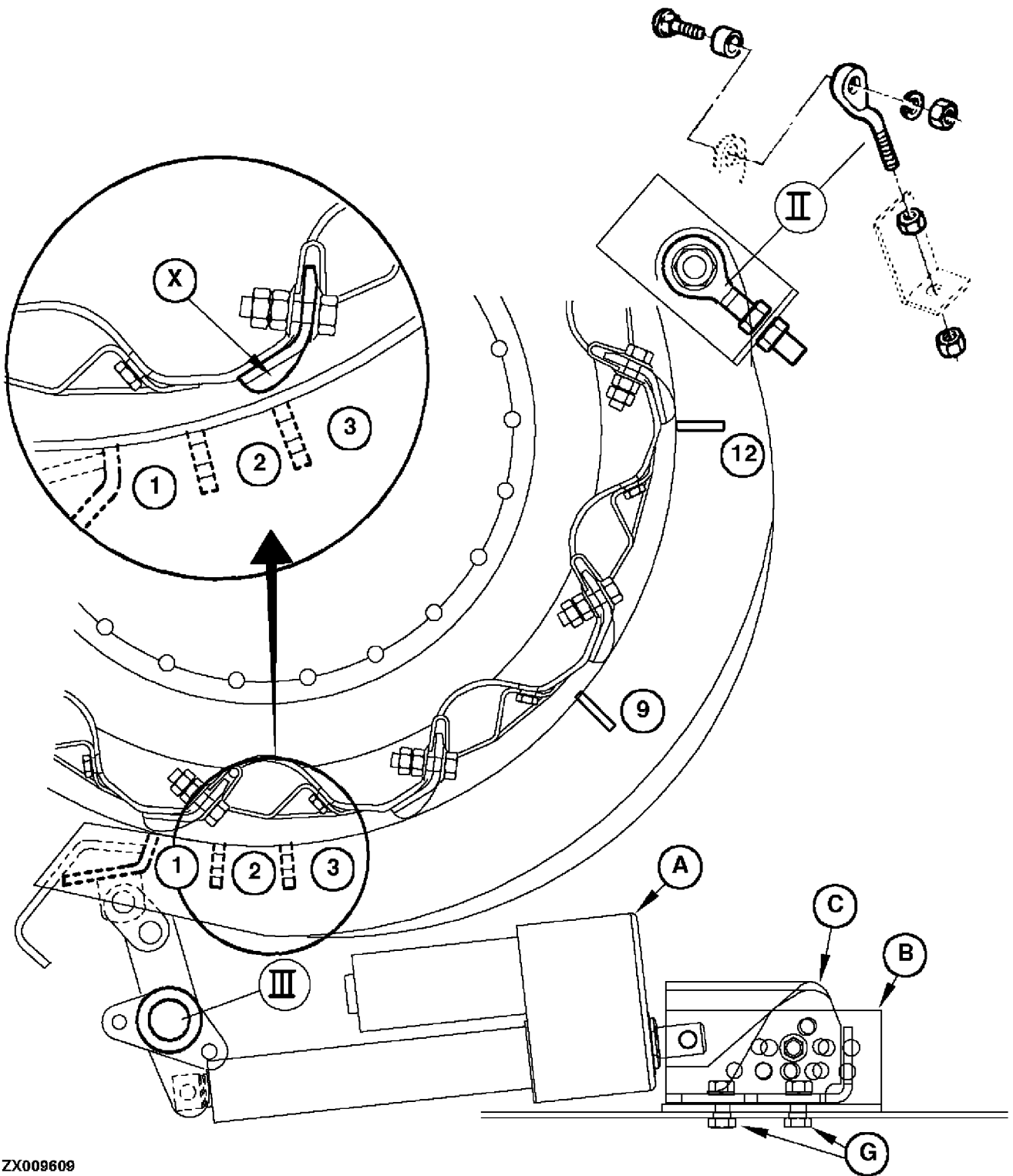


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-JUN-19MAY95
ZX004290

Separator and Cleaning Unit

CONCAVE BASIC SETTING



ZX009609

A—Adjusting motor
B—Bracket
C—Holder

G—Attaching screws
X—Punch-mark on highest rasp bar

I—Adjusting point, rear right
II—Adjusting point, rear left
III—Adjusting point, front left

IV—Adjusting point, front right

ZX.OMXZC0002296-19-01NOV96

-UN-08NOV96
ZX009609

CONCAVE BASIC SETTING (CONTINUED)

NOTE: When measuring, select the highest rasp bar at either side. This rasp bar (or these rasp bars) are marked with an "X" punch-mark before leaving the factory. Different rasp bars may be marked either on the left or right ends.

Install the concave and attach it at the adjusting points (see above). At adjusting point IV, attach the mountings to the center of the slots.

Install adjusting motor (A) at bracket (B), holders (C) and at the adjusting lever.

Adjusting points I and II

With the highest cylinder rasp bar at each end, set a gap of 3 mm (0.12 in.) at the last concave rasp bar.

Measure the gap between the 3rd concave rasp bar and the highest cylinder rasp bar. Concave clearance should be 4 mm (0.16 in.). If clearance is OK at both ends, continue with assembly (see below).

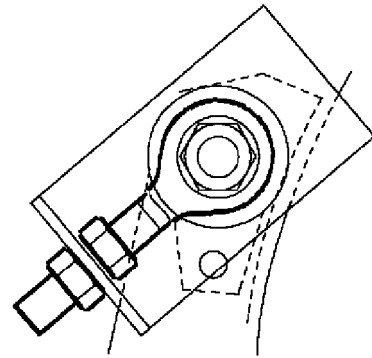
Adjusting points III

If concave clearance is greater than 4 mm (0.16 in.), push bracket (B) at adjusting point III onto the combine harvester's frame until clearance at 3rd concave rasp bar is 4 mm (0.18 in.).

If concave clearance is less than 4 mm (0.16 in.), pull bracket (B) at adjusting point III forward along the combine harvester's frame until clearance at 3rd concave rasp bar is 4 mm (0.18 in.).

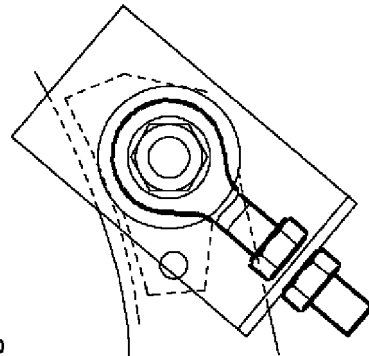
- A—Adjusting motor
- B—Bracket
- C—Holder
- D—Aluminium bearing
- E—Adjusting screw
- F—Stop plate
- G—Attaching screws
- X—Punch-mark on highest rasp bar
- I—Rear right adjusting point
- II—Rear left adjusting point
- III—Front left adjusting point
- IV—Front right adjusting point

I



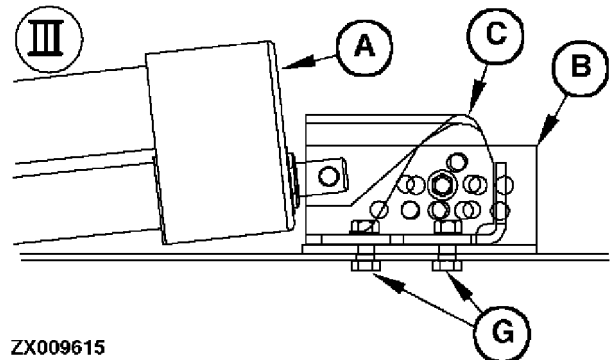
ZX009608

II



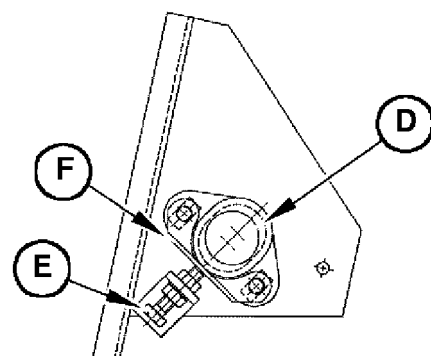
ZX009610

III



ZX009615

IV



ZX009616

CONCAVE BASIC SETTING (CONTINUED)

Adjusting point IV

If concave clearance is greater or less than 4 mm (0.16 in.), slacken off the screws that hold on aluminium bearing (D). Also slacken off adjusting screw (E). Set a gap of 4 mm (0.18 in.) at the 3rd rasp bar by moving the adjusting shaft up or down. Once the setting is correct, tighten the attaching screws on the aluminium bearing. Set the adjusting screw so that stop plate (F) is hard against the aluminum bearing. Tighten the locknut.

Check

The gap at the 9th concave rasp bar should be 1.5 mm (0.06 in.), measured at each end of the highest cylinder rasp bar. If the gap is not correct, turn the eye-bolts at adjusting points I and II until clearance is as quoted.

Check that the cylinder is free to rotate and is not obstructed at any point along its length.

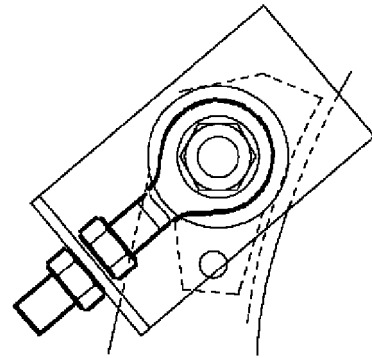
Adjusting point III

Join bracket (B) to holder (C), using the holes that match each other closest. (Re-)tighten all the screws. The tightening torque for the attaching screws (G) at bracket (B) and holder (C) is 55 N·m (41 lb-ft).

- A—Adjusting motor
- B—Bracket
- C—Holder
- D—Aluminium bearing
- E—Adjusting screw
- F—Stop plate
- G—Attaching screws
- I—Rear right adjusting point
- II—Rear left adjusting point
- III—Front left adjusting point
- IV—Front right adjusting point

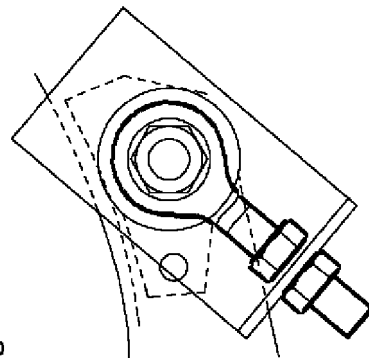
I

ZX009608



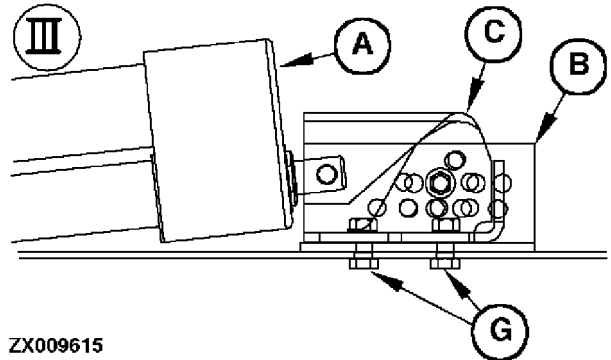
II

ZX009610



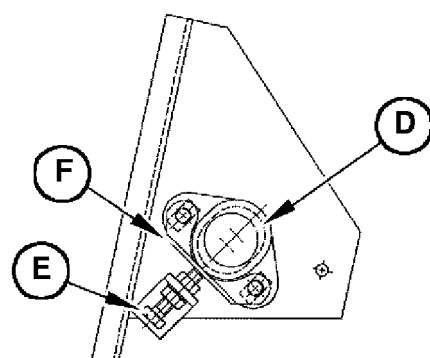
III

ZX009615



IV

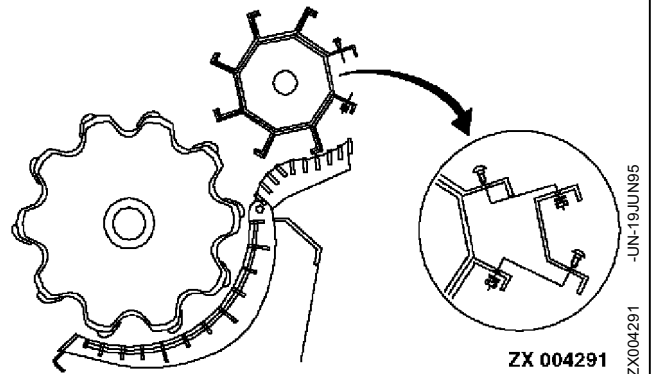
ZX009616



SECOND CYLINDER

To facilitate maintenance work, it is possible to remove the bolt-on element of the drum as one complete unit.

IMPORTANT: To avoid imbalance, use genuine screws only.



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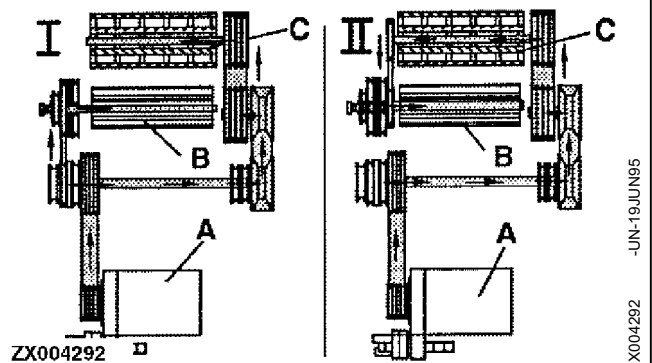
ZX004291 -UN-19JUN95

POSSIBLE DRIVE SPEEDS FOR SECOND CYLINDER

I — Constant speed of 850 rpm

II — Single-speed relationship drive: the speed of the second cylinder is the same as that of the first cylinder (e.g. for harvesting peas).

A—Motor
B—Second cylinder
C—First cylinder



ZX.OMXZC0002300-19-04DEC92

ZX004292 -UN-19JUN95

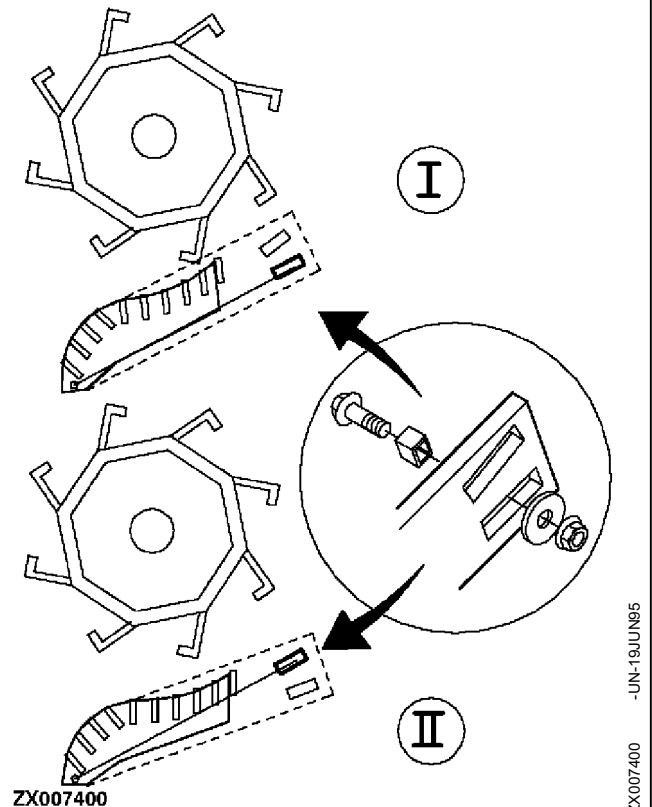
SECOND CONCAVE

The gap to the cylinder can be adjusted to provide the most efficient throughput of material in relation to the harvesting conditions.

Moving the concave closer to the cylinder provides a higher degree of separation for crops that are hard to thresh.

If the concave is moved away from the cylinder, the crop material is threshed more gently.

I—Setting for grain crops
II—Setting for corn

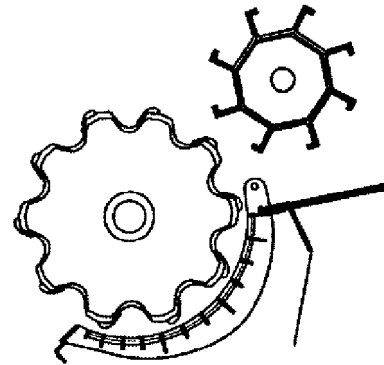


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ZX007400 -UN-19JUN95

FINGER RAKE

The finger rake is available for combines harvesting in very dry, brittle crops where additional separation is not required or in high moisture crops where the finger rake enables loose grains to pass through the straw more easily.



ZX004294

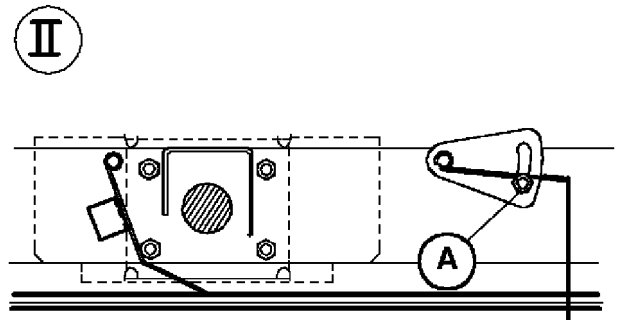
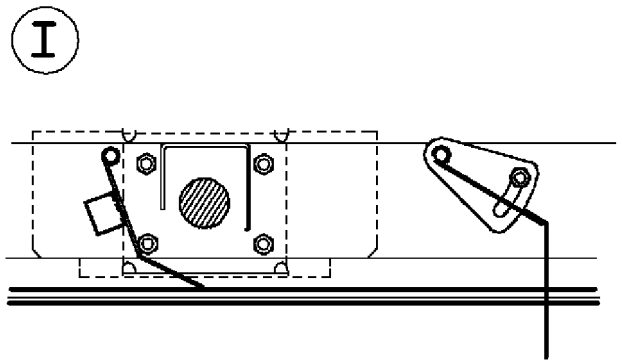
ZX.OMXZC0002302-19-01MAR95

ZX004294 -UN-19JUN95

CURTAIN

Under normal harvesting conditions, the curtain is free to swing in the slot (I).

For crops with a high straw content, it may be necessary to set the curtain as high as possible (II), and lock it in this position with nut (A).



ZX007408

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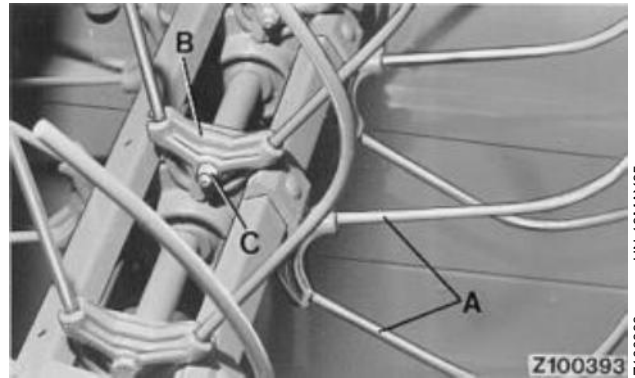
ZX007408 -UN-19JUN95

CROSS-SHAKER TINES

Check spring tines periodically for signs of wear. To replace a double spring tine (A), remove cast iron retainer (B).

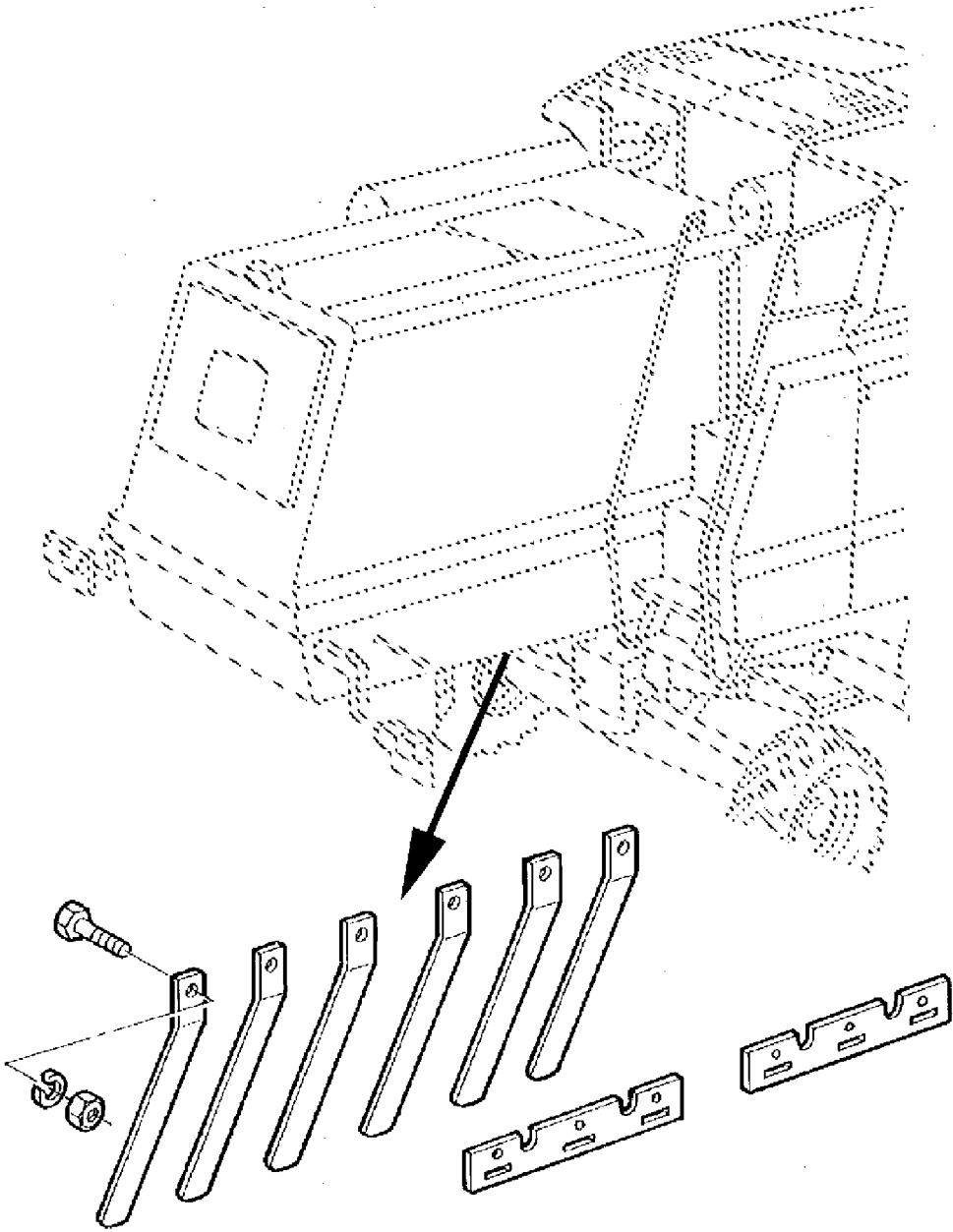
IMPORTANT: After the first few hours of operation, tighten hex. nuts (C) of connecting bolts to 65 N·m (47 lb-ft).

- A—Double spring tine
- B—Retainer
- C—Hex. nut



ZX,OMXZC0002303-19-05OCT92

STRAW RAKES



ZX009227

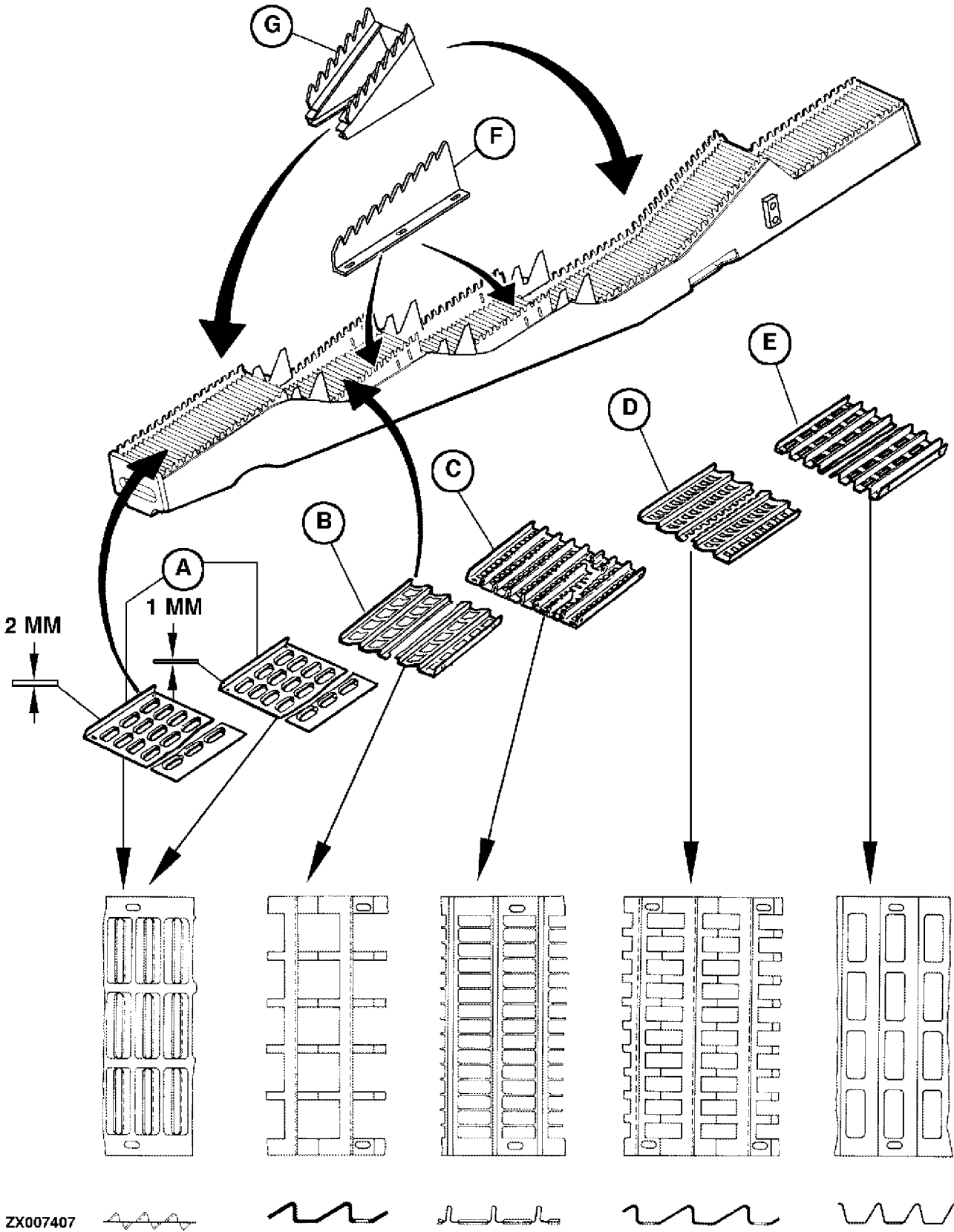
To reduce the width of the straw trail, straw rakes may be installed on the straw hood.

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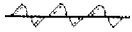
ZX009227 -JUN-22MAY96

Separator and Cleaning Unit

STRAW WALKERS



ZX007407



ZX.OMXZC0002304-19-02MAR95

STRAW WALKERS (CONTINUED)

NOTE: If straw walker grids are used, they must be fitted in the order in which they are listed here.

Use of Straw Walkers and Grid Arrangement:

—Rice/sunflower straw walkers:

For grain crops, corn, sunflowers, rape seed, grass seed, peas, rice, sorghum and soybeans.

Grid arrangement: 1st step grid (A), with grid (C) on the following 5 steps and fishback (F) on the 2nd and 3rd steps.

—Grain crop/rice straw walkers:

For grain crops, rape seed, grass seed, peas, rice, sorghum and soybeans.

Grid arrangement: 1st step grid (A), with grid (E) on the following 4 steps, grid (B) on the last step and fishback (F) on the 2nd and 3rd steps.

—Grain crop/corn straw walkers:

For grain crops, corn, rape seed, grass seed and peas.

Grid arrangement: 1st step grid (A), with grid (D) on the following 5 steps and fishback (F) on the 2nd and 3rd steps.

NOTE: Fishbacks (F) are installed on the l.h. side of the straw walkers. The l.h. straw walker does not get a fishback bolted to it.

A — Lip-type grid

NOTE: The 2 mm-thick lip-type grid is always fitted in the front position at the factory, and it must remain in this position.

B — Corn/cob mix (CCM) (Graepel-type)

C — Rice, sunflowers, grain crops

D — Corn, grain crops

E — Grain crops, rice

F — Fishback

G — Steep step

NOTE: Combine harvesters with finger rakes have the steep step (G) on the 1st straw walker step, unless they have a second concave, in which case they have no steep step (G).

On combine harvesters without cross-shaker, a second steep step (G) may be installed on the 4th straw walker step.

For service intervals, see lubricating chart in the "Lubricating Chart and Periodic Service" section.

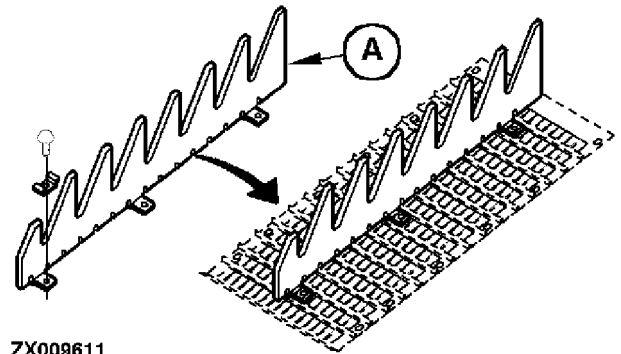
FISHBACKS

General information

Depending on harvesting conditions (dampness, green straw), it may be necessary to loosen up the layer of staw on the walkers. Under such conditions, extra fishbacks can be installed on the walkers to separate out the straw better, thus increasing efficiency.

—Rice/sunflower straw walkers:

Bolt fishback (A) onto the center of the second, third and sixth grids of each walker.



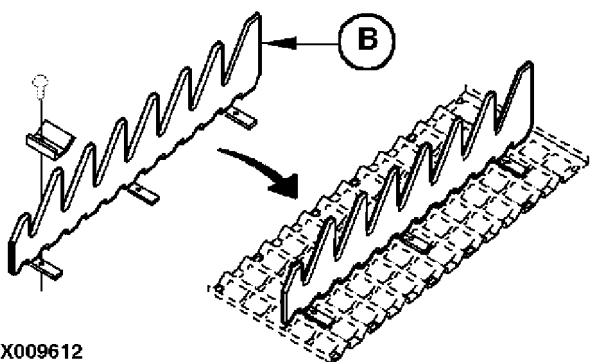
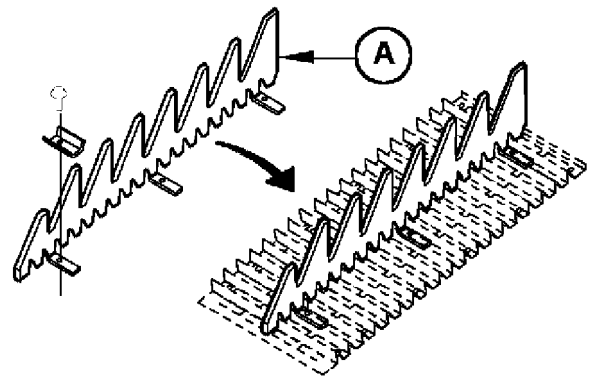
-JN-08NOV96
ZX009611

ZX,OMXZC0006877-19-01NOV96

—Grain crop/rice straw walkers:

Bolt fishback (A) onto the center of the second and third grids of each walker.

Bolt fishback (B) onto the center of the sixth grid of each walker.



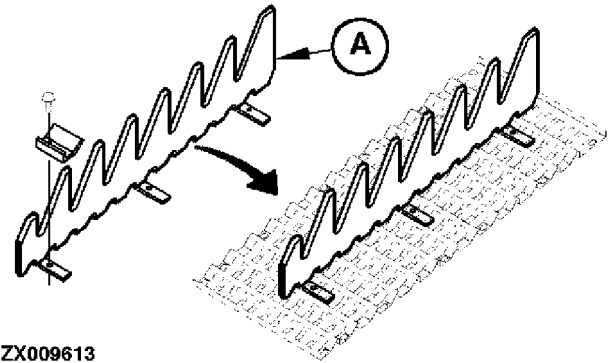
-JN-08NOV96
ZX009612

ZX,OMXZC0006878-19-01NOV96

Separator and Cleaning Unit

—Grain crop/corn straw walkers:

Bolt fishback (A) onto the center of the second, third and sixth grids of each walker.



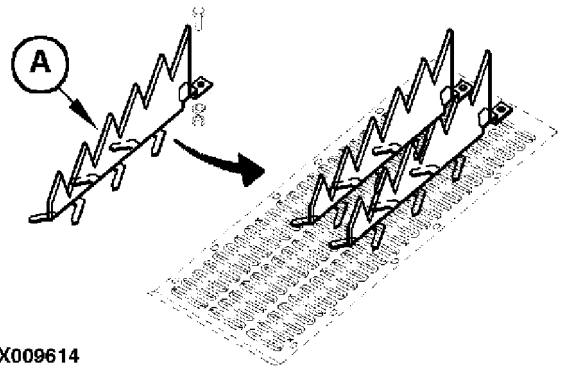
ZX009613

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ZX009613

—Combine harvester with second concave

Bolt two fishbacks (A) onto the center of the first grid of each walker.

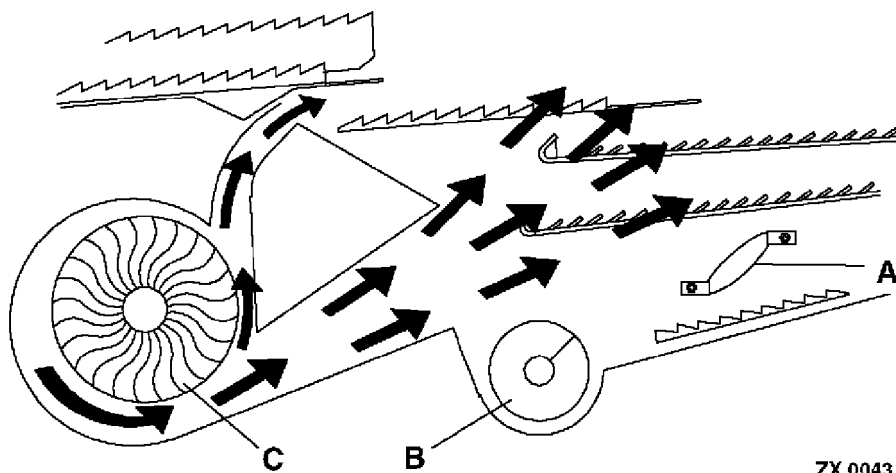


ZX009614

ZX.OMXZC0006880-19-01NOV96

-JUN-08NOV96
ZX009614

FAN AND WINDBOARD



ZX 004313

-JUN-19JUN95
ZX004313

A—Windboard

B—Clean grain auger

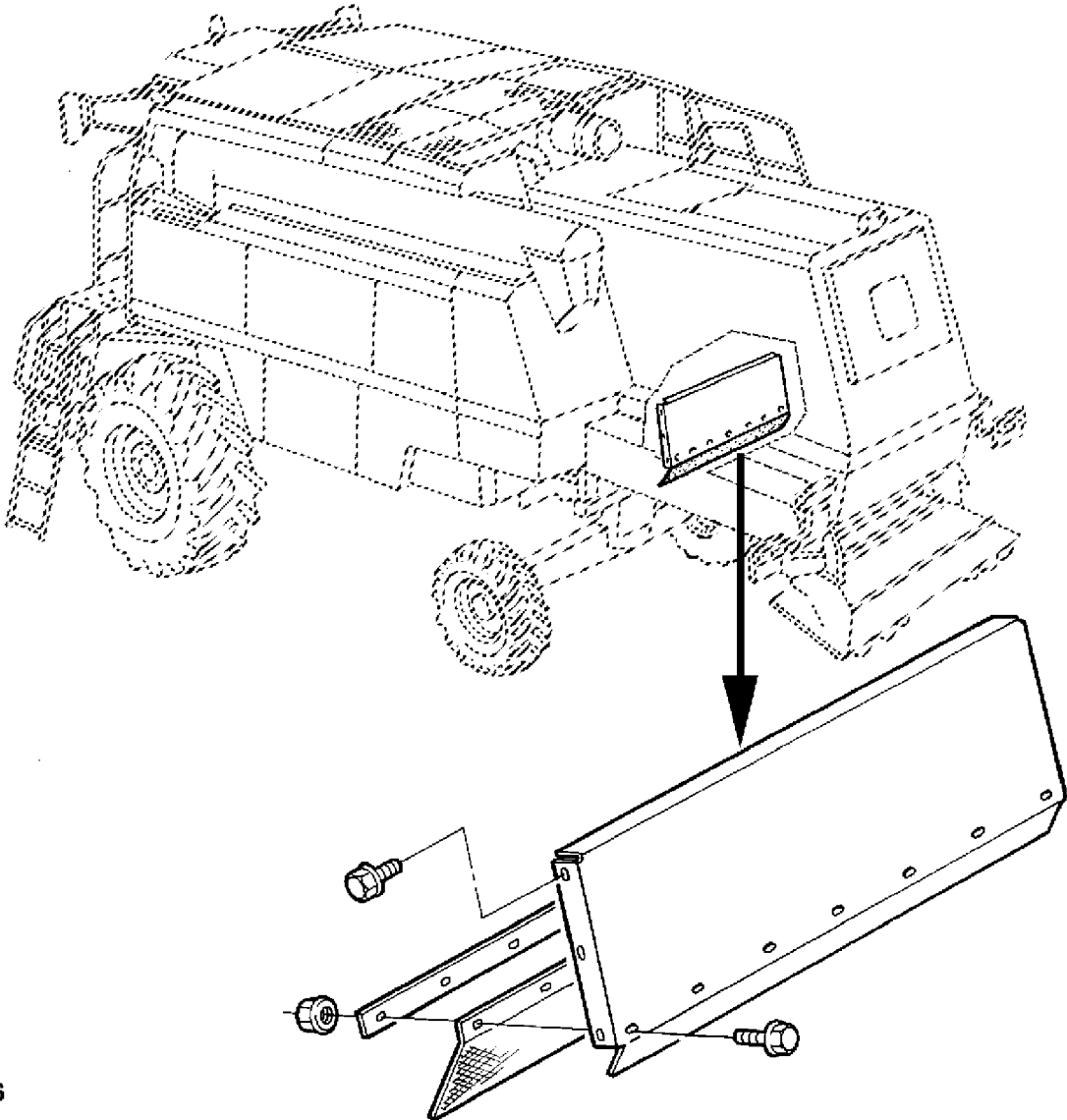
C—Fan

When threshing corn/cob mix (CCM) at a very high throughput, it may be necessary to remove windboard (A).

IMPORTANT: Remember to reinstall windboard (A) when harvesting grain crops.

ZX.OMXZC0002306-19-05OCT92

METAL SHEET TO SEPARATE CHAFF FROM STRAW



ZX009226

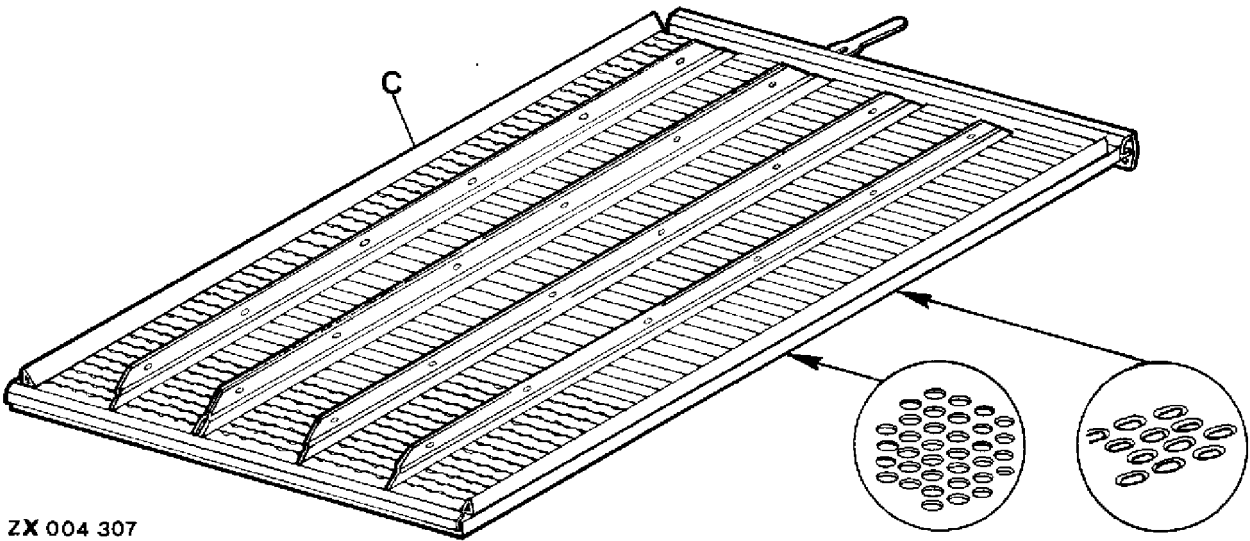
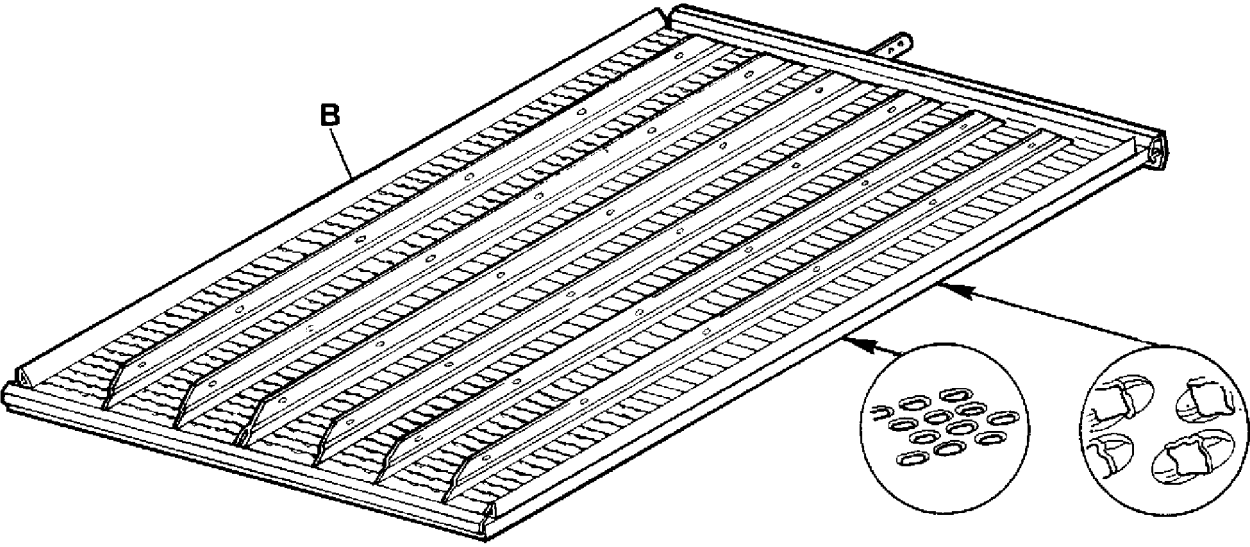
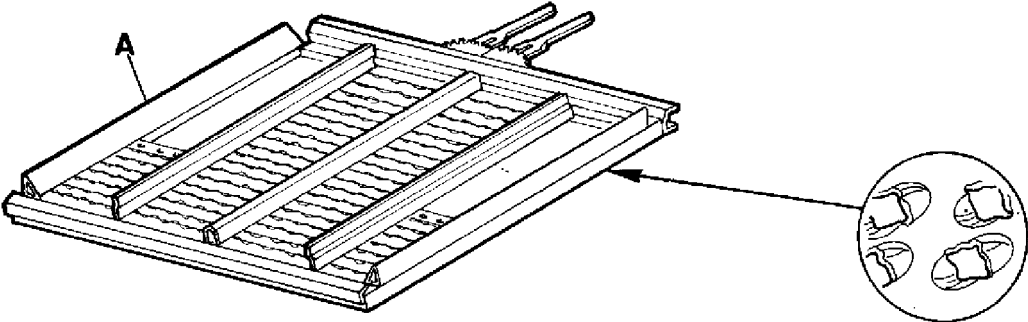
To prevent chaff from mixing with the straw trail, a metal sheet may be installed on the straw hood.

ZX,OMXZC0006508-19-02MAY96

ZX009226 -JUN-22MAY96

Separator and Cleaning Unit

SIEVES



ZX 004 307

ZX.OMXZC0002314-19-05OCT92

ZX004307 -UN-22MAY95

SIEVES (CONTINUED)

Variants available for each sieve

A — Chaffer extension

- Adjustable sieve
- Graepel-type sieve

B — Chaffer

- Adjustable sieve
- Graepel-type sieve
- Slotted sieve, 15 x 25 mm (0.59 in. x 0.98 in.)

C — Grain sieve

- Adjustable sieve
- Slotted sieves:
 - 4.5 x 25 mm (0.18 in. x 0.98 in.)
 - 15 x 25 mm (0.59 in. x 0.98 in.)
- Round-hole sieves:
 - 4 mm (0.16 in.)
 - 8 mm (0.32 in.)
 - 13.5 mm (0.53 in.)
 - 15 mm (0.59 in.)
 - 17 mm (0.67 in.)

ZX,OMXZC0002315-19-05OCT92

SIEVE

When harvesting certain crops under certain conditions, it is a good idea to use round-hole sieves.

ZX,OMXZC0002340-19-05OCT92

CHAFFER

When harvesting corn under wet conditions, use a slotted chaffer instead of a lip-type one.

In dry conditions, a Graepel-type chaffer has a higher sieve capacity than both the lip-type and slotted chaffers.

When harvesting corn/cob mix (CCM), use a Graepel-type chaffer rather than an adjustable one.

ZX,OMXZC0002341-19-05OCT92

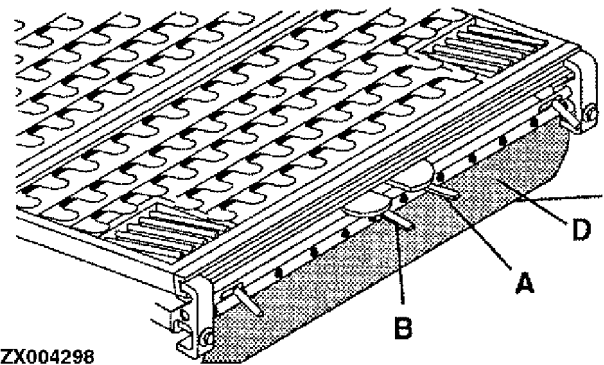
CHAFFER AND SIEVE ADJUSTMENT

To adjust the sieves, harvesters with 5 straw walkers are equipped with one adjusting lever, while harvesters with 6 straw walkers have two adjusting levers.

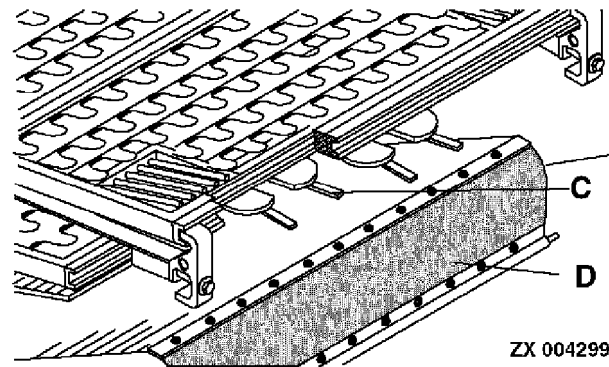
Adjust sieve openings as required. See "Combine Settings" in "Preparations and Field Operation" section.

To gain access to adjusting lever (C), open rubber tailboard (D).

- A—Chaffer extension adjusting lever
- B—Chaffer adjusting lever
- C—Chaffer adjusting lever
- D—Rubber tailboard



ZX004298



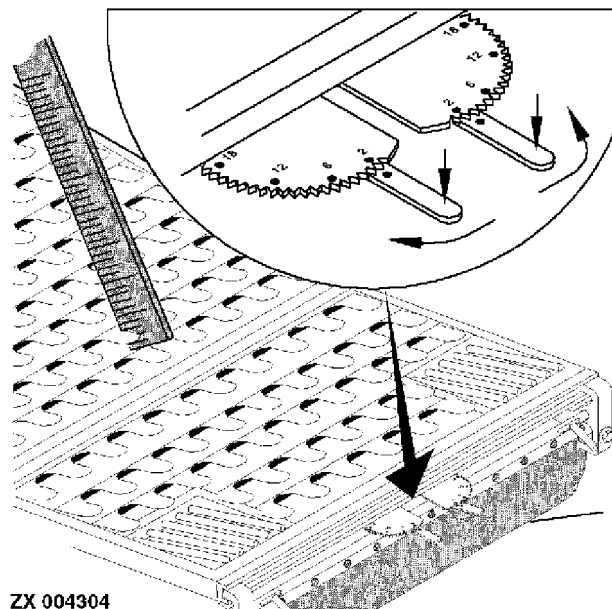
ZX 004299

ZX,OMXZC0002307-19-05OCT92

SIEVE ADJUSTMENT

Push the lever down a little and make the adjustment.

Even when the punch-marks are level with each other, the engraved figures do not provide accurate information. They are intended merely as a help in making adjustments. Check the setting with a feeler gauge, folding rule or similar instrument.



ZX 004304

ZX,OMXZC0002308-19-05OCT92

ADJUSTING CHAFFER EXTENSION

Under certain harvesting conditions, it is necessary to improve the material flow by setting the chaffer extension at a flatter angle.

Open rubber tailboard (A) (two on harvesters with 6 straw walkers).

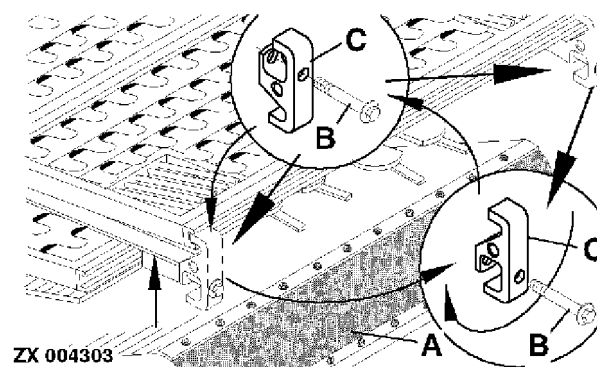
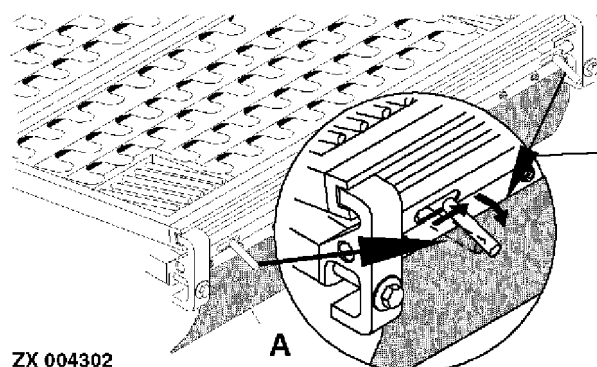
Clean the surfaces of the chaffer extension thoroughly.

Remove screws (B) and clamps (C) at both sides.

The chaffer extension is in the lower position when it is lying on top of the cleaning shoe.

Turn clamps (C) through 180° and lock them with screws (B).

Close rubber tailboard(s) (A).



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ZX004302

-UN-19JUN95

ZX004303

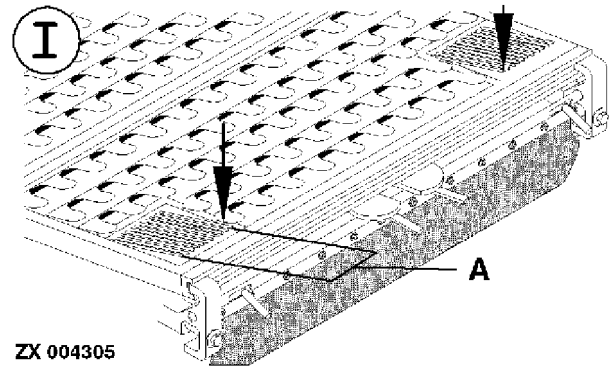
CHAFFER EXTENSION INSERTS (SLOPE MASTER)

When the harvester is operating 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 these via the tailings elevator.

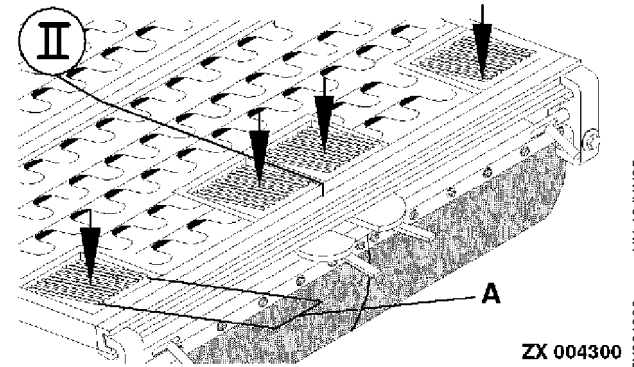
Vary the openings in the inserts to suit the harvesting conditions, type of crop and angle of harvester tilt by adding or removing fingers (A) after loosening wing nut (B).

NOTE: The harvester is delivered from the factory with 11 fingers installed in the chaffer extension.

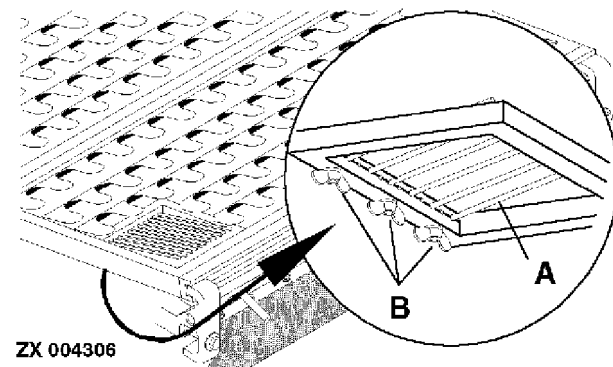
- A—Fingers
- B—Wing nuts
- I—Harvesters with 5 straw walkers
- II—Harvesters with 6 straw walkers



Harvesters with 5 straw walkers



Harvesters with 6 straw walkers



ZX,OMXZC0002310-19-05OCT92

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ZX004305
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ZX004300
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ZX004306

REMOVING CHAFFER EXTENSION

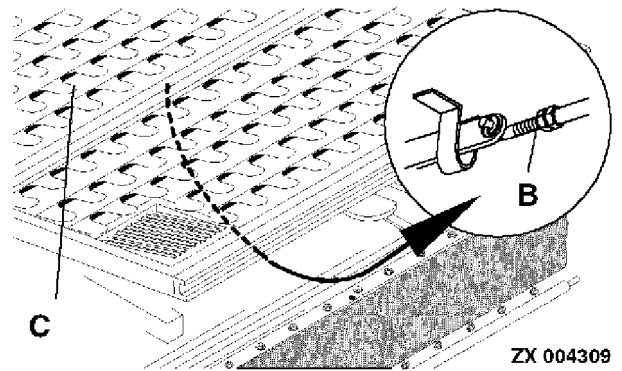
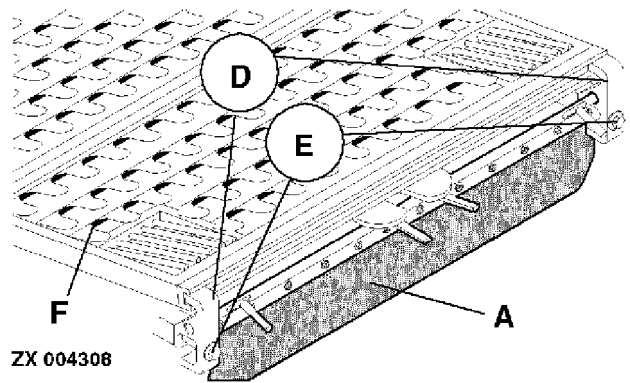
Unlock rubber tailboard (A) and fold it down.

Disengage linkage (B) from chaffer (C).

Remove clamps (D) and screws (E).

Pull out chaffer extension (F).

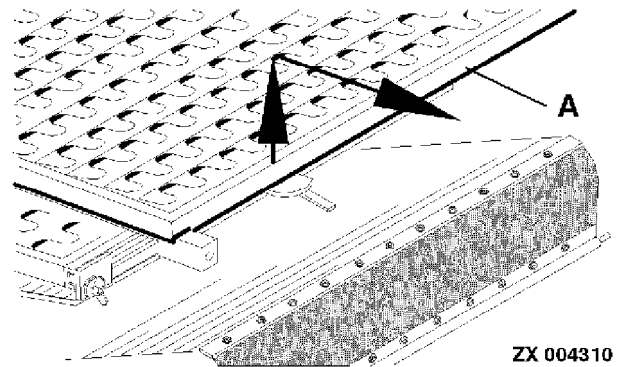
- A—Rubber tailboard
- B—Linkage
- C—Chaffer
- D—Clamps
- E—Screws
- F—Chaffer extension



ZX,OMXZC0002311-19-05OCT92

REMOVING CHAFFER

Raise chaffer (A) and pull it to the rear out of the harvester.

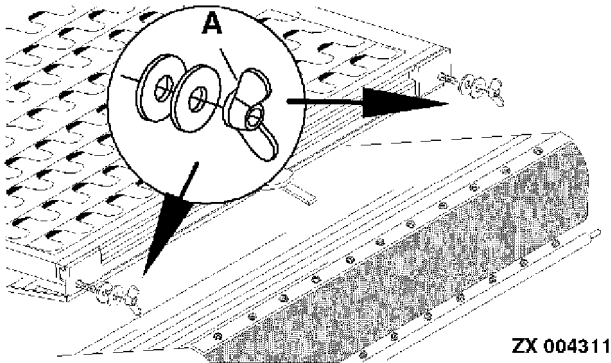


ZX,OMXZC0002312-19-05OCT92

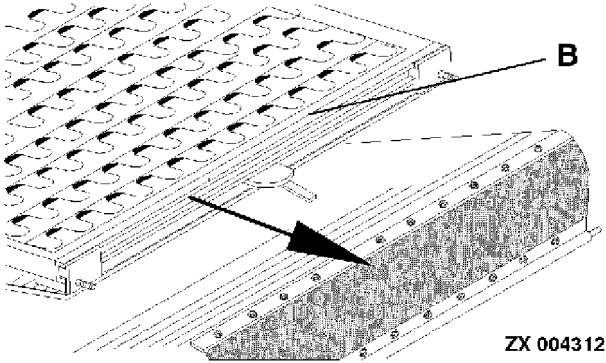
REMOVING SIEVE

Unscrew wing nuts (A).

Pull sieve (B) out to the rear.



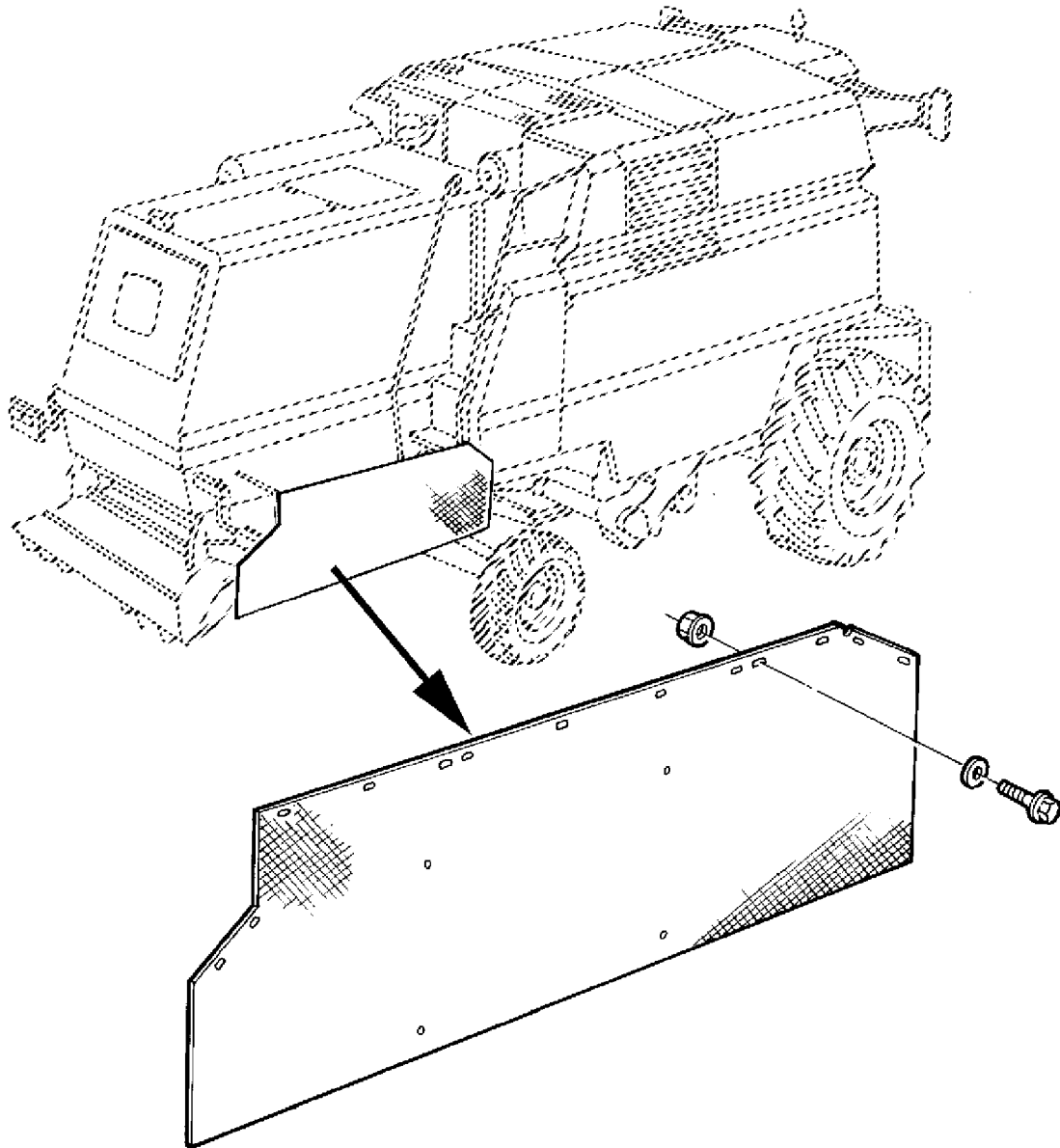
ZX004311 -JUN-19/JUN95



ZX004312 -JUN-19/JUN95

ZX,OMXZC0002313-19-05OCT92

SIDE-CURTAIN



ZX009228

To prevent too much chaff getting blown into the standing crop (e.g. in a side-wind), a side-curtain may be installed on the straw hood.

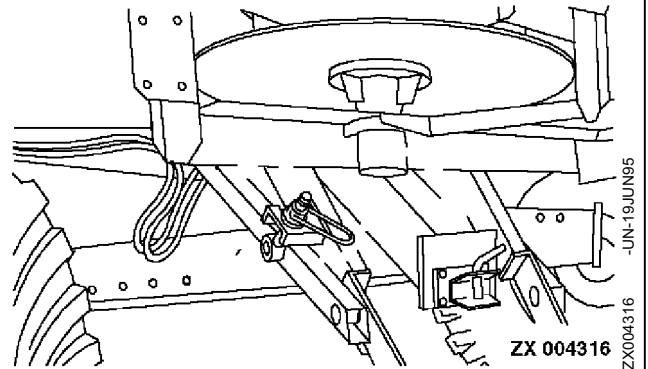
ZX.OMXZCO006510-19-02MAY96

ZX009228 -JUN-22MAY96

Chaff Spreader and Straw Chopper

CHAFF SPREADER (SPECIAL EQUIPMENT)

The chaff spreader is recommended for crop types that result in a great deal of chaff (e.g. grain crops and soya beans). A chaff spreader is not recommended for harvesting corn.

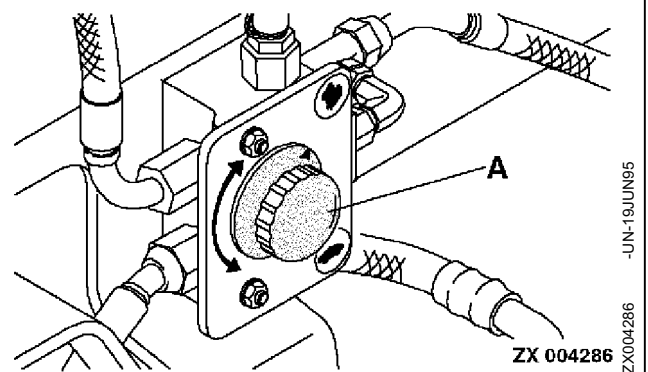


ZX.OMXZC0002175-19-05OCT92

OPERATING THE CHAFF SPREADER

To operate the chaff spreader, turn button (A) to the right. Select a speed that allows the chaff to be spread as wide as the width of the header.

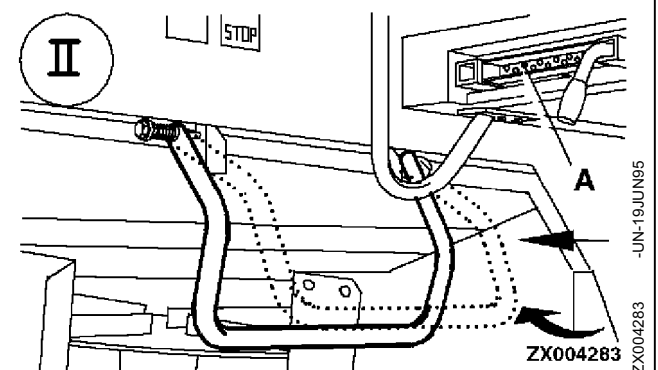
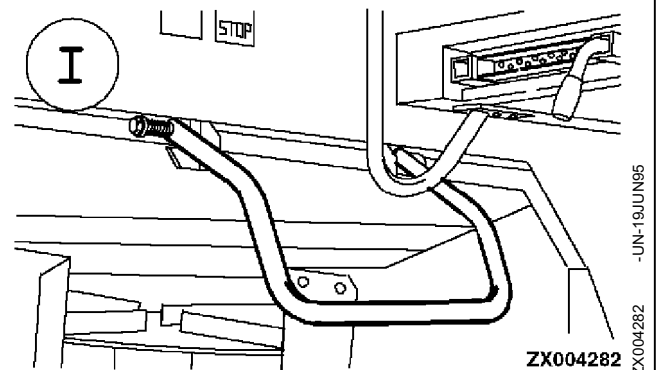
Check the area under the twin disks every day for accumulated waste, and clean as often as required.



ZX.OMXZC0002176-19-05OCT92

GUARD RAIL

- I—Position of guard rail when chaff spreader is operating
- II—Guard rail position, chaff spreader not operating and to pull out ladder (A)

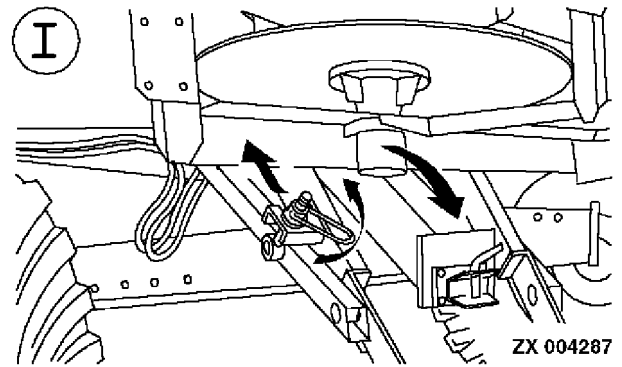


ZX.OMXZC0002179-19-05OCT92

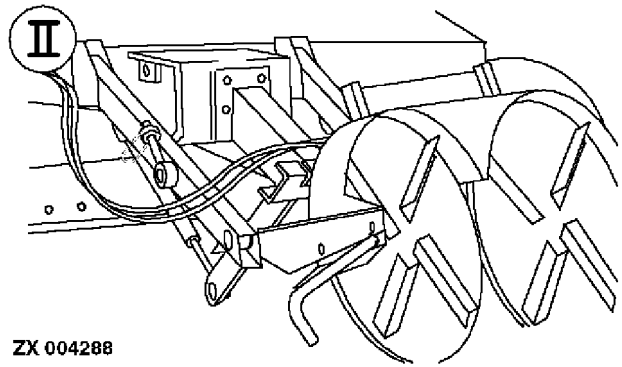
FOLDING DOWN THE CHAFF SPREADER

To fold down chaff spreader, unfasten lock (A) and pull the chaff spreader down. Gas-filled dampers facilitate folding, allowing the sieves to be cleaned more easily.

- I—Chaff spreader in operating position
- II—Chaff spreader folded to allow sieves to be cleaned



Operating position



Folded

ZX,OMXZC0002177-19-05OCT92

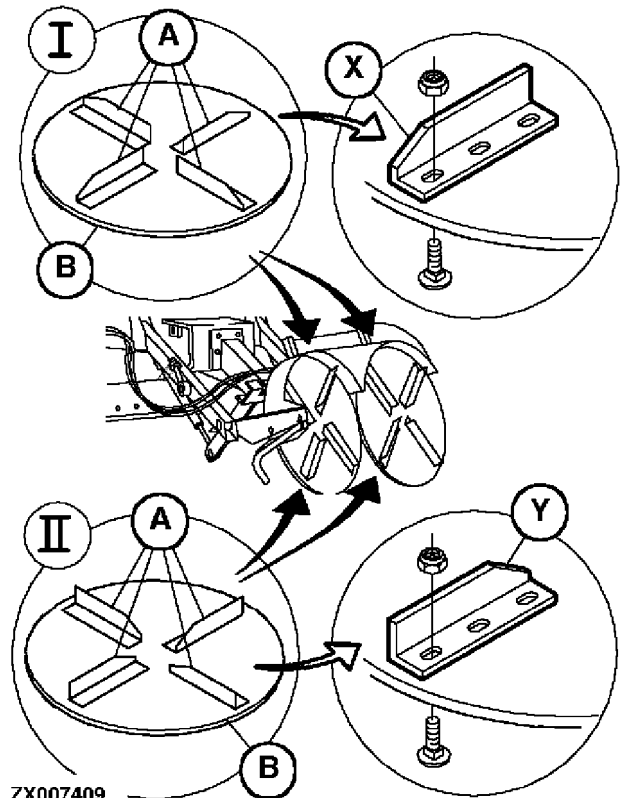
-UN-19JUN95
ZX004287

-UN-19JUN95
ZX004288

VANES ON CHAFF SPREADER ROTORS

Refer to (I) for correct vane position in corn or soybeans. Position vanes (A) with 45° angle (X) installed to the outside of the disk (B).

Refer to (II) for correct vane position in grain. Position vanes (A) with square end of vanes (Y) installed to the outside of the disk (B).



ZX007409

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-UN-19JUN95
ZX007409

REMOVING THE CHAFF SPREADER

Hydraulic Connections

To disconnect the quick-couplers, pull the collar ring at pressure hose (A) to the rear, and pull the collar ring on return hose (B) to the front.

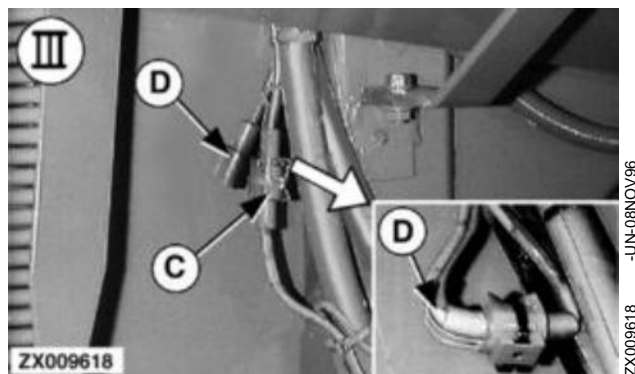
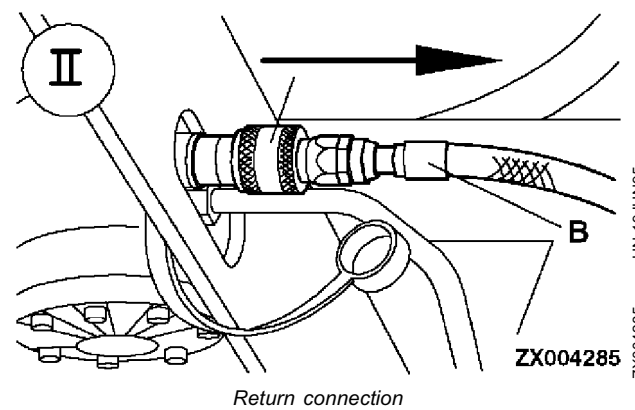
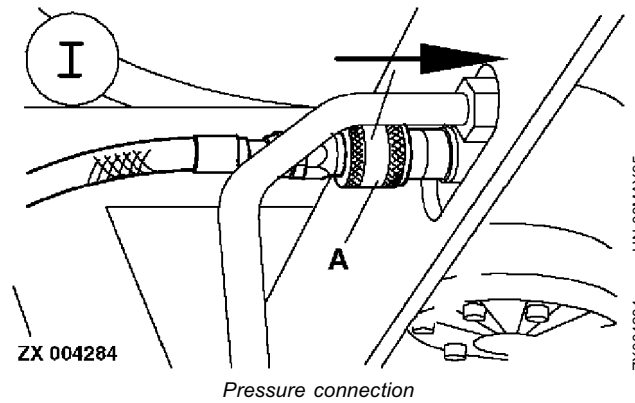
Insert the two ends of the hydraulic hoses together. This makes the chaff spreader inoperative. Secure the hydraulic hoses so that they cannot be damaged during operation.

Use the protective caps to prevent dirt from getting into the openings in the chaff spreader.

Electrical Plug Connection

If the combine harvester has both a straw chopper and a chaff spreader installed at the same time, and the chaff spreader is to be removed, bridging plug (D) must be inserted at connecting point (C).

- I—Pressure connection
- II—Return connection
- III—Electrical plug connection
- A—Pressure hose
- B—Return hose
- C—Connecting point
- D—Bridging plug



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!



ZX,OMXZC0002324-19-05OCT92

-UN-19MAY95
ZX004347

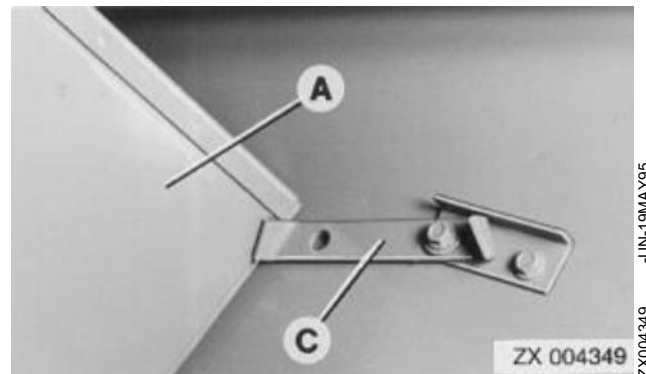
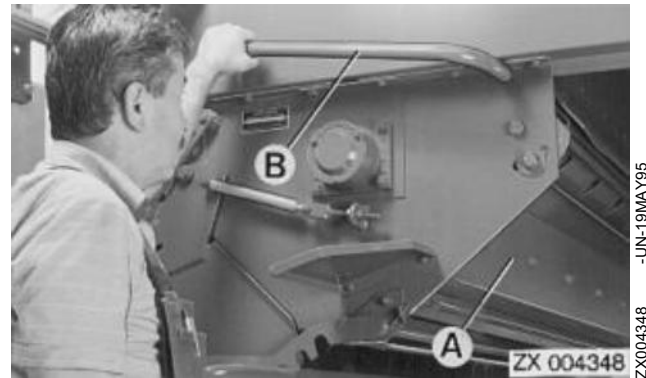
SWITCHING STRAW CHOPPER ON AND OFF

CAUTION: Before switching the straw chopper on or off, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

Before switching on, fold deflector sheet (A) in the straw hood to the front by actuating lever (B).

Before switching off, fold deflector sheet (A) to the rear by actuating lever (B).

NOTE: When straw accumulates in the straw walker compartment, fold deflector sheet (A) all the way forward and remove the straw. To do this, slide stop (C) up at both sides.



ZX,OMXZC0002325-19-05OCT92

-UN-19MAY95
ZX004348

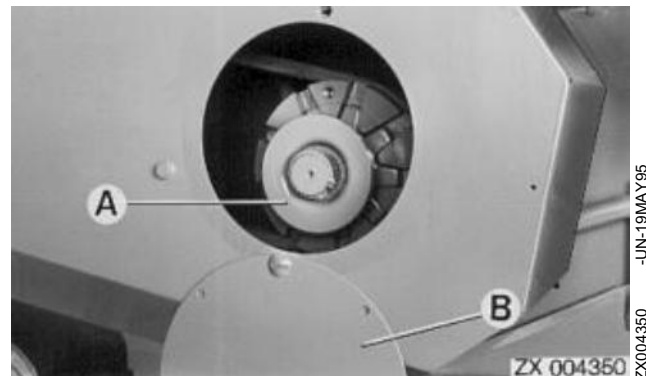
-UN-19MAY95
ZX004349

CAUTION: Before switching the straw chopper on or off, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

To switch on straw chopper, engage dog clutch (A).

To switch off straw chopper, disengage dog clutch (A).

Then close opening with cover (B).



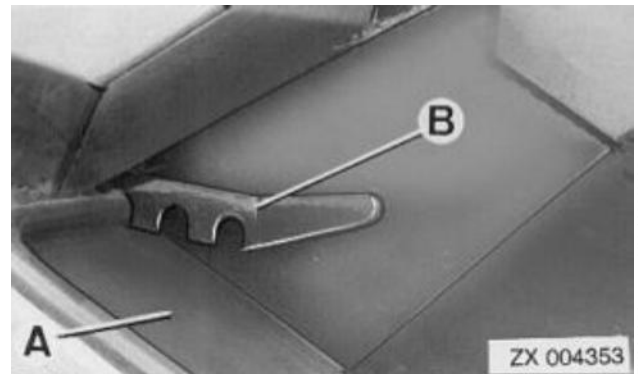
ZX,OMXZC0002326-19-05OCT92

-UN-19MAY95
ZX004350

ADJUSTING STRAW DISTRIBUTOR BOX

Straw distributor box (A) can be set to any of three positions by means of detent lever (B).

Straw distributor box (A) is set higher to spread the straw wider. At a high setting, less chopped material is blown into the stubble.



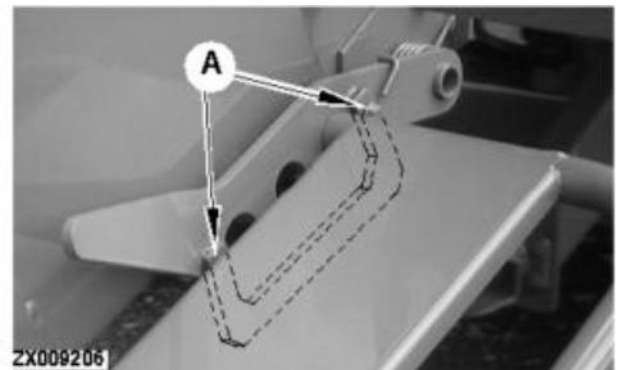
ZX,OMXZC0002328-19-01MAR95

-UN-19MAY95
ZX004353

DRIVING ON PUBLIC ROADS

CAUTION: It is forbidden to drive on public roads with the straw chopper switched on.

According to German road traffic regulations, for example, the straw distributor must be folded right down and be engaged in the front position. In addition, the right-hand side of the straw distributor box must be secured with guard rail (A).



ZX,OMXZC0002329-19-02MAY96

-UN-30MAY96
ZX009206

ADJUSTING STRAW DEFLECTORS

Three different versions are available for adjusting the straw deflectors:

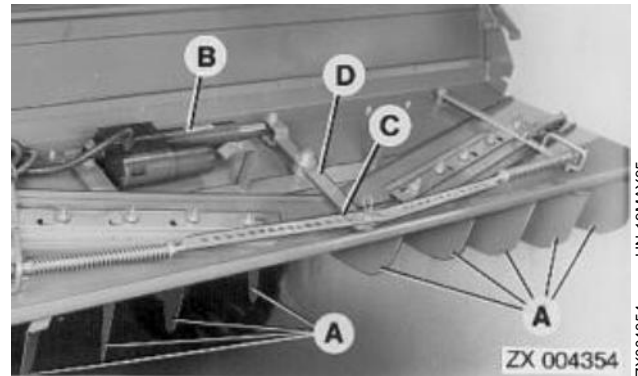
- Electrical adjustment, centrally
- Mechanical adjustment, centrally
- Separate adjustment at each deflector

ZX,OMXZC0002330-19-05OCT92

ELECTRICAL ADJUSTMENT, CENTRALLY

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 pulling slotted strips (C) at motor adjusting lever (D). Push slotted strips (C) outward for a wider spread, or inward for a narrower spread.

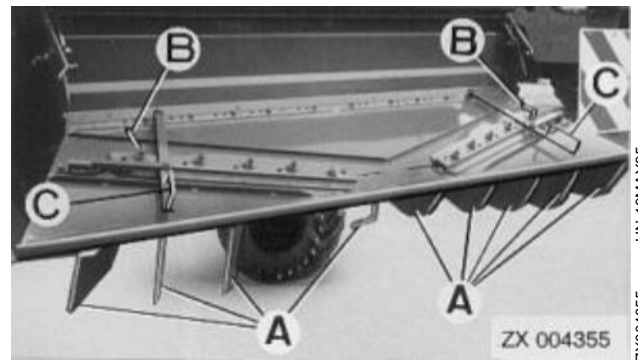


ZX,OMXZC0002331-19-05OCT92

MECHANICAL ADJUSTMENT, CENTRALLY

Straw deflectors (A) are adjusted simultaneously by slackening off toggle nuts (B) and actuating the lever (C).

If the wind is blowing from the side, set deflectors (A) against the wind to prevent the standing crop from becoming covered with chopped material. This setting can be retained if the harvester drives around the field in a circle and not up and down its length.

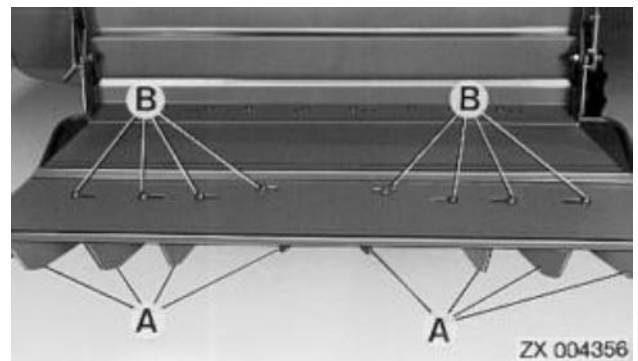


ZX,OMXZC0002332-19-05OCT92

SEPARATE ADJUSTMENT OF EACH DEFLECTOR

Each straw deflector (A) can be adjusted individually. First slacken off nut (B).

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.



ZX,OMXZC0002333-19-05OCT92

ADJUSTING COUNTER-KNIVES

The length of the chopped material can be modified by pivoting the counter-knives to a different angle.

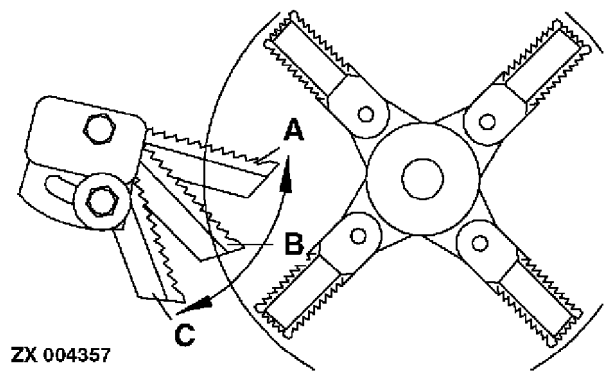
Recommended counter-knife positions:

A — Counter-knives flat for dry straw

B — Counter-knives at slight angle for damp straw and weeds

C — Counter-knives at extreme angle for rape and pea straw

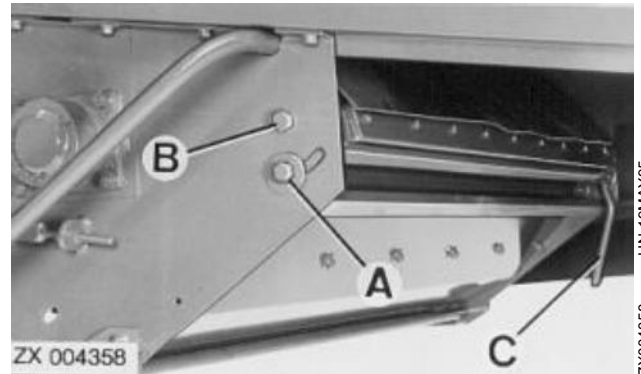
NOTE: When chopping with serrated knives, pivot the counter-knives slightly to prevent straw deposits from building up on the knives.



ZX,OMXZC0002334-19-01MAR95

To adjust the counter-knives, slacken off screws (A) and (B) at both sides.

Adjust the angle of the counter-knives at lever (C).



ZX,OMXZC0002335-19-05OCT92

CHOPPING CORN AND SUNFLOWERS

IMPORTANT: To chop corn straw and sunflower stems, it is necessary to install a conversion kit that reduces the speed to 2720 rpm. All the counter-knives must be removed, but the counter-knife box must remain installed.

If cross-strips are fitted, they must be removed.

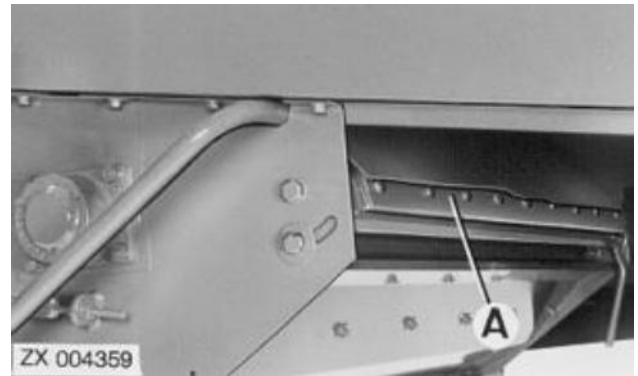
ZX,OMXZC0002337-19-05OCT92

REMOVING COUNTER-KNIVES

Unbolt the cover strip (A).

Pull out the counter-knives one by one.

Bolt cover strip (A) back in place.



ZX.OMXZC0002338-19-05OCT92

SPLITTING AND CHOPPING (OPTIONAL EQUIPMENT)

CAUTION: It is vitally important to remove the cross-strips before harvesting corn, sunflowers and crops with a high straw content or tough straw such as beans and rape.

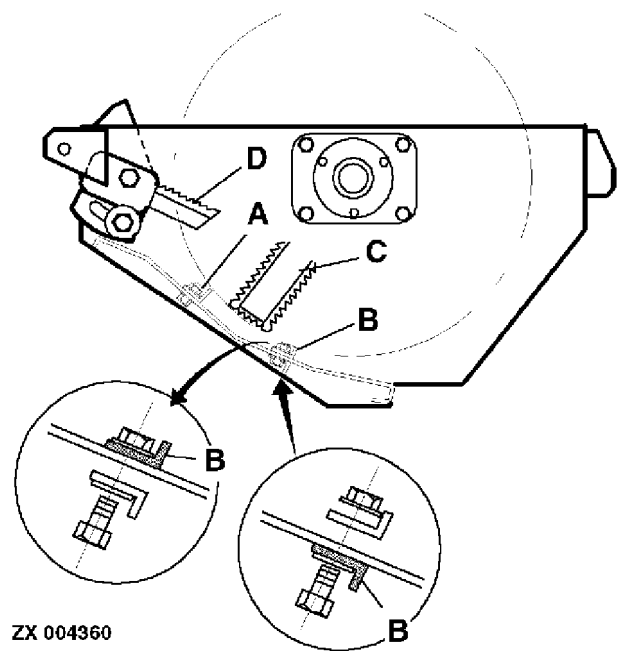
For a better chopping effect, it is possible to equip the chopper with serrated knives and cross-strips.

Cross-strip (A) is fitted before leaving the factory and serves as the first splitting stage.

For a better splitting effect, a second cross-strip (B) may be installed. Order this second cross-strip (B) from your John Deere dealer.

Set the cross-strips close to rotating knives (C). Rotating knives (C) must never come into contact with the cross-strips.

Pivot the counter-knives (D) to suit the type of material being chopped.



A—Cross-strip
B—Cross-strip
C—Rotating knife
D—Counter-knife

ZX.OMXZC0002336-19-01NOV96

REPLACING ROTATING KNIVES

CAUTION: Always jam the rotor to prevent accidents when replacing rotating knives.

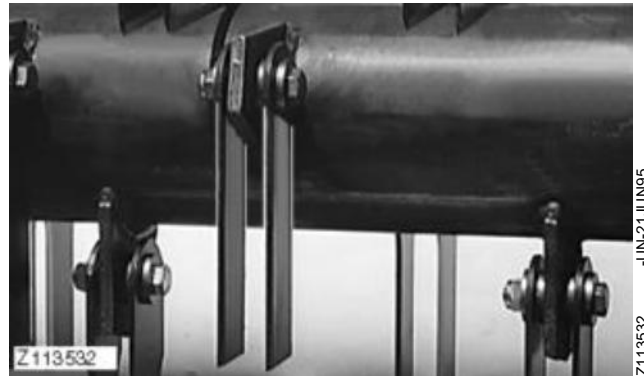
IMPORTANT: Note the following to avoid unbalancing the straw chopper:

Excessive vibration may be caused by broken knives. Remove the broken knife (together with the knife that is most nearly opposite) at once, and install replacements.

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 M10x50 screws of 10.9 grade together with self-locking nuts. Tighten the cap screws to 65 N·m (47 lb-ft).

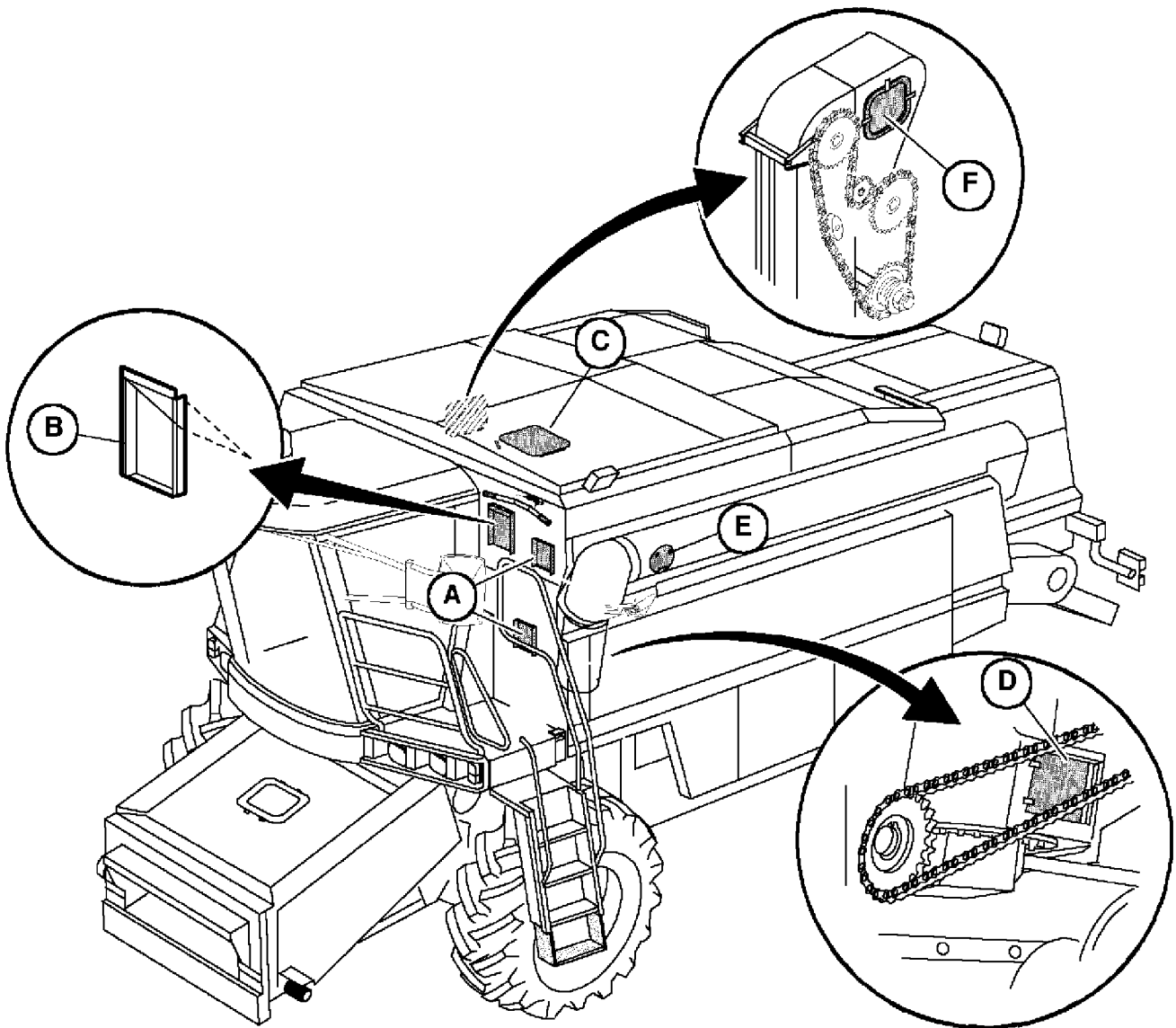
Install the screws from right to left (in direction of forward travel).



ZX,OMXZC0002339-19-04DEC92

Grain Tank Loading and Unloading

SERVICE OPENINGS I



ZX009619

A—Access steps
B—Opening for grain tank
sample

C—Inspection flap in grain
tank cover

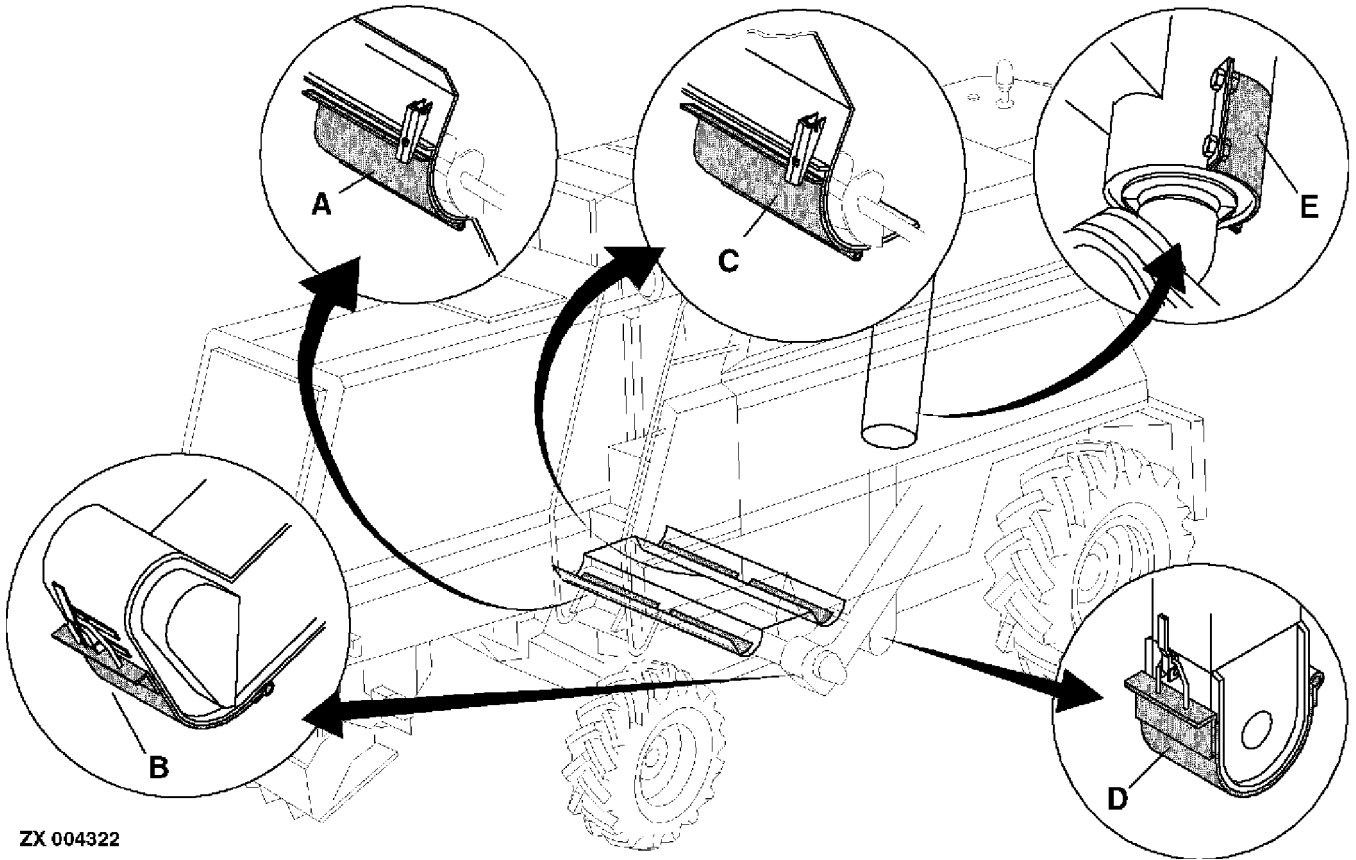
D—Grain tank unloading
auger/riser tube

E—Discharge tube
F—Clean grain elevator

ZX,OMXZC0002356-19-01NOV96

ZX009619 -UN-08NOV96

SERVICE OPENINGS II



ZX 004322

A—Tailings pan
B—Tailings elevator

C—Grain pan

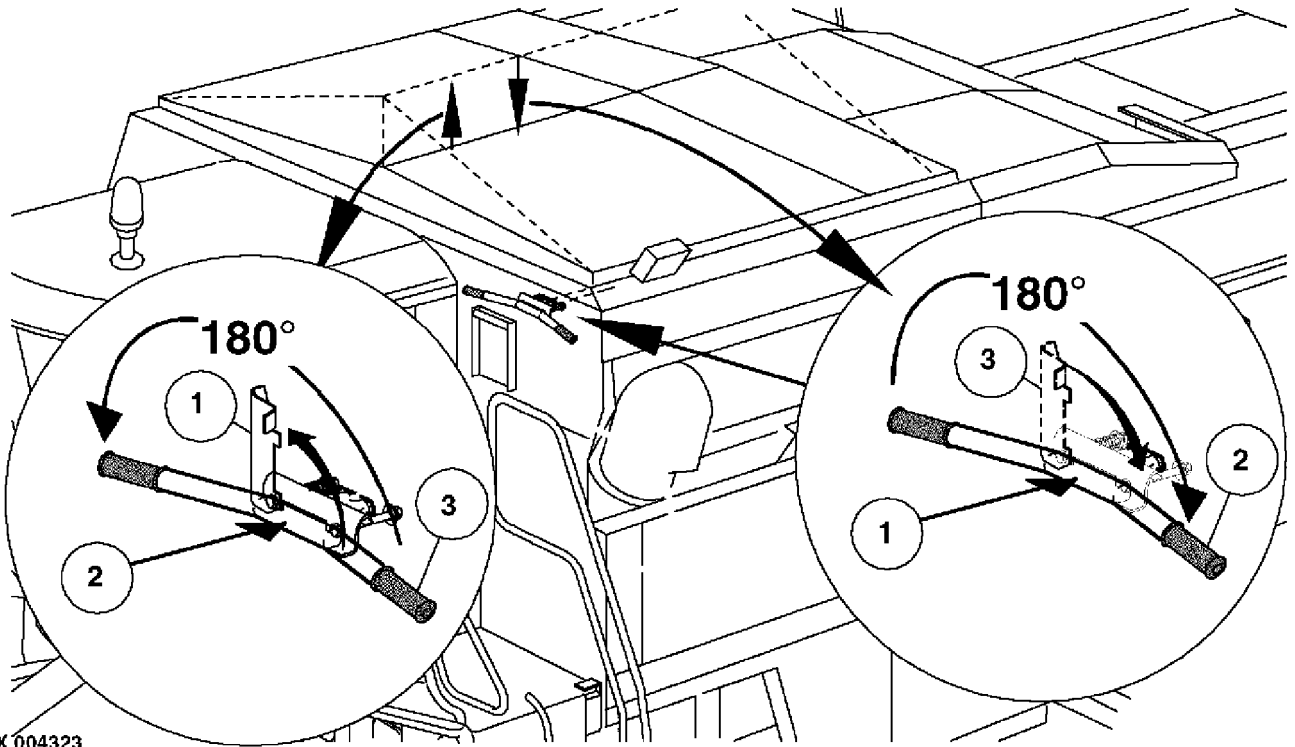
D—Clean grain elevator

E—Filler tube

ZX004322 -UN-21JUN95

ZX,OMXZC0002264-19-05OCT92

GRAIN TANK COVER



ZX 004323

ZX,OMXZC0002265-19-05OCT92

ZX004323 -UN-19JUN95

OPENING GRAIN TANK COVER

CAUTION: For functional reasons, the forwarding augers in the grain tank cannot be completely covered.

When clogged, use a rod.

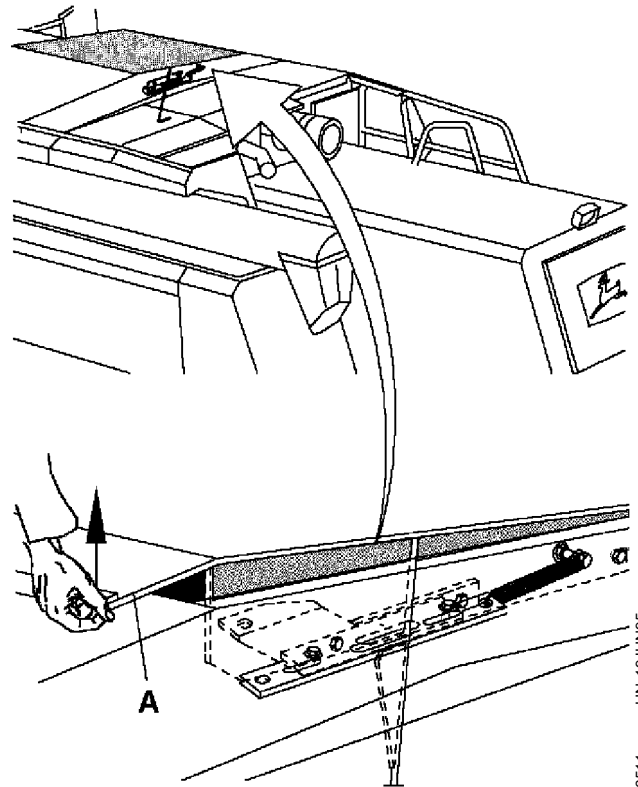
When taking grain samples, use the opening at the front of the grain tank.

CAUTION: Danger of injury or death! Before you have to enter the grain tank, shut off engine, remove the ignition key and wait until all moving parts have stopped.

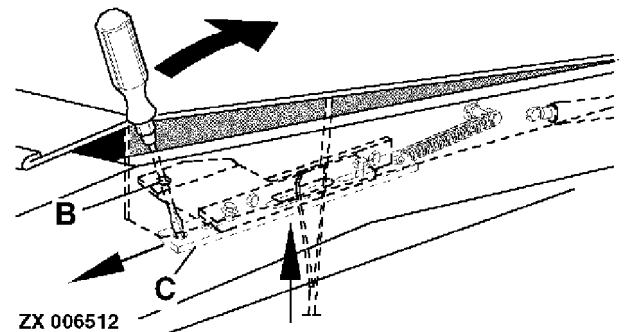
To open grain tank cover (A), slide strap (C) inward by inserting a screwdriver through bore (B). Lift grain tank cover (A) (assisted by a gas-filled spring) until stay (D) is locked in position.

To close grain tank cover, unlock stay (D) and lower grain tank cover (A). Strap (C) will engage automatically.

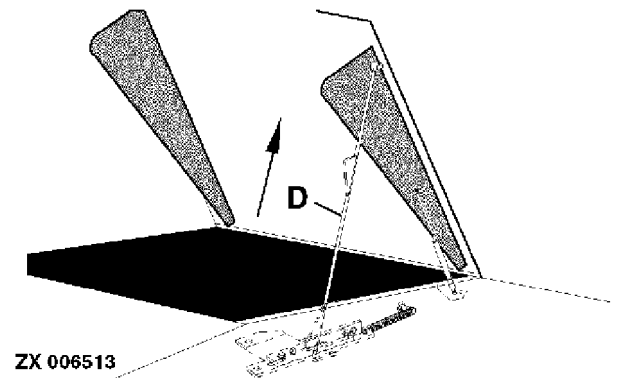
- A—Grain tank cover
- B—Bore for tool
- C—Strap
- D—Stay



ZX 006511



ZX 006512



ZX 006513

-UN-19JUN95

ZX006511

-UN-19JUN95

ZX006512

-UN-19JUN95

ZX006513

CHECKING TENSION ON CONVEYOR CHAINS OF TAILINGS AND CLEAN GRAIN ELEVATORS

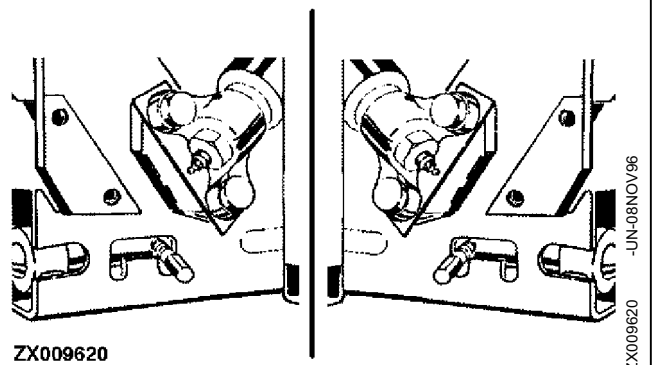
Set the tension on the elevator conveyor chains so that at the lower end of the elevator the first chain

link behind the sprocket can move 6—10 mm (1/4—3/8 in.).

ZX.OMXZC0002317-19-05OCT92

TENSIONING CONVEYOR CHAIN OF CLEAN GRAIN ELEVATOR

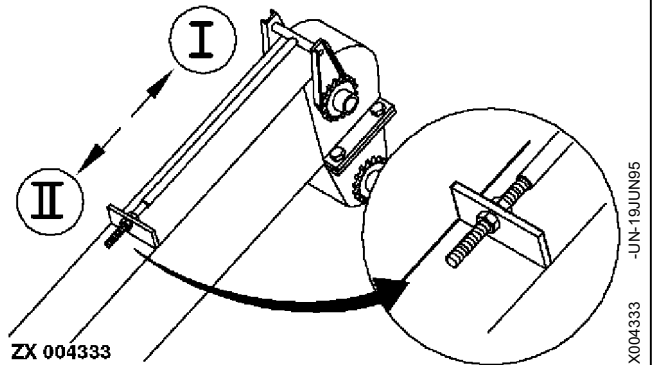
- I—Tightening conveyor chain
- II—Slackening conveyor chain



ZX.OMXZC0002318-19-01NOV96

TENSIONING CONVEYOR CHAIN OF TAILINGS ELEVATOR

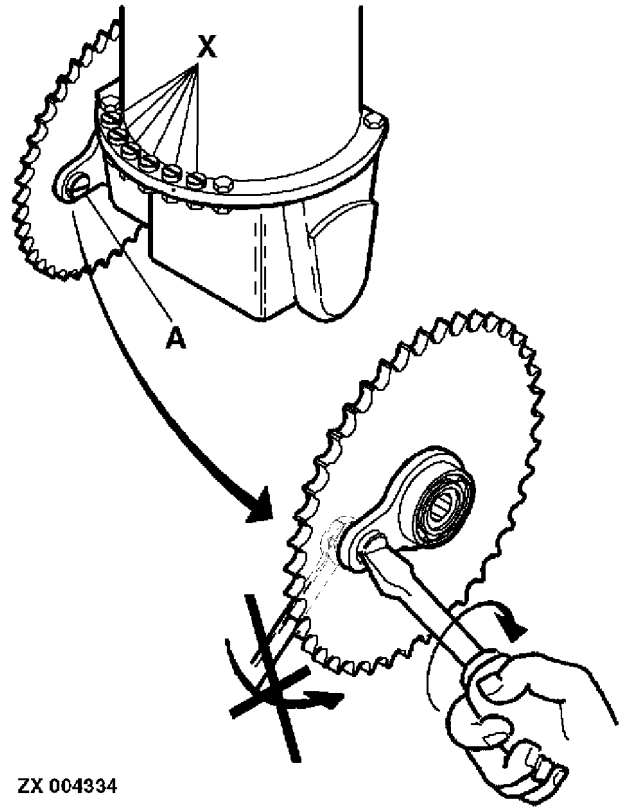
- I—Tightening conveyor chain
- II—Slackening conveyor chain



ZX.OMXZC0002319-19-05OCT92

OVERLOAD PROTECTION ON UNLOADING DRIVE

IMPORTANT: Shear bolt (A) protects against overloading. Replace shear bolt with genuine spare part only. Six genuine shear bolts (X) are bolted inside the bevel gear housing as spares. Use a screwdriver to tighten the shear bolt. Hold the retaining nut on the other end of the bolt with a wrench. Do not turn the nut.



ZX 004334

ZX,OMXZC0002320-19-05OCT92

-UN-19JUN95
ZX004334

COVER FOR GRAIN TANK UNLOADING AUGER

Cover (A) can be adjusted to 4 positions on the left-hand side and 2 on the right-hand side.

Adjust the inlet opening to suit the type of crop and the degree of moisture.

Adjust the cover as required.



ZX 004335

-UN-19MAY95
ZX004335



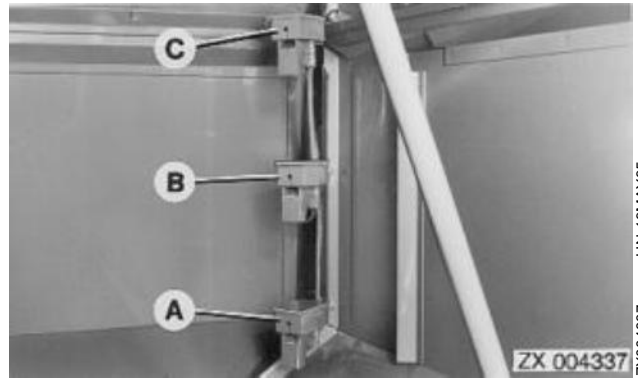
ZX 004336

-UN-19MAY95
ZX004336

ZX,OMXZC0002321-19-05OCT92

SENSOR FOR GRAIN TANK FILLER GAUGE

- A—Grain tank 1/2 full
- B—Grain tank 3/4 full
- C—Unloading grain tank

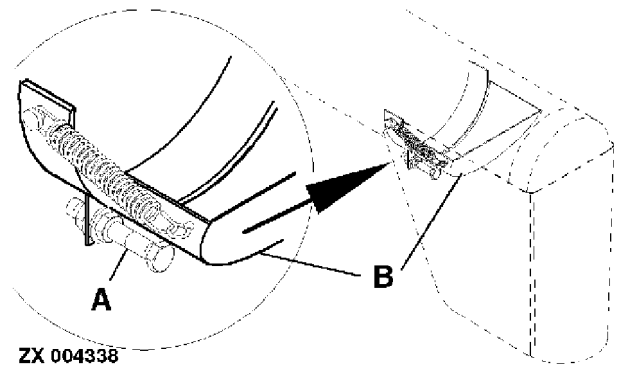


ZX,OMXZC0002322-19-05OCT92

ZX004337 -UN-19MAY95

SPILL GUARD ON DISCHARGE TUBE OUTLET

Adjust stop screw (A) so that flap (B) closes automatically again as soon as unloading is completed.



ZX,OMXZC0002323-19-05OCT92

ZX004338 -UN-19JUN95

Fuel, Lubricants, Coolant and Capacities

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. Bio Diesel (Rape/Plant Methyl Ester — RME/PME) may also be used provided it meets the specification of DIN 51606.

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

At temperatures below 5°C (41°F) use diesel fuel with a Cold Filter Plugging Point (CFPP) below the expected lowest temperature.

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

FX,FUEL,RME -19-29SEP94

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.



-UN-23AUG88
TS202

DX,FIRE1 -19-03MAR93

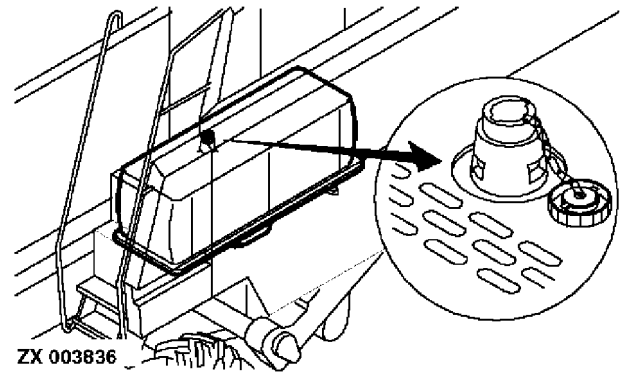
FILLING FUEL TANK

⚠ CAUTION: Handle fuel with care. Shut off engine. Do not smoke.

Fill the tank at the end of each day's operation. This prevents condensation and freezing during cold weather.

Capacities:

- 2254 and 2254 Hillmaster: 450 L (119 U.S. gal)
- 2256 and 2256 Hillmaster: 450 L (119 U.S. gal)
- 2258 and 2258 Hillmaster: 450 L (119 U.S. gal)
- 2264 and 2264 Hillmaster: 450 L (119 U.S. gal)
- 2266 and 2266 Hillmaster: 550 L (145.3 U.S. gal)



ZX,OMXZC0002059-19-01NOV96

DIESEL ENGINE OIL

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®**

If John Deere PLUS-50 engine oil and a John Deere oil filter are used, the service interval for oil and filter changes may be extended by 50 hours.

The following oil is also recommended:

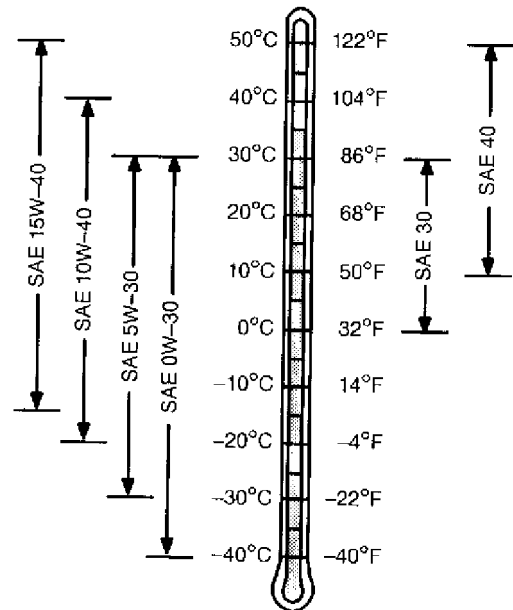
- **John Deere TORQ-GARD SUPREME®**

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

- John Deere UNI-GARD™
- 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%.



DX,ENOIL -19-18MAR96

-UN-14MAR96
TS1647

CRANKCASE CAPACITIES, INCLUDING FILTER CHANGE

ENGINE OIL

6.8-L engine (414 cu in.):
Crankcase capacity is 19 L (5.0 U.S. gal)

8.1-L engine (495 cu in.):
Crankcase capacity is 28.5 L (7.5 U.S. gal)



ZX009858

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ZX009858

ZX,OMXZC0002060-19-01NOV96

DIESEL ENGINE COOLANT

The engine cooling system is filled to provide year-round protection against corrosion and cylinder liner pitting, and winter freeze protection to -37°C (-34°F).

John Deere COOL-GARD is preferred for service.

If John Deere COOL-GARD is not available, use a low silicate ethylene glycol base coolant concentrate in a 50% mixture of concentrate with quality water.

A 50% mixture of ethylene glycol engine coolant in water provides freeze protection to -37°C (-34°F). If protection at lower temperatures is required, consult your John Deere dealer for recommendations.

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

IMPORTANT: Do not use cooling system sealing additives or antifreeze that contains sealing additives.

Coolant drain intervals

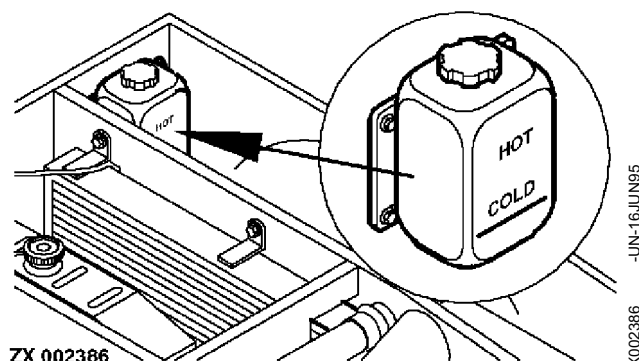
Drain and flush the cooling system and refill with fresh coolant every 24 months.

DX,COOL8 -19-18MAR96

COOLING SYSTEM CAPACITY

ENGINE COOLANT

6.8-L engine (414 cu in.) and
8.1-L engine (495 cu in.):
Capacity is 30 L (7.9 U.S. gal)



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ZX002386

GEAR OIL

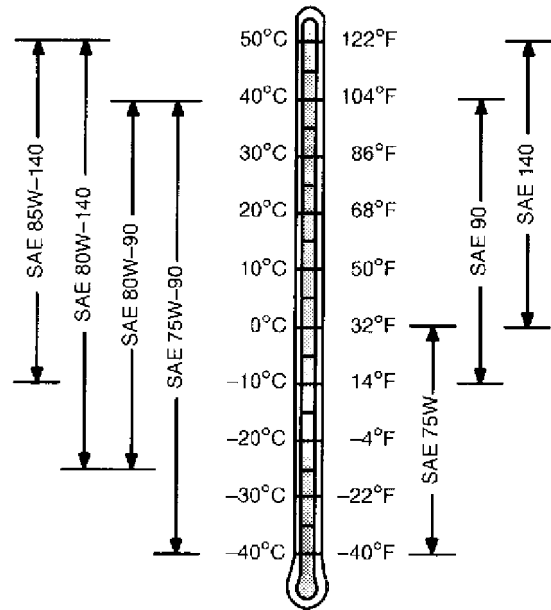
Use oil viscosity based on the expected air temperature range during the period between oil changes.

The following oils are preferred:

- John Deere EXTREME-GARD™
- John Deere GL-5 GEAR LUBRICANT

Other oils may be used if they meet the following:

- API Service Classification GL-5



-UN-14MAR96

TS1653

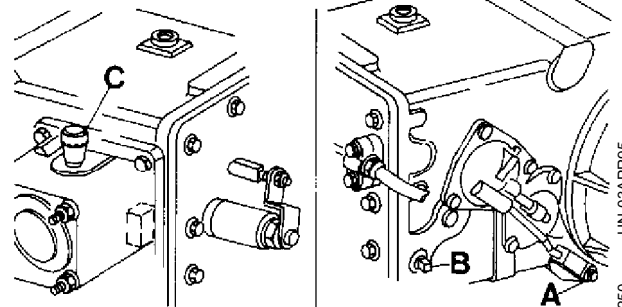
ZX,DX,GEOIL -19-02MAY96

USE OF TRANSMISSION OIL

Transmission

Capacity: 7 L (1.85 U.S. gal)

- A—Drain screw
- B—Level plug
- C—Filler/breather screw



ZX 001 250

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ZX001250

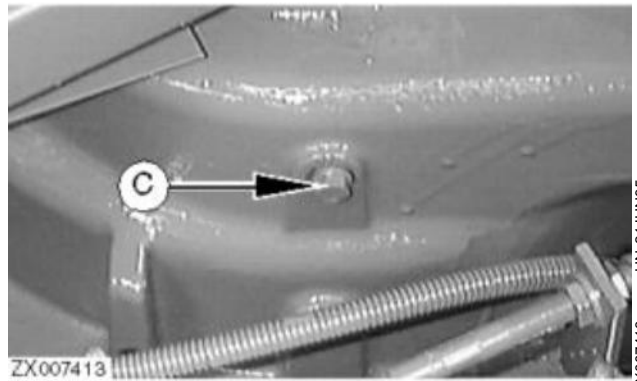
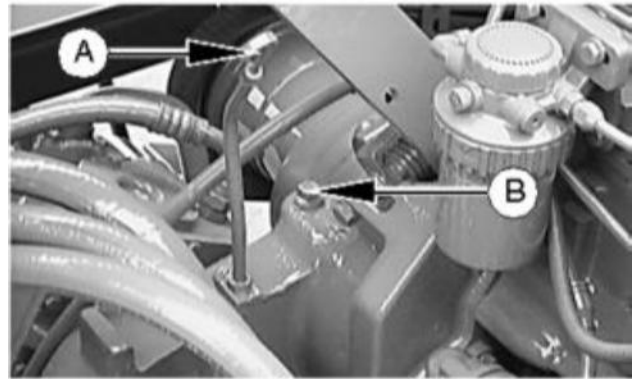
ZX,OMXZC0002068-19-02MAY96

Intermediate transmission

Capacity: 2.4 L (0.63 U.S. gal)

NOTE: Run the engine for one minute and then check the oil level with the engine shut off. Top up if necessary.

- A—Dipstick
- B—Filler neck
- C—Drain plug



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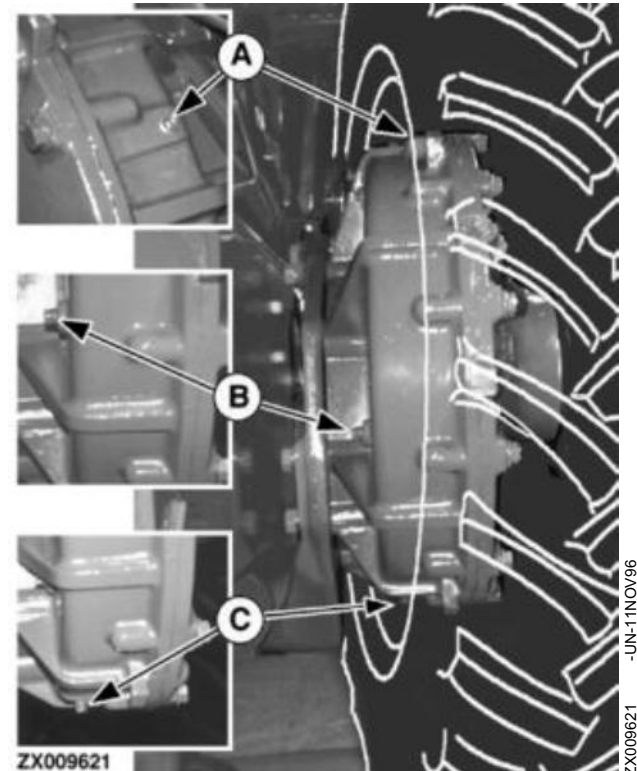
Final Drives

Capacity (each):

- 104:11 — 6 L (1.60 U.S. gal)

NOTE: On Hillmaster combines, perform the check with the hydraulic cylinder to its center position (operating position).

- A—Filler/breather screw
- B—Level plug
- C—Drain screw



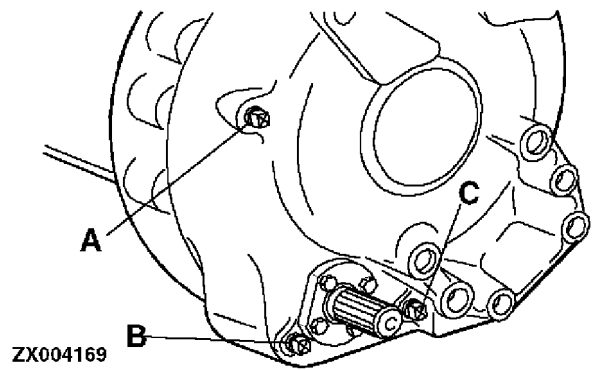
-UN-11NOV96
ZX009621

ZX,OMXZC0006982-19-01NOV96

Planetary final drives

Capacity: 6.2 L (1.64 U.S. gal)

- A—Breather/filler screw
- B—Level plug
- C—Drain screw



ZX004169

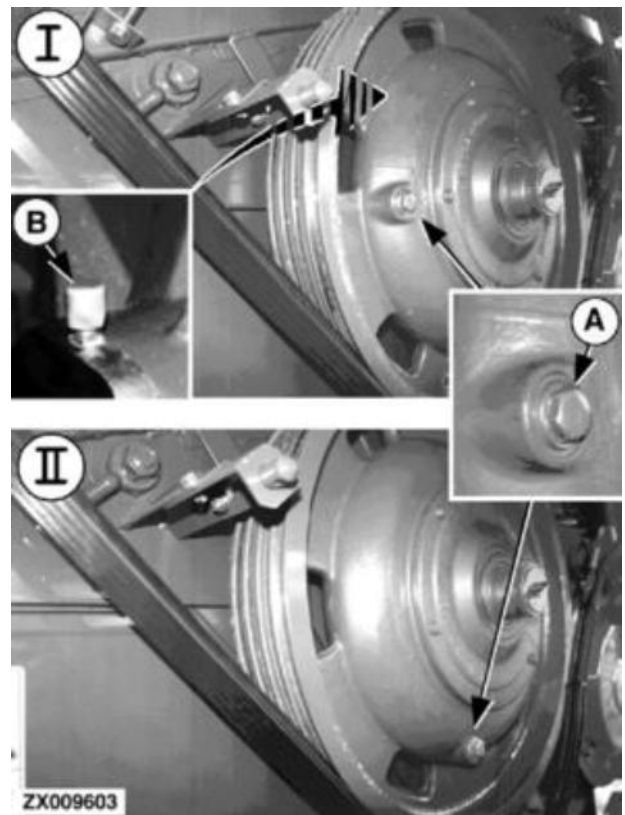
ZX004169 -JUN-19/JUN95

ZX,OMXZC0002064-19-01AUG92

Cylinder drive gear

Capacity: 2.2 L (0.58 U.S. gal)

- I—Filler neck and level screw
- II—Drain screw
- A—Filler neck, checking and drain screw
- B—Bleed nipple



ZX009603

ZX009603 -UN-08/NOV96

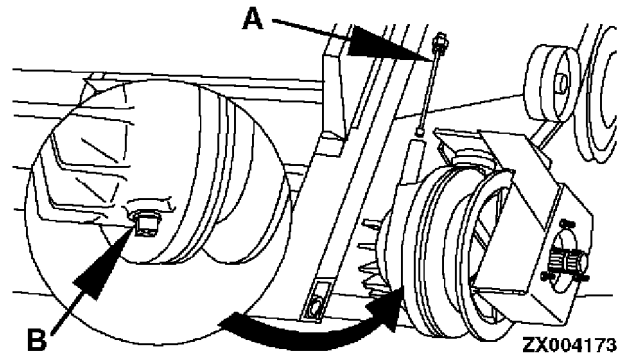
ZX,OMXZC0002065-19-01NOV96

Reverser

Capacity: 1.75 L (0.46 U.S. gal)

NOTE: Before checking the oil level, raise the feeder house until the filler tube is vertical.

If the combine harvester is equipped with a pivoting feeder house shield, tilt the shield to the right so that its right end is down and its left end is up.



- A—Dipstick and filler neck
- B—Drain screw

ZX,OMXZC0002066-19-21NOV96

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ZX004173

TRANSMISSION OIL CHANGE

NOTE: Change the oil in all the drives (see above) after the first 100 hours of operation.

TRANSMISSION/ DRIVE	CAPACITY	INTERVAL (HOURS OF OPERATION)
3-speed trans- mission	7 L (1.85 U.S. gal)	1000
Intermediate transmission	2.4 L (0.63 U.S. gal)	500
104:11 final drive	6 L (1.60 U.S. gal)	1000
Planetary final drive	6.2 L (1.64 U.S. gal)	1000
Threshing cyl- inder drive	2.2 L (0.58 U.S. gal)	1000
Reverser	1.75 L (0.46 U.S. gal)	1000

ZX,OMXZC0002364-19-21NOV96

TRANSMISSION AND 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™

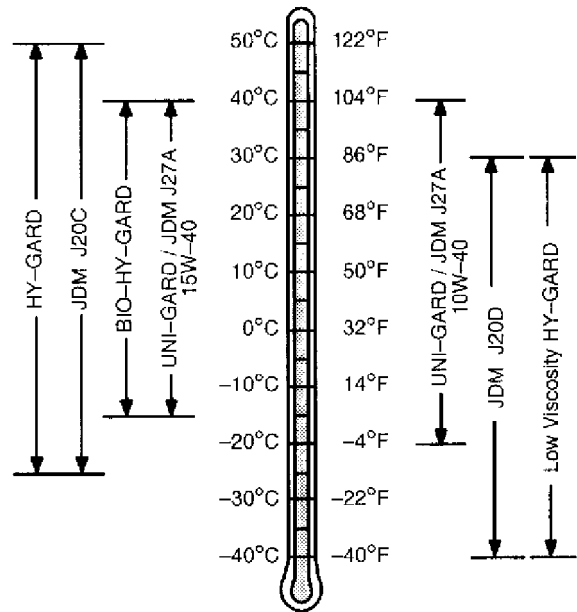
Other oils may be used if they meet one of the following:

- John Deere Standard JDM J20C
- John Deere Standard JDM J20D
- John Deere Standard JDM J27A

Use the following oil when a biodegradable fluid is required:

- John Deere BIO-HY-GARD™¹

IMPORTANT: Do not use engine oil for this application.



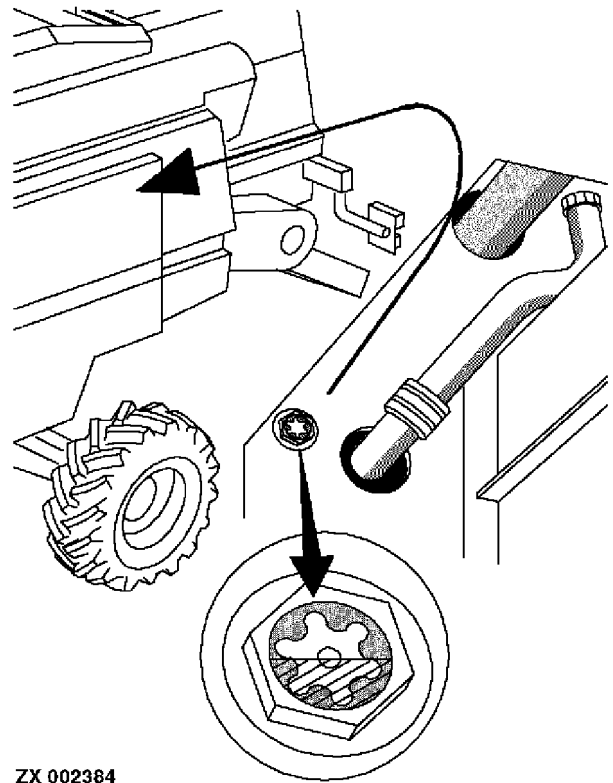
¹BIO-HY-GARD meets or exceeds the minimum biodegradability of 80% within 21 days according to CEC-L-33-T-82 test method. BIO-HY-GARD should not be mixed with mineral oils because this reduces the biodegradability and makes proper oil recycling impossible.

USE OF HYDRAULIC OIL

Overall capacities with hydrostatic drive:

A represents 5-walker machines (75 ccm (4.58 cu. in.) displacement per revolution),
 B represents 6-walker machines and an option on 2258 HM (105 ccm (6.41 cu. in.) displacement per revolution).

- Standard combine without four-wheel drive:
 A-65 L (17.17 U.S. gal), B-76 L (20.07 U.S. gal)
- Hillmaster without four-wheel drive:
 A-70 L (18.50 U.S. gal), B-81 L (21.40 U.S. gal)
- Standard combine with four-wheel drive:
 A-73 L (19.28 U.S. gal), B-84 L (22.19 U.S. gal)
- Hillmaster with four-wheel drive:
 A-78 L (20.61 U.S. gal), B-89 L (23.51 U.S. gal)
- Tank capacity up to center of sight glass:
 A-33.4 L (8.82 U.S. gal), B-44.2 L (11.68 U.S. gal)



ZX 002384

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ZX002384

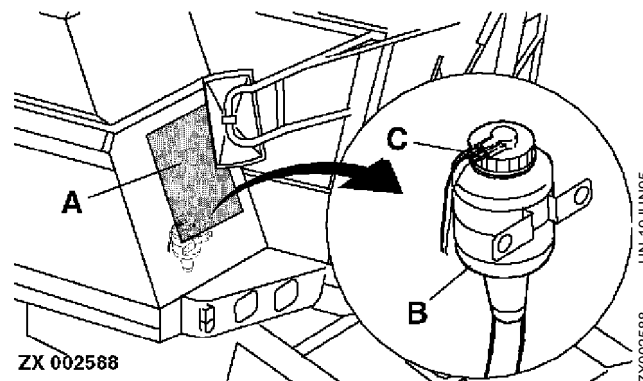
BRAKE FLUID FOR BRAKE SYSTEM

IMPORTANT: Use only brake fluid that meets SAE Standard J 1703 (DOT 4).

Capacity:

- Complete system 1.0 L (0.26 U.S. gal)
- Reservoir 0.5 L (0.13 U.S. gal)

- A—Service flap, vehicle electrics
- B—Brake fluid reservoir
- C—Reservoir cap with float



ZX 002588

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GREASE

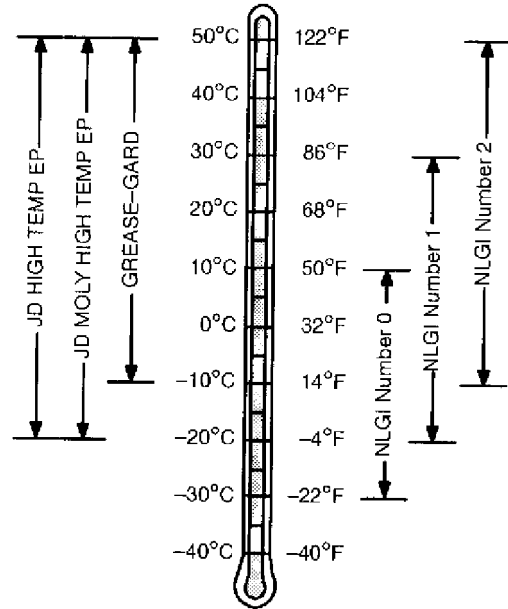
Use grease based on NLGI consistency numbers and the expected air temperature range during the service interval.

The following greases are preferred:

- John Deere HIGH TEMPERATURE EP GREASE
- John Deere MOLY HIGH TEMPERATURE EP GREASE
- John Deere GREASE-GARD™

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

- NLGI Performance Classification GC-LB



DX,GREA1 -19-18MAR96

TS1654 -UN-14MAR96

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 -19-18MAR96

MIXING OF LUBRICANTS

In general, avoid mixing different brands or types of oil. Oil manufacturers blend additives in their oils to meet certain specifications and performance requirements.

Mixing different oils can interfere with the proper functioning of these additives and degrade lubricant performance.

Consult your John Deere dealer to obtain specific information and recommendations.

DX,LUBMIX -19-18MAR96

LUBRICANT STORAGE

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

Use clean containers to handle all lubricants.

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

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

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

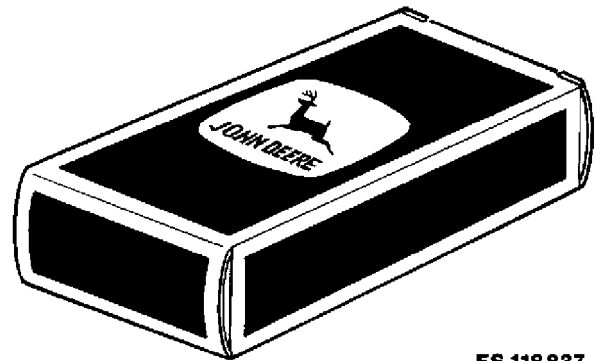
DX,LUBST -19-18MAR96

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.



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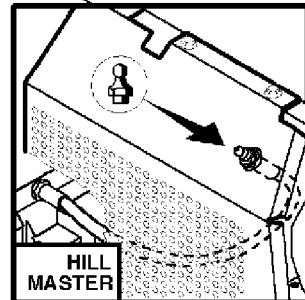
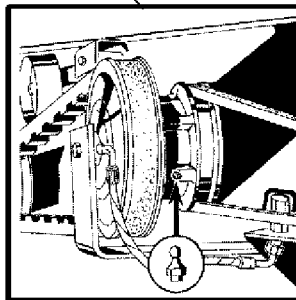
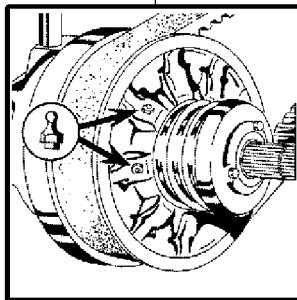
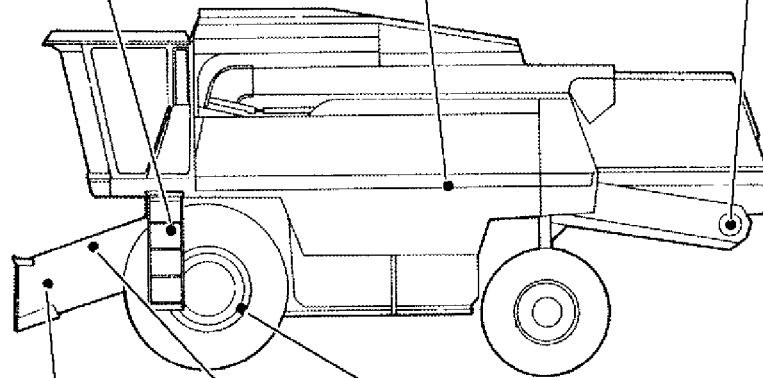
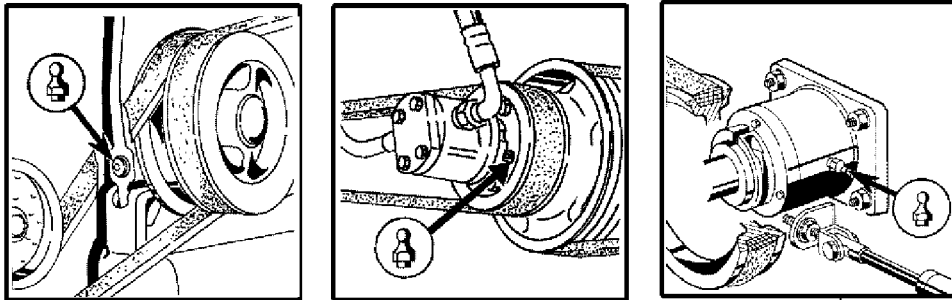
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Lubrication Chart, Periodic Service



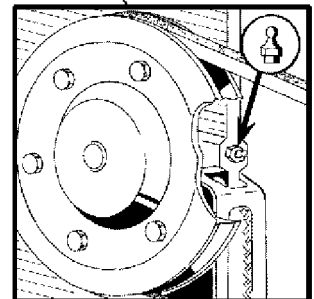
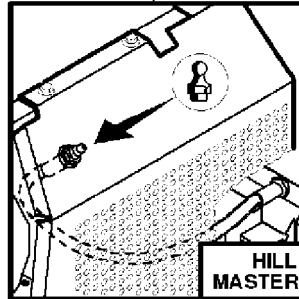
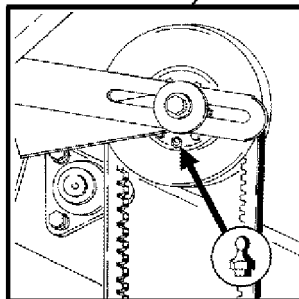
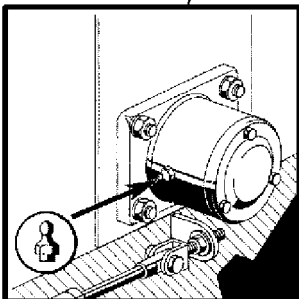
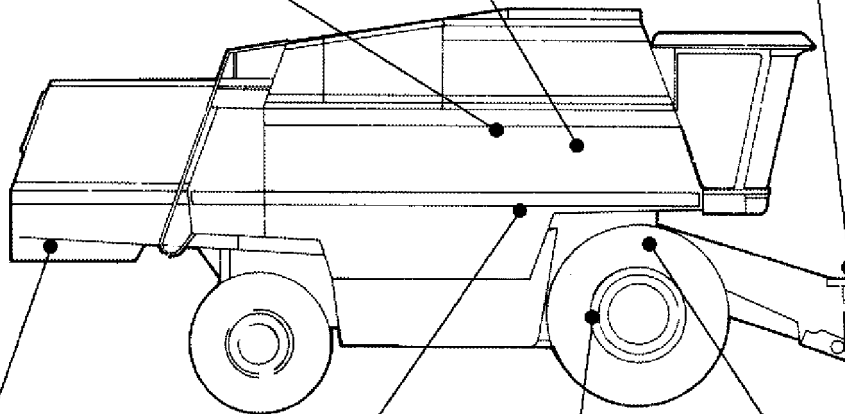
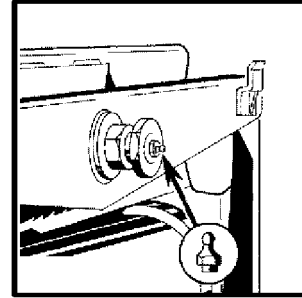
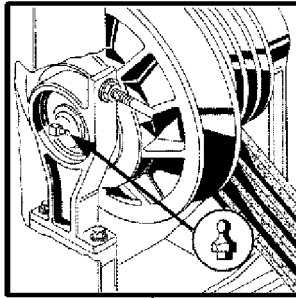
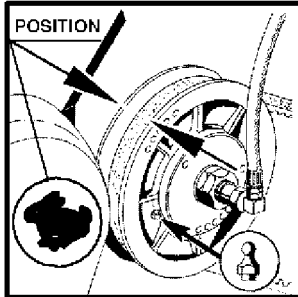
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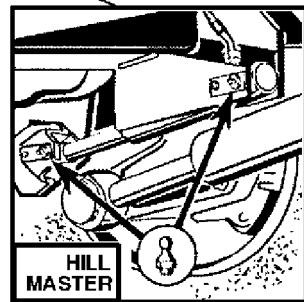
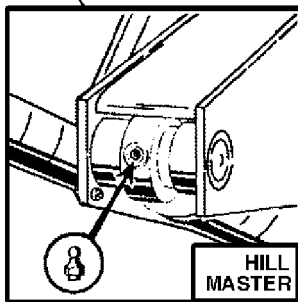
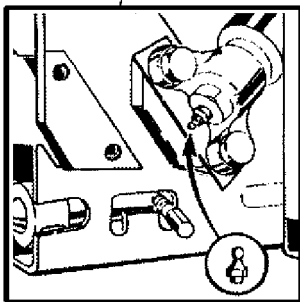
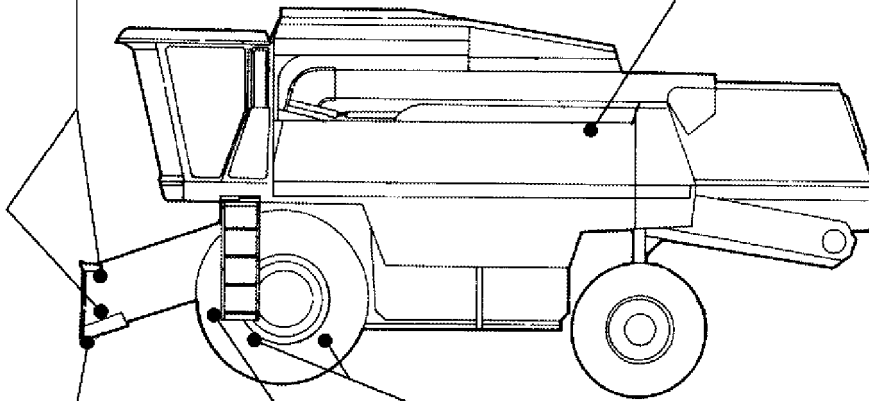
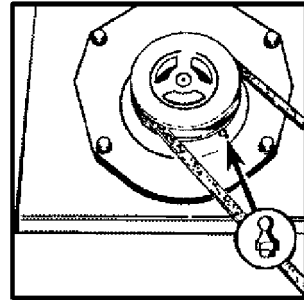
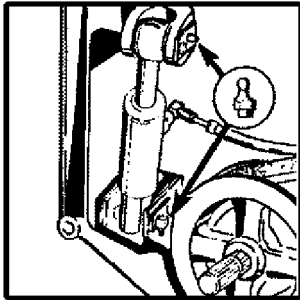
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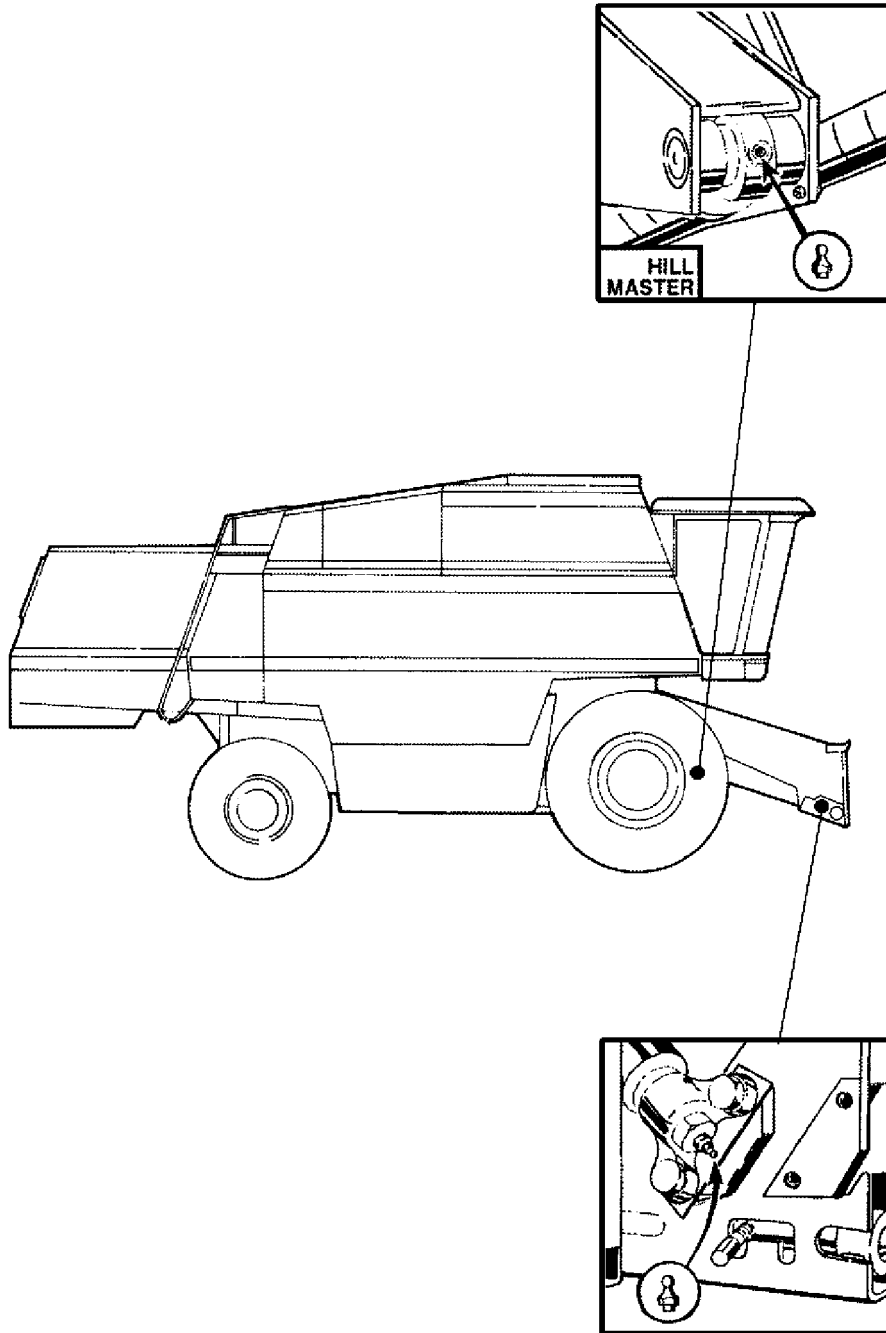
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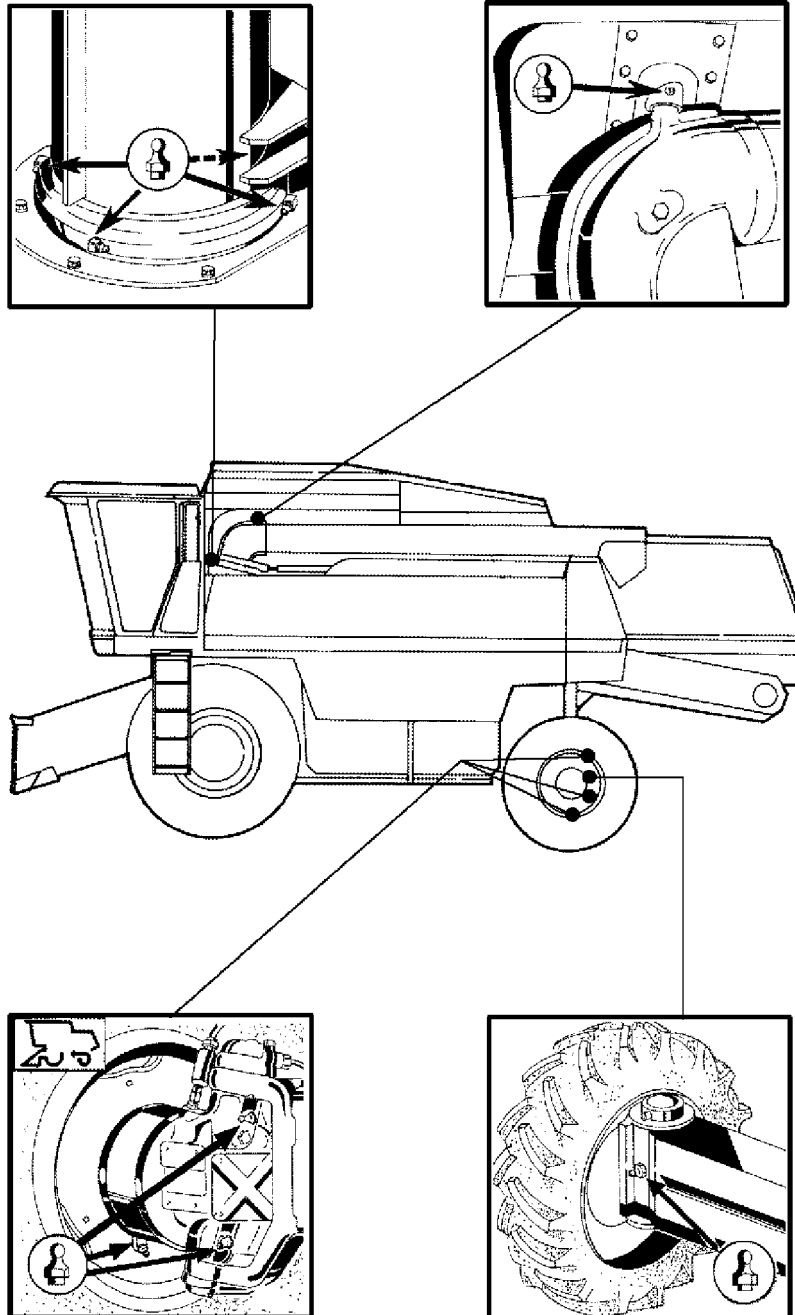
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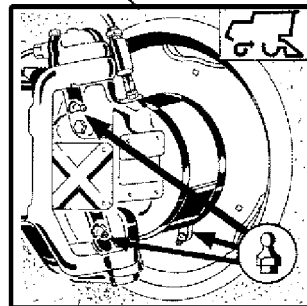
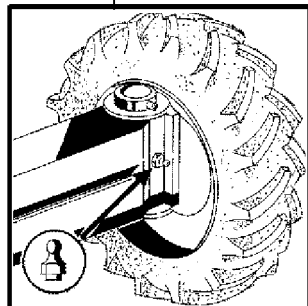
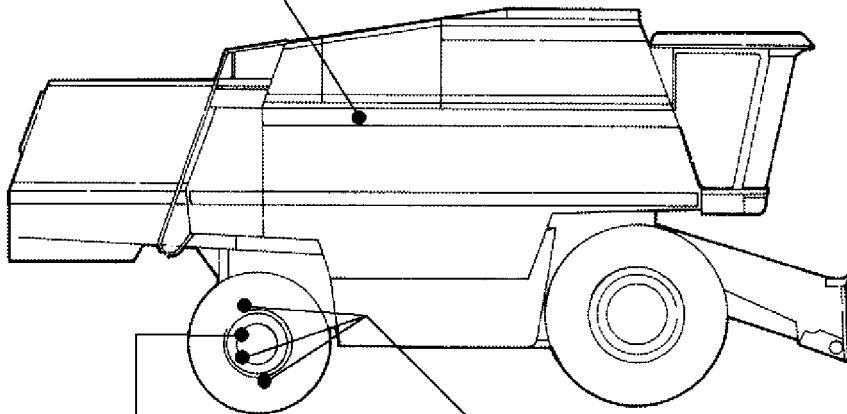
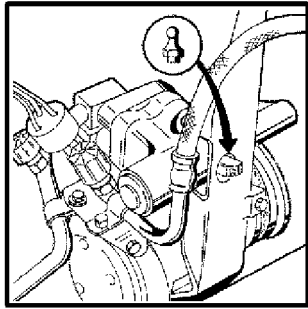
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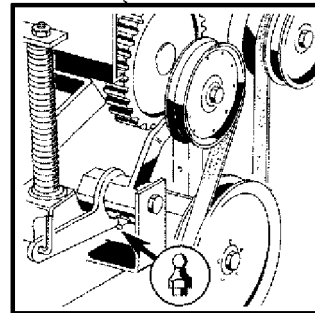
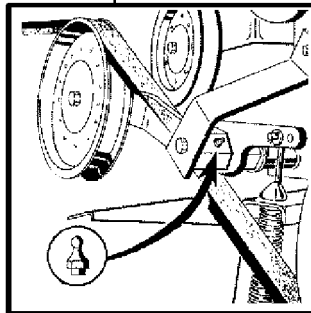
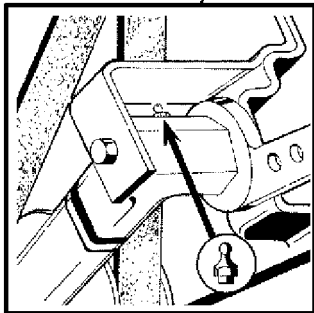
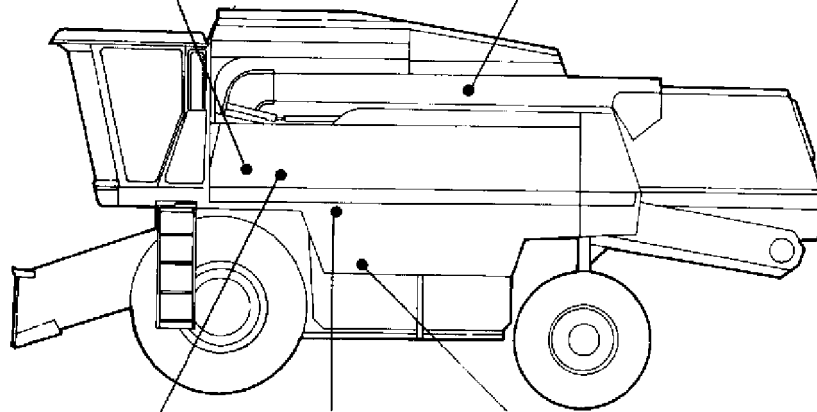
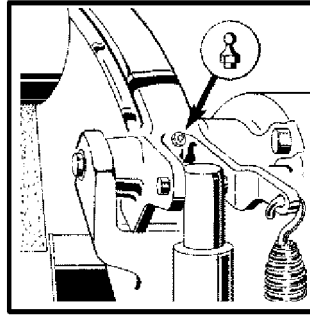
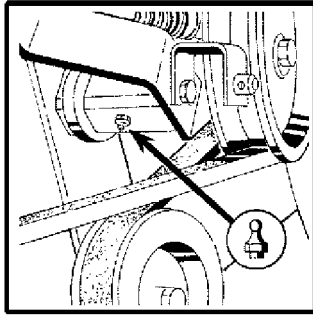


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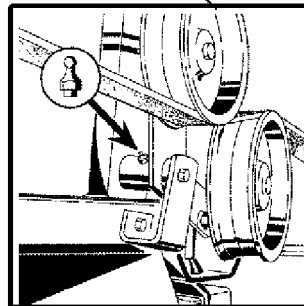
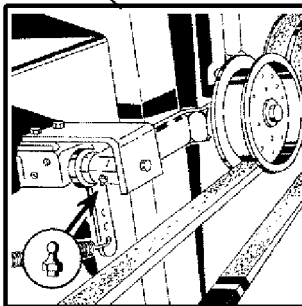
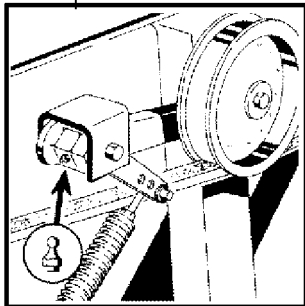
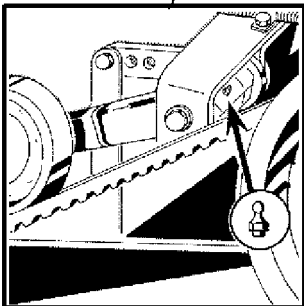
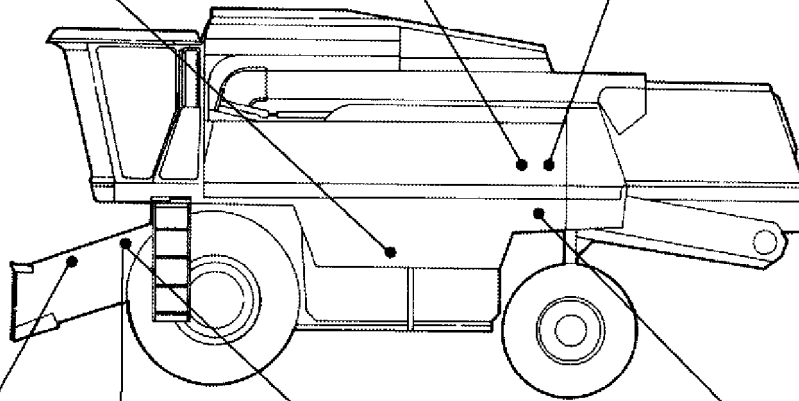
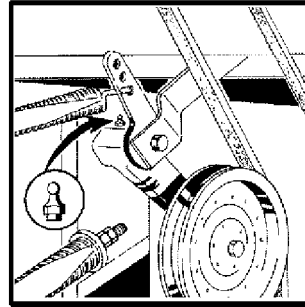
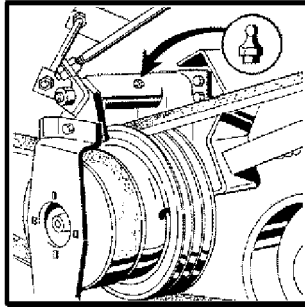
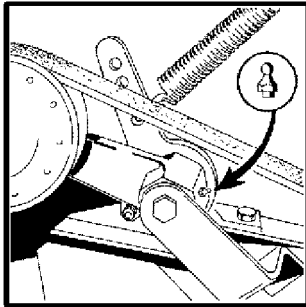
ZX002556

ZX,OMXZC0002075-19-05OCT92

ZX002556 -UN-16JUN95



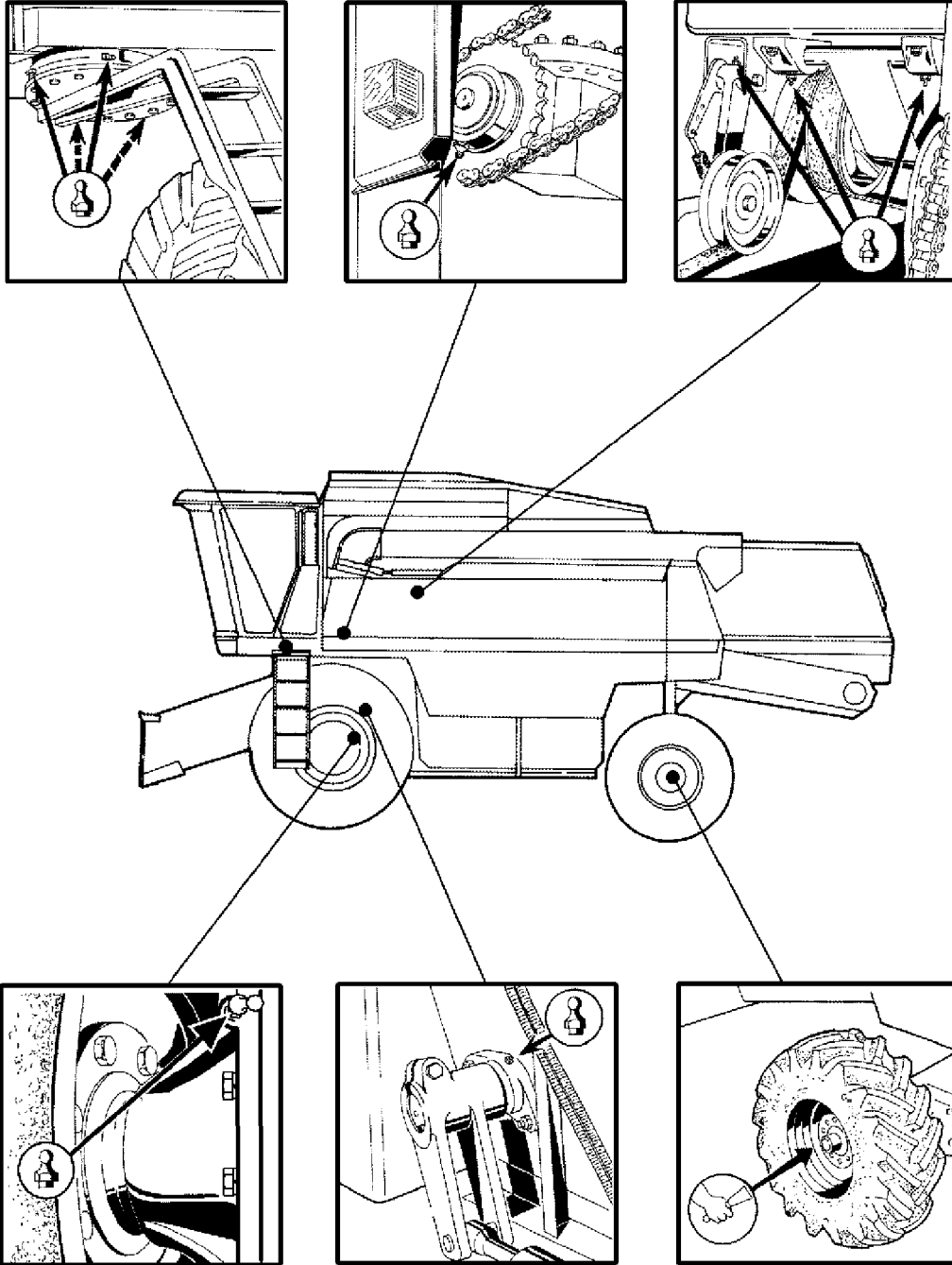
500



ZX002557

ZX002557
-JUN-21JUN95

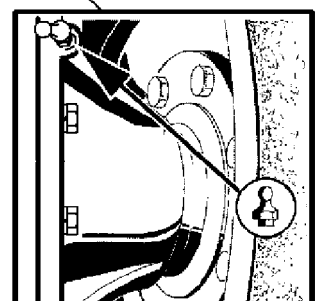
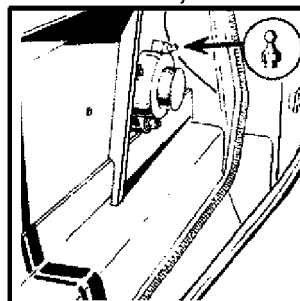
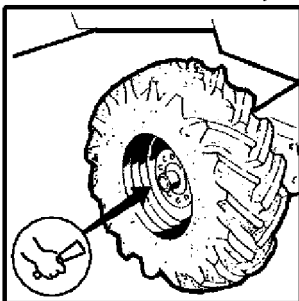
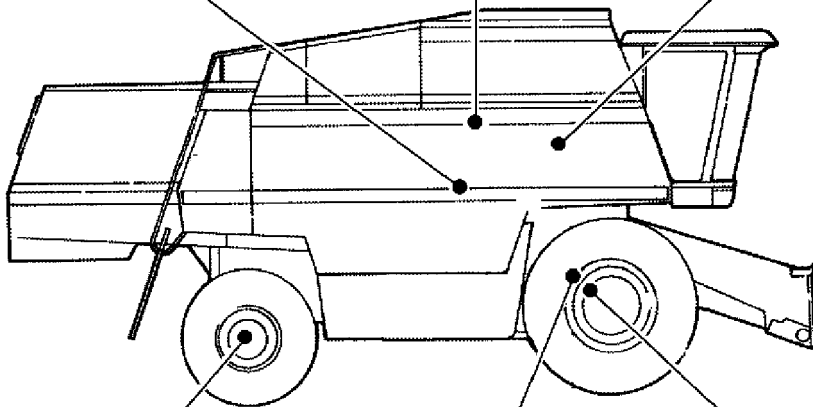
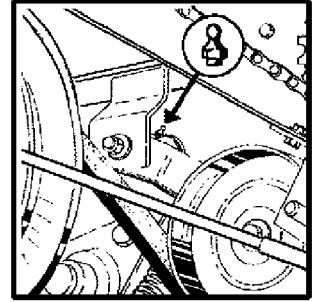
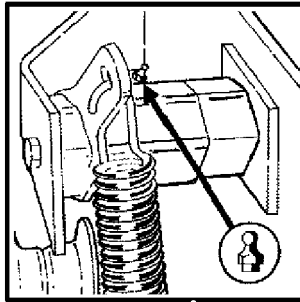
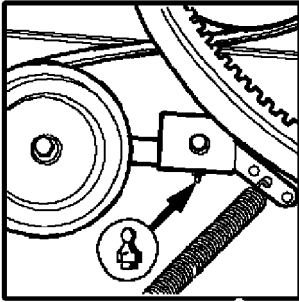
ZX,OMXZC0002076-19-05OCT92



ZX009872



500



ZX009873

ZX009873 -UN-15NOV96

ZX,OMXZC0002078-19-01NOV96

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.

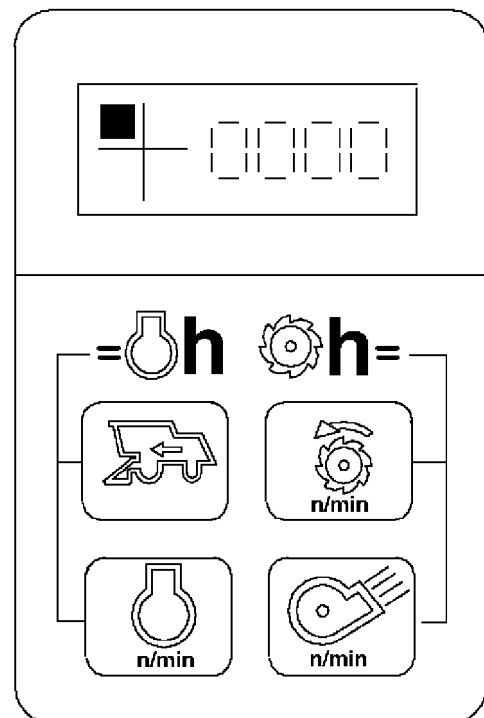
- If it becomes necessary to top up with engine oil during the break-in period, select an oil of a viscosity corresponding to the seasonal requirements and the information in the “Fuel, Lubricants, Coolant and Capacities” section.
- Check that the hoses and hose clamps in the air intake system are secure.
- Check drive belts and adjust if necessary.

ZX,OMXZC0002342-19-05OCT92

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.



ZX 002351

ZX,OMXZC0002343-19-05OCT92

ZX002351 -JUN-16/JUN95

AFTER THE FIRST 100 HOURS

Perform all the service jobs listed under "Every 10 Hours".

- Change engine oil and filter.
- Change transmission oil in transmission and all drives.
- Check drive belt tension and adjust if necessary.
- Check that the hoses and hose clamps in the air intake system are secure.
- Check connections on fuel injection lines.
- Check refrigerant level in air conditioning system.

ZX,OMXZCO002345-19-01MAR95

EVERY 250 HOURS

Includes work described under "Every 10 Hours".

- Retighten front wheel nuts to 720 +0/-60 N·m (531 +0/-44 lb-ft).
- Retighten rear wheel nuts to 180 N·m (130 lb-ft).
- Tighten steering cylinder retaining screws to 240 N·m (170 lb-ft).
- Replace fuel filter.
- Drain engine oil from crankcase and fill with new engine oil.
- Replace engine oil filter.
- Check density of electrolyte in battery. Recharge battery if necessary, and top up with distilled water.
- Clean rocker arm cover vent.
- Check antifreeze mixture in cooling system, and top up with antifreeze if necessary.
- Correct setting of foot brake pedal.
- If necessary, re-adjust parking brake bowden cable.
- Check that screw unions and hose connection on turbocharger are secure.
- Clean paper elements of cab filter.
- Check oil level in 3-speed transmission.
- Check oil level in final drives.
- Check level of brake fluid.
- Check transmission oil in cylinder drive.
- Check transmission oil in reverser drive.

ZX,OMXZCO002346-19-02MAR95

EVERY 500 HOURS

Includes work described under "Every 10 Hours".

- Change hydraulic oil.
- Change transmission oil in intermediate gear.
- Clean mechanical fuel transfer pump.
- Change filter element in water trap.
- Clean air intake screen and radiator thoroughly.

ZX,OMXZC0002347-19-05OCT92

EVERY 1000 HOURS

• Have valve tappet clearances checked by your John Deere dealer, and get him to adjust them if necessary.

NOTE: For further details concerning valve tappet clearance, see "Service — Engine" Section, under "Adjusting Engine Valve Tappets".

- Get your John Deere dealer to change the hydraulic oil and hydraulic oil filter.
- Change oil in the 3-speed transmission.
- Change transmission oil in final drives.
- Change transmission oil in threshing cylinder drive.
- Change transmission oil in reverser.

ZX,OMXZC0002348-19-01NOV96

EVERY 1500 HOURS

Change air cleaner (primary) element and safety (secondary) element.

ZX,OMXZC0002349-19-05OCT92

Lubrication Chart, Periodic Service

AS REQUIRED

- Replace both air cleaner filter elements.
- Change cab air filters.
- Change transmission oil filter.
- Clean prefilter.
- Change hydraulic oil filter.
- Change fuel filter.
- Clean batteries.

ZX,OMXZC0002350-19-05OCT92

EVERY YEAR

- Have starting motor checked.
- Have alternator checked.
- Change brake fluid.
- Check air intake hose connections.

ZX,OMXZC0002351-19-05OCT92

EVERY 2 YEARS

- Clean cooling system, change filter on coolant conditioner and change thermostats.
- Check vibration damper.

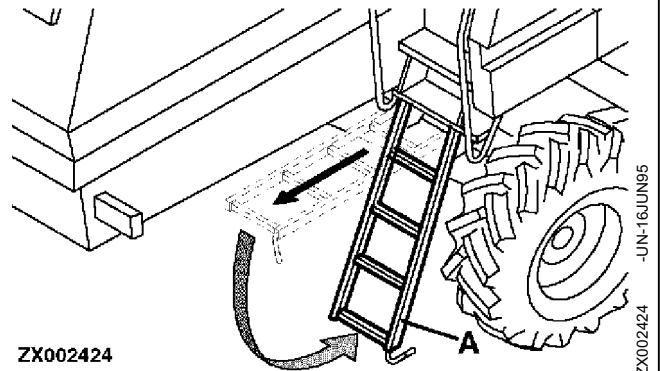
ZX,OMXZC0002352-19-05OCT92

Service — Engine

ACCESS TO ENGINE

Via rear service platform

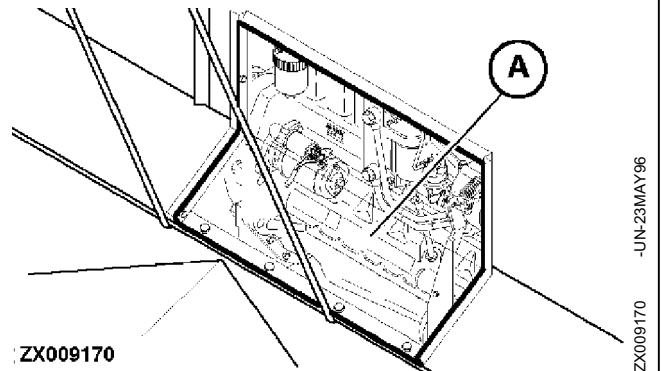
Access to the engine is via the rear right service platform. First pull out ladder (A).



ZX,OMXZC0002079-19-02MAY96

Via grain tank (2254)

Open service hatch (A) to gain access to the injection pump on the 2254 combine and 2254 Hillmaster.



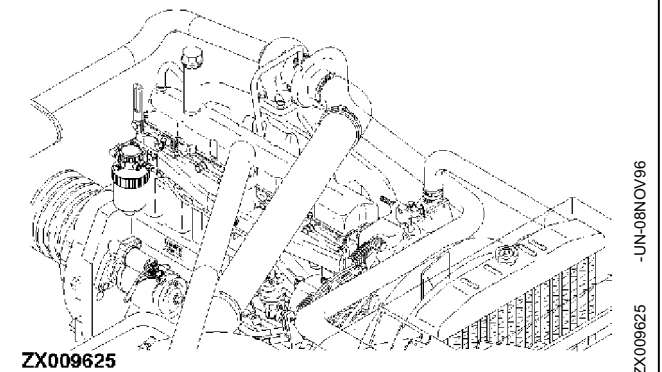
ZX,OMXZC0002080-19-01NOV96

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.



ZX,OMXZC0002081-19-01NOV96

ADJUSTING ENGINE VALVE TAPPETS

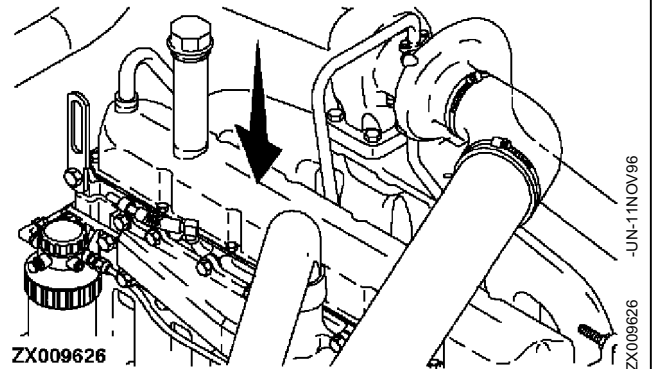
Have valve tappet clearances checked by your John Deere dealer and get him to carry out any adjustments that might be necessary.

2254, 2254HM (6.8 L engine):

After the first 1000 hours of operation, and every 2000 hours thereafter.

2256 to 2266HM (8.1 L engine):

After the first 750 hours of operation, and every 2000 hours thereafter.



-JUN-11NOV96
ZX009626

ZX,OMXZC0002082-19-01NOV96

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.

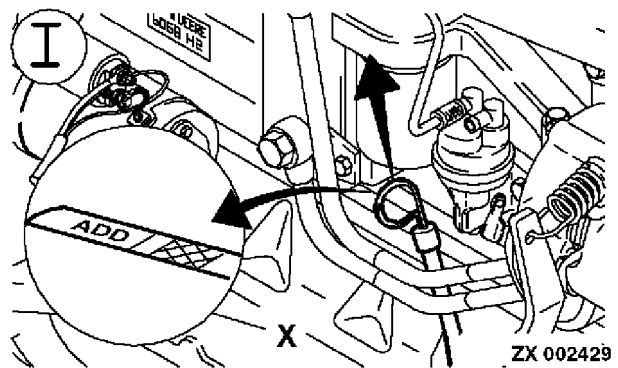
IMPORTANT: It is vital to maintain the engine oil at the correct level to ensure a long service life. Check oil level with combine standing on level ground.

Before removing dipstick, clean surrounding area thoroughly.

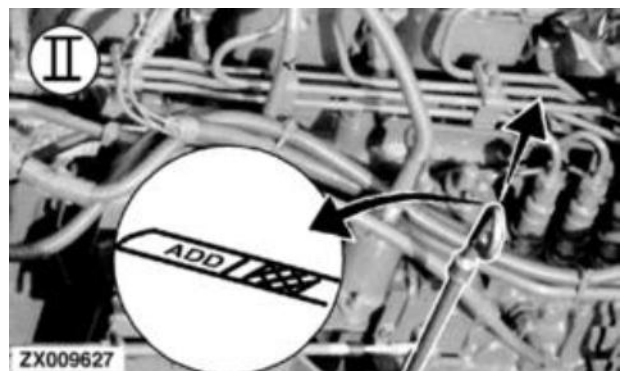
Check engine crankcase oil level after every 10 hours of operation.

Oil level should be between upper and lower marks on dipstick.

- I—6.8-L engine
- II—8.1-L engine
- X—Hatched area = Maximum
- ADD = Minimum



-JUN-16JUN95
ZX002429



-JUN-08NOV96
ZX009627

ZX,OMXZC0002083-19-01NOV96

CHANGING OIL AND FILTER ON 6.8-L ENGINE

IMPORTANT: Observe the utmost cleanliness when installing replacement filter element.

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 valve (A) and drain oil from crankcase.

Remove oil filter (B).

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 valve again.

Fill engine crankcase housing with oil of the specified viscosity and quality at valve cap opening (C).

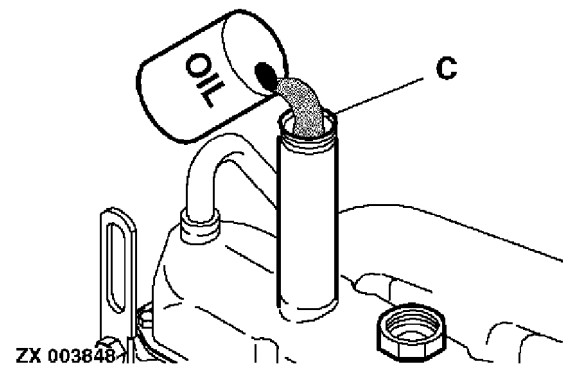
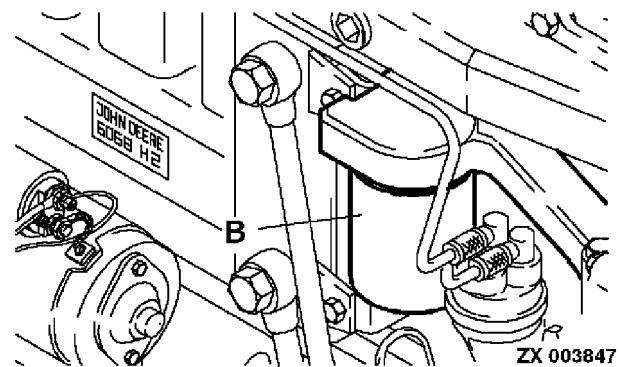
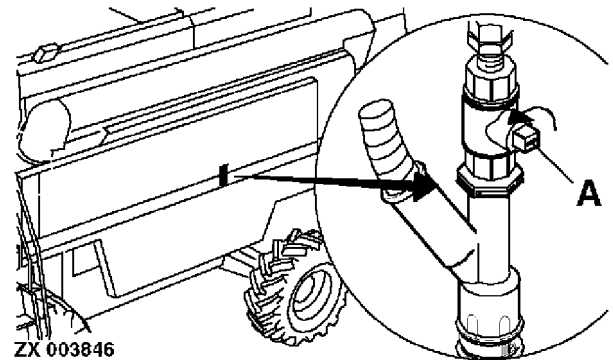
Capacity (with filter change): 19 L (5.0 U.S. gal)

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, remove fuse F16 and crank the engine for 30 seconds. This ensures that all the engine components are thoroughly lubricated when the engine is started. Put back fuse F16.

Start the engine and check for leaks.

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.



-JUN-19/JUN95

ZX003846

-JUN-19/JUN95

ZX003847

-JUN-19/JUN95

ZX003848

CHANGING OIL AND FILTER ON 8.1-L ENGINE

IMPORTANT: Observe the utmost cleanliness when installing replacement filter element.

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 valve (A) and drain oil from crankcase.

Remove oil filter (B).

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 valve again.

Fill engine crankcase housing with oil of the specified viscosity and quality at valve cap opening (C).

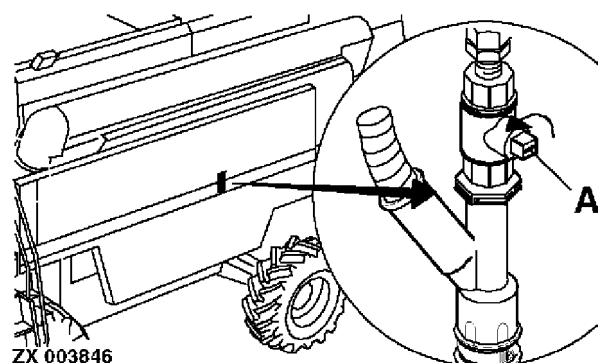
Capacity (with filter change): 28.5 L (7.5 U.S. gal)

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!

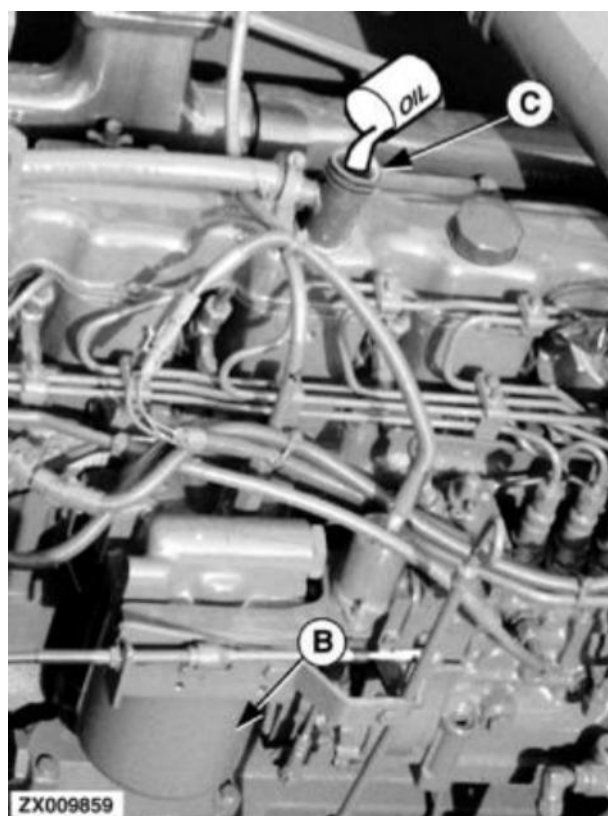
IMPORTANT: Directly after completing an oil change and/or filter change, remove fuse F16 and crank the engine for 30 seconds. This ensures that all the engine components are thoroughly lubricated when the engine is started. Put back fuse F16.

Start the engine and check for leaks.

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.



ZX003846 -JUN-19/JUN95

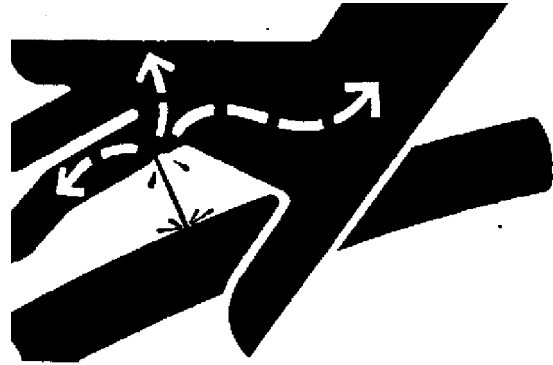


ZX009859 -JUN-08/NOV96

ZX,OMXZC0002085-19-01/NOV96

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

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



X9811
-UN-23AUG88

DX,FLUID2 -19-09AUG91

DO NOT MODIFY FUEL SYSTEM

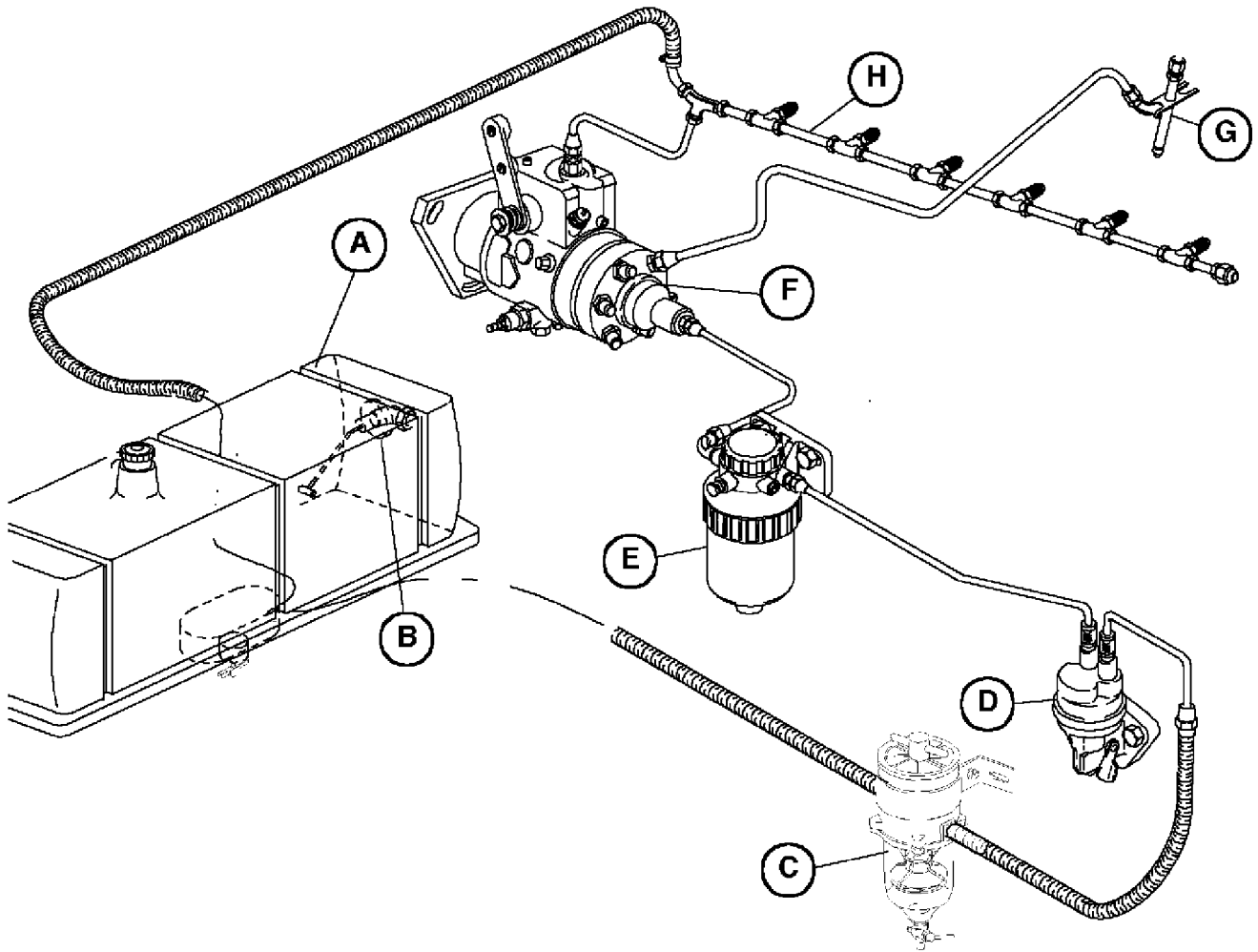
IMPORTANT: Modification or alteration of the injection pump, injection pump timing or fuel injectors in ways not recommended by the manufacturer will terminate the warranty obligation to the purchaser. See warranty information inside front cover.

Do not attempt to service injection pump or fuel injectors yourself. Special training and special tools are required. See your John Deere dealer.

Never steam clean or spray water on a warm injection pump. This could cause damage to pump parts.

ZX,OMXZCO002086-19-01AUG92

FUEL SYSTEM ON 6.8-L ENGINE



ZX007424

A—Fuel tank
B—Fuel gauge sending unit
C—Water trap

D—Mechanical fuel transfer pump

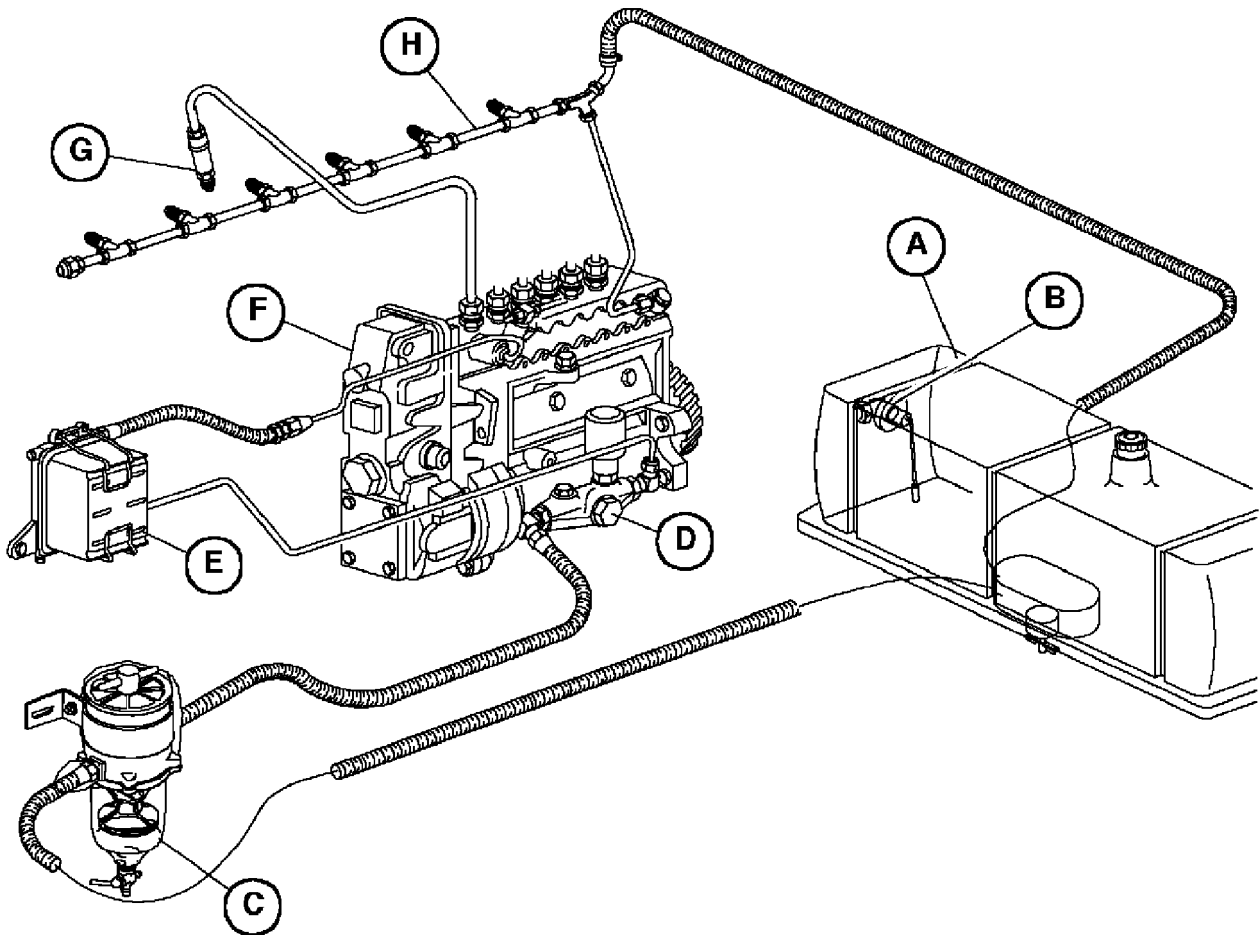
E—Fuel filter
F—Injection pump

G—Injection nozzle
H—Return line

ZX007424 -UN-20JUN95

ZX.OMXZC0002087-19-01MAR95

FUEL SYSTEM ON 8.1-L ENGINE



ZX009860

A—Fuel tank
B—Fuel gauge sending unit
C—Water trap

D—Mechanical fuel transfer pump (2256—2266)
E—Fuel filter

F—Injection pump (2256—2266)

G—Injection nozzle
H—Return line

ZX,OMXZC0002088-19-01NOV96

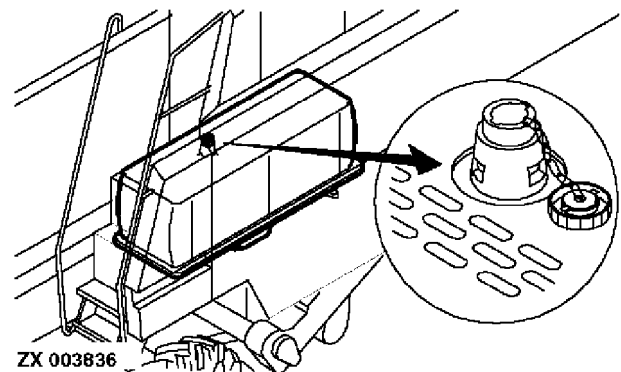
ZX009860 -JUN-15NOV96

FUEL TANK FILLER NECK

The fuel tank filler neck is closed with a tank cap.

The fuel tank is vented through an opening in the cap.

Clean dust and chaff from the surrounding area before removing tank cap.



ZX 003836

ZX,OMXZC0002089-19-13NOV92

ZX003836 -JUN-08MAY95

WATER TRAP IN FUEL SYSTEM

The fuel system has an integral water trap (A). This filter operates as follows:

1st stage:

Solid foreign matter is separated out by centrifugal force.

2nd stage:

Tiny particles float up with the fuel into the cone-shaped insert, where they accumulate on the oblique surfaces. This sediment gradually becomes heavier and the larger particles fall slowly into the 1st stage on the base of the sight-glass.

3rd stage:

The finest fuel filter stage takes place in the filter insert. This insert can be removed and replaced.



ZX007422
-UN-21JUN95

ZX,OMXZC0004144-19-01MAR95

CLEANING THE FUEL SYSTEM WATER TRAP

When water and sediment are visible at the sight-glass, 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:

Close shut-off valve (B).

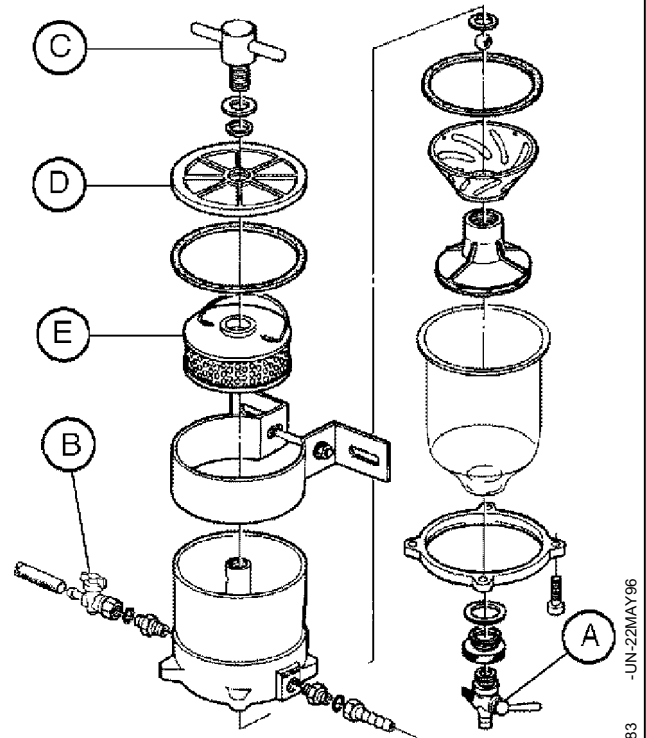
Unfasten cover retaining screw (C).

Lift off filter cover (D).

Take out filter insert (E) 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—Shut-off valve
- C—Cover retaining screw
- D—Filter cover
- E—Filter insert



ZX009183

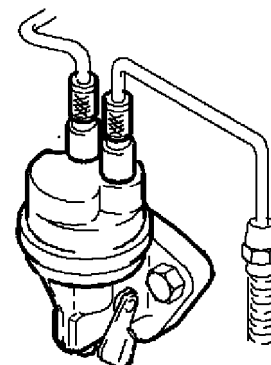
ZX009183 -UN-22MAY96

ZX,OMXZC0004145-19-02MAY96

MECHANICAL FUEL TRANSFER PUMP (6.8-L ENGINE)

This pump is maintenance-free.

If a defect occurs, consult your John Deere dealer.



ZX007530

ZX007530 -UN-20JUN95

ZX,OMXZC0002093-19-01MAR95

EMPTYING FUEL FILTER (6.8-L ENGINE)

⚠ CAUTION: Always remove ignition key before performing maintenance work on fuel filter. Avoid fire hazards!

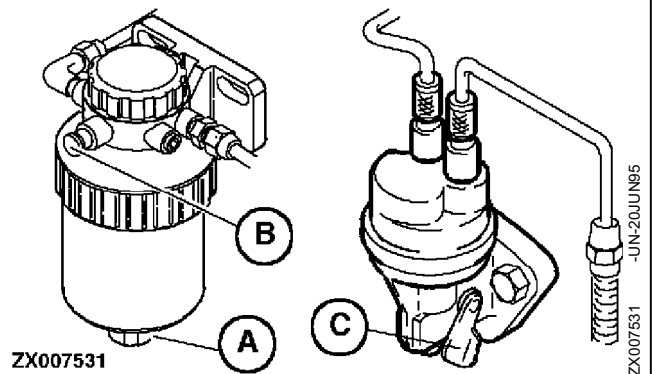
Slacken off drain screw (A).

Open bleed screw (B).

Retighten drain screw as soon as the water and sediment deposits have drained off.

Actuate pump lever (C), until the fuel filter has been completely purged of air.

Retighten bleed screw.



ZX,OMXZC0002095-19-01MAR95

REPLACING FUEL FILTER ELEMENT (6.8-L ENGINE)

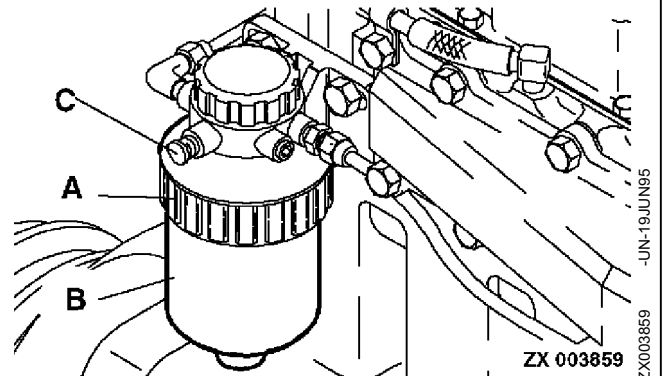
⚠ CAUTION: Always remove ignition key before performing maintenance work on fuel filter. Avoid fire hazards!

Replace filter elements after every 250 hours of operation or at the end of every harvesting season.

Unfasten ring (A) and remove filter element (B).

Insert new filter element and retighten ring (A).

Slacken off bleed screw (C) (see “Bleeding Fuel System”). Tighten bleed screw by hand.



ZX,OMXZC0002094-19-01AUG92

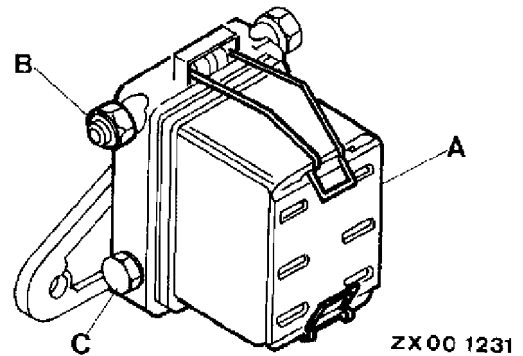
EMPTYING FUEL FILTER (8.1-L ENGINE)

CAUTION: Always remove ignition key before performing maintenance work on fuel filter. Avoid fire hazards!

Slacken off drain screw (C).

Open bleed screw (B).

Water and sediment deposits flow out of filter (A).



ZX001231 -UN-10APR95

ZX.OMXZC0002096-19-01NOV96

REPLACING FUEL FILTER ELEMENT (8.1-L ENGINE)

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.

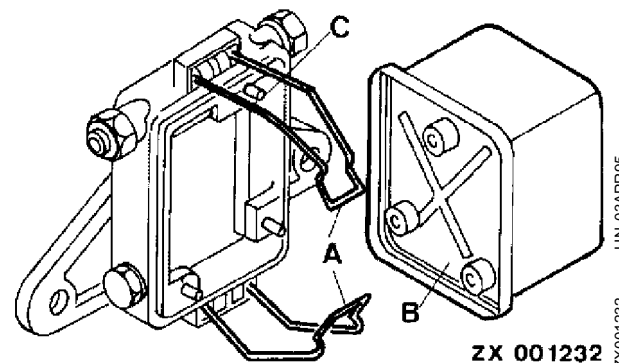
Replace filter elements after every 250 hours of operation or at the end of every harvesting season.

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

ZX.OMXZC0002097-19-01NOV96

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.

ZX,OMXZC0002098-19-01AUG92

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

ZX,OMXZC0002099-19-01AUG92

Water trap

The fuel tank must be full.

Slacken off water trap bleed screw (A) and trap the fuel that flows out.

The fuel must be free of bubbles as it emerges.

Close bleed screw (A) again.



ZX,OMXZC0002100-19-01MAR95

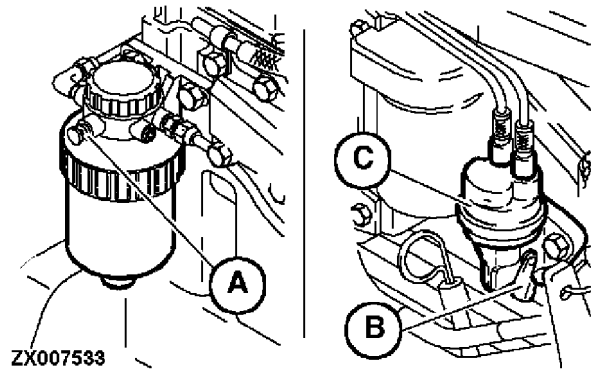
Fuel filter (6.8-L engine)

Slacken off bleed screw (A).

Operate primer lever (B) at fuel transfer pump (C) manually until the fuel emerging from bleed screw (A) is free of air bubbles.

Retighten bleed screw.

NOTE: If no resistance is felt when moving the primer lever, turn engine over with starting motor to change position of primer pump cam.



ZX007533 -UN-20JUN95

ZX,OMXZC0002101-19-02MAR95

Fuel filter (8.1-L engine)

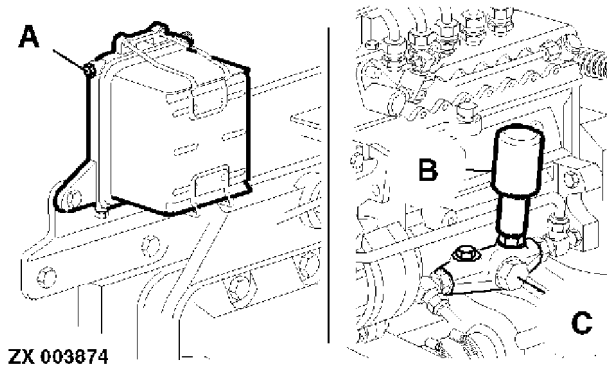
First bleed the water separator.

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.



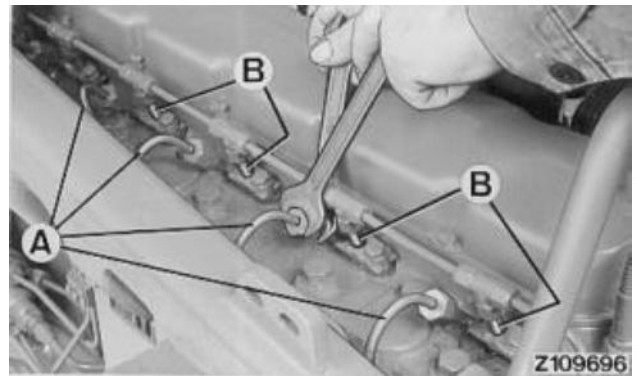
ZX003874 -UN-19JUN95

ZX,OMXZC0002102-19-01NOV96

Behind fuel injection pump

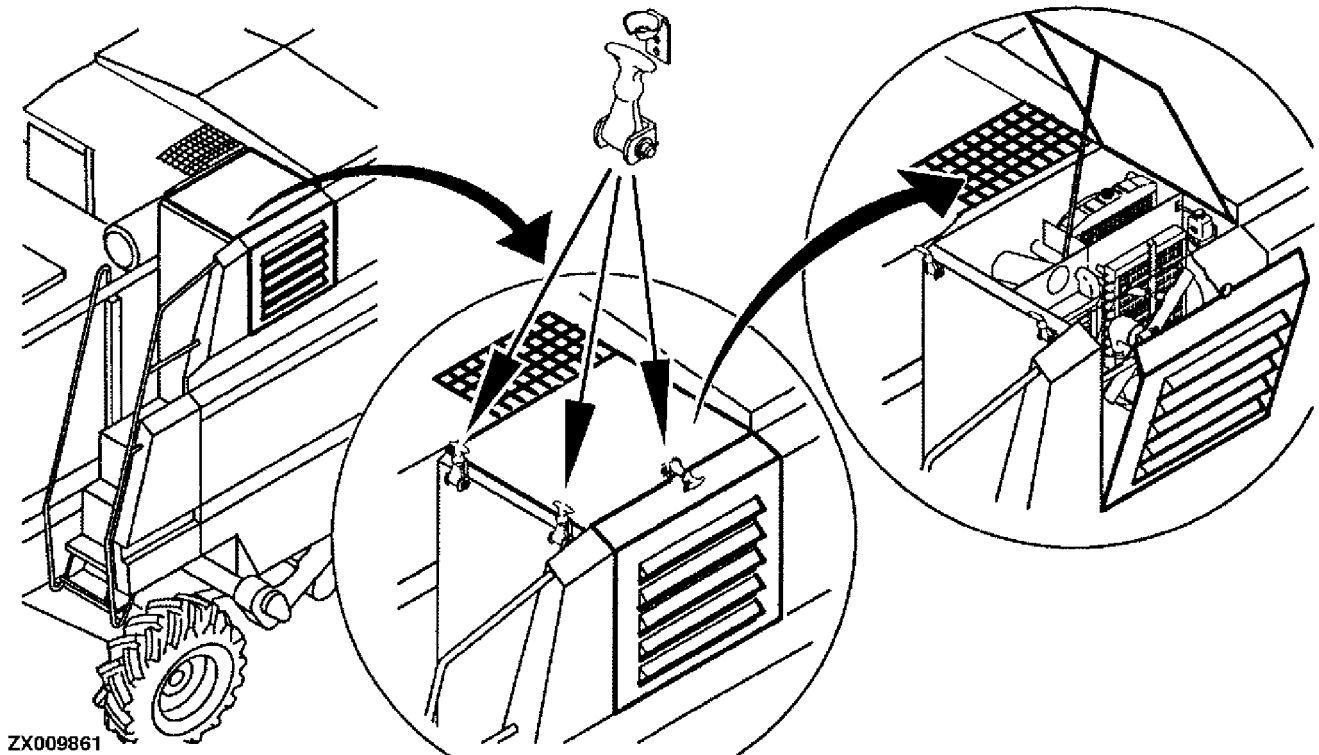
If the engine will still not start despite carrying out the previous steps, proceed as follows:

- 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.



ZX,OMXZC0002103-19-01AUG92

ACCESS TO COOLING ELEMENTS



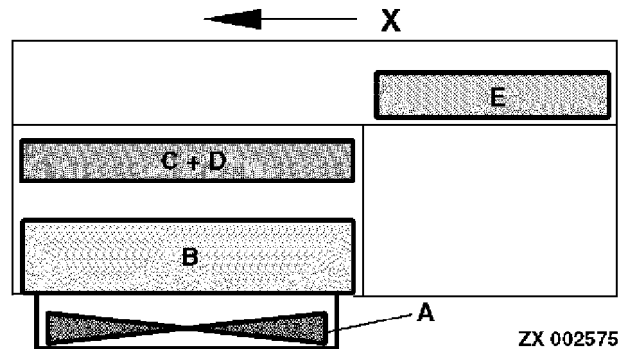
ZX009861

ZX009861
-JUN-08NOV96

ZX,OMXZC0002104-19-01NOV96

LAYOUT OF COOLING ELEMENTS (2254 — 2266)

- A—Fan
- B—Radiator
- C—Hydraulic oil cooler (top)
- D—Air conditioning condenser (below, when equipped)
- E—Intercooler
- X—Direction of travel



ZX.OMXZC0002105-19-01NOV96

-JUN-19/JUN95
ZX002575

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.

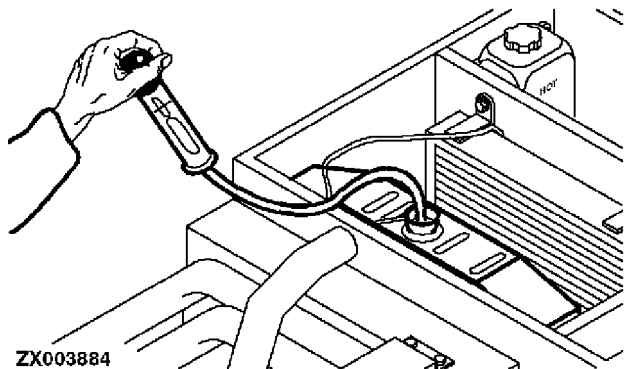
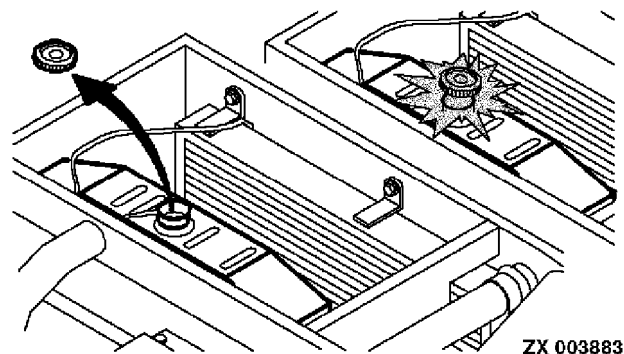
When the engine is cool, the coolant level should be up to the "COLD" mark.

Checking coolant quality

IMPORTANT: Regardless of the season, use only John Deere COOL-GARD in the cooling system. Drain cooling system and refill with fresh coolant every 2 years.

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.



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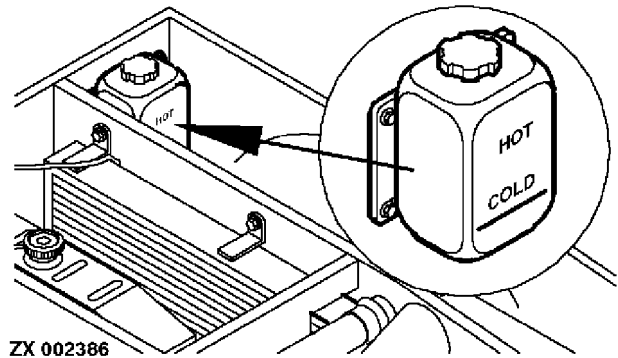
-JUN-19/JUN95
ZX003884

ADDING 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.

IMPORTANT: Add a recommended coolant (see “Fuels, Lubricants, Hydraulic Oil, Coolant and Capacities”). Never use a cooling system sealing additive. Never pour cold liquid into a hot engine, as this may crack the cylinder head or block. Never operate engine without coolant.

When the system is cool, coolant level should be up to the “COLD” mark on the expansion tank.



ZX,OMXZC0002108-19-01AUG92

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.

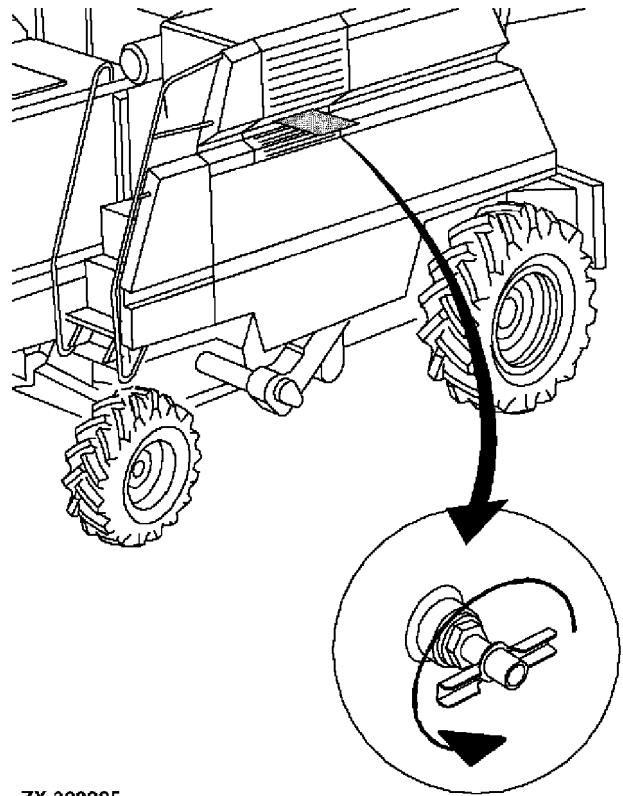
Drain cooling system cleaner and refill system again with clean water. Shut off engine when water reaches operating temperature and drain system again.

Refill system with the specified coolant (see “Engine Coolant”).

IMPORTANT: The cooling system must always be filled with John Deere COOL-GARD, irrespective of the season.

ZX,OMSPFH001283-19-01NOV91

DRAIN VALVE FOR ENGINE COOLANT AT RADIATOR



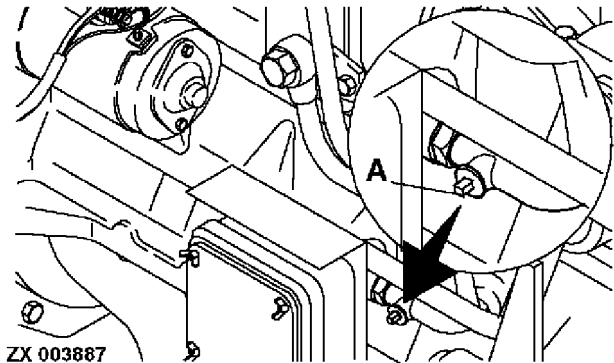
ZX 003885

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ZX003885

DRAIN PLUG FOR ENGINE COOLANT (6.8-L ENGINE)

A—In oil cooler inlet line



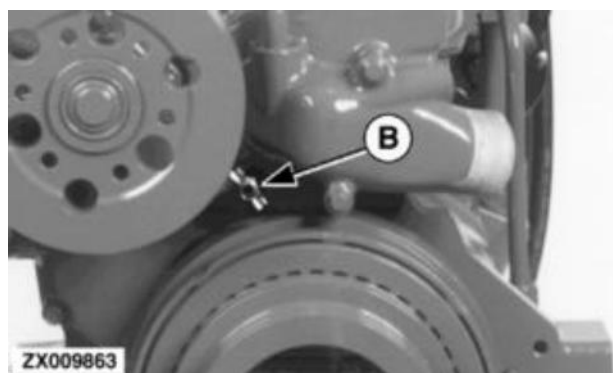
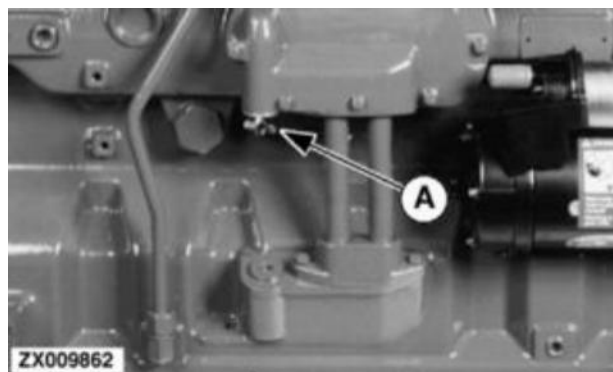
ZX 003887

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ZX003887

DRAIN VALVES FOR ENGINE COOLANT (8.1-L ENGINE)

- A—At r.h. side of cylinder block
- B—At coolant pump



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REPLACING THERMOSTATS

Replace thermostats when changing the coolant.

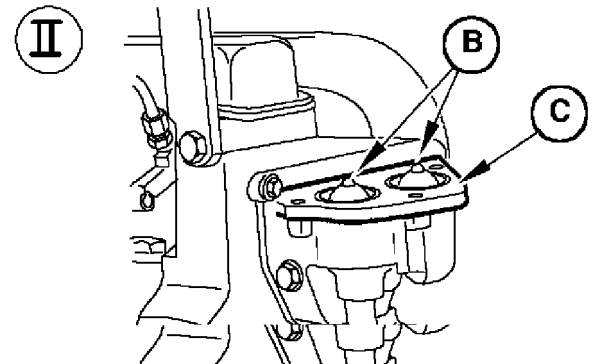
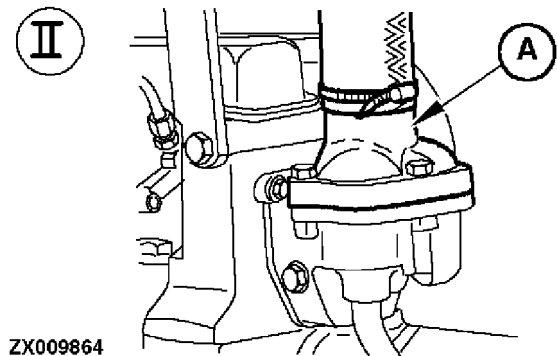
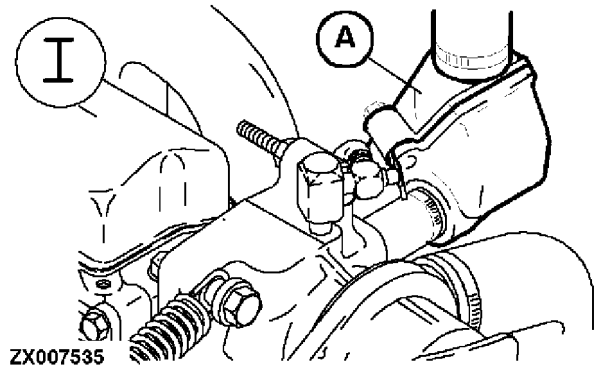
To change the thermostats, take out cap screws and remove thermostat cover (A).

Remove and discard thermostats (B) and all gasket material (C).

Coat new gasket with sealant, and install.

Install new thermostats and cover. Tighten all cap screws to 47 N·m (35 lb-ft).

- I—Thermostat housing (6.8-L engine)
- II—Thermostat housing (8.1-L engine)



-JUN-20JUN95

ZX007535

-JUN-08NOV96

ZX009864

-JUN-08NOV96

ZX009865

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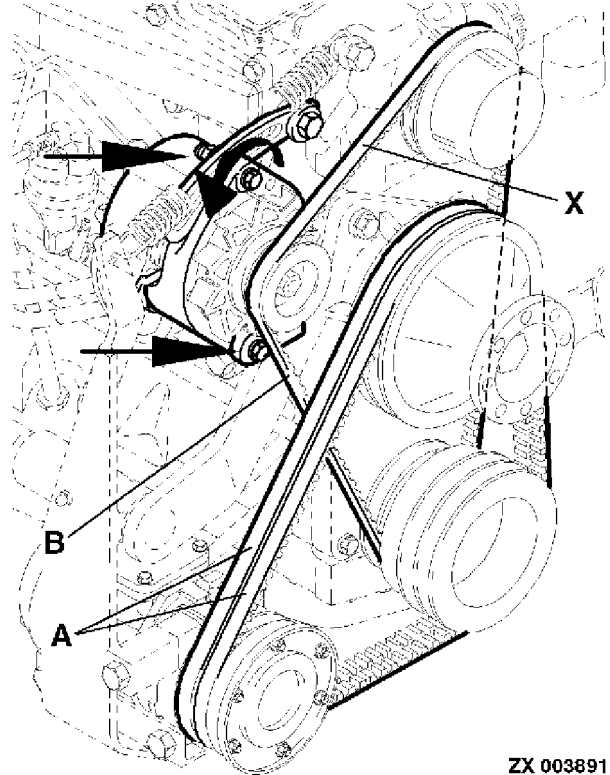
DRIVE BELTS (6.8-L ENGINE)

IMPORTANT: Belts must be cool when tension is adjusted. Exert pressure on mounting brackets only.

To retension, slacken off attaching and adjusting screws. Pull alternator outwards. Tighten screws.

Check tension of belt (B) at point (X). Flexion on the belt should not exceed 5 mm (0.2 in.).

- A—Drive belts for fan (2 x) and air conditioning compressor (if equipped)
- B—Drive belts for coolant pump and alternator



ZX 003891

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-UN-19JUN95
ZX003891

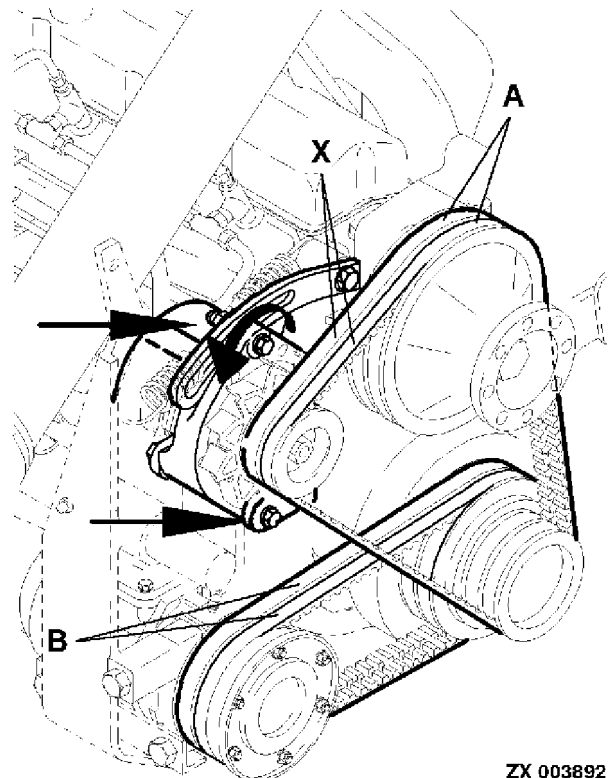
DRIVE BELTS (8.1-L ENGINE)

IMPORTANT: Belts must be cool when tension is adjusted. Exert pressure on mounting brackets only.

To retension, slacken off attaching and adjusting screws. Pull alternator outwards. Tighten screws.

Check tension of belt (A) at point (X). Flexion on the belt should not exceed 5 mm (0.2 in.).

- A—Drive belt for fan and alternator
- B—Drive belt for air conditioning compressor (if equipped)

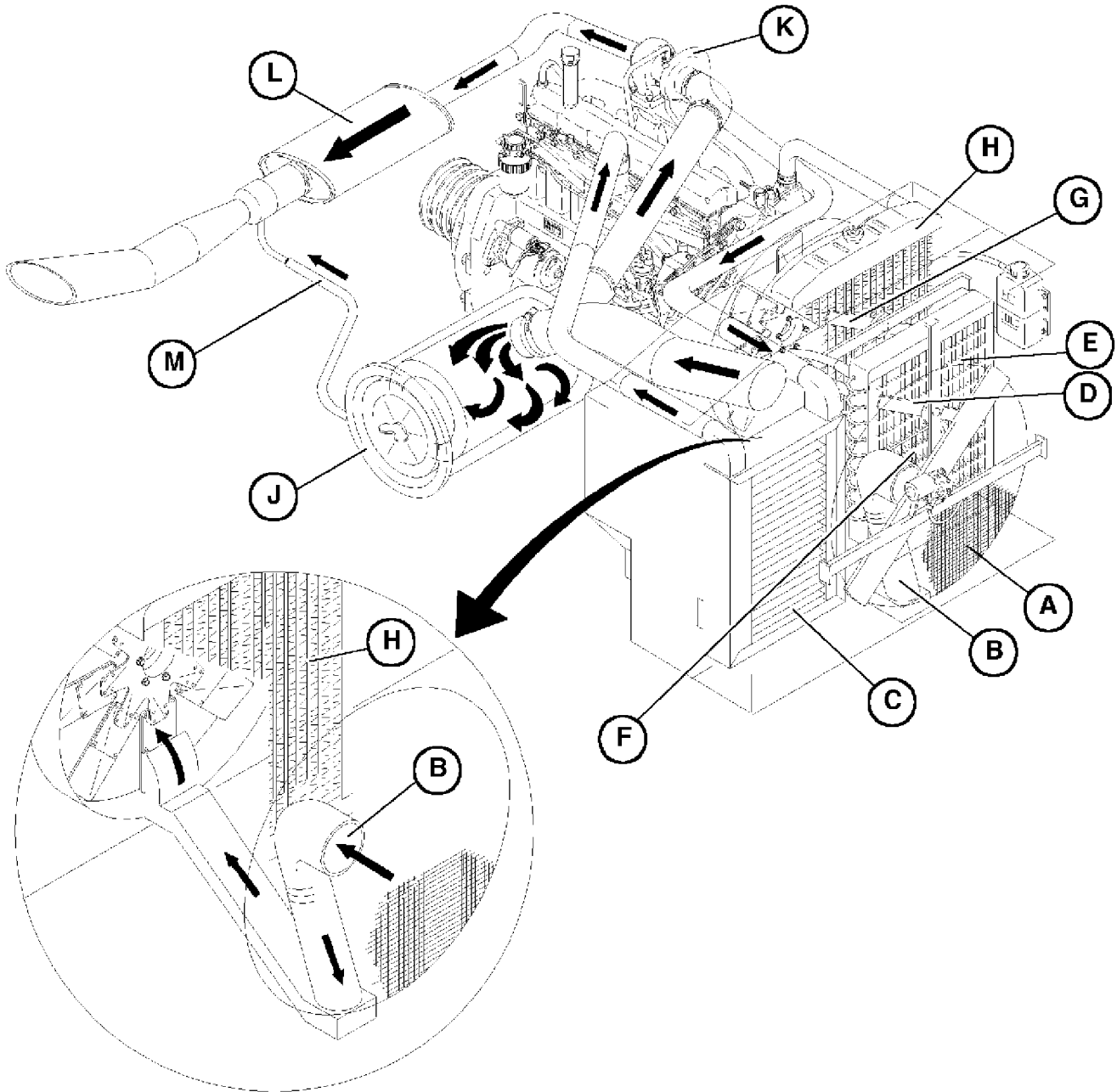


ZX 003892

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AIR INTAKE SYSTEM WITH AIR-TO-AIR AFTERCOOLER (6.8-L ENGINE)



ZX007416

A—Stationary radiator screen with driven cleaning fan
 B—Suction pipe and channel from stationary radiator screen

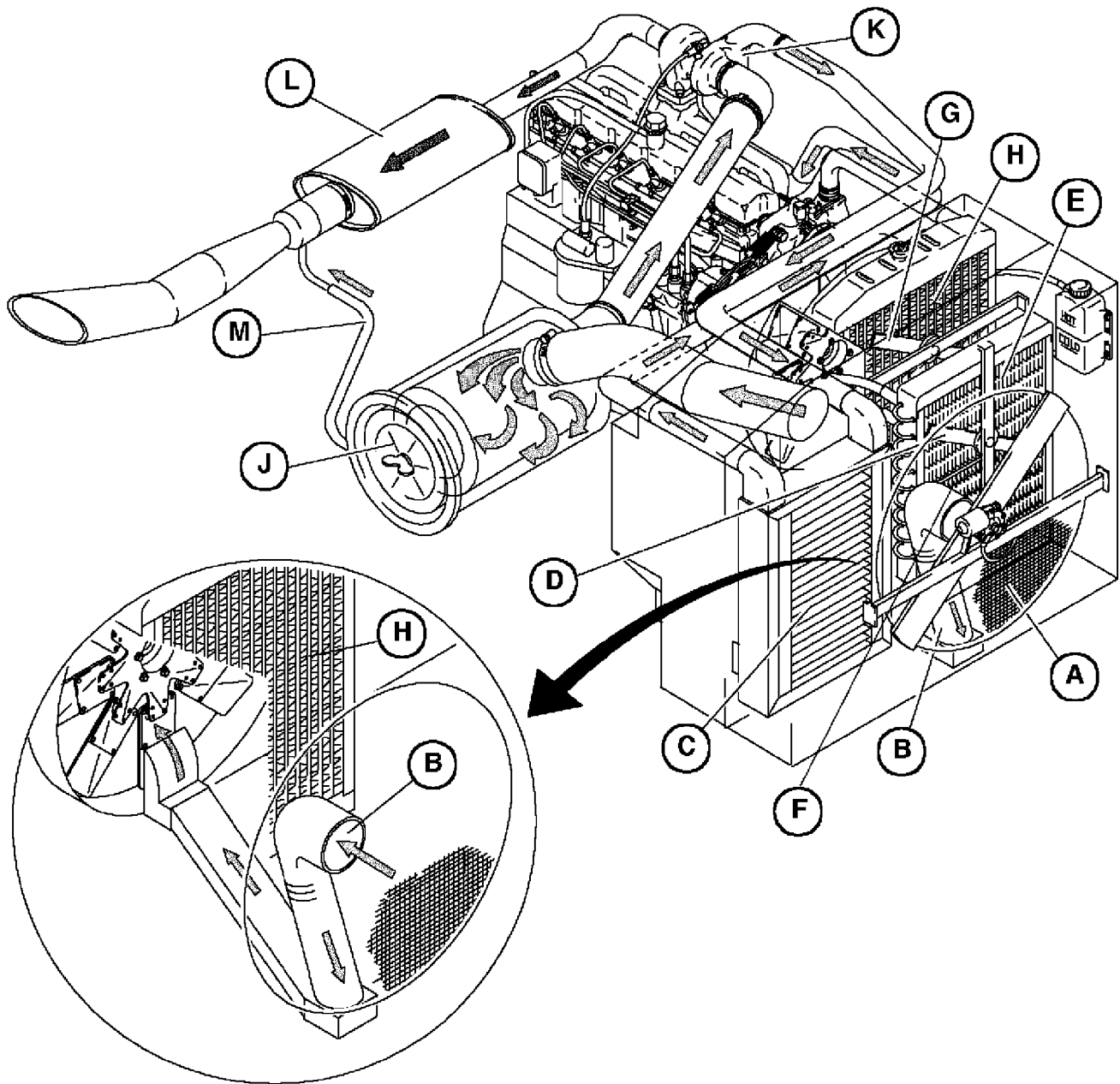
C—Air-to-air aftercooler
 D—Eddy fan for oil cooler/condenser
 E—Hydraulic oil cooler
 F—Air conditioning condenser (if equipped)

G—Eddy fan for radiator
 H—Radiator
 J—Air cleaner with safety element

K—Turbocharger
 L—Muffler
 M—Air cleaner suction pipe

ZX,OMXZC0002115-19-01NOV96

AIR INTAKE SYSTEM WITH AIR-TO-AIR AFTERCOOLER (8.1-L ENGINE)



ZX009866

A—Stationary radiator screen with driven cleaning fan
 B—Suction pipe and channel from stationary radiator screen

C—Air-to-air aftercooler
 D—Eddy fan for hydraulic oil cooler/condenser
 E—Hydraulic oil cooler
 F—Air conditioning condenser (if equipped)

G—Eddy fan for radiator
 H—Radiator
 J—Air cleaner with safety element

K—Turbocharger
 L—Muffler
 M—Air cleaner suction pipe

ZX009866 -JUN-15NOV96

ZX.OMXZC0002116-19-01NOV96

REMOVING AIR CLEANER (PRIMARY) ELEMENT

IMPORTANT: Remove and clean air cleaner element only when the red “air cleaner” indicator light glows.

Remove wing nut (A).

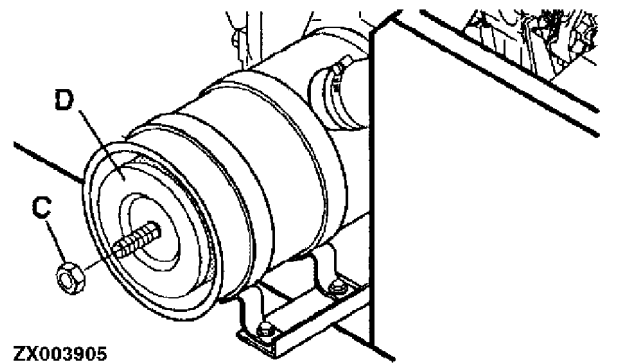
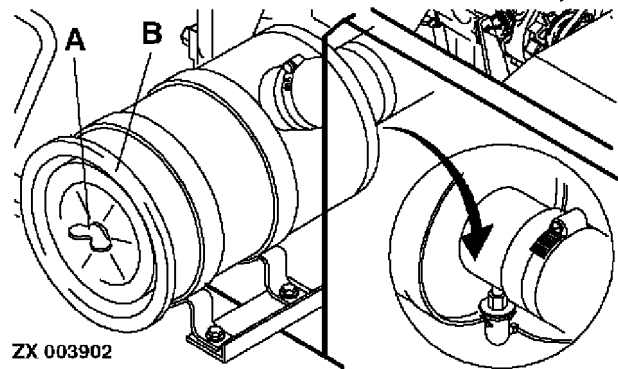
Lift off filter cover (B).

Remove hex. nut (C).

Lift out air cleaner element (D).

IMPORTANT: Never run the engine without air cleaner element installed.

- A—Wing nut
- B—Filter cover
- C—Hex. nut
- D—Air cleaner (primary) element



ZX,OMXZC0002117-19-01AUG92

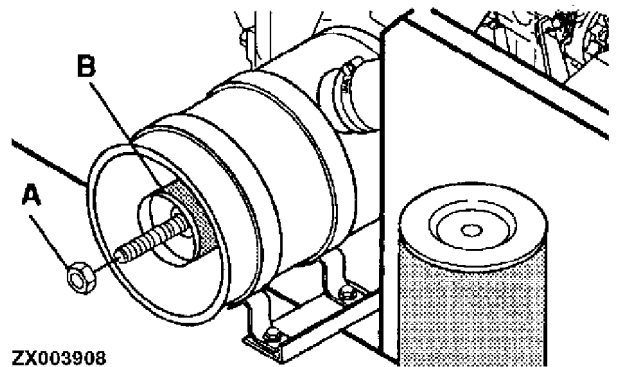
-UN-19JUN95
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-UN-08MAY95
ZX003905

REMOVING SAFETY (SECONDARY) ELEMENT

Take off hex. nut (A).

Lift out safety element (B).



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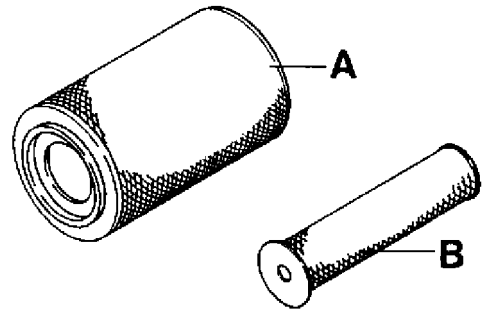
-UN-08MAY95
ZX003908

AIR CLEANER (PRIMARY) ELEMENT AND SAFETY (SECONDARY) ELEMENT

Each air cleaner has an air cleaner (primary) element (A) and a safety (secondary) element (B). The safety element retains dust that would otherwise pass into the engine if the primary element should rupture.

IMPORTANT: When installing primary and secondary elements, make sure that rubber sealing rings are seated correctly and absolutely clean. Replace both primary element and safety element after six washings.

Never attempt to clean safety element.



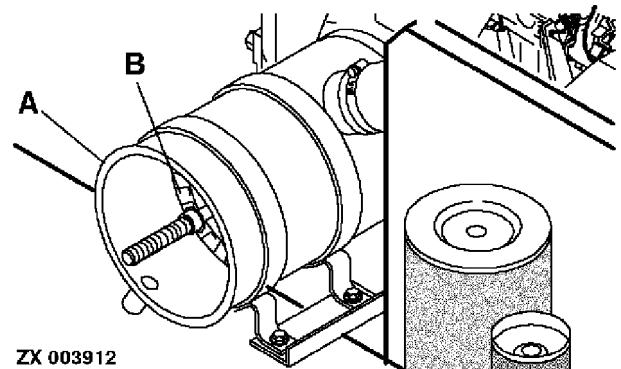
ZX001579

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ZX001579

CLEANING AIR CLEANER HOUSING

Before installing new or cleaned element, thoroughly clean inside of air cleaner housing (A) and turbulence ring (B) with a clean, dry cloth.



ZX 003912

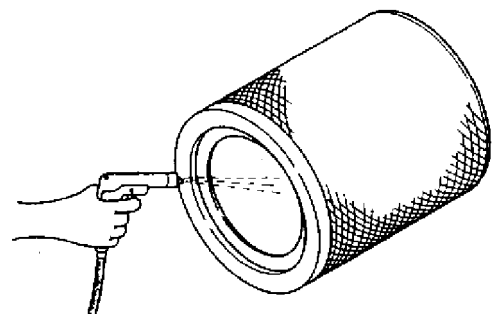
ZX,OMXZC0002119-19-01AUG92

-UN-19JUN95
ZX003912

Cleaning with Compressed Air

Clean dry element with compressed air. Insert nozzle into element and blow from inside to outside. Pressure should not exceed 600 kPa (6 bar; 85 psi)

Clean with compressed air at least after approx. ten provisional cleanings.



ZX001582

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-UN-04APR95
ZX001582

Washing Element

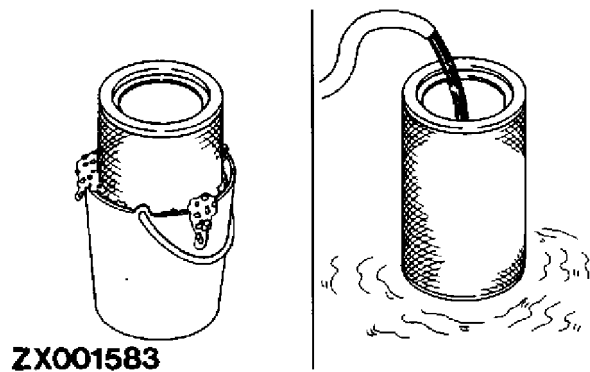
First rinse the filter element under running water to remove as much dirt as possible.

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.

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.



ZX001583 -UN-04APR95

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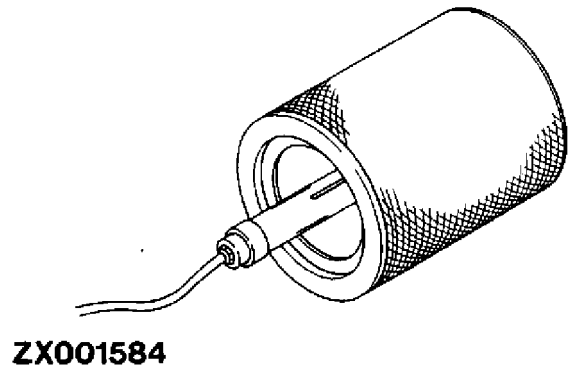
INSPECTING ELEMENT

After cleaning the element, inspect it for damage by placing a bright light inside the filter.

Discard any filter that shows the slightest rupture.

Make sure that gasket is serviceable. Replace gasket, when necessary.

IMPORTANT: Never use a wet or damp element. Do not use compressed air to dry wet filter elements.



ZX001584 -UN-04APR95

ZX,OMSPFH001307-19-01NOV91

ELEMENT STORAGE

Store clean, dry element in a plastic bag to protect it against damage and dust.

ZX.OMSPFH001308-19-01NOV91

INSTALLING AIR CLEANER ELEMENT

IMPORTANT: Never use a wet or damp element. Make sure that rear rubber sealing rings are absolutely clean and seated correctly.

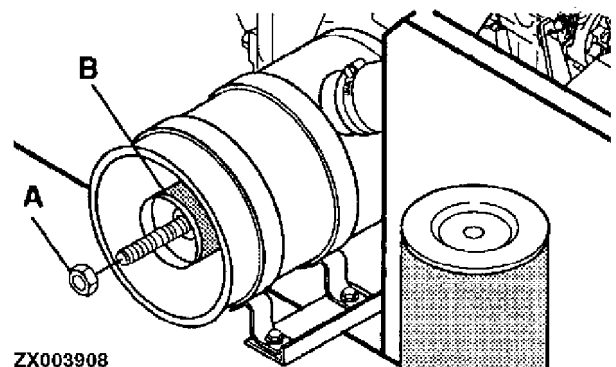
Install safety (secondary) element (B).

Tighten hex. nut (A).

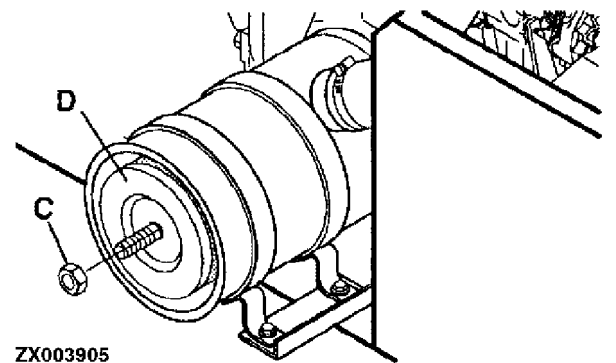
Install primary element (D).

Tighten hex. nut (C).

- A—Hex. nut
- B—Safety (secondary) element
- C—Hex. nut
- D—Primary filter element



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ZX003908

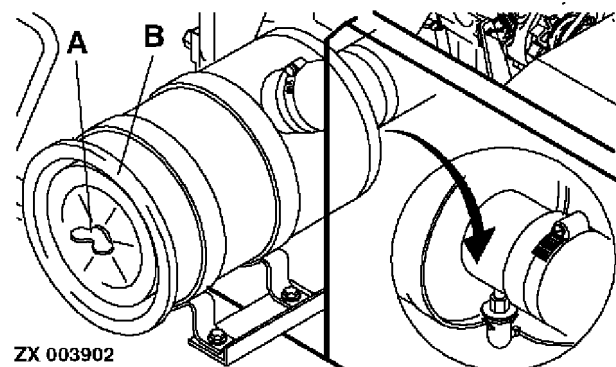


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ZX003905

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COMPLETING WORK ON AIR CLEANER

Put on filter cover (B) and secure with wing nut (A).



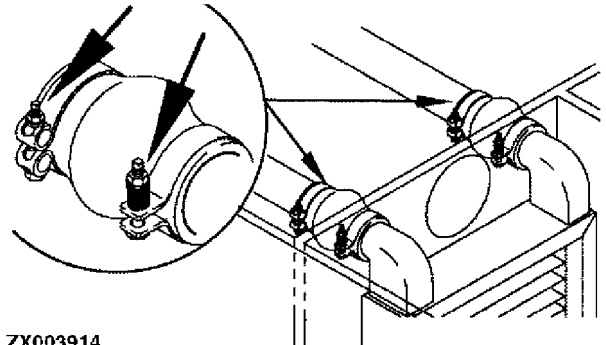
-UN-19JUN95
ZX003902

ZX.OMXZC0002121-19-01AUG92

AIR INTAKE LINES

Connections between steel tube and rubber hoses are sealed by hose clamps.

At least once a year, check and make sure that all hose clamps are seated and tightened correctly. When necessary, replace hoses or clamps.



ZX003914

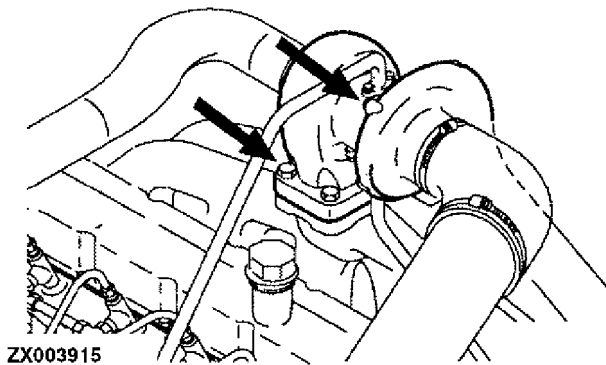
ZX.OMXZC0002122-19-01NOV96

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ZX003914

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

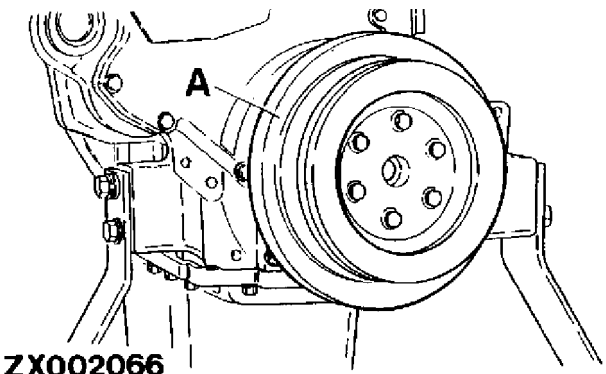
ZX.OMXZC0002123-19-02MAY96

-JUN-19/JUN95
ZX003915

CHECKING CRANKSHAFT VIBRATION DAMPER

Grasp vibration damper (A) with both hands and attempt to turn it in both directions. If it rotates at all, the damper is defective and must be replaced.

IMPORTANT: The vibration damper assembly is not repairable and should be replaced by your John Deere dealer every five years or 4500 hours of operation, whichever occurs first.



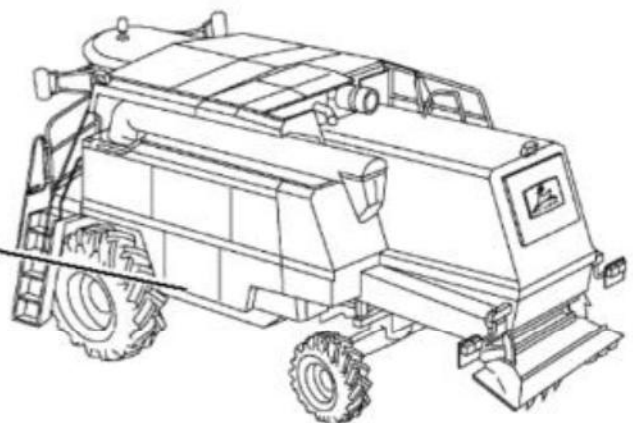
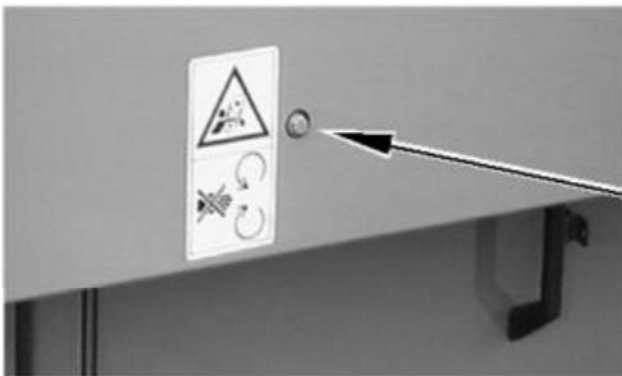
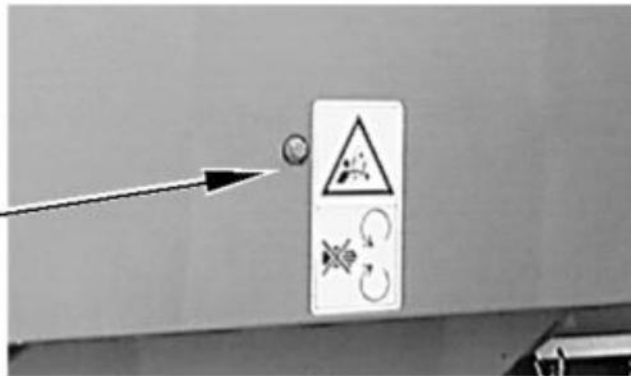
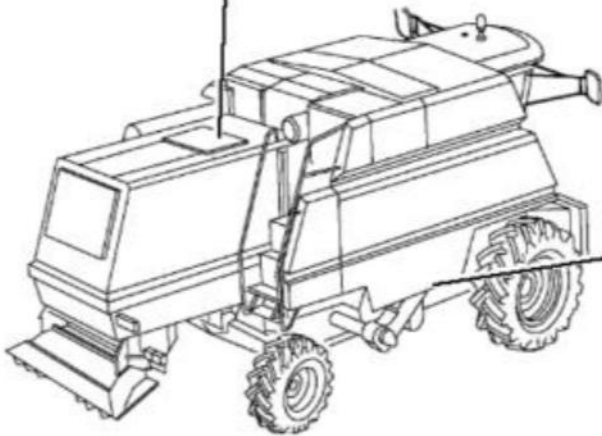
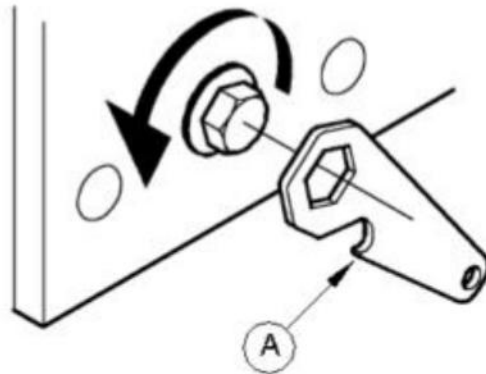
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ZX002066

Service — Drives and Shields

SAFETY SHIELDS



ZX007417

NOTE: To open the shields, use a suitable tool (13 mm across flats) or else use tool (A),

which is available through spare parts channels.

ZX007417 -UN-26JUN95

ZX,OMXZCO004146-19-01MAR95

PREPARATIONS FOR ADJUSTING BELT GUIDES ON MAIN COUNTERSHAFT AND UNLOADING DRIVE

Start the engine and allow pressure to build up in the hydraulic system.

Shut off engine.

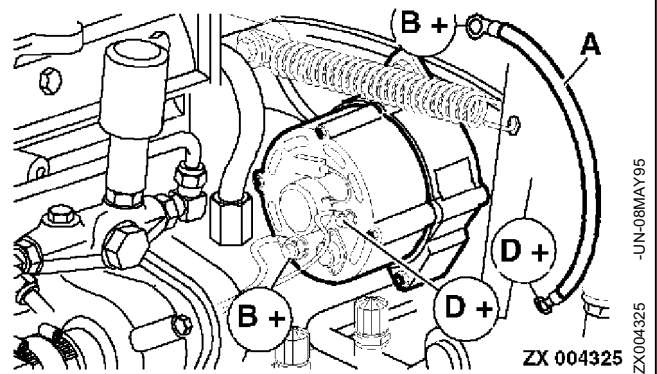
Attach bridge (A).

Put road safety switch in field position.

Switch on ignition.

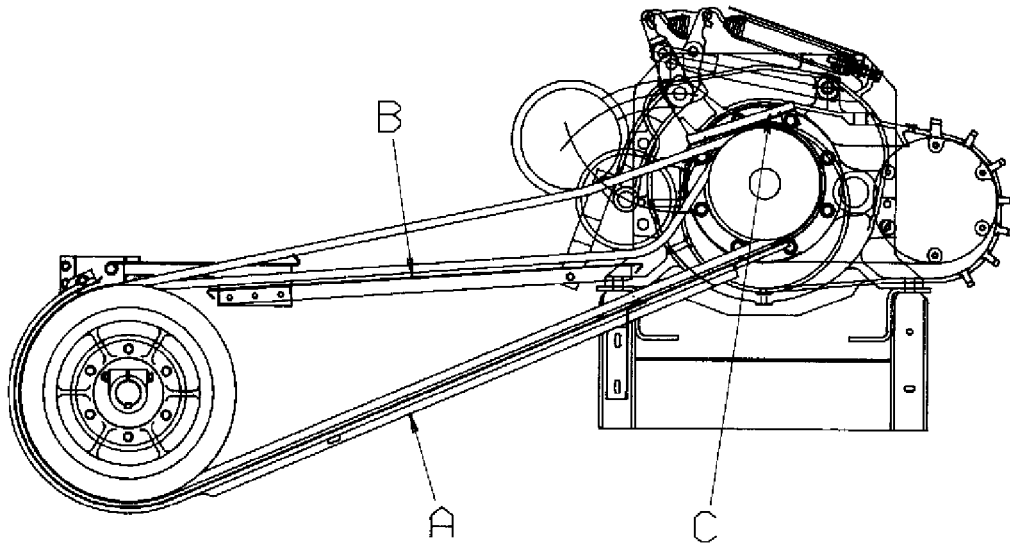
To adjust the belt guide on the main countershaft, press the separator switch on the switch console.

To adjust the belt guide on the unloading drive, press the unloading drive switch on the switch console.



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MAIN COUNTERSHAFT DRIVE



ZX003948

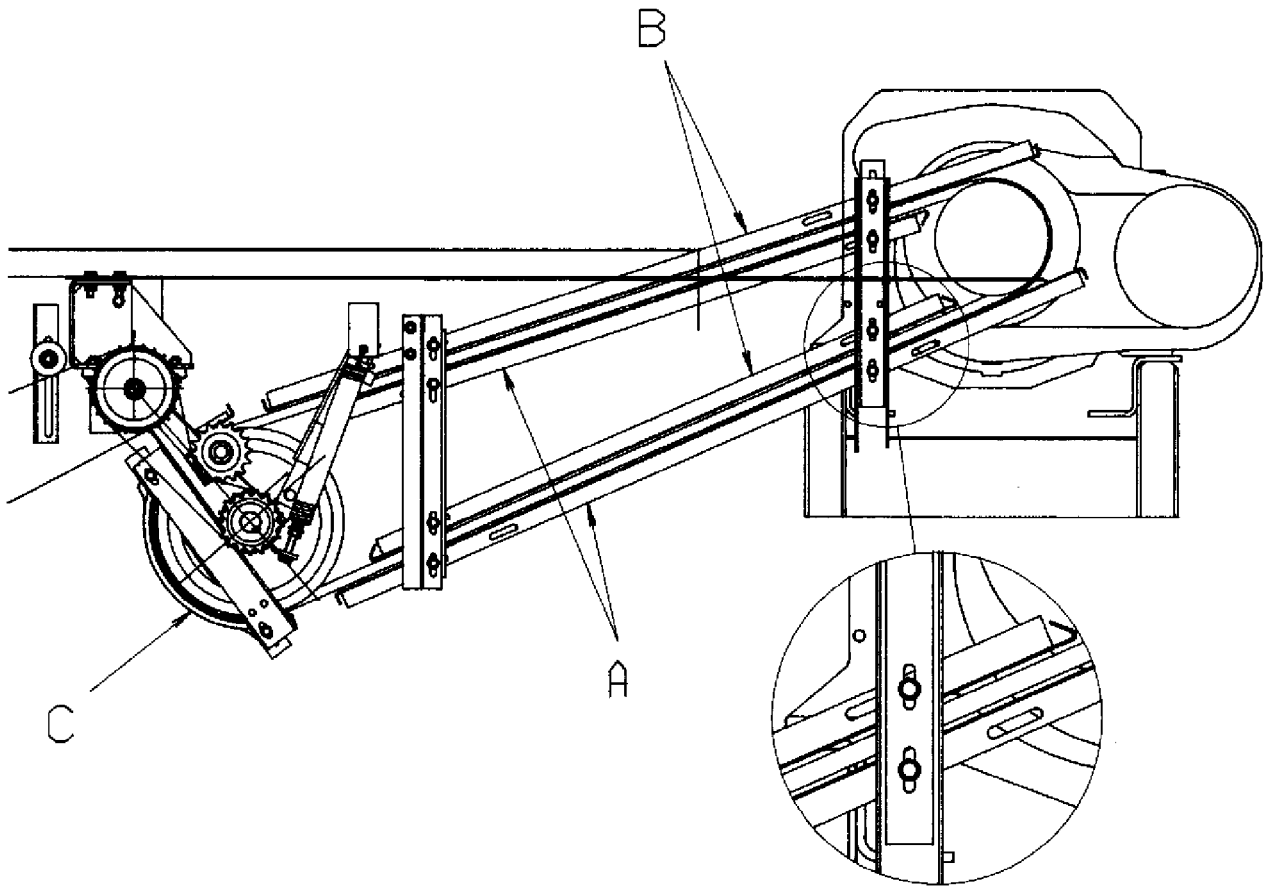
ZX003948
-JUN-02MAY95

Adjust belts:

- Tension belt with the machine stopped (see "Preparations for Adjusting Belts" in this section).
- Adjust belt guide (A) so that there is a gap of 4—6 mm (0.16—0.24 in.) between it and belt (B).
- Take tension off belt again.
- Adjust belt guide (C) so that a gap of approx. 5 mm (0.20 in.) remains between it and belt (B) when the tension is relaxed.
- Remove bridge from alternator.

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UNLOADING DRIVE



ZX003949

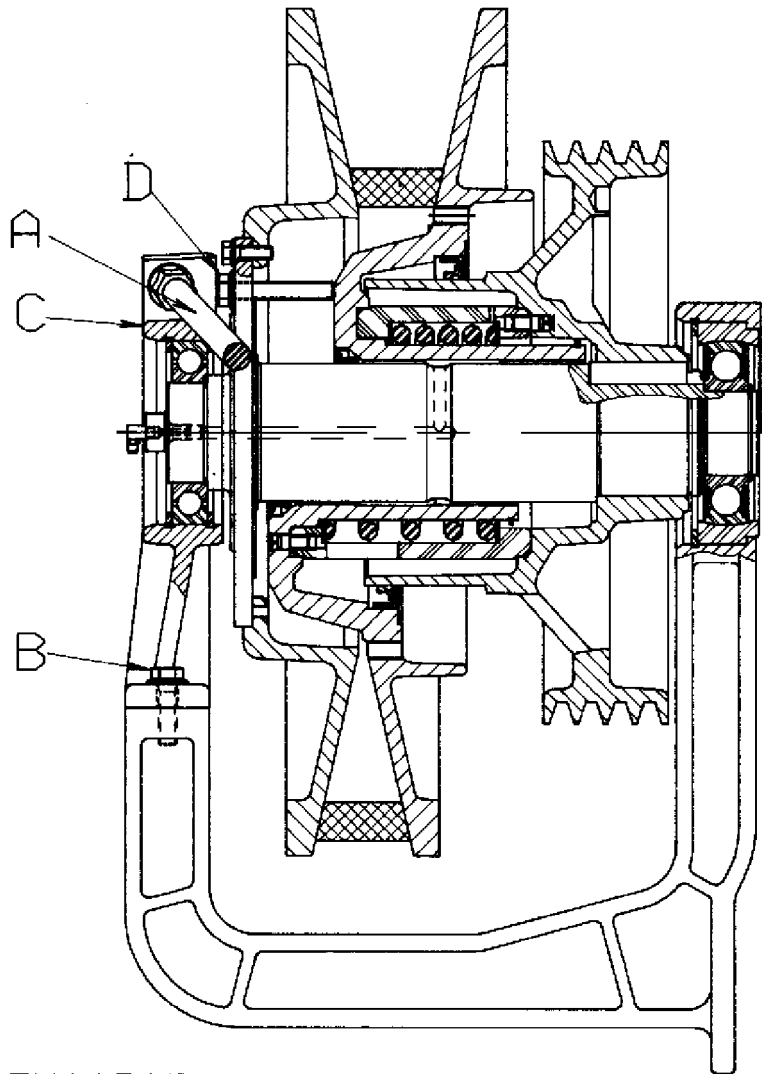
-JUN-02/MAY95
ZX003949

Adjust belts:

- Tension belt with the machine stopped (see "Preparations for Adjusting Belts" in this section).
- Adjust belt guides (A) and (C) so that there is a gap of approx. 5 mm (0.20 in.) between them and the belt.
- Take tension off belt again.
- Adjust belt guide (B) so that the belt does not become trapped when the clutch is released.
- Belt guides (A) and (B) must not collide with belt guide (C).
- Remove bridge from alternator.

ZX,OMXZC0002252-19-05OCT92

CYLINDER DRIVE INTERMEDIATE COUNTERSHAFT



ZX003950

Change belt on intermediate countershaft:

- Move variator on main countershaft apart (at slow position).
- Dismantle torque strut (A).
- Remove screws (B) from bearing mount (C).
- Use M12x65 screws (D) to push variator plates apart.
- Turn bearing mount (C).
- Change belt.
- Reinstall bearing mount (C).
- Install torque strut (A) so that it is tension-free.
- Remove screws (D).

ZX,OMXZC0002253-19-05OCT92

ADJUSTING FAN VARIATOR

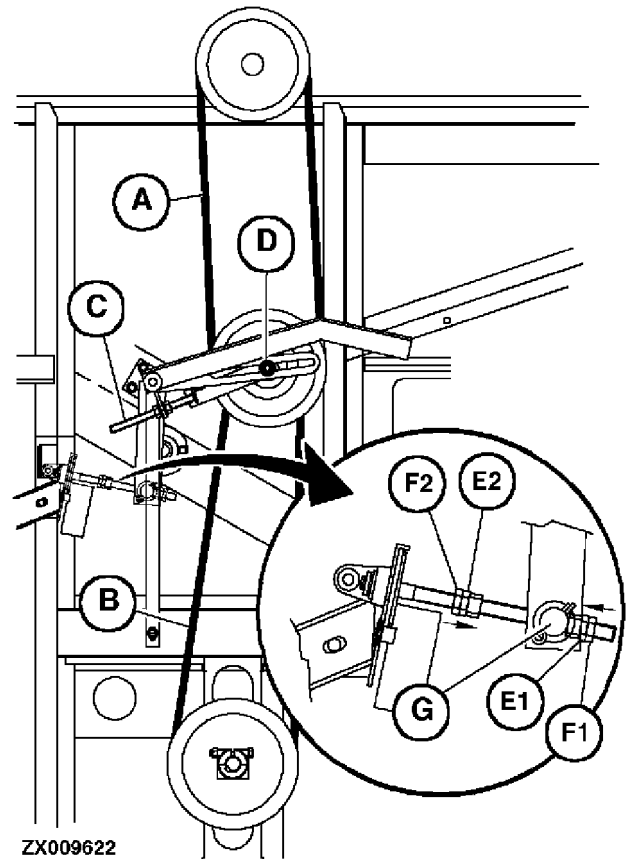
CAUTION: Before adjusting the machine or performing service work, always switch off all drives, shut off the engine and wait until all moving parts have come to a stop.

Tension drive belts:

Once belts (A) and (B) are in position, tension the belts by means of fork (C). First slacken off screw (D).

Variator stroke adjustment:

- Slacken off nuts (E) and locknuts (F) fully.
- With the machine running, set variator to low speed until the middle disk moves outward.
- With the machine stopped, turn nut (E1) as far as pin (G). Tighten locknut (F1).
- With the machine running, set variator to high speed until the middle disk moves inward.
- With the machine stopped, turn nut (E2) as far as pin (G). Tighten locknut (F2).
- Set the variator to medium speed.
- With the machine stopped, turn nuts (E) and locknuts (F) half a revolution in the direction of the arrow.

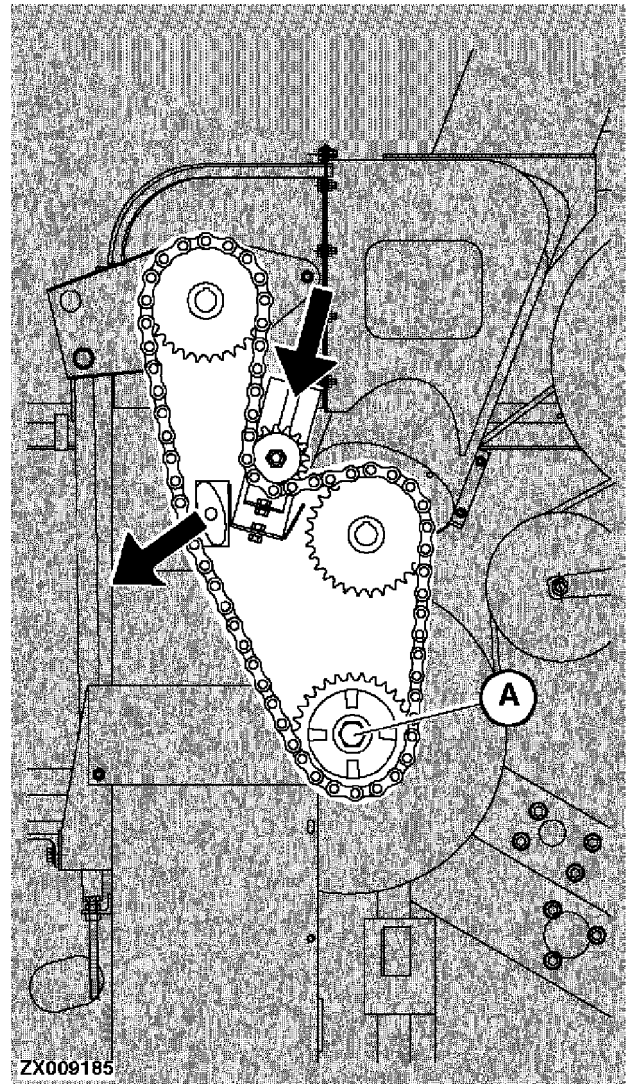


- A—Drive belt
- B—Drive belt
- C—Adjusting fork
- D—Screw
- E—Adjusting nuts
- F—Locknuts
- G—Threaded pin

ZX,OMXZC0002254-19-01NOV96

LAYOUT OF DRIVE CHAIN FOR CLEAN GRAIN ELEVATOR AND GRAIN TANK FILLING

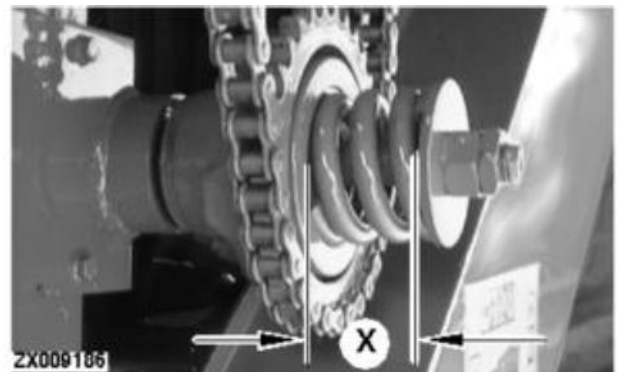
A—Grain elevator countershaft



ZX,OMXZC0002255-19-02MAY96

ADJUSTING COUNTERSHAFT FOR SLIP CLUTCH AND GRAIN ELEVATOR

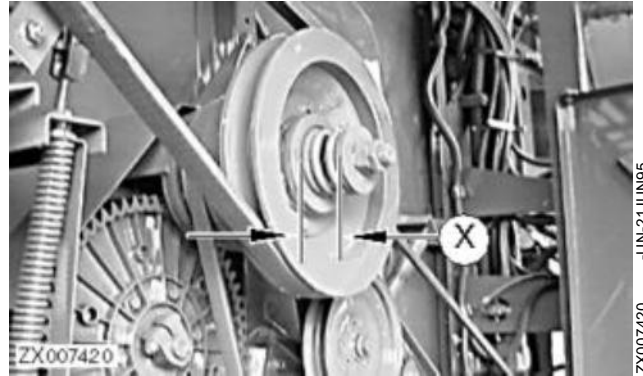
X—Spring adjustment 59.5 mm (2.34 in.)



ZX,OMXZC0002256-19-01NOV96

ADJUSTING SLIP CLUTCH FOR STRAW WALKER DRIVE

X—Spring adjustment 52 mm (2.05 in.)

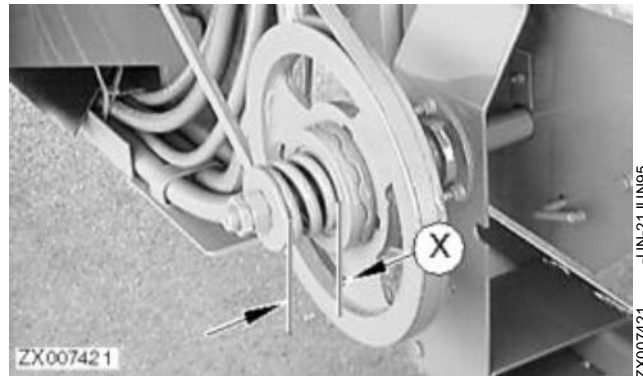


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ZX007420 -UN-21JUN95

ADJUSTING SLIP CLUTCH FOR TAILINGS ELEVATOR

X—Spring adjustment 52 mm (2.05 in.)

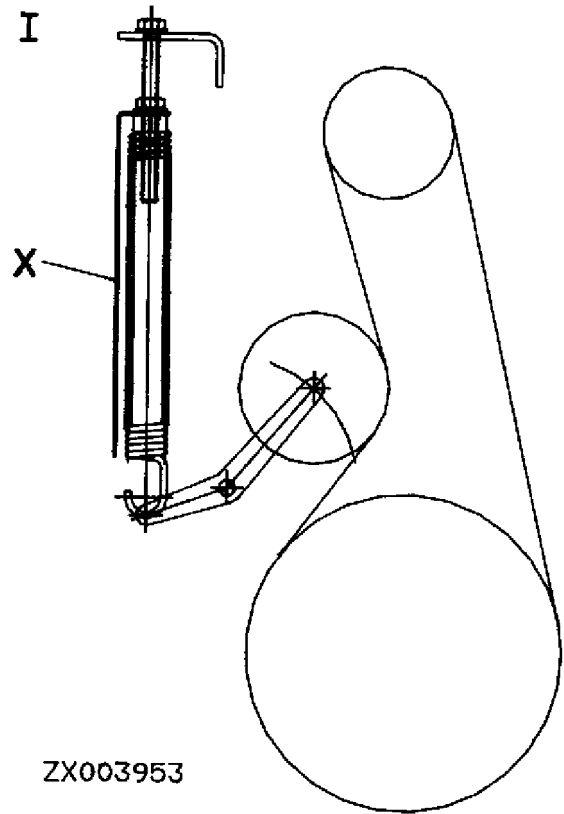


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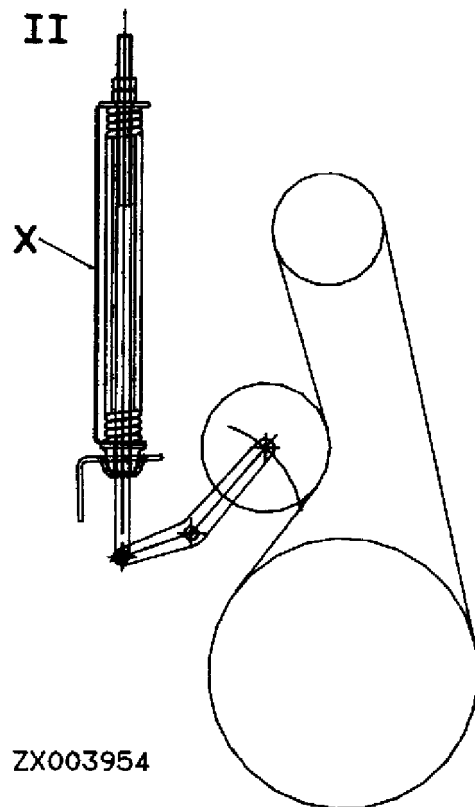
ZX007421 -UN-21JUN95

ADJUSTING THE BELT TENSIONERS

- I—Tension spring
- II—Compression spring
- X—Display adjustment



Tension spring



Compression spring

ZX,OMXZC0002258-19-05OCT92

ZX003953 -UN-22MAY95

ZX003954 -UN-22MAY95

DRIVE CHAINS

Checking chain tension

During the first few hours of operation, check that the tension on the chains is correct.

The flexion on a chain should be about 2% of the distance between the shafts of the drive sprocket and idler wheel, 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 wheel is 250 mm (10 in.),

the chain should not hang by more than 5 mm (0.2 in.).

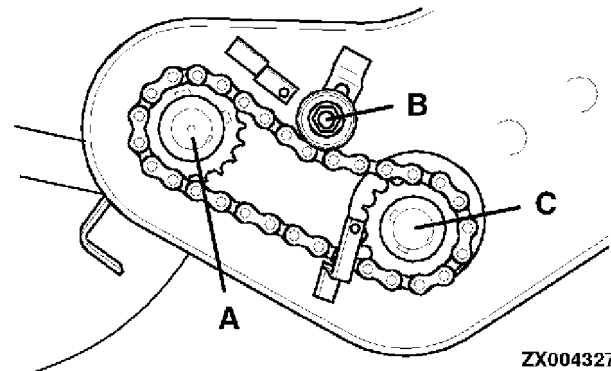
Loose chains cause premature and excessive wear on the roller elements of the chain links, the sprocket teeth and possibly the drive components of the machine.

Chains that are too tight cause excessive pressure on the chain, the bearings and the shafts.

ZX,OMXZC0002259-19-05OCT92

TAILINGS ELEVATOR DRIVE CHAIN

- A—Countershaft
- B—Tensioning roller
- C—Lower shaft, tailings elevator



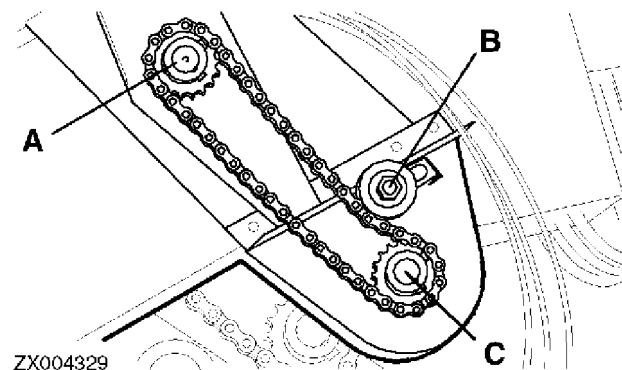
ZX004327

ZX,OMXZC0002260-19-05OCT92

-UN-19JUN95
ZX004327

TAILINGS AUGER DRIVE CHAIN

- A—Upper shaft, tailings elevator
- B—Tensioning roller
- C—Tailings auger



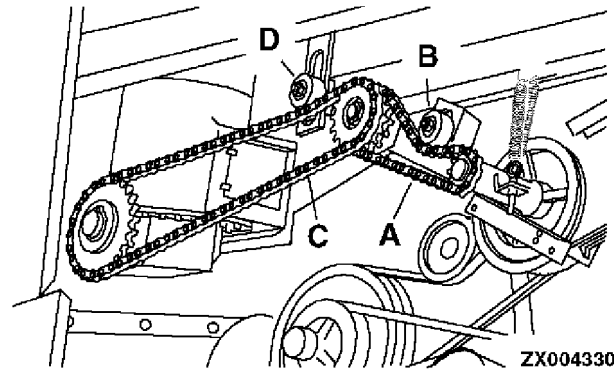
ZX004329

ZX,OMXZC0002261-19-05OCT92

-UN-19JUN95
ZX004329

UNLOADING DRIVE COUNTERSHAFT

- A—Drive chain for unloading drive countershaft
- B—Tensioning roller for (A)
- C—Drive chain for riser tube and grain tank unloading
- D—Tensioning roller for (C)



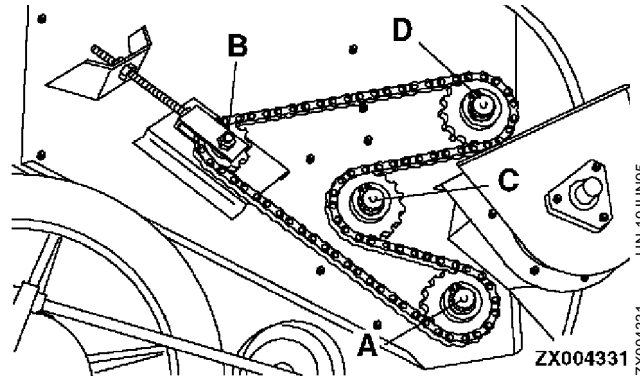
ZX004330

ZX,OMXZC0002262-19-05OCT92

-JUN-19/JUN95

DRIVE CHAIN FOR GRAIN TANK UNLOADING

- A—Countershaft, grain tank unloading
- B—Tensioning roller
- C—Idler
- D—Grain tank unloading auger



ZX004331

ZX,OMXZC0002263-19-05OCT92

-JUN-19/JUN95

V-BELTS

When installing V-belts, slacken belt tensioners. Never use force to pry the belt over the edge of a sheave as this will rupture one or more cords and weaken the belt. V-belts stretch when new. Therefore, check the tension of a new V-belt several times during the first few days of use. More belts fail from being too slack than from being too tight.

Never use an aggressive cleaner to clean V-belts. Do not use petrol, benzine, 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

The life of a V-belt also depends on the condition of the V-belt sheaves. A damaged sheave will also damage the V-belt.

Slight fraying of the belt covering does not indicate belt failure. The frayed ends should be cut off.

IMPORTANT: At the end of the harvesting season, remove V-belts and store in a cool, dry place to prevent damage from the elements.

ZX,OMXZC0002357-19-05OCT92

Service — Electrical System

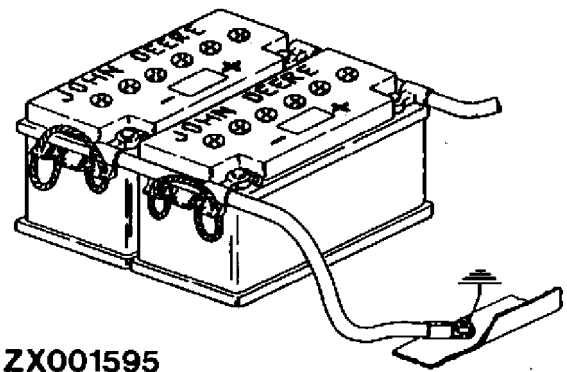
SPECIFICATIONS, ELECTRICAL SYSTEM

Number of alternators	1
Output of alternator	120 A
Number of batteries	2
Battery voltage	12 V
Battery capacity	88 AH

ZX.OMXZC0002183-19-02MAY96

BATTERIES

2254—2266 combine harvesters are equipped with two batteries, each of 12 V (88 AH). They are connected in parallel.



ZX001595

ZX.OMXZC0002184-19-01NOV96

ZX001595 -UN-04APR95

DANGERS WHEN HANDLING BATTERIES

CAUTION: Any plastic bag or material must be removed from batteries to prevent a build-up of explosive gases.

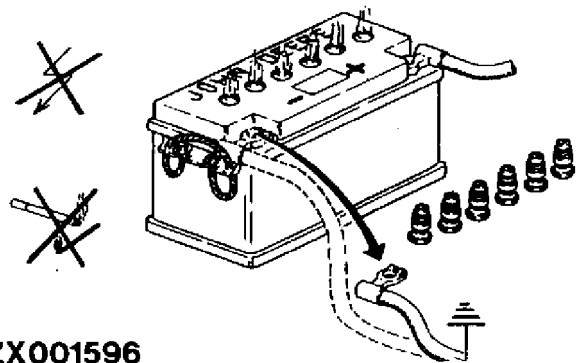
IMPORTANT: Always keep batteries clean and free from chaff.

Keep all sparks or open flames away from batteries as gas from electrolyte is highly flammable.

When servicing the electrical system or engine, always disconnect battery ground cables.

If a battery needs a quick recharge while still installed on harvester, always disconnect battery ground cable and remove battery cell filler caps before connecting the charger. This will prevent damage to the electrical system.

When removing batteries, always disconnect the ground cables first and then the positive cables.



ZX001596

ZX.OMSPFH001317-19-01NOV91

ZX001596 -UN-04APR95

BATTERY SERVICE

IMPORTANT: If forage harvester is not in operation for extended periods, remove batteries and store in a cool, dry room where they will not freeze. Charge batteries at least every three months to avoid damage to cell plates.

Wash batteries once a week.

Remove any terminal corrosion with a brush.

Coat battery terminals and cable clamps with petroleum jelly.

Make sure that filler cap vent holes are not plugged.

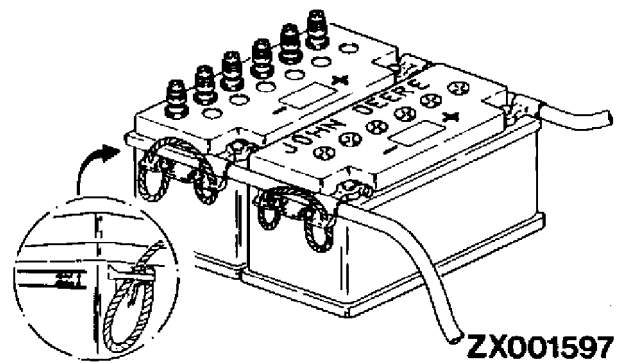
ZX,OMSPFH001318-19-01JAN96

CHECKING ELECTROLYTE LEVEL

CAUTION: If distilled water is added in freezing weather, run engine approx. 30 minutes to assure thorough mixing of water and electrolyte.

Check electrolyte level every 250 hours of operation. Electrolyte level should be up to the mark.

If electrolyte level is low, add distilled water.



-UN-27MAR95
ZX001597

ZX,OMSPFH001319-19-01NOV91

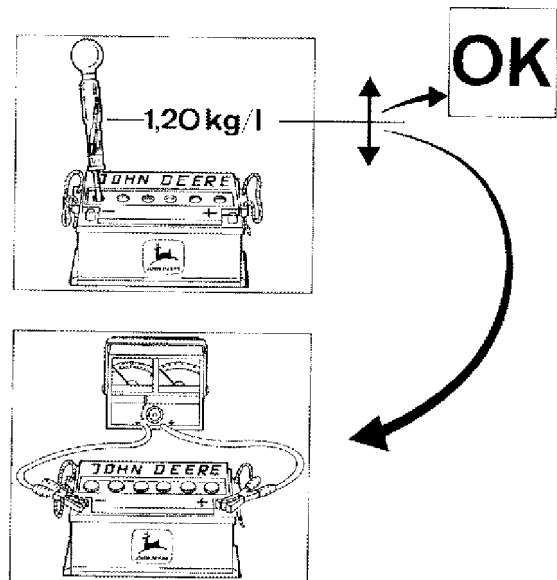
CHECKING SPECIFIC GRAVITY

Check the specific gravity of the electrolyte using an accurate hydrometer.

A fully charged battery should have a specific gravity reading of 1.28.

Recharge battery if reading drops below 1.20.

NOTE: A full battery charge in tropical areas is 1.23.



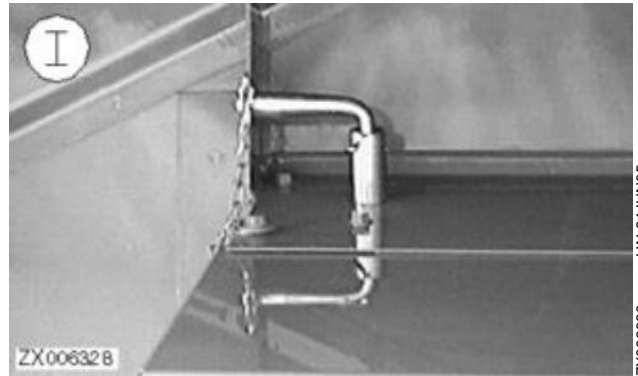
ZX 001 598

-UN-03APR95
ZX001598

ZX,OMSPFH001320-19-01NOV91

BATTERY SWITCH

- I—Battery switch on
- II—Battery switch off



-UN-21JUN95



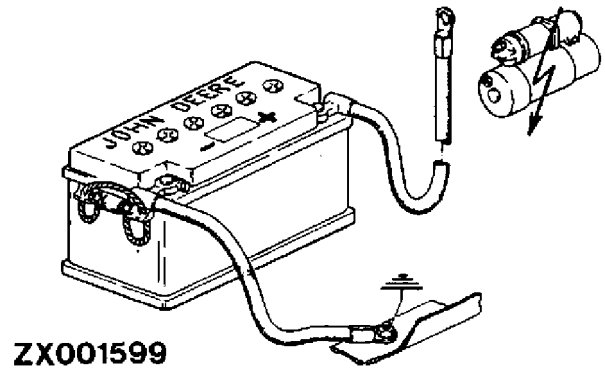
-UN-22MAY96

ZX,OMXZC0003409-19-02MAY96

INSTALLING BATTERIES AND CONNECTING TO CORRECT POLES

IMPORTANT: Make sure batteries are 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.



-UN-04APR95

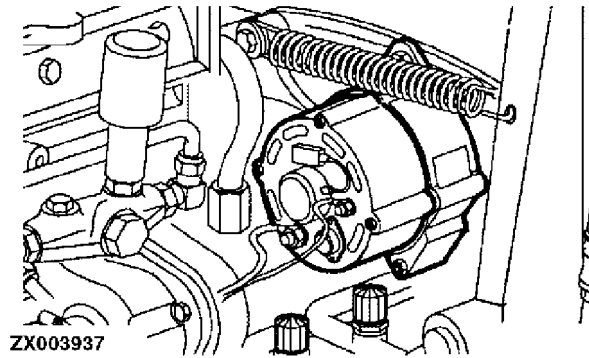
ZX,OMXZC0002185-19-05OCT92

ALTERNATORS

IMPORTANT: When working on the electrical system, always disconnect the ground cable. This prevents damage from occurring.

NOTE: Tensioning of the drive belts is described in the “Service — Engine” section.

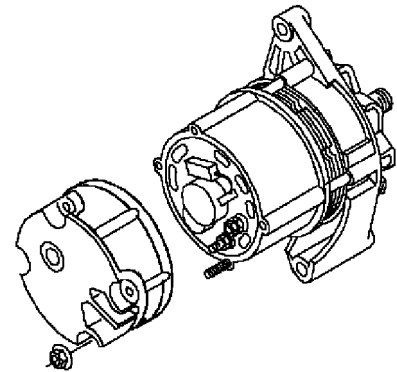
Have alternators checked by a specialist workshop once every year.



ZX003937 -UN-08MAY95

ZX.OMXZC0002186-19-05OCT92

ALTERNATOR GUARD



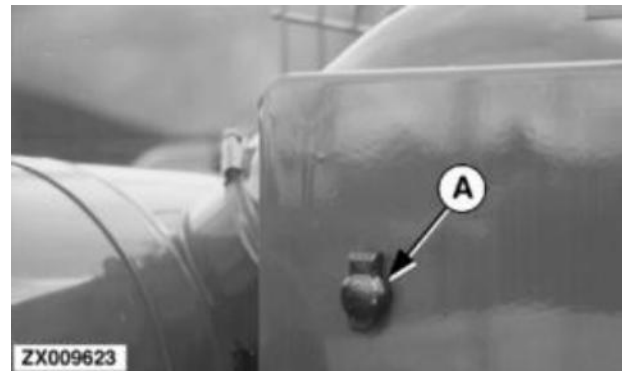
ZX006539 -UN-03APR95

ZX.OMUSFH003549-19-01NOV94

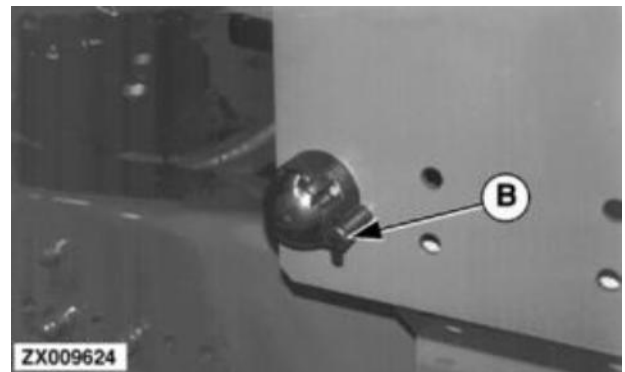
SOCKETS

Whenever the starter switch is in position (I), sockets (A) and (B) receive 15 A electrical power from fuse F49 (see “Controls and Instruments” section).

- A—Socket on service platform
- B—Socket on rear axle



ZX009623 -UN-08NOV96



ZX009624 -UN-08NOV96

ZX.OMXZC0006983-19-01NOV96

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.

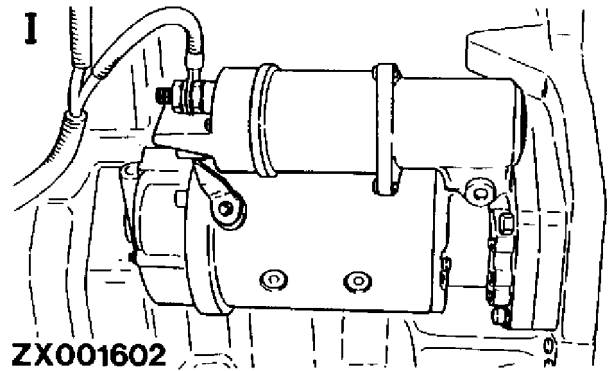
Low battery output: Check electrolyte level and specific gravity of batteries. Recharge batteries if necessary.

Run down battery: Recharge battery.

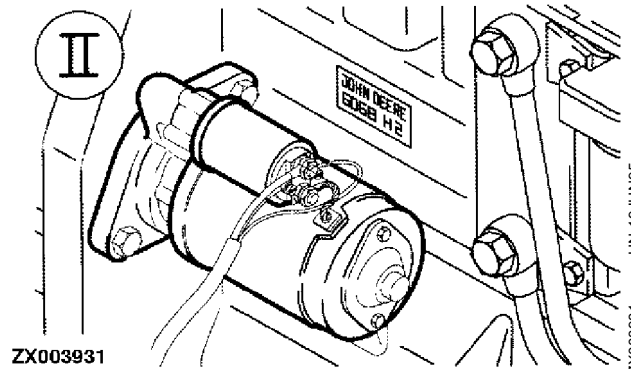
Engine crankcase oil of wrong viscosity: Drain and refill crankcase with specified oil.

Low ambient temperature: Use cold-weather starting aid.

Defective start safety relay: Replace relay.



From front, looking back

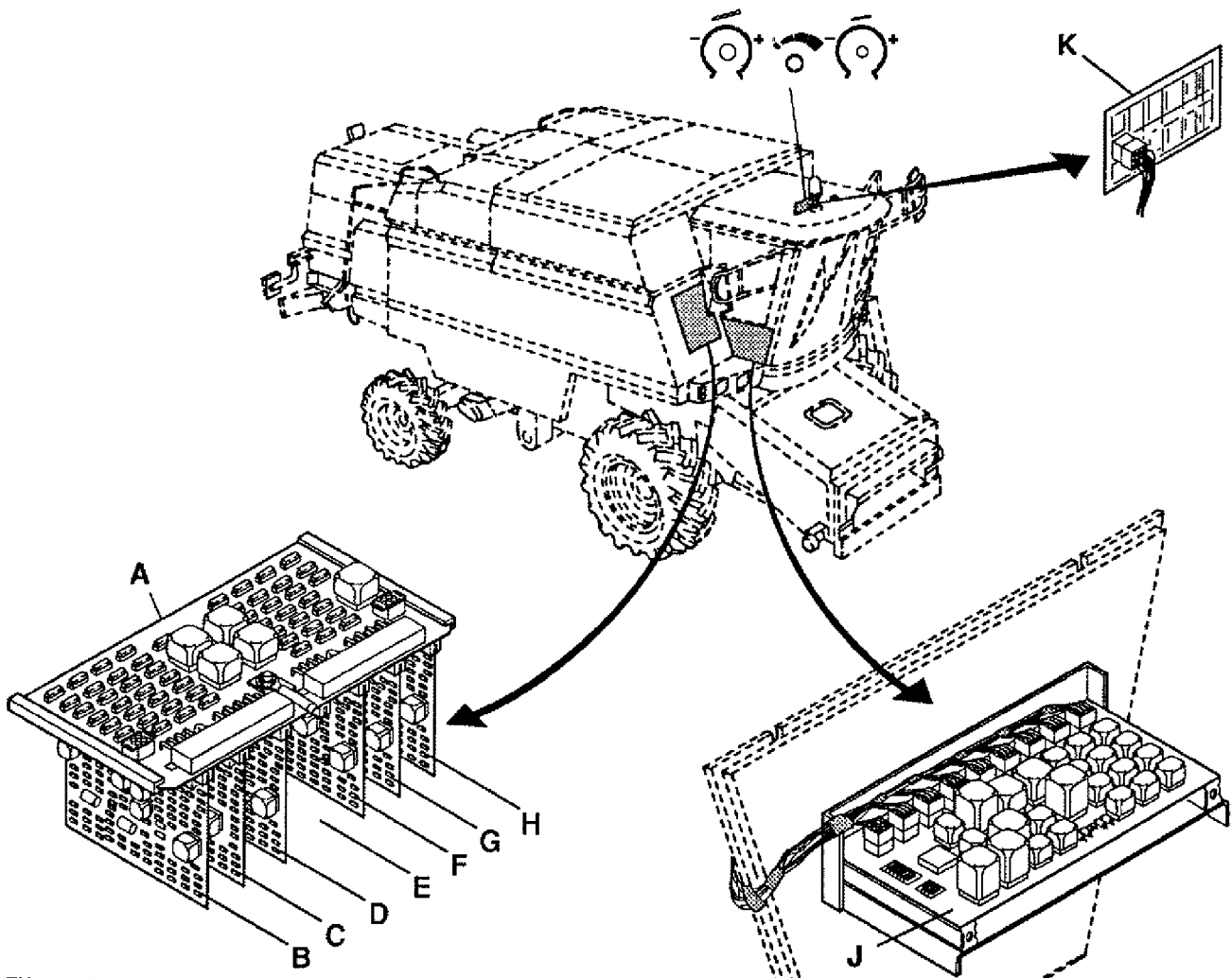


From rear, looking forward

I—8.1 L engine (495 cu in.)
II—6.8 L engine (414 cu in.)

ZX,OMXZC0002187-19-01NOV96

ELECTRONIC BOARDS



ZX009233

A—Fuse board
 B—Speed monitoring board
 C—Header control board
 D—DIAL-A-MATIC™ relay board

E—Not used
 F—Reel speed board
 G—Combine data center control board

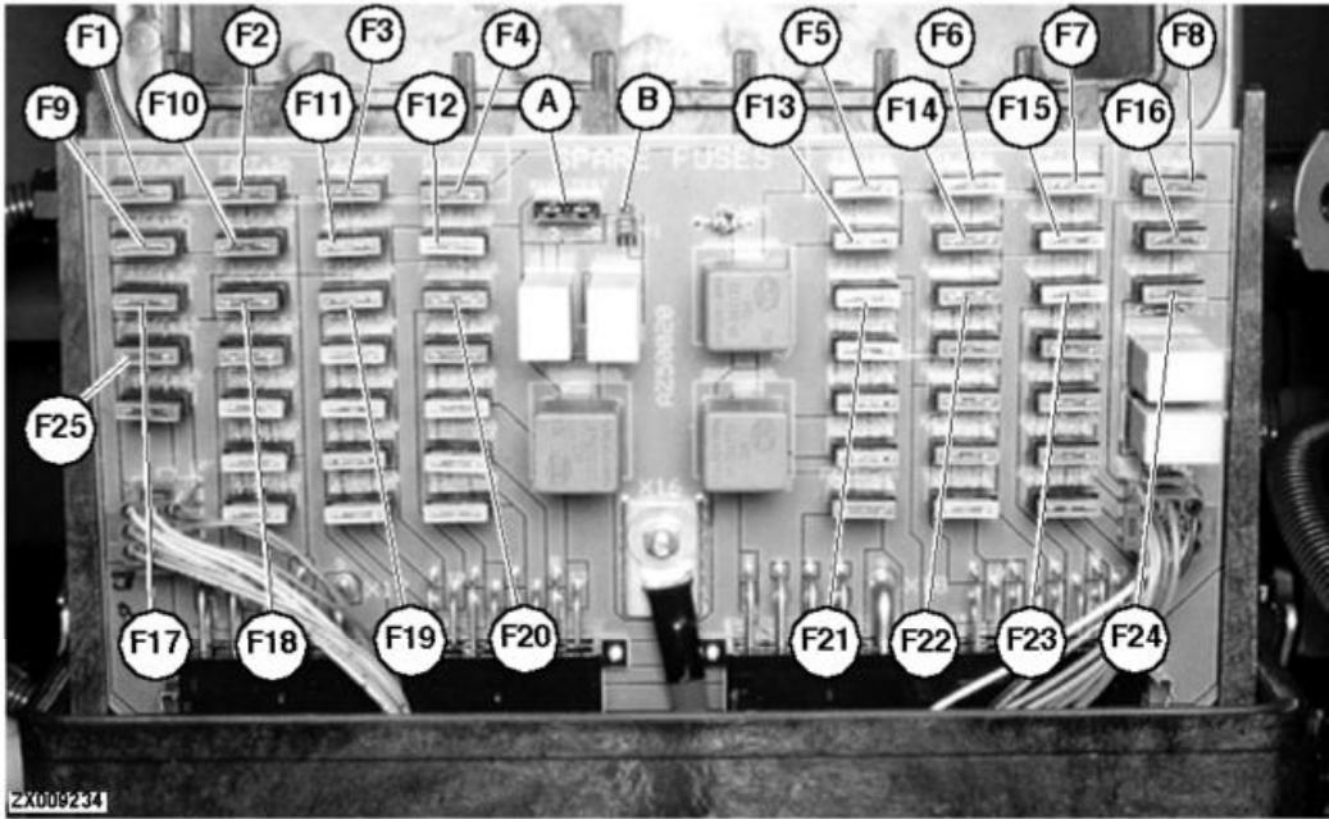
H—Relay board
 J—Relay diode board

K—Harvest performance monitor board

ZX009233 -UN-22MAY96

ZX.OMXZCO002188-19-02MAY96

FUSES ON FUSE BOARD



A—Fuse tester

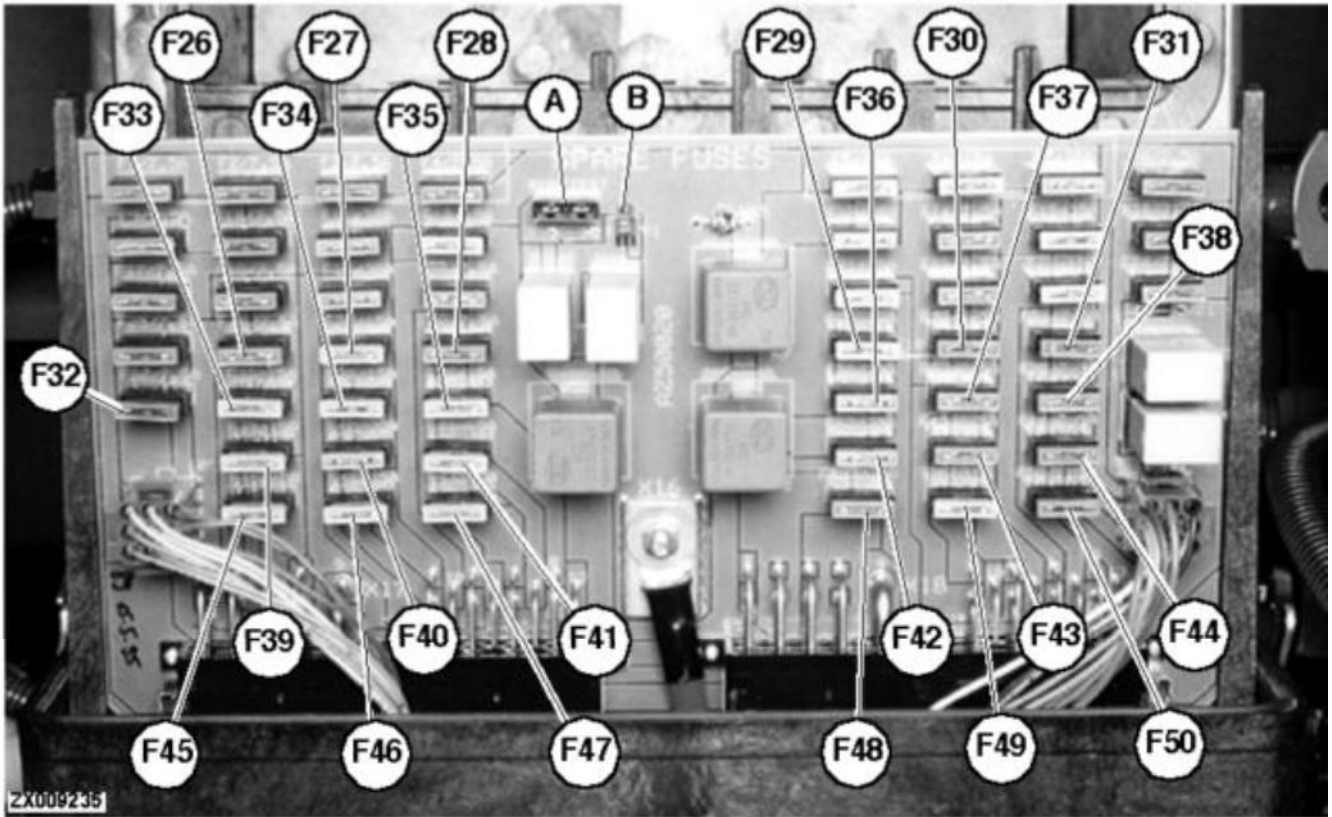
B—Luminous diode

- F 1 — 7.5 A fuse, spare
- F 2 — 7.5 A fuse, spare
- F 3 — 7.5 A fuse, spare
- F 4 — 7.5 A fuse, spare
- F 5 — 15 A fuse, spare
- F 6 — 15 A fuse, spare
- F 7 — 30 A fuse, spare
- F 8 — 7.5 A fuse, fan and cylinder speed adjustment
- F 9 — 7.5 A, fuse, right parking light
- F 10 — 7.5 A fuse, left parking light
- F 11 — 30 A fuse, fan adjustment
- F 12 — 15 A fuse, brake lights, reel speed adjustment
- F 13 — 30 A fuse, work lights on cab roof
- F 14 — 7.5 A, fuse, straw warning device, electronic infotrak monitor
- F 15 — 15 A fuse, chopper distributor adjustment

- F 16 — 7.5 A fuse, engine shut-off solenoid
- F 17 — 7.5 A fuse, dash panel lighting
- F 18 — 7.5 A fuse, radio, CB, clock
- F 19 — 30 A fuse, work lights on platform and rear lights
- F 20 — 7.5 A fuse, turn signals
- F 21 — 15 A fuse, radiator cleaner
- F 22 — 7.5 A fuse, radio, CB, clock
- F 23 — 15 A fuse, separator and header clutch
- F 24 — 7.5 A fuse, indicator lights, temperature gauge
- F 25 — 7.5 A fuse, left low-beam

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.

FUSES ON FUSE BOARD (CONTINUED)



A—Fuse tester

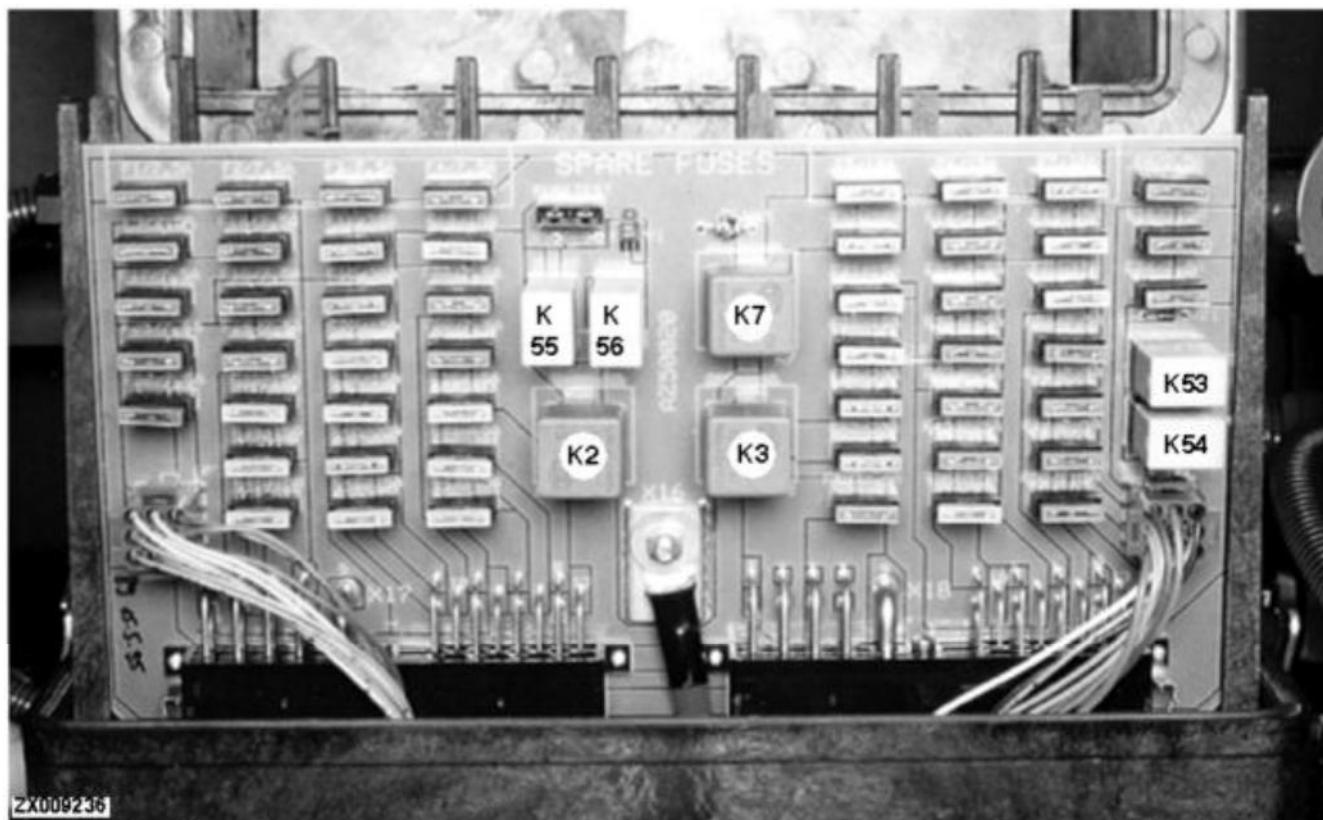
B—Luminous diode

- F 26 — 7.5 A fuse, cutting platform controls
- F 27 — 15 A fuse, horn
- F 28 — 7.5 A fuse, combine data center
- F 29 — 15 A fuse, combine leveling system
- F 30 — 7.5 A fuse, four-wheel drive
- F 31 — 7.5 A fuse, speed monitoring system
- F 32 — 7.5 A fuse, right-hand low beam
- F 33 — 15 A fuse, raising/lowering header
- F 34 — 15 A fuse, hazard warning flashers
- F 35 — 15 A fuse, beacon lights
- F 36 — 30 A fuse, windshield wipers, grain tank light
- F 37 — 7.5 A fuse, adjustable mirror
- F 38 — 7.5 A fuse, harvest performance monitor
- F 39 — 15 A fuse, grain tank unloading system
- F 40 — 30 A fuse, starter switch

- F 41 — 15 A fuse, concave adjustment
- F 42 — 30 A fuse, air conditioning system
- F 43 — 7.5 A fuse, DIAL-A-MATIC™
- F 44 — 7.5 A fuse, left-hand high beam
- F 45 — 15 A fuse, reel control
- F 46 — 15 A fuse, starting aid
- F 47 — 15 A fuse, spare
- F 48 — 7.5 A fuse, D+ alternator
- F 49 — 15 A fuse, cigarette lighter, power outlets, seat compressor
- F 50 — 7.5 A fuse, right-hand high beam

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.

RELAYS ON FUSE BOARD



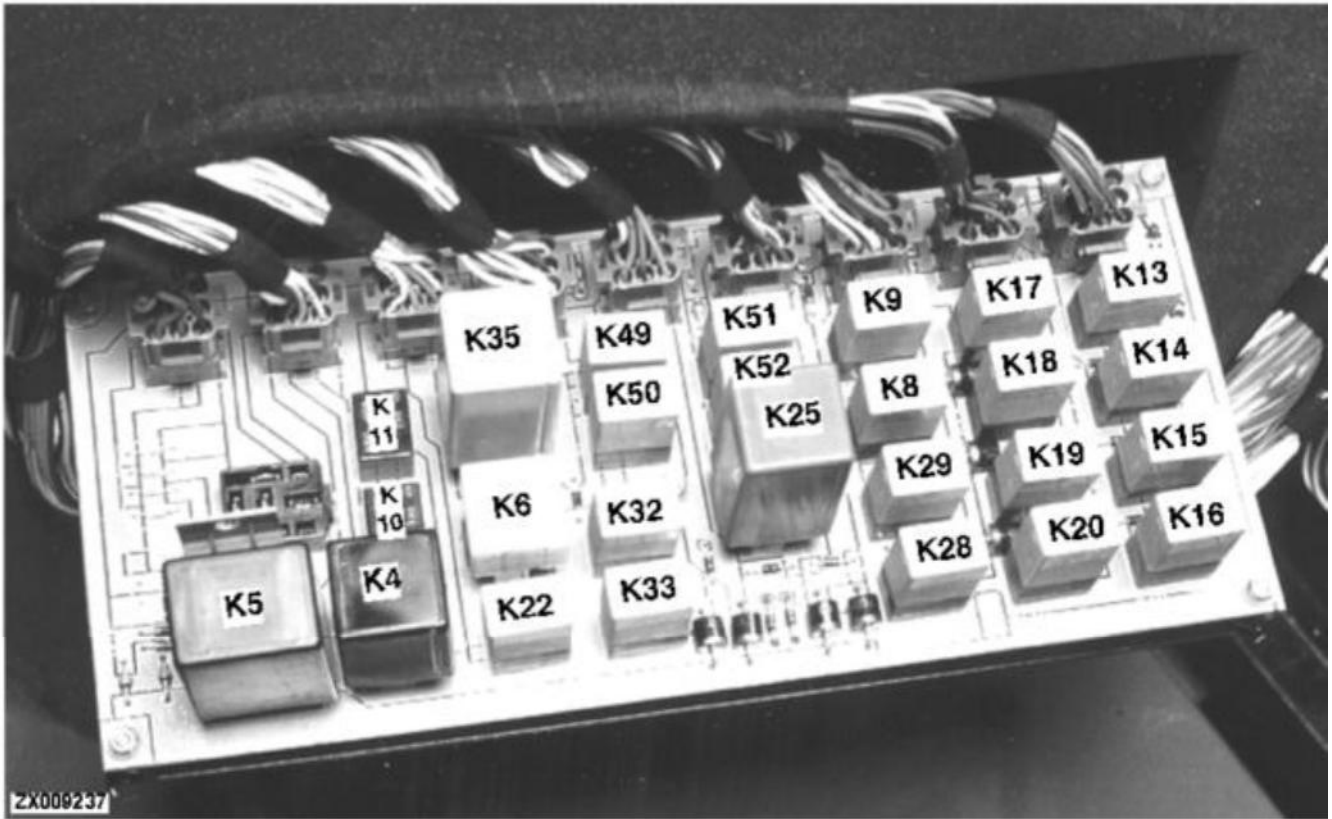
K 2 — Basic relay
K 3 — Basic relay
K 7 — Work light relay

K 53 — Field/road relay
K 54 — Field/road relay
K 55 — Separator clutch relay
K 56 — Separator clutch relay

ZX,OMXZC0002191-19-02MAY96

ZX009236 -UN-22MAY96

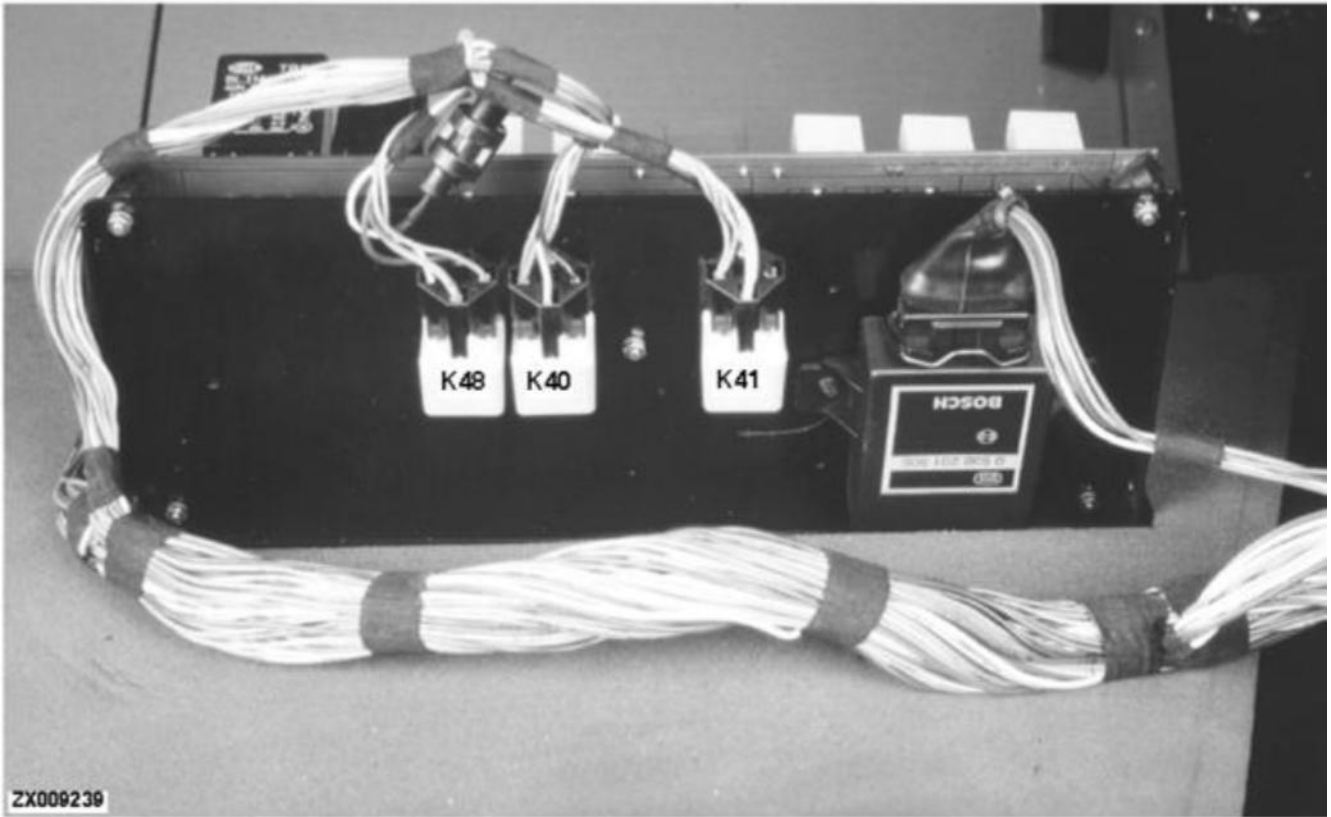
RELAY AND DIODE BOARD



- K 4 — Buzzer timer relay
- K 5 — Flasher
- K 6 — Straw warning relay
- K 8 — Float control relay
- K 9 — Hillmaster relay
- K 10 — Fan speed alarm relay
- K 11 — Cylinder speed alarm relay
- K 13 — Relay, rapid lowering of header
- K 14 — Relay, slow lowering of header
- K 15 — Relay, rapid raising of header
- K 16 — Relay, slow raising of header
- K 17 — Relay, lowering reel
- K 18 — Relay, raising reel
- K 19 — Relay, moving reel back
- K 20 — Relay, moving reel forward

- K 22 — Straw warning relay
- K 25 — Timer relay, swinging unloading auger
- K 28 — Relay, decelerating the feeder conveyor
- K 29 — Relay, accelerating the feeder conveyor
- K 32 — Relay, accelerating the reel
- K 33 — Relay, decelerating the reel
- K 35 — Timer relay, header drive
- K 49 — Header relay
- K 50 — Header relay
- K 51 — Unloading auger drive relay
- K 52 — Unloading auger drive relay

RELAY AND DIODE BOARD (CONTINUED)



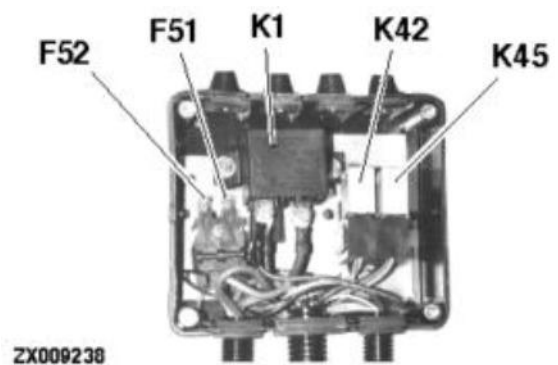
K 40 — Relay, leveling header to left
K 41 — Relay, leveling header to right

K 48 — Relay, beacon light when grain tank is
3/4 full

ZX,OMXZCO006512-19-02MAY96

ELECTRICAL BOX IN ENGINE COMPARTMENT

F 51 — 7.5 A fuse, reverse travel alarm
F 52 — 7.5 A fuse, header electrical clutch
K 01 — Starting motor relay
K 42 — Relay, header electrical clutch
K 45 — Relay D+



ZX,OMXZCO006511-19-02MAY96

ELECTRICAL BOX FOR FAN ADJUSTMENT

- K 36 — Relay, increasing speed of fan
- K 37 — Relay, decreasing speed of fan
- K 44 — Timer relay

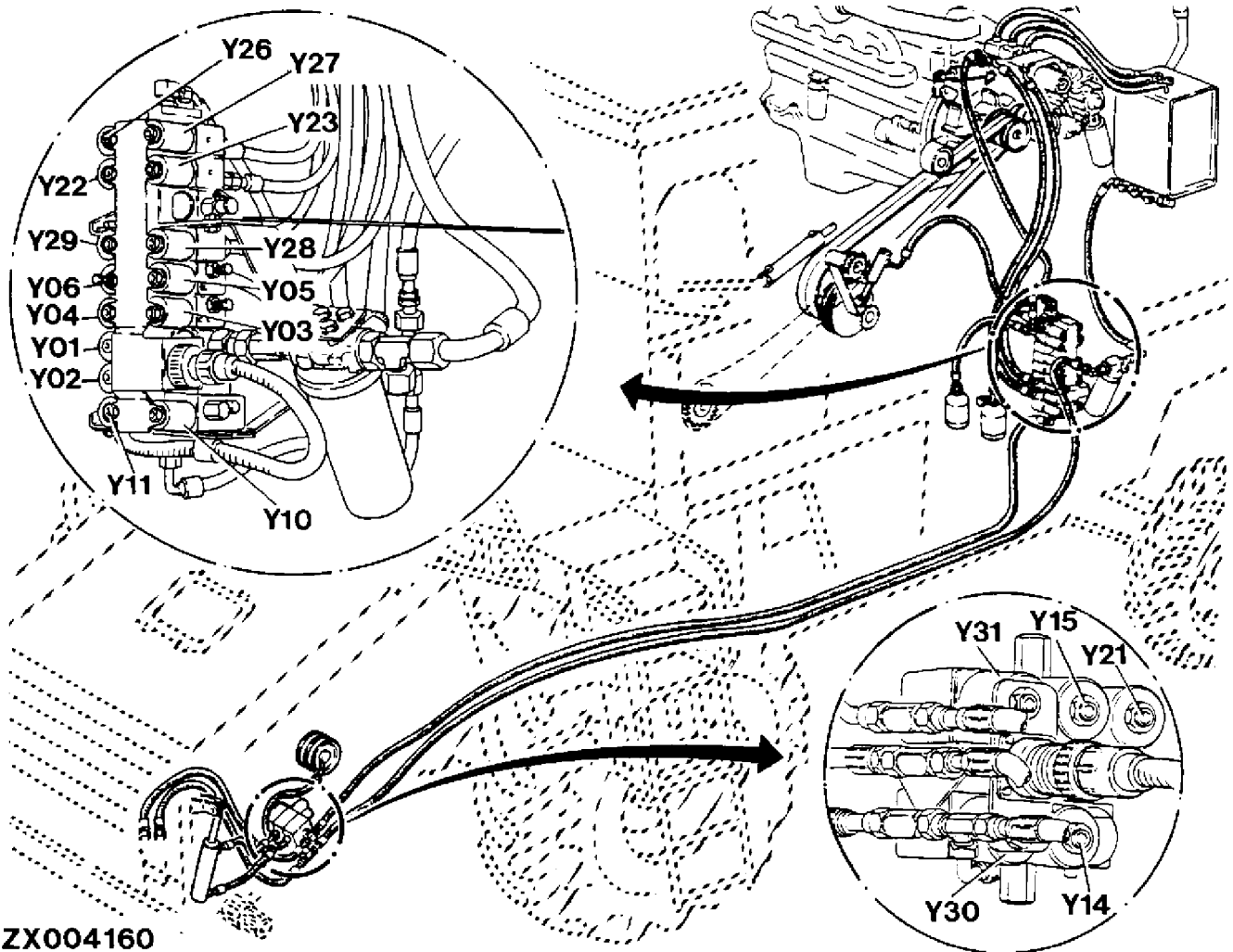


ZX009240

ZX.OMXZC0006513-19-02MAY96

ZX009240 -JUN-23MAY96

SOLENOID VALVES — BASIC MACHINE



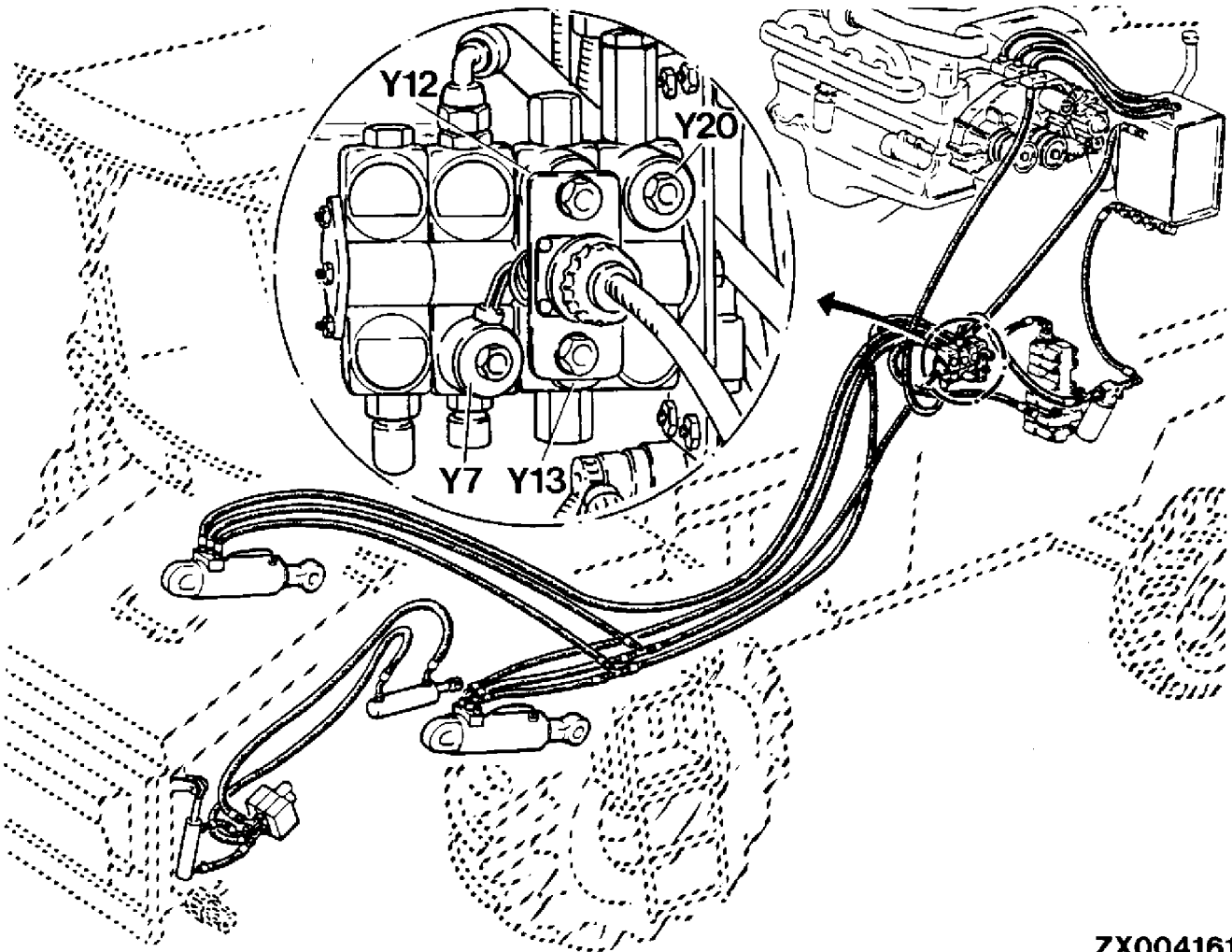
ZX004160

- Y 1 — Pressure valve 1
- Y 2 — Pressure valve 2
- Y 3 — Solenoid, raising header
- Y 4 — Solenoid, lowering header
- Y 5 — Solenoid, raising header
- Y 6 — Solenoid, lowering header
- Y 10 — Solenoid, swinging in unloading auger
- Y 11 — Solenoid, swinging out unloading auger
- Y 14 — Solenoid, header leveling, left side
- Y 15 — Solenoid, header leveling, right side
- Y 21 — Solenoid not allocated

- Y 22 — Solenoid, switching on separator
- Y 23 — Solenoid, switching on separator
- Y 26 — Solenoid, unloading grain tank
- Y 27 — Solenoid, unloading grain tank
- Y 28 — Solenoid, reducing cylinder speed
- Y 29 — Solenoid, increasing cylinder speed
- Y 30 — Solenoid, reducing feeder conveyor speed
- Y 31 — Solenoid, increasing feeder conveyor speed

ZX,OMXZC0002193-19-05OCT92

SOLENOID VALVES — HILLMASTER



Y 7 — Pressure valve 3
Y 12 — Solenoid, combine leveling system, left

Y 13 — Solenoid, combine leveling system, right
Y 20 — Solenoid, lowering combine harvester

ZX004161

ZX,OMXZC0002194-19-05OCT92

ZX004161 -JUN-03/MAY95

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 (F41)
123E	Concave cannot be adjusted, sensor signals not in correct area (too high)	Check fuse (F41)
128E	No reaction from infotrak monitor	
129E	No reaction from control board (Combine Data Center)	Switch for "automatic machine adjustment" must be in the "on" position

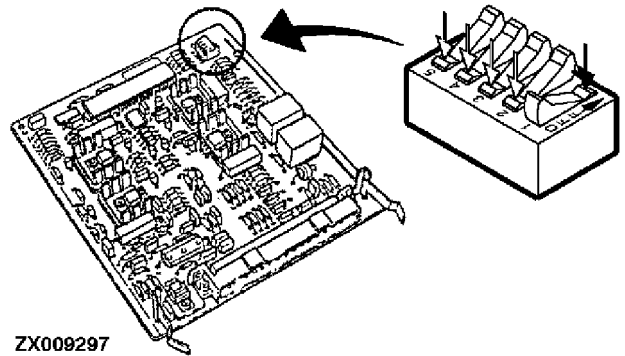
ERROR CODES, INFOTRAK MONITOR (CONTINUED)

Error code	Problem	Solution
130E	Adjusting motor cannot reduce fan speed to the desired rpm	Check fuses (F8, F11)
131E	Variator cannot reduce cylinder speed to the desired rpm	Check fuse (F8)
132E	Adjusting motor cannot reduce concave clearance to desired gap	Check fuse (F41)
135E	Adjusting motor cannot increase fan speed to the desired rpm	Check fuses (F8, F11)
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 (F41)
139E	With EPROM versions 7 or 9	Engine speed at "automatic machine adjustment" is less than 2000 rpm, or the separator is switched off.

ZX,OMXZC0002195-19-01MAR95

MICROSWITCHES ON REEL SPEED CONTROL BOARD

Switch 1 in "OFF" position, switches 2-5 in "ON" position.

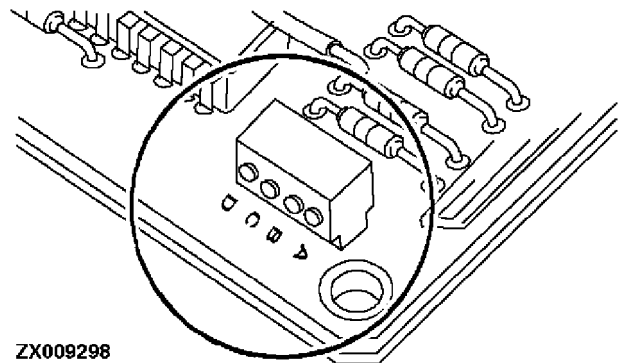


ZX009297

ZX.OMXZC0006529-19-02MAY96

-UN-22MAY96
ZX009297

LIGHT DIODES ON REEL SPEED CONTROL BOARD



ZX009298

ZX.OMXZC0006530-19-02MAY96

-UN-22MAY96
ZX009298

ERROR CODES, REEL SPEED CONTROL BOARD

0 — Luminous diode off
 X — Luminous diode on

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—0 B—0 C—X D—0	Reel speed signal not within operating range	See "Operating Range of Reel Speed Control System" in "Controls and Instruments" section
A—X B—0 C—X D—0	Error "Bit 1" at reel speed control switch	
A—0 B—X C—X D—0	Error "Bit 2" at reel speed control switch	

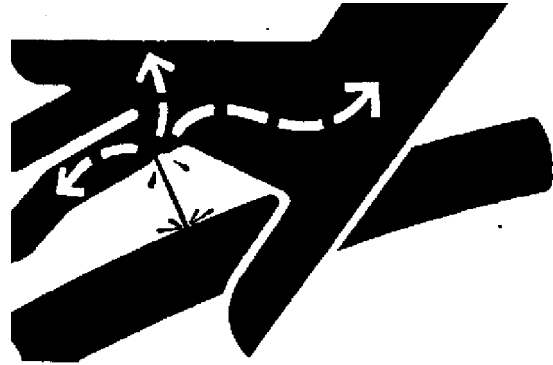
ERROR CODES, REEL SPEED CONTROL BOARD (CONTINUED)

Error code	Problem	Solution
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—0 B—X C—0 D—X	Option A, electrical output 2 grounded	
A—X B—X C—0 D—X	Reel does not accelerate	
A—0 B—0 C—X D—X	Reel does not decelerate	
A—X B—0 C—X D—X	Reel speed control switch not in diagnostic position	See “Reel Speed Control Switch” in “Controls and Instruments” section
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	

Service — Hydraulic System

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

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



X9811 -UN-23AUG88

DX,FLUID2 -19-09AUG91

PRESSURE RELIEF VALVE

IMPORTANT: Have pressure relief valve serviced by your John Deere dealer only.

The l.h. side solenoid valve block is equipped with a pressure relief valve which has been tested and set at the factory.

If harvesting unit cannot be raised to desired height, pressure relief valve may be defective. If this or a similar defect occurs, consult your John Deere dealer.

ZX,OMSPFH001373-19-11MAY92

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:

Standard machine:

- Pump (A) conveys 35 L/min. (9.2 gpm)
- Pump (B) conveys 25 L/min. (6.6 gpm)
- Pump (C) conveys 15 L/min. (4.0 gpm)

Hillmaster:

- Pump (A) conveys 45 L/min. (11.9 gpm)
- Pump (B) conveys 25 L/min. (6.6 gpm)
- Pump (C) conveys 35 L/min. (9.2 gpm)

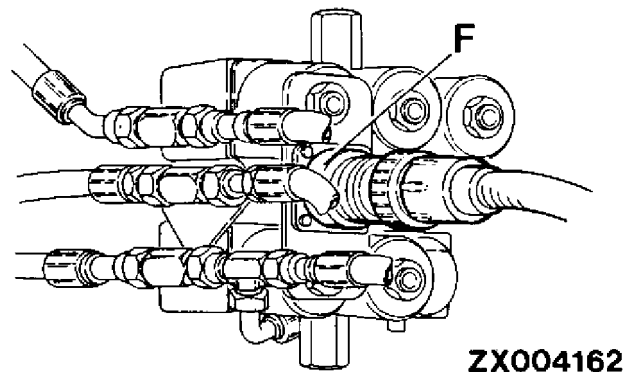
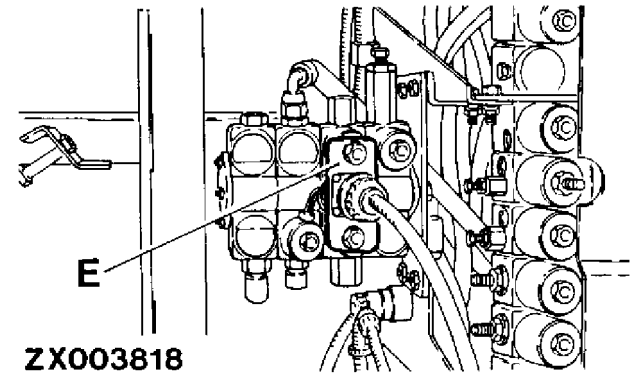
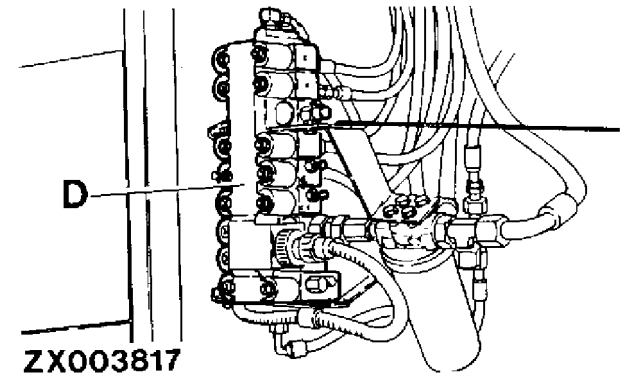
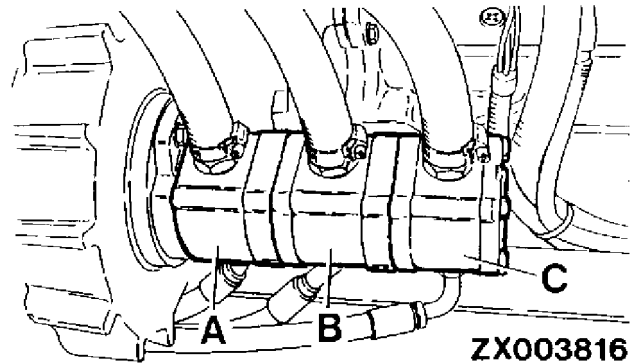
For pumps (A) and (C), one pressure valve each is located in the solenoid valve block (D). If no pressure oil is required, the pressure valves direct pressure-free oil back to the tank.

The hydraulic and hydrostatic systems both make use of oil from the hydraulic oil tank.

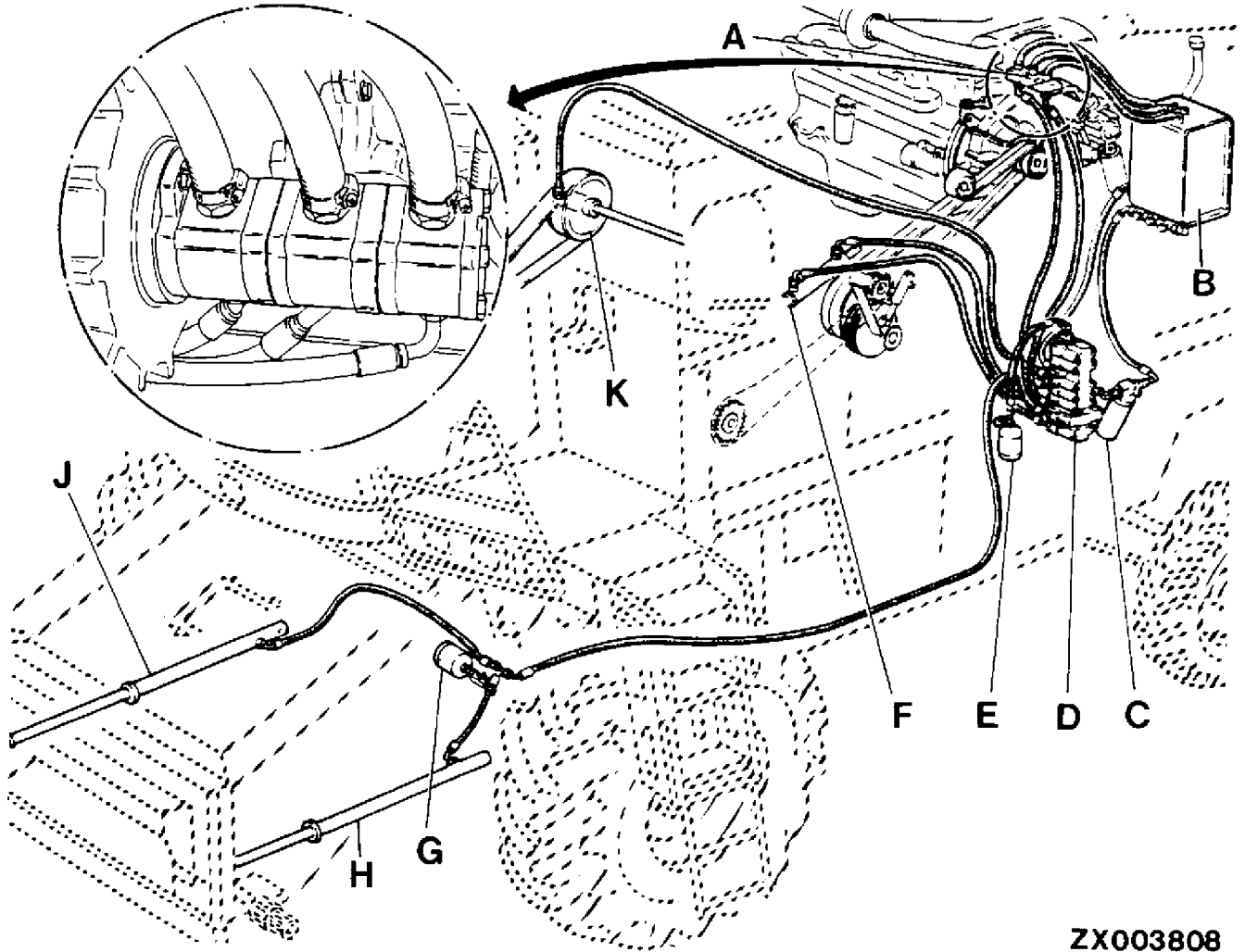
NOTE: For a detailed list of the solenoid valves, see “Service — Electrical System”.

NOTE: The oil cooler for the entire hydraulic oil system is located in the hydrostatic circuit. See “Service — Ground Speed Drive”.

- A—Pump (hydraulic system)
- B—Pump (steering)
- C—Pump (hydraulic system)
- D—Solenoid valve block, standard machine
- E—Solenoid valve block, Hillmaster
- F—Solenoid valve block, feeder house



HYDRAULIC COMPONENTS I



ZX003808

A—Triple hydraulic pump
 B—Oil tank
 C—Hydraulic oil filter
 D—Solenoid valve block,
 basic machine

E—Accumulator for (D)
 F—Hydraulic cylinder,
 unloading auger
 G—Accumulator for
 header-raise system

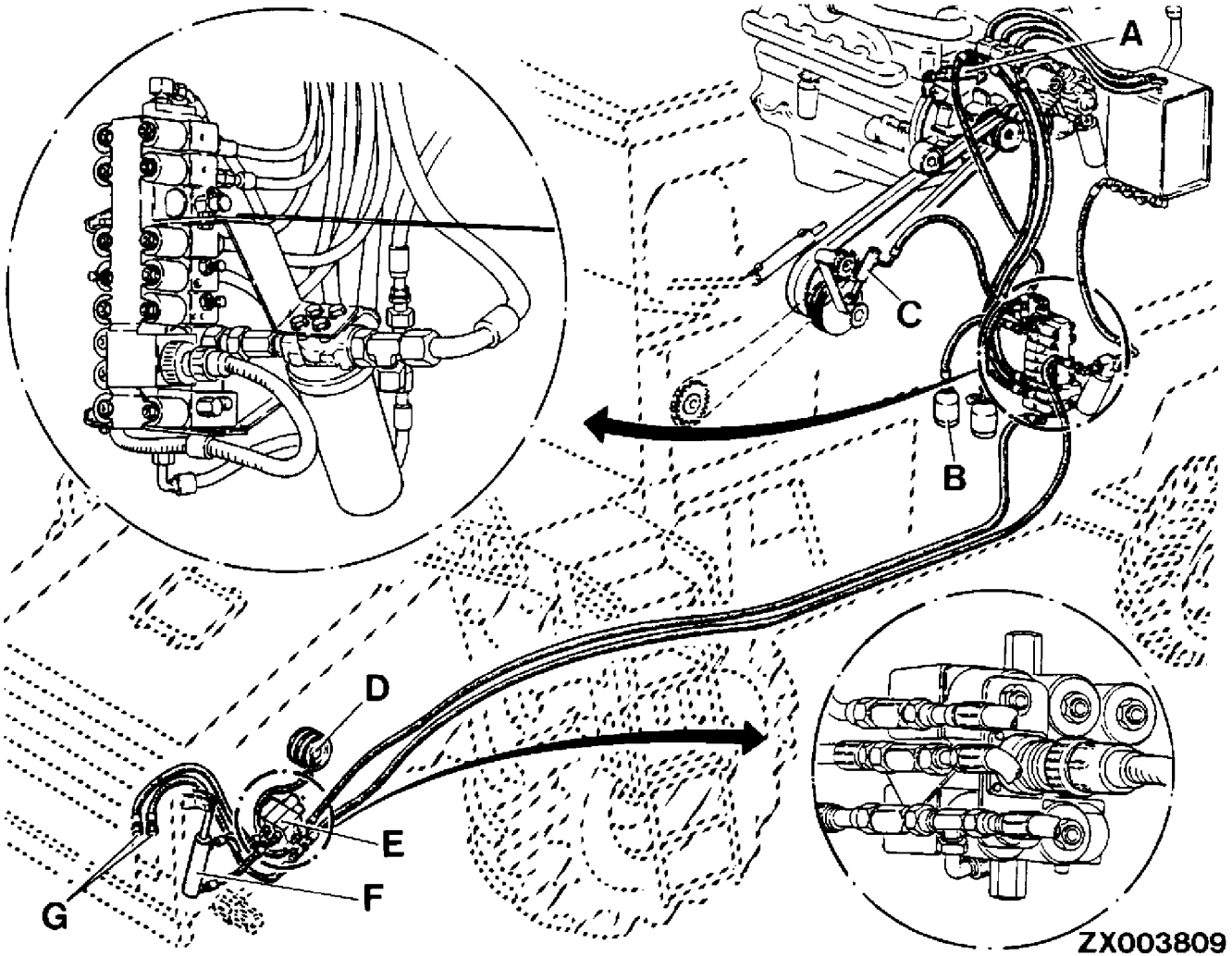
H—Cutting platform lift
 cylinder, left
 J—Cutting platform lift
 cylinder, right

K—Variator main
 countershaft

ZX,OMXZC0002202-19-05OCT92

ZX003808 -JUN-20JUN95

HYDRAULIC COMPONENTS II



ZX003809

A—Main drive tensioning cylinder
 B—Accumulator for tensioning cylinder (A)

C—Unloading drive tensioning cylinder
 D—Feeder house variator (if equipped)

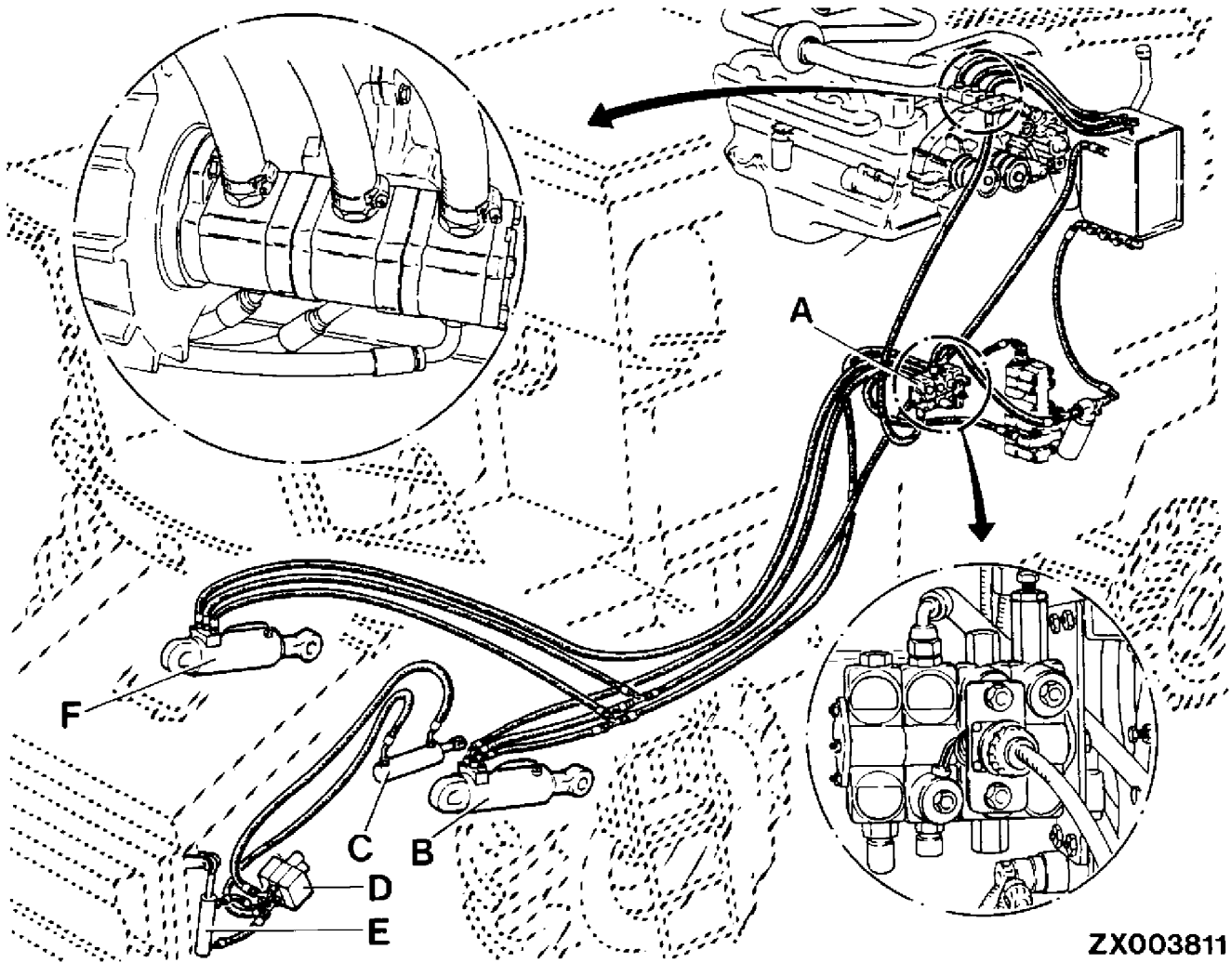
E—Solenoid valve block on feeder house
 F—Slave cylinder, header leveling system

G—Pressure and return lines for header

ZX,OMXZC0002203-19-05OCT92

ZX003809 -JUN-20/JUN95

HILLMASTER HYDRAULIC COMPONENTS



A—Hillmaster solenoid valve block
B—Leveling cylinder, left

C—Master cylinder, header leveling system
D—Solenoid valve block on feeder house

E—Slave cylinder, header leveling system

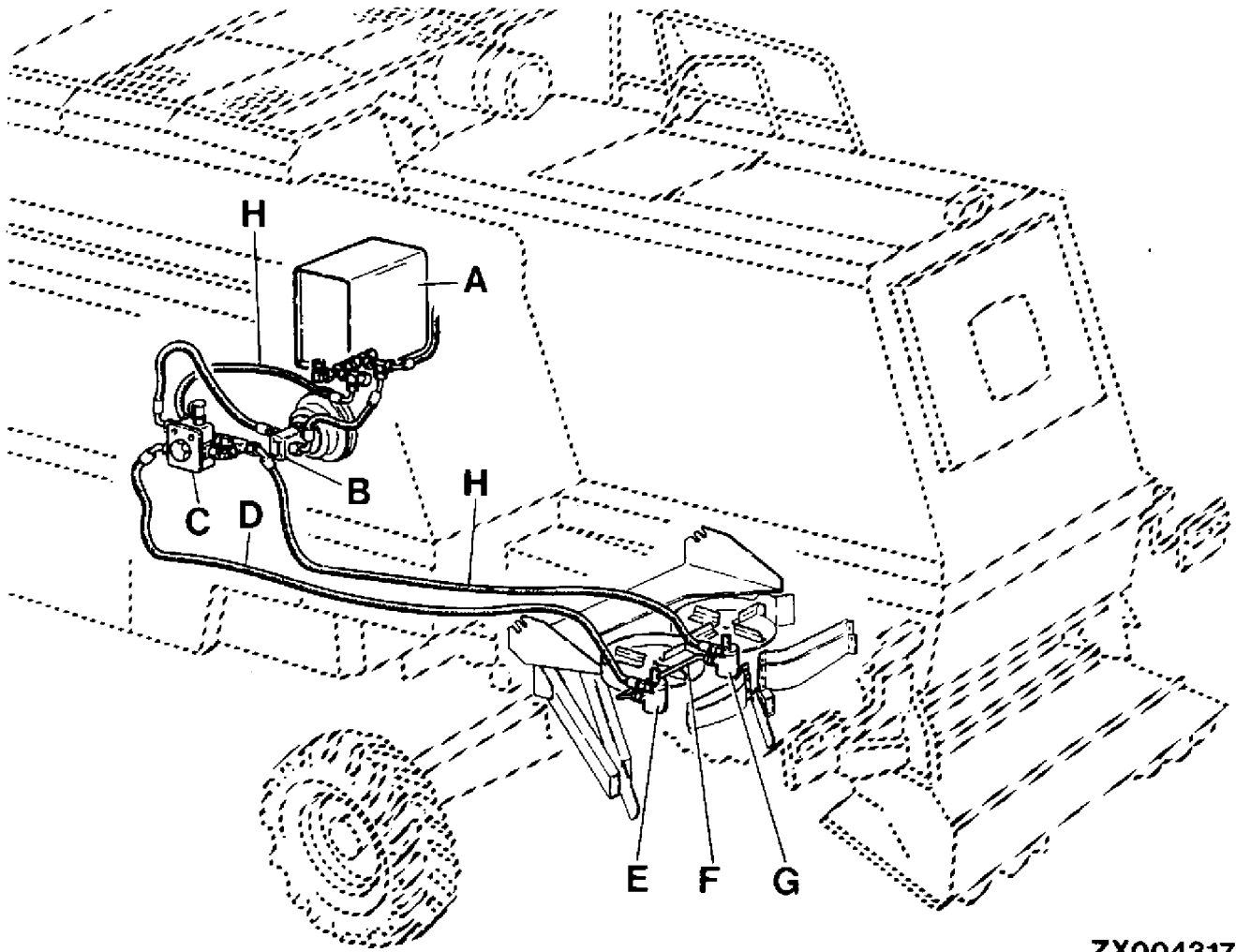
F—Leveling cylinder, right

ZX003811

ZX003811 -JUN-20JUN95

ZX,OMXZC0002204-19-05OCT92

CHAFF SPREADER HYDRAULIC COMPONENTS



ZX004317

A—Hydraulic tank
B—Chaff spreader pump

C—Pressure regulating valve
D—Pressure hose

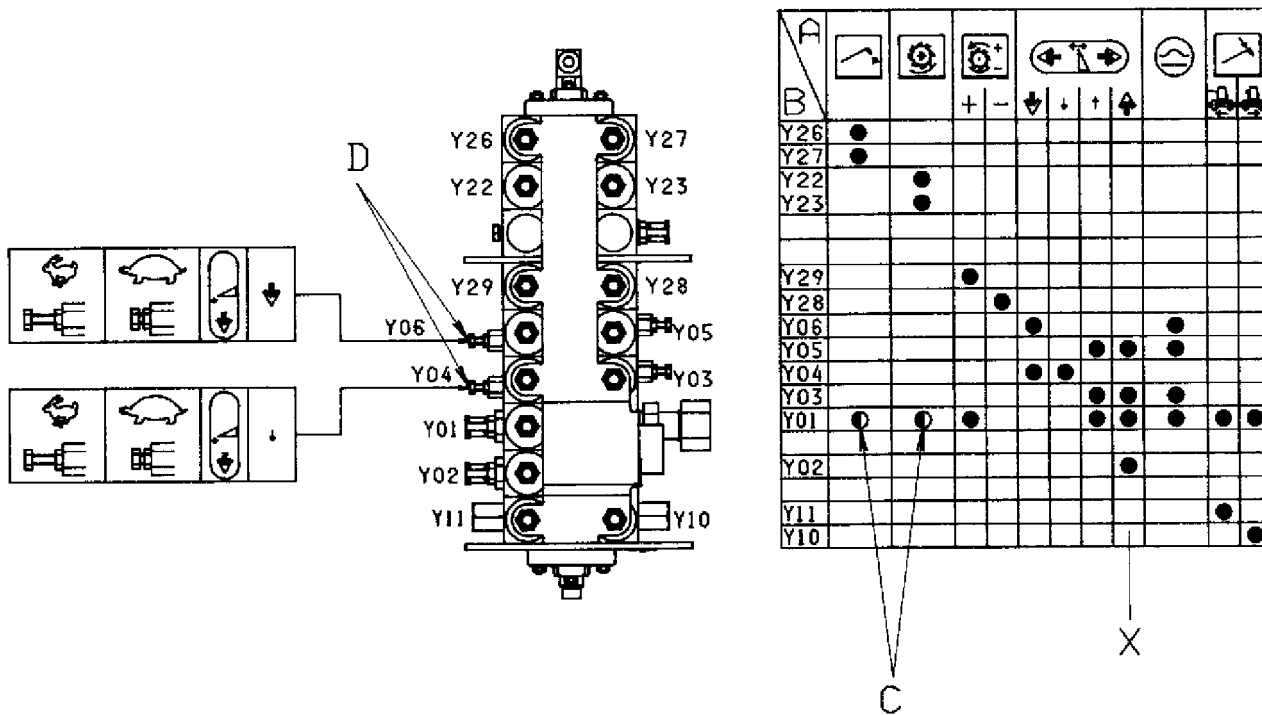
E—Hydraulic motor, left
F—Connecting line

G—Hydraulic motor, right
H—Return

ZX,OMXZC0002358-19-05OCT92

ZX004317 -JUN-20JUN95

ACTUATION OF ELECTRO-MAGNETIC VALVES ON BASIC MACHINE



ZX003810

This chart and the two following ones illustrate which electro-magnetic valves are actuated when each particular function is selected.

X — Example: Raise header rapidly

Y01, Y02, Y03 and Y05 are actuated.

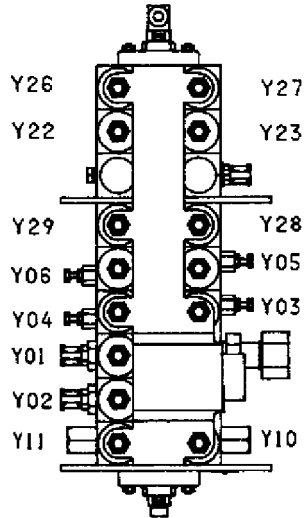
A — Function symbols

B — Electro-magnetic valves

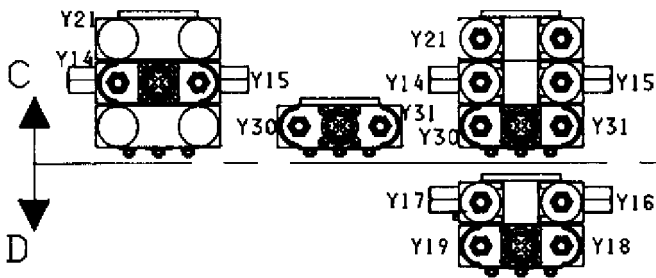
C — These symbols indicate that pressure begins to build up as soon as the road safety switch is actuated. Pressure is monitored by a pressure switch.

D — Adjusting screws: Re-adjust the rate of drop every time the header is changed.

ACTUATION OF ELECTRO-MAGNETIC VALVES ON FEEDER HOUSE AND CUTTING PLATFORM



A	Function symbols	Electro-magnetic valves	+	-	↑	↓
Y26						
Y27						
Y22						
Y23						
Y29						
Y28						
Y06						
Y05						
Y04						
Y03						
Y01	•	•	•	•	•	•
Y02						
Y11						
Y10						



Y14	•					
Y15	•					
Y30			•			
Y31				•		
Y17			•			
Y16			•			
Y19					•	
Y18						•

ZX003812

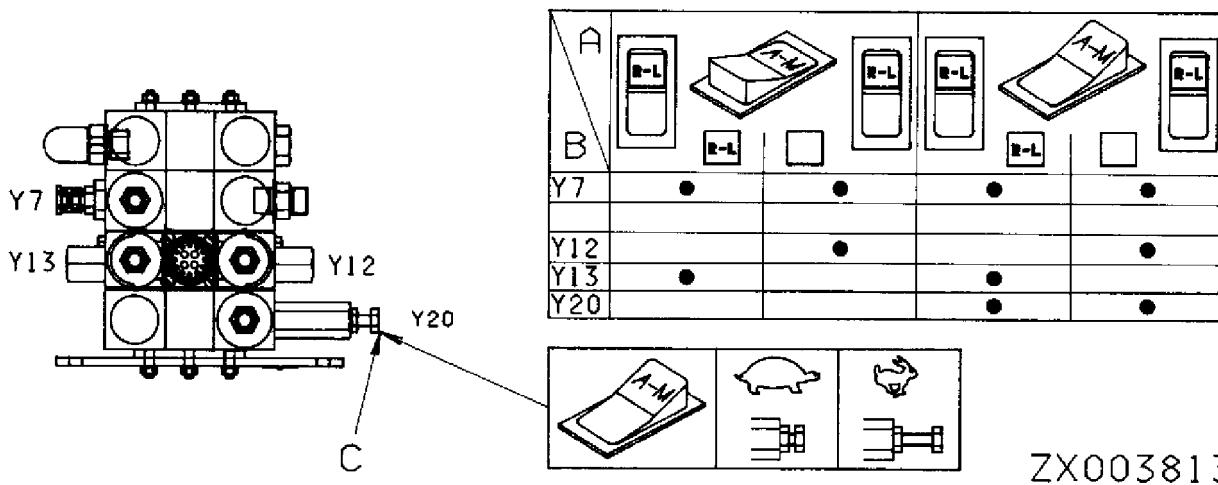
A — Function symbols
B — Electro-magnetic valves

C — Valves on feeder house
D — Valves on cutting platform

ZX,OMXZC0002206-19-05OCT92

ZX003812 -UN-23MAY95

ACTUATION OF ELECTRO-MAGNETIC VALVES ON HILLMASTER



A — Function symbols
 B — Electro-magnetic valves

C — Adjusting screw: For adjusting the combine harvester's rate of drop in the transport position

ZX003813

ZX003813 UN-23MAY95

ACCUMULATORS

CAUTION: If necessary, have accumulators changed by your local John Deere dealer.

IMPORTANT: Every time the header is changed, get your John Deere dealer to check and if necessary re-adjust the charge pressure of the lift system accumulators.

Header raising system (A)

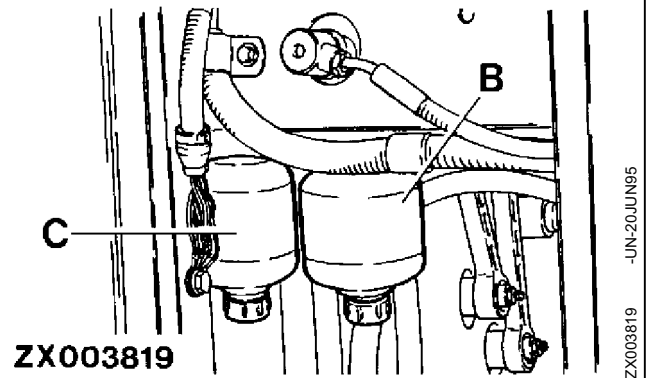
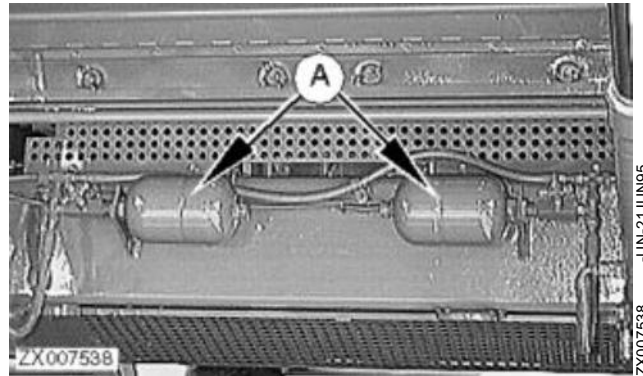
Each accumulator has a volume of 2 L (0.53 U.S. gal). Charge pressure must be adapted to suit the header.

IMPORTANT: When in operation, each accumulator must be opened by 1/2 to 1 full revolution.

Solenoid valve block on basic machine (B) and separator drive (C)

The accumulators have a volume of 0.35 L (0.09 U.S. gal) and are charged to 3800 kPa (38 bar; 551 psi).

The accumulators are maintenance-free and cannot be repaired if damaged.



ZX,OMXZC0002208-19-01NOV96

DRAINING HYDRAULIC OIL

Drain oil from hydraulic system after every 500 hours of operation or at the end of the harvesting season, whichever occurs first.

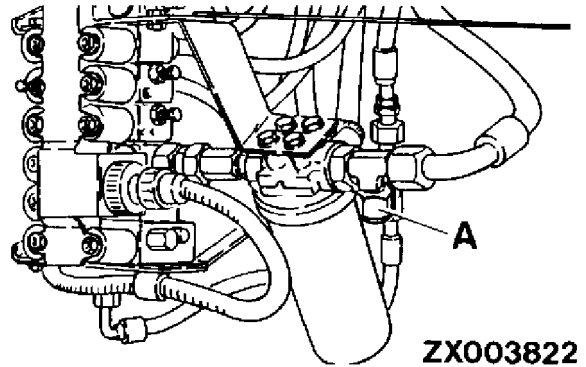
IMPORTANT: Have every second oil change (with filter) carried out after every 1000 hours of operation by your local John Deere dealer.

Only change oil when:

- Header is lowered
- Reel is lowered
- Unloading auger is swung in
- Separator drive and unloading drive are off

Drain oil into a suitable container.

Tighten drain plug (A) securely after oil has been drained.



A—Hydraulic oil tank drain plug

ZX003822 -UN-20JUN95

ZX,OMXZC0002209-19-05OCT92

REPLACING HYDRAULIC OIL FILTER

IMPORTANT: Observe utmost cleanliness when installing filter.

Replace filter element after every 1000 hours of operation or at the end of the harvesting season (whichever occurs first), or when the hydraulic oil filter indicator light comes on.

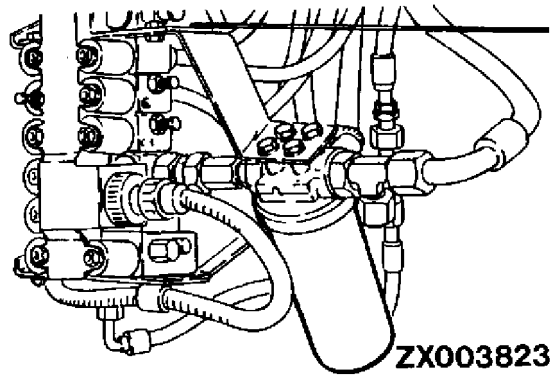
Loosen and remove filter.

Discard filter and replace with a genuine John Deere filter.

NOTE: Combine harvesters with hydrostatic reel drive require a larger-volume 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.



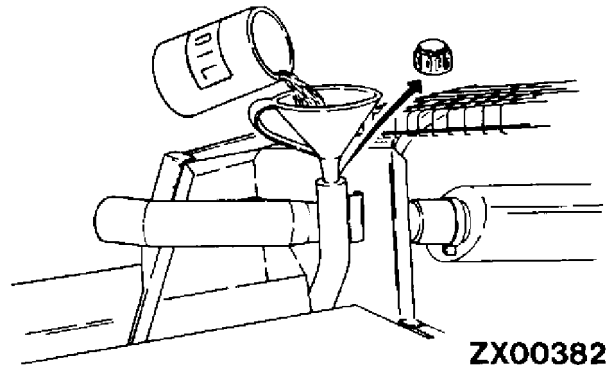
ZX003823 -UN-20JUN95

ZX.OMXZC0002210-19-01MAR95

REFILLING HYDRAULIC OIL

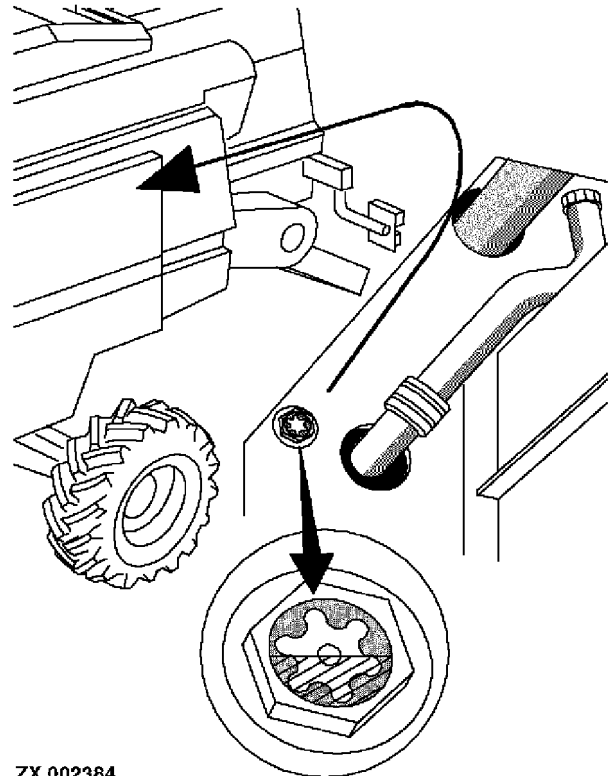
IMPORTANT: Always use specified oil (see “Fuel, Lubricants, Coolant and Capacities” section“). Carefully clean area around filler neck before filling with fresh oil.

Pour fresh hydraulic oil in at the filler neck until the oil comes up to the center of the sight glass.



ZX003824

-UN-20JUN95
ZX003824



ZX 002384

-UN-16JUN95
ZX002384

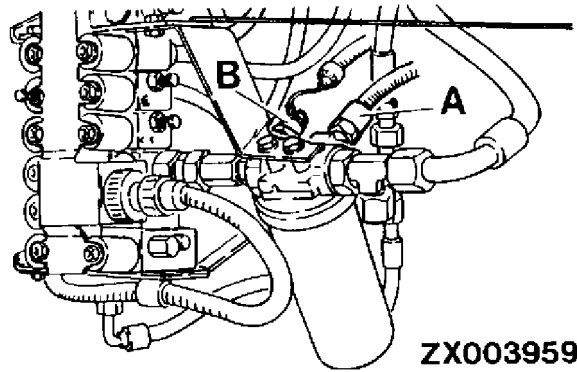
ZX,OMXZC0002211-19-04DEC92

TEMPERATURE AND PRESSURE SENDING UNITS AT HYDRAULIC OIL FILTER

A — Temperature sending unit: If oil temperature exceeds 88°C (190°F), the temperature sending unit transmits a signal to the indicator light and buzzer.

B — Pressure sending unit: If the pressure differential in the return line exceeds 270 kPa (2.7 bar; 39.2 psi), the pressure sending unit transmits a signal to the indicator light.

NOTE: For cleaning oil cooler, see "Service — Engine".



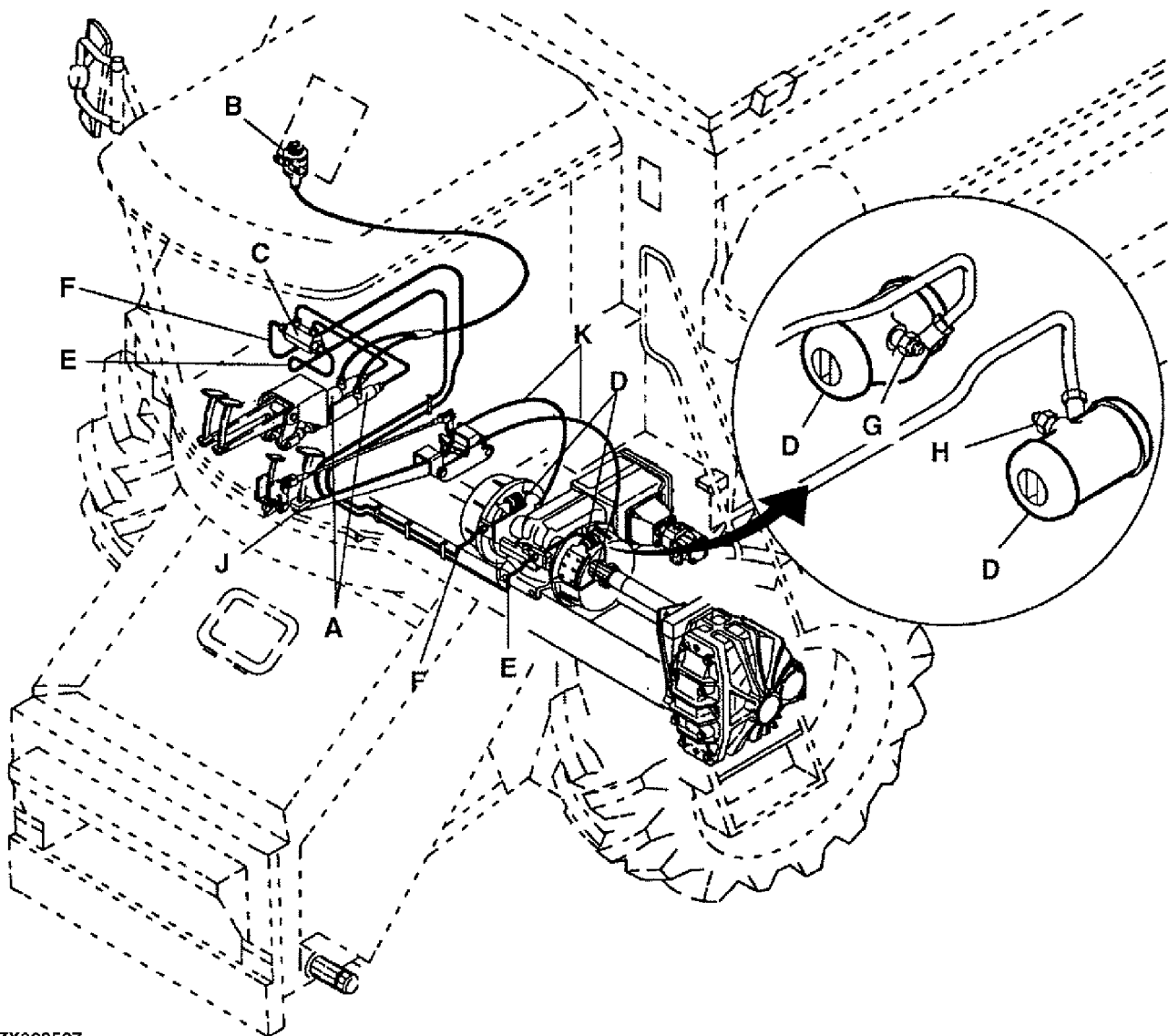
ZX003959

ZX003959 -UN-20JUN95

ZX_OMXZC0002212-19-05OCT92

Service — Ground Speed Drive

BRAKE SYSTEM



ZX002587

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)

ZX,OMXZC0002213-19-05OCT92

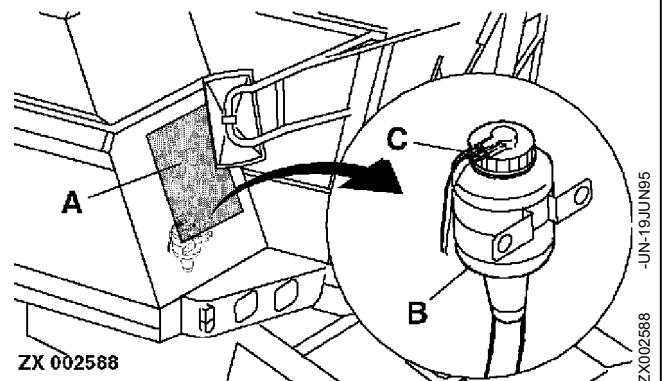
ZX002587 -UN-08MAY95

BRAKE FLUID RESERVOIR

CAUTION: In the event of leakage, see your local John Deere dealer.

Top up with specified brake fluid only. The fluid level is monitored electrically by means of a float. Check the fluid level after every 200 hours of operation.

- A—Electrical system service flap
- B—Brake fluid reservoir
- C—Reservoir cap with float



ZX,OMXZC0002214-19-01MAR95

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.

ZX,OMSPFH001384-19-01NOV91

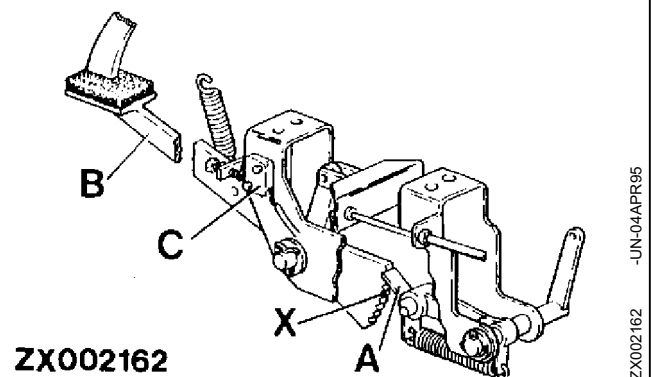
PARKING BRAKE

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.

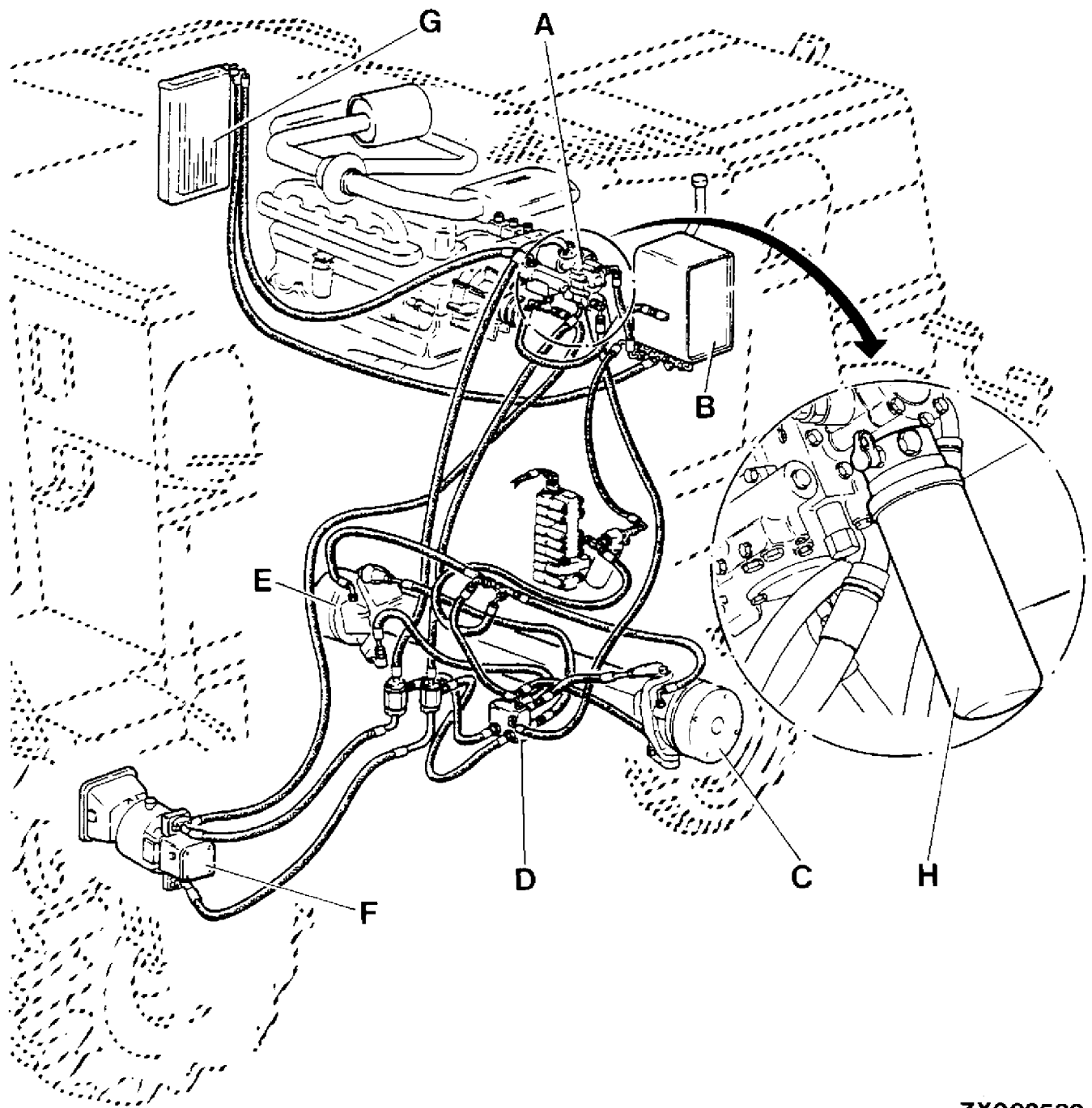
When parking brake is released, indicator light switch (C) is activated by the adjusting screw on the pedal.

- A—Latch
- B—Pedal
- C—Indicator light switch
- X—Max. position (fourth tooth of pedal)



ZX,OMSPFH001385-19-01NOV91

HYDROSTATIC DRIVE COMPONENTS



ZX002589

A—Variable pump
B—Hydrostatic oil tank

C—L.h. wheel motor
D—Four-wheel drive solenoid

E—R.h. wheel motor
F—Fixed-displacement motor

G—Oil cooler
H—Hydrostatic oil filter

ZX,OMXZC0002225-19-05OCT92

HYDROSTATIC DRIVE OIL COOLER

Regularly clean oil cooler fins.

See “Service — Engine”.

ZX.OMSPFH001387-19-01NOV91

CHANGING HYDROSTATIC DRIVE OIL AND FILTER

Change the hydraulic oil in the hydrostatic system every **500 hours of operation** or at the start of each harvesting season (whichever occurs first).

Oil change

See "Service — Hydraulic System".

Filter change

IMPORTANT: Observe utmost cleanliness when installing filter. Install the new filter immediately after removing the used one.

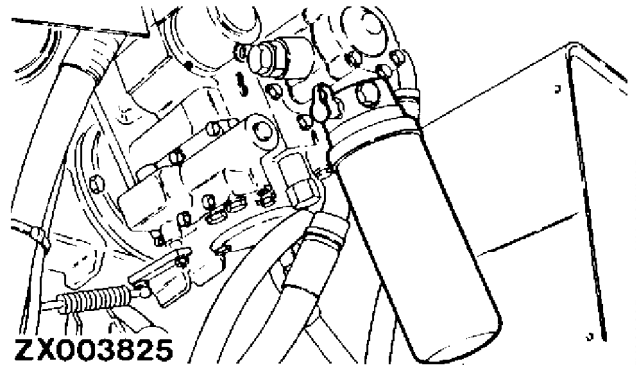
Loosen and remove filter.

Discard filter 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.

Change all oil in the hydrostatic system and the filter after every **1000 hours of operation**. Always have this done by your local John Deere dealer, who alone is familiar with the relevant rules and regulations.



ZX003825 -UN-20JUN95

ZX,OMXZCO002215-19-01MAR95

TRANSMISSION

Change oil after the first 100 hours of operation. Thereafter change oil every 1000 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

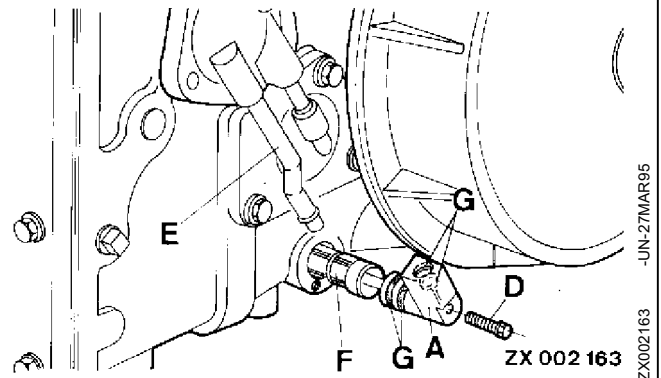
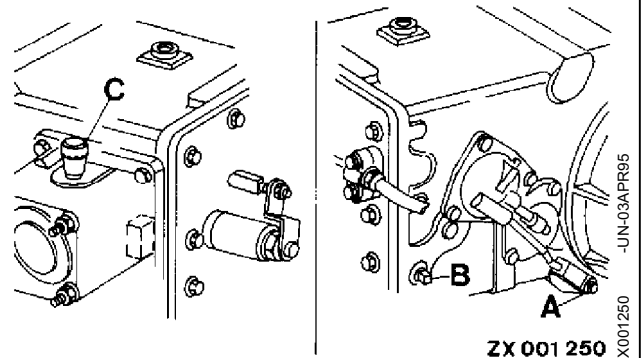
Remove cap screw (D).

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—Cap screw
- E—Line
- F—Screen
- G—O-rings



ZX,OMXZC0002227-19-05OCT92

FINAL DRIVES

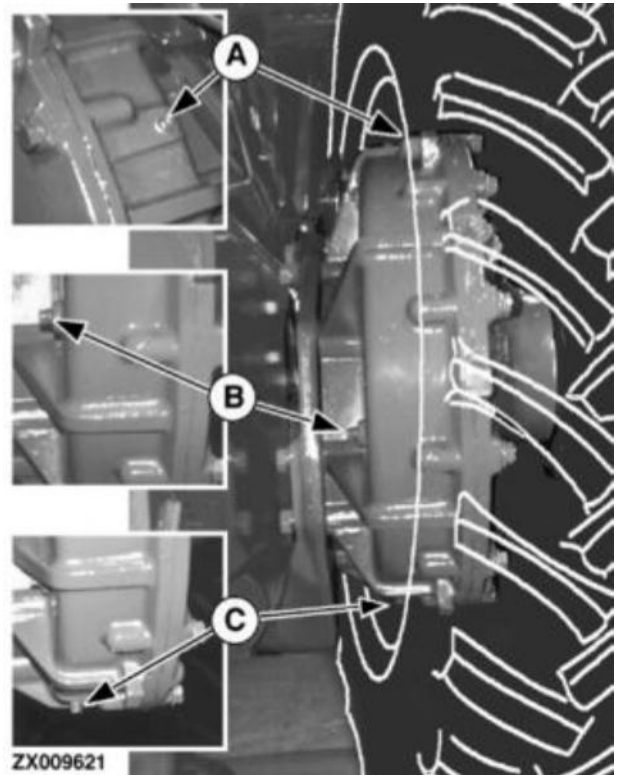
Change oil after the first 100 hours of operation. Thereafter change oil every 1000 hours of operation or before every harvesting season (whichever occurs first).

Check oil level every 250 hours of operation.

IMPORTANT: Always use specified oil.

NOTE: On Hillmaster machines, check the oil only when the harvester is in its normal working position (equalizing cylinder in middle position).

- A—Filler/bleed screw
- B—Level screw
- C—Oil drain screw



ZX009621

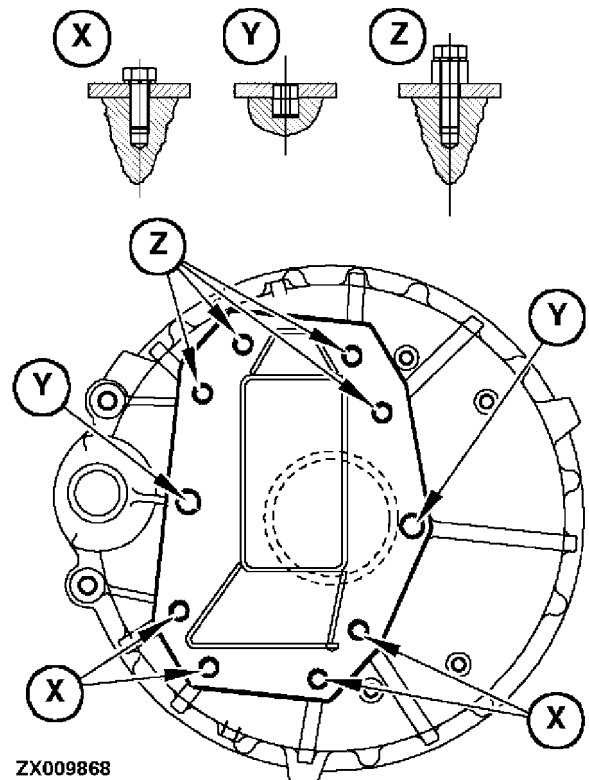
-UN-11NOV96
ZX009621

ZX,OMXZC0006996-19-01NOV96

FINAL DRIVE ATTACHING SCREWS

At least every 10 hours within the first 50 hours of operation, tighten attaching screws at points (X) and (Z) to the following torque:

430 N·m (317 lb-ft)

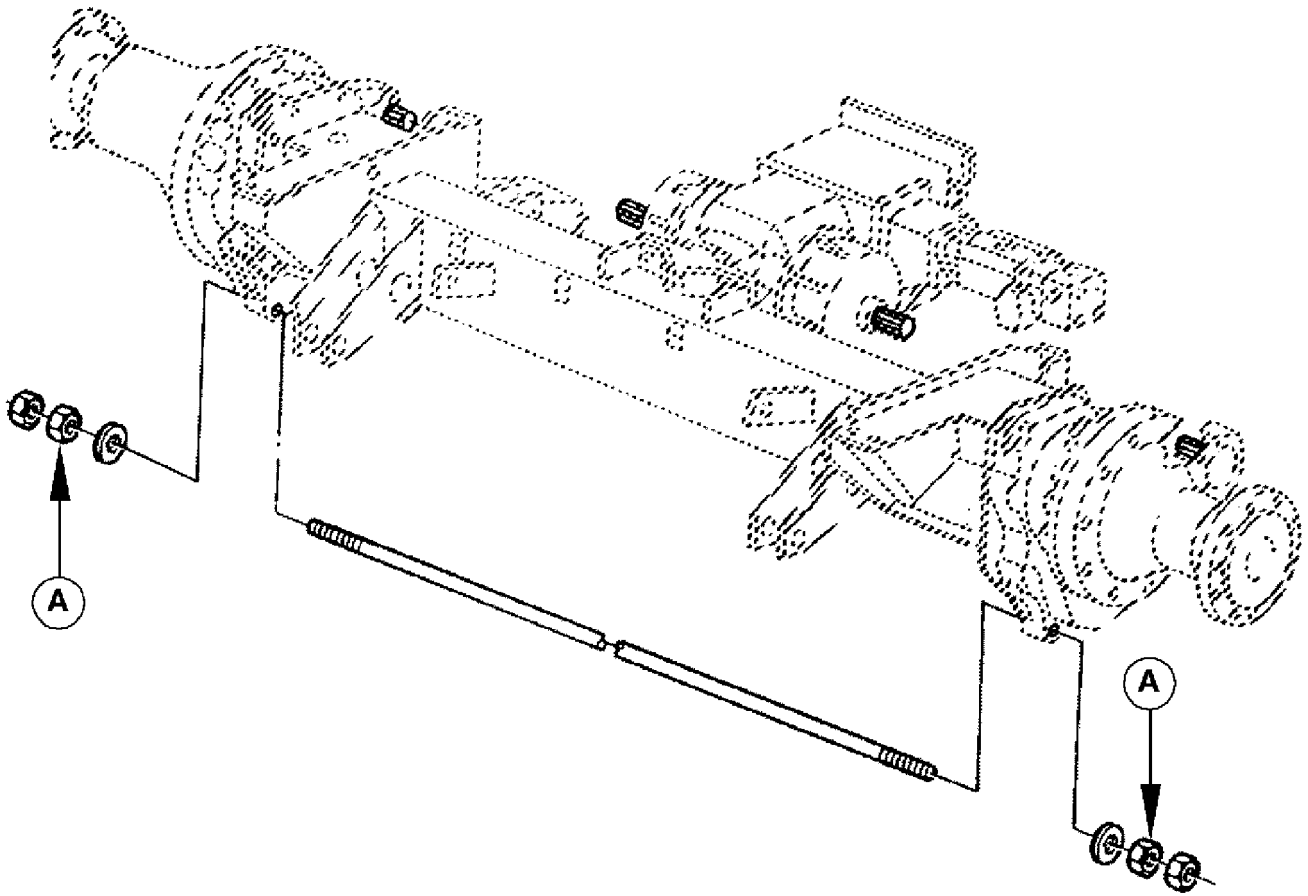


ZX009868

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ZX009868

ZX,OMXZC0006997-19-01NOV96

TENSIONING ROD FOR PLANETARY FINAL DRIVES



ZX007402

Tighten hex. nuts (A) to 240 N·m (177 lb-ft).

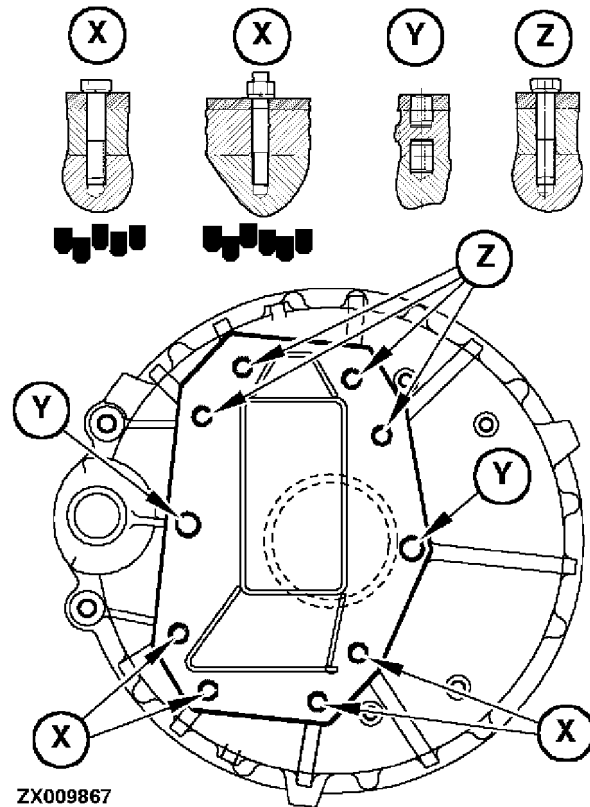
ZX,OMXZCO004132-19-02MAR95

ZX007402 -UN-19JUN95

FINAL DRIVE ATTACHING SCREWS, DUAL TIRES

At least every 10 hours within the first 50 hours of operation, tighten attaching screws at points (X) and (Z) to the following torque:

430 N·m (317 lb-ft)



ZX009867

ZX,OMXZC0006998-19-01NOV96

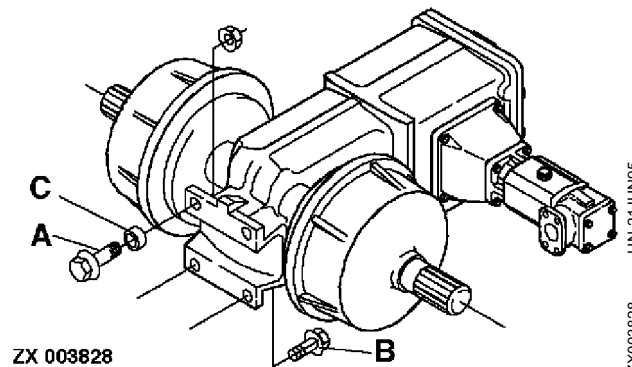
-UN-11NOV96
ZX009867

TRANSMISSION ATTACHING SCREWS TO FRONT AXLE

At least every 10 hours within the first 50 hours of operation, tighten attaching screws (A) and (B) to the following torque:

180 N·m (133 lb-ft)

NOTE: Spacer bushings (C) (4 used) occur only on combines equipped with planetary final drives.



ZX 003828

ZX,OMXZC0002218-19-05OCT92

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ZX003828

REAR AXLE TOE-IN

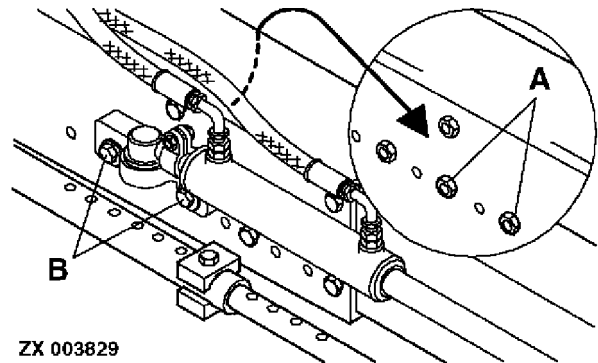
If the combine harvester is difficult to steer or if the rear tires begin to wear on one side, have toe-in checked by your John Deere dealer.

ZX,OMXZC0002219-19-05OCT92

STEERING CYLINDER SUPPORT ATTACHING SCREWS TO REAR AXLE

After the first 10 hours of operation, tighten nuts (A) of cap screws (B) at both sides to the following torque:

240 N·m (170 lb-ft)

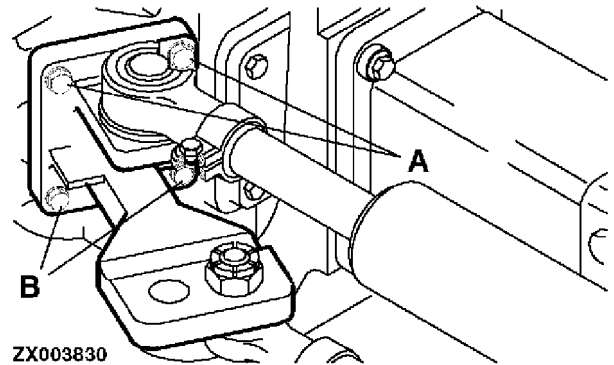


-UN-08MAY95
ZX003829

ZX.OMXZC0002220-19-01MAR95

STEERING CYLINDER SUPPORT ATTACHING SCREWS TO WHEEL MOTOR

After the first 10 hours of operation, tighten cap screws (A) at both sides to 325 N·m (240 lb-ft) and cap screws (B) to 163 N·m (120 lb-ft).



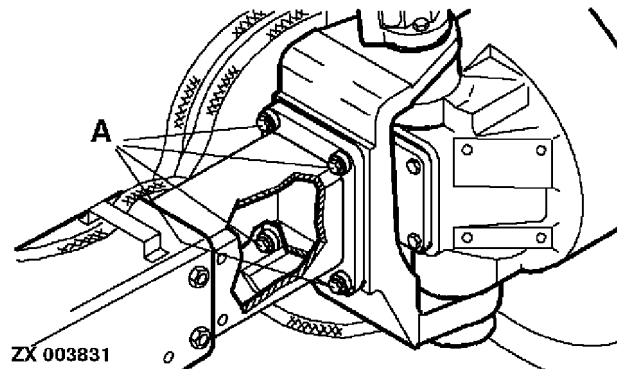
-UN-08MAY95
ZX003830

ZX.OMXZC0002221-19-05OCT92

WHEEL MOTOR YOKE ATTACHING SCREWS TO REAR AXLE SLIDING SLEEVE

After the first 10 hours of operation, tighten cap screws (A) at both sides to the following torque:

575 N·m (424 lb-ft)



-UN-08MAY95
ZX003831

ZX.OMXZC0002222-19-05OCT92

REAR WHEEL TREAD

Depending on the tires fitted, rear wheel tread can be varied from 2.364 m (7.76 ft) to 2.412 m (7.91 ft).

ZX.OMSPFH001398-19-01NOV91

ADJUSTING REAR AXLE WIDTH

CAUTION: When changing axle width, rear frame of combine must be raised and supported properly.

Block up front wheels.

Raise rear axle until tire is approx. 2.5 cm (1 in.) off the ground.

Remove steering cylinder support attaching screws (A) and rear axle cap screws (B) on both sides.

Also take out tie rod bolt (C).

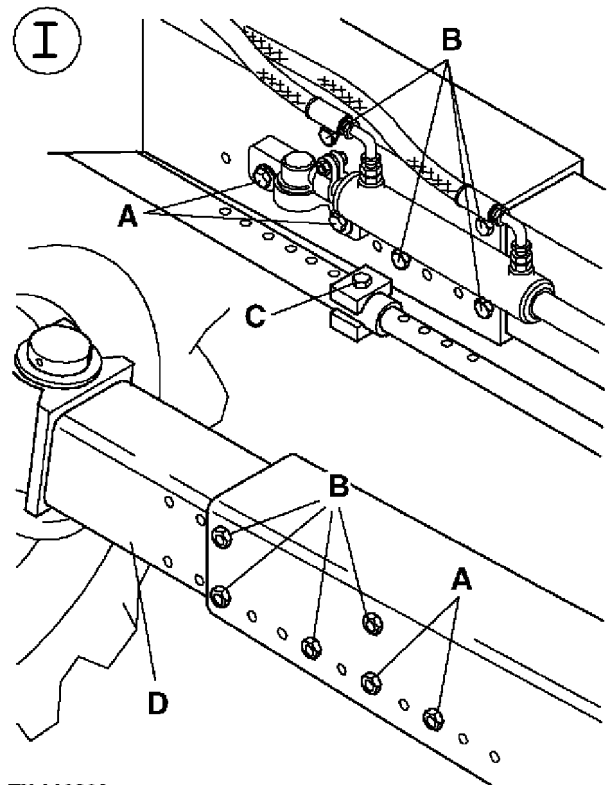
Pull out sliding sleeve (D) to the desired width.

Reinstall screws (A), (B) and (C) and tighten.

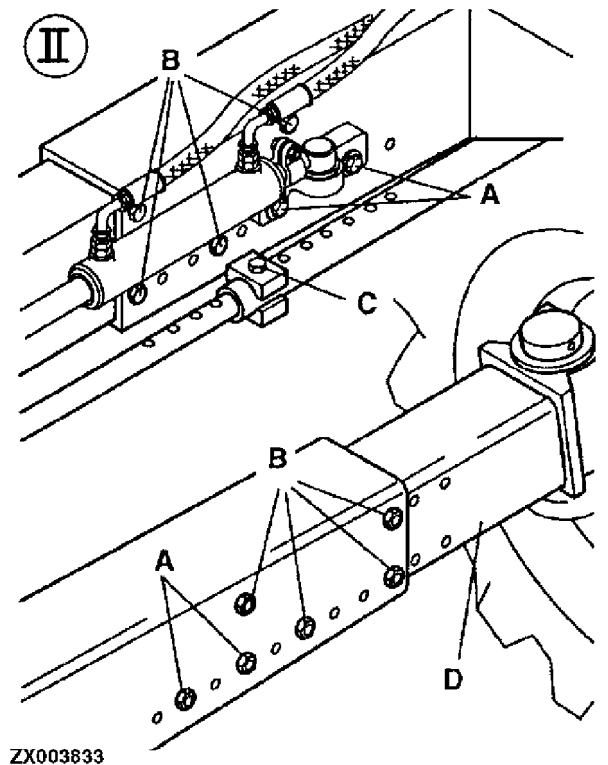
Lower rear axle.

Make sure screws (A) and (B) are tightened to 240 N·m (170 lb-ft).

- I—Left side
- II—Right side
- A—Steering cylinder support attaching screws
- B—Sliding sleeve attaching screws
- C—Tie rod bolt
- D—Sliding sleeve



ZX 003832



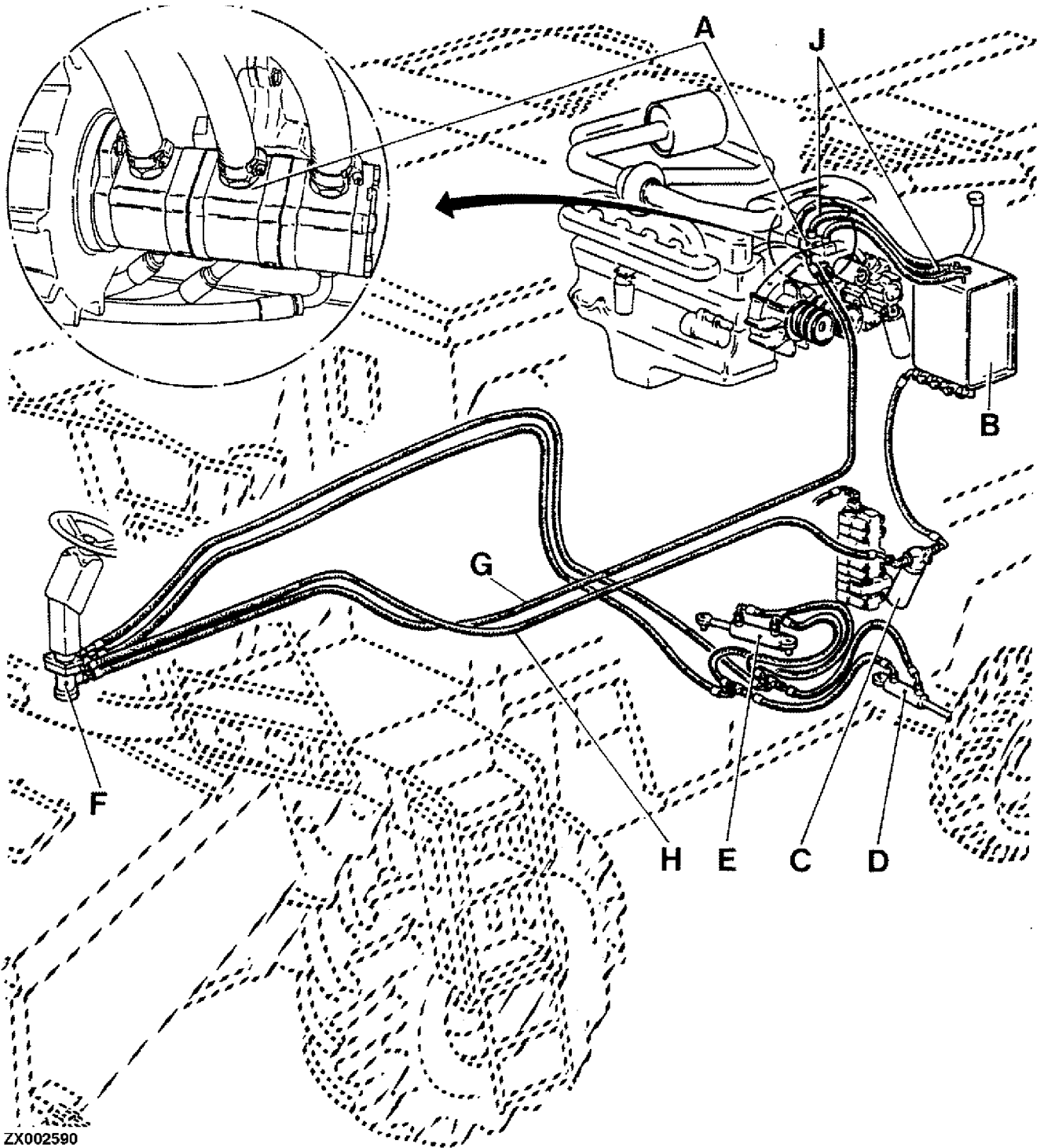
ZX003833

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ZX003832

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ZX003833

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STEERING SYSTEM COMPONENTS



ZX002590

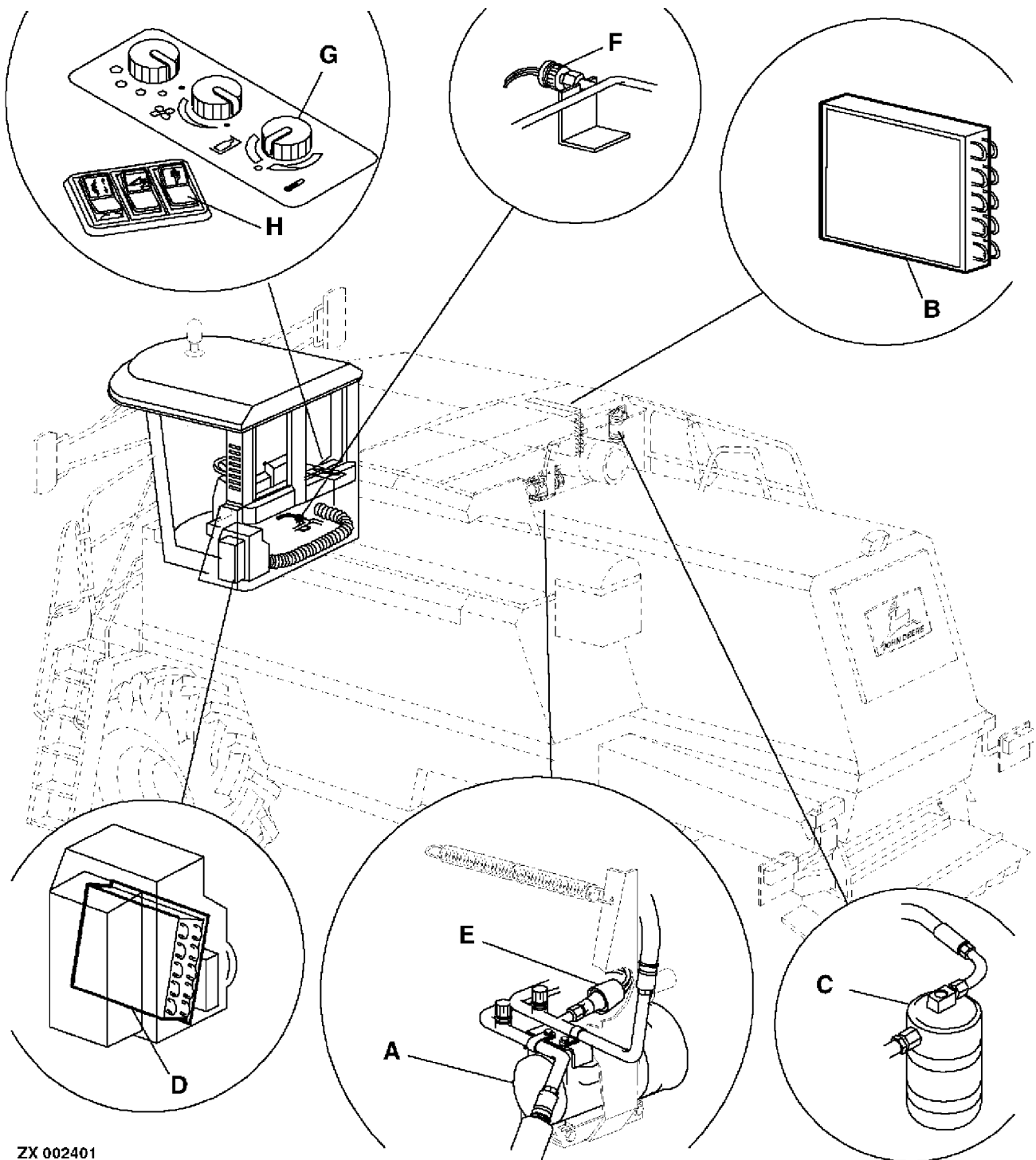
- | | | | |
|------------------------|--------------------------|---------------------------------|-------------------------------|
| A—Hydraulic pump | D—L.h. steering cylinder | G—Steering pump oil supply line | J—Hydraulic pump suction line |
| B—Hydraulic oil tank | E—R.h steering cylinder | H—Steering pump return line | |
| C—Hydraulic oil filter | F—Steering pump | | |

-UN-06JUN95
ZX002590

ZX,OMXZC0002224-19-05OCT92

Service — Air Conditioning and Heating

AIR CONDITIONING SYSTEM COMPONENTS



ZX 002401

A—Compressor
B—Condenser
C—Receiver-drier

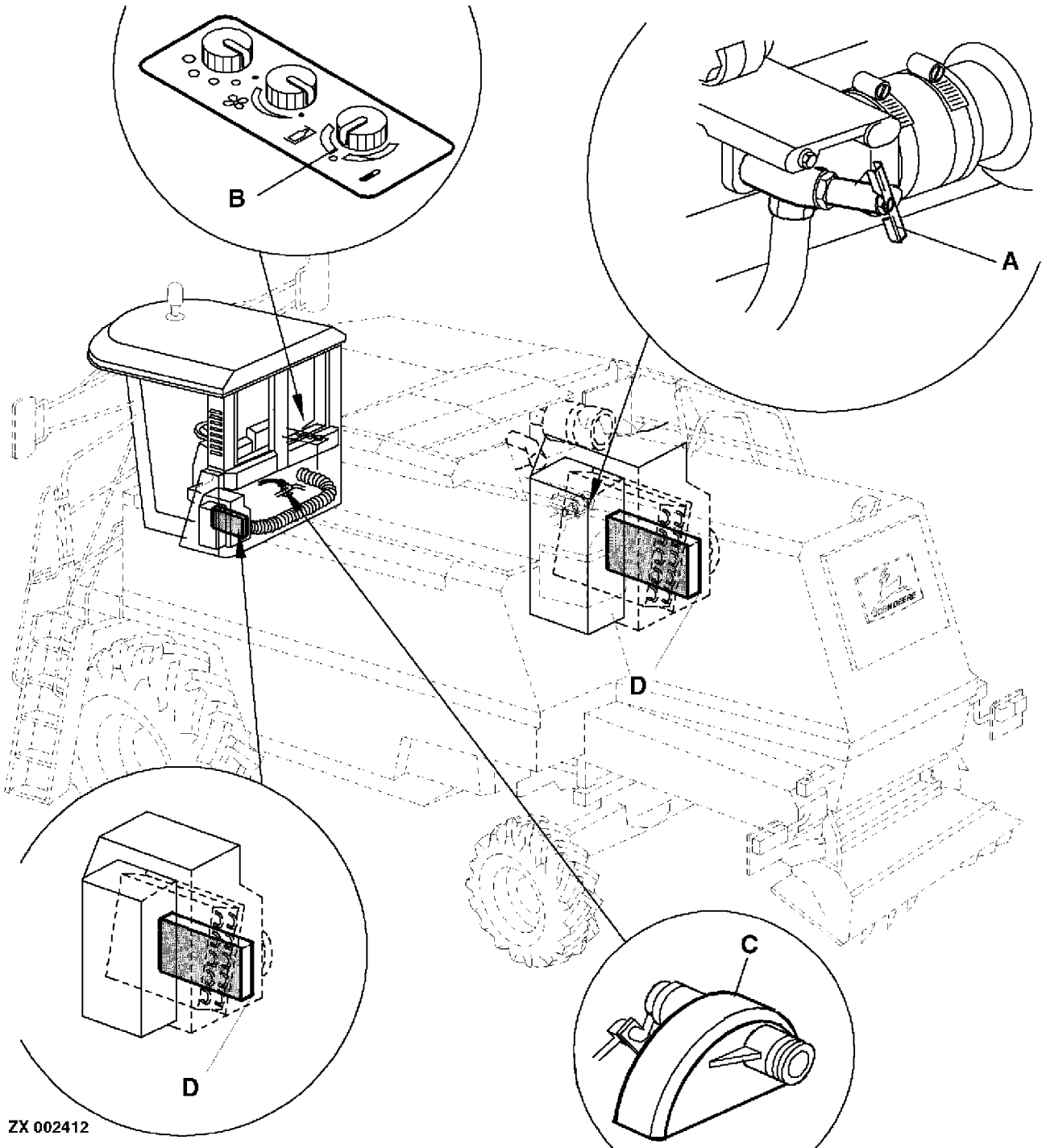
D—Evaporator
E—High pressure switch

F—Low pressure switch
G—Air conditioning/heater rotary switch

H—Demoisturizer switch

ZX,OMXZC0002228-19-05OCT92

HEATER COMPONENTS



ZX 002412

A—Heater valve at cylinder block (7.6-L engine)

B—Air conditioning/heater rotary switch

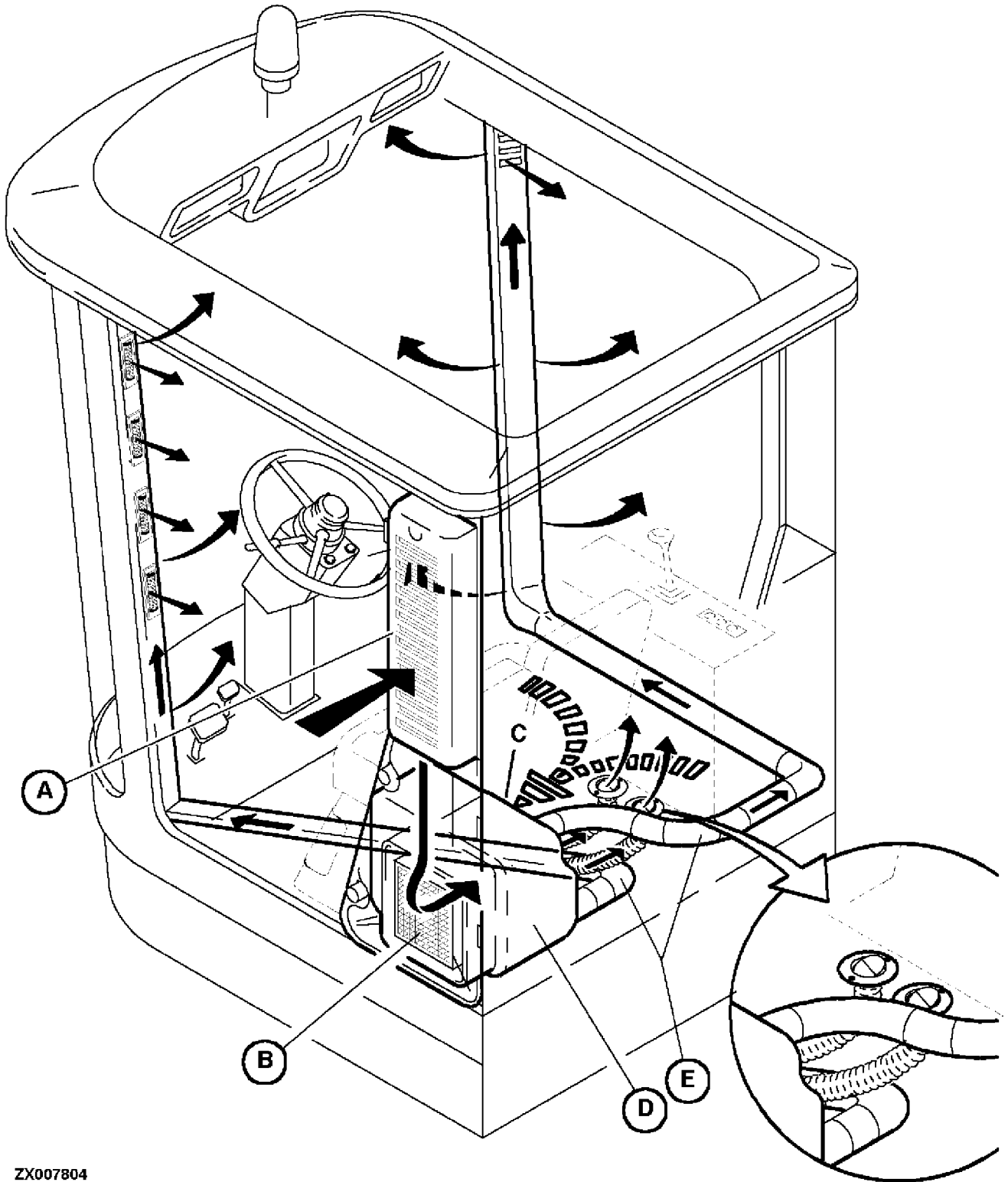
C—Heater valve in cab

D—Radiator

ZX002412 -UN-16JUN95

ZX,OMXZC0002229-19-05OCT92

AIR INTAKE AND DISTRIBUTION



ZX007804

A—Air intake channel
B—Air (main) filter

C—Recirculating air filter

D—Fan

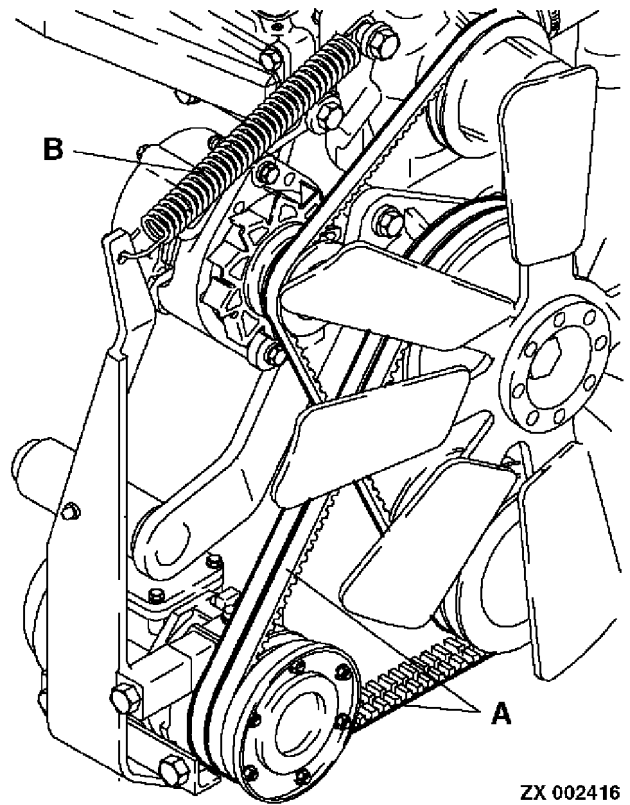
E—Air outlet channels

ZX,OMXZC0002230-19-02MAY96

COMPRESSOR DRIVE BELT

Tension of drive belt (A) is held constant by spring (B).

To replace drive belt (A), disconnect spring (B).



ZX 002416

ZX,OMXZC0002233-19-05OCT92

ZX002416 -UN-16JUN95

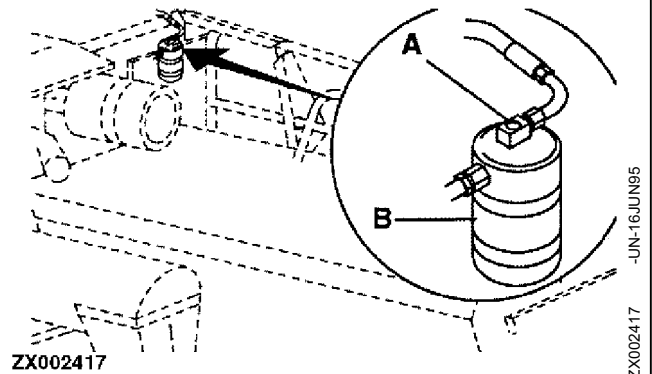
CHECKING REFRIGERANT LEVEL

IMPORTANT: The air conditioning system operates using R134a refrigerant (tetrafluoroethane). 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.

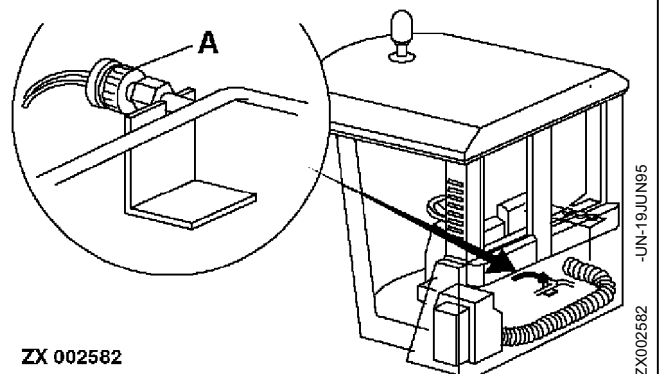


ZX,OMXZC0002234-19-05OCT92

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.

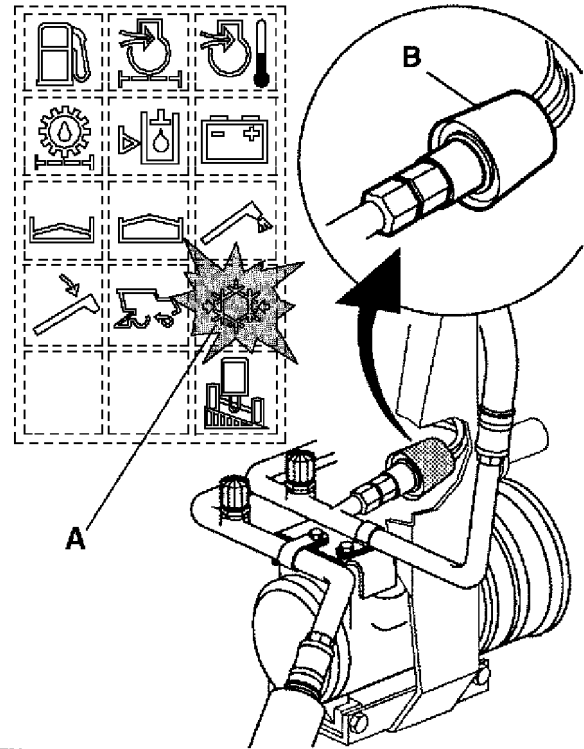


ZX,OMXZC0002235-19-05OCT92

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”).

If the indicator light remains on after the condenser has been cleaned, see your John Deere dealer.



ZX002583

ZX,OMXZC0002236-19-05OCT92

ZX002583 -UN-19JUN95

CLEANING CONDENSER

Clean condenser from time to time (see “Service — Engine”).

ZX,OMSPFH001410-19-01NOV91

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.

ZX,OMSPFH001411-19-02MAR95

REMOVING PAPER (MAIN) FILTER ELEMENT

IMPORTANT: Thoroughly clean paper filter element (with compressed air) every 250 hours of operation. Clean more frequently when operating under dusty conditions (clean daily, if necessary).

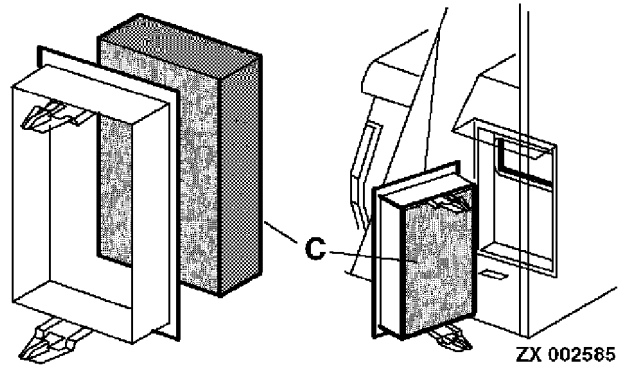
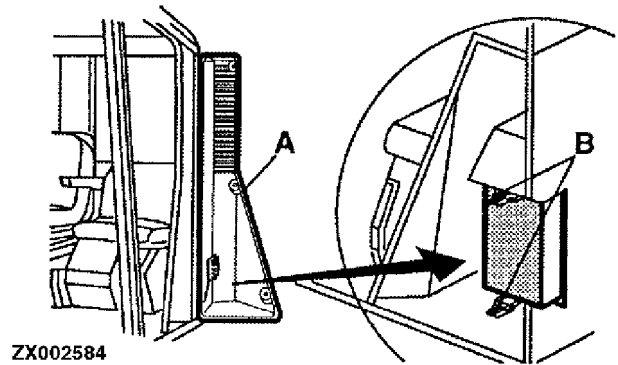
NOTE: Replace filter element after it has been washed six times.

Open service cover (A).

Disengage fasteners (B).

Lift out filter housing with element (C).

When reinstalling, make sure filter element is in correct position.



ZX,OMXZC0002237-19-05OCT92

-UN-19JUN95
ZX002584

-UN-19JUN95
ZX002585

CLEANING PAPER FILTER ELEMENTS

Provisional Cleaning by Tapping

As a provisional measure during operation, tap element on palm of hand or on a flat soft surface.



ZX,OMSPFH001413-19-01NOV91

-UN-04APR95
Z63398

Cleaning with Compressed Air

Direct compressed air through filter in opposite direction of arrows on filter [maximum pressure 200 kPa (2 bar; 30 psi)].



ZX,OMSPFH001414-19-01NOV91

-UN-04APR95
Z63399

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

-UN-04APR95

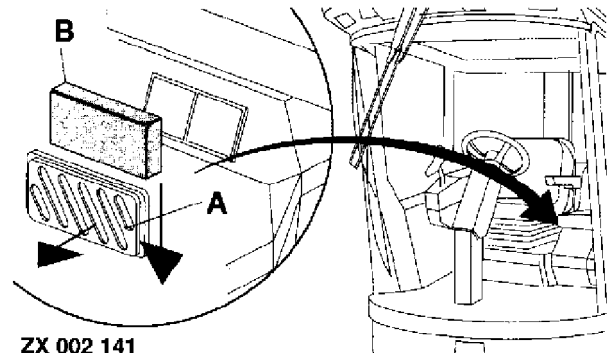
Z63400

ZX,OMSPFH001415-19-01NOV91

REMOVING RECIRCULATING FILTER

Press down grille (A) and pull out to the top.

Lift out filter element (B).



ZX 002 141

-UN-03APR95

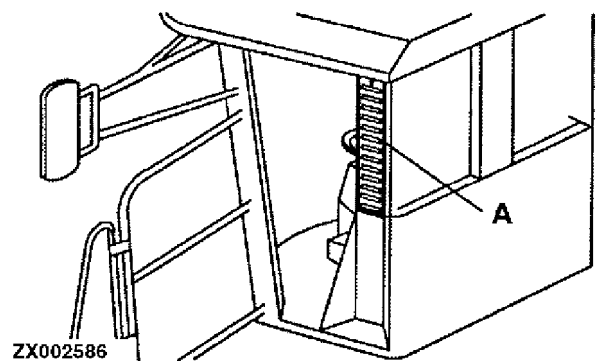
ZX002141

ZX,OMSPFH001416-19-01NOV91

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.



ZX002586

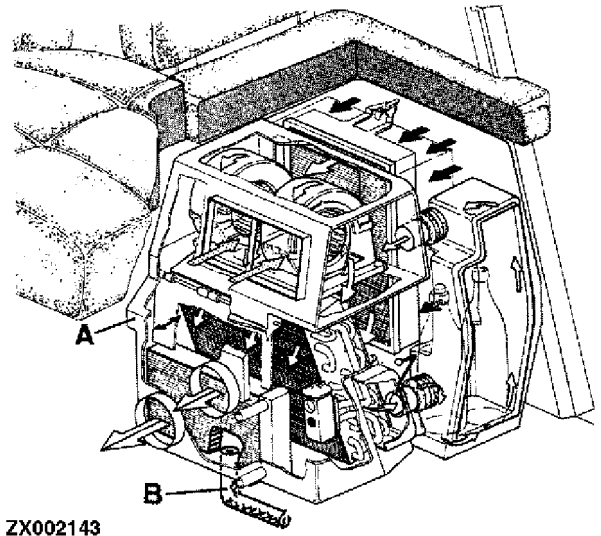
-UN-19JUN95

ZX002586

ZX,OMXZC0002238-19-05OCT92

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.



ZX002143

ZX_OMSPFH001418-19-01NOV94

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.

ZX,OMXZC0002239-19-05OCT92

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 petrol!

- 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 COOL-GARD in the cooling system, regardless of the season.

- Swing rotary radiator screen away 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. Operate engine for a few minutes before adding rust inhibitor.
- To protect engine and fuel system, use the rust inhibitor available from your John Deere dealer. The rust inhibitor set includes one can of rust inhibitor, masking tape and protective caps to cover engine openings.

Add rust inhibitor as follows:

- Add 600 cm³ (36.6 cu in.) of rust inhibitor to engine oil and run engine for a few minutes.

NOTE: This engine oil can be used again at the beginning of the next season for approx. 20—25 operating hours. Then drain the oil and refill crankcase with fresh engine oil of specified quality and viscosity.

- Drain hydraulic oil reservoir and fill with fresh oil of specified quality. Add approx. 50 cm³ (3.05 cu in.) of rust inhibitor.
- Drain fuel tank and pour 150 cm³ (9.2 cu in.) of rust inhibitor into empty tank. Add about 10 L (2.6 U.S. gal) of fuel. Start engine and run at fast idle for 15—20 minutes to distribute the mixture in the complete fuel system.

With the engine running, operate all hydraulic functions several times.

- Stop the engine and allow it to cool for approx. 15—20 minutes.
- Remove plug from intake manifold or connecting pipe of starting aid adapter and inject approx. 15 cm³ (0.9 cu in.) of rust inhibitor per cylinder into this opening. At the same time crank engine with starting motor. Remove fuse (F16).

Do not start engine after rust inhibitor has been added.

AFTER THE SEASON — ENGINE (CONTINUED)

Furthermore, use rust inhibitor as follows:

- Disconnect turbocharger air intake line and inject 90 cm³ (5.5 cu in.) of rust inhibitor into turbocharger intake side. Connect and tighten air intake line.
- Disconnect turbocharger exhaust line and inject 90 cm³ (5.5 cu in.) of rust inhibitor into turbocharger outlet side. Connect and tighten exhaust line.

IMPORTANT: Rust inhibitor agents evaporate very easily. For this reason, seal all openings after the inhibitor has been added. Also keep the inhibitor container closed at all times.

Fill the fuel tank completely.

Remove and clean batteries. Store in a cool, dry place where they will not freeze. Charge batteries every three months to avoid damage to the plates.

Seal all openings with plugs or greaseproof paper. Remove muffler and seal manifold opening.

Place strips of strong paper between fan belt and pulleys to prevent sticking.

Thoroughly clean engine and spray with anti-rust fluid; then cover engine with a tight-fitting waterproof tarpaulin.

ZX,OMXZC0002241-19-05OCT92

AFTER THE SEASON — AIR CONDITIONING SYSTEM

Clean condenser.

Remove compressor drive belt and store with the other belts.

ZX,OMXZC0002242-19-05OCT92

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" 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.

ZX,OMXZC0002243-19-05OCT92

REMOVING COMBINE FROM STORAGE — ENGINE

Remove engine tarpaulin, plugs from engine openings and paper strips between fan belt and pulleys.

Check all seals and coolant level. Antifreeze and rust inhibitor should be left in the cooling system during the summer months as a protection against corrosion.

If rust inhibitor was added to the engine oil before storing the combine harvester, this oil can be used for approx. 25 hours at the beginning of the new season. Otherwise, drain the oil and fill crankcase with fresh oil of specified quality and viscosity (see "Fuel, Lubricants, Coolant and Capacities" section).

Check batteries. Check battery charge and electrolyte level. Recharge batteries if necessary.

Before starting the engine after a protracted period in storage, remove fuse (F16). Crank engine for 30 seconds — or until engine oil pressure indicator light goes out. This will ensure proper lubrication of all engine parts during the starting procedure. Reinstall fuse (F16). Then 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.

ZX,OMXZC0002244-19-05OCT92

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.

ZX,OMXZC0002245-19-01MAR95

Specifications

OPERATING SPEEDS FOR 2254, 2256, 2258, 2264 AND 2266 (COMBINES AND HILLMASTERS)

Speeds shown are average and can vary from machine to machine. Speeds are rated at high idle with separator engaged, and no load.

ENGINE

Slow idle	1250 ± 50 rpm
Fast idle	2350 + 50 rpm
Rated speed	2200 rpm

HYDROSTATIC DRIVE

Hydrostatic pump speed	3385 rpm
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SEPARATOR

Main countershaft speed	1220 rpm
Primary cylinder speed range	
— without reduction gear	370—1110 rpm
— with reduction gear	
• disengaged	370—1110 rpm
• engaged	150—440 rpm
Secondary cylinder speed	910 rpm
Variable secondary cylinder speed	370—1110 rpm

FEEDER HOUSE LOWER SHAFT

Fixed speed	520 rpm
Variable speed	520—820 rpm

STRAW WALKERS

Standard	160 rpm
Optional	170 rpm

CROSS-SHAKER DRIVE SHAFT

Speed	380 rpm
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CLEANING TURBO FAN

Speed range	750—1500 rpm
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CHOPPER SPEED

For grain	3615 rpm
For corn (maize)	2720 rpm

SPECIFICATIONS FOR 2254, 2256 AND 2258 (COMBINES AND HILLMASTERS)

FEEDER HOUSE

Conveyor chains	3
Slats	bolted T-slats
Fixed speed (engine rated speed)	490 rpm
Variable speed (engine rated speed)	490—770 rpm
Header reverser	mechanical
Pivoting feeder house front shield on 2254, 2256 and 2258 combines	optional
2254, 2256 and 2258 Hillmasters	standard

SEPARATOR

Primary Cylinder and Concave

Cylinder diameter	660 mm (26 in.)
Cylinder width	1400 mm (55 in.)
No. of rasp bars	10
Cylinder speed (engine rated speed)	345—1040 rpm
Speed with reduction gear	140—1040 rpm
Circumferential velocity	4.8—35.9 m/sec. (15.7—117.8 fps)
Cylinder speed adjustment	hydraulic
Drive type	POSI-TORQ™

Concave

No. of concave bars (grain crops / maize)	12 / 13
Concave width	1400 mm (55 in.)
Concave length	680 mm (26.8 in.)
Concave wrap	121°
Concave area	0.9 m ² (9.7 sq ft)
Concave adjustment	electric motor
No. of de-awning plates	
Grain-crop concave	3
Universal concave	4

Secondary Cylinder and Concave

Cylinder diameter	400 mm (15.7 in.)
Cylinder width	1400 mm (55 in.)
No. of cylinder wings	8
Fixed cylinder speed (engine rated speed)	850 rpm
Variable cylinder speed (optional)	100% of primary cylinder speed
Concave area	0.53 m ² (5.70 sq ft)

**SPECIFICATIONS FOR 2254, 2256 AND 2258 (COMBINES AND HILLMASTERS)
(CONTINUED)**

Stone Trap

Actuation 2 levers

Grain Pan

No. of removable sections 7

STRAW WALKERS

No. of walkers 5
 No. of walker steps
 with cross-shaker 4
 without cross-shaker 5
 Walker length 4600 mm (181 in.)
 Walker throw 150 mm (5.9 in.)
 Walker speed (engine rated speed) 150 rpm
 Walker area 6.4 m² (68.9 sq ft)
 Walker area with cross-shaker 8.13 m² (87.50 sq ft)
 Open-type walkers yes

CROSS-SHAKER

No. of rotating units 5
 No. of spring tines 40
 Lateral tine kicks 720 per min.
 Rotating speed (engine rated speed) 17 rpm

CLEANING SYSTEM

Chaffer area including extension 2.76 m² (29.70 sq ft)
 Grain sieve area 2.08 m² (22.40 sq ft)
 Total cleaning area 4.84 m² (52.10 sq ft)
 Sieve type adjustable louver type
 Shoe movement reciprocating
 Dual-flow cleaning pre-cleaning
 Slope Master system standard

CLEANING TURBO FAN

Type of fan turbo, 4 rotors
 Fan speed range 750—1500 rpm
 Fan speed adjustment electrical, from the cab

**SPECIFICATIONS FOR 2254, 2256 AND 2258 (COMBINES AND HILLMASTERS)
(CONTINUED)**

GRAIN TANK

Capacity	
2254 combine	6000 L (170 bu)
2254 Hillmaster	6000 L (170 bu)
2256 combine	6500 L (185 bu)
2256 Hillmaster	6500 L (185 bu)
2258 combine	7000 L (198 bu)
2258 Hillmaster	7000 L (198 bu)
Unloading auger swing range	110°
Unloading height, spout	320 cm (126 in.)
Unloading rate	4300 L/min. (122 bu/min.)

POWER PACK

2254 (combine and Hillmaster)	
Engine type	CD6068HZ001
No. of cylinders	6
Displacement	6.8 L (414 cu in.)
Bore	106.50 mm (4.19 in.)
Stroke	127 mm (5 in.)
Power (according to ECE-R24) at rated speed with direct fan drive	132 kW (180 hp)
Engine rated speed	2200 rpm
Radiator screen	self-cleaning

2256 (combine and Hillmaster)	
Engine type	RG6081HZ003
No. of cylinders	6
Displacement	8,1 L (495 cu in.)
Bore	116 mm (4.56 in.)
Stroke	129 mm (5.06 in.)
Power (according to ECE-R24) at rated speed with direct fan drive	154 kW (210 hp)
Engine rated speed	2200 rpm
Radiator screen	self-cleaning

2258 (combine and Hillmaster)	
Engine type	RG6081HZ005
No. of cylinders	6
Displacement	8,1 L (495 cu in.)
Bore	116 mm (4.56 in.)
Stroke	129 mm (5.06 in.)
Power (according to ECE-R24) at rated speed with direct fan drive	173 kW (235 hp)
Engine rated speed	2200 rpm
Radiator screen	self-cleaning

**SPECIFICATIONS FOR 2254, 2256 AND 2258 (COMBINES AND HILLMASTERS)
(CONTINUED)**

FUEL TANK

Capacity 450 L (119 U.S. gal)

GROUND DRIVE

Transmission type three-speed
Foot brake type 305 mm (12 in.) dia., hydraulically
operated shoe type
Parking brake pedal-operated, two brake circuits
Rear axle rigid or adjustable, with or with-
out rear-wheel drive

SLOPE MASTER SYSTEM

Automatic self-leveling to 11% on
2254 Hillmaster, 2256 Hillmaster and
2258 Hillmaster standard

GROUND TRAVEL SPEEDS

20 km/h (12.5 mph) version:

1st gear 6 km/h (3.7 mph)
2nd gear 10 km/h (6.3 mph)
3rd gear 20 km/h (12.5 mph)

25 km/h (15.5 mph) version:

1st gear 7.5 km/h (4.7 mph)
2nd gear 12.5 km/h (7.8 mph)
3rd gear 25 km/h (15.5 mph)

**SPECIFICATIONS FOR 2254, 2256 AND 2258 (COMBINES AND HILLMASTERS)
(CONTINUED)**

ELECTRICAL SYSTEM

Alternator 120 A / 12 V
Batteries 2, each 12 V, 88 AH, 395 A

STEERING

Type hydrostatic
Steering column height and tilt adjustment

SOUND LEVEL

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)

2254 (combine and Hillmaster) 76 dB(A)
2256 (combine and Hillmaster) 76 dB(A)
2258 (combine and Hillmaster) 79 dB(A)

*NOTE: For measurements, weights and tire sizes,
see separate page.*

SPECIFICATIONS FOR 2264 AND 2266 (COMBINES AND HILLMASTERS)

FEEDER HOUSE

Conveyor chains	3/4
Slats	bolted T-slats
Fixed speed (engine rated speed)	490 rpm
Variable speed (engine rated speed)	490 / 770 rpm
Header reverser	mechanical
Pivoting feeder house front shield on	
2264 and 2266 combines	optional
2264 and 2266 Hillmasters	standard

SEPARATOR

Primary Cylinder and Concave

Cylinder diameter	660 mm (26 in.)
Cylinder width	1670 mm (65.7 in.)
No. of rasp bars	10
Cylinder speed (engine rated speed)	345—1040 rpm
Speed with reduction gear	140—1040 rpm
Circumferential velocity	4.8—35.9 m/sec. (15.7—117.8 fps)
Cylinder speed adjustment	hydraulic
Drive type	POSI-TORQ™

Concave

No. of concave bars (grain crops / maize)	12 / 13
Concave width	1670 mm (65.7 in.)
Concave length	680 mm (26.8 in.)
Concave wrap	121°
Concave area	1.08 m ² (11.60 sq ft)
Concave adjustment	electric motor
No. of de-awning plates	
Grain-crop concave	3
Universal concave	4

Secondary Cylinder and Concave

Cylinder diameter	400 mm (15.7 in.)
Cylinder width	1670 mm (65.7 in.)
No. of cylinder wings	8
Fixed cylinder speed (engine rated speed)	850 rpm
Variable cylinder speed (optional)	100% of primary cylinder speed
Concave area	0.63 m ² (6.80 sq ft)

SPECIFICATIONS FOR 2264 AND 2266 (COMBINES AND HILLMASTERS) (CONTINUED)

Stone Trap

Actuation 2 levers

Grain Pan

No. of removable sections 8

STRAW WALKERS

No. of walkers 6
 No. of walker steps
 with cross-shaker 4
 without cross-shaker 5
 Walker length 4600 mm (181 in.)
 Walker throw 150 mm (5.9 in.)
 Walker speed (engine rated speed) 150 rpm
 Walker area 7,67 m² (82.60 sq ft)
 Walker are with cross-shaker 8,13 m² (87.50 sq ft)
 Open-type walkers yes

CROSS-SHAKER

No. of rotating units 6
 No. of spring tines 48
 Lateral tine kicks 720 per min.
 Rotating speed (engine rated speed) 17 rpm

CLEANING SYSTEM

Chaffer area including extension 3,32 m² (35.70 sq ft)
 Grain sieve area 2,51 m² (27.00 sq ft)
 Total cleaning area 5,83 m² (62.70 sq ft)
 Sieve type adjustable louver type
 Shoe movement reciprocating
 Dual-flow cleaning pre-cleaning
 Slope Master system standard

CLEANING TURBO FAN

Type of fan turbo, 5 rotors
 Fan speed range 750—1500 rpm
 Fan speed adjustment electrical, from the cab

SPECIFICATIONS FOR 2264 AND 2266 (COMBINES AND HILLMASTERS) (CONTINUED)

GRAIN TANK

Capacity	
2264 combine	7000 L (198 bu)
2264 Hillmaster	7000 L (198 bu)
2266 combine	7500 L (212 bu)
2266 Hillmaster	7000 L (198 bu)
Unloading auger swing range	110°
Unloading height, spout	320 cm (126 in.)
Unloading rate	4300 L/min. (122 bu/min.)

POWER PACK

2264 (combine and Hillmaster)	
Engine type	RG6081HZ002
No. of cylinders	6
Displacement	8,1 L (495 cu in.)
Bore	116 mm (4.56 in.)
Stroke	129 mm (5.06 in.)
Power (according to ECE-R24) at rated speed with direct fan drive	184 kW (250 hp)
Engine rated speed	2200 rpm
Radiator screen	self-cleaning
2266 (combine and Hillmaster)	
Engine type	RG6081HZ001
No. of cylinders	6
Displacement	8,1 L (495 cu in.)
Bore	116 mm (4.56 in.)
Stroke	129 mm (5.06 in.)
Power (according to ECE-R24) at rated speed with direct fan drive	199 kW (270 hp)
Engine rated speed	2200 rpm
Radiator screen	self-cleaning

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SPECIFICATIONS FOR 2264 AND 2266 (COMBINES AND HILLMASTERS) (CONTINUED)

FUEL TANK

Capacity

2264 (combine and Hillmaster) 450 L (119 U.S. gal)

2266 (combine and Hillmaster) 550 L (145.3 U.S. gal)

GROUND DRIVE

Transmission type three-speed

Foot brake type 305 mm (12 in.) dia., hydraulically
operated shoe type

Parking brake pedal-operated, two brake circuits

Rear axle rigid or adjustable, with or
without rear wheel drive

SLOPE MASTER SYSTEM

Automatic self-leveling to 11% on

2264 Hillmaster and 2266 Hillmaster standard

GROUND TRAVEL SPEEDS

20 km/h (12.5 mph) version:

1st gear 6 km/h (3.7 mph)

2nd gear 10 km/h (6.3 mph)

3rd gear 20 km/h (12.5 mph)

25 km/h (15.5 mph) version:

1st gear 7.5 km/h (4.7 mph)

2nd gear 12.5 km/h (7.8 mph)

3rd gear 25 km/h (15.5 mph)

SPECIFICATIONS FOR 2264 AND 2266 (COMBINES AND HILLMASTERS) (CONTINUED)

ELECTRICAL SYSTEM

Alternator 120 A / 12 V
Batteries 2, each 12 V, 88 AH, 395 A

STEERING

Type hydrostatic
Steering column height and tilt adjustment

SOUND LEVEL

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)
2264 (combine and Hillmaster) 77 dB(A)
2266 (combine and Hillmaster) 79 dB(A)

NOTE: For measurements, weights and tire sizes, see separate page.

ZX.TDATA10CO -19-01NOV96

PERMISSIBLE TOTAL WEIGHT

The maximum permissible total weight for all 2200 Series combine harvesters is 14500 kg (31967 lb.)

ZX.OMXZC0006499-19-01NOV96

VIBRATIONS AT OPERATOR'S POSITION

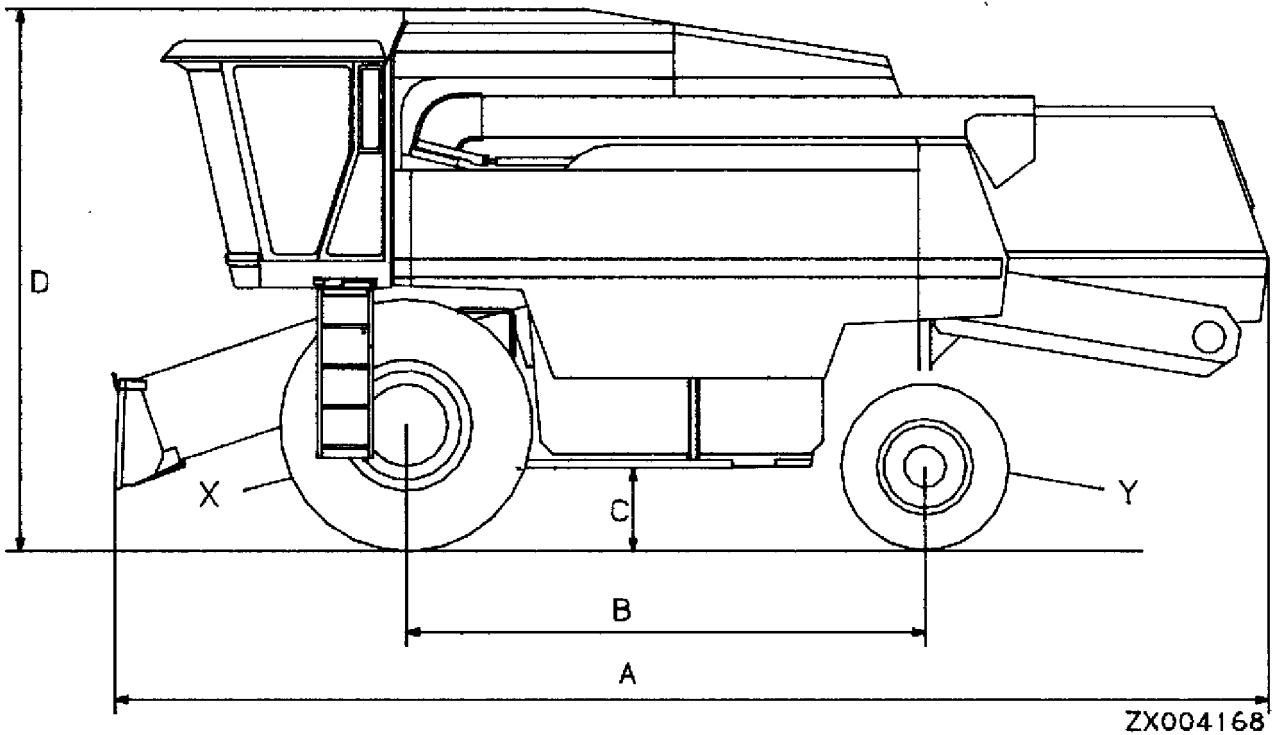
Measured according to Directive VDI 2057,
page 4.2, May 1987

1. Max. acceleration value to which the
feet of the operator are subjected 2.1 m/s² at 20 Hertz
2. Max. acceleration value to which
the seat surface is subjected 2.0 m/s² at 20 Hertz
3. Max. acceleration value to which the
body of the operator is subjected 5.35 m/s² at 50 Hertz

ZX.OMXZCO003410-19-22JUN94

Specifications

DIMENSIONS, 2254 AND 2256 COMBINES AND HILLMASTERS



A—Overall length
B—Wheel base

C—Ground clearance
D—Overall height

X—Front tires

Y—Rear tires

Side View

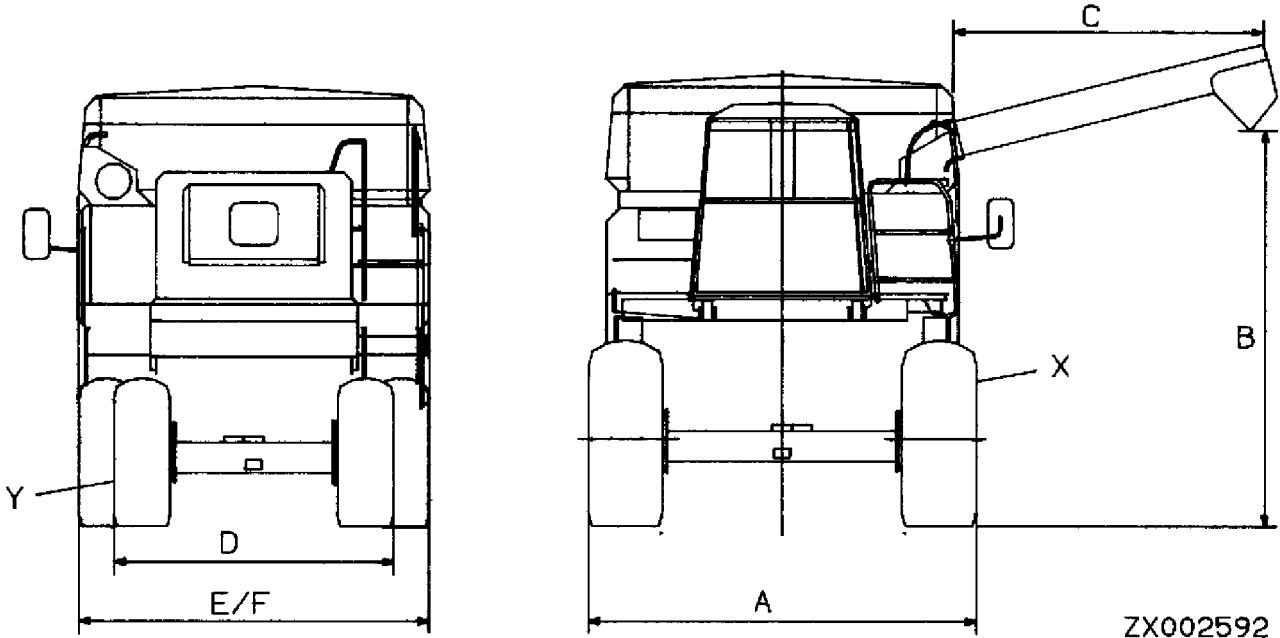
	X	Y	A	B	C	D
2254	620/75-R34	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3780 mm (12.40 ft)
	24.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	550 mm (1.80 ft)	3790 mm (12.43 ft)
2256	620/75-R34	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3840 mm (12.60 ft)
	24.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	550 mm (1.80 ft)	3850 mm (12.63 ft)
	30.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3840 mm (12.60 ft)

ZX004168 -JUN-23MAY95

ZX,MEAS1XZCO -19-01NOV96

Specifications

DIMENSIONS, 2254 AND 2256 COMBINES AND HILLMASTERS (CONTINUED)



ZX002592

- A—Front axle width
- B—Max. discharge height
- C—Outreach of unloading auger
- D—Width of standard (fixed) rear axle
- E—Width of adjustable rear axle
- F—Width of rear wheel drive axle
- X—Front tires
- Y—Rear tires

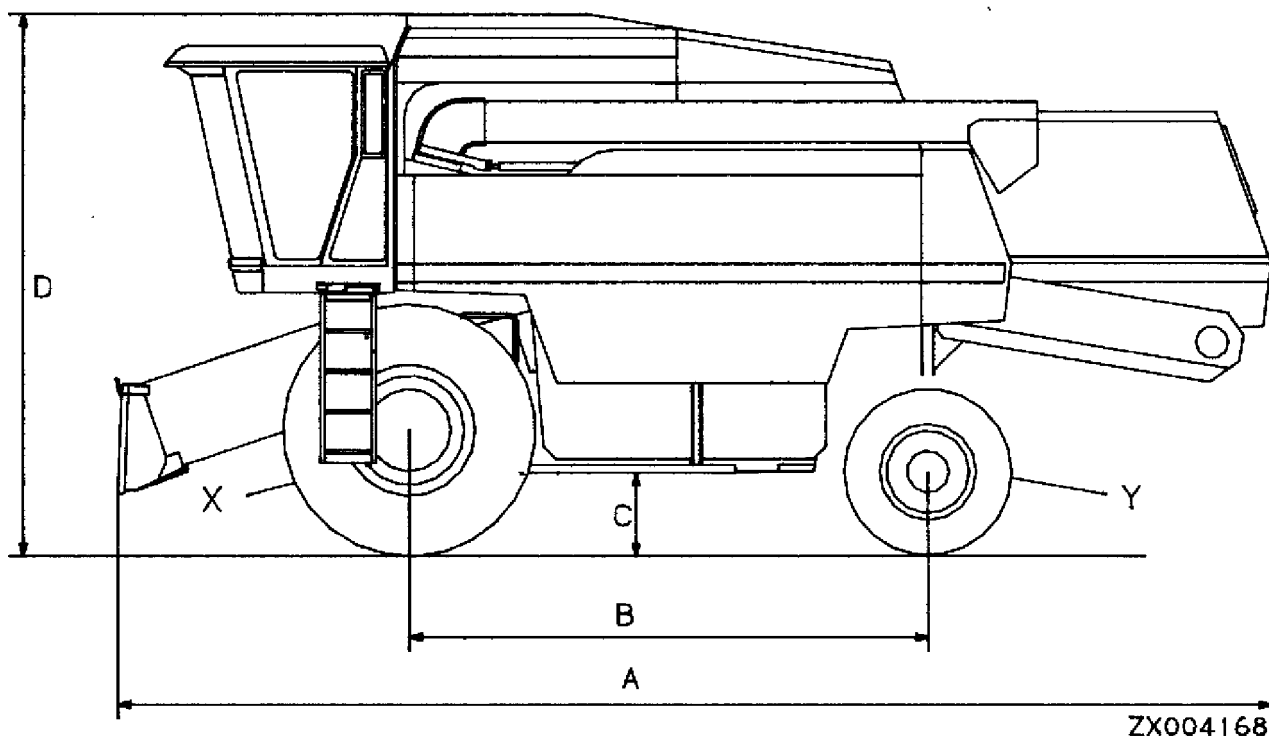
Front View

Rear View

	X	Y	A	B	C	D	E	F
2254	620/75-R34	14.9-24	3300 mm (10.83 ft)	3980 mm (13.06 ft)	2570 mm (8.43 ft)	2940 mm (9.65 ft)	2940—3530 mm (9.65—11.58 ft)	3110—3720 mm (10.20—12.20 ft)
	24.5-32	14.9-24	3300 mm (10.83 ft)	3960 mm (13.00 ft)				
2256	620/75-R34	14.9-24	3300 mm (10.83 ft)	3980 mm (13.06 ft)	2570 mm (8.43 ft)	2940 mm (9.65 ft)	2940—3530 mm (9.65—11.58 ft)	3110—3720 mm (10.20—12.20 ft)
	24.5-32	14.9-24	3300 mm (10.83 ft)	3960 mm (13.00 ft)				
	30.5-32	14.9-24	3500 mm (11.48 ft)	3980 mm (13.06 ft)				

ZX,MEAS2XZCO -19-01NOV96

DIMENSIONS, 2258 AND 2264 COMBINES AND HILLMASTERS



A—Overall length
B—Wheel base

C—Ground clearance
D—Overall height

X—Front tires

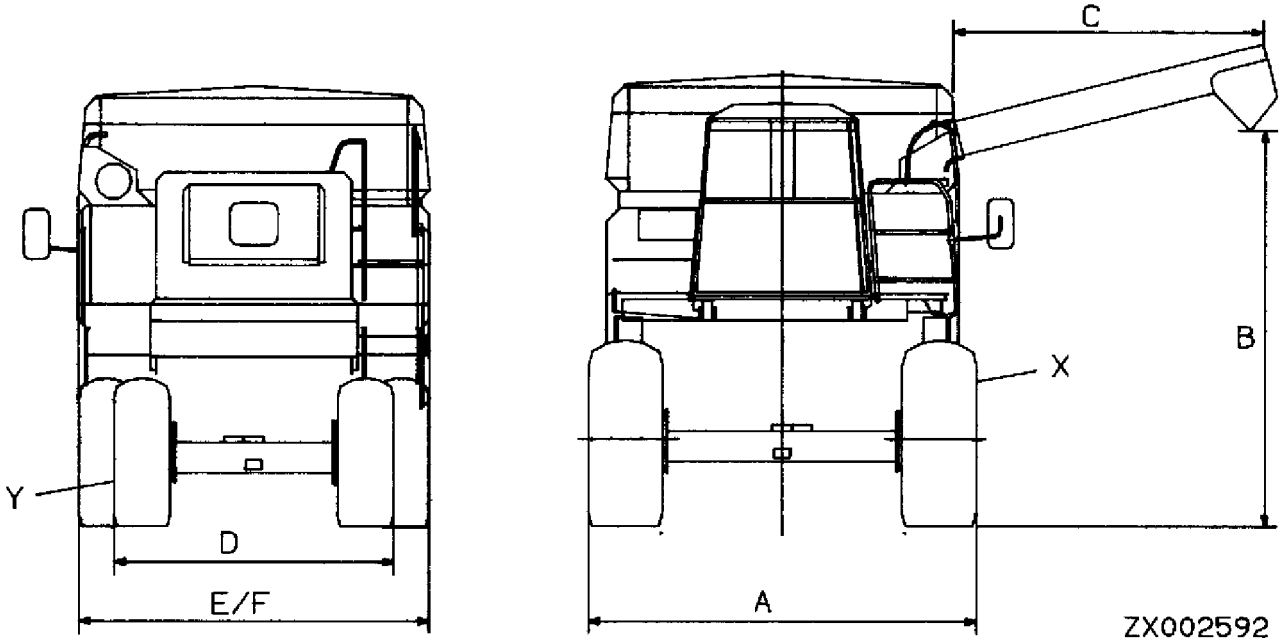
Y—Rear tires

Side View

	X	Y	A	B	C	D
2258	620/75-R34	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3910 mm (12.83 ft)
	24.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	550 mm (1.80 ft)	3940 mm (12.93 ft)
	30.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3910 mm (12.83 ft)
2264	620/75-R34	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3910 mm (12.83 ft)
	24.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	550 mm (1.80 ft)	3940 mm (12.93 ft)
	30.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3910 mm (12.83 ft)

Specifications

DIMENSIONS, 2258 AND 2264 COMBINES AND HILLMASTERS (CONTINUED)



ZX002592

- A—Front axle width
- B—Max. discharge height
- C—Outreach of unloading auger
- D—Width of standard (fixed) rear axle
- E—Width of adjustable rear axle
- F—Width of rear wheel drive axle
- X—Front tires
- Y—Rear tires

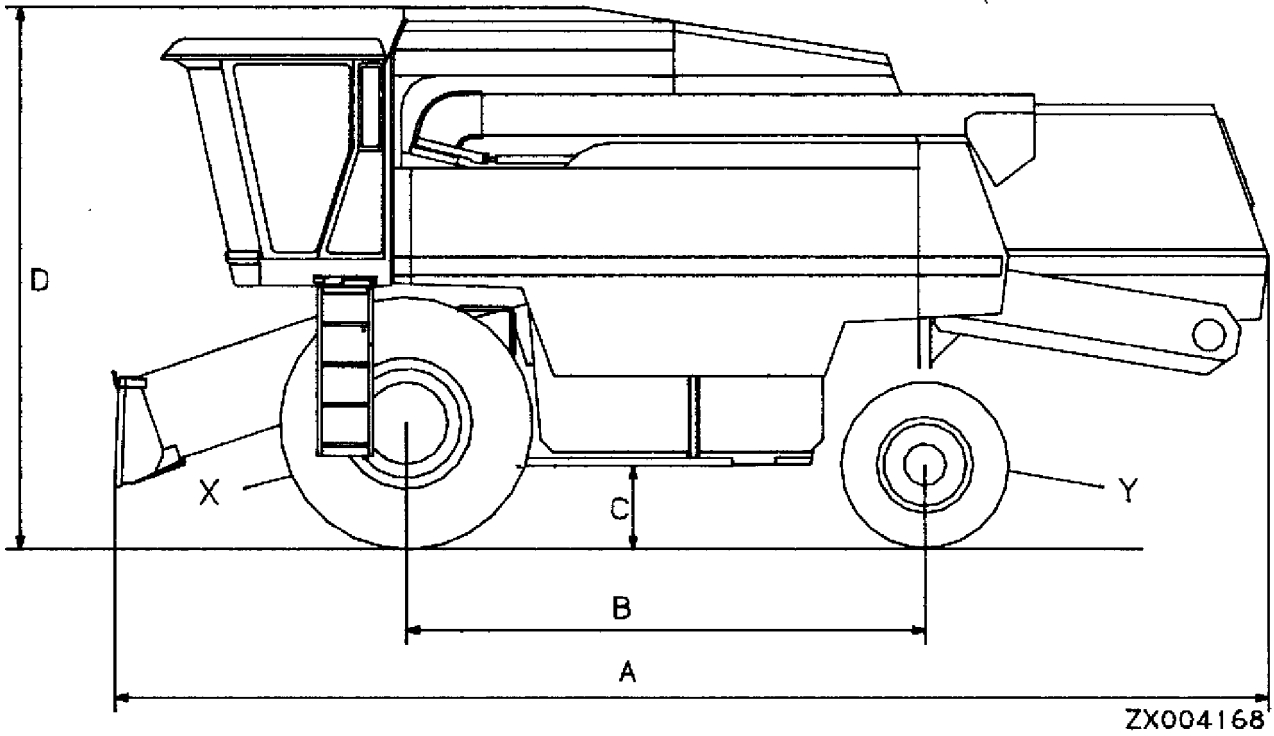
Front View

Rear View

	X	Y	A	B	C	D	E	F
2258	620/75-R34	14.9-24	3300 mm (10.83 ft)	3980 mm (13.06 ft)	2570 mm (8.43 ft)	2940 mm (9.65 ft)	2940—3530 mm (9.65—11.58 ft)	3110—3720 mm (10.20—12.20 ft)
	24.5-32	14.9-24	3300 mm (10.83 ft)	3960 mm (13.00 ft)				
	30.5-32	14.9-24	3500 mm (11.48 ft)	3980 mm (13.06 ft)				
2264	620/75-R34	14.9-24	3300 mm (10.83 ft)	3980 mm (13.06 ft)	2570 mm (8.43 ft)	2940 mm (9.65 ft)	2940—3530 mm (9.65—11.58 ft)	3110—3720 mm (10.20—12.20 ft)
	24.5-32	14.9-24	3500 mm (11.48 ft)	3960 mm (13.00 ft)				
	30.5-32	14.9-24	3800 mm (12.47 ft)	3980 mm (13.06 ft)				

ZX,MEAS4XZCO -19-01NOV96

DIMENSIONS, 2266 COMBINE AND HILLMASTER



A—Overall length
B—Wheel base

C—Ground clearance
D—Overall height

X—Front tires

Y—Rear tires

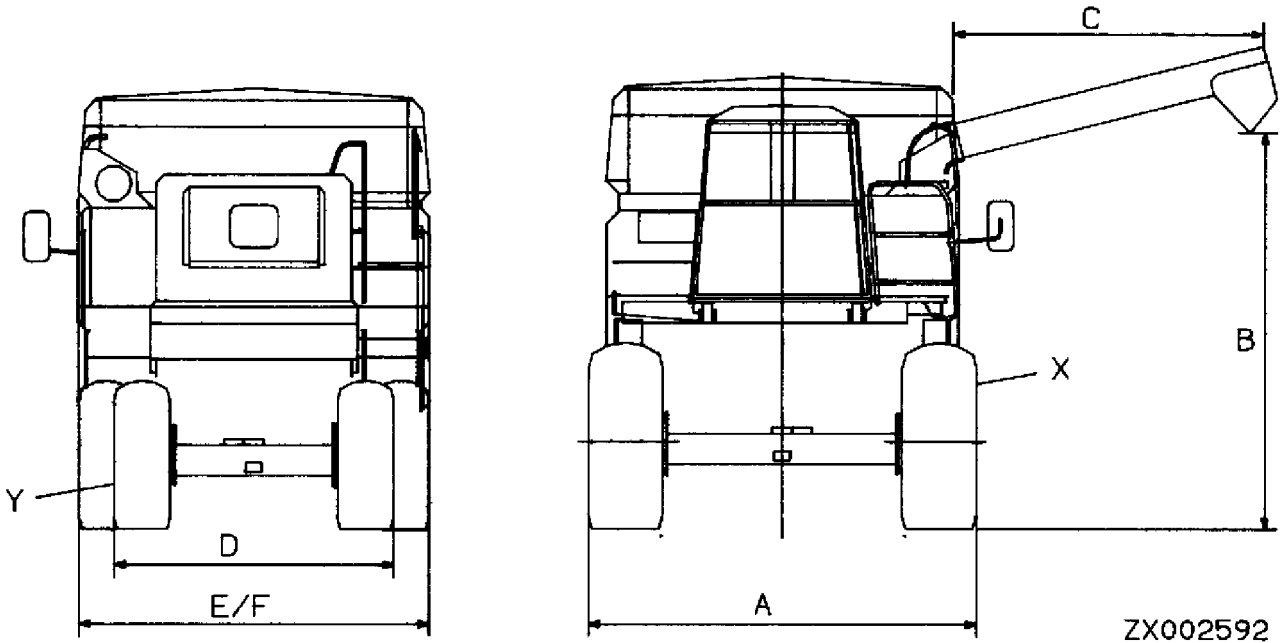
Side View

	X	Y	A	B	C	D
2266	620/75-R34	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3980 mm (13.06 ft)
	24.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	550 mm (1.80 ft)	4000 mm (13.12 ft)
	30.5-32	14.9-24	8630 mm (28.31 ft)	3820 mm (12.53 ft)	540 mm (1.77 ft)	3980 mm (13.06 ft)

ZX,MEAS5XZCO -19-01NOV96

ZX004168 -JUN-23MAY95

DIMENSIONS, 2266 COMBINE AND HILLMASTER (CONTINUED)



ZX002592

- A—Front axle width
- B—Max. discharge height
- C—Outreach of unloading auger
- D—Width of standard (fixed) rear axle
- E—Width of adjustable rear axle
- F—Width of rear wheel drive axle
- X—Front tires
- Y—Rear tires

Front View

Rear View









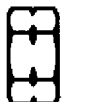



	X	Y	A	B	C	D	E	F
2266	620/75-R34	14.9-24	3300 mm (10.83 ft)	3980 mm (13.06 ft)	2570 mm (8.43 ft)	2940 mm (9.65 ft)	2940—3530 mm (9.65—11.58 ft)	3110—3720 mm (10.20—12.20 ft)
	24.5-32	14.9-24	3500 mm (11.48 ft)	3960 mm (13.00 ft)				
	30.5-32	14.9-24	3800 mm (12.47 ft)	3980 mm (13.06 ft)				

ZX,MEAS6XZCO -19-01NOV96

ZX002592 -JUN-23MAY95

Specifications

UNIFIED INCH BOLT AND CAP SCREW TORQUE VALUES

SAE Grade and Head Markings	NO MARK	1 or 2 ^b 	5 	5.1 	5.2 	8 	8.2 
	NO MARK	2 	5 		8 		

Size	Grade 1				Grade 2 ^b				Grade 5, 5.1, or 5.2				Grade 8 or 8.2			
	Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a	
	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft	N-m	lb-ft
1/4	3.7	2.8	4.7	3.5	6	4.5	7.5	5.5	9.5	7	12	9	13.5	10	17	12.5
5/16	7.7	5.5	10	7	12	9	15	11	20	15	25	18	28	21	35	26
3/8	14	10	17	13	22	16	27	20	35	26	44	33	50	36	63	46
7/16	22	16	28	20	35	26	44	32	55	41	70	52	80	58	100	75
1/2	33	25	42	31	53	39	67	50	85	63	110	80	120	90	150	115
9/16	48	36	60	45	75	56	95	70	125	90	155	115	175	130	225	160
5/8	67	50	85	62	105	78	135	100	170	125	215	160	240	175	300	225
3/4	120	87	150	110	190	140	240	175	300	225	375	280	425	310	550	400
7/8	190	140	240	175	190	140	240	175	490	360	625	450	700	500	875	650
1	290	210	360	270	290	210	360	270	725	540	925	675	1050	750	1300	975
1-1/8	400	300	510	375	400	300	510	375	900	675	1150	850	1450	1075	1850	1350
1-1/4	570	425	725	530	570	425	725	530	1300	950	1650	1200	2050	1500	2600	1950
1-3/8	750	550	950	700	750	550	950	700	1700	1250	2150	1550	2700	2000	3400	2550
1-1/2	1000	725	1250	925	990	725	1250	930	2250	1650	2850	2100	3600	2650	4550	3350

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.

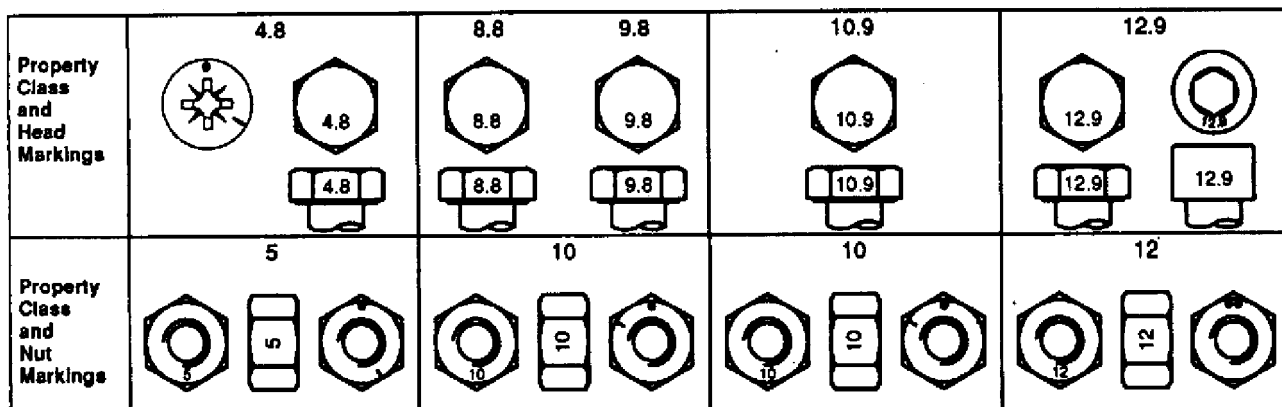
Make sure fasteners threads are clean and that you properly start thread engagement. This will prevent them from failing when tightening.

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.

^a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

^b Grade 2 applies for hex cap screws (not hex bolts) up to 152 mm (6-in.) long. Grade 1 applies for hex cap screws over 152 mm (6-in.) long, and for all other types of bolts and screws of any length.

METRIC BOLT AND CAP SCREW TORQUE VALUES



TS1163 -19-04MAR91

Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a		Lubricated ^a		Dry ^a	
	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft	N·m	lb-ft
M6	4.8	3.5	6	4.5	9	6.5	11	8.5	13	9.5	17	12	15	11.5	19	14.5
M8	12	8.5	15	11	22	16	28	20	32	24	40	30	37	28	47	35
M10	23	17	29	21	43	32	55	40	63	47	80	60	75	55	95	70
M12	40	29	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	47	80	60	120	88	150	110	175	130	225	165	205	150	260	190
M16	100	73	125	92	190	140	240	175	275	200	350	255	320	240	400	300
M18	135	100	175	125	260	195	330	250	375	275	475	350	440	325	560	410
M20	190	140	240	180	375	275	475	350	530	400	675	500	625	460	800	580
M22	260	190	330	250	510	375	650	475	725	540	925	675	850	625	1075	800
M24	330	250	425	310	650	475	825	600	925	675	1150	850	1075	800	1350	1000
M27	490	360	625	450	950	700	1200	875	1350	1000	1700	1250	1600	1150	2000	1500
M30	675	490	850	625	1300	950	1650	1200	1850	1350	2300	1700	2150	1600	2700	2000
M33	900	675	1150	850	1750	1300	2200	1650	2500	1850	3150	2350	2900	2150	3700	2750
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2750	4750	3500

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.

^a "Lubricated" means coated with a lubricant such as engine oil, or fasteners with phosphate and oil coatings. "Dry" means plain or zinc plated without any lubrication.

Make sure fasteners threads are clean and that 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 Werke Zweibrücken
Homburger Straße 117
D-66482 Zweibrücken

The Combine

comply with the EU provisions:

Models 2254, 2254HM, 2256,
2256HM, 2258, 2258HM,
2264, 2264HM, 2266
and 2266HM

89/392/EEC Machine Directive
89/336/EEC EMC Directive
and EN632 Combines and
Forage Harvesters

Zweibrücken 01 November 1996


Kent Cornish
(Manager Engineering Combines)

ZX,OMXZC0006999-19-01NOV96

ZX009541 -19-07NOV96

Serial Numbers

TYPE PLATES

Serial numbers identifying combine harvester components or assemblies are stamped on components or factory serial number plates.

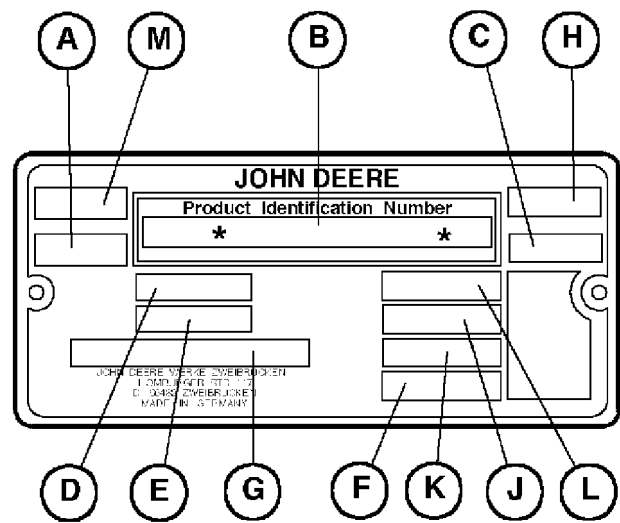
These numbers and letters are required when ordering parts or components for the combine harvester.

To ensure that you always have these numbers at hand, enter the appropriate serial numbers in the spaces provided in each illustration.

ZX.OMXZC0002360-19-05OCT92

COMBINE TYPE PLATE

- A—Model
- B—Product identification number
- C—Absorption coefficient
- D—Permissible trailer load
- E—Permissible drawbar load
- F—Engine power
- G—Homologation number (in certain countries only)
- H—Version (in certain countries only)
- J—Permissible front axle load
- K—Permissible rear axle load
- L—Permissible total weight
- M—Year of production



ZX008582

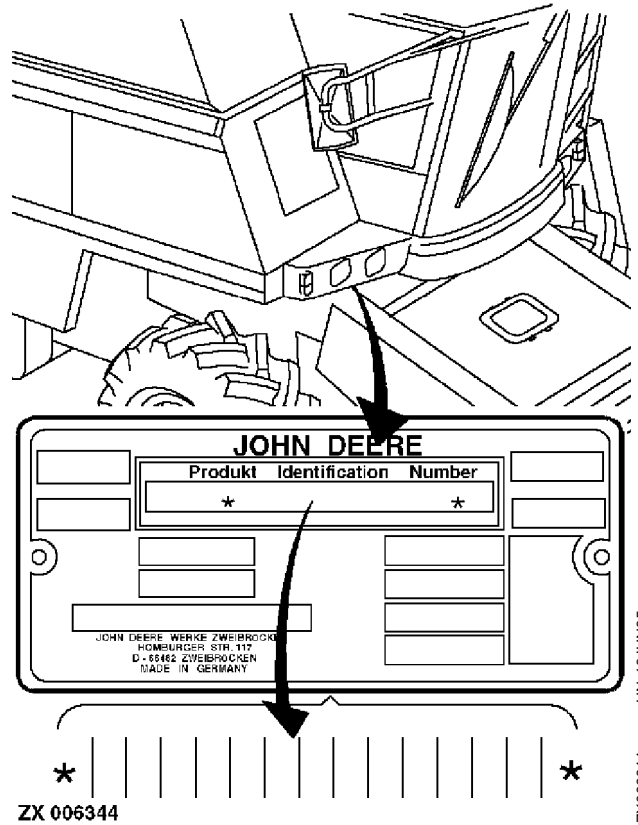
ZX008582 -JUN-31JAN96

ZX.OMXZC0003401-19-02MAY96

PRODUCT IDENTIFICATION NUMBER

The product identification number is located on the front right-hand side of the operator's platform.

NOTE: In addition, the last six figures of the product identification number are stamped into right-hand frame near the clean grain elevator.



-UN-19JUN95

ZX006344



-UN-19MAY95

ZX004370

ZX,OMXZCO003411-19-01JUL94

ENGINE SERIAL NUMBER — ENGINE TYPE 6068

The engine serial number is located near the fuel filter.



-UN-19MAY95

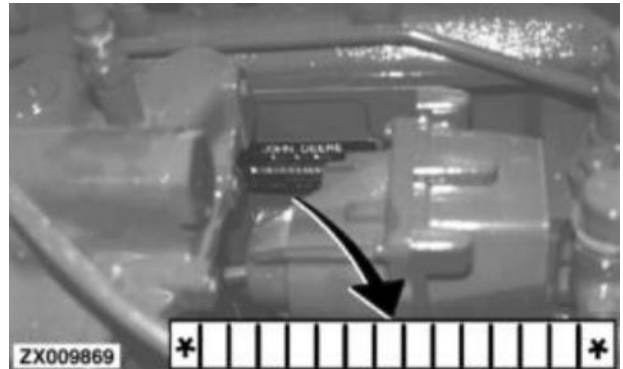
ZX004371

ZX,OMXZCO002362-19-04DEC92

Serial Numbers

ENGINE SERIAL NUMBER — ENGINE TYPE 6081

The engine serial number is located on the engine block between the oil filter and the injection pump.



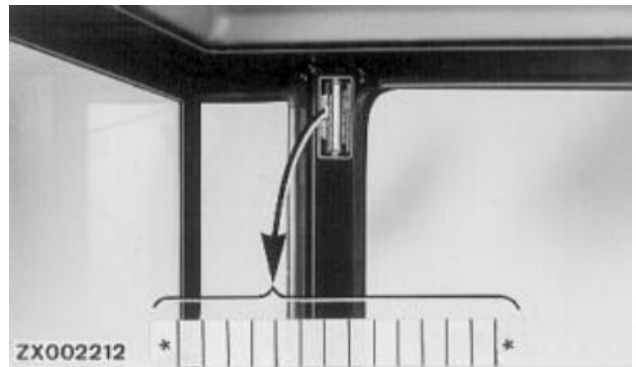
ZX,OMXZC0007000-19-01NOV96

-UN-08NOV96
ZX009869

OPERATOR'S CAB SERIAL NUMBER

The operator's cab serial number is located on the inside of the left-hand side panel.

NOTE: The operator's cab serial number is the same as that for the air conditioning system.

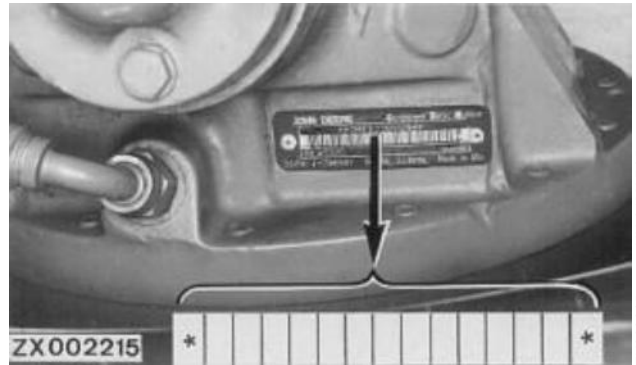


ZX,OMSPFH001431-19-01NOV91

-UN-24MAR95
ZX002212

FOUR WHEEL DRIVE MOTOR SERIAL NUMBER

The serial number of the four wheel drive motor is located on top of the motor.

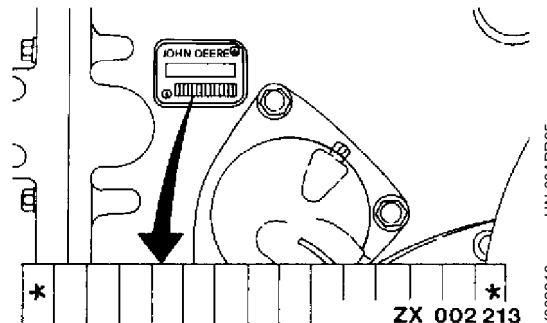


ZX,OMSPFH001434-19-01NOV91

-UN-24MAR95
ZX002215

THREE-SPEED TRANSMISSION SERIAL NUMBER

The three-speed transmission serial number is located on right-hand side of transmission.



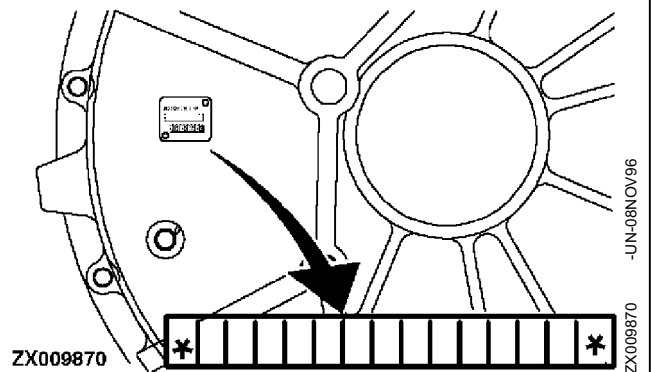
ZX,OMSPFH001927-19-22MAY92

-UN-03APR95
ZX002213

Serial Numbers

FINAL DRIVE SERIAL NUMBER

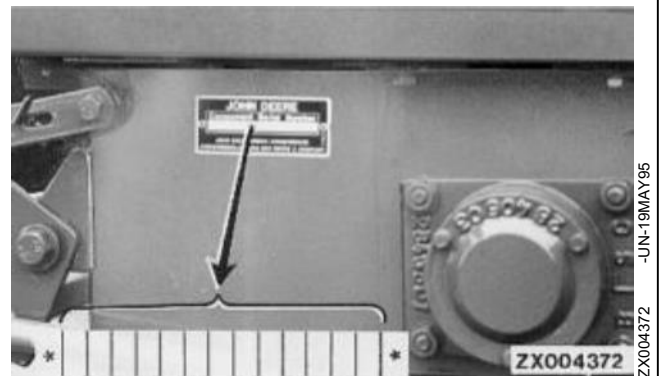
The final drive serial number is located on the transmission housing opposite the input shaft.



ZX,OMXZC0007001-19-01NOV96

STRAW CHOPPER SERIAL NUMBER

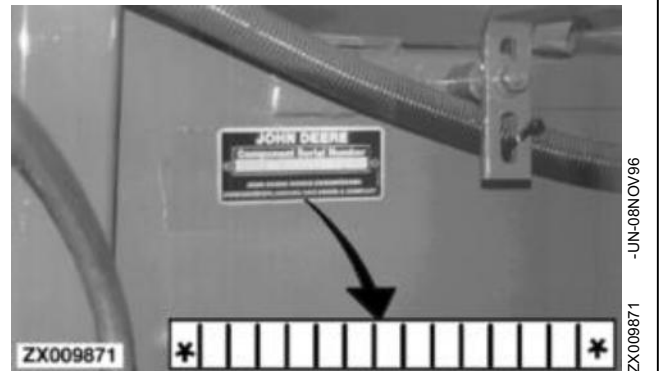
The straw chopper serial number is located on the outside of the chopper, on the right.



ZX,OMXZC0002363-19-05OCT92

FEEDER HOUSE SERIAL NUMBER

The feeder house serial number is located on the outside of the feeder house, on the left-hand side.



ZX,OMXZC0007002-19-01NOV96

SERIAL NUMBER OF THRESHING CYLINDER REDUCTION GEAR

The serial number of the cylinder reduction gear is located on the outside of the gear cover at the right-hand side.



ZX,OMXZC0007005-19-01NOV96

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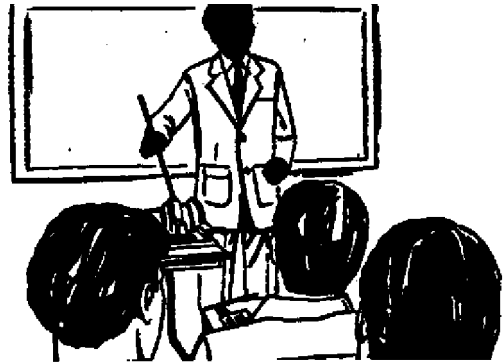
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