SIDEHILL 6600 COMBINE

JOHN DEERE

OPERATORS MANUAL

SIDEHILL 6600
COMBINE

OMH88386 C5 English

OMH88386 C5

LITHO IN THE U.S.A.
ENGLISH

To the Purchaser

This new combine was carefully designed and manufactured to give years of dependable service. To keep it running efficiently, read the instructions in this operator's manual. Each section is clearly identified so you can easily find the information you need—whether it is operation, lubrication, or service. Read the Table of Contents to learn where each section is located. Use the alphabetical index for fast reference.

This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

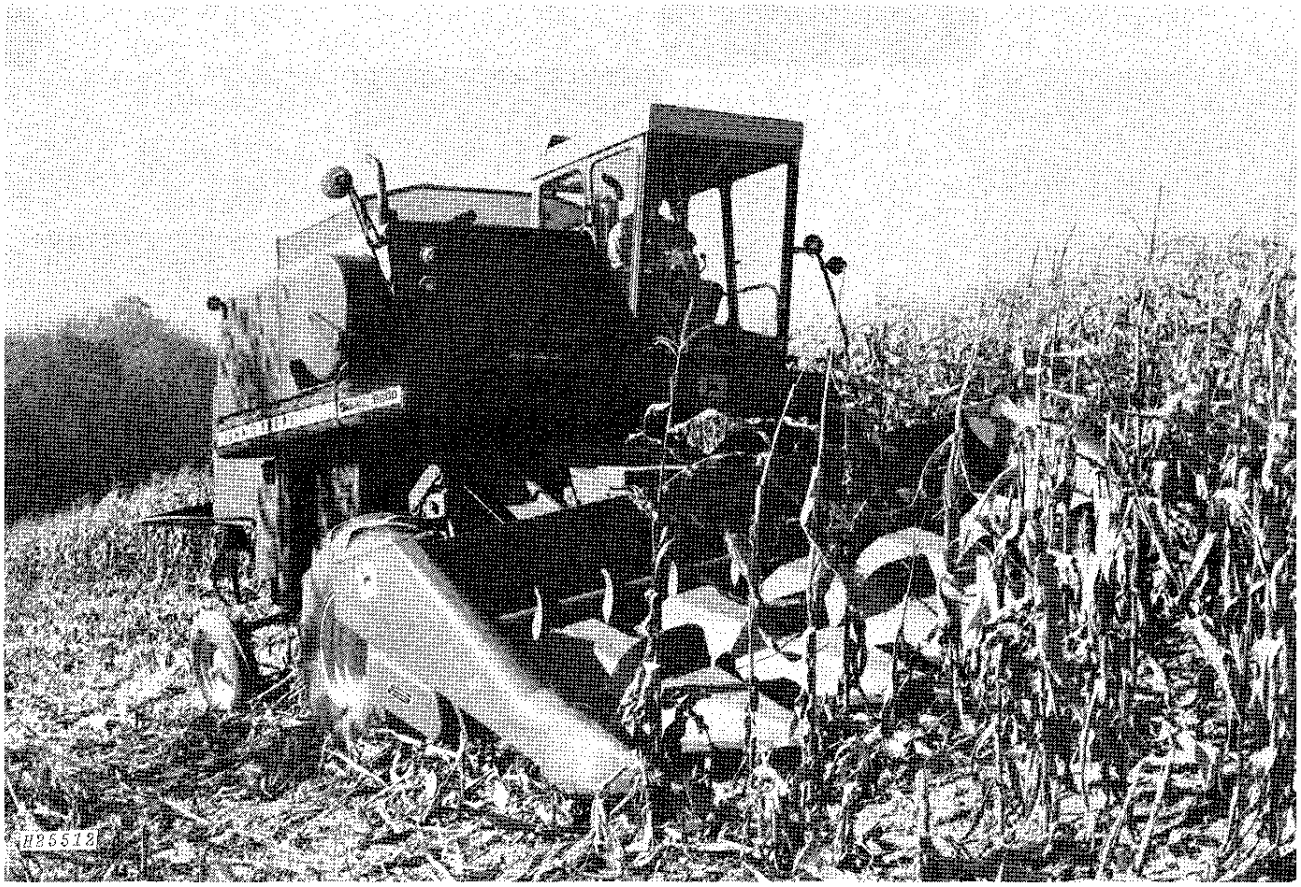
Your operator's manual contains SI Metric equivalents which follow immediately after the U.S. customary units of measure.

Study this manual carefully and keep it handy with your regular combine operator's manual, in a safe place, for future reference.

"Right-hand" and "left-hand" sides are determined by facing in the direction the combine will travel when in use.

If your combine requires replacement parts, go to your John Deere dealer where you can obtain Genuine John Deere parts—accept no substitutes.

The warranty on this combine appears on your copy of the purchase order which you should have received from your dealer when you purchased the combine.

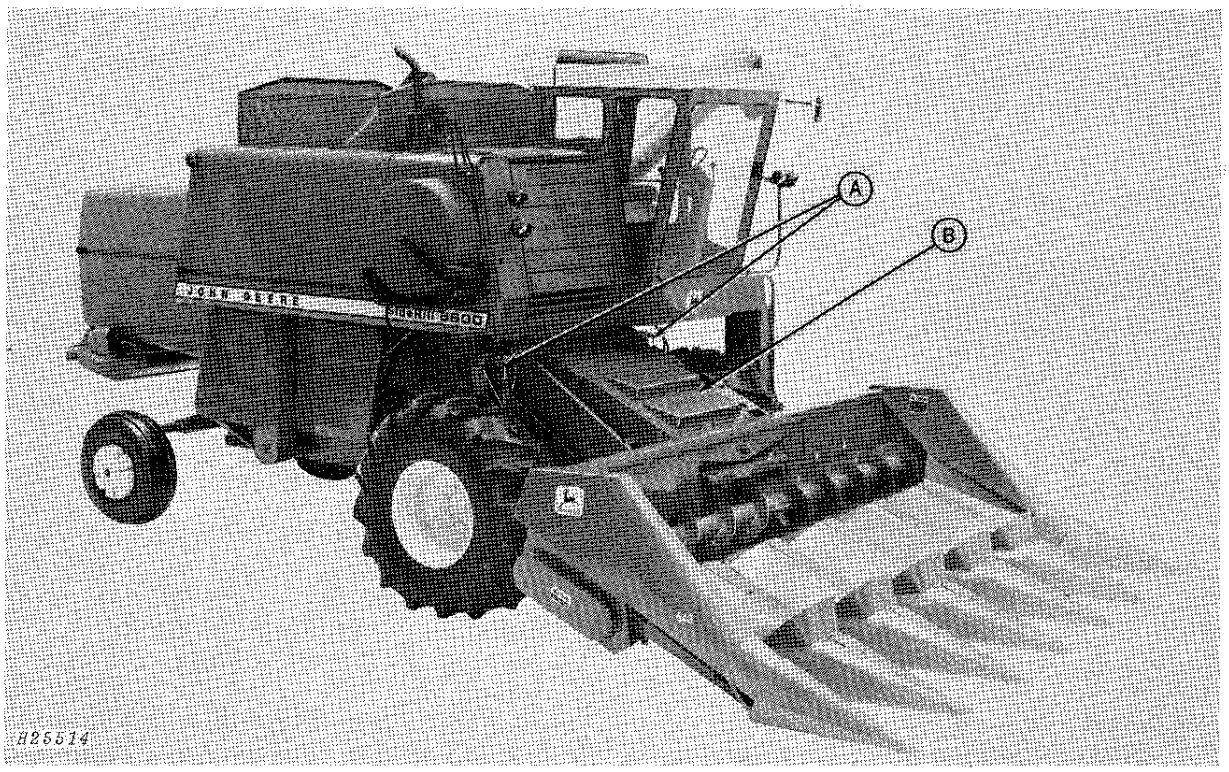


Contents

IMPORTANT

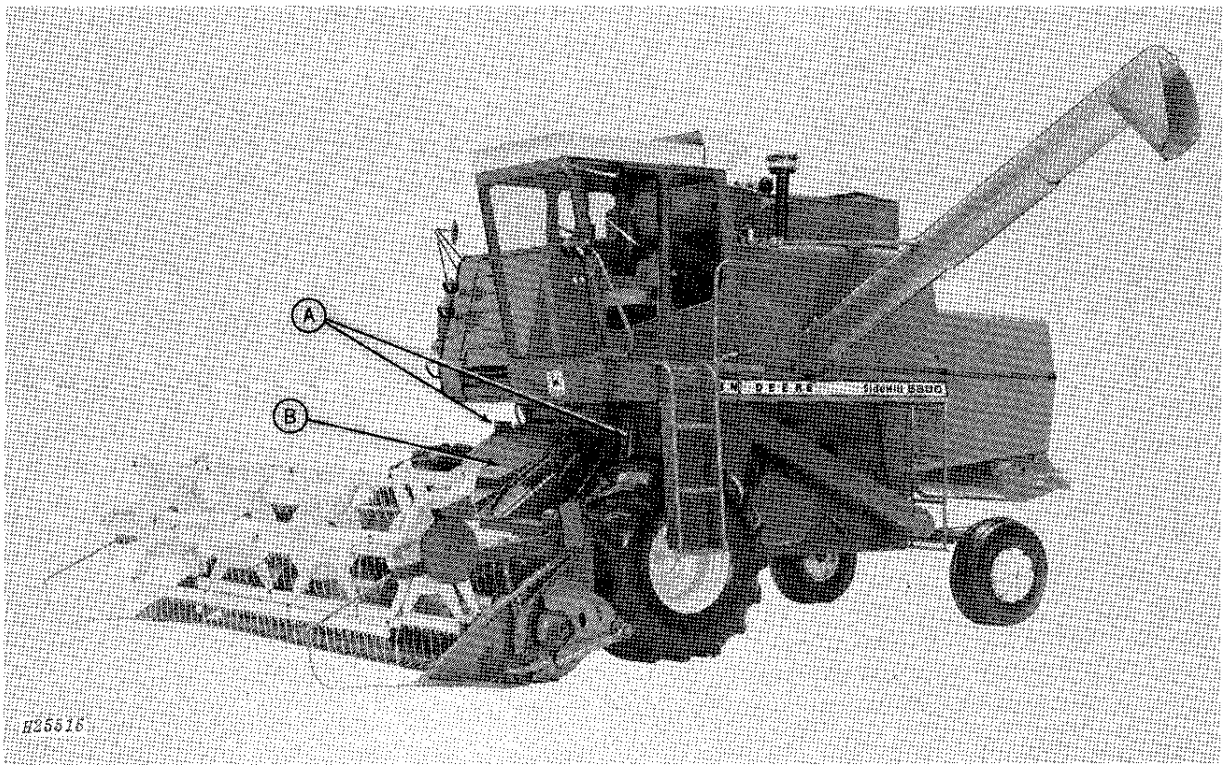
This operator's manual covers only information pertaining to the leveling system, paddle feeder house, and specifications for the SideHill 6600 Combine.

Refer to your operator's manual for 6600 and 7700 Combines for information covering all the other areas of the SideHill 6600 Combine.



A—Leveling Cylinders B—Paddle Feeder House

John Deere SideHill 6600 Combine with Corn Head



A—Leveling Cylinders B—Paddle Feeder House

John Deere SideHill 6600 Combine with Cutting Platform

Safety Suggestions

The safety of the operator was one of the prime considerations in the minds of John Deere engineers when this combine was designed. Shielding, simple adjustments, and other safety features were built into the combine whenever possible.

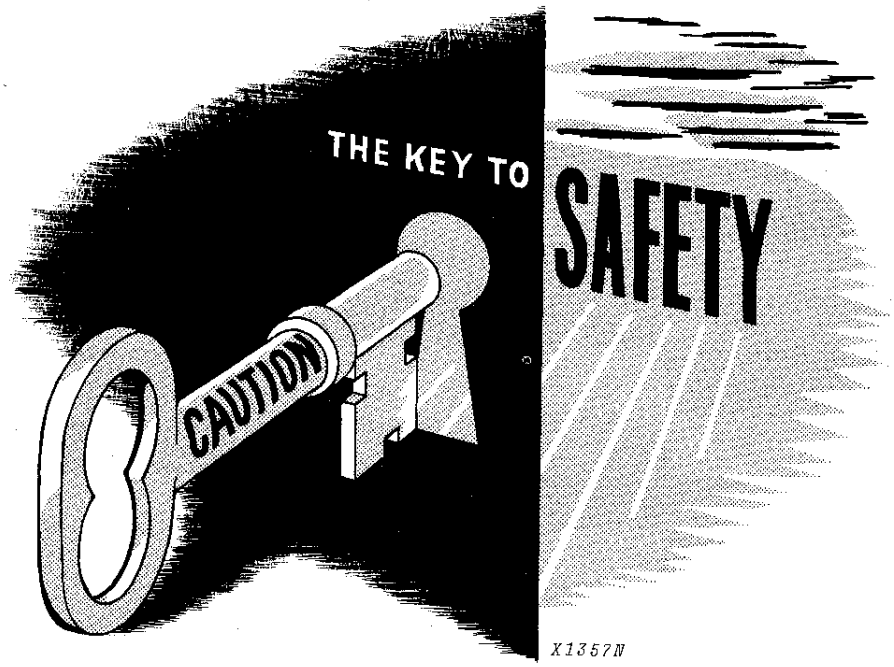
All machinery should be operated only by responsible persons who have been properly instructed and assigned to do so.

Only the operator should be allowed on the operator's platform when the combine is in operation.

Hydraulic oil for the leveling system is supplied from the main combine hydraulic system. This arrangement of the two hydraulic systems gives first priority to the platform lift, reel lift, and variable ground speed drive functions. Therefore, the leveling system will not work when any one of these functions is being used. Be certain to complete the use of these functions before making a sharp turn.

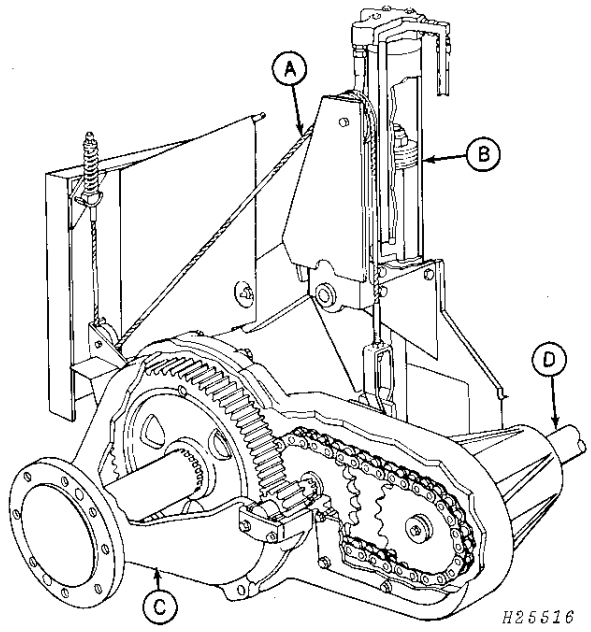
Exercise extreme caution when making turns on slopes. Do not turn faster than the combine can level.

Always keep the combine in gear when going down hills.



Operation

LEVELING SYSTEM



A—Platform Leveling Cable
B—Left-Hand Leveling Cylinder
C—Final Drive
D—Drive Shaft

The SideHill 6600 Combine has been designed for harvesting crops on slopes of from zero to 18 percent where level land combines are normally used. The electro-hydraulic leveling system automatically keeps the separator level as the combine moves across changing hill slopes.

How The System Works

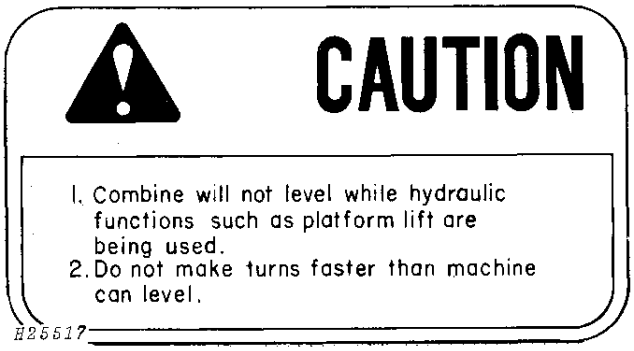
A level sensing control box, located on the combine front axle, contains a pendulum which senses if the combine separator is in a level position. As the combine moves onto a slope and starts to lean, the pendulum swings against either the right or left sensing switch, depending upon the direction of the slope. The sensing switch then activates the electrical leveling circuit which sends electrical current to the right or left tilt solenoid on the leveling control valve.

After the sensing switch has activated the solenoid on the leveling control valve, the spool in the control valve moves, directing hydraulic oil under pressure to the appropriate leveling cylinder, causing it to retract. Hydraulic oil under pressure is forced out the top of the retracting cylinder and into the top of the opposite cylinder, causing it to extend.

The hydraulic oil from the rod end of the retracting cylinder then flows back through the control valve and on to the main hydraulic reservoir. One cylinder continues to extend while the other cylinder continues to retract until the combine is level. The pendulum then returns to a vertical position, releasing the sensing switch.

Oil for the leveling hydraulic system is supplied from the main combine hydraulic system. Hydraulic oil for the leveling system is supplied from a pressure port in the main hydraulic control valve. This arrangement of the two hydraulic systems gives first priority to the platform lift, reel lift, and variable ground speed drive functions. Therefore, the leveling system will not work when any one of these functions is being used.

CAUTION: Be certain to complete the use of the platform lift, reel lift, and variable ground speed drive functions before making a sharp turn. Exercise extreme caution when making turns on slopes. Do not turn faster than the combine can level.



This decal appears on the firewall to the right of instrument panel.

Following is an explanation of the components of the electrical and hydraulic leveling systems.

Electrical System

The electrical system consists of two sensing switches and a pendulum in the level sensing control box, right and left tilt solenoids located on the leveling control valve, right and left tilt limit switches located in front of the leveling cylinders, a manual leveling control switch, and a leveling control cut-out switch. The electrical system actuates the hydraulic system.

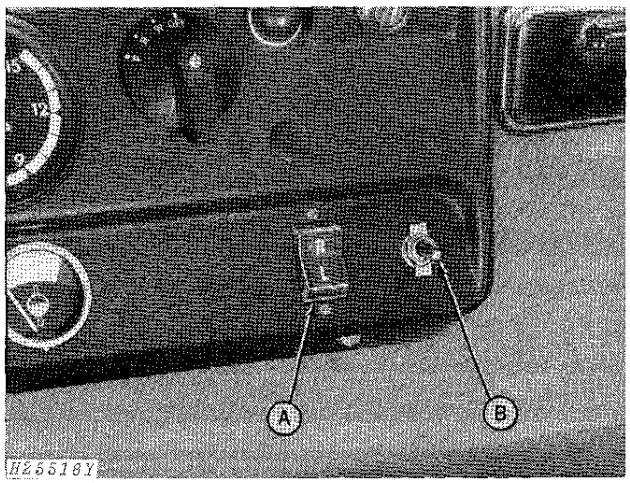
The electrical system is protected from overload by a 7.5 amp fuse.

Level Sensing Control Box

The two sensing switches in the level sensing control box are activated by a pendulum which swings against the right or left sensing switch, depending upon the direction of slope.

IMPORTANT: It is important that proper adjustment of the two sensing switches and the pendulum be maintained to insure proper leveling. See your John Deere dealer.

Leveling Control and Cut-Out Switches



A—Manual Leveling Control Switch
B—Leveling Control Cut-Out Switch

Manual Leveling Control Switch

If the leveling system should fail to function or if the operator desires to tilt the separator while on level ground, the leveling system can be controlled by a manual leveling control switch "A," located on the instrument panel. This switch will return to neutral position when released.

Push switch at "R" for right-hand tilt and "L" for left-hand tilt.

IMPORTANT: Be certain the transmission is in neutral and the parking brake lever is released before tilting combine.

Leveling Control Cut-Out Switch

By operating this switch, the leveling system can be disengaged.

IMPORTANT: Be certain to disengage the leveling system when transporting the combine.

Move the cut-out switch to the "ON" position for normal leveling operation. Move switch down to the "OFF" position to disengage the leveling system.

If the leveling control cut-out switch "B" is in the "ON" position and the manual leveling control switch "A" is pushed and then released, the separator will return to level.

If the leveling control cut-out switch "B" is in the "OFF" position and the manual leveling control switch "A" is pushed and then released, the separator will remain tilted.

Tilt Limit Switches

The right and left tilt limit switches are located in front of the leveling cylinders. These limit switches stop the leveling action of the leveling cylinders when one cylinder is fully extended and the other is fully retracted, by cutting off the electrical current flow to tilt solenoids of the leveling control valve. This prevents the combine hydraulic system pressure from going to relief valve setting when at full tilt which can cause overheating if sustained.

Hydraulic System

The hydraulic system supplies the hydraulic force to level the separator when the combine is operating on hill slopes.

The system consists of two double-acting leveling cylinders and a leveling control valve equipped with right and left tilt solenoids and two thermal relief valves. Oil for the hydraulic leveling system is supplied from the main hydraulic system. The hydraulic system is activated by the electrical system.

Hydraulic oil for the leveling system is supplied from a pressure port in the main hydraulic control valve. This arrangement of the two hydraulic systems gives first priority to the platform lift, reel lift, and variable ground speed drive functions. Therefore, the leveling system will not work when any one of these functions is being used.

⚠ CAUTION: Be certain to complete use of the platform lift, reel lift, and variable ground speed drive functions before making a sharp turn. Exercise extreme caution when making turns on slopes. Do not turn faster than the combine can level.

Hydraulic oil required for the unloading auger swing control is supplied from the leveling system. To insure proper operation of the unloading auger swing control, turn off the leveling system when extending or retracting the unloading auger.

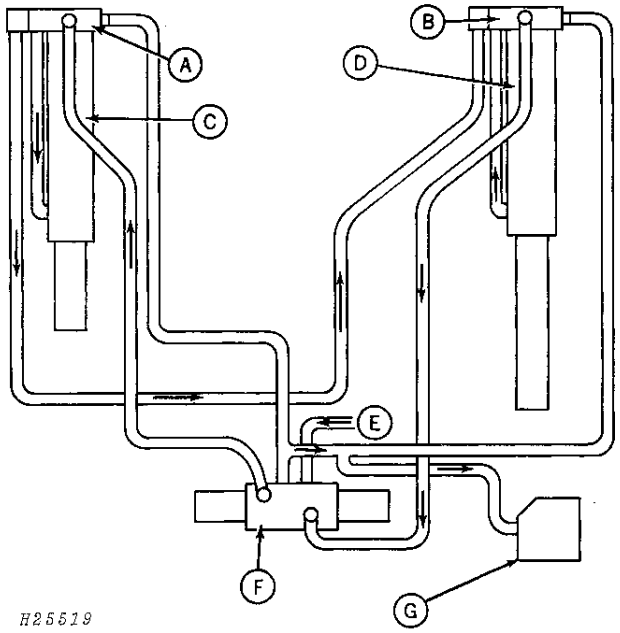
Leveling Control Valve

The leveling control valve is located on top of the front axle. When the valve spool is activated by either the right tilt or left tilt solenoid (attached to the control valve housing), oil is directed to and from the leveling cylinders.

This valve is equipped with pressure operated checks and thermal relief valves that protect the leveling system from excessive pressures.

Leveling Cylinders

There are two double-acting cylinders located at the front of the separator.

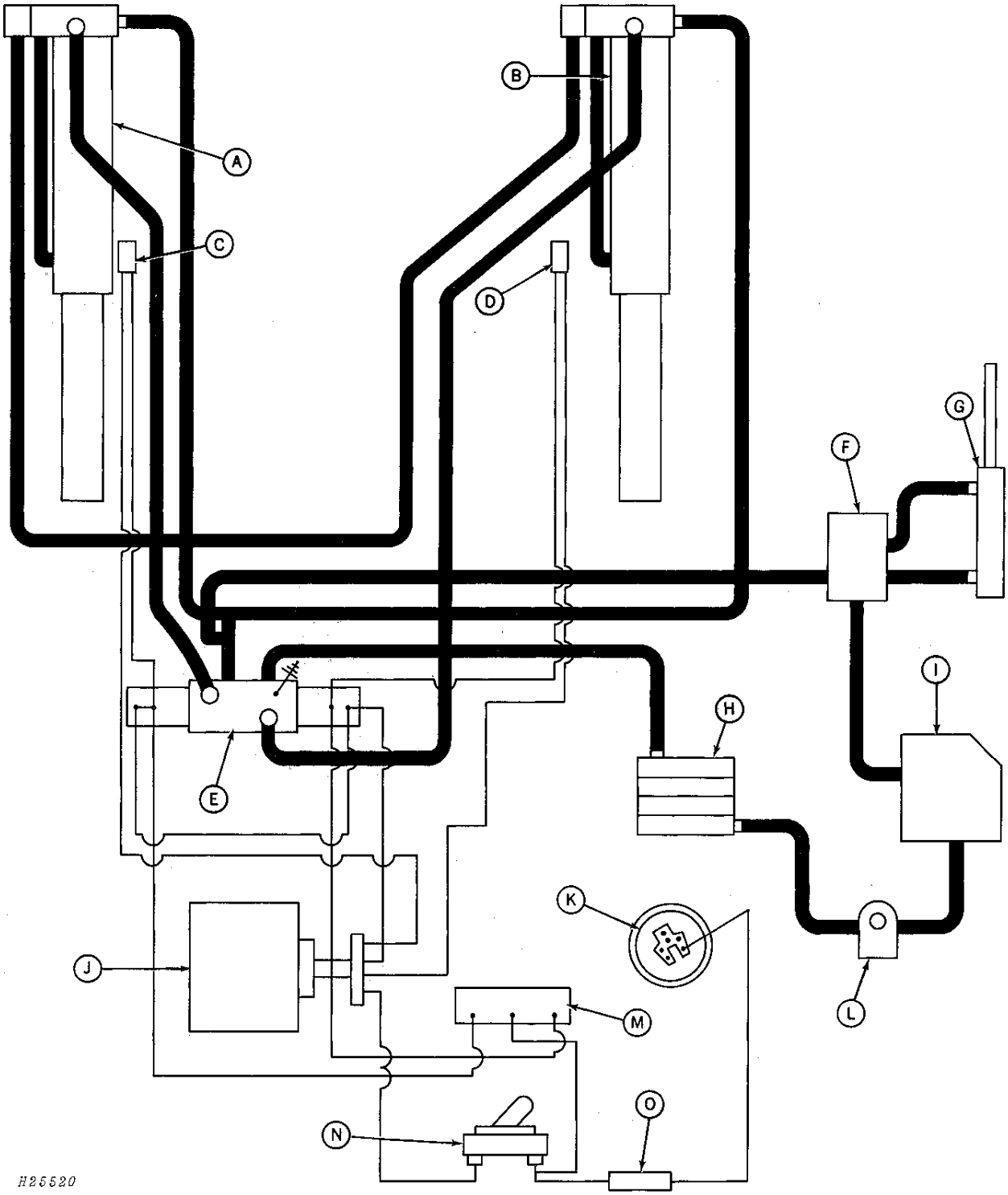


A—Head End
B—Head End
C—Retracted Cylinder
D—Extended Cylinder
E—Oil Supply
F—Leveling Control Valve
G—Main Hydraulic Reservoir

As oil is delivered to the rod end of one cylinder, the cylinder retracts. The displaced oil from the head end of this cylinder is forced out and into the head end of the opposite cylinder, causing that cylinder to extend. The oil in the lower end of the extending cylinder is forced out and flows through the leveling control valve to the main hydraulic reservoir.

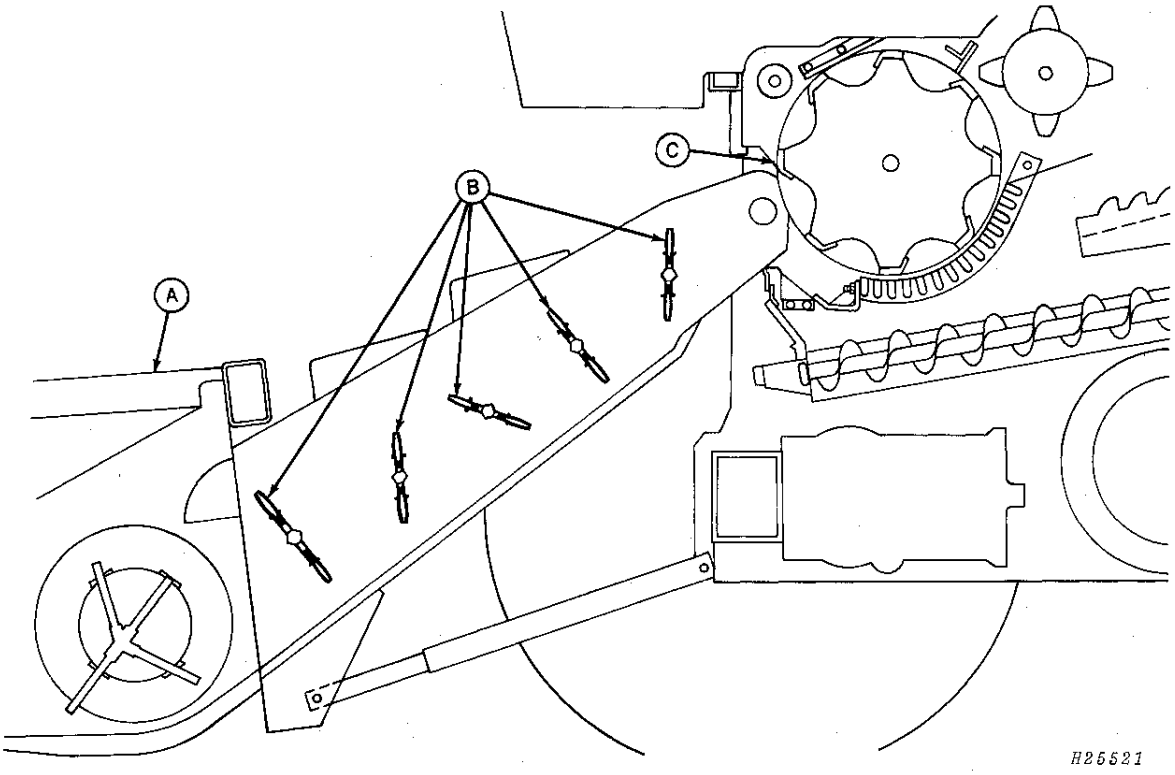
The cylinders are equipped with pressure operated safety check valves.

Electrical and Hydraulic Systems Diagram



A—Right-Hand Leveling Cylinder
B—Left-Hand Leveling Cylinder
C—Left Tilt Limit Switch
D—Right Tilt Limit Switch
E—Leveling Control Valve
F—Unloading Auger Valve
G—Unloading Auger Cylinder
H—Main Hydraulic System Control Valve
I—Main Hydraulic Reservoir
J—Level Sensing Control Box
K—Ignition Switch
L—Main Hydraulic Pump
M—Manual Leveling Control Switch
N—Leveling Control Cut-Out Switch
O—7.5 Amp Fuse

PADDLE FEEDER HOUSE



A—Platform **B—Feeder House Paddles** **C—Cylinder**

The paddle feeder house receives material from the platform, corn head, or row crop head "A" and force feeds it to the threshing cylinder "C".

The front feeder house paddle reaches out through the front of the feeder house and moves the material away from the platform, corn head, or row crop head.

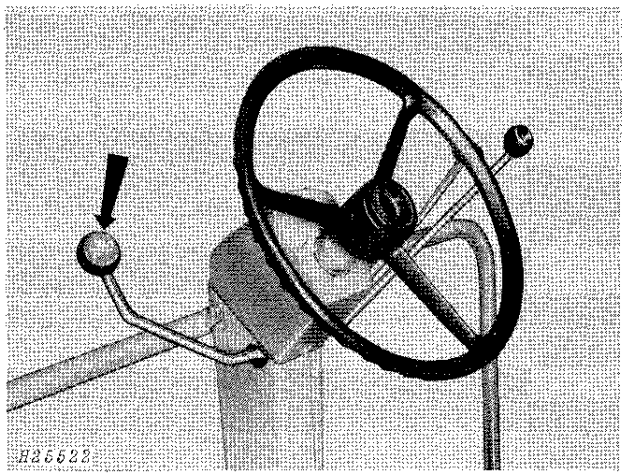
The feeder house paddles "B" are not timed in relation to each other. For maximum life of the feeder house drives, the paddles must be randomly positioned.

The speed of the feeder house paddles changes with the speed of the corn head or row crop head.

IMPORTANT: The variable-belt-drive feeder house is designed for use in corn or row crops. Using the variable-belt-drive to combine grain crops at any speed other than low speed can cause excessive wear to cutterbar parts.

When combining corn or row crops, change the paddle feeder house speed by moving the variable speed feeder house control lever. See the corn head or row crop head operator's manual for correct speeds.

Variable Speed Feeder House Control Lever



To increase the speed, push the variable speed feeder house lever forward.

To decrease the speed, pull the lever rearward.

OPERATING SPEEDS

ENGINE

Description	Speed
404 Diesel	2500 rpm (Full Load) 2625 rpm (Fast Idle)

FEEDER HOUSE

Description	Speed
Feeder House Paddles	265 to 435 rpm
Upper Feeder House Shaft	430 to 705 rpm

GROUND SPEED CONTROL RANGE IN MPH (km/h)

(BELT DRIVE)

Size	Type	Tire Ply Rating	1st Gear	2nd Gear	3rd Gear	4th Gear	Reverse Gear
23.1-26	Cleat	10	.7 to 1.7 (1.1 to 2.7)	1.6 to 4.0 (2.6 to 6.4)	2.9 to 7.3 (4.7 to 11.8)	6.7 to 16.7 (10.8 to 26.9)	1.3 to 3.3 (2.1 to 5.3)
23.1-26	Cane & Rice	10	.7 to 1.8 (1.1 to 2.9)	1.7 to 4.2 (1.1 to 6.8)	3.1 to 7.6 (5.0 to 12.2)	7.0 to 17.6 (11.3 to 28.3)	1.4 to 3.4 (2.3 to 5.5)

(HYDROSTATIC DRIVE)

			1st Gear		2nd Gear		3rd Gear		4th Gear	
Size	Type	Tire Ply Rating	Forward	Reverse	Forward	Reverse	Forward	Reverse	Forward	Reverse
23.1-26	Cleat	10	0 to 1.7 (0 to 2.7)	0 to 1.1 (0 to 1.7)	0 to 4.0 (0 to 6.4)	0 to 2.5 (0 to 4.0)	0 to 7.3 (0 to 11.8)	0 to 4.5 (0 to 7.2)	0 to 16.7 (0 to 26.9)	0 to 10.3 (0 to 16.6)
23.1-26	Cane & Rice	10	0 to 1.8 (0 to 2.9)	0 to 1.1 (0 to 1.7)	0 to 4.2 (0 to 6.8)	0 to 2.6 (0 to 4.2)	0 to 7.6 (0 to 12.2)	0 to 4.7 (0 to 7.6)	0 to 17.6 (0 to 28.3)	0 to 10.9 (0 to 17.5)

Lubrication and Periodic Service

CAUTION: Never lubricate or service combine or engine while it is running.

SYMBOLS

Lubricate with John Deere Multi-Purpose lubricant or an equivalent SAE multipurpose-type grease at hourly intervals indicated on the symbols.

KEEP LUBRICANTS CLEAN

Use only high-grade lubricants which have been stored in clean containers. Wipe away all grease and dirt before removing filler caps or plugs. Wipe grease fittings clean before lubricating.

STORING LUBRICANTS

Your combine can operate at top efficiency only if clean lubricants are used. Use clean containers to handle all lubricants. Store them in an area protected from dust, moisture, and other contamination.

COMBINE HYDRAULIC SYSTEM

Use John Deere Torq-Gard Supreme engine oil or an equivalent engine oil meeting specifications API Service SC or SD.

Depending on the expected prevailing temperature for the fill period, use engine oil of viscosity as shown in the following chart.

		Other Oils	
Air Temperature	John Deere Torq-Gard Supreme Oil	Single Viscosity Oil	Multi-Viscosity Oil
Above 32°F (0°C)	SAE 10W-20	SAE 20	SAE 10W-30
Below 32°F (0°C)	SAE 10W-20	SAE 10W	SAE 10W-30

NOTE: When checking oil level or adding oil in the hydraulic system, be sure cutting platform, corn head, or row crop head is lowered to the ground.

TRANSMISSION AND FINAL DRIVE OILS

Use only John Deere Hy-GARD Transmission and Hydraulic Oil or its equivalent in the transmission and John Deere SAE 90 Gear Lubricant or an equivalent SCL multipurpose-type gear oil in the final drives. Other types of oils will not give satisfactory service and may result in eventual damage. These special oils, available from your John Deere dealer, may be used in all types of weather conditions.

NOTE: John Deere Hy-GARD Transmission and Hydraulic oil may be added to or mixed with John Deere Type 303 Special Purpose Oil.

GREASES

Use John Deere Multi-Purpose Lubricant or an equivalent SAE multipurpose-type grease for all grease fittings. Application of grease as instructed in the lubrication section will provide proper lubrication and will keep contamination out of bearings.

LUBRICATE AS REQUIRED

Clevises, Linkages, Tightener Arm Pivots, and Other Moving Parts

When lubricating the combine, make a practice of putting a few drops of SAE 30 oil on all clevises, linkages, tightener arm pivots, and other moving parts. This will make them work easier and prolong their life.

Chains

Lubricate chains at frequent intervals with SAE 30 oil. Operate chains for several minutes so they are warm when lubrication is applied. Shut off combine engine and then lubricate chains.

CAUTION: Never lubricate chains with the combine engine running.

10-HOUR OR DAILY SERVICE

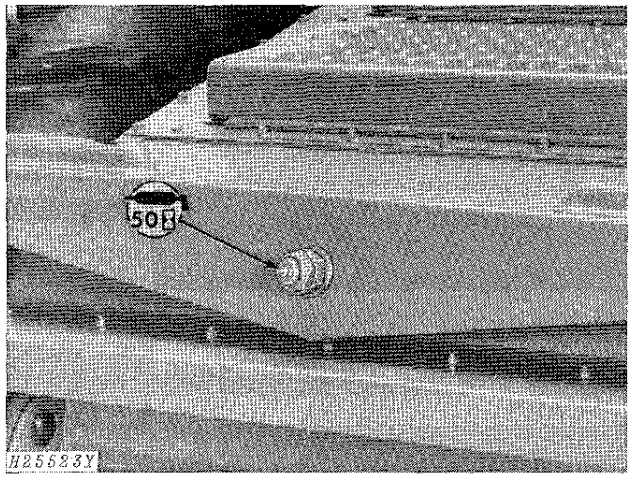
Feeder House Drive Chains

Check tension and oil, page 18.

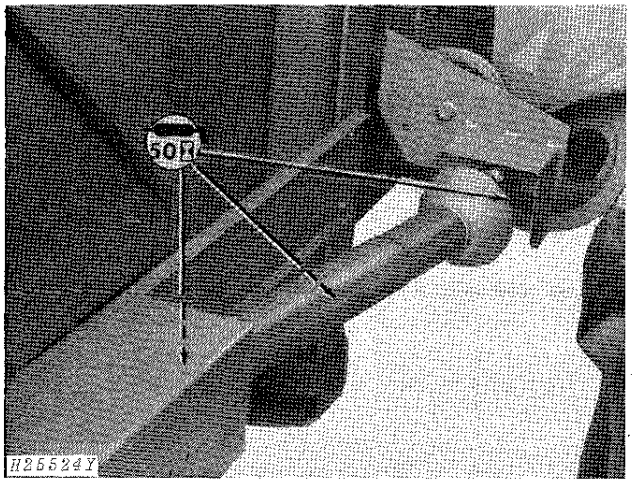
50-HOUR OR WEEKLY SERVICE

Perform all 10-hour lubrication and periodic services.

Feeder House Pivot Pin



Platform, Corn Head, or Row Crop Head Drive Shafts (Both Sides)

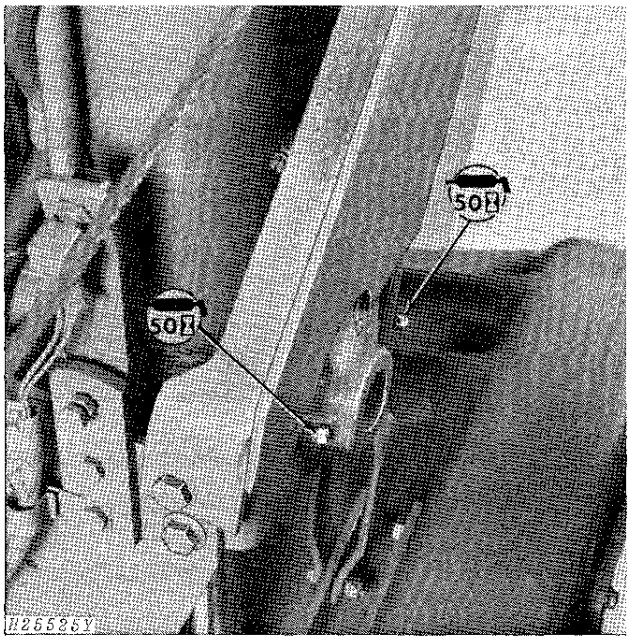


To obtain access to the middle drive shaft grease fitting, disconnect drive shaft from feeder house.

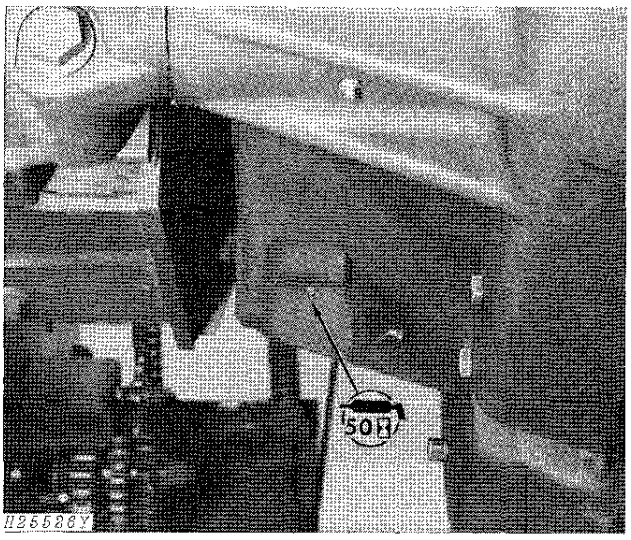
Pull drive shaft out to line up holes in shield halves. Grease fitting can now be lubricated through the holes in the shield halves.

Connect drive shaft to feeder house.

Leveling Cylinder Trunnions and Leveling Arms (Both Sides)

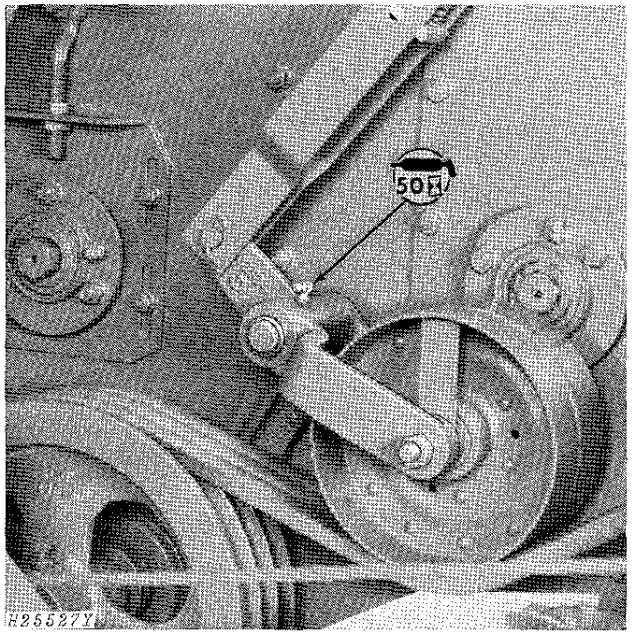


Leveling Cylinder Rods (Under Final Drives) (Both Sides)

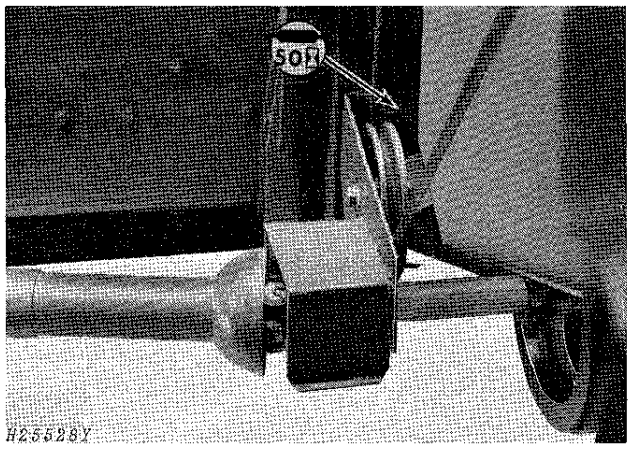


50-HOUR SERVICE—Continued

Feeder House Lower Variable Drive Tightener (L.H. Front)



Feeder House Front Sheets (Entire Width of Feeder House)

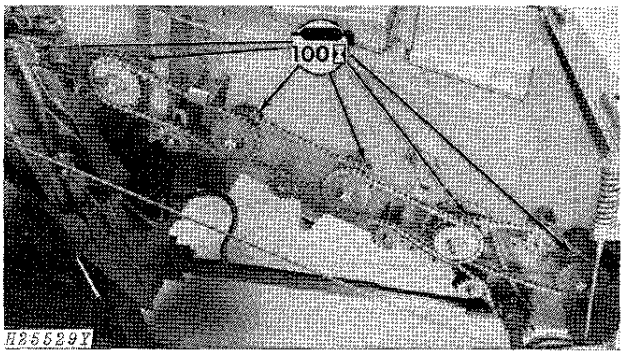


Coat mating surfaces of feeder house front sheets liberally with SAE multipurpose-type grease.

100-HOUR SERVICE

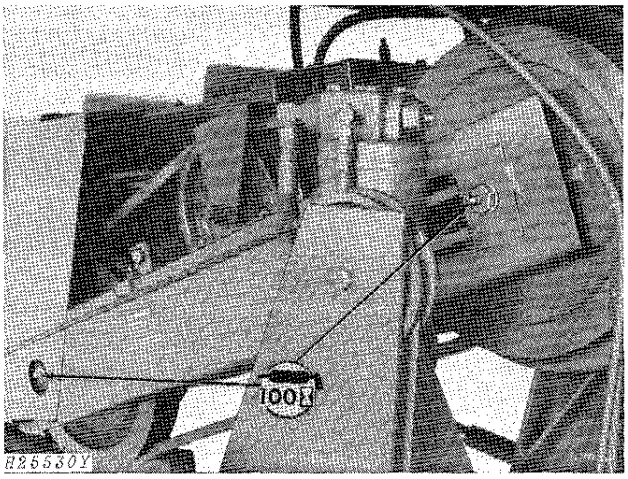
Perform all 10- and 50-hour lubrication and periodic services.

Feeder House Paddle Bearings (Both Sides)



Open rear feeder house inspection door for access to the grease fitting on the upper feeder house shaft.

Feeder House Variable Drive Sheaves (L.H. Front)



Apply grease, with handgun only, until increased resistance is felt on lever.

IMPORTANT: Too much pressure in these fittings may rupture oil seals.

Suggest:

If the above button click is invalid.

Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading

200-HOUR SERVICE

Perform all 10-, 50-, and 100-hour lubrication and periodic services.

Front Feeder House Paddle

Check paddle height, page 18.

Front Feeder House Paddle Stripper

Check stripper clearance, page 19.

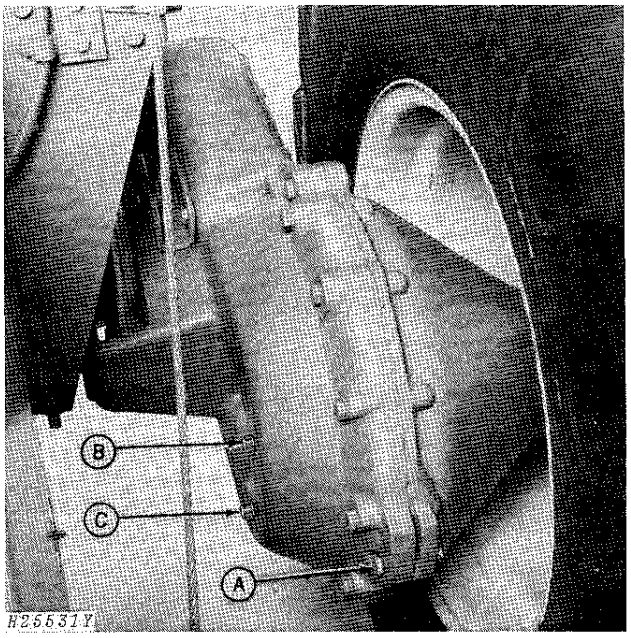
be careful.....
avoid accidents

X 1275

500-HOUR SERVICE

Perform all 10-, 50-, 100-, and 200-hour lubrication and periodic services.

Final Drives



Every 500 hours of operation, or every season, whichever occurs first, drain the oil from the final drives.

Loosen drain bolt "A."

After oil has drained from final drive, tighten drain bolt "A."

Remove plugs "B" and "C."

Fill final drive with John Deere SAE 90 Gear Lubricant or an equivalent SCL multipurpose-type gear oil, until oil is level with the bottom of hole for plug "C." Capacity of each final drive is 12 pints (5.6 l).

Replace and tighten plugs "B" and "C."