TORQUE SPECIFICATIONS – STEEL HYDRAULIC FITTINGS

Nom. SAE Dash Size	Tube OD	Thread Size	Pound Inches	Newton meters	Thread Size	Pound Inches	Newton meters
O-ring Face Seal End					O-ring Boss End Fitting or Self-Locking Nut		
-4	1/4 inch 6.4 mm	9/16-18	120 to 144	14 to 16	7/16-20	204 to 240	23 to 27
-6	3/8 inch 9.5 mm	11/16-16	216 to 240	24 to 27	9/16-18	300 to 360	34 to 41
-8	1/2 inch 12.7 mm	13/16-16	384 to 480	43 to 54	3/4-16	540 to 600	61 to 68
					Thread Size	**Pound Inches**	**Newton meters**
-10	5/8 inch 15.9 mm	1-14	552 to 672	62 to 76	7/8-14	60 to 65	81 to 88
Nom. SAE Dash Size	**Tube OD**	**Thread Size**	**Pound Inches**	**Newton meters**	1-1/16-12	85 to 90	115 to 122
					1-3/16-12	95 to 100	129 to 136
-12	3/4 inch 19.0 mm	1-3/16-12	65 to 80	90 to 110	1-5/16-12	115 to 125	156 to 169
-14	7/8 inch 2.2 mm	1-3/16-12	65 to 80	90 to 110	1-5/8-12	150 to 160	203 to 217
-16	1.0 inch 25.4 mm	1-7/16-12	92 to 105	125 to 140	1-7/8-12	190 to 200	258 to 271
-20	1-1/4 inch 31.8 mm	1-11/16-12	125 to 140	170 to 190			
-24	1-1/2 inch 38.1 mm	2-12	150 to 180	200 to 254			

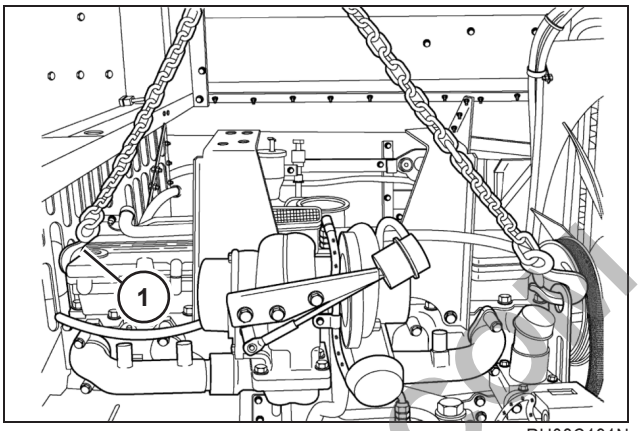
PREVIEW - YOUFIXTHIS.COM

NOTE: *Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.*

Download full manual at youfixthis.com

STEP 3

Attach a proper chain to the rear lift eyelet (1) on the back of the engine. Connect a lifting chain to a proper lifting device.



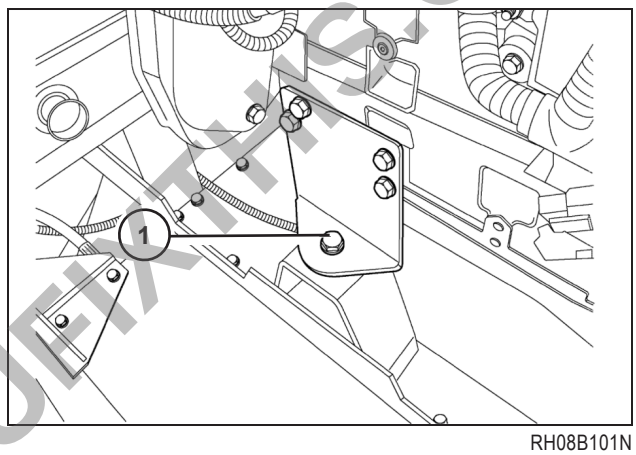
RH08C191N

STEP 4

Lift the engine and place it on the front of the machine. Move the end of the engine fan into the machine and turn the engine 1/4 of turn with the front steering wheel to the left side of the machine.

STEP 5

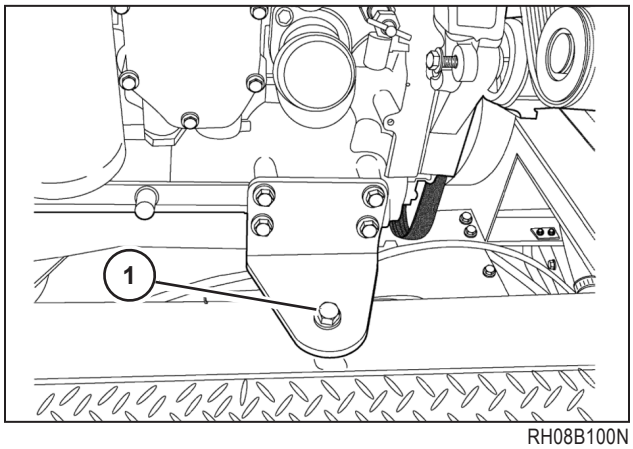
Lower the engine and push it against the actuation housing of the PTO until the assembly surfaces get a contact.



RH08B101N

STEP 6

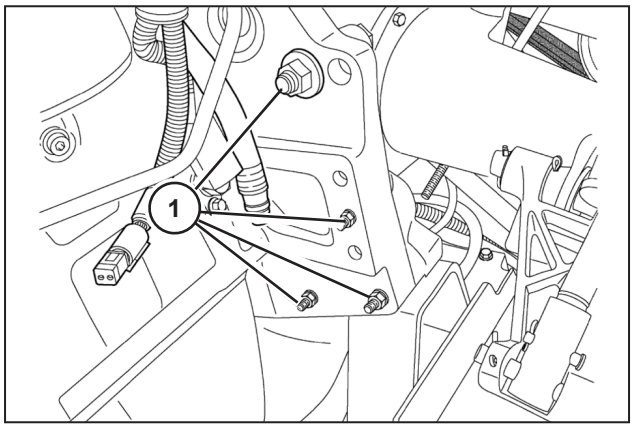
Lower the engine and install the front mounting bolts of the engine (1) and (2). Tighten the mounting bolts to a torque of 137 - 163 N.m (101 - 120 lb ft).



RH08B100N

STEP 7

Install the bolts and washers and the plain nuts to fix the engine to the PTO actuation housing. Install four on the left side under the access hole of the turning tool of the steering wheel (1).

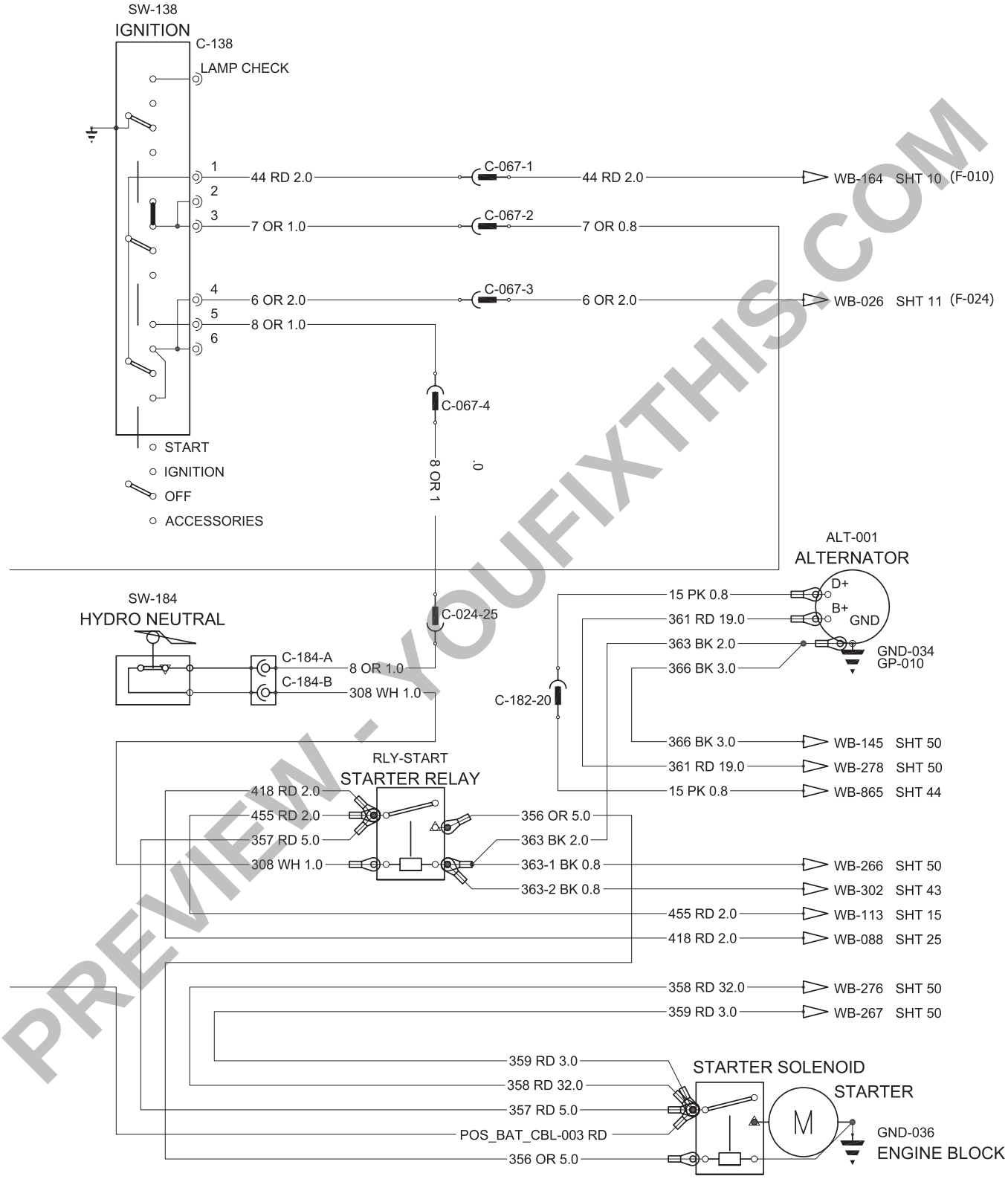


RH08B099N

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STARTING AND CHARGING SYSTEM



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Assembly

STEP 9

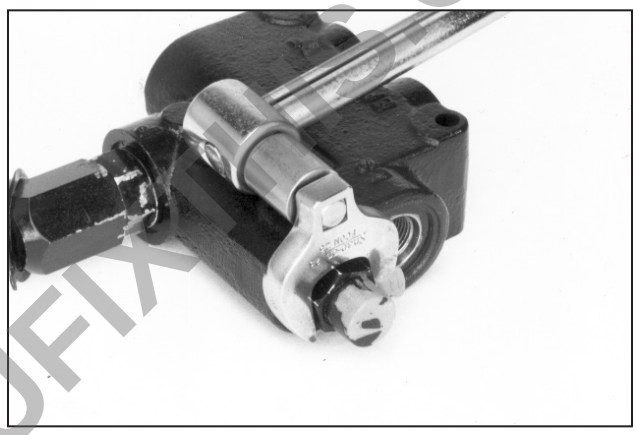
Install a new O-ring to retaining valve fitting and lubricate with HY-TRAN PLUS® fluid.

A27012

STEP 10

Install the retaining valve fitting in the T port of the valve body as marked during disassembly.

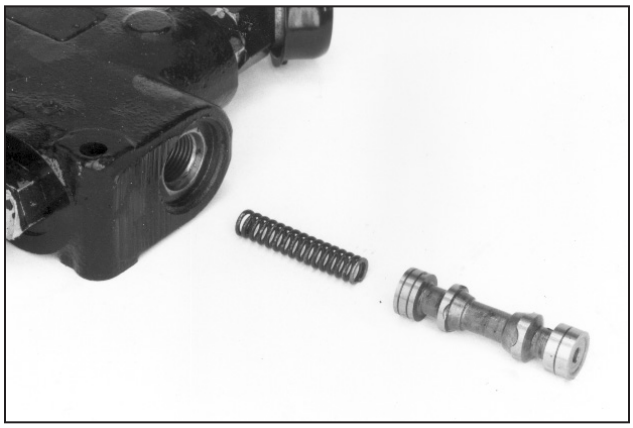
NOTE: *The spool may be removed from either end of the valve.*



A24464

STEP 11

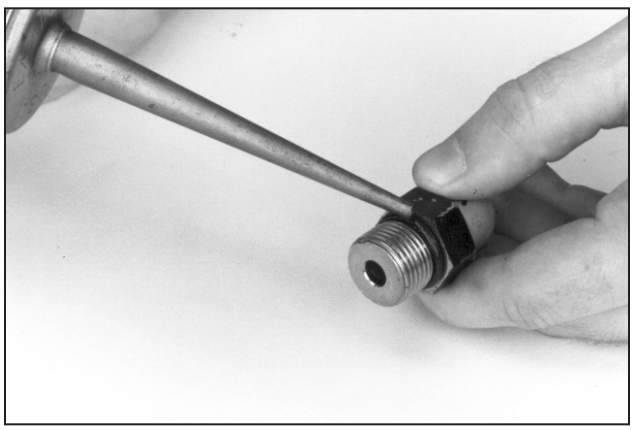
Install the spring and the priority spool, cup end down, on the valve body. Turn the spool while installing to prevent binding.



A27004

STEP 12

Install a new O-ring to the fitting and lubricate with HY-TRAN PLUS® fluid.



A27014

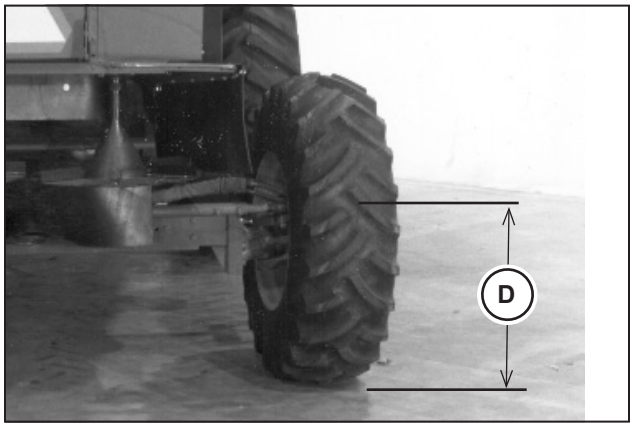
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Toe Adjustment

NOTE: *See the illustration on Page 6 for information on the toe adjustment.*

STEP 33



A24316

D = Measure from the floor to the center of the wheel hub.

STEP 34

Put a chalk mark on the outer diameter of the wheel rim at the measurement recorded above on the front and rear of each rim.

STEP 35

Measure the distance between the LH and RH rims at the chalk marks on the front and rear of each rim. Record the dimensions.

STEP 36

Rotate the wheels so that the marks on the rims now come to the front and repeat the measurements.

NOTE: *The wheels can be rotated by raising the wheels off the ground or by moving the machine forward or backward on smooth, level ground. Check the measurements with the wheels on the ground.*

STEP 37

Repeat Steps 3 and 4 two or more times. Take the average measurement.

STEP 38

The front measurement should be 9/32 to 3/8 inch (7 to 10 mm) smaller than the rear measurement on machines that use 16-inch wheels.

The front measurement should be 7/16 to 19/32 inch (11 to 15 mm) smaller than the rear measurement on machines that use 16-inch wheels.

Non adjustable toe

STEP 39

Loosen the tie rod clamps (if any) or the lock nuts (if any).

STEP 40

Rotate the tie rod to get the correct dimension.

NOTE: *Rotating the tie rod upward and toward the front of the combine will increase the distance between the wheel hubs while rotating the tie rod down and toward the front of the combine will decrease the distance between the wheel hubs.*

STEP 41

After adjusting the toe, tighten the lock nuts (if any) against the tie rod or tighten the clamp screws (if any) to a torque of 40 to 50 lb ft (55 to 70 Nm).

Toe Adjustment

STEP 42

Loosen the tie rod nut clamp and remove the tube nut, tube clamps and nut.

STEP 43

Turn the tie rod tube in or out on the tie rod end to get the correct measurement between the wheel hubs. Install the tube bolts through the tube and rod end and check the dimensions.

STEP 44

After adjusting the toe, install the tube bolt, tube clamps and nut. Tighten the nut to a torque of 30 to 40 lb ft (40 to 55 Nm).

STEP 45

Tighten the tie rod end clamp screw to a torque of 40 to 55 lb ft (55 to 70 Nm).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

FUNCTIONING OF THE SYSTEM

Forward

When the operator moves the drive lever in the cabin

1. The steering control valve spool moves out from the center, exposing the “S2” port to the forward servo piston to charge pressure. The charge fluid is directed through an control response orifice, passes through the base of the spool and through a drilled passage, and goes to the forward servo piston.
2. The forward servo piston is removed from the corresponding cylinder, tilting the swash plate. As the plate swash is tilted, the feedback connection, connected to the steering control valve spool, moves. This movement will center the reel again and prevent the penetration of any quantity of oil on the forward servo piston when the forward speed is reached.
3. The servo piston will enter the corresponding cylinder, taking its fluid to the pump case behind the opposite steering control valve port. The servo piston return springs are stretched at this point and try to return the swash plate to the vertical position. The servo piston have no seal rings, so there will be a small leak into the pump casing, produced by the servo pressure.
4. As the pressure on the forward servo piston decreases, the reverse servo piston springs begin to straighten the swash plate. If this situation continues, the combine may decelerate and stop. To avoid this, the feedback connection will automatically take the steering control valve spool slightly off-center position and offset any leakage from the pressurized servo piston. Thus, the combine will maintain the set speed while the drive lever remains in the same position.

The swash plate is mounted on trunnion plates. As the swash plate is tilted, the length of the piston stroke and the amount of oil pumped change. The higher the tilt angle, the greater the volume of fluid displaced. Since the motor has a fixed displacement, it turns faster to accept a greater volume of oil.

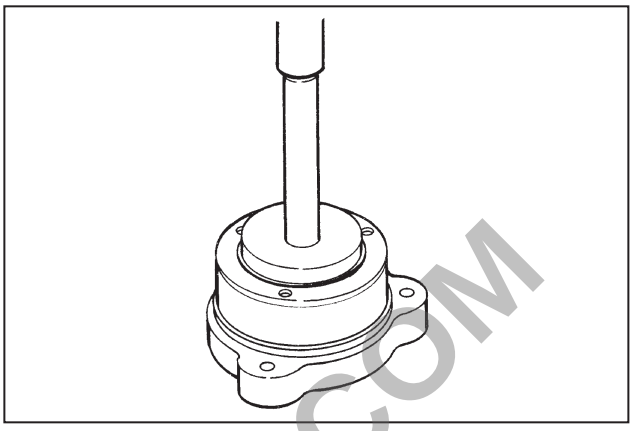
The high pressure oil leaves the rotary group in the pump through kidney-shaped holes in the bearing plates. This fluid makes the forward retaining valve seat, blocking the charge fluid on the forward side of the closed circuit. The flow is directed to the motor through high pressure resistant lines. As the flow enters the engine, it goes to the pistons in the rotary group half of the engine. These pistons will be forced out of their respective holes, slipping below the fixed swash plate of the motor. This causes the drum of the motor to turn, which drives the output shaft of the motor.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STEP 86

Using a press, press the bearing cup in the RH bearing cap until the bearing cup is seated in the bearing cap.

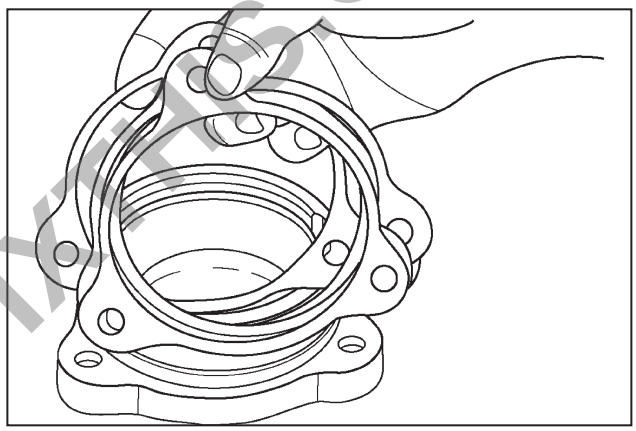


RB96K017

STEP 87

If no new parts were installed, install the shims that were removed in Step 67 on the RH bearing cup.

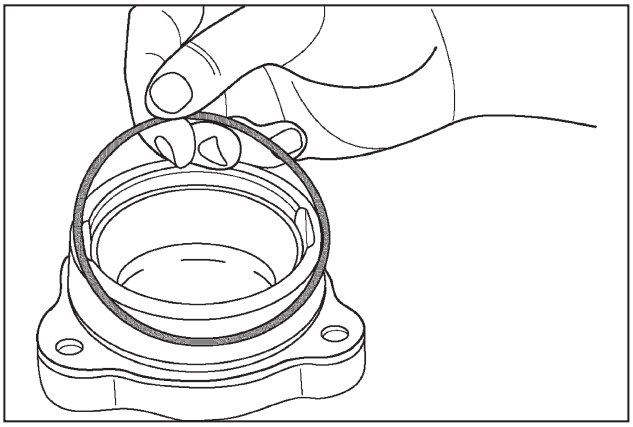
NOTE: *If new parts were installed on the differential pinion shaft or the bearing caps, a new measurement for shim thickness must be made. See Step 91 for measuring the differential pinion shaft end play.*



T88147

STEP 88

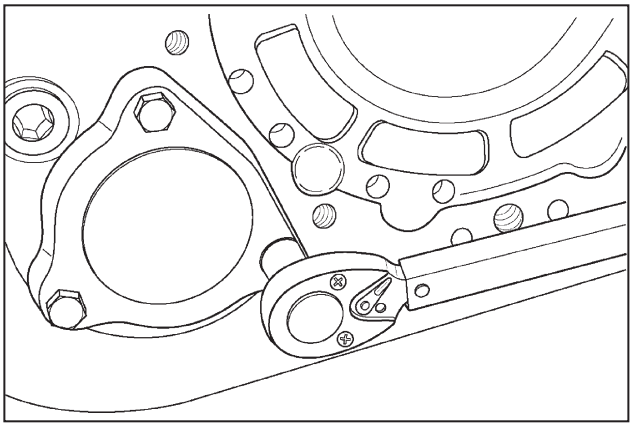
Lubricate the O-ring with white petroleum jelly and install the O-ring on the RH bearing cap.



T88146A

STEP 89

Install the RH bearing cap on the transmission. Be sure the marking “TOP” on the bearing cap is towards the top of the transmission housing. Tighten the fixing bolts to a torque of 37 to 43 lb ft (51 to 58 Nm). Rotate the pinion shaft to check that the pinion shaft rotates freely.

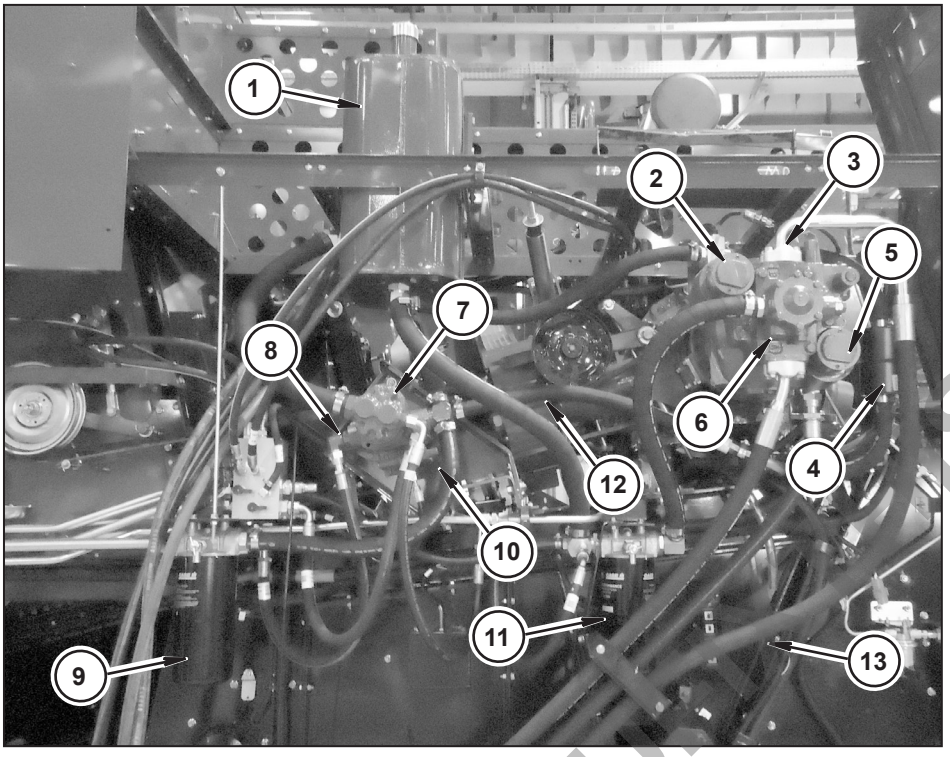


A26194

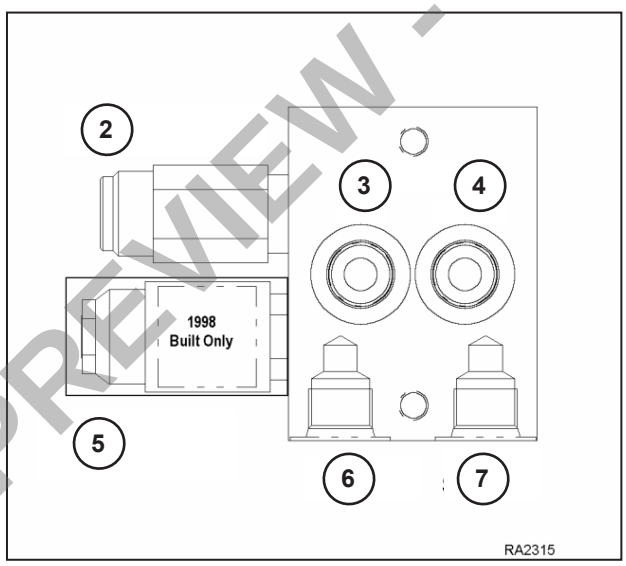
PREVIEW - YOUFIXTHIS.COM

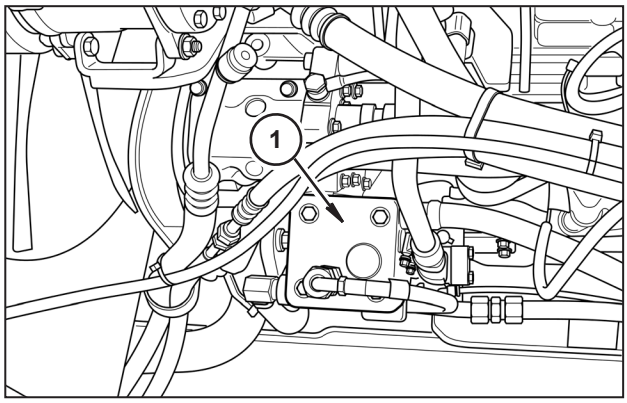
Download full manual at youfixthis.com

PTO CLUTCH CIRCUIT



1. Reservoir
2. Oil cooler bypass valve
3. Oil temperature sender
4. Inline filter
5. Hydro-pump
6. Auxiliary gear pump
7. PFC pump
8. Return filter
9. PFC pump compensator
10. Suction filter
11. Oil radiator return
12. To oil cooler





1. PTO pump
2. Relief valve
3. Engine to
4. Engine from
5. Rotating Screen Control Valve
6. Power supply
7. To the separator

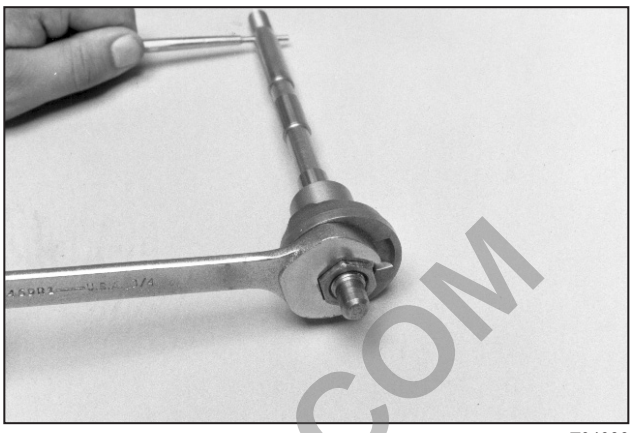
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STEP 14

Remove the lock nut from each valve spool.

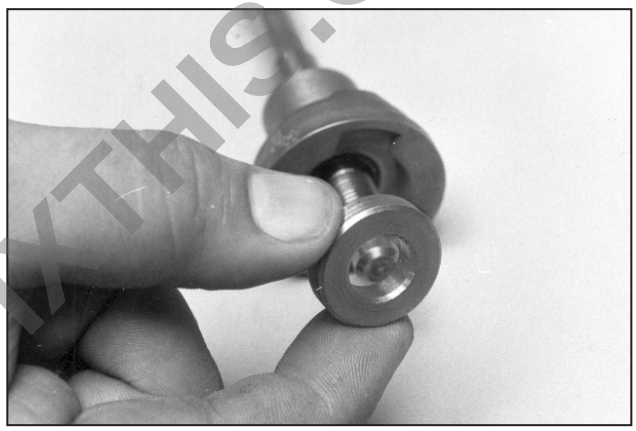
NOTE: *Do not hold the valve spool in a vise. Pass a pin through the valve spool to keep it from turning.*



T94086

STEP 15

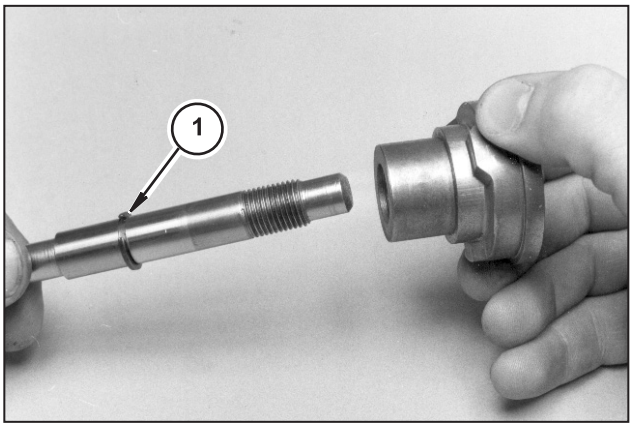
Remove the piston retainer and O-ring from each valve spool. Discard the O-rings.



T94087

STEP 16

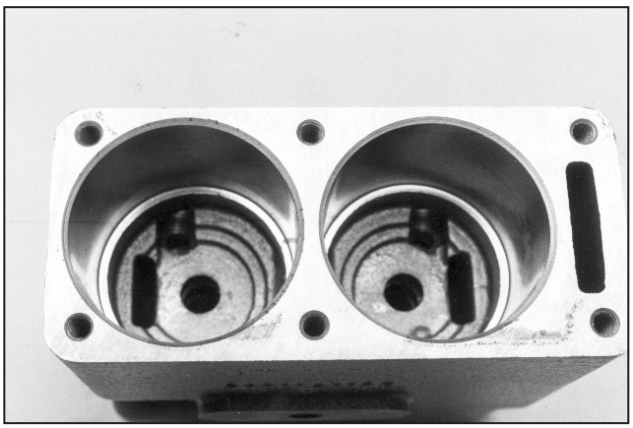
Remove the small piston and snap ring (1) from each valve spool.



T94088

STEP 17

Inspect the brake valve bores for scratches or other damage. If the valve body is damaged, the brake valve must be replaced.



T94080

PREVIEW - YOUFIXTHIS.COM

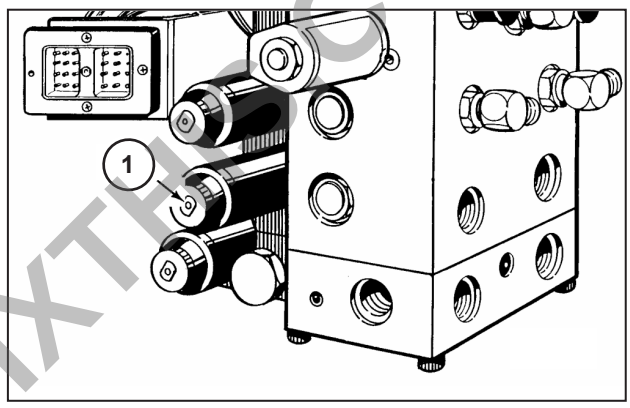
Download full manual at youfixthis.com

MAIN VALVE ASSEMBLY SOLENOID FUNCTIONS

The control valves on the main valve assembly use solenoids to activate the primary reels. The solenoids pull a pin into the cartage to put the primary reel in gear. In the center of the solenoid there is a pin that can be activated manually in case of a solenoid circuit failure. The signal valve, the lift reel valve and lower reel valve cannot be manually cancelled.

This manual activation can be used to determine whether the failure of a circuit is due to the electrical system or hydraulic system.

- When manually activating the drive to raise or lower the header or the reel, pushing the pin inside causes the operation to be activated if the fault is due to the electrical system.
- When manually activating the auger rotation, the forward / reverse movement of the reel or the field tracker, the problem could also be due to the signal valve not signaling the PFC pump.
    1. Place the steering against the stops and hold the wheel in that position, the pump will remain at high pressure.
    2. Manually activate the circuit to be tested.



RA2123B

This is a list of which solenoids must be energized to operate a given hydraulic function.

Function	Solenoid (s)
Lower Header	2
Lift Header	4
Lower Reel	3
Lift reel	5 and 1
Move Reel Forward	5 and 9
Move Reel Back	5 and 8
Unloading Auger Projection	5 and 6
Unloading Auger Retraction	5 and 7
Field Tracker CCW (tilted to the left)	5 and 10
Field Tracker CW (tilted to the left)	5 and 11
Feeder Inverter Solenoid and	5

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PROBLEM: The Field Tracker does not work, but all other functions in the main valve set work normally.

POSSIBLE CAUSE	PROCEDURE
NOTE: *The Field Tracker function can be activated manually. Start engine. Use a small Allen key through the end of the solenoid clockwise/counterclockwise solenoid to move (push inward) the spool. At the same time, have an assistant hold the header control switch on the raise position. (This will send a signal to the piston pump compensator.)*	
A. The Field Tracker is activated through manual movement of the spool.	
1. Check for supply and continuity on the Field Tracker and the signal valve solenoids.	1. See Section 3000, Unloader Control and Reel.
B. The Field Tracker is not activated through manual movement of the spool.	
1. The Field Tracker spool is jammed in the hole. (Did the spool move when attempted manual override)?	1. Remove the spool and check for markings or contaminants.
2. 0.035 in. supply port orifice clogged.	2. Check and clean out the Field Tracker supply orifice.
3. Field Tracker relief valves jammed and open.	3. See the Field Tracker relief valve test.
4. The field tracker cylinder piston seals are leaking excessively.	4. Leak test cylinders.

PROBLEM: The header does not raise, but all other functions in the main valve set are operational.

POSSIBLE CAUSE	PROCEDURE
NOTE: *The header raise function can be activated manually. Start engine. Use a small Allen key through the end of the header raise solenoid to move (push inward) the primary raise spool. If the machine hydraulic system is operational, the header will raise. If the header raises, go to Section 3000. Electrical Diagram and Troubleshooting. If the header does not raise continue following these instructions.*	
A. No regulated pressure on the header valve.	A. Check the regulated pressure on the pressure regulating valve. See Hydraulic Tests.
B. The primary raise spool is jammed in the hole. (Did the spool move when attempted manual override)?	B. Remove and inspect the primary raise spool.
C. The secondary raise spool is jammed in the hole.	C. Remove and inspect the secondary raise spool.
D. Jammed closed header valve signal check.	D. Inspect the signal check.

PROBLEM: The header does not lower.

POSSIBLE CAUSE	PROCEDURE
NOTE: *The header lower function can be activated manually. Start engine. Use a small Allen key through the end of the header lower solenoid to move (push inward) the primary lower spool. If the header lowers, go to Section 3000. Electrical Diagram and Troubleshooting. If the header does not lower continue following these instructions.*	
A. No regulated pressure on the header valve.	A. Check the regulated pressure on the pressure regulating valve.
B. The primary lower spool is jammed in the hole. (Did the spool move when attempted to override)?	B. Remove and inspect the primary lower spool.
C. The secondary lower spool is jammed in the hole.	C. Remove and inspect the secondary lower spool.
D. The automatic header height system is not adjusted correctly.	D. Adjust the automatic header height system.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STEP 39

Remove the three backup washers and the two O-rings from the piloted check valve.

A27291

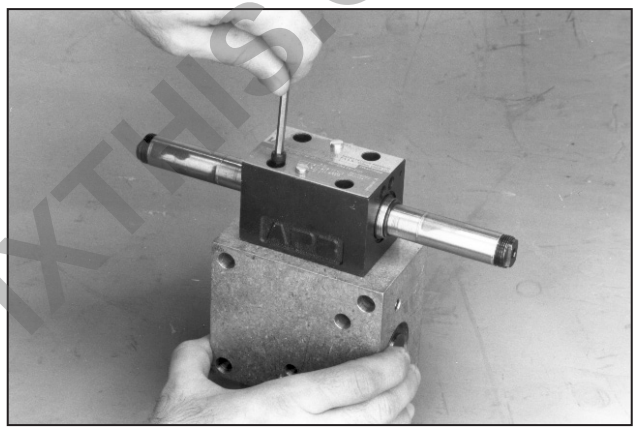
STEP 40

Repeat stages 38 and 39 on the other piloted check valve.

NOTE: *If removing a specific block from the valve set, perform stages 41 to 43.*

STEP 41

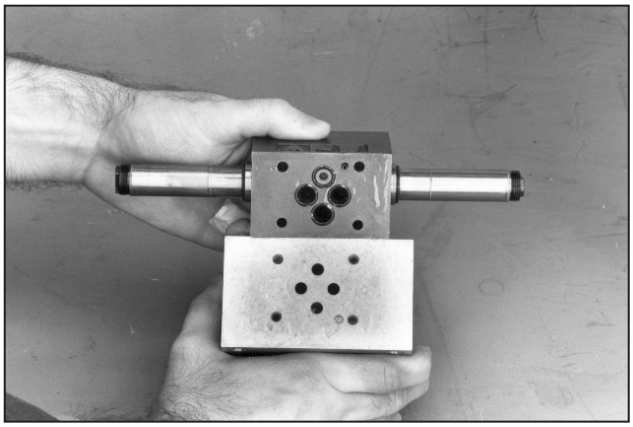
Remove the four Allen bolts from the solenoid set.



A27310

STEP 42

Remove the solenoid set from the valve set.

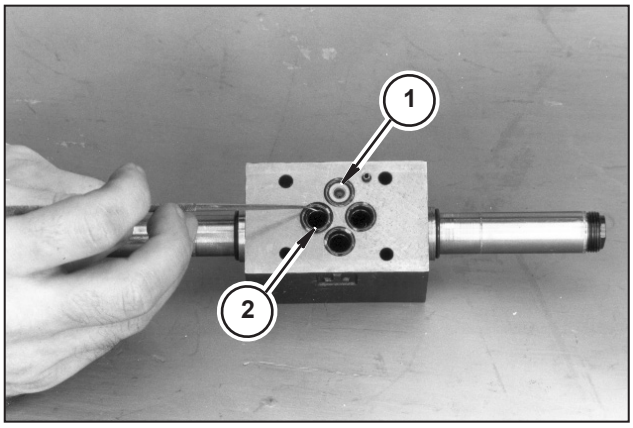


A27311

STEP 43

Remove the four O-rings from the solenoid set.

NOTE: *Port "P" orifice plug is 0.030 inch in diameter and is blue color. Port "P" orifice plug is 0.040 inch in diameter and is yellow color.*



A27312

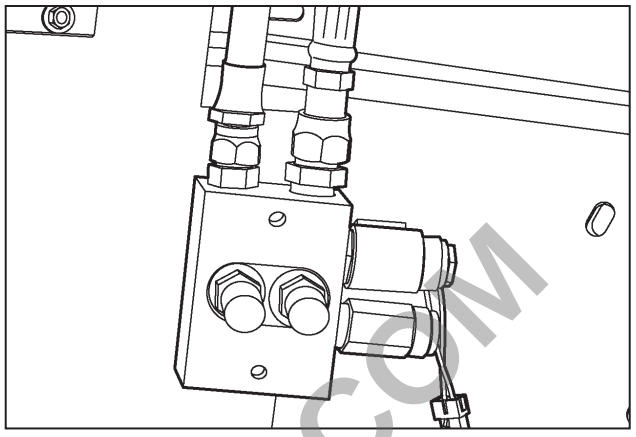
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

INSTALLATION

STEP 34

Connect the hydraulic hoses to the valve. Do not tighten at this time. Connect the wiring cable to the solenoid.

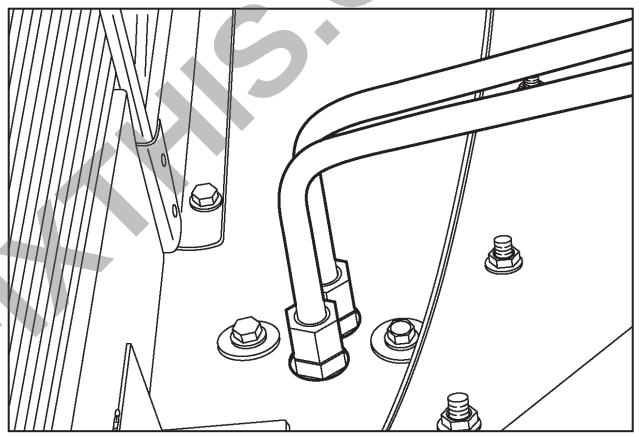


RD98C182

STEP 35

NOTE: *Have an assistant prop the valve while installing the washers and bolts.*

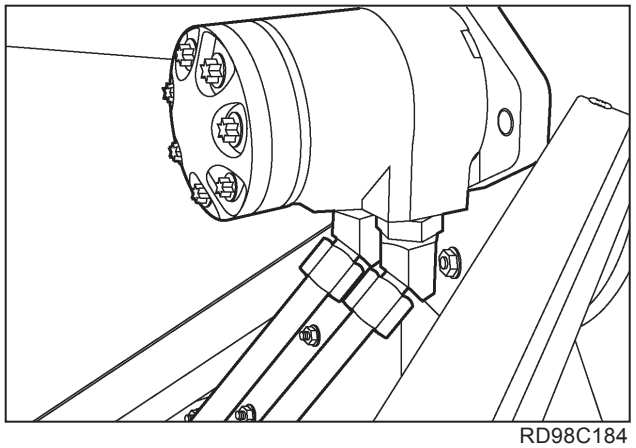
Install the washers and bolts. Connect the hydraulic tubes to the valve.



RD98C185

STEP 36

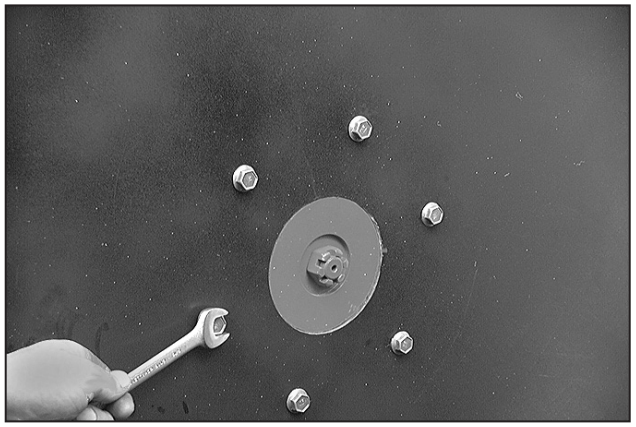
Tighten the connectors from the hydraulic tube on the rotary screen motor.



RD98C184

STEP 37

Install the rotary screen. Install the rotary screen mounting bolts.



RD98A112

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Smart Pressure Switch Cycling System

The A/C system is equipped with pressure switch cycle counters. The compressor will not be locked until after four cycles of the low pressure switch or two cycles of the high pressure switch occurring within an interval of 60 seconds and beginning with the first cycle of the switch.

The ATC display will show a fault code of ATC 02 for the low pressure switch and a fault code of ATC 01 for the high pressure switch.

For a more detailed description of the fault codes, see the ATC Fault Codes in this Section.

NOTE: *On cold days, below 40ºF, the A/C system may not operate due to locking of the low pressure switch, even if the temperature inside the cab is high. The system is not malfunctioning if this occurs. To provide the necessary protection for the A/C compressor, the Case A/C systems were not designed to operate in temperatures lower than 40ºF.*

NOTE: *The A/C systems should operate for more than 1 minute before any high or low pressure fault codes are displayed. All other fault codes are displayed immediately after a fault occurs. The fault codes are not stored.*

A/C OPERATION

The refrigerant circuit of the air conditioning system contains five main components: (1) compressor, (2) condenser, (3) receiver-drier, (4) expansion valve and (5) evaporator. These components are connected by pipes and hoses and operate as a closed system. The air conditioning system is charged with R-134a refrigerant. See the illustration on the next page.

The compressor receives the refrigerant as a low pressure gas. The compressor then compresses the refrigerant and sends it in the form of a high pressure gas to the condenser. The air flow through the condenser then removes the heat from the refrigerant. As the heat is removed, the refrigerant becomes a high pressure liquid.

The high pressure liquid refrigerant then flows from the condenser to the receiver-drier. The receiver-drier is a container filled with moisture removing material, which removes any moisture that may have entered the air conditioning system in order to prevent corrosion of the internal components of the air conditioning system.

The refrigerant, still in a high pressure liquid form, then flows from the receiver-drier to the expansion valve. The expansion valve provides a restriction to the refrigerant flow to cause a pressure drop which allows the liquid refrigerant to expand, decreasing its temperature and pressure. Next, this low temperature and pressure liquid flows through the evaporator core. The hot air from the cab passes through the evaporator fins where it is cooled, evaporating the liquid refrigerant. The low pressure gas returns to the compressor and the cycle starts over again.

The electrical circuit of the ATC air conditioning system consists of:

15 Amp fuse (fuse nº 29) for the HVAC Controller
30 Amp fuse (fuse nº 33) for the HVAC blower
15 Amp fuse (fuse nº 37) for the cab pressure blower
Ground terminal to change the LCD from °F to °C
ATC switch (Auto/Off/Demist)
Temperature control potentiometer
LCD display
Evaporator temperature sensor
Cab temperature sensor
Heater control valve
Cab pressurizer blower motor
Cab blower motor
A/C compressor clutch
Compressor clutch relay
A/C high pressure switch
A/C low pressure switch
ATC controller
Blower motor linear controller

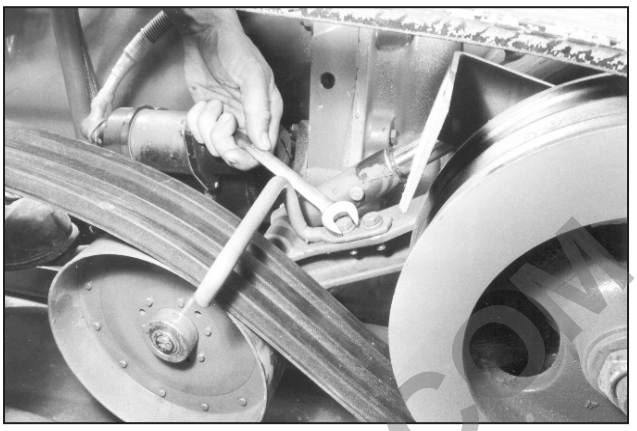
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Separator Drive Belt Tensioning Pulley Removal

STEP 93

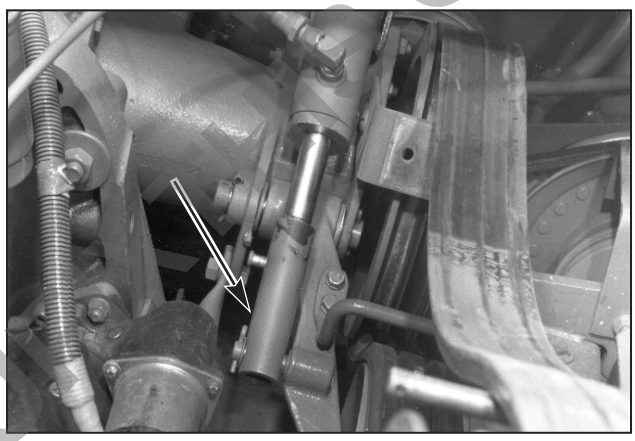
Remove the tensioning pulley belt guide from the lever assembly.



T87658

STEP 94

Remove the cotter and the retaining pin from the upper cylinder extension tube.

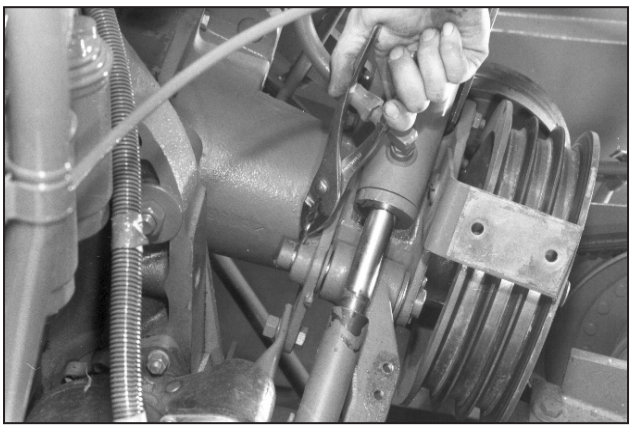


T87518

STEP 95

Remove the cotter pin from the rear of the lever assembly pin.

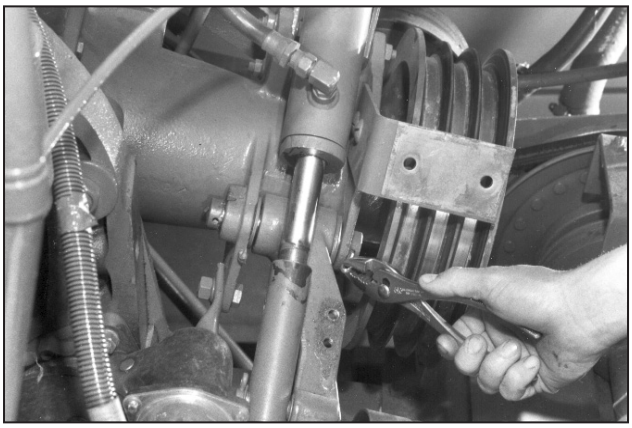
NOTE: *The separator drive belt was removed for the purposes of photography.*



T87521

STEP 96

Remove the cotter pin from the front of the lever assembly pin.



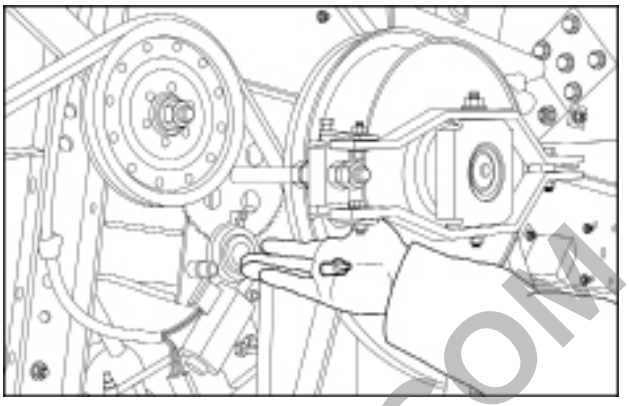
T87522

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STEP 66

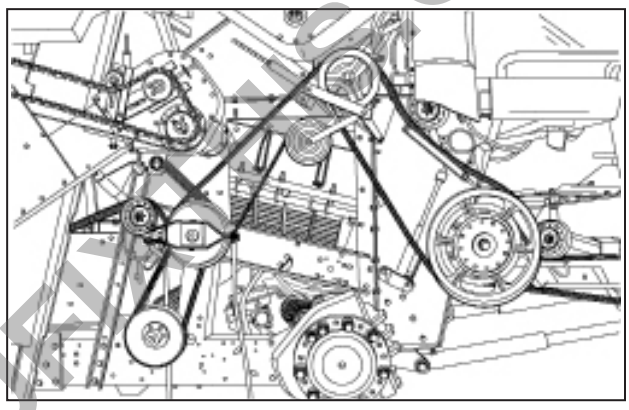
Oscillate the control arms in position and install the bolts, washers and spacers.



A27624

STEP 67

Adjust the belt tension.



A27618

STEP 68

Check that the cleaning fan drive belt does not run off the pulley at any speed. Adjust the fan speed control block by adjusting the nuts to maintain the drive belt on the pulleys and the thrust bearing in contact with the control arm bracket.

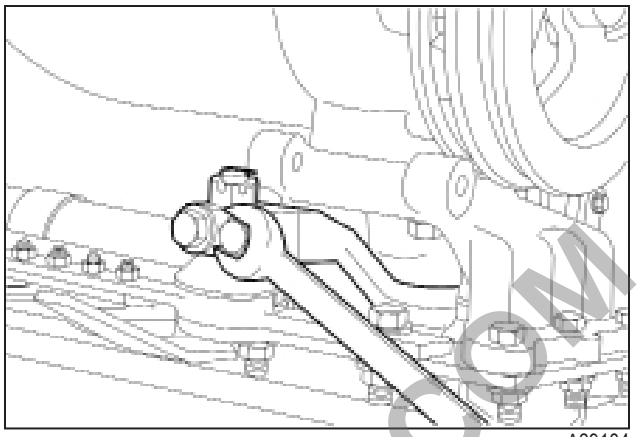
NOTE: *Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.*

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STEP 5

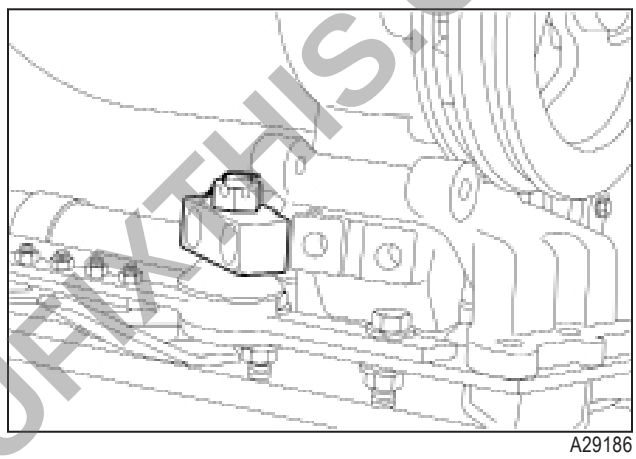
Remove the knife hump bolts.



A29184

STEP 6

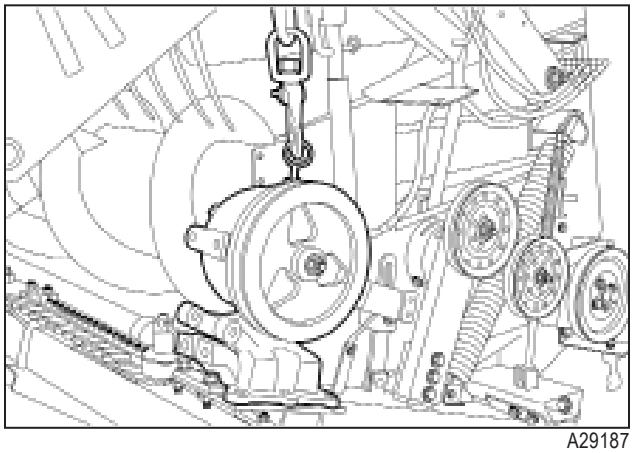
Separate the knife hump from the propulsion arm.



A29186

STEP 7

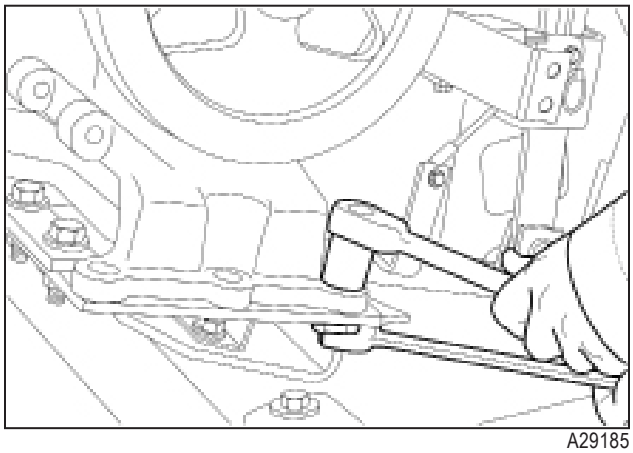
Install a suspension eye bolt on the blade box and attach a winch to the suspension eye bolt. Remove the winch slack.



A29187

STEP 8

Remove the five mounting bolts from the blade box support set.



A29185

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

The sensitivity of the Tailings Monitor can be adjusted to five settings. (See the Operator Manual, Change Mode in INSTRUMENTS/CONTROLS.) As the sensitivity increases, the sensor arms do not lift as much to display whether the auger is nearly FULL. For the majority of crops, sensitivity 1 is desired. Crops that have very fluid or chaffy tailings material can be set to higher sensitivities.

The Tailings Monitor purpose is to alert the Operator if the tailings volume is running high so adjustment can be made to optimize Combine performance. Ideally, the Combine should operate with low tailings and the tailings should not be mainly clean grains.

Operating with clean grains in excess through the tailings elevator can increase rotor loss and break grains. If the tailings are running high and consist mostly of clean grain, the steps that should be taken are:

1. Open the Lower Sieve;
2. Close the rear of Top Sieve;
3. Adjust the Cleaning Fan Speed;
4. Throttle down on slopes.

If the tailings are running high and consist of many unthreshed heads, enhanced threshing is required. See Threshing and Separation System Troubleshooting in the Operator Manual.

TAILING MONITOR CIRCUIT DIAGNOSTICS

If a short to ground condition exists, the tailings symbol and all segments of the bar graph will flash.

If an open circuit condition exists before the key switch is turned ON, the tailings display will not appear.

If an open circuit condition appears after the key switch is turned ON, the display will show the auger is FULL.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

STEP 16

Turn the machine off and remove the key.

STEP 17

Make sure the potentiometer is installed and connected properly according to the above illustration. Make the necessary corrections.

NOTE: *The flat shaft must be guided with the potentiometer control arm fastening bolt.*

STEP 18

If the potentiometer is installed and connected properly, disconnect the wiring from the potentiometer 3 pin connector electric harness.

STEP 19

The rated value of the potentiometer is from 0 to 1K ohm. Use a multimeter and place one conductor on pin A and one conductor on pin B. With the flat part of the potentiometer shaft centered with the location pin, the gauge should mark approximately 500 ohms. Turning the shaft 60 degrees clockwise will increase resistance to approximately 1K ohm. From that position, turning the shaft 120 degrees clockwise will reduce the resistance to approximately 0 ohm.

STEP 20

Place a conductor on pin B and one conductor on pin C. Repeat Step 19 noting that the shaft travel direction in relation to the resistance is inverted.

STEP 21

If the potentiometer is installed and connected properly and the resistance test still fails, replace the potentiometer. See illustration above.

PREVIEW - YOUFIXTHIS.COM

NOTE: *Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.*

Download full manual at youfixthis.com

TORQUE SPECIFICATIONS – METRIC SYSTEM

Use the following torques when specifications are not given.

These values apply to fasteners with coarse threads as received from supplier, plated or unplated, or when lubricated with engine oil. These values do not apply if graphite or molydisulfide grease or oil is used.

Grade 8.8 Bolts, Nuts, and Studs		
8.8		
Size	**Pound Inches**	**Newton meters**
M4	24 to 36	3 to 4
M5	60 to 72	7 to 8
M6	96 to 108	11 to 12
M8	228 to 276	26 to 31
M10	456 to 540	52 to 61
Size	**Pound Feet**	**Newton meters**
M12	66 to 79	90 to 107
M14	106 to 127	144 to 172
M16	160 to 200	217 to 271
M20	320 to 380	434 to 515
M24	500 to 600	675 to 815
M30	920 to 1,100	1,250 to 1,500
M36	1,600 to 1,950	2,175 to 2,600

Grade 10.9 Bolts, Nuts, and Studs		
10.9		
Size	**Pound Inches**	**Newton meters**
M4	36 to 48	4 to 5
M5	84 to 96	9 to 11
M6	132 to 156	15 to 18
M8	324 to 384	37 to 43
Size	**Pound Feet**	**Newton meters**
M10	54 to 64	73 to 87
M12	93 to 112	125 to 150
M14	149 to 179	200 to 245
M16	230 to 280	310 to 380
M20	450 to 540	610 to 730
M24	780 to 940	1,050 to 1,275
M30	1,470 to 1,770	2,000 to 2,400
M36	2,580 to 3,090	3,500 to 4,200

Grade 12.9 Bolts, Nuts, and Studs

12.9

Usually the torque values specified for grade 10.9 fasteners can be used satisfactorily on grade 12.9 fasteners.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SUMMARY

SPECIFICATIONS 2

SPECIAL TORQUES 2

STEERING AXLES 3
Wheel Bearing Maintenance 3
Illustration of the Rear Steering Axle Wheel Bearing 4
Steering Stem Link Maintenance 5
Illustration of the Steering Stem Link 6
Toe Adjustment 7
Non Adjustable Toe 7
Toe Adjustment 7
Spindle Disassembly and Assembly 8
Illustration of Spindles 9
Disassembly and Assembly of the Reinforced Axle Sleeves 10
Illustration of the Reinforced Axle Sleeves 11
Maintenance of the Steering Axles 12
Illustration of the Steering Stem Link 13
Illustration of the Rear Steering Axle Pivot Bracket Installation Positions 14
Maintenance of the Axle Pivots 15
Illustration of the Axle Pivots 16
Mounting Locations of the Axle Extensions (If equipped) 17
Illustration of the Mounting Locations of the Axle Extension 18
Axle Stabilizer 19
Only 92 to 120 inch (2,337 to 3,048 mm) Axles 19
Illustration of the Axle Stabilizer 20
Axle Shield 21
Illustration of the Axle Shield 22

SPECIFICATIONS

Front Steering Toe for 16 inch (406 mm) Steering Wheels	7 to 10 mm (9/32 to 3/8 inches)
Front Steering Toe for 24 inch (610 mm) Steering Wheels	11 to 15 mm (7/16 to 19/32 inches)

SPECIAL TORQUES

Tie Rod End Nuts	70 to 80 lb ft (95 to 110 Nm)
Tie Rod Bracket Nuts and Bolts	40 to 55 lb ft (55 to 75 Nm)
Tie Rod Tube Mounting Nuts and Bolts	30 to 40 lb ft (40 to 55 Nm)
Steering Arm Nut	250 to 300 lb ft (340 to 405 Nm)
Steering Bearing Nut	15 lb ft (20 Nm)
Axle Frame Support	190 to 260 lb ft (260 to 355 Nm)
Axle Pivot Support	340 lb ft (460 Nm)
Joint Pin Nut (rice axle only)	250 to 300 lb ft (340 to 405 Nm)
Axle Extension	185 lb ft (250 Nm)
Steering Cylinder Anchor	185 lb ft (250 Nm)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

TEST PROCEDURES

Drive Pressure

Connect two 10,000 psi (670 bar) gauges at the forward and reverse pressure test ports on the single speed hydrostatic motor valve block as illustrated; only one gauge is used on the two speed motors. We suggest connecting a 8-10 feet long 1/4 inch hose on the gauge or electronic test meter.

CAUTION

Check to see if anyone is near the front/rear wheels of the combine.

Test Procedure:

1. Put the combine in a place where it can be moved.
2. Shift the transmission into “THIRD” gear. Engage the Parking Brake and maintain the service brakes.
3. Run the motor at high speed, shift the drive lever to the “FORWARD” slot until the maximum drive pressure is reached (limit to 5 seconds). Take note of the pressure. Results: If “FORWARD” is low but “REVERSE” is normal in step 3, check the “REVERSE” relief valve and the check ball.
4. A second method of checking the relief valve check balls is to charge the system to 4,500 psi and return the drive lever to the “NEUTRAL” position. Pressure must be retained in the circuit and the foot-n-inch valve lines for 15 seconds. Next, press the foot-n-inch valve and the gauge reading should fall back to 0.0 psi (0.0 bar).
5. Run the motor at high speed, shift the drive lever to the “REVERSE” slot until the maximum drive pressure is reached (limit to 5 seconds). Take note of the pressure. Results: If “REVERSE” is low but “FORWARD” is normal in step 3, check the “FORWARD” relief valve.
6. See the specification page and compare the readings.

Corn and Grain Combines

If the readings are not correct in any way, check the operations of the foot-n-inch valve.

Rice Combines

If the readings are not correct in any way, the problem will have to be isolated between the foot-n-inch valve and the internal cancellation valve.

REMEMBER: *That the foot-n-inch valve should be set properly before attempting to adjust the internal cancellation valve.*

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

HEADER VALVE

Lower Header

To lower the header, the number 2 solenoid (header lift) must be energized or manually by a switch on the drive lever or by the header controller in automatic mode. The PFC pump oil pressure is not required to lower the header. When the solenoid is energized, an internal pin will protrude, moving the primary lowering spool. The amount that the primary lowering spool moves depends on the current supplied to the solenoid by the header controller. As the primary lowering spool moves, it measures the regulated pressure of the auxiliary gear pump to the secondary lowering spool. The pilot oil causes a pilot head with spring, located at the center of the secondary lowering spool, to be unseated. This pilot head allows the collected oil in the center of the secondary lowering spool to drain into the reservoir. At the same time, the collected oil on the lifting cylinder seeps through an orifice on the side of the secondary lowering spool. As this oil seeps through the orifice, the pressure on the inside of the secondary lowering spool will be less than the oil acting on the outside of the spool. This difference in pressure will cause the secondary lowering spool to move and allow oil from the lifting cylinders to drain into the reservoir, lowering the header. The speed with which the header lowers is controlled by the allowed displacement distance of the secondary lowering spool.

The header will stop lowering when the solenoid is deenergized. The oil pressure acting on the end of the primary lowering spool that has no solenoid will move the spool, closing the supply of pilot oil to the secondary lowering spool and opening a passage for the return oil to the reservoir. The pilot head with spring in the center of the secondary lowering spool receives permission to close. This interrupts the flow of oil from the orifice on the side of the secondary lowering spool. The pressure inside the secondary lowering spool will become equal to the pressure acting on the side of the spool. When the pressure is equalized, the spring in the center of the secondary lowering spool will move the spool to the closed position. The header will then stop lowering.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

REMOVING AIR FROM THE SYSTEM
After Reel Drive Valve Maintenance

STEP 41

Check the hydraulic reservoir and fill with CASE IH HY-TRAN® ULTRA fluid as required.

STEP 42

Start the engine and run on intermediate speed.

STEP 43

Engage the separator and feeder.

STEP 44

Start the reel drive and activate manual flow from minimum to maximum 3 or 4 times.

STEP 45

Disengage the separator and feeder and stop the engine.

STEP 46

Check the hydraulic reservoir again and add CASE IH HY-TRAN® ULTRA fluid as required.

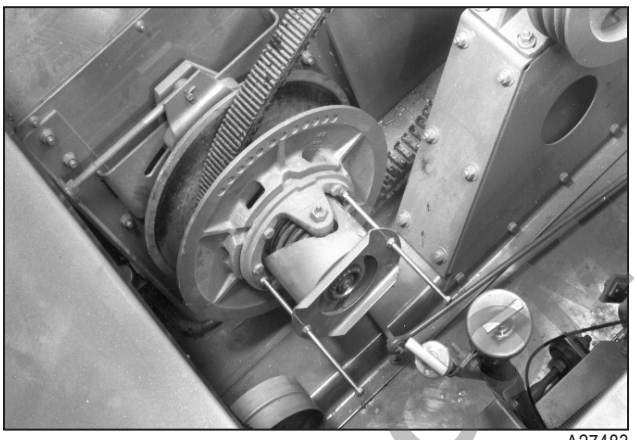
PREVIEW - YOUFIXTHIS.COM

NOTE: *Case Corporation reserves the right to make improvements in design or changes in specifications at any time without incurring any obligation to install them on units previously sold.*

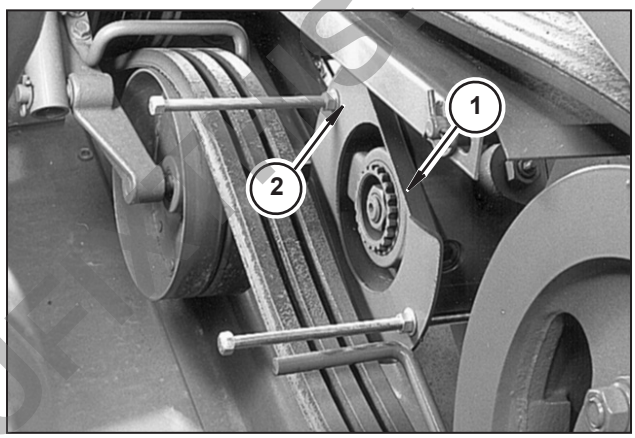
Download full manual at youfixthis.com

STEP 4

Use compressed air to clean the compressor plate bolt holes. Assemble the compression plate on the torque sensor unit. The flange (1) on the compressor plate should face the rear of the combine. Tighten the nuts (2) on the bolts to secure the bolts to the torque sensor unit.



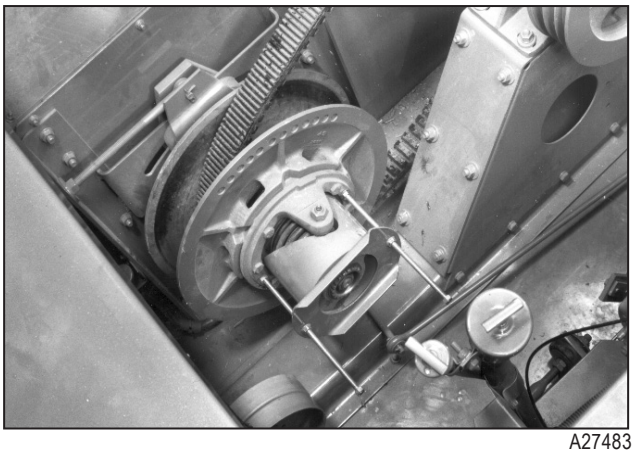
A27483



A17038

STEP 5

Tighten the compressor plate nuts evenly to remove all slack. This will hold the driven pulley half-open.



A27483

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 1569 pages

The full manual includes:

- All 1569 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Case IH 2566, 2688, 2799 Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual