TORQUE SPECIFICATIONS - DECIMAL HARDWARE

Use the torques in this chart when special torques are not given. These torques apply to fasteners with both UNC and UNF threads as received from suppliers dry, or when lubricated with engine oil. Not applicable if special graphities, Molydisulfide greases, or other extreme pressure lubricants are used.

Grade 5 Bolts, Nuts, and Studs



Size	Newton metres	Pound-Inches
1/4 inch	10 to 12	91 to 103
5/16 inch	21 to 24	188 to 212
3/8 inch	38 to 43	336 to 378
		Pound-Feet
7/16 inch	61 to 69	45 to 51
1/2 inch	94 to 104	68 to 76
9/16 inch	132 to 149	98 to 110
5/8 inch	183 to 210	138 to 155
3/4 inch	325 to 370	242 to 270
7/8 inch	530 to 595	390 to 435
1.0 inch	790 to 890	585 to 655
1-1/8 inch	980 to 1100	725 to 805
1-1/4 inch	1385 to 1555	1020 to 1145
1-3/8 inch	1810 to 2030	1335 to 1495
1-1/2 inch	2400 to 2700	1770 to 1990

Grade 8 Bolts, Nuts, and Studs



Size	Newton metres	Pound-Inches
1/4 inch	15 to 16	130 to 145
5/16 inch	30 to 34	268 to 301
3/8 inch	54 to 60	474 to 534
		Pound-Feet
7/16 inch	86 to 97	63 to 71
1/2 inch	132 to 149	96 to 110
9/16 inch	191 to 213	140 to 155
5/8 inch	260 to 293	190 to 215
3/4 inch	480 to 515	340 to 380
7/8 inch	745 to 835	550 to 615
1.0 inch	1120 to 1280	825 to 925
1-1/8 inch	1585 to 1785	1170 to 1315
1-1/4 inch	2215 to 2235	1650 to 1855
1-3/8 inch	2930 to 3295	2160 to 2430
1-1/2 inch	3895 to 4375	2870 to 3225

NOTE: *Use thick nuts with Grade 8 bolts.*

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

REMOVAL

NOTE: *The photos in this procedure are for reference only.*

STEP 1

Park the machine on a level surface. Remove the bucket or attachment from the loader arms. Raise the loaders arms and lock the loader arms into the raised position. Tilt the cab forward.

STEP 2

Turn the ignition switch and the master disconnect switch (if equipped) to the OFF position.

STEP 3

Disconnect the negative battery cable from the battery.

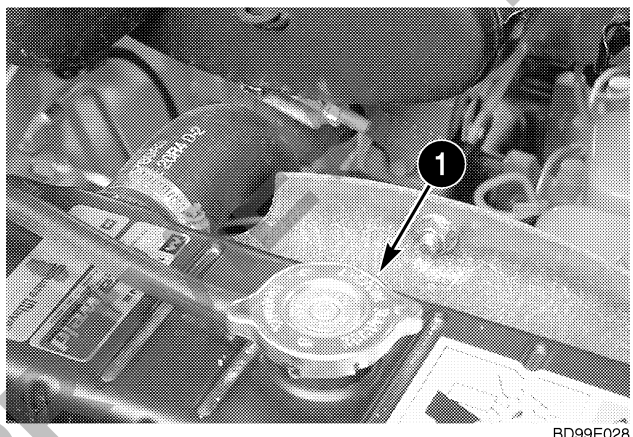
STEP 4

Open the rear access door on the machine.

STEP 5

Open the hood.

STEP 6

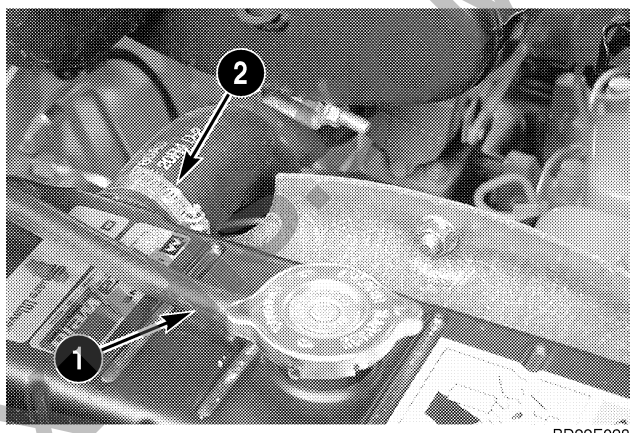


BD99E028

Slowly loosen the radiator cap (1). Install a hose on the drain valve and drain the radiator into a clean container that holds approximately 19 litres (5 gallons).

NOTE: *During installation, fill the radiator and coolant reservoir completely. See Section 1002 for coolant specifications. Start and run the engine until the coolant is at operating temperature. Stop the engine and check for leakage. When the coolant is cold, check the coolant reservoir level. Add coolant as required.*

STEP 7



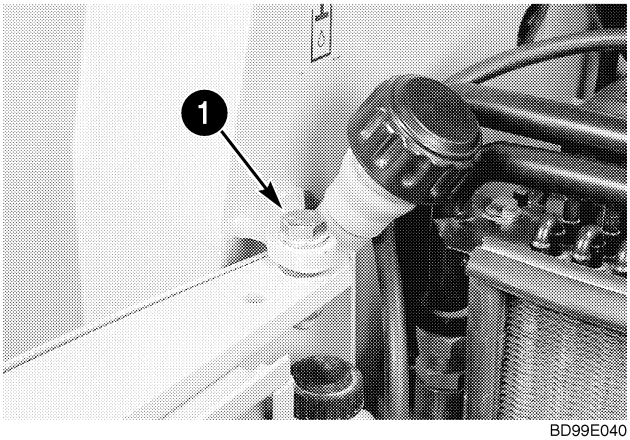
BD99E028

Disconnect the overflow hose (1) from the radiator neck.

STEP 8

Connect acceptable lifting equipment to the rear access door.

STEP 9



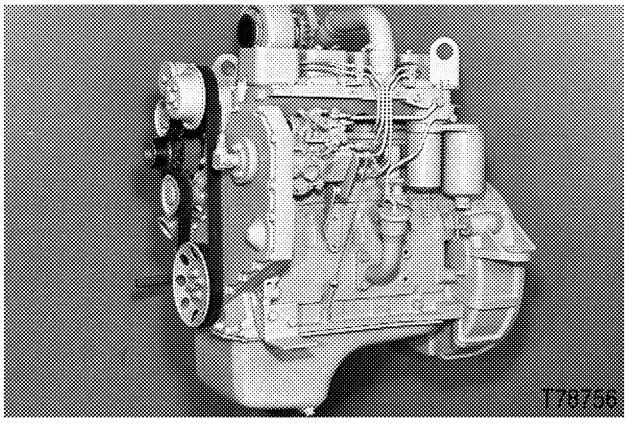
BD99E040

Loosen and remove the hardware (1) that fastens the top of the door to the frame.

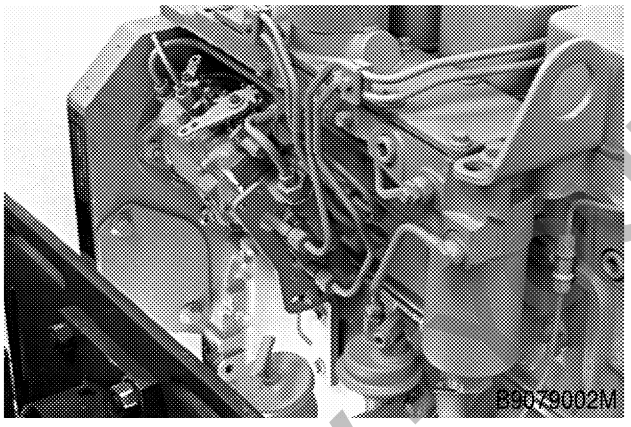
Download full manual at youfixthis.com

FILTER REPLACEMENT

NOTE: *Some engines have two fuel filters while others have single fuel filters. See the following photographs.*

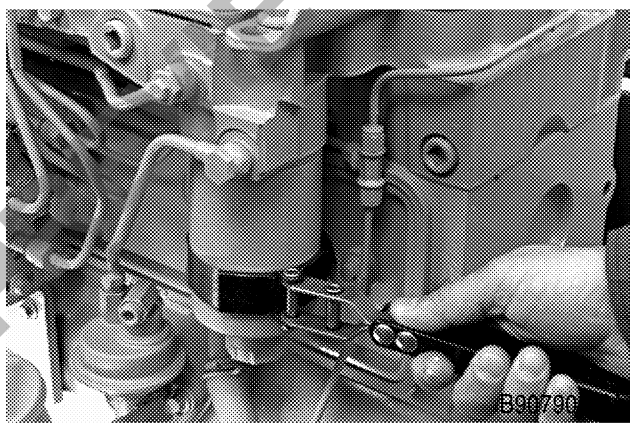


Case engine with two fuel filters.



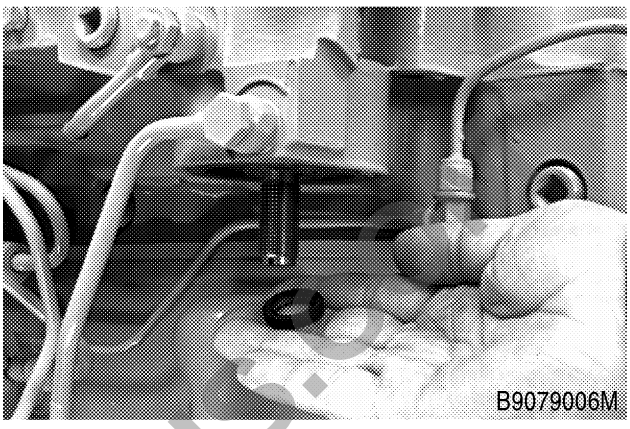
Case engine with single fuel filter.

STEP 1



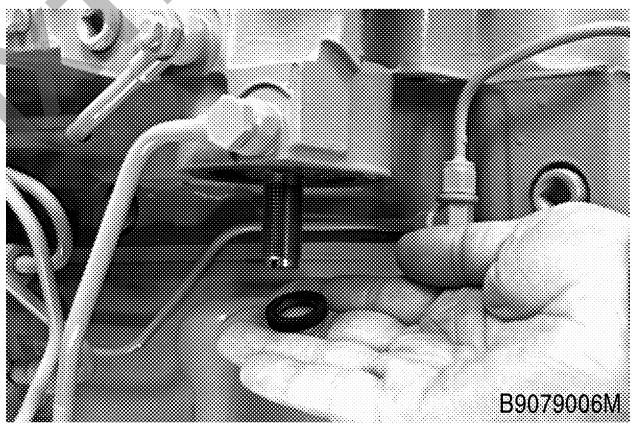
Use a strap or clamp wrench to remove the filter or filters.

STEP 2



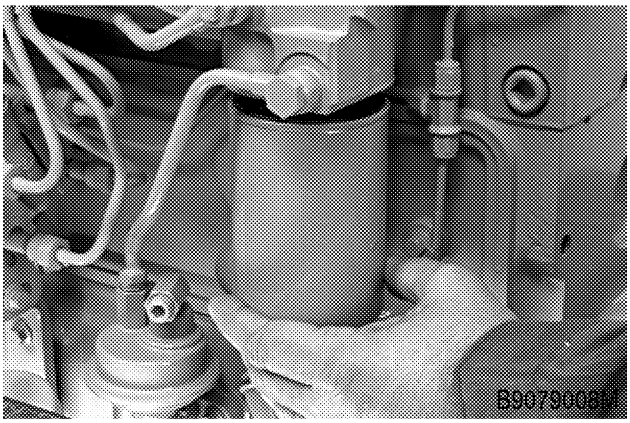
Remove and discard the rubber seals from the filter head.

STEP 3



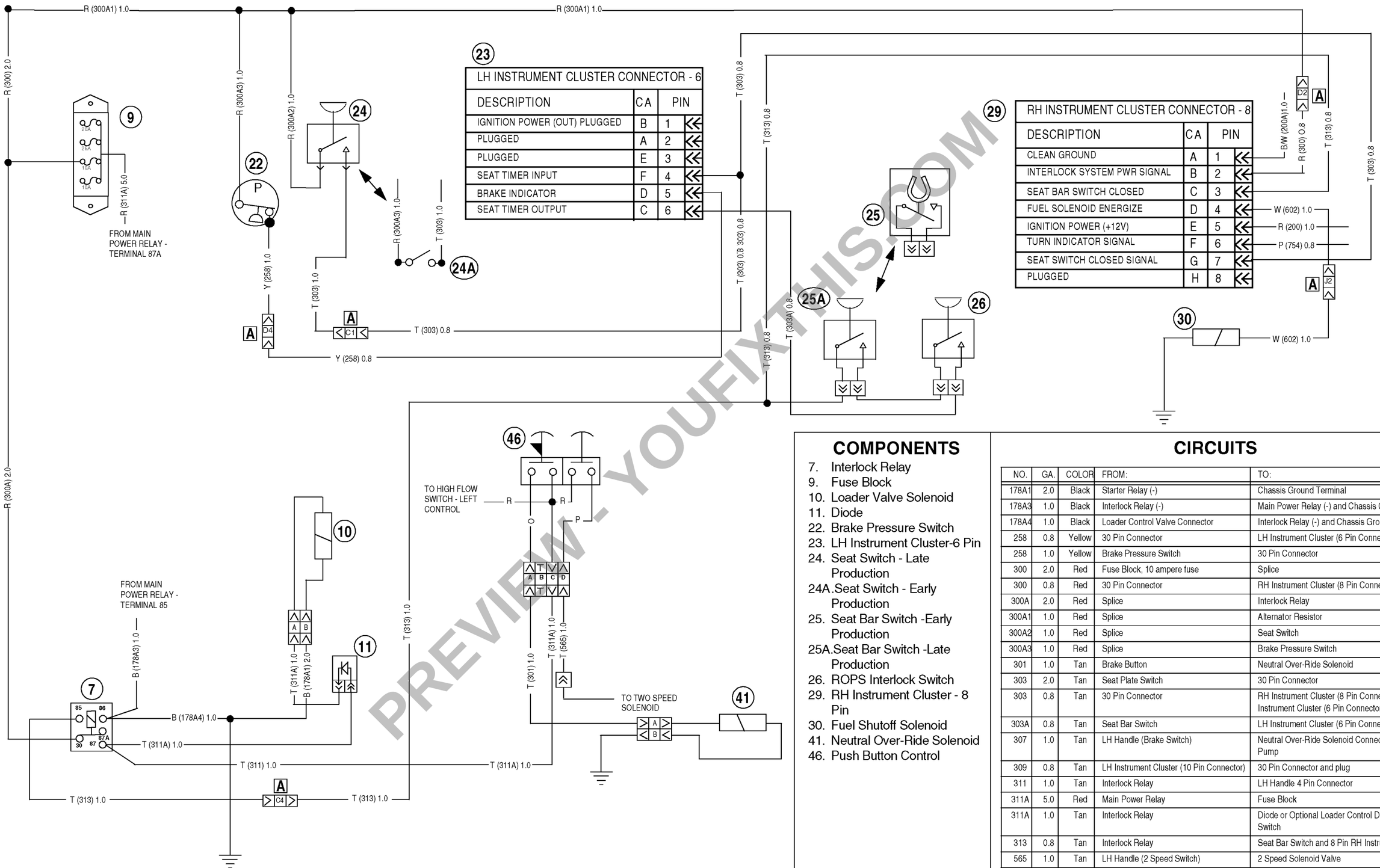
Lubricate the new rubber seals with clean engine oil. Install the rubber seals on the filter head.

STEP 4



Lubricate the gasket on the new filter with clean engine oil. Turn the filter clockwise until the gasket makes contact with the filter head. Use your hands to tighten the filter an additional 1/2 to 3/4 of a turn.

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

COMPONENTS

7. Interlock Relay
9. Fuse Block
10. Loader Valve Solenoid
11. Diode
22. Brake Pressure Switch
23. LH Instrument Cluster-6 Pin
24. Seat Switch - Late Production
24A. Seat Switch - Early Production
25. Seat Bar Switch -Early Production
25A. Seat Bar Switch -Late Production
26. ROPS Interlock Switch
29. RH Instrument Cluster - 8 Pin
30. Fuel Shutoff Solenoid
41. Neutral Over-Ride Solenoid
46. Push Button Control

CIRCUITS

NO.	GA.	COLOR	FROM:	TO:
178A1	2.0	Black	Starter Relay (-)	Chassis Ground Terminal
178A3	1.0	Black	Interlock Relay (-)	Main Power Relay (-) and Chassis Ground
178A4	1.0	Black	Loader Control Valve Connector	Interlock Relay (-) and Chassis Ground
258	0.8	Yellow	30 Pin Connector	LH Instrument Cluster (6 Pin Connector)
258	1.0	Yellow	Brake Pressure Switch	30 Pin Connector
300	2.0	Red	Fuse Block, 10 ampere fuse	Splice
300	0.8	Red	30 Pin Connector	RH Instrument Cluster (8 Pin Connector)
300A	2.0	Red	Splice	Interlock Relay
300A1	1.0	Red	Splice	Alternator Resistor
300A2	1.0	Red	Splice	Seat Switch
300A3	1.0	Red	Splice	Brake Pressure Switch
301	1.0	Tan	Brake Button	Neutral Over-Ride Solenoid
303	2.0	Tan	Seat Plate Switch	30 Pin Connector
303	0.8	Tan	30 Pin Connector	RH Instrument Cluster (8 Pin Connector) and LH Instrument Cluster (6 Pin Connector)
303A	0.8	Tan	Seat Bar Switch	LH Instrument Cluster (6 Pin Connector
307	1.0	Tan	LH Handle (Brake Switch)	Neutral Over-Ride Solenoid Connector at Piston Pump
309	0.8	Tan	LH Instrument Cluster (10 Pin Connector)	30 Pin Connector and plug
311	1.0	Tan	Interlock Relay	LH Handle 4 Pin Connector
311A	5.0	Red	Main Power Relay	Fuse Block
311A	1.0	Tan	Interlock Relay	Diode or Optional Loader Control Disconnect Switch
313	0.8	Tan	Interlock Relay	Seat Bar Switch and 8 Pin RH Instrument Cluster
565	1.0	Tan	LH Handle (2 Speed Switch)	2 Speed Solenoid Valve
602	1.0	White	RH Instrument Cluster (8 Pin Connector)	30 Pin Connector and Fuel Shutoff Solenoid

Download full manual at youfixthis.com

Hydraulic Pump / Constant Pressure Priority Valve

A Sauer / Sundstrand gear pump, supplies oil for the hydraulic and hydrostatic systems. Full pump flow enters an integral constant pressure priority valve, sending priority flow of approximately (4.8 to 6) gpm to the charge port, supplying make-up oil to the closed-loop of the hydrostatic system, when the unit is in motion. When the hydrostatic system is in neutral, very little oil will flow to the hydrostatic system. The remaining pump flow is then diverted to the equipment port for use in the hydraulic system, for loader, bucket, auxiliary and power beyond circuits. Return oil from the hydraulic system passes through the filter and cooler before returning to the reservoir.

The hydraulic pump is mounted to the hydrostatic tandem pump. The hydrostatic tandem pump is coupled directly to the engine and driven by the flywheel.

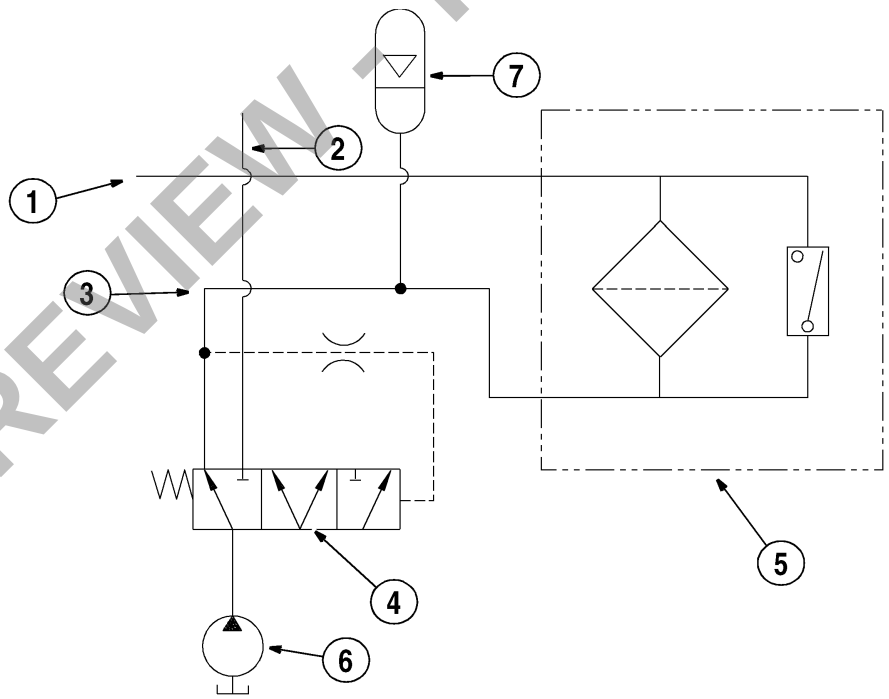
Constant Pressure Priority Valve

The constant pressure priority valve assembly receives all flow from the hydraulic pump mounted on the rear of the hydrostatic tandem pump assembly. A flow of up to approximately (4.8 to 6) gpm at 24 bar (350 psi) is sent through the priority port to charge the tandem pump assembly when the unit is in motion. The remaining pump flow is sent to the non-priority port for use in the hydraulic system.

Operation: Hydraulic pump flow enters the center section of the flow divider assembly between the priority and non-priority ports. The priority port will be called the charge port and the non-priority port will be called the equipment port. The priority spool is shifted to the left by the pressure regulator spring. At start-up, all of the pump flow is available to enter the charge port. As pressure builds in the charge port, the same pressure is sensed in the drilled passage of the priority spool. Oil pressure builds in the drilled passage, moving the priority spool against spring force to regulate charge port pressure.

Charge flow supplies oil to make-up for internal leakage from the closed-loop of the hydrostatic pump, release vehicle brakes, change vehicle speed range and release the loader control valve spool lock rod.

Remaining flow not used to maintain the charge circuit is directed to the equipment port, for use in the hydraulic system.



BT99F007

1. CHARGE FLOW TO TANDEM PUMP
2. EQUIPMENT CIRCUIT FLOW
3. CHARGE FLOW TO FILTER
4. CONSTANT PRESSURE PRIORITY VALVE
5. CHARGE FILTER
6. CHARGE HYDRAULIC PUMP/LOADER PUMP
7. ACCUMULATOR

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Section

8000

“HOW IT WORKS”

PREVIEW - YOUFIXTHIS.COM

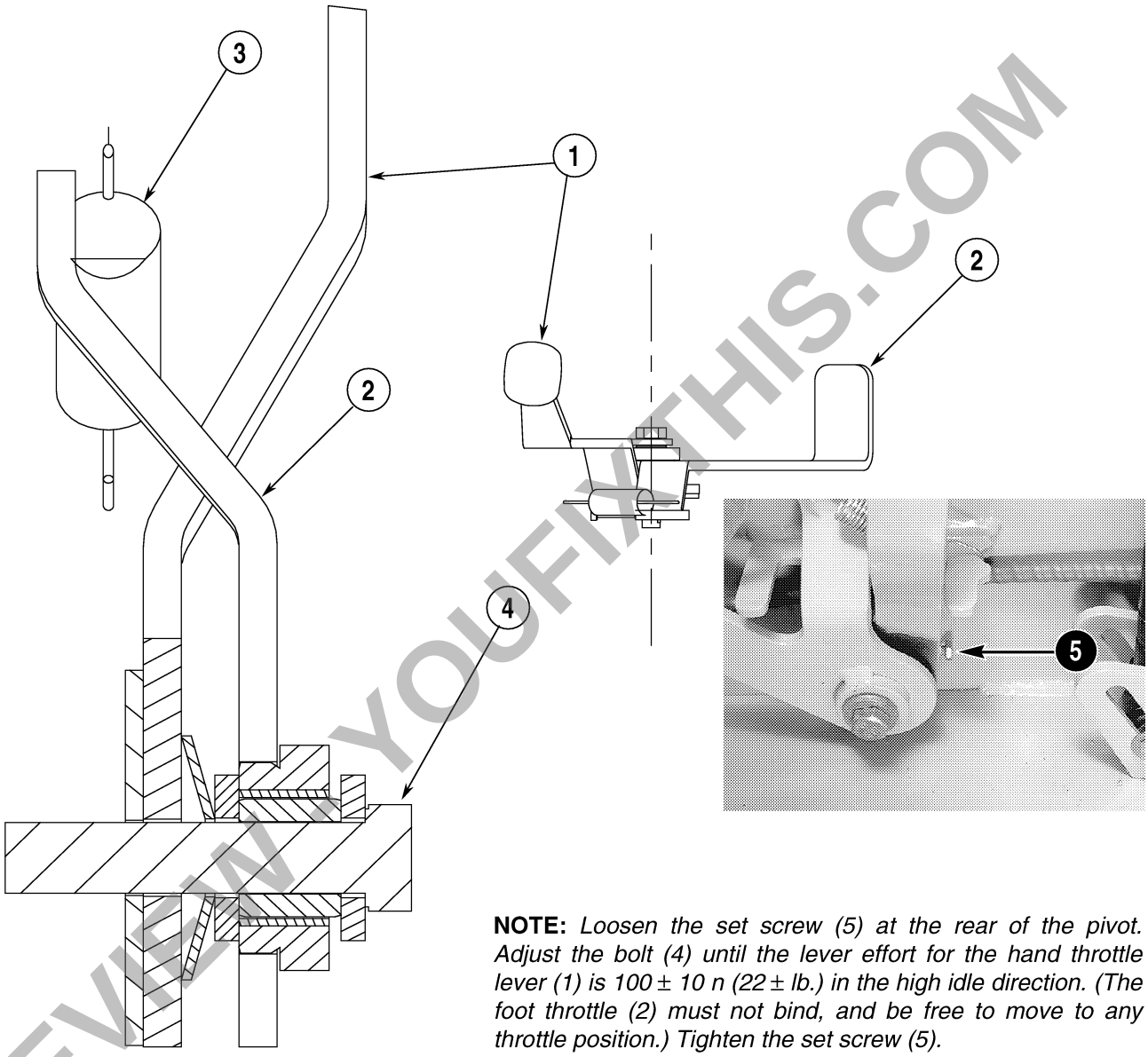
CASE CORPORATION
700 State Street
Racine, WI 53404 U.S.A.

CASE CANADA CORPORATION
3350 SOUTH SERVICE ROAD
BURLINGTON, ON L7N 3M6 CANADA

© 2000 Case Corporation
Printed in U.S.A.
Bur 7-53222
July,1999 (Revised October,2000)

Download full manual at youfixthis.com

THROTTLE CONTROL LINKAGE ADJUSTMENT



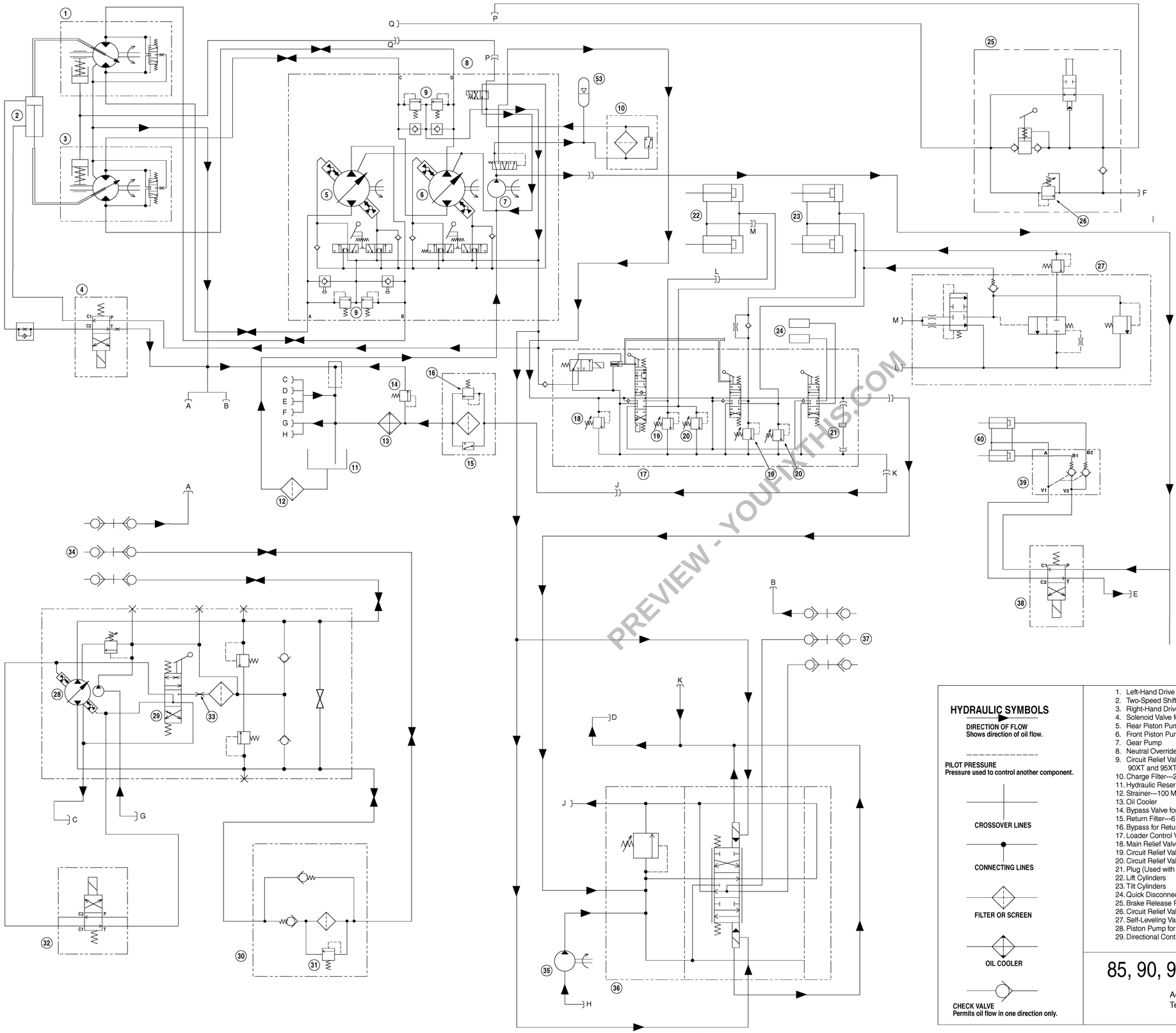
NOTE: *Loosen the set screw (5) at the rear of the pivot. Adjust the bolt (4) until the lever effort for the hand throttle lever (1) is 100 ± 10 n (22 ± lb.) in the high idle direction. (The foot throttle (2) must not bind, and be free to move to any throttle position.) Tighten the set screw (5).*

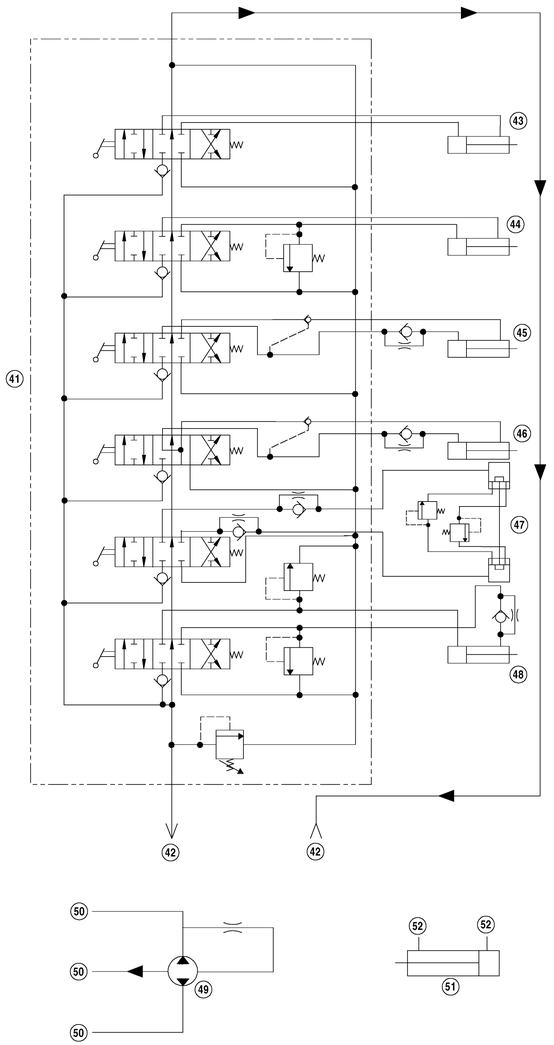
BT97H015

1. HAND THROTTLE LEVER
2. FOOT THROTTLE
3. SPRING
4. BOLT
5. SET SCREW

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com





HYDRAULIC SYMBOLS

DIRECTION OF FLOW
Shows direction of oil flow.

PILOT PRESSURE
Pressure used to control another component.

CROSSOVER LINES

CONNECTING LINES

FILTER OR SCREEN

OIL COOLER

CHECK VALVE
Permits oil flow in one direction only.

1. Left-Hand Drive Motor
2. Two-Speed Shift Cylinder (90XTand 95XT)
3. Right-Hand Drive Motor
4. Solenoid Valve for Two-Speed Shift (90XTand 95XT)
5. Rear Piston Pump
6. Front Piston Pump
7. Gear Pump
8. Neutral Override Valve
9. Circuit Relief Valve---85XT 325 bar (4712 psi)
   90XT and 95XT 345 bar (5000 psi)
10. Charge Filter---2 Micron
11. Hydraulic Reservoir
12. Strainer---100 Mesh
13. Oil Cooler
14. Bypass Valve for Oil Cooler---8.6 bar (125 psi)
15. Return Filter---6 Micron
16. Bypass for Return Filter---2.8 bar (40 psi)
17. Loader Control Valve
18. Main Relief Valve---207 bar (3000 psi)
19. Circuit Relief Valve---262 bar (3800 psi)
20. Circuit Relief Valve---214 bar (3100 psi)
21. Plug (Used with High Flow Gear Pump Option)
22. Lift Cylinders
23. Tilt Cylinders
24. Quick Disconnects for Auxiliary Hydraulics
25. Brake Release Pump
26. Circuit Relief Valve---27.6 bar (400 psi)
27. Self-Leveling Valve
28. Piston Pump for High Flow
29. Directional Control Valve for High Flow with Piston Pump
30. High Flow Filter (5 Micron)
31. Bypass Valve for High Flow Filter---5.0 bar (73 psi)
32. Solenoid Valve for High Flow with Piston Pump
33. Orifice---1.04 mm (0.041 inch)
34. Quick Disconnects for High Flow with Piston Pump
35. Gear Pump for High Flow
36. Directional Control Valve for High Flow with Gear Pump
37. Quick Disconnects for High Flow with Gear Pump
38. Solenoid Valve for Hydraulic Coupler
39. Lockout Valve for Hydraulic Coupler
40. Hydraulic Coupler Cylinders
41. Backhoe Control Valve
42. Connected to Quick Disconnects for Auxiliary Hydraulics
43. Bucket Cylinder
44. Dipper Cylinder
45. Left-Hand Stabilizer Cylinder
46. Right-Hand Stabilizer Cylinder
47. Swing Cylinder
48. Boom Cylinder
49. Trencher Motor
50. Connected to Quick Disconnects for High Flow
51. Trencher Lift Cylinder
52. Connected to Quick Disconnects for Auxiliary Hydraulics
53. Accumulator 90XT and 95XT. (If Equipped)

85, 90, 95XT SKID STEER HYDRAULIC SCHEMATIC

Additional copies of this hydraulic and electrical schematic can be ordered through Technical Publications Distribution System. The part number is Bur 7-53623.

Download full manual at youfixthis.com

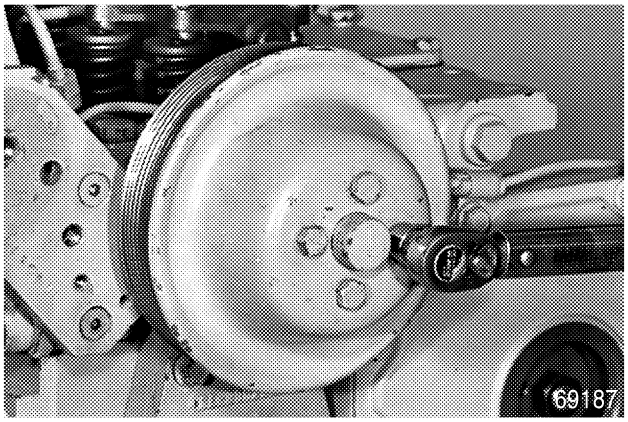
85XT/90XT/95XT Skid Steers
Service Manual
7-52254
Table of Contents

Description	Section No.	Form No.
Hydraulic System "How It Works" (85XT Machines With P.I.N. JAF0352234 And After) (90XT Machines With P.I.N. JAF0320050 And After) (95XT Machines With P.I.N. JAF0311357 And After)	8000	6-74410
Hydraulic System Troubleshooting	8001	7-53230
Hydraulic System Troubleshooting (85XT Machines With P.I.N. JAF0352234 And After) (90XT Machines With P.I.N. JAF0320050 And After) (95XT Machines With P.I.N. JAF0311357 And After)	8001	6-75180
Cleaning the Hydraulic System and Hydrostatic System	8002	7-53240
Removal and Installation of Hydraulic Components	8003	7-53250
Removal and Installation of Hydraulic Components (85XT Machines With P.I.N. JAF0352234 And After) (90XT Machines With P.I.N. JAF0320050 And After) (95XT Machines With P.I.N. JAF0311357 And After)	8003	6-75200
Gear (Equipment) Pump	8004	7-53261
Loader Control Valve	8005	7-53280
Loader Control Valve (2 Spool Valve) (85XT Machines With P.I.N. JAF0352234 And After) (90XT Machines With P.I.N. JAF0320050 And After) (95XT Machines With P.I.N. JAF0311357 And After) Loader Control Valve (Bi-Directional Self Leveling Valve) (85XT Machines With P.I.N. JAF0352234 And After) (95XT Machines With P.I.N. JAF0311357 And After)	8005	6-74400
Cylinders	8006	7-53291
Optional High Pressure High Flow Pump (Piston Pump)	8007	7-53300
Optional Low Pressure High Flow Pump (Gear Pump)	8008	7-53310
Control Valve for Low Pressure High Flow System	8009	7-53320
Self-Leveling Valve	8010	7-53780
Hydraulics, Cont.	**Tab 8**	
Solenoid Valve for Hydraulic Coupler System	8011	7-54700
D125 Backhoe Control Valve - North American Only	8012	7-54690
Accumulator for Ride Control	8013	7-53060
Flat Faced Couplers	8014	7-54740
Solenoid Valve for High Pressure High Flow System (Piston Pump)	8020	7-53790
Mounted Equipment	**Tab 9**	
Section Index - Mounted Equipment		7-53343
Pedals and Levers	9001	7-53611
Loader	9002	7-53360
Attachment Coupler	9003	7-53370

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

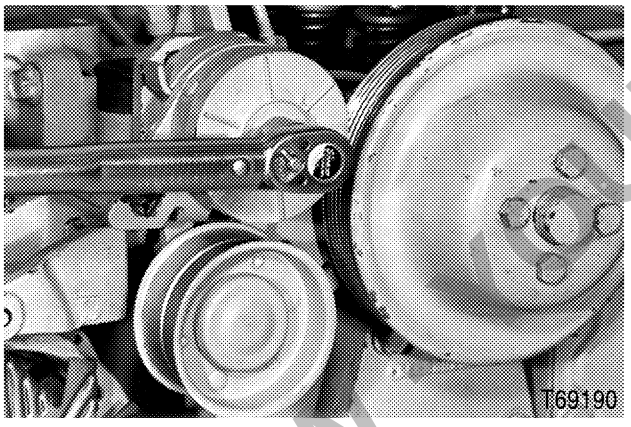
STEP 113



Install the fan belt pulley and tighten the bolts to a torque of:

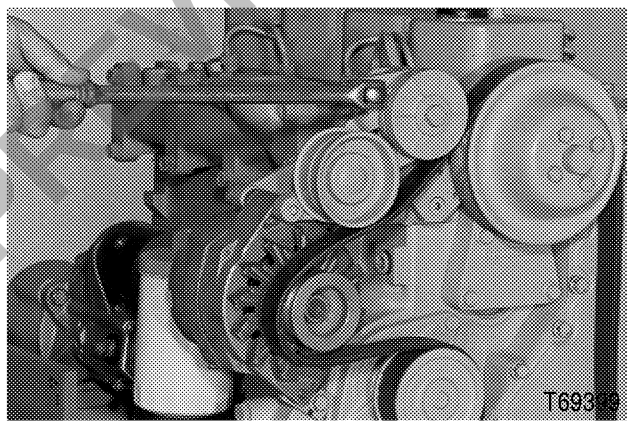
Grade 8.8 Size M8	26 to 31 Nm
Grade 10.9 Size M8	37 to 43 Nm
Grade 8.8 Size M10	51 to 62 Nm
Grade 10.9 Size M10	51 to 62 Nm

STEP 114



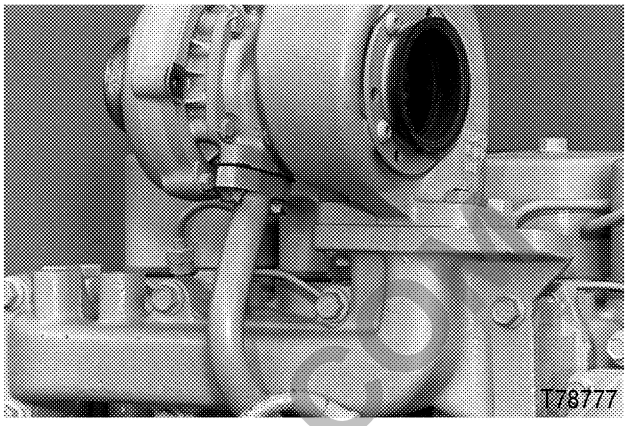
Install the belt tensioner and tighten the bolt to a torque of 39 to 47 Nm.

STEP 115



Lift the belt tensioner and install the fan belt.

STEP 116

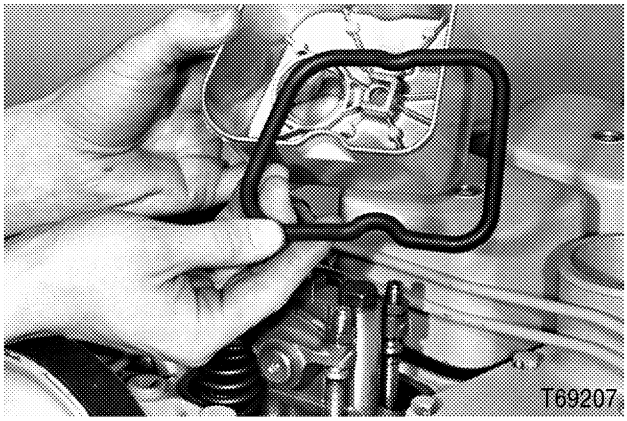


To install the turbocharger, see section 2465 in the service manual.

STEP 117

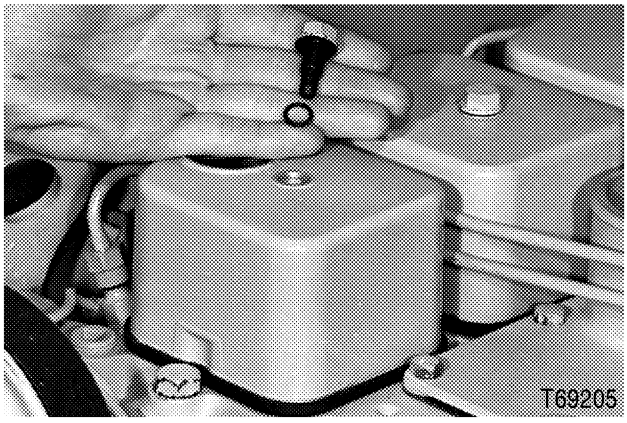
Start and operate the engine. Check engine oil pressure indicator to make sure of correct engine oil pressure. Check the rocker arms to make sure that the arms are receiving oil.

STEP 118



Install new gaskets on the valve covers.

STEP 119



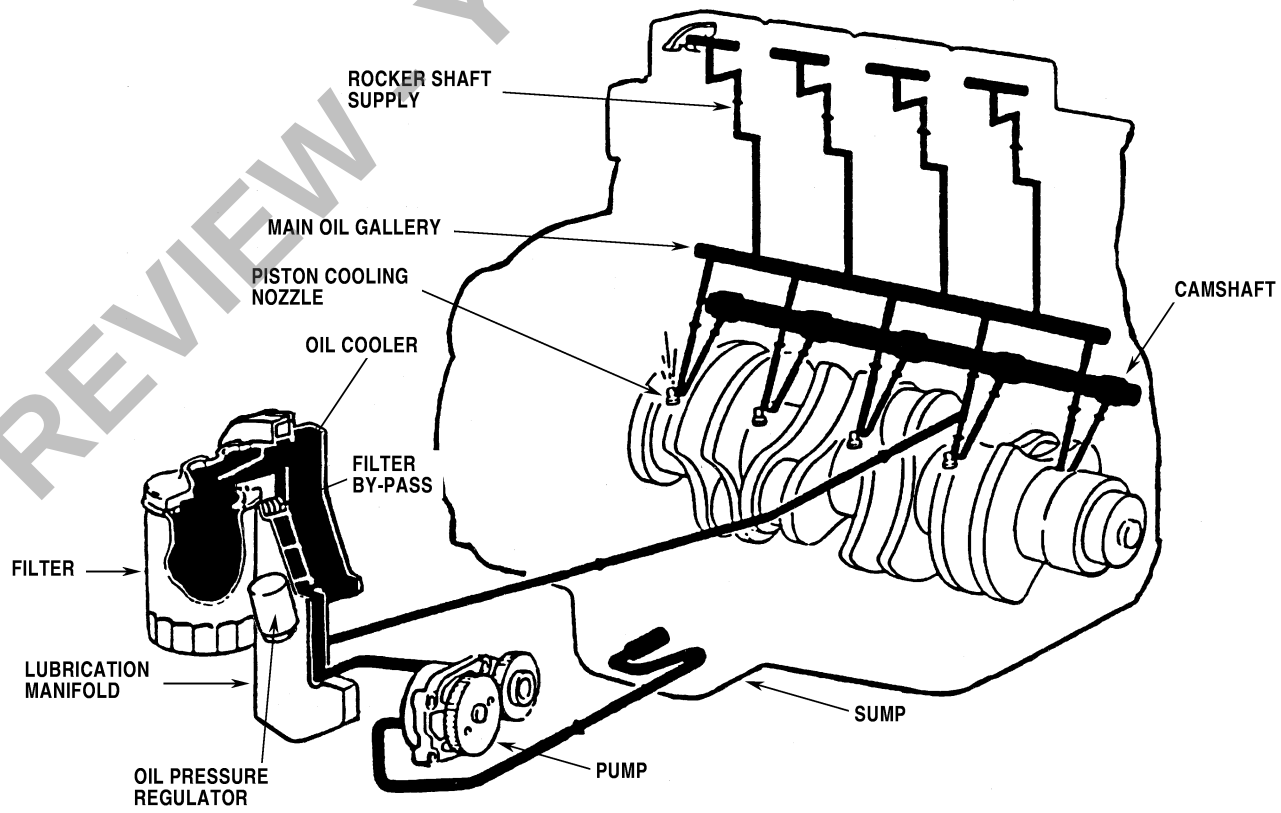
Install new o-rings on the valve cover bolts.

PREVIEW ONLY YOUFIXTHIS.COM
Download full manual at youfixthis.com

SPECIAL TORQUES

Oil Pump Retaining Bolts	21 to 27 Nm
Front Cover Retaining Bolts	21 to 27 Nm
Crankshaft Pulley Retaining Bolts	120 to 130 Nm
Fan Pulley Bracket Retaining Bolts	23 to 25 Nm
Fan Pulley Bolts	
Grade 8.8 Size M8	25 to 31 Nm
Grade 10.9 Size M8	37 to 43 Nm
Grade 8.8 Size M10	51 to 62 Nm
Grade 10.9 Size M10	51 to 62 Nm
Filter Housing Retaining Bolts	21 to 27 Nm
Oil Inlet Tube Retaining Bolts	18 to 30 Nm
Oil Pan Drain Plug	68 to 82 Nm

LUBE FLOW CHART



387L94

PREVIEW YOUFIXTHIS.COM
Download full manual at youfixthis.com

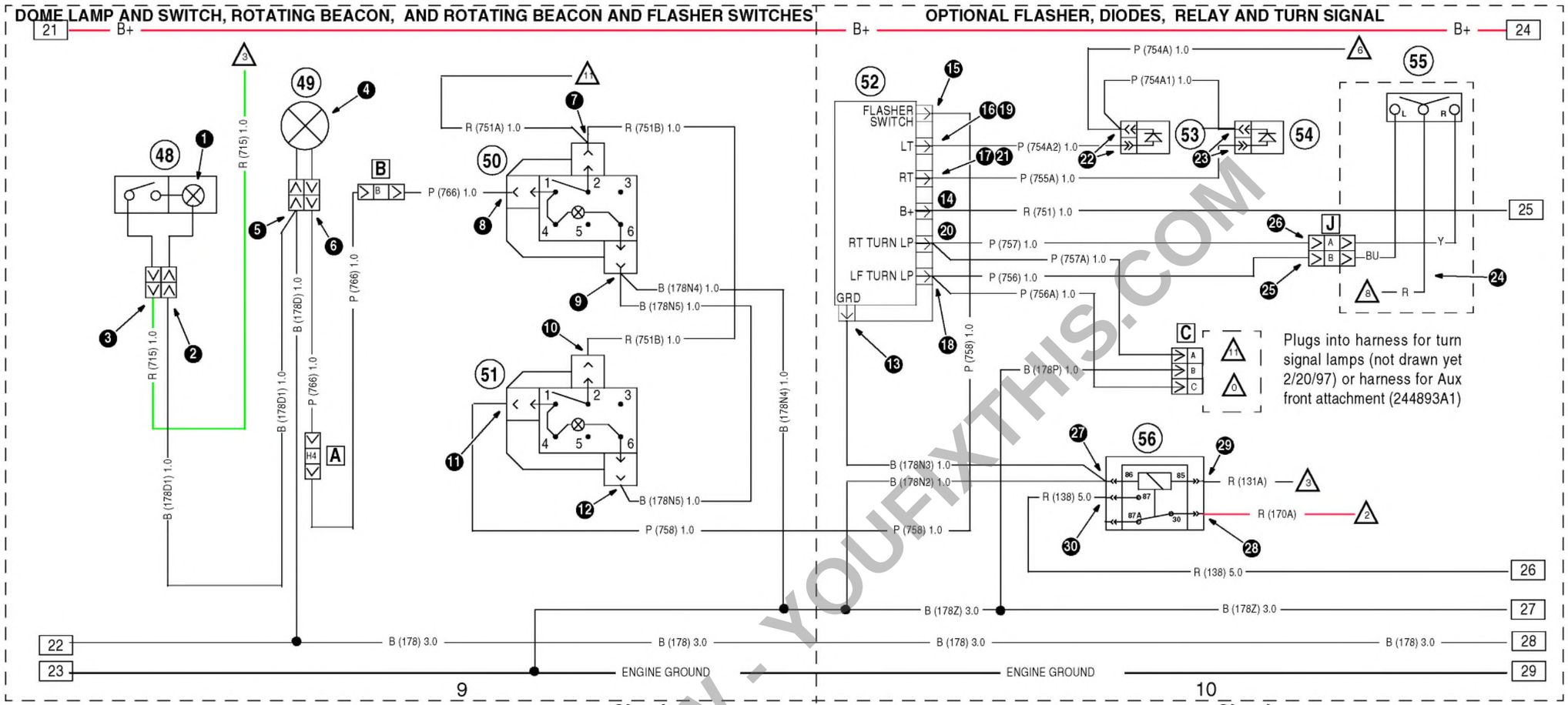
TROUBLESHOOTING GUIDE

NOTE: *It is assumed that the engine is in good working order and properly tuned, and the electrical system has been checked and repaired as necessary.*

Starting Problem	Engine Surges At Idle	Rough Idle When Engine Is Warm	Engine Misses Under Load	Low Power	Excessive Fuel Consumption	Engine Cannot Be Shut Off	Poor Performance Or Black Smoke Or Low Power	Fog-like Exhaust In Full-Load Range	Incorrect Idle Or Maximum Speed	Engine Does Not Rev Up	CAUSE AND REMEDY
■		■	■	■			■	■		■	Incorrect fuel in the fuel tank: Drain tank, flush system and fill with correct fuel
■	■		■	■				■		■	Fuel tank empty or fuel tank vent blocked: Fill tank and bleed system, check tank vent (Refer to Section 3410)
■	■	■	■				■	■		■	Air in the fuel system: Bleed fuel system, eliminate air leaks (Refer to Section 3410)
	■	■									Pump rear support bracket loose: Replace as necessary
■						■					Voltage supply malfunction, stop solenoid defective: Correct electrical faults, replace solenoid (Refer to Section 3414)
■			■	■				■		■	Fuel filter blocked: Replace fuel filter (Refer to Section 3410)
■			■	■				■		■	Fuel supply lines blocked or restricted: Check all fuel supply line, flush or replace
■			■	■							Loose connection, injection lines leaking or broken: Tighten the connection, eliminate the leak
■			■					■		■	Paraffin deposit in fuel filter: Replace filter, use Diesel Fuel No. 1 (Refer to Operators Manual)
■			■	■	■		■	■		■	Fuel injection pump timing incorrect: Adjust timing
		■	■	■	■		■				Injection nozzle faulty: Repair or replace (Refer to Section 3413)
				■	■		■				Engine air filter blocked: Replace air filter element
■		■		■	■		■				Injection sequence does not correspond to firing order: Install fuel injection lines in the correct order (Refer to Section 3414)
	■		■	■				■	■	■	Overflow fitting interchanged with inlet fitting: Install fittings in correct positions (Refer to Section 3414)
■	■				■		■		■	■	Cold-start device malfunction (if equipped): Check cold-start mechanism (if equipped)
■		■		■			■			■	Low or uneven engine compression: Repair as necessary (Refer to Section 2425)
■	■	■	■	■	■		■	■	■	■	Fuel injection pump defective or cannot be adjusted: Replace (Refer to Section 3414)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



Components

48. Dome Lamp
49. Rotating Beacon
50. Rotating Beacon Switch
51. Flasher Switch
52. Flasher
53. LT Indicator Diode
54. RT Indicator Diode
55. Turn Signal Switch or Auxiliary Control Switch
56. Accessory Power Relay

Circuits

NO.	GA.	COLOR	FROM:	TO:
131A	1.0	Red	Main Power Relay	Connector B and Accessory Power Relay
138	5.0	Red	Accessory Power Relay	Accessory Fuse Block
170A	5.0	Red	Buss Bar, 40 Ampere Circuit Breaker	Accessory Power Relay
178	3.0	Black	Splice	30 Pin Connector and Engine Ground
178D	1.0	Black	Rotating Beacon Connector	Splice
178D1	1.0	Black	Dome Lamp Connector	Rotating Beacon Connector and Chassis Ground
178N2	1.0	Black	Accessory Power Relay	Chassis Ground
178N3	1.0	Black	Flasher	Accessory Power Relay and Chassis Ground
178N4	1.0	Black	Rotating Beacon Switch	Chassis Ground

Circuits

NO.	GA.	COLOR	FROM:	TO:
178N5	1.0	Black	Flasher Switch	Rotating Beacon Switch and Chassis Ground
178P	1.0	Black	Turn Signal Lamps or Auxiliary Front Attachment	Chassis Ground
178Z	3.0	Black	Chassis Ground	Engine Ground
715	1.0	Red	Key Switch	Dome Lamp and Switch
751A	1.0	Red	Accessory Power Fuse Block, 10 Ampere Fuse	Beacon Switch
751B	1.0	Red	Accessory Power Fuse Block, 10 Ampere Fuse and Beacon Switch	Flasher Switch
754A	1.0	Pink	LT Indicator Diode	Connector B
754A1	1.0	Pink	RT Indicator Diode	LT Indicator Diode
754A2	1.0	Pink	LT Indicator Diode	Flasher
755	1.0	Pink	Optional Flasher	LT Indicator Diode
756	1.0	Pink	RH Handle (Turn Signal Switch or Rear Auxiliary Hydraulic Control Load 8))	Flasher
756A	1.0	Pink	Flasher	Turn Signal Harness and LH Turn Signal Lamp
757	1.0	Pink	RH Handle (Turn Signal Switch or Rear Auxiliary Hydraulic Control Load 7))	Flasher

Circuits

NO.	GA.	COLOR	FROM:	TO:
757A	1.0	Pink	Flasher	Turn Signal Harness and RH Turn Signal Lamp
758		Pink	Flasher Switch	Flasher
766	1.0	Pink	Rotating Beacon Switch	Connector B, 30 Pin Connector, and Rotating Beacon

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

81 Diode

Check Points	Reading	Possible Cause of Bad Readings
NOTE: *Disconnect the diode from the connector.*		
㊼ Between the terminals of the diode	Continuity in one direction only.	Bad diode.

82 Cab Door Switch (Optional)

Check Points	Reading	Possible Cause of Bad Readings
NOTE: *Disconnect the connector from the cab door switch. The cab door should be open.*		
㊾ Between the terminal for the white wire and the terminal for the black wire for the cab door switch.	Open	Bad cab door switch.
NOTE: *Close and latch the cab door.*		
㊿ Between the terminal for the white wire and the terminal for the black wire for the cab door switch.	Continuity	Bad cab door switch.
NOTE: *Have someone sit in the operators seat with the seat bar in the down position. Place the ignition switch in the RUN position.*		
❶ Terminal for wire 313F to ground.	12 volts	Check the circuit between the cab door switch and the loader valve solenoid relay (51). Also check the loader valve solenoid relay (51).

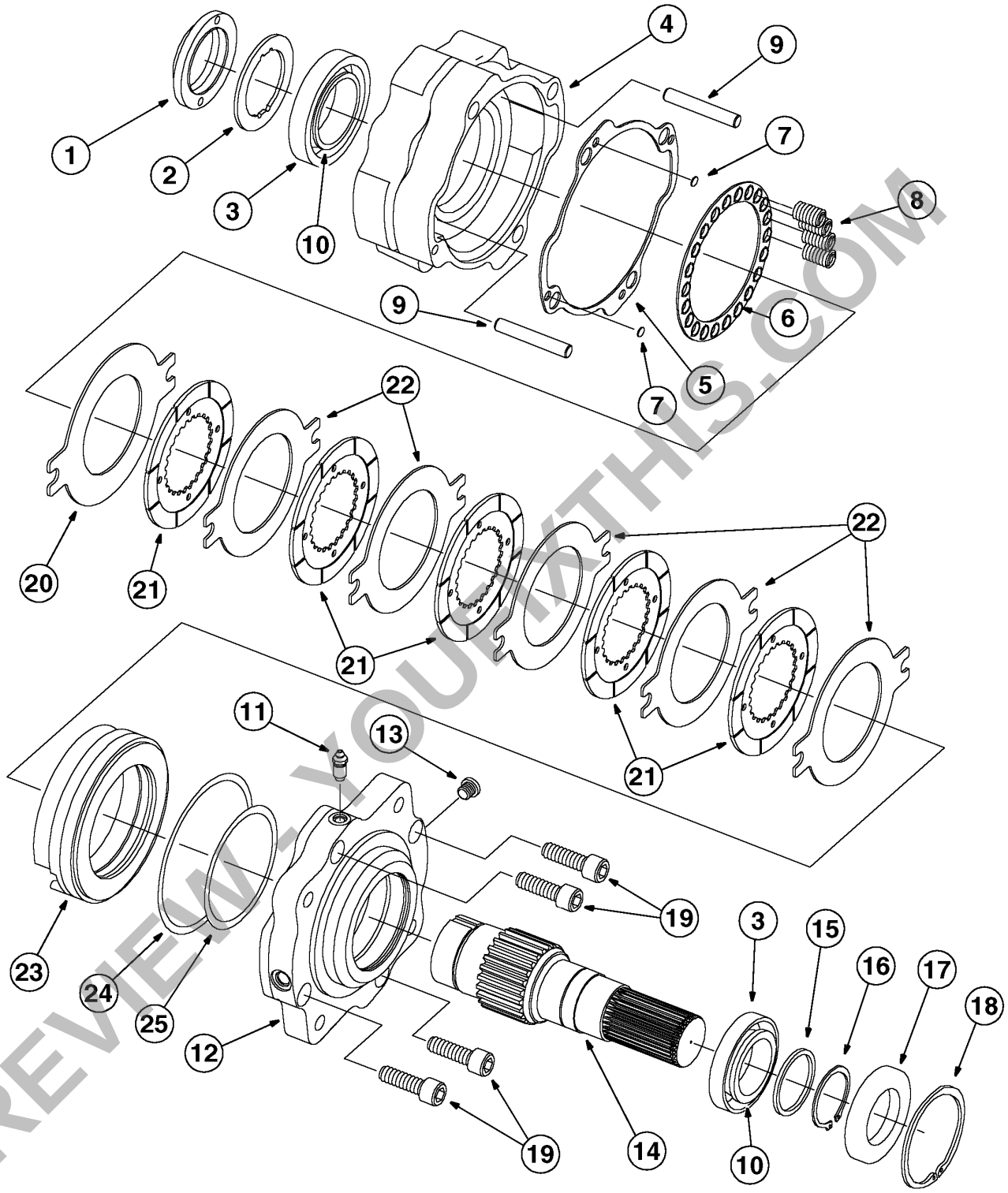
83 Washer Pump (Optional)

Check Points	Reading	Possible Cause of Bad Readings
❷ Terminal for wire 178BV to ground.	Continuity i	Bad ground circuit.
NOTE: *Turn the ignition switch to the RUN position. Press and hold the washer pump switch.*		
❸ Terminal fro wire 835A to ground	12 volts	Check the circuit between the washer pump and the wiper motor. Also check the wiper motor.

NOTE: *If the readings are correct, and the washer pump does not work, replace the washer pump.*

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



BI97J154

1. NUT
2. WASHER
3. BEARING CUP
4. HOUSING
5. GASKET
6. SPRING RETAINER
7. SHIM
8. SPRING
9. PIN
10. BEARING CONE
11. BLEEDER VALVE
12. POWER PLATE
13. PLUG
14. SHAFT
15. SUPPORT WASHER
16. SNAP RING
17. SEAL
18. SNAP RING
19. CAP SCREW (4)
20. PRIMARY DISC (1)
21. ROTATING DISC (5)
22. STATIONARY DISC (5)
23. PISTON
24. LARGE O-RING
25. SMALL O-RING

85XT Parking Brake

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

STEP 65



BP97D146

Remove the retaining ring from the shaft.

STEP 66



BP97D145

Remove the washer from the shaft.

STEP 67



BP97D147

Remove the control cam from the control housing.

STEP 68



BP97D148

Remove the spring from the control housing.

STEP 69



BP97D214

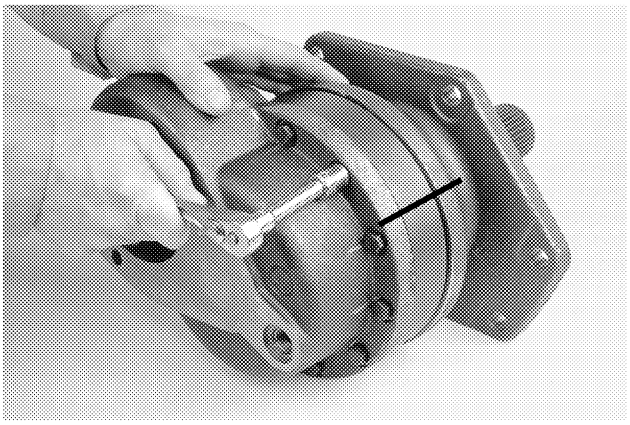
Remove the seal from the control housing.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

DISASSEMBLY

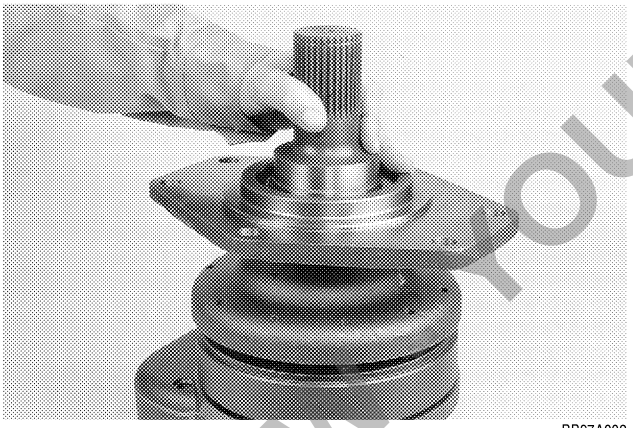
STEP 1



BP97A001

Place the gear box on a bench and mark the cover, ring gear and hub sections for reference during assembly. Loosen and remove the 10 cap screws and flat washers from the cover.

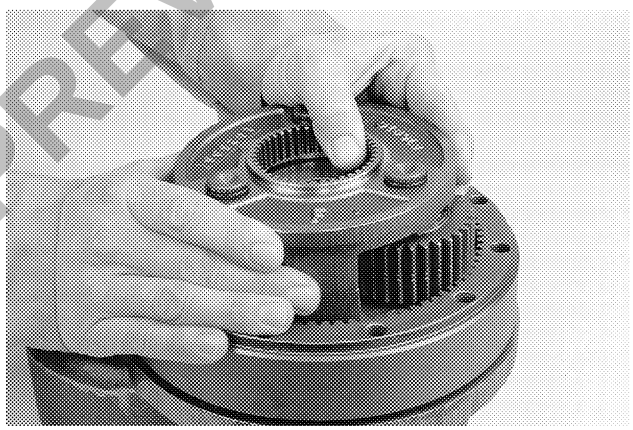
STEP 2



BP97A002

Place the gearbox on end. Separate and remove the hub section from the ring gear.

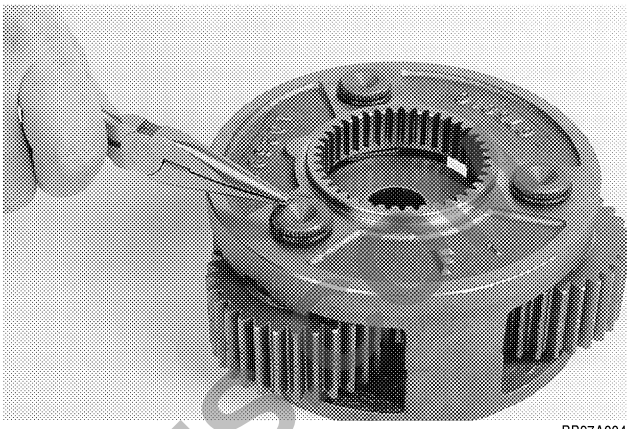
STEP 3



BP97A003

Remove the carrier assembly from the ring gear.

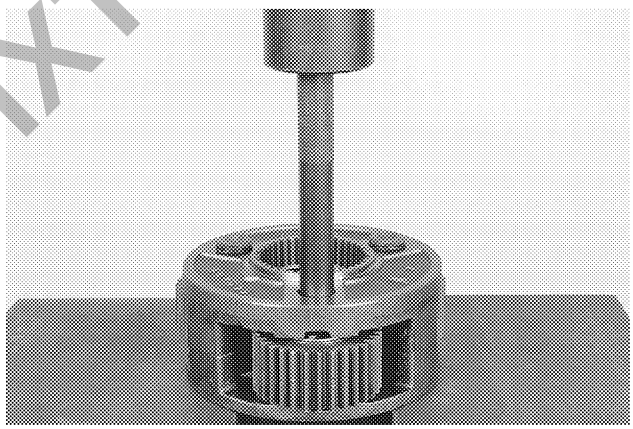
STEP 4



BP97A004

Remove the retaining ring from the gear pin.

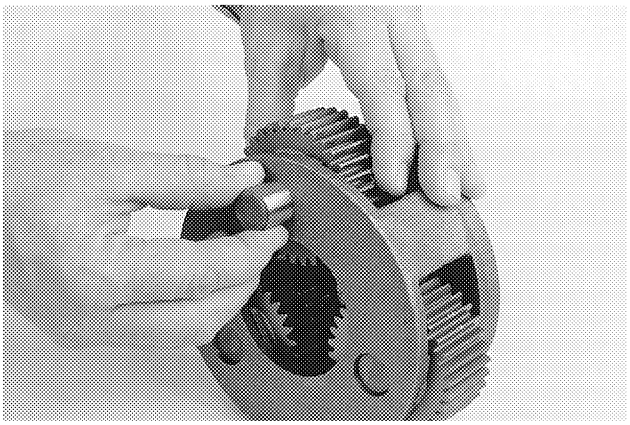
STEP 5



BP97A005

Place the carrier assembly in a press. Use an acceptable driver to press the pin out of the carrier.

STEP 6



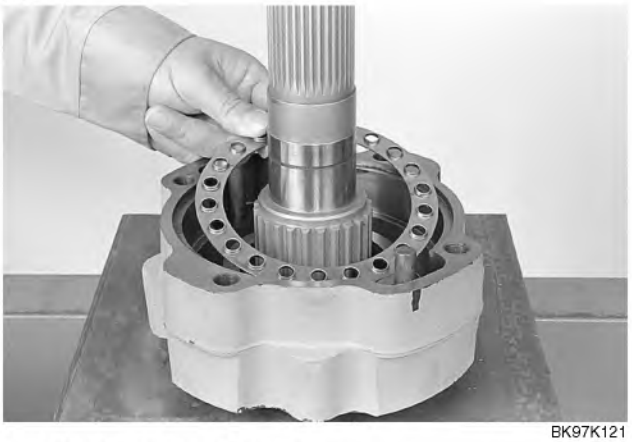
BP97A006

Remove the pin from the carrier assembly.

PREVIEW ONLY YOUFIXTHIS

Download full manual at youfixthis.com

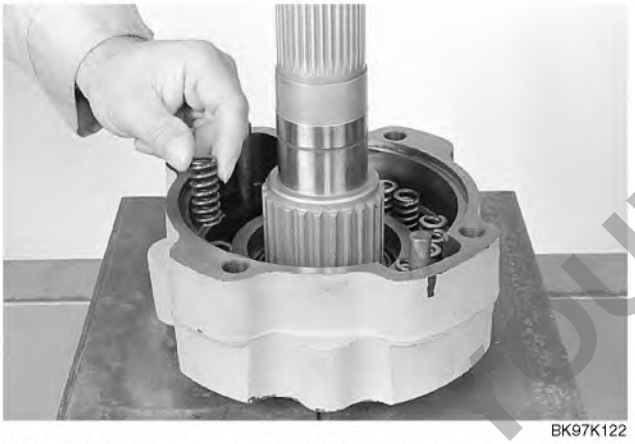
STEP 42



BK97K121

Install the spring retainer.

STEP 43



BK97K122

Install the springs so that there are two groups of six springs each and one group of seven springs, with each group separated from the next by one space on the spring retainer. (See the photograph in step 17 for reference.)

STEP 44



BK97K123

Install the primary disc.

STEP 45

Soak the rotating discs and the stationary discs in clean hydraulic oil before assembly.

STEP 46



BK97K124

Install a rotating disc.

STEP 47



BK97K125

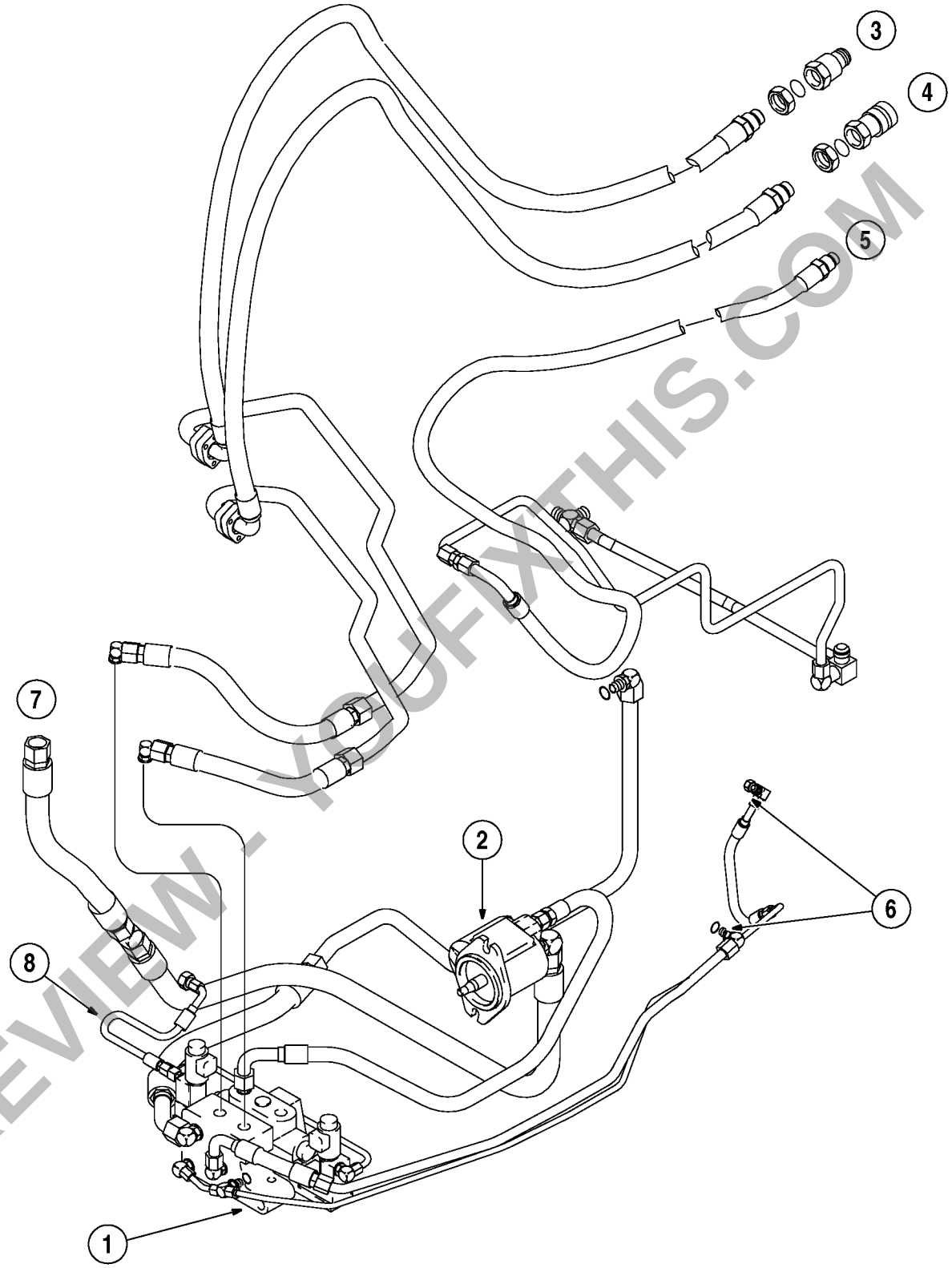
Install a stationary disc. Make sure that the recesses in the tabs on the stationary disc engage the two pins.

STEP 48

Repeat steps 46 and 47 until all five sets of rotating discs and stationary discs are installed.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



BT97E047

1. CONTROL VALVE
2. GEAR PUMP
3. MALE QUICK DISCONNECT FITTINGS
4. FEMALE QUICK DISCONNECT FITTINGS
5. DRAIN
6. PILOT OIL TO SHIFT CONTROL VALVE
7. PUMP INLET
8. PILOT OIL DRAIN

HIGH FLOW HYDRAULIC SYSTEM COMPONENTS

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

Section

8002

CLEANING THE HYDRAULIC SYSTEM AND THE HYDROSTATIC SYSTEM

PREVIEW - YOUFIXTHIS.COM

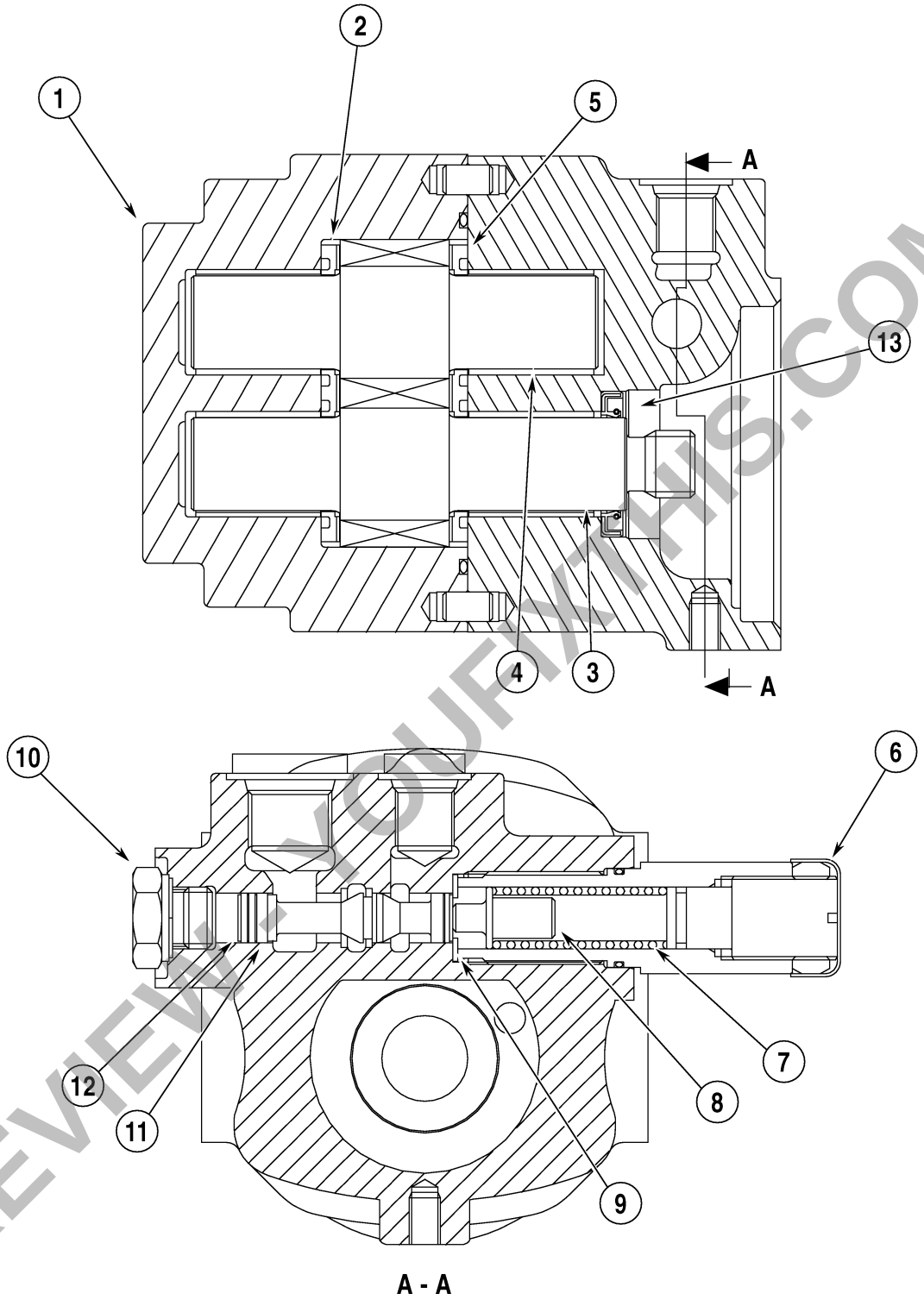
CASE CORPORATION
700 State Street
Racine, WI 53404 U.S.A.

CASE CANADA CORPORATION
3350 SOUTH SERVICE ROAD
BURLINGTON, ON L7N 3M6 CANADA

Bur 7-53240

© 1997 Case Corporation
Printed in U.S.A.
September, 1997

Download full manual at youfixthis.com



A - A

BI97D244

1. REAR HOUSING
2. OUTER THRUST BEARING PLATE
3. DRIVE GEAR
4. DRIVEN GEAR
5. INNER THRUST PLATE
6. MAIN RELIEF CARTRIDGE
7. SPRING
8. POPPET
9. SHIMS
10. SPOOL PLUG
11. SPOOL
12. ORIFICE PLUG (NOT SHOWN)
13. LIP SEAL

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

8. Lubricate the bore of the gland (5) with clean hydraulic oil.

9. Push the gland (5) onto the piston rod (3). If the gland (5) will not slide easily onto the piston rod (3), use a soft hammer to drive the gland (5) onto the piston rod (3).

10. Place a support below and near the end of the piston rod (3) to prevent damage to the piston rod (3).

11. Install the piston (6) onto the end of the piston rod (3).

12. Install the hardened washer (15) onto the cap screw (16).

13. Clean the threads on the end of the piston rod (3) and the threads of the cap screw (16) using Loctite cleaning solvent. Allow all the parts to dry. Apply Loctite 242 to the piston rod (3) threads, 1/4 inch from the open end of the piston rod (3). Apply 1/2 inch of Loctite 242 on the piston rod (3) threads.

NOTE: *Do not apply Loctite 242 to the first 1/4 inch of the piston rod (3) threads.*

14. Install the cap screw (16) and tighten to 365 to 469 Nm (270 to 346 pound-feet). A torque multiplier can be used to tighten the cap screw (16).

15. Lubricate a new wear ring (14) with clean hydraulic oil and install in the end groove on the outside of the piston (6).

16. Lubricate a new backup ring (12) with clean hydraulic oil and install in the center groove on the outside of the piston (6).

17. Lubricate a new seal (11) with clean hydraulic oil and install on top of the backup ring (12) on the outside of the piston (6).

18. Lubricate a new wear ring (13) with clean hydraulic oil and install in the end groove on the opposite end of the piston (6).

19. Lubricate the inside of the tube (1) and the piston (6) with clean hydraulic oil. Use a piston ring compression tool to hold the new wear ring (13) in place.

20. Push the tube (1) straight onto the piston (6).

21. Start the tube (1) onto the piston rod (3) assembly. Push the tube (1) onto the piston rod (3) until the compression tool is pushed off the piston rod (3). Be careful not to damage the wear ring (13) and the seal (11).

22. When the piston (6) is in the smooth part of the tube (1), start the gland (5) into the tube (1).

23. Lubricate the new O-ring (9) on the gland (5) with clean hydraulic oil.

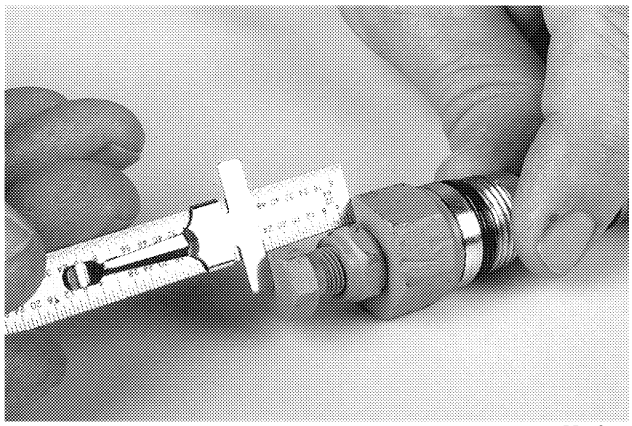
24. Tighten the gland (5) to 407 Nm ± 68 Nm (300 pound-feet ± 50 pound-feet).

25. If hoses were removed with the cylinder, install new O-rings, if equipped, on the hose fittings. Lubricate the new O-rings with clean hydraulic oil and install the hoses.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

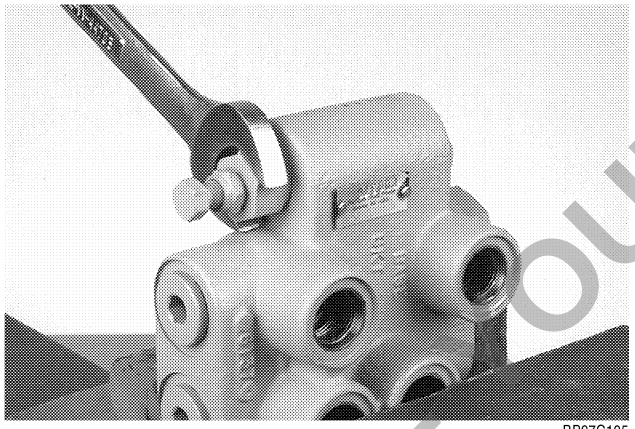
STEP 29



BP97C106

Check the measurement from the top of the adjusting bolt to the shoulder of the cartridge.

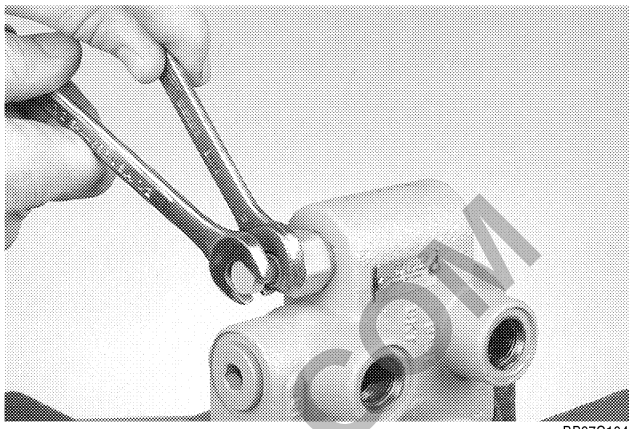
STEP 30



BP97C105

Install and tighten the cartridge in the body.

STEP 31

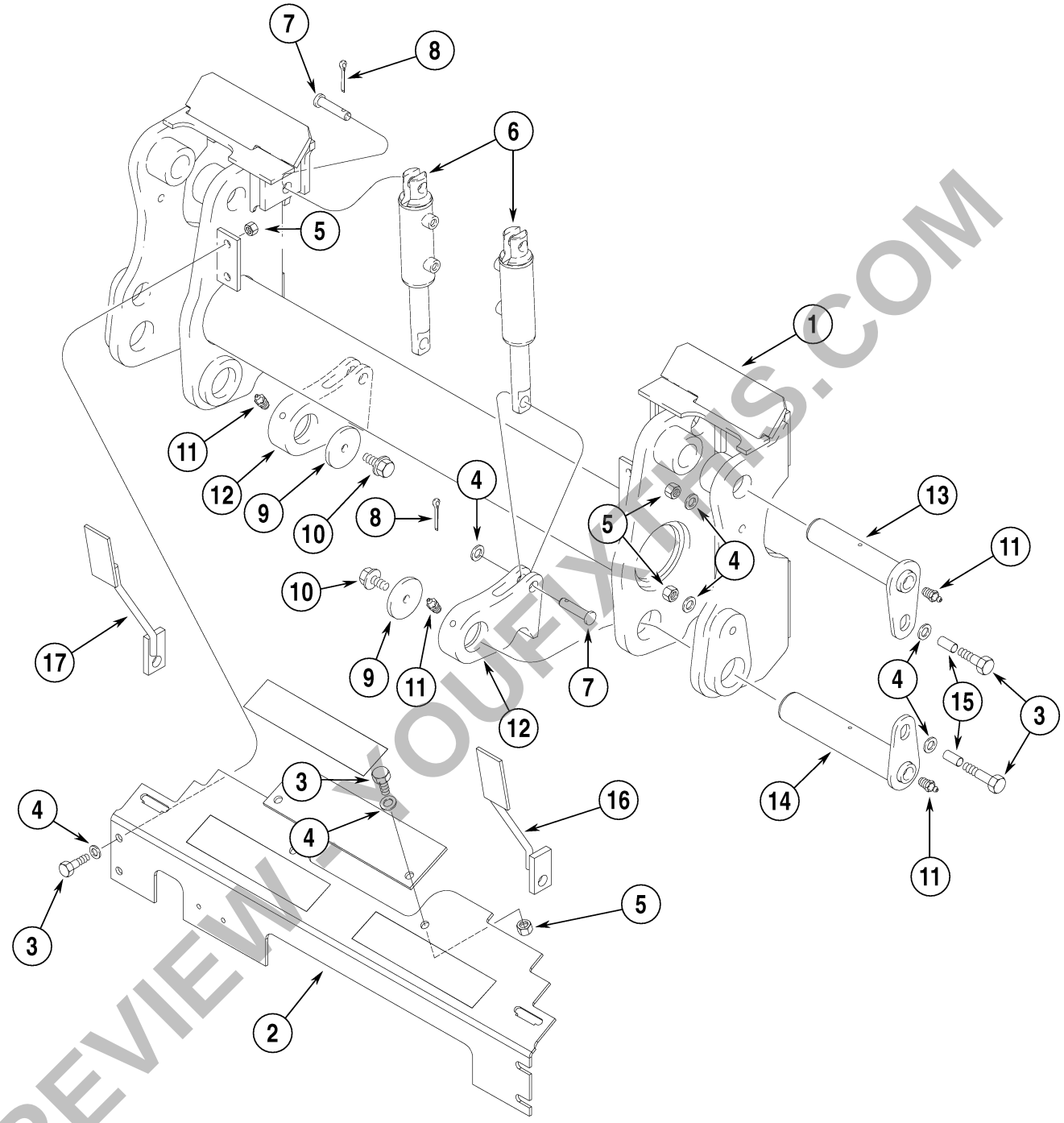


BP97C104

Hold the adjusting bolt and tighten the seal lock nut.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



BT97F168

1. COUPLER FRAME
2. PROTECTIVE PLATE
3. BOLT
4. WASHER
5. LOCK NUT
6. CYLINDER
7. CLEVIS PIN
8. COTTER PIN
9. SPACER PLATE
10. FLANGE BOLT
11. LUBE FITTING
12. HOOK WEDGE
13. UPPER PIN
14. LOWER PIN
15. SPACER
16. RIGHT LINK
17. LEFT LINK

EXPLODED VIEW OF HYDRAULIC ATTACHMENT COUPLER

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

STEEL TRACK

CAUTION: *It is not recommended to use steel tracks with non pneumatic tires. Using steel tracks with non pneumatic tires could damage the skid steer.*

Track Pad Fit to Tire

The steel track pad should fit the tire with side to side clearance. If the steel track pad squeezes the tire, the steel track may need to be replaced.

If the tires do not have an open bar design or are worn smooth, they will spin inside the steel track and not perform as designed.

Tire Clearance

1. There needs to be 12.7 mm (1/2 inch) clearance around the face of the steel track.
2. There needs to be 38.1 mm (1 1/2 inches) clearance from the inside side plate of the steel track to the skid steer.
3. Check tire clearance by removing one steel track pad off the steel track and use it to check for clearance.

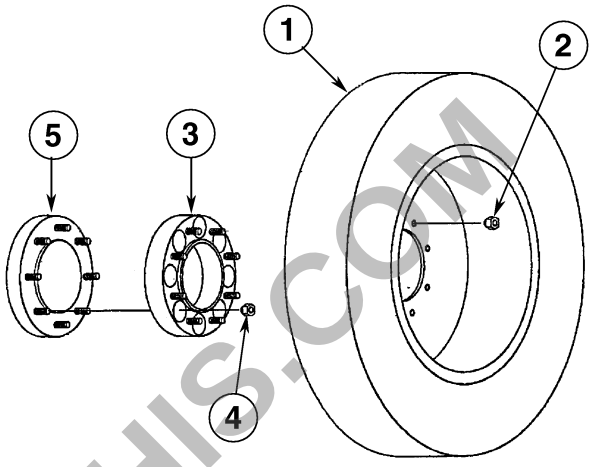
NOTE: *Side to side movement on the tire is OK as long as the steel track does not come into contact with the Skid Steer.*

4. Gain tire clearance by switching wheels from right to left side, keeping the tire tread facing forward.

NOTE: *Switching the wheels from right side to left side will put the valve stems facing the skid steer.*

5. If the wheels cannot be switched from right to left side, wheel spacers are available.

Wheel Spacer



GS99A911

1. LOADER WHEEL
2. LOADER WHEEL NUTS
3. WHEEL SPACER
4. WHEEL NUT
5. LOADER AXLE FLANGE

WHEEL SPACER

1. Remove the loader wheel (1).
2. Install the wheel spacer (3) to the loader axle flange (5) using the loader wheel nuts (2).

NOTE: *Use Loctite on the loader wheel nuts.*

3. Sand the loader axle flange (5) and the wheel spacer (3) to bare metal before installation.
4. Install the loader wheel (1) on the spacer studs using wheel nuts (4) provided with wheel spacer (3), torque wheel nuts (4) to 534 Nm (120 pound-feet).

IMPORTANT: *Check wheel nuts daily when first installed. Damage to machine may result from loose wheel nuts.*

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 1436 pages

The full manual includes:

- All 1436 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Case 85XT, 90XT, 95XT Service Manual



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual