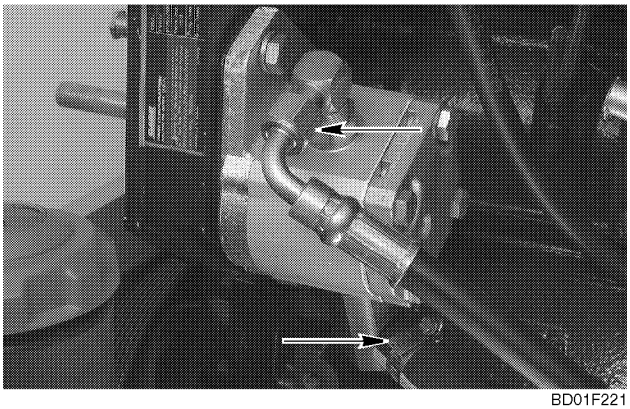
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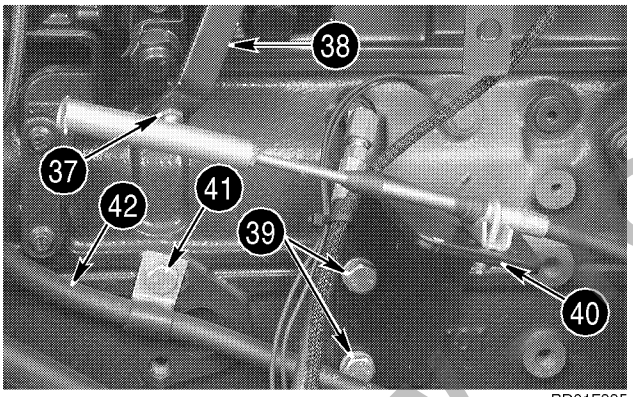
STEP 82



BD01F221

Turn on vacuum pump connected to hydraulic reservoir. Remove caps from fittings and plugs from hoses. Connect hoses to brake pump following tags installed during removal. Remove and discard tags. Turn off and disconnect vacuum pump from hydraulic reservoir.

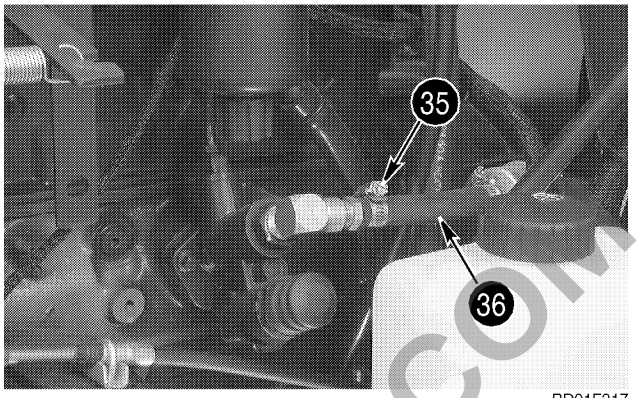
STEP 83



BD01F225

Put fuel return hose (42) with clamp on engine and secure with bolt (41). Position throttle bracket(40) with throttle cable and ball joint attached on engine. Install two washers and bolts (39) to secure throttle bracket to engine. Connect ball joint (37) to throttle lever (38) and secure with nut and washer.

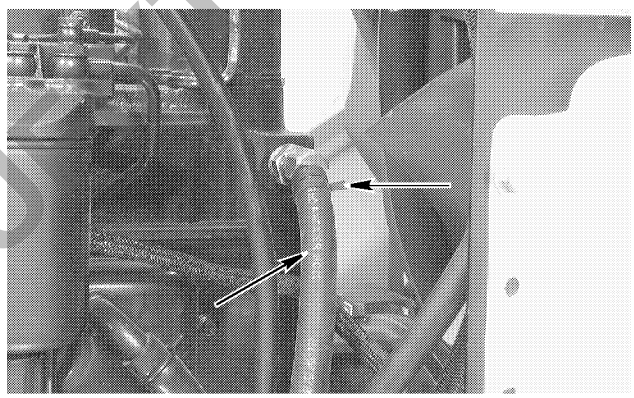
STEP 84



BD01F217

Remove plug from hose and cap from fitting. Connect fuel supply hose (36) to primer pump and tighten clamp (35). Remove and discard tag installed during removal.

STEP 85



BD01F219

Remove plug from hose and cap from fitting. Connect heater hose to fitting and position clamp on hose.

STEP 86

If equipped, connect ether start tube to intake manifold.

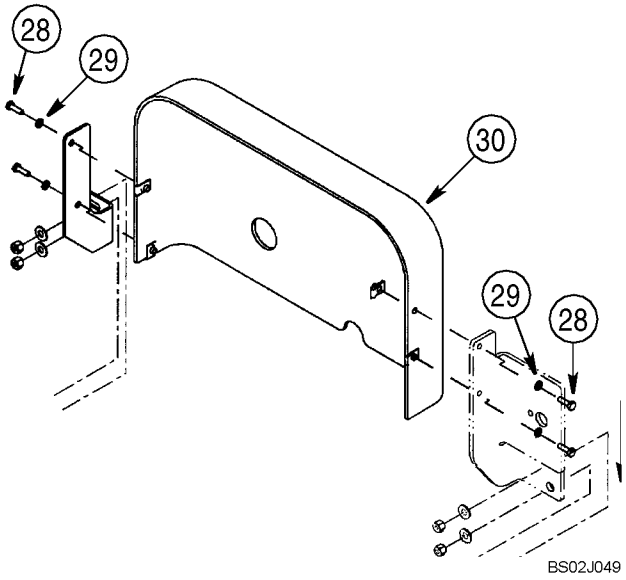
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STEP 136

Install clamp (31). Tighten clamp (31) to a torque of 20 to 25 Nm (15 to 18 lb-ft). Tighten clamp (39) to a torque of 4.8 to 5.2 Nm (42.5 to 46 lb-ft).

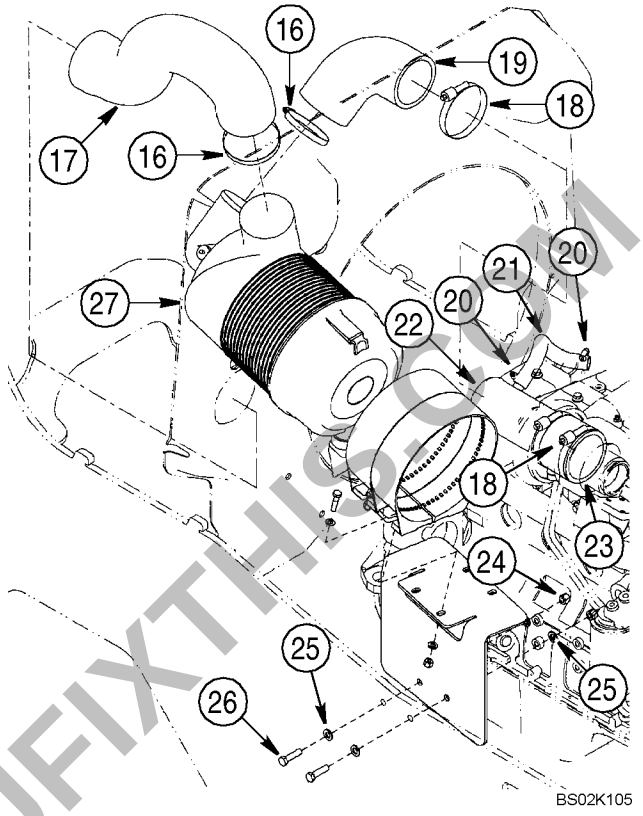
STEP 137



28. BOLT
29. WASHER
30. DRIVE BELT GUARD

Position drive belt guard (30) and secure using four washers (29) and bolts (28) to master disconnect switch mounting bracket and belt guard bracket.

STEP 138



16. CLAMP
17. INTAKE HOSE
18. CLAMP
19. HOSE
20. CLAMP
21. HOSE
22. TUBE
23. HOSE
24. LOCK NUT
25. WASHER
26. BOLT
27. AIR CLEANER

Position air cleaner assembly (27) and support as an assembly. Secure using two washers (25) and bolts (26). Put clamp holding battery B+ cable routed to relay plate on rear bolt then install two washers (25) and lock nuts (24).

STEP 139

Connect turbocharger intake hose (23) attached to tube (22) to turbocharger and crankcase hose (21) to breather pipe. Position clamps (18 and 20) and tighten. Tighten clamps (18) to a torque of 10.1 to 11.3 Nm (90 to 100 lb-inch).

STEP 140

Connect air cleaner intake hose (17) between cooling frame and air cleaner inlet. Position clamp (16) and tighten to a torque of 3.6 to 4.5 Nm (32.4 to 39.6 lb-inch).

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Wire Identification Codes

21C Bk - 1.0

Wire Name

Wire Color

Wire Size (mm^2)

0.8 mm	1.0 mm	2.0 mm	5.0 mm

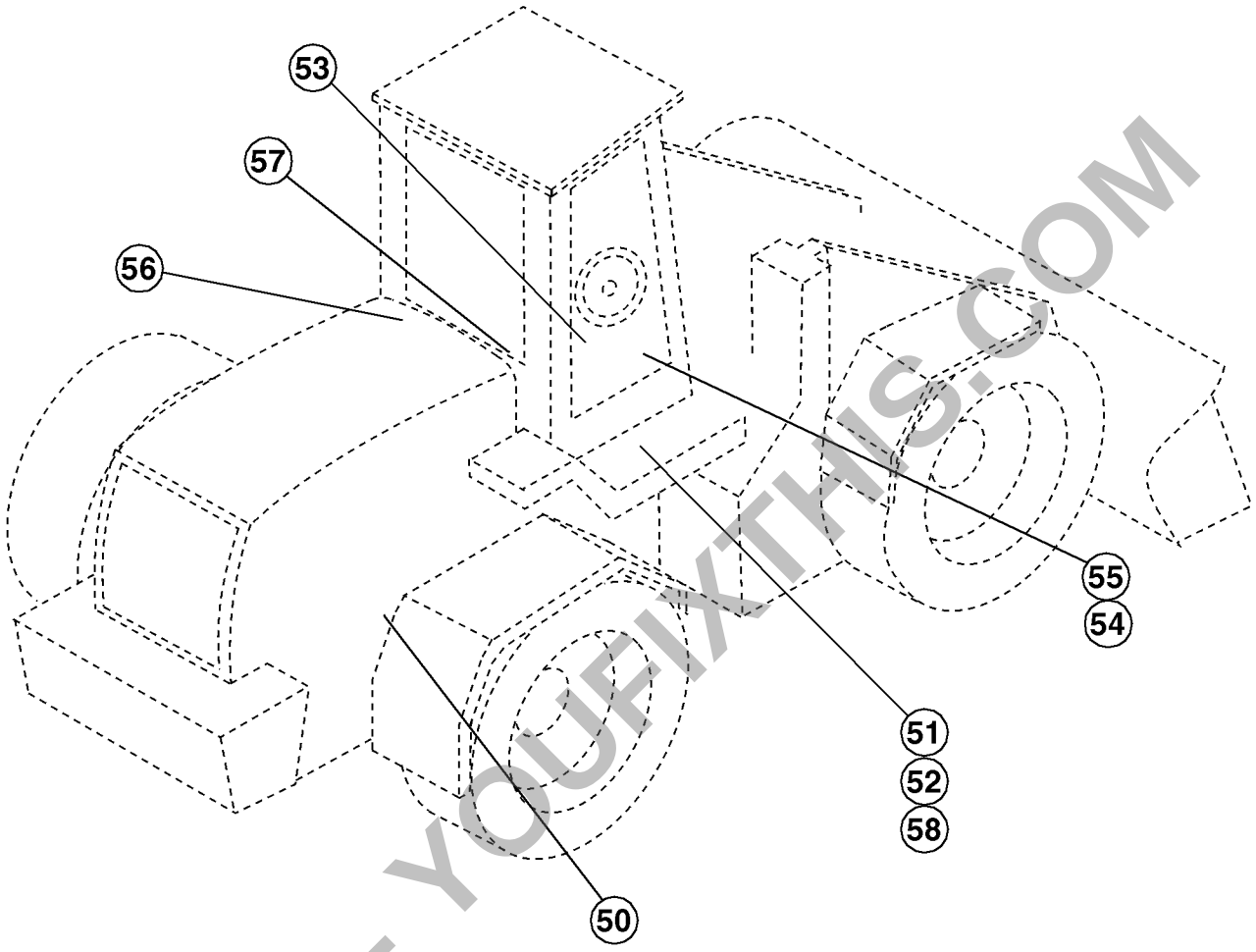
Bk = Black	DU = Dark Blue	S = Gray	LG = Light Green	K = Pink
T = Tan	W = White	N = Brown	G = Green	U = Blue
LU = Light Blue	Or = Orange	R = Red	P = Purple	Y = Yellow

Wire Identification			From Connector		To Connector	
Wire	**Circuit**	**Color, Size, and Material**	**Connector**	**Cavity**	**Connector**	**Cavity**
0_BF	Signal Ground	Bk-1.0-SXL	94M Engine Trans	9	SPL_B1	A
0_BG	Analog Ground	Bk-1.0-SXL	94M Engine Trans	15	152 Analog Grnd	1
0_BH	Signal Ground	Bk-1.0-SXL	94M Engine Trans	11	SPL_B1	A
0_BJ	Ground	Bk-1.0-SXL	268 AC Diode Ground	1	265F Diode Module	C
0_C	Ground	Bk-1.0-SXL	127 RH Rear Comb Lt	5	SPL_E4 SPL_E4	1
0_CA	Sec Str Signal Grd	Bk-1.0-SXL	90M Sec Str Mod	11	SPL_C1	1
0_CB	Sec Str Signal Grd	Bk-1.0-SXL	90M Sec Str Mod	12	SPL_C1	1
0_CC	Sec Str Signal Grd	Bk-1.0-SXL	180M Sec Str Mod Frnt Harn	5	SPL_C1	1
0_CD	Sec Str Signal Grd	Bk-1.0-SXL	177 Sec Str Mod Sig Grnd	1	SPL_C1	1
0_CE	Sec Str Chassis Grnd	Bk-1.0-SXL	90M Sec Str Mod	4	176 Sec Str Mod Chas Grnd	1
0_CF	Sec Str Grnd	Bk-1.0-SXL	264M Sec Str Sol Opt	B	SPL_C1	1
0_D	Hood Ground	Bk-2.0-SXL	164 Engine Grounds	1	SPL_E4 SPL_E4	1
0_DA	AC Brk Lt Time Del Horn Grnd	Bk-0.8-SXL	204F Relay Brake Lights	85	220F Ground Cab	1
0_DAB	Signal Ground	Bk-0.8-SXL	22F Cab Transmission	15	13F Cab-Pedestal	38
0_DAC	Relay Grnd	Bk-0.8-SXL	13F Cab Pedestal	53	222F Ground Cab	1
0-DAD	Relay Grnd	Bk-1.0-SXL	222F Ground Cab	1	SPL_D13 Ground	1
0_DAE	Ground	Bk-1.0-SXL	199F Trans Enable Sw	7	SPL_D13 Ground	1
0_DAF	Switch Grnd	Bk-1.0-SXL	210F Fan Reverser Sw	7	40F Pin Engage Sw	9
0_DAG	Switch Grnd	Bk-1.0-SXL	39F Return To Travel Sw	7	SPL_D13 Ground	1
0_DAH	Switch Grnd	Bk-1.0-SXL	39F Return To Travel Sw	1	39F Return To Travel Sw	7
0_DAJ	Switch Grnd	Bk-1.0-SXL	36F Detent Switch	7	39F Return To Travel Sw	1
0_DAK	Switch Grnd	Bk-1.0-SXL	36F Detent Switch	7	38F Declutch Switch	7
0_DAL	Switch Grnd	Bk-1.0-SXL	40F Pin Engage Sw	9	44F Ride Control Sw	7
0_DAM	Switch Grnd	Bk-1.0-SXL	44F Ride Control Sw	7	41F Trans Auto Sw	7
0_DAN	Flasher Module Grnd	Bk-0.8-SXL	62M Flasher Module	3	SPL_D14 Module Grnds	1
0_DAP	Ground	Bk-1.0-SXL	199F Trans Enable Sw	7	42F Beacon Sw	7
0_DAQ	Flasher Module Grnd	Bk-0.8-SXL	62M Flasher Module	4	SPL_D14 Module Grnds	1
0_DAR	Blwr Wiper Seat Grnd	Bk-1.0-SXL	35F Wiper and Washer Sw	1	218F Ground Cab	1
0_DAS	Time Delay Mod Grnd	Bk-0.8-SXL	63M Time Delay Module	3	SPL_D14 Module Grnds	1
0_DAT	Brk Lt Time Del Horn Grnd	Bk-0.8-SXL	220F Ground Cab	1	SPL_D14 Module Grnds	1

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TROUBLESHOOTING ENGINE OIL PRESSURE SWITCH, PILOT CONTROL, PARKING BRAKE, AND REDUNDANT BRAKE SWITCHES



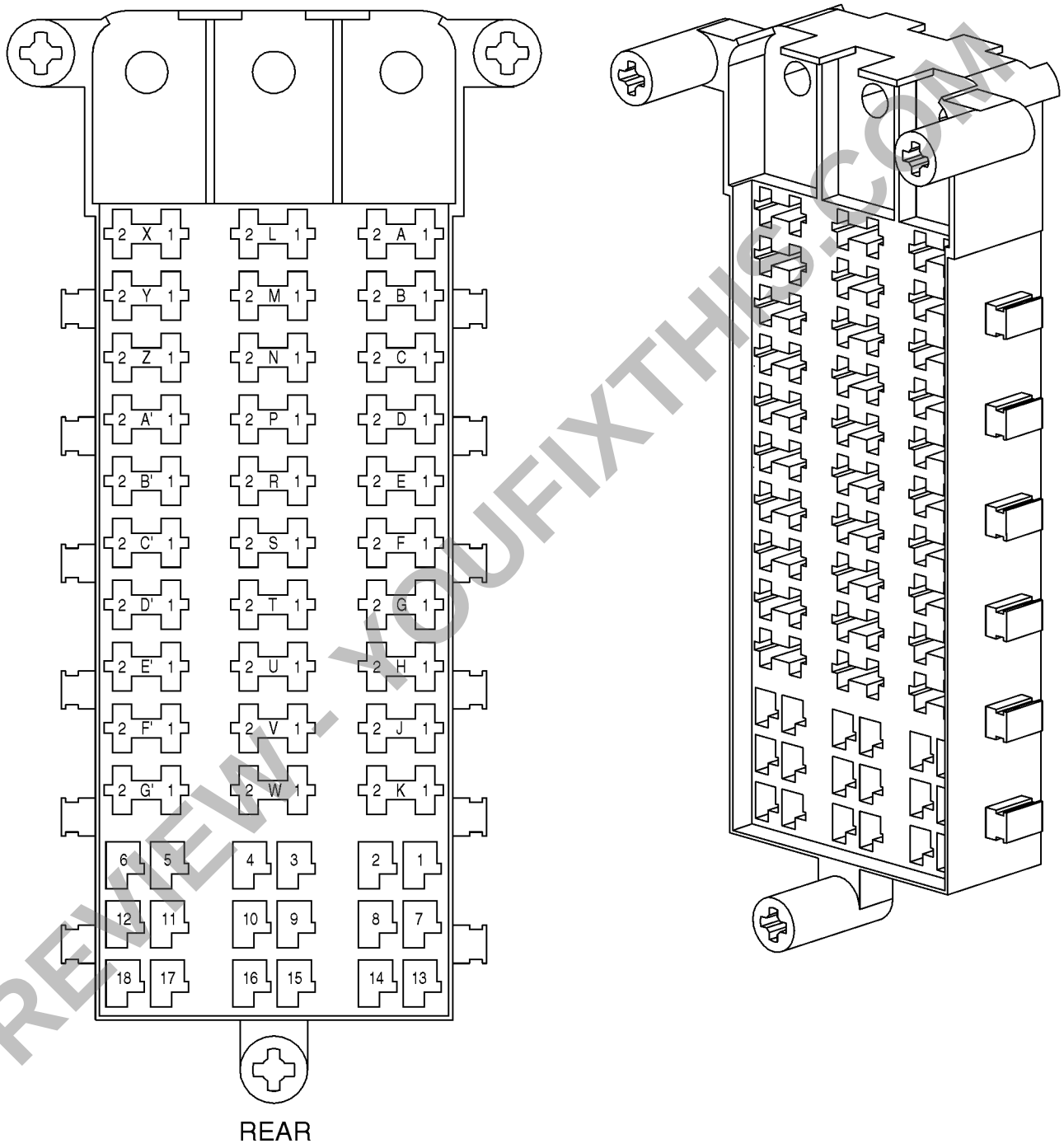
BC00N140

50. ENGINE OIL PRESSURE SWITCH
51. PILOT CONTROL RELAY NO. 10
52. PARKING BRAKE RELAY NO. 9
53. PARKING BRAKE SOLENOID
54. PILOT PRESSURE SOLENOID
55. FAN REVERSER SWITCH (OPTION)
56. FAN REVERSING SOLENOID (OPTION)
57. REDUNDANT BRAKE SWITCHES
58. RELAY SOCKET NO. 11

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FUSE BLOCK 18F TO MAIN CAB HARNESS



232118A1

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8 – Fuel Filter Heater Switch		
Check Points	**Reading**	**Possible Cause of Bad Reading**
NOTE: *The fuel filter heater switch opens at 13 ±3°C (55 ±5°F) and closes at 1.5 ±4°C (34 ±8°F).*		
Terminal for wire 0_BM to ground	Continuity	Bad ground circuit.
NOTE: *Disconnect the connector from the fuel filter heater switch (8). Make sure the engine temperature is below -3°C (27°F).*		
Between terminals A and B of fuel filter heater switch (8)	Continuity	Bad fuel filter heater switch (8).

9 – First Fuel Filter Heater		
Check Points	**Reading**	**Possible Cause of Bad Reading**
Terminal for wire 0_BL to ground	Continuity	Bad ground circuit.
NOTE: *Disconnect connector 288 from first fuel filter heater.*		
Between terminals A and B of first fuel filter heater	1.9 ohms	Bad first fuel filter heater.
NOTE: *If the readings are good, check circuit 1Y between first fuel filter heater connector 288 and fuel filter heater relay connector 280.*		

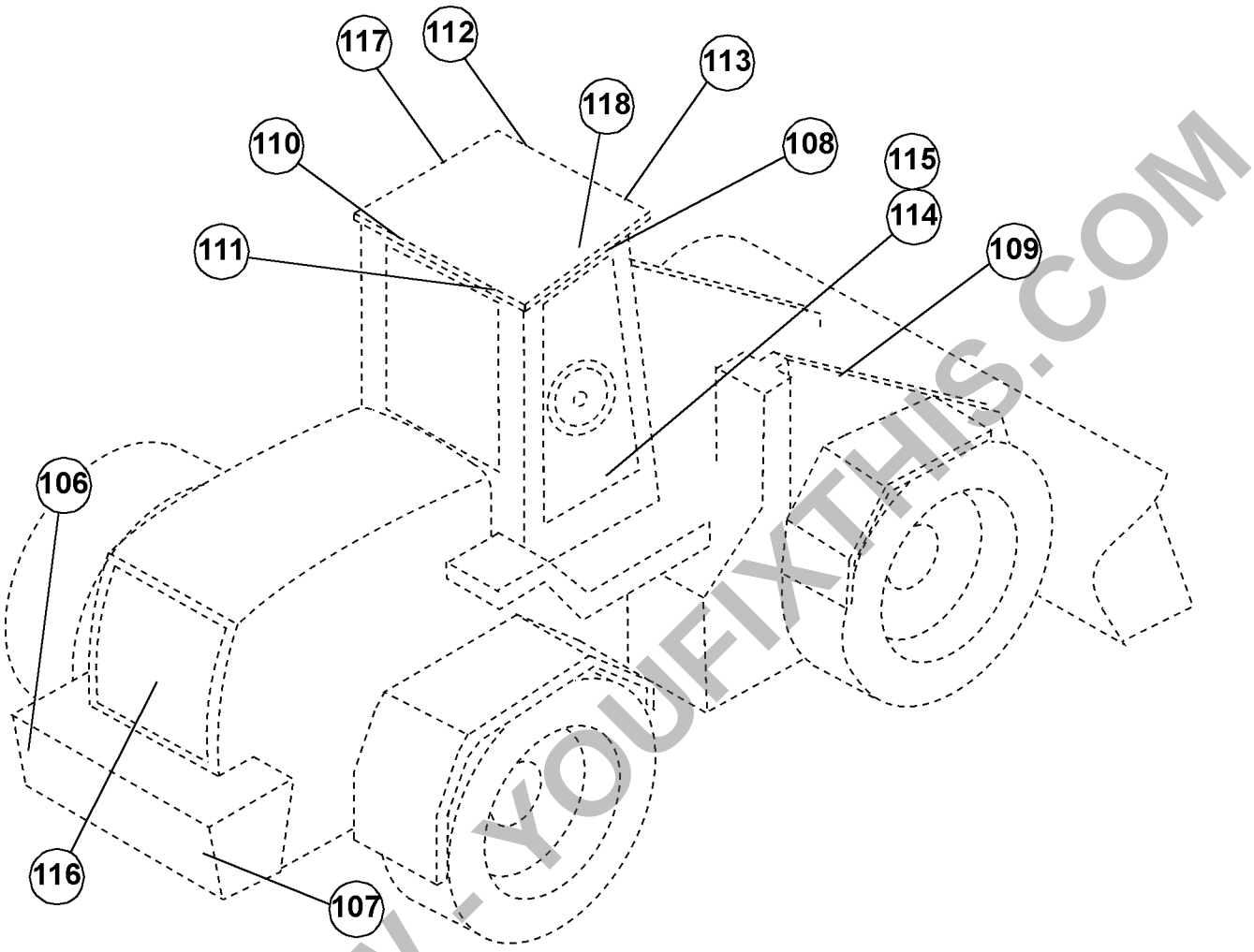
10 – Second Fuel Filter Heater (621D Only)		
Check Points	**Reading**	**Possible Cause of Bad Reading**
Terminal for wire 0_BK to ground	Continuity	Bad ground circuit.
NOTE: *Disconnect connector 287 from second fuel filter heater.*		
Between terminals A and B of second fuel filter heater	1.9 ohms	Bad second fuel filter heater.
NOTE: *If the readings are good, check circuit 1Y between second fuel filter heater connector 287 and fuel filter heater relay connector 280.*		

11 – Grid Heater Relay No. 15 (Option)		
Check Points	**Reading**	**Possible Cause of Bad Reading**
Terminal for wire 0_UC to ground	Continuity	Bad ground circuit.
NOTE: *Put the master disconnect switch in the ON position and the ignition switch in ON position.*		
Terminal for wire 1_DA to ground	24 volts	Bad 150 ampere fuse. Check wires 1_DA and 1_D.
NOTE: *Have an assistant put the transmission in neutral and the ignition switch in the START position. Make sure engine temperature is below -3°C (27°F).*		
Terminal for wire 28GC_C to ground	24 volts	Bad grid heater controller (11C), also check circuit 28GC.
Terminal for wire 1Z to ground	24 volts	Bad grid heater relay (11).

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TROUBLESHOOTING EXTERNAL LIGHTS AND SIGNALS, ROTARY LAMP SWITCH, AND CAB LIGHTS



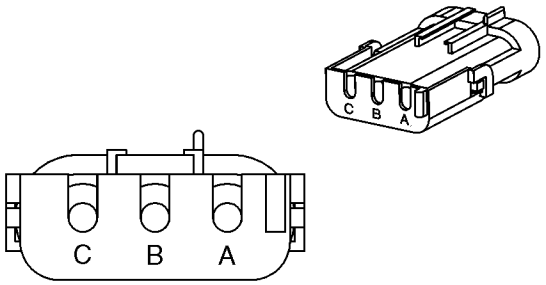
BC00N140

106. LH REAR COMBINATION LAMP
107. RH REAR COMBINATION LAMP
108. LH FRONT COMBINATION LAMP
109. RH FRONT COMBINATION LAMP
110. LH REAR WORK LAMP
111. RH REAR WORK LAMP
112. LH FRONT WORK LAMP
113. RH FRONT WORK LAMP
114. FIVE POSITION ROTARY LAMP SWITCH
115. HIGH/LOW BEAM RELAY NO. 13
116. LICENSE PLATE LAMP
117. DOME LAMP
118. COURTESY LAMP

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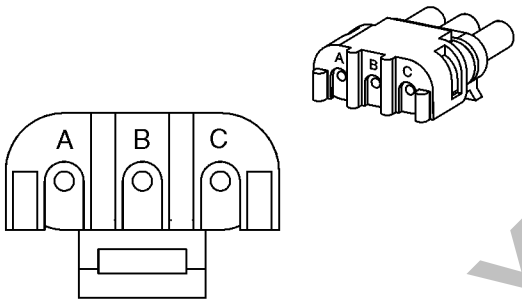
CONNECTOR 128F - REAR CHASSIS HARNESS TO HOOD HARNESS



245485C1

CAV	WIRE IDENT	CIRCUIT
A	18G_C Or-1.0	License Plate Light
B	35R_B Y-1.0	Backup Alarm Switch
C	0_J Bk-1.0	Hood Grounds

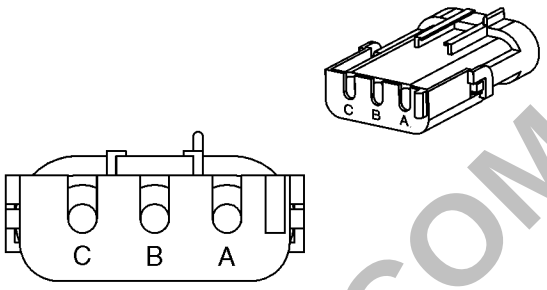
CONNECTOR 128M - HOOD HARNESS TO REAR CHASSIS HARNESS



245484C1

CAV	WIRE IDENT	CIRCUIT
A	18G_E Or-1.0	License Plate Light
B	35R_A Y-1.0	Backup Alarm Switch
C	0_JA Bk-1.0	Hood Ground

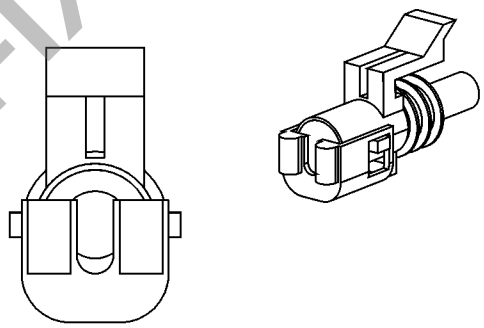
CONNECTOR 131F - SECONDARY STEERING PRESSURE SWITCH TO FRONT CHASSIS HARNESS



245485C1

CAV	WIRE IDENT	CIRCUIT
A	51P_B W-1.0	Secondary Steer High Pressure
B	0_AN Bk-1.0	Secondary Steer Signal Ground
C	35X_A Y-1.0	Secondary Steer Low Press Sig

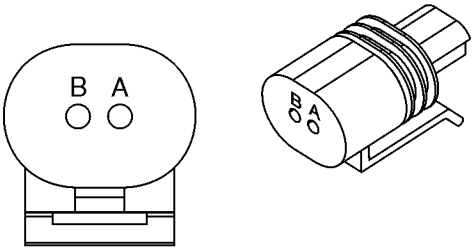
CONNECTOR 133M - ENGINE HARNESS TO FUEL SOLENOID



245480C1

CAV	WIRE IDENT	CIRCUIT
1	13M Or-1.0	Fuel Solenoid Hold In

CONNECTOR 136 - HYDRAULIC OIL TEMPERATURE SENDER TO REAR CHASSIS HARNESS



194788A1

CAV	WIRE IDENT	CIRCUIT
A	36H P-1.0	Hot Signal
B	0_W Bk-1.0	Front Rear Wash Hot Ground

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7. Place the program/reset switch in the OFF (center) position.
8. The Information Center will display 01, when the machine is being checked, if the secondary steering switch is not activated. If the secondary steering switch is activated, the Information Center will display 00 while the secondary steering switch is being checked. The secondary steering light will flash intermittently on the Information Center.

Park Brake Information Center Output Check

Do the following procedures to check the park brake indicator light and the status of the signal that the Information Center is sending to the park brake relay (to engage or disengage).

1. Press the program/reset switch to program.
2. Press the up/down count switch to up count until the display reads 019. The park brake light will flash intermittently.
3. Place the program/reset switch in the OFF (center) position.
4. The Information Center will display 00, when the Information Center is not activating the park brake relay. The Information Center will display 01 when it is activating the park brake relay. The park brake light will flash intermittently on the Information Center.

Pilot Lockout Information Output Check

Do the following procedures to check the pilot lockout indicator light and the status of the signal that the Information Center is sending to the pilot lockout relay (to engage or disengage).

1. Press the program/reset switch to program.
2. Press the up/down count switch to up count until the display reads 020. The pilot lockout light will flash intermittently.
3. Place the program/reset switch in the OFF (center) position.
4. The Information Center will display 00, when the Information Center is not activating the pilot lockout relay. The Information Center will display 01 when it is activating the pilot lockout relay. The pilot lockout light will flash intermittently on the Information Center.

Hydraulic Filter Restriction Switch Check

Do the following procedures to check the hydraulic filter restriction indicator light and the hydraulic filter restriction switch.

1. Press the program/reset switch to program.
2. Press the up/down count switch to up count until the display reads 021. The hydraulic filter restriction indicator light will flash intermittently.
3. Place the program/reset switch in the OFF (center) position.
4. The Information Center will display 01, when the machine is being checked, if the hydraulic filter restriction switch is not activated. If the hydraulic filter restriction switch is activated, the Information Center will display 00 while the hydraulic filter restriction switch is being checked. The hydraulic filter restriction indicator light will flash intermittently on the Information Center.

Air Filter Restriction Switch Check

Do the following procedures to check the air filter restriction indicator light and the air filter restriction switch.

1. Press the program/reset switch to program.
2. Press the up/down count switch to up count until the display reads 022. The air filter restriction indicator light will flash intermittently.
3. Place the program/reset switch in the OFF (center) position.
4. The Information Center will display 01, when the machine is being checked, if the air filter restriction switch is not activated. If the air filter restriction switch is activated, the Information Center will display 00 while the air filter restriction switch is being checked. The air filter restriction indicator light will flash intermittently on the Information Center.

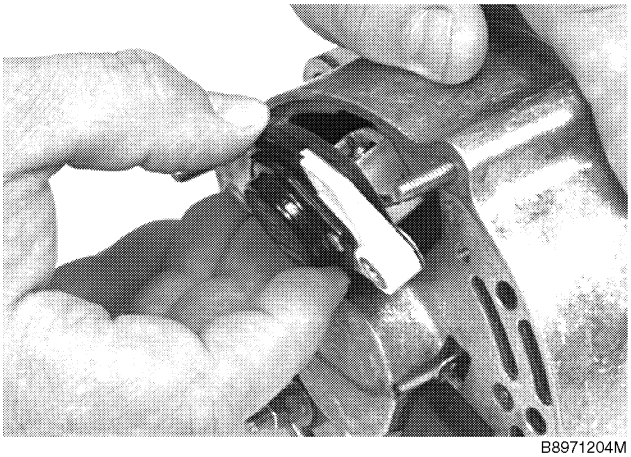
Work Lights Check

Do the following procedures to check the work lights indicator light and the work light electrical signal coming into the Information Center.

1. Press the program/reset switch to program.
2. Press the up/down count switch to up count until the display reads 023. The secondary work lights indicator light will flash intermittently.
3. Place the program/reset switch in the OFF (center) position.

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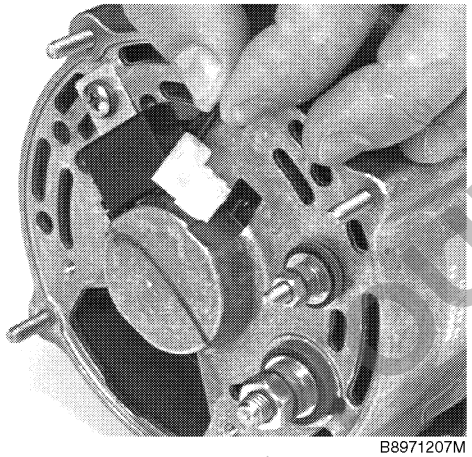
STEP 6



B8971204M

Remove the voltage regulator and brush holder.

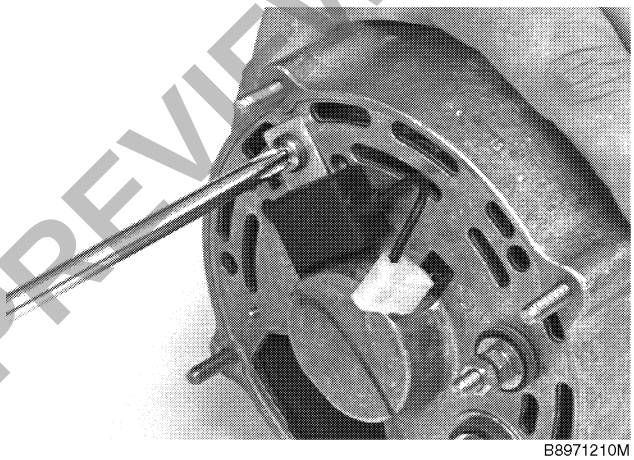
STEP 7



B8971207M

Disconnect the lead for the capacitor.

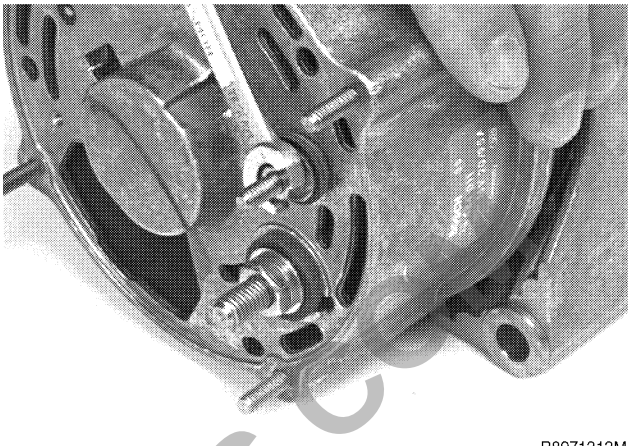
STEP 8



B8971210M

Loosen and remove the screw and remove the capacitor.

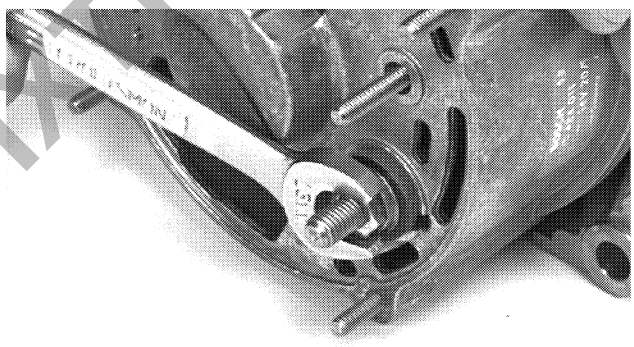
STEP 9



B8971213M

Loosen and remove the nut, flat washer, and fiber washers from the D+ terminal.

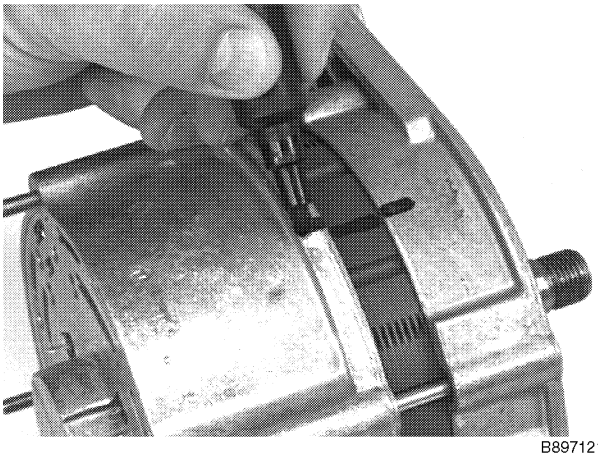
STEP 10



B8971216M

Loosen and remove the nut, flat washer, and fiber washers from the B+ terminal.

STEP 11

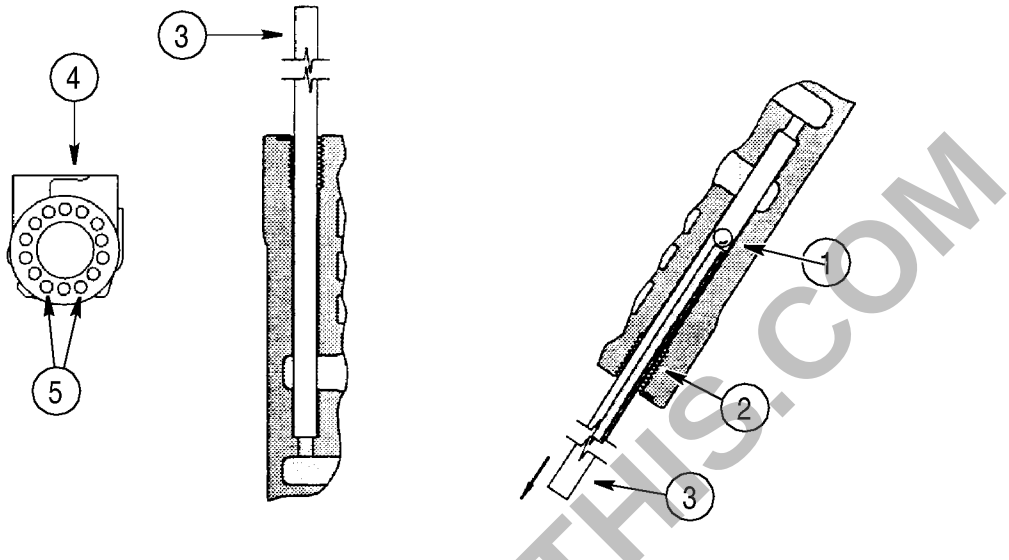


B8971219M

Make an alignment mark on the cover, the stator, and the housing.

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GS98K530

1. BALL CHECK
2. ROLL PIN
3. SODA STRAW
4. PORT FACE
5. ANTI-CAVITATION VALVES

FIGURE 3. ANTI-CAVITATION VALVE - DISASSEMBLY

Inspection

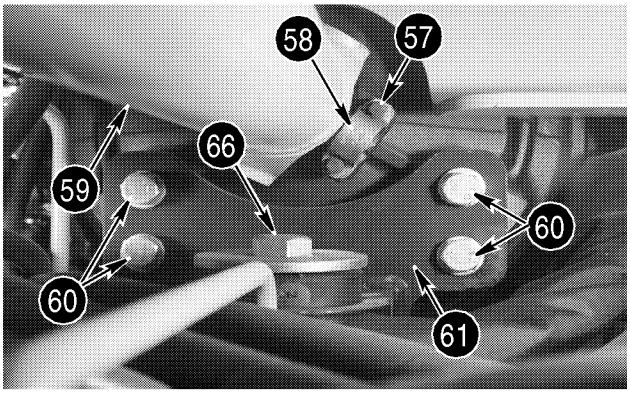
1. Clean all parts in cleaning solvent and air dry on paper towels. Do not use cloths to wipe parts dry, as it may leave lint on the parts.
2. Check all machined surfaces for wear or damage. If there are rough places on the ends of the gerotor star or gerotor (4), steering control valve housing (7), end cap (2), or spacer plate (5), use 600 grit emery cloth to smooth the surfaces, refer to Figure 2. Place the emery cloth on a flat surface. If the emery cloth is new, rub a piece of steel across the emery cloth six times to remove the sharp pieces of grit. Make sure that the part is held flat on the emery cloth. Rub each part across the cloth six times. Check to see if the rough places are removed. Use this method until all rough places are removed. Clean the parts in cleaning solvent to remove any grit.
3. If the spool (9) and sleeve (8) or the bore in the housing of the steering control valve (7) is damaged or worn, use a new steering control valve.
4. Inspect the cap screws (1), pin (11), ball check (10), backup washer (15), seal ring (16), O-ring (17), needle thrust bearing (13) and bearing race (14). Use new parts as required.
5. If your steering control valve has anti-cavitation valves, inspect the ball checks (20) and roll pins (21) for damage or wear. Use new parts as required.

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STEP 35

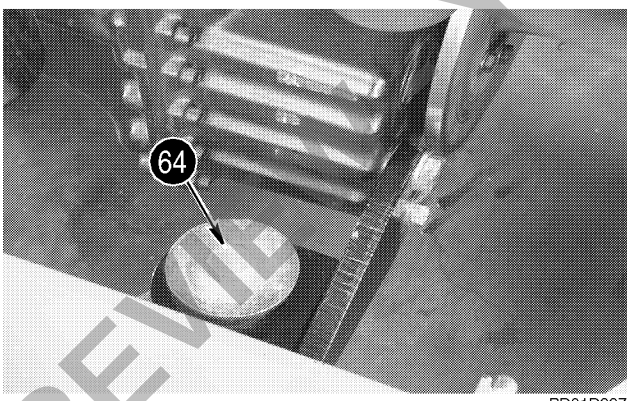
NOTE: *In this step, new straps (58) and bolts (57) must be installed whenever these parts are removed. Bolts have a nylon patch to maintain torque which requires new bolts.*



BD01D342

Using 3/4 inch drive socket, extensions, and impact wrench, install four washers and bolts (60) to secure top mounting bracket (61) to transmission. Then tighten bolts (60) to a torque of 251 to 319 Nm (185 to 235 lb-ft). If bracket (61) had been removed, tighten bolt (66) to a torque of 890 to 1000 Nm (655 to 735 lb-ft). Connect engine drive shaft (59) to transmission. Install two new straps (58) and four new bolts (57). Tighten bolts (57) to a torque of 34 to 41 Nm (25 to 30 lb-ft).

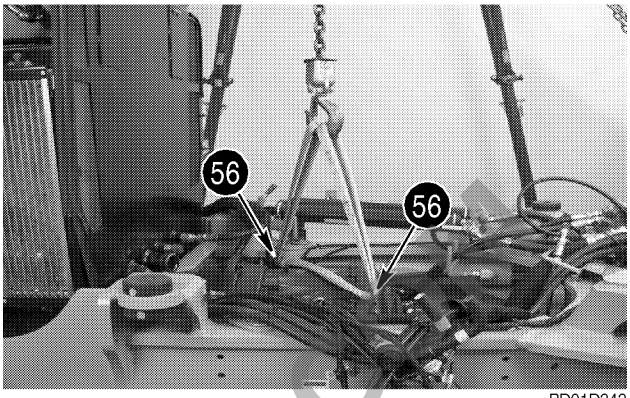
STEP 36



BD01D337

Tighten bolts (64) securing RH and LH mounting brackets to a torque of 890 to 1000 Nm (655 to 735 lb-ft).

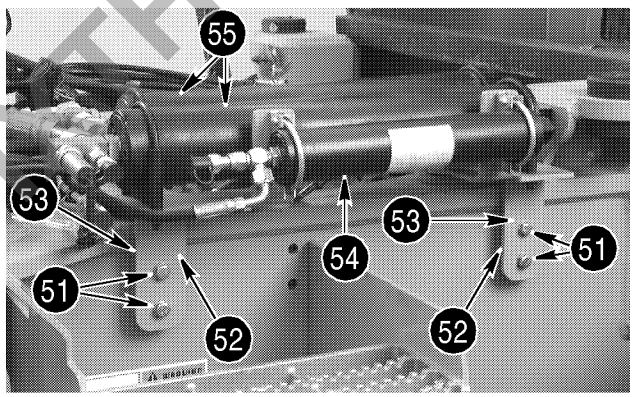
STEP 37



BD01D343

Disconnect lifting equipment from transmission lifting eyes (56).

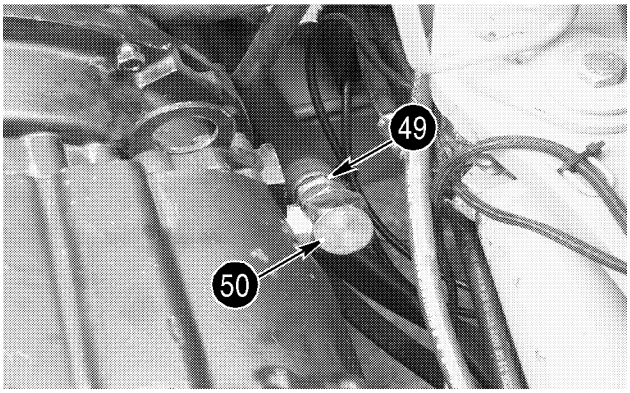
STEP 38



BD01F290

Move mounting brackets (52), parking brake accumulator (54), and brake accumulators (55) into position. Secure to rear chassis using two spacers (53), washers, and bolts (51).

STEP 39

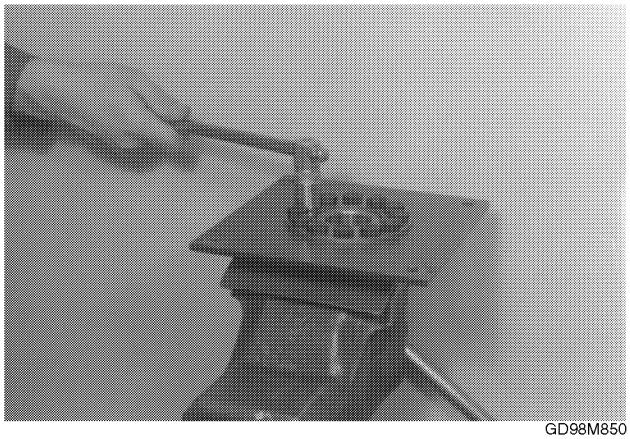


BD01D340

Install new O-ring on fitting (50) and install fitting in transmission. Install new O-ring face seal in fitting then connect cooler hose (49) to fitting following tag installed during removal. Remove and discard tag.

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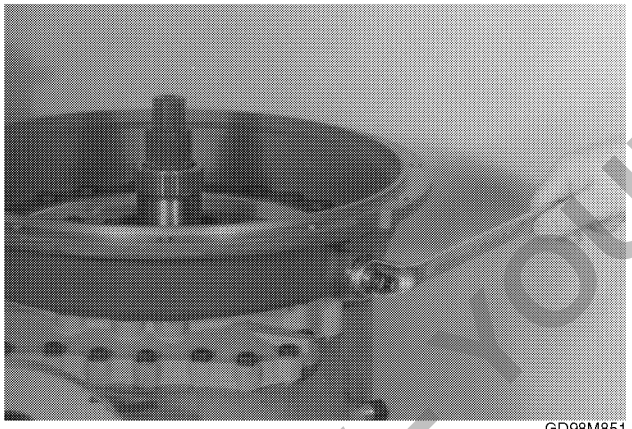
STEP 13



GD98M850

Put input shaft and diaphragm in vise as shown. Remove 12 hex head screws to separate diaphragm and input shaft.

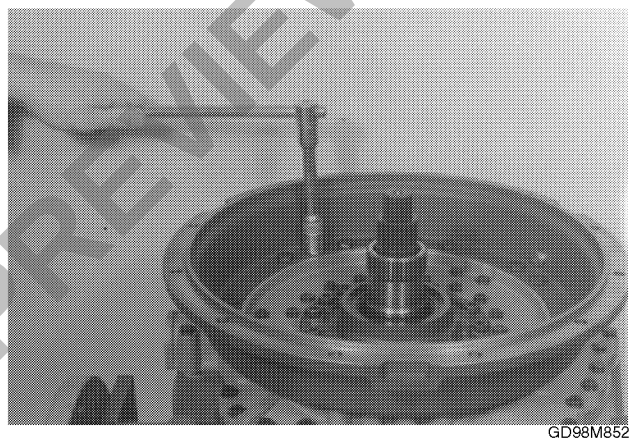
STEP 14



GD98M851

Remove the inductive transmitter.

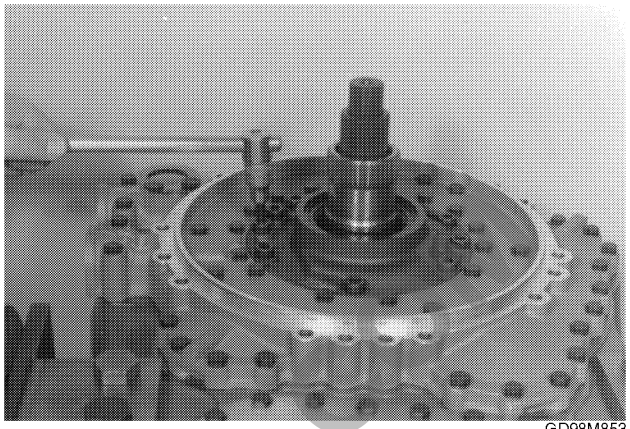
STEP 15



GD98M852

Remove the hex head screws and remove the converter housing.

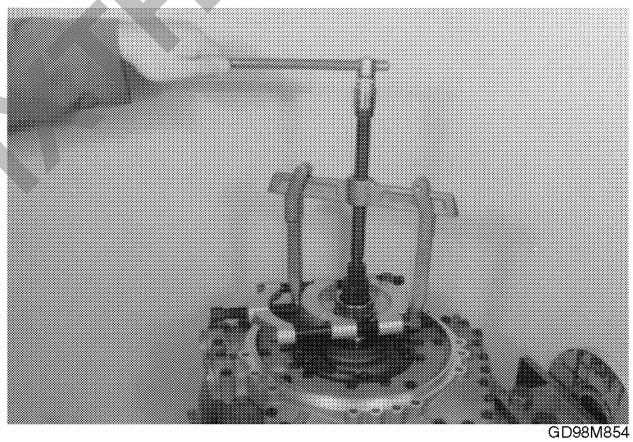
STEP 16



GD98M853

Remove the socket head screws for removal of the transmission pump.

STEP 17

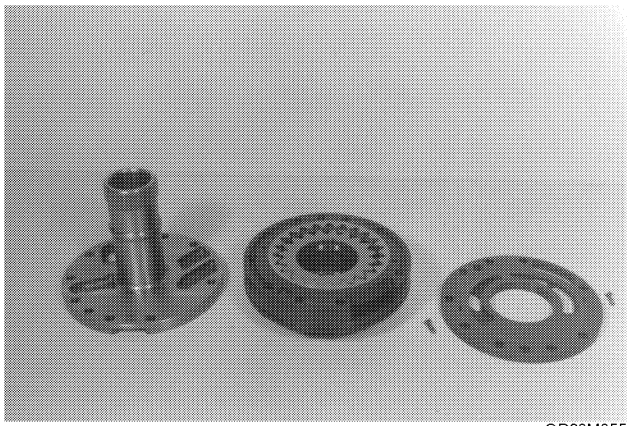


GD98M854

Apply a bearing separator on the splines shoulder of the stator shaft and pull the pump out of the housing bores, using two-leg puller.

NOTE: *If traces of wear should be encountered in the pump housing or the cam disk, the complete pump has to be replaced.*

STEP 18



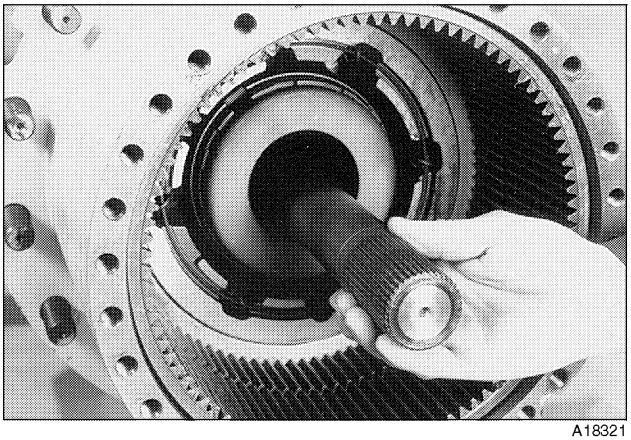
GD98M855

Separate the transmission pump from stator. Separate the cam plate from pump.

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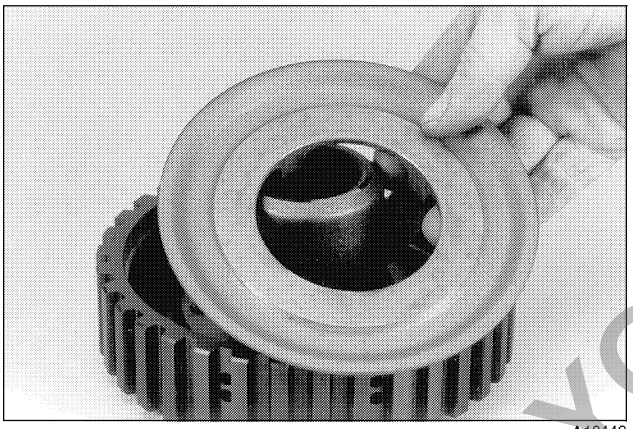
STEP 41



A18321

Install the axle shaft.

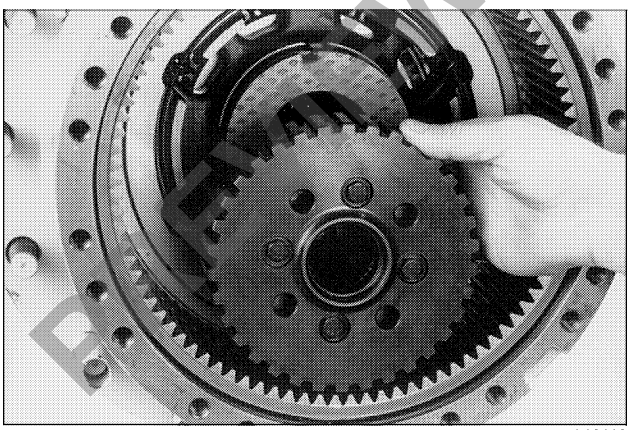
STEP 42



A18443

Install the wear ring on the disc carrier. Tighten the bolts to a torque of 50 Nm.

STEP 43



A18418

Install the disc carrier.

Brake Disc Clearance Procedure

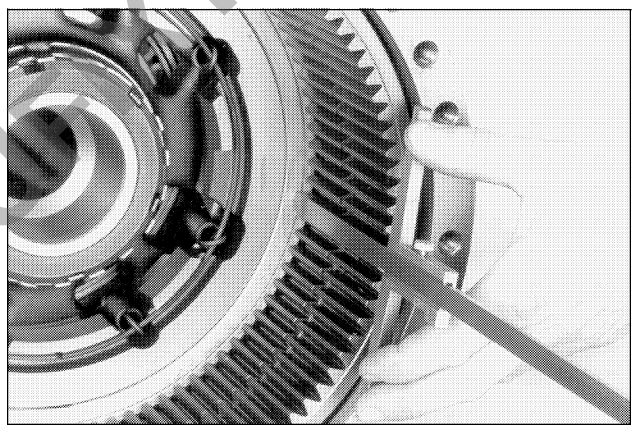
STEP 44



A18704

Measure the thickness of the backing plate and all brake discs. Example: Total of 43.5 mm.

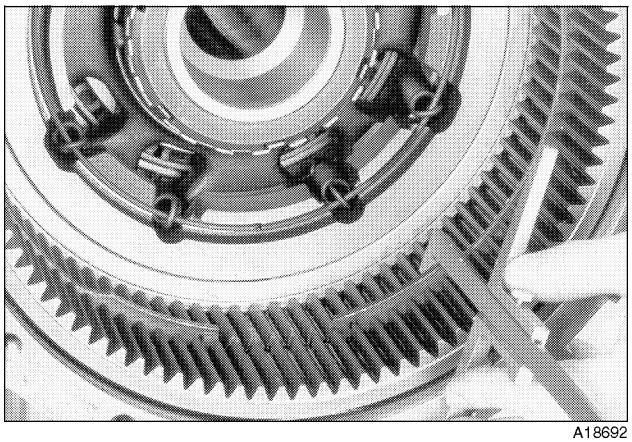
STEP 45



A18691

Measure from the hub end to the face of the brake piston. Example: 121.5 mm.

STEP 46

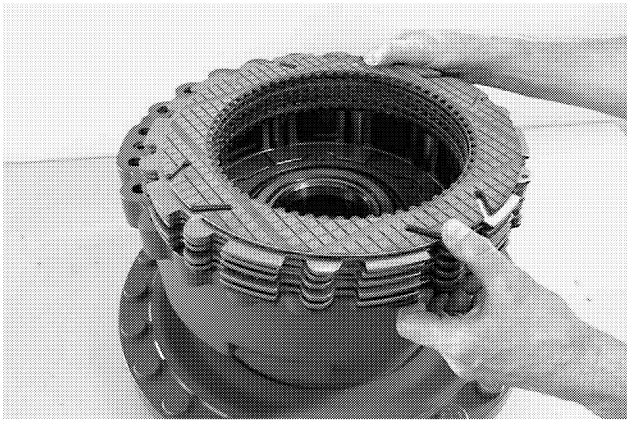


A18692

Install the brake disc snap ring and measure from the hub end to the inside edge of the snap ring. Example: 75.2 mm.

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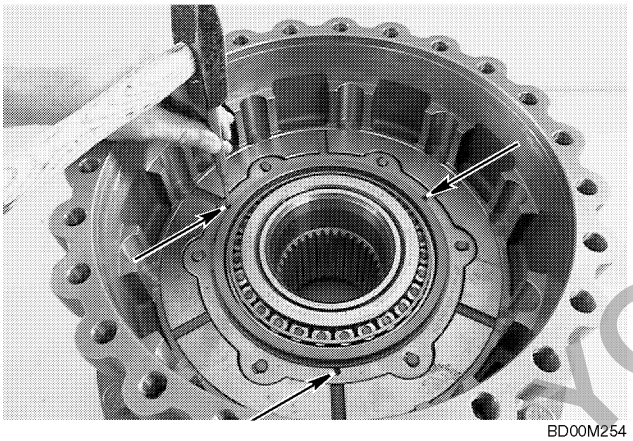
STEP 18



BD00M253

Remove the brake disc pack from brake housing.

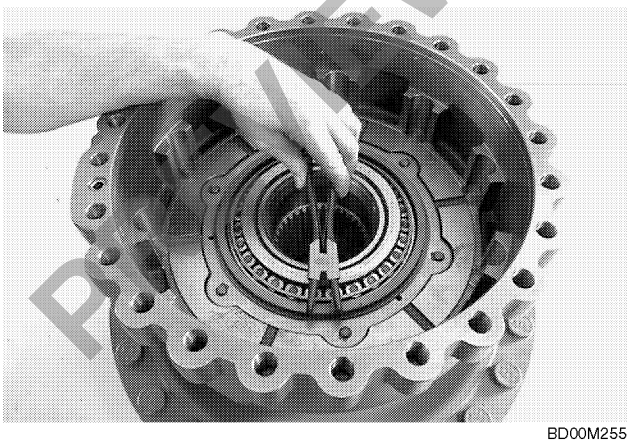
STEP 19



BD00M254

Using suitable tool, push the three pins down until pins are even with top surface of shim.

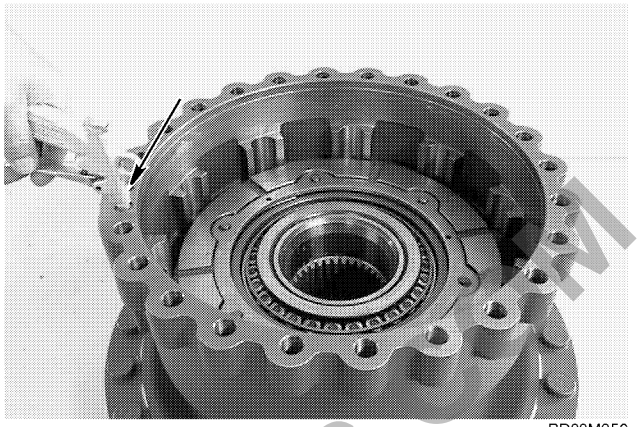
STEP 20



BD00M255

Remove the snap ring.

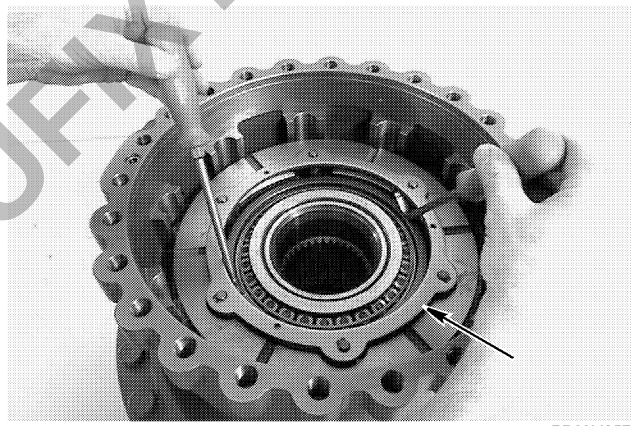
STEP 21



BD00M256

WEAR FACE PROTECTION WHEN USING COMPRESSED AIR. Apply compressed air to brake housing port to push brake piston from brake housing.

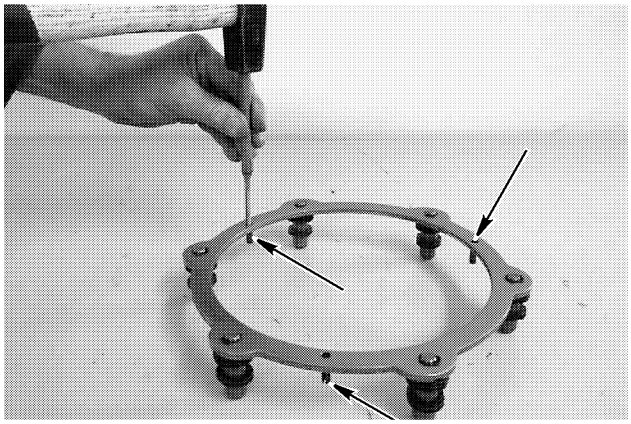
STEP 22



BD00M257

Remove the support shim from the brake piston.

STEP 23

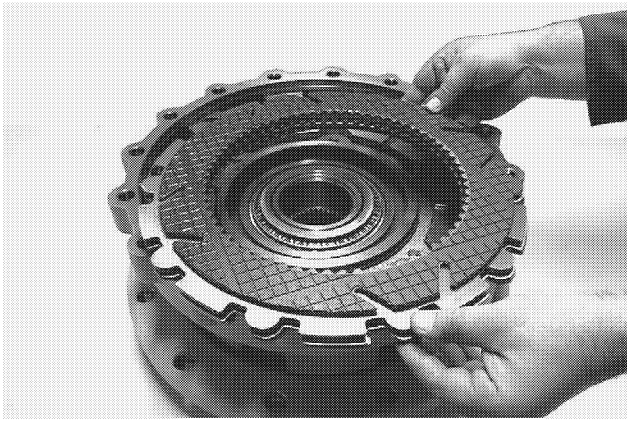


BD00M258

Remove three pins from support shim.

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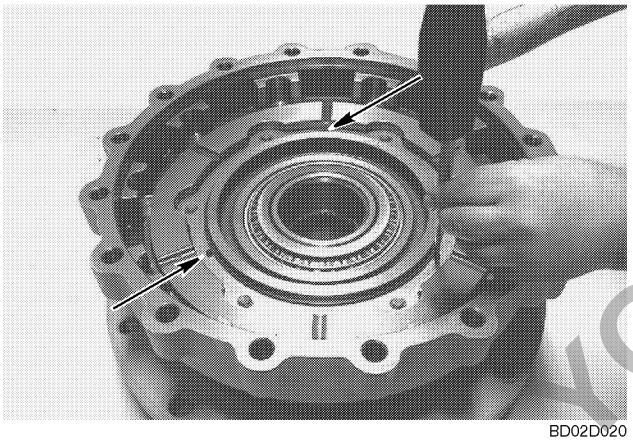
STEP 18



BD02D019

Remove the brake disc pack from brake housing.

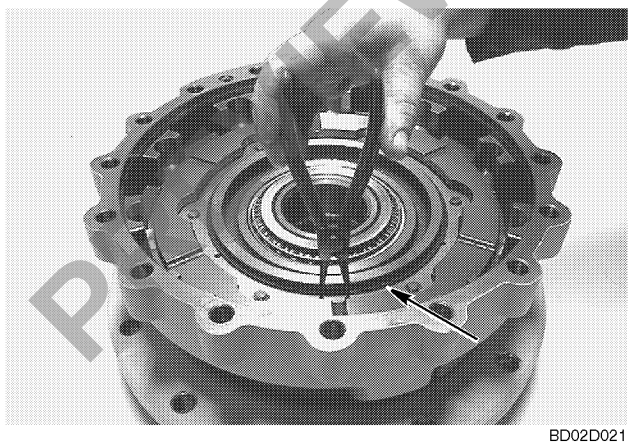
STEP 19



BD02D020

Using suitable tool, push the three pins down until pins are even with top surface of shim.

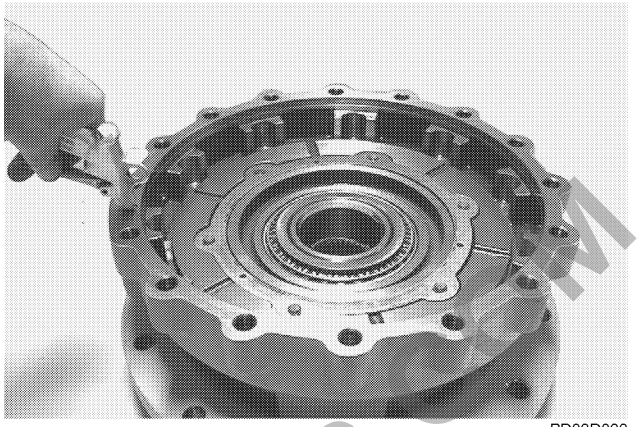
STEP 20



BD02D021

Remove the snap ring.

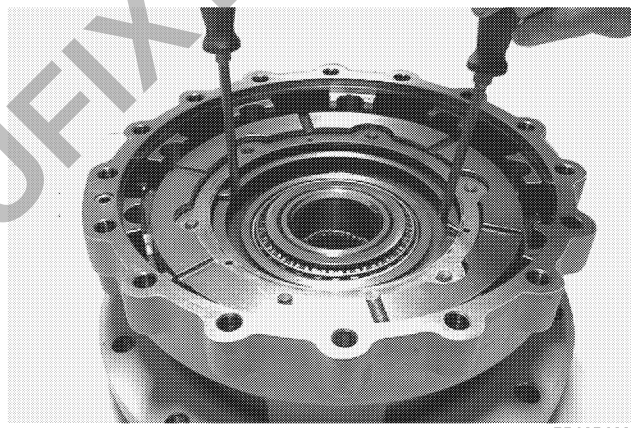
STEP 21



BD02D022

WEAR FACE PROTECTION WHEN USING COMPRESSED AIR. Apply compressed air to brake housing port to push brake piston from brake housing.

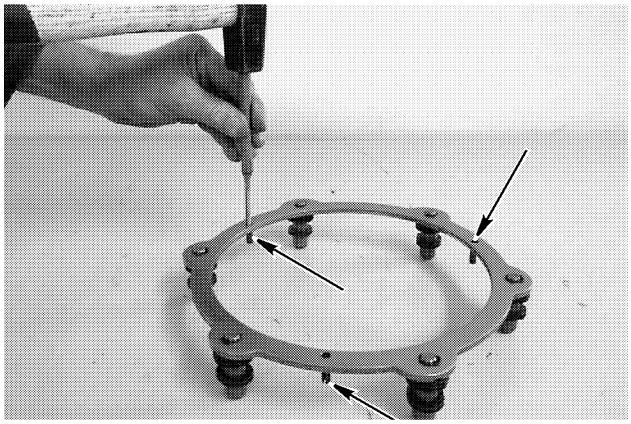
STEP 22



BD02D023

Remove the support shim from the brake piston.

STEP 23



BD00M258

Remove three pins from support shim.

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Section 6006

WHEELS AND TIRES

6006

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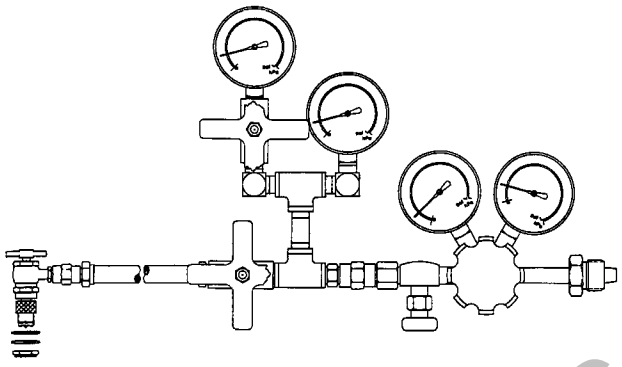
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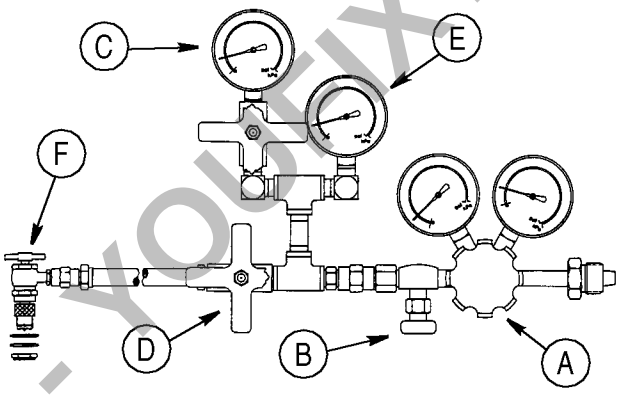
SPECIAL TOOL



94L95

CAS-10899 NITROGEN CHARGING KIT

DISCHARGING THE NITROGEN CHARGE ON AN ACCUMULATOR



94L95

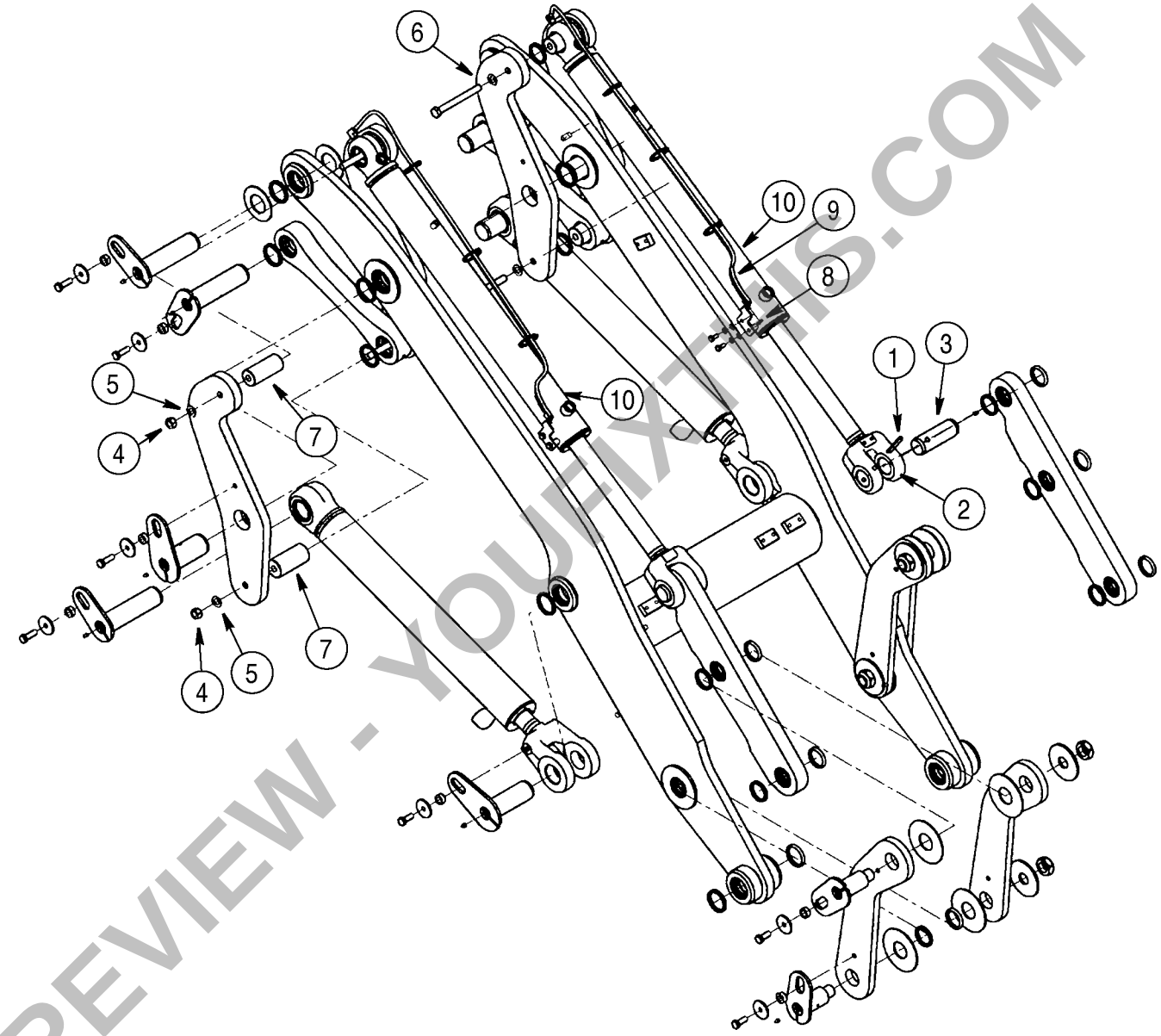
NITROGEN CHARGING KIT

NOTE: *The parking brake accumulator used on P.I.N. JEE0135501 and above is not rechargeable nor repairable.*

1. Use the CAS-10899 nitrogen charging kit to discharge the accumulator, refer to illustration above. The tool must be disconnected from the nitrogen tank.
2. Close valves B, C and D.
3. Adjust the regulator A to the minimum pressure setting by turning the knob counterclockwise.
4. Turn the T-handle on valve F fully out.
5. Remove the guard (2) and valve assembly cap (9) from the accumulator, refer to Figure 2.
6. Connect valve F to the valve stem on the accumulator.
7. Turn the T-handle inward on valve F to engage the pin in the valve stem.
8. Open valve D and check the charge pressure on gauge E.
9. To discharge the accumulator, partially open valve B. The accumulator charge will bleed down through the regulator.
10. Once the accumulator is fully discharged, disconnect valve F from the valve stem.
11. The accumulator can now be disassembled.

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BS01C085

1. ROLL PIN
2. YOKE
3. PIVOT PIN
4. NUT
5. WASHER
6. INNER BELLCRANK
7. PIVOT PIN
8. NUT
9. GREASE LINE
10. BUCKET CYLINDER

XT LOADER BUCKET CYLINDER REMOVAL AND INSTALLATION ILLUSTRATION

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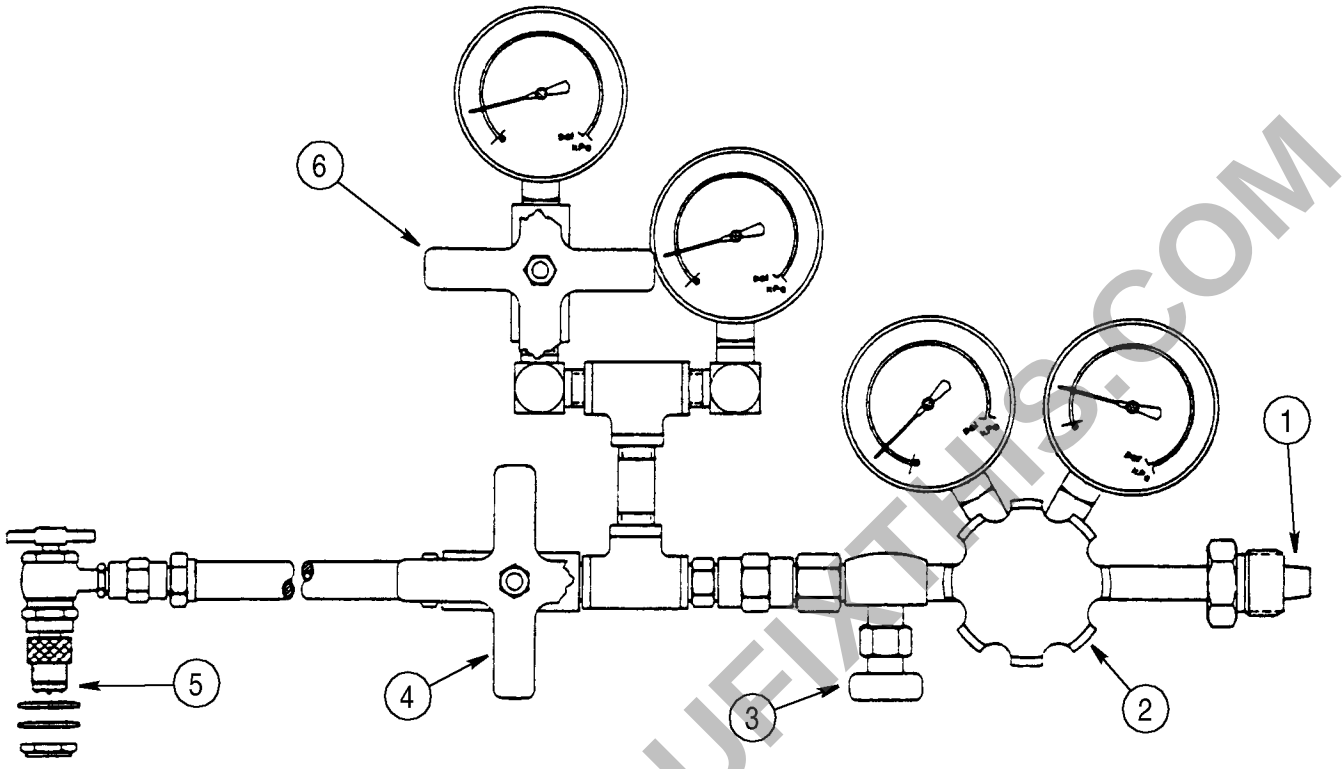
SPECIFICATIONS

Manufacturer	Rexroth
Special Torques	
End plate mounting bolts	70 Nm (51.5 lb-ft)
Pressure relief, flow limit, and pilot pressure reducing valves	20 to 25 Nm (177 to 221 lb-in)
Allen head plugs	240 Nm (177 lb-ft)
Allen head locking screw	100 Nm (73.7 lb-ft)
Allen head cover screws (short)	10.4 Nm (92 lb-in)
Allen head cover screws (long)	6 Nm (53 lb-in)
Anticavitation valves	100 Nm (73.7 lb-ft)
Combination anticavitation and circuit relief	200 Nm (147.5 lb-ft)
Main relief valve pressure settings	
Z-Bar and XT	248 to 252 bar (3596 to 3654 psi)
Circuit relief valve pressure setting	
Auxiliary A and B port (XT and Z-Bar)	290 bar (4206 psi)
Bucket A and B port (Z-Bar)	290 bar (4206 psi)
Bucket A port (XT)	183 bar (2654 psi)
Bucket B port (XT)	290 bar (4206 psi)

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CHARGING THE ACCUMULATOR WITH NITROGEN



GS98N801

1. TO NITROGEN TANK
2. VALVE A
3. VALVE B
4. VALVE D
5. TO ACCUMULATOR
6. VALVE C

NITROGEN CHARGING KIT CAS-10899

WARNING: *Use only nitrogen when charging the accumulator. Do not use air or oxygen that will cause an explosion.*

M253A

WARNING: *Do not drop the accumulator. A charged accumulator contains nitrogen compressed to 31 bar (450 psi). If the charging valve breaks away from the accumulator, the escaping nitrogen will propel the accumulator at a dangerous rate of speed.*

M406

WARNING: *Do not expose the accumulator to temperatures above 49° C (120° F). A charged accumulator contains nitrogen compressed to 31 bar (450 psi). High heat will cause the safety plug to blow out of the accumulator and the escaping nitrogen will propel the accumulator at a dangerous rate of speed.*

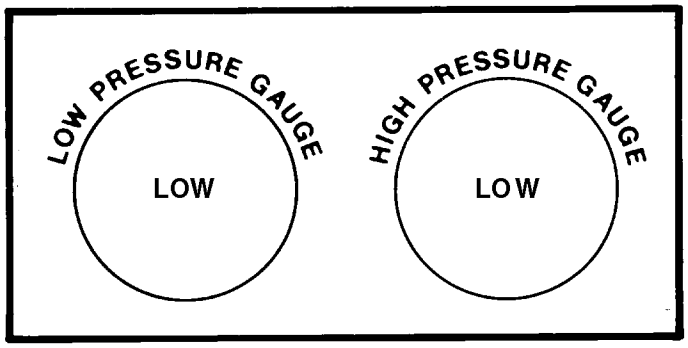
M407

IMPORTANT: *The four valves must be in the positions noted in the procedure before connecting the Nitrogen Accumulator Charging Kit to the machine or nitrogen, refer to the above illustration.*

IMPORTANT: *To help prevent equipment damage, the low pressure gauge valve C MUST BE SHUT OFF during high pressure (10 bar/150 psi and above) applications.*

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476L7

SEE PRESSURE - TEMPERATURE CHART ON PAGE 14

Not Enough Refrigerant - Indications:

A. Discharge air from evaporator cool or warm - not cold.

→

1. Leak test system - system has a loss of refrigerant.

NOTE: *Normally, the system will lose 1/2 to 1 ounce (14.7 to 29.5 grams) of refrigerant between seasons.*

A. If leak is found, go to Step 2.

B. If no leak is found, go to Step 6.

2. Discharge refrigerant from system. See Section 9003.
3. Repair system leaks as needed.
4. Check oil level in compressor - It is possible for compressor to lose oil.
5. Remove air and moisture from the system. Replace Receiver-Drier. See Section 9004.
6. Charge system with new refrigerant. See Section 9003.

High Side Restriction - Indications:

A. Discharge air from heater/evaporator only a little cool.

B. Condensation or frost on receiver-drier.

C. Liquid line to receiver-drier cool, with frost or condensation.

NOTE: *The frost will form downstream from or at the point of the restriction*

→

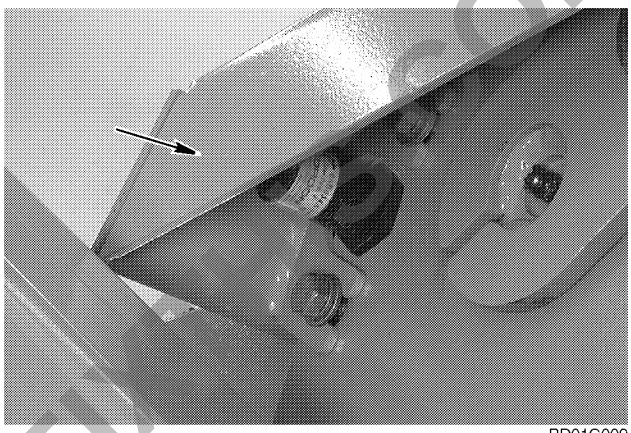
1. Discharge refrigerant from system-restriction in receiver-drier or liquid line must be removed.
2. Remove and replace part with restriction.
3. Remove air and moisture from the system. See Section 9003.
4. Charge system with new refrigerant. See Section 9003.

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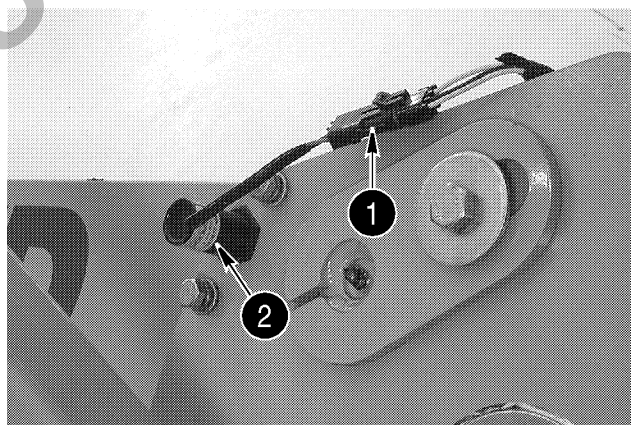
REMOVING THE LOADER FRAME (Z-BAR MODELS)

1. Park the machine on a level surface and apply the parking brake. Roll the bucket all the way forward and lower the bucket to the floor. Stop the engine.
2. Loosen the filler plug in the reservoir to release the air in the reservoir.
3. Fasten a chain hoist to the crossmember (1) of the loader frame (2), refer to the illustration on page 9.
4. Loosen and remove the bolt (12), flat washer (13), and spacer (14) that fasten the pivot pin (3) to the piston rod yoke of the right lift cylinder (4).
5. Use an acceptable driver and drive the pivot pin (3) out of the piston rod yoke of the right lift cylinder (4). Do not remove the driver.
6. Repeat Steps 4 and 5 for the left lift cylinder (6).
7. Start the engine. Roll the bucket back and lower the bucket so that the bucket is flat on the floor and fasten the chain hoist to a lift cylinder (4 or 6).
8. Raise the lift cylinder (4 or 6) slightly and remove the driver.
9. Repeat steps 7 and 8 for the other lift cylinder (4 or 6).
10. Connect the chain hoist to the bucket cylinder (8).
11. Loosen and remove the bolt (15), flat washer (16), and spacer (17) that fasten the pivot pin (7) for the piston rod eye of the bucket cylinder (8) to the bellcrank (11).
12. Use an acceptable driver and drive the pivot pin (7) out of the piston rod eye of the bucket cylinder (8).
13. Raise the bucket cylinder (8) and use a chain or other acceptable holding equipment to hold the bucket cylinder (8) in place.
14. If the machine is equipped with auxiliary hydraulics, disconnect the two hoses from the tubes at the bracket on the right side of the loader frame (2). Install caps on the hoses and plugs in the tube fittings.
15. If the machine is equipped with front lamps, loosen and remove the cap screws and lock washers that fasten the lamp brackets to the front frame. Put the lamp brackets on the fenders.
16. Connect the chain hoist to the loader frame (2).
17. Loosen and remove the bolt (19), flat washer (20) and spacer (21) that fasten the pivot pin (9 or 10) to the front frame.
18. Raise the loader frame slightly. Use an acceptable driver and drive the pivot pin (9 or 10) out of the front frame. Do not lose the washers (18) and wipers (22) between the front frame and the loader frame (2).



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19. Remove the proximity switch cover. Left-hand side of the machine only.



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1. ELECTRICAL CONNECTION 2. PROXIMITY SWITCH

20. Disconnect the electrical connector (1), remove the lock nut from the proximity switch (2) and remove the proximity switch (2) from the machine. Left-hand side of the machine only.
21. Repeat Steps 17 and 18 for the other pivot pin (9 or 10).
22. Raise the loader frame (2) out of the front frame. Carefully move the machine out of the loader frame (2).

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