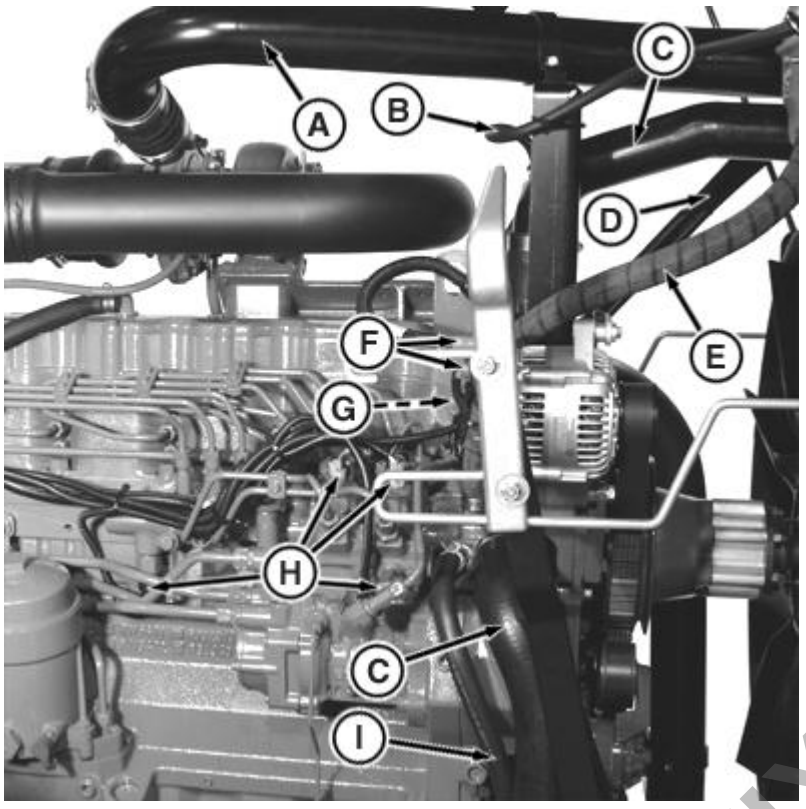
Section 95 - HINGE AND GUDGEON
Group 05 - Hinge
Group 10 - Gudgeon
Section 99 - DEALER FABRICATED TOOLS
Group 05 - Fabricated Tools

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9120

LEGEND:

A	Air Intake Pipe
B	Coolant Hose
C	Upper and Lower Radiator Hoses
D	Coolant Hoses
E	Coolant Hose
F	Alternator Wiring
G	Coolant Sensor
H	Fuel Injection Pump Wiring
I	Coolant Hose

Remove air intake pipe (A).

Disconnect hose (B) from top of cylinder head.

Remove upper and lower radiator hoses (C).

Disconnect hoses (D) from radiator and remove tie bands.

Disconnect hose (E).

Disconnect alternator wiring (F).

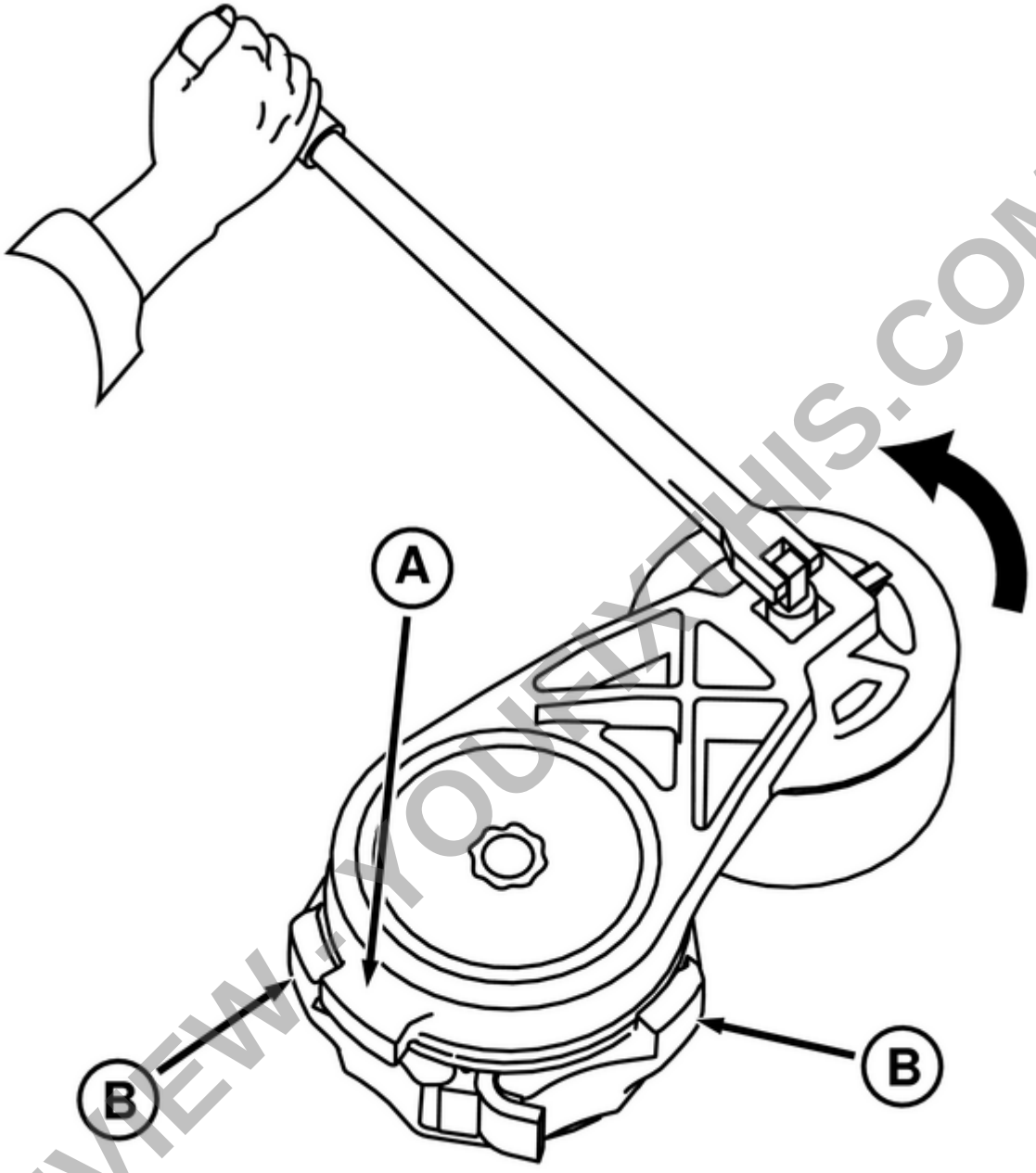
Disconnect coolant sensor (G).

Disconnect injection pump wiring (H).

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Inspect Belt Tensioner



1/2 in. Drive Tool

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→NOTE:

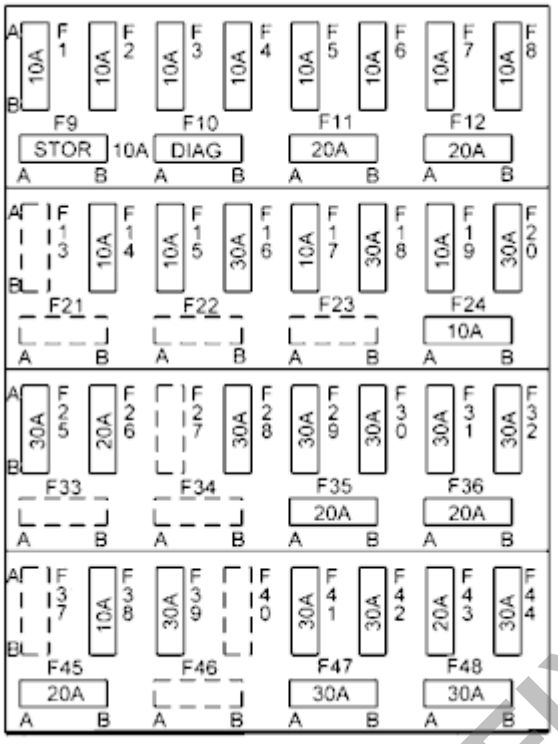
Cab ground (A) is located at upper right rear corner of cab.

Remove cab inner roof to access this ground.

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Load Center Fuses— 9000 Series



Fuses—Load Center

LEGEND:

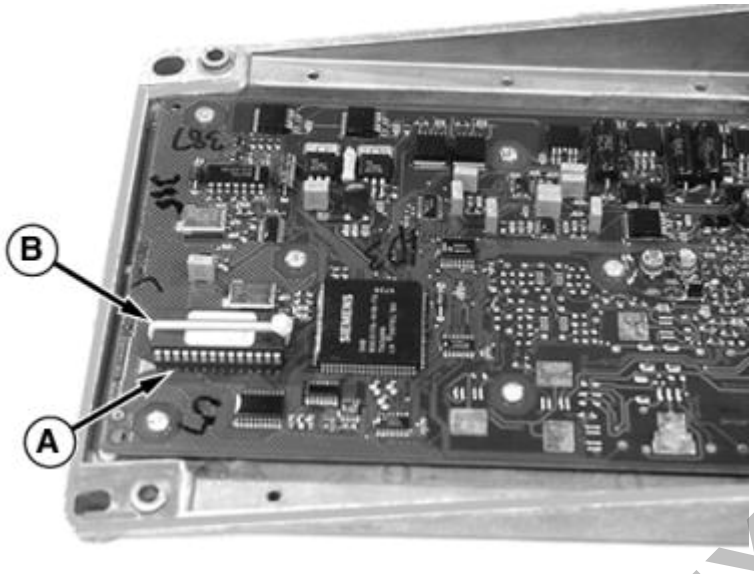
F1	Chassis Control Unit (CCU)
F2	Instrument Control Unit (ICU), Warning Horn, Decelerate Switch, Differential Lock Switch, Brake Pedal Switch, Park Brake Switch, SCV Set-Up Panel
F3	Armrest Control Unit (ACU)
F4	Corner Post Display, Performance Monitor
F5	Hitch Control Unit (HCU) and SCV 1
F6	SCV 2-3
F7	SCV 4-5 Control Unit (SCo)
F8	Not Used
F9	Diagnostic Fuse Storage
F10	Diagnostic Mode (Enable)
F11	Alternator, Starting Aid
F12	Engine Control Unit (ECU), Actuator Solenoid (9100)
F13	Transmission Control Unit (Powershift)
F14	Sensor Power, Radar Sensor
F15	Not Used
F16	Diagnostic Connector (Switched)
F17	Diagnostic Connector (Unswitched)
F18	Key Switch
F19	Radio Clock, Dome Light, Left Entry Light, Horn, Turn Signal Switch, High/Low-Beam Switch
F20	Light Switch, Egress Delay Timer
F21	Not Used
F22	Test/Calibrate for Transmission Control Unit (Powershift)

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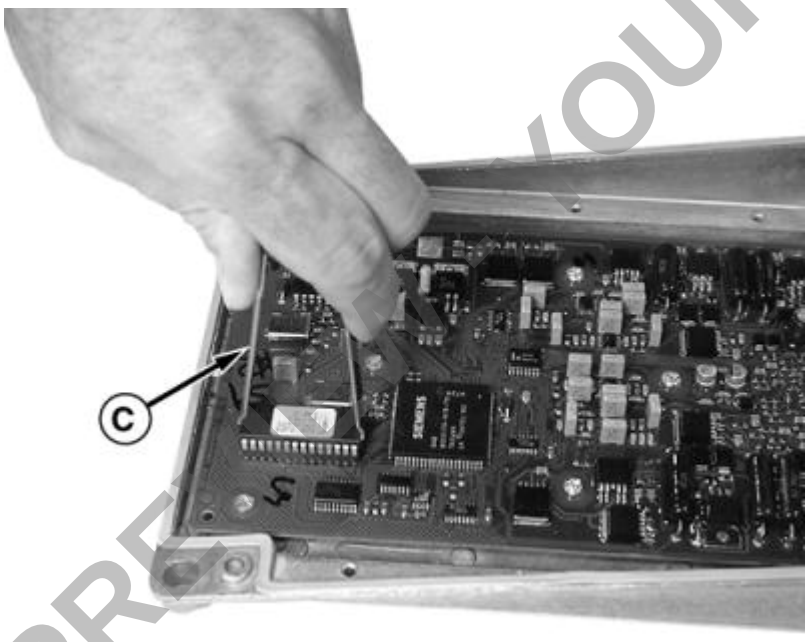
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Remove EEPROM

[1] -



EEPROM and Tie Band



Extractor Tool

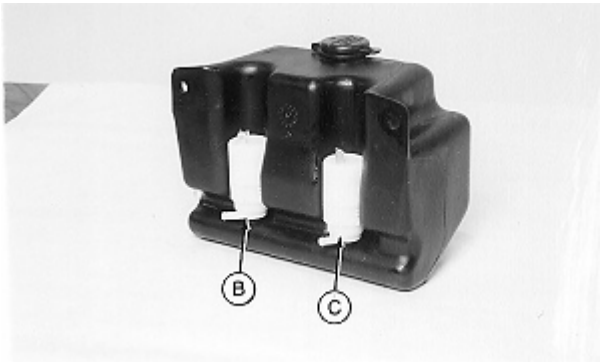
LEGEND:

- A EEPROM
- B Tie Band
- C Extractor Tool

Remove control unit from tractor.

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Windshield Washer Pumps

LEGEND:

A Reservoir Bottle
B Rear Washer Pump
C Front Washer Pump

→NOTE:

Washer pumps and reservoir (A) are located on the battery box on top of the right fuel tank.

Remove washer bottle reservoir (A).

Disconnect harness from pumps.

- White Wire #239 Rear Washer Pump
- Gray Wire #238 Front Washer Pump

Remove pump (B) or (C).

Install in reverse order.

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Group 10 - Transmission Oil Filter Relief Valve Housing and Oil Pump

Essential or Recommended Tools

→NOTE:

Order tools from the U.S. SERVICEGARD ™ or European Microfiche Tool Catalogs.

ESSENTIAL TOOLS listed are required to perform the job correctly and are obtainable **only** from SERVICEGARD or European Tool Catalogs .

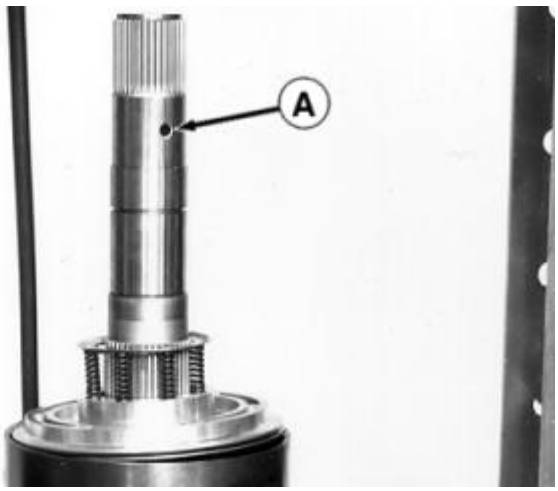
RECOMMENDED TOOLS , as noted, are suggested to perform the job correctly. Some tools may be available from local suppliers or may be fabricated.

Specifications

Item	Measurement	Specification
Oil Pump Body	Torque	36 N˙m
		(27 lb-ft)
Oil Pump-to-Transmission	Torque	88 N˙m
		(65 lb-ft)
Filter Relief Valve Housing-to-Bracket	Torque	48 N˙m
		(35 lb-ft)
Oil Distribution Manifold Valve Spring	Free Length	44.5 mm
		(1.8 in.)
	Test Length	23.6 mm at 166—202 N
		(0.90 in. at 37—45.5 lb force)

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Piston Removal

LEGEND:

A Holes

Remove spring retainer assembly from piston. Remove piston by applying compressed air to holes (A) in shaft. Try each hole until piston lifts upward.

[13] - Remove OD piston packing ring from piston, piston sealing ring from shaft, and piston sealing ring from piston housing.

[14] -

→NOTE:



Dump Valve

LEGEND:

A Dump Valve

There are two dump valve assemblies in the piston housing. One is a dual-fill ball dump valve and one is a "S" type dump valve.

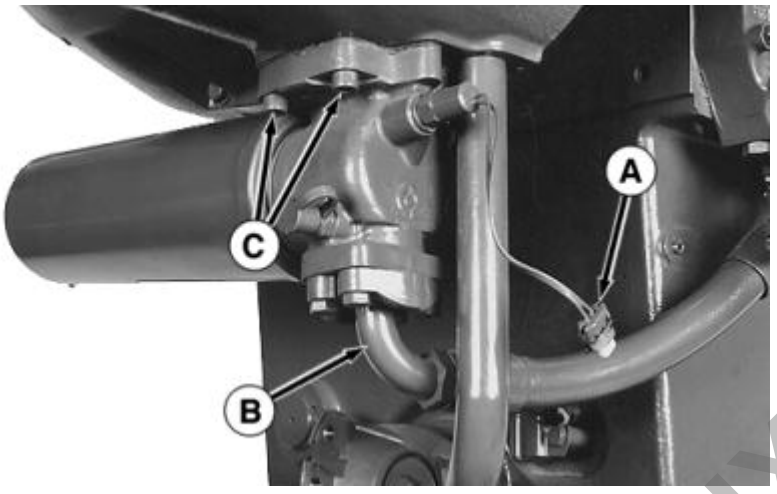
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→NOTE:

Housing is not repairable.

Install Filter Relief Valve Housing



Filter Relief Valve Housing

LEGEND:

A	Sensor Lead
B	Line
C	Cap Screw

Install new gasket and housing onto cover and tighten four screws (C).

Item	Measurement	Specification
Filter Relief Valve Housing-to-Cover		
Cap Screw	Torque	55 N˙m
		(40 lb-ft)

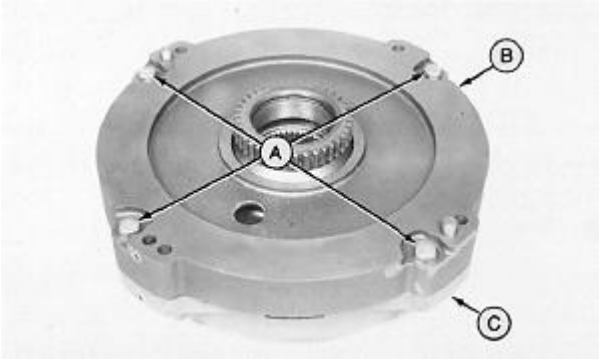
Connect control valve housing-to-filter housing line (B).

Install filter restriction sensor and connect sensor lead (A).

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Disassemble, Inspect, and Assemble Hi-Lo Clutch and Brake Assembly

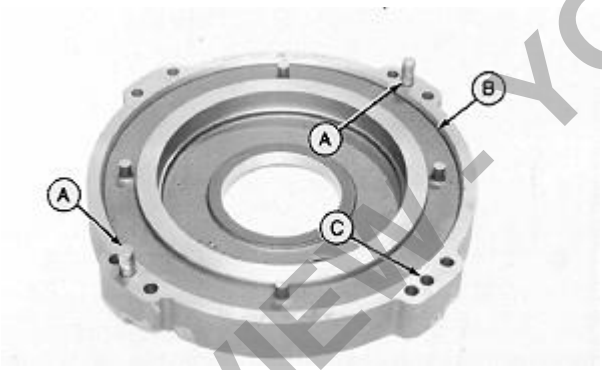


Brake Piston Housing and Cover

LEGEND:

A	Cap Screws
B	Brake Piston Housing
C	Cover

Remove cap screws (A) to remove brake piston housing (B) from brake piston housing cover (C).



Brake Piston

LEGEND:

A	Dowel Pins
B	Brake Piston
C	Oil Lead Hole

Remove brake piston (B) and inspect piston and packing. Coat packing with clean hydraulic oil and install on piston.

Check oil lead hole (C) in housing for contamination.

Press dowel pins (A) until pins bottom on pin pressed in from opposite side.

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Item	Measurement	Specification
Upper Countershaft Bearing Retaining Plate		
Cap Screw	Torque	87 N˙m (66 lb-ft)

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Specifications

Item	Measurement	Specification
PTO Drop Box Input Drive Shaft Cap Screws	Torque	150 N˙m (110 lb-ft)
Stabilizer Links or Draft Link Support Cap Screws	Torque	620 N˙m (460 lb-ft)
PTO Clutch Mounting Cap Screws	Torque	125 N˙m (92 lb-ft)
PTO Clutch Input Shaft Cap Screws	Torque	150 N˙m (110 lb-ft)
PTO Clutch Output Drive Shaft Cap Screws	Torque	150 N˙m (110 lb-ft)
PTO Drop Box-to-Frame Cap Screws	Torque	436 N˙m (320 lb-ft)
Center Link Bracket-to-Frame Cap Screws	Torque	620 N˙m (458 lb-ft)
PTO Drop Box Input Drive Shaft Cap Screws	Torque	150 N˙m (110 lb-ft)
Transmission Mounting Cap Screws	Torque	350 N˙m (258 lb-ft)
PTO Clutch Retaining Nuts	Torque	125 N˙m (96 lb-ft)

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Group 03 - Repair Preparation

Essential Tools

→NOTE:

Order tools from the U.S. SERVICEGARD ™ or European Microfiche Tool Catalogs.

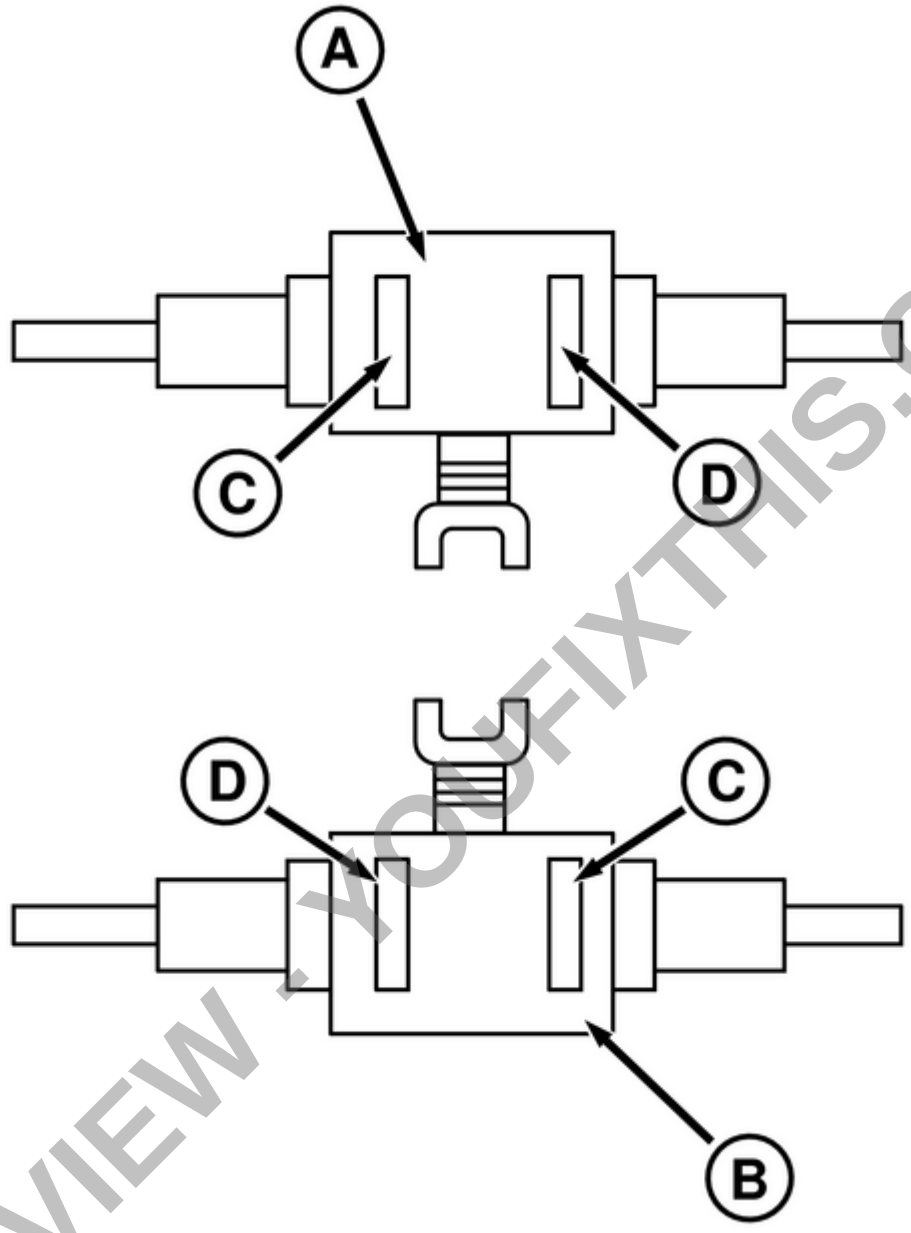
ESSENTIAL TOOLS listed are required to perform the job correctly and are obtainable **only** from SERVICEGARD or European Tool Catalogs .

RECOMMENDED TOOLS , as noted, are suggested to perform the job correctly. Some tools may be available from local suppliers or may be fabricated.

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Install Differential



Differential Ring Gear Position - Top View

LEGEND:

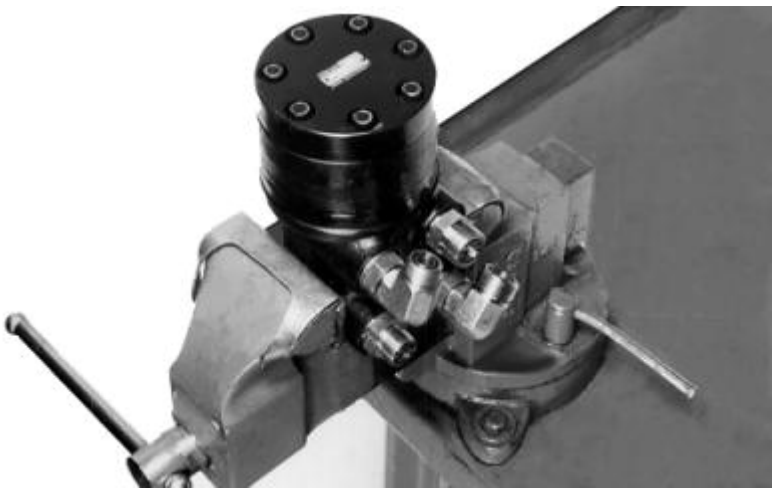
A Front Axle
B Rear Axle
C All Tractors with MST and 9020 tractors with PST Transmissions
D 9000 tractors with PST Transmissions

[1] -

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Disassemble, Inspect, and Assemble Steering Valve



Steering Valve in Vise with Meter End Up

IMPORTANT:

Absolute cleanliness is essential when working on the hydraulic system. Contamination can result in serious damage or inadequate operation. Clean each flat machined surface with the palm of a clean hand. DO NOT use cloth or paper towels to clean surfaces.

→NOTE:

Use vise with brass jaws or protective material.

Clamp unit in vise with meter end up.

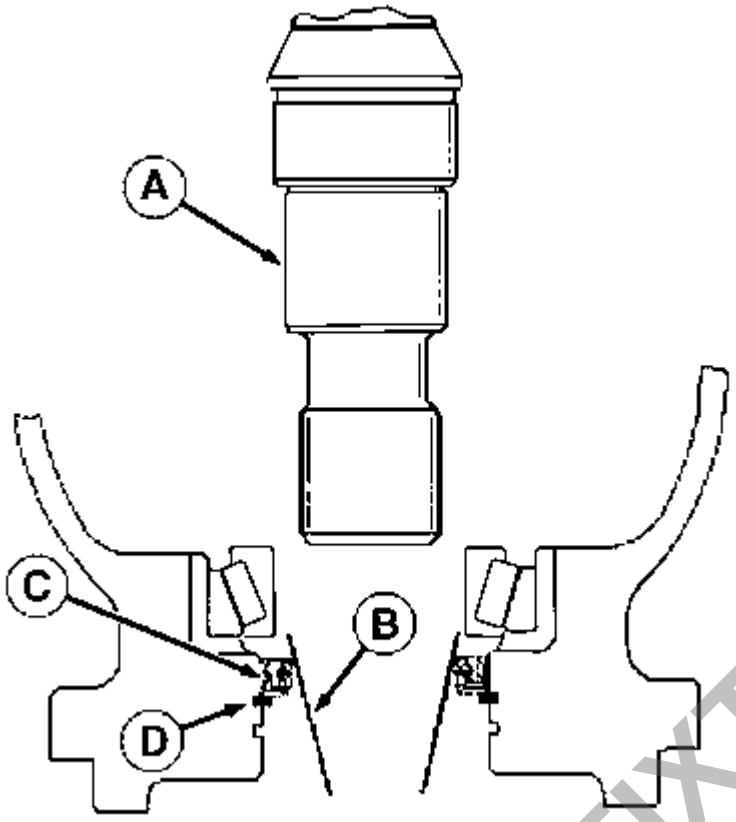
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Item	Measurement	Specification
Park Brake Valve (S.N. —002423)		
Solenoid 1 (B)	Torque	48 N˙m (35 lb-ft)
Solenoid 2 (C)	Torque	37 N˙m (27 lb-ft)
Check Valve (F)	Torque	37 N˙m (27 lb-ft)
Pressure Reducer (I)	Torque	47 N˙m (35 lb-ft)
Screen Retaining Plug (L)	Torque	3.0 N˙m (27 lb-in.)

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Pump Shaft Installation

LEGEND:

A Shaft
B Shim Stock
C Seal
D Retaining Ring

Install a funnel-shaped piece of 0.076 mm (0.003 in.) shim stock (B) from inside the pump housing through the seal (C). This will protect the seal lips during shaft installation.

→NOTE:

Shim stock will be forced out when installing the shaft.

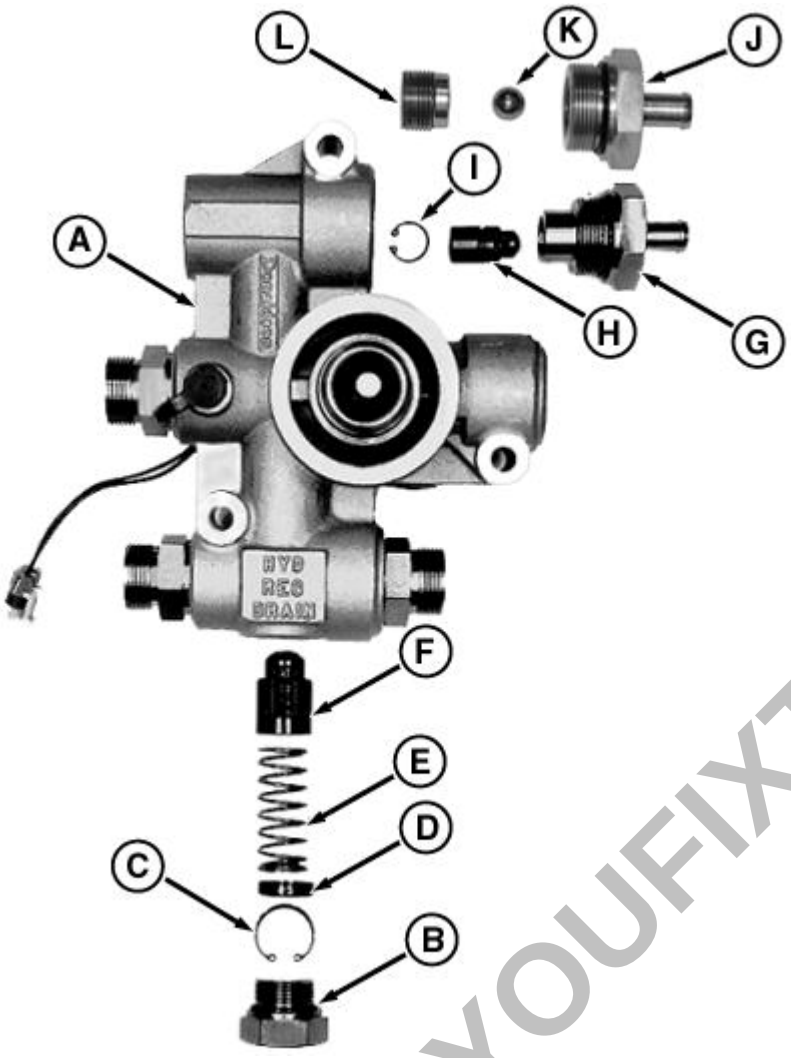
Install the shaft into the housing.

Turn shaft to make sure bearing is correctly seated.

Adjust Pump Shaft End Play

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Hydraulic Filter Housing

LEGEND:

- A Hydraulic Filter Housing
- B Plug
- C Snap Ring
- D Spring Guide
- E Bypass Valve Spring
- F Bypass Valve
- G Special Fitting—MST and 9020 PST (S.N. —10864)
- H Pump Crankcase Drain Valve—MST and 9020 PST (S.N. —10864)
- I Snap Ring—MST and 9020 PST (S.N. —10864)
- J Special Fitting—9020 (S.N. 10865—)
- K Ball—9020 (S.N. 10865—)
- L Seat—9020 (S.N. 10865—)

Internal filter bypass valve is not repairable.

Remove and inspect parts (B—I).

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M O-Ring
N Valve Housing
O O-Ring
P Diagnostic Receptacle
Q Diagnostic Receptacle
R O-Ring
S Plug
T O-Ring
U Diagnostic Receptacle
V O-Ring
W Plug
X O-Ring

Disassemble end cover. Replace components as necessary.

[2] - Assemble end cover using the following special instructions:

- Tighten relief valve (J) to specification.

Item	Measurement	Specification
End Cover Relief Valve	Torque	81 N·m (60 lb-ft)

- Tighten diagnostic receptacles (L, P, Q, and U) to specification.

Item	Measurement	Specification
End Cover Diagnostic Receptacles	Torque	24 N·m (18 lb-ft)

- Tighten manual lower valve (F) to specification.

Item	Measurement	Specification
End Cover Manual Lower Valve	Torque	2.7 N·m (24 lb-in.)

- Tighten manual lower valve plug (B) to specification.

Item	Measurement	Specification
End Cover Manual Lower Valve Plug	Torque	13 N·m (115 lb-in.)

- Tighten cap screws (G) to specification.

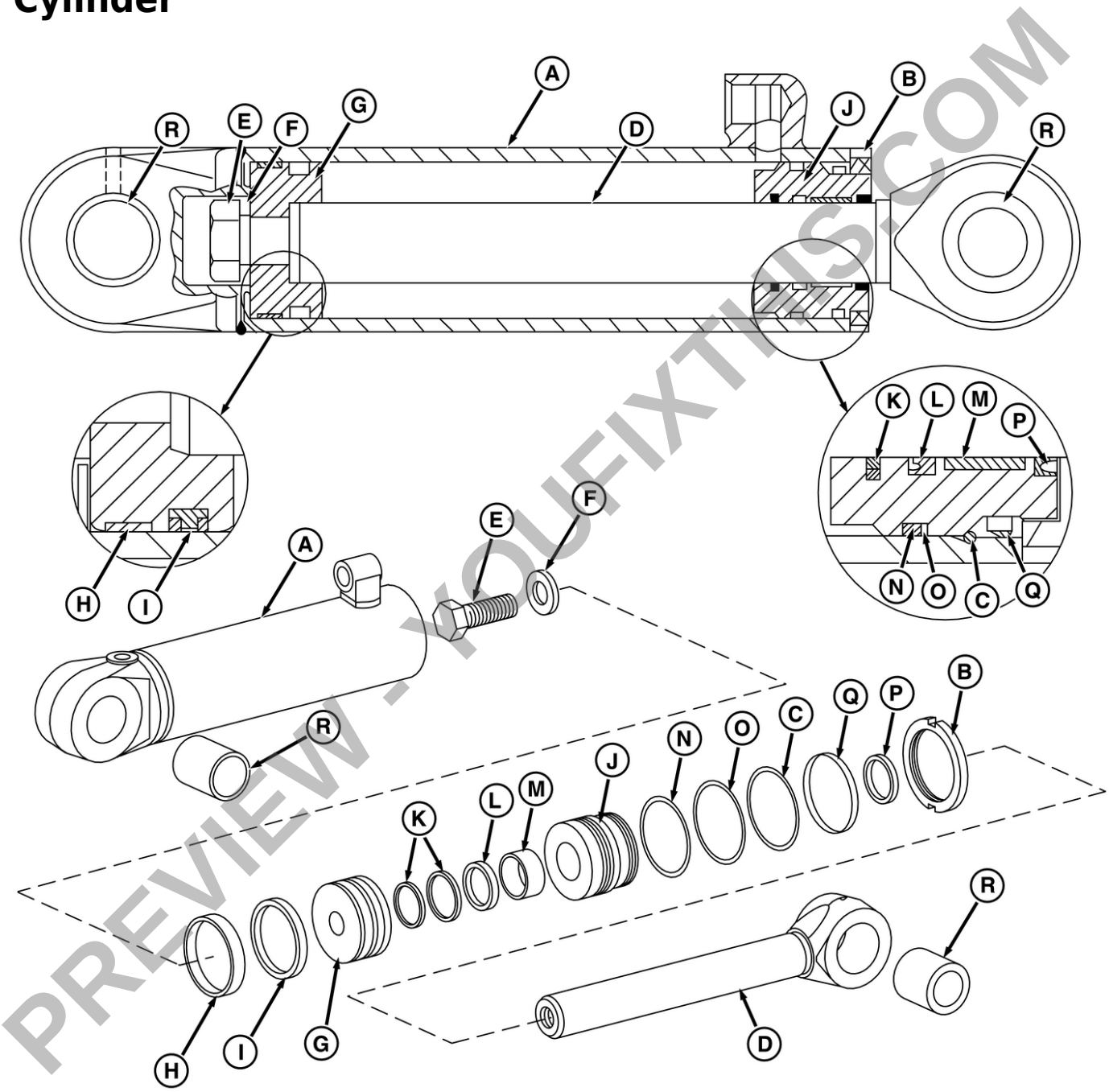
Item	Measurement	Specification
Deluxe End Cover Plate Cap Screws	Torque	50 N·m (37 lb-ft)

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P Wiper Seal
Q Filler Ring
R Bushing

Cross-Sectional and Exploded View— 100 mm Lift Cylinder



100 mm Lift Cylinder

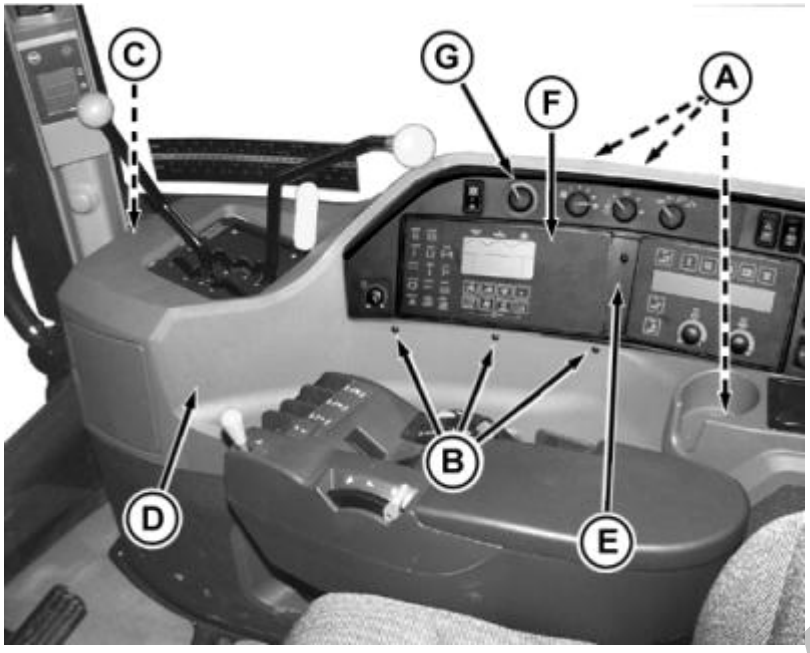
LEGEND:

A Barrel
B Spanner Nut
C Snap Ring
D Rod
E Cap Screw

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Remove and Install Temperature Control Cable



Console

LEGEND:

A	Screws
B	Rivets
C	Linkage Cover
D	Console Cover
E	Clamp
F	Vehicle Monitor
G	Temperature Control Knob

[1] - Remove screws (A).

[2] - Drill out rivets (B) using a small drill bit being careful not to drill too deep.

[3] - Remove front shift lever cover (C) and screws behind it.

[4] - Lift right console cover (D) up over shift levers and remove.

[5] - Remove screw and plastic clamp (E).

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Install pins (A) and new O-ring (G) in the front cylinder.

→NOTE:

The front valve plate is marked with an “F” and is installed face up.

Install parts (H—J) over the pins on the front cylinder.

Install a new gasket (K) flat side down. Put JDG746 Lip Seal Protector on the shaft and lubricate with R134a oil.

Install the front housing (P) on the front cylinder and remove the lip seal protector. Install through bolts (M) and new washers (L).

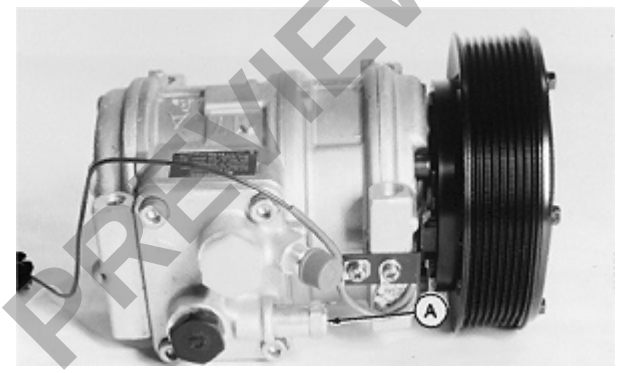
Partially tighten the through bolts and then tighten to specification.

Item	Measurement	Specification
Compressor Through Bolts	Torque	26 N˙m
		(19 lb-ft)

Install the felt washer (Q) using the clutch hub.

Install the pulley-clutch hub and check clearance. (See DISASSEMBLE AND ASSEMBLE COMPRESSOR CLUTCH in this group.)

Remove and Install Compressor Relief Valve



A/C Compressor Relief Valve

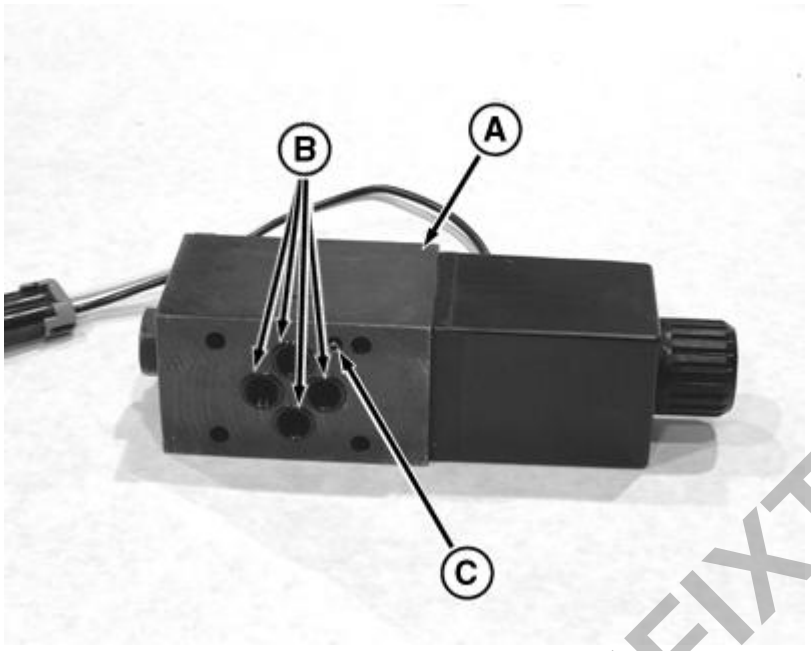
LEGEND:

A Relief Valve

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Replace Seat Control Valve Assembly O-Rings

→NOTE:



Control Valve

LEGEND:

A	Control Valve
B	O-Ring (4 used)
C	Spring Pin

Control valve (A) is not serviceable. If leaks are present, inspect O-rings and replace as necessary.

[1] - Remove and Install Control Valve:

- Remove cap screws attaching control valve to block.
- Remove and replace O-rings (B).
- Using spring pin (C) to align, install control valve to block.
- Install and tighten cap screws to specification.

Item	Measurement	Specification
Seat Control Valve		
Control Valve-to-Valve Block Cap Screws	Torque	5.6 N˙m (50 lb-in.)

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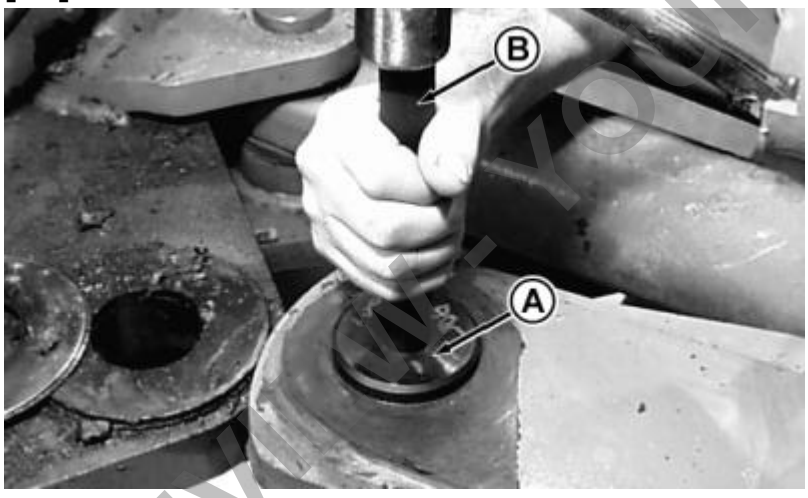
Upper Hinge Bushing

LEGEND:

A Hinge Bushings

Separate tractor only far enough to replace hinge bushings (A).

[14] -



Replacing Hinge Bushings

LEGEND:

A JDG758 Bushing Driver
B JDG537 Driver Handle

Replace hinge bushings using JDG758 Bushing Driver (A) and JDG537 Driver Handle (B).

[15] -

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