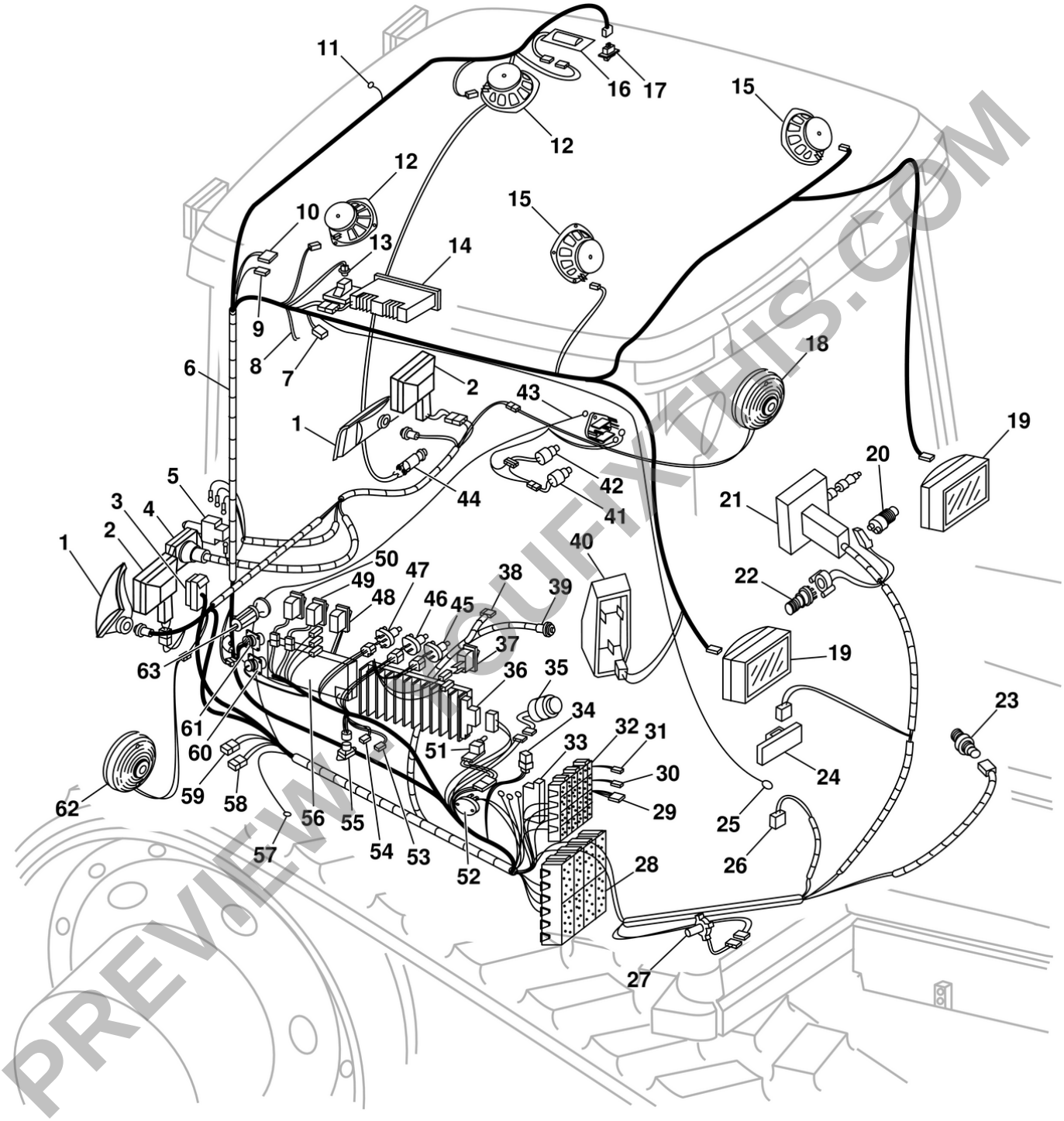
Cab Harness Routing and Component Identification—North American



Cab Harness Routing

LEGEND:

1	Fender Lights (Tail/Brake/Turn)
2	Rear Flood Lamps
3	Cab-to-Chassis Harness Connector
4	Seven Terminal Outlet
5	External Raise/Lower Switch
6	Cab Harness

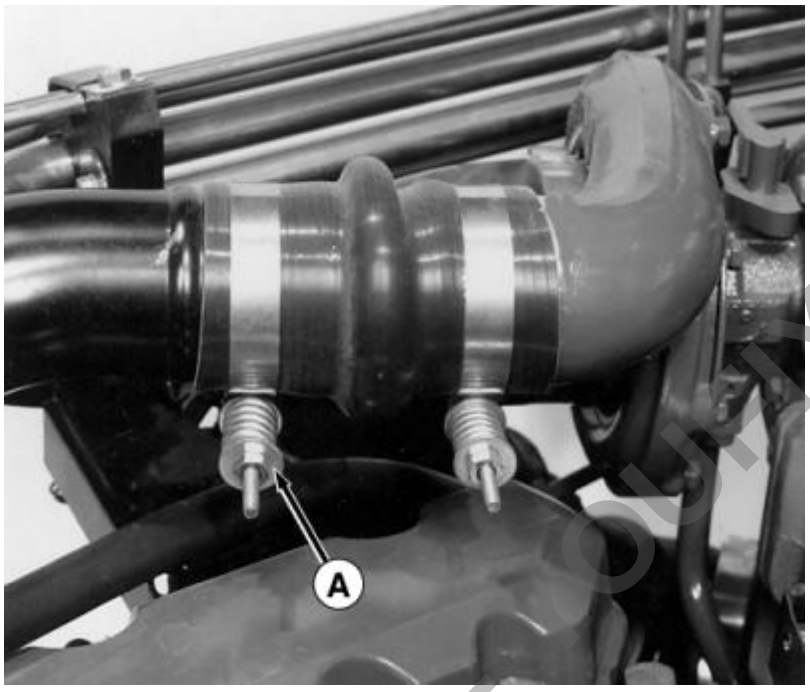
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D	Ether Aid Harness and Hose
E	Oil Pressure Sensor Harness
F	Turbocharger Intake Duct
G	Flywheel Shield Cap Screws

Disconnect parts (A—E).

Remove tie bands from ether aid line.

Remove parts (F) and (G) and flywheel shield.



Clamp

LEGEND:

A	Clamp

Loosen clamp (A) and disconnect hose from pipe.

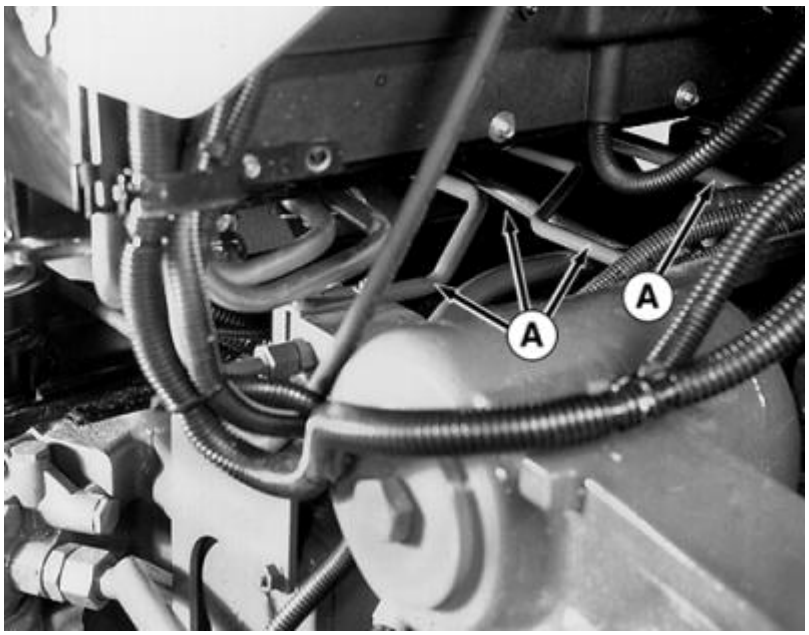
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Item	Measurement	Specification
		(3.2 in.)
	Test Length	62 mm at 31—39 N
		(2.44 in. at 7—9 lb Force)

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Lines

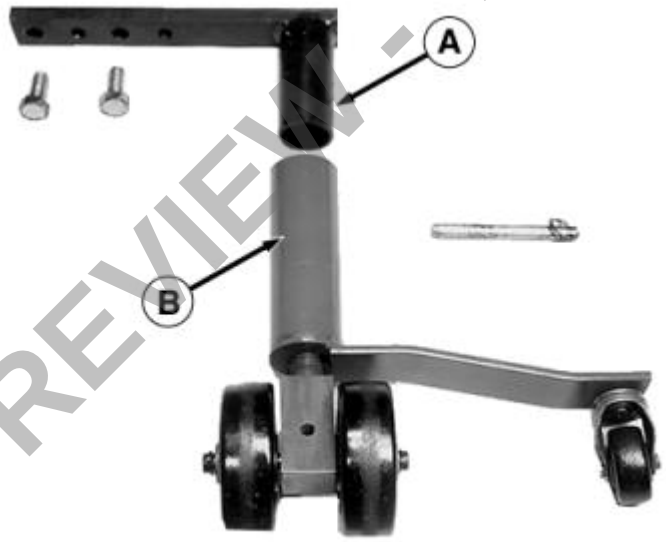
LEGEND:

A	Lines

Disconnect lines (A) from rear of tractor.

Remove seven-pin outlet bracket from top of hitch-SCV stack and route outlet forward.

Disconnect hitch-SCV valve stack harnesses.

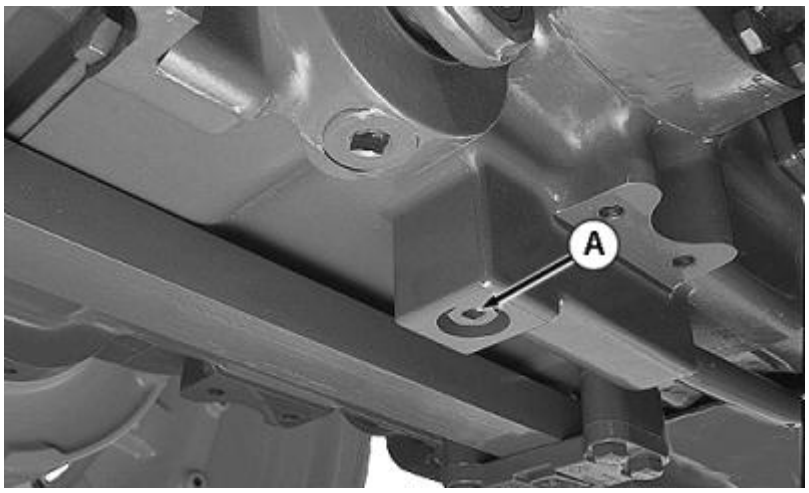


Rear Dolly Adapters on Splitting Stand

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Remove and Install Secondary Pump

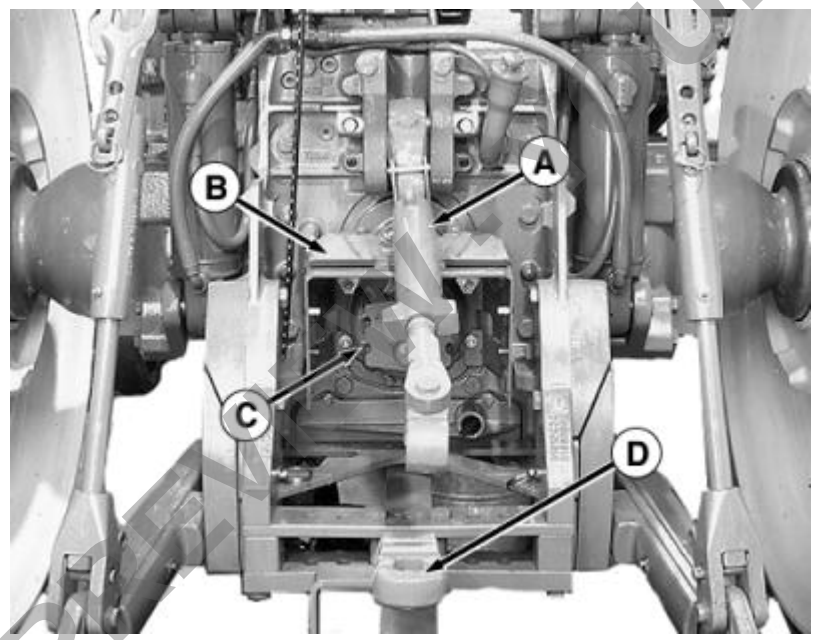


Plug

LEGEND:

A	Differential Case Drain Plug

Remove plug (A) and drain oil from case.



Center Link, Shield & PTO Output Assembly

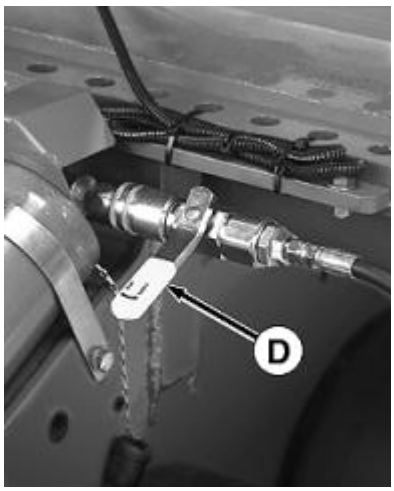
LEGEND:

A	Center Link
B	PTO Shaft Shield
C	PTO Output Assembly
D	Drawbar

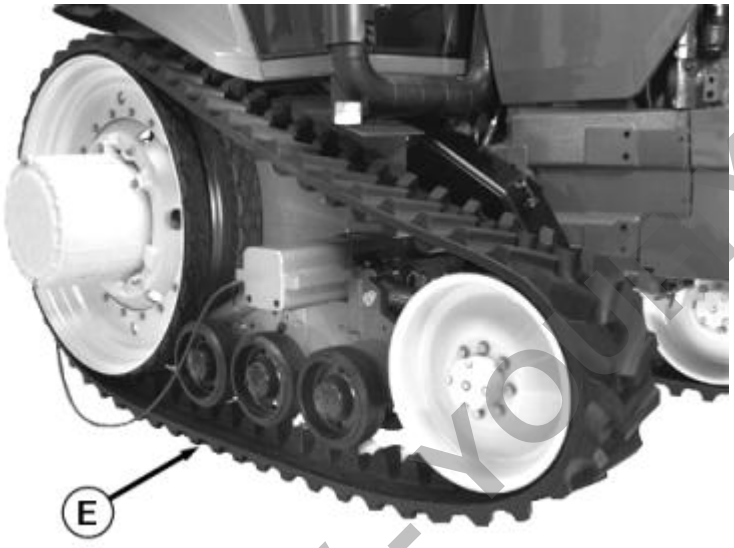
Remove hitch quick coupler.

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Valve Closed



Track

LEGEND:

A	SCV No. 1 Coupler
B	Connection at Track Accumulator
C	Valve Open
D	Valve Closed
E	Track Loosened

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LEGEND:

A	Clamp
B	Tie Band
C	Control Boxes
D	Clamp
E	Main Cab Harness Connector

Remove rear cover.

Remove seven-pin connector bracket from top of hitch-SCV stack.

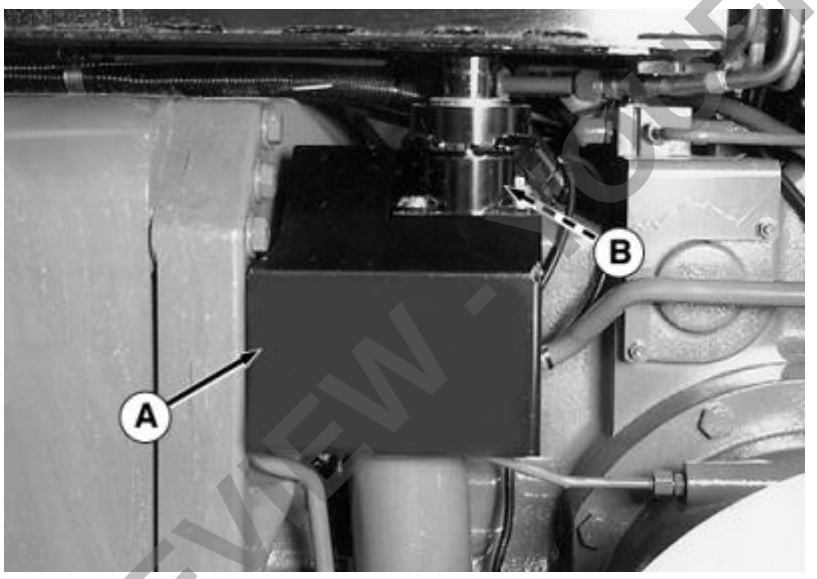
Remove seven-pin connector harness from clamp (A) and remove clamp from cab.

Remove tie band (B) and put seven-pin connector in cab through back window.

Remove control boxes (C) and tie to rear hitch area.

Remove clamp (D) from cab.

Disconnect connector (E).



Left Side

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IMPORTANT:

Viscous fan drive should be replaced if unit has lost more than one complete fin. Improper balance could cause viscous drive or fan failure.

Install in reverse order.

Item	Measurement	Specification
Spin-On Viscous Drive		
	Torque	125 N˙m (92 lb-ft)
Fan-to-Viscous Drive Nuts		
	Torque	35 N˙m (26 lb-ft)

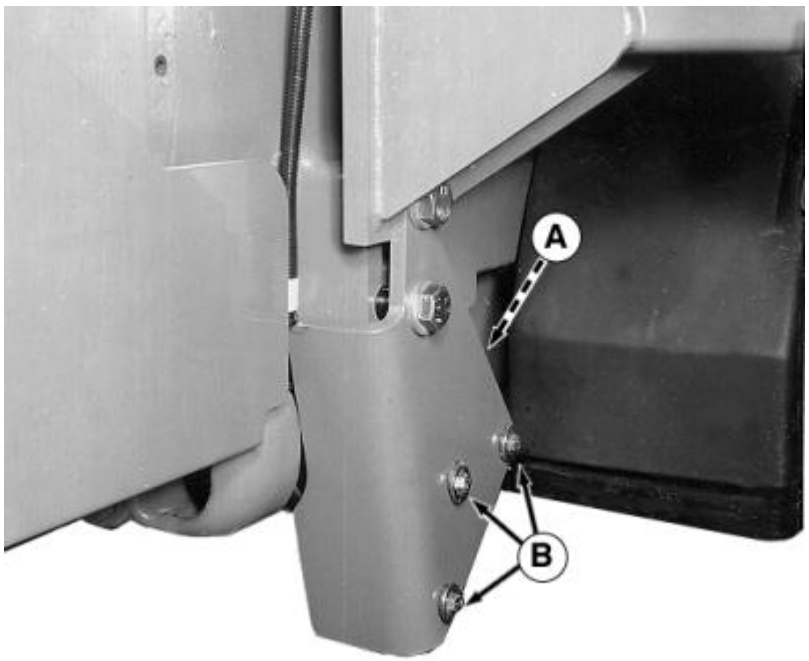
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K5	Lower Side Floods
K6	Upper Side Floods
K7	K4 Grounding Relay
K8	Right Turn Signal Relay
K9	Left Turn Signal Relay
K10	Fender Turn Lights Relay
K11	Not Used
K12	Accessory Outlet Relay
K13	Engine Control Unit (ECU)
K14	Not Used
K15	Electronics (ELX)
K16	Come Home Transmission Relay
K17	Transmission Latch
K18	Transmission Enable
K19	Not Used
K20	Transmission Shifter Reverse
K21	Transmission Shifter Forward
K22	Transmission Shifter Not Neutral
K23	Horn Relay
K24	Wiper Circuit Relay
K25	Wiper Interval Pulse Relay
K26	Wiper Interval Enable Relay
K27	Accessory Relay
K28	Blower Motor Circuit Relay
K29	Not Used
K30	Pressurizer Blower and A/C Compressor Clutch

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Cap Screws

LEGEND:

A	Sensor
B	Cap Screws

→NOTE:

The radar speed sensor (A) is located on the left side of the tractor below the step support.

Remove three cap screws (B).

Disconnect sensor harness.

Install replacement radar speed sensor and tighten cap screws.

Calibrate the sensor. (See Operation and Test TM1622—Section 240, Group 20 for 8000T Series and TM1799—Section 245, Group CCU for 8000T TEN Series.)

Replace PTO Speed Sensor

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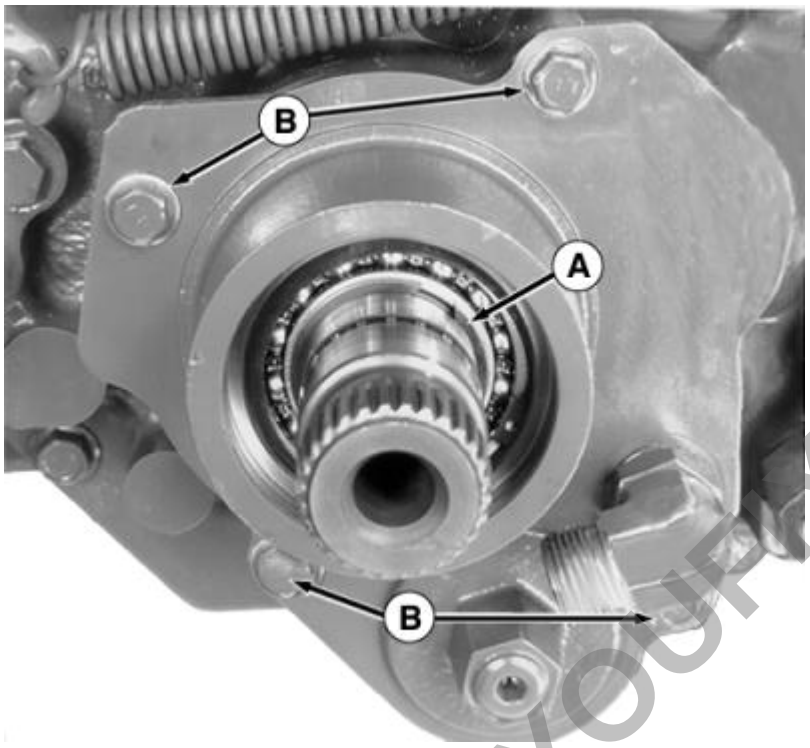
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V-Ring and Oil Seals

LEGEND:

A	Seal
B	Oil Seal

Remove V-ring seal (A) and oil seal (B).



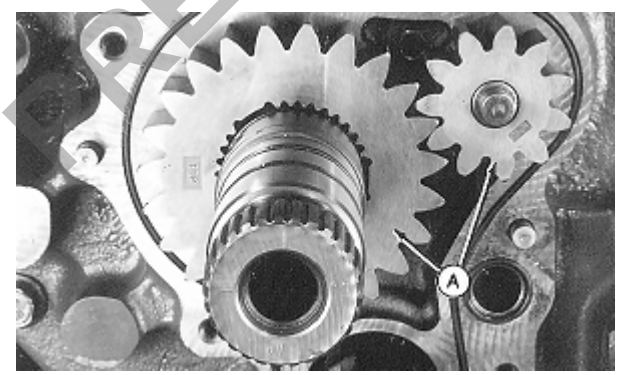
Snap Ring and Cap Screws

LEGEND:

A	Snap Ring
B	Cap Screws

Remove snap ring (A).

Remove cap screws (B) and remove scavenge pump cover.

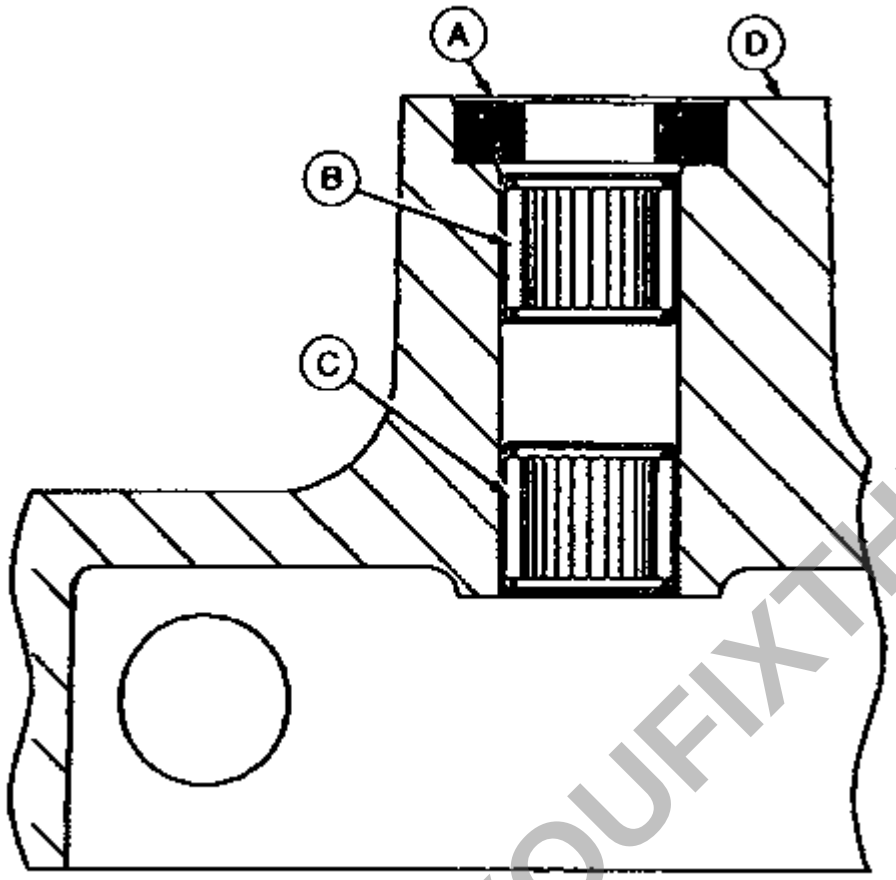


Gear

LEGEND:

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Oil Seal and Needle Roller Bearings

LEGEND:

A	Oil Seal
B	Outer Roller Bearing
C	Inner Roller Bearing
D	Manifold

Remove pedal shaft oil seal (A).

Inspect pedal arm assembly needle roller bearings (B) and (C). Remove as necessary using a 19 mm or 3/4 in. driver disk and a 13 mm or 1/2 in. pilot disk.

Install new bearings using a 27 mm or 1-1/16 in. driver disk and 13 mm or 1/2 in. pilot disk. Install outer bearing (B) flush with the bottom oil seal surface and inner bearing (C) flush with the inner surface.

Install new oil seal using a 20 mm socket.

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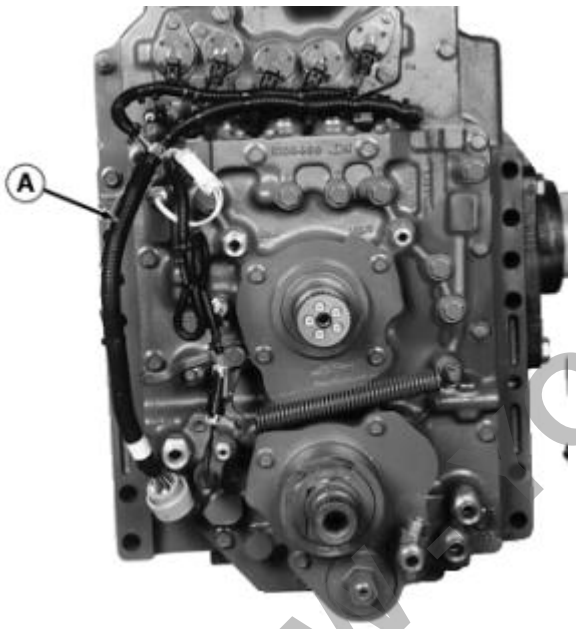
Install the input shaft-to-damper coupler hub.

Coat the outer diameter of NEW countershaft rear bore plug (E) with TY6304 Sealant and install using a hammer and brass drift.

Number	Name	Use
• TY6304 (us) • TY9484 (canadian) • 515 LOCTITE ™ (loctite)	Flexible Sealant	Seal contacting surfaces

Install the V-ring seals (H) and (I) on the output shaft (B) and auxiliary drive shaft (C).

Install clutch pedal return spring (F) using JDG1370 Clutch Spring Installation Tool (G).



Wiring Harness

LEGEND:

A	Harness

Install wiring harness (A).

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Disassemble Countershaft

→NOTE:

Refer to Transmission Countershaft—Cross-Sectional View during disassembly. Identify and mark parts as they are removed.

Remove sealing rings.

Remove rear bearing, thrust washer and C-range drive gear-to-shaft snap ring.

Remove C-range drive gear and 4th speed driven gear.

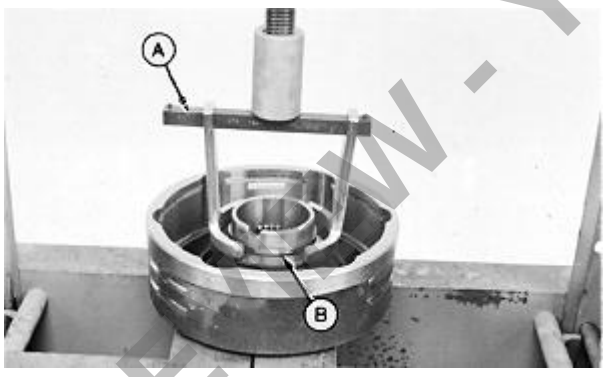
Remove CR clutch gear/hub.

Remove CR clutch and D-range/1st driven gear.

Remove 2nd driven/3rd drive gear hub and C_2 clutch assembly.

Remove 2nd speed drive gear and snap ring.

Remove gear hub assembly from the clutch assembly and remove bearing retaining snap ring and bearing from gear hub as necessary.



Clutch Piston and Return Spring

LEGEND:

A	Spring Washer Compressor Tool
B	Snap Ring

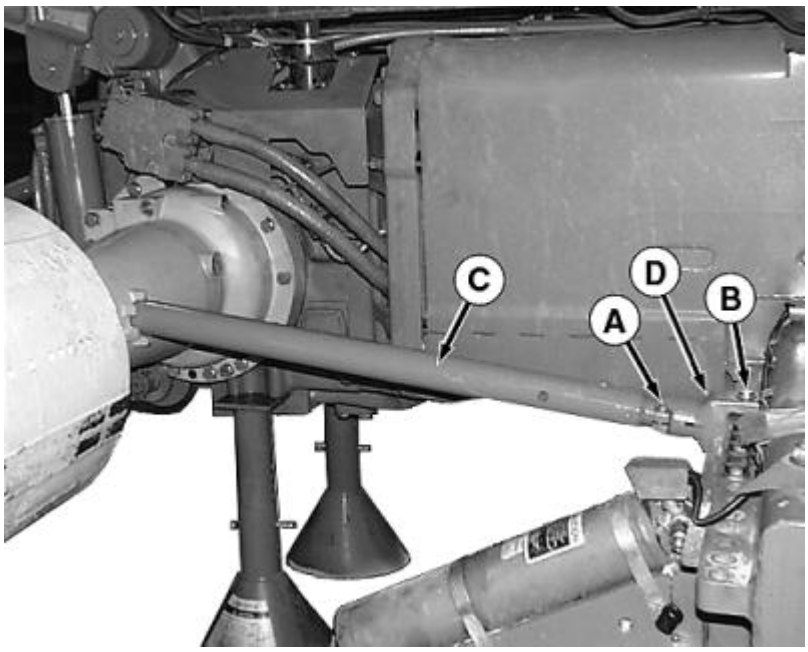
Remove retaining snap ring, clutch backing plate, drive plates and disks.

Install JDG754 Spring Washer Compressor (A) and compress the piston return springs enough to remove the spring retaining snap ring (B).

Remove the compressor tool and remove the return springs and the clutch piston.

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Wide Tread

LEGEND:

A	Brace Rod Locking Cap Screw
B	Clevis-to-Mid-Frame Pin
C	Brace Rod
D	Brace Rod-to-Mid-Frame Clevis

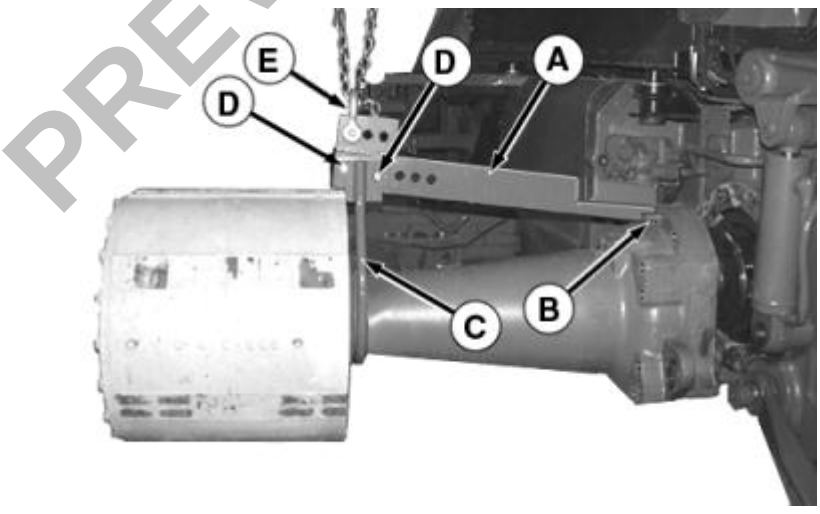
For WIDE TREAD tractors, perform the following steps:

Loosen rod locking cap screw (A).

Remove rod tension by rotating rod (C).

Remove cotter pin and pin (B)

Remove brace rod (C) and clevis (D).

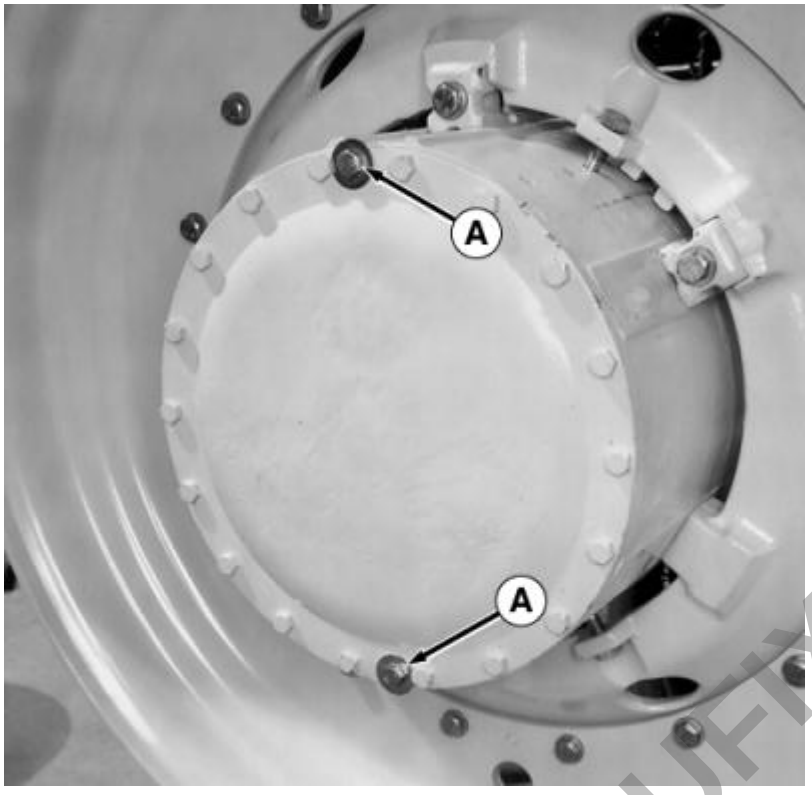


Left Side

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Item	Measurement	Specification
		(228 lb-ft)



Cap Screws with Washers

LEGEND:

A	Cap Screws with Washers

Install cap screws with washers (A).

Item	Measurement	Specification
Planetary Carrier-to-Wheel Hub		
Cap Screws with Washers	Torque	310 N˙m
		(228 lb-ft)

Make sure hub assembly drain plug is installed.

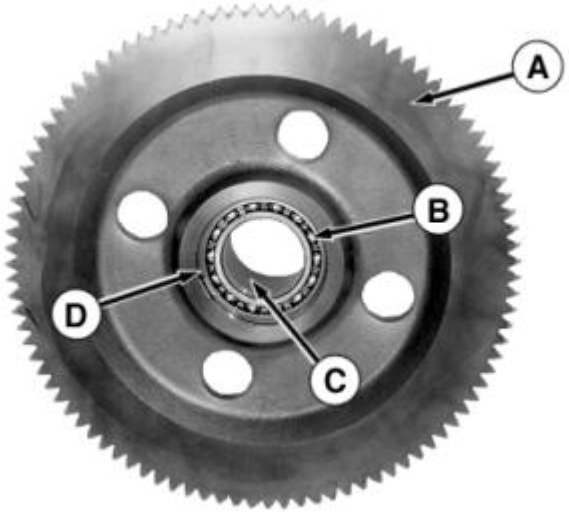
Refill differential case with oil.

Cross-Sectional View— STANDARD and NARROW TREAD HOUSING ASSEMBLY

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Remove bearing (A) from gear using a 67 mm or 2-5/8 in. driver disk.



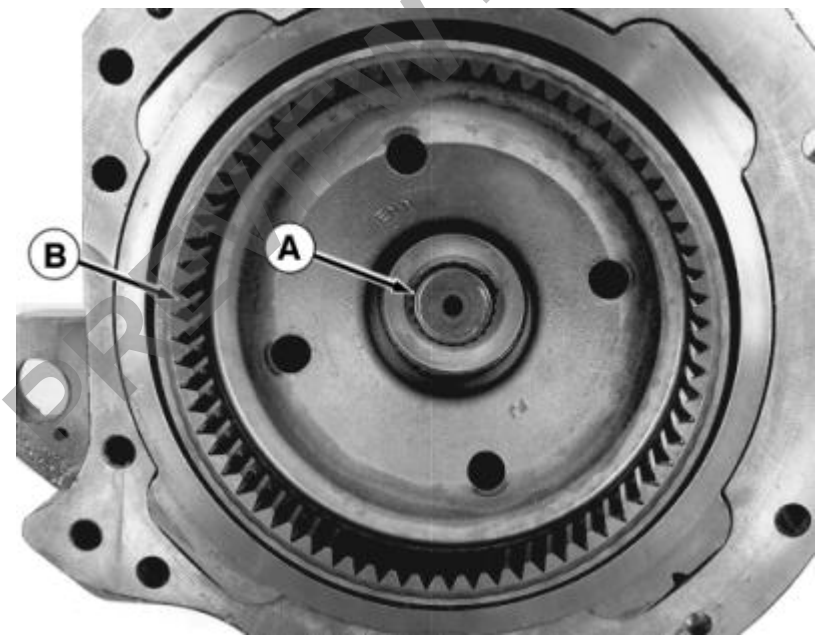
Bearing, Gear, Snap Ring and Spacer

LEGEND:

A	Steering Planetary Sun Gear
B	Roller Bearing
C	Spacer
D	Bearing Retaining Snap Ring

Install bearing (B) into gear (A) using a 92 mm or 3-5/8 in. driver disk.

Install snap ring (D) and spacer (C).

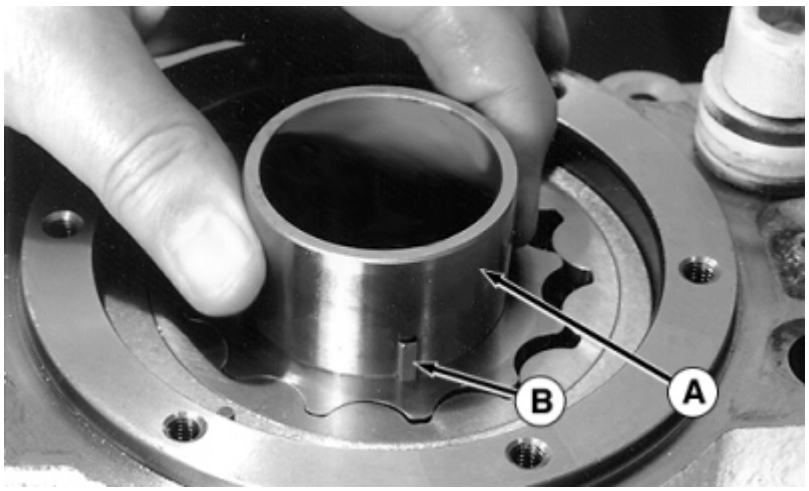


Planetary Ring Gear and Snap Ring

LEGEND:

A	Snap Ring

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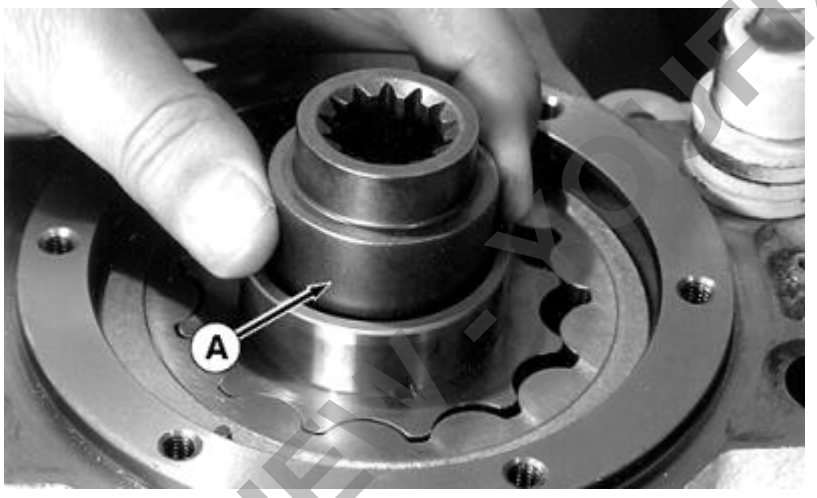


Charge Pump Shaft and Key

LEGEND:

A	Charge Pump Shaft
B	Key

Install charge pump shaft (A) with key (B) aligned with slot in gerotor gear.



Auxiliary Drive Coupling

LEGEND:

A	Drive Coupling

Install auxiliary drive coupling (A).

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Makeup Check Valve Layout

LEGEND:

A	Plug
B	Brake Valve Spring
C	Spring Guide
D	Makeup Check Valve Spring
E	Makeup Check Valve
F	Pin
G	O-Ring
H	Makeup Plug
I	O-Ring
J	Ring Insert
K	O-Ring

IMPORTANT:

Brake valve parts must be returned to their original bores.

→NOTE:

Use a small amount of petroleum jelly to hold spring guide (C) and pin (F) during assembly.

Remove, inspect and replace makeup check valve parts (A—K) as required.

Item	Measurement	Specification
Brake Valve Spring		
	Free Length	114 mm
		(4.5 in.)
	Test Length	57.5 mm at 224—248 N
		(2.26 in. at 50—56 lb force)
Make-Up Check Valve Spring		
	Free Length	23 mm
		(0.9 in.)
	Test Length	8.7 mm at 7.8—9.1 N
		(0.34 in. at 1.76—2.04 lb force)

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Group 10 - Tandem Hydraulic Pump (Transmission Control-Charge)

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.

Other Material

Number	Name	Use
• TY15934 (us)	General Purpose Gasket Dressing	Install lip seal

Service Parts Kits

The following kits are available through your parts catalog:

- Primary Gear Set
- Charge Gear Set
- Tandem Pump Seal Kit

Specifications

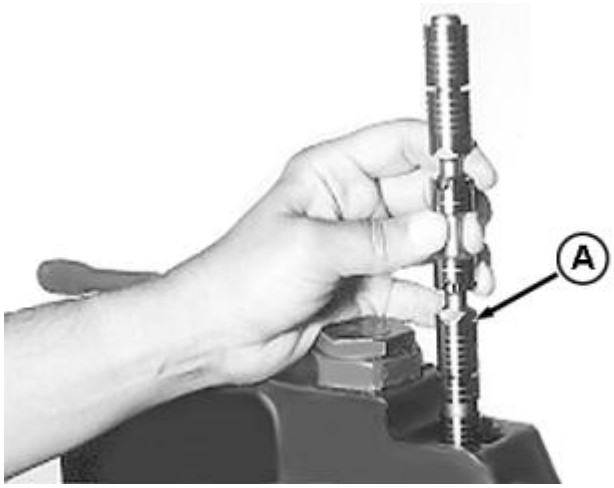
Item	Measurement	Specification
Tandem Pump Cap Screws		
	Torque	140 N˙m (104 lb-ft)

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Install spring seat (A), spring (B) and special plug (C) from bottom of selective control valve housing, and tighten control valve plug.

Item	Measurement	Specification
Control Valve Plug		
	Torque	120 N˙m (88 lb-ft)



Installing Control Valve

LEGEND:

A	Control Valve

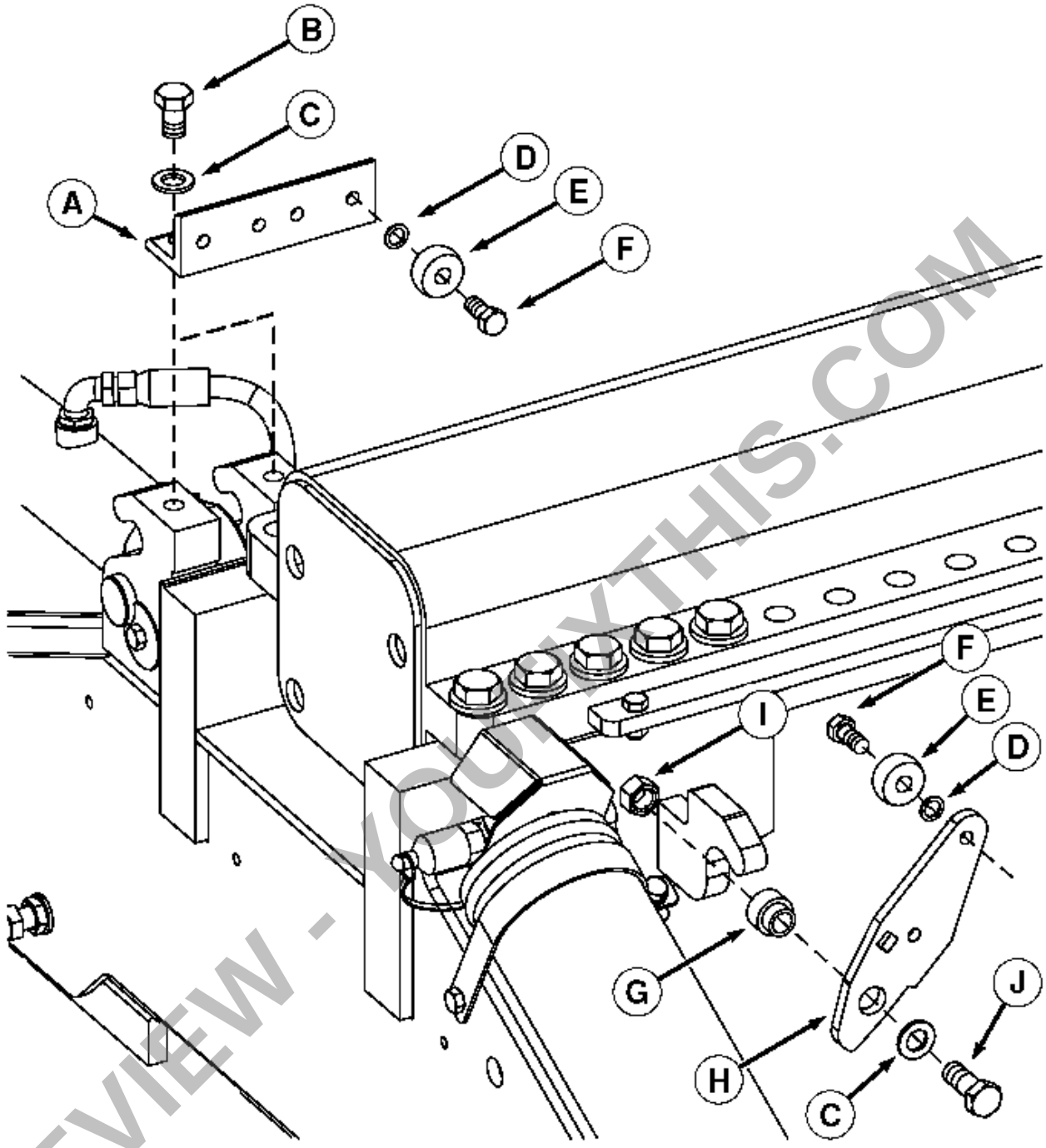
Lubricate control valve (A) and install as illustrated.



Installing Spring Seat

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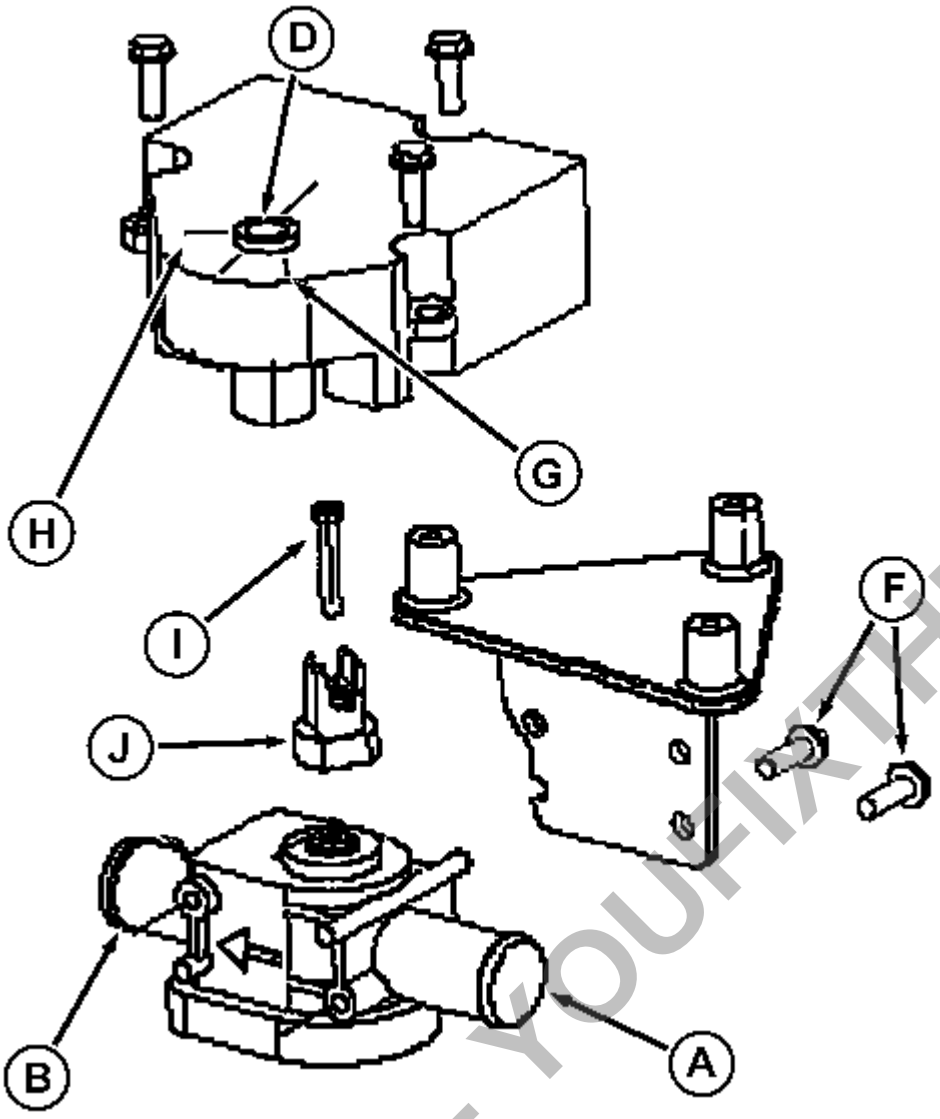
Track Width Adjustment Kit

LEGEND:

A	Bracket
B	Cap Screw, M16 x 25 mm (2 used)
C	Washers (8 used)
D	Washer (4 used)
E	Bearing (4 used)
F	Cap Screw, M12 x 25 mm (4 used)
G	Spacer
H	Cam
I	Welded Nut
J	Cap Screw, M16 x 60 mm

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Heater Valve Drawing

LEGEND:

A	Inlet Hose Clamp
B	Outlet Hose Clamp
C	Tabs
D	Valve Position Indicator
E	Connector With Safety Tab
F	Screws
G	Closed Valve Indicator Line
H	Open Valve Indicator Line
I	Screw
J	Driver

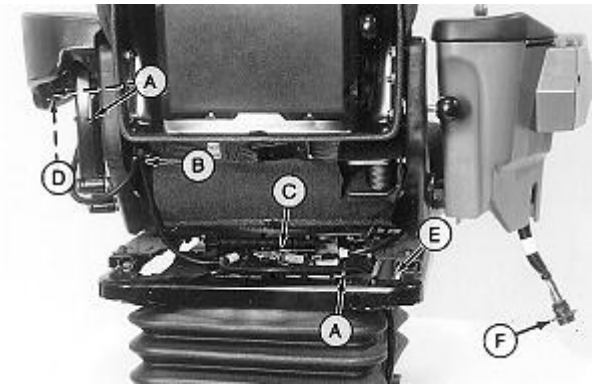
Remove rear cab panel with SMV.

Remove small heater valve access panel.

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Remove Seat and Swivel Plate From Suspension



Suspension Seat Swivel Plate

LEGEND:

A	Tie bands
B	Clip
C	Connector
D	Connector
E	Opening
F	Wiring Harness

→NOTE:

Some suspension repair can be done without removing complete seat from the cab. For illustration purposes, seat was removed from the cab.

Slide seat to full forward position.

Remove tie bands (A) and pry off clip (B).

Disconnect wiring harness at connector (C) and connector (D).

Feed harness through opening at (E).

Disconnect armrest wiring harness (F).

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