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Item	Measurement	Specification
Front Cab Mount Cap Screws [Zinc-Flake Coated]	Torque	430 N˙m (317 lb-ft)
Rear Cab Mount Cap Screws [Zinc-Flake Coated]	Torque	600 N˙m (443 lb-ft)

.

Replace Fuel Filter, Electric Fuel Pump, and Bleed Fuel System



Fuel System Repair Manual

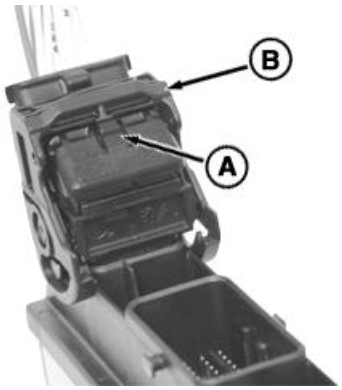
See Operator′s Manual or relevant Component Technical Manual for repair information.

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CINCH™ Flexbox Connectors

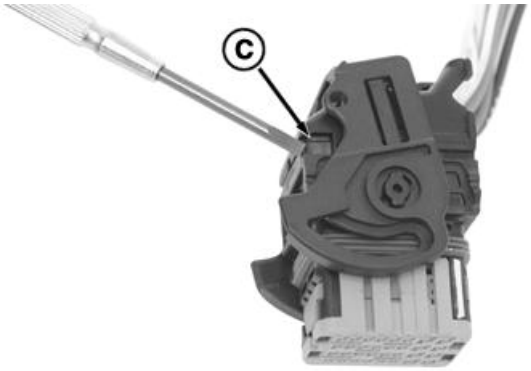
[1] -



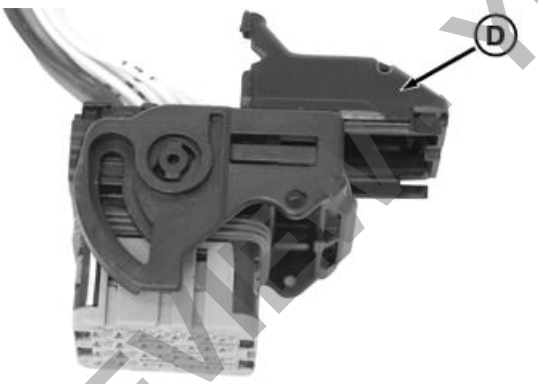
LEGEND:

A	Tab
B	Locking Cam
C	Cover Locks
D	Cover

CINCH Connector



CINCH Cover Lock Tabs



CINCH Cover

Press tab (A) and rotate locking cam (B) 90° to disconnect connector from flexbox.

[2] - Move cover locks (C) slightly outward with a small screwdriver.

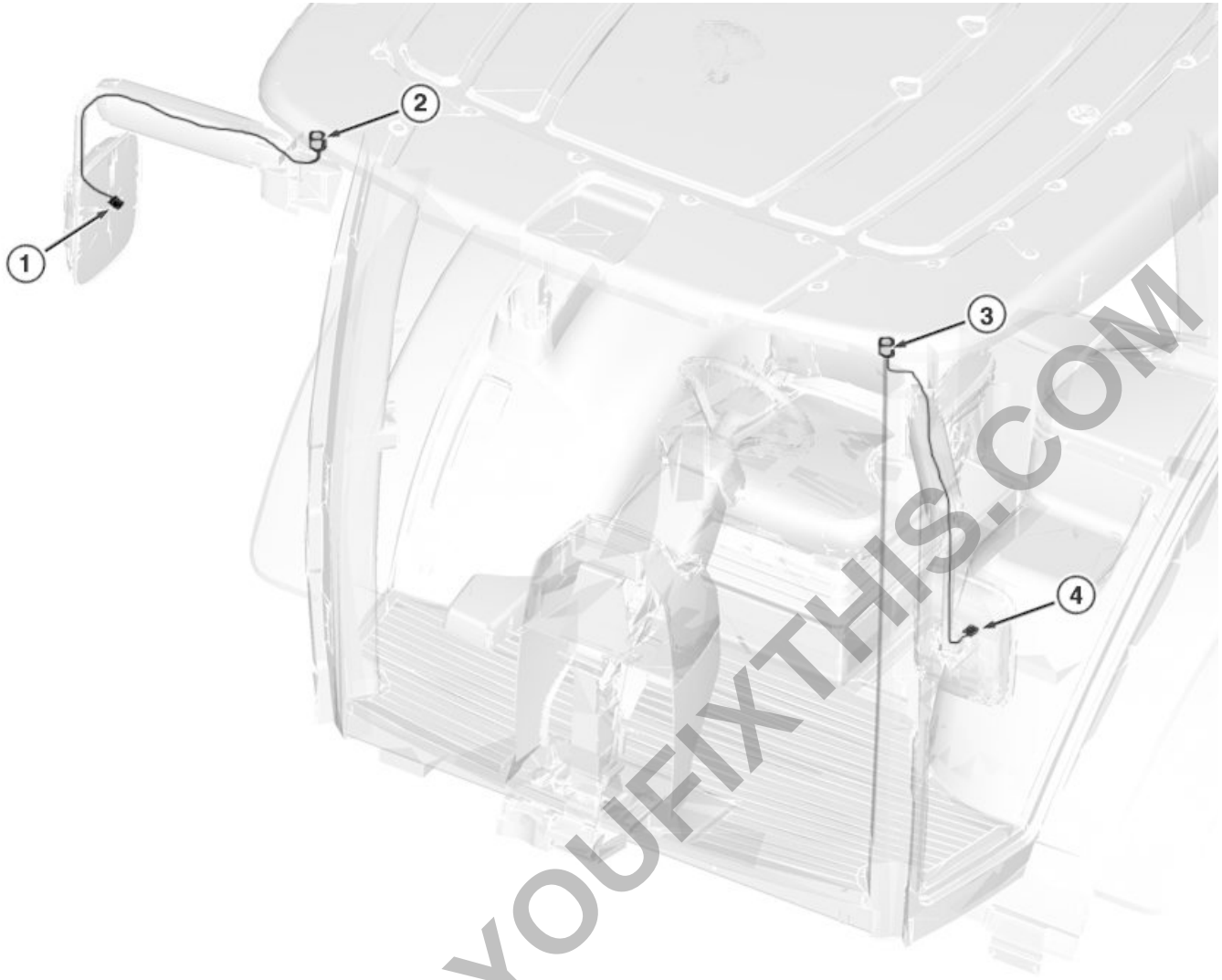
[3] - Remove cover (D) away from wires.

[4] -

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Power Extend Mirror Harness



Power Extend Mirror Harness

LEGEND:

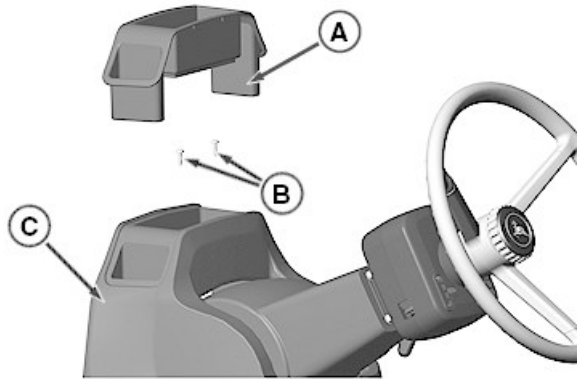
1	Power Extend Right Mirror Motors
2	Right Power Mirror Interconnect
3	Left Power Mirror Interconnect
4	Power Extend Left Mirror Motors

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Replace Brake Light Switch

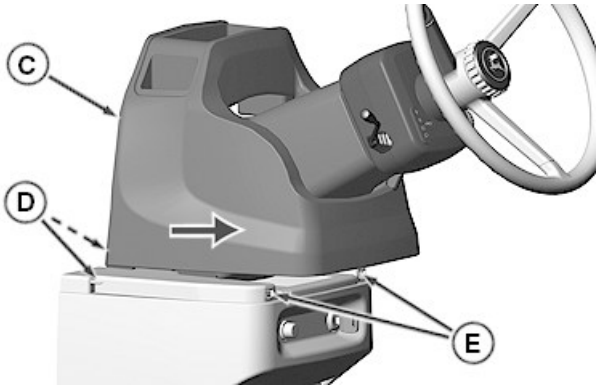
[1] -



LEGEND:

A	Tray
B	Screws (2 used)
C	Upper Cowl
D	Alignment Pins (2 used)
E	Clips (2 used)

Tray and Screws

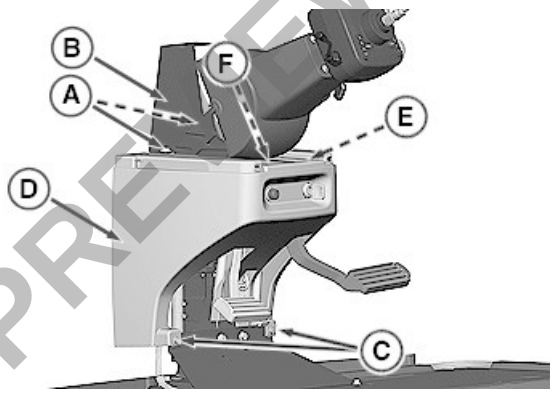


Remove Upper Cowl

Remove tray (A) and screws (B) from upper cowl (C).

[2] - Pull upper cowl (C) rearward off alignment pins (D) and clips (E).

[3] -



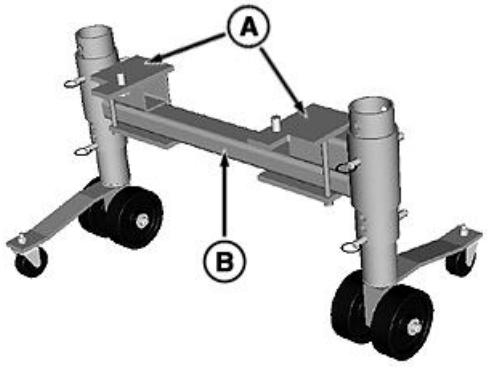
LEGEND:

A	Cap Screws (2 used)
B	Support Bracket
C	Cap Screws (2 used)
D	Lower Cowl
E	Ignition Switch Connector
F	Either Aid Switch Connector

Lower Cowl

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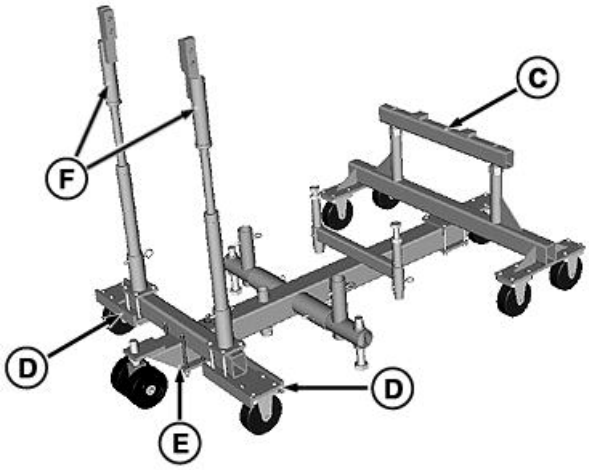
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LEGEND:

A	JT07122-6 Rear Supports
B	JT07122-1 Splitting Stand
C	JDG2061 Front Adapter
D	JT07321 Rear Support Wheels
E	JT07122-7-1 Cross Member
F	JT07122-7-2 Upright Supports

Rear Splitting Stand



Front Splitting Stand

Install JT07122-6 Rear Supports (A) on JT07122-1 Splitting Stand (B). (JT07122-1 is part of JT07122 Splitting Stand 0.) DO NOT tighten cap screws.

[42] - Install JDG2061 Front Adapter (C) on JT07122-2 Splitting Stand. (JT07122-2 is part of JT07122 Splitting Stand .) Tighten cap screws.

[43] -

IMPORTANT:

Front adapter (C) must be installed tight against plate on top of splitting stand to fit correctly on tractor.

→NOTE:

The tractor may need to be raised to allow JDG2061 Front Adapter (C) to clear accumulators.

→NOTE:

JT07122-7-1 Cross Member and JT07122-7-2 Upright Supports are part of JT07122-7 Upright Supports .

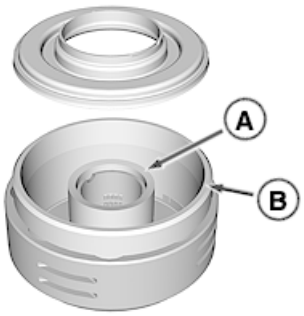
Install JT07122-7-1 Cross Member (E). DO NOT tighten cap screws.

[44] - Install JT07321 Rear Support Wheels (D). DO NOT tighten cap screws.

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Assemble Countershaft Gear/Clutch Assemblies



LEGEND:

A	JDG915-2 Piston Installer ID Guide
B	JDG915-1 Piston Installer OD Guide

Clutch Drum and Piston

→NOTE:

The three gear/clutch assemblies are assembled using the same method. Refer to Cross-Sectional View—Transmission Countershaft during assembly.

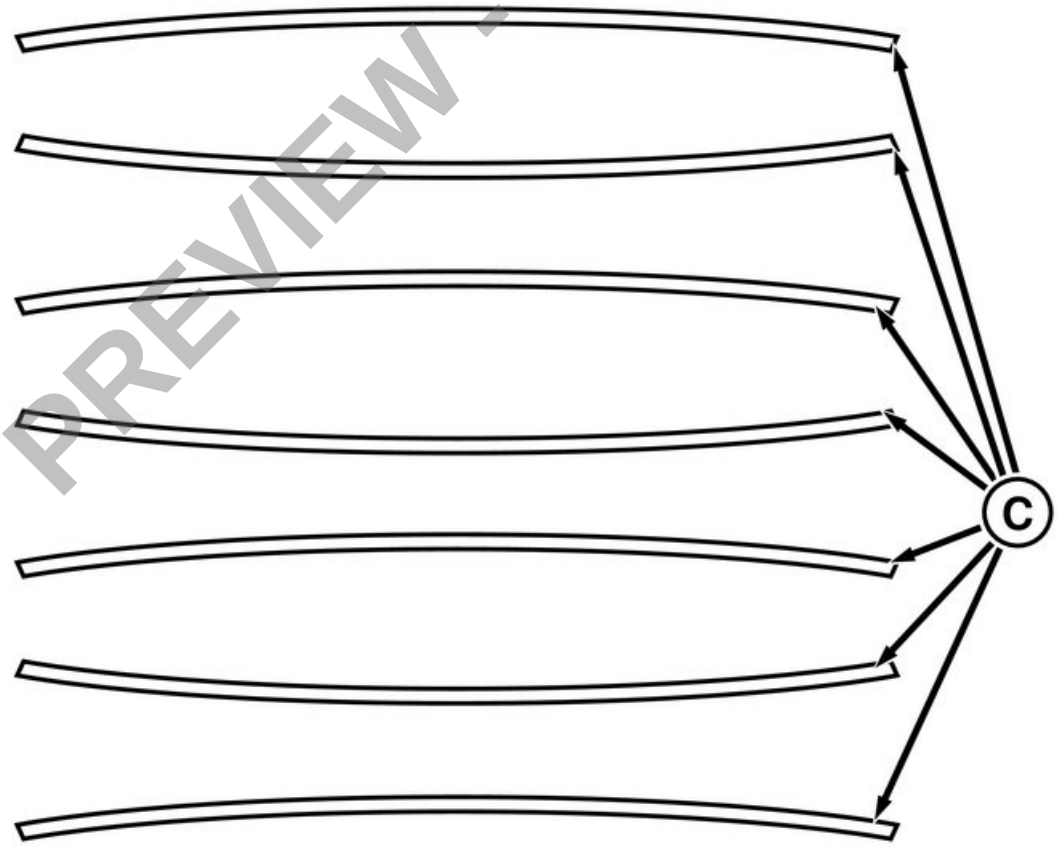
JDG915-1 and JDG915-2 are part of JDG915 Clutch Piston Installer .

[1] - Install JDG915-2 ID Guide (A) and JDG915-1 OD Guide (B) into clutch drum.

[2] - Install piston into clutch drum and remove tools.

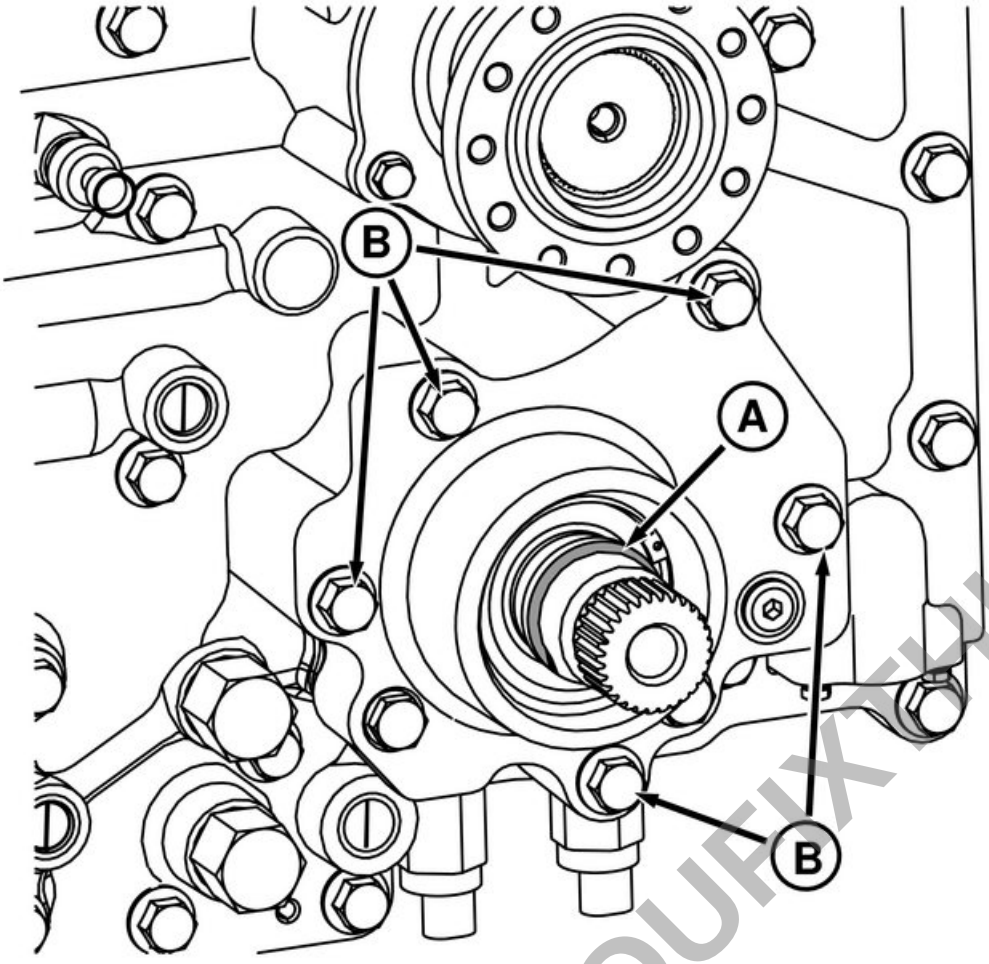
[3] -

IMPORTANT:



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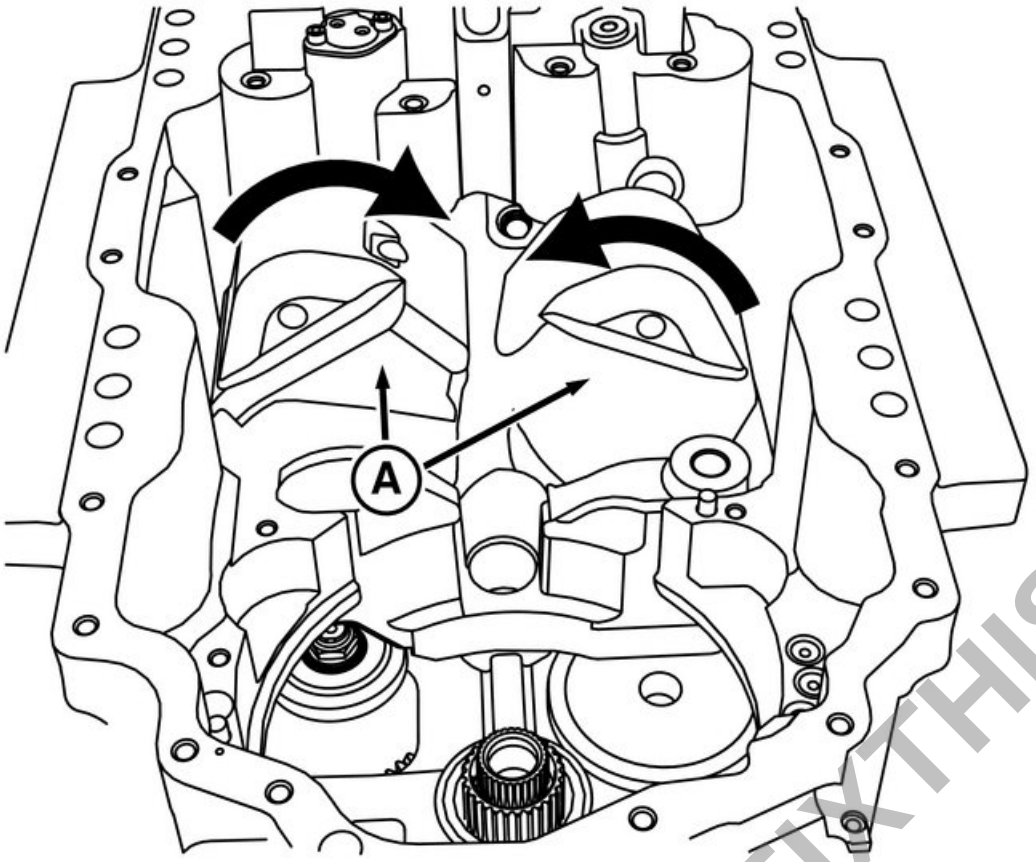
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Scavenge Pump Cover

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Hydrostatic Yokes

LEGEND:

A	Hydrostatic Yokes

Both hydrostatic yokes (A) must be swung toward center of transmission.

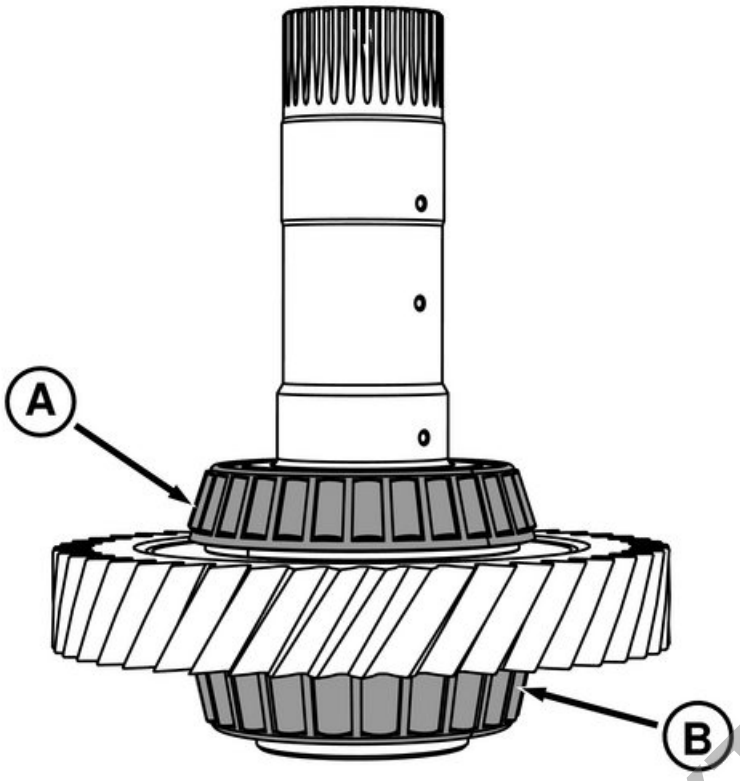
[35] -

CAUTION:

Hydrostatic Module weighs approximately 272 kg (600 lb.). Use proper lifting equipment to avoid personal injury.

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1st Sun Gear with Shaft

LEGEND:

A	Bearings (2 used)

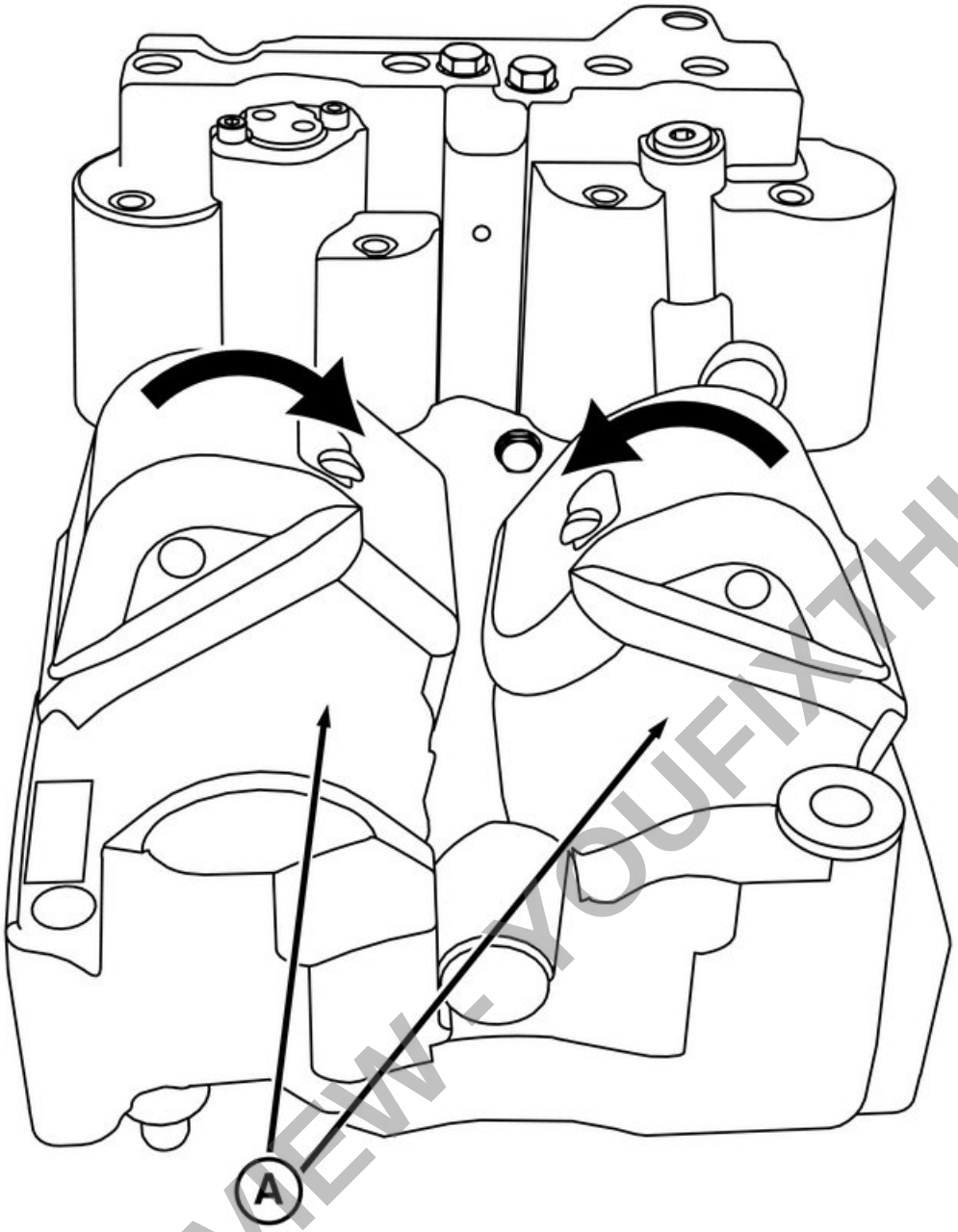
Replace bearings (A) on 1st sun gear.

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Install Hydrostatic Assembly

[1] -



Hydrostatic Yokes

LEGEND:

A	Hydrostatic Yokes

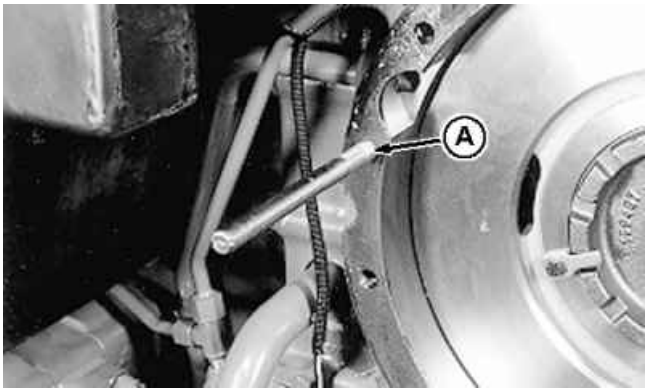
Hydrostatic yokes (A) must be positioned toward center of unit.

[2] -

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[1] -



LEGEND:

A	Pin

Final Drive Assembly Guide Pin

Clean sealing surfaces and apply PM38657 Form-in-Place Gasket to differential case and outer ring gear surfaces only.

[2] - Install DFRW98—Rear Axle Guide Pin (A).

[3] - Install ring gear on final drive assembly leaving a slight gap between final drive housing and ring gear to prevent sealant from setting prior to tightening of cap screws.

[4] -

IMPORTANT:

Always use New cap screws (A) when installing final drive assemblies.

Tighten final drive-to-differential case cap screws.

Item	Measurement	Specification
Final Drive Housing-to-Differential Case Cap Screws	Torque Turn	230 N·m + 90° 170 lb-ft + 90°

[5] -

IMPORTANT:

If a failure occurred causing contamination in the transmission, hydraulic cleanup procedure must be performed. (See Hydraulic Cleanup Procedure in Section 70, Group 05.)

Fill hydraulic system. (See Fill Hydraulic System in Section 70, Group 05.)

[6] -

→NOTE:

When closing manual drain valve, do not overtighten valve.

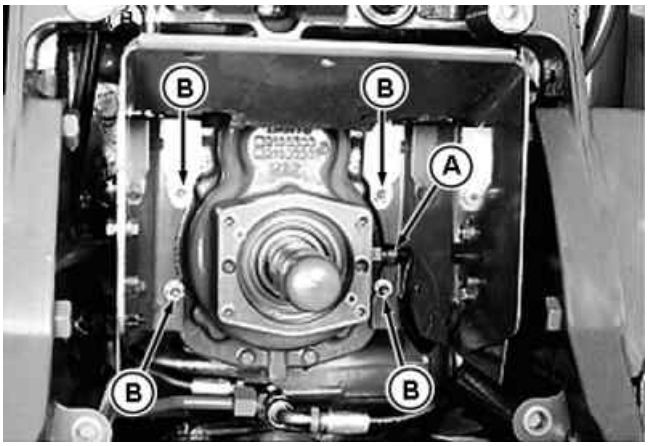
For tractors with ILS™, perform the following step: Close suspension manual drain valve and tighten jam nut.

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Remove and Install PTO Output Housing

[1] -



LEGEND:

A	Connector
B	Retaining Nuts

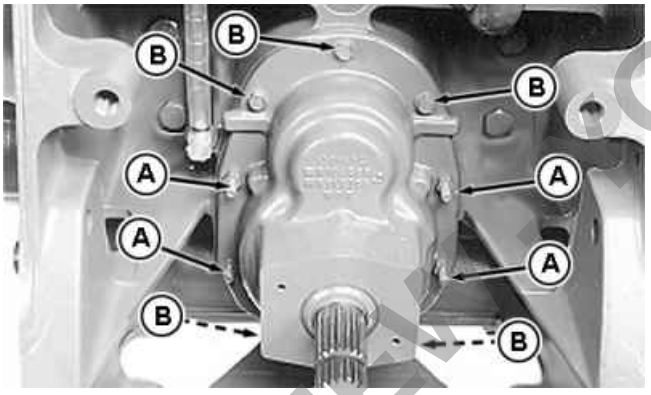
PTO Shield and Harness Connector

If equipped with optional PTO, disconnect PTO speed sensor harness connector (A).

[2] - Remove PTO shield retaining nuts (B).

[3] - Remove shield.

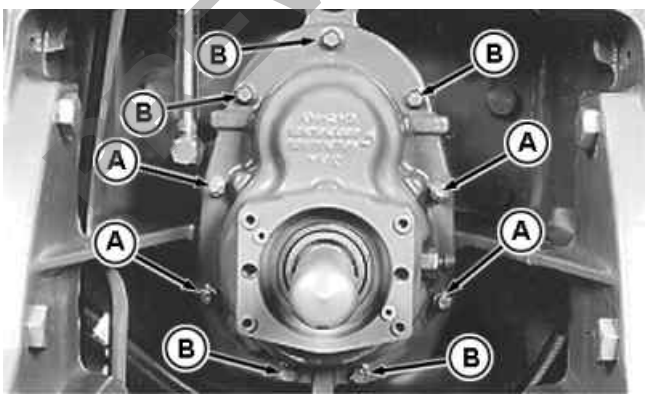
[4] -



LEGEND:

A	Cap Screws
B	Cap Screws

Standard PTO



Optional PTO

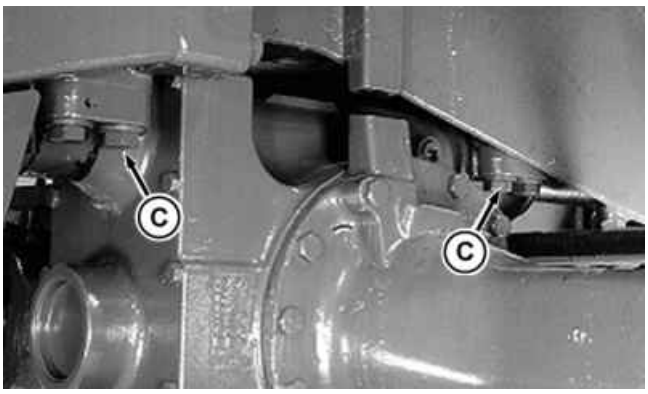
Remove housing-to-hitch frame special cap screws (A), cap screws (B), and PTO output housing assembly from hitch frame.

[5] - Clean housing flange and adjoining surface and apply PM38657

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Knuckle-Spindle Assembly



Front Axle Assembly

Disconnect and plug steering hoses (A).

[8] - Install lift straps (B) through knuckle-spindle assembly.

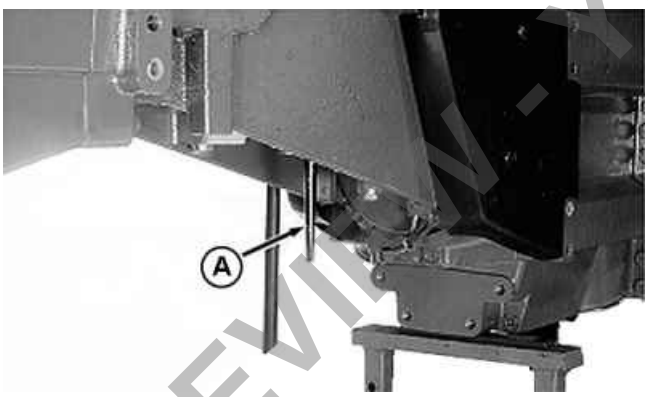
[9] - Install JDG23 Lift Sling on hoist and attach straps to lift sling.

[10] - Tighten straps near front of axle.

[11] - Remove eight axle support cap screws (C) and lower axle from under tractor.

Install MFWD Axle

[1] -



LEGEND:

A	Pilot Pins

Support Guide Pins

Install JDG768 Pilot Pins (A), one each in front and rear supports.

[2] - Install axle.

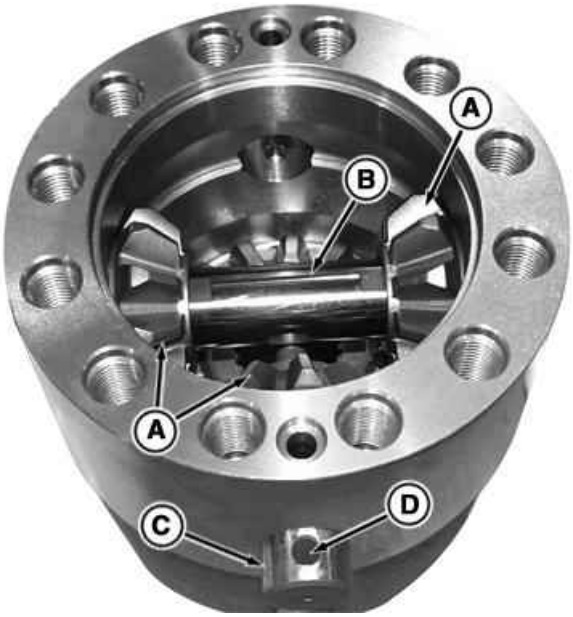
[3] - Install axle supports and tighten axle support cap screws.

Item	Measurement	Specification
Axle Support Cap Screws	Torque	610 N·m (450 lb-ft)

[4] - Tighten front fender support-to-axle cap screws.

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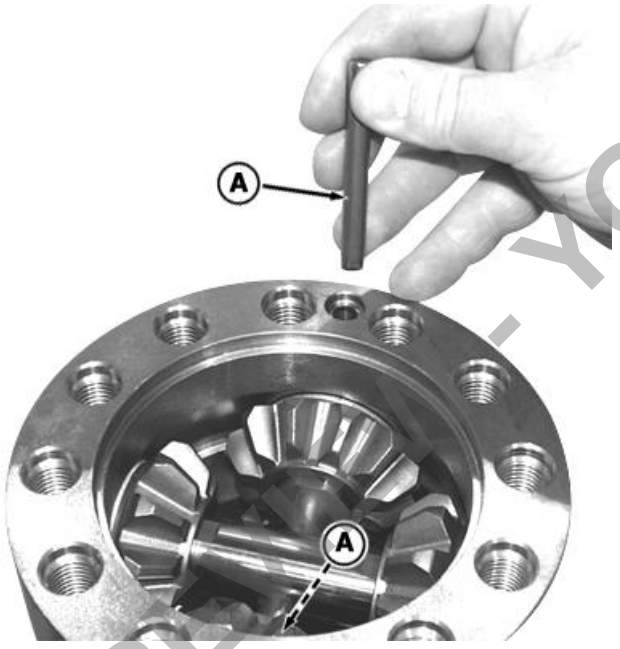
LEGEND:

A	Bevel Pinions (4 used)
B	Long Pinion Shaft
C	Short Pinion Shafts (2 used)
D	Pin Bore

Bevel Pinions and Pinion Shaft

Install bevel pinions (A), long pinion shaft (B), and short pinion shafts (C).

[8] -



LEGEND:

A	Pin

Pinion Shaft Locking Pin (2 used)

Install pinion shaft locking pins (A).

[9] -

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LEGEND:

A	Ring Gear Retainer
B	JDG10849 Spanner Wrench

Install Ring Gear Retainer

Install ring gear retainer (A) and remove axle wheel hub tool.

[17] -

IMPORTANT:

Turning wheel hub before retainer is tightened could result in damage to wheel hub seal.

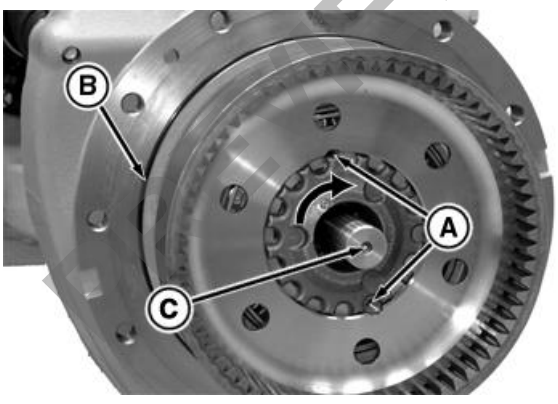
Tighten ring gear retainer (A) to 125 N˙m (92 lb-ft), using JDG10849 Spanner Wrench (B)**without turning** hub.

[18] - Tighten retainer to specification**while rotating** wheel hub continuously.

Item	Measurement	Specification
Wheel Hub Retainer (Final)	Torque	520 N˙m (384 lb-ft)

[19] - Recheck torque while rotating hub in opposite direction a minimum of six revolutions.

[20] -



LEGEND:

A	Lock Screw Holes
B	O-Ring
C	Drive Shaft

Install Retainer Lock Screw

Turn retainer clockwise to align a notch with either screw hole (A). Continue turning retainer clockwise to line up opposite hole with notch.

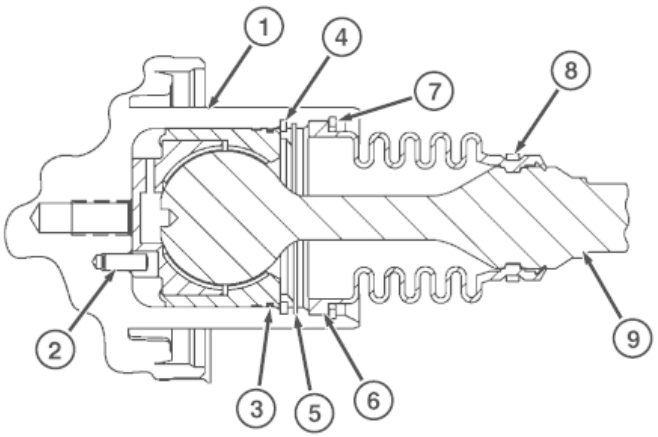
[21] - If**reusing** lock screw, apply PM37477 Thread Lock and Sealer to threaded hole for retainer lock screw.

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[7] - Check and adjust toe-in and steering stop positions. (See OPERATOR'S MANUAL for checking and adjusting procedures.)

Cross-Sectional View—Inner Tie Rod Assembly



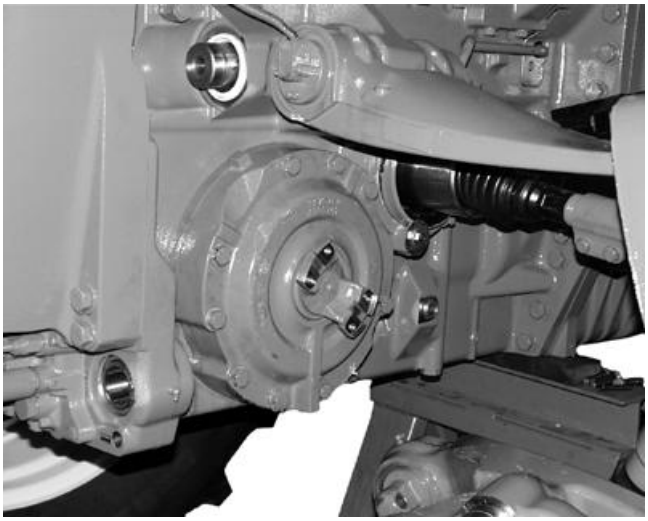
LEGEND:

1	Steering Rod
2	Steering Tie Rod Anti-Rotation Pin
3	O-Ring
4	Snap Ring
5	Snap Ring
6	Tie Rod Boot
7	Tie Rod Boot Retaining Snap Ring
8	Tie Band
9	Inner Tie Rod End Assembly

Inner Tie Rod Assembly-Cross-Sectional View

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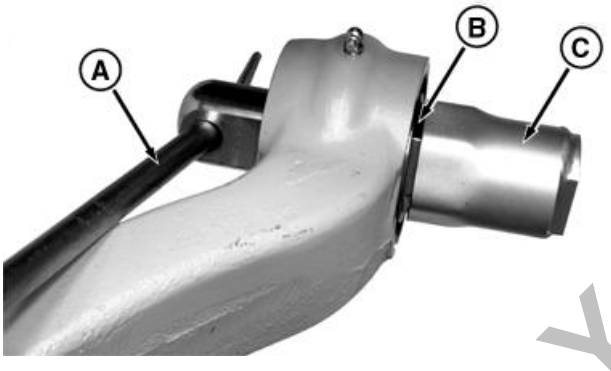
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Differential Outer Cover

Raise final drive and suspension arms out, up, and away from differential case.

[9] -



LEGEND:

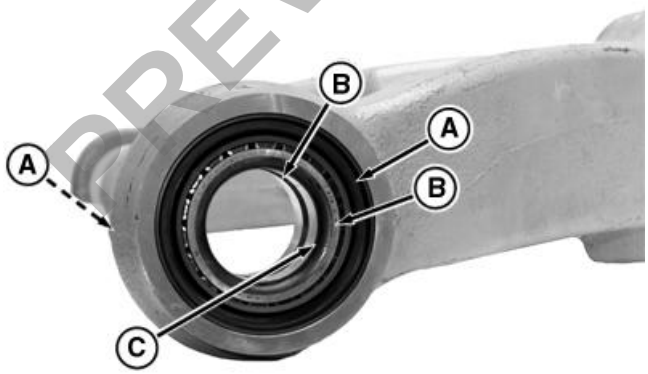
A	Prybar
B	Bearing Retainer
C	JDG1540 Socket

Remove Bearing Retainer

Use a prybar (A) to keep pivot shaft from turning and remove bearing retainer (B) using JDG1540 Socket (C).

[10] - Remove shaft from arm.

[11] -



LEGEND:

A	Grease Seals (2 used)
B	Bearing Cones (2 used)
C	Bearing Cone Spacer

Disassemble Rear Pivot

Remove grease seals (A), bearing cones (B), and bearing cone spacer (C).

[12] -

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[20] - Measure 150 mm (5.905 in) from base of preload cap screw (B) to indicator post arm and align dial indicator pointer (C) with measurement.

[21] -

→NOTE:

Refer to Backlash Shim Pack Example and Worksheet.

Move ring gear, and watch dial indicator to obtain backlash readings.

[22] - Measure backlash in three locations 120° apart.

[23] - Add the three readings and divide by three to obtain the average.

[24] - Subtract 0.28 mm (0.011 in.) from result of Step 23.

[25] - Multiply result of Step 24 by 1.25.

[26] - Subtract bearing growth factor 0.03 mm (0.001 in.) from result of Step 25.

[27] - Subtract result of Step 26 from nominal shim pack 1.50 mm (0.059 in.).

[28] - Result of Step 27 is the necessary final shim pack to establish required backlash.

Item	Measurement	Specification
Differential		
	Backlash	0.15—0.40 mm (0.006—0.016 in.)

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Steering Cylinder Retaining Nut

Remove nut (A) and remove cylinder.

[7] - Replace parts as necessary and assemble in reverse order.

Item	Measurement	Specification
Tie Rod End-to-Steering Arm Nut	Torque	150 N·m (110 lb.-ft.)
Axle-to-Knee Cap Screws	Torque	610 N·m (450 lb.-ft.)
Knee Clamp-to-Axle Cap Screws	Torque	50 N·m (36 lb.-ft.)
Steering Cylinder End Retaining Nut	Torque	200 N·m (148 lb.-ft.)

[8] - Connect hydraulic lines.

[9] - Bleed steering system. (See Bleed Steering System in this group.)

Repair Steering Cylinder



Component Technical Manual

See Component Technical Manual for 100 series hydraulic cylinder repair.

Bleed Steering System

[1] - Check hydraulic oil level.

[2] - Place transmission in PARK.

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Pressure Applications and SAE Four Bolt Flange Cap Screw Torque Values—High Pressure Applications in Section 10, Group 10.)

DO NOT overtighten flange clamps. Doing so can cause flanged head to distort allowing seal to extrude. Correctly installed clamps should provide a clearance (B) between clamp and fitting sealing surface of 0.25—0.8 mm (0.01—0.03 in.).

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LEGEND:

A	Draft Sensing Shaft
B	Lower Bushing
C	Lower Sleeve

Install draft sensing shaft (A).

[18] - Assemble lower bushing (B) into lower sleeve (C).

[19] -

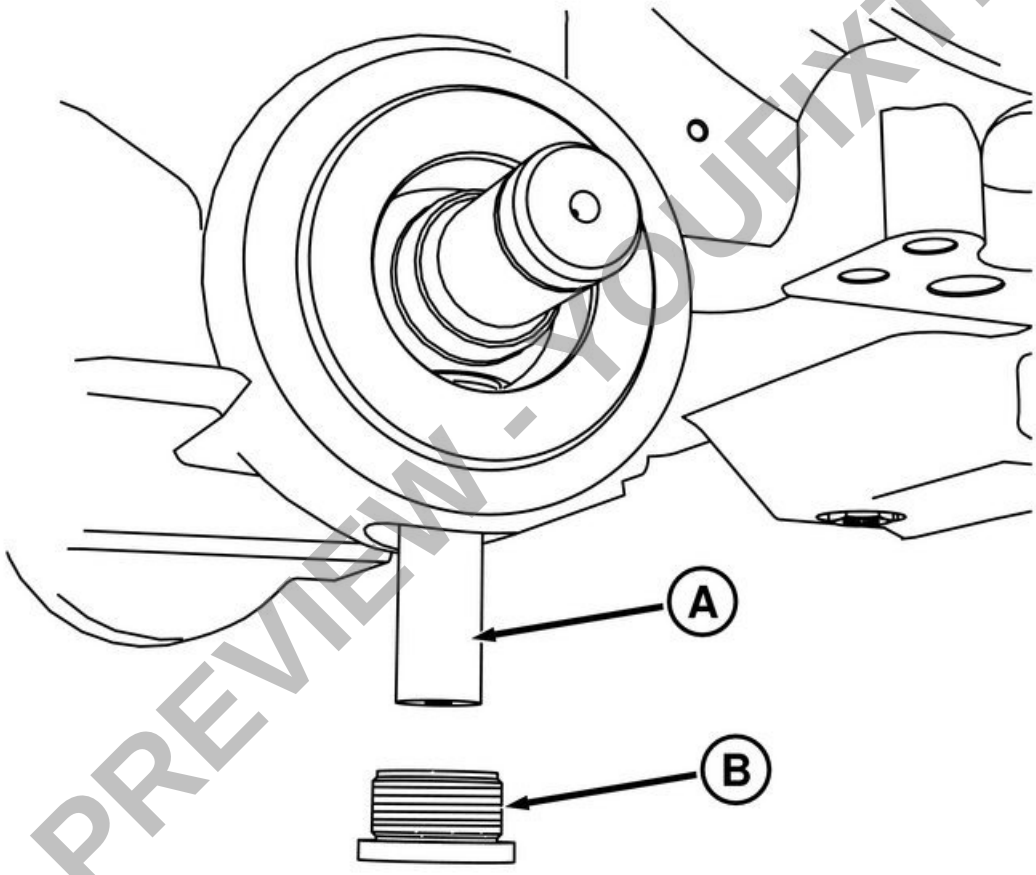
→NOTE:

Install bushing-sleeve assembly in tractor with split in bushing 90° toward rear of tractor from upper bushing.

Install assembled bushing and sleeve in lower bore from bottom side of hitch frame.

Drive lower sleeve-bushing assembly until shaft has minimum end play between upper and lower bushings.

[20] -



Pin and Plug

LEGEND:

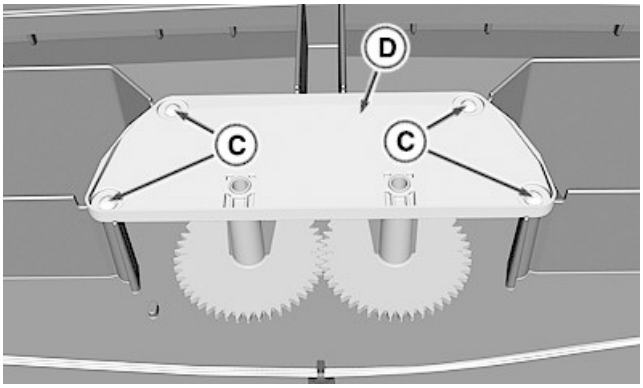
A	Pin
B	Plug

Align hole in draft sensing shaft with bore in hitch frame and install pin (A).

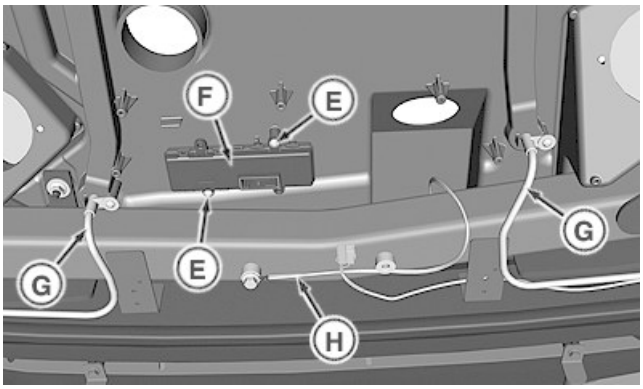
[21] - Coat threads of retaining plug (B) with PM38656 Thread Lock and Sealer (High Strength),

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Door Module



Automatic Temperature Control (ATC) Unit

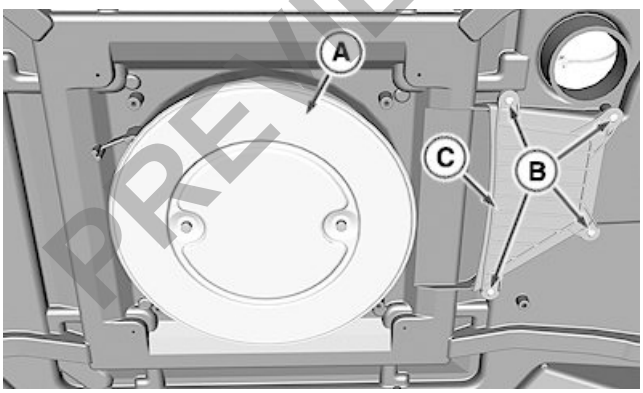
For tractors equipped with ATC, perform the following:

- Disconnect wiring harness (A) and remove blower motor speed control (B).
- Remove screws (E) and ATC unit (F).

[34] - For all tractors, perform the following:

- Remove screws (C) and air flow mode control doors (D).
- Remove drain hoses (G) and ground wire (H).

[35] -



LEGEND:

A	Cab Recirculation Filter
B	Screws (4 used)
C	Cover

Cab Recirculation Filter

Remove cab recirculation filter (A), screws (B), and cover (C).

[36] -

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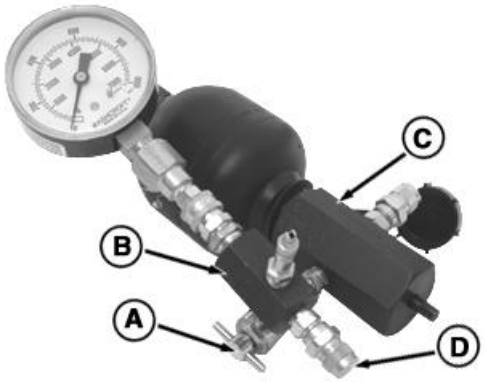
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[6] -

→NOTE:

JT03515-1 and JT03515-2 are part of JT03515 Accumulator Charging Set

→NOTE:



Valve Stem Depressor & Bleed-Off Screw

LEGEND:

A	Valve Stem Depressor
B	JT03515-1 Accumulator Pressure Checking and Charging Adapter
C	JT03515-2 Accumulator Adapter
D	Bleed-Off Screw

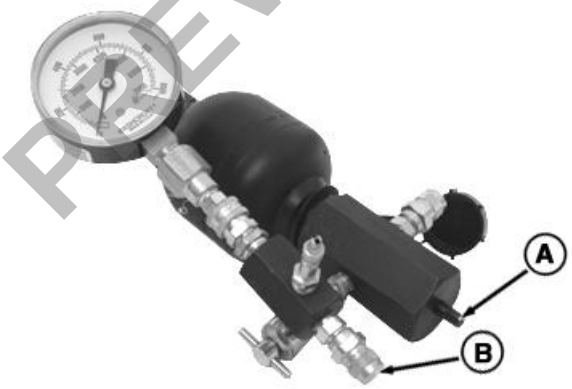
Valve stem depressor (A) must be completely backed out. Minimum pressure range of gauge should be approximately twice the accumulator pressure specification.

Back out (counterclockwise) valve stem depressor (A) and install JT03515-1 Accumulator Pressure Checking and Charging Adapter (B) to valve stem of accumulator adapter (C).

Install 7000 kPa (70 bar) (1000 psi) gauge to check accumulator.

[7] - Close bleed-off screw (D).

[8] - Turn in (clockwise) valve stem depressor (A).



LEGEND:

A	Hex Stem
B	Bleed Screw

Hex Screw and Bleed Screw

[9] - Determine outer temperature of accumulator.

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JDG884 MFWD Drive Shaft Holding Tool

JDG885 Seal Installer

JDG888 MFWD Clutch Plate Compressor

JDG890A Planetary Carrier Lifting Tool

JDG909 Lifting Eyes

JDG915 Clutch Piston Installer

JDG929 Seal Remover and Installer Set

JDG930 Driver Disk (152 mm or 6 in.)

JDG931 Driver Disk (178 mm or 7 in.)

JDG932 Driver Disk (162 mm or 6-3/8 in.)

JDG933 Driver Disk (137 mm or 5-3/8 in.)

JDG983 Snap Ring Expander Tool

JDG1123 Driver Disk

JDG1198 Bearing Installer

JDG1211 Bushing Installer Pilot

JDG1212 Bushing Remover

JDG1216 Ring Gear Holding Tool

JDG1218A Seal Installer

JDG1219B Seal Installer

JDG1220 Spacer Installer

JDG1222 Puller Jaws

JDG1251 Axle Support Bracket

JDG1252 Differential Housing Tool Set

JDG1253 Spanner Socket

JDG1254 Seal Installer

JDG1255 Slinger-Seal Installer

JDG1272 Bushing-Seal Installer

JDG1353 Check Valve Removal Tool

JDG1356 Seal Installer

JDG1369 Terminal Extractor Tool

JDG1371 Clutch Piston Installer Tools

JDG1424 Support Block

JDG1494 Rear Axle Lifting Tool

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