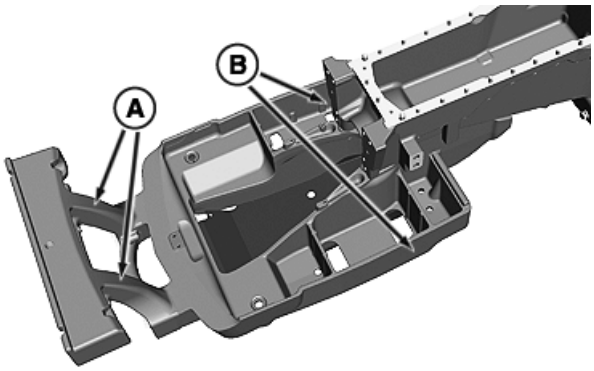
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Remove Front Frame

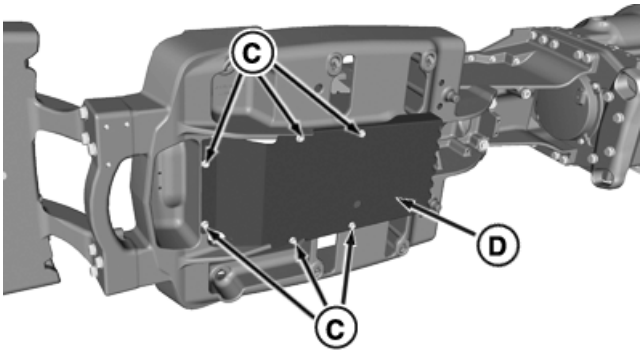
[1] -



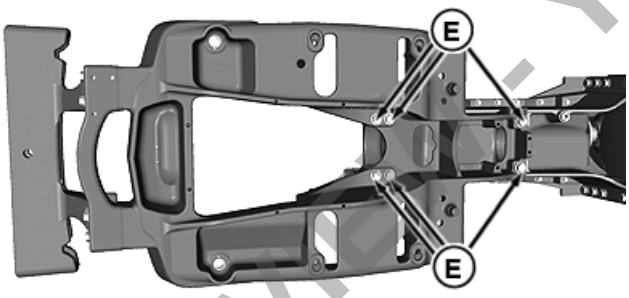
LEGEND:

A	Front Weight Support
B	Front Support
C	Deflector Shield Cap Screws (6 used)
D	Deflector Shield
E	Front Support Cap Screws (6 used)

Front Support



Deflector Shield



Support Cap Screws

Drain engine oil.

[2] - Remove engine. (See Remove Engine in this group.)

[3] - Remove front weights, if equipped.

[4] - Attach chains or straps to front weight support (A), front support (B), and hoist.

[5] - Remove deflector shield cap screws (C) and deflector shield (D).

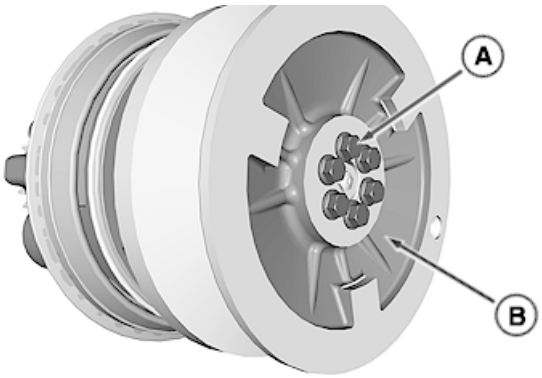
[6] - Remove front support cap screws (E).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[38] - Install cap screw or vent (A).

[39] -



LEGEND:
A Outside Half Sheave Cap Screws (6 used)
B Outside Half Sheave

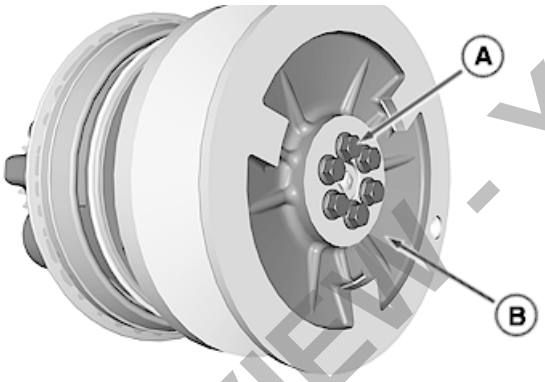
Outside Half Sheave

Install outside half sheave (B) and outside half sheave cap screws (A). Tighten to specification.

Item	Measurement	Specification
Outside Half Sheave Cap Screws	Torque	37 N·m (27 lb.-ft.)

[40] - Fill fan drive. (See Check and Fill Vari-Cool™ Fan Sheaves in this group.)

[41] - Install fan drive assembly. (See Remove and Install Vari-Cool™ Drive Assembly in this group.)



LEGEND:
A Outside Half Sheave Cap Screws (6 used)
B Outside Half Sheave

Outside Half Sheave

Late Version

[1] - Remove cap screws (A) and outside half sheave (B).

[2] -

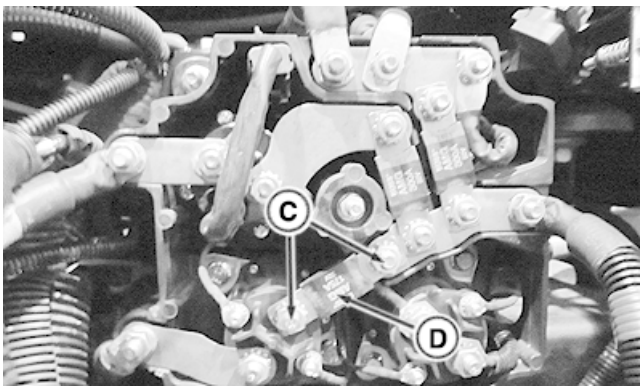
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Replace Starting Aid Solenoid 91
Replace Sensors e23™ Transmission 93
Replace Solenoids e23™ Transmission 94
Replace Park Supply Solenoid (e23™) 94
Replace Park Sump Block Solenoid (e23™) 95
Replace MFWD Solenoid (e23™) 95
Replace Range Clutch R1 and R2 Solenoids (e23™) 97
Replace Oil Cooler Bypass Solenoid (e23™) 97
Replace Lube Prioritization Valve Solenoid (e23™) 98
Replace Sensors and Solenoids PST Transmission 98
Replace Electrohydraulic Shift Valve Solenoids (PST) 99
Replace Park Brake Release Solenoid (PST) 99
Replace MFWD Solenoid (PST) 100
Replace Sensors IVT™ Transmission 102
Replace Solenoids IVT™ Transmission 103
Replace Clutch Enable Solenoid (IVT™) 103
Replace MFWD Solenoid (IVT™) 104
Replace Park Supply Solenoid 104
Replace Park Sump Block Solenoid (IVT™) 105
Replace Hydro Clutch Unit Solenoid (IVT™) 105
Replace Ring Unit Hydro Control Solenoid (IVT™) 106
Replace Loop Flush Cut Off Solenoid (IVT™) 106
Replace PTO Solenoid 107
Replace Differential Lock Solenoid 107
Replace Engine Oil Pressure Switch 108
Replace Differential Lock Switch 109
Replace Cab Door Light Switch 110
Replace Starting Aid Switch 111
Replace Ignition Switch 116
Replace Key Immobilizer 121
Replace Seat Raise-Lower Switch 125
Replace Seat Firmness Switch—ActiveSeat™ 127
Replace Heated Seat Switch 129
Replace Operator Presence Seat Switch 130
Replace Hydraulic Oil Filter Restriction Switch 131
Replace Ethernet Switch 132
Replace Battery Disconnect Switch 133
Replace External Hitch Raise-Lower Switches 135
Replace Air Conditioning Dual Pressure Sensor 136
Replace Air Conditioning Temperature Sensor 136
Replace Air Conditioning Motor Speed Control 137
Group 25 - Monitoring System 139
List of References 139
Essential, Recommended, and Fabricated Tools 40—25 140
Specifications 40—25 141
Other Material 40—25 141
General Information 40—25 142
Disconnect Electrical Circuit 142
Control Units Identification 143
Replace Control Units 145
Replace Navigation Bar 146
Replace Engine Coolant Temperature Sensor 147
Replace Engine Coolant Level Sensor 147

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



LEGEND:

A	Nuts (2 used)
B	Hydraulic Backup Pump Fuse

Hydraulic Backup Pump Fuse

Remove nuts (C) and hydraulic backup pump fuse (D) from both posts.

[7] -

IMPORTANT:

Hydraulic backup pump fuse (175 Amp) has been specifically designed for this application. Do not substitute. Damage can result to the electrical system.

Inspect and replace parts as necessary.

[8] - Install in reverse order. Tighten to specification.

Item	Measurement	Specification
Hydraulic Backup Pump Fuse Nut-to-Electrical Bus Bar Post and Hydraulic Backup Pump Relay Post	Torque	20 N·m (177 lb.-in.)
Step Cap Screws	Torque	87 N·m (64 lb.-ft.)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[4] - Remove sensor retainer (A) and sensor. Plunger should move smoothly and voltage readings should show no sudden changes or hesitation.

Item	Measurement	Specification
Draft Sensing Sensor Voltage	Plunger Fully Extended	0.7 to 0.9 V
	Plunger Fully Retracted	4.1 to 4.3 V

[5] - ADJUST DRAFT SENSING SENSOR

- Install DFRW65 Tap-Out Harness to potentiometer harness.

[6] - Using a voltmeter, adjust sensor adjustment screw (C) until correct voltage is obtained.

Item	Measurement	Specification
Draft Sensing Sensor	Voltage Adjustment Range	2.0—2.3 V

[7] - Tighten adjustment screw lock nut (B) to specification and verify correct voltage.

Item	Measurement	Specification
Draft Sensing Adjustment Screw Lock Nut	Torque	25 N·m (221 lb.-in.)

[8] -

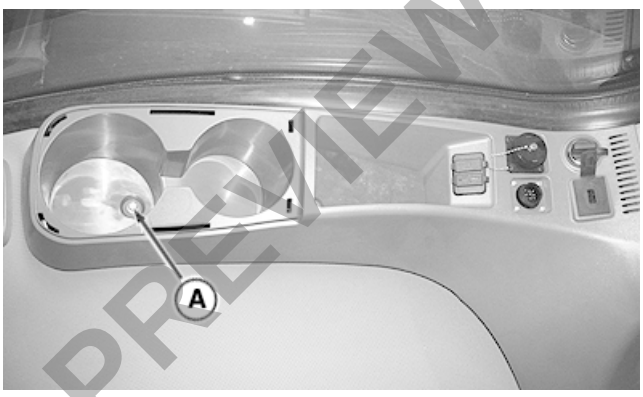
→NOTE:

After a few seconds, value will change automatically to value of HCC 005/006. This will rewrite draft sensor setting to hitch control software.

Draft sensor has been adjusted to above voltage range. Access address HCC 026 and enter the value ´0´.

[9] - Calibrate hitch. (See Diagnostic Technical Manual—Section 245, Group HCC.)

Replace Gyroscope Sensor



Cup Holder Screw

LEGEND:

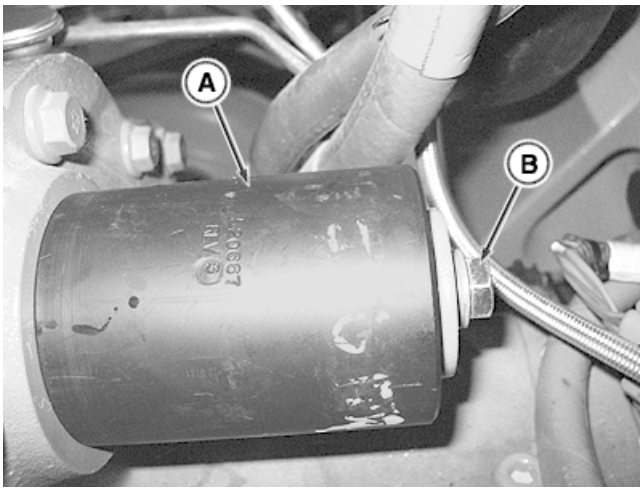
A	Screws (3 used)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[5] - Remove seal.

[6] -



LEGEND:

A	JDG1758 Seal Installer
B	Drive Pulley Cap Screw

JDG1758 Seal Installer

Use JDG1758 Seal Installer (A) and a drive pulley cap screw (B) to install new seal.

[7] - Place hub and pulley on end of shaft.

[8] - Use cap screw and washer to push pulley and hub into place. Tighten drive pulley cap screw (B) to specification.

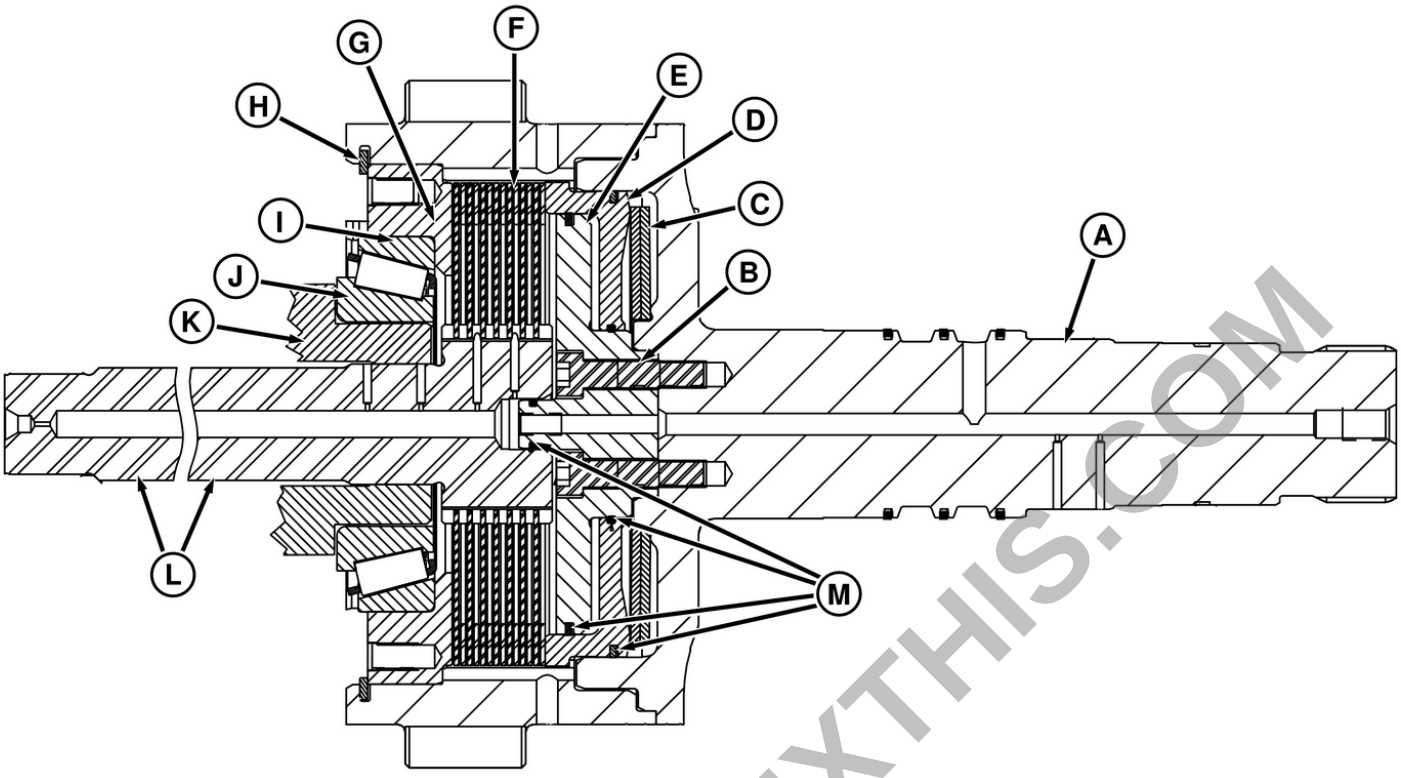
Item	Measurement	Specification
Drive Pulley Cap Screw	Torque	125 N·m (92 lb.-ft.)

[9] - Install belt and shields.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Cross Sectional View—MFWD/ILS™ Clutch—IVT™



Cross Sectional View - MFWD/ILS™ Clutch

LEGEND:

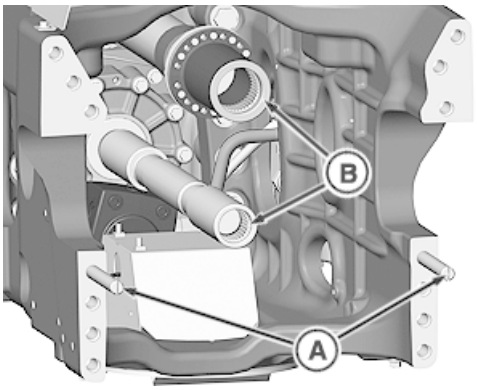
A	Output Shaft to Rear Differential
B	Socket Head Screws (2 used)
C	Springs (2 used)
D	Clutch Piston
E	Piston Retainer
F	Clutch Pack
G	Support Plate
H	Retaining Ring
I	Bearing Cup
J	Bearing Cone
K	Reverse Brake Housing
L	Output Shaft to MFWD/ILS™
M	Seals (3 used)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Install Transmission—e23™

[1] -



LEGEND:
A DFRW231 Guide Pins (2 used)
B O-rings (2 used)

Mid-Frame Pilot Pins

Install two DFRW231—Guide Pins (A) in mid-frame.

[2] - Replace O-rings (B) in drive shafts.

[3] - Attach hoist to JT07201A Transmission Lifting Fixture.

[4] - Install fixture on transmission using cap screws and spacers from JDG1760 Spacer Kit on front cap screws.

[5] - Raise transmission, rotate 90°, and install from left-hand side.

[6] - Align drive shafts with transmission and install transmission to mid-frame. Tighten transmission-to-mid-frame cap screws to specification .

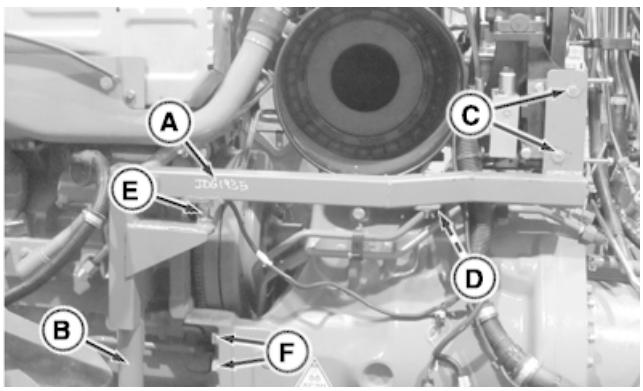
Item	Measurement	Specification
Transmission-to-Mid-Frame Cap Screws [Zinc-Flake Coated]	Torque	490 N·m (361 lb.-ft.)

[7] - Remove JT07201A Transmission Lifting Fixture and cap screws.

[8] - Install remaining transmission-to-mid-frame cap screws. Tighten to specification.

Item	Measurement	Specification
Transmission-to-Mid-Frame Cap Screws [Zinc-Flake Coated]	Torque	490 N·m (361 lb.-ft.)

[9] -



LEGEND:
A JDG1935 Auxiliary Drive Support
B Upright Support
C Cap Screws (2 used)
D Bracket
E Lifting Screw
F Cap Screws (10 used MFWD) (16 used ILS)

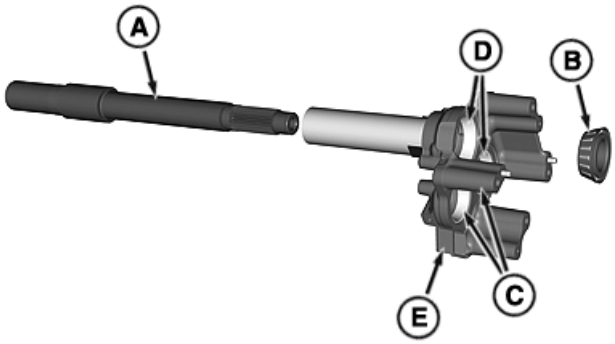
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[21] - Install **NEW** seal ring (D).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



LEGEND:

A	Front PTO Drive shaft
B	Bearing
C	Bearing Cups (2 used)
D	Bearing Cup
E	Front PTO Bearing Support

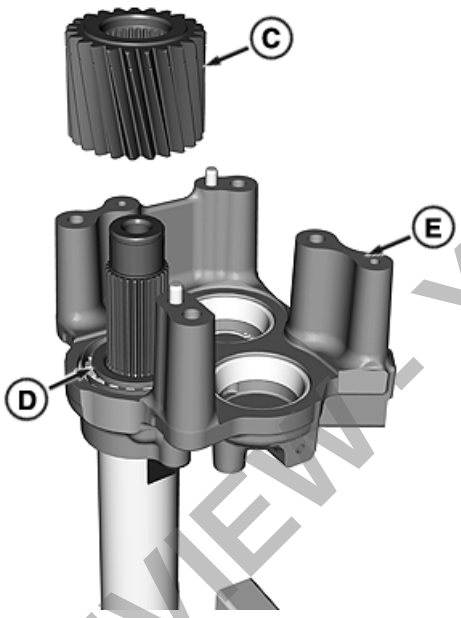
Front Shaft

Remove bearing (B) from front PTO drive shaft (A).

[20] - Inspect and replace front PTO drive shaft (A) as necessary.

[21] - Replace bearing cups (C and D) in front PTO bearing support (E).

[22] -



LEGEND:

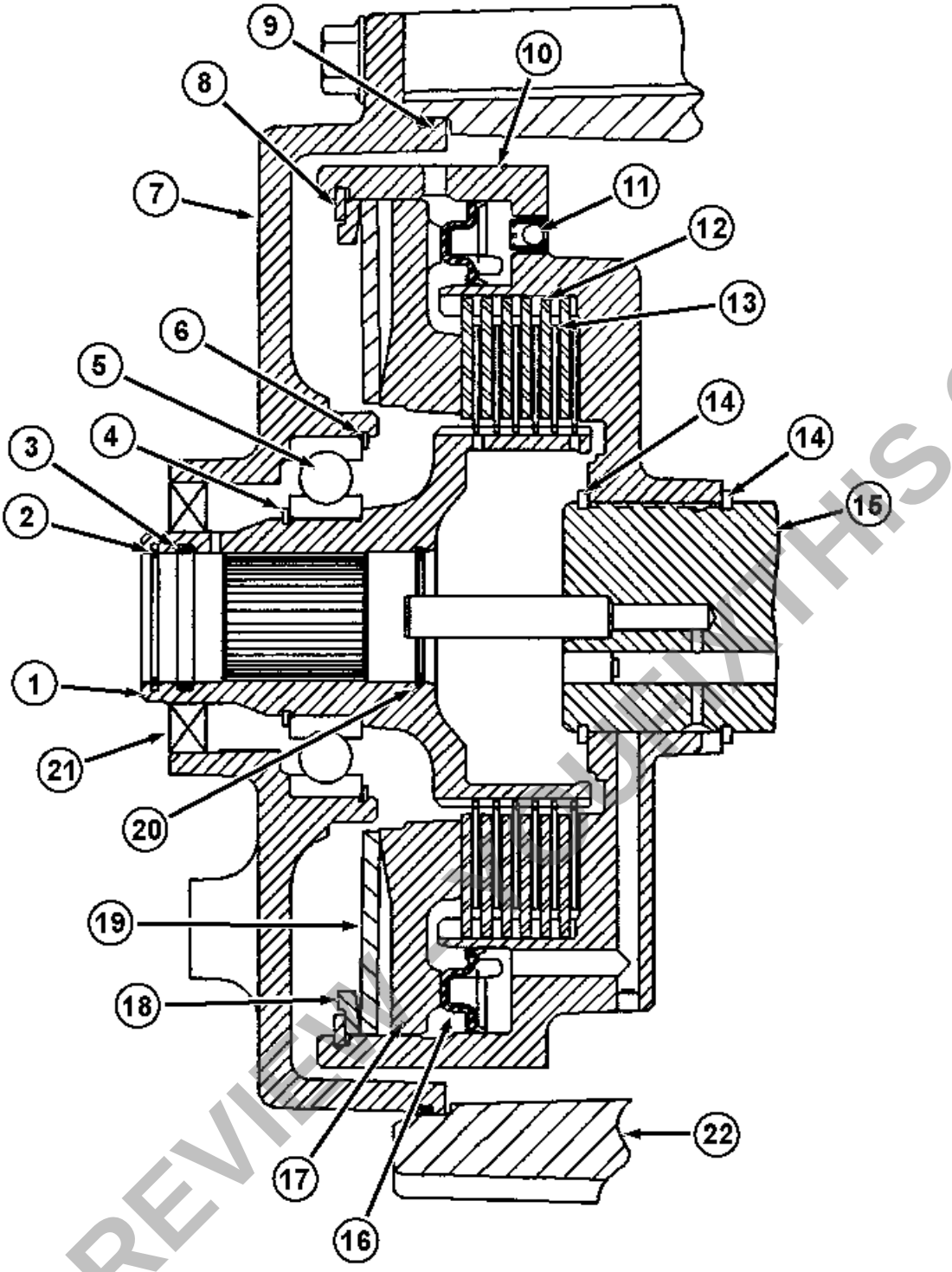
A	Snap Ring
B	Bearing
C	Front PTO Helical Gear
D	Bearing
E	Front PTO Bearing Support

Front PTO Helical Gear

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Cross-Sectional View—MFWD Clutch Assembly (Without ILS™)—PST



PREVIEW ONLY - UFIXTHIS.COM

MFWD Clutch Assembly without ILS™

LEGEND:

1	Hub
2	Retaining Ring
3	O-ring Packing
4	Snap Ring
5	Roller Bearing
6	Snap Ring
7	Cover
8	Snap Ring
9	O-ring Packing
10	Drum
11	Piston Dump Ball

Download full manual at ufixthis.com

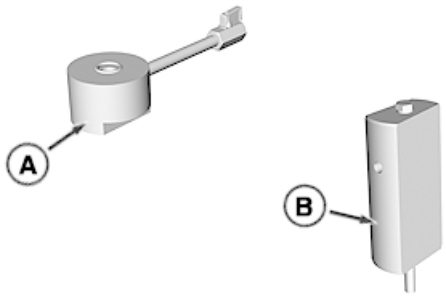
Place clutch drum into press and install seven return springs (A) alternately, starting with outer diameter against piston.

[42] - Install JDG754 Spring Compressor (C).

[43] - Compress springs, install snap ring (B), and remove tool.

[44] -

→NOTE:



Clutch Assembly Tool

LEGEND:

A	JDG855-3 Manifold
B	JDG855-5 Handle

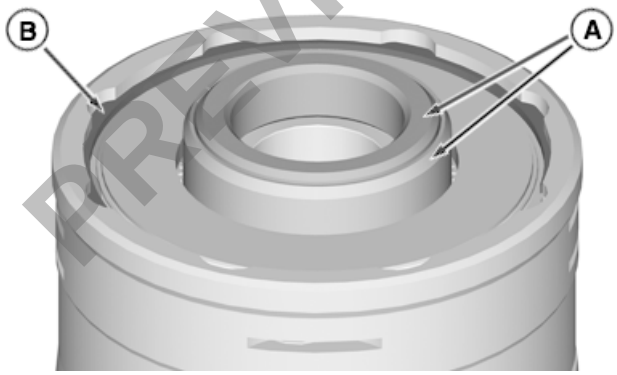
JDG855-1 through JDG855-5 are part of JDG855 Clutch Assembly Tool.

Assemble JDG855-3 Manifold (A) with JDG855-5 Handle (B).

[45] - Put tool on floor or a low bench and connect an air hose to tool.

[46] - Install clutch assembly in position on clutch assembly tool.

[47] -



LEGEND:

A	JDG850 Clutch Disk Guide Tool
B	Snap Ring

C-Clutch and Clutch Disk Guide

Install JDG850 Clutch Disk Guide Tool (A) on clutch drum.

[48] - Install seven drive plates and seven disks alternately, starting with a plate against piston.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

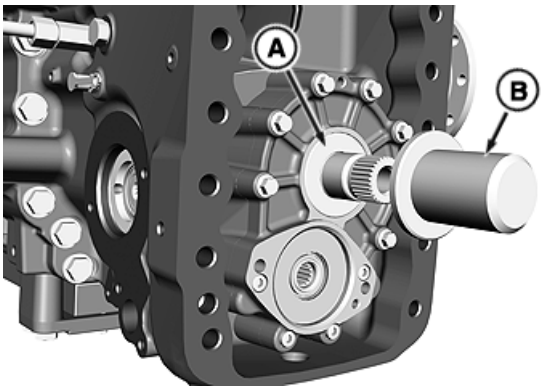
[5] - Clean and apply PM38657 High Flex Form-In-Place Gasket to pump cover (B).

Number	Name	Use
• PM38657 (us) • PM38628 (canadian)	Loctite™ High Flex Form-In-Place Gasket	Used to seal surfaces.

[6] - Install pump cover (B), pump cover socket head cap screws (C), and pump cover cap screws (D). Tighten to specification.

Item	Measurement	Specification
Pump Cover Cap Screws	Torque	70 N·m (52 lb.-ft.)

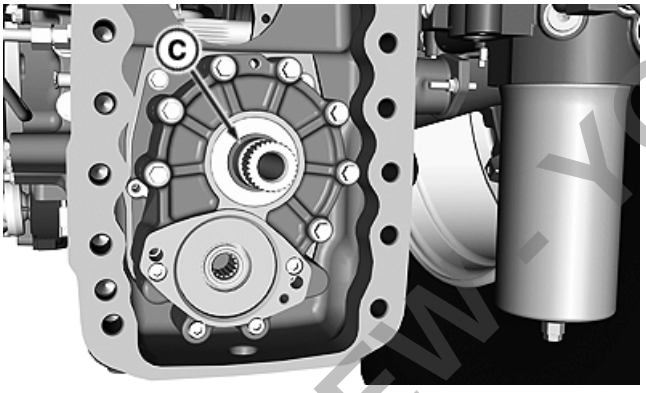
[7] -



LEGEND:

A	Oil Seal
B	JDG851 Seal Installer
C	V-ring Seal

Oil Seal



V-ring Seal

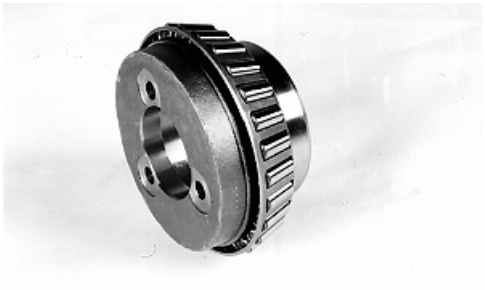
Apply PM38657 High Flex Form-In-Place Gasket to outside diameter of oil seal (A) and install using JDG851 Seal Installer (B).

Number	Name	Use
• PM38657 (us) • PM38628 (canadian)	Loctite™ High Flex Form-In-Place Gasket	Used to seal surfaces.

[8] - Install V-ring seal (C).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PTO Clutch Rear Bearing Cone

Remove retainer and rear bearing cone from differential case.

[10] -

→NOTE:

Driver disk is part of D01045AA Disk Set.

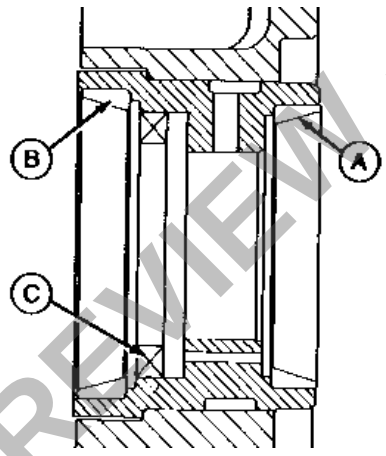
Remove bearing cone from retainer using a knife-edge puller and an 81 mm or 3-3/16 in driver disk.

[11] - Heat bearing and install on retainer.

[12] -

→NOTE:

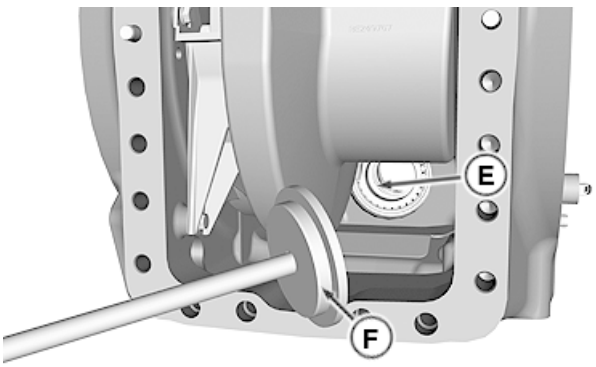
Driver disk is part of D01045AA Disk Set.



LEGEND:

A	Front Bearing Cup
B	Rear Bearing Cup
C	Oil Seal
D	JDG883 Seal Installer
E	Bearing Support
F	JDG236 Bearing Installer

Bearing Support



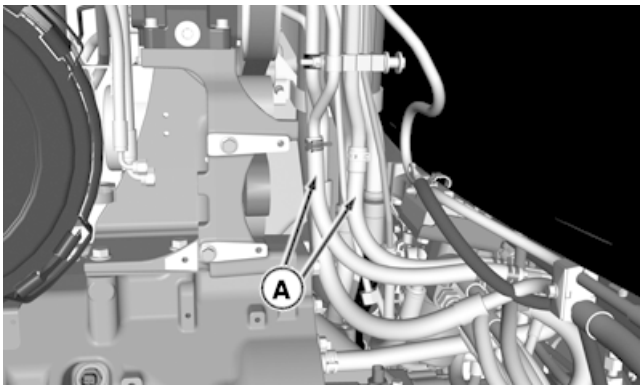
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Fuel Return and Fan Drive Supply

Connect fan drive supply line (B) and fuel return hose (A).

[89] -

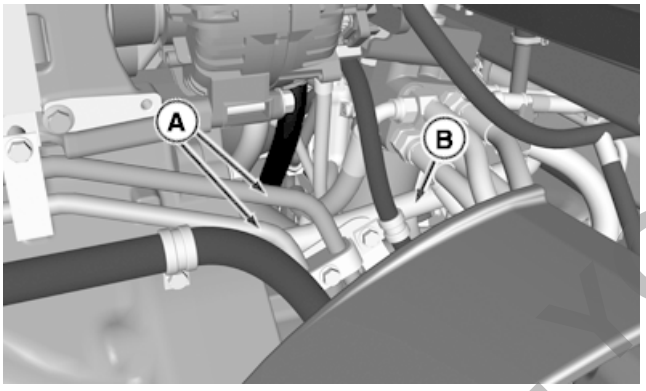


LEGEND:
A Heater Hoses (2 used)

Heater Hoses

Install heater hoses (A).

[90] -

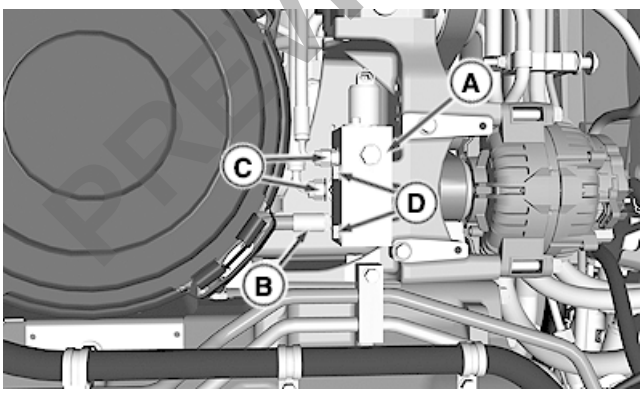


LEGEND:
A Steering Lines (2 used)
B Vent Hose

Steering Lines and Vent Hose

Connect vent hose (B) and steering lines (A).

[91] -



LEGEND:
A Fan Drive Control Valve
B Line
C Lines (2 used)
D Fan Drive Control Valve Cap Screws (2 used)

Fan Drive Control Valve

Install fan drive control valve (A) using fan drive control valve cap screws (D). Tighten to specification.

Item	Measurement	Specification
Fan Drive Control Valve Cap Screws	Torque	37 N·m (27 lb.-ft.)

PREVIEW - YOUFIXTHIS.COM

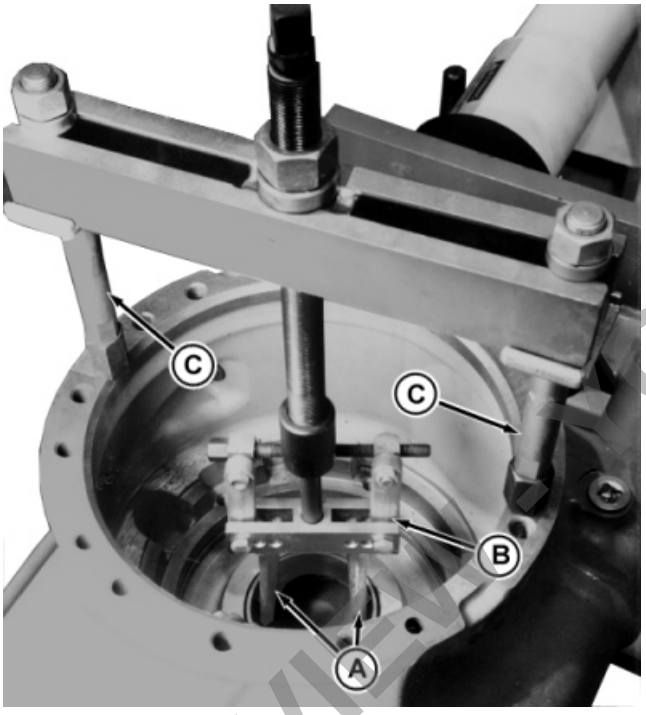
Download full manual at youfixthis.com



LEGEND:

A	JDG1222 Puller Jaws
B	Internal Puller
C	Legs (2 used)

Puller Jaws and Internal Puller



Bearing Cup Removal

Install JDG1222 Puller Jaws (A) to internal puller (B).

[5] - Remove bearing cup from left-hand axle housing using push-puller with 4-1/2 in. legs (C) and internal puller with JDG1222 Puller Jaws.

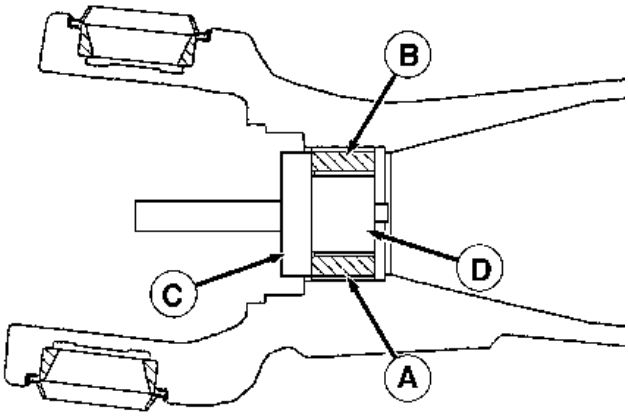
[6] -

→NOTE:

JDG1217-4 is part of JDG1252 Differential Housing Tool Set

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



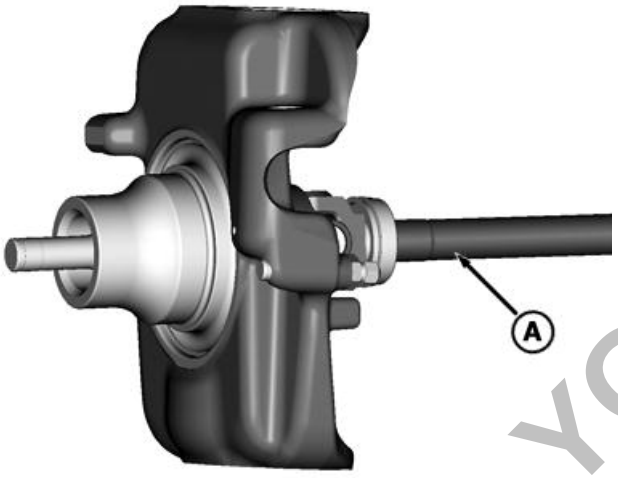
LEGEND:

A	Bushing
B	Spacer
C	Driver Disk
D	JDG1211 Bushing Installer Pilot

Bushing, Spacer, and Driver Disk

Install bushing (A) flush with spacer (B) using a 76 mm (3 in.) driver disk (C) and JDG1211 Bushing Installer Pilot (D).

[20] -



LEGEND:

A	U-joint Axle Shaft

U-joint Axle Shaft

Remove U-joint axle shaft (A) from knuckle spindle housing.

[21] -

→NOTE:

Ensure not to scratch housing.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Planet Pinions

Make alignment marks on planet pinions, retainers, and carrier making sure parts are installed in their original locations.

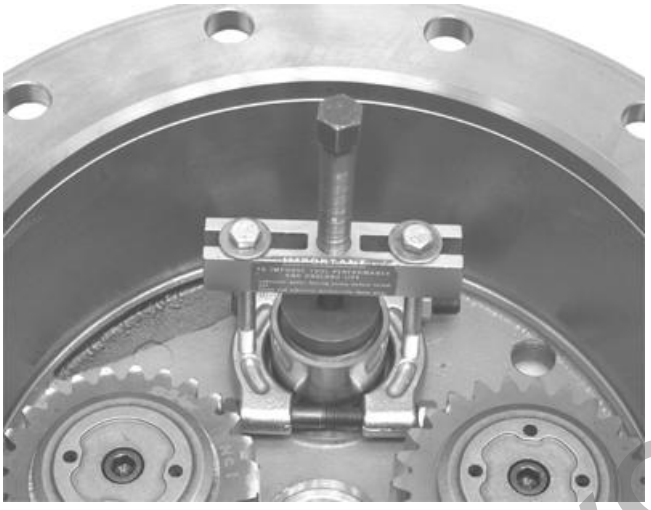
[13] - Remove cap screws (A) and retainers (B).

[14] - Remove planet pinions, needle bearings, and thrust washers.

[15] -

→NOTE:

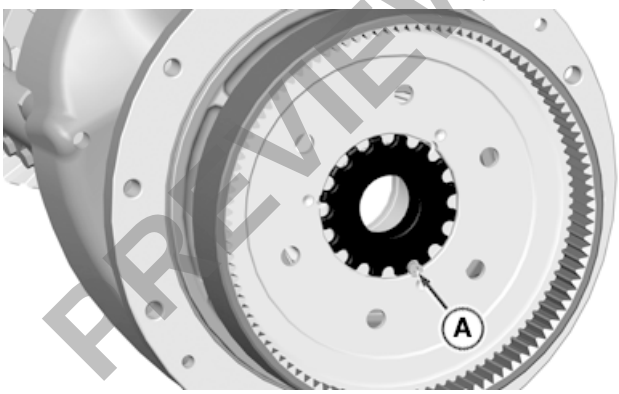
Driver disk is part of D01045AA Disk Set.



Remove Bearing Race

Remove needle bearing inner race using a puller and 49 mm (1-15/16 in.) disk.

[16] -



LEGEND:

A	Lock Screw

Retainer Lock Screw

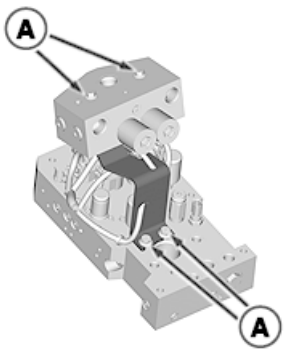
Remove lock screw (A).

[17] -

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Repair Valve Housing With FPTO—ILS™



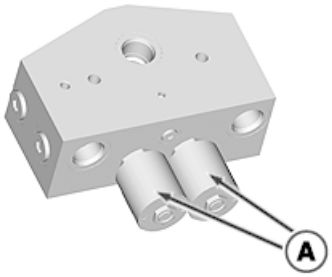
LEGEND:

A	Cap Screws (4 used)

ILS™ Damping Valve Mounting Cap Screws

[1] - Remove cap screws (A).

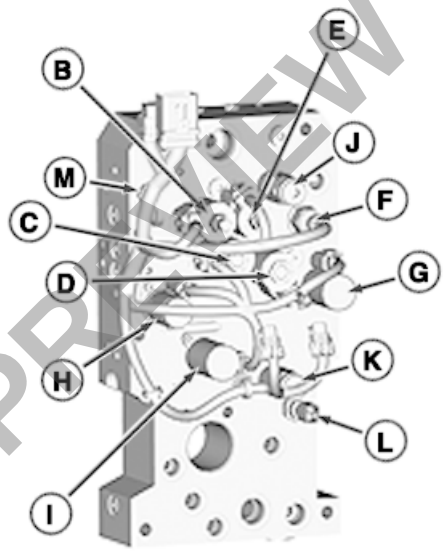
[2] -



ILS™ Damping Valve

LEGEND:

A	Dampening Solenoid Valves (2 used)
B	Lower Solenoid Valve
C	Raise Solenoid Valve
D	Spring Rate Increase Solenoid Valve
E	Spring Rate Decrease Solenoid Valve
F	Spring Rate Pressure Sensor
G	Front Differential Lock Solenoid Valve
H	Front Brake Enable Pressure Solenoid Valve (if equipped)
I	Front Brake Solenoid Valve (if equipped)
J	Pressure Relief Valve
K	Pressure Reducing Valve
L	Temperature Sensor
M	Diagnostic Receptacle



ILS™ Manifold

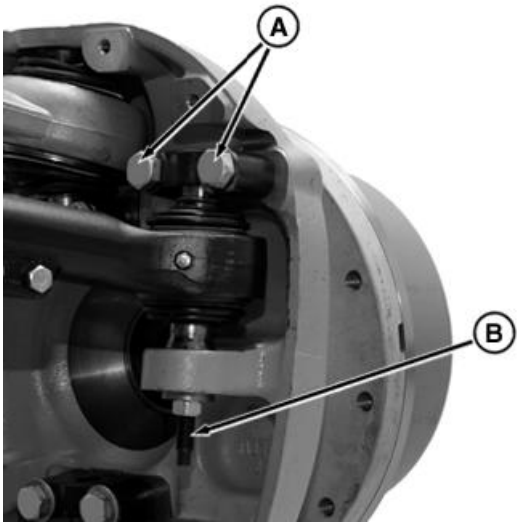
Dampening Solenoid Valves:

→NOTE: Dampening solenoid valves are not serviceable.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[22] -



LEGEND:
A Ball Joint Cap Retaining Cap Screws (2 used)
B JDG1549 Forcing Screw

Ball Joint Cap Retaining Cap Screws

Install ball joint cap retaining cap screws (A). Tighten to specification.

Item	Measurement	Specification
Ball Joint Cap Retaining Cap Screws	Torque	430 N·m (317 lb.-ft.)

[23] - Remove JDG1549 Forcing Screw (B).

[24] - Check and adjust toe-in and steering stop positions. (For further information, see Operator's Manual.)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

[2] - Remove steering enable spool valve (D) and spring (E).

[3] - Inspect parts and replace as necessary.

Item	Measurement	Specification
Steering Enable Spool Valve Spring	Free Length	44.45 mm (1.75 in.)
	Test Length	37.72 mm at 75.38 N (1.48 in. at 16.95 lb.-force) 33.78 mm at 119.5 N (1.33 in. at 26.86 lb.-force)

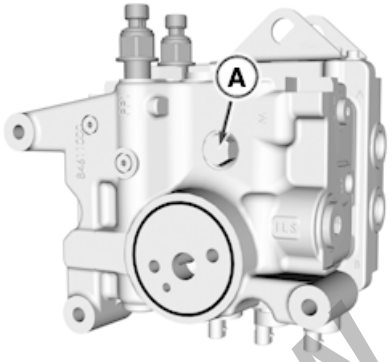
[4] - Lightly lubricate spool valve with clean hydraulic oil.

[5] - Install spring and spool valve.

[6] - Lightly lubricate new O-rings (C) with clean hydraulic oil and install solenoid. Tighten to specification.

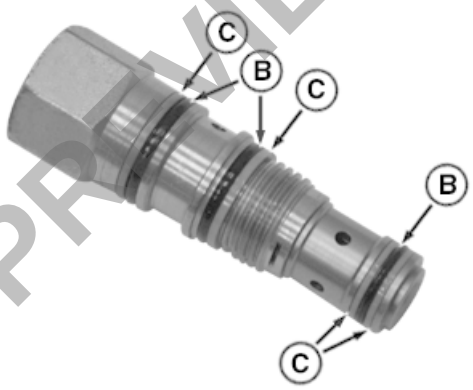
Item	Measurement	Specification
Steering Enable Solenoids	Torque	52 N·m (38 lb.-ft.)

[7] -



LEGEND:
A Load Sense Blocking Valve
B O-rings (3 used)
C Backup Rings (4 used)

Load Sense Blocking Valve



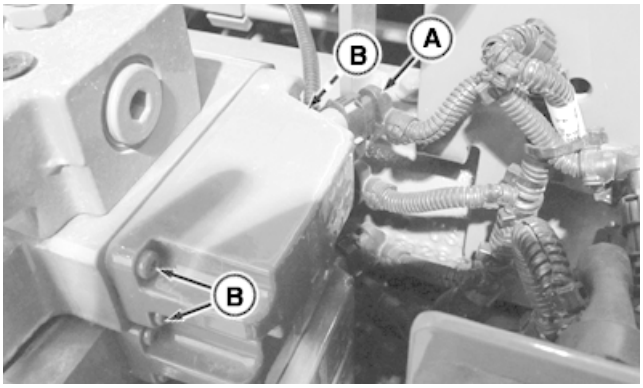
O-rings and Backup Rings

Remove load sense blocking valve (A).

[8] - Lightly lubricate **new** O-rings (B) and backup rings (C) with clean hydraulic oil and install valves. Tighten to specification.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



LEGEND:
A SCV Connector
B Electronic Control Unit Cap Screws (3 used)

Electronic Control Unit Cover

Install electronic control unit cap screws (B). Tighten to specification.

Item	Measurement	Specification
Electronic Control Unit Cap Screws	Torque	7 N·m (62 lb.-in.)

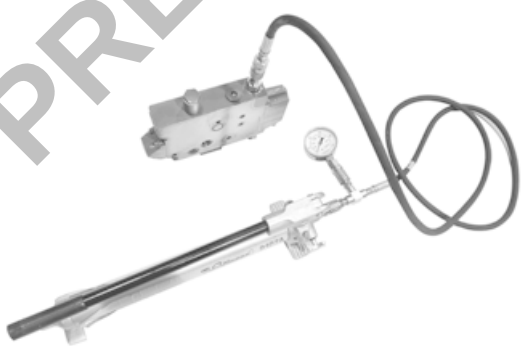
[7] - Connect SCV connector (A).

[8] - Calibrate Electronic Control Unit. (See Diagnostic Technical Manual—Section 270.)

Test Surge Relief Valve



Hitch Valve on Tractor



Test Surge Relief Valve

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

Climate Control Unit

Disconnect cab harness connectors from speakers (A).

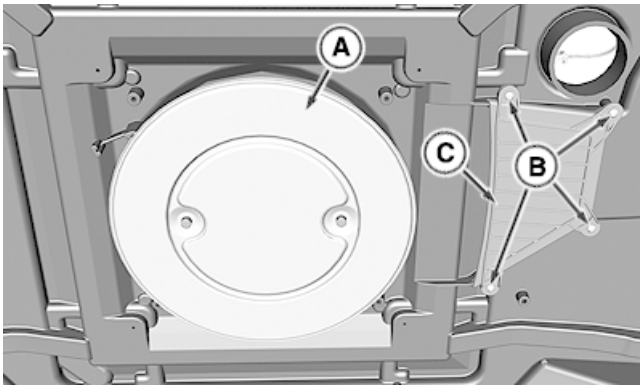
[30] - Disconnect wiring harness (A) and remove blower motor speed control (B).

[31] - Remove screws (E) and climate control unit (F)

[32] - Remove screws (C) and air flow mode control doors (D).

[33] - Remove drain hoses (G) and ground wire (H).

[34] -



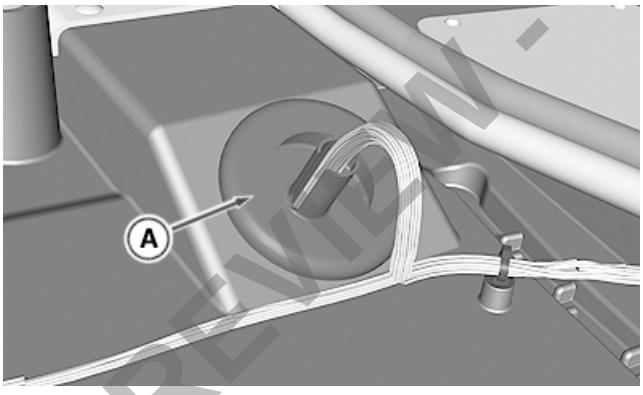
LEGEND:

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

Cab Recirculation Filter

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

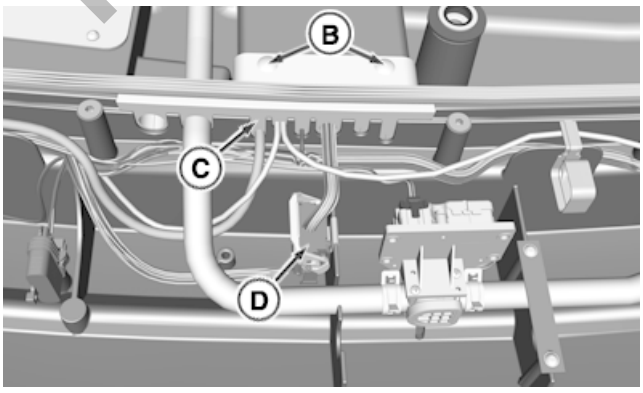
[35] -



LEGEND:

A	Boot
B	Plugs (2 used)
C	Clamp
D	Wiring Harness Connector

Boot



PREVIEW - YOUFIXTHIS.COM

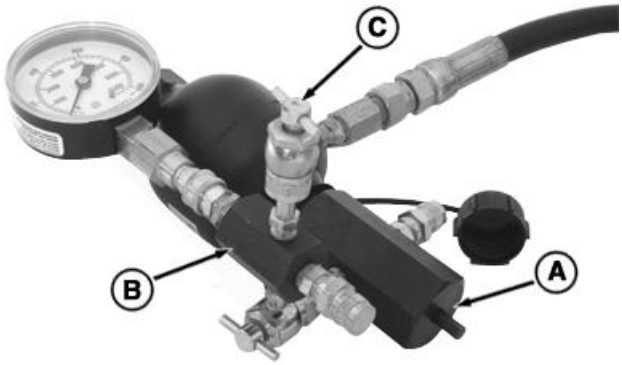
Download full manual at youfixthis.com

Item	Measurement	Specification
Replacement Accumulator 160 mL (10 cu. in.)	Charge Pressure	1400—1600 kPa at 20 °C (14—16 bar at 20 °C) (203—232 psi at 68 °F)

- **Pressure OK:** Go to Step 16.
- **Pressure High:** Open bleed off screw (B) to obtain correct pressure. Go to step 16.
- **Pressure Low:** Go to Step 12.

[12] -

CAUTION:



Accumulator/Pressure Checker Adapters

LEGEND:

A	Accumulator Adapter
B	Pressure Checker Adapter
C	Valve Stem Depressor

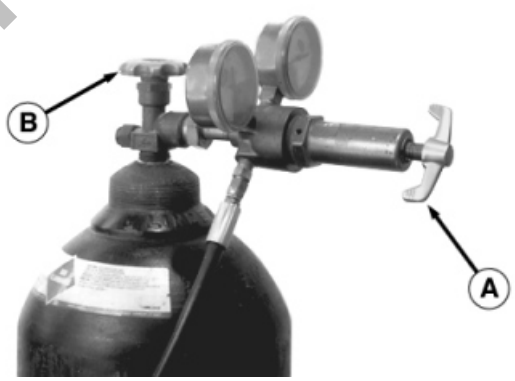
Never charge an accumulator with OXYGEN. An explosion could result if oil and oxygen mix under pressure. Use only NITROGEN.

→NOTE:

Purge hose before attaching. Charging hose can be attached directly to accumulator adapter (A) if pressure checker adapter (B) is not available. Use nitrogen tank regulator gauge with 200 kPa (2 bar) (25 psi) or less increments and maximum range of 20 000 kPa (200 bar) (3000 psi).

Back out (counterclockwise) valve stem depressor (C) completely on JT05563 Nitrogen Charging Hose. Purge hose and attach to pressure checker adapter (B).

[13] -



LEGEND:

A	Regulator Screw
B	Shut-Off Valve

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 2292 pages

The full manual includes:

- All 2292 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

John Deere 8245R, 8270R, 8295R, 8320R, 8335R, 8345R, 8370R, 8400R Repair Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual