John Deere Agriculture

5055E, 5065E & 5075E Tractors Repair Technical Manual

REPAIR MANUAL

5055E, 5065E, 5075E

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TM900919, July 2013

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Group 05 - Safety

Recognize Safety Information



Safety-alert symbol

This is a safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.

Understand Signal Words







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Group 10 - General Specifications (9x3 TSS Transmission)

Machine Specifications

Item	Measurement	Specification
5055 E—3029T Engine, Turbocharged		
Factory Observed PTO	Power	33.1 kW (45 hp) at 2400 rpm
Maximum Engine Speed	Torque	215 N.m @ 1700 rpm
Cylinders	Quantity	3
Bore	Diameter	106.5 mm (4.19 in.)
Stroke	Distance	110 mm (4.33 in.)
Displacement	Volume	2.9 L (179 cu in.)
Compression	Ratio	17.8:1
Cylinder Firing	Order	1—2—3
Intake Valve	Clearance	0.35 mm (0.014 in.)
Exhaust Valve	Clearance	0.45 mm (0.018 in.)
Slow Idle	Speed	800 - 875 rpm
Fast Idle	Speed	2575—2650 rpm
Operating Range	Speed	1700 - 2300 rpm
Injection Pump Timing**(MFWD)**	Position	0.5° BTDC
5065E—3029T Engine, Turbocharged		
Factory Observed PTO	Power	39 kW (53 hp) at 2400 rpm
Maximum Engine Speed	Torque	240 N.m @ 1700 rpm
Cylinders	Quantity	3
Bore	Diameter	106.5 mm (4.19 in.)
Stroke	Distance	110 mm (4.33 in.)
Displacement	Volume	2.9 L (179 cu in.)
Compression	Ratio	17.8:1
Cylinder Firing	Order	1—2—3
Intake Valve	Clearance	0.35 mm (0.014 in.)
Exhaust Valve	Clearance	0.45 mm (0.018 in.)
Slow Idle	Speed	800 - 875 rpm
Fast Idle	Speed	2575—2650 rpm
Operating Range	Speed	1800 - 2400 rpm
Injection Pump Timing	Position	0.5° BTDC
5075E—3029T Engine, Turbocharged		
Factory Observed PTO	Power	46 kW (61 hp) at 2400 rpm
Maximum Engine Speed	Speed	265 N.m @ 1700 rpm

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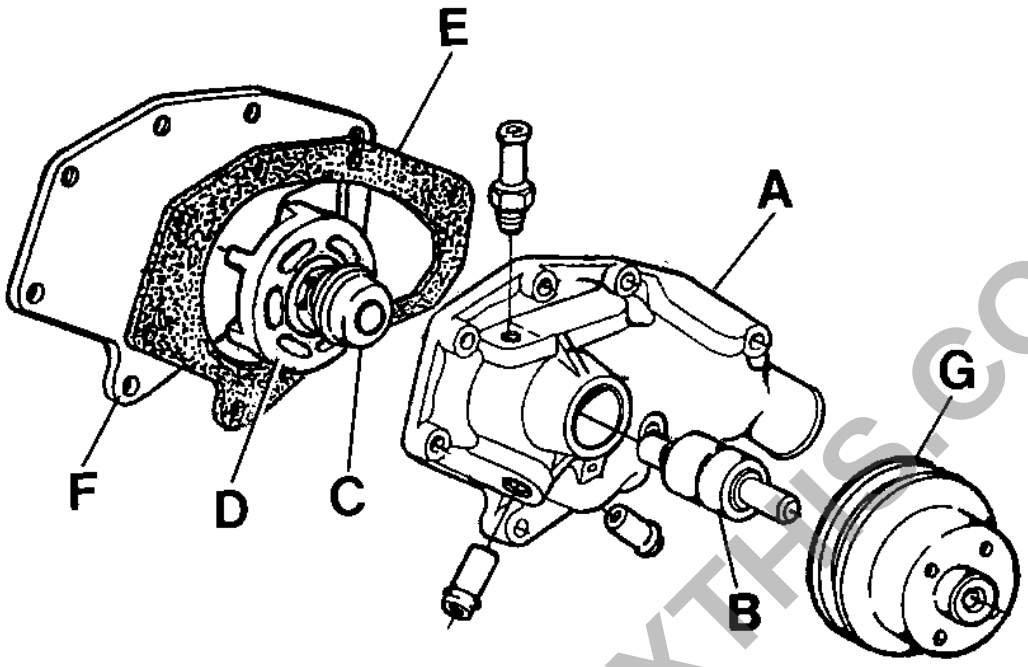
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Item	Measurement	Specification
Hub-to-Pulley	Clearance	0.35—0.65 mm (0.014—0.026 in.)
Manifold Cap Screw	Torque	26 N˙m (19 lb-ft)
Compressor Relief Valve	Torque	12—16 N˙m (9—12 lb-ft)

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Water Pump — Exploded View



Water Pump—Exploded View

LEGEND:

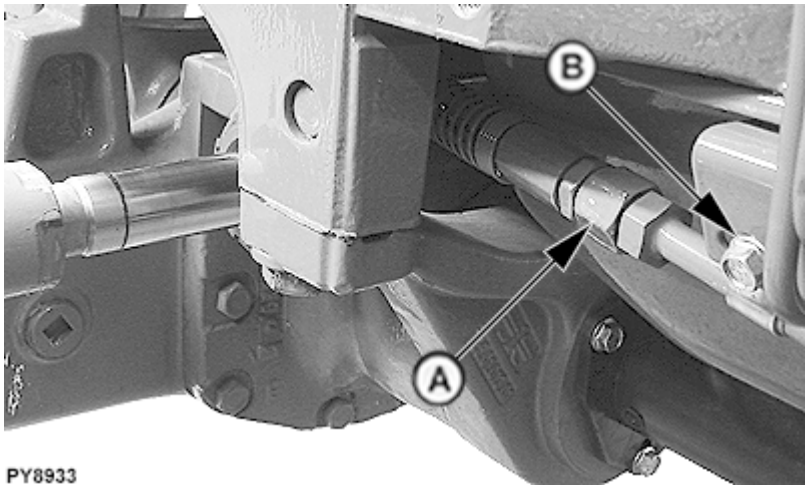
- A Housing
- B Bearing Shaft
- C Seal
- D Impeller
- E Gasket
- F Rear Cover
- G Hub (or pulley)

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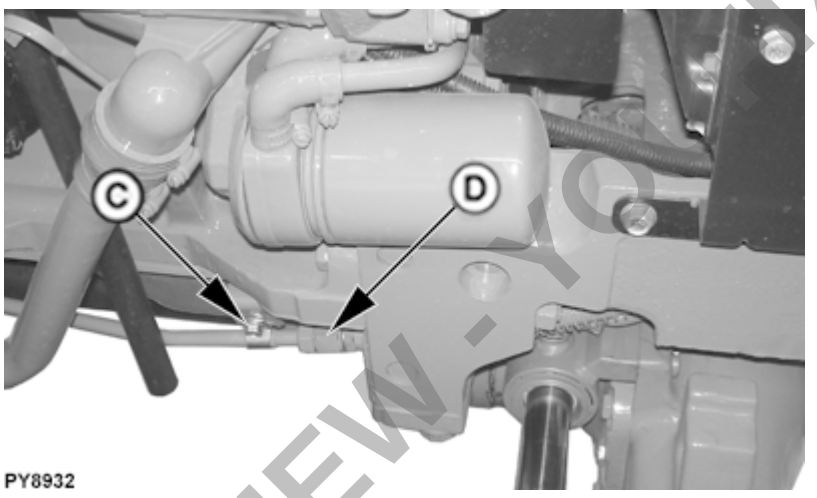
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Remove Engine — Cab

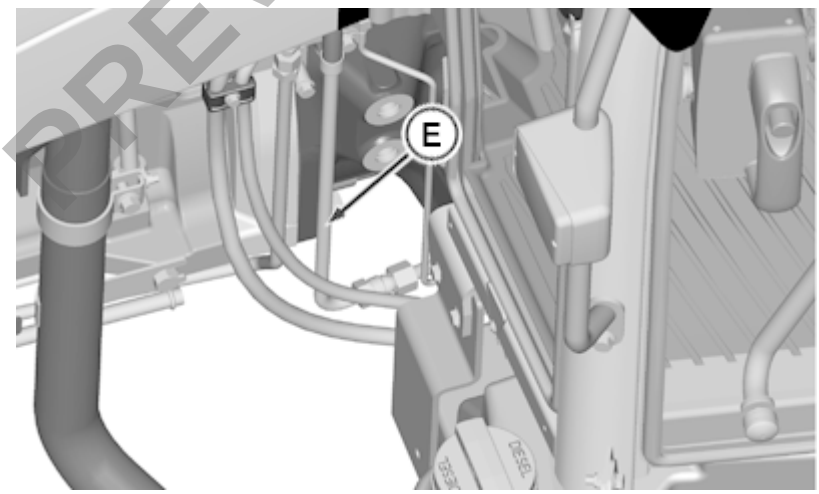
[1] -



Left Side Bottom of Engine



Right Side Bottom of Engine



Steering Return Line

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Group 10 - Electrical System Components

Service Equipment and Tools

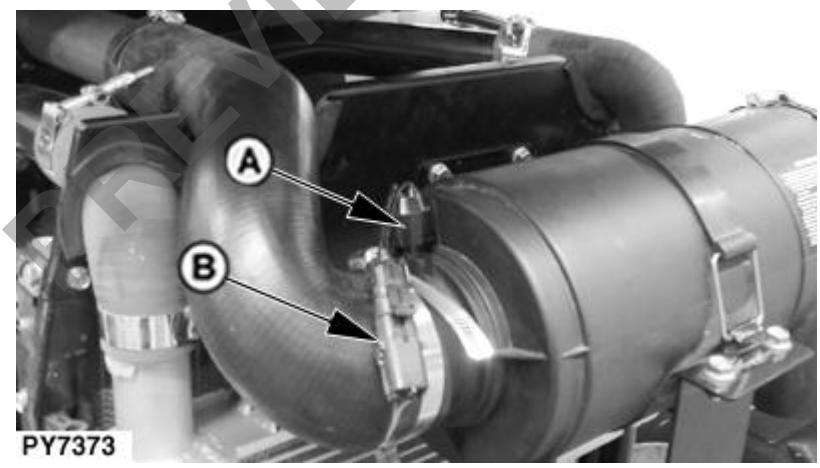
→NOTE:

Order tools according to information given in the U.S. SERVICEGARD ™ Catalog or from the European Microfiche Tool Catalog (MTC). Some tools may be available from a local supplier.

Other Material

Number	Name	Use
• TY9375 (us) • TY9480 (canadian) • 592 LOCTITE ™ (loctite)	Pipe Sealant	Apply to threads of coolant temperature sender.
• T43512 (us) • TY9473 (canadian) • 242 LOCTITE ™ (loctite)	Thread Lock and Sealer (Medium Strength)	Apply to threads of engine oil pressure sensor..
• TY15934 (us)	General Purpose Gasket Dressing	Fuel Level Sender Gasket

Replace Air Filter Restriction Sensor



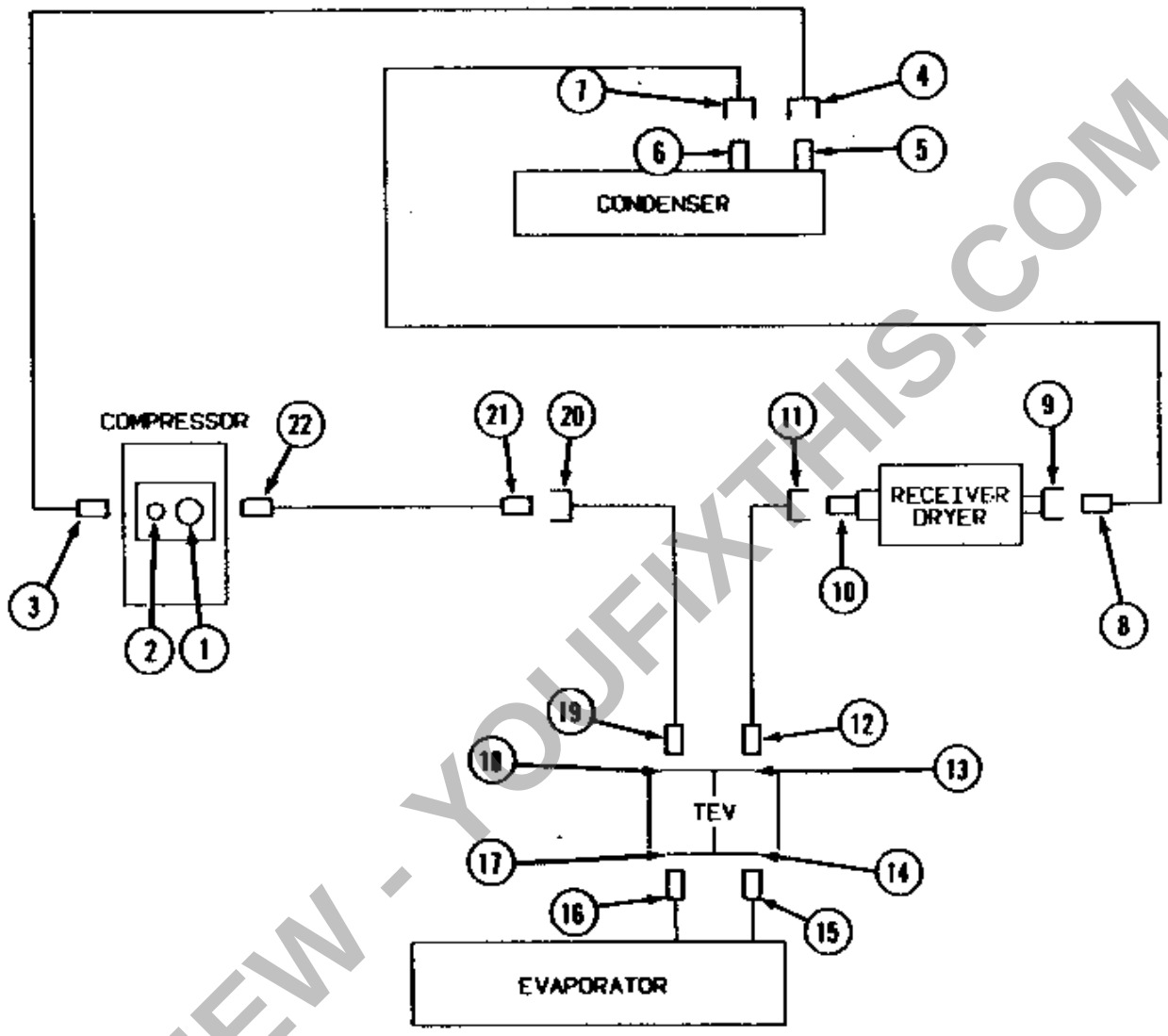
Air Filter Restriction Sensor

LEGEND:

A Air Filter Restriction Sensor

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Flush Air Conditioning System



Air conditioning system diagram

LEGEND:

1 Compressor Manifold Suction Port
2 Compressor Manifold Discharge Port
3 Compressor Discharge Hose Inlet Port
4 Compressor Discharge Hose Outlet Port
5 Condenser Inlet Port
6 Condenser Outlet Port
7 Receiver/Dryer Inlet Hose, Inlet End
8 Receiver/Dryer Inlet Hose, Outlet End
9 Receiver/Dryer Inlet Port
10 Receiver/Dryer Outlet Port
11 Receiver/Dryer Outlet Hose, Inlet End
12 Receiver/Dryer Outlet Hose, Outlet End

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Item	Measurement	Specification
Steel Wheel Cap Screw	Torque	175 N˙m (130 lb-ft)
Cast Wheel Cap Screw	Torque	225 N˙m (166 lb-ft)

Section 90—Operator Station Repair

Item	Measurement	Specification
Operator Station Repair		
Seat Support Cap Screws - S Transmission	Torque	125 N˙m (92 lb-ft)
ROLL-GARD™ Cap Screw-M16	Torque	335 N˙m (250 lb-ft)
ROLL-GARD™ Cap Screw-M20	Torque	660 N˙m (487 lb-ft)
Rear Wheel-to-Axle Cap Screw	Torque	550 N˙m (130 lb-ft)
Canopy Mounting Cap Screw	Torque	100 N˙m - 110 N˙m (74 lb-ft - 81 lb-ft)

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Factory Installed Optional Equipment

Mechanical Front Wheel Drive (MFWD) Axle

- Center line design
- High pivot point for better ground clearance and axle oscillation

Mid-Mount Valve and Couplers (for Front Loader Applications)

- Float and regenerative spool valves
- One lever “joystick” control

- Float spool valve
- Regenerative spool valve

Field Installed Optional Kits and Accessories

- Mid Mount SCV
- Second Rear SCV
- Reverse Alarm
- Horn
- Front Weight Bracket and Weights
- Rear Wheel Weight Set
- Rear Work Light
- Air Intake Heater
- Side Exhaust Kit
- Auxiliary Front Drive Coupler Kit
- Engine Coolant Heater Kit

Hitch

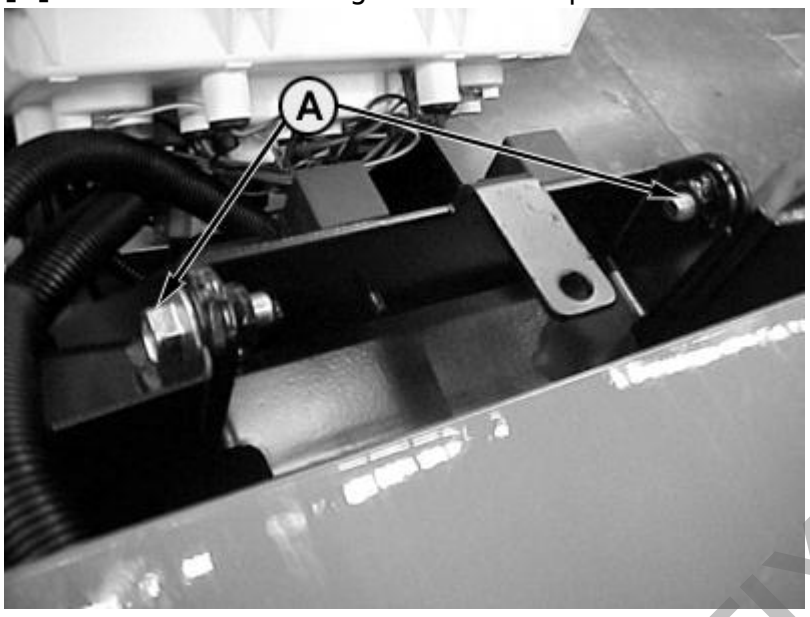
- Telescoping draft links

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Remove and Inspect Radiator (Cab)

[1] - Remove left and right dashboard panels.



Inside Dashboard

LEGEND:

A Cap Screw (2 used)

[2] - Remove cap screw (A), washers and bushing, from each hinge.

[3] - Remove hood.

CAUTION:

Explosive release of fluids from pressurized cooling system can cause serious burns.

Shut off engine. Only remove filler cap when cool enough to touch with bare hands. Slowly loosen cap to first stop to relieve pressure before removing completely.

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[8] - Apply petroleum jelly on battery terminals.

[9] - Lower hood.

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Group 15 - Wiring Harness

Special or Essential Tools

→NOTE:

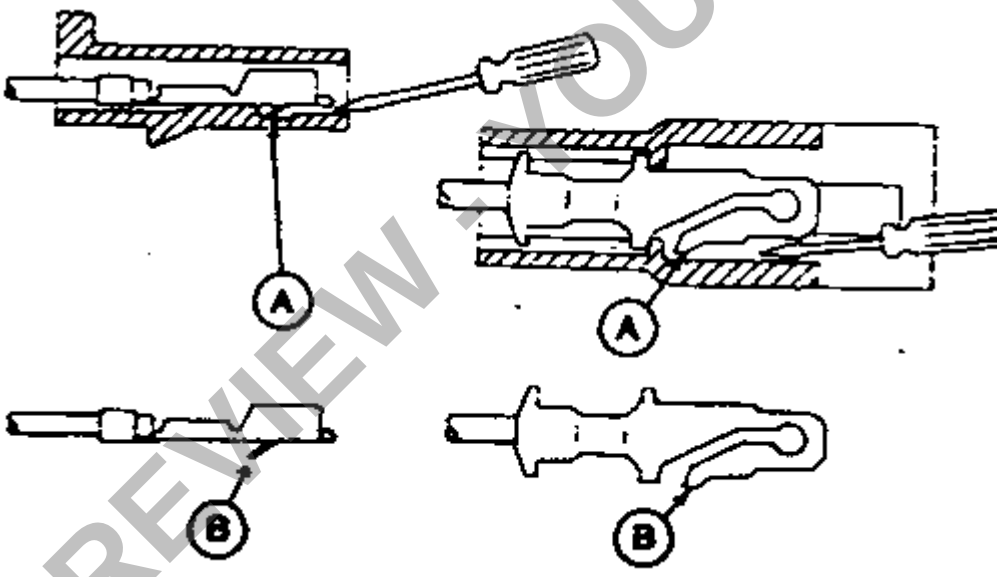
Order tools according to information given in the U.S. SERVICEGARD ™ Catalog or in the European Microfiche Tool Catalog (MTC).

Service Parts Kits

The following kits are available through your parts catalog:

RE11154 Electrical Connector and Wire Service Kit.

Remove Connector Body from Blade Terminals



Blade Terminals

[1] - Depress locking tang (A) on terminal, using a small screw driver. Slide connector body off.

[2] - Be sure to bend locking tang back to its original position (B) before installing connector body.

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Group 10 - Clutch Assembly

Specifications

Item	Measurement	Specification
Plate-to-Clutch Housing Cap Screw	Torque	26 N·m (20 lb.-ft.)
PR Clutch Disk (15)	Minimum Thickness	2.73 mm (0.107 in.)
PR Clutch End Plate (14)	Minimum Thickness	5.92 mm (0.233 in.)
PR Clutch Plate (16)	Minimum Thickness	4.92 mm (0.194 in.)

John Deere Transmission Repair — Use CTM



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For complete repair information the component technical manual (CTM) is also required. Use the component technical manual**PowrReverser™ Transmission - John Deere™ Pune Works** in conjunction with this machine manual.

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K Spring Pin
L Ring
M Ball
N Case

Remove seat and support. (See Remove and Install Seat and Support (Cab) in Section 91, Group 05.)

[2] - Remove right control console and panel.

[3] - Remove right rear wheel and fender.

[4] - Remove parts (A—N).

[5] - Inspect all parts for wear or damage.

[6] - Apply multipurpose grease to ball (M).

[7] - Install all parts.

[8] - Install fender and wheel and retain with cap screw.

[9] - Install console and panel.

[10] - Install seat and support. (See Remove and Install Seat and Support (Cab) in Section 91, Group 05.)

[11] - Tighten wheel cap screw.

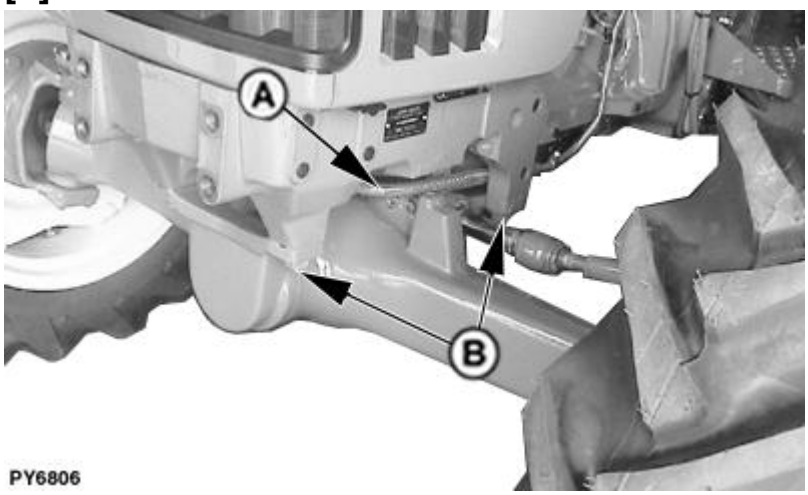
Item	Measurement	Specification
Wheel Cap Screw	Torque	550 N·m (406 lb-ft)

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Remove and Install MFWD Axle Housing Assembly

[1] -



DANA MFWD Axle

LEGEND:

A Hydraulic Hose (2 used)
B Cap Screw (4 used)

Remove drive shaft. (See Remove, Inspect and Install MFWD Drive Shaft in this Group.)

[2] - Raise front of tractor. Securely support tractor below the engine/transmission junction.

[3] -

CAUTION:

Axle will pivot to one side when one wheel is removed. Install wooden blocks between the axle stops and frame to prevent axle from tipping.

Install wooden blocks between axle and frame.

[4] - Remove front wheels.

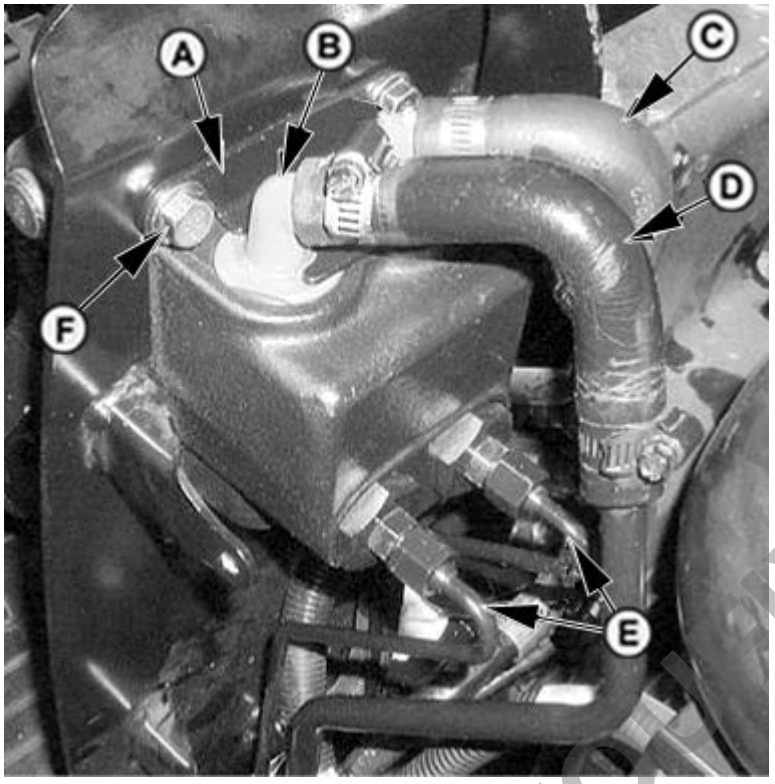
[5] - Position a transmission jack or floor jack under center of axle as shown. Ensure axle will

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Remove and Install Brake Valve and Pedals

[1] -



Brake Cylinder

LEGEND:

A	Retainer
B	Hose Fittings
C	Supply Hose
D	Return Hose
E	Brake Lines
F	Cap Screw (4 used)

Remove left and right dash covers.

[2] -

→NOTE:

Close all openings with caps and plugs.

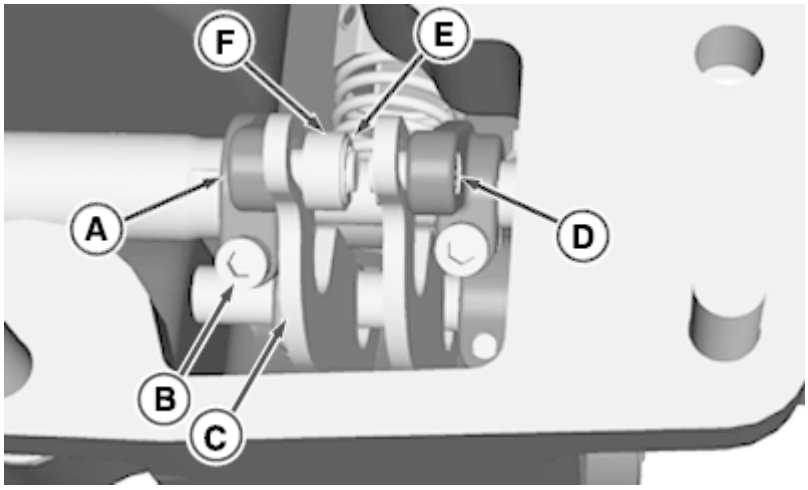
Disconnect hoses (C and D).

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[3] - Remove parts (C—H).

[4] -



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LEGEND:

A	Lever (2 used)
B	Socket Head Cap Screw (2 used)
C	Link (2 used)
D	Pin (2 used)
E	Snap Ring (2 used)

Remove control valve with inlet housing. (See Replace Rockshaft Control Valve in Section 70, Group 10.)

[5] -

→NOTE:

To access links inside rockshaft case, rockshaft case must be placed upside down.

Turn rockshaft case upside down.

[6] - Remove snap ring (E).

[7] - Remove pin (D). Disconnect links (C) from levers (A).

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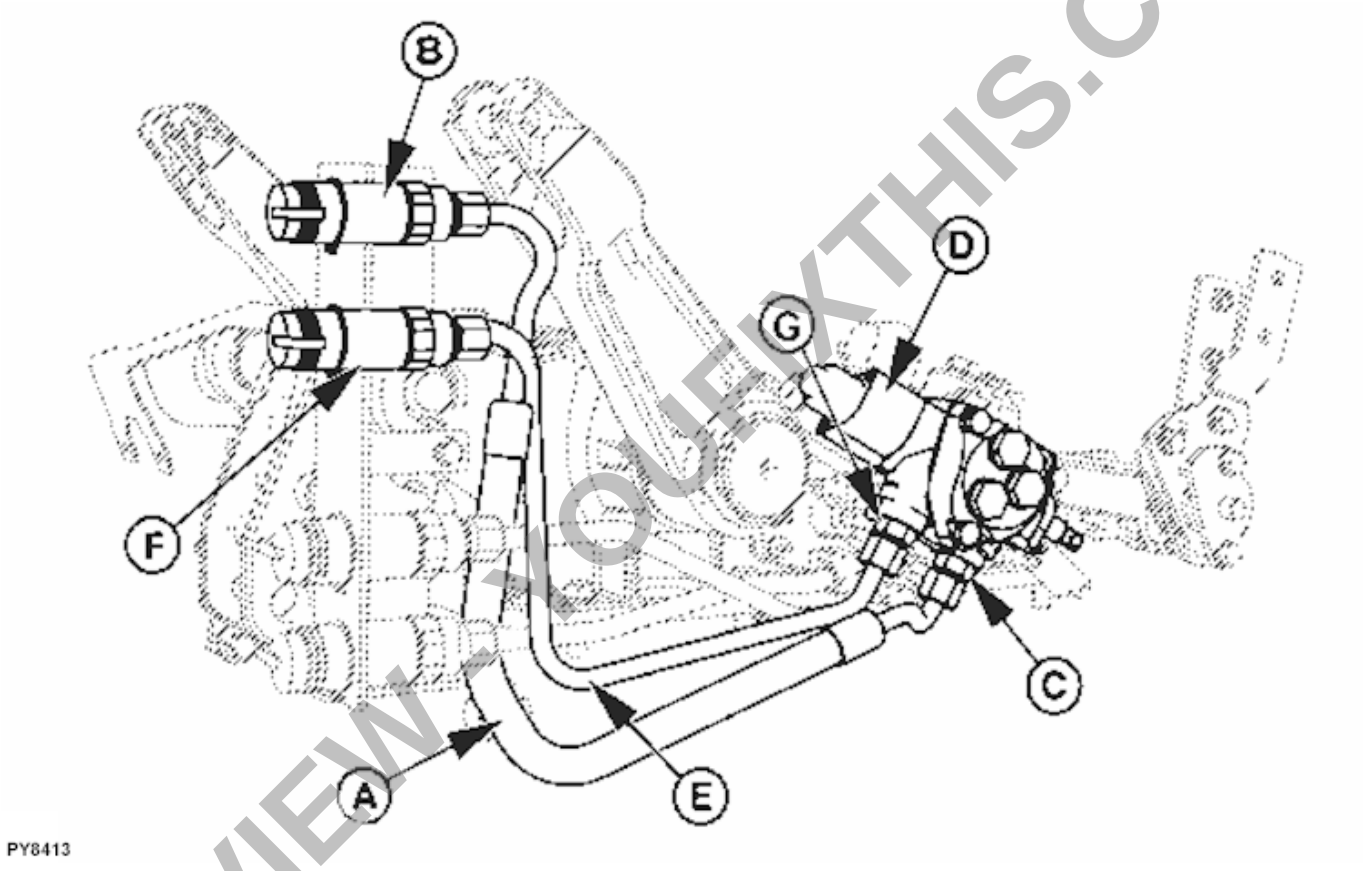
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Install Hydraulic Hoses

→NOTE:

Route hydraulic hoses from the SCV to the rear couplers under the right rockshaft lift arm.

[1] -



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LEGEND:

A	Hydraulic Hose
B	Upper I Coupler
C	Elbow Fitting
D	Selective Control Valve
E	Hydraulic Line
F	Lower II Coupler
G	Straight Fitting

Route the 45° end of hydraulic hose (A) under the right rockshaft lift arm.

[2] - Connect the hydraulic hose (A) to the upper I coupler (B). Do not tighten at this time.

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[3] -

⚠ CAUTION:

Support hood before removing struts or hinge cap screws.

IMPORTANT:

Do not completely remove hood strut clip; damage may occur.

Slightly dislodge and lift clip (A) with a small screwdriver to release strut from ball stud.

[4] - Remove cap screws (B) and hood.

[5] - Make repairs as necessary.

[6] - Install hood and cap screws (B).

[7] - Slightly dislodge and lift clip (A) with a small screwdriver and push clip into position to retain strut on ball stud.

[8] - Connect head lamp wire harness.

[9] - Install hood cable.

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LEGEND:

A Dome Light Assembly
B Console Light Assembly
C Vent Cover and Retaining Ring
D Cab Control Console
E Vent Cover and Retaining Ring

Remove radio and panel from tractor, if equipped.

[2] - Remove sun visor with mounting bracket and mirror with mounting bracket from tractor.

[3] - Remove dome light assembly (A) from tractor by pulling down on outer part of assembly and disconnecting dome light connector.

[4] - Remove console light assembly (B) from tractor.

[5] - Pull vent covers and retaining rings (C and E) from cab control console (D). Remove three mounting screws located behind vent covers and pull cab control console from headliner. Do not remove cab control console from tractor.

[6] - Starting with right front corner of headliner and working to the left, pull headliner in and downward from cab roof.

[7] - Remove headliner from tractor. Repair or replace headliner as necessary.

[8] -

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→NOTE:

Mark position of foot throttle cable jam nut to aid adjustment during installation.



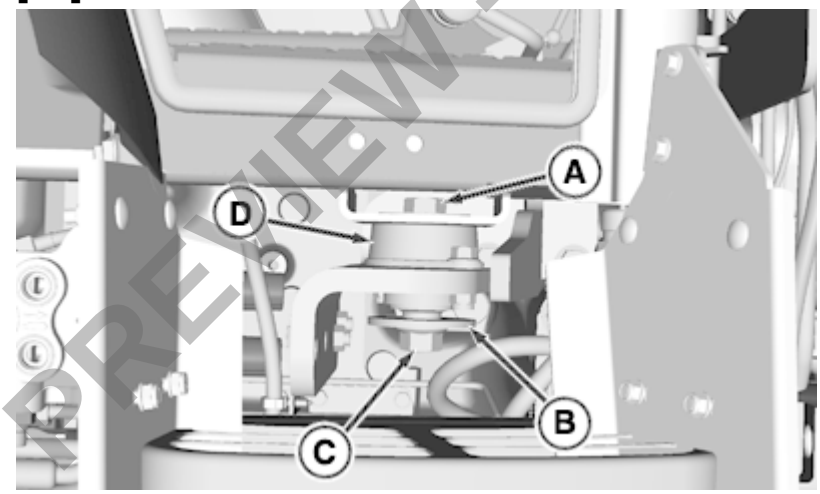
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LEGEND:

A Throttle Cable

Disconnect cables throttle cable (A).

[27] -



Cab Mount

LEGEND:

A Nut
B Washer
C Cap Screw
D Isolator

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Number	Name	Use
• TY15949 (12 oz) (us) • TY15950 (15 lb) (us) • TY15951 (30 lb) (us)	Refrigerant R134a	Charges the air conditioning system.

[5] - Open valves to pressurize compressor.

[6] -

IMPORTANT:

Do not exceed range of low pressure gauge.

Check the following for leaks using JT02081 electronic leak detector or 50-50 mix of soap and water:

- Shaft seal
- Manifold seal
- Housing seals at front, rear, and midsection of compressor body
- Relief valve
- Suction coupler Schraeder valve

Leakage should not exist. Repair compressor, if required, and repeat test.

[7] - Assemble compressor and add required oil. (See Determine Correct Refrigerant Oil Charge in this Group.)

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