6105E, 6120E & 6135E TractorsFinal Tier IV (October 2015-) Repair

REPAIR MANUAL

6105E, 6120E, 6135E (S.N. 000001-)

TM608619 14SEP15 (ENGLISH)

For complete service information also see:

6105E, 6120E and 6135E Tractors (Final Tier IV)(October 2015-) (Diagnostics)	**TM608519**
Alternators and Starting Motors	**CTM77**
12 Speed Transaxle RepairComponent Technical Manual(6D/6E Tractor PIN prefix P0)(6B Tractor PIN prefix CP)	**CTM608419**
725, 730, 733, 735, 740, 745, 750, 755 and 755HD Front Drive Axles, 2-Piece DANA	**CTM4820**
Service ADVISOR Machine Connection Information	**CTM441**
6000D Series Tractor Transaxle Repair Manual	**CTM203**
4045 PowerTech OEM Diesel Engines (Final Tier 4/Stage IV platform)	**CTM120119**

John Deere Agriculture

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Table of contents

FOREWORD

Section 10 - GENERAL INFORMATION

Group 05 - Safety
Group 10 - General Information
Group 15 - Fuel and Lubricants
Group 20 - Serial Number Locations

Section 20 - ENGINE REPAIR

Group 05 - Engine
Group 10 - Cooling System

Section 30 - FUEL, AIR INTAKE, AND EXHAUST SYSTEMS

Group 05 - Fuel System
Group 10 - Air Intake System
Group 15 - Exhaust System

Section 40 - ELECTRICAL SYSTEM

Group 05 - Charging Circuit
Group 10 - Starting Circuit
Group 15 - Electrical System Components
Group 20 - Wiring Harnesses

Section 50 - DRIVE SYSTEMS AND TRANSMISSION

Group 00 - Towing
Group 05 - Component Removal
Group 10 - PTO
Group 15 - Clutch

Section 60 - STEERING AND BRAKES

Group 05 - Steering Repair
Group 10 - Front Axle—2WD
Group 15 - Front Axle—MFWD
Group 20 - Brake Repair

Section 70 - HYDRAULICS

Group 05 - Hydraulic Pump
Group 10 - Hydraulic Oil Cooler
Group 15 - Hitch Valve
Group 20 - Hydraulic Rear Selective Control Valve
Group 25 - Hydraulic Mid-Mount Selective Control Valve

Section 80 - MISCELLANEOUS

Group 05 - Hood and Fenders
Group 10 - Hitch and Drawbar
Group 15 - Front Support

Section 90 - OPEN OPERATOR STATION REPAIR

Group 05 - Seat and Support
Group 10 - ROPS
Group 15 - Operator Platform
Group 20 - Cowl Repair

Section 95 - CAB—OPERATOR STATION REPAIR

Group 05 - Removal and Installation of Components
Group 10 - Air Conditioning System
Group 15 - Heating System
Group 20 - Seat

Section 99 - SPECIAL TOOLS

Group 05 - Dealer Fabricated Tools
Group 10 - Service Tools

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

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



Signal Words

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

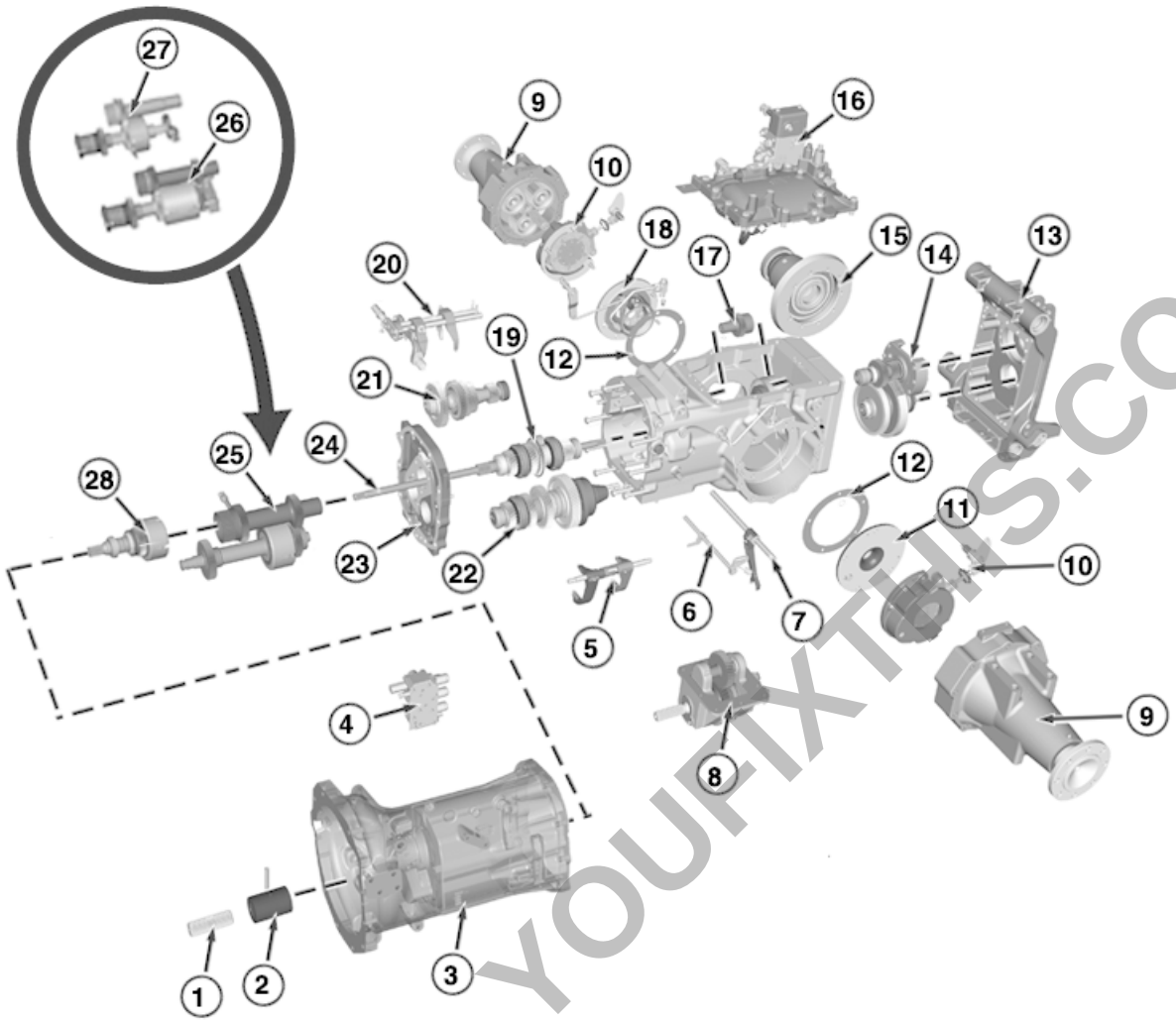
DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

Replace Safety Signs

PREVIEW: YOUFIXTHIS.COM

Download full manual at youfixthis.com

Transmission Component Identification



Exploded View—12 Speed Transmission

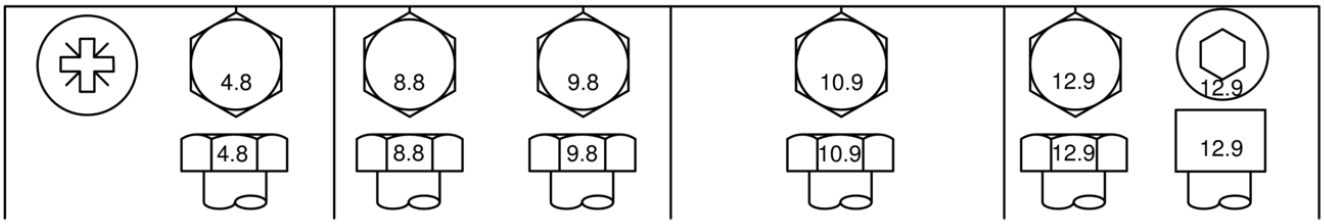
LEGEND:

1	Input Shaft Adapter
2	Traction Input Coupler
3	Clutch Housing
4	Manifold Assembly
5	Range Shift Assembly
6	Clutch Interlock Assembly
7	Range Shifter Assembly
8	MFWD Gearbox
9	Final Drive/Axle Assembly
10	Brake Assembly
11	Left Differential Bearing Housing
12	Shim Pack
13	PTO Housing
14	PTO Geartrain Assembly
15	Differential
16	Top Cover
17	PTO Input Coupler
18	Differential Lock Assembly
19	1st Stage Gear Assembly
20	Speed Shift Assembly
21	2nd Stage Gear Assembly
22	3rd Stage Gear Assembly

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Metric Bolt and Screw Torque Values



Metric Bolt and Screw

Metric Torque Values

Bolt or Screw Size	Class 4.8				Class 8.8 or 9.8				Class 10.9				Class 12.9			
	Lubricated ["Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.]		**Dry** ["Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.]		**Lubricated** ["Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.]		**Dry** ["Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.]		**Lubricated** ["Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.]		**Dry** ["Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.]		**Lubricated** ["Lubricated" means coated with a lubricant such as engine oil, fasteners with phosphate and oil coatings, or M20 and larger fasteners with JDM F13C, F13F or F13J zinc flake coating.]		**Dry** ["Dry" means plain or zinc plated without any lubrication, or M6 to M18 fasteners with JDM F13B, F13E or F13H zinc flake coating.]	
	N˙m	**lb.-in.**	**N˙m**	**lb.-in.**	**N˙m**	**lb.-in.**	**N˙m**	**lb.-in.**	**N˙m**	**lb.-in.**	**N˙m**	**lb.-in.**	**N˙m**	**lb.-in.**	**N˙m**	**lb.-in.**
M6	4.7	42	6	53	8.9	79	11.3	100	13	115	16.5	146	15.5	137	19.5	172
									N˙m	**lb.-ft.**	**N˙m**	**lb.-ft.**	**N˙m**	**lb.-ft.**	**N˙m**	**lb.-ft.**
M8	11.5	102	14.5	128	22	194	27.5	243	32	23.5	40	29.5	37	27.5	47	35
			N˙m	**lb.-ft.**	**N˙m**	**lb.-ft.**	**N˙m**	**lb.-ft.**								
M10	23	204	29	21	43	32	55	40	63	46	80	59	75	55	95	70
	N˙m	**lb.-ft.**														
M12	40	29.5	50	37	75	55	95	70	110	80	140	105	130	95	165	120
M14	63	46	80	59	120	88	150	110	175	130	220	165	205	150	260	190
M16	100	74	125	92	190	140	240	175	275	200	350	255	320	235	400	300
M18	135	100	170	125	265	195	330	245	375	275	475	350	440	325	560	410
M20	190	140	245	180	375	275	475	350	530	390	675	500	625	460	790	580
M22	265	195	330	245	510	375	650	480	725	535	920	680	850	625	1080	800
M24	330	245	425	315	650	480	820	600	920	680	1150	850	1080	800	1350	1000
M27	490	360	625	460	950	700	1200	885	1350	1000	1700	1250	1580	1160	2000	1475
M30	660	490	850	625	1290	950	1630	1200	1850	1350	2300	1700	2140	1580	2700	2000
M33	900	665	1150	850	1750	1300	2200	1625	2500	1850	3150	2325	2900	2150	3700	2730
M36	1150	850	1450	1075	2250	1650	2850	2100	3200	2350	4050	3000	3750	2770	4750	3500

Torque values listed are for general use only, based on the strength of the bolt or screw. DO NOT use these values if a different torque value or tightening procedure is given for a specific application. For stainless steel fasteners or for nuts on U-bolts, see the tightening instructions for the specific application. Tighten plastic insert or crimped steel type lock nuts by turning the nut to the dry torque shown in the chart, unless different instructions are given for the specific application.

Shear bolts are designed to fail under predetermined loads. Always replace shear bolts with identical property class. Replace fasteners with the same or higher property class. If higher property class fasteners are used, tighten these to the strength of the original. Make sure fastener threads are clean and that you properly start thread engagement. When possible, lubricate plain or zinc plated fasteners other than lock nuts, wheel bolts or wheel nuts, unless different instructions are given for the specific application.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Remove Engine

[1] - Remove hood. (See Remove and Install Hood in Section 80, Group 05.)

[2] - Remove battery. (See Remove and Install Battery in Section 40, Group 15.)

[3] - Remove tool box and fan guards.

[4] - Remove MFWD drive shaft, if equipped. (See Remove, Inspect, and Install MFWD Drive Shaft in Section 50, Group 05.)

[5] - Remove exhaust system. (See Remove and Install Exhaust Pipe and Selective Catalyst Reduction (SCR) Assembly in Section 30, Group 15.)

[6] - Remove intake system. (See Remove and Install Air Cleaner in Section 30, Group 10.)

[7] - Remove charge air cooler pipes. (See Air Intake Pipe Connections in Section 30, Group 10.)

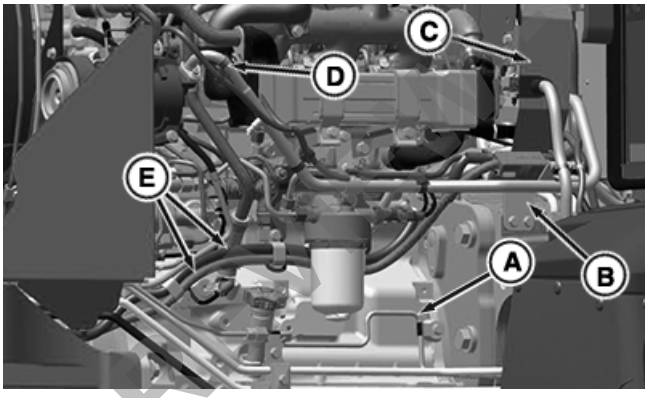
[8] - Remove cooling package. (See Remove and Install Cooling Package in this section, Group 10.)

[9] - Remove deaeration tank. (See Remove and Install Deaeration Tank in this Section, Group 10.)

[10] -

→NOTE:

Close all openings with caps or plugs. Tag or label hydraulic hoses/lines to aid during installation.



LEGEND:

A	Fuel Line
B	Junction Block Assembly
C	Shields (2 used)
D	Air conditioning Return Line
E	Battery Cables (2 used)

Oil Cooler Line

Remove fuel line (A) and junction block assembly (B).

[11] - Remove shields (C).

[12] - For cab tractor : Disconnect air conditioning return line (D).

[13] - Remove battery cables (E).

[14] -

YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 05 - Engine

Essential or Recommended Tools

→NOTE:

Order tools from the SERVICEGARD ™ Catalog.

ESSENTIAL TOOLS listed are required to perform the job correctly and are obtainable only from the SERVICEGARD ™ Catalog.

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

Rear Differential Support Stands

JT07211

20 Engine Repair

Engine Lifting Sling

JDG23

20 Engine Repair

Flywheel Turning Tool

JDE83

20 Engine Repair

Other Material

Number	Name	Use
• TY6333 (us)	Grease, SAE Multi-Purpose	To grease both ends of the transmission drive shaft

Specifications

Item	Measurement	Specification
Torsional Damper Cap Screws	Torque	40 N·m (29 lb.-ft.)
Engine-to-Mid-frame Mounting Cap Screws	Torque	530 N·m (390 lb.-ft.)
Front Support-to-Engine Cap Screws	Torque	610 N·m (450 lb.-ft.)
Engine-to-Front Support Cap Screws	Torque	175 N·m (129 lb.-ft.)
DPF Support-to-Engine Mounting Cap Screws	Torque	60 N·m (45 lb.-ft.)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Group 15 - Fuel and Lubricants

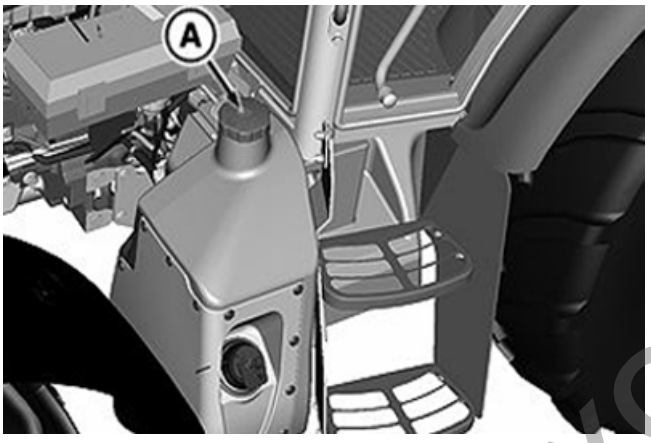
Filling Fuel Tank



LEGEND:

A	Fuel Tank Filler Cap

Fill Fuel Tank Safely



Cap

CAUTION:

Handle fuel with care: It is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.

Fuel tank is filled through fill cap (A). In order to prevent condensation in tank as moist air cools, fill fuel tank at end of each day of operation.

Item	Measurement	Specification
Fuel Tank	Capacity	168 L (44.4 gal)

→NOTE:

To reduce fuel gelling and control wax separation during cold weather, John Deere Fuel Flow Improver, or equivalent, may be added to fuel or bulk storage tank.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Engine Oil and Filter Service Intervals — Interim Tier 4, Final Tier 4, Stage IIIB, and Stage IV Engines

Recommended oil and filter service intervals are based on a combination of oil pan capacity, type of engine oil and filter used, and sulfur content of the diesel fuel. Actual service intervals also depend on operation and maintenance practices.

Use oil analysis to evaluate the condition of the oil and to aid in selection of the proper oil and filter service interval. Contact your John Deere dealer for more information on engine oil analysis.

Change the oil and oil filter at least once every 12 months even if the hours of operation are fewer than the otherwise recommended service interval.

Diesel fuel sulfur content affects engine oil and filter service intervals. Higher fuel sulfur levels reduce oil and filter service intervals.

Use of diesel fuel with sulfur content less than 15 mg/kg (15 ppm) is REQUIRED.

IMPORTANT:

To avoid engine damage:

- ***Reduce oil and filter service intervals by 50% when using BioDiesel blends greater than B20. Oil analysis may allow longer service intervals.***
- ***Use only approved oil types.***

Approved Oil Types:

- John Deere Plus-50 ™ II
- “Other Oils” include API CJ-4, ACEA E9, and ACEA E6

→NOTE:

The 500 hour extended oil and filter change interval is only allowed if all of the following conditions are met:

- **Use of diesel fuel with sulfur content less than 15 mg/kg (15 ppm)**
- **Use of John Deere Plus-50™ II oil**
- **Use of an approved John Deere oil filter**

Interim Tier 4, Final Tier 4, Stage IIIB, and Stage IV Service Intervals

Engine Oil and Filter Service Intervals	
John Deere Plus-50™ II	500 hours
Other Oils	250 hours
Oil analysis may extend the service interval of “Other Oils” to a maximum not to exceed the interval of Plus-50™ II oils.	

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Foreword

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.



CAUTION:

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

Technical manuals are divided in two parts: repair and operation and tests. Repair sections tell how to repair the components. Operation and tests sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values.

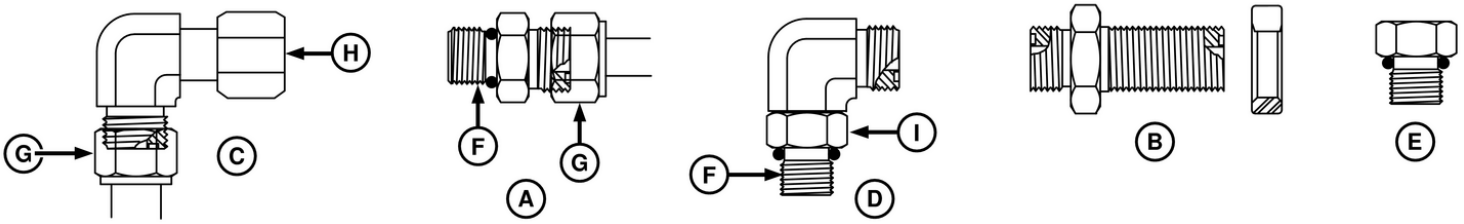
Technical Manuals are concise guides for specific machines. They are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Metric Face Seal And O-Ring Stud End Fitting Torque Chart—Standard Pressures



Fitting

LEGEND:

A	Straight Stud and Tube Nut
B	Bulkhead Union and Bulkhead Jam Nut
C	90° Swivel Elbow and Tube Nut
D	90° Adjustable Stud Elbow
E	Port Plug
F	Stud End
G	Tube Nut
H	Swivel Nut
I	Jam Nut

Face Seal Fittings (Standard Pressure)

Metric Face Seal and O-Ring Stud End Fitting Torque Chart—Standard Pressure-Below 27.6 MPA (4,000 PSI)																	
Nominal Tube OD Hose ID				O-Ring Face Seal/ Tube Swivel Nut				Bulkhead Jam Nut Torque [A]			O-Ring Straight, Adjustable, and External Port Plug Stud Ends [A]						
Metric Tube OD	Inch Tube OD			Thread Size	Swivel Nut Hex Size	Tube Nut/Swivel Nut Torque		Jam Nut Hex Size	Jam Nut Torque		Thread Size	Straight Hex Size [B]	Adj Lock Nut Hex Size	Steel or Gray Iron Torque		Aluminum or Brass Torque [C]	
mm	Dash Size	in.	mm	in.	mm	N˙m	lb-ft	mm	N˙m	lb-ft	mm	mm	mm	N·m	lb-ft	N˙m	lb-ft
4	-2	0.125	3.18	—	—	—	—	—	—	—	M8 X 1	12	12	8	6	5	4
5	-3	0.188	4.76	—	—	—	—	—	—	—	M10 X 1	14	14	15	11	10	7
6	-4	0.250	6.35	9/16-18	17	16	12	22	32	24	M12 X 1.5	17	17	25	18	17	12
8	-5	0.312	7.92	—	—	—	—	—	—	—	M14 X 1.5	19	19	40	30	27	20
10	-6	0.375	9.53	11/16-16	22	24	18	27	42	31	M16 X 1.5	22	22	45	33	30	22
12	-8	0.500	12.70	13/16-16	24	50	37	30	93	69	M18 X 1.5	24	24	50	37	33	25
16	-10	0.625	15.88	1-14	30	69	51	36	118	87	M22 X 1.5	27	27	69	51	46	34
20	-12	0.750	19.05	1-3/16-12	36	102	75	41	175	129	M27 X 2	32	32	100	74	67	49
22	-14	0.875	22.23	1-3/16-12	36	102	75	41	175	129	M30 X 2	36	36	130	96	87	64
25	-16	1.000	25.40	1-7/16-12	41	142	105	46	247	182	M33 X 2	41	41	160	118	107	79
28	—	—	—	—	—	—	—	—	—	—	M38 x 2	46	46	176	130	117	87
32	-20	1.250	31.75	1-11/16-12	50	190	140	50	328	242	M42 X 2	50	50	210	155	140	103
38	-24	1.500	38.10	2-12	60	217	160	60	374	276	M48 X 2	55	55	260	192	173	128
50	-32	2.000	50.80	—	—	—	—	—	—	—	M60 X 2	65	65	315	232	210	155

[A] Tolerance is +15%, minus 20% of mean tightening torque unless otherwise specified.

[B] The straight hex wrench sizes listed apply to connectors only and may not be the same as the corresponding plug of the same thread size.

[C] These torques were established using steel plated connectors in aluminum and brass.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Transaxle Serial Number

Transaxle (drivetrain) serial number plate is located at the rear of the machine, behind left-hand brake linkage.

Record serial number below.

Transaxle Serial Number

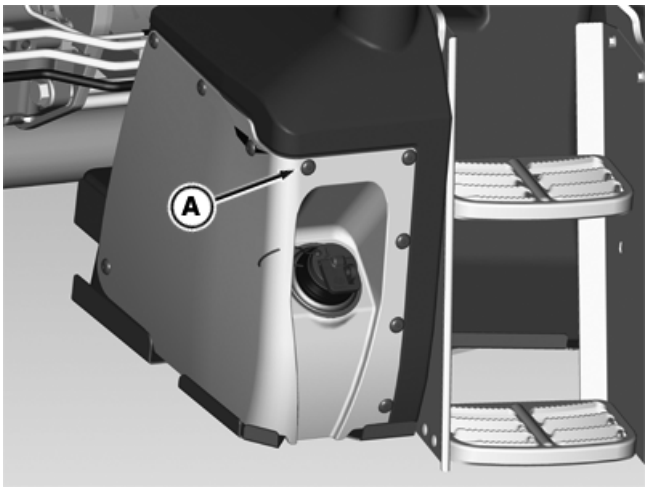
Transaxle Serial Number _____

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Remove and Install DEF Tank

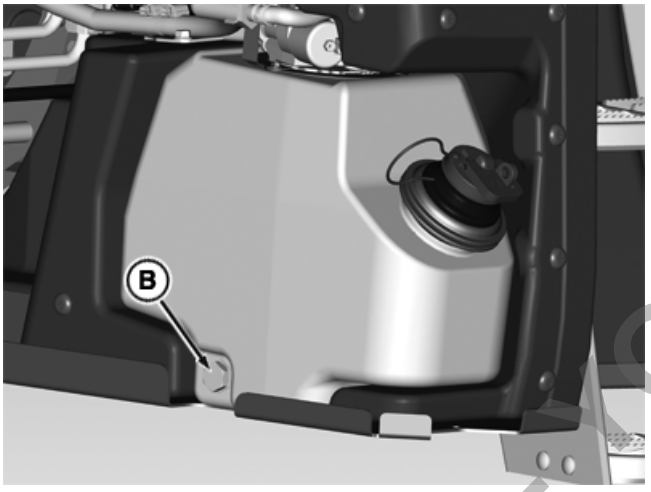
[1] -



LEGEND:

A	Round Headed Scres (9 Used)
B	Drain Plug

.



.

Remove cap screws (A) to remove DEF tank cover.

[2] - Drain DEF liquid from drain plug (B) and store it properly. (See Fuel and Lubricants in section 10 group 15 or storage of DEF).

[3] - Disconnect DEF dosing unit connections. (See Remove and Install Fuel Tank in this section).

[4] - Disconnect wiring connections and DEF lines from DEF tank. (See Remove and Install Fuel Tank in this section).

[5] - Remove DEF tank and repair or replace as necessary.

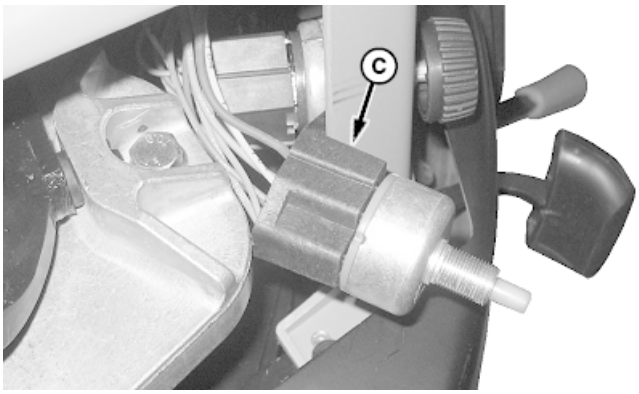
[6] - Install in reverse order.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



Nut



Connector

Remove knob (A).

[2] - Remove nut (B).

[3] - Disconnect connector (C).

[4] - Test light switch and replace as necessary. (See Diagnostic and Test Manual, to diagnose failed switch.)

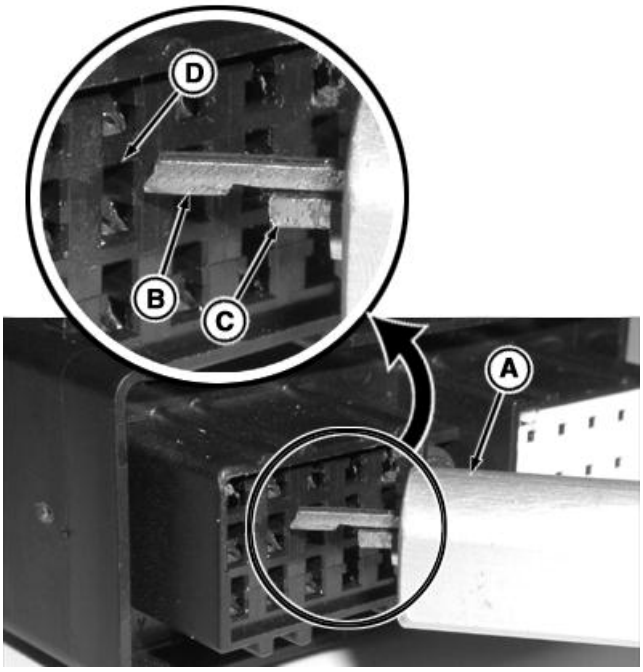
[5] - Install switch in reverse order of removal.

Replace Turn Signal Switch

[1] -

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



LEGEND:

A	JDG1868 Terminal Extraction Tool
B	Spring Loaded Finger
C	Stationary Finger
D	Ceiling

JDG1868 Terminal Extraction Tool

Insert JDG1868 Terminal Extraction Tool (A) into connector body window so that longer spring loaded finger (B) slides on ceiling (D) of window.

Terminal Extraction Tool

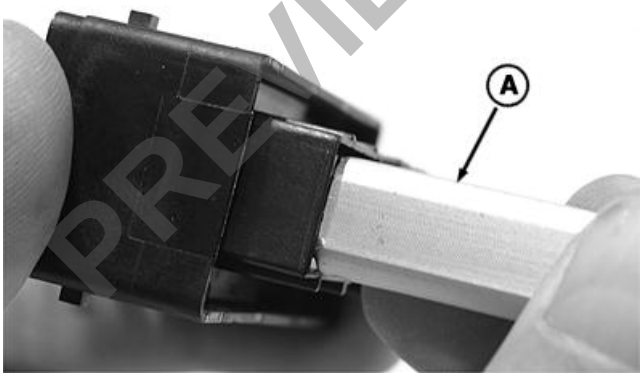
JDG1868

40 Electrical Repair

[6] -

→NOTE:

JDG1868 Terminal Extraction Tool (A) should be flush with face of connector body when fully inserted and terminal should be unlatched.



LEGEND:

A	JDG1868 Terminal Extraction Tool
B	Wire

JDG1868 Terminal Extraction Tool

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

→NOTE:

JDG145 Universal Electrical Pliers is part of JDG155 Electrical Repair Tool Kit.

Universal Electrical Pliers

JDG145

40 Electrical Repair

Electrical Repair Tool Kit

JDG155

40 Electrical Repair

Remove old contact from wire using JDG145 Universal Electrical Pliers.



Cable Seal Installation

IMPORTANT:

The seal must fit snug over the cable insulation, without a gap between the cable seal and the insulation.

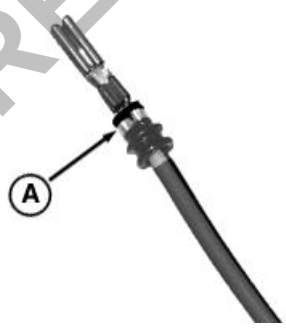
[6] - Push correct size cable seal on wire.

[7] - Strip insulation from wire to expose 6 mm (1/4 in.) and align cable seal with edge of insulation.

[8] -

LEGEND:

A	Cable Seal
B	JDG707 Crimping Tool



Example of Proper Crimping of Connector

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Install drive shaft shield (C).

Drain excess transmission-hydraulic oil to lower level back to full.

IMPORTANT:

After transporting, drain oil that was added for towing.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Remove cap screws (E), washers (F and G), and isolators (H) from operator side.

[7] - Take out steering valve (K) and plate (I) from control console through left side of the tractor.

[8] - Inspect steering valve, hoses, and fitting for wear or damage. Replace as necessary.

[9] -

IMPORTANT:

Always use new O-rings. Damaged or used O-rings leak.

Install new O-ring (J) on steering column.

[10] - Install isolators (H) into holes of mounting surface of control support from engine side.

[11] - Place washers (G) over each isolator from operator side.

[12] - Install valve with plate (I) secured, from engine side. Install washers (F). Tighten cap screws (E) to specification.

Item	Measurement	Specification
Steering Valve Mounting Cap Screw	Torque	30 N·m (22 lb·ft)

[13] -

→NOTE:

Ensure proper orientation of hose fittings.

Connect hydraulic hoses (A—D) to steering valve. Tighten fittings to specification.

Item	Measurement	Specification
Hydraulic Hose to Steering Valve Fitting	Torque	63 N·m (47 lb·ft)

[14] - Install Engine Control Unit (ECU). (See Replace Engine Control Unit (ECU) in Section 40, Group 15.)

[15] - Install cowl cover. (See Remove and Install Cowl in Section 90, Group 20.)

[16] - Lower hood. Operate steering and check for oil leaks.

[17] - Bleed steering system. (See Start-up Procedure After Hydraulic System Repairs in this group.)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Adapter Plate

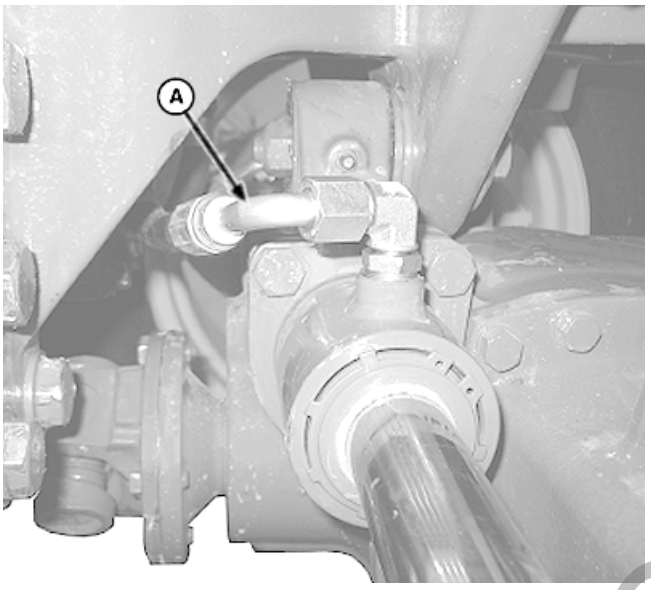
T25671

60 Steering and Brake Repair

[3] -

→NOTE:

Cap and plug lines and fittings to avoid hydraulic system contamination and oil loss.



LEGEND:
A Line (2 used)

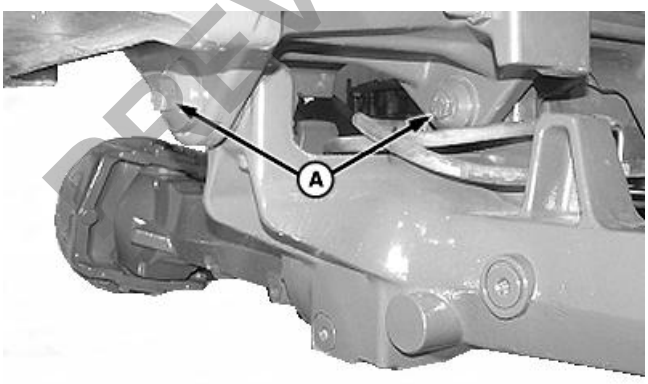
MFWD Steering Cylinder Lines

Disconnect hydraulic steering lines (A).

[4] - Remove front tires.

[5] - Remove drive shaft. (See Remove, Inspect and Install MFWD Drive Shaft procedure in Section 50, Group 05.)

[6] -



LEGEND:
A Cap Screw and Nut (2 used)

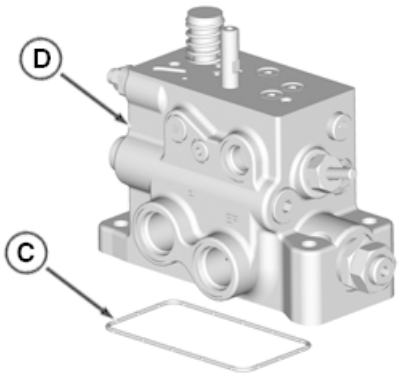
Front Axle Pivot Cap Screws

Remove cap screws and nuts (A).

[7] - Roll axle towards engine to clear axle pivot support.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



Hitch Valve

Identify, label, and disconnect lines and hoses from hitch valve.

[8] - Remove rate-of-drop cable (A) from front of hitch valve.

[9] - Remove cap screws (B) to remove hitch valve.

[10] -

IMPORTANT:

Use new O-rings during assembly. Damaged or used O-rings will leak.

Inspect all parts for wear or damage. Replace as necessary.

[11] - Install O-ring (C) and hitch valve (D).

[12] - Install cap screws (B). Tighten to specification.

Item	Measurement	Specification
Hitch Valve Retaining Cap Screw	Torque	70 N·m (52 lb·ft)

[13] - Install rate-of-drop cable (A).

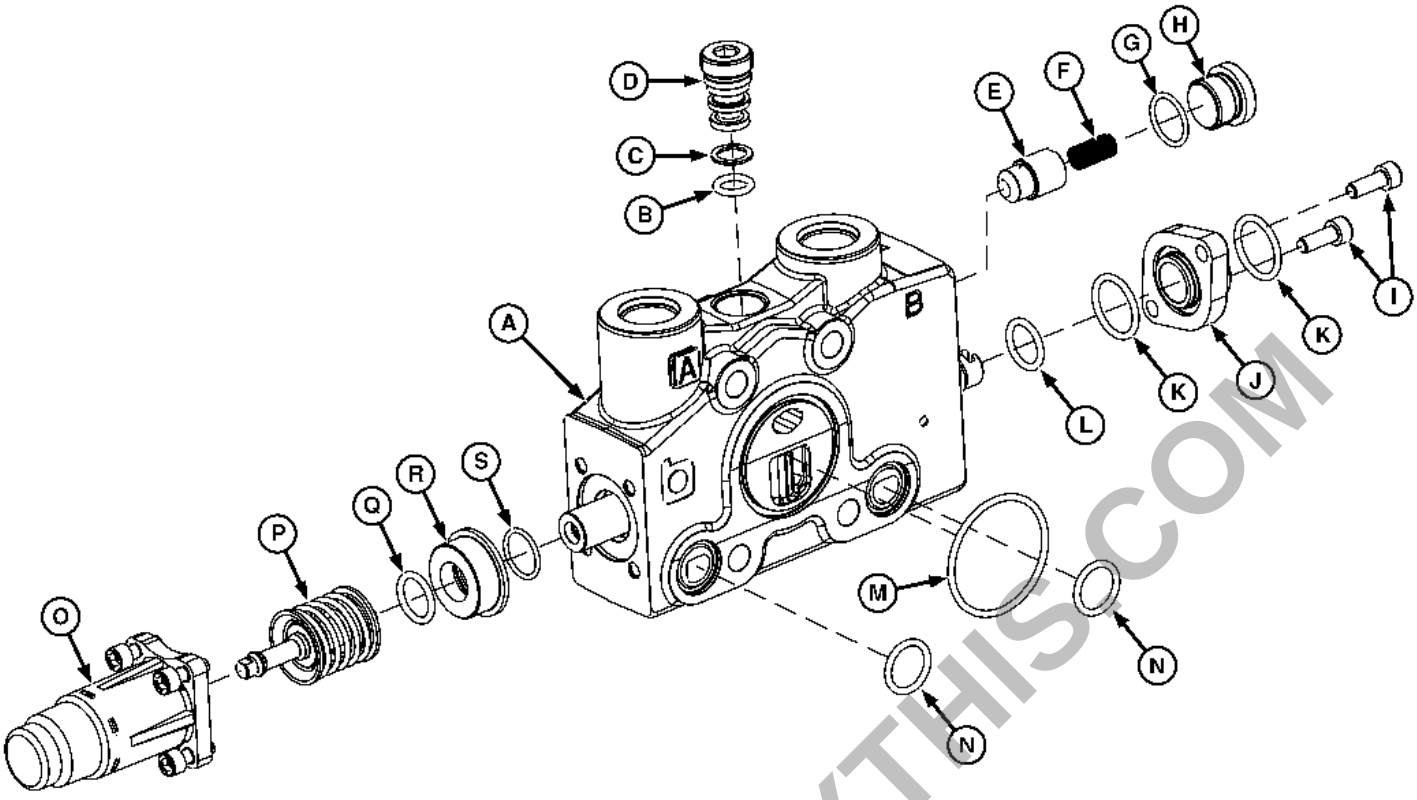
[14] - Connect lines and hoses.

[15] - Install and adjust hitch control cables or linkages. (See Draft Control and Position Control Linkage Adjustment—OOS or Draft Control and Position Control Cable Adjustment—Cab, in this Group.)

[16] - Operate machine hydraulics.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



Dual Rear Selective Control Valve (SCV) Spool I Section

LEGEND:

A	Valve Body
B	O-ring
C	Washer
D	Load Check Valve
E	Work Port Load Check Valve Poppet
F	Compression Spring
G	O-ring
H	Plug
I	Cap Screw (6 used)
J	End Plate
K	O-ring (2 used)
L	O-ring
M	O-ring
N	O-ring (2 used)
O	End Cap
P	Positioner Assembly
Q	O-ring
R	Float Detent Spacer
S	O-ring
T	Spool

1. Shift spool (T) into float position.
2. Remove work port load check valve components (E—H) and load check valve components (B—D).
3. Remove cap screws (I), end plate (J), and end cap (O).
4. Remove spool (T) from valve body (A).
5. Remove positioner assembly (P) from spool (T).
6. Remove float detent spacer (R) and inspect components (A—T). Repair or replace components as necessary.

IMPORTANT: Always use new seals and O-rings. Damaged or used seals and O-rings will leak.Apply clean hydraulic oil to all internal parts before assembly.

Install float detent spacer (R) on spool (T).

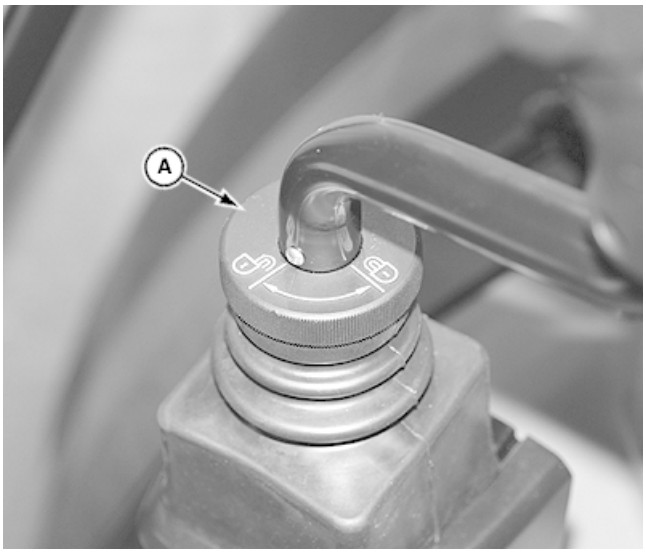
8. Apply PM37418 Thread Lock (medium strength)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Mid-Mount SCV Control Cable Adjustment

[1] -



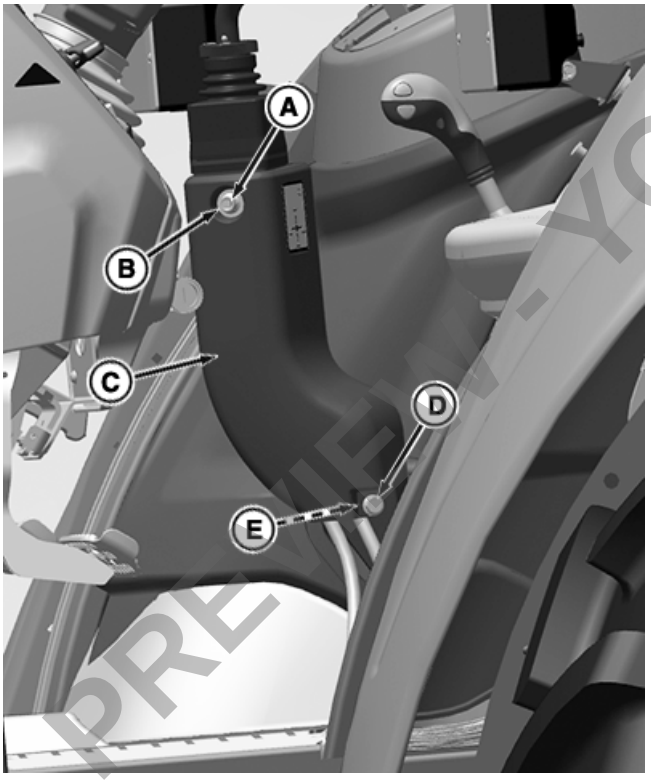
LEGEND:

A	Locking Ring

Locking Ring

Engage locking ring (A).

[2] -



LEGEND:

A	Nut
B	Washer (2 used)
C	Cover
D	Cap Screw
E	Spacer (3 used)

Multi-Function Lever Cover

Remove cover (C) by removing nut (A), washers (B), cap screw (D), and spacers (E).

[3] -

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

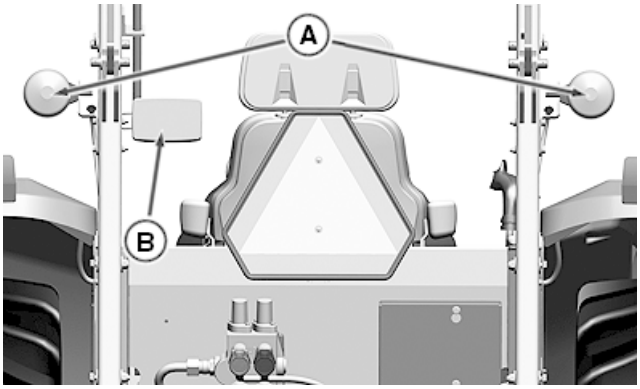
J	Cap Screw (8 used)
K	Washer (2 used)
L	Cap Screw (4 used)
M	Post (2 used)
N	Post
O	Crossbar

[1] -

→NOTE:

Identify and mark wires to ease installation.

Number of harness connectors and clamps depends on lighting package installed.



LEGEND:

A	Warning Lights (2 used)
B	Rear Work Light

ROPS Lighting

Remove warning lights (A) and rear work light (B).

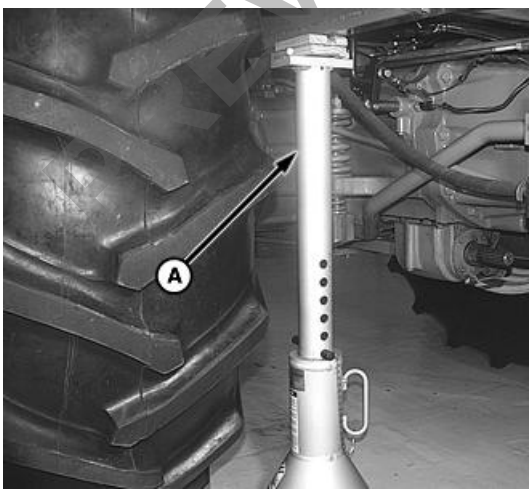
[2] -

IMPORTANT:

It is necessary to support rear of operator station to help prevent damage to wiring harness and linkage.

→NOTE:

Right-hand support shown.



LEGEND:

A	Support (2 used)

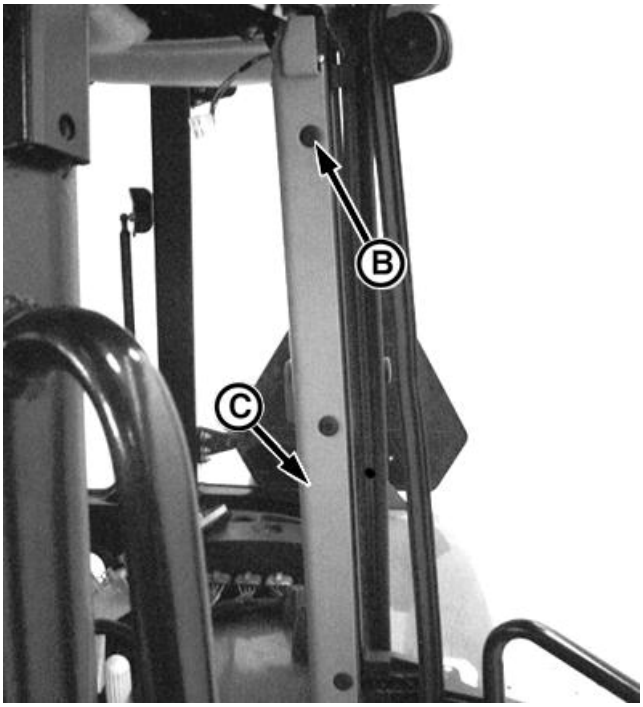
Support Operator Station

Position appropriate support (A) under operator station frame on both sides.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

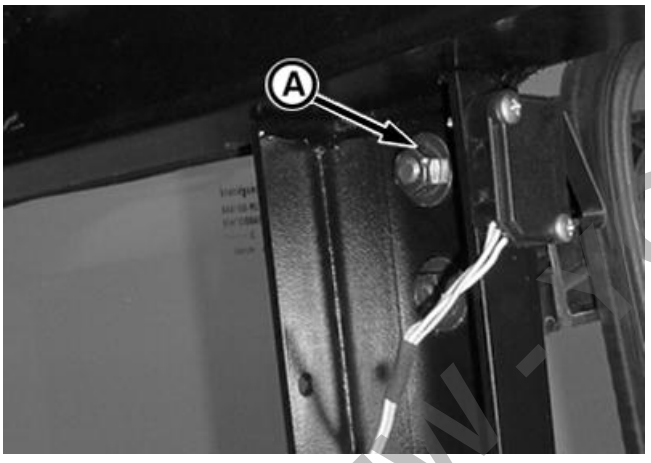
[3] -



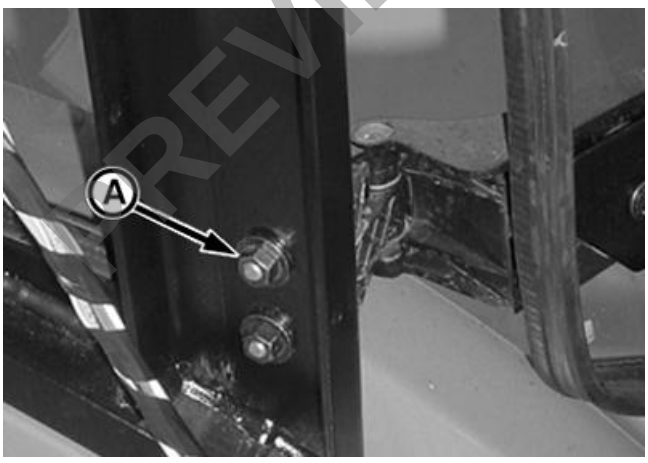
LEGEND:

A	Nuts (4 used)
B	Plastic Screws (6 used)
C	Center Cab Support Panel

Center Support Column



Door Mount



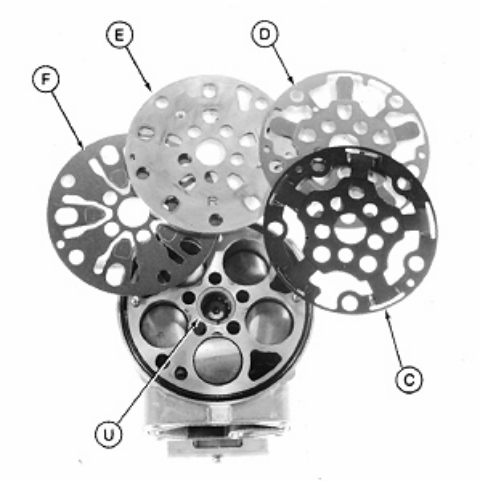
Door Mount

Remove plastic screws (B), center cab support panel (C), and nuts (A) from center cab support.

[4] -

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



Compressor

Apply R-134a oil to the bore of the front housing and install new seal (N) to the bottom of the bore using a socket. Install new snap ring (M) flat side down.

[8] -

IMPORTANT:

Bushing spacer (U) must be in position before assembling the compressor.

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

[9] -

→NOTE:

The rear valve plate is marked with an ”R” and is installed face up.

Install parts (F—D) over the pins on the rear cylinder.

[10] - Install a new rear gasket (C) flat side down and the rear housing (B) on the rear cylinder. Mount the compressor onto the holding fixture.

[11] - Install front pins (T) and new front O-ring (H) in the front cylinder.

[12] -

→NOTE:

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

Install parts (I—K) over the pins on the front cylinder.

[13] - Install a new front gasket (L) flat side down. Put JDG746 Compressor Seal Protector on the shaft and lubricate with R-134a refrigerant oil.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 699 pages

The full manual includes:

- All 699 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

John Deere 6105E, 6120E, 6135E Repair Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual