John Deere Agriculture

5055E, 5065E, 5075E, 5078E, 5085E & 5090E Tractors Technical Repair Manual

REPAIR MANUAL

South America models 5078E, 5085E, 5075E, 5055E, 5065E, 5090E

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TM801719, March 2012

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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



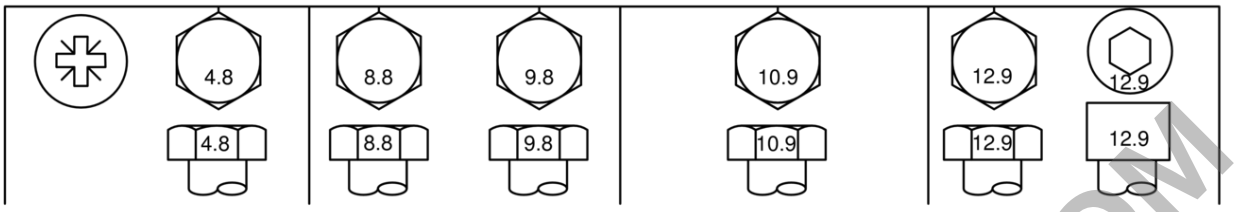
Signal Words

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Group 10 - Service Recommendations

Metric Bolt and Screw Torque Values



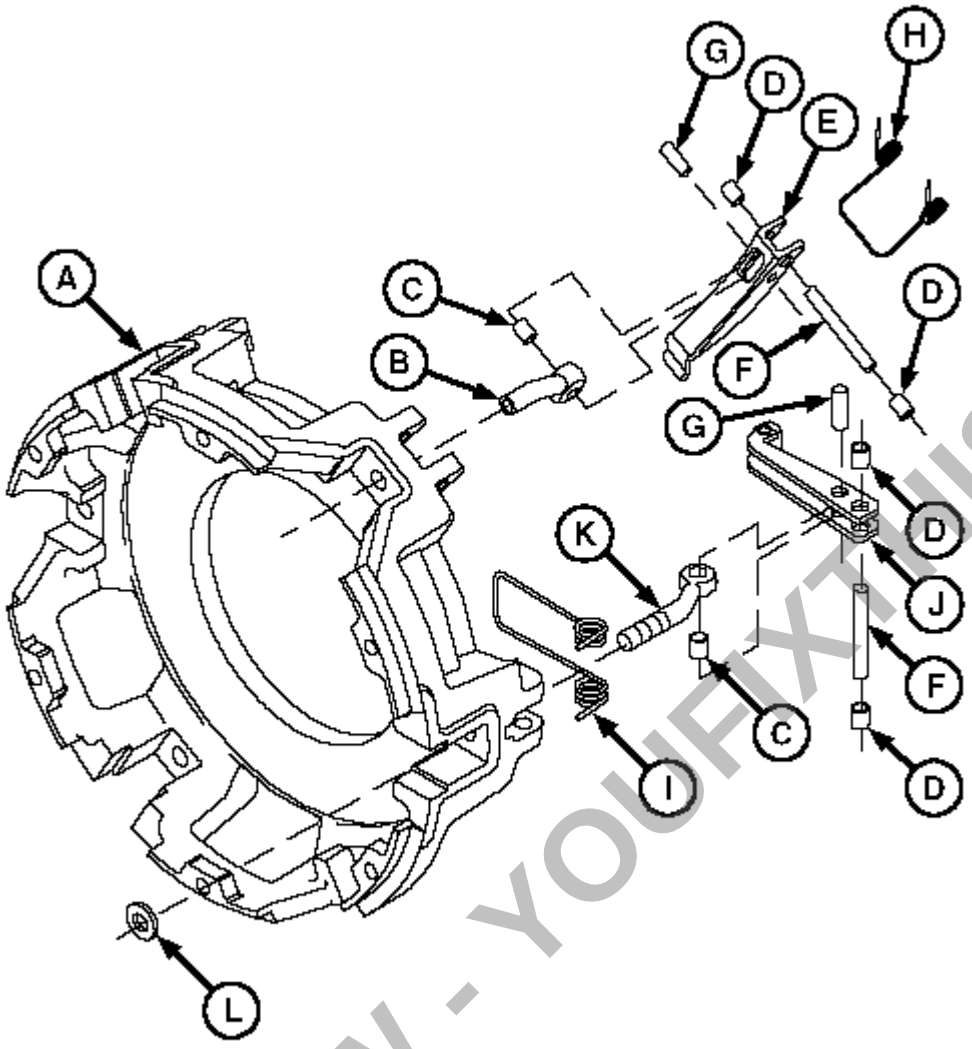
Metric Bolt and Screw

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

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Exploded view of plate

LEGEND:

- A Rear drive pressure plate
- B Adjuster (3)
- C Bushing (6)
- D Bushing (12)
- E Drive clutch drive fingers (3)
- F Pin (6)
- G Pin (6)
- H Spring (3)
- I Spring (3)
- J PTO clutch drive fingers (3)
- K Adjuster (3)
- L Bushing (3)

Disassemble parts (A—L).

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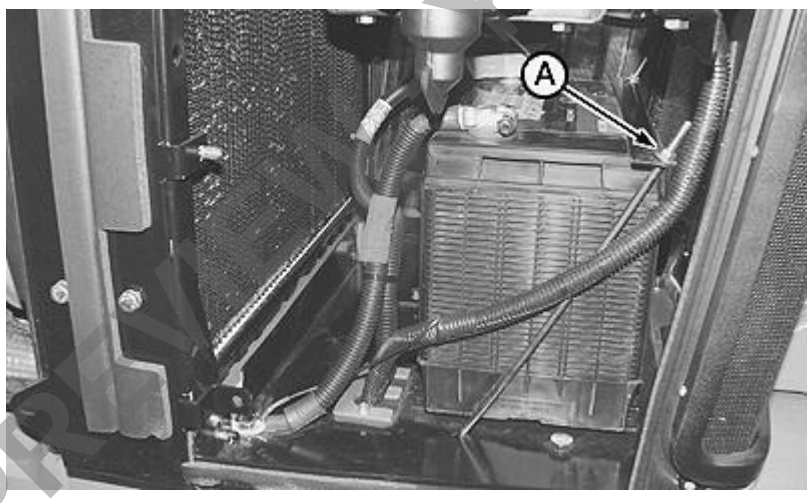
Group 05 - Battery, Starter Motor and Alternator

Removing and Installing the Battery

⚠ ***CAUTION:***



Battery handling and care



Battery Handling

LEGEND:

A Nut

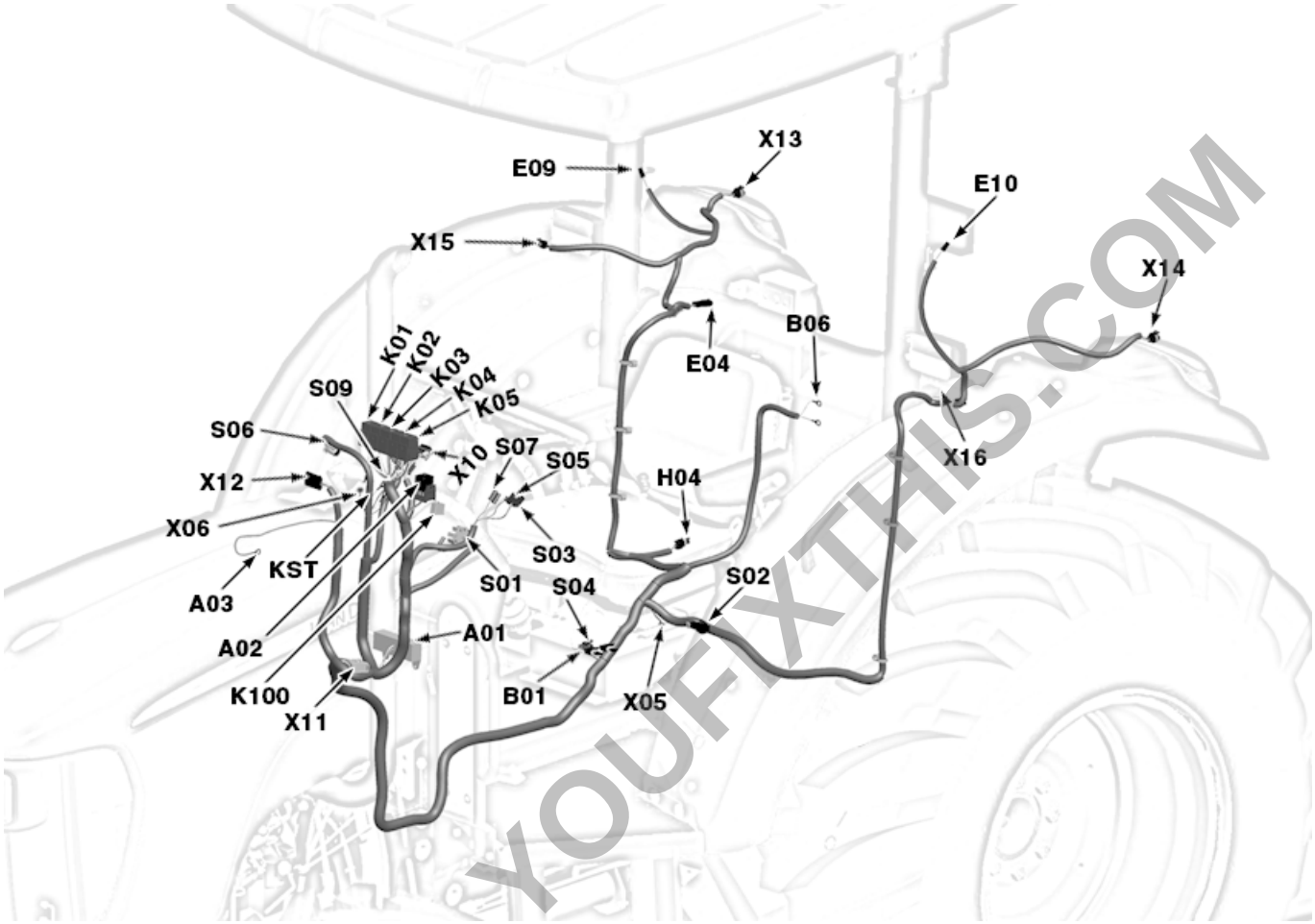
Keep sparks, lit matches and open flames away from the top part of the battery. Battery gas may explode.

Never check the battery charge by putting a metallic object connecting the terminals. Use a voltmeter or densimeter.

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Rear Wiring Harness (W01) - 5055E, 5065E, 5078E, 5085E and 5090E



Wiring harness

LEGEND:

A01	Fuse Box
A02	Diode Module
A03	Junction Box
B01	Neutral Start Switch
B06	Fuel Level Sensor
E04	Reverse Light
E09	Rear Right-Hand Presence Light
E10	Rear Left-Hand Presence Light
H04	Back-up Alarm
KST	Starter Relay
K01	Position Lights Relay
K02	Fuel Cut-Off Relay
K03	Rear Presence Lights Relay
K04	Left-Hand Turn Signal Relay
K05	Right-Hand Turn Signal Relay
K100	Turn Signal Relay
S01	Starter Switch
S02	PTO Switch

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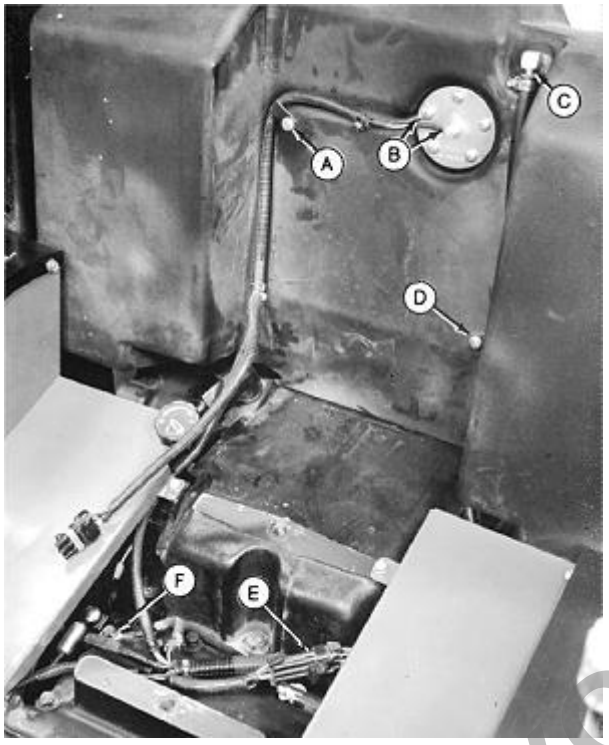
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Separating Clutch Housing from Transmission

[1] -

→NOTE:

Approximate transmission capacity is 38 liters.



Operating platform without seat

LEGEND:

A Clamp
B Wiring harness
C Fuel return line
D Clamp
E Connector
F Ground Wire

Drain transmission.

[2] - Remove seat.

[3] - Remove clamps (A and D).

[4] - Disconnect electric cable (B).

[5] - Disconnect fuel line (C).

[6] - Disconnect electric cable (F).

[7] - Disconnect connector (E).

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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.

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[1] - First disconnect negative (—) cable followed by positive cable (+).

[2] - Remove nut (A) on both sides and remove rod.

[3] - Remove battery. Clean and service as necessary.

[4] - Install battery.

[5] - Install rod and nuts (A).

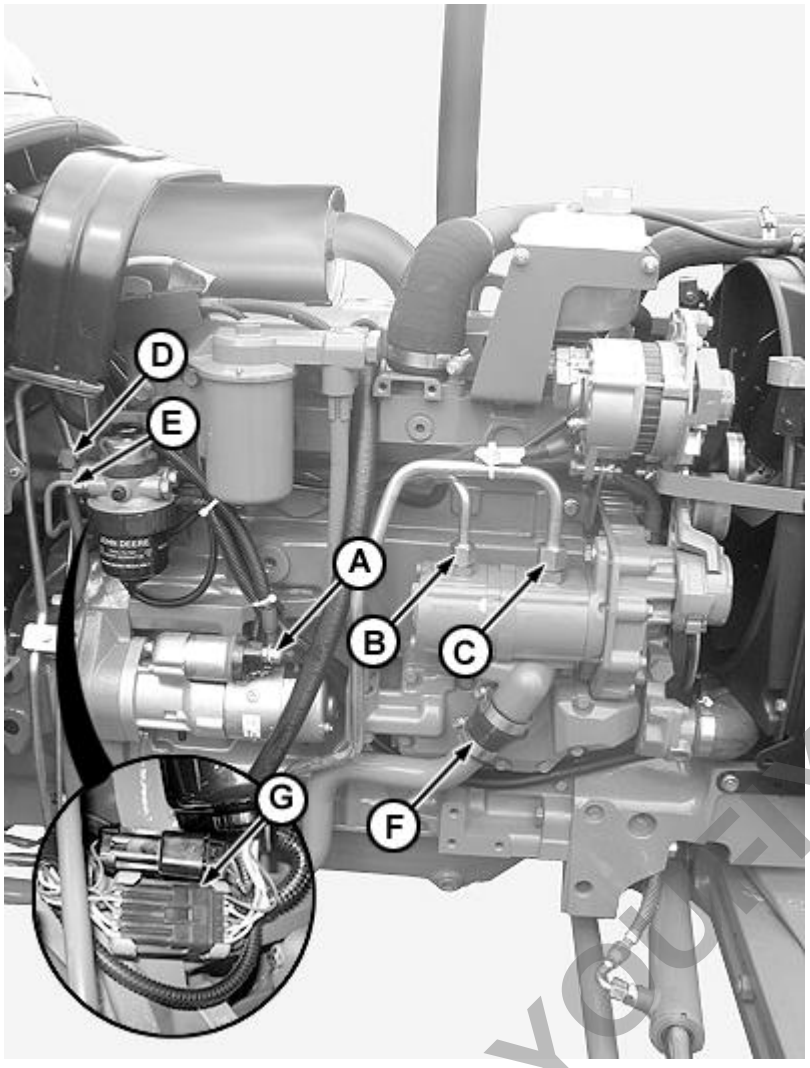
Item	Measurement	Specification
Nut (A)	Torque	5 N·m

[6] - Coat battery cable terminals and cables with petroleum jelly.

[7] - Connect positive (+) cable followed by negative cable (—).

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External Engine Components

LEGEND:

- A Starter motor cable
- B Steering pressure line
- C Hydraulic system pressure line
- D Fuel hose
- E Fuel filter line
- F Suction line
- G Connector

Connect starter motor cable (A).

[11] - Connect connector (G).

[12] - Connect line (E) and hose (D).

[13] - Install hood and side shields.

[14] - Install MFWD drive shaft, if equipped (See procedure inGroup 35.)

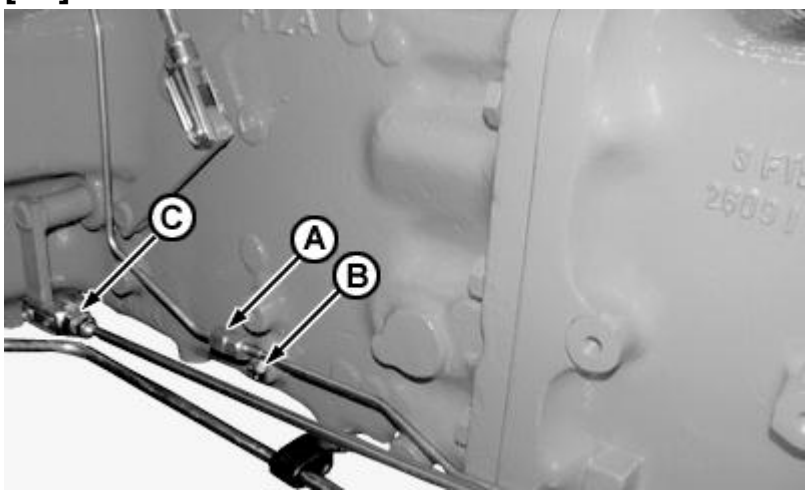
[15] - Adjust accelerator rod.

[16] - Connect negative cable (-) of battery.

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[14] -



Left-Hand Brake Line

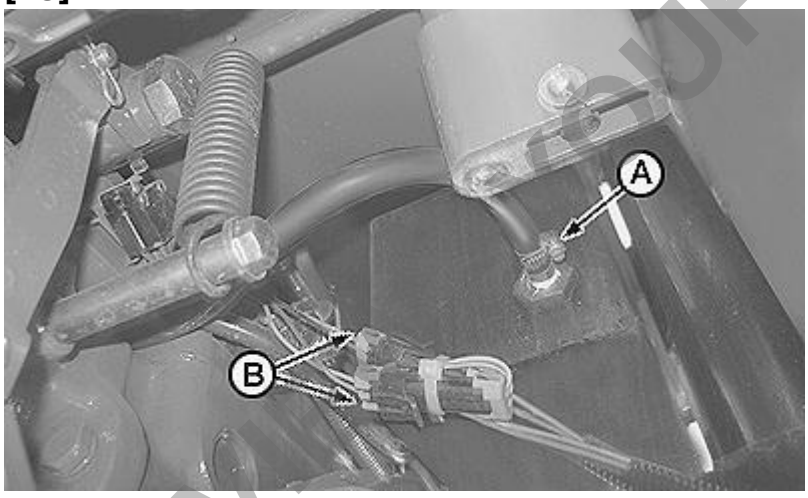
Remove left-hand floor plate.

[15] - Disconnect brake line (A).

[16] - Remove bolt (B).

[17] - Remove PTO clutch rod (A).

[18] -



Disconnect connectors

LEGEND:

A Fuel hose
B Connectors

Disconnect connectors (B).

→NOTE:

Fuel tank capacity is approximately 100 liters.

[19] - Drain fuel tank.

[20] - Disconnect fuel hose (A).

[21] - Remove wiring harness from rear part of tractor.

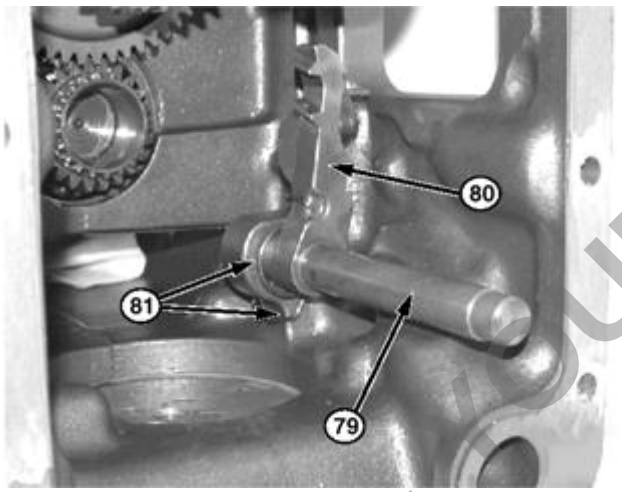
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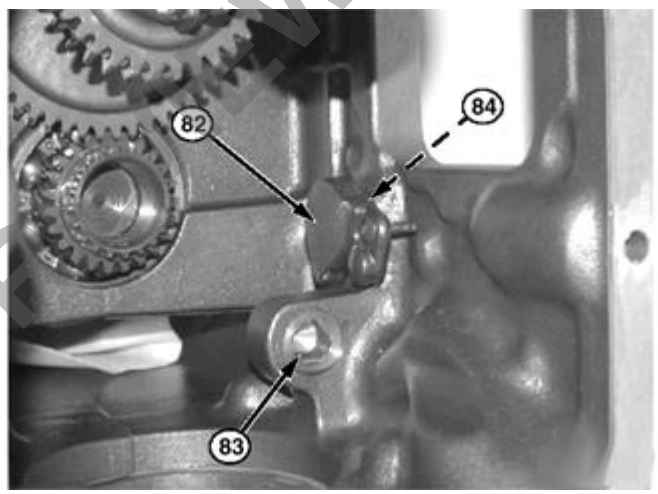
Parking brake kit

Assembly components

Quantity	Description
1	P - Joint between the cover and the transmission
1	Q - Gasket between transmission and differential
1	R - PTO clutch O-ring
2	S - PTO drive coupler spring pins
1	T - Hydraulic to transmission line O-ring
1	U - Steering return to differential O-ring
2	V - Brake lines from the two sides O-ring
2	W - PTO link spring pin



Internal view of transmission



Internal view of transmission

Removing old parking brake components

Remove and store parking brake rentention shaft (79).

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Removing, Inspecting and Installing Driven Shaft

[1] -

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[9] -



Connect Spring Scale

LEGEND:

A Cord
B JDT42 Spring scale

Wrap cord (A) (approximately 1m or 3 ft) around differential drive shaft.

[10] - Connect JDT42 Spring Scale (B) or equivalent to cord end.

[11] - Pull spring scale and write down force required to begin turning differential drive shaft, while holding sleeve. Repeat several times to obtain a precise reading. Applied force should be within specification. If force is excessive, add shims. If force is too low, remove shims. Check and readjust until force is within specified range.

Item	Measurement	Specification
Initial Turning Drag Force of Differential Drive Shaft.	Power	0.36—1.08 Kg (0.8—2.4 Lb)

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[14] -



MFWD housing

LEGEND:

A	O-ring and cover
B	Bolts (4 used)
C	O-ring and plug

Apply multi-purpose grease to internal edges of cover retainer.

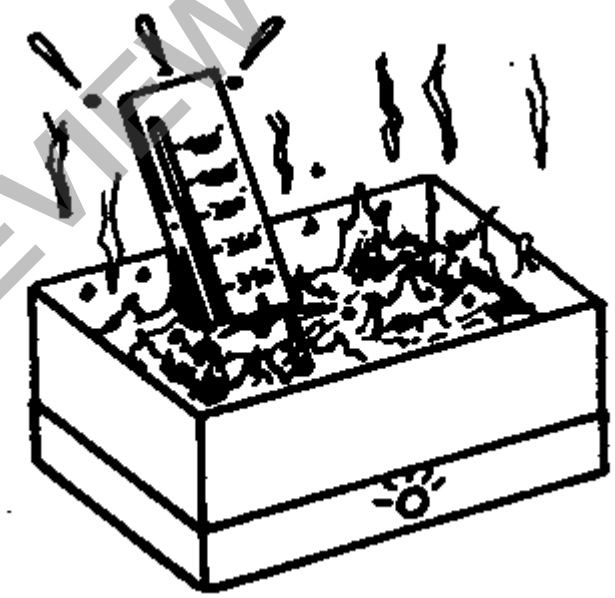
[15] - Install O-ring and cover (A).

[16] - Install four bolts (B) and tighten to specification.

Item	Measurement	Specification
MFWD cover bolts	Torque	26 N˙m (230 lb-in.)

[17] - Install new O-ring and plug (C).

[18] -

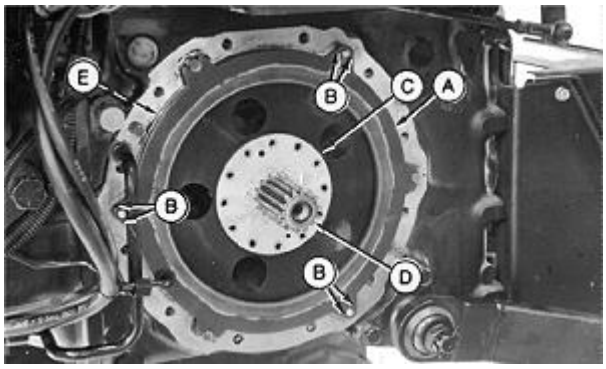


Thermometer use

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Removing and Inspecting Brakes



Friction disk

LEGEND:

A	Actuator plate
B	Lever positions
C	Friction disk
D	Final drive shaft
E	Support plate

[1] - Remove final drive assembly (See procedure inSection 50, group 30)

[2] -

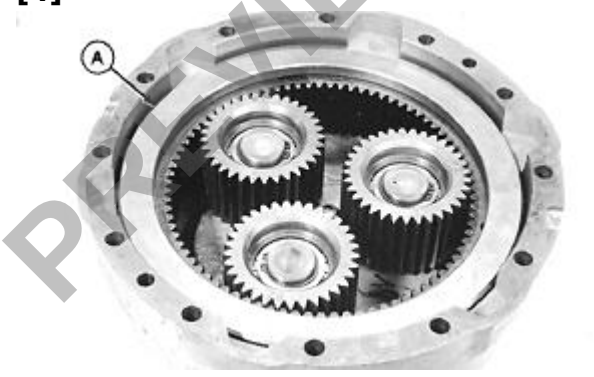
IMPORTANT:

Apply pressure only in positions indicated on plate actuator. To lever anywhere else on plate may bend or damage it.

Remove plate actuator assembly (A) using a lever. Apply equal force to positions (B) until plate assembly can be removed.

[3] - Remove friction disk (C), final drive shaft (D) and support plate (E).

[4] -



Brake snap ring

Remove snap ring (A) using a lever. (Apply pressure equally during removal.)

[5] - Check snap ring and snap ring bore on shaft housing for damages and scratches.

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[13] - Install clips (B).

[14] - Install housing. (See "Replace Hydraulic Hitch Control Valve"in this group.)

[15] - Install hydraulic hitch housing. (See procedurein this group.)

[16] - Adjusting hydraulic hitch position and traction rods. (See procedure inSection 70, Group 16.)

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