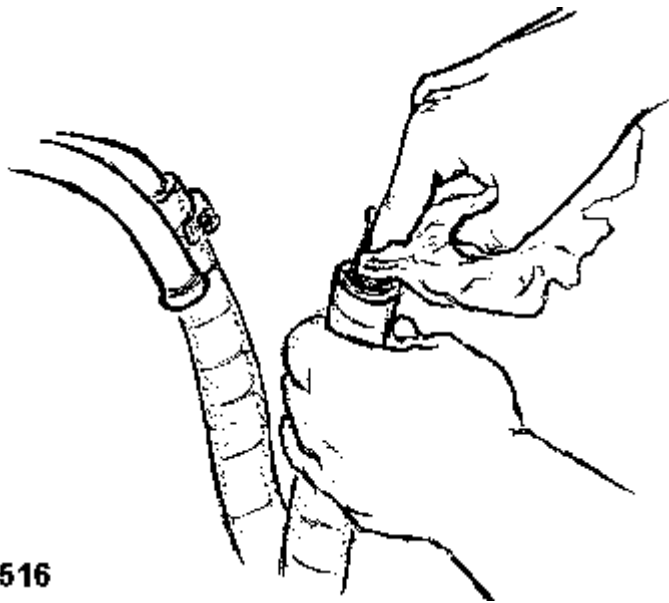


PREVIEW - YOUFIXTHIS.COM

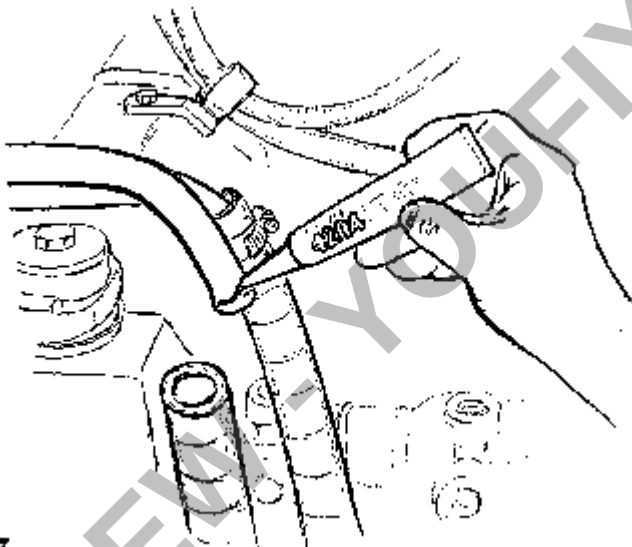
Refer to the relevant Group of the Technical Manual in the event of any malfunction.

PREVIEW - YOUFIXTHIS.COM

Installing Oil Hoses



LX1023516



LX1023517

On all oil hoses that are secured with hose clamps, the following procedure is recommended:

- [1]** - Always install oil hoses that are either new or as good as new. This will ensure that the hose joints are properly seated.
- [2]** - Before joining the hose end to the oil line (or fitting), always clean both parts of the joint. Use lint-free cloths or paper towels in conjunction with LOCTITE™ cleaner.

⚠ CAUTION:

When using adhesive and cleaner, comply with the safety instructions and instructions for use provided by the manufacturer.

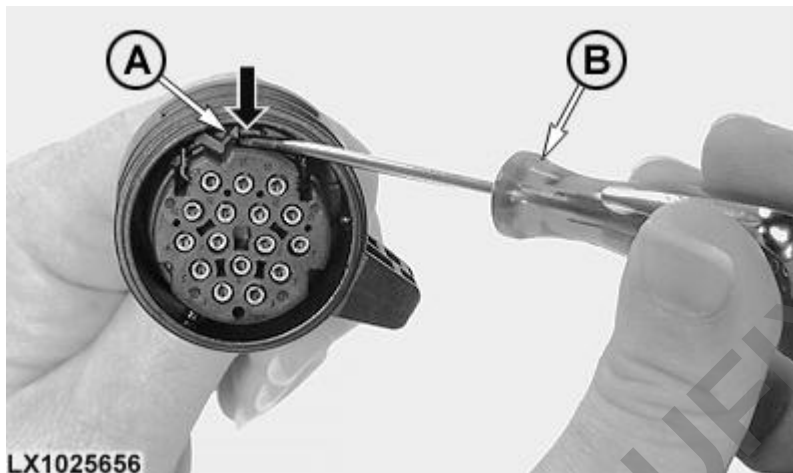
KOSTAL connectors

→NOTE:

KOSTAL connectors

[KOSTAL is a trademark of KOSTAL Kontakt-Systeme.]

Disengaging the terminal lock



Use a small screwdriver (B) to press terminal lock (A) out at the point indicated.

Extracting a female terminal



Use extraction tool KLM10019-4 (A) to extract the female terminal.

**CAUTION:**

Disconnect the battery ground cable (-).

IMPORTANT:

Always relieve tension on drive belt before removing the alternator.

Take the drive belt off the pulley.

Disconnect wires (A) and (B) from the alternator.

Remove the two cap screws (C).

Replace the alternator.

For assembly, reverse disassembly procedure.

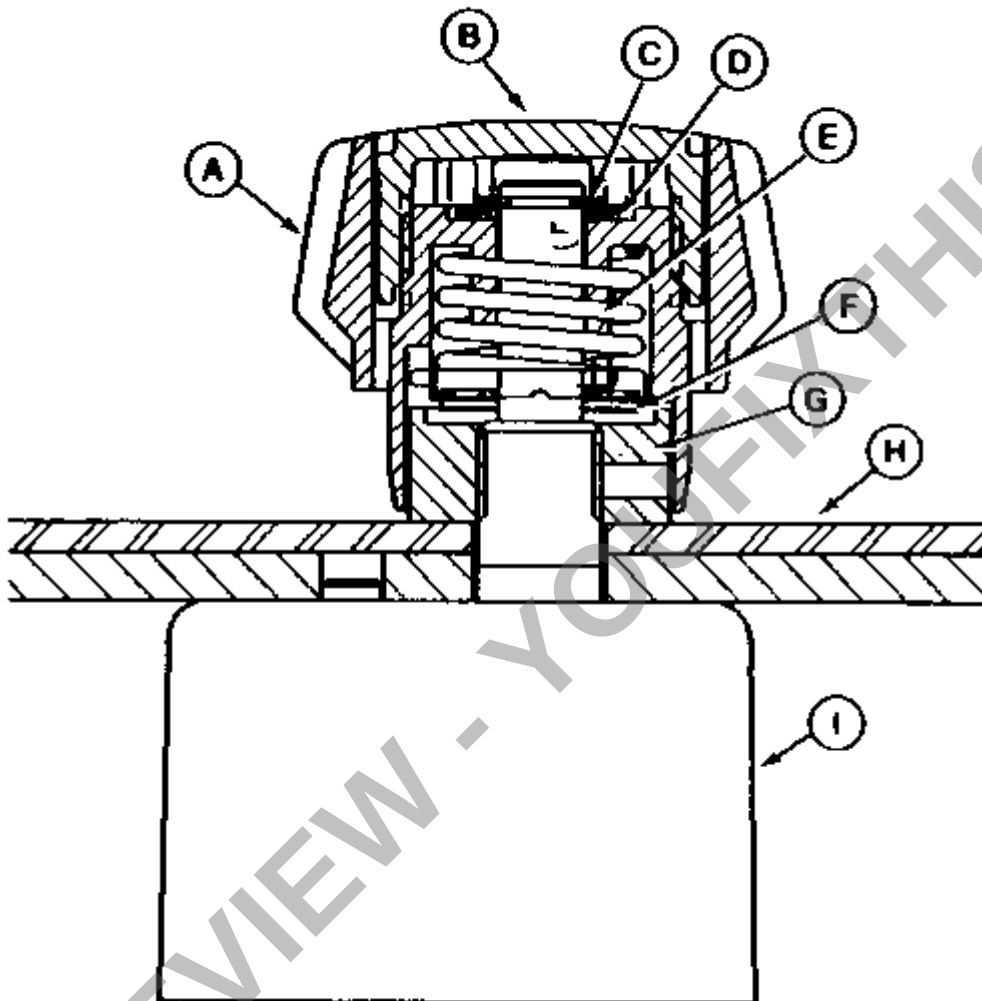
Tightening torques for installation:

Item	Measurement	Specification
Hex. nut (A) at terminal 30	Torque	18 N·m
		13 lb-ft
Hex. nut (B) at terminal D+	Torque	5 N·m
		4 lb-ft
Cap screws (C)	Torque	50 N·m
		37 lb-ft

Remove cover from control console.

Disconnect plug (B).

Replacing the PTO switch



LEGEND:

A	Knob
B	Knob cap
C	Snap ring
D	Washer
E	Spring
F	Washer
G	Collar
H	Shift console
I	Switch

Group 10 - Power Shift Transmission

Special Tools

→NOTE:

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

Bearing Race Installer

JDG740



Install bearing race on C_{10} hub

Bearing Installer

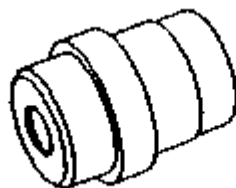
JDG741



Install bearing in B_1 and C_3 piston housing

Bushing Installer

JDG742



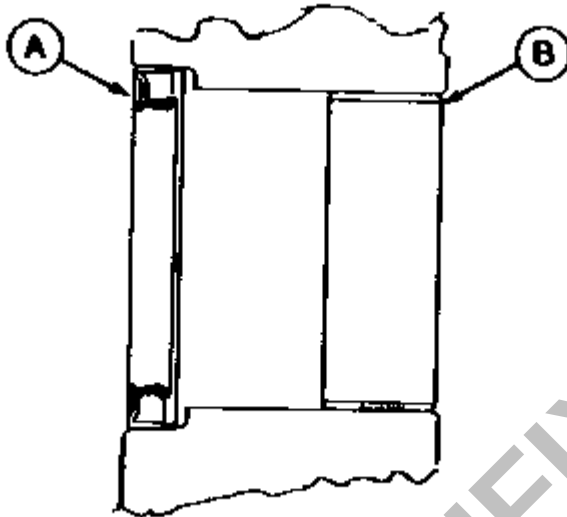
Install bushings in low-range drive shaft

Assemble Output Planetary Carrier Assembly

[1] -

→NOTE:

Refer to Output Planetary Carrier Assembly-Cross Sectional View and Planetary Carrier Assembly-Exploded View during assembly.



Install the C₁ driveshaft-to-carrier bushing (B) into the center wall flush to 0.5 mm (0.020 in.) below the finished surface using a 2-3/8 in. driver disk with a 1-5/8 in. pilot disk.

Bushing, Bearing, and Seal Driver Set

D01045AA

Remove and install bearing cups, bearing cones, and bushings.

[2] - Install the oil seal (A) with lip facing the front of the carrier, flush to 0.5 mm (0.020 in.) below finished surface using a 2-3/8 in. driver disk and a 1-9/16 in. pilot disk.

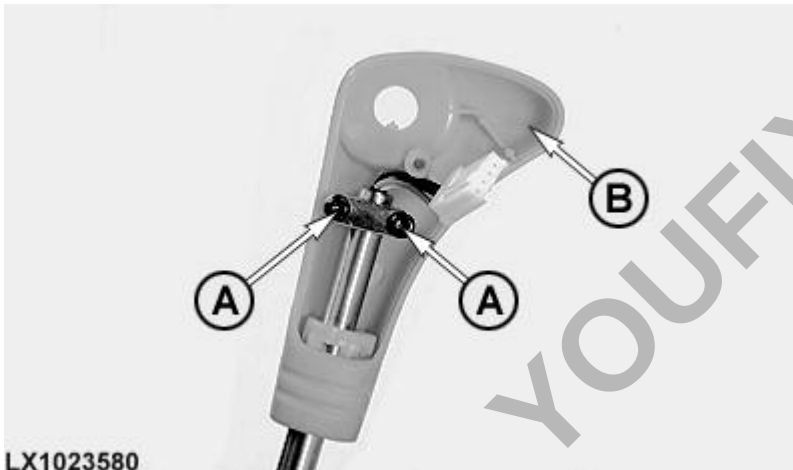
[4] -



LX1022821

Disconnect plug (A), which connects potentiometer (B).

[5] -



LX1023580

Remove attaching screws (A).

Remove half (B) of the grip from the speed control lever.

[6] -

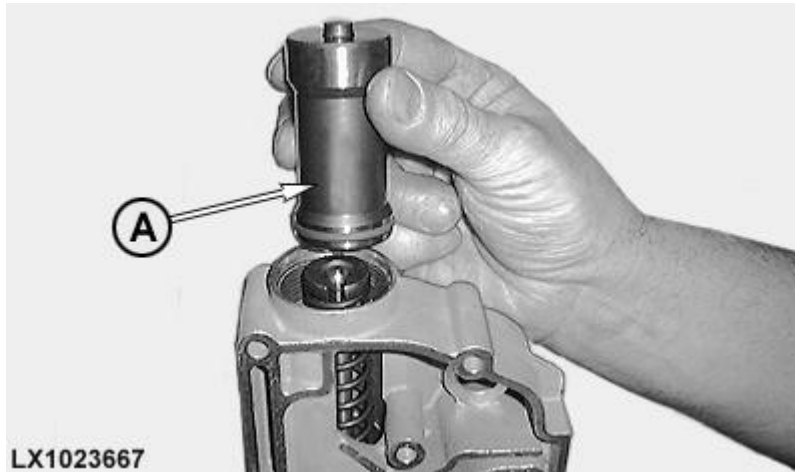


LX1023581

Remove the lower halves (A) of the grip.

[11] - Take the seal rings off the cylinder.

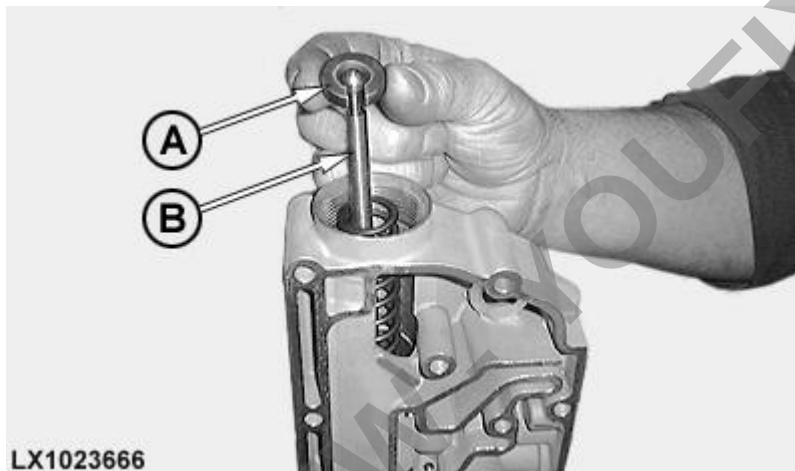
[12] -



Remove piston (A).

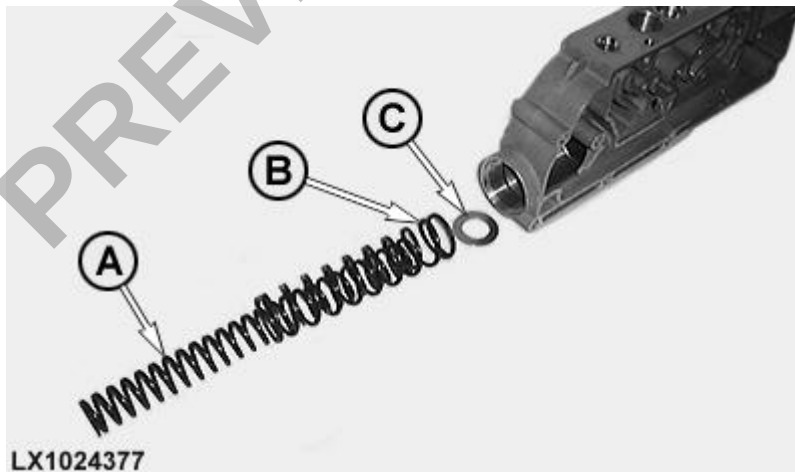
[13] - Take the seal rings off the piston.

[14] -



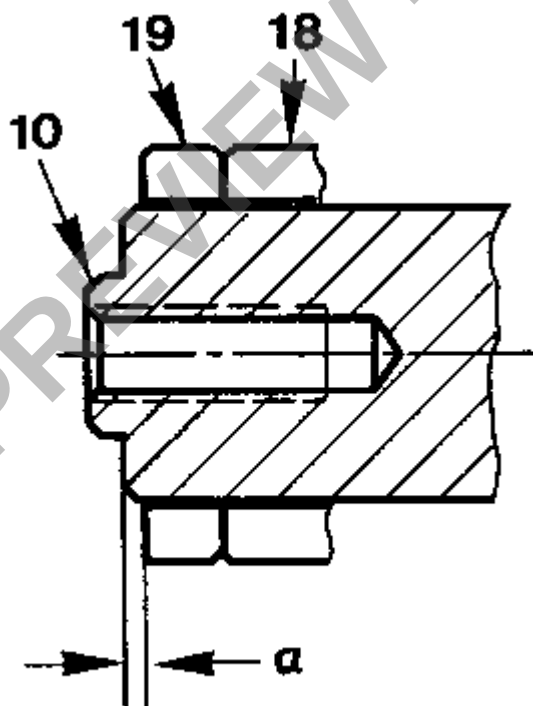
Remove rod (B) and washer (A).

[15] -



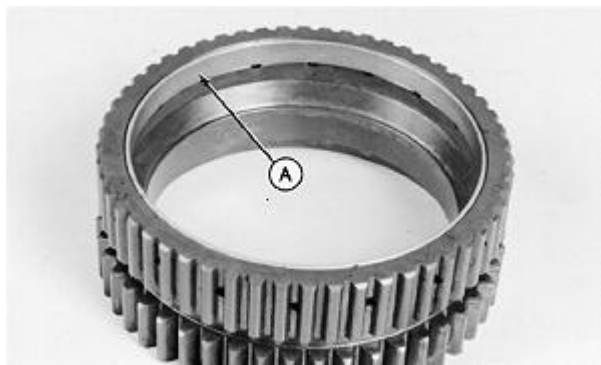
Remove springs (A) and (B) and washer (C).

- 15 Shift lever
- 16 Shift quadrant, ranges C and D
- 17 Bushing
[With 16-speed transmission only]
- 18 Shift quadrant
[With 20-speed transmission only]
, range E
- 19 Washer
- 20 Shim (thickness as required)
- 21 Bracket
- 22 Bowden cable, parking lock
- 23 Bowden cable, ranges A and B
- 24 Bowden cable, ranges C and D
- 25 Bowden cable
[With 20-speed transmission only]
, range E
- 26 Rubber sleeve
- 27 Switch
[With 16-speed transmission only]
[Japan and Italy only]
, reverse lockout, range D
- 28 Shift quadrant
[With 16-speed transmission only]
[Japan and Italy only]
, ranges C and D
- 29 Switch
[With 20-speed transmission only]
[Japan and Italy only]
, reverse lockout, range E
- 30 Shift quadrant
[With 20-speed transmission only]
[Japan and Italy only]
, range E



LX1016978

[5] -



Remove bushing (A) from the 3rd sun gear, if necessary.

[6] - Install new bushing using 3-13/16 in. pilot disk and a 4-1/2 in. driver disk.

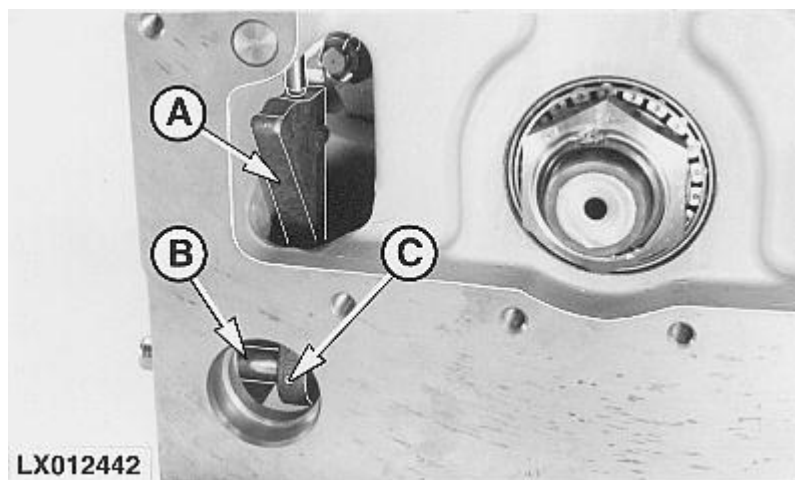
[7] - Install bushing flush with surface of gear.

[8] -



Inspect the 1st sun gear and thrust washer (A). Replace parts, if necessary.

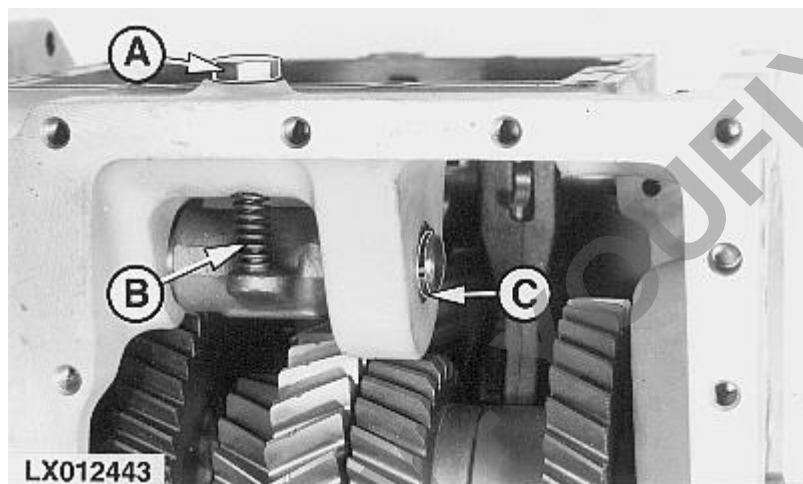
[6] -



On tractors with reverse gear lock, remove spring pin (C) and locking lever (A).

[7] - Pull out lever shaft (B).

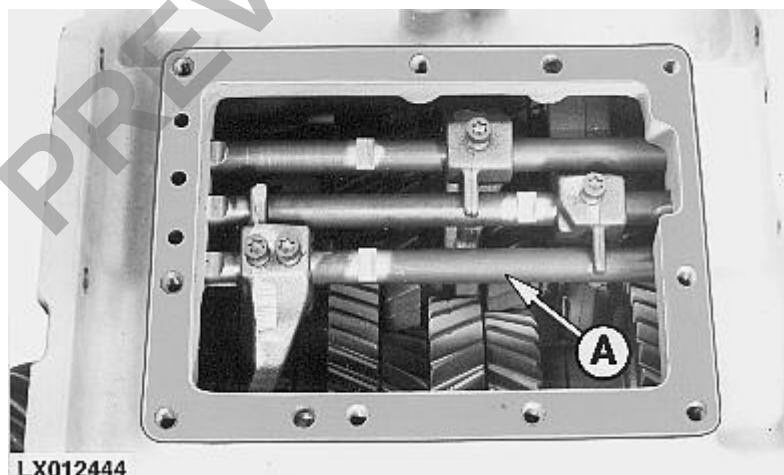
[8] -



Remove plug (A) and spring (B).

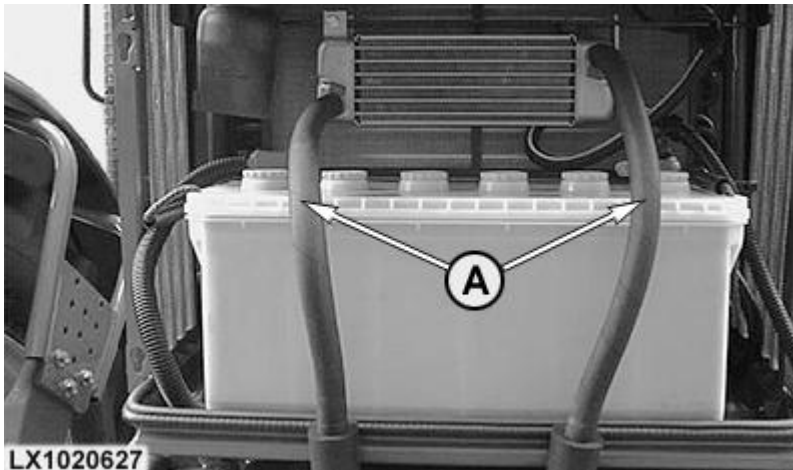
[9] - Remove snap ring (C) and parking lock pawl.

[10] -



Remove shifter rail (A).

Removing the front PTO



Remove grille screen.

Disconnect hoses (A) from front PTO oil cooler and seal open ends.

IMPORTANT:

When re-installing, comply with the instructions on installing hoses. See "Installing Oil Hoses", Section 10, Group 05.



Disconnect plug (A) from solenoid valve.

Other Material

Number	Name	Use
• TY15941 (us)	Retaining Compound	Install planet pinion retaining cap screws

Specifications

Item	Measurement	Specification
Planetary pinion, new bearings	Rolling Drag Torque	0.6 to 3.0 N·m 6 to 24 in·lb
Planetary pinion, used bearings	Rolling Drag Torque	0.3 to 1.5 N·m 3 to 12 lb-in.
Axle diameter at outer bearing	New diameter	81.050 to 81.083 mm 3.191 to 3.192 in.
Planet pinion carrier to axle shaft, special screw	Torque	908 N·m 670 lb-ft
Planet pinion carrier to axle shaft, special screw	Torque	50 N·m 37 lb-ft
Final drive housing, new bearings	Rolling Drag Torque	16 to 32 N·m 12 to 24 lb-ft
Final drive housing, used bearings	Rolling Drag Torque	8 to 16 N·m 6 to 12 lb-ft

Repair Instructions

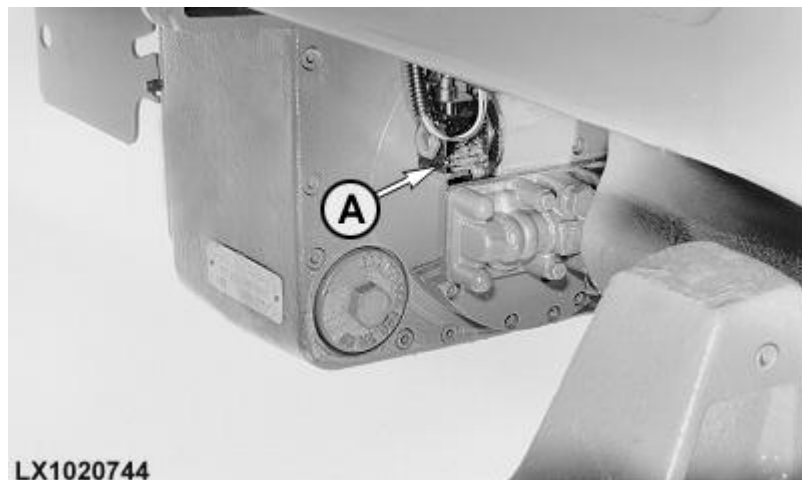
- When assembling, coat all components with hydraulic oil.
- When assembling, coat needle bearings and thrust washers with a thin film of grease.
- Never heat bearing cones to temperatures higher than 150°C (300°F).

Preliminary Work

Remove final drives. See [“Removing the Final Drives”](#) in Group 00 of this Section.

Repairing Solenoid Valve

[1] -

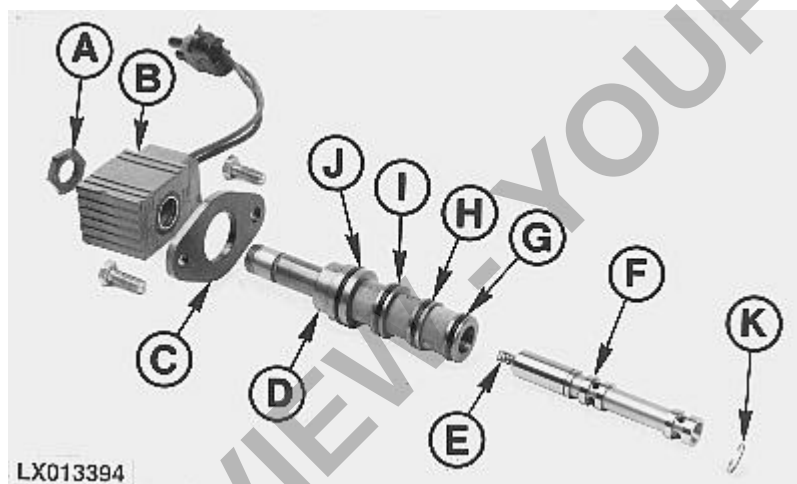


Disconnect the cable.

[2] - Remove hex. nut and solenoid coil (A).

[3] - Remove both flange cap screws and pull valve out of bore.

[4] -



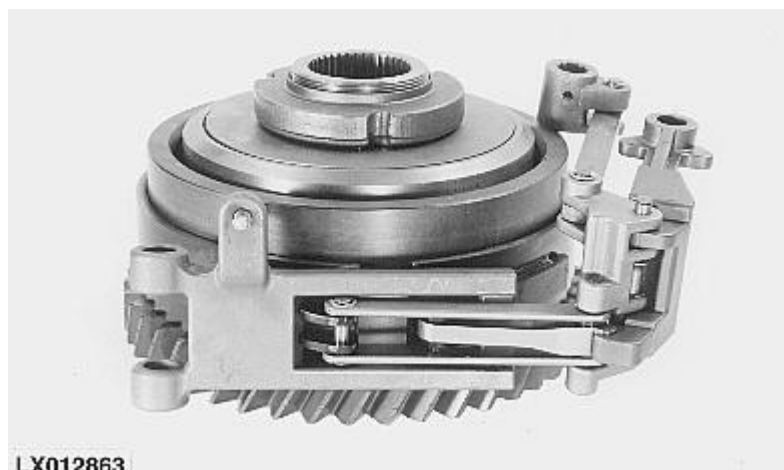
LEGEND:

A	Hex. nut
B	Solenoid switch
C	Flange
D	Spool
E	Spring
F	Sleeve
G	O-ring
H	O-ring
I	O-ring
J	O-ring
K	Snap ring

Check solenoid valve for damage, clean, oil and re-assemble.

K	Steering column
L	Pin
M	Shaft (replace as complete assembly)

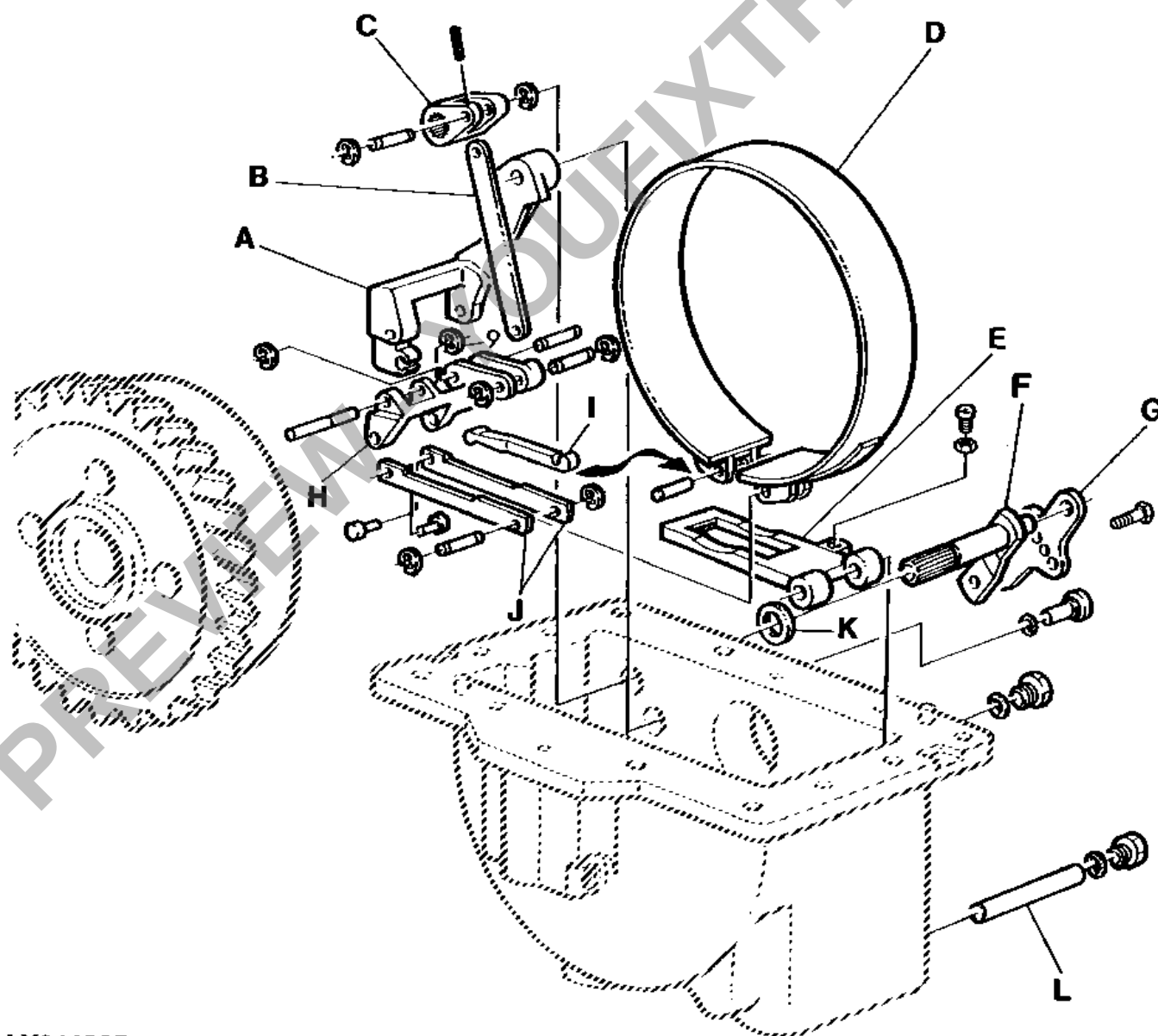
PREVIEW - YOUFIXTHIS.COM



LX012863

Take the brake band off the clutch.

Exploded View of Handbrake - 6810 Tractor



LX011835

LEGEND:

[7] - Place all control valves in neutral and determine the pressure.

Item	Measurement	Specification
Hydraulic pump:		
Hydraulic system, min. system pressure	Pressure	2800 to 3300 kPa (28 to 33 bar) (406 to 479 psi)

[8] - Remove hex. socket plug (B). Use a 1/4 in. hex key to tighten the inner adjusting screw and increase pressure; loosen the screw to reduce pressure.

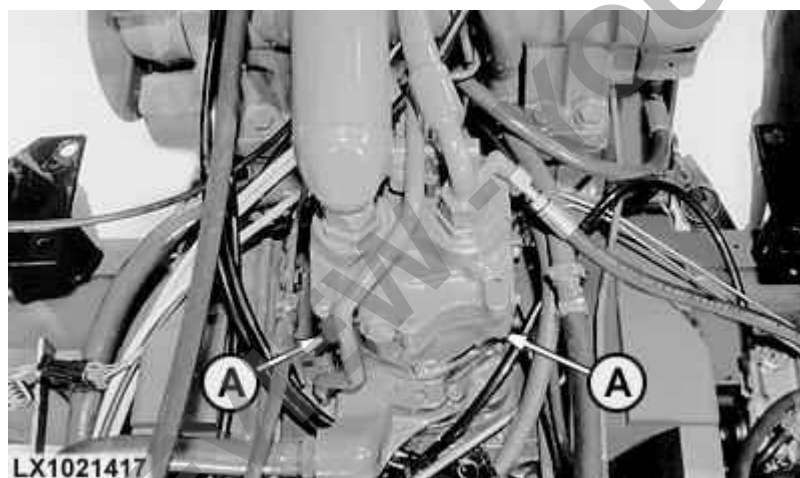
→NOTE:

Turning the screw by 1/8 of a turn changes the pressure by 300 kPa (3 bar; 44 psi).

Re-install the hex. socket plug.

Possible causes for the specified pressure not being reached: defective controller, defective pump, insufficient charge oil, missing or incorrectly installed shuttle valves, defective pump drive.

Removing the Hydraulic Pump

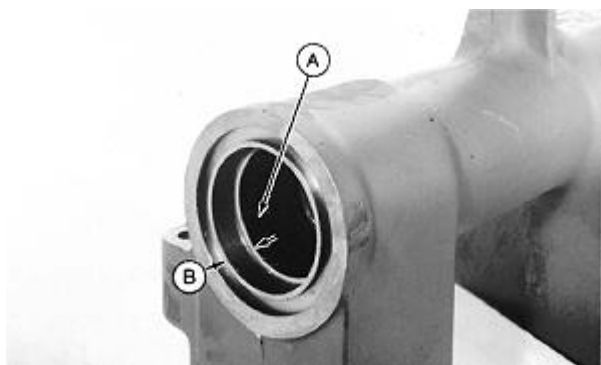


Disconnect all oil lines at the pump and seal the openings with stoppers.

Take out the two cap screws (A).

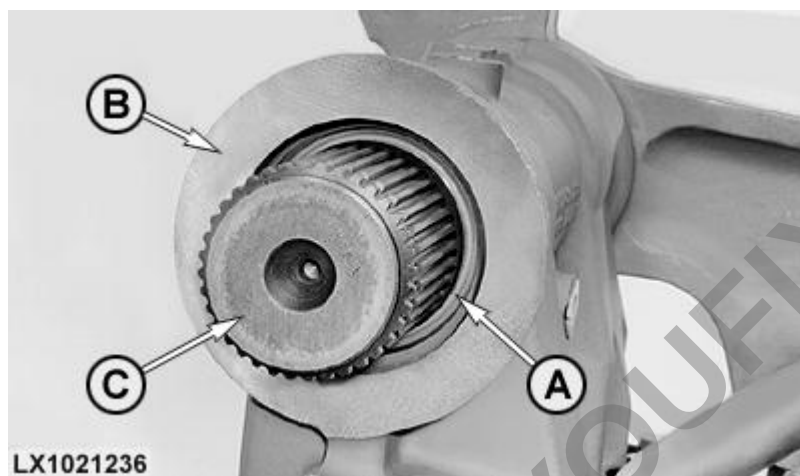
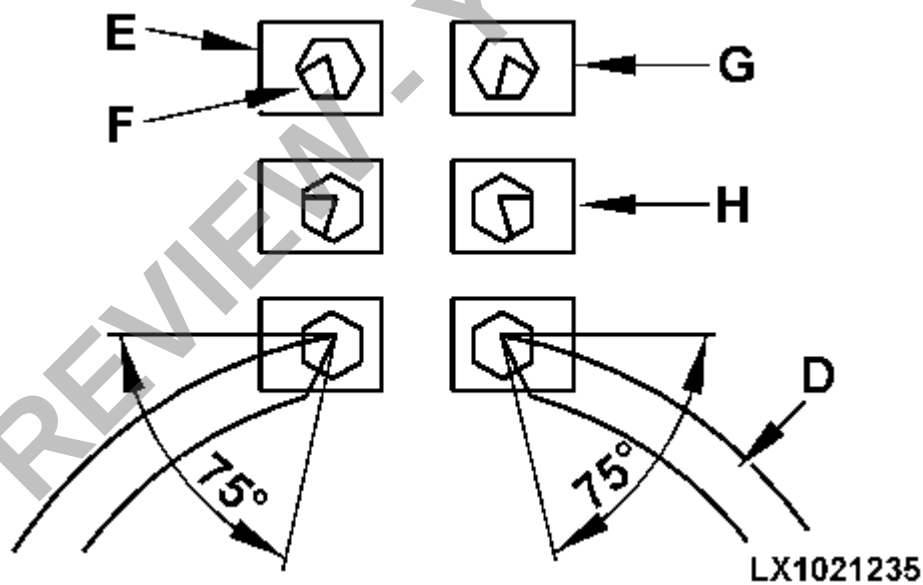
→NOTE:

The illustration shows a 40 cm³ (2.5 cu.in.) hydraulic pump. On the 25 cm³ (1.5 cu.in.) hydraulic pump, the screws are offset by 90°.

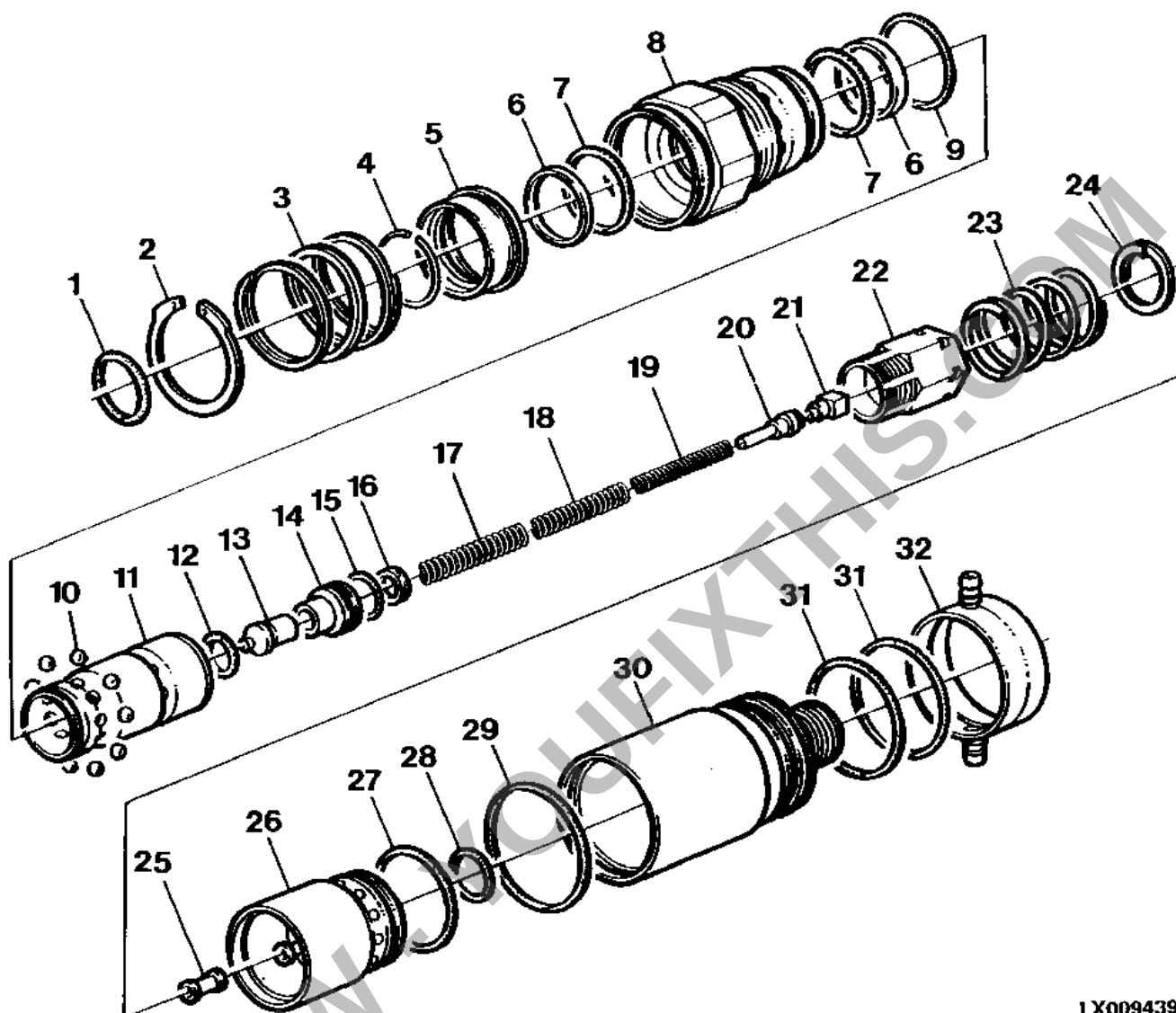


Slide rockshaft from housing far enough to replace bushing (A).

Press new bushing into housing to a depth (B) of 21-23 mm (0.83-0.91 in.).



DeLuxe Coupler - Exploded View

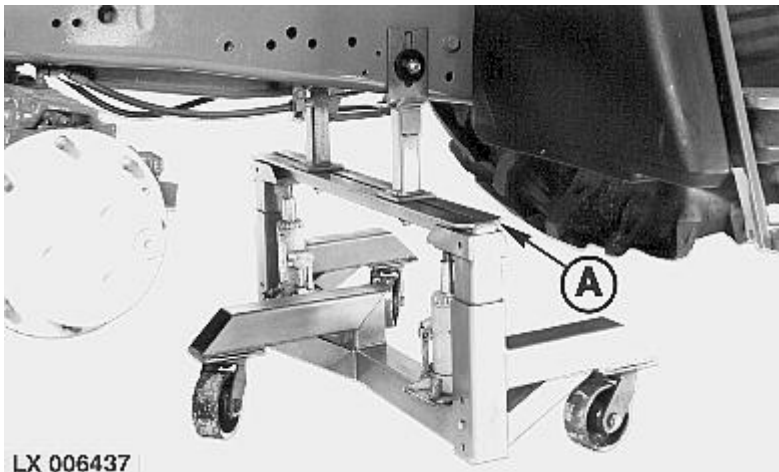


LX009439

LEGEND:

- | | |
|----|-------------------|
| 1 | O-ring |
| 2 | Snap ring |
| 3 | Spring |
| 4 | Snap ring |
| 5 | Sleeve |
| 6 | Back-up ring |
| 7 | O-ring |
| 8 | Rear housing |
| 9 | O-ring |
| 10 | Balls (10 used) |
| 11 | Inner sleeve |
| 12 | O-ring |
| 13 | Spool with O-ring |
| 14 | Guide |
| 15 | O-ring |
| 16 | Seal ring |
| 17 | Spring |
| 18 | Spring |

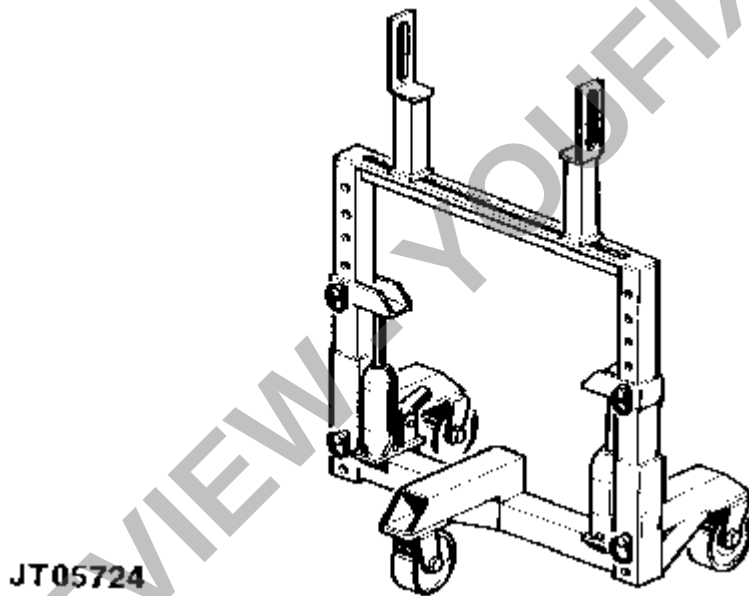
Removing the Front Wheel Drive Axle



Install splitting stand JT05724 (A) at both sides of the main frame.

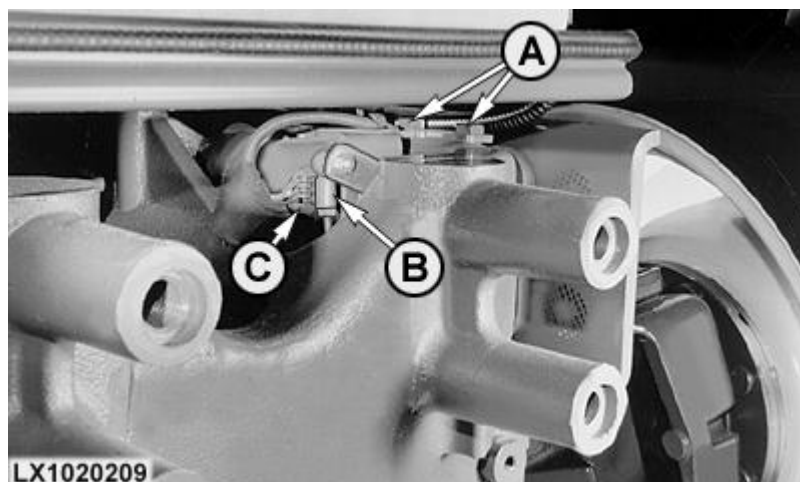
Splitting Stand

JT05724



Raising and supporting tractor. Also required: two commercial 5 metric ton (5 tn) vehicle jacks

Removing the Position Sensor



→NOTE:

Various equipment fits allow the position sensor to be removed as shown here. If access cannot be gained this way, see below.

- [1] - Disengage sensor rod (B).
- [2] - Remove plug (C).
- [3] - Remove screws (A).
- [4] - Remove the position sensor assembly.



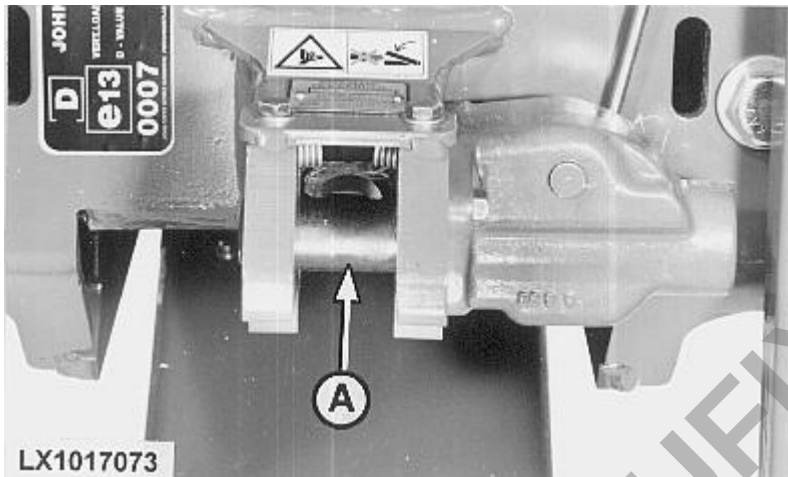
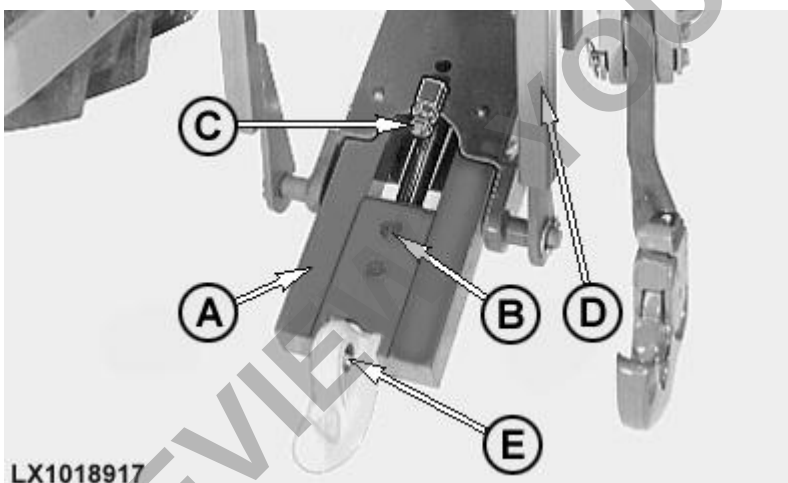
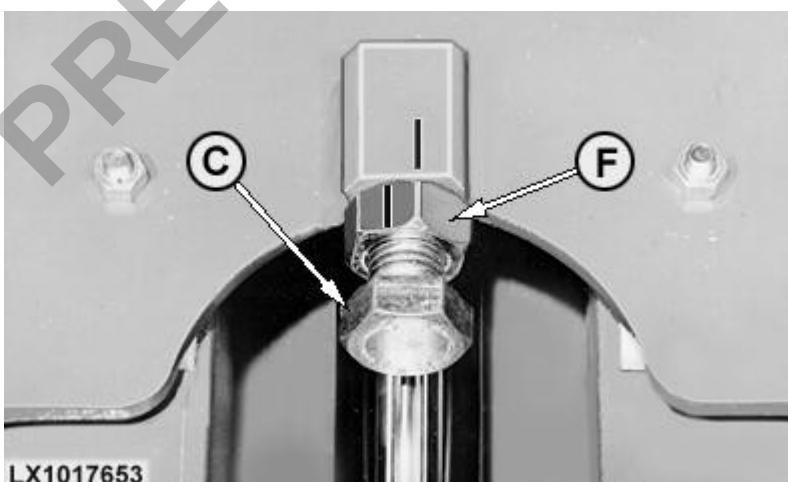
CAUTION:

For instructions on how to handle batteries safely, see [“Prevent Battery Explosions”](#) and [“Prevent Acid Burns”](#) in Section 240, Group 05.

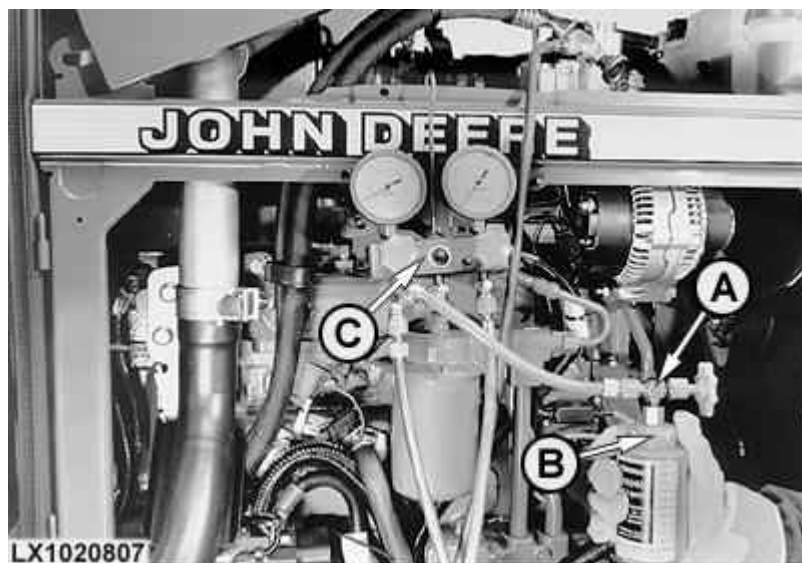
Adjusting the Guide Stop

CAUTION:

With the hitch lowered, NEVER reach into the receiver opening (see arrow). Danger of injury!



Filling with Refrigerant Oil

**LEGEND:**

- A Charging valve
- B Refrigerant oil injector FKM10436
- C Dual gauge set FKM10445

⚠ CAUTION:

To prevent the risk of injury, always wear protective goggles and gloves when working on the air conditioning system.

Connect dual gauge set FKM10445 (C) as described in "Evacuating the System".

Evacuate the system as described in "Evacuating the System".

Close the valves and disconnect the pump.

Read how much oil is extracted during the evacuation process at the sight glass in the oil separator. Add the same amount of new oil plus 10 ml to the oil injector. When replacing a sub-assembly, the required amount of fresh oil must be added (see "Oil Capacities in Air-Conditioning Components").

IMPORTANT:

Refrigerant oil is extremely hygroscopic. This means it attracts moisture in large amounts from the atmosphere. For this reason, do not open the system and oil can any longer than necessary.

PREVIEW ONLY

You're viewing 25 of 1860 pages

The full manual includes:

- All 1860 pages, complete
 - Searchable PDF (find any keyword)
 - No watermarks
 - Instant download
 - Print-ready quality
-

GET FULL MANUAL NOW

John Deere 6810, 6910, 6910S Repair



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual