# 3050, 3350 and 3650 Tractors



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John Deere Werke Mannheim
TM4443 (Nov-90)
PRINTED IN GERMANY
ENGLISH

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# 3050, 3350 AND 3650 TRACTORS TECHNICAL MANUAL TM4443 (Nov-90)

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## SAFETY AND YOU

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.



T 81389

T81389;053;TMSAFE 19 07OCT85

## IMPORTANT

The IMPORTANT message identifies potential problems which may cause consequential damage to machine. Following recommended procedure will instruct technician how to avoid problem.

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## NOTES

The word NOTE is followed by a statement that identifies a qualification or exception to a previous statement. A "NOTE" may also identify nice-to-know information pertinent to, but not directly related to previous statement.

A68; N01;0000 19 V 05NOV82

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| 10 – PREDELIVERY, DELIVERY AND AFTER-SALES INSPECTIONS | | 3050 | 3350 | 3650 |
|---|---|---|---|---|
| Special tools | 10-1 | X | X | X |
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| Torques for hardware | 10-3 | X | X | X |
| Predelivery inspection | 10-5 | X | X | X |
| Delivery inspection | 10-26 | X | X | X |
| After-sales inspection | 10-27 | X | X | X |
| **15 – LUBRICATION AND SERVICE** | | | | |
| Capacities and service intervals | 15-1 | X | X | X |
| Lubricants and service intervals | 15-2 | X | X | X |
| General | 15-3 | X | X | X |
| Engine oil | 15-3 | X | X | X |
| Transmission/hydraulic oil | 15-4 | X | X | X |
| Oil for front wheel drive axle | 15-4 | X | X | X |
| EP multi-purpose grease | 15-5 | X | X | X |
| Storing lubricants | 15-5 | X | X | X |
| Brake fluid for hydraulic operated clutch | 15-5 | X | X | X |
| Engine coolant | 15-6 | X | X | X |
| Checking engine oil level | 15-6 | X | X | X |
| Changing engine oil | 15-7 | X | X | X |
| Changing engine oil filter | 15-7 | X | X | X |
| Checking fuel filter | 15-8 | X | X | X |
| Replacing fuel filter | 15-8 | X | X | X |
| Replacing coolant | 15-9 | X | X | X |
| Checking transmission/hydraulic system oil level | 15-10 | X | X | X |
| Changing transmission/hydraulic oil | 15-11 | X | X | X |
| Replacing transmission/hydraulic oil filter element | 15-12 | X | X | X |
| Replacing hydraulic oil return flow filter | 15-12 | X | X | X |
| Replacing hydrostatic steering filter (without SG2 cab or RG2 roll guard) | 15-13 | X | X | |


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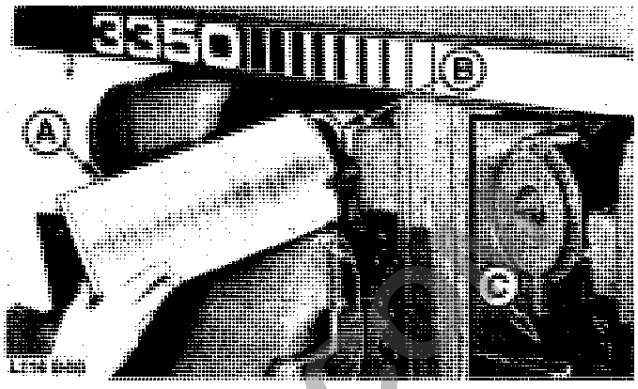


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## CHECKING AIR CLEANER ELEMENT

Remove and clean air cleaner element (A) (see Operator's Manual). Make sure safety element (B) is properly installed and replace, if necessary.

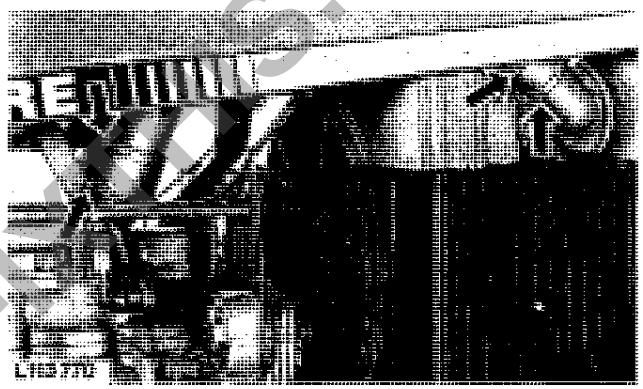
Make sure that dust unloading valve (C) (rubber cap) is in serviceable condition.




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## CHECKING AIR INTAKE SYSTEM CONNECTIONS FOR LEAKS

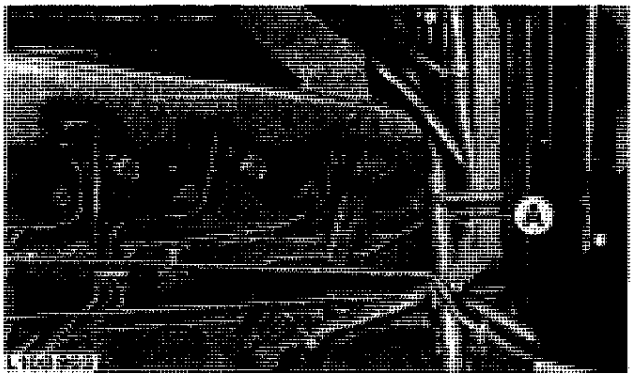
Check restriction in air intake system by measuring vacuum (see Technical Manual "Operation and Tests").



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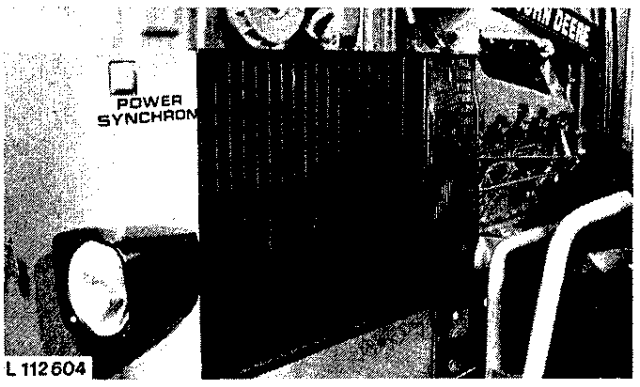
## CHECKING CRANKCASE VENT TUBE FOR CLOGGING

Remove vent tube (A) and clean in a suitable solvent.




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## CLEANING RADIATOR SIDE PANELS AND GRILLE SCREENS




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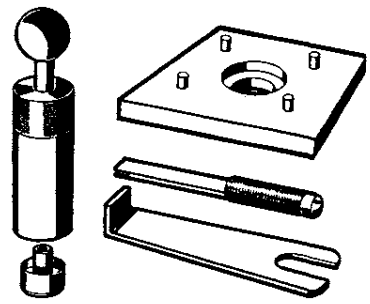
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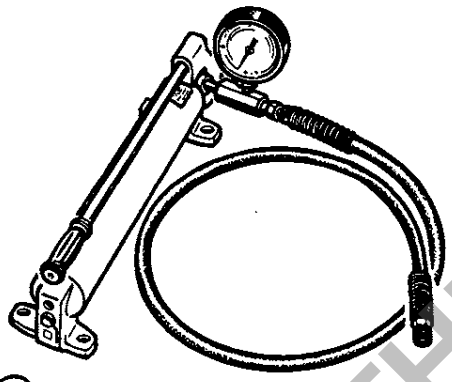
## SPECIAL TOOLS

**KML10018**



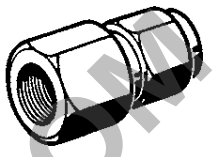
(A)

**D-01019AA**



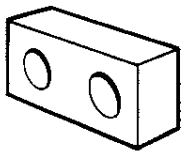
(B)

**JTO3248**



(C)

**JDG-17**



(D)

L119081

A–Installing steering valve

B,C–Adjusting double-acting shock valves

D–Removing steering wheel

L119081-LB26005AE-010488

## SPECIFICATIONS

| | |
|---|---|
| Adjustment pressure of double-acting shock valves | 21000 kPa (210 bar; 3050 psi) |

HYDST-LB526005AE-011087

## TORQUES FOR HARDWARE

| | |
|---|---|
| Cover to housing, cap screws | 30 to 35 Nm (22 to 25 ft-lb) |
| Connectors in valve block | 50 Nm (35 ft-lb) |
| Threaded plugs of double-acting shock valves | 30 Nm (23 ft-lb) |
| Steering valve to steering column, cap screws | 50 Nm (35 ft-lb) |
| Steering wheel to steering shaft, hex. nut | 70 Nm (50 ft-lb) |

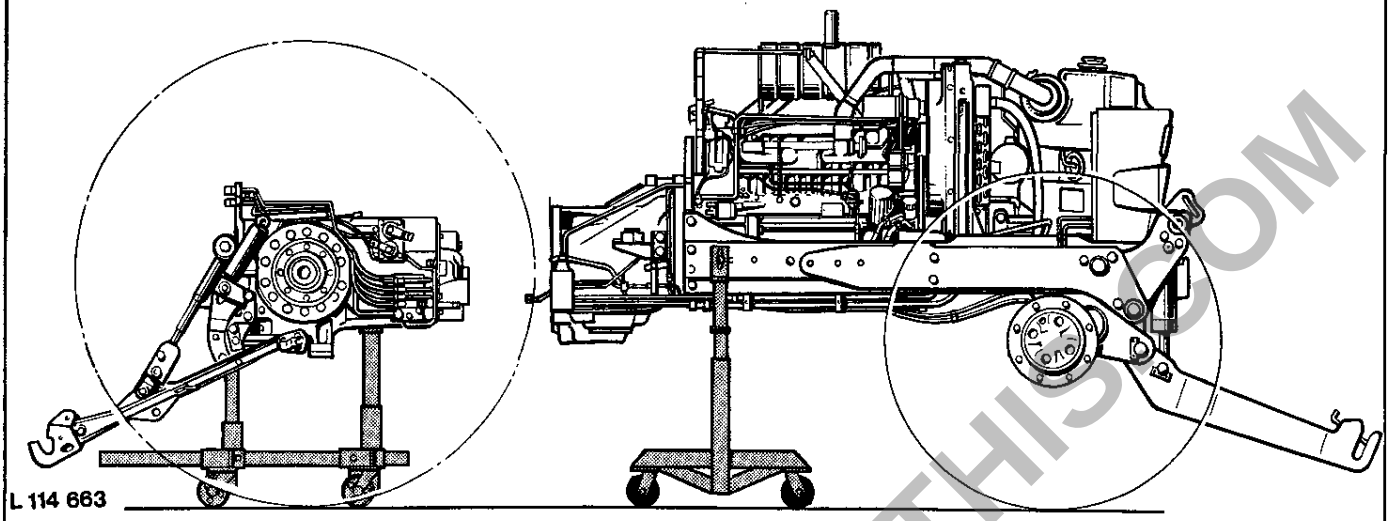
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## REMOVING TRANSMISSION

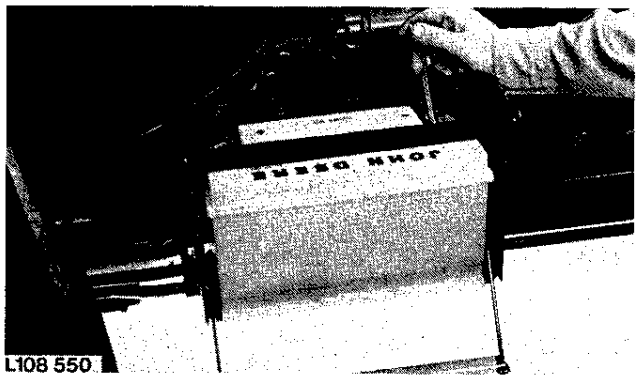



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## REMOVING SG2 CAB OR RG2 ROLL GUARD (When Equipped)

Refer to "Removing SG2 Cab or RG2 Roll Guard".

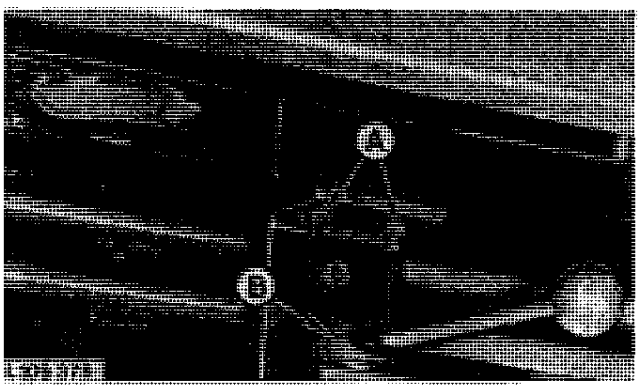
Disconnect battery ground straps.




L108550-LB21025BE-010886

## DISCONNECTING RETAINING BRACKET FROM BATTERY BOX (Tractors With Front Hitch)

Remove attaching nuts (A) from retaining bracket of shut-off cock (B).



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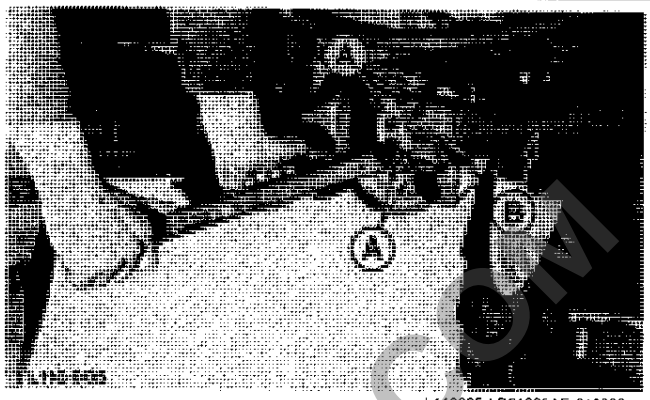
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## INSTALLING UNIVERSAL-JOINTED DRIVE SHAFT (Tractors With Front Wheel Drive)

Tighten attaching nuts (A) to 75 Nm (55 ft-lb).

Reinstall universal jointed drive shaft anti-wrap guard (when equipped).

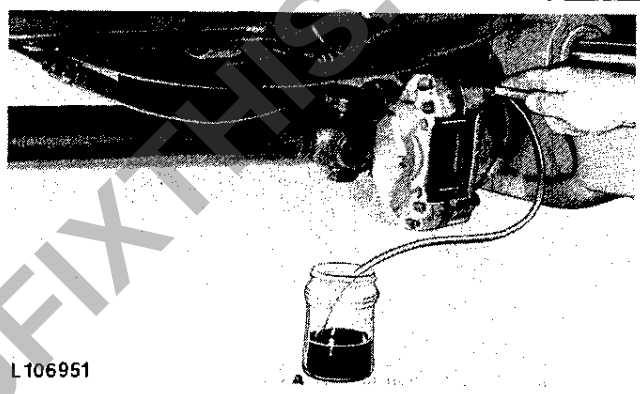
**A–Attaching nuts**
**B–Universal-jointed drive shaft**




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## BLEEDING UNIVERSAL JOINTED DRIVE SHAFT BRAKE (When Equipped)

See Section 60, Group 15.



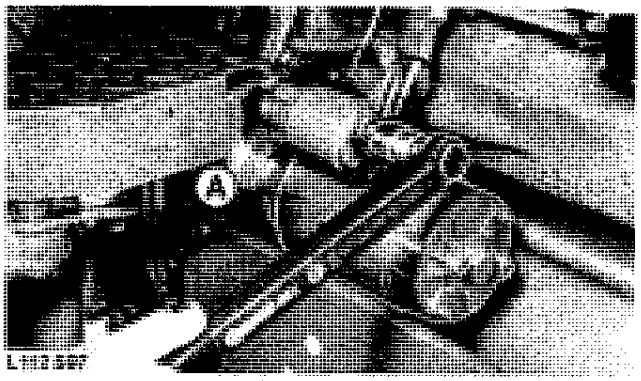
L106951

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## SECURING CABLE TO STARTING MOTOR (Tractors Without SG2 Cab or RG2 Roll Guard)

Tighten hex. nut to 30 Nm (23 ft-lb).

**A–Starting motor**




L112597-LB21025AE-010886

## FINAL ASSEMBLY

Bleed fuel system (see Group 15).
Fill cooling system with coolant (see Group 15), open heater control (when equipped) and run engine. Top up with coolant up to marking plate.

**IMPORTANT: Connect ground straps of both batteries to negative poles.**

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# SUMMARY OF MOST IMPORTANT SPECIFICATIONS FOR 3050, 3350 and 3650 TRACTORS

## HYDRAULIC PUMP

Pump stand-by pressure ..... 19000 kPa (190 bar; 2760 psi)
Minimum delivery at 2000 rpm and 17000 kPa (170 bar; 2450 psi) operating pressure:
*23 cm³ (1.4 cu.in.) pump* ..... 34 l/min (9 gpm)
*40 cm³ (2.4 cu.in.) pump* ..... 68 l/min (18 gpm)
Hydraulic pump to front axle carrier ..... 120 Nm (85 ft-lb)

## ROCKSHAFT

Opening pressure of pressure relief valve ..... 21000 to 23000 kPa (210 to 230 bar; 3050 to 3340 psi)
Rockshaft to transmission case
*Without increased lifting capacity* ..... 120 Nm (85 ft-lb)
*With increased lifting capacity and 3650*
Hexagon socket screws ..... 200 Nm (145 ft-lb)
Cap screws ..... 120 Nm (85 ft-lb)

**Adjusting Load Control Arm**
Turn in control arm adjusting screw until it contacts arm and then back off ..... 1/3 to 1/2 a turn

**Adjusting Valve Clearance**
At commencement of lift turn adjusting screw clockwise ..... 1/4 turn
Front edge of rockshaft control lever (Play between raising and lowering)
*With SG2 cab* ..... 12 to 15 mm (0.5 to 0.6 in.)
*Without SG2 cab* ..... 2 to 4 mm (0.08 to 0.16 in.)

**Adjusting Rockshaft Control Lever**
*With SG2 cab*
Front edge of rockshaft control lever in position ..... 7 to 7.5
*Without SG2 cab*
Front edge of rockshaft control lever to front end position of quadrant (measured at upper edge of quadrant) ..... 12+1/-2 mm (0.47 +0.04/-0.08 in.)
Adjusting commencement of lift with load control
*With SG2 cab*
Front edge of control lever in position ..... 2 to 2.5
*Without SG2 cab*
Rear edge of control lever to rear end position of quadrant (measured at upper edge of quadrant) ..... 50 ± 3 mm (2 ± 0.12 in.)

## FRONT AXLE

Maximum permissible axial play of knuckle and spindle assy. in axle knee ..... 0.76 mm (0.03 in.)
Front axle axial play ..... 0 to 0.4 mm (0 to 0.015 in.)
Bearing pin to front axle carrier ..... 100 Nm (75 ft-lb)
Axle knees to axle center ..... 400 Nm (300 ft-lb)
Steering arm to knuckle and spindle assy. ..... 230 Nm (170 ft-lb)

## FRONT WHEELS

Wheel hub to axle spindle ..... 50 Nm (35 ft-lb)
Steel disk to rim
Bolts M16 × 120 ..... 250 Nm (185 ft-lb)
Bolts M16 × 74 ..... 280 Nm (210 ft-lb)
Wheel rim to hub
*Without front wheel drive*
Wheel bolts with cone ..... 150 Nm (110 ft-lb)
Wheel bolts without cone ..... 240 Nm (175 ft-lb)
*With front wheel drive* ..... 300 Nm (220 ft-lb)
Front wheel toe-in
*Without front wheel drive* ..... 3 to 6 mm (1/8 to 1/4 in.)
*With front wheel drive* ..... 0 to 3 mm (0 to 1/8 in.)

## REAR WHEELS

**Flanged Rear Axle**
Steel disk to rim
Bolts M16 × 120 ..... 250 Nm (185 ft-lb)
Bolts M16 × 74 ..... 280 Nm (210 ft-lb)
Cast disk to rim ..... 230 Nm (170 ft-lb)
Rear wheels to rear axle ..... 400 Nm (300 ft-lb)
**Rack-and-Pinion Axle**
Wheel rim to hub
Steel type ..... 400 Nm (300 ft-lb)
Cast type ..... 230 Nm (170 ft-lb)
Pinion sleeve half to wheel hub ..... 215 Nm (160 ft-lb)
Key sleeve half to wheel hub ..... 400 Nm (300 ft-lb)

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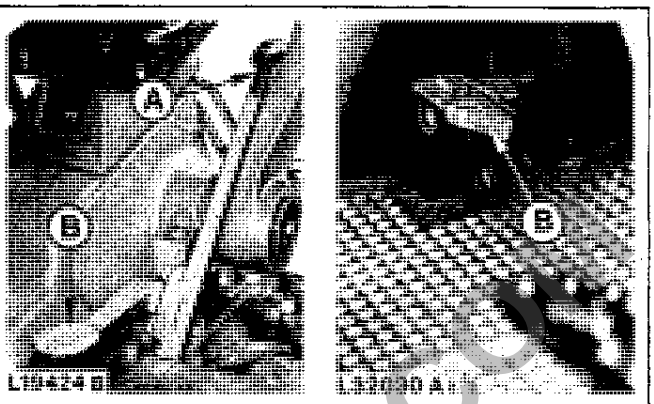


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## CHECKING DIFFERENTIAL LOCK

Drive tractor, checking functions of differential lock by operating hand lever (A) or pedal (B).

**IMPORTANT: Never turn the tractor with differential lock engaged.**



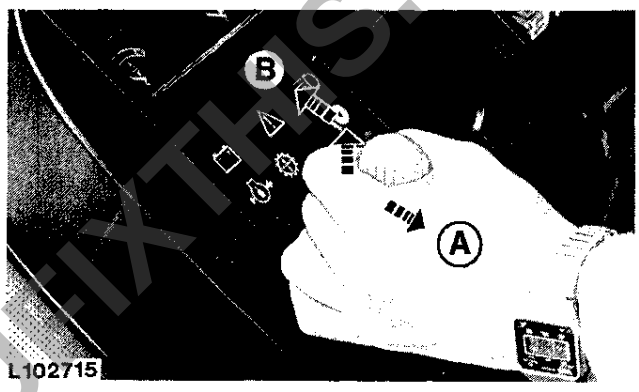

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## CHECKING REAR PTO

Run engine.

**Tractors With SG2 Cab or RG2 Roll Guard**

Raise shift lever and push forward.

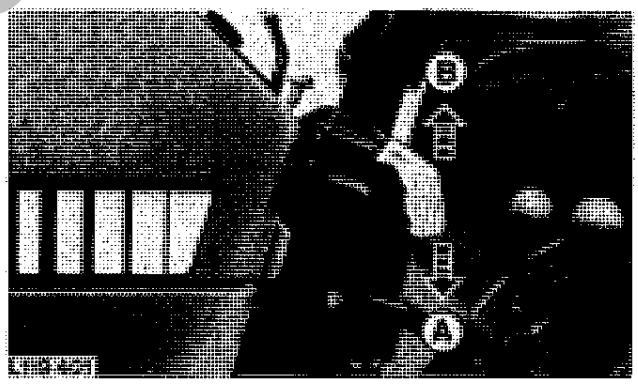



**Tractors Without SG2 Cab or RG2 Roll Guard**

Up to serial no. 618 706L: Raise shift lever and push forward.

From serial no. 618 707L: Raise shift lever.

**A–PTO disengaged**
**B–PTO engaged**

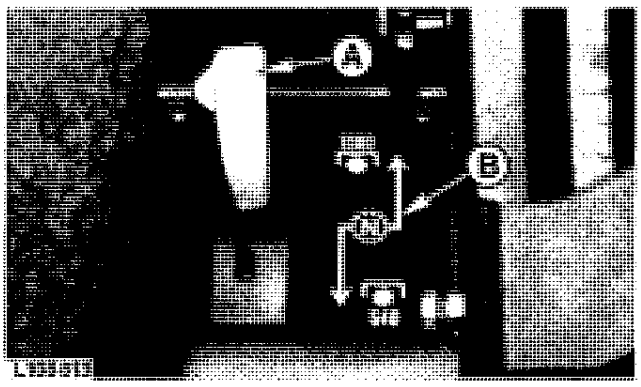



L102715,L119401-LB21010AE-010488

## CHECKING PTO SPEED SHIFT LEVER (When Equipped)

With PTO switched off, check shift positions (see decal "B") with lever (A).

*NOTE: Center position is neutral position.*




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## REPLACING HYDROSTATIC STEERING FILTER (Tractors Without SG2 Cab)

*NOTE: Install filter with arrow pointing towards steering valve assembly.*

Service interval: Every 1000 hours.

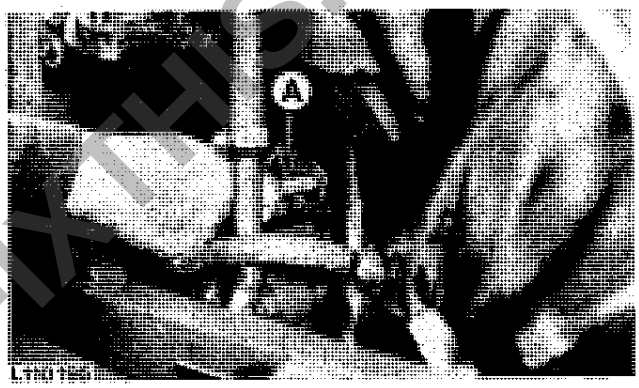


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## CLEANING HYDRAULIC PUMP FILTER STRAINER

**A–Filter strainer**

Service interval: Every 1000 hours.



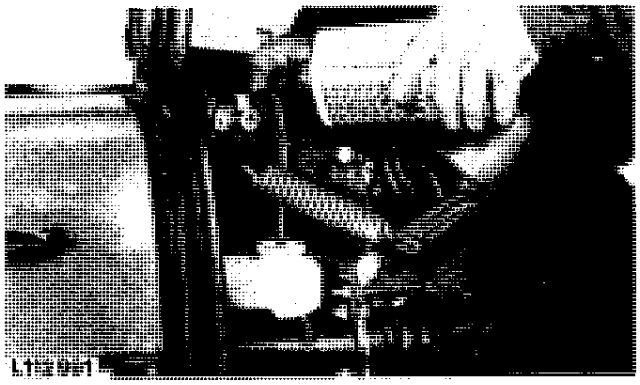

L110195-LA71015AE-141184

## REPLACING BRAKE FLUID (With Hydraulic Operated Clutch)

Drain and fill system as described in Section 50, Group 05.

For brake fluid specifications, see under "Brake Fluid for Hydraulic Operated Clutch".

Service interval: Every two years.



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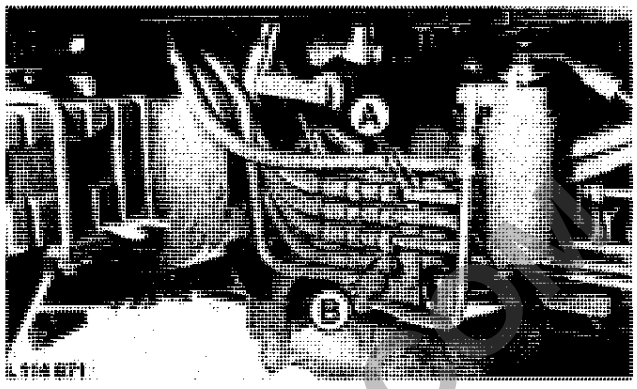
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## DISCONNECTING PRESSURE LINES (When Equipped)

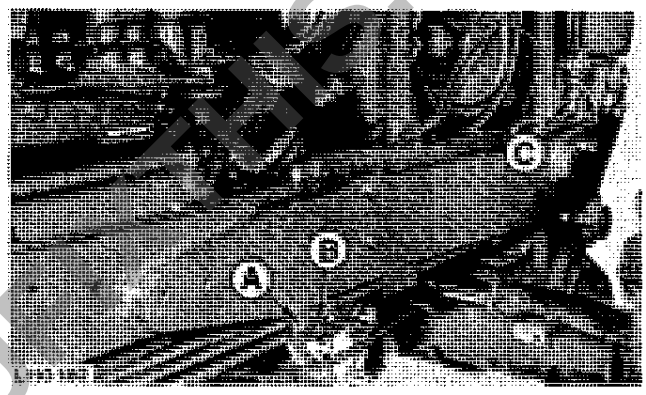
Disconnect pressure lines (A) leading to quick couplers as well as pressure line (B) leading to front hitch at selective control valves.




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## REMOVING PRESSURE LINES (When Equipped)

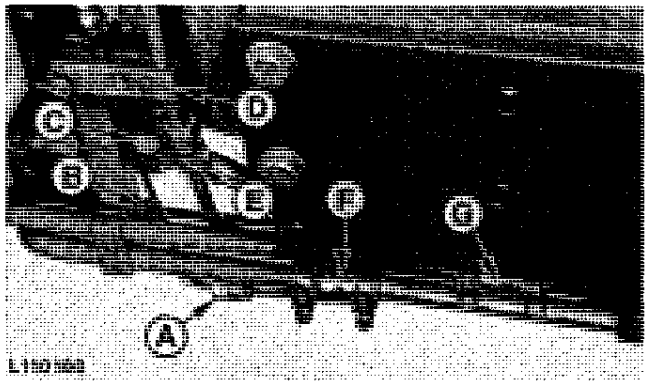
Remove clamp (A).
Remove front hitch pressure line (B).
Disconnect pressure lines (C) at connector.




L110182-LA71025AE-130285

## DISCONNECTING HYDRAULIC LINES

Disconnect brake line (A).
Disconnect pressure line (B), when equipped.
Disconnect pressure line (C).
Disconnect clamp (D).
Disconnect steering system pressure line (E).
Disconnect return line (F) and inlet line (G).

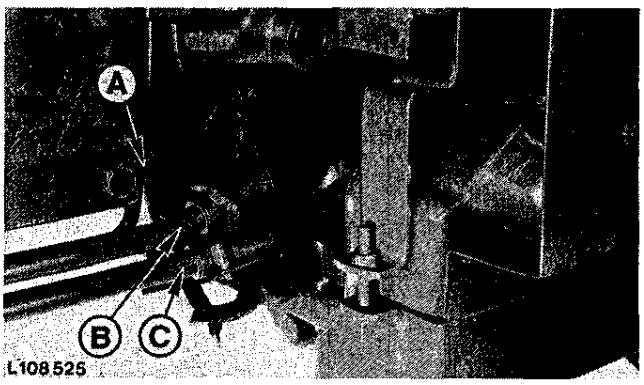



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## DISCONNECTING PRESSURE LINE

Disconnect steering system pressure line (A).
Disconnect fuel inlet line (B), when equipped.
Disconnect hydraulic return line (C), when equipped.

**IMPORTANT: Mark lines to facilitate reinstallation.**




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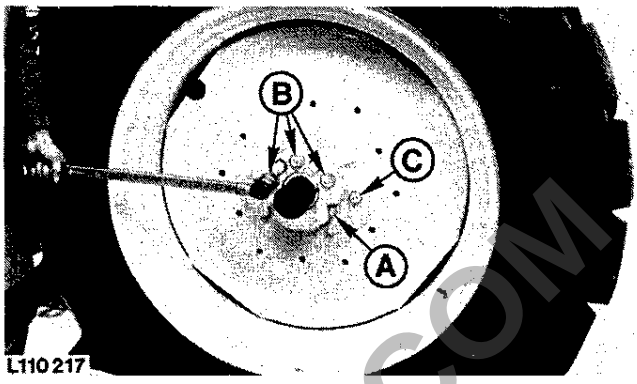


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## TIGHTENING REAR WHEEL BOLTS (Tractors With Rack-and-Pinion Axle)

Adjust to required tread width with adjustment bolt (A).
Tighten cap screws (B and C) to 400 Nm (300 ft-lb).

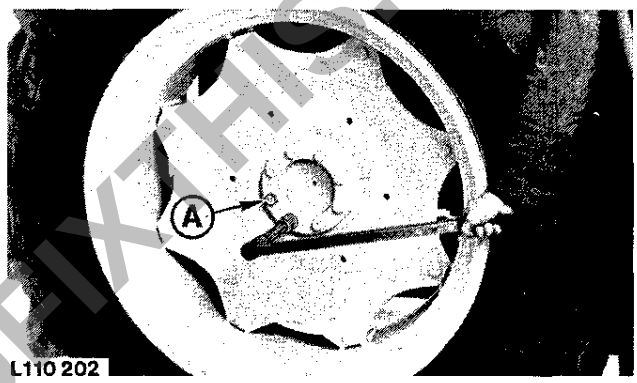
*NOTE: Drive tractor approx. 50 m (160 ft) and tighten cap screws again to 400 Nm (300 ft-lb).*




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## TIGHTENING REAR WHEEL BOLTS (Tractors With Flanged Rear Axle)

Tighten cap screws (A) to 400 Nm (300 ft-lb).

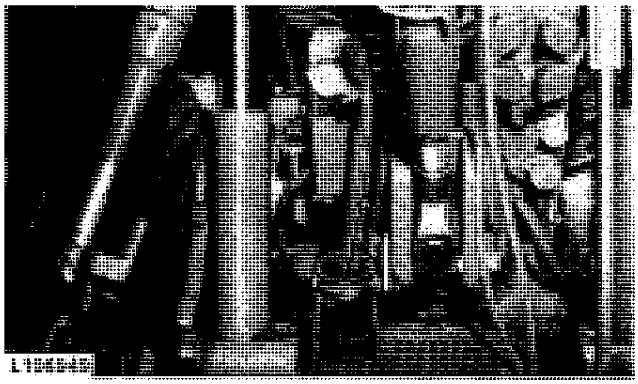



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## BLEEDING BRAKES

See Section 60, Group 15.

**IMPORTANT: Connect ground straps to negative poles of batteries.**



L106949-LB21025AE-010886

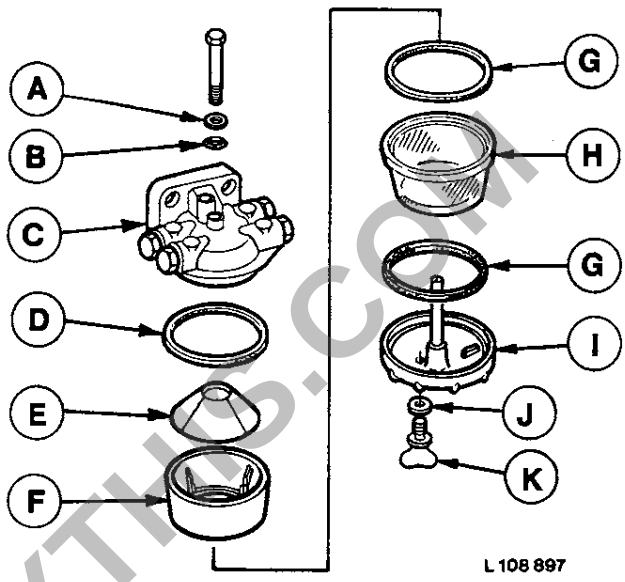
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## WATER TRAP, EXPLODED VIEW

A–Washer
B–O-ring
C–Cover
D–Seal ring
E–Funnel
F–Housing
G–Seal ring (2 used)
H–Glass bowl
I–Cover
J–Seal ring
K–Water drain plug



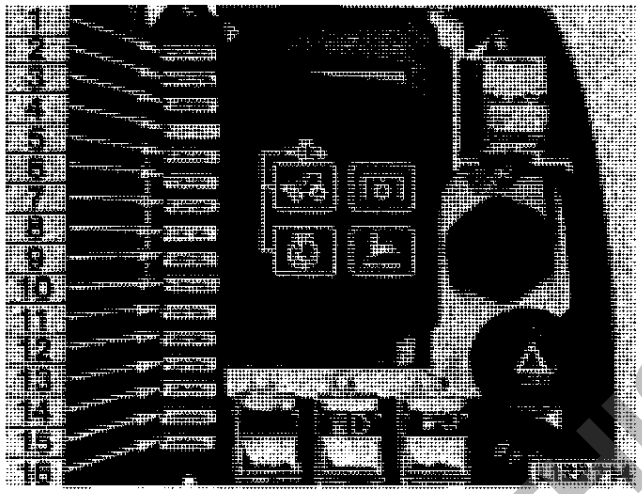

L108897-LA73005AE-000485

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## FUSES (Tractors with Digital Speed-Hour Meter)



1–Starter (terminal 50) – 15 ampere

2–Relay for cab heater and blower fan (terminal 30), cab interior light, radio, air conditioning system, windshield washer system – 25 ampere

3–Hazard warning light switch (terminal 30) – 15 ampere

4–Relay for work light – 20 ampere

5–Headlights – dimmed and full beam (terminal 56) – 15 ampere

6–Headlights – dimmed (terminal 56b) – 15 ampere

7–Headlights – full beam and full beam indicator light (terminal 56a) – 15 ampere

8–Start safety switch – 0.5 ampere

9–Relay for front work light (terminal 86), instrument lighting left hand – 10 ampere

10–Tail light, right hand, clearance light, left hand and socket for trailer lighting (terminal 5/58R) – 10 ampere

11–Tail light, left hand, clearance light, right hand, registration plate light, and socket for trailer lighting (terminal 7/58L) – 10 ampere

12–Relay for four wheel brake (teminal 87) and stop lights – 15 ampere

13–Turn signal lights and horn – 15 ampere

14–Front PTO – 10 ampere

15–Windshield wiper and relay for cab heater and blower fan (terminal 86) – 10 ampere

16–Digital speed-hour meter and socket for hand-lamp or cigarette lighter – 10 ampere

The radio (if equipped) has an additional 2 ampere fuse.

L122714-LB34010AE-010490

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| 35 – SYNCHRONIZED TRANSMISSION AND TRANSMISSION OIL PUMP (CONTD.) | | 3050 | 3350 | 3650 |
|---|---|---|---|---|
| Transmission oil pump – preparatory work | 35-23 | X | X | X |
| Removing transmission oil pump | 35-23 | X | X | X |
| Replacing needle bearing | 35-23 | X | X | X |
| Separating pump housing | 35-23 | X | X | X |
| Assembling hollow drive shaft | 35-24 | X | X | X |
| Installing gears | 35-24 | X | X | X |
| Joining transmission oil pump halves | 35-24 | X | X | X |
| Installing O-ring | 35-24 | X | X | X |
| Installing transmission oil pump | 35-25 | X | X | X |
| Final assembly | 35-25 | X | X | X |
| **40 – DIFFERENTIAL** | | | | |
| Specifications | 40-1 | X | X | X |
| Torques for hardware | 40-1 | X | X | X |
| Preparatory work | 40-2 | X | X | X |
| Removing shifter shaft lever | 40-2 | X | X | X |
| Removing differential lock | 40-2 | X | X | X |
| Shifting brake disk | 40-2 | X | X | X |
| Removing differential | 40-3 | X | X | X |
| Checking thrust washers | 40-3 | X | X | X |
| Assembling differential housing | 40-3 | X | X | X |
| Installing differential | 40-4 | X | X | X |
| Installing bearing quills | 40-4 | X | X | X |
| Adjusting preload | 40-4 | X | X | X |
| Adjusting backlash | 40-4 | X | X | X |
| Installing differential lock | 40-5 | X | X | X |
| Final assembly | 40-5 | X | X | X |
| **45 – FINAL DRIVES** | | | | |
| Special tools (self-manufacture) | 45-1 | X | X | X |
| Specifications | 45-1 | X | X | X |
| Torques for hardware | 45-2 | X | X | X |
| Right-hand final drive assembly, sectional view | 45-2 | X | X | X |
| Removing final drives | 45-3 | X | X | X |
| Removing planet pinion carrier | 45-3 | X | X | X |
| Removing snap ring from planet pinion carrier | 45-3 | X | X | X |


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KRAFTUBTRG-LB25007AE-000488



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## SPECIFICATIONS

**Dimensions of New Parts**

| | |
|---|---|
| **HUB CARRIER** | |
| Diameter of bore in hub carrier and cover for shaft of double gear | 19.99 to 20.02 mm (0.787 to 0.788 in.) |
| Diameter of bore for hub carrier cover | 122.00 to 122.04 mm (4.803 to 4.805 in.) |
| Pre-load of taper roller bearings (adjustment by means of shims in carrier cover) | 0.05 mm (0.002 in.) |
| **CREEPER TRANSMISSION** | |
| Diameter of bore in gear | 41.11 to 41.13 mm (1.618 to 1.619 in.) |
| Diameter of shaft | 19.98 to 20.00 mm (0.787 to 0.788 in.) |
| Diameter of bearing bore on double gear | 28.00 to 28.01 mm (1.102 to 1.103 in.) |
| Width of double gear | 92.36 to 92.50 mm (3.636 to 3.642 in.) |
| Thickness of a thrust washer | 0.88 mm (0.036 in.) |

CREEP-LB25020AE-010886

## TORQUES FOR HARDWARE

| | |
|---|---|
| Bearing quill to creeper transmission housing, hex. socket screws | 25 Nm (20 ft-lb) |
| Shifter fork, set screws | 40 Nm (30 ft-lb) |
| Shifter lever to shifter shaft, special screw | 0.5 Nm (0.37 ft-lb) |
| Creeper transmission housing to clutch housing, cap screws | 50 Nm (35 ft-lb) |

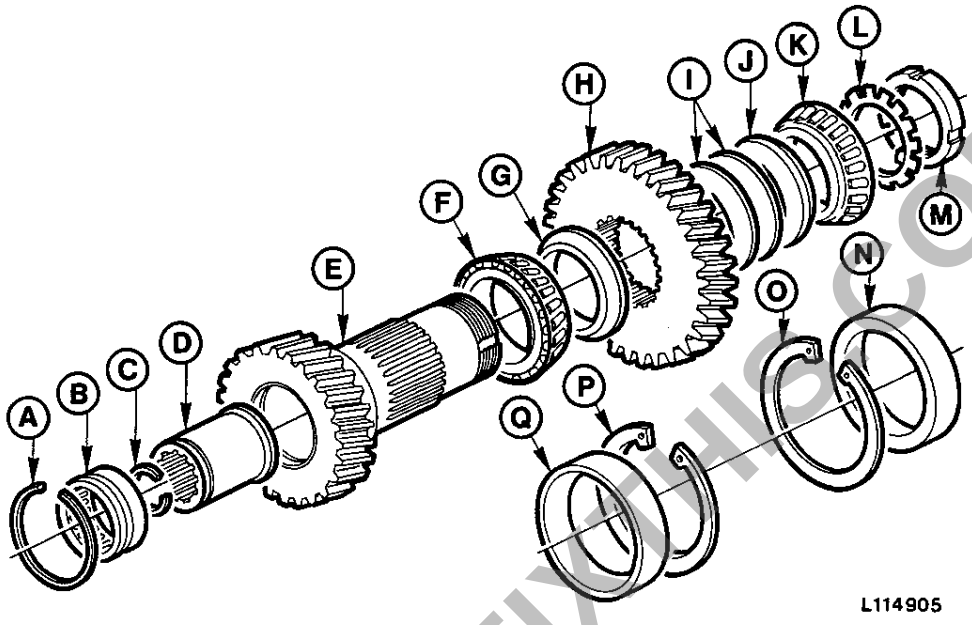
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## INSTALLING INTERMEDIATE SHAFT




L114905

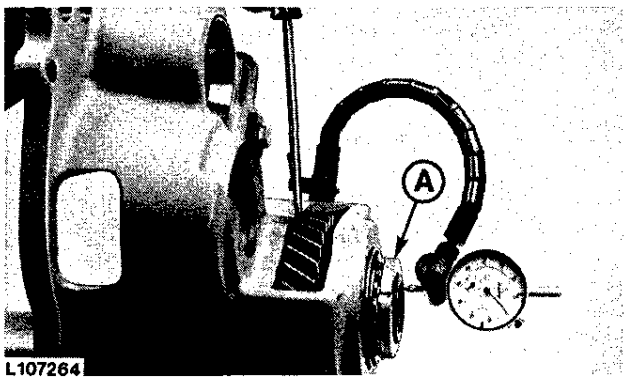
**A–Snap ring**
**B–Needle bearing**
**C–Snap ring**
**D–Connecting sleeve**
**E–Intermediate shaft**
**F–Bearing cone**
**G–Thrust ring**
**H–Idler gear**
**I–Shims (use as required)**
**J–Thrust ring**
**K–Bearing cone**
**L–Locking tab**
**M–Slotted nut**
**N–Bearing cup**
**O–Snap ring**
**P–Snap ring**
**Q–Bearing cup**

Install as many shims (I) as required to obtain a measureable end play.
Tighten slotted nut (M) to 140 Nm (100 ft-lb).

L114905-LB25035AE-010886

## DETERMINING INTERMEDIATE SHAFT TAPER ROLLER BEARING PRELOAD

Add 0.05 to 0.10 mm (0.002 to 0.004 in.) to measured end play and remove shim pack of calculated thickness.
Tighten slotted nut (A) to 140 Nm (100 ft-lb) and secure with locking tab.




L107264

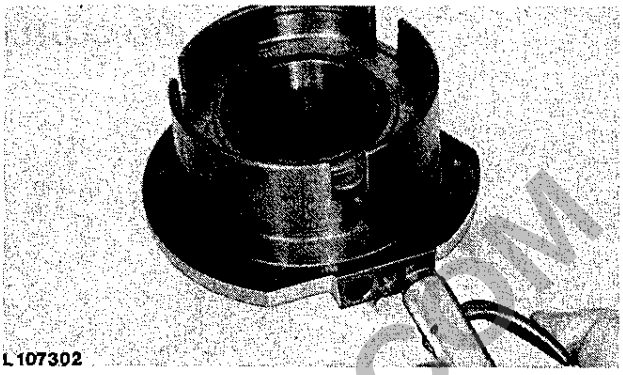
L107264-LB25035AE-010886



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## REMOVING PTO BRAKE PISTON

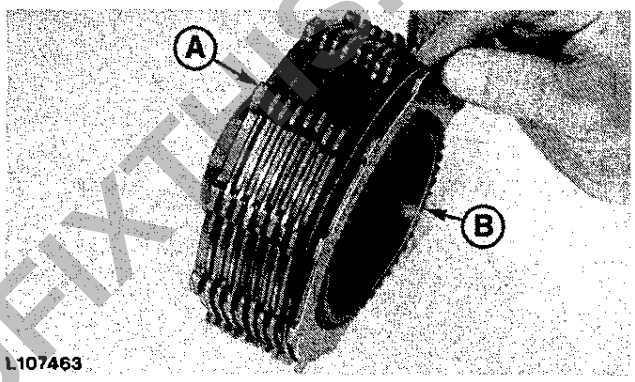
Force piston out of housing with compressed air.




L107302-LA75040AE-091184

## ASSEMBLING PTO CLUTCH

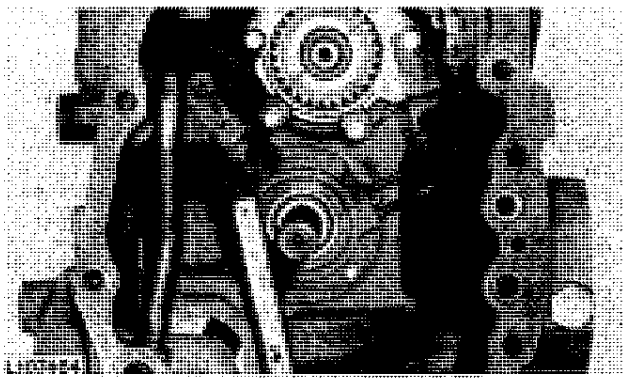
Alternately assemble the correct number of disks on clutch hub so that there is one internally splined disk on the backing plate side (B) and one externally splined disk on the piston side (B).




L107463-LA75040AE-091184

## INSTALLING PTO BRAKE

Tighten cap screws to 50 Nm (35 ft-lb).



L107464-LA75040AE-091184

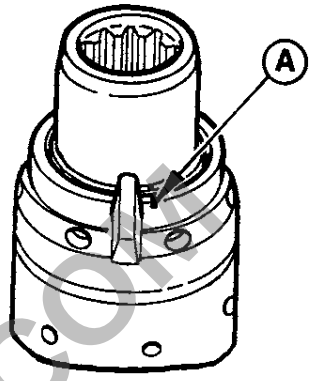
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## MARKING VALVE SPOOL AND SLEEVE

Mark valve spool and sleeve as shown opposite when not already marked.




L115 103

L115103-LB26005AE-010886

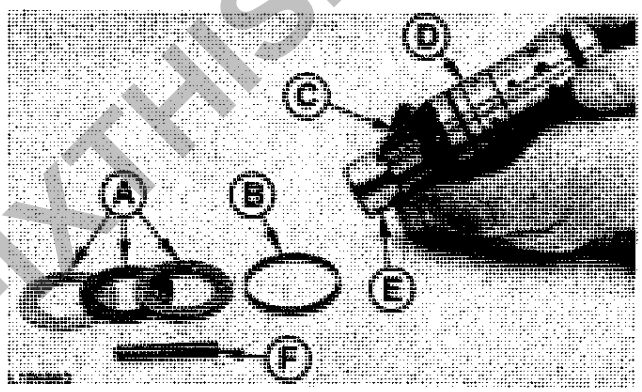
## DISASSEMBLING VALVE SPOOL AND SLEEVE

Remove thrust bearing (A) and retaining ring (B).

Remove cross pin (F). Push valve spool (E) out of valve sleeve (D) by overcoming tension of leaf springs (C).

Push leaf springs (C) out of valve spool (E).

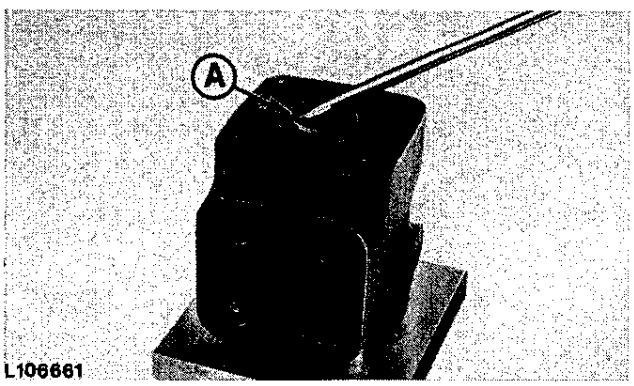
**A–Thrust bearing**
**B–Retaining ring**
**C–Leaf springs**
**D–Valve sleeve**
**E–Valve spool**
**F–Cross pin**




L106660-LA76005AE-121184

## REMOVING SEAL RINGS

Remove seal ring (A) from housing using a suitable tool.
Remove back-up ring and O-ring.




L106661

L106661-LA76005AE-121184

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## TORQUES FOR HARDWARE

| | |
|---|---|
| Trailer brake valve to console, cap screws | 25 Nm (18 ft-lb) |
| Lock nut of throttle screw | 8 Nm (6 ft-lb) |
| Connecting housing or end cover, hex. socket screws | 10 Nm (7 ft-lb) |

ANHBREM-LB46025BE-010490

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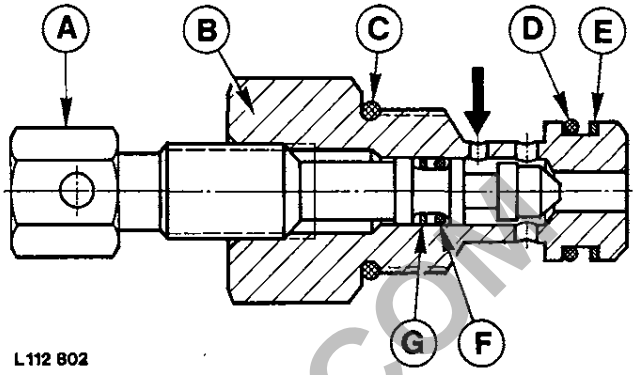


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## ASSEMBLING SHUT-OFF VALVE

Having assembled the shut-off valve, drive grooved pin into bore (see arrow).

**A–Special screw**
**B–Bushing**
**C–O-ring**
**D–O-ring**
**E–Back-up ring**
**F–O-ring**
**G–Back-up ring**




L112 802

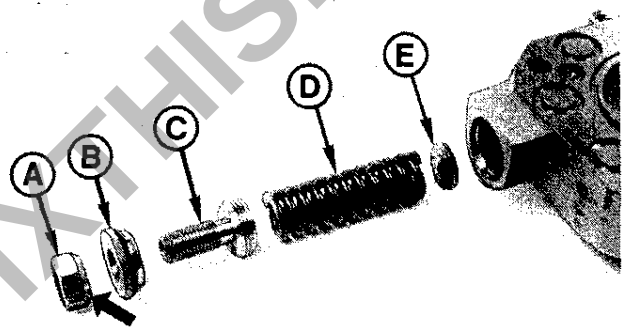
L112802-LB27010AE-010886

## REMOVING ADJUSTING SCREW

### On Earlier Tractors

Loosen hex. nut (A) and then remove adjusting screw (C). The sealing side of hex. nut (A) must face inwards (see arrow).

**A–Hex. nut**
**B–Bushing**
**C–Adjusting screw**
**D–Spring**
**E–Spring guide**



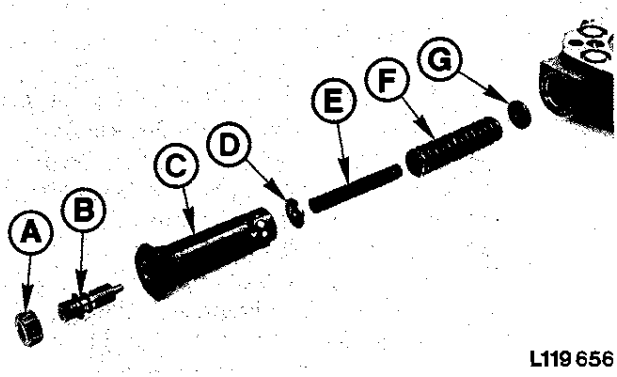

L 112 803

L112803-LB27010AE-010886

### On Later Tractors

Loosen hex. nut (A) and then remove adjusting screw (B).
To remove inner spring (E) and outer spring (F), remove sleeve (C).

**A–Hex. nut**
**B–Adjusting screw**
**C–Sleeve**
**D–Thrust washer**
**E–Inner spring**
**F–Outer spring**
**G–Spring guide**




L119 656

L119656-LB27010AE-010886

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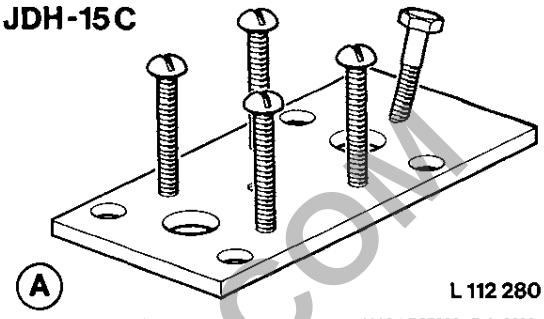
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# SELECTIVE CONTROL VALVES – POPPET VALVE TYPE

## SPECIAL TOOLS

**JDH-15C**

**A–Adjusting selective control valves**




L 112 280

L112280-LB27030AE-010886

## SPECIFICATIONS

| | |
|---|---|
| Flow control valve spring | |
| – Free length | approx. 47 mm (1.85 in.) |
| – Spring tension at a length of 39 mm (1.53 in.) | 160 to 195 N (36 to 44 lb) |
| Pressure valve spring (red) | |
| – Free length | approx. 44 mm (1.72 in.) |
| – Spring tension at a length of 31 mm (1.2 in.) | 160 to 195 N (36 to 44 lb) |
| Return valve spring (green) | |
| – Free length | approx. 39 mm (1.53 in.) |
| – Spring tension at a length of 31 mm (1.2 in.) | 80 to 100 N (18 to 22 lb) |
| Cam detent follower spring | |
| Free length | approx. 19 mm (0.75 in.) |
| – Spring tension at a length of approx. 8 mm (0.31 in.) | 58 to 71 N (13 to 16 lb) |
| Inner detent cartridge spring | |
| – Free length | approx. 19.4 mm (0.76 in.) |
| Spring tension at a length of 14 mm (0.56 in.) | 89 to 108 N (20 to 24.4 lb) |
| Outer detent cartridge spring | |
| – Free length | approx. 35 mm (1.38 in.) |
| – Spring tension at a length of 26 mm (1.02 in.) | 51 to 62 N (11.5 to 14 lb) |
| Length of flow control valve stop | 24 mm (0.94 in.) |

SCVP-LB37030AE-010287

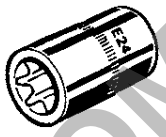
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## SPECIAL TOOLS

**KJD 10133**



**A–Tightening TORX screws (with two-hole height-adjustable trailer hitch)**




**L 109 769**

L109769-LB28020AE-010488

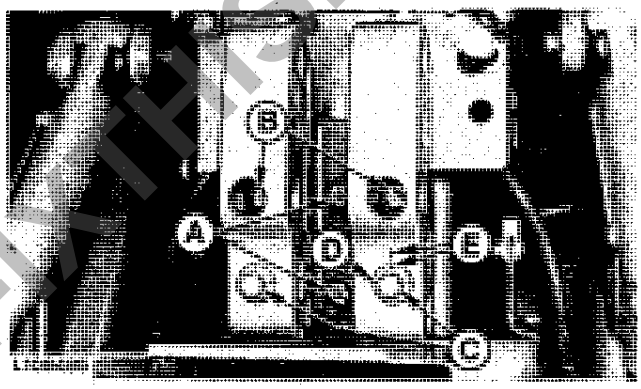
## TIGHTENING TORX SCREWS (With Two-Hole Height-Adjustable Trailer Hitch)

*NOTE: When reusing old TORX screws, apply Molykote grease type "G" (L81050) to thread and flange mounting face.*

TORX screws (A): 100 Nm (75 ft-lb) + 45°
TORX screws (B): 100 Nm (75 ft-lb) + 72°
TORX screws (C): 100 Nm (75 ft-lb) + 90°

Tighten all TORX screws to 100 Nm (75 ft-lb). Then mark position of TORX screw flange on hitch bracket (see E).

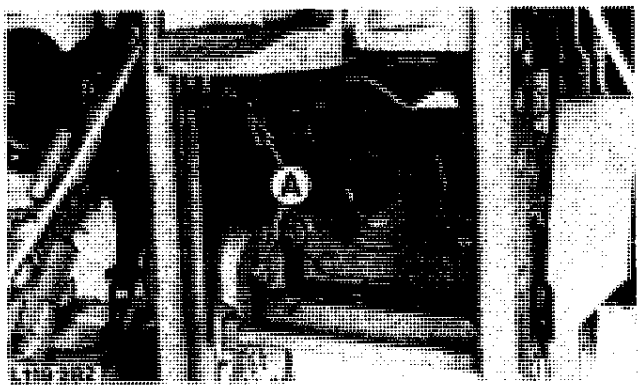
Now tighten TORX screw until next marking (D) of screw flange is aligned with marking (E).




L108485-LB28020AE-010488

## ATTACHING GUIDE RAILS (With Eight-Hole Height-Adjustable Trailer Hitch)

Tighten hex. nuts (A) securing guide rails to 500 Nm (370 ft-lb).



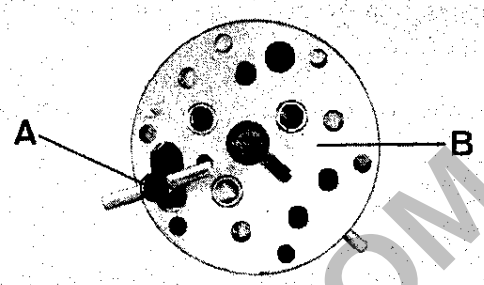

L119282-LB28020AE-010488



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**Disassembling Valve Plate**

After removal of valve plate (B) and shaft oil seal with cover, pull off valve plate (B) by means of puller JDG227 (A).



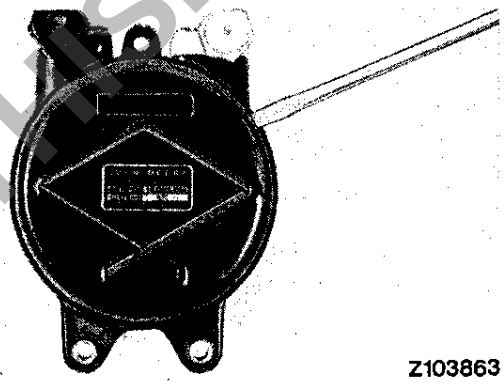

Z103862
Z103862-ZI29015AE-001084

**Removing Rear Valve Plate**

1. Carefully remove cover from compressor housing.

2. Pull out valve plate assembly and disassemble, using puller JDG227.

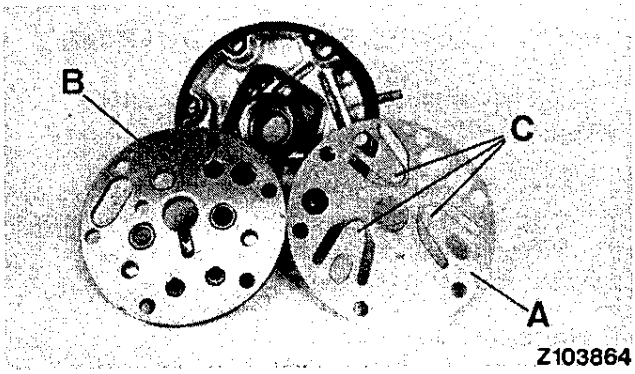
*NOTE: Rear and front valve plates are identical.*



Z103863
Z103863-ZI29015AE-001084

## REPAIRING VALVE PLATES

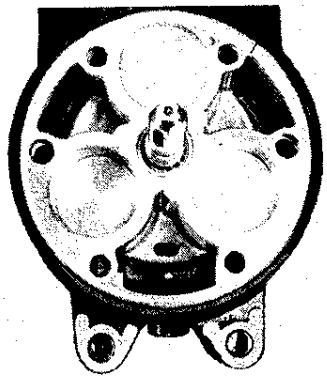
Check valve plates (A and B) for damage and wear. Closely check reed area (C) for wear and replace plates, if necessary.




Z103864
Z103864-ZI29015AE-001084

## REPAIRING CYLINDER AND PISTON

Check cylinder walls for scoring and excessive wear and replace complete compressor, if necessary.



Z103865
Z103865-ZI29015AE-001084



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