

## DIRECT DRIVE TRANSMISSION

### Component Identification

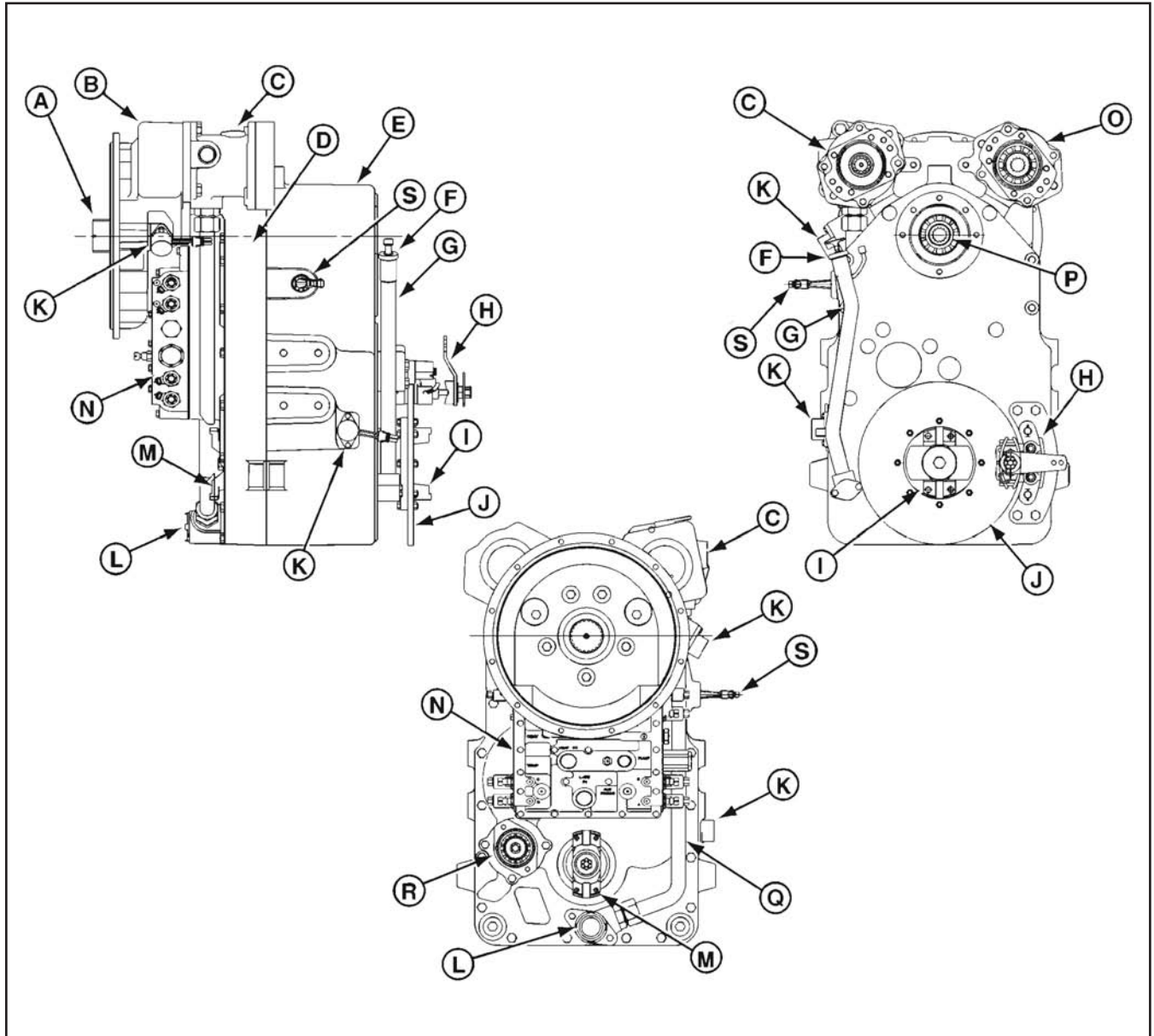


FIGURE 1

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- |                                |  |
|--------------------------------|--|
| A. DIRECT DRIVE INPUT SHAFT    | K. MAGNETIC PICKUP SENSOR                    |
| B. FRONT COVER ASSEMBLY        | L. SUCTION SCREEN ASSEMBLY                   |
| C. CHARGE PUMP GROUP           | M. OUTPUT YOKE FITTING                       |
| D. MAIN CASE FRONT HOUSING     | N. CONTROL VALVE GROUP                       |
| E. MAIN CASE REAR HOUSING      | O. AUXILIARY PUMP DRIVE                      |
| F. DIPSTICK GAUGE              | P. FIRST STAGE OUTPUT SHAFT                  |
| G. DIPSTICK TUBE ASSEMBLY      | Q. SUCTION TUBE                              |
| H. DISK BRAKE CALIPER ASSEMBLY | R. GROUND DRIVE PUMP (APPLICATION DEPENDENT) |
| I. YOKE FLANGE                 | S. MAGNETIC PICKUP SENSOR                    |
| J. BRAKE DISK                  |  |

## Transmission Lifting Procedure

1. Use a lift sling similar to (A).
2. It should hold the transmission level without bending the lift hangers (B).

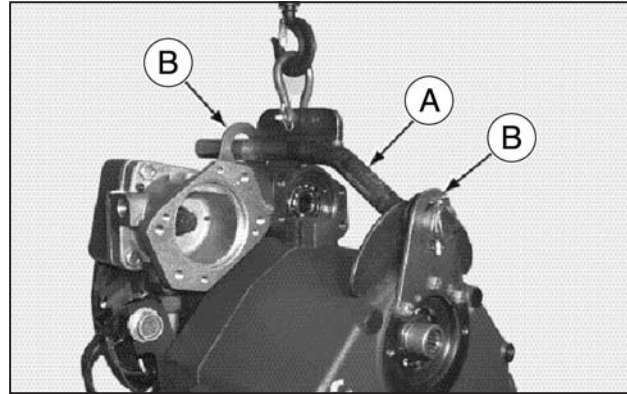


FIGURE 2

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## Transmission Repair Stand

**NOTE:** The repair stand (A) used in this manual is OTC DIVISION part number 1735, capacity is 907 Kg (2000 lbs).

OTC Division  
Sealed Power Corporation  
655 Eisenhower Drive  
Owatonna, Mn 55060

When any other stand is used, consult the Manufacturer's instructions for mounting.

**Approximate dry weights:**

545 kg (1250 lb).

**NOTE:** Actual weights depend on the options included.

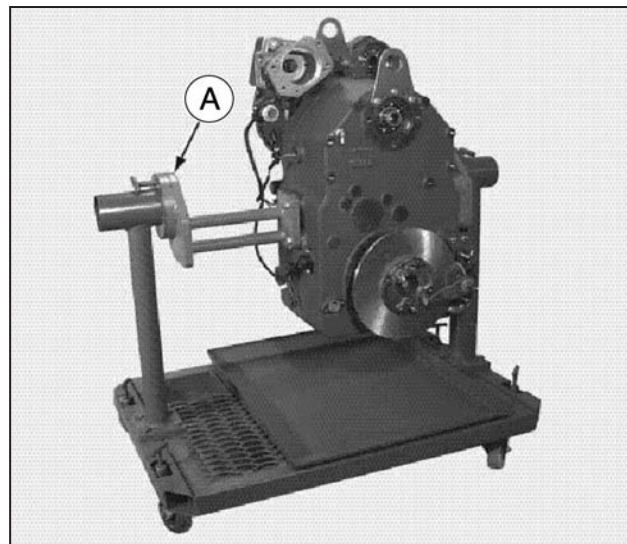


FIGURE 3

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## Mounting DF Series Transmission to Repair Stand

**NOTE:** See "Special Tools" for Assembly Stand Plate drawings.

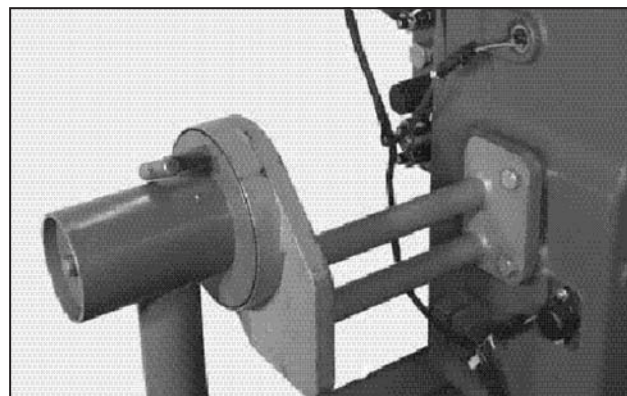


FIGURE 4

6003007A

## Remove and Install Input Housing Magnetic Pickup Sensor

### Remove

1. Remove two cap screws (A), two lock washers (B), two flat washers (C), cover (D), sensor (E) and O-ring (F).
2. Clean and inspect for wear and damage.

### Install

3. Lubricate new o-ring and install in reverse order.

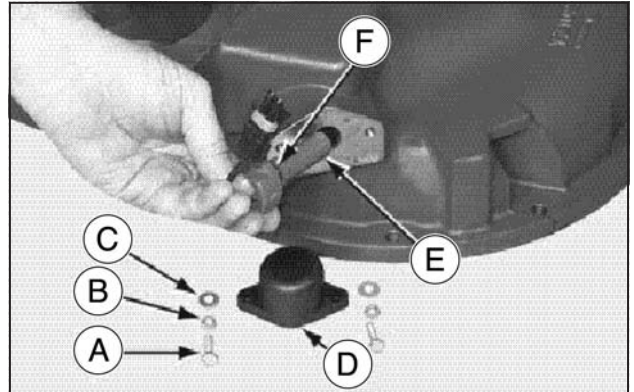


FIGURE 5

6003007B

## Remove and Install Cylinder Magnetic Pickup Sensor



**CAUTION:** *Wear eye protection when removing or installing snap rings.*

### Remove

1. Remove snap ring (A), remove washer (B) and remove magnetic sensor (C).

### Install

2. Lubricate new o-ring (D), and install component items in reverse order.

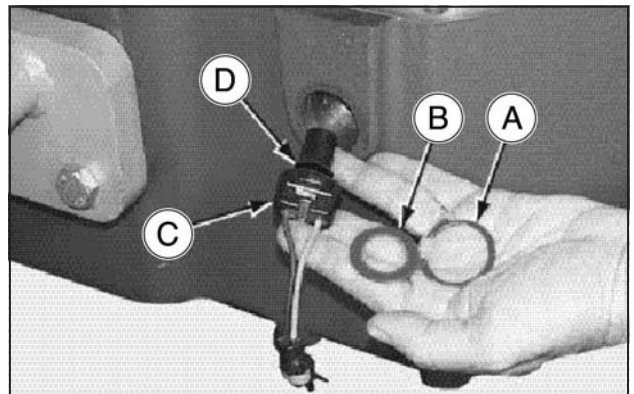


FIGURE 6

6003007C

## Remove and Install Output Magnetic Pickup Sensor

### Remove

1. Remove two cap screws (A), two lock washers (B), two flat washers (C), cover (D), sensor (E) and O-ring (F).
2. Clean and inspect for wear and damage.

### Install

3. Lubricate new o-ring and install in reverse order.

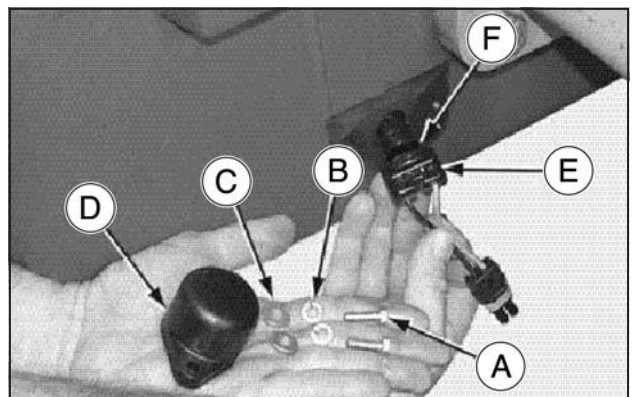


FIGURE 7

6003008A

## CHARGE PUMP

### Other Material

Number	Name	Use
	Transmission fluid	All moving parts and o-rings.

### Specifications

Item	Measurement	Specifications
Charge pump-to-input housing cap screws.	Torque	100 N•m (74 lb-ft)
Suction manifold-to-input housing cap screws.	Torque	25 N•m (18 lb-ft)
Suction tube-to-charge pump.	Torque	190 N•m (140 lb-ft)
Suction tube-to-suction manifold.	Torque	190 N•m (140 lb-ft)
Wiring harness bracket-to-rear housing cap screw.	Torque	87 N•m (64 lb-ft)
Wiring harness connector-to-wiring harness bracket	Torque	18 – 27 N•m (13 - 20 lb-ft)

## Remove Wiring Harness

1. Loosen nut (A).

**NOTE:** Tag all wiring connectors for identification before removing wiring harness.

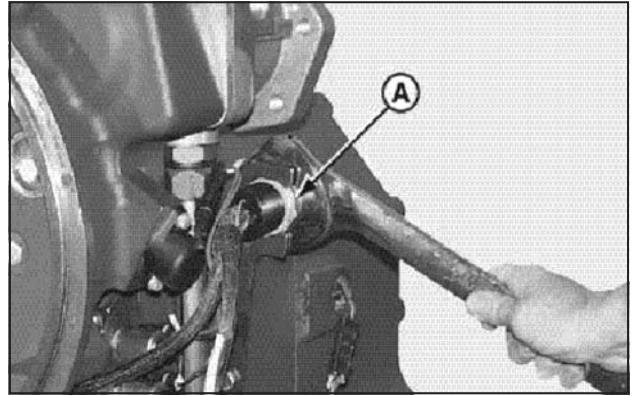


FIGURE 8

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2. Unfasten all weather pack connectors (B).
3. Remove wiring harness (C).
4. Inspect for wear and damage.

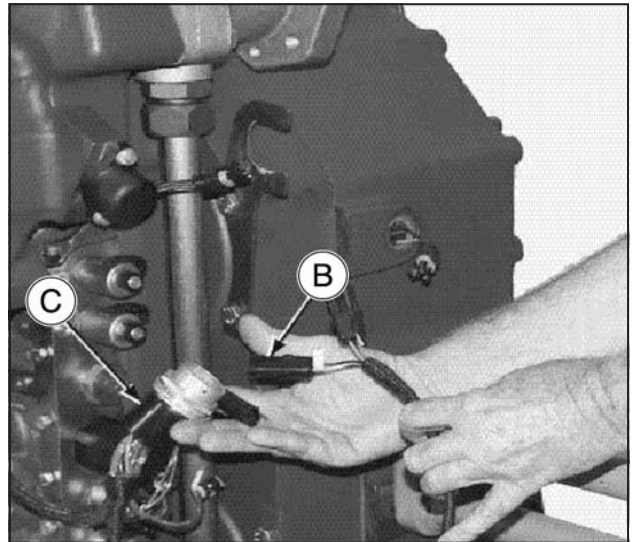


FIGURE 9

6003010B



## Disassemble Suction Tube Group

### Component Identification

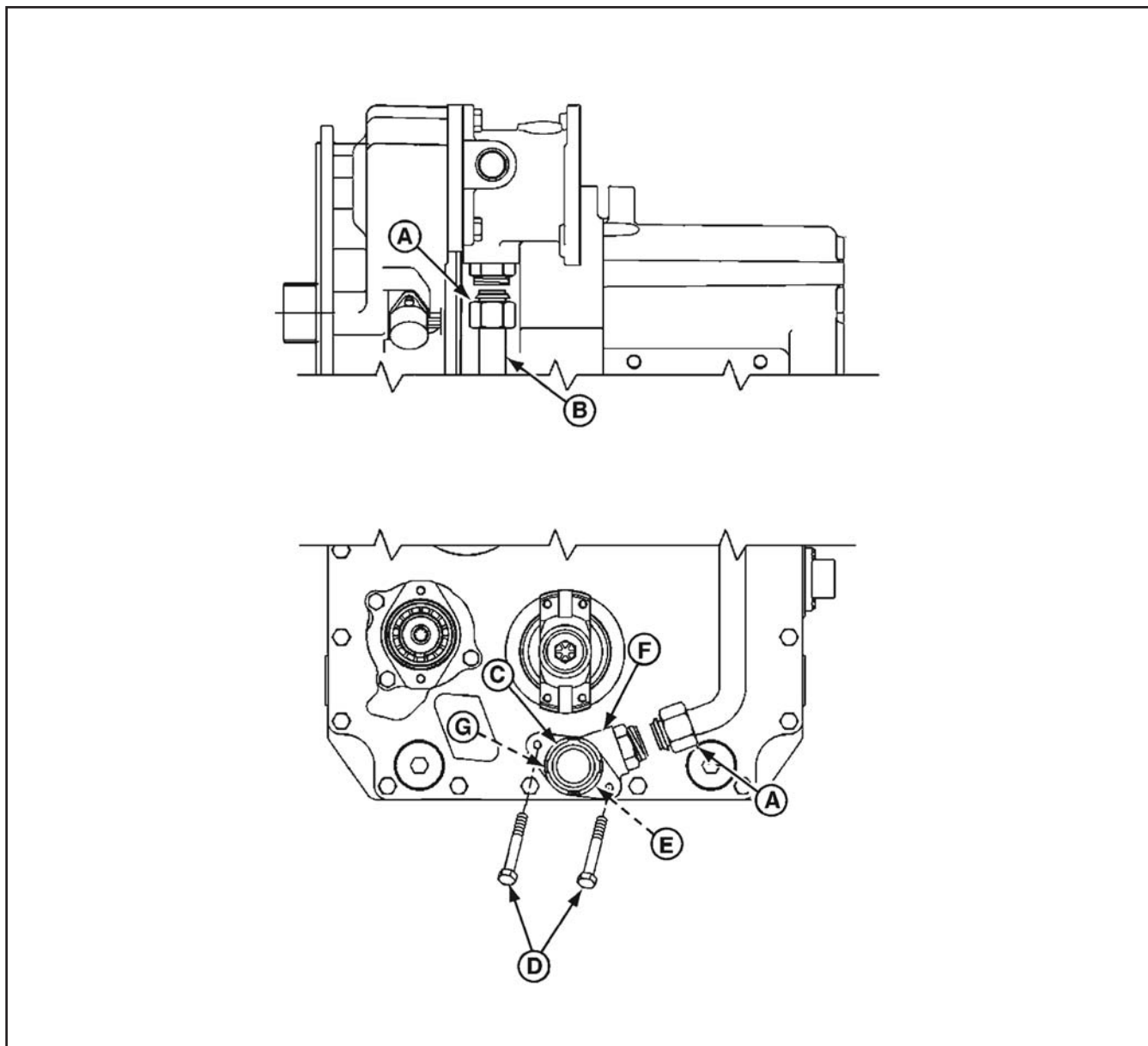


FIGURE 10

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- A. O-RING FITTING (2 USED)
- B. SUCTION TUBE
- C. SUCTION SCREEN ASSEMBLY
- D. CAP SCREW (2 USED)

- E. GASKET
- F. SUCTION MANIFOLD
- G. O-RING

## Remove Suction Tube and Oil Manifold Assembly

**IMPORTANT:** All oil should be drained from transmission before beginning disassembly.

**NOTE:** Refer to *INTERVALS FOR CHANGING TRANSMISSION OIL AND FILTERS* in section 1002 for draining oil.

1. Loosen cap screws (A).
2. Move bracket (B).
3. Completely loosen upper O-ring fitting nut (C).

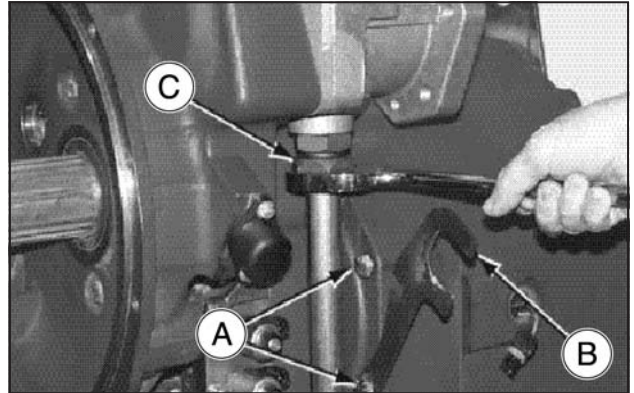


FIGURE 11

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4. Completely loosen lower O-ring fitting nut (D).

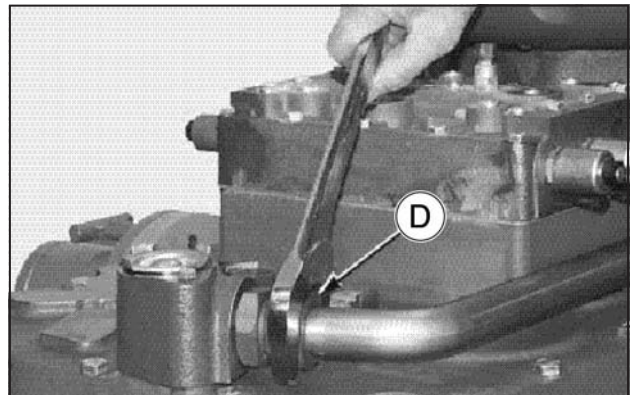


FIGURE 12

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5. Remove suction screen assembly (E) and gasket (F) from suction manifold (G).

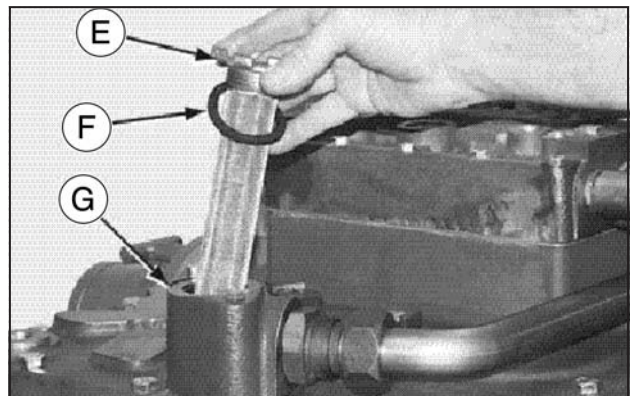


FIGURE 13

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6. Remove two cap screws (H).

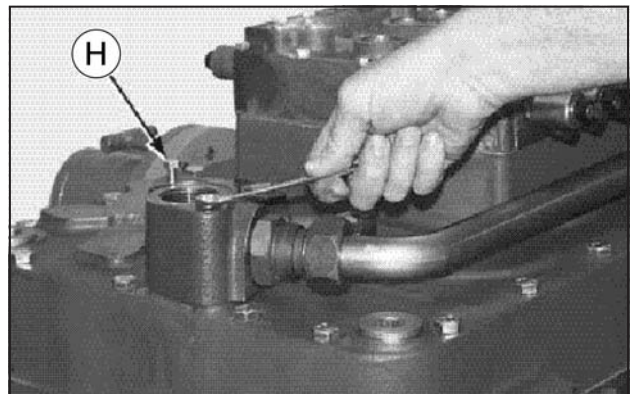


FIGURE 14

6003013C