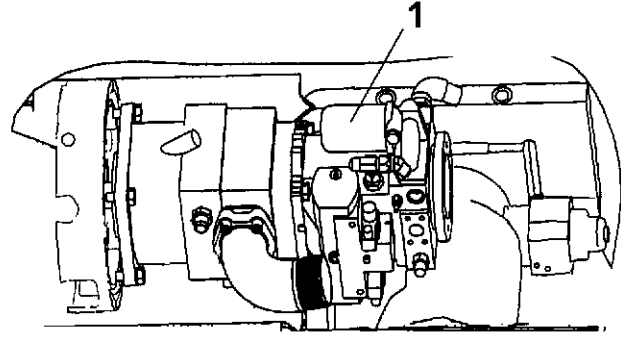


Renew the pressure filter of the drive hydraulic system

1. Lift the cabin. The transmission filter is located above the transmission pump.
2. Turn filter counterclockwise to remove.
3. Clean mounting surface. Apply thin film of oil to gasket of new filter.
4. Install new filter. Turn the filter by hand until the seal makes contact with the base. Use a filter wrench to turn the filter 30° further.
5. Start engine. Check for leaks around the filter base. Tighten filter only enough to stop leaks.
6. Stop engine.
7. Check oil level at sight glass on hydraulic tank. Add oil, if necessary. See Section 6-1, for recommended hydraulic fluids.



1—Pressure filter

T188481 -JUN-13MAR03

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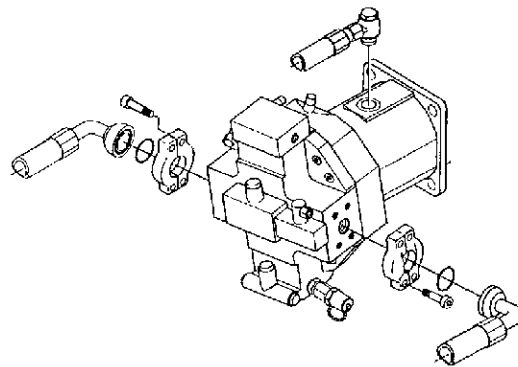
Drive Motor Removal And Installation

CAUTION: Ensure that the engine is stopped and the main switch is in the 'OFF' position. Remove handle from the main switch before disconnecting any hydraulic components. Securely block the wheels to prevent machine movement. Failure to observe proper safety precautions can lead to risk of personal injury.

NOTE: Following service instructions are general only. For detailed instructions for each Forwarder model, see group 0020 page 13 and enclosed Rexroth manuals.

To remove the Hydrostatic Drive Motor:

1. Tag and disconnect the hoses from the hydrostatic drive motor.
2. Attach a suitable lifting device to the Hydrostatic Drive Motor.



Hydrostatic Drive Motor, Hoses

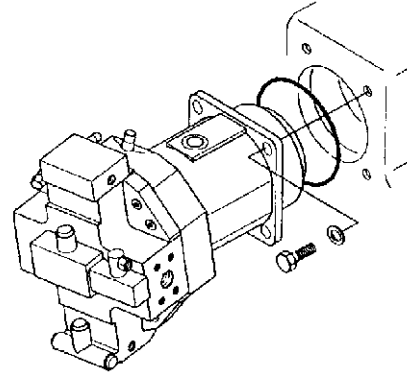
T138834 -JUN-29AUG01

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OUTJ003,0000304 -19-18JAN01-1/3

- To remove the hydrostatic motor from the transfer case, remove the four socket head capscrews and slide the motor back 75 mm (3") to clear the spline. When the bolts are removed, ensure that the motor is adequately supported at all times to prevent damage to the spline and seals.

To install the hydrostatic Drive Motor:



Hydrostatic Drive Motor Removal

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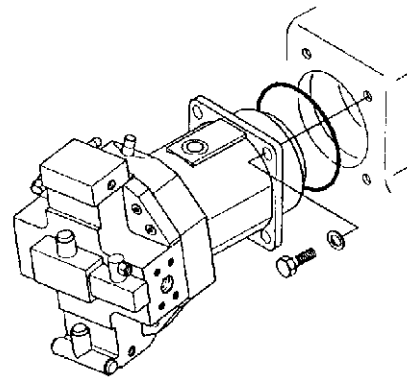
- Replace O-ring before assembly.

Attach the hydrostatic motor to the transfer case with the four socket head capscrews. Tighten screws to specified torque.

- Connect the hoses to the hydrostatic motor.

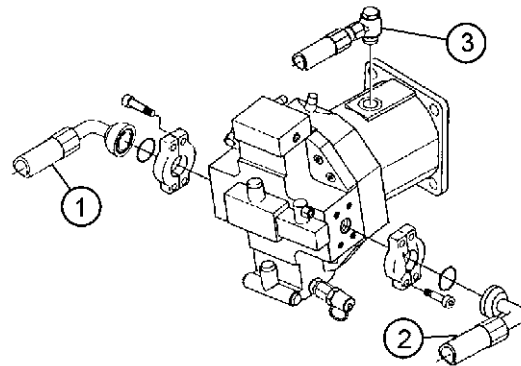
NOTE: After re-installing or replacing motor, see *Hydrostatic Drive Motor Start-up procedure in Section 03, Group 0320 page 47.*

- 1—Drive Pressure Hose
- 2—Drive Pressure Hose
- 3—Case Drain Hose



Hydrostatic drive motor Installation

T138835 -JUN-29AUG01



Hydrostatic Drive Motor Hoses

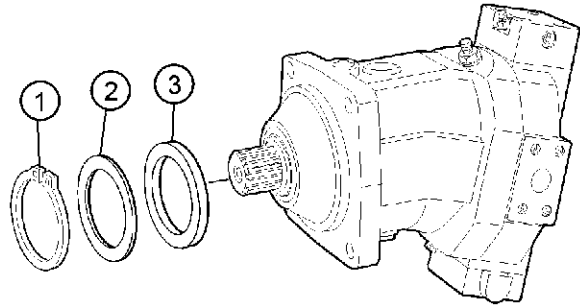
T138837 -JUN-29AUG01

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Servicing Drive Motor

Drive Shaft Seals Replacement

- 1—Retaining Ring
- 2—Shim
- 3—Drive Shaft Seal



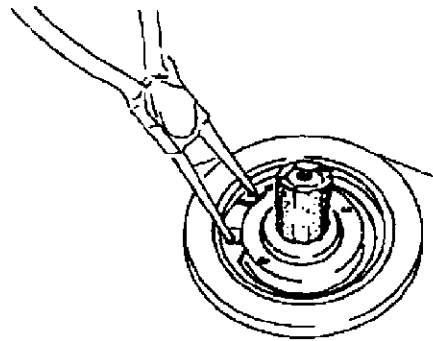
Hydrostatic Drive Motor, Drive Shaft Seal, Shim, Retaining Ring

T138838 -UN-29AUG01

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1. Protect the spline by wrapping it with tape.

Remove the retaining ring and shim.



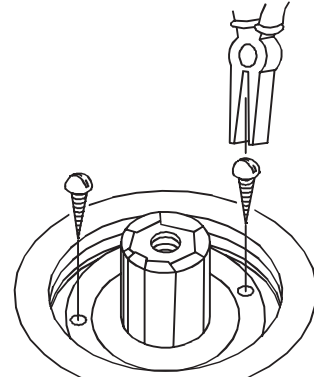
Drive Shaft, Retaining Ring, Pliers

T138839 -UN-29AUG01

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JK11466,00000CE -19-09APR03-2/9

2. Insert two sheet metal screws into the rubber showing at the two holes in the metal backing of the seal. Use the screws as handles to lift out the seal.



Drive Shaft Seal, Screws, Pliers

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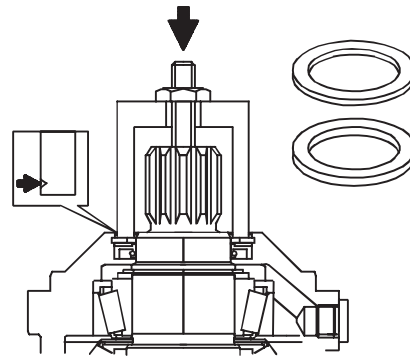
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3. Use Seal Driver to press in new seal.

NOTE: Mark the seal depth on the bushing before pressing in the seal.

4. Install the retaining ring and shim.



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T138804 -JUN-20JUL01

Constant Pressure Control Valve or Valve Seals Replacement

1. Remove mounting screws to remove valve.

NOTE: Use care when removing valve. Valve is under spring load.

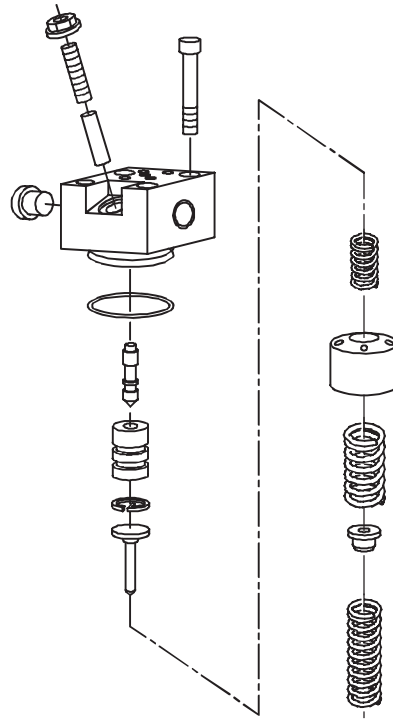
Note the length of the adjustment screw.

NOTE: Do not remove adjustment screw.

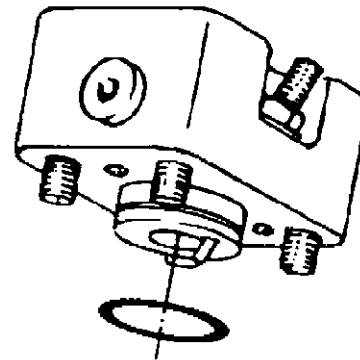
2. Replace the o-ring.

3. Lubricate the alignment pin with grease. Install pin on valve.

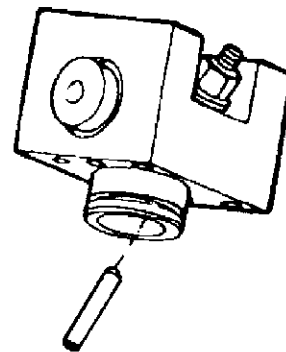
4. Install valve on Hydrostatic Drive Motor.



Constant pressure control valve, O-ring



Constant Pressure Control Valve



T138843 -UN-20JUL01

T138844 -UN-29AUG01

T138845 -UN-29AUG01

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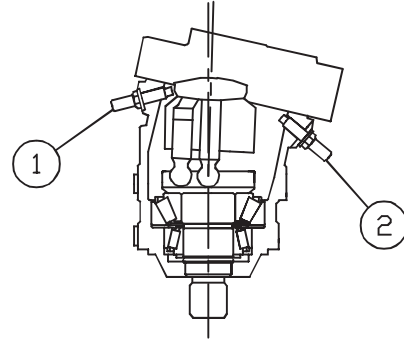
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Port Plate Seal Replacement

NOTE: In order to disassemble the motor, the rotary group must be swiveled to line up with the output shaft (zero position).

1. Measure and record the setting of the Displacement Limiter Adjustment Screws.

- 1—Minimum Displacement Limiter Screw
- 2—Maximum Displacement Limiter Screw



Hydrostatic Drive Motor Section View, Displacement Limiter Screws

T138846 -JUN-20JUL01

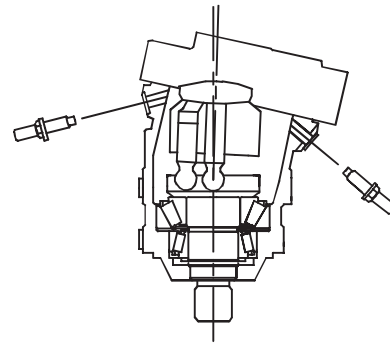
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2. Remove the Minimum Displacement Limiter Screw and plug the port.

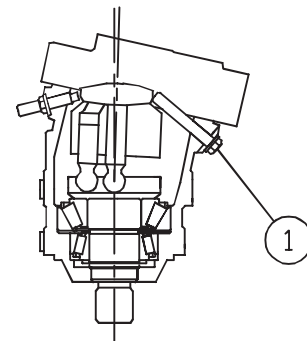
Remove the Maximum Displacement Limiter Adjustment Screw.

3. Install a long screw in the maximum displacement limiter port and swivel the rotary group to the zero position.



Hydrostatic Drive Motor Section View, Displacement Limiter Screws Removal

T138847 -JUN-20JUL01



Hydrostatic Drive Motor Section View, Long Screw, Swivel Rotary Group

T138850 -JUN-20JUL01

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4. Mark the position of the port plate to ease re-assembly.

Remove the mounting screws.

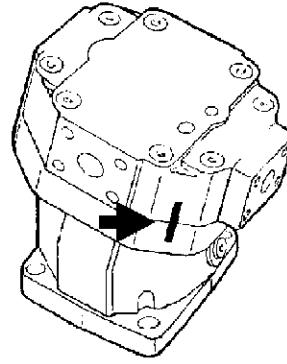
Remove the port plate.

5. Replace the o-ring. Apply a coating of grease to new o-ring to hold it in place.

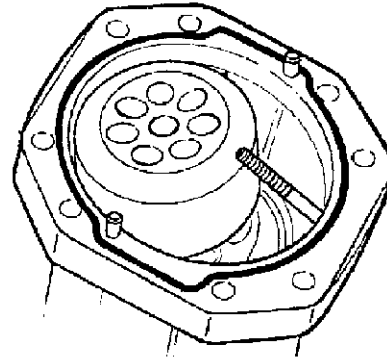
NOTE: Keep the rotary group vertical. The piston rings should project beyond the cylinder bores.

6. Inspect the sliding surfaces of the control lens and port plate.

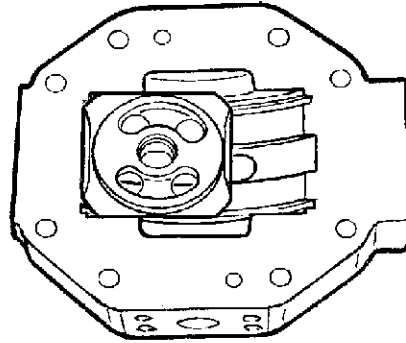
7. Install port plate. Use a coating of grease to hold the control lens in position. Install mounting screws.



Hydrostatic drive Motor, Alignment Mark



Hydrostatic Drive Motor Housing, Port Plate Removed, Seal



T138851 -UN-29AUG01

T138852 -UN-29AUG01

T138853 -UN-29AUG01

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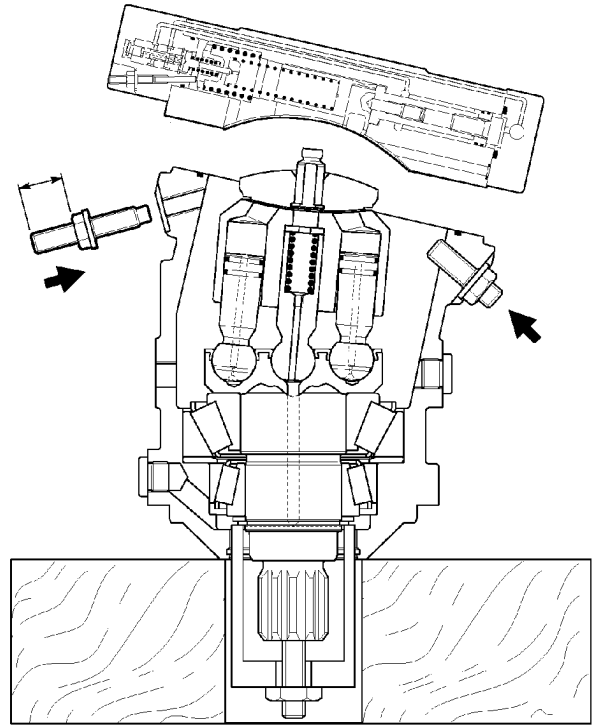
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8. Install Minimum Displacement Limiter. Confirm that it is installed to the correct depth.

Remove long screw from Maximum Displacement Limiter port. Install Maximum Displacement Limiter. Confirm that it is installed to the correct depth.

NOTE: The start-up procedure should always be followed when the hydrostatic pump or motor has been removed or replaced.

See the *Hydrostatic Pump and Motor Start-up Procedure* in Group 0320.

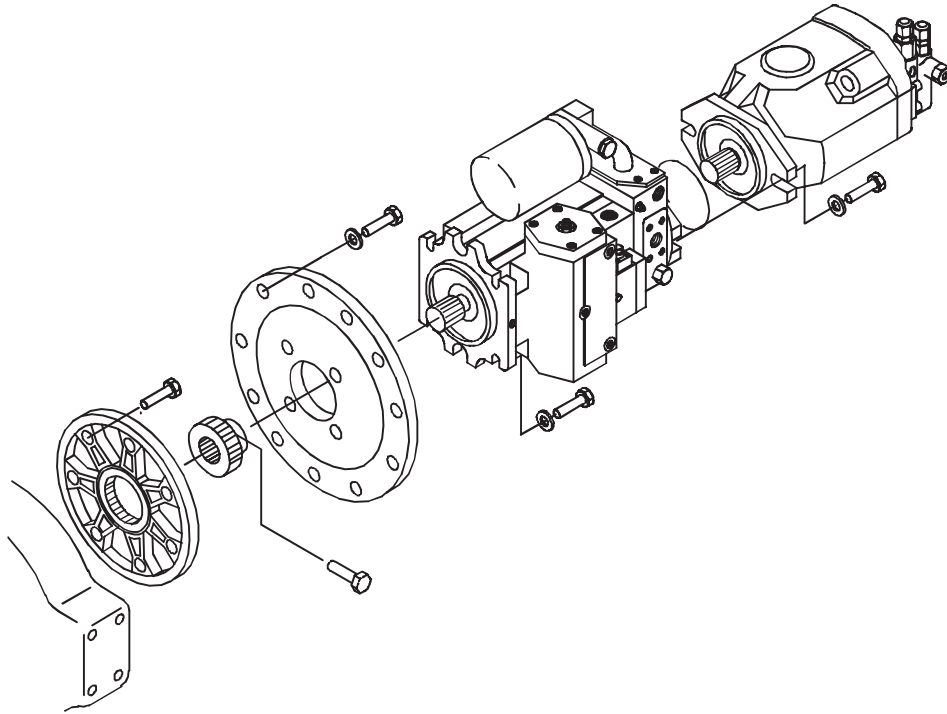


Hydrostatic Drive Motor Section View, Displacement Limiter Installation

T138864 -JUN-29AUG01

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Drive Pump Removal and Installation



Coupling, Hydrostatic Drive Pump, Work Pump

IMPORTANT: Cleanliness procedures must be observed when working on any hydraulic component in order to prevent contamination of the hydraulic and hydrostatic systems.

Failure to follow these procedures may lead to equipment damage.

The hydrostatic drive pump and the working pump are removed from the machine as an assembly. See Section 02, Group Drive Coupling Removal and Installation, for details.

It is recommended that the machine be completely washed down before removal begins.

Tag all hoses before removal to ease re-assembly.

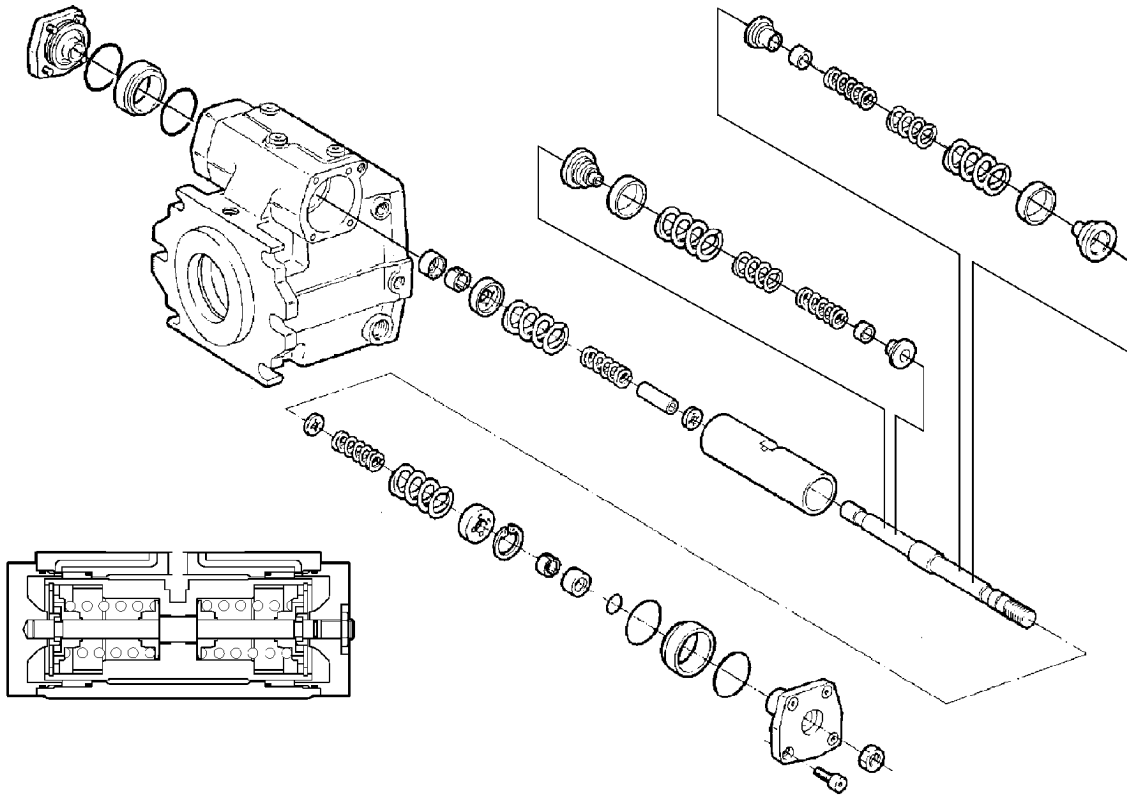
Cap hoses and plug ports.

The hydrostatic pump must be taken to a hydraulic repair shop for repair where all the tools and expertise are available.

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Servicing Drive Pump



An example of drive pump assembly

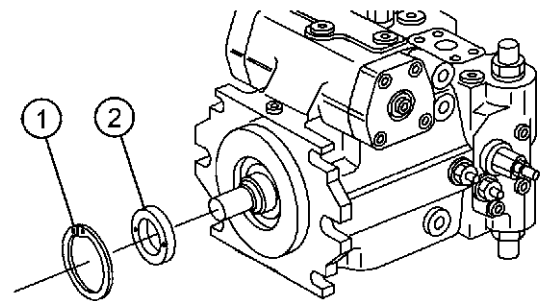
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Drive Shaft Seal Replacement

- 1—Retaining Ring
- 2—Drive Shaft Seal



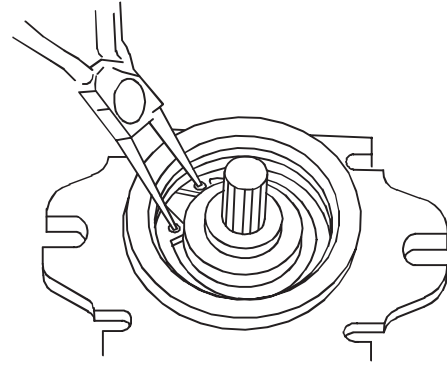
Hydrostatic Drive Pump - Drive Shaft Seal

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T138748 -UN-13AUG01

1. Protect the drive shaft spline by wrapping it with tape.
2. Use pliers to remove the retaining ring.

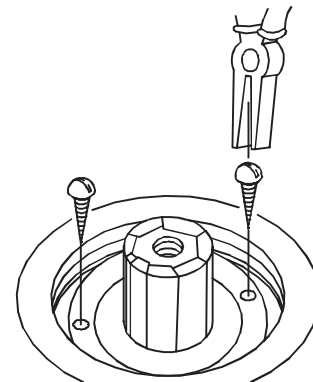


Retaining Ring Removal

T138749 -UN-20JUL01

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3. Insert two sheet metal screws into the rubber showing at the two holes in the metal backing of the seal. Use the screws as handles to lift out the seal.



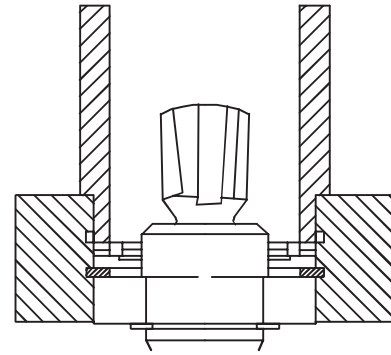
Drive Shaft Seal Removal

T138750 -UN-20JUL01

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4. Use seal driver to press in the new seal.



Drive Shaft Seal Installation

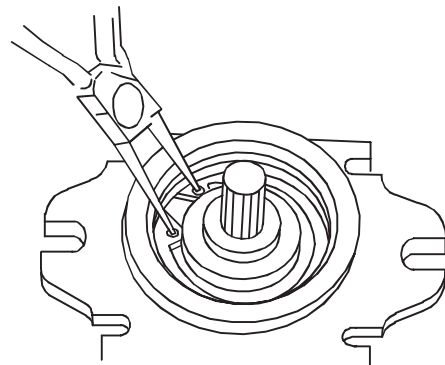
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5. Use pliers to install the retaining ring.

6. Remove the tape from the drive shaft spline.



Retaining Ring Installation

T138749 -JUN-20JUL01

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Suggest:

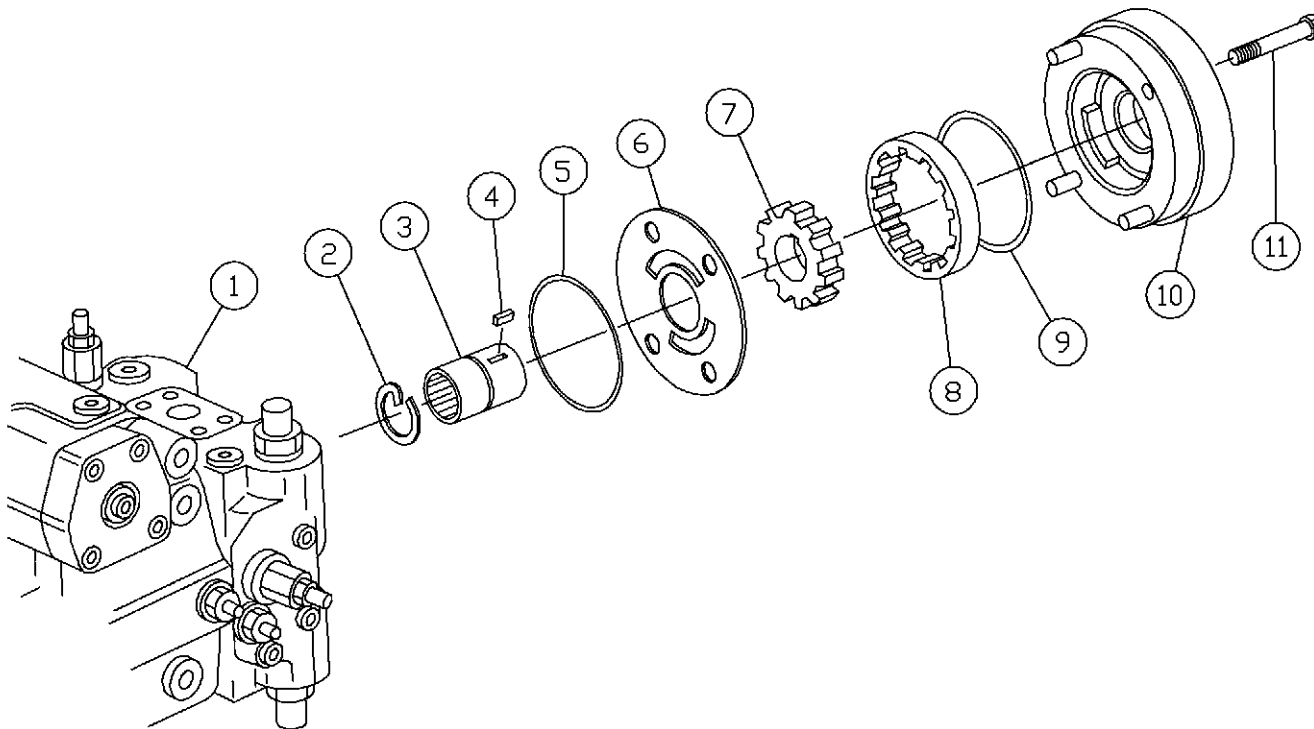
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Please download this document

first, and then click the above link

to download the complete manual.

Thank you so much for reading



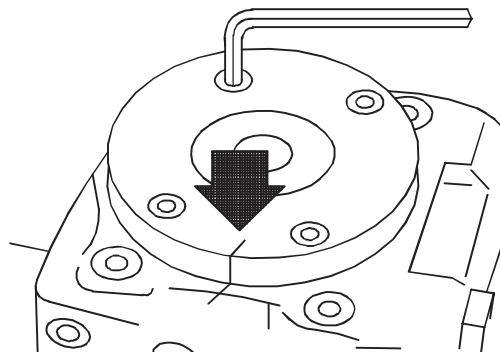
Charge Pump

- | | | | |
|--------------------------|---------------|---------------|------------|
| 1—Hydrostatic Drive Pump | 4—Key | 7—Pinion Gear | 10—Housing |
| 2—Retaining Ring | 5—O-ring | 8—Driven Gear | 11—Screw |
| 3—Pinion Gear Shaft | 6—Valve Plate | 9—O-ring | |

Charge Pump

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1. Mark the position of the cover plate to ease re-assembly.
2. Remove the mounting screws.
3. Pry off the cover.
4. Remove and discard the seals.



Charge Pump Hosing Alignment Mark

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