
Series 40

M25 - Axial Piston

Pumps, Motors, and

Transmissions

Service and Repair Manual

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

Notes

Notes

Notes

Minor Repair and Replacement - "U" Style Transmission (Continued)

**Fig. 50-33 - Remove Heat Exchanger Bypass Valve Plug (U)**

90250042

**Fig. 50-34 - Heat Exchanger Bypass Valve (U)**

90250014

**Fig. 50-35 - Remove Filter Bypass Valve Plug (U)**

90250043

**Fig. 50-36 - Filter Bypass Valve (U)**

90250015

Heat Exchanger Bypass Valve

Remove the heat exchanger bypass valve plug with a 7/8" hex wrench.

Remove the spring and poppet from the center section.

Do not interchange parts with another valve.

Earlier production transmissions use a spring in the heat exchanger bypass valve which is identified by a yellow dye mark and requires a force of approximately 22 N (5.5 lbf) to compress it to a length of 45.7 mm (1.28 inches).

Later production transmissions use a spring in the heat exchanger bypass valve which is identified by a red dye mark and requires a force of approximately 10 N (2.2 lbf) to compress it to a length of 1.28 inches (45.7 mm).

Inspect the poppet and mating seat in the end cap for damage or foreign material.

Reinstall the poppet, spring, and plug (with O-ring) into the center section. Torque the plug to 41 to 95 Nm (30 to 70 lbf•ft).

Filter Bypass Valve

Remove the filter bypass valve hex plug with a 7/8" wrench.

Remove the spring and poppet from the center section.

Do not interchange parts with another valve. The spring used in the filter bypass valve is identified by a red dye mark, and requires a force of approximately 10 N (2.2 lbf) to compress it to a length of 45.7 mm (1.28 inches). Inspect the poppet and mating seat in the end cap for damage or foreign material.

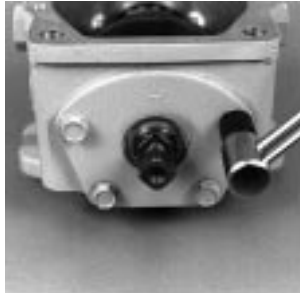
Reinstall the poppet, spring, and plug (with O-ring) into the center section. Torque the plug to 41 to 95 Nm (30 to 70 lbf•ft).

Major Repair - Variable Pump (Continued)



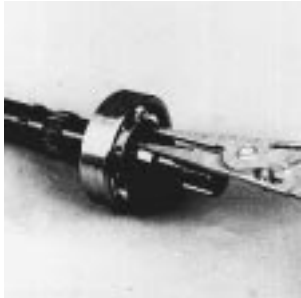
40250023

Fig. 61-20 - Trunnion Cover Components (Tapered Roller)



40250070

Fig. 61-21 - Torque Trunnion Cover Screws



40250062

Fig. 61-22 - Install Shaft Bearing Retaining Ring



40250061

Fig. 61-23 - Install Shaft and Bearing into Housing



40250071

Fig. 61-24 - Install Shaft Seal Cover



40250059

Fig. 61-25 - Install Thrust Plate



40250072

Fig. 61-26 - Install Piston Assemblies into Cylinder Block



40250057

Fig. 61-27 - Install Cylinder Block Kit

Using an arbor press, press a new seal into the trunnion seal cover. Be careful not to damage the seal.

For units with tapered roller type swashplate bearings, install the the trunnion shims into the housing next to the swashplate bearing cups, and retain with petroleum jelly. Locate the shims so that there is no more than 0.20 mm (0.008 in.) difference in shim thickness from one side of the swashplate to the other. Install the trunnion bearing spacers.

Install the O-rings and trunnion covers, as described in the "Minor Repair" section of the Service Manual. Install new hex head screws and torque to 15 to 20 Nm (11 to 15 ft.lbsf.).

NOTE: When units with tapered roller type swashplate bearings are properly assembled, a torque of 0.56 to 2.26 Nm (5 to 20 lbsf•in) will be required to rotate the swashplate.

Using caution to not damage the sealing surface, press the ball bearing onto the drive shaft. Install the bearing retaining ring onto the shaft.

Install the drive shaft and bearing into the housing.

Install the input shaft seal, seal cover, and O-ring, as described in the "Minor Repair" section of the Service Manual. Install the retaining ring.

Coat the thrust plate with petroleum jelly and install onto the swashplate. The thrust plate is reversible.

Assemble the piston assemblies into the slipper guide. Lubricate the pistons and cylinder block bores. Install the assembled guide and pistons into the cylinder block by inserting the piston assemblies into the cylinder block bores. The pistons and bores are not selectively fitted, therefore no specific piston and bore orientation is required.

Lay the pump housing on its side and install the cylinder block kit into the housing.

Major Repair - Fixed Motor (Continued)

Disassembly Procedures for Fixed Motor

Prior to performing Major Repairs, remove the external components as described in the Minor Repair section.

Place the motor on a work surface with the end cap up. Remove the four (4) screws (item B41) that retain the end cap (item E01) to the housing (item G01 or item G02).

Remove the end cap with the valve plate (item B52). Do not allow the valve plate to fall from the end cap. Remove the gasket (item B37) from the housing.

Carefully remove the valve plate from the end cap. It may be necessary to pry the valve plate off with a small screwdriver. Remove the alignment sleeves (item B40) from the end cap or housing.

CAUTION

Caution must be exercised to prevent damage to the valve plate and end cap surfaces.

Lay the motor on its side and remove the cylinder block assembly (item B22) from the housing.

Remove the slipper guide (item B36) and the piston assemblies (item B32) from the cylinder block.

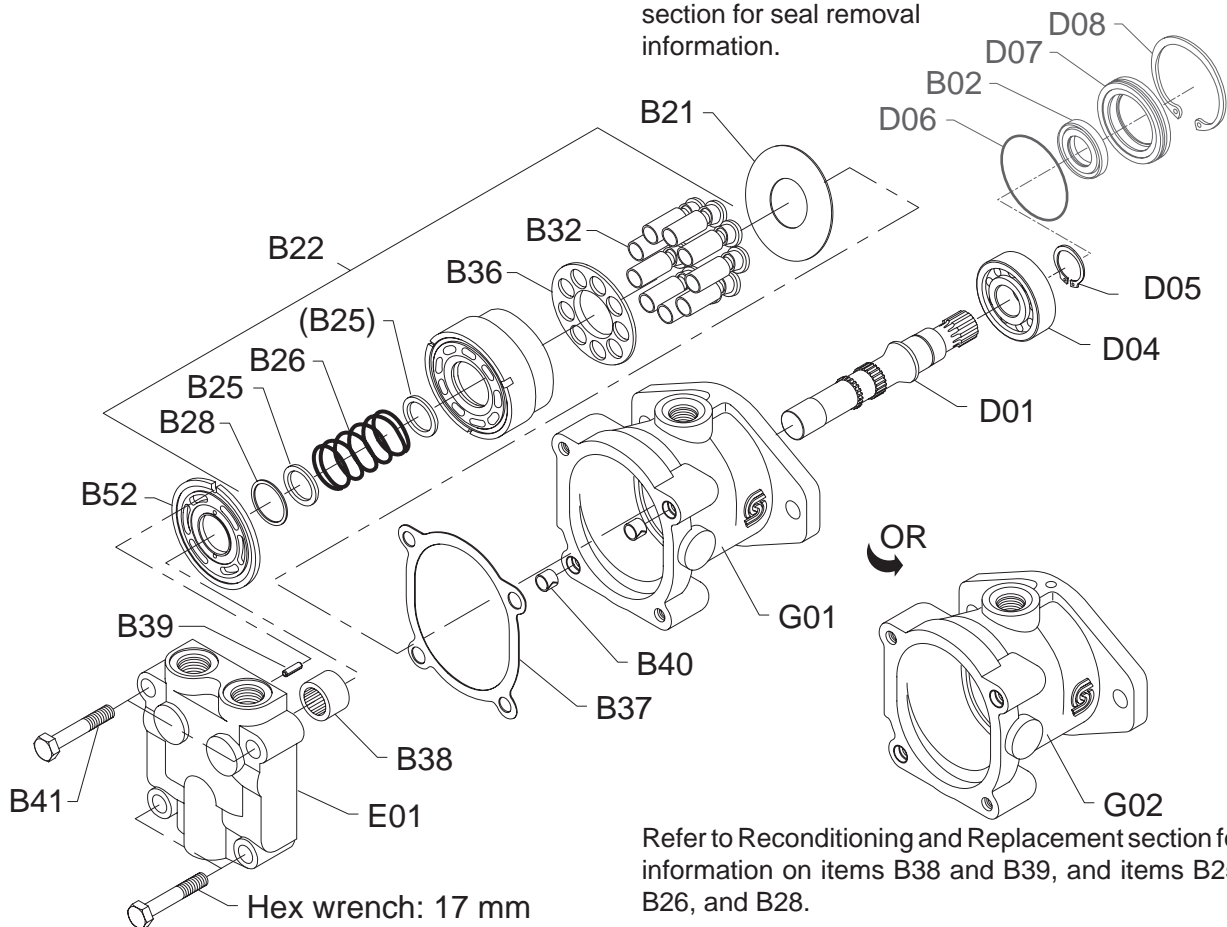
Using an O-ring pick or wire, remove the thrust plate (item B21) from the housing.

Remove the retaining ring (item D08) and remove the output shaft seal carrier (item D07) with the seal (item B02). Remove the O-ring (item D06) from the carrier. Press the old seal out of the carrier. Refer to the Minor Repair section for further information.

Slide the output shaft and bearing assembly out of the housing.

Remove the retaining ring (item D05) and press the output shaft (item D01) out of the bearing (item D04).

Refer to Minor Repair section for seal removal information.



Refer to Reconditioning and Replacement section for information on items B38 and B39, and items B25, B26, and B28.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL

- Thank you very much for reading the preview of the manual.
- You can download the complete manual from: www.heydownloads.com by clicking the link below



- Please note: If there is no response to CLICKING the link, please download this PDF first and then click on it.

CLICK HERE TO **DOWNLOAD** THE COMPLETE MANUAL