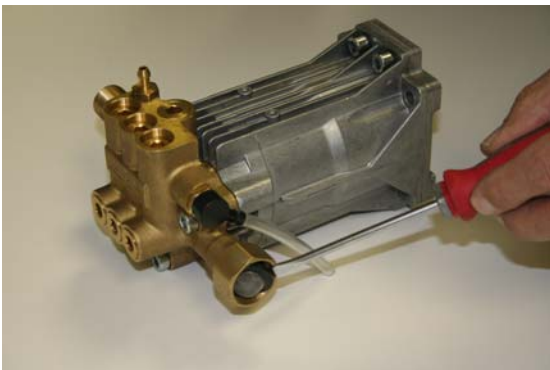


Service Handbook



High-Pressure Washer Pump 9.120-014.0

A. Water Inlet Filter



1. Remove filter with a screwdriver.
2. Clean filter with warm water and mild soap.
3. Reinstall filter.

B. Detergent Check Valve.



1. Remove detergent tube and nipple.



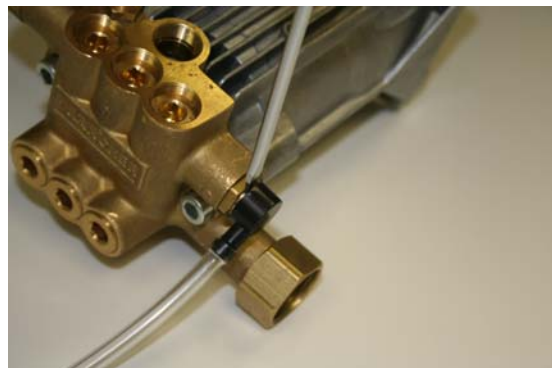
2. Remove o-ring, ball and spring.
3. Clean o-ring and ball.
4. Reinstall spring and ball.
5. Use silicone grease to hold o-ring to bottom of nipple.
6. Reinstall detergent nipple and tube.

C. Nozzle Insert



1. The nozzle insert is located inside of the high pressure outlet.
2. Unscrew the nozzle insert with a wide blade screwdriver.
3. Check the nozzle insert for wear, damage or debris in the opening.

D. Thermal Relief Valve



1. Remove the deflector cap and tube.



2. Unscrew the thermal relief valve plug.

D Thermal Relief Valve cont.



3. Remove the o-ring, thermal valve and spring.

E. Bypass Valve



1. Remove the Bypass Valve plug.



2. Use needle nose pliers to remove the Bypass Valve.
3. Inspect Bypass Valve for damage and proper lubrication. Replace valve if necessary.
4. Inspect O-rings for nicks & cuts.



5. Lubricate the large O-ring only. Use Lithium grease.
6. Install the Bypass Valve and plug.

F. Low Pressure Check Valves

The low pressure check valves are inline with the water inlet.



1. Unscrew the valve plug.



2. Remove valve with pair of valve pliers.
3. Clean or replace the valve assembly.

F. Low Pressure Check Valves cont.



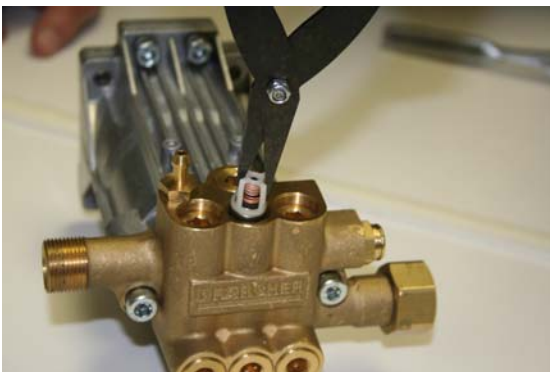
4. Use Silicone grease on the O-ring.
5. Install the low pressure check valve and plug.

G. High Pressure Check Valves

The high pressure check valves are inline with the high pressure outlet.



1. Unscrew the valve plug.



2. Remove valve with pair of valve pliers.
3. Clean or replace the valve assembly.
4. Use Silicone grease on the O-ring.
5. Install the high pressure check valve and plug.

H. High Pressure Seals



1. Remove the three pump head bolts.
2. Remove pump head.



3. Turn the pump head over and carefully remove the three high pressure seals.



4. Replace all three seals using the installation tool.
 - Place seal, flat side down, on installation tool.
 - Fill groove with silicone grease.

H. High Pressure Seals cont.



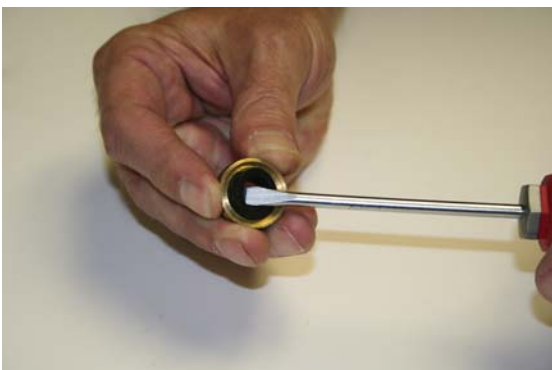
- Place brass sleeve in pump head.
- Put tool into sleeve and press until seal pops into place.

5. Reassemble pump head.

I. Low Pressure Seals.



1. Remove the brass low pressure seal bushing from the piston.



2. Remove the low pressure seal from the brass bushing.
3. Insert the new seal into the brass bushing and place the bushing on the piston.

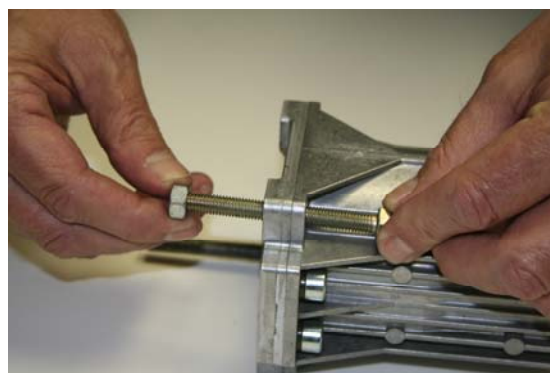


4. The circulation holes in the brass bushings must be at the 12:00 position as shown above.

J. Disassembly of the Swash Plate Housing.



1. Remove the brass low pressure seal bushings and the spacers.

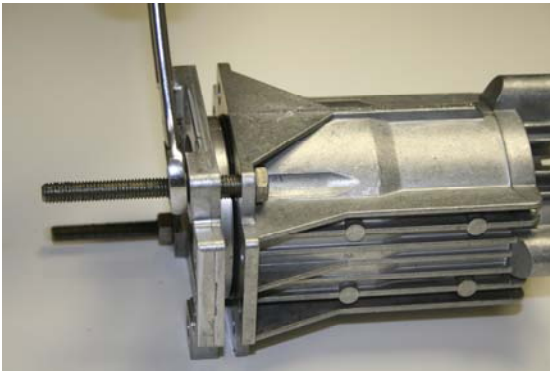


2. Attach two bolts (not supplied) through the pump base. Use holes positioned diagonally across base plate.

J. Disassembly of the Swash Plate Housing continued.



3. Remove the four bolts holding the housing to the base plate.



4. Slowly loosen the bolts attached in step 2 until the spring tension on the piston springs is completely released.

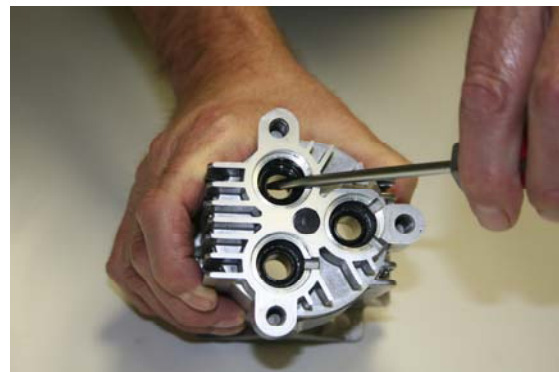


5. Once the tension is released, the bolts and the swash plate and pistons can be removed.



Swash Plate Housing components.

K. Oil Seals



1. Remove the 3 oil seals with a flat blade screwdriver.

2. Inspect and replace oil seals if necessary.

3. Installing oil seals.



- Soak new oil seals in water for 10 minutes.
- Make sure the housing is clean and dry.

K. Oil Seals continued



- Place oil seal into recessed end of installation tool. Groove in seal should face the oil.
- Do not grease groove in oil seal.



- Place seal in housing using installation tool.
- Push until seal hits bottom.



2. Using a hammer and socket with extension, tap the swash plate and coupler out of the base plate.



Swash plate components disassembled.



Pump shaft seal.

L. Swash Plate

See section J for removal from housing.



1. Remove the swash rings and antifriction bearings.



Swash plate bearing.

M. Oil Fill



1. Remove black rubber oil fill plug.
2. Use 2.7 oz of 15W-40 oil.
3. Replace fill plug.