



Repair Kit PMP4013 Instructions

FOR AEGIS PUMPS
PMP2002 AND PMP2003



Troubleshooting Guide

Problem	Solution
Pump fails on both pressure and vacuum cycles.	Replace Quad Rings in pump collar (see step 1).
Pump has a poor pressure stroke.	Replace O-Ring seal between pump head and housing (see step 2).
Pump fails on vacuum cycle.	Replace <i>vacuum</i> Check Valve (see steps 3, 4, 5 and 7).
Pump fails on pressure cycle.	Replace <i>pressure</i> Check Valve (see steps 3, 4, 6 and 7).



NOTE: Parts may be replaced individually, to address specific problems, as reflected in the Troubleshooting Guide. However, it is more efficient to replace all parts at the same time, as shown in the following directions.

1. Replace the Quad Rings in the pump collar, as follows:
 - 1.1) Remove the old O-Ring near the pump collar (fig. 1).
 - 1.2) Slide the collar off the pump head (figs. 2 and 3).
 - 1.3) Remove the old Quad Rings from inside the collar (figs. 4 and 5).
 - 1.4) Clean the grooves inside the collar with a lint-free towel.
 - 1.5) Install new Quad Rings, being careful not to twist them.
 - 1.6) Lubricate the Quad Rings with silicone O-ring lubricant.
 - 1.7) Reinstall the collar (figs. 6 and 7).
 - 1.8) Install a new O-Ring on the end of the pump, near the collar (fig. 8).

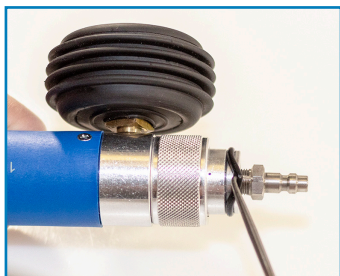


Figure 1



Figure 2



Figure 3

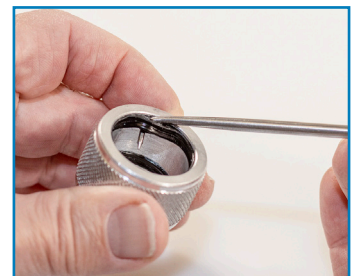


Figure 4



Figure 5



Figure 6



Figure 7



Figure 8

2. Replace the O-ring seal between the pump head and housing, as follows:

- 2.1)** Remove the screws that secure the pump head (figs. 9 and 10).
- 2.2)** Remove pump head (fig. 11).
- 2.3)** Remove the old O-Ring from inside the pump head (figs. 12 and 13).
- 2.4)** Clean the O-Ring groove with a lint-free towel.
- 2.5)** Install a new O-Ring and lubricate it with silicone O-ring lubricant.



Figure 9

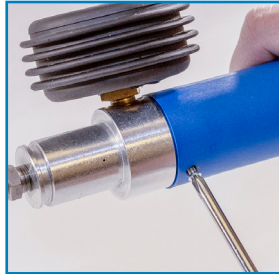


Figure 10

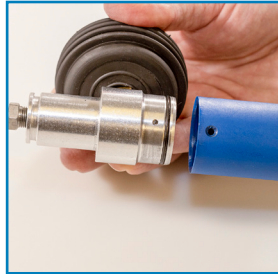


Figure 11



Figure 12



Figure 13

3. Identify the *vacuum* and *pressure* Check Valves (fig. 14).

4. Use snap ring pliers to remove the old Snap Rings that secure the Check Valves (figs. 15 and 16).



NOTE: Although not all parts from the Repair Kit are used in these instructions, further disassembly of pumps is not recommended.



Figure 14



Figure 15



Figure 16

5. Replace the vacuum Check Valve, as follows:

- 5.1)** Use a screw starter tool to remove the old Check Valve (figs. 17 and 18).
- 5.2)** Apply silicone O-ring lubricant to the new Check Valve and install it (fig. 19).

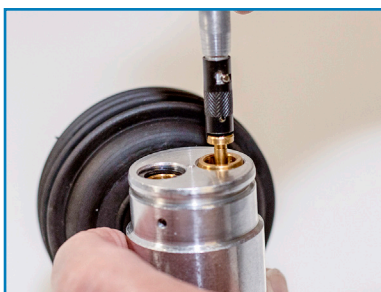


Figure 17

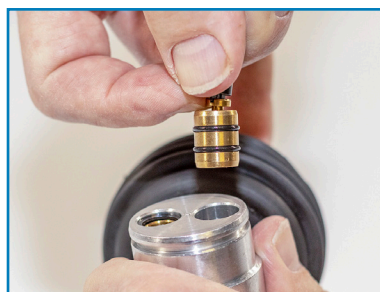


Figure 18

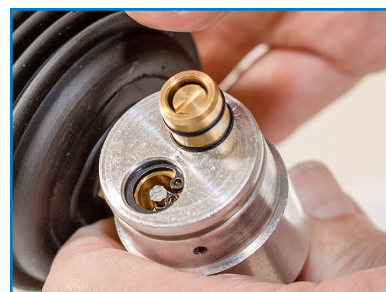


Figure 19

6. Replace the pressure Check Valve, as follows:

6.1) Use needle-nose pliers to remove the old Check Valve (figs. 20 and 21).

6.2) Apply silicone O-ring lubricant to the new Check Valve and install it (fig. 22).



Figure 20



Figure 21



Figure 22

7. Use snap ring pliers to install the new Snap Rings that secure the Check Valves (figs. 23 and 24).



Figure 23



Figure 24

8. Reinstall the pump head in the housing, aligning the screw holes. Then reinstall the retaining screws (figs. 25-27).



Figure 25



Figure 26



Figure 27



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