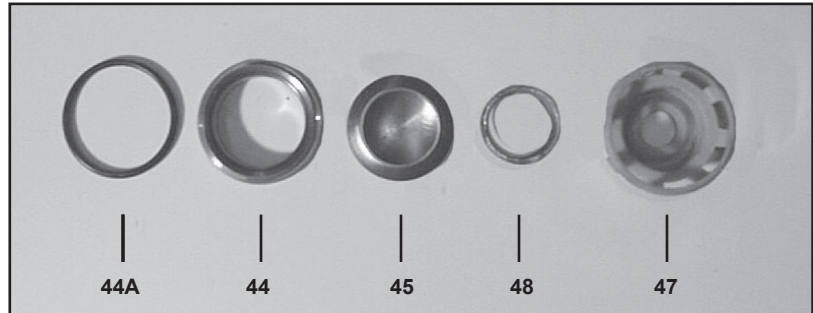


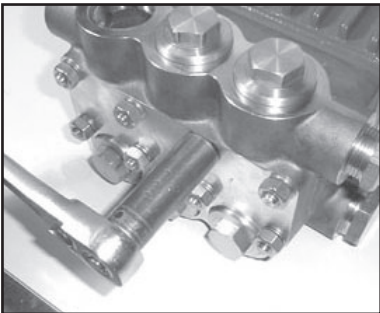
LP122/LP123/LP255 - Repair Instructions



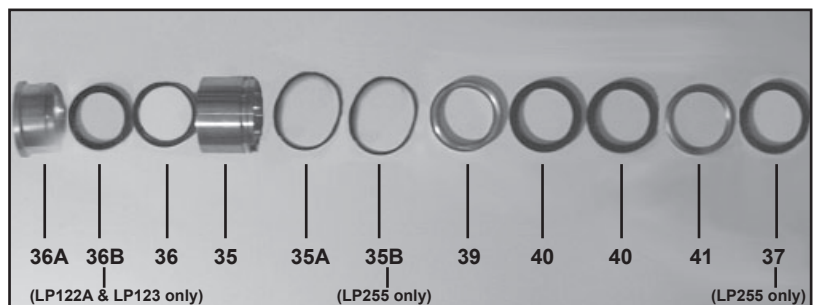
1. With a 30mm wrench, remove the six (6) plugs (48) from the valve casing (43). Inspect the O-rings (48A) and replace if necessary. Remove the complete valve assembly (46A) by threading a 12mm bolt into the spring retainer and pulling straight out.



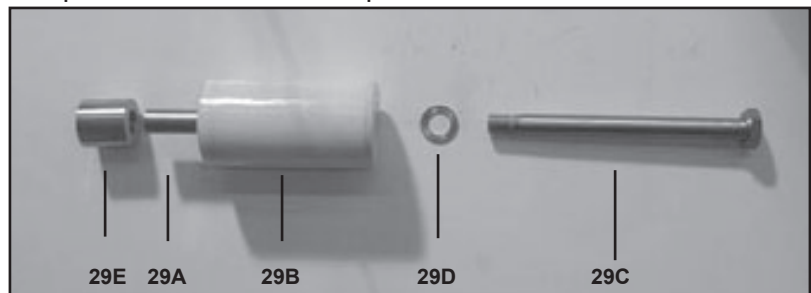
2. To disassemble the valve, screw the bolt into the retainer until the valve plate (45) presses the valve seat (44) out of the spring retainer. Examine all parts and replace if necessary. If the seat doesn't come out, use a valve puller to remove.



3. Remove the eight (8) hex nuts (49A) with a 19mm wrench. Tap the back of the manifold (43) with a rubber mallet to dislodge and slide off the studs.
5. If there are signs of oil leaking through the plunger oil seals, then replacement is necessary. Dissassemble the gear end and push out the seals from the back of the pump.



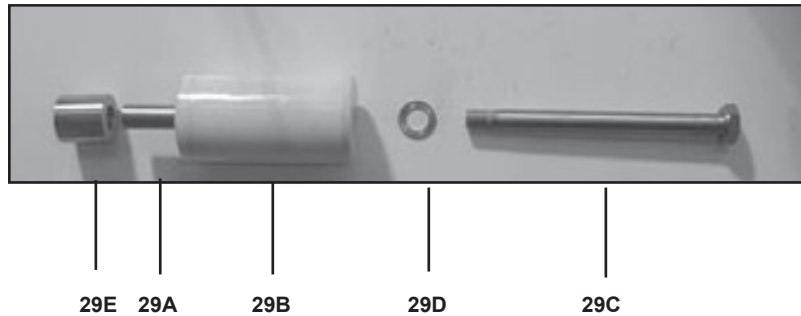
4. Remove the seal sleeve (35) from the manifold and/or crankcase. Remove the pressure rings (39&36A), drip shield (36B for LP122A & LP123 only), v-sleeves (40&36), support ring (41) and O-rings (35A and 35B in LP255A only) from the manifold and seal sleeve, respectively. For LP255 only, remove support ring (37). Examine seals carefully and replace if worn. Clean all parts.



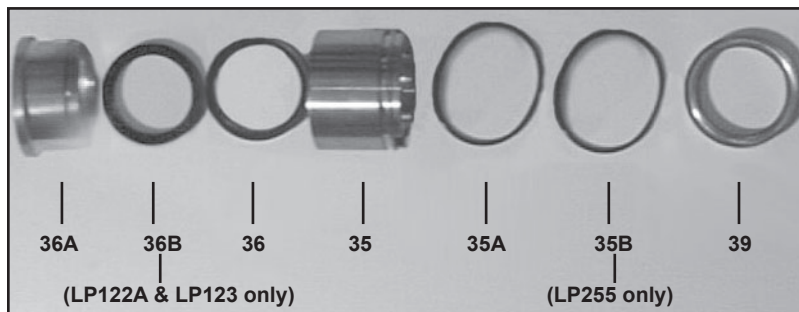
6. Inspect surface of plunger pipe (29B) carefully. Remove any chemical or mineral deposits taking care not to damage the surface of the plunger. If plunger pipe is worn, remove the plunger bolt (29C), plunger pipe (29B) and spacer (29E). Replace worn parts necessary. **Note: Always use a new copper gasket (29) when repairing the plunger assembly.**

LP122/LP123/LP255 - Repair Instructions

TO REASSEMBLE PROCEED AS FOLLOWS:

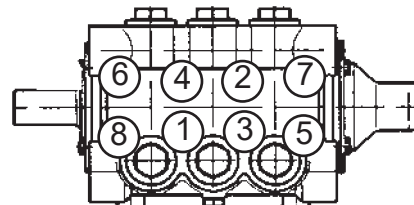
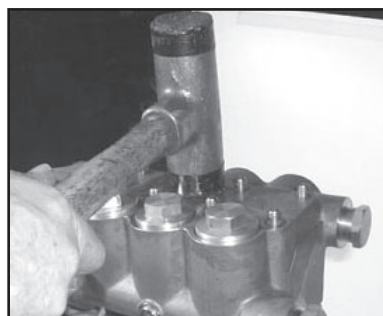


7. If previously disassembled thoroughly clean all exposed surfaces on the spacer (29E) and all exposed threads on the plunger bolt (29C) and the steel plunger base (25). Threads **MUST** be free of old loc-tite and any other material such as oil, grease, etc. This is necessary to ensure proper curing of new loc-tite. Giant recommends cleaning the threads with acetone or other suitable cleaner. Reassemble plunger assembly parts (29A, 29B, & 29E) using a new copper gasket (29D) and the cleaned plunger bolt (29C). Slide the bolt through the center of the four (4) pieces so that the threaded end is exposed. Apply several drops of loc-tite 243 (or equivalent) adhesive to the threads. Thread into steel plunger base and tighten to 26 ft.-lbs. (35 Nm). **BE CERTAIN ALL PARTS ARE CENTERED WITH THE BOLT!**



8. Lubricate weep seal (36). Place, weep seal (36), and pressure ring (36A) into the seal sleeve (35). Assemble the O-ring (35A and 35B for LP255 only) onto seal sleeve and lubricate.

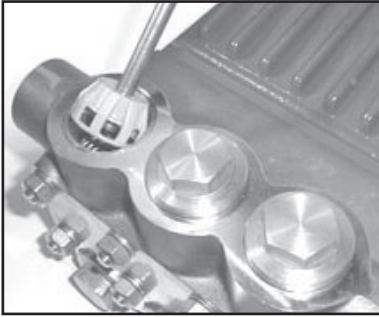
9. For LP255 pumps, insert support ring (37) into valve casing (43). Place support ring (41) and v-sleeves (40) into valve casing.



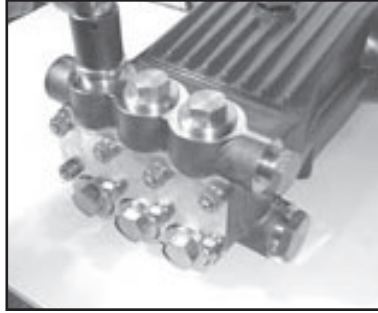
10. Place entire manifold/seal sleeve assembly over the studs and push firmly until seated against the crank-case.

11. Tighten hex nuts (49A) in a crosswise pattern (shown above) to 60 ft.-lbs. (81 Nm).

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12. Next, place valve assemblies (46A) into manifold after first lubricating the O-ring (44A). Seat firmly into manifold.



13. Replace plug with O-ring (48, & 48A) and tighten to 107 ft.-lbs. (145 Nm).

14. Fill crankcase with approximately 116 fluid ounces of Giant oil or equivalent SAE 90 industrial gear oil and check oil level of the crankcase with the dipstick. Proper level is center of two lines. Reinstall your Giant LP pump into your system.

LP122/LP123/LP255 TORQUE SPECIFICATIONS

Item #	Part #	Description	Lubrication Info	Torque Amount
1	07759	Crankcase	Molycote Cu-Paste	
6	05943/07186	Oil Sight Glass w/Gasket	Loctite 572	29 ft.-lbs. (40 Nm)
10	01010	Screw		221 in.-lbs. (25 Nm)
12	07109	Oil Drain Plug		29 ft.-lbs. (40 Nm)
17	07114	Hex Screw		221 in.-lbs. (25 Nm)
24A	13277	Hex Screw		22 ft.-lbs. (30 Nm)
29C	07737	Plunger Bolt	Loctite 243	26 ft.-lbs. (25 Nm)
31	07133	Radial Shaft Seal	Loctite 403	
48	06504/07753/07753-0100	Plug	Loctite 243	107 ft.-lbs. (145 Nm)
49A	07158	Nut		59 ft.-lbs. (80 Nm)
49	07157	Stud Bolt	Loctite 270	

Contact Giant Industries or your local distributor for maintenance of the gear end of your pump. Phone: 419/531-4600

**Contact Giant Industries for service school information.
Phone: (419) 531-4600**