

REPAIR INSTRUCTIONS - P540 and P541

8. Maintenance and Servicing

For the type of threadlocker used and the required tightening torques, observe the table in the exploded view.

8.1 Special tools required

The following special tools are required for assembly:
- Pull-out tool size 2 (Ø20mm)

8.2 Suction and Discharge Valves

Screw out plugs (32) with a socket wrench.
Remove the exposed spring tension cap (46E or 47E) from the valve seat by pushing it sideways using a screwdriver.
Remove spring tension cap, valve spring (46D or 47D) and valve plate (46C or 47C).
Pull out valve seat (46A or 47A) with a size 2 (Ø20mm) extractor tool.
Examine valve components for wear and damage.
Check O-rings. Replace worn parts.
New O-rings slightly coated with oil should be preferably used.
Tighten the plugs (32) to the required torque.
Take care to reassemble in correct sequence.

8.3 Seals and Plunger pipe

Loosen screws (34) and remove valve casing (26) by pulling it off over the plungers.
Remove seal adaptors (20) out of the valve casing (26) or crankcase (1).
Examine O-rings (21), grooved rings (23) and scraper (23A).
Remove drip return rings (25), V-sleeves (22) and support rings (24) from the valve casing.
Check that the bores in the leakage rings and the corresponding bores in the valve casing are free of obstruction.
When replace, wet new seals and O-rings thinly with silicone grease or mineral oil and insert carefully.
Take care to reassemble in correct sequence.
Check plunger surfaces (16A).
Damaged surfaces cause hard wear on seals.
Lime deposits or similar on the plunger must be carefully removed using a sharp knife.



Plunger surface must not be damaged in the process.

If plunger pipe (16A) is worn, remove tensioning screw (16B) with the plunger.

Examine and clean the crosshead mounting surface (17).

Check and mount the new plunger pipe.

Cover thread of tension screw (16B) with a thin coat of thread locker and tighten carefully to the required torque.



Under no circumstances should thread-locker get between the plunger pipe (16B) and the centering neck on the plunger (17) resp. centering sleeve (16F).

Tensioning of the plunger pipe due to eccentric tightening of the tensioning screw or due to dirt or damage to the contact surface can lead to breakage of the plunger pipe.

When reassembling, insert scraper (23A) and grooved ring (23) into seal retainer (20).

Carefully push the whole unit onto the ceramic plunger (if necessary use the drip return ring to hold the grooved ring in its seal retainer) and push it down into its crankcase fitting.

Slide on drip return ring (25) with its V-profile facing upwards.

Put sleeve support ring (24) into the valve casing.

Tilt V-sleeve (22) into its fitting.

Then carefully press it level using the flat side of a screwdriver.



Be careful not to scratch the valve casing!

Carefully push the whole pump head over the ceramic plungers and against the crankcase.

When assembling, tighten the screws (34) evenly and crosswise to the required torque.

If required, supplementary assembly instructions can be requested from the manufacturer Giant Industries, Inc.

TORQUE SPECIFICATIONS - P540 and P540

Position	Item #	Description	Thread	Lubrication Info	Torque Amount
5	07109	Oil Drain Plug	1/2" BSP		59 ft.-lbs. (80 Nm)
6	01010	Screw	M8		110 in.-lbs. (12.5 Nm)
7A	05943	Oil Sight Glass	1" BSP	Loctite 572	22 ft.-lbs. (40 Nm)
10	13113	Screw with Washer	M10		132 in.-lbs. (15 Nm)
15	04242	Connecting Rod Assembly	M6		97 in.-lbs. (11 Nm)
16B	04865	Tension Screw	M8	Loctite 243	247 in.-lbs. (28 Nm)
32	04435	Plug	M48 x 1.5		106 ft.-lbs. (145 Nm)
34	06494	Cap Screw	M10		22 ft.-lbs. (40 Nm)