LP121 Repair Instructions

Maintenance and Servicing
For the type of threadlocker used and the required tightening torques, observe the table below.

Special tools required
The following special tools are required for assembly:
- Pull-out tool size 3 (Ø22)

Suction and Discharge Valves
Remove tension plugs (48) and remove tension spring (45).
Take out discharge valves (46), pulling them upwards out of the valve casing (43) with snap-ring tongs or any other pull-off device.
Then remove suction valves (46) in the same way.
Loosen valve seats (46A) from spacer pipe (46D) by lightly hitting the valve plate (46B) with a plastic stick.
Check sealing surface and replace worn parts.
Reassemble preferably with new O-rings (44A) and support rings (44B) and oil them before installing.
Tighten tension plugs (48) to the required torque.

Seals and Plunger
Loosen the 8 nuts (49A) and pull off valve casing (43) to the front.
Pull seal sleeves (35) out of guides in crankcase (1).
Remove seal case (37) and tension spring (42) from seal sleeve (35).
Check plunger (29B) surface and seals (36/40). Replace worn seals.
If plunger pipe (29B) is worn out, loosen tension screws (29C) and pull off plunger pipe to the front.
Clean front surface of plunger (25) thoroughly.
Then place new plunger pipe (29B) carefully through the oiled seals (36/40).
Push seal sleeve (35) with plunger pipe (29B) into the crankcase guide.
Turn gear until the plunger (25) comes up against the plunger pipe (29B).

Put a new copper gasket (29D) onto tension screw (29C). Put a thin coat of threadlocker on the gasket and tighten screw to the required torque.

Under no circumstances should threadlocker get between the plunger pipe (29B) and the centring sleeve (29A). 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.

Tighten the fixing nuts (49A) for the valve casing (43) evenly to the required torque.

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

Malfunctions / Remedy
For informations, see assembly instructions GIANT PLUNGER PUMPS.

Materials Used
- Valve Casing: Aluminum-Bronze
- Plunger: Solid ceramic
- Valves: High-Grade Stainless Steel
- Seals: Nitrile with fabric reinforcing
- O-Rings: Nitrile

Paint
The pump drive is painted in RAL 3001 as standard.

LP121 Torque Specifications

Pos.	Description	Lubrication Info	Torque Amount
1	Crankcase	Molycote Cu-Paste	
6	Oil Sight Glass	Loctite 572	29 ft.-lbs. (40 Nm)
10	Cylinder Screw		221 in.-lbs. (25 Nm)
12	Plug		29 ft.-lbs. (40 Nm)
17	Hexagon Screw		221 in.-lbs. (25 Nm)
24	Connecting Rod Assembly		22 ft.-lbs. (30 Nm)
29C	Tension Screw	Loctite 243	26 ft.-lbs. (35 Nm)
31	Radial Shaft Seal	Loctite 403	
48	Plug		107 ft.-lbs. (145 Nm)
49	Stud Bolt	Loctite 270	
49A	Hexagon Nut		59 ft.-lbs. (80 Nm)