

GP7142/GP7242 REPAIR INSTRUCTIONS

Maintenance and Servicing

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

Special tools required

The following special tools are required for assembly:

- Extraction tool (part no. 07662)
- Pull-out tool size 5
- Snap-ring tongs

Suction and Discharge Valves

Screw off plugs (58).

Take out tension spring (57).

Remove the complete valve (51, 52) and valve holder (55) using either a valve tool or an M16 hexagon screw.

To dismantle valves:

Screw valve seat (51E, 52E) out of spring tension cap (51A, 52A).

Check sealing surfaces and replace worn parts.

Check O-rings and support rings.

Tighten plugs (58) to the required torque.



If worn, the discharge valve seat (52E) can be turned 180° round and refitted.

Seals and Plunger

Loosen nuts (49A) and remove pump head.

Separate plunger connection (36A) from crosshead (25) by means of an open-end wrench (size 36).

Pull seal sleeves (39) out of their fittings in the crankcase.

Take seal case (38) out of seal sleeve (39).

Remove tension spring (45).

Examine plunger parts (36A-36D), seals (42,39A) and O-rings. When replacing plunger pipe (36B), tighten tension screws (36C) to the required torque.

Replace worn parts; grease seals with Silicone before installing.



Don't loosen the 3 plunger connections (36A) before the valve casing has been removed. Otherwise the tension screw (36C) could hit against the Spring Tension Cap (51A) when the pump is being turned.

Seal life can be increased if the pretensioning allows for a little leakage.

This assists lubrication and keeps the seals cool.

It is therefore not necessary to replace seals before the leakage becomes too heavy and causes output and operating pressure to drop.

When reassembling, tighten plunger screws (36A) to the required torque.

Mounting Valve Casing:

Check O-rings on seal case (38).

Clean surfaces of seal sleeves in gear box and sealing surfaces of valve casing.

Push valve casing carefully onto O-rings of seal case and centring studs (50A).

Tighten nuts (49A) to the required torque.

Malfunctions / Remedy

For informations, see assembly instructions Giant Industries.

Materials Used

Valve Casing: Aluminum Bronze (GP7142)

Valve Casing: Nickel-Plated Cast Iron (GP7242)

G-versions: Spheroidal Cast Iron

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.

GP7142/GP7242 TORQUE SPECIFICATIONS

Position	Thread	Lubrication Info	Torque Specifications
1		Molycote/Cu-Paste	
10	M10		33 ft.-lbs. (45 Nm)
12	1/2" BSP		59 ft.-lbs. (80 Nm)
15		Loctite 403	
17	M12		64 ft.-lbs. (87 Nm)
24			30 ft.-lbs. (40 Nm)
30A			89 in.-lbs. (10 Nm)
32		Loctite 403	
36A			33 ft.-lbs. (45 Nm)
36C	M10	Loctite 243	30 ft.-lbs. (40 Nm)
39		Copper Paste - Crankcase Side	
49		Loctite 648 - Crankcase Side	
49A			133 ft.-lbs. (180 Nm)
58			107 ft.-lbs. (145 Nm)