

# GP8065-5100 PUMP REPAIR INSTRUCTIONS

## Maintenance and Servicing

For the type of threadlocker used and the required tightening torques, see page 7.

## Special tools required

The following special tools are required for assembly:

- Assembling tool (p/n 07662)

## Suction and Discharge Valves

Remove plugs (58), lift discharge casing (50B) up and away. Take out pressure springs (57A). Pull out assembled valves (51 and 52) with fitting tool (07662).

Dismantling valves: The spring tension cap (51A, 52A) is screwed together with the valve seat (51B or alternatively 52B). Remove spring tension cap, take out springs (51E, 52E) and valve plate (51C, 52C). Check sealing surfaces and O-rings (51D, 52D).

Replace worn parts.

Before refitting the valves, clean the sealing surfaces in the casing and check for any damage. Tighten screws (58) to the required torque; check torque tension after 8-10 operating hours.

## Seals and Plunger

Loosen the hexagon nuts (49A) and pull the pump head (50) with the seal case (38) from the seal sleeve (39). If necessary, carefully tap the valve housing (50) off the centring stud (50A) using a rubber mallet

Pull the seal case (38) out of the valve casing (50); using two screwdrivers, it can be positioned into the front O-ring groove to be levered out of the valve casing. Examine O-rings (38A) and coat with silicon grease before fitting.



If necessary, support the pump head by resting it on wooden blocks or by using a pulley.

Loosen the tensioning screw (36C) and remove the plunger pipe (36B) from the seal unit; check for damage. Use a screw drive to pry sleeves (42) out of seal sleeve (39) and seal retainer (37).



Ensure that the seal sleeve (39), seal retainer (37) and pressure ring (41) are not damaged. Check the O-rings on the seal sleeve (39) and replace (if necessary).

Check the pressure rings and scraper (37C/41) for wear on the inside diameter and, if necessary, replace with the seals (40/42). Clean all parts and apply a thin layer of silicone grease to new parts before reassembly.

Fit the O-ring (37A) onto the seal retainer (37). Insert the scraper (37C), grooved seal (40) and support ring (37B) into the seal retainer (37).

Carefully push the ceramic pipe through the seals from the rear. If necessary, hold it from the front with a suitable piece of pipe (assembly tool) in position 37. Coat the cover (36A) for the plunger pipe (36B) on the step with silicone grease and place it on the rear end of the plunger pipe.

Insert the preassembled unit of components into the guide in the crankcase (1). Lightly coat the seal retainer (37) with anti-corrosion grease (e.g. Molykote no. Cu-7439) in its fitted area towards the crankcase.

Fit o-rings (36F, G) into the steel ring (36D) and push these past the tension screw (36C). Lightly coat tension screw (36C) with bonding agent and, together with steel ring, place into the ceramic pipe (36B).

Turn the pump manually until the plunger (25) touches against the plunger pipe. Tighten tension screw to the required torque.



Thread glue must never come between the plunger pipe (36B) and plunger cover (36A). Overtensioning of the plunger pipe by excessive tightening of the tension screw and/or dirt or damage on the mounting surfaces can lead to plunger pipe breakage.

Fit the o-ring (39A) onto the sealing sleeve (39). Insert the pressure ring (41) and sleeves (42) into the seal sleeve (39) via the ceramic plunger (36B). Insert the support ring (43) and seal tensioning spring (45) into the seal sleeve. Fit the sleeve support ring and spring (45).

## Mounting Valve Casing:

Press the seal retainer (38) with pre-assembled O-rings (38A) into the center of the valve casing (50). Carefully push the valve body onto the dowel pins (50A).

Tighten the hexagon nuts (49A) evenly crosswise to the required torque.



The torque tension on the screws (49A) must be checked after 8-10 operating hours; the pump must be at zero pressure. Thereafter the tension is to be checked every 200 operating hours.



Mounting surfaces of the crankcase and valve casing must be clean and free of damage. The components must lie exactly and evenly on one another. The same exactness applies for all centring positions in the crankcase, pressure and valve casing.

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