

REPAIR INSTRUCTIONS - P47 and P48

To Check Valves

Suction Valve: Screw out plugs (41). Take out suction valve adaptor (39) together with suction valve. Push valve parts out of suction valve adaptor using a soft tool.

Check and replace worn parts.

Check O-rings (38,40,42) and replace as necessary.

Discharge Valve: Screw out plugs (43). Remove spring tension cap (34), valve spring (35) and valve plate (36) underneath. Take out valve seat (37) with a dia. 15mm pull-out device.

Check and replace worn parts.

Check O-rings (38,44) and replace as necessary.

Tighten plugs (41,43) to 51 ft.-lbs. (70NM).

To Check Seals and Plunger Pipe

Screw out plugs (41). Loosen nuts (46) and remove valve casing from plungers, pulling it out to the front. Take out suction valve adaptor (39), tension spring (33) and seal-unit (30,31,32). Check surfaces of plunger as damaged surfaces cause fast wear to the seals.

When replacing V-sleeves (31), grease new seals with special grease from pump manufacturer before installing.

Check O-rings (40,42) and replace as necessary.

Check surface of plunger (22) for damage.

If the plunger (22) is worn, the whole plunger (22) including the crosshead must be changed (see section 'to dismantle gear' below).

Install tension spring (33) and suction valve adaptor (39), then tighten plug (41) to 51 ft.-lbs. (70NM).

Fix valve case by tightening nuts (46) evenly to 35 ft.-lbs. (47,5NM).

To Dismantle Gear

Drain oil after dismantling the valve casing (29), then screw off crankcase cover (3) and bearing cover (12).

Whilst turning slightly, hit out the crankshaft to one side with a rubber hammer. Do not force the cranks on the shaft when pulling through the connecting rod.

If necessary, either press out second bearing in crankcase or hit it out carefully with a soft tool.

Important! Connecting rods are marked for identification. Connecting rod is to be reinstalled in the same position on shaft journals.

Do not bend the connecting rod shanks. Check shaft and connecting rod surfaces, shaft seals (26), crosshead and plunger (22) and ball bearings.

If the plunger (22) is worn, pull out connecting rod and crosshead with plunger from behind. Hit out crosshead pin (23) using a knock-out tool. Fit new plunger with crosshead to connecting rod, then thread carefully through oiled radial shaft seal (26).

To Reassemble

Using a soft tool, press one ball bearing in till it reaches the edge of the bearing hole.

Push shaft with the other bearing in carefully through the opposite bearing hole and fit in carefully through the connecting rods.

Press on bearings on both sides.

Carefully thread shaft seal onto shaft and press into casing.

Fit on bearing cover (12).

Important! After assembly has been completed, the shaft should turn easily with very little clearance.