

GP5128HS Repair Instructions

To Check Valves

Remove inner hexagon screw (48A) and remove plugs (48) with a screwdriver. Check O-rings on plugs (48B). Pull out tension spring (48C). Take spacer pipe (46D) together with the discharge valve out of the valve casing using a clipping pliers or a $\varnothing 22$ extractor tool. Remove the next exposed spacer pipe and suction valve as already described. Remove the valve seats (46A) from the spacer pipes by lightly tapping the valve plate (46B) from above with a plastic rod. Check sealing surfaces and replace worn parts.

When reassembling, use new O-rings if possible and oil them before installing.

Tighten inner hexagon screws (48A) to 35 Ft-Lbs (47NM).

To Check Seals and Plunger Pipe

Loosen the 8 nut and pull off valve casing to the front. Pull seal sleeves (35) out of guides in crankcase and over the plunger pipe (29B). Pull support ring (41), sleeves (40) and pressure ring (39) out of seal sleeve.

Check plunger surfaces, sleeves (40) and grooved rings (36). Replace worn parts.

If the plunger pipe is worn out, loosen tension screw (29C) and pull off plunger pipe to the front. Clean contact surfaces of plunger (25) thoroughly. Then place new plunger pipe carefully through the oiled seals into the seal case. Check O-rings (35A, 35B) on seal sleeves and replace worn O-rings. Then push seal sleeve together with plunger pipe into the crankcase guide. Turn gear carefully until plunger (25) comes up against the plunger pipe. Put a new copper gasket (29D) onto the tension screw (29C). Cover the thread of tension screw and the gasket with glue and tighten to 26 Ft.-lbs. (35NM).

Important! Care must be taken that no glue gets between the plunger pipe (29B) and the centering sleeve (29A). The plunger pipe should not be strained by eccentric tightening of the tension screw or through damage to front of surface of plunger, otherwise it will probably break. Tighten the inner screws (49) for the valve casing evenly to 74-89 Ft.-Lbs. (100-120NM).

To Dismantle Drive

Drain oil after dismantling the valve casing and plunger pipes. Screw off crankcase cover (4) and bearing cover (14, 14A). Remove connecting rod screws (24), push the front connecting rod parts as far as possible into the crosshead guide and carefully push out the radial shaft seals (31).

Important! Do not twist connecting rod halves. The connecting rods are marked for identification and must be remounted onto the shaft journals in the exact original position.

Turn the crankshaft lightly and hit it out preferably in the direction of the hollow shaft bore using a rubber hammer.

Important! Do not bend connecting rod shanks. Examine the surfaces of the crankshaft, connecting rods, crossheads and plungers (25) as well as radial shaft seals (15, 31) and taper roller bearings (20).

To Reassemble

Using a soft tool, press in the outer bearing ring (20) on the non-drive side until it lines up with the outer edge of the bearing hole. Then fit bearing cover (14) together with cap plug (15A) and o-ring (16). Insert shaft with pressed-on bearing parts through the bearing hole on the opposite side. Press in the outer bearing ring (21) and fix this with the bearing cover, keeping the shaft in a vertical position and turning it slowly so that the taper rollers of the bearings lie flat with the outer bearing ring. Check axial bearing clearance and if necessary adjust by placing shims 0.1mm (20A) under (14) and (14A). The shaft should turn easily with very little clearance. Tighten hexagon socket screws on connecting rod (24) to 22 ft.-lbs. (30 Nm).

Important! A little clearance must exist to enable slight sideward movement of the connecting rod on its journal.

Important! The 1/2" BSP connection in the crankcase serves the purpose of draining leakage water. The connection should not be closed (see the drawing to the right).

