

# CGP7155-1023 REPAIR INSTRUCTIONS

**Note: Elastomers should not come into contact with mineral oil or mineral grease. Use silicone grease only.**

## TO CHECK VALVES

Loosen plugs (58), take out tension spring (57) and then remove the complete valve assemblies (51) with either a valve tool (07662) or an M16 hexagon screw. Remove valve adapter (56) and tension spring (57) with pull-out tool size 5. To disassemble valve assemblies, hit the top of the valve plate (C) carefully with a bolt and press the valve seat (A) out of the spacer pipe (E). Check sealing surfaces and replace worn parts. Check o-rings (51E, 56A & 56D) and support rings (51F, 56B & 56C). Tighten plugs (58) to 107 ft. lbs.

## TO CHECK SEALS AND PLUNGER PIPE

Loosen nuts (49A) and remove pump head (50). Separate plunger connection (36A) from crosshead (25) by means of two open-end wrenches (size 22 and 27). Pull seal sleeves (39) out of their fittings in the crankcase (1). Take seal case (38) out of seal sleeve (39). Examine plunger parts (36A-36D), seals (43,39A) and o-rings (38A & 38B). When replacing plunger pipe (36B), tighten tension screws (36C) to 30 ft.-lbs. (40 Nm). Replace worn parts; grease seals with Silicone before installing.

**CAUTION:** Don't loosen the 3 plunger connections (36A) before the valve casing has been removed otherwise the tension screw (36C) could hit against the spacer pipe (51E) 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.

## MOUNTING VALVE CASING

Check O-rings (38A/38B) on seal case (38). Clean surfaces of seal sleeves in gear box (1) and sealing surfaces of valve casing (50). Push valve casing carefully on O-rings of seal case and centering studs (50A). Tighten nuts (49A) to 103 ft.-lbs. (180 Nm).

## TO DISASSEMBLE GEAR

Take out plunger and seal sleeves as described above. Drain oil. After removing the circlip ring (33B), lever out seal retainer (33) with a screw driver. Check seals (32, 33A) and surfaces of crosshead. Remove crankcase cover (4). Loosen inner hexagon screws on the connecting rods (24) and push connecting rod halves as far into the crosshead guide as possible.

**Note:** Connecting rods are marked for identification. Do not twist connecting rod halves. Connecting rod is to be reinstalled in the same position on shaft journals. Check surfaces of connecting rod and crankshaft (22) take out bearing cover to one side and push out crankshaft taking particular care that the conrod doesn't get bent.

**Note:** Seal (32) must always be installed so that the seal lip on the inside diameter faces the oil.

Reassemble in reverse order: Regulate axial bearing clearance minimum 0.1mm, maximum 0.15-by means of fitting discs (20A). The crankshaft should turn easily with little clearance. Tighten inner hexagon screws (17) to 30 ft.-lbs. (40 Nm).

**Note:** Connecting rod has to be able to be slightly moved sidewise at the stroke journals.

<b>Preventative Maintenance Check-List &amp; Recommended Spare Parts List</b>						
Check	Daily	Weekly	50hrs	Every 500 hrs	Every 1500 hrs	Every 3000 hrs
Oil Level/Quality	X					
Oil Leaks	X					
Water Leaks	X					
Belts, Pulley		X				
Plumbing		X				
<b>Recommended Spare Parts</b>						
Oil Change (1 Quart) p/n 1153			X	X		
Seal Spare Parts (1 kit/pump) (See page 5 for kit list)					X	
Oil Seal Kit (1 kit/pump) (See page 5 for kit list)					X	
Valve Spare Parts (1 kit/pump) (See page 5 for kit list)						X