

CGP7163 REPAIR INSTRUCTIONS

Disassembly and maintenance of discharge valves, pistons, cylinders and seals

Unscrew hexagon nuts (53) and remove discharge casing (61) to the front, eventually tapping slightly with a plastic hammer to the rear side of the casing.

Cylinder complete: When remove the discharge casing (61), the cylinders may either remain in the discharge (61) or suction casing (48). By slightly tapping and tilting on the cooling jacket (51) the complete cylinder is removed from the casings.

Discharge Valve: The discharge valve (56A) is removed from the discharge casing using 2x M5 screws which are screwed into the valve seat, thus pushing out the valve to the front. For service, renew the complete valve.

Suction Valve/Piston complete: Suction valve and piston are a complete unit. Unscrew piston retainer (41) and push the suction valve/piston out of the cylinder. The complete unit is changed for service.*

Check cylinder surface for damages and renew if necessary. Remove suction casing (48) same way as discharge casing.

Remove centring ring from crankcase by using 2 x M8 screws to push it off from the fitting in the crankcase. Check seal (40) and O-ring (37) and renew if necessary.

IMPORTANT! There are two seal versions possible in the centring ring:

- A) one Teflon-grooved seal with flat spring and one Teflon-step seal with O-Ring.
- B) two Teflon-step seals with O-ring

IMPORTANT! watch the position of the seal lip when installing, see detail.

Reassemble in reverse matter. Tighten nuts (53) crosswise to 133 ft.-lbs. (180 Nm) torque.

To Dismantle Gear

Remove discharge casing, cylinders and suction casing as described above. Drain oil. Remove crankcase cover (4). Remove clipring (33B). Pry out seal retainer (33) using two screwdrivers. Check radial shaft seal (32) and leakage seal (33D).

Loosen fitting screws on connecting rods (24) and push connecting rod halves as far into the crosshead guides as possible.

Remove bearing cover (14) on one side and push out crankshaft taking care not to bend the connecting rods.

IMPORTANT! Connecting rods are marked for identification. Do not twist connecting rod halves. When reassembling, connecting rods have to be installed in the same position on the shaft journals.

Check surfaces on connecting rods and crankshaft. Carefully take out crossheads with plungers (25) from crankcase (1).

Check plunger surfaces and renew if necessary.

To Reassemble

Slip the crossheads with plungers and front part of connecting rods carefully and slightly lubricated into the crosshead guides.

Take one bearing outer ring and press in on one side of the bearing bore till it is even with the casing. Screw on the bearing cover with O-ring and shaft seal until it fully touches the flange surface on the crankcase. Slip crankcase from the opposite side in the casing. Press in second outer bearing ring until it contacts the taper rollers, while slowly turning the crankshaft. Fit second bearing cover. Using a copper hammer, hit on both end sides of the crankshaft.

Turn crankshaft by hand. Crankshaft should turn easily without any axial play. If necessary add fitting discs (20A) to reduce axial play.

Tighten fitting screws for connecting rods to 30 ft.-lbs. (40 Nm). Check if connecting rods do not squeeze on the journals and have some axial clearance.

*Special tools are required. Contact EcoBlast.