

Repair Instructions

To Change Valves

Remove nuts (49A). Take off the valve casing (43) or push the drive end back. Screw off nut (46L). Remove disc (46N), guard ring (46M). Using a plastic hammer, disassemble valve (46) by tapping the valve retainer pin (46O) on the front. Change O-ring (47) and Support Ring (47A) in the valve casing (43). Take the old sealing Ring (46F) out of the Valve Casing (43). Fit the new valve (46) in reverse order.

To Change Plunger Set

Unscrew the 8 nuts (49A) and pull the valve casing off to the front or push the drive end back. Position every plunger to the top dead centre. Unscrew the plunger pipe at the hexagon turning at least ten times. Take off holding screw (1A). Pull the plunger set (29) out of the guides in the crankcase. Take Tolerance disc (32F) out of the middle bore, and put in a new Tolerance disc. Fit the new plunger set in reverse order. The contact surfaces on the plunger (25) and in the drive (1) must be clean. Coat thread (M10) on the Plunger with Anti Seize.

Important! Deformation of the plunger pipe due to eccentric tightening of the tension screw or dirt or damage on the front surface can cause accelerated wear or the plunger pipe to fracture. Tighten the valve casing fixing nuts (49A) crosswise and evenly.

Important! If the cover plate (3) has been removed, coat the thread of its screw (3B) with glue when refitting.

To Dismantle Gear

Remove the 8 nuts (49A) and pull the valve casing off to the front or push the drive end back. Disassemble the plunger set (29). Screw off gear cover (4) and bearing cover (14).

Remove conrod screws (24) and push the front conrod parts as far as possible into the crosshead guide. Cut the roller bearing cages open and remove the roller parts. Turn the crankshaft lightly and carefully hit it out to one side using a rubber hammer.

Important! Do not bend conrod shanks. Check the running surfaces on the roller bearings, crosshead and seal surfaces (shaft, plungers).

To Reassemble

After removing the inner ring from casing bearing (20), thread new cages onto the crankshaft and click new roller parts into place. Thread on the outer rings. Press on the inner ring from casing bearing (20). Thread in the crankshaft and screw the conrods together.

Using a soft tool, press in the casing bearing outer rings until these lie flat with the outer edge of the bearing hole. Lubricate all bearings with grease. Then screw on the bearing cover together with the radial shaft seal and O-ring. Push in the bearing outer ring together with the bearing cover. Fit shim 20D on both sides. Fit shims (20A,B,C) symmetrically.

Adjust axial bearing clearance to at least 0.2 mm and maximum 0.3 mm. All bearing points lubricate with grease. After assembly the shaft should have a clearance of between 0.2 mm and 0.3 mm. Tighten conrod screws. Conrod must be movable on the crank pin. Rotate Crankshaft after assembling 2 turns by Hand.

Pump Mounting Selection Guide

Bushings 06496 - 35mm H Bushing
Pulley & Sheaves 07165 - 12.75" Cast Iron - 4 gr. - AB Section
Rails 07357 - Plated Steel Channel Rails (L=11.75"xW1.88"xH=3.00")