

Start-up of New or Rebuilt Radial Piston Pump

INSTALLATION:

The pump is designed for front-face mounting with a pump carrier (exception: pump with/for oil submerged motor). It should functionally be driven by means of a flexible coupling. The direction of rotating can be chosen as desired, in case of HP/LP-pump the direction is according to the direction arrow of the gear pump. The pump can be mounted in any position. The pump shaft is not suitable for taking up axial forces.

OIL REQUIREMENTS:

For high-pressure pumps:

Hydraulic fluid to DIN 51524 Part 2 (ISO VG 10-68 to DIN 51519) Optimum operating viscosity: 10 220 mm²/s (note starting viscosity!)

For combination pumps (HP/LP-pumps):

Hydraulic fluid to DIN 51524 Part 2 (ISO VG 10-68 to DIN 51519) Optimum operating viscosity: 20 200 mm²/s (note starting viscosity!)

Maximum operating temperature of the fluid:

80°C (note viscosity range!)

Do not mix different oil types, because this may cause decomposition and reduction of the lubrication properties. The effective volume of the oil tank must be adapted to the operating conditions. The oil must be changed in certain intervals, depending on the operating conditions. The first oil change after commissioning of a hydraulic system should be performed after approx. 200-300 operating hours (after a thorough initial flushing). Subsequent oil changes then in longer time intervals, depending on the operating conditions. Filtration of the oil with return- flow filter or pressure filter is necessary (recommended filtration in micron: 20-40 µm). The filter must be cleaned in regular intervals.

COMMISSIONING:

Please make sure that the hydraulic system will be installed with utmost care and cleanliness. Check whether the pressure pipes, drives and also the complete units are mounted properly. The pump and the hydraulic system has to be bled prior to initial operation to protect it from damage and to prevent intake problems and air to be fed into the hydraulic system: Let the pump run and switch the pump on and off several times in idle circulation mode if possible with your circuitry (if occasion arise note stagnation pressure). Another way is to set the main pressure limiting valve to zero bar, thereby enabling pressure less circulation. Next any air dragged into the system should be removed by operating all functions of the circuitry without load until all cylinders, motors etc. move steadily and without hesitation. Next the pressure limiting valve has to be reset to the system requirements. WIMMER Radial Piston Pumps are self-venting under normal operational conditions, but if necessary or for an easier bleeding process the bleeder screw at the pump housing can be loosen during filling the tank. Leave it open until the fluid without bubbles comes out. Then tighten the screw and let the pump run like mentioned above.

REPLACEMENT OF PISTON ELEMENTS (EXCHANGE OF PISTON ELEMENTS):

The piston elements have the same dimensions for pump size 1 (piston Ø 6, 8 & 10 mm), size 2 (piston Ø 6, 8, 9, 10, 12 & 16 mm) and size 3 (piston Ø 19 & 22 mm). When disassembling the piston element take utmost care that the O-rings do not fall into the interior of the pump housing. When assembling the element again grease the O-rings slightly and insert them carefully. Then tighten the 4 screws uniformly with the following torque:

7.5 Nm at size 1, 12.5 Nm at size 2 and 31 Nm at size 3.

GENERAL REMARKS:

The pumps we supply have all been checked for perfect function and capacity. It is not allowed to make any modifications and repairs. Only replacing service items are possible by a competent fitter. Please take care that the units we supply must not be started up with ratings that exceed the ones we offer.

Defects resulting from non-observance of these operating instructions are not covered by our guarantee. Each pump has been tested at max pressure and 1500 RPM, at higher speeds it must be ordered in advance or running-in procedure must be followed correctly.

Running-in Procedure: (more than 1500 RPM or after changing Piston Assembly)

- 1/2h Pressureless at max speed (see specifications)
- 1/4h at 100 Bar and max speed
- 1/4h at 200 Bar and max speed
- 1/4h any stage of 100 Bar more, until the desired max pressure is reached.

Not following the "Running-in procedure" can lead to internal damage and is not a claim for warranty.