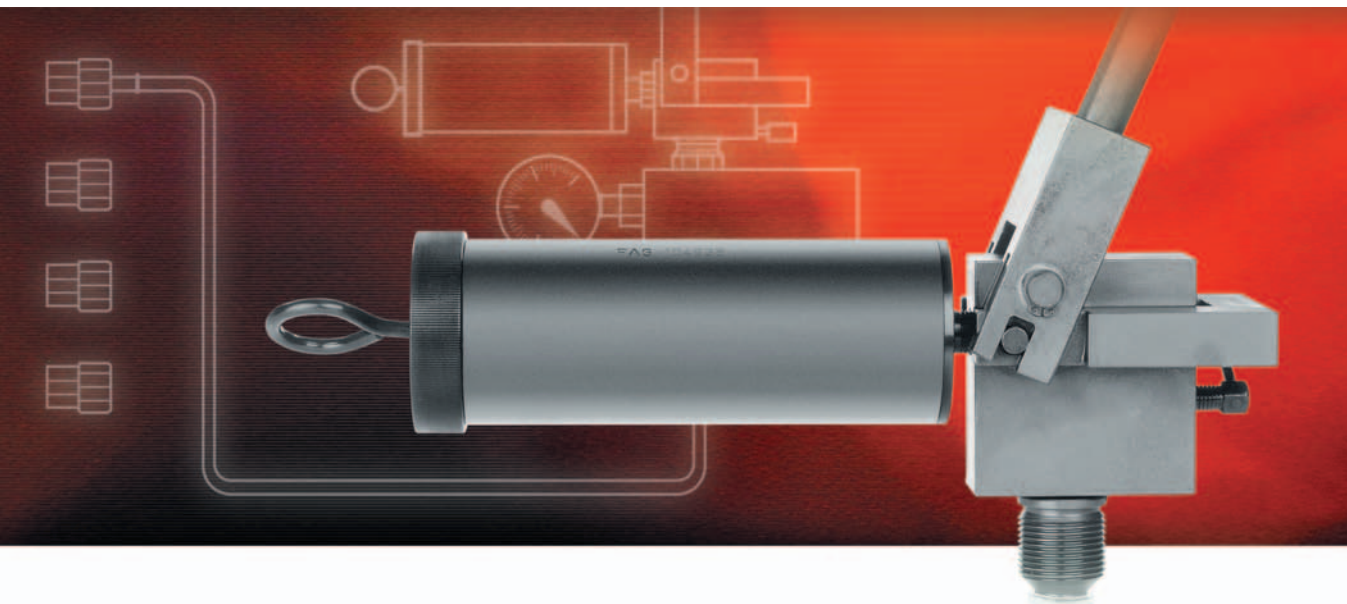


**FAG**



**High pressure pump  
PUMP4000.0,2L  
High pressure pump set  
PUMP2500.0,2L.SET**

User manual

## High pressure pump, high pressure pump set

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# High pressure pump, high pressure pump set

## Features

The high pressure pump and high pressure pump set are in each case supplied in a durable transport and storage case. The case and contents should be checked immediately for any damage during transit. The carrier should be informed of any damage without delay.

## Safety guidelines

### Caution!

It is essential that all instructions in this user manual are observed. Ensure that the assembly and maintenance personnel have appropriate training and authorisation for the work involved. Schaeffler KG assumes no liability for damage arising from incorrect handling, negligence or a failure to provide information to third parties.

## High pressure pump

The high pressure pump PUMP4000.0.2L can be used in the hydraulic mounting and dismounting of rolling bearings. Since it generates pressures up to 4 000 bar, it can also be used to expand heavy shaft couplings and gears by the hydraulic method.

## Items included in delivery

The items included in delivery are shown in *Figure 1*.

- ① Oil container
- ② Pump body
- ③ Transport and storage case

*Figure 1*

Items included in delivery



## High pressure pump set

The high pressure pump set PUMP2500.0,2L.SET is a complete set of hydraulic equipment based on the high pressure pump PUMP4000.0.2L.

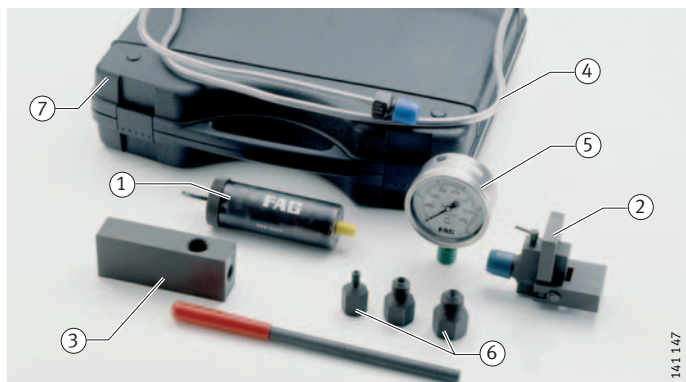
## Items included in delivery

The items included in delivery are shown in *Figure 2*.

- ① Oil container
- ② Pump body
- ③ Pump holder
- ④ High pressure pipe
- ⑤ Manometer
- ⑥ Reduction nipples
- ⑦ Transport and storage case

*Figure 2*

Items included in delivery



# High pressure pump, high pressure pump set

## Initial operation of high pressure pump Safety guidelines

### Caution!

The pump is suitable for pressures up to max. 4 000 bar.  
The vent screw should only be opened and closed by hand,  
never by means of tools.

Only clean oil should be used. If the oil is not clean, this may lead to blockage of the filter fitted. If the filter becomes blocked, the pump should be returned to us. Do not attempt to remove or carry out maintenance on the filter yourself.

### Danger!

Do not loosen the connectors if the unit is still pressurised.  
Any resulting oil spray could lead to injury.

Hydraulic oil can cause irritation to skin and respiratory passages.  
Skin contact should therefore be avoided, vapours and fumes  
should not be inhaled.

## Suitable oils

Use hydraulic oils with oil cleanliness to ISO 4 406, Code 15/12,  
Code 14/11, Code 13/10 or Code 12/9.

For example, a suitable oil would be AUTOL HYDRAULIKÖL NYS68  
or an oil having the same characteristics – viscosity 68 mm<sup>2</sup>/s at  
+40 °C to DIN 51562.

## Connecting the pump body

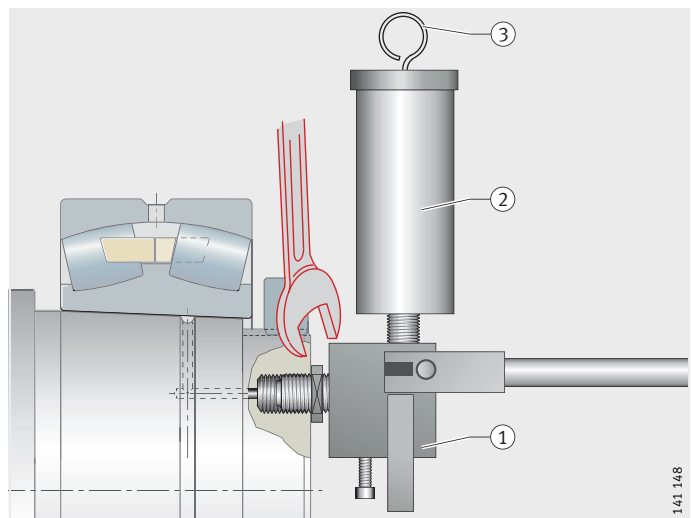
The pump body can be connected directly or via a suitable  
adapter or reduction nipple to the necessary connection point.  
Sealing is achieved by a cup point on the threaded connector G <sup>3</sup>/<sub>4</sub>.

### Connector

- Screw in the pump body ① by hand and tighten using an open end wrench (A/F27).
- Dip the oil container ② into a vessel filled with the mineral oil and slowly lift the pull rod ③ until it reaches the stop.
- Screw the pump body and oil container together again – avoid tilting. The non-return valve will only open once the components are connected.

- ① Pump body
- ② Oil container
- ③ Pull rod

Figure 3  
Connecting the pump body



## Venting the oil circuit

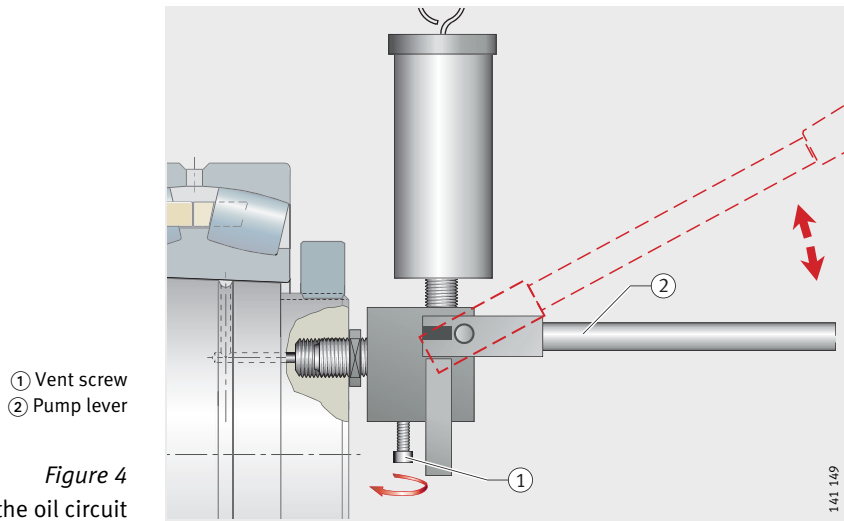
- Open the vent screw ① by hand, *Figure 4*.
- Work the pump lever ② until the oil leaving the pump is free from bubbles.
- Close the vent screw ① fully; the pump is then ready for use.

## Oil shortage

If the oil quantity at the part to be mounted is not sufficient due to oil losses, unscrew and refill the oil container.

### Caution!

Do not open the vent screw at this time.



## Maintenance

Check the screw connections for any mechanical damage.

Dip the oil-conveying parts in clean petroleum and work the pump several times. Then oil the parts and store them with protection against dust and moisture.

### Caution!

Any repair work necessary should only be carried out by FAG Industrial Services (F<sup>I</sup>S), Schweinfurt.

# High pressure pump, high pressure pump set

## Initial operation of high pressure pump set Safety guidelines

### Caution!

The pump must always be operated with a manometer.

Do not exceed the maximum pressure of 2 500 bar.

Do not squeeze or kink the high pressure pipe. It is recommended that the pipes should not be used for more than four years.

Observe the other safety guidelines in the section Initial operation of high pressure pump, page 4.

## Assembly of the high pressure pump set

Before connection, the pump set must first be assembled, *Figure 5*.

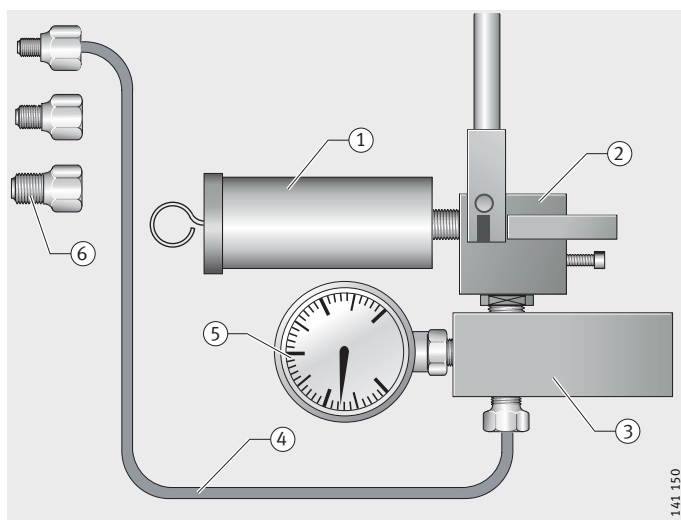
- Fit the pump holder (3) to the pump body (2).
- Fit the manometer (5) to the pump holder (connector G 1/2).
- Connect the high pressure pipe (4) directly to the appropriate connection point (connector G 1/4) or using one of the three reduction nipples (6) provided.
- Connect the high pressure pipe to the pump holder (3).

For other operations, see Connecting and pump body and Venting the oil circuit, page 4 and page 5.

Suitable oils: see page 4.

- ① Oil container
- ② Pump body
- ③ Pump holder
- ④ High pressure pipe
- ⑤ Manometer
- ⑥ Reduction nipples

*Figure 5*  
Assembly of  
the high pressure pump set



## Disassembly of the high pressure pump set

Once work is complete, unscrew the oil container (1), wait for a short period and then loosen the vent screw, *Figure 5*. Collect the oil leaving the container and unscrew the pump body.

## Maintenance

Check the screw connections and high pressure pipe for any mechanical damage.

Dip the oil-conveying parts in clean petroleum and work the pump several times. Then oil the parts and store them with protection against dust and moisture.

### Caution!

Any repair work necessary should only be carried out by FAG Industrial Services (FIS), Schweinfurt.

## Technical data

### Technical data for high pressure pump and pump set

Component	Technical data
Threaded connector	G 3/4
Oil container capacity	0,2 l
Flow rate	0,3 cm <sup>3</sup> /stroke
Max. oil pressure	4 000 bar (mounting set max. 2 500 bar)
Mass	approx. 3,8 kg (pump body and oil container)

## Ordering designations

### Ordering designation PUMP4000.0,2L

Component	Ordering designation
Pump body	PUMP4000.0,2L.BODY
Oil container	PUMP4000.0,2L.TANK

### Ordering designation PUMP2500.0,2L.SET

Component	Ordering designation
Pump body	PUMP4000.0,2L.BODY
Pump holder	PUMP.HOLDER.3
Oil container	PUMP4000.0,2L.TANK
Reduction nipples	PUMP.NIPPLE.B.G 1/4 - G 1/8 PUMP.NIPPLE.B.G 1/4 - G 1/2 PUMP.NIPPLE.B.G 1/4 - G 3/4
Manometer (2 500 bar)	PUMP2500.MANO.G 1/2
High pressure pipe	PUMP.PIPE.G 1/4

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