

**Bedienungsanleitung
zur Gerupress Hochdruckpumpe HP26**

**Operating manual
for Gerupress high pressure pump HP26**

11.49015 – 0105

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EG-Konformitätserklärung

Wir, die Firma

GERUS Apparatebau GmbH&CO.KG
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erklären hiermit, dass die nachfolgend bezeichnete Maschine aufgrund ihrer Konzipierung und Bauart sowie in der von uns in Verkehr gebrachten Ausführung den einschlägigen Sicherheits- und Gesundheitsanforderungen den nachfolgenden angeführten EG-Richtlinien entspricht.

EC-Declaration of Conformity

We, the company

GERUS Apparatebau GmbH&CO.KG
Engelschalkstrasse 16,
86316 Friedberg, Germany,

declare hereby that the following described machine in its conception, construction and form put by us into circulation is in accordance with all the relevant essential health and safety requirements of the following EC directives.

Bezeichnung der Maschine/ description of the machine

Druckluftbetriebene hydr. Hochdruckpumpe/ airdriven hydr. high pressure pump

Typ/ type

GERUPRESS HP26

Serien-Nr./ serial-no.

HP26 -

Maschinenrichtlinie/ machinery directive

2006/42/EG

2006/42/EC

EMV-Richtlinie/ EMC directive

2014/30/EU

Angewandte harmonisierte Normen/ applied harmonized standards

EN12100:2011, EN 60204

Bevollmächtigter techn. Dokumentation/ authorized person for techn. documentation

Franz Lulei

Friedberg, 13.06.2014

Dipl. Ing. Rudolf Schroll

Geschäftsführer/ business manager



REACH Erklärung

Wir, die Firma

GERUS Apparatebau GmbH&CO.KG
Engelschalkstrasse 16,
86316 Friedberg, Deutschland,

erklären hiermit, dass wir als Hersteller von Maschinen und Werkzeugen zur Überholung und Instandsetzung von Großmotoren von der Verordnung nur als nachgeschalteter Anwender betroffen sind und daher nicht zur Registrierung und Vorregistrierung verpflichtet sind.

Beim Gebrauch unserer Maschinen werden Keine Schadstoffe im Rahmen von Artikel 7.1 und 7.2 der Verordnung freigesetzt

REACH Declaration

We, the company

GERUS Apparatebau GmbH&CO.KG
Engelschalkstrasse 16,
86316 Friedberg, Germany,

declare hereby that as a manufacturer of machines and tools for overhauling and maintenance of large bore engines we are only concerned by the regulation as downstream user and, therefore, we are not bound to register or pre-register.

Under normal use of our machines, no harmful substances within the scope of Article 7.1 and 7.2 of the regulation are released.

Ort und Datum/ place and date
Friedberg, 17.04.2015

Name und Position des Unterzeichners/ name and position of signer

Dipl. Ing. Rudolf Schroll

Geschäftsführer/ business manager

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1 Instructions

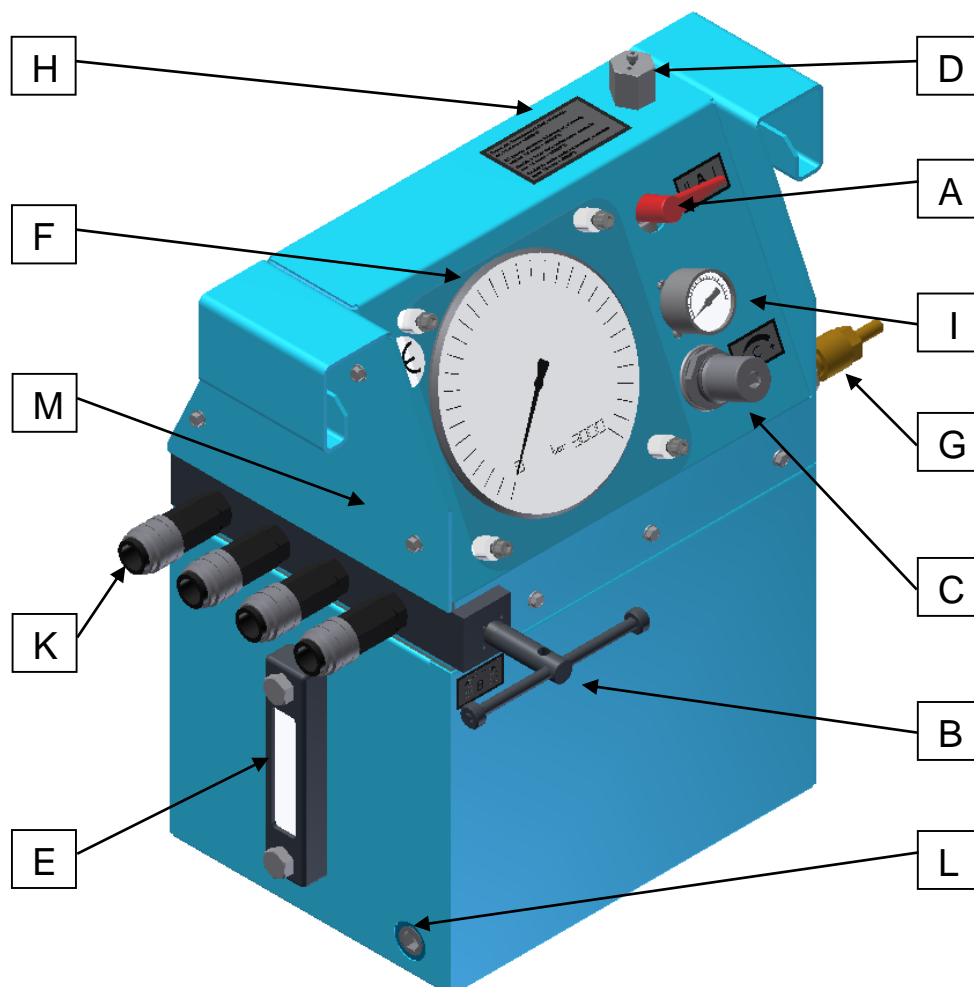
The GERUPRESS provides high static pressures for using them in combination with hydraulic tightening device. Because of its specification the GERUPRESS is not suitable supporting large delivery ranges under high pressure. Neither the capacity of the oil pump nor the range of hydraulic oil do not allow operating under these circumstances. In its specified application, the GERUPRESS works exclusively with the medium compressed air.

The function of the GERUPRESS is based on a proportional working oil pump. The absolute maximum output pressure is secured by a security valve (adjustable) in the low pressure circle (cf. risk analysis).

For operating, the compressed air (pressure < 15 bar) have to be connected to the GERUPRESS, the gauges have to be checked and the operating lever have to be shift (operating). Now, the pump starts working until the adjusted value of the output pressure has been reached.

It is possible to adjust the output pressure by the pressure limitation valve until either the requested value is pointed on the gauge or the maximum pressure of 2500 bar is reached. For set off (high pressure is no longer necessary) the operating lever have to be shift back in "1"-position. For ventilation of ducts the manual ventilation valve has to be opened.

Disconnect high pressure tubes only while ventilation valve open.



2 Instructions for use

2.1. How to test a high pressure pump to see if it works

1. Check if the pressure gauges **F** and **I** are intact and control the position of the indicators. Both indicators should be on zero.
2. Control the oil level (by looking at oil level controller **E**).
3. If the oil level is too low, fill in oil and follow these instructions:
 - 3.1. Choose the quality of the oil according to the instructions on sign **H**.
 - 3.2. Open the oil admission socket **D** to fill in the oil by turning to the left.
 - 3.3. Fill in the oil until the oil level controller **E** indicates that the tank has been filled up three quarters ($\frac{3}{4}$).
 - 3.4. Now close the oil admission socket **D** by turning it to the right.
4. Close the pressure relief valve **B** and turn it to the right as far as it will go.
5. Now turn lever **A** (=start lever) into position II.
6. Connect the compressed air-tube to the compressed-air connection **G**.

BE CAREFULL: never use more than the maximum of 15 bar!

7. Pull and turn the pressure control valve **C** to the right as far as it will go (until you feel a resistance).
8. Check the air pressure on the pressure gauge **I** (There should be an air pressure of at least 6 bar).
9. Put start lever **A** into position I.
10. The pump starts working and should build up a pressure of up to 2.500 bar (if it doesn't, please check the air pressure).
11. When the oil pressure gauge **F** shows a pressure of 2.500 bar turn lever **A** back into position II.
12. The pressure shown on oil pressure gauge **F** shouldn't fall. This means that the pump is in working order.
13. Open the relief valve **B** by turning it to the left.
14. The pressure shown on oil pressure gauge **F** now drops to 0 bar.

2.2. How to work with the high pressure pump

Start again with position 1. to 6.

Now pull and turn on the relief valve **C** to get the right oil pressure: 2 bar air pressure \approx 500 bar oil pressure. Then connect the high pressure tubes to the hose connection **K**.

Continue with position 9. to 14. Remove the high pressure tubes from the hose connection **K** when you are finished.

BE CAREFULL: Hydraulic tubes can only be attached or removed if the relief valve **E is open. The oil pressure gauge **A** has then dropped to 0 bar.**

3 Risk analysis

- a) The oil pump is working as pressure translator, thus improper output pressures cannot be reached because the lower operating pressure is limited.
- b) Improper absolute output pressures will be lock out by a additional pressure reducing valve in the low pressure circle.
- c) Leaks or duct cracks in the high pressure circle including no health risks for operators.
- d) Duct crack cause a breakdown of the output pressure.
- e) Is the determined output pressure not available after a short time, a damage of the GERUPRESS is probably occurred. In this case, put the gadget out of operation, disconnect the connect air tubes. Otherwise the gadget will get dirty by hydraulic oil.
- f) Pay attention while closing of the cover. Prohibit
 - damaging (operating level in „1“, cover cannot be closed)
 - wounding
- g) Sufficient lubrication of the oil pump and providing with hydraulic oil is ensured by mounting the pump into the oil tank. In case of a pump leakage, the gadget and the operator is protected by the casing of the tank.

BE CAREFULL: Disconnect high pressure tubes only while ventilation valve open.

4 How to exchange the oil at the high pressure pump

Oil can be removed by opening the oil screw **L** and by lifting the pump on the opposite side of the pump.

BE CAREFULL: the oil starts running out as soon as you have loosened the screw!

Use oil admission socket **D** to fill in the oil.

Oil level gauge **E** indicates how much oil you have filled in. The pump should be filled up to three quarters ($\frac{3}{4}$).

BE CAREFULL: Only use oils with the following specifications:

oil quality: anti-corrosion oil,
viscosity approx. $13 \text{ mm}^2 / \text{s} = \text{cSt} / 20^\circ \text{C}$

We advise you to exchange the oil every three years because otherwise the pump might be damaged due to residues of dirt.

5 Technical data

<u>Air pressure</u> (pB):	1,5 – 7,0 bar (pBmax = 15,0 bar)
<u>Output pressure</u> (pA):	2500 bar (max. pressure for permanent operating)
<u>Test pressure</u> (pprűf):	2500 bar (test operating)
<u>Gadget connections:</u>	
Output pressure:	CEJN high pressure coupling (type series 125)
Air pressure:	compr. air conn. \varnothing 9mm
<u>Masses:</u>	
empty:	30,00 kg
filled:	40,00 kg
<u>Dimensions:</u>	
height:	550 mm
length:	431 mm
width:	315 mm
<u>Volume of tank:</u>	10 l (dm ³)
<u>Performance and consumption of air:</u>	
0,6 m ³ /min for 6 bar compr. air \equiv 1,5 dm ³ /min for 1000 bar	

6 After-Sales service and self-help

If the pressure at oil pressure gauge **F** doesn't remain constant and drops (as described under point 12.), the pump is not air-tight or the decompression valve **B** is not fully closed. In most cases, this is due to the fact that the O-rings are old/worn-out. It is possible to exchange the O-rings. A complete set of O-rings (article-no. 11.49015-0067) is enclosed in the pump. The packet of spare parts can be taken out by opening the front plate **M**. An explosion drawing of the pump is also included.

It is recommendable to have the pump overhauled by its manufacturer

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