# OPERATION -
# AND SERVICE MANUAL

# KINGPIN PRESS

## Typ: FP 65 s

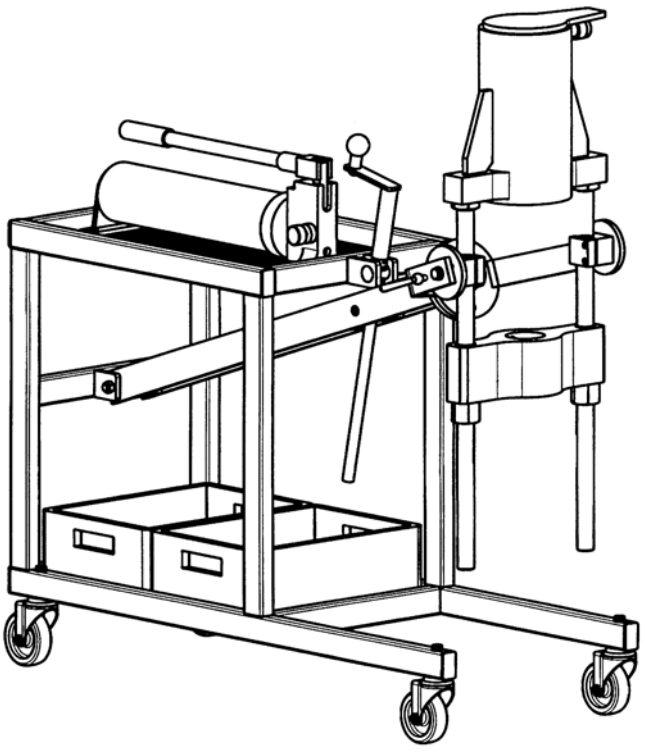
## Operation:

With Hand pump LH 2 ☐

With Air Pump Ghibli ☐

## Technical data:

| | |
|---|---|
| Thrust force: | 73 to |
| Stroke: | 115 mm |
| Distance between Stay bolts: | 250 mm |
| Bore diameter: | ø 70 mm |
| With reduction ring | ø 55 mm |
| Connecting thread: | R3/8“-18NPT Internal thread |
| Necessary quantity of oil: | 1200 cm |
| Operating pressure max.: | 700 bar |



## I. Purpose

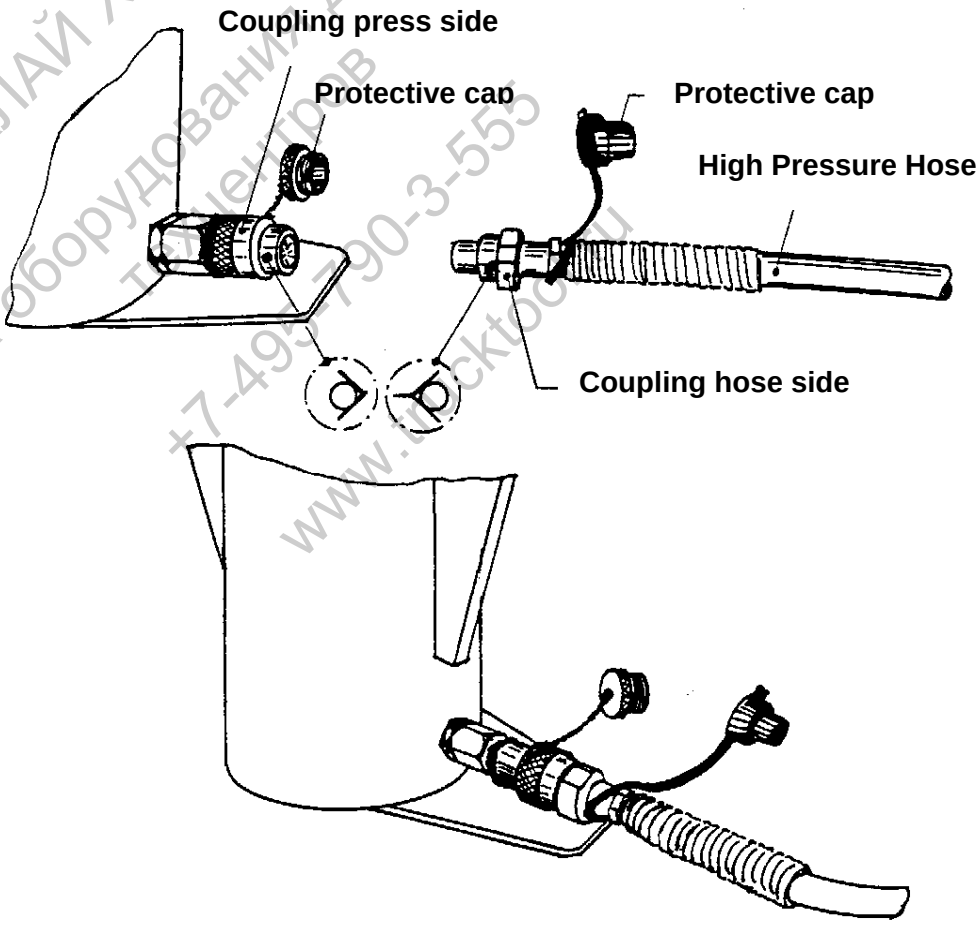
The kingpin press FP 65 aids the removment and replacement of kingpins.

## II. Start up

- The high pressure hoses are aired out and the pumps are filled already, complete with Hydraulic oil.

- Removable protective caps at the coupling end!

- Connect the coupling with light force and tighten the coupling nut!





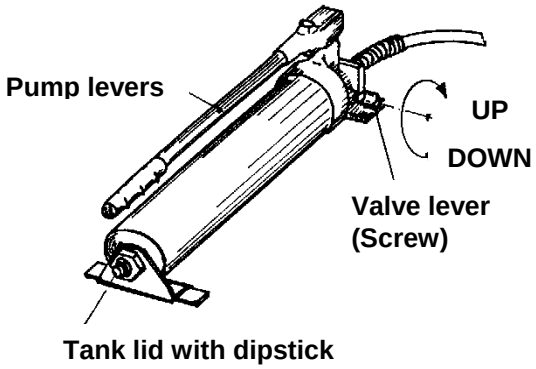

**Safety Information!**

All instructions, warning and caution references are to be read and considered during operation of the system in order to avoid injuries and damages to property. FUCHS-Hydraulics is not responsible for damage or injury, which have resulted from the inappropriate and/or wrong operation of product and system. If you have any questions regarding application and safety precautions, please contact us.

## III. Operation

### A. Hand pump P 80

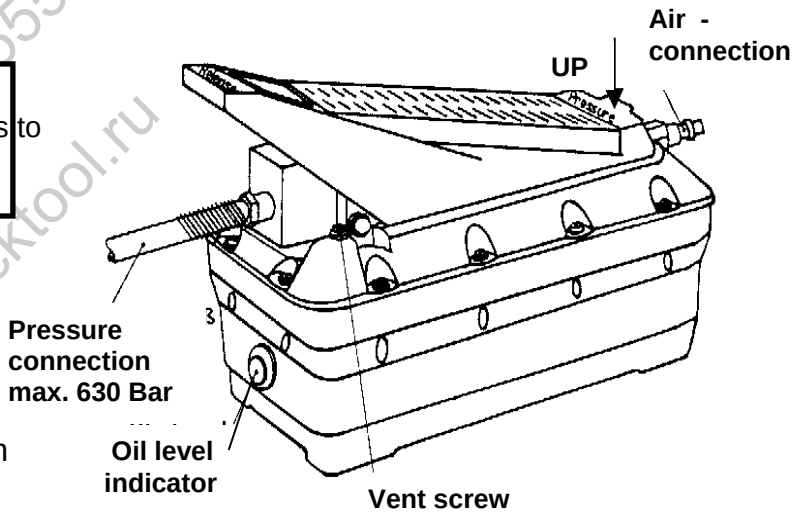
- Place valve lever on position “UP “
- Pump levers operate slowly to ensure perfect oil suction.
- At small load the pump in the low pressure range (0-24 bar) works without and with a large press stroke of 2mm per pumping movement.
- With counter pressure the pump switches automatically into the high pressure range (25 - 630 bar), whereby the press stroke is reduced to 0.24 mm.




### B. Air Pump GHIBLI

**Important!!!**
Before operation of the pump the vent plug is to be opened. (only PAT 1102 N)

- Attach air supply
- To drive the Piston push pedal down at the rear end
- Piston remains in position when releasing the pedal
- To lower the piston push pedal down on the front end




**ATTENTION! Max. Operating pressure 8 Bar! Service unit with pressure-reducing valve is urgently recommended!**

## IV. Oil Recommendation

Hydraulic oil: Viscosity class ISO VG 22 (22 cST/40°C) DIN51519.

Quality: HLP-D after DIN 51524/2

Example: SHELL Hydrol DO 22, ARAL Vitam DE 22, BP Energol HLP-D
ESSO Nuto H 22, TEXACO Rand Oil HDA 22

**Quantity of Oil**:

| | |
|---|---|
| Hand pump P 80 | ca. 2, 3 Litre |
| Air pump PAT 1102 N | ca. 2, 1 Litre |

## V. General references

1. Always attach the protective caps with separate coupling halves!!
2. Avoid strong bending of the Hydraulic hose!!
3. Prevent overheating ( max. 50° C) !!
4. Always keep pump and press bodies clean and dry !!

## VI. Air vent

**A: Hand pump P 80** (With air vent)

Air vent has to be opened during every operation!

**B: Air pump GHIBLI**

Automatic venting by filler cap / dipstick.

**C: Air pump PAT 1102 N**

The pump is to be aired out before each employment. Use either the “Vent screw“ or the “exhaust / filler neck”

1. **Vent screw:** See illustration 7A Nr. 1. The venting screw (Nr. 1) is used to vent the tank and is placed near the Hydraulic outlet on top of the tank. In order to use this, turn the screw 180 degrees.
2. 
3. In order to avoid damages of the thread when closing the vent screw, you

The vent screw cannot be used, if the pump is perpendicular inserted! If you install the pump in vertical situation, use oil fill in and inlet pipes.

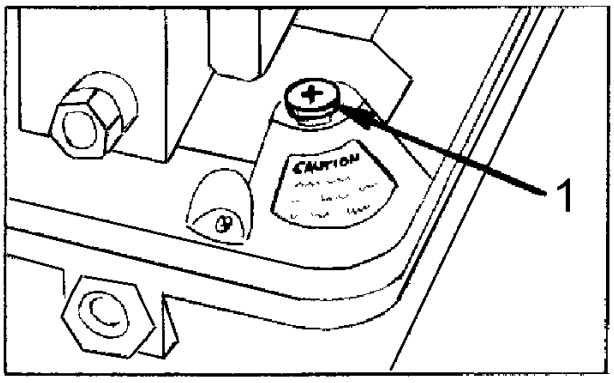


Figure 7A

4. **Venting-/Filler neck;**
   See illustration 7B Nr. 2. The Venting-/Filler neck is placed contrarily to the vent screw, at the side of the air supply. This closure has three functions:
   Venting neck, filling port and tank-runback port.
   To use it for venting, the cap has to be pulled until it engages the first time (see illustration 8).
   To use the filling port, the neck has to be removed completely.
   The oil level should reach to the bottom of the neck. Use only recommended oil.
   To use the neck as tank-runback port , remove the countersink screw from the venting neck and replace it with an appropriate return pipe.
   Fastening torque 20-27.

**ATTENTION:** The tank must be vented by one of this procedures.
Otherwise cavitation may occur which damages the pump.



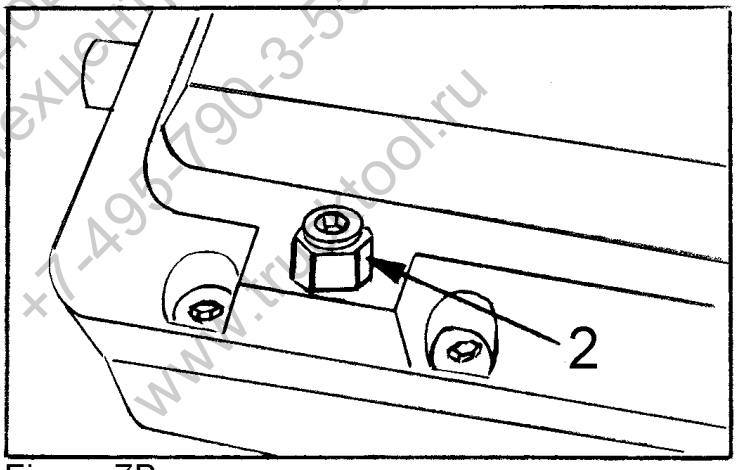


Figure 7B

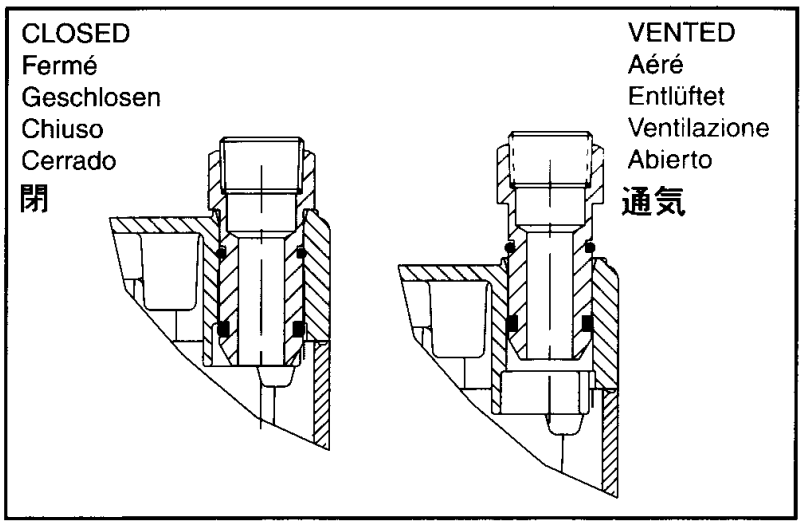
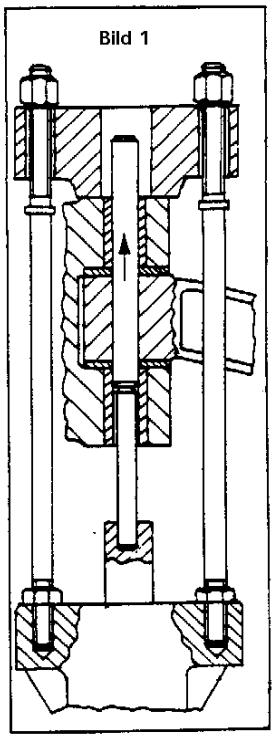


***Figure 8***

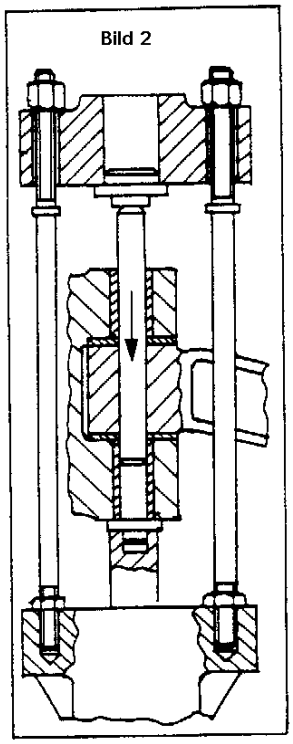
**VII. Press out for Kingpins**
(See fig 1)




- The kingpin press must be used in hanging position
- Pay attention to the alignment of the kingpin, piston and press bolt.
- Tighten bolt nuts evenly.
- Operate pump carefully.

IMPORTANT
Use suitable press bolts only!!
Certain vehicles require special press bolts!






**VIII. Press in from Kingpins**
(See fig.2)

- Insert Kingpins as far as possible into knuckles and bodies of axel
- Attach locking pieces to piston and piling.
-Operate pump carefully.

IMPORTANT!
Use suitable press pieces only!!
Certain vehicles require special press pieces

**IX. Purchase of spare parts**

If spare parts are required they are available by sending Item number, type designation and Serial number to the manufacture.

## X. Trouble shooting

### A) Hand Pump P80

| Disturbance | Cause | Solution |
|---|---|---|
| Piston does not drive out | Drain valve not closed<br>No oil in the Pump<br>Air in system (only P 80)<br>Couplings not correctly connected | Close<br>Fill up<br>Release air ( VI.)<br><br>Connect |
| Piston only drives partly out. | Not enough oil in the Pump. | Fill up |
| Piston does not drive smoothly | Air in system | Release air (VI.) |
| Piston is unable to hold pressure | Seal defective | Replace |
| Piston does not bring in or only slowly | Drain valve closed<br>Couplings not correctly connected<br>Oil reservoir overfilled<br>Return spring broke | Open<br><br>Connect<br>Remove Oil<br>Replace |
| Piston does not bring in completely | Overfilled oil tank<br>Air in system<br>Weakened return spring | Remove oil<br>Release air<br>Replace |

**B: Air Pump PAT 1102 N**

| Disturbance | Cause | Solution |
|---|---|---|
| Piston does not drive out | Pump does not start<br>No oil in the pump<br>Air in system<br>Couplings not correctly connected | Control air supply<br>Fill up<br>Release air (VI)<br>Connect |
| Air pump fails under Pressure | Air pressure to low<br>Entrance filter clogged | Increase<br>Clean |
| Pump does not develop Pressure | External leakage in system<br>Internal leakage in the Pump<br>Internal leakage in the Press | Seal<br>Seal<br>Seal |
| Pump does not develop the full pressure | Air pressure too low<br>Pressure relief valve to low<br>External leakage in system<br>Internal leakage in system | Increase<br>Correct altitude<br>Seal<br>Seal |
| Pump builds pressure but piston does not move | Overloaded<br>Oil flow is blocked | Control |
| Piston lowers by itself | External leakage in system<br>Internal leakage in Press | Seal<br>Seal |
| Piston only partly drives out | Not enough Oil in the pump | Fill up |
| Piston does not drive smoothly | Air in system | Release air(VI.) |
| Piston cannot hold the pressure | Seal defective | Replacement |
| Piston does not bring in, or only slowly | Drain valve closed<br>Couplings not correctly connected<br>Overfilled Oil reservoir<br>Broken return springs | Open<br>Connect<br>Remove Oil<br>Replace |
| Piston does not drive completely | Overfilled Oil tank<br>Air in system<br>Weakened return springs | Remove Oil<br>Release air<br>Replace |

# Risks!

The machine is built according to the recognised relevant safety rules and regulations and designed to the newest state of the art technology.

Nevertheless, dangers for life and health of the user or third person and/or impairments of the machine and other real values can develop with your use.

Also with intended use the following risks still may occur despite adherence to all relevant safety regulations due to the construction and application of the machine:

- Fingers and body parts may be caught in-between machinery
- Endangerment of fall down of the press