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2611-0400-00-00 - Electro-hydraulic pump 400 V

1. Introduction

Thank you for purchasing our Electro-hydraulic pump. This manual gives you detailed instructions regarding the safety- and operating-requirements of this device.

Instructions should be read and clearly comprehended by all operators. The instructions must remain with the unit at all times. Should there be any questions in regards to the instructions, or operation, please contact your local distributor or the manufacturer directly.

2. Safety regulations

2.1 General safety regulations

To avoid any risks, please read the instructions carefully before commencing:

- The Electro-hydraulic pump may only be operated in flawless condition.
- Variations of any kind must be reported immediately to a supervisor.
- The Electro-hydraulic pump must be utilized in a workable environment.
- Working area must be well illuminated.
- Any oil leakage must be wiped off immediately.
- Machine should not be operated under the influence of alcohol, drugs or medication.
- Keep children away.

The Electro-hydraulic pump is only to be utilized for its intended use and specific functions. hawa GmbH & Co. Kg will not be held liable for any damages resulting from abuse.

2.2 Operating safety requirements

- Assembly, commissioning, installation, maintenance and repair, may only be done by skilled personnel, who have read und understood the instructions.
- Before connecting the Electro-hydraulic pump to a hydraulic powered tool, please ensure that there is no pressure in the hose assembly and that the pump is switched off.
- During assembly, cleaning, maintenance, repairs of any kind and between tool changes the pump must be switched off.
- All cable and hose assemblies should be connected bend-free and must not obstruct walk ways.
- The maximum operating pressure of 450bar may not be exceeded.
- Machine must be switched off and the pressure released after use.
- Foot switch must always be in direct range of the pump.

hawa GmbH will not be held liable for any damages caused by faulty installation, safety requirements not upheld or through abusive utilization.

Electro-hydraulic pump Instruction manual

3. Intended use

The Electro-hydraulic pump is state of the art technology within the context of its intended use and coherent safety requirements, at time the device was put into circulation.

The Electro-hydraulic pump is certified according to the EG-Conformity and Incorporation Regulations (see attached) therefore conforms to the specifications set out in the Machinery Directive 2006/42/EG. (DGUV Test - German Test und Certification System for Statutory Accident Insurance).

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3.1 Utilization

Die Electro-hydraulic pump is designed to drive basic hydraulic cylinders, and must be utilized in accordance to the instructions set out within this instruction manual. Non-compatible utilization or mal-handling fails to comply with the statutory liability of the manufacturer..

Possible applications:

The drive of:

- A punching iron
- Mobile hydraulic cylinders
- Press tools
- Trimming equipment
- Duct channel modification equipment

3.2 Misuse

The EG-Conformity and Incorporation Regulations Certification awarded to hawa GmbH & Co Kg, is rendered null and void, through any unauthorized changes, or through improper handling of the Electro-hydraulic pump.

Improper handling includes:

- Working outdoors
- Working in hazardous areas (Safety class IP 21)
- Repair by unauthorized person
- Improper handling of device

3.3 Hazards

Residual hazards result from operating the Electro-hydraulic pump in damaged condition, not operating within the manual specifications and through unauthorized changes made to the machine. Hazards must be analyzed and assessed before operating commences.

Possible hazards:

- A damaged hydraulic hose
- Slipping caused through an oil leak
- Mechanical damage to the pump housing
- Improper start-up
- Electric shock

Preventing hazards:

- Attentive operation
- Following the recommendations and instructions as set out in this user manual
- Applying the safety regulations

4. Commissioning

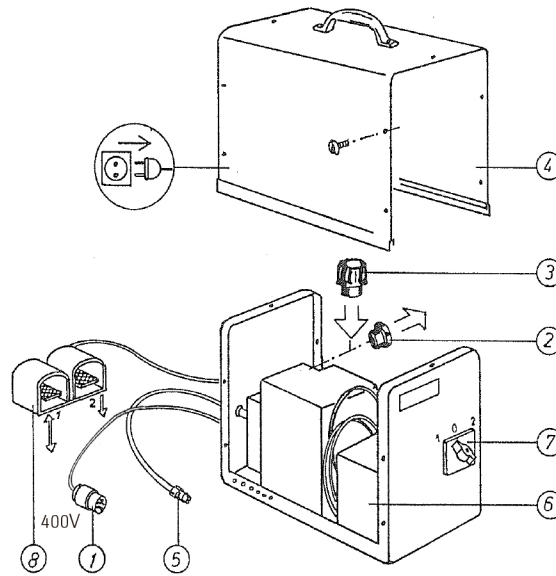
Pull the (1) plug from the electrical supply.
 Remove the (4) housing (Figure 1)
 Replace the safety cap (2) facing the selector switch with the supplied air filter (2) cap.
 (Store the safety cap in a safe place for transport purposes.
 The safety cap must be fitted between transfers.)

Appliance may not be tilted, due to oil leakage occurrence.

Replace the (4) housing and refasten.
 Attach the hydraulic hose with quick coupling (5)
 to desired device.
 Connect to power supply 400V / 50 Hz (1).

The pump is now operational.

A built-in overload protective switch (6),
 is triggered when a surcharge occurs. Before restarting,
 remove the housing and press the protective switch. (Fig.1)
 Replace the housing and refasten before commencing.



5. Operation

Two operational programs are possible:

Program 1 (Fig.2)

Through pressing the foot switch 1, the hydraulic pump is switched operational. Releasing the foot switch, returns the connected device to its original starting position.

Program 2 (Fig.3)

Through pressing the foot switch 1, the hydraulic pump is switched operational. Releasing the foot switch stalls the oil pressure and the connected device remains in released position. Only after pressing the foot switch 2, oil pressure returns and releases the device to its starting position. This program allows possible adjustments and short idle intervals.

After operation and when switching between devices, program knob (7) must be turned to 0.

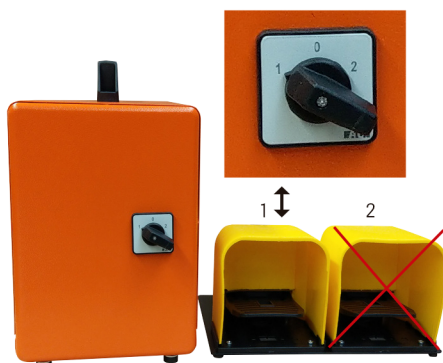


Figure.2



Figure.3

The electro hydraulic pump is equipped with a Schuko socket for costumers with a max. power of 600 W.

If the hydraulic pump is switched off, it is voltage-free.

Therefore, it is very suitable for connecting punching center point indicators.



6. Operating functions

6.1 Sheet metal punching

Risk of breakage exists when using an actuating screw with a diameter of \varnothing 6,3 mm.
 Operating with program 1, care must be taken that the punch does not go too deep into the die plate, as the plunger and the tension screw may get damaged in the process.
 Immediately after successful punching (audible click sound) pump (footswitch) must be released. (Fig. 4).

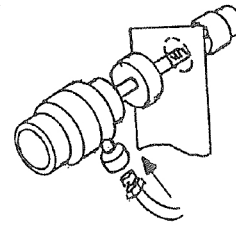


Figure 4

6.2 Die-cutting with punching iron

The following hawa punching irons: 2680, 2661, 2662, 2643 and 2649, can be connected to the Electro-hydraulic pump, and functions with both programs without any pre-drilling required (Fig. 5).

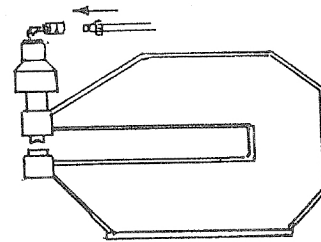


Figure 5

6.3 Bus bar modification

Bending, cutting, punching and discontinuation of copper and aluminium ducts with the hawa-tool 2605 possible (Fig.6). Operates alternatively with program 1 or program 2

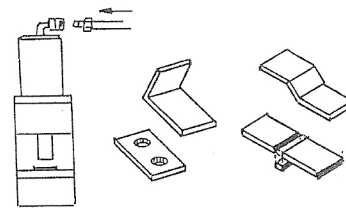


Figure 6

6.4 Profile duct and channel duct construction

With Program 1.
 Cutting and punching of ducts possible with the profile scissors of hawa 2671, 2675 und 2676 (Fig. 7)

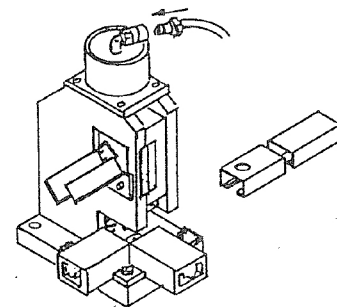


Figure 7

7. Technical details

| Electro-hydraulic pump 400 | |
|-----------------------------------|--|
| Operating voltage | 400 Volt / 50 Hz |
| Output capacity | 1,02 kW |
| Power supply | Plug type EIC60309 |
| Oil flow rate | 1,17 l/min |
| Operating pressure | 450 bar |
| Housing | Powder coated RAL 2004, orange colored |
| Hydraulic oil (viscosity) | 10-500 mm ² /s |
| First hydraulic oil fill | HLP 46 |
| Tank capacity | 2,5 l |
| Useable volume | 1,5 l |
| Connection ratings for socket | 230 Volt / 50 Hz - max. 600 W |

8. Maintenance, storage and care

- The Electro-hydraulic pump is largely maintenance free, provided that the manual instruction is followed. An oil change must be carried out every 3 (three) years.
- Periodic cleaning is essential for any device to operate smoothly.
- Weekly visual and operational control of the housing and the hydraulic hose is advisable.
- Disposable oil rags and hydraulic oil must be disposed of as hazardous waste.

9. Malfunction and service

In case of malfunction, please contact your local distributor or the manufacturer directly.
Any extensive repairs required to be performed through the authorized service station.
hawa will not be held liable for any damages due to faulty repair or the costs resulting from such damages.

Service Contact number:

Tel: +49 7353 9846 0