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Operating Manual

GB

ALFRA Electro-Hydraulic-Pump ALH600

Prod.-No. 03190



Initial operation

Before you connect the hydraulic pump ALH-600 to the power supply, please ensure that the ventilation screw (11.1) is installed on the hydraulic unit. For shipping, the unit is closed with a screw plug to prevent leakage during transport. If the ventilation screw is installed, then always keep the hydraulic screw in a vertical position. Slanting positions should be avoided because this may lead to leakage of hydraulic oil.



Pull the plug out before opening the door of the housing.

Operation

If the checks or works listed under Point 1 (initial operation) are executed, then the electro-hydraulic pump can be connected with the power supply (230V/50Hz). Connect the desired cylinder to the coupling of the hydraulic hose (3). As a standard the unit is delivered with a coupling, as an option delivery with a push nipple is possible. If the cylinder is connected properly, set the selection switch (5) into the desired position. "Cut" should be selected for all cutting and shearing operations, "press" should be selected for pressing operations. If the connector socket (7) is required (laser pointer, stroke arrest etc.), the plug should be installed before engaging the main switch (4).

After connecting everything, the main switch (4) can be engaged. The logo control (10) automatically detects all the configured connection possibilities.

Before starting work with a work piece, an empty stroke is absolutely necessary to ensure that the system is working problem-free.

The right pedal on the foot switch activates the hydraulic unit, and the volume flow will start. The left pedal discharges the system, so that the hydraulic oil flows back.

During longer breaks, the hydraulic pump should be switched off via the main switch (4)!

Maintenance and service

- Hydraulic hose pipes and hydraulic couplings should be checked regularly for tightness.
- The hydraulic unit ALH-600 should be operated only with hydraulic oil of the viscosity class HLP 46.
- An adequate oil level should be maintained always.
- The hydraulic unit is designed for switching operation with a max. operating temperature of 65°.
- Do the first oil change after approx. 500 operating hours, each further change after 5000 operating hours respectively, at the latest after 2 years.

Errors and resolution options

- Hydraulic hose is under pressure but the pressure does not enter the cylinder:
 - Check coupling between hydraulic hose and cylinder.
- After the punching operation the cylinder does not go back automatically.
 - Pressure switch P2 (12) must be switched on (See chapter 4. Adjusting the difference pressure switch).
- The components connected via the connector socket are not working:
 - Check the connection to the connector socket.
 - Switch off and switch on the hydraulic pump again via the main switch (4), the logo controller will check the system.
- The logo controller has lost the program:
 - A memory chip with the current program data must be ordered. The memory chip is plugged into the compartment (10.1) of the logo controller and is loaded by engaging the main switch (4).
- The hydraulic unit is running, but no hydraulic oil is lifted.
 - Check the fill level and if needed fill the hydraulic oil (HLP-46) through the hole of the ventilation screw (11.1).

Adjusting the difference pressure switch P2

The pressure switch P2 (12) will be preset in the plant. Due to different models of the cylinder there may be slight modifications on-site.

In particular the following should be followed:

- | | |
|---------|---|
| Case 1 | Tool is punching through, cylinder travels further till the end position. |
| Cause: | Pressure range of P2 is set too low. |
| Remedy: | Increase the pressure range by loosening the counter nut (12.2) and by turning the adjustment screw to the right (12.1). Monitor results, and after findings, tighten the counter nut (12.2) again. |
| Case 2 | Tool is not punching through, cylinder travels before completed punching process back into starting position. |
| Cause: | Pressure range of P2 set too high. |
| Remedy: | Decrease the pressure range by loosening the counter nut (12.2) and by turning the adjustment screw to the left (12.1). Monitor results, and after findings, tighten the counter nut (12.2) again. |



**Change the setting only with extreme caution!
Do only $\frac{1}{3}$ to $\frac{1}{2}$ rotation on the adjustment screw (12.1).**

Declaration of Conformity

In terms of EC Guideline 2006/95/EC, electrical equipment for use within specific voltage limits

We, Alfred Raith GmbH with headquarters in:

D-68766 Hockenheim, II. Industriestraße 10

declare herewith under our sole responsibility that the product

Electro-hydraulic-pump ALH600

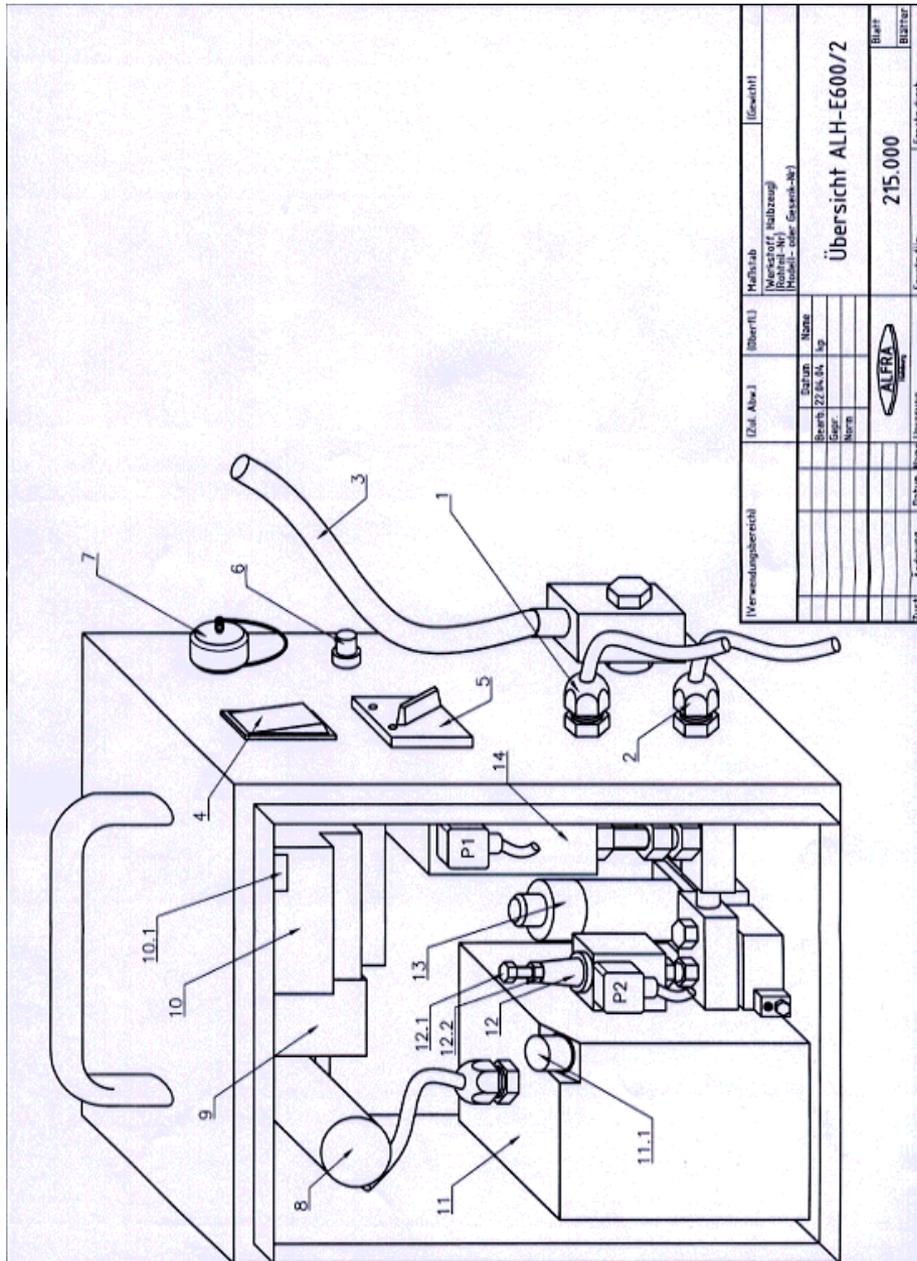
meets according to our manufacturing regulations (in valid version), on which this declaration is based, the following standards and standardization documents:

**DIN EN 60 034 (IEC 34 – DIN VDE 0530
DIN VDE 0110**

**EMC according to
EN 20370-1 : 2006
EN 50370-2 : August 2003**

In the event of any change to the product that has not been agreed with the manufacturer, this declaration shall lose its validity.

Hockenheim, August 2008



Parts list

S. No.	Description
1	Supply pipe 230V
2	Supply foot switch
3	Hydraulic hose
4	Main switch
5	Selection switch "cut/press"
6	Microfuse 4A
7	Connector socket 4-pin
8	Capacitor
9	Motor contactor
10	Logo controller
10.1	Slide compartment for memory chip
11	Hydraulic unit
11.1	Ventilation screw
12	Pressure valve P2
12.1+2	Adjustment screw and counter nut P2
13	Magnetic valve X1
14	Pressure valve P1