

General operating and maintenance instruction of hydraulic cylinder

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I. General

The following instructions and supporting hints should be strictly adhered to for catalogue products as well as for special cylinders (if present). This applies also for system-/ and telescope-cylinders.

II. Safety Instruction

A hydraulic cylinder has two properties – it either serves as a pressure tank during operation or in its main function serves as a motional device. Therefore the following instructions must be strictly followed:

- the installation may only be conducted by a hydraulic expert
- the operating pressure must be secured by a Relief-Valves
- security norm EN 982 for hydraulic must be observed.

III. Installation – and assembling

Assembling

When assembling hydraulic cylinders the following instructions apply:

- All screws and connecting elements for securing the cylinder (including its attachments) should comply with stability class 8.8 (recommended 10.9) in accordance with DIN / ISO 898 T1.
- Pay attention to a clean surrounding as well as to all parts to be assembled.
- The hydraulic cylinder must be deaerated before starting operation.
- The sealing material must be compatible with the used hydraulic media. Sealing materials such as hemp, cementing composition or plastic sealing tape may not be used.
- All pipes and containers must be thoroughly cleaned of dirt, dust, sand, spunk, cuttings and shreds etc..
- All pipes that are either wetted or have been warm bended must be pickled, rinsed and oiled afterwards.
- All cleaning must be performed with fibreless rags or with special paper.

Installation

When selecting or installing a hydraulic cylinder the following instructions must be obeyed:

- The pressure within the hydraulic cylinder may never exceed the maximum pressure recommended
- When selecting a hydraulic cylinder the maximum operating length recommended must be taken into account and strictly adhered to. The same applies to the recommended place of the installation, the recommended way of operation (vertical or horizontal), and the maximum operating pressure.
- The hydraulic cylinder must be installed tensionless. Neither a diagonal nor transverse force may occur or apply to the hydraulic cylinders base or to its moving parts.

We strictly advise against using the product in any other way than recommended.

In case of uncertainty please call our technical office (tel.: +49 6707-9157515). For further inquiries we are glad to be of assistance.

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IV. Initial Starting Instruction

Deaering

- Before the hydraulic cylinder is taken into operation for the first time, it must be deaerated. During idle operating pressure the special deaerating valve must be opened. This valve may only be closed after the upcoming oil contains no air bubbles any more. The valve must then be tightened again.

Pressure Media

- All Agirossi-Cylinders are build to be used with HLP Mineral Oil iaw DIN 51524 as well as with Bio-Oil (such as Panolin). For further instructions please see our recommendations of our catalogue.
- Please check whether the pressure media of the machine is compatible with the recommended pressure media of the hydraulic cylinder.
- Before use of other pressure media please consult our technical office.
- The recommended maximum operating temperature of the pressure media may not be exceeded. To ascertain a continuous and dependable performance, we recommend to keep the pressure media constant (+/-5 °C).

Filter

- The live expectancy of the hydraulic cylinder may be increased by the use of reliable filtering. Please take notice of the recommendations of the maximum rate of contamination of the pressure media in accordance with NAS 1638. We advocate to use hydraulic filtering with electrical contamination meter.

V. Electrical Installation

The installation of the electricity supply should be taken from the respective catalogue.

VI. Maintenance

- Generally regular maintenance of hydraulic cylinders is not necessary. However joints and ball-bearings should be greased in regular intervals.
- The tightness of the hydraulic cylinder should be checked in short intervals.

Change of seals

Seals are inclined to wear out after a certain period of time. In case of obvious leakage we recommend to replace the complete set of seals or to send the hydraulic cylinder to our maintenance plant. When replacing the seals we also check all parts of the hydraulic cylinder.

VII. Requirements of the storage area

- Hydraulic cylinders should be stored in locations that are dry, free of dust, free of acids or other corrosive liquids or gas.
- In case of storage of longer than six months the hydraulic cylinder must be filled with conservation oil or must already be ordered for longer storage periods.
- In case of longer periods of storage the hydraulic cylinder must be stored whenever possible vertically.

VIII. Spare Parts

Complete sets of seals can be ordered by using the number of the hydraulic cylinder with the attachment of "S" (for example Art #: "6909201" for the hydraulic cylinder, "6909201S" for the complete set of seals).

Please order other spare parts by using the number of the requested item – or the serial number