

1 Installation

1.1 Installations guidelines

Before the hydraulic cylinder is fitted into the system, the designation of the hydraulic cylinder should be compared with the order data.

Cleanliness :

- When installing the cylinder and the local area.
- Piping and reservoir must, before installation, be cleaned of dirt, scale, sand, swarf etc.
- Welded or hot formed pipes are to be pickled, flushed and finally oiled.
- For cleaning only use lint free clothes or special paper.
- Sealing materials such as hemp, putty or sealing tape are not permissible.

1.2 Installation position

- Optional

1.3 Electrical connections

- Position transducer
- Inductive limit switch

The pin allocation can be obtained from the relevant data sheet

2 Commissioning

2.1 Pressure fluid

- The recommendations stated within the data sheets are to be taken into account.
- Pressure and temperature ranges are to be observed.
- Check to ensure that the system pressure fluid is compatible with the permissible pressure fluid of the hydraulic cylinder.

Generally the following can be used :

- Mineral oil (HL, HLP) to DIN 51 524
- Phosphate ester (HFD-R)
- Other fluids on request

The manufactures recommendations concerning maximum temperatures should not be exceeded.

In order to obtain constant response characteristics from the system, it is

recommended that the fluid temperature should be held constant (+/- 5° C).

2.2 Filtration

- A reliable filtration increases the service life of the hydraulic cylinder.

- We recommend that filters are fitted with clogging indicators.
- Great care with regard to cleanliness should be taken when changing filter elements.
- Contamination on the outlet side of the filter can be flushed into the system and cause malfunctions.
- Contamination of the inlet side reduces the service life of the filter element.

2.3 Air bleeding

- Under no load conditions loosen the bleed screws or pipe fittings on the base or rod end.
- Let the air escape.
- Close the bleed screw or the fitting only when the oil is free of bubbles.
- Retighten the bleed screw or fitting.

3 Maintenance

- 3.1 Hydraulic cylinders are basically maintenance free; however bearing lubrication e.g. swivel eyes or trunnions has to be taken into account.

- 3.2 Check for leakage at frequent intervals

- 3.3 Changing seals

Moving seals are wear parts. Should internal or external leakage reach an unacceptably high level, we recommend that the hydraulic cylinders are returned to our works, so that when the seals are changed the guides etc. can also be checked.

4 Storage

- 4.1 Storage room requirements :

- Dry, dust free, free of corrosive materials and vapours

- 4.2 When storing for longer than 6 months :

- Fill the hydraulic cylinders with anti-corrosion oil and plug the ports.