HANSA FLEX

TECHNICAL INFORMATION
HYDRAULIC TANKS

Technical information Hydraulic tanks

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1. General

The installation, commissioning and maintenance of hydraulic systems or their components may be carried out only by suitably qualified personnel and in strict observance of all the relevant safety regulations.

Hydraulic tanks are primarily intended to be reservoirs for hydraulic fluids used in hydraulic systems. The wall surfaces of the hydraulic tank also contribute to regulating the temperature of the oil.

The design and complexity of hydraulic tanks greatly depend on the size and operating parameters of the hydraulic system. This must be taken into account in their design.

2. Safety instructions

The hydraulic oil becomes very hot and therefore so does the surface of the tank during the operation of the hydraulic system. Risk of skin burns from touching the tank!

Hydraulic oil tanks should have a device that prevents overfilling or overflowing during a filling operation in order to avoid contamination of soil and groundwater. This is done, e.g. by oil sight glasses or fill level indicators and sensors.

3. Technical information

3.1. Installation instructions

Hydraulic tanks must be set up and operated such that hydraulic oil cannot escape and pollute the environment. Observe any special regulations / requirements and use oil trays. Ensure that inadvertent leaks of oil cannot flow directly into the drainage system or nearby watercourses.

3.2. Technical parameters

Hydraulic tanks are closed containers. They connect to the ambient air through vent valves or vent filters. These ensure the air pressure inside the tank is the same as the ambient air pressure, which is important because the oil level varies during operation. Some special applications use prepressurised tanks in which a slight positive pressure (ca. 0.3 bar) is created. Prepressurisation is a suitable way of improving the suction conditions for hydraulic pumps.

Hydraulic tanks normally have standard connections for oil level indicators and drain plugs. Depending on their size and use, tanks can also be fitted with connections for filters, fill level and temperature sensors, tank heaters and cleaning hatches. Filling takes place through closable openings or combined tank venting and filler filters.

Tank covers are made from steel and are screwed to the hydraulic tank with a choice of sealing options. Tank covers are prone to internal corrosion because water condenses on their undersides. An adsorber filter used as a tank venting filter dries the inflowing air and mitigates this effect.

Oil trays appropriate to the use of the tank are available to protect the environment from escaping hydraulic oil. They can hold the full volume of oil from the tank.

High-quality surface protection to meet the requirements for their use can be applied to the inside and outside surfaces of the hydraulic tanks and oil trays. Special approvals may also have to be sought in accordance with §19 of the German Water Resources Act (WHG).

4. Maintenance and care

Hydraulic tanks are to be regularly checked for leakage. Dust-oil mixtures and other contaminants should be regularly cleaned from tank covers and, in particular, from the areas around tank venting and filling connections in order to prevent these materials from being sucked in and contaminating the hydraulic oil.

This cleaning should not be done with a high-pressure power washer. Otherwise, water could damage sensitive sensors or enter the tank through the venting filter or the tank lid seal.

5. Disposal information

Hydraulic oil, hydraulic hose lines and hydraulic components may not be thoughtlessly placed in the ordinary refuse; they must be collected and disposed of in accordance with the applicable waste disposal regulations. The national requirements of the country and, if appropriate, information given in the safety data sheets must be observed.