MOL Hydro Prime HV 46 ZF premium multigrade zinc-free hydraulic oil



MOL Hydro Prime HV 46 ZF is a high performance zinc-free antiwear hydraulic fluid that provides outstanding protection over a wide temperature range.

It is formulated on specially selected high quality Group II baseoils with application specific, balanced additive system (oxidation, wear, foam and corrosion inhibitors, viscosity modifier) to meet the requirements of modern, high pressure, industrial and mobile hydraulic systems.

Bosch Rexroth 90235 and Parker Denison HF-0 OEM approvals, which represent the highest requirements, prove the product's excellent wear protection for both reciprocating and vane pumps. A product with excellent thermal and hydrolytic stability, the TOST lifetime is ten times longer than the DIN 51524-2 requirement. Specific composition effectively support the improvement of energy efficiency of hydraulic systems. Based on controlled laboratory, hydraulic bench tests, energy savings of up to four percent can be achieved compared to the standard Mol Hydro HM product family, depending on the application and operating conditions.

Application



Features and benefits

Excellent hydraulic system efficiency

Outstanding oxidation stability

Outstanding wear protection

High viscosity index

Excellent shear stability

Outstanding thermal and hydrolytic stability

Hydraulic systems operating at high pressures and under heavy operating conditions

Equipment operating in a wide range of temperatures

Hydraulic systems of machines used in the plastics industry

Hydraulic systems of earthmoving and forestry machines

Hydraulic systems of construction and mining machines

Increased performance Economical operation Lower energy consumption

Resists ageing processes in the long term and harmful deposits are not formed Enables long drain interval application

Reliable long-term operation, even in equipment exposed to heavy loads at high pressures Long equipment lifetime

Optimum lubrication and reliable operation in a wide range of environmental and operational temperatures

Maintains its favourable properties for a long period even under heavy loads and shear stresses

Provides stick-free operation of servo and control valves Reliable operation, so reduced operational costs Extra long oil drain interval

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Features and benefits (continue)

Excellent water separation	Water is rapidly separated from the oil and can be drained from the system The formation of harmful deposits and filter plugging can be avoided
Outstanding filterability	Calculably low filter usage even with 2-3 micron pore size filter cartridges No deterioration of filterability, even in the presence of moisture
Rapid air release together with low foaming	Reduced risk of cavitation Stable balanced lubricating film between friction surfaces, giving long equipment lifetimes
Excellent corrosion protection	Effective protection of steel and non-ferrous metal parts even in the presence of water
Zinc-free additive system	Reduced environmental impact when the product is ingressed into wastewater
Specifications and approvals	



Viscosity grade: ISO VG 46 ARBURG Eaton E-FDGN-TB002-E Bosch Rexroth Fluid Rating List RDE 90245 Parker Denison HF-0 Parker Denison HF-1/HF-2 ISO 11158 HV ISO-L-HV DIN 51524-3 (HVLP) General Motors LS2 LH-03-1-00 SAE MS1004 Type HV AIST (US Steel) 127 KraussMaffei Hydraulic Oil Cincinnati Lamb P-70 (Fives Cincinnati)

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Properties

Properties	Typical values
Density at 15°C [g/cm3]	0,865
Kinematic viscosity at 40°C [mm2/s]	47,95
Kinematic viscosity at 100 °C [mm2/s]	8,56
Viscosity index	157
Pour point [°C]	-39
Flash point (Cleveland) [°C]	220
Oxidation stability (TOST)	
time to 2 mgKOH/g acid number [h]	>10000
Antiwear properties (FZG)	
- failure load stage	>12

The characteristics in table are typical values of the product and do not constitute a specification.

Storage and handling instructions

Store in the original container in dry, properly ventilated area.

Keep away from direct flame and other sources of ignition.

Protect from direct sunlight.

During transport, storage and use of the product follow the work safety instructions and environmental regulations relating to mineral oil products.

For further details please read the Material Safety Data Sheet of the product.

In the original container under the recommended storage conditions: 48 months

Recommended storage temperature: max. 40°C