MANNOL Hydro HV ISO 68 Zinc Free

2213

All-season mineral hydraulic oils created on the basis of highly-purified basic oils with a high viscosity index and a zinc-free (low-ash) additive package for the most full compliance with specific operating requirements of modern high-load and heat-stressed precision hydraulic systems, including the ones equipped with servo mechanisms and servo valves used in industrial and mobile equipment for which the manufacturer recommends using “zinc-free” hydraulic oils. They were developed taking into account the requirements for industrial hydraulic systems, mobile and stationary equipment operating in the conditions of high and extra-high loads, pressures, operating temperatures and/or velocities and especially in the conditions of strongly varying temperatures and in when there is a strong possibility or water contamination. Zinc-free hydraulic oils have the same properties as ordinary ones, but at the same time they have a greater expected life and completely eliminate the formation of clots and “loose deposits” that obstruct filters and disrupt servo motor elements in the conditions of a humid environment and high temperatures. These “loose deposits” are formed through an interaction of zinc-containing additives and water.

Product properties:
- They contain zinc-free antiwear, anti-oxidising, anticorrosion and antifoam additives and a viscosity modifier;
- They are highly resistant to oxidation and have the highest hydrolytic stability;
- They have an optimal viscosity in a wide range of operating temperatures in which they ensure the operability of the hydraulic equipment with a maximum productivity during a long period;
- They have good antiwear properties that minimise wear of the parts related to hydraulic pumps, hydraulic directional valves and hydrocylinders, servo motors thus ensuring their long service life and reducing the costs for spare parts;
- Modern cleaning-dispersing additives ensure an ideal cleanliness of the hydraulic system parts thus also protecting precision pairs against wear, extending the equipment life and increasing its efficiency;
- The highest thermo-oxidative and thermal stability, resistance to mechanical and chemical impact reduce the formation of all types of deposits and corrosive substances that increase the reliability of the subsystems’ operability (valves, hydraulic directional valves, etc.) and simultaneously distinguishes itself by an excellent filtering ability;
- Due to excellent anticorrosion properties, they protect surfaces of all used metals and alloys against a corrosive impact of acids, oxidation products and water that significantly reduce the maintenance and repairs costs;
- It is characterised by excellent demulsifying properties, a low freezing temperature, good fluidity at low temperatures;
- The resistance to foam formation and aeration enhance efficiency of hydraulic

pumps;
- It is neutral in regards to all sealing materials and paint-and-lacquer coatings compatible with mineral oils. It prevents leakages thus reducing buying costs.
- It has an extended service life (the service interval is more than 5,000 hours of running time).

It is recommended to be used as a power fluid for industrial precision hydraulic systems:
- Mobile equipment (construction, highway, mining, tree harvesting, various municipal and special equipment, etc.) operating at strongly varying temperatures and with the risk of water contamination;
- Stationary equipment – CNC machines and any hydraulic control and water regulation systems with servo motors when there is a risk of water contamination;
- The following types: HITACHI, DENISON, EATON VICKERS, etc.
- Where there are syringe, geared, impeller, axial piston pumps in compliance with manufacturer’s requirements;
- When the oil standards DIN 51524 Part 3 (HVLP) or ISO 11158 (HM, HV, HVLP) are required to be used.

In order to properly use it, thoroughly read the user’s manual of the equipment!

Specifications
SAE MS 1004
ISO Viscosity Grade 68
DIN 51524-2 (HM)
DIN 51524-3 (HVLP)
ISO 11158 (HM, HV, HVLP)
ASHLESS
Recommendation
ASTM USA D6158
ANSI AGMA 9005-E02-RO
AIST 126
AIST 127
JCMAS P041 HK Hydraulic specification
GERMAN STEEL INDUSTRY SEB 181222
BOSCH REXROTH RE 90220
EATON M-2950-S
EATON I-286-S3
GM LS2
MAG CINCINNATI P-68
MAG CINCINNATI P-69
MAG CINCINNATI P-70
PARKER DENISON HF-0
PARKER DENISON HF-1
PARKER DENISON HF-2
SPERRY VICKERS M-2950-S
SPERRY VICKERS I-286-S3

PACKAGING

208L	MN2213-DR	Drum	
	MN2213-20		
	MN2213-DR		