



## MANNOL Hydro HV ISO 46 Longlife 2202

All-season mineral paraffin hydraulic oils with a high-viscosity index created for the hydraulic equipment of a mobile or stationary equipment operating at high and extra-high operating temperatures. It was developed taking into account the requirements for industrial hydraulic systems operating in the conditions of extra-high loads, pressures, temperatures and/or velocities and especially in the conditions of strongly varying temperatures.

Product properties:

- It contains antiwear, anti-oxidising, anticorrosion and antifoam additives and a viscosity modifier.
- It has an optimal viscosity in a wide range of operating temperatures in which it ensures the operability of the hydraulic equipment with a maximum productivity during a long period;
- It has excellent antiwear properties that minimise the wear of the parts related to hydraulic pumps, hydraulic directional valves and hydrocylinders thus ensuring their long service life and reducing the costs for spare parts;
- Modern cleaning-dispersing additives ensure an ideal cleanliness of hydraulic system parts thus also protecting precision pairs from wear, extending the equipment life and increasing its efficiency;
- The highest thermo-oxidative and thermal stability, resistance to mechanical and chemical impact, including oxidation, 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, it protects surfaces of all used metals and alloys against a corrosive impact of acids, oxidation products and water thus significantly reducing the maintenance and repairs costs;
- It is characterised by excellent demulsifying properties, a low freezing point, good fluidity at low temperatures and a long service life;
- 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 is recommended to be used as a power fluid for industrial hydraulic systems:

- Mobile equipment (construction, highway, mining, tree harvesting, various municipal and special equipment, etc.) operating in strongly varying temperatures;
- Stationary equipment (pressing machines, elevators, moulding machines, robots, industrial machines, forming machines, etc.) operating both outdoors and indoors;
- Hydraulic controls and water regulation;
- The following types: DENISON, EATON VICKERS, GEROTOR, GRESEN, HPM, CESSNA, HYDRECO, WORTHINGTON, etc.

- Where there are gearboxes, gear couplings, pneumatic devices;
- 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 implemented.

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

### **Specifications**

SAE MS 1004  
 ISO Viscosity Grade 46  
 DIN 51524-3 (HVLP)  
 DIN 51524-2 (HM)  
 ISO 11158 (HM, HV, HVLP)

### **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**

60L	MN2202-60	Drum	
1000L	MN2202-IBC	Pallet tank	
208L	MN2202-DR	Drum	
20L	MN2202-20	Plastic	
10L	MN2202-10	Plastic	