# MANNOL Hydro HV ISO 22 VI 245

## 2204

Arctic hydraulic synthetic-based oil with an extra-high viscosity index (no less than 245) and exceptional low-temperature properties created for hydraulic devices of the mobile equipment operating at most extreme possible operating temperatures and extremely low ambient temperatures. It was developed taking into account the requirements for industrial hydraulic systems operating in the conditions of extreme loads, pressures, temperatures and/or velocities and especially in the conditions of extremely varying temperatures.

Product properties:
- It contains antiwear, anti-oxidising, anticorrosion and antifoam additives and a viscosity modifier;
- Due to excellent low-temperature properties, it can ensure the start of a hydraulic system in cold weather conditions (including the Extreme North). It minimises the stand-by time during winter time;
- It has an extra-stable viscosity in a widest possible range of operating temperatures in which it ensures the operability of the hydraulic equipment with a maximum productivity during a long period. It ensures a unification of warehouse stock;
- 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 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 that significantly reduce the maintenance and repairs costs;
- It is characterised by excellent demulsifying properties, a low freezing temperature, 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, 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 and at low ambient temperatures;
- Stationary equipment (pressing machines, elevators, moulding machines, robots, industrial machines, forming machines, etc.) operating at extremely low

temperatures;
- Hydraulic controls and water regulation;
- The following types: DENISON, EATON VICKERS, GEROTOR, GRESEN, HPM, 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 (HV) 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 22
Viscosity Index 245
DIN 51524-2
DIN 51524-3 (HVLP)
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

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|---|---|---|---|
| 20L | MN2204-20 | Plastic | |
| 208L | MN2204-DR | Drum | |