

MANNOL TS-12 SHPD 10W-30

7112

All-weather semi-synthetic (HC synthesis) motor oil for modern heavy duty and high-speed diesel engines with and without turbocharging, operated in difficult conditions. Designed specifically to protect machinery and benefit most out of it regardless of operating conditions.

Product properties:
- Innovative additives in combination with a semi-synthetic base of the highest quality and low viscosity provide excellent anti-friction, anti-wear and extreme pressure characteristics, which significantly extends the service life of the equipment in any, even the most extreme, operating conditions in a wide range of ambient temperatures, and provides significant fuel savings;
- The synthetic components in combination with natural antioxidants provide increased thermal oxidative stability to the oil, which, in combination with excellent detergent-dispersant properties (TBN> 10) and low ash content, effectively reduces the formation of scaling and varnish, prevents deposits of all kinds and maintains engine parts exceptionally clean throughout the service between replacements;
- A unique hydrosynthetic formulation provides oil resistance to aging, and due to the reduced evaporation and high flash point, it reduces oil scaling "waste", which enables it to be used in engines with a long life interval up to 30,000 km and conventional motors;
- Due to the hydrosynthetic base, the optimal viscosity has excellent low-temperature properties, including a low pour point, along with good oil pumpability and crankability of engine components at low temperatures, easy “cold start” (up to -30 °C) and reduced startup wear;
- Effectively protects engine parts from all types of corrosion and gaskets - against acid etching;
- Lower foam formation;
- Effectively deals with the increase in shear stress during operation caused by elevated viscosity due to soot dispersion;
- A special additive package is developed taking into account the difficult Russian operating conditions and low fuel quality.

Designed for all types of heavy duty diesel motors (long distance trucks, buses, etc.), off-road machinery (construction, mining, agricultural) and special equipment from Russian, European, American and Asian manufacturers that meet the requirements of Euro I, II, III, IV, V where a performance level of CI-4 Plus or lower is required.
Can be used in gasoline engines where API SL or lower performance is required.

Specifications
SAE 10W-30
Recommendation
API CI-4 Plus
API CI-4/CH-4/SL
ACEA E7
ACEA A3/B4
JASO DH-1
GLOBAL DHD-1
MB 228.1
MB 228.3
MACK EO-M Plus
MACK EO-N
MAN M 3275-1
MTU Type 2
CUMMINS CES 20076
CUMMINS CES 20077
CUMMINS CES 20078
CATERPILLAR ECF-1a
CATERPILLAR ECF-2
RENAULT RLD-2
VOLVO VDS-3
DETROIT DIESEL 93K215

PACKAGING

20L	MN7112-20	Plastic	
1000L	MN7112-IBC	Pallet tank	
208L	MN7112-DR	Drum	
60L	MN7112-60	Drum	
7L	MN7112-7		