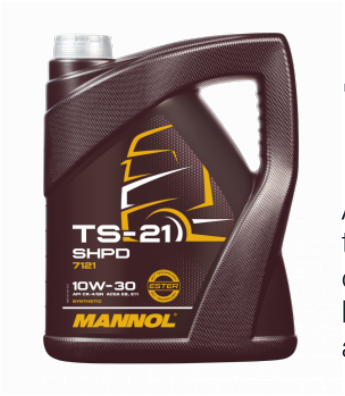


MANNOL TS-21 SHPD 10W-30

7121

All-weather synthetic motor oil for heavy-duty and high-speed diesel engines of the latest generation with and without turbocharger, operating in severe conditions on low sulphur fuel. The oil has successfully passed road and laboratory tests at VOLVO, MACK and RENAULT centres and has their written approvals.

Product properties:
- An innovative additive package in combination with the ultimate quality synthetic base, with perfect viscosity in the required temperature range provide unrivaled anti-friction, anti-wear and anti-scuffing properties, significantly extending the life of equipment in all, even the most extreme, operating modes in a rather wide range of ambient temperatures and provides significant fuel savings;
- Phenol and amine antioxidants in combination with a synthetic base provide increased thermal oxidative stability to the oil, which, in combination with excellent detergent-dispersant properties and low ash content, effectively reduces scaling and varnish formation, prevents deposits of all kinds and maintains engine parts, especially cylinder-piston, in perfectly clean condition throughout the entire interval between replacements;
- A unique synthetic 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 90,000 km and conventional motors;
- Due to the synthetic 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;
- Compatible with all exhaust gas after-treatment systems, DPF, TWC, EGR and SCR thanks to the use of Low SAPS technology;
- Effectively protects engine parts from all types of corrosion;
- Reduced foaming and effective resistance to aeration;
- Effectively deals with the increase in shear stress during operation caused by elevated viscosity due to soot dispersion.

Suitable for engines using fuelled by natural gas (LNG) and petroleum (LPG) gas.
Designed for all types of heavy duty diesel motors (long distance trucks, buses, etc.), off-road machinery (construction, mining, agricultural) and special equipment from European, American and Asian manufacturers that meet the requirements of Euro I – V and VI where a performance level of CK-4 or lower is required.
When using CK-4 oils with fuels containing more than 15 ppm sulphur, make sure to follow the recommendations of the engine manufacturer for service intervals.

Specifications
SAE 10W-30
API CK-4/SN
API CJ-4/CI-4 Plus
ACEA E8
ACEA E11
JASO DH-2
CUMMINS CES 20086
CUMMINS CES 20087
RENAULT Truck RLD-4
FORD WSS-M2C171-F1
MB 228.31
DETROIT DIESEL DDC93K222
DETROIT DIESEL DDC93K223
MTU Type 2.1
CATERPILLAR ECF-3
ALLISON TES-439
MAN M 3775
MAN M 3575
Approval
VOLVO VDS-4.5 Approval
RENAULT VI RLD-3 Approval
MACK EOS-4.5 Approval

PACKAGING

5L	MN7121-5	Plastic	
1000L	MN7121-IBC	Pallet tank	
208L	MN7121-DR	Drum	
60L	MN7121-60	Drum	
20L	MN7121-20	Plastic	
10L	MN7121-10	Plastic	