

MANNOL TS-23 UHPD 5W-30

7123

Innovative energy-saving synthetic (contains PAO) engine oil for heavy-duty and high-speed diesel engines of the latest generation, turbocharged and non-turbocharged, operating under severe conditions and using low-sulphur fuels. Specifically designed to protect machinery and maximise its performance, whatever the operating conditions may be. This product combines the advantages of low-ash and E-4 oils, which have the highest detergent properties and provide excellent cleanliness of pistons, cylinders and the engine as a whole.

Product properties:
- A unique low-viscosity synthetic base of the highest quality, with ideal viscosity in the required temperature range, combined with an innovative additive package, provides excellent anti-friction, anti-wear and anti-scuffing properties, which significantly extends the service life of machinery in all, even the most extreme, operating modes in a fairly wide range of ambient temperatures and provides significant fuel savings;
- The synthetic base, special TBN-boosters and antioxidants give the oil maximum thermal oxidation stability, excellent detergent-dispersing properties (TBN>12) and at the same time low ash content, which effectively reduces soot and varnish formation, prevents the formation of deposits of all kinds and keeps engine separate parts, especially the cylinder-piston group, perfectly clean throughout the entire interval between oil changes;
- The unique PAO-containing formula provides the oil with resistance to ageing, and thanks to its lower evaporation and higher flash point, it reduces operating consumption, allowing it to be used in engines with extended oil change intervals (Long Life up to 90,000 km) and conventional engines;
- Thanks to the PAO-containing low-viscosity base, it has excellent low-temperature properties, including a low pour point, which provides excellent oil pumpability and turnability of engine components at low temperatures, easy ‘cold starts’ (down to -35 °C) and reduction of starting wear;
- Compatible with all exhaust gas neutralisation systems, DPF, TWC, EGR and SCR through the use of Low SAPS technology;
- Effectively protects engine separate parts against all types of corrosion;
- Effectively combats aeration;
- Effectively combats the increase in shear force during operation caused by the increase in viscosity due to soot dispersion;
- Suitable for engines fuelled by liquefied natural gas (LNG) and liquefied petroleum gas (LPG).

It is intended for all types of highly loaded diesel engines of on-road (long-haul tractors, buses, etc.), off-road (construction, mining, agricultural) and special-purpose machinery of European, American and Asian manufacturers, meeting the requirements of Euro I-V and VI where the level of performance properties CK-4, ACEA E4/E7, as well as E8/E11 is required.

Specifications
SAE 5W-30
API CK-4
ACEA E4-22
ACEA E7-22
ACEA E8-22
ACEA E11-22
JASO DH-2
JASO DH-1
JASO DL-0
MB 228.51
MB 228.31
MAN M 3777
MAN M 3677
MAN M 3775
MAN M 3477
MAN M 3271-1
SCANIA LDF-4
MTU Category 3.1 and Category 2.1
VOLVO VDS-4.5
MACK EOS-4.5
RENAULT RLD-4
CATERPILLAR ECF-3
CUMMINS CES 20086
CUMMINS CES 20081
DETROIT DIESEL DFS 93K222
DETROIT DIESEL DFS 93K218
DAF Extender Drain
Approval
DAIMLER DTFR 15C120

PACKAGING

	MN7123-20		
	MN7123-IBC		
	MN7123-DR		