

MANNOL TS-9 UHPD 10W-40 Nano

7109

All-season synthetic low-ash engine oil for the latest generation of highly loaded and high-speed turbocharged and non-turbocharged heavy-duty diesel engines using low-sulphur fuels. The oil complies with the GLOBAL-DHD-1 specification, which takes into account all requirements of European, American and Japanese manufacturers of heavy-duty diesel engines produced since 1998, operating under heavy conditions with extended oil change intervals, meeting applicable standards regarding the content of toxic substances in exhaust gases and installed in heavy-duty vehicles (over 3.9 tons).

Product properties:
- A synthetic base of the highest quality with an innovative additive package offering ideal viscosity over a wide temperature range provides unsurpassed anti-friction, anti-wear and extreme pressure properties, which significantly prolongs the life of the vehicle at all, even the most extreme, operating conditions over a wide ambient temperature range and ensures significant fuel economy;
- A stable synthetic base gives the oil increased thermal-oxidative stability which, combined with excellent detergent and dispersant properties and low-ash content, effectively reduces the formation of deposits of all kinds and keeps the engine separate parts, especially the piston cylinder group, perfectly clean over the entire interval between oil changes;
- The unique formulation provides the oil with resistance to ageing and, due to its reduced evaporation and increased flash point, reduces the operating consumption, allowing it to be used in engines with extended oil change intervals (Long Life up to 60,000 km) and conventional engines;
- Due to the synthetic base of optimal viscosity it has excellent low-temperature properties, including a low pour point, which ensures excellent pumpability and turnability of engine components at low temperatures, easy cold start (down to -30 °C) and reduced starting wear;
- Compatible with all exhaust gas aftertreatment systems, DPF, TWC, EGR and SCR due to low SAPS technology;
- Effectively protects engine separate parts against all types of corrosion;
- It has a low foaming level and effectively resists aeration;
- Effectively counteracts the increase in shear force during operation caused by viscosity increase due to soot dispersion;
- Suitable for liquefied natural gas (LNG) and liquified petroleum gas (LPG) engines.

Designed for all types of highly loaded diesel engines of highway (long-haul tractors, buses etc.), off-road (construction, mining, agricultural) and special vehicles of European, American and Asian manufacturers meeting Euro I–V and VI requirements, where the performance level CJ-4 or lower is required.

Specifications
SAE 10W-40
Recommendation
API CJ-4/SN
ACEA E8, E11
JASO DH-2
MB 228.31
MB 228.51
VOLVO VDS-4
MAN M 3477
MAN M 3575
MACK EO-N Plus
MACK EO-O Premium Plus
GLOBAL DHD-1
CUMMINS CES 20076
CUMMINS CES 20077
CUMMINS CES 20078
RENAULT RLD-3
MTU Type 3.1
CATERPILLAR ECF-2
CATERPILLAR ECF-3
DETROIT DIESEL DDC 93K218

PACKAGING

	MN7109-5		
208L	MN7109-DR	Drum	
60L	MN7109-60	Drum	
20L	MN7109-20	Plastic	
10L	MN7109-10	Plastic	
5L	MN7109-5	Plastic	