

MANNOL TS-15 SHPD 20W-50

7115

Special multi-season, highly alloyed mineral engine oil with the addition of hydrosynthetics for modern, heavy duty and high-speed diesel engines with and without turbocharging, operating in extremely difficult conditions (including, at high ambient temperatures) and for engines with high mileage. The oil complies with the Global Specification GLOBAL-DHD-1, which takes into account all the requirements of European, American and Japanese manufacturers for heavy diesel engines manufactured since 1998, operating in the most difficult conditions with increased mileage between oil changes that comply with current standards for the content of toxic substances in exhaust gases and installed on heavy vehicles (more than 3.9 tons).

Product properties:
- Highly viscous mineral-synthetic base with the utmost quality that meets the requirements of GLOBAL DHD-1 provides excellent anti-friction and anti-wear properties, significantly extending the life of the equipment compared to counterpart oils under the most extreme operating modes;
- Distinguished by the low sulphate ash content;
- Compared with counterparts, has higher thermal oxidation stability which, in combination with excellent detergent-dispersant properties (TBN> 10) effectively reduces the formation of scaling and varnish, prevents deposits of all kinds and maintains engine parts very clean throughout the service between replacements;
- Unique dispersant additives effectively support soot particles in suspension;
- Perfectly compatible with all types of gasketing, and has a low tendency to leakage even when worn, thanks to the high viscosity base;
- Contains components that prevent oxidation and deposition of contaminants on the pistons and O-rings; completely removed from the cylinder walls by oil control rings, which, in combination with low evaporation, significantly reduces oil waste due to scaling even on worn engines and allows it to be used in engines with long life and ordinary oils;
- The use of thickening additives of the latest generation not prone to degradation allows maintaining the required viscosity throughout the entire period between replacements;
- Effectively protects engine parts from all types of corrosion;
- Can be used in combination with few all with higher sulphur content;
- Suitable for engines equipped with EGR recirculation system.

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, II, III, IV where a performance level of CI-4 Plus or lower is required. Highly recommended for heavy duty tracked vehicles.
Can be used in gasoline engines where API SL or lower performance is required.

Specifications
SAE 20W-50
Recommendation
API CI-4 Plus
API CI-4/CH-4/SL
ACEA E7
ACEA A3/B4
JASO DH-1
GLOBAL DHD-1
CATERPILLAR ECF-2 / ECF-1-a
CUMMINS CES 20076
CUMMINS CES 20077
CUMMINS CES 20078
DETROIT DIESEL 93K215
MACK EO-N
MACK EO-M Plus
MB 228.1
MB 228.3
MTU Type 2
RENAULT RLD-2
VOLVO VDS-3
MAN M 3275-1

PACKAGING

10L	MN7115-10	Plastic	
208L	MN7115-DR	Drum	
60L	MN7115-60	Drum	
20L	MN7115-20	Plastic	
7L	MN7115-7		