



## MANNOL TS-11 SHPD Geo 7111

Innovative energy-saving bi-synthetic (RAO + esters) motor oil for heavy duty and high-speed diesel engines of the latest generation with and without turbocharging, operating in severe conditions on low sulphur fuel. That oil is developed with the use of the improved additive package with low content of sulphate ash, phosphorus and sulphur (LowSAPS technology).

Product properties:

- Ester components in combination with the top quality mineral-synthetic base provide excellent anti-friction and anti-wear characteristics, which significantly extend the life of scenery compared to similar oils in all, even the most extreme, operating modes and simultaneously guarantee significant fuel savings. The oil composition is balanced in such a way as to ensure reliable protection of components of valve mechanisms, pistons, cylinder liners and bearings due to optimal anti-wear properties;
- Increased resistance to nitration;
- The oil is specifically designed for engine protection from high temperature that is caused by the "dry burning" of gaseous fuel type. Prevents burnout of valves and protects To-rings from sticking due to low ash content;
- Ester components and natural antioxidants ensure the oil increased thermal oxidative stability, which, in combination with good detergent-dispersant properties, effectively reduces scaling and varnish formation, prevents all types of deposits and keeps engine parts clean throughout the service period between replacements;
- Unique esters-containing formulation provides oil resistance to aging, and by reducing evaporation reduces oil waste due to scaling;
- Due to the content of esters, it features good low-temperature properties, along with good oil pumpability and unprecedented crankability of engine components at low temperatures, easy "cold start" and reduced startup wear;
- Compatible with modern exhaust gas neutralisation after-treatment systems, extends the service life of the catalyst (TWC) through the use of Low SAPS technology;
- Effectively protects engine parts from all types of corrosion.

Designed for all types of heavy duty highway motors (long distance trucks, buses, etc.), off-road machinery (construction, mining, agricultural) and special equipment from European, American and Asian manufacturers fuelled by all types of gas fuel.

Applicable in Cummins gas engines.

SAE 15W-40  
CUMMINS CES 20074  
DETROIT DIESEL 93K216

## PACKAGING

20L	MN7111-20	Plastic	
1000L	MN7111-IBC		
208L	MN7111-DR	Drum	
60L	MN7111-60	Drum	