

MARINE T LNG40

Engine Oil for Marine Trunk Piston Engines Compatible with Natural Gas and Low Sulfur Fuels

With the tightening of emission regulations for marine engines, the development of trunk piston engines that use natural gas and low sulfur fuels (sulfur content less than 0.1%) is progressing. When using natural gas or low sulfur fuels, the combustion temperature becomes higher compared to using medium to high sulfur fuels (sulfur content 0.1% or more), requiring engine oil with high heat resistance and oxidation stability. Additionally, while acid neutralization performance is not as critical for engine oil when using natural gas or low sulfur fuels, high detergency and dispersancy are essential. **MARINE T LNG40** is a newly developed low ash trunk piston engine oil designed to meet these requirements. It is suitable for use with natural gas and low sulfur fuels (MGO: Marine Gas Oil). It is particularly optimal as an engine oil for medium and high-speed trunk piston type DF (Dual Fuel) engines and is approved by Wartsila, Daihatsu and Yanmar.

● SPECIAL FEATURES

1. Excellent Heat Resistance and Oxidation Stability

Since **MARINE T LNG40** is formulated with highly refined base oil and superior performance additives, it achieves heat resistance and oxidation stability. It suppresses oil degradation even under high-temperature conditions, ensuring a long service life.

2. Excellent Detergency, Dispersancy, and Anti-Emulsification Properties

To prevent knocking during natural gas combustion and the deposition and hardening of additives on the piston top land and ring grooves, **MARINE T LNG40** ensures excellent detergency and dispersancy by combining a low ash formulation (sulfated ash content: 0.6% or less) with reduced metal-based detergents as

acid neutralizers and ashless dispersants. Additionally, since DF engines are equipped with oil-water separation type purifiers for engine oil, anti-emulsification properties are enhanced.

3. Certified by Engine Manufacturers

MARINE T LNG40 is approved by Wartsila, Daihatsu and Yanmar.

● APPLICATIONS

- Trunk piston engine oil for LNG-only engines
- Trunk piston engine oil for Dual Fuel (LNG/MGO) compatible engines

● CONTAINERS

200-liter drum

● TYPICAL PROPERTIES OF MARINE T LNG40

SAE Viscosity Grade			40
Appearance			Brown, Liquid
Density	(15 °C)	g/cm ³	0.878
Flash Point	(COC)	°C	268
Kinematic Viscosity	(40°C)	mm ² /s	129
Kinematic Viscosity	(100°C)	mm ² /s	14.3
Viscosity Index			109
Pour Point		°C	-17.5
Acid Number		mgKOH/g	0.60
Base Number	(Perchloric acid method)	mgKOH/g	7.0
Sulfated Ash		mass%	0.55

Note: the typical properties are subject to change without notice. (February 2025)

● Handling Precautions

- **For the handling of this product:** Please read the Safety Data Sheet (SDS) for this oil and the handling precautions listed on the product container carefully before use.
- **Regarding obtaining the SDS:** Please note that Safety Data Sheets (SDS) should be obtained via commercial channels and cannot be provided by the ENEOS Customer Center.
- The properties and performance listed are based on measurements and insights from our testing methods and do not guarantee accuracy or completeness. The typical properties may be changed without notice.