



MEDIUM-SPEED ENGINE OILS

Delo[®] 1000 Marine**Description**

Delo 1000 Marine is a high-performance, medium-alkaline, diesel engine oil for medium- and high-speed trunk piston diesel engines. Delo 1000 Marine is blended from high-quality base oils and selected additives that protect the oil from oxidation and provide excellent detergency and dispersancy. It has extremely good viscosity control, and its excellent alkalinity retention properties prevent corrosive wear over long periods of time. The oil also has good water separation and antifoam properties. Delo 1000 Marine meets the requirements of API service classification CF.

Typical Characteristics

SAE Viscosity Grade	30	40
Code	040703	040704
Base number, mgKOH/g	12	12
Density at 15°C, kg/l	0.89	0.90
Flash point, COC, °C	240	240
FZG test (A/8.3/90), failure load stage	11	11
Pour point, °C	-18	-18
Sulphated ash, mass %	1.6	1.6
Viscosity, kinematic, mm ² /s (cSt)		
at 40°C	94	135
at 100°C	12.0	14.0
Viscosity index	100	100

Recommended Uses

Delo 1000 Marine 30 and 40 are recommended for all types of trunk piston engines, including the latest high-output, medium-speed engines using high sulphur gas oil or marine diesel oil with a maximum sulphur level of 1.5%. The FZG (A/8.3/90) failure load stage 11 permits its use in engine reduction gears and other applications where EP properties are required. Delo 1000 Marine is approved by the major builders of trunk piston engines.

Performance Benefits**1. Wear Protection**

Protects against corrosive combustion products and minimizes wear on all moving engine components. Provides excellent protection for cams, camshaft and bearings.

2. Detergent/Dispersant Properties

Keeps crankcases and oil control rings clean. Reduces deposit formation particularly in the ring belt area and reduces lube oil filter blockage. Effectively handles insolubles.

3. Oxidation Stability

Oxidation inhibitors protect the oil against high thermal stresses, protect engine parts from corrosion and reduce undercrown deposits while promoting extended lubricant life.

4. Rust Prevention

Prevents corrosion of engine parts when the engine is not in operation. Provides excellent rust protection as required in stern tube application.

5. Balanced Additive Combination

Provides minimum maintenance and downtime, long engine life and economical operating costs.