



marine lubricants

Delo[®] 1000 Marine



Description

Delo[®] 1000 Marine lubricants are high-performance diesel engine oils for medium-speed trunk piston diesel engines. Delo 1000 Marine lubricants are blended with highly refined base oils and carefully selected additives. They have very good viscosity control when used in severe high-temperature service, and their great BN retention characteristics prevent corrosive wear over long periods of operation. The unique detergent and dispersant additive system provides piston cleanliness and soot handling. This results in extreme reduction of both “hot” (piston lands and grooves, piston undercrown, purifier preheaters) and “cold” (crankcase, cambox, rocker area, fuel pumps, purifier bowl) deposits. Delo 1000 Marine lubricants provide a high degree of water tolerance and have good water separation.

Typical Characteristics

| SAE Viscosity Grade | 30 | 40 |
|--|---------|---------|
| MPID | 219201 | 219200 |
| Base number, mg KOH/g (ASTM D2896) | 12 | 12 |
| Density at 15°C, kg/l (ASTM D4052) | 0.89 | 0.89 |
| Flash point, COC, °C (ASTM D92) | 180 min | 180 min |
| Pour point, °C (ASTM D97) | -18 | -18 |
| Kinematic Viscosity at 40°C, mm ² /s (ASTM D445) | 102.0 | 135.0 |
| Kinematic Viscosity at 100°C, mm ² /s (ASTM D445) | 11.6 | 14.2 |
| Viscosity Index | 100 | 100 |
| FZG test (A/8.3/90), failure load stage (CEC-L-07-95) | 12 | 12 |

Recommended Applications

Delo 1000 Marine lubricants are recommended for medium-speed trunk piston diesel engines burning distillate and low sulfur fuels. The good load carrying capacity of Delo 1000 Marine lubricants also makes these suitable for use in engine reduction gears and other applications where EP properties are required. Delo 1000 Marine should be used in accordance with OEM guidelines and recommendations.

Delo 1000 Marine Lubricants Are Approved For:

- | | |
|--|--|
| <input checked="" type="checkbox"/> MAN Energy Solutions | <input checked="" type="checkbox"/> Daihatsu |
| <input checked="" type="checkbox"/> Wärtsilä and MaK (Caterpillar) | <input checked="" type="checkbox"/> Hyundai Himsen |
| <input checked="" type="checkbox"/> Rolls Royce Bergen | <input checked="" type="checkbox"/> Yanmar |

**marine lubricants****Performance Benefits****1. Engine Protection**

Controls cylinder liner wear effectively and helps to protect bearings from corrosion. High performance, anti-wear additives provide protection against wear for cams, camshaft and bearings. Delo® 1000 Marine lubricants also promote a high degree of water tolerance and anti-foam protection.

2. Engine Cleanliness

Helps to ensure clean crankcases, piston interiors and lubricating oil lines.

3. Easy Purification

Effective water and contaminants handling.

4. Smooth Operation

Helps to provide minimum maintenance and downtime, long engine life and economical operating costs.



Our Family of Brands

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