



marine products

# 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
<b>MPID</b>	<b>219201</b>	<b>219200</b>
Base number, mg KOH/g (ASTM D2896)	12	12
Density at 15°C, kg/l (ASTM D4052)	0.88	0.89
Density at 15°C, lb/gal (US) (ASTM D4052)	7.34	7.43
Flash point, COC, °C (ASTM D92)	180 min	180 min
Pour point, °C (ASTM D97)	-18	-18
Kinematic Viscosity at 40°C, mm <sup>2</sup> /s (ASTM D445)	102.0	135.0
Kinematic Viscosity at 100°C, mm <sup>2</sup> /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"/> <b>Everlence</b> (formerly MAN ES)              | <input checked="" type="checkbox"/> <b>Daihatsu</b> |
| <input checked="" type="checkbox"/> <b>WinGD</b> (formerly Wärtsilä) and <b>MaK</b> | <input checked="" type="checkbox"/> <b>Hyundai</b>  |
| <input checked="" type="checkbox"/> <b>Caterpillar</b> (Rolls Royce)                | <input checked="" type="checkbox"/> <b>Himsen</b>   |

**marine products****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 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.

**Environment, Health and Safety**

Information is available on this product in the Safety Data Sheet (SDS) and Customer Safety Guide. Customers are encouraged to review this information, follow precautions and comply with laws and regulations concerning product use and disposal. To obtain an SDS for this product visit [chevronmarineproducts.com](http://chevronmarineproducts.com).



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