



## Mobilgard™ M50

ExxonMobil Marine , Slovenia

Diesel Engine Oil

### Product Description

Mobilgard M50 by ExxonMobil are premium, extra high performance 50 TBN engine oils designed for use in the most severe residual-fuelled medium-speed diesel applications found in marine and stationary power industries. These market leading trunk piston engine oils are formulated utilizing the latest in additive detergent technology and provide outstanding residual fuel compatibility characteristics for excellent engine cleanliness, especially in crankcase, camshaft areas, ring belt and piston undercrowns. They also demonstrate excellent high temperature oxidation and thermal stability, low volatility, and high load carrying properties and corrosion protection.

### Features and Benefits

Mobilgard M50 has industry-leading thermal and oxidation stability. It has excellent TBN retention and resistance to viscosity increases over long operating periods. It also promotes a high level of engine cleanliness with protection against wear. Compared to other medium speed engine oils, it has superior lube/fuel compatibility and separates easily from water.

When used as recommended, Mobilgard M50 diesel engine oil provides the following benefits:

| Features                                  | Advantages and Potential Benefits                          |
|---|--|
| Excellent thermal and oxidation stability | Reduced deposits in piston undercrown and ring belt areas  |
| Improved anti-wear properties             | Extends the life of critical wear surfaces                 |
| Advanced detergency/dispersancy           | Clean camshaft and crankcase spaces                        |
| Outstanding rust and corrosion properties | Protects wear surfaces from water and acidic corrosion     |
| High Residual Fuel Compatibility          | Reduced sludge formation, longer oil life, cleaner engines |
| Low volatility base stocks                | Reduced lubricant consumption                              |
| Excellent TBN Reserve and Retention       | Combats fuel/combustion related corrosion and deposits     |

### Applications

Mobilgard M50 oil can be used in most medium-speed trunk piston engine applications. It is recommended for use in main propulsion and auxiliary engines on deep-sea vessels; in main propulsion engines on coastal and river ships; and in stationary power plants. This new oil is the result of an extensive research and development program, incorporating ExxonMobil's patented DAC (Detecting Asphaltene Contamination) Test.

Mobilgard M50 oil is designed to meet the needs of engines operating on heavy fuel. It is recommended for use in the latest model medium speed diesel engines and is especially beneficial in engines having low crankcase oil consumption or operating with low cylinder liner temperatures. In these engines, oil life and drain intervals have been significantly reduced when using conventional lube oils due to severe TBN depletion resulting from very low lube oil consumption. Relatively high alkalinity reserves in this oil provide superior protection in neutralising the strong acids resulting from the use of high sulphur fuels that find access to the crankcase to promote oil degradation and ring, cylinder, and bearing corrosion.

Mobilgard M50 is also recommended for topping-up existing oil charges with a low TBN value to raise them to an acceptable value.

**Properties and Specifications**

| Property   |        |
|--|--------|
| Grade  | SAE 40 |
| Ash, Sulfated, wt%, ASTM D874                              | 6.5    |
| Flash Point, Cleveland Open Cup, °C, ASTM D92              | 228    |
| Kinematic Viscosity @ 100 C, mm <sup>2</sup> /s, ASTM D445 | 14     |
| Pour Point, °C, ASTM D97                                   | -6     |
| Specific Gravity, 15 C/15 C, ASTM D4052                    | 0.922  |
| Total Base Number, mgKOH/g, ASTM D2896                     | 50     |

**Health and safety**

Health and Safety recommendations for this product can be found on the Material Safety Data Sheet (MSDS) @ <http://www.msds.exxonmobil.com/psims/psims.aspx>

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Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

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