



Mobilgard™ M40 Series

Diesel Engine Oils

Product Description

Mobilgard™ M40 Series (M340 and M440) by ExxonMobil are premium, extra high performance 40 TBN engine oils designed for use in the most severe residual-fuelled medium-speed diesel applications found in marine and stationary power industries. These outstanding trunk piston engine oils are formulated utilizing the high performance 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 M40 Series oils have outstanding thermal and oxidation stability. They have excellent TBN retention and resistance to viscosity increases over long operating periods. They also promote a high level of engine cleanliness with protection against wear. Compared to other medium speed engine oils, they have excellent lube/fuel compatibility and separate easily from water.

When used as recommended, Mobilgard M40 Series oils provide 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 M40 Series oils can be used in most medium-speed trunk piston engine applications. They are 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 Series of oils is the result of an extensive research and development program, incorporating ExxonMobil's patented DAC (Detecting Asphaltene Contamination) Test.

Mobilgard M40 Series oils are designed to meet the needs of engines operating on heavy fuel. They are recommended for use in the latest model medium speed diesel engines and are especially beneficial in engines having low crankcase oil consumption or operating with low cylinder liner temperatures. Relatively high alkalinity reserves in these oils 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.

Typical Properties

	M340	M440
SAE Grade	30	40
Specific Gravity at 15°C	0.915	0.915
Flash Point, °C, ASTM D 92	240	242
Pour Point, °C, ASTM D 97	-6	-6
Viscosity, ASTM D 445		
cSt, at 100°C	12.0	14.0
TBN, mg KOH/g, ASTM D 2896	40	40
Sulphated Ash, wt%, ASTM D 874	5.0	5.0

Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application, following the recommendations provided in the Material Safety Data Sheet (MSDS). MSDSs are available upon request through your sales contract office, or via the Internet on <http://www.exxonmobil.com>. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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