

Mobilgard<sup>™</sup> 560 VS Exxonmobil Marine, United States

Diesel Engine Cylinder Oil

#### **Product Description**

Mobilgard<sup>™</sup> 560 VS by ExxonMobil is a high performance, marine diesel engine cylinder oil designed for use in crosshead engines running heavy fuel with sulfur levels from 0.5-4%. This new cylinder lubricant technology provides maximum protection from adhesive and corrosive wear at the higher operating temperatures and pressures found in today's modern crosshead engines. The outstanding performance of Mobilgard 560 VS has been demonstrated at the highest peak firing pressures and liner temperatures.

Mobilgard 560 VS employs additives with greater thermal stability and acid-corrosion protection. It has an optimum viscosity of 20 cSt @ 100°C and low volatility for optimal lubricant distribution and film retention. Through the use of patented technology, the oil's higher viscosity is attained without the use of thermally unstable, deposit-producing bright stock. Unique additive technology at the 60 TBN alkalinity level in Mobilgard 560 VS has demonstrated outstanding ring and liner protection and cleanliness under sustained operation with fuel sulphur levels below 1%.

#### Features and Benefits

Mobilgard 560 VS cylinder oil offers the following features and potential benefits:

Features	Advantages and Potential Benefits
Excellent thermal and oxidation stability	Helps reduce deposits and sludge formation Clean engines reduce the lay-up time required for overhauls
Exceptional antiwear properties	Reduced liner and ring wear helps promote extended periods between overhauls  Excellent anti-scuffing control
Outstanding detergency capability	Excellent engine cleanliness increases combustion efficiency Helps miminise deposit formation with use of low sulfur (<1%) fuels
High TBN level and retention	Effectively handles wide fuel sulfur range from 0.5-4.0% at 70 BN equivalent feed rates Helps to maximize protection against the corrosive effects of high sulphur fuels

#### **Applications**

Mobilgard 560 VS has been developed for marine crosshead engines designed for increased power and fuel efficiency. Mobilgard 560 VS has also demonstrated excellent performance in earlier engine designs and during slow speed steaming operation.

### Specifications and Approvals

Meets OEM requirements**	
MAN Diesel	X
Wartsila	X
Mitsubishi	X

<sup>\*\*</sup> Please refer to latest service bulletins from MAN Diesel & Turbo and Wartsila Switzerland for lubrication requirements. At the date of print these are MDT: SL2013-571 and Wartsila: RT-148, Issue 1, 2 July 2013

To ensure achieving the maximum equipment life possible as well as appropriate feedrates, particular attention should be paid to the manufacturer's special recommendations as published in the references as above or any other future manufacturer's instructions

## **Typical Properties**

SAE Grade	50
Specific Gravity at 15°C	0.922
Flash Point, °C, ASTM D 92	248
Pour Point, °C, ASTM D 97	-20
cSt, at 40°C	219
cSt, at 100°C	20
Viscosity Index, ASTM D 2270	105
TBN, mg KOH/g, ASTM D 2896	60

# 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

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