Mobil™

Performance by ExxonMobil

Mobil Vacuoline™ 500 Series

High-performance, heavy-duty circulating oils

Energy lives here™

Product features

Mobil Vacuoline™ 500 Series is a family of high-performance, heavy-duty circulating oils available in six viscosity grades. Mobil Vacuoline 500 Series circulating oils are an excellent choice for marine moderate-duty spur, bevel, helical and herringbone gear units, as well as circulating systems. They are designed to provide:

- **Water separation characteristics**
- **Excellent protection of critical bearings and gears**
- **Rust and corrosion protection**
- **Resistance to oxidation and thermal degradation**

Recommended for use with marine moderate-duty spur, bevel, helical and herringbone gear units.

Supports more efficient operation

The lubricants offer excellent separation characteristics, allowing water and other contaminants to separate easily from the oil in the system reservoir. This can lead to smoother and more efficient operation, reduced downtime and undiminished wear protection.

Potential benefits

Mobil Vacuoline 500 Series oils can offer:

1. Long oil life, minimising disposal costs
2. Potential for lower maintenance costs
3. Smooth and efficient operation
4. Reduced downtime

Protection against rust and corrosion

Formulated from high-quality base stocks and a proprietary additive system, these oils are designed to provide superior wettability, extra oil retention and thin film protection against rust and corrosion. Mobil Vacuoline 500 Series oils are particularly effective for marine hydraulic systems employing gear, vane, radial and axial piston pumps where high-viscosity, antiwear hydraulic fluids are required.

The oils are intended primarily for the lubrication of plain bearings, roller bearings, parallel shaft and bevel gearing. They are designed for use in applications using splash, bath and ring oil arrangements, and all other application methods involving pumps, valves and auxiliary equipment.

Exceptional protection

Mobil Vacuoline 500 Series oils' balanced formulation provides great protection against rust and corrosion. When added to their excellent resistance to oxidation and thermal degradation, this helps protect components against wear. This can result in a range of benefits, including fewer unscheduled stoppages and lower maintenance costs.

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Provides potential for multiple cost savings

Mobil Vacuoline™ 500 Series oils can help lower marine operators' costs in several ways. Corrosion and rust protection lowers maintenance costs, plus long oil life and the ability to use the lubricants across multiple applications keeps down inventory costs.

Typical properties*

Mobil Vacuoline 500 Series	525	528	533	537	546	548
ISO Viscosity Grade	-	150	220	320	460	680
Viscosity, ASTM D 445						
mm2/s @ 40°C	89	146	215	309	453	677
mm2/s @ 100°C	10.7	14.4	18.8	24.4	29.4	36.9
Viscosity Index, ASTM D 2270	99	96	96	96	95	89
Pour Point, °C, ASTM D 97	-24	-21	-15	-12	-12	-9
Flash Point, °C, ASTM D 92	264	272	284	288	286	286
Specific Gravity @15.6°C kg/l, ASTM D 1298	0.88	0.89	0.89	0.89	0.90	0.92
Demulsibility at 54°C, ASTM D 1401, Minutes to 37ml water	15	-	-	-	-	-
Demulsibility at 82°C, ASTM D1401 Minutes to 3ml	-	10	15	20	25	5
Demulsibility for non-EP oils, ASTM D2711, ml water	39	38	36	39	35	36
Rust Protection, ASTM D665						
Distilled Water	Pass	Pass	Pass	Pass	Pass	Pass
Sea Water	Pass	Pass	Pass	Pass	Pass	Pass
Foaming Characteristics, ASTM D 892Seq I, II, III; Tendency/ Stability, ml/ml						
Seq I	10/0	5/0	5/0	10/0	5/0	0/0
Seq II	0/0	0/0	0/0	0/0	0/0	0/0
Seq III	0/0	0/0	0/0	0/0	0/0	0/0
Copper Corrosion, ASTM D130 3 hours @ 100°C	1A	1A	1A	1A	1A	1A
FZG Gear Test, DIN 51354, Failure Stage	12	12	12	12	12	12

*Typical properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product performance are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All products may not be available locally. For more information, contact your local ExxonMobil contact or visit exxonmobil.com. ExxonMobil is comprised of numerous affiliates and subsidiaries, many with names that include Esso, Mobil, or ExxonMobil. Nothing in this document is intended to override or supersede the corporate separateness of local entities. Responsibility for local action and accountability remains with the local ExxonMobil-affiliate entities.