Mobilgear™ XMP Series

Mobil Industrial , Sweden

Extra High Performance Industrial Gear Oils

Product Description

Mobilgear™ XMP Series extra high performance industrial gear oils are designed to provide optimum equipment protection and oil life even under extreme conditions. Mobilgear XMP Series are based on high quality mineral base stocks and an advanced proprietary additive system designed to provide excellent protection against conventional wear modes such as scuffing but also provides a high level of resistance against micropitting fatigue. It also offers the potential for improved lubrication of gearbox rolling element bearings. Mobilgear XMP Series products offer outstanding rust and corrosion protection versus conventional gear oils, including seawater and acidic water protection. They show no tendency to plug fine filters even when wet and excellent compatibility with ferrous and non-ferrous metals even at elevated temperatures.

Mobilgear XMP lubricants are recommended for enclosed industrial gear drives including steel-on-steel spur, helical, and bevel gears. It is especially recommended for applications that may be subject to micropitting: especially heavily loaded gearboxes with surface-hardened tooth metallurgies. It may also be used in gear applications and where corrosion may be severe.

Because of their unique mix of properties, including resistance to micropitting wear, and their performance in tough applications, Mobilgear XMP Series products enjoy a growing reputation among customers and OEMs around the world.

Features and Benefits

The Mobilgear brand of lubricants are recognized and appreciated around the world for innovation and outstanding performance. A key factor in the development of Mobilgear XMP Series was the close contacts between our scientists and application specialists with key OEMs to ensure that our product offerings will provide exceptional performance with the rapidly evolving industrial gear designs and operation.

Our work with equipment builders has helped confirm the results from our own laboratory tests showing the exceptional performance of the Mobilgear XMP Series lubricants.

Not least among the benefits shown in work with OEMs is the ability to resist micropitting wear which can occur with some highly loaded, case-hardened gearing applications.

To address the issue of micropitting gear wear, our product formulation scientists designed a proprietary combination of additives which would resist traditional gear wear mechanisms as well as protecting against micropitting and providing other key performance features.

The Mobilgear XMP Series lubricants offer the following benefits:

Features	Advantages and Potential Benefits
Superb protection from micropitting fatigue wear as well as high resistance to traditional scuffing wear	Extended gear and bearing life in enclosed gear drives operating under extreme conditions of load, speed and temperature
	Reduced unexpected downtime and less maintenance - especially critical for difficult to access gearboxes.
Very good resistance to degradation at high temperatures	Extended oil life and drain intervals reduced oil consumption and manpower costs
Excellent resistance to rust and corrosion and very good demulsibility	Smooth, trouble-free operation at high temperatures or in water-contaminated applications
	Excellent compatibility with soft metals
No filter plugging, even in presence of water	Less filter changes and reduced maintenance costs

Applications

Mobilgear XMP Series extra high performance, industrial gear oils are designed to provide optimum equipment and oil life even under extreme conditions. They are especially formulated to resist micropitting of modern, case hardened gearing and applications where extended oil life is desired.

Typical applications include:

- Wind turbines
- Plastic extruder gearboxes
- Gearboxes found in the paper, steel, oil, textile, lumber and cement industries

Specifications and Approvals

This product has the following approvals:	MOBILGEAR XMP 150	MOBILGEAR XMP 220	MOBILGEAR XMP 320	MOBILGEAR XMP 460	MOBILGEAR XMP 680
HANSEN	X	X	X	X	
JAHNEL-KESTERMANN		X	X	X	
ZF TE-ML 04H	X				
ISO L-CKC (ISO 12925-1:1996)					X

This product meets or exceeds the requirements of:					
AGMA 9005-E02-EP		X	X	X	
ISO L-CKC (ISO 12925-1:1996)	X	X		X	
ISO L-CKD (ISO 12925-1:1996)			X		

Properties and Specifications

Property	MOBILGEAR XMP 150	MOBILGEAR XMP 220	MOBILGEAR XMP 320	MOBILGEAR XMP 460	MOBILGEAR XMP 680
Grade	ISO 150	ISO 220	ISO 320	ISO 460	ISO 680
Copper Strip Corrosion, 3 h, 100 C, Rating, ASTM D130	1B	1B	1B	1B	1B
Density @ 15.6 C, kg/l, ASTM D4052	0.896	0.900	0.903	0.909	0.917
Emulsion, Time to 40/37/3, 82 C, min, ASTM D1401	10	10	10	10	10
FZG Micropitting, Fail Stage, Rating, FVA 54		10+	10+	10+	10
FZG Micropitting, GFT-Class, Rating, FVA 54		High	High	High	High
FZG Scuffing, Fail Load Stage, A/16.6/90, ISO 14635-1(mod)	12	13+	14	14+	14+

Property	MOBILGEAR XMP 150	MOBILGEAR XMP 220	MOBILGEAR XMP 320	MOBILGEAR XMP 460	MOBILGEAR XMP 680
FZG Scuffing, Fail Load Stage, A/8.3/90, ISO 14635-1	12+	13+	14	14+	14+
Flash Point, Cleveland Open Cup, °C, ASTM D92	258	272	268	270	272
Foam, Sequence I, Stability, ml, ASTM D892	0	0	0	0	0
Foam, Sequence I, Tendency, ml, ASTM D892	0	0	0	0	0
Four-Ball Extreme Pressure Test, Load Wear Index, kgf, ASTM D2783	45	45	45	45	45
Four-Ball Extreme Pressure Test, Weld Load, kgf, ASTM D2783	250	250	250	250	250
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	14.6	18.8	24.1	30.6	36.9
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	150	220	320	460	680
Pour Point, °C, ASTM D97	-27	-24	-18	-12	-9
Rust Characteristics, Procedure B, ASTM D665	PASS	PASS	PASS	PASS	PASS
Viscosity Index, ASTM D2270	96	96	96	96	89

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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