

## **Magna XX Range**

Circulating oils

### **Description**

Castrol Magna™ XX are a series of premium quality circulating oils that represent a significant advancement in circulating oil technology. These oils are manufactured from the highest quality base oils and are formulated with an advanced technology anti-wear additive system designed to extend service life in a broad range of systems operating under high impact and high shock loading. Magna XX oils are designed to provide maximum rust and oxidation resistance while allowing the oil to rapidly separate from water, providing exceptional demulsibility characteristics.

### **Application**

Magna XX oils are engineered for use in MORGOIL™ back-up roll bearing systems such as those manufactured by Morgan Construction Company, Danieli, SMS Demag and others. These high quality oils meet or exceed the Morgoil Lubricant Specification Rev. 1.1 (27 Jan 2005), Morgoil 'Super-Demulsibility' Lubricant Specification Rev. 2.4, Danieli Standard 0.000.001 Rev. 14.

Magna XX oils are recommended for use in both ferrous and non-ferrous Morgoil back-up roll bearing systems. For optimum performance, appropriate viscosity oils should be selected according to the loading, speed and manufacturer recommendations. Magna XX can be applied via circulating as well as air/oil lubrication systems. Magna XX circulating oils are also suitable for use on other primary mill and mini-mill bearing application systems.

MORGOIL is a trademark of Morgan Construction Company.

### **Advantages**

- Advanced technology anti-wear additive package: Passes FZG stage 12+ and provides non-corrosive anti-wear protection in high impact and high shock load applications.
- Excellent demulsibility: Rapid water separation and hydrolytic stability means increased corrosion protection and reduced down time through prolonged lubricant life and increased equipment reliability.
- Superior thermal and oxidative stability: Provides reliable performance and extends oil life in severe applications.
- Minimal deposit formation: Cleaner system and reduced filter change frequency.
- Protection against rust and corrosion: Prevents corrosive activity on bearings and metal surfaces.
- Environmentally friendly: Does not contain zinc, phenol, or heavy metals.

## Typical Characteristics

Name	Method	Units	100	220	460
Density @ 15°C / 59°F	ISO 12185 / ASTM D4052	kg/m³	890	890	890
Kinematic Viscosity @ 40°C / 104°F	ISO 3104 / ASTM D445	mm²/s	97.3	222	474
Kinematic Viscosity @ 100°C / 212°F	ISO 3104 / ASTM D445	mm²/s	11.43	19.1	31.9
Viscosity Index	ISO 2909 / ASTM D2270	-	105	97	97
Flash Point - open cup method	ISO 2592 / ASTM D92	°C/°F	235/ 455	246/ 475	246/ 475
Pour Point	ISO 3016 / ASTM D97	°C/°F	-24/-11	-15/5	-9/16
Water Separation @ 82°C / 180°F (40/37/3)	ISO 6614 / ASTM D1401	min	10	15	20
Dynamic Demulsibility Endurance, Water in Oil	Morgan test	%	2.8	7.8	10
Dynamic Demulsibility Endurance, Oil in Water	Morgan test	%	Trace	Trace	Nil
Rust test - distilled water (24 hrs)	ISO 7120 / ASTM D665A	-	Pass	Pass	Pass
Rust test - synthetic seawater (24 hrs)	ISO 7120 / ASTM D665B	-	Pass	Pass	Pass
Copper corrosion (3 hrs@100°C/212°F)	ISO 2160 / ASTM D130	Rating	1a	1a	1a
Foam Sequence I - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0	0/0	0/0
Foam Sequence II - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0	0/0	0/0
Foam Sequence III - tendency / stability	ISO 6247 / ASTM D892	ml/ml	0/0	0/0	0/0
Four Ball Wear test - Wear Scar Diameter (40 kgf / 75°C / 1200 rpm / 1 hr)	ASTM D2266	mm	0.32	0.32	0.3
FZG Gear Scuffing test - A/8.3/90	ISO 14635-1	Failure Load Stage	12+	12+	12+
Oxidation Stability - Rotating Pressure Vessel test	ASTM D2272	min	1020	525	420

Subject to usual manufacturing tolerances.

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01 Apr 2014

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Technical Advice Line: 0800 10 40 60 / Customer Service: 0800 CASTROL (227 876)

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