LUBRICANTS

YOUR ADVANTAGE IN AN INDUSTRIAL WORLD

CIRCULATING OILS

Castrol
CASTROL OFFERS YOU A COMPREHENSIVE RANGE OF WORLD-CLASS CIRCULATING OILS AND PRODUCT SUPPORT SERVICES THAT MEET THE DEMANDING REQUIREMENTS OF THE METALS INDUSTRY.

Our circulating oils are designed specifically to satisfy the critical lubrication requirements of major rolling mill manufacturers such as Morgan Construction Company and Danieli. This includes applications such as:

- MORGOMIL™ Bearing Lubricant
- MORGOMIL Advanced Bearing Lubricant (super demulsibility)
- No-Twist™ Mill Lubricant
THE COMPLETE RANGE OF CIRCULATING OIL SOLUTIONS

Castrol Magna XX range

This range of circulating oils is manufactured from the highest quality base oils and is 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.

Castrol Magna XX oils are engineered for use in MORGOL back-up roll bearing systems such as those manufactured by Morgan Construction Company, Danieli, SMS Demag and others. These oils are recommended for use in both ferrous and non-ferrous MORGOL back-up roll bearing systems.

For optimum performance, appropriate viscosity oils should be selected according to the loading, speed and manufacturers recommendations.

Castrol Magna XX can be applied via circulating as well as air/oil lubrication systems.

Castrol Magna XX meets or exceeds:

- MORGOL Lubricant Specification Rev. 1.1 (27 Jan 2005)
- MORGOL Super-Demulsibility Lubricant Specification Rev. 2.4
- Danieli Standard 0.000.001 Rev. 14

Key Benefits

- Advanced technology anti-wear package – passes 12+ stages of FZG 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 downtime 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 responsible – does not contain zinc, phenol or heavy metals

Castrol Magna NTX

This premium quality heavy-duty circulating oil is manufactured from the highest quality base oils and is formulated with an advanced technology anti-wear additive system designed specifically to meet the critical lubrication requirements of Morgan Construction Company’s No-Twist Rod Mills as well as Danieli Rod Mills.

Castrol Magna NTX meets or exceeds:

- Morgan Construction Company’s No-Twist Mill Oil Quality Specification (Release 12/10/2002, Revision Delta B)
- Danieli Standard 0.000.001 Rev. 14

Key Benefits

- Advanced technology anti-wear package – passes 12+ stages of FZG 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 downtime through prolonged lubricant life and increased equipment reliability
- Excellent air separability – helps protect pumps, bearings and contact points from damage associated with foam and cavitations
- 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 responsible – does not contain zinc, phenol or heavy metals
PERFORMANCE COMPARISONS

Water Demulsibility

Shows the ability of oil and water to separate from each other at various temperatures after being rapidly mixed and allowed to separate for a specified time. The more total water the better the oil separates from the water. Result shown is for an ISO 100 grade.

Demulsibility is an oil’s ability to readily separate from water. Water can present itself in various ways; in solution, free or emulsified in oil. All three forms of water are undesirable and must be controlled. Water contamination can come from various sources including cooling water seepage and condensation of humid air in reservoirs. Good demulsibility is critical to an oil’s success.

Water is one of the most pervasive and damaging contaminants that threatens lubricating systems. It can cause changes with a fluid’s physical and chemical properties leading to corrosion of system components, premature bearing fatigue, and additive instability.

Castrol’s range of circulating oils are designed to rapidly separate from water therefore allowing water to be easily drained from the reservoir tank. This prevents water from being carried around the circulating system and causing rust and premature wear on steel components.

Oxidation Stability

Shows the ability of oil to resist oxidation at elevated temperatures.

Oxidation is the chemical breakdown of a lubricant caused by exposure to oxygen. Oxidation can be accelerated by high temperatures, water (moisture in air), catalysts such as metal (copper, etc.) and contaminants.

Good oxidation performance is important as it extends the oil service life and reduces sludge and varnish tendencies.

Castrol’s range of circulating oils are designed to resist oxidation therefore reducing maintenance and changeout frequency.

Wear

A higher 4-Ball Weld results implies higher load carrying capacity while a lower 4-Ball Wear result implies lower friction and reduced wear.

4-Ball Testing is a good measure of the existence and robustness of an oil’s additive chemistry. It is used to determine an oil’s ability to minimise friction and wear in case of metal-to-metal contact. Controlling friction and wear is important to extend equipment life, maintain tolerances, and reduce energy consumption.

*All tests were conducted May 2007

QUALITY AND RELIABILITY
FROM START TO FINISH

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