Mobil Rarus™ 800 Series

Mobil Industrial , United States

Air Compressor Lubricants

Product Description

The Mobil Rarus™ 800 Series is a line of supreme performance air compressor lubricants primarily intended for the lubrication of severe duty reciprocating air compressors but not recommended for air compressors used in breathing air applications. They are engineered to meet or exceed the stringent requirements of the major compressor manufacturers. They are formulated with design-specific synthetic base-oils and a high technology additive system that assures exceptional equipment protection and reliability for compressors operating under conditions where mineral-oil based products are not meeting expectations. Mobil Rarus 800 Series provides excellent wear protection and outstanding resistance to oxidation and thermal degradation, greatly superior to mineral oils. Their unique formulation provides the ability to help reduce maintenance costs through minimising equipment problems and downstream deposits and carryover.

Mobil Rarus 800 Series lubricants significantly reduce the potential for fires and explosions, compared to mineral oil-based products. They exhibit a virtual absence of deposit formation and higher autogenous ignition temperatures improving both performance and safety. Their exceptional water separating characteristics reduce problems with emulsion formation and carryover into downstream piping and equipment. They are recommended or approved by many of the leading compressor manufacturers.

Features and Benefits

The use of the Mobil Rarus 800 Series oils can result in cleaner compressors and lower deposits compared to conventional mineral oils, resulting in longer running periods between maintenance intervals. Their excellent oxidation and thermal stability safely allow extended life capability while controlling sludge and deposit formation. They possess outstanding anti-wear and corrosion protection, which enhances equipment life and performance.

Features	Advantages and Potential Benefits
High Performance Synthetic Base Stocks	Significant performance capabilities relative to mineral oils Improved safety
Low Ash and Carbon Formation	Improved valve performance Reduced deposits in discharge lines Reduced potential for fires and explosions in discharge systems Improved compressor performance
Outstanding Oxidation and Thermal Stability	Longer oil life Improved filter life Lower maintenance costs
High Load-carrying ability	Reduced wear of rings, cylinders, bearings and gears
Excellent Water Separability	Less carryover to downstream equipment Reduced sludge formation in crankcases and discharge lines Reduced blockage of coalescers Less potential for emulsion formation
Effective Rust and Corrosion Protection	Improved protection of valves and reduced wear of rings and cylinders

Applications

The Mobil Rarus 800 Series oils are recommended for single and multistage air compressors, but are not recommended for air compressors used in breathing air applications. They are particularly effective for continuous high temperature operation with discharge temperatures up to 200°C. They are suitable for reciprocating and rotary type machines with the lower viscosity grades mainly used in rotary compressors. Rarus 800 Series oils are recommended for units with a history of excess oil degradation, poor valve performance or deposit formation. They are compatible with all metals used in compressor construction and with mineral oil-based lubricants but admixture will detract from their performance capabilities. Mobil Rarus 800 Series oils are compatible with seals made from fluorinated hydrocarbon, silicone, fluorosilicone, polysulfide, Viton, Teflon, and high nitrile Buna N NBR (above 36% acrylonitrile) materials. Materials not recommended include low nitrile Bune N NBR (below 30% acrylonitrile), natural and butyl rubbers, Neoprene, polyacrylate, styrene/butadiene and chlorosulfonated polyethylene.

Oil resistant paints are not affected by Mobil Rarus 800 Series, but lacquer, varnish, pvc and acrylic paints are not recommended.

The following types of compressor applications have shown excellent performance with the Mobil Rarus 800 Series oils:

- All types of air compressors but specifically recommended for reciprocating air compressor
- Units operating under severe conditions
- Multistage units with a history of excessive oil degradation from mineral oil-based products
- They can be used for cylinder and crankcase lubrication
- Compressor systems with critical gears and bearings
- Compressors used in stationary and mobile applications

Properties and Specifications

Property	824	827	829
Grade	ISO 32	ISO 100	ISO 150
Copper Strip Corrosion, 3 h, 121 C, Rating, ASTM D130	1B	1B	1B
Flash Point, Cleveland Open Cup, °C, ASTM D92	244	270	270
Foam, Sequence I, Stability, ml, ASTM D892	0	0	0
Foam, Sequence I, Tendency, ml, ASTM D892	10	10	10
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	5.5	10.12	13.2
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	29.5	107.5	158
Pour Point, °C, ASTM D5950	-54	-36	-33
Rust Characteristics, Procedure A, ASTM D665	PASS	PASS	PASS
Total Acid Number, mgKOH/g, ASTM D974			0.14
Total Acid Number, mgKOH/g, ASTM D974(mod)	0.06	0.15	
Viscosity Index, ASTM D2270	127	66	70

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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