



# Mobil Cylinder Oils

## Gear and Cylinder Oils

### Product Description

Mobil Cylinder oils are extra high performance high viscosity oils designed for use in enclosed worm gears operating at moderate to high speeds and temperatures, and where heavy loads, slow speeds or high temperatures demand high viscosity oils. They are also intended for use in all steam engine applications. They are formulated from high quality base stocks that are resistant to oxidation and thermal degradation, and the build-up of harmful deposits caused by the high operating temperatures of steam cylinders. They protect against rust and corrosion and provide good film strength and excellent lubricity and they are resistant to water washout.

Mobil 600W Cylinder Oil, Mobil 600W Super Cylinder Oil and Mobil Extra Hecla Super Cylinder Oil are additized to enhance their frictional and load-carrying properties. All four members of the product family are widely used in worm gear applications, couplings and bearings, with viscosity grade depending on operating conditions. In steam applications Mobil 600W Super Cylinder Oil is recommended for saturated and superheated steam up to a temperature of 260°C. Mobil Extra Hecla Super Cylinder Oil and Mobil Extra Hecla Super Cylinder Oil Mineral may be used with superheated steam above 260°C. Mobil Extra Hecla Super Cylinder Oil Mineral has good demulsibility. Mobil Cylinder Oils can be applied both by drip feed cups and force feed mechanical lubricating devices.

Mobil Cylinder Oils are the benchmark mineral product for worm gear OEMs and users, and are still recognised as leading products for steam cylinder applications.

### Features and Benefits

The Mobil Cylinder Oil brand of lubricants represents the earliest lubricant product marketed by our Corporation's predecessor companies. 600W Cylinder Oil was produced by the Vacuum Oil Company in the second half of the 19th century and was a breakthrough product of its time. Continual upgrading and application of the latest base oil and additive technology has maintained this product series as a leader in its application areas. While steam cylinder applications are now less common, the reputation of Mobil Cylinder Oils in worm gear applications remains unmatched among mineral-based products. Mobil Cylinder Oils offer the following features and potential benefits:

Features	Advantages and Potential Benefits
Excellent film integrity at high temperatures	Excellent equipment protection at high temperatures occasioned by variable load conditions, avoiding unexpected downtime and equipment replacement
	Provision of good sealing film round rods and in glands in steam applications
Excellent resistance to deposit formation at high temperatures	Resistant to deposits on areas subject to high spot temperatures, maintaining cleaner systems, requiring less maintenance
Excellent anti-wear and low friction properties	Additized grades give reduced wear and high efficiency
Very good water separation in absence of additives	Non-additized grade gives ready separation from condensate
High quality and built in performance features	Results in fewer unplanned stoppages and reduced maintenance costs

### Applications

Mobil 600W Cylinder Oil is recommended for the following applications:

- The splash lubrication of enclosed worm gears operating at moderate to high speeds and temperatures. (Mobil 600 W Cylinder Oil)
- Steam cylinders, couplings, bearings, and break-in of compressor cylinders (Mobil 600 W Cylinder Oil)
- Mobil 600W Super Cylinder Oil and Mobil Extra Hecla Super Cylinder Oil are recommended for the above applications but under higher temperature and load conditions
- Mobil Extra Hecla Super Cylinder Mineral is recommended where ready separation from condensate is essential, for example, where exhaust steam is used for process work
- Mobil Extra Hecla Super Cylinder Mineral may also be used as a tempering oil for bath temperatures up to 290C

## Typical Properties

Mobil Cylinder Oils	Mobil 600 W Cylinder Oil	Mobil 600 W Super Cylinder Oil	Mobil Extra Hecla Super Cylinder Oil	Mobil Extra Hecla Super Cylinder Oil Mineral
ISO Viscosity Grade	--	460	680	1000
Viscosity, ASTM D 445				
cSt @ 40°C	375	460	680	1000
cSt @ 100°C	27.0	30.5	35.8	43.0
Viscosity Index, ASTM D 2270	95	95	85	80
Pour Point, °C, ASTM D 97	-9	-6	0	3
Flash Point, °C, ASTM D 92	282	282	282	288
Density, ASTM D4052 @15.6° C kg/l,	0.90	0.91	0.92	0.92
Copper Strip Corrosion, ASTM D 130,3 hrs @ 100° C	1B	1B	1B	1B

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

The Mobil logotype, the Pegasus design are trademarks of Exxon Mobil Corporation, or one of its subsidiaries.

Exxon Mobil Corporation  
3225 Gallows Road  
Fairfax, VA 22037

1-800-ASK MOBIL (275-6624)

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 [www.exxonmobil.com](http://www.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.

Copyright © 2001-2012 Exxon Mobil Corporation. All rights reserved..