



Mobil SHC™ Grease 460 WT

Mobil Grease , Canada

High Performance Synthetic Grease for Wind Turbines

Product Description

Mobil SHC™ Grease 460 WT is a superior performance lubricant especially suited to exceed the demanding requirements of wind turbine applications at extreme temperature. The unique features of synthetic base fluids are combined with those of a high quality lithium complex thickener. The wax-free nature of synthetic fluid and the low coefficient of friction provide excellent low temperature pumpability and very low starting and running torque. The lithium complex thickener contains excellent adhesion, structural stability and resistance to water. The grease has a high level of chemical stability and is formulated with special additive combinations to provide excellent protection against wear, rust and corrosion at high and low temperatures.

Mobil SHC Grease 460 WT is specially formulated to lubricate yaw, pitch and main bearings of wind turbines and has become the first fill product of choice for many turbine builders and component suppliers. The reputation is based on its exceptional quality and reliability and has proven outstanding performance in more than 100,000 wind turbines worldwide.

Features and Benefits

The Mobil SHC™ brand of oils and greases are recognized and appreciated around the world for their innovation and outstanding performance. A key factor in the development of ExxonMobil's products was the close contacts with key Original Equipment Manufacturers (OEMs) to ensure that our product offerings would provide exceptional performance in the continually evolving industrial equipment designs.

Our work with equipment builders has helped confirm the results from our own laboratory tests showing the exceptional performance of Mobil SHC Grease 460 WT. Compared to conventional greases the benefits of this synthetic grease include longer grease life, enhanced false brinelling protection and bearing life, wide temperature range of application, and the potential for improved mechanical efficiency.

To combat severe application conditions proprietary synthetic base oils have been chosen for Mobil SHC Grease 460 WT because of their outstanding thermal/oxidation resistance potential. A state-of-the-art lithium complex thickener technology and specific additives help to enhance the performance of Mobil SHC Grease 460 WT offering the following features and benefits:

| Features  | Advantages and Potential Benefits   |
|---|---|
| Outstanding high temperature and low temperature performance compared to conventional greases | Wide application temperature ranges, with excellent protection at high temperatures and low temperatures, easy start-up at low temperatures |
| Superb thermal stability and oxidation resistance compared to conventional greases            | Extended service life with longer intervals between relubrication and improved bearing life   |
| Excellent protection against wear, rust and corrosion   | Reduced downtime and maintenance costs  |
| Excellent pumpability   | Reliable lubrication of bearings using centralized grease systems or grease dispensers  |
| Outstanding structural stability in the presence of water                                     | Retains excellent grease performance in hostile aqueous environment   |
| Low traction coefficient  | Synthetic formulation delivers potential improved mechanical life and reduced energy consumption versus conventional greases                |

Applications

Mobil SHC Grease 460 WT is an NLGI 1.5 Grade extreme pressure grease with ISO VG 460 synthetic base fluid recommended for tough wind turbine applications. It provides outstanding bearing protection under heavy loads at low-to-moderate speeds and in applications where water resistance is a critical factor. Mobil SHC Grease 460 WT meets most specifications of wind turbine builder and component suppliers and has demonstrated outstanding performance in applications such as lubrication of yaw, pitch and main bearings either manually greased or using centralized grease systems or grease dispensers. The recommended operating temperature range is -40°C to 150°C.

Specifications and Approvals

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| This product meets or exceeds the requirements of: |
| DIN 51825:2004-06 - KP HC 1-2 N -30                |

Properties and Specifications

| Property  |                 |
|---|-----------------|
| Grade   | NLGI 1.5        |
| Thickener Type  | Lithium Complex |
| Base Oil Viscosity of Greases @ 40 C, mm2/s, AMS 1697       | 460             |
| Corrosion, Bearing, Rating, ASTM D1743                      | PASS            |
| Dropping Point, °C, ASTM D2265                              | 255             |
| Four-Ball Extreme Pressure Test, Weld Load, kgf, ASTM D2596 | 250             |
| Penetration, 60X, 0.1 mm, ASTM D217                         | 305             |
| SKF Emcor Rust Test, Distilled Water, ASTM D6138            | 0,0             |
| Timken, Minimum OK Load, lb, ASTM D2509                     | 55              |
| Water Washout, Loss @ 79 C, wt%, ASTM D1264                 | 10              |
| Color, Visual   | Red             |

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.as>

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Typical Properties are typical of those obtained with normal production tolerance and do not constitute a specification. Variations that do not affect product perfor are to be expected during normal manufacture and at different blending locations. The information contained herein is subject to change without notice. All produc not be available locally. For more information, contact your local ExxonMobil contact or visit [www.exxonmobil.com](http://www.exxonmobil.com)

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