



Mobil SHC™ Grease 460 WT

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 extremes of 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 fluids and the low coefficient of traction provide excellent low temperature pumpability and very low starting and running torque. The lithium complex thickener contributes 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 wind turbine builders and component suppliers. The reputation is based on its exceptional quality and reliability and has proven outstanding performance in more than 10,000 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/oxidative 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 torque, 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 costs 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 manual greased or using centralized grease systems or grease dispensers. The recommended operating temperature range is -30° C to 150°C.

Specifications and Approvals

Mobil SHC Grease 460 WT meets or exceeds the requirements of:

DIN 51825: (2004-06)	KPHC1-2N-30
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Typical Properties

	Mobil SHC Grease 460 WT
NLGI Grade	1.5
Thickener Type	Lithium Complex
Colour, Visual	Red
Penetration, Worked, 25°C, ASTM D 217	305
Dropping Point, °C, ASTM D 2265	255
Viscosity of Oil, ASTM D 445 cSt @ 40°C	460
Timken OK Load, ASTM D 2509, lb.	55
4-Ball Weld, ASTM D 2596, Load, Kg	250
Water Washout, ASTM D 1264, Loss at 79°C. % wt	10
Rust Protection, ASTM D 6138, Distilled Water	0,0
Corrosion Protection, ASTM D 1743, Rating	Pass

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 contact 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.

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Exxon Mobil Corporation
22777 Springwoods Village Parkway
Spring TX 77389

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

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