

Mobil SHC™ Grease 461 WT & Mobil SHC™ Grease 681 WT

Next generation wind turbine greases, for excellence even in extremes



Key benefits



Excellent wear protection under fretting corrosion conditions helps reduce maintenance and unplanned equipment shutdowns



Superior performance in low temperatures



Longer grease intervals and improved bearing life compared to Mobil SHC Grease 460 WT

Extreme protection in extreme weather conditions

Specially selected performance additives help deliver excellent protection against wear, rust and corrosion in extreme conditions.

- Arctic to desert temperatures: $\leq -50\text{ }^{\circ}\text{C}$ to $55\text{ }^{\circ}\text{C}$
- Arctic to mountains: extreme ice and fluctuating winds
- Offshore: Saltwater ingress and contamination
- Desert: Sand intrusion and resulting abrasion

Designed specifically for wind turbines

For all year-round operation even in harsh winter conditions, these two greases ensure reliable bearing protection that helps deliver sustained productivity.

The greases have been specifically designed to protect the components that need them most, namely the main bearing, pitch bearing and yaw bearing.

Discover Mobil SHC Grease 461 WT and Mobil SHC Grease 681 WT, the next generation of wind turbine greases from ExxonMobil.

These two new products, designed specifically for the extreme conditions of wind turbine operations, offer a very low starting and running torque, excellent low temperature pumpability properties and enhanced wear protection.

Compared to Mobil SHC Grease 460 WT, Mobil SHC Grease 461 WT and Mobil SHC Grease 681 WT are engineered to push performance even further, in the many ways that really matter to operators.

- Easier start-up at low temperatures
- Low temperature characteristics with improved flow, reduced distribution pressures and reduced bearing torque
- Optimum oil separation for improved performance in centralised lubrication systems
- Improved water wash resistance
- Enhanced mechanical stability
- Longer term rust and corrosion protection
- Added protection against False Brinelling
- For Mobil SHC Grease 681 WT, improved oil film thickness

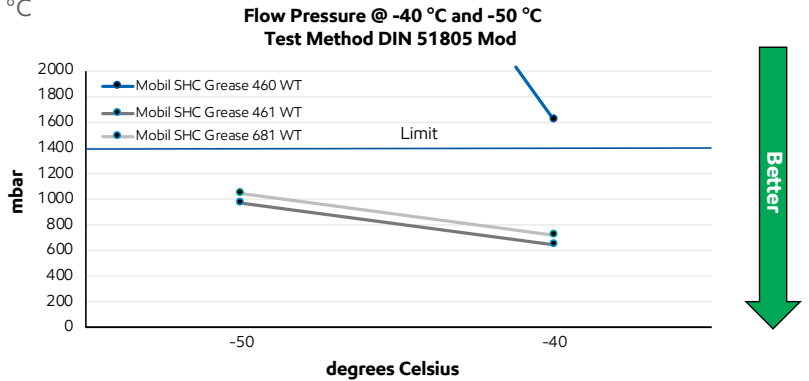
Proven Performance

In comparative tests against Mobil SHC Grease 460 WT, Mobil SHC Grease 461 WT and Mobil SHC Grease 681 WT demonstrate excellent grease flow rates at low temperatures.

- Flow rate for Mobil SHC Grease 461 WT is around four times better than Mobil SHC Grease 460 WT at -18 °C
- Mobil SHC Grease 681 WT is around three times better at -18 °C, with a significantly higher viscosity than Mobil SHC Grease 460 WT
- Only half the pressure needed to pump the grease at -40 °C

Flow Pressure

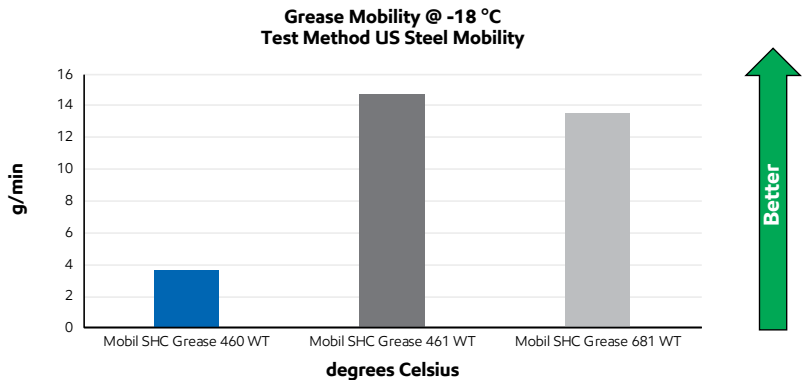
- Improved performance in centralised grease systems
- Reduced pressure needed to pump at low temperature



Customer Benefit: Increase wind turbine reliability even in extreme temperatures down to -50 °C. Only half the pressure needed to pump the grease @ -40 °C (DIN 51805)

Low Temperature Mobility

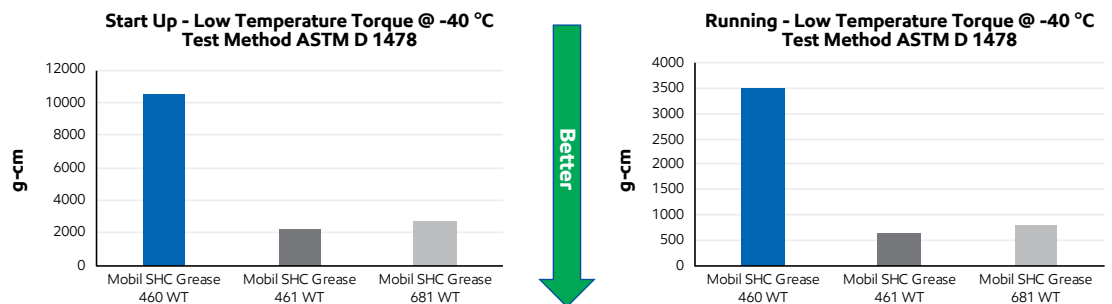
- Improved distribution in centralised grease systems



For the all-important ability to start easily at low temperatures, tests showed almost 4 times reduction in torque at -40 °C.

Bearing Torque

- Designed to reduce resistance to equipment with start up at low temperatures
- Reduced running torque at low temperatures (-40 °C)



Advancing Productivity™

Safety

Excellent wear protection can help reduce maintenance and the risks associated with employee-equipment interaction

Environmental Care*

Extended grease intervals help decrease grease consumption, waste grease generation and maintenance-related waste

Productivity

Improved equipment reliability and reduced unplanned equipment shutdowns can help improve wind turbine productivity

*Visit global.mobil.com to learn how certain Mobil-branded lubricants may provide benefits to help reduce environmental impact. Actual benefits will depend upon product selected, operating conditions and applications.