

# Mobil SHC™ Gear 320 WT

Fully synthetic gear oil for wind turbines



Energy lives here™

With turbines located in more remote areas and operating in extreme conditions, handling higher loads in increasingly compact gearboxes, Mobil SHC™ 320 WT oil helps deliver many benefits including:

- Outstanding protection in a wide range of temperatures and operating conditions, both onshore or offshore
- Excellent foam control, even after filtration
- Excellent resistance to oil degradation at high temperatures to ensure long, trouble free life

## Key benefits



Long drain intervals can help generate more electricity at lower cost



Exceptional protection, even in extreme conditions, helps limit maintenance



Resistance to micropitting and scuffing helps enhance equipment life

## Mobil SHC Gear 320 WT does not contribute to WEC

Around 60% of the wind turbine high speed bearing failures are reported to be caused by White Etching Cracking (WEC), a subsurface fatigue damage (cracks) that can occur without warning. This can result in premature bearing failure and can even require gearbox replacement, causing unscheduled downtime.

Following a study to evaluate the impact of different lubricant technologies, DNV-GL - the world leading certification body - concluded that Mobil SHC Gear 320 WT, as the first wind turbine gear oil that obtained their certification, does not contribute to the oil related effects of WEC.

## Wide range of equipment builder approvals<sup>(1)</sup>

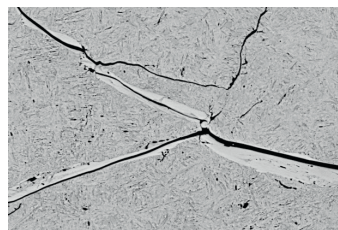
Mobil SHC Gear 320 WT has a wide range of Equipment Builder approvals which helps mixed fleet owners to rationalise on lubricants.

### Wind Turbines

Envision  
GE Renewable Energy  
Goldwind  
Hitachi  
MHI  
Nordex  
SE Wind  
Siemens  
Senvion  
Suzlon  
TYHI  
and others<sup>(1)</sup>

### Gearbox

CN GPower  
Delijia  
Eickhoff  
Ishibashi  
Mitsui  
Moventas  
Wikov  
Winergy  
TYHI  
ZF Wind Power



## Cleanliness

Mobil SHC Gear 320 WT meets or exceeds all lube oil requirements of IEC 61400-4 and in particular the cleanliness requirements of -/14/11 max. which helps reduce wear damage from hard particles and can help reduce the need for filtration on initial filling.

Helps you generate  
**MORE ELECTRICITY at LOWER COSTS**

<sup>(1)</sup>For current approvals, please refer to the product data sheet on mobil.com/industrial.

# Mobil SHC™ Gear 320 WT

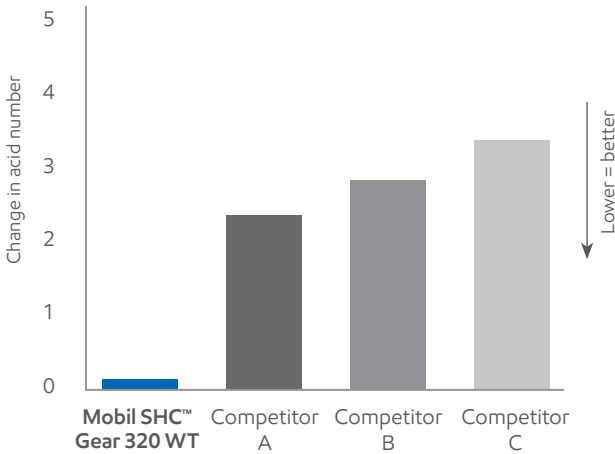
## Long drain interval - 10-years warranty

Long drain intervals can help lower maintenance costs and downtime while enhancing turbine availability and production. We're so confident in the long-lasting durability of Mobil SHC™ Gear 320 WT turbine gear oil that we offer a warranty<sup>(2)</sup> for ten years.

**The US Steel Oxidation Test** (ASTM D2893<sup>(3)</sup>) evaluates oxidative stability — a key factor in determining lubricant durability. In this test, oil is heated to 150°C and air is bubbled through it. The chart shows that Mobil SHC Gear 320 WT gear oil achieves best-in-class performance compared with three competitive oils.

### The US Steel Oxidation Test

(ASTM D2893)



## The right choice for offshore wind applications

According to the GESAMP hazard evaluation procedure, Mobil SHC Gear 320 WT is non-toxic to aquatic organisms.

In addition, the product is not classified as an environmental hazard under GHS and European Union CLP regulations and has a Wassergefährdungsklasse of WGK-1.

## Reduced unit shutdown and spills thanks to outstanding foam protection

Excessive foam can impact on the reliable production of power by shutting down units due to high oil level alerts or overflows.

Mobil SHC Gear 320 WT, as shown in flender foam tests, has outstanding low foam performance which helps reduce oil consumption and maintenance costs through extended oil life and drain intervals. Even when heavily filtered, Mobil SHC Gear 320 WT remains well within the fresh oil specifications.



Before test



After test

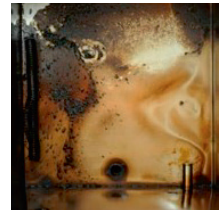
## Step-out technology ensures maximal productivity

Mobil SHC Gear 320 WT contains novel, step-out, proprietary additive technology designed to offer new standards of resistance against micropitting fatigue and outstanding rust and corrosion protection.

Fortified with new, low sulphur, extreme pressure technology Mobil SHC Gear 320 WT shows a very low tendency for sludge and deposit formation, helping reduce maintenance and allowing you to generate more electricity at lower costs.



Mobil SHC Gear 320 WT



High Performance Synthetic WT gear oil competitor

### Industrial Lubricants



### Advancing Productivity™

### Safety

Long oil and equipment life as well as optimum wear protection can help reduce maintenance and the risks associated with employee–equipment interaction.

### Environmental Care<sup>(4)</sup>

Long drain intervals help control the risk of spills. Long oil life can help reduce the need for product and packaging disposal.

### Productivity

World-class lubricant performance can help enhance wind turbine production by reducing unscheduled downtime to improve turbine availability.

<sup>(2)</sup>Subject to the terms and conditions of the warranty, the company will bear any costs required and adequate to repair and/or replace any equipment damaged as a result of a lubricant defect or malfunction.

<sup>(3)</sup>ASTM D2893 Modified in accordance with ISO 12925-1:1996 CKT specification.

<sup>(4)</sup>Visit [mobil.com/industrial](http://mobil.com/industrial) 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.

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