# Mobil

## Mobil™ Flush 320

Mobil Industrial , Bulgaria

# Wind Turbine Gear Flushing Oil

### Product Description

Mobil Flush 320 is a low-cost wind turbine gear flushing oil specifically designed for flushing / removing contaminants and ensuring long term performance of Mobil SHC Gear 320 WT during the oil change process - no matter the incumbent wind turbine gear oil in use.

### Features and Benefits

- Low-cost solution for flushing compared to a sacrificial Mobil SHC Gear 320 WT flushing charge
- Removes residual oil and contaminants from wind turbine gearbox systems to ensures optimum "new oil" performance of Mobil SHC Gear 320 WT
- Optimized ISO 320 viscosity to avoid compromising viscosity of final charge and ensure adequate wear protection
- No foaming and filter blocking to ensure trouble free operations
- Comes with low Sulphur formulation to avoid potential risk of "Sulphur syndrome"
- No impact to oxidation resistance on the incoming oil charge even with higher than expected flush oil carry over

#### Applications

Mobil Flush 320 can be used as a flushing oil for wind turbine gearbox systems when the intention is to change any incumbent wind turbine gear oil to Mobil SHC<sup>™</sup> Gear 320 WT.

Mobil Flush 320 can be used as a flushing oil for wind turbine gearbox systems to remove contaminants from an in-service gearbox or as a flushing oil during the installation or repair of a wind turbine gearbox.

Mobil Flush 320 is not designed to be a long-term gear oil replacement. It is meant to be used only as a flushing gear oil.

Even if compatibility between the incumbent oil and Mobil SHC<sup>™</sup> Gear 320 WT has been deemed acceptable, it is highly recommended to flush the wind turbine gear oil system to ensure optimum performance. In case of incompatibility, flushing is mandatory.

In order to ensure Mobil SHC<sup>™</sup> Gear 320 WT performance is optimized and its 10-year warranty is not impaired, a thorough changeover procedure should be followed. Essential steps are as follows:

- Drain the incumbent oil
- Clean the inside oil system including filter housing and oil cooler
- Change out filters, fill with Mobil Flush 320 up to 60% of the oil system capacity
- Run the wind turbine unloaded at high speed for 1-2 hours while oil temperature is ~60°C. Filter plugging must be closely monitored.
- Drain the Mobil Flush 320 charge as thoroughly as possible and repeat previous 2 steps if deposits or contaminants are still visible.
- Fill with the final Mobil SHC  $^{\rm TM}$  Gear 320 WT charge

For the detailed conversion protocol: visit Tech Topic "Wind Turbine Gear Oil Conversion Protocol".

The used Mobil Flush 320 charge may be reused for another wind turbine gearbox if cleanliness level is acceptable.

ExxonMobil has an extensive database of compatibility studies with competitive products, change out protocols, and other resources in order to support

our customers with oil change outs.

#### Properties and Specifications

Property	
Grade	ISO 320
Kinematic Viscosity @ 100 C, mm2/s, ASTM D445	29.6
Pour Point, °C, ASTM D5950	-30
Flash Point, Cleveland Open Cup, °C, ASTM D92	272
Density @ 15.6 C, g/ml, ASTM D4052	0.873
Phosphorus, mass%, ASTM D4951	390
Kinematic Viscosity @ 40 C, mm2/s, ASTM D445	335
Viscosity Index, ASTM D2270	121

#### 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.aspx

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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 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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