

# Mobil SHC Gear Series meets new GE OHV motorized wheel gearbox oil spec

## Opportunity for initial fill and service fill business in surface mines

### What is the new GE specification?

- GE D50E35 replaces GE D50E27 effective January 1, 2016
- The spec applies to motorized drives on large, off-highway mining and quarrying haul trucks, primarily Komatsu equipment
- GE recommends that new and existing motorized wheel gearboxes use oils meeting the new spec, and it is a requirement for equipment under warranty
- D50E35 builds on the prior specification with:
  - Enhanced wear requirements, primarily micro-pitting resistance
  - Higher VI requirement
  - Lower TAN limits
  - Improved shear and water stability



### What is the status of Mobil products?

- Mobil SHC Gear Series is believed to be the first oil commercially approved to GE D50E35
- Mobil SHC Gear 150 - 680 viscosity grades are approved to GE D50E35 A-E categories
- Mobil SHC Gear 680 OH, used in many GE motorized gear drives since 2011, meets the prior spec and meets the new GE D50E35 spec
- Customers can choose to continue using Mobil SHC Gear 680 OH, Mobil SHC Gear 680, or a different Mobil SHC Gear Series vis grade as required.

### Equipment owners may need to change their GE motorized drives to an approved gear oil

14 gear oils were approved to the old spec but as of YE15, only 2 gear oils and 1 additive package were known to comply with the new spec

### How many GE motorized gear drives are produced, what is their lube capacity and how are they filled?

- GE motorized gear drives are typically shipped dry from GE and installed onto haul trucks during field assembly.
- The drives, 2 per truck, require 15-20 gallons each
- They are typically filled on-site with an approved gear oil provided by the customer owner, truck OEM or GE
- GE is estimated to produce up to 6,000 drives a year, requiring 200k gallons of initial fill gear oil.
- Service fill demand for the global fleet is estimated to be over 1M gallons per year.

# FAQs: New GE off-highway motorized wheel gearbox oil specification

## Mobil SHC Gear 680 and Mobil SHC 680 OH are both approved - but how are they different?

- Mobil SHC Gear 680 OH is formulated to provide excellent EP and anti-wear performance to protect off highway vehicles operating under heavy loads.
- Mobil SHC Gear Series oils are formulated to offer comparable EP and anti-wear performance with additional protection against micro-pitting induced wear.
- Both oils offer high viscosity indices for protection in very hot or cold conditions, and low traction properties for good energy efficiency, plus excellent corrosion resistance, water handling and filterability.



## If customers change oils will their Mobil Serv<sup>SM</sup> Lubricant Analysis result look different?

- We formulate EP gear oils differently to meet lubricant performance targets.
- If customers switch from Mobil SHC Gear 680 OH to Mobil SHC Gear 680 they can expect to see a higher phosphorous concentration and a lower sulfur concentration.

## Are Mobil SHC Gear 680 and Mobil SHC Gear 680 OH compatible?

- Yes, fully compatible with a simple drain and refill service.