

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 ServSM 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.