



Duolec® Vari-Purpose Gear Lubricant (1605)

Lafarge N.A. Cement Plant – Calera, Ala.

Gearbox

- Reduced operating temperatures
- Eliminated foaming

Customer Profile

Lafarge North America is the world's leader in building materials with top rankings in cement, aggregates, concrete and gypsum. The plant and limestone quarry has been in operation for more than 50 years.

Application

Lafarge has a SEW-Eurodrive model K167AD8 helical right angle gearbox, driven by a 200 hp electric motor. It is a separator gearbox that sits on top of the raw mill and is exposed to the elements. It can be very dusty, wet, cold, hot and has medium to heavy vibration when operating. This mill runs at least 6 days a week, 50 weeks per year.

Challenge

While using a competitor's synthetic hydrocarbon gear oil, they were experiencing high operating temperatures, 180°F to 205°F (82°C to 96°C), depending on the ambient temperature and load. They were also having problems with foaming and some seal leakage.

LE Solution

The local LE lubrication consultant recommended 1605 Duolec® Vari-Purpose Gear Lubricant (1605), which is a high-performance gear oil acceptable for use in any industrial gear or bearing application that requires a high thermal stability, extreme pressure lubricant. Duolec 1605 is fortified with a shear stable tackifier to provide adhesion to metal during use.

Results

The gearbox was partially drained of the synthetic product, filled with Duolec 1605 and run for one month.



Then they fully drained it and installed a Des-Case Hydroguard disposable breather, and refilled with Duolec 1605. After running production for two weeks, they observed temperatures of 169°F to 178°F (76°C to 81°C) with no foaming.



Derek McIntyre, maintenance inspector, stated, "I am pleased and a bit surprised to see such a temperature drop."

Other Products Used

Pyroshield® XHvy Open Gear Lubricant (9011) is used on the kiln girth/pinion gear.

Thank you to Derek McIntyre, maintenance inspector, Matt Padgett, methods engineer, and to the local LE lubrication consultant, for providing the information used in this report.



Derek McIntyre

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