

Challenge

Background

- The Thompson hoist for the underground man-lift at a copper mine operates up to 110°C (230°F), rotating slowly at 2 m/sec. It is lubricated with a Lithium Complex EP #2 grease every 2 weeks.
- Both inboard and outboard roller bearing life were unsatisfactory.
- Due to heat and wet conditions, failure of the bearings resulted due to carbonized grease, shear thinning (liquefying), and severe corrosion.



Thompson hoist for the man-lift is a safety component. Reliability is CRITICAL.

Solution

Product

- Chesterton 615 High-Temperature Grease (HTG) #2 offers excellent water wash-out resistance, thermal stability and oxidation resistance.
- Further, the Chesterton 615 HTG #2 passivates the bearing and eliminates corrosion.
- Chesterton 615 HTG #2 did not carbonize and retained its tackiness even under extreme conditions.



Previous grease did not prevent corrosion in wet conditions (red-brown rusty grease).

Results

- After 1 year, the inspected bearing was rust free and operated flawlessly – providing critical reliability for this safety component.
- Customer was able to reduce the grease re-application from 24 times per year to 3 times per year – resulting in 8 times less grease and labor required.
- In grease costs alone, the savings for this shaft hoist was \$3,500.

\$=USD



Chesterton 615 HTG #2 protects the bearings from load, heat, and water. Assures reliability.