



Customer : Manufacturer of mining equipment
Product group : Dynamic sealing elements
Market : Primary Industry (Mining)
Application : Metal face seals

ERIKS DETERMINES CAUSE OF SEALS FAILURE AND ENGINEERS SUSTAINABLE CUSTOM SEALS

Hydraulic seals and kits for mining trucks



CHALLENGE

In the mining industry, success is measured by the ton. One of the largest manufacturers of mining equipment in the world offers the most comprehensive line of AC drive mining trucks in the industry. Reliable operation of these drive systems is critical, so improvement of performance and MTBO (mean time between overhauls) will have significant impact on production costs and total mine productivity. The metal face seals used in the AC drive systems have demonstrated issues with premature wear, so extending the life of these seals was of high priority.

SOLUTION

ERIKS was approached by this manufacturer based on ERIKS' reputation in the market for providing advanced technical services to help determine the cause of the seals failure. Their team of engineers partnered with the ERIKS Technology Centre team, who generated a full failure analysis on the seal using ERIKS' in-house testing facilities.

The ERIKS team determined that the premature failure of this critical component was caused by a combination of the specialized lubrication used and excessive heat that was generated during the operation of the AC drive systems. Taking all these factors into consideration, ERIKS' engineers not only recommended a new material, but went the extra step of working with ERIKS' Pioneer Weston division to produce these large diameter seals (over 4 feet). Few manufacturers have the capability of producing a metal face seal of this size.

OTHER BENEFITS

- Sustainability

FURTHER COMMENTS

The customer was thrilled with the expertise and forward thinking of ERIKS. They were further impressed that ERIKS didn't just stop at identifying the problem, but also presented them with a cost effective solution as well.