Timken Brings Superior Strength to Mining Operations in Honduras

Minerales de Occidente, a gold mine operations company in Honduras and a subsidiary of Aura Minerals, was ready to give up on one of its biggest machines. The mobile crusher shut down for about 90 minutes every 20 days because of bearing failure in the conveyor system. This maintenance problem delayed processing raw material from the mine.

The mine's bearing supplier and Timken competitors were stymied. The heavy loads and contamination proved too much for the flange block housings. The housings were rated to last 5,000 hours, but typically failed before operating even 500 hours.

Mine leaders thought their only answer was to invest in a new crusher that wouldn't require so much maintenance. Then their bearing distributor, Central de Mangueras S.A., brought in the Timken senior sales representative for Central America, who offered another option.

"The problem bearing was a ball housed unit, and I knew Timken could provide a better alternative from our portfolio of spherical roller bearing solid-block housed units," said the Timken sales representative. "Our units are made of solid steel and rugged enough to meet the harsh conditions of a mobile crusher."

The Timken team shipped a standard or stock flange block bearing to the mine for testing, but the housing was too large. So, Timken application engineering quickly responded with a new, customized flange block designed to fit the crusher. A few tweaks later, Minerales de Occidente installed a replacement bearing that excelled at managing the tough mining environment.

CUSTOMER

Minerales de Occidente

MARKET

Mining

PRODUCT

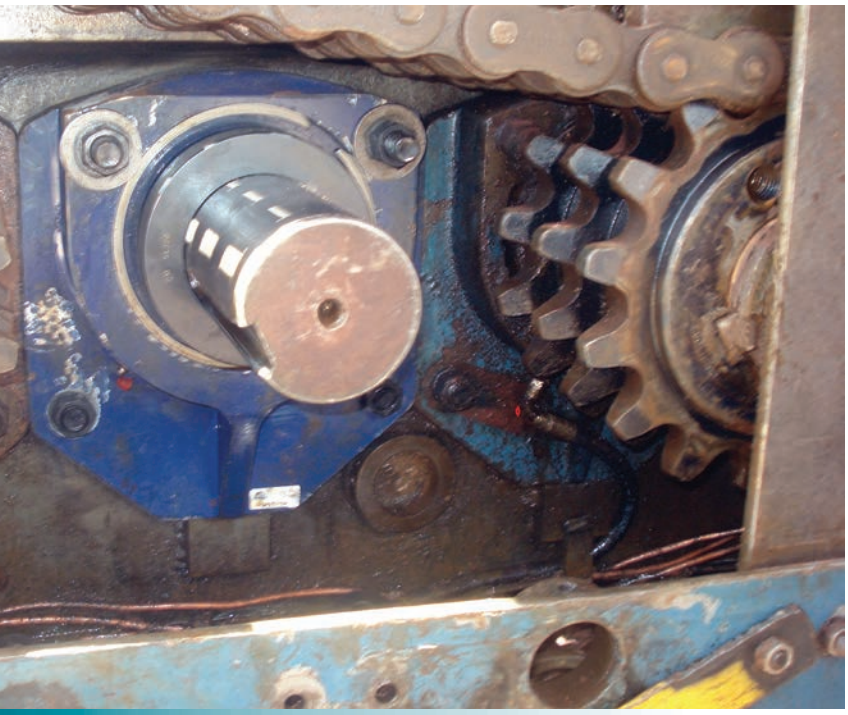
Spherical Roller Bearing
Solid-Block Housed Units

THE TIMKEN ADVANTAGE

The Timken solution provided enhanced performance for the gold mine saving $580,000 in maintenance and bearing replacement costs through:

- "Drop in" units that fit the conveyor's existing design envelope;
- Sealing options that keep debris out for longer bearing life than the competitor's housed units;
- Unique design that handles shaft misalignment up to 1.5 degrees without a reduction in bearing or seal life expectancy; and
- A full line that includes precision-made shaft locking styles to accommodate application demands.

The custom solution delivered improved uptime and lower maintenance costs for the mine.



Still operating seven months later, the Timken flange block continues to work like new. The triple-lip seal keeps contaminants out and is proving to be superior to the competing bearing. The unit handles more than two times the weight of the old bearing, with an expected design life of 100,000 hours.

After replacing the one unit, the mine added Timken flanged units to a reinstalled conveyor that had been disabled due to ongoing maintenance issues. The mine again avoided needlessly purchasing costly new equipment.

Using Timken housed units has paid off for Minerales de Occidente. The company avoided the cost of a major investment and $580,000 a year in maintenance and bearing replacement costs.

Currently, the mine is testing Timken bearings and housings in other applications and preparing to switch to more Timken products.

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