

TIMKEN GETS TOUGH ON CEMENT BUCKET ELEVATORS

CHALLENGE ▼

Bucket elevators, a vital part of the production process in cement plants, carry heavy loads under arduous conditions. One customer experienced challenges in replacing components that keep these heavy-duty workhorses running.

In its operations, buckets attached by two chains carry crushed limestone 40 yards to the top of a pre-heater tower, with the shaft itself supporting up to 16 tons of weight. When the drive-side head pulley bearing failed, it would take three working days to remove and replace it, since it was trapped between the bucket elevator drive pulley and the gearbox/motor assembly. The maintenance costs: Three days of lost production time and the expense of renting a 35-ton crane.

TIMKEN SOLUTION ▼

Enter Timken split cylindrical roller bearings and seals. The housed unit's angular split eliminated the need to remove the drive, the shaft is simply supported by a jack while the split housed unit is mounted around the shaft – adding tremendous value by eliminating the need for a crane hire and the time usually spent moving equipment to change out a standard roller bearing. The customer also was pleased with the quick response and service of Timken service engineers, as well as the fact that Timken had the required bearing in stock.

RESULTS THAT MATTER ▼

Benefits of the Timken split cylindrical roller bearing housed unit for cement bucket included:

- No need to remove motor and gearbox
- Time saved and easy mounting
- Crane hire not required (saving 3 days of renting)
- Thanks to the angular split housed unit, the drive remains in place. Once the shaft is supported with a jack, the split housed unit is simply installed around the shaft
- Significant reduction of production downtime: as little as 1 shift compared to 3 days
- Customer satisfaction with speed of response and service
- Customer confidence in interchangeability between Timken and competitor bearings.

The bearing is still operating successfully. The customer's on-site engineers are now more confident in the interchangeability between Timken split cylindrical roller bearings and those of competitors housed units.

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets high-performance mechanical components, including bearings, belts, brakes, clutches, chain, couplings, gears and related mechanical power transmission products and services.



10-17 Order No. 11038 | Timken® is a registered trademark of The Timken Company. | © 2017 The Timken Company