



Timken mounted split cylindrical roller bearings save cost and reduce downtime for cement bucket elevators

Challenge

Bucket elevators, a vital part of the production process in cement plants, operate under severe conditions, including heavy contamination and loads. 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. It cost the customer three days of lost production time plus the expense of renting a 35-ton crane.

Timken Solution

Our team recommended Timken® mounted split cylindrical roller bearings and seals. These split-mounted bearings are essential in applications with limited access and are highly cost effective by reducing downtime and production losses during changeouts. Their angular split eliminated the need to remove the drive. The shaft is simply supported by a jack while the bearing is mounted around the shaft – adding tremendous value by eliminating the need for a crane rental 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 our service engineers, as well as the fact that we had the required bearing in stock.



Results That Matter

Our mounted split cylindrical roller bearing solution resulted in reduced downtime, easier installation and lower costs – with a total savings adding up to \$340,000.

- Eliminated the need to dismount the motor and gearbox – and to lift the shaft.
- Helped save time with easy mounting
- Did away with the three-day crane rental.
- Reduced production downtime.
- 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 mounted split cylindrical roller bearings and those of competitors mounted bearings.