TIMKEN



Timken® Fafnir® mounted ball bearings reduce peanut harvester downtime

CHALLENGE

The mounted bearings used in combine harvesters face a number of challenging conditions – including heavy loads moving at high speeds and contamination from dust and debris. With limited windows for crop harvesting, equipment downtime can have an immediate impact on a farmer's bottom line.

For one Timken customer, these challenges led to bearing failures in multiple positions on its peanut harvester. When harvesting in high-moisture conditions, uneven loading resulted in vibration and shaft creep for mounted ball bearings used on the feeder shaft. The equipment also experienced mounted ball bearing failures in the rubber belt conveyor, caused by contamination from dust and debris.

TIMKEN SOLUTION

To improve bearing performance in this harvester application, our engineering team recommended Timken® Fafnir® mounted ball bearings, which are engineered to maximize performance in dusty harvesting environments. In both positions, these bearings utilized our three-piece, fiber-embedded R-seals, featuring outboard and inboard caps to provide longer sealing integrity than average.



RESULTS THAT MATTER

After installing the Timken Fafnir mounted ball bearings, the customer experienced a dramatic improvement in bearing reliability. The new feeder shaft bearings have operated for two seasons without issue. Additionally, the customer conducted its own aggressive dust box testing to compare Timken's sealing solution against a competitor bearing. While the competitor product failed after 24 hours, our Timken Fafnir mounted ball bearings did not show any degradation for 72 hours – three times as long as the competition. As a result, the customer has selected Timken bearings for most of its applications requiring mounted ball bearings.

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