

K i n g s b u r y Q u a l i t y

Spring Plate Bearing Retrofit Project

Technicians from Kingsbury's Repair & Service Division were consulted by a utility company in the southern United States regarding the feasibility of revamping seven 56-inch (1.42 m) spring plate bearings that had been in service for more than 70 years.

During the evaluation, Kingsbury technicians discovered that one bearing had seized and broken the anti-rotation mechanism.

The cooling coil was also destroyed in the process. This failure contaminated the oil supply shared with other machinery on the same lubrication system, causing additional problems throughout the plant.

Fortunately for the utility company, Kingsbury's decades of experience rehabilitating machinery equipped with spring plate bearings enabled our technicians to take on the project with confidence.

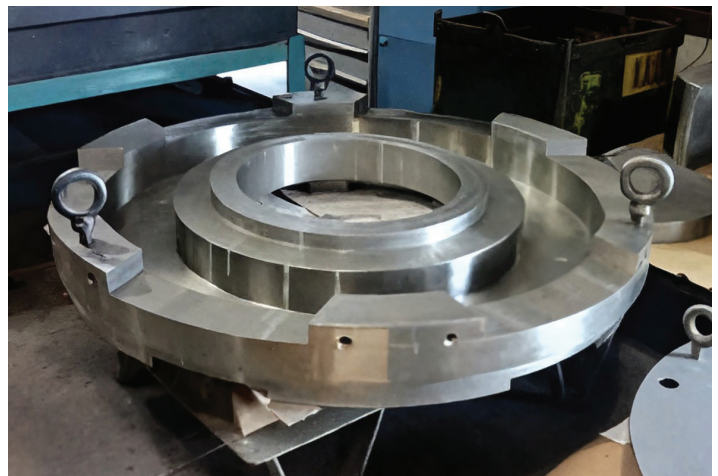
Over time, the springs used in these applications lose elasticity, which limits their ability to form the pressurized oil film essential to proper bearing operation. To address this common issue, Kingsbury engineers designed a retrofit KBV-style bearing that fit within the existing envelope while providing significant performance improvements. The new design features individual tilting pads supported by a series of leveling plates, allowing for misalignment capability and compensation for minor shaft wobble.

Following the successful installation of the first bearing in 2006, the utility issued an order for the remaining six sets in 2011. We have since received the used parts from the third set and have scheduled the remaining sets to be retrofitted at intervals of six to nine months.

For each set, the customer sends Kingsbury the existing housing, cooling bundle, spring plate bearing, and thrust runner. Kingsbury evaluates and repairs the thrust blocks and runners, cleans and paints the housings, and repairs or replaces the cooling bundles as required. New 56-inch KBV-style thrust bearings are manufactured to replace the original bearings, complete with high-pressure lifts.

The fully refurbished assemblies are shipped back to the site, and when required, Kingsbury field service technicians are available to supervise installation.

For more information on how Kingsbury can service and improve your existing bearing application, please contact our Repair & Service sales engineers at +1-215-956-0565 or email repair@kingsbury.com.



New Base Ring for LG&E project