High-Temp Bearing Replacement

Certified Bearing Specialist (CBS) Examines Radiating Temperature Issue

Richard (RJ) Seguin, CBS and technical sales representative at AMI Bearings, explains how his bearing expertise tripled the life of a customer's bearings.

"As a bearing and power transmission component salesperson, I am often called upon to help resolve issues that take away from efficient "uptime" with my customer base. Having done this type of work for over 30 years, I have a relatively firm grip of the concepts involved in keeping things running in an effective way. This, coupled with my refusal to ever compromise my personal integrity, have helped me gain the trust of my customers.

During a routine end-user call, to a wallboard manufacturing facility, I asked the board line maintenance manager the age old, but still pertinent question… "What is your worst (bearing) maintenance headache? As a Certified Bearing Specialist, I may be able to help alleviate the problem."

Just two days ago, they had to stop production, right in the midst of a very busy cycle, due to bearing failures on the kiln that cures the still-wet wallboard. They were down for two hours, and it cost them dearly.

While asking about the specifics of the application, I learned they were using standard 1 7/16" pillow blocks… nothing special at all. I was also told that they did change-outs of all the pillow blocks on the kiln, every three months, yet still had occasional failures. We learned that the OEM had used bearings that were fine for the ambient temperatures around the kiln, but they neglected to factor in the temperature as radiating through the shaft. There was also considerable moisture in the air, as the kiln forced the water out of the "raw" wallboard.

We measured the shaft temperature to be about 325°F, which was causing the grease from the standard 1 7/16" bearing to liquefy and leak out. There was also evidence of this all over the floor around the kiln. There was also rust that had formed on the visible surfaces of the bearing races. The rust stains on the machine frame suggested that all the bearings were suffering from similar inadequacies, although to a lesser degree at the dry end of the kiln.

I suggested they should go with a high temperature bearing, made of heat stabilized steel, with special high-temp seals and lubricant, to replace the standard bearings. The synthetic grease would easily stand up to the radiant heat, and silicone seals also would hold up, keeping the grease in the bearings, and the water out of them

They changed over a few bearings during the first scheduled three-month change cycle. With time, the customer realized at least a full year's performance, before even considering the need to replace the bearings, although, due to their nervousness, continued to change out the bearings, through the first year, a few at a time. They eventually left all the bearings in place and only replaced them during their annual shutdown. Even after the full year, the bearings turned freely, and displayed no signs of adverse running conditions. They will get adventurous and keep leaving a few bearings in place to see how long they actually last. Stay tuned…" **PTE**

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Certified Bearing Specialist

BSA's Certified Bearing Specialist (CBS) program is the only bearing industry-specific program that identifies and quantifies the specific skill sets to certify an industry professional as a bearing specialist. The CBS program is all about developing the expertise to help customers and end users make the best bearing decisions. Take advantage of this complimentary access to a Certified Bearing Specialist. Please email your question to *info@bsahome.org*. An expert CBS will respond to your inquiry and it may appear in this article.

Richard Seguin has worked in the PT Industry for the past 30 years. The first 24 working for an industrial distributor and the past six years as a manufacturer's sales representative selling AMI product in Canada. His many years of experience coupled with his CBS certification forms a solid combination for success.