

Global Bearing Sources for the Power Transmission Industry

THE QUESTION

What is the general consensus on the current quality and viability of global bearing sources for the power transmission industry?

EXPERT RESPONSE PROVIDED BY CHRIS NAPOLEON.

There is no broad brush answer to this question. The power transmission industry can utilize the global supply chain successfully. The global supply chain can successfully support the application demands of the power transmission industry. These are factual statements; however, they unequivocally must be followed up by the statement that a very thorough technical analysis of the supplier one intends on using is required to ensure success. There are literally thousands of bearing manufacturers in the world—all wanting your business and all claiming they can meet both commercial requirements of price and lead time and technical needs of the application. The commercial needs are fairly easy to evaluate. The technical aspects of overall bearing quality are far more difficult to identify and evaluate by an OEM design engineer. This is because their area of expertise is typically not in bearing design and even less in understanding and establishing bearing manufacturing control limits that construct the basis of bearing quality. Indeed, most critical bearing characteristics are not under the direct control of any national or international standard.

So, if a power transmission OEM intends on utilizing the global bearing supply chain—which is almost a necessity, since even the most notable bearing manufacturers are global in their production—one needs to have, develop or partner with someone who understands bearing qualification practices. When this is executed properly, certain global bearing suppliers can viably provide acceptable quality for the power transmission industry. I've traveled and inspected bearing product from around the world and have seen the best and worst that's out there, and year after year I see OEMs successfully sourcing bearings to meet extremely demanding applications in all industrial applications. Every successful outcome started with the development and execution of a specific technical bearing analysis process. One other important point is that those that are successful fully understand that there is a cost associated with the process necessary to gain sufficient knowledge to ensure one's

success. There is no golden egg. Success in the utilization of the global bearing market requires time and money, and must be part of the equation. Additionally, the road to success might include initial failure of a supplier and the need to make changes and re-inspect and test to meet the necessary requirements. This is common and, although painful, it pales in comparison to the time, cost and pain associated with catastrophic field failure prior to the expiration of the warranty period.

In conclusion, all industries, including power transmission, can look to the global bearing supply chain for solutions. There are plenty of world class suppliers out there; you simply need to develop a plan consistent with the risk associated with the application and plan accordingly with time and both financial and technical resources. (*Chris Napoleon is president/chief engineer of Napoleon Engineering Services, www.nesbearings.com; cnapoleon@nesbearings.com.*) **PTE**

