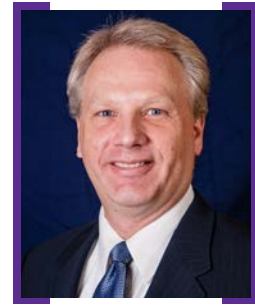


Applications Abound



In a recent reader survey, you told us you wanted to see more specific examples of mechanical power transmission products and how they're designed, upgraded, maintained and used in a wide variety of industries. In the business, we call that type of article an "application story," and in this issue we've answered the call with several application stories that show how smart choices are being made about motion components in a wide variety of industries.

In "Mining for Solutions," (page 28) Chris Medinger of Leeson Electric explores the roles electric motors play in the overall success of a mining operation, especially considering the importance of energy efficiency and predictable maintenance. In this issue's *BSA Field Notes* column (page 32), Ernest Head of Motion Canada tackles some problematic bearings in a lumber mill. And Bruce Stephan's article (page 34) explains how the right pump technology—coupled with sophisticated software—helped solve a leak problem in adhesive dispensing application.

This issue also focuses on bearings, with a number of important features and technical articles. "Proper Handling of Bearings" (page 30) is this issue's *BSA Bearing Brief*. It includes important handling and lubrication tips for maintenance professionals. Chris Hansford's article, "Opening the Envelope on Bearing Vibration," (page 26) describes how advanced analysis techniques, along with the proper sensors, can be used to cut through the noise to determine problems in bearings, gearboxes and more. Will Cannon of Baldor Electric describes the lubrication theory and critical design parameters for applications that use hydrodynamic bearings and operate at slow speeds in "Minimum Design Considerations for Sleeve Bearings for Industrial Fan Applications" (page 36).

Our centerpiece technical article this issue deals with a topic that's important both for system designers and those responsible for maintenance: bearing life. In "A Model for Rolling Bearing Life with Surface and Subsurface Survival—Tribological Effects," (page 44) the authors explore models that separate the risk of subsurface fatigue from the other factors that contribute to bearing life estimation, giving designers and manufacturers one more tool toward understanding which bearings are the right choice for their applications.

Finally, I'd like to call your attention to Senior Editor Jack McGuinn's article on Ethernet fieldbus technology and the various protocols that are enabling faster, better communication at the device level, using standardized, easily implemented technology. Read "The Brave New World of Industrial Automation," beginning on page 20, to learn how EtherCat and other protocols are helping to make better, smarter machines in a wide variety of industries.

Thank you to those of you who participated in our reader survey. We appreciate the feedback, and we promise we'll continue to deliver more of what you ask for. If you didn't get a chance to participate in the survey, but you'd still like to make suggestions or comments, my inbox is always open at wrs@powertransmission.com.

As always, thanks for reading.

Randy Stott

