Proactive Condition Monitoring of Low-Speed Machines

Zhaklina Stamboliska, Eugeniusz Rusiński and Przemyslaw Moczko
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Some books are more difficult to review than others and this reviewer has just found a new standard in *Proactive Condition Monitoring of Low-Speed Machines* by Zhaklina Stamboliska, Eugeniusz Rusiński and Przemyslaw Moczko. My primary issue was with the evident lack of editing, which translated into a somewhat strange structure (an abstract and keywords are provided for each chapter) and many grammatical and stylistic mistakes. In this context it was not an easy book to read.

The allocation of the chapters is straightforward. A short introduction is followed by a general review of the concepts associated with various approaches to maintenance. Then comes a chapter that introduces the specific issues associated with low-speed machines, i.e. machines having operational speeds of less than 600 RPM. The authors then go on to synthesize some of the previous material to focus on the notion of "proactive condition monitoring of low-speed machines", i.e. the title of the book.

The next chapter deals with "Condition Monitoring Techniques for Low-Speed Machines" and with some tables and flow-charts it is quite complete. Many direct and indirect condition monitoring (CM) techniques are presented and the authors provide scenarios that could be used to implement a "proactive approach" to CM; however, the details are sparse. The next chapter is a survey of how the finite-element method (FEM) can be applied in the context of proactive CM and it will be of interest to those who are not familiar with FEM techniques as the explanations are clear and the figures are useful.

The last chapter is called "Case Studies of Proactive Condition Monitoring Applications" but it a misnomer. As it deals with the only example of low-speed machine presented so far (a cement rotary kiln), a better title would have been "A Case Study of Proactive CM: Monitoring a Cement Rotary Kiln." This being said, this is by far the most interesting chapter in the book as it follows a step-by-step process that draws upon materials presented earlier. Furthermore all figures, photographs, graphs and tables are excellent and logically laid-out.

Many stray typos and grammatical mistakes (and sometimes nonsensical sentences) detract from what seems to be a complete and focused treatment of a narrow topic by people who understand it extremely well. I am sure that maintenance engineers dealing with low-speed machines will find useful information in this book but I hope that the authors will have their work edited prior to the publication of a future edition.

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