## Journal of ASTM International Selected Technical Papers



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# Bearing Steel Technologies

Developments on Rolling Bearing Steels and Testing 8<sup>th</sup> Volume

JAI Guest Editor

John M. Beswick

## Journal of ASTM International Selected Technical Papers STP1524 Bearing Steel Technology: Developments in Rolling Bearing Steels and Testing—8th Volume

JAI Guest Editor: John M. Beswick



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## **Foreword**

THIS COMPILATION OF THE JOURNAL OF ASTM INTERNATIONAL (JAI), STP1524, on Bearing Steel Technologies, 8th Volume: Developments on Rolling Bearing Steels and Testing, contains only the papers published in JAI that were presented at a symposium in Vancouver, BC, Canada on May 21–22, 2009 and sponsored by ASTM Committee A01 on Steel, Stainless Steel, and Related Alloys.

The JAI Guest Editor is John Beswick, SKF Business and Technology, Nieuwegein, The Netherlands.

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### **Overview**

Bearing steel technology is a seemingly all-encompassing term to describe the metallurgical know-how on steels and processes for the production and usage of rolling bearing steels. In the pursuit of efficiency, the rolling bearing industry has standardized the steels and testing methods and reduced the costs of the metallurgical processes. As time elapses, the knowledge of why and how the standards were prepared fades into the past, i.e. it is forgotten. Much has been published in the open literature on the subject for specialists (fellow steel technologists) and the first ASTM International Symposium on Bearing Steel, sponsored by ASTM Committee A01 and its Subcommittee A01.28, was held in Boston in 1974. Since then, bearing steel symposia have been held at regular intervals and the program for the ASTM Eighth International Symposium on Bearing Steel, in Vancouver on May 21-22, 2009, contained papers on the subject of bearing steel technologies. In particular, the subject of micro cleanliness assessment methods in bearing steels was revisited 35 years after the 1974 Boston symposium on the subject.

Knowledge of what is important in bearing steel steelmaking and processing is of utmost relevance to efficient steel and component sourcing and steel usage in rolling bearing components. Representatives from many of the top bearing steel steelmakers, rolling bearing producers, and research and development institutes presented papers. The presenters originated from: eight countries, seven bearing steelmakers, six rolling bearing producers, and seven research and development institutes.

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