The book was found

Engineering Tribology (Tribology Series)

TRIBOLOGY SERIES, 24

ENGINEERING TRIBOLOGY

G.W. STACHOWIAK
A.W. BATCHELOR

ELSEVIER
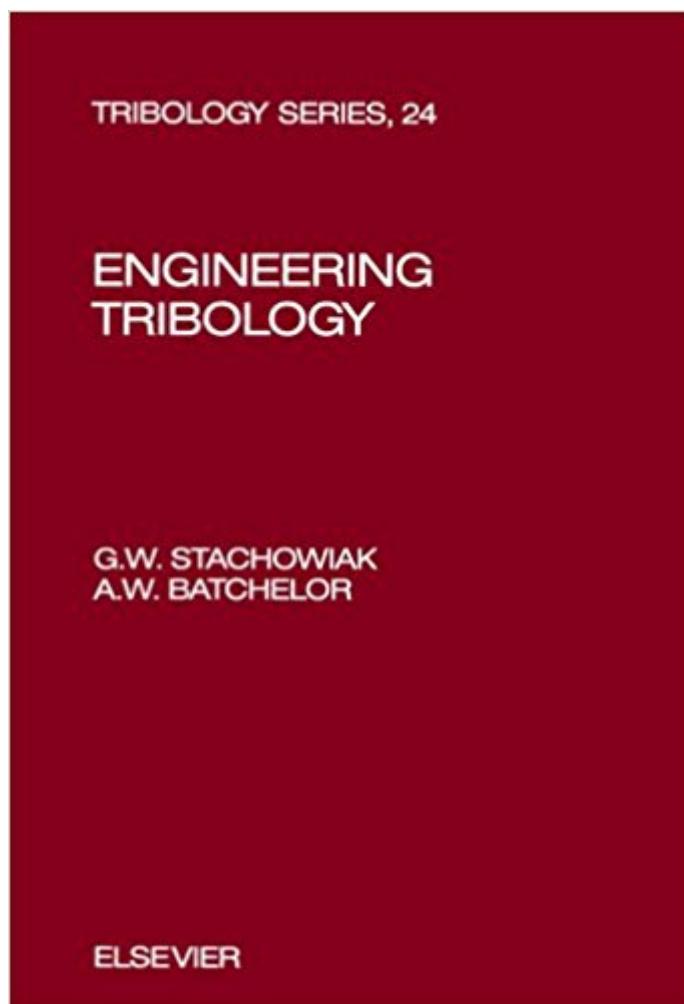
Synopsis

The interdisciplinary nature of tribology encompasses knowledge drawn from disciplines such as mechanical engineering, materials science, chemistry and physics. The interaction between these different fields of knowledge to achieve the final result, the control of friction and wear, is reviewed in this volume. This interdisciplinary approach has proven to be a very successful way of analysing friction and wear problems. In many cases tribology is viewed as an inaccessible subject which does not produce useful answers. In this volume the authors redress this problem by providing a comprehensive treatment of the subject. A basic feature of the book is the emphasis on describing various concepts in an accessible manner for the benefit of non-specialists. This principle is applied from the beginning of the book, where the reader is introduced to the fundamental concept of tribology. This concept is then often used to show how the various topics in tribology are interrelated to form one coherent subject. A direct graphical illustration of the mechanisms controlling tribological phenomena is presented. Carefully prepared diagrams allow rapid appreciation of the basic ideas and facts in tribology. The numerical analysis of hydrodynamic lubrication is supported by a number of computer programs which are included in the book. The control of wear is given extensive treatment with a thorough discussion of lubricant additives, solid lubricants and surface coatings. The effectiveness of coatings in suppressing specific forms of wear is analyzed together with the methods of coatings deposition. The book contains 474 figures and 44 tables. More than 1000 references are provided to give the reader access to more specialized information if required. The volume is intended to provide graduates in engineering or materials science with an understanding of the fundamental concepts of friction, wear and lubrication.

Book Information

File Size: 30110 KB

Print Length: 960 pages

Publisher: Butterworth-Heinemann (June 30, 1993)

Publication Date: June 30, 1993

Sold by:Ã Â Digital Services LLC

Language: English

ASIN: B00DUX081U

Text-to-Speech: Enabled

X-Ray: Not Enabled

Word Wise: Not Enabled

Lending: Not Enabled

Enhanced Typesetting: Not Enabled

Customer Reviews

If you are interested in the technical side of lubrication, this is a really great engineering book for the mechanical engineer. Well written and contains easy to follow theoretical models. Great for both teaching and research. Best general text on lubrication theory, covering many of the technical areas of bearing wear and fatigue.

The book is easy to read and understand. I use it very frequently and it is important to my work

Tribology is an extremely complex field that encompasses a vast variety of scientific disciplines and includes the work of such scientists as Newton and Raleigh. Stachowiak and Batchelor have produced a technical guide suitable for students, professional engineers and experts alike. It is a complete reference for tribology encompassing such diverse material as lubrication methods (Boundary, EHL etc), design and condition monitoring.The authors have a knack for presenting otherwise inaccessible material in a manner which is easy to digest. Material, sourced and adapted from an extraordinary array of reference sources, is combined with innovative diagrams that complement the text rendering explanations of exceptionally high clarity.Programs, based on the theory presented, are included at the rear of the book presenting the practicing engineer with invaluable tools for the design of tribological devices.

Download to continue reading...

Coatings Tribology, Volume 56, Second Edition: Properties, Mechanisms, Techniques and Applications in Surface Engineering (Tribology and Interface Engineering) Engineering Tribology (Tribology Series) Tribology of Polymeric Nanocomposites, Volume 55, Second Edition: Friction and Wear of Bulk Materials and Coatings (Tribology and Interface Engineering) Tribology of Elastomers, Volume 47 (Tribology and Interface Engineering) Tribology in Electrical Environments, Volume 49 (Tribology and Interface Engineering) Tribology of Plastic Materials: Their Characteristics and

Applications to Sliding Components (Tribology Series) Introduction to Coastal Engineering and Management (Advanced Series on Ocean Engineering) (Advanced Series on Ocean Engineering (Paperback)) G.Dieter's Li.Schmidt's Engineering 4th (Fourth) edition(Engineering Design (Engineering Series) [Hardcover])(2008) Biomedical Engineering Principles Of The Bionic Man (Series on Bioengineering & Biomedical Engineering) (Bioengineering & Biomedical Engineering (Paperback)) Engineering Tribology, Fourth Edition Tribology, Second Edition: Friction and Wear of Engineering Materials Tribology: Friction and Wear of Engineering Materials Engineering Tribology, Third Edition ENGINEERING TRIBOLOGY Fundamentals of Engineering Tribology with Applications Industrial Tribology: Tribosystems, Friction, Wear and Surface Engineering, Lubrication Tribology and Dynamics of Engine and Powertrain: Fundamentals, Applications and Future Trends (Woodhead Publishing in Mechanical Engineering) Tribology in Engineering Hydrodynamic Lubrication, Volume 33: Bearings and Thrust Bearings (Tribology and Interface Engineering) Gravity Sanitary Sewer Design and Construction (ASCE Manuals and Reports on Engineering Practice No. 60) (Asce Manuals and Reports on Engineering ... Manual and Reports on Engineering Practice)