1. Record Nr. UNINA9910806922603321

Autore	Stachowiak G. W (Gwidon W.)
Titolo	Engineering tribology / / Gwidon W. Stachowiak, Department of Mechanical Engineering, Curtin University, Perth, Australia, Andrew W. Batchelor, Saudi Aramco, Dhahran, Saudi Arabia
Pubbl/distr/stampa	Oxford : , : Butterworth-Heinemann, , [2014] ©2014
ISBN	0-12-810031-1 0-12-397776-2
Edizione	[Fourth edition.]
Descrizione fisica	1 online resource (xxix, 852 pages) : illustrations
Collana	Gale eBooks
Disciplina	621.8/9
Soggetti	Tribology
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Half Title; Title Page; Copyright; Dedication; Contents; Preface; Acknowledgements; 1.Introduction; 2.Physical Properties of Lubricants; 3.Lubricants and Their Composition; 4.Hydrodynamic Lubrication; 5. Computational Hydrodynamics; 6.Hydrostatic Lubrication; 7. Elastohydrodynamic Lubrication; 8.Boundary and Extreme Pressure Lubrication; 9.Solid lubrication and Surface Treatments; 10. Fundamentals of Contact Between Solids; 11.Abrasive, Erosive and Cavitation Wear; 12.Adhesion and Adhesive Wear; 13.Corrosive and Oxidative Wear; 14.Fatigue Wear; 15.Fretting and Minor Wear Mechanisms 16.Wear of Non-Metallic Materials17.Future Directions in Tribology; Appendix; Index
Sommario/riassunto	Engineering Tribology, 4th Edition is an established introductory reference focusing on the key concepts and engineering implications of tribology. Taking an interdisciplinary view, the book brings together the relevant knowledge from different fields needed to achieve effective analysis and control of friction and wear. Updated to cover recent advances in tribology, this new edition includes new sections on ionic and mesogenic lubricants, surface texturing, and multiscale characterization of 3D surfaces and coatings. Current trends in nanotribology are discussed, such as those relat