

1. Record Nr.	UNINA9910966076803321
Titolo	Handbook of hydraulic fluid technology / / edited by, George E. Totten, Victor J. De Negri
Pubbl/distr/stampa	Boca Raton, FL, : CRC Press, c2012
ISBN	9781040195963 1040195962 9780429092848 0429092849 9781420085273 1420085271
Edizione	[2nd ed.]
Descrizione fisica	1 online resource (963 p.)
Classificazione	TEC009070
Altri autori (Persone)	NegriVictor J. de TottenGeorge E
Disciplina	621.2/0424
Soggetti	Fluid power technology Hydraulic fluids
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	Front Cover; Contents; Preface to the Second Edition; Preface to the First Edition; Editors; Contributors; Chapter 1 - Fundamentals of Hydraulic Systems and Components; Chapter 2 - Seals and Seal Compatibility; Chapter 3 - Physical Properties and Their Determination; Chapter 4 - Fluid Viscosity and Viscosity Classification; Chapter 5 - Control and Management of Particle Contamination in Hydraulic Fluids; Chapter 6 - Lubrication Fundamentals; Chapter 7 - Hydraulic Fluid and System Standards; Chapter 8 - Biodegradable Hydraulic Fluids Chapter 9 - Fire-Resistance Testing Procedures and Standards of Hydraulic FluidsChapter 11 - Noise and Vibration of Fluid Power Systems; Chapter 12 - Failure Analysis; Chapter 13 - Petroleum Oil Hydraulic Fluids; Chapter 14 - Emulsions; Chapter 16 - Water Hydraulics; Chapter 17 - Polyol Ester Fluids; Chapter 18 - Biobased and Biodegradable Hydraulic Oils; Chapter 19 - Phosphate Ester Hydraulic Fluids; Chapter 20 - Polyalphaolefins and Other Synthetic Hydrocarbon Fluids; Chapter 21 - Food-Grade Hydraulic Fluids; Back Cover

Preface One of the most frustrating practices of my career has been the search for information on hydraulic fluids, which includes information on fluid chemistry; physical properties; maintenance practices; and fluid, system, and component design. Although some information on petroleum oil hydraulic fluids can be found, there is much less information on fire-resistant, biodegradable, and other types of fluids. Unfortunately, with few exceptions, fluid coverage in hydraulic texts is typically limited to a single-chapter overview intended to cover all fluids. Therefore, it is often necessary to perform a literature search or a time-consuming manual search of my files. Some time ago it occurred to me that others must be encountering the same problem. There seemed to be a vital need for an extensive reference text on hydraulic fluids that would provide information in sufficient depth and breadth to be of use to the fluid formulator, hydraulic system designer, plant maintenance engineer, and others who serve the industry. Currently, there are no books dedicated to hydraulic fluid chemistry. Most hydraulic fluid treatment is found in handbooks, which primarily focus on hydraulic system hardware, installation, and troubleshooting. Most of these books fit into one of two categories. One type of book deals with hydraulic equipment, with a single, simplified overview chapter covering all hydraulic fluids but with a focus on petroleum-derived fluids. The second type of book provides fluid coverage with minimal, if any, discussion of engineering properties of importance in a hydraulic system. The purpose of the Handbook of Hydraulic Fluid Technology is to provide a comprehensive and rigorous overview of hydraulic fluid technology--
