



Lubrication Fundamentals, Third Edition, Revised and Expanded

By Don M. Pirro, Martin Webster, Ekkehard Daschner

Download now

Read Online 

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner

Careful selection of the right lubricant(s) is required to keep a machine running smoothly. **Lubrication Fundamentals, Third Edition, Revised and Expanded** describes the need and design for the many specialized oils and greases used to lubricate machine elements and builds on the tribology and lubrication basics discussed in previous editions.

Utilizing knowledge from leading experts in the field, the third edition covers new lubrication requirements, crude oil composition and selection, base stock manufacture, lubricant formulation and evaluation, machinery and lubrication fundamentals, and environmental stewardship. The book combines lubrication theory with practical knowledge, and provides many useful illustrations to highlight key industrial, commercial, marine, aviation, and automotive lubricant applications and concepts. All previous edition chapters have been updated to include new technologies, applications, and specifications that have been introduced in the past 15 years.

What's New in the Third Edition:

- Adds three new chapters on the growing renewable energy application of wind turbines, the impact of lubricants on energy efficiency, and best practice guidelines on establishing an in-service lubricant analysis program
- Updates API, SAE, and ACEA engine oil specifications, descriptions of new engine oil tests, impact of engine and fuel technology trends on engine oil
- Includes the latest environmental lubricant tests, definitions, and labelling programs
- Compiles expert information from ExxonMobil publications and the foremost international equipment builders and industry associations
- Covers key influences impacting lubricant formulations and technology
- Offers data on global energy demand and interesting statistics such as the worldwide population of nuclear reactors, wind turbines, and output of hydraulic turbines
- Presents new sections on the history of synthetic lubricants and hazardous

chemical labeling for lubricants

Whether used as a training guide for industry novices, a textbook for students to understand lubrication principles, or a technical reference for experienced lubrication and tribology professionals, **Lubrication Fundamentals, Third Edition, Revised and Expanded** is a "must read" for maintenance professionals, lubricant formulators and marketers, chemists, and lubrication, surface, chemical, mechanical, and automotive engineers.

 [Download Lubrication Fundamentals, Third Edition, Revised a ...pdf](#)

 [Read Online Lubrication Fundamentals, Third Edition, Revised ...pdf](#)

Lubrication Fundamentals, Third Edition, Revised and Expanded

By Don M. Pirro, Martin Webster, Ekkehard Daschner

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner

Careful selection of the right lubricant(s) is required to keep a machine running smoothly. **Lubrication Fundamentals, Third Edition, Revised and Expanded** describes the need and design for the many specialized oils and greases used to lubricate machine elements and builds on the tribology and lubrication basics discussed in previous editions.

Utilizing knowledge from leading experts in the field, the third edition covers new lubrication requirements, crude oil composition and selection, base stock manufacture, lubricant formulation and evaluation, machinery and lubrication fundamentals, and environmental stewardship. The book combines lubrication theory with practical knowledge, and provides many useful illustrations to highlight key industrial, commercial, marine, aviation, and automotive lubricant applications and concepts. All previous edition chapters have been updated to include new technologies, applications, and specifications that have been introduced in the past 15 years.

What's New in the Third Edition:

- Adds three new chapters on the growing renewable energy application of wind turbines, the impact of lubricants on energy efficiency, and best practice guidelines on establishing an in-service lubricant analysis program
- Updates API, SAE, and ACEA engine oil specifications, descriptions of new engine oil tests, impact of engine and fuel technology trends on engine oil
- Includes the latest environmental lubricant tests, definitions, and labelling programs
- Compiles expert information from ExxonMobil publications and the foremost international equipment builders and industry associations
- Covers key influences impacting lubricant formulations and technology
- Offers data on global energy demand and interesting statistics such as the worldwide population of nuclear reactors, wind turbines, and output of hydraulic turbines
- Presents new sections on the history of synthetic lubricants and hazardous chemical labeling for lubricants

Whether used as a training guide for industry novices, a textbook for students to understand lubrication principles, or a technical reference for experienced lubrication and tribology professionals, **Lubrication Fundamentals, Third Edition, Revised and Expanded** is a "must read" for maintenance professionals, lubricant formulators and marketers, chemists, and lubrication, surface, chemical, mechanical, and automotive engineers.

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner Bibliography

- Sales Rank: #1518929 in Books
- Published on: 2016-03-17
- Original language: English
- Number of items: 1
- Dimensions: 10.20" h x 1.20" w x 7.20" l, .0 pounds
- Binding: Hardcover
- 608 pages

 [Download Lubrication Fundamentals, Third Edition, Revised a ...pdf](#)

 [Read Online Lubrication Fundamentals, Third Edition, Revised ...pdf](#)

**Download and Read Free Online Lubrication Fundamentals, Third Edition, Revised and Expanded
By Don M. Pirro, Martin Webster, Ekkehard Daschner**

Editorial Review

Review

"... a key foundation reference which any serious practitioner in our field should have?and read... it could easily fit into the course materials used in some of the new undergraduate programs arising in our universities."

?Robert M. Gresham, Society of Tribologists and Lubrication Engineers

"This book is of great value for those working in industries where effective lubrication is a key factor for obtaining solutions with a high reliability. The book gives an excellent description of the lubrication mechanisms and the impact of lubricant selection on performance. The authors have done a great job in compiling lubrication knowledge of so many applications in a single book."

?Piet M. Lugt, SKF Engineering and Research Centre, University of Twente, The Netherlands

"...an intensely practical and thorough reference resource, both for those involved in the practical side of lubricants and lubrication such as designers, lubricant salespersons and service engineers, and also for researchers who should know more about lubricants and lubricated machines. I heartily recommend it."

?*Tribology Letters*, June 2016

About the Author

Don M. Pirro is the global alliance technical manager at ExxonMobil Research and Engineering, Paulsboro, New Jersey. He started his career in 1978 as a test engineer for Ingersoll Rand's Turbo Compressor Division. He has more than 36 years of lubrication experience with ExxonMobil in various technical positions. He is the author or contributing editor of several scholarly articles on synthetic lubes, environmental awareness applications, grease technology, lubricant interchangeability, used oil analysis, and marine lubricants. He graduated from Rutgers University, New Brunswick, New Jersey, with degrees in mechanical engineering and business administration.

Ekkehard Daschner is the industrial lubricant section head and greases technology program lead at ExxonMobil Research and Engineering, Paulsboro, New Jersey. Daschner earned his mechanical engineering degree in Germany and started his career in an aluminum company. In 1982, he joined the Mobil Oil AG R&D laboratory in Germany supporting product development projects. After holding various positions in technical support, he was appointed Area Sales Director and Brand Manager in Germany and the European headquarters in London and Brussels, and later served as European and later as Global Industrial and Marine Equipment Builder Services Manager.

Martin Webster is a senior research associate at ExxonMobil Research and Engineering, Annandale, New Jersey. He earned his BS and MS in aeronautical engineering and his PhD in tribology from Imperial College, London, UK. In 1986, he was awarded the Bronze Medal in tribology from the Institute of Mechanical Engineers in the UK. After spending four years working in the UK, he joined ExxonMobil in

1989. At ExxonMobil, Martin has held various positions in research and product development and is currently involved in the study of fundamental lubrication mechanisms at the company's Corporate Strategic Research Laboratory.

Users Review

From reader reviews:

Charles Malone:

Why don't make it to become your habit? Right now, try to ready your time to do the important act, like looking for your favorite e-book and reading a e-book. Beside you can solve your trouble; you can add your knowledge by the publication entitled Lubrication Fundamentals, Third Edition, Revised and Expanded. Try to make book Lubrication Fundamentals, Third Edition, Revised and Expanded as your good friend. It means that it can to be your friend when you experience alone and beside that of course make you smarter than ever. Yeah, it is very fortunated to suit your needs. The book makes you considerably more confidence because you can know every thing by the book. So , let's make new experience and also knowledge with this book.

Lisa King:

The book Lubrication Fundamentals, Third Edition, Revised and Expanded can give more knowledge and information about everything you want. So why must we leave a very important thing like a book Lubrication Fundamentals, Third Edition, Revised and Expanded? Some of you have a different opinion about e-book. But one aim in which book can give many details for us. It is absolutely appropriate. Right now, try to closer with your book. Knowledge or details that you take for that, you can give for each other; it is possible to share all of these. Book Lubrication Fundamentals, Third Edition, Revised and Expanded has simple shape but you know: it has great and big function for you. You can appearance the enormous world by wide open and read a book. So it is very wonderful.

Paul Green:

Do you among people who can't read gratifying if the sentence chained from the straightway, hold on guys this particular aren't like that. This Lubrication Fundamentals, Third Edition, Revised and Expanded book is readable simply by you who hate the perfect word style. You will find the information here are arrange for enjoyable reading experience without leaving perhaps decrease the knowledge that want to deliver to you. The writer of Lubrication Fundamentals, Third Edition, Revised and Expanded content conveys the idea easily to understand by most people. The printed and e-book are not different in the articles but it just different available as it. So , do you nevertheless thinking Lubrication Fundamentals, Third Edition, Revised and Expanded is not loveable to be your top listing reading book?

Mitchell Wilder:

A lot of people always spent their free time to vacation or go to the outside with them family members or their friend. Do you realize? Many a lot of people spent they will free time just watching TV, as well as

playing video games all day long. If you would like try to find a new activity that's look different you can read the book. It is really fun for you personally. If you enjoy the book which you read you can spent all day long to reading a publication. The book Lubrication Fundamentals, Third Edition, Revised and Expanded it is very good to read. There are a lot of people who recommended this book. We were holding enjoying reading this book. If you did not have enough space to develop this book you can buy the particular e-book. You can m0ore simply to read this book through your smart phone. The price is not too costly but this book features high quality.

Download and Read Online Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner #ASG6V0XBCL1

Read Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner for online ebook

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner books to read online.

Online Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner ebook PDF download

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner Doc

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner Mobipocket

Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner EPub

ASG6V0XBCL1: Lubrication Fundamentals, Third Edition, Revised and Expanded By Don M. Pirro, Martin Webster, Ekkehard Daschner