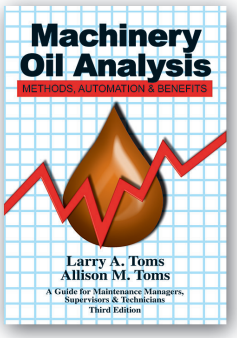
Machinery Oil Analysis—Methods, Automation & Benefits: A Guide for Maintenance Managers, Supervisors & Technicians, Third Edition

Larry A. Toms and Allison M. Toms. Co-published by STLE, Park Ridge, Ill., hard cover, 488 pages, 2008.

Reviewer: Dr. Robert M. Gresham, Contributing Editor

STLE's mission is "to promote the advancement of the science of tribology and the practice of lubrication engineering in order to foster innovation, improve the performance of equipment and products, conserve resources and protect the environment."

A key element in meeting this mission is for the society to provide information from credible field sources. That is why STLE is pleased to partner with the husband-and-wife team of Larry and Allison Toms, both STLE members, in co-publishing the third edition of *Machinery Oil Analysis*.



This book is a key reference for those involved in oil analysis and machinery maintenance. Thus, it is important that this book is updated, as the technology and best practices of this rapidly growing field continue to evolve.

Modern manufacturing operations must have reliable equipment to maintain stable delivery schedules and operate with the greatest overall efficiency. This reliability is a key element of overall global competitiveness. To get maximum benefit from advanced maintenance reliability-based operational strategies, an excellent understanding of equipment lubrication is a prerequisite.

Machinery Oil Analysis is a unique book in that it presents the entire philosophy and practice of oil analysis as a condition-monitoring tool for machines. It describes the what, when, where and how-to for:

- Machinery lubrication
- Machinery failure and maintenance concepts
- Machinery
- Fluid and filtration failure modes
- Oil sampling
- Oil testing
- Statistical analysis and data interpretation.

The book highlights examples to each step in the sampling, testing and diagnostic process. It also presents the latest advances in technology and instrumentation, including online sensors and their applications.

The authors of this book are highly knowledgeable and have experience in the field to provide practical, insightful and credible source information to today's practitioners.

Allison Toms, technical director for GasTOPS Inc. in Pensacola, Fla., has extensive knowledge and experience in machinery condition assessment. For 25 years she worked as the chief chemist and Science Dept. head for the U.S. Department of Defense's Joint Oil Analysis Program Technical Support Center, which serves over 300 laboratories worldwide and where many of today's condition assessment technologies were developed. She's also a volunteer member of TLT's editorial advisory board.

Larry Toms also has extensive knowledge and experience in the field, as he developed a computer-based system for data management created from failure modes, effects and criticality analysis and the statistical analysis of large corporate oil test databases. Larry has continued to develop advanced systems concepts in condition parameter relationships for railroad, mining, diesel engine and turbine expert systems. He authored the first edition of *Machinery Oil Analysis*.

Because of its emphasis on the practice of oil analysis and lubrication engineering, the third edition is an excellent reference for those preparing for STLE's Oil Monitoring Analyst® (OMA) certification examination. In addition, it has been recommended in the body of knowledge by the OMA certification committee. The third edition, like its predecessors, belongs in the reference library of all maintenance reliability professionals and other practitioners in the field.

For more information about ordering this book for your technical library, log on to **www.stle.org**. TLT

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