

FEATURED

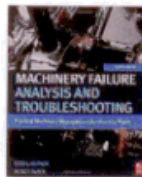
FLUID MECHANICS, WATER HAMMER, DYNAMIC STRESSES, AND PIPING DESIGN

ROBERT A. LEISHEAR

ASME Press, Two Park Avenue, New York, NY 10016-5990, 2013.

WATER HAMMER MAY BE DEFINED AS AN EXTREME FLUID TRANSIENT, occasionally recognized by loud banging, or hammering sounds, which are caused by flow rate changes and resultant pressure surges. The terms "fluid transient" and "water hammer" are frequently used interchangeably. The primary purpose of this text is to provide practicing engineers with the analytical tools required to identify water hammer concerns and prevent equipment damage and personal injury. The principles of pipe system design with respect to fluid mechanics, valves, and pump operations are followed by basic structural piping design principles, water hammer theory, pipe system dynamics, and failure analysis. This text is intended for practicing engineers in the power and process piping areas. Relevant industries include power companies and utilities; pressure technology, valve, and pipe manufacturers; and petrochemical processing facilities. The text integrates multiple structural and fluids engineering disciplines to illustrate the principles of troubleshooting pipe systems for fluid flow problems and pipe failures.

446 PAGES. \$169; ASME MEMBERS, \$135. ISBN: 978-0-7918-5996-4.



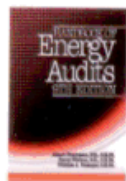
MACHINERY FAILURE ANALYSIS, AND TROUBLESHOOTING: PRACTICAL MACHINERY MANAGEMENT FOR PROCESS PLANTS, FOURTH EDITION.

Heinz P. Bloch and Fred K. Geitner

Butterworth-Heinemann, 225 Wyman Street, Waltham, MA 02451, 2012.

Machinery Failure Analysis, and Troubleshooting, written by two established authorities on failure and reliability, is a guide and reference in the field of machinery in plant settings. It is structured to teach failure identification and analysis methods that can be applied to various problem situations. The book examines the wealth of technological advances and changes in approach seen since the last edition was published more than a decade ago. Covering the engineering detail and management theory, this book provides a reference and training resource for engineers and managers working in manufacturing and process plants. It provides detailed information on anticipating risk of component failure and avoiding equipment downtime. Along with this information it also includes numerous photographs of failed parts to ensure the reader is familiar with the visual evidence one needs to recognize problems. Other chapters cover proven approaches to failure definition and offer failure identification and analysis methods that can be applied to problem situations. It goes on to demonstrate with examples how the progress and results of failure analysis and troubleshooting efforts can be documented and monitored.

760 PAGES. \$139.95. ISBN: 978-0-1238-6045-3.



HANDBOOK OF ENERGY AUDITS, NINTH EDITION.

Albert Thumann, Terry Niehus,
and William J. YoungerThe Fairmont Press Inc., 700 Indian Trail,
Lilburn, CA 30047, 2013.

This handbook is designed to serve as a comprehensive and practical reference on energy auditing in buildings and industry. Topics include energy assessment and computer software that can guide in planning and carrying out a thorough and accurate energy audit, including electrical, mechanical and building systems analysis, at any type of facility. The authors provide instructions on accounting procedures, rate of return, and lifecycle cost analysis. Completely edited throughout, this latest edition includes a new chapter on retro-commissioning and energy audits. Revisions include new information on ISO 50001 and the Superior Energy Performance program plus a completely updated chapter on software. Also covered is information on understanding a utility bill and using that knowledge to trim energy costs. Loaded with forms, checklists, and working aids, this book is intended for anyone responsible for conducting or overseeing a facility energy audit.

489 PAGES. \$119.95. ISBN: 978-1-6008-6897-9.