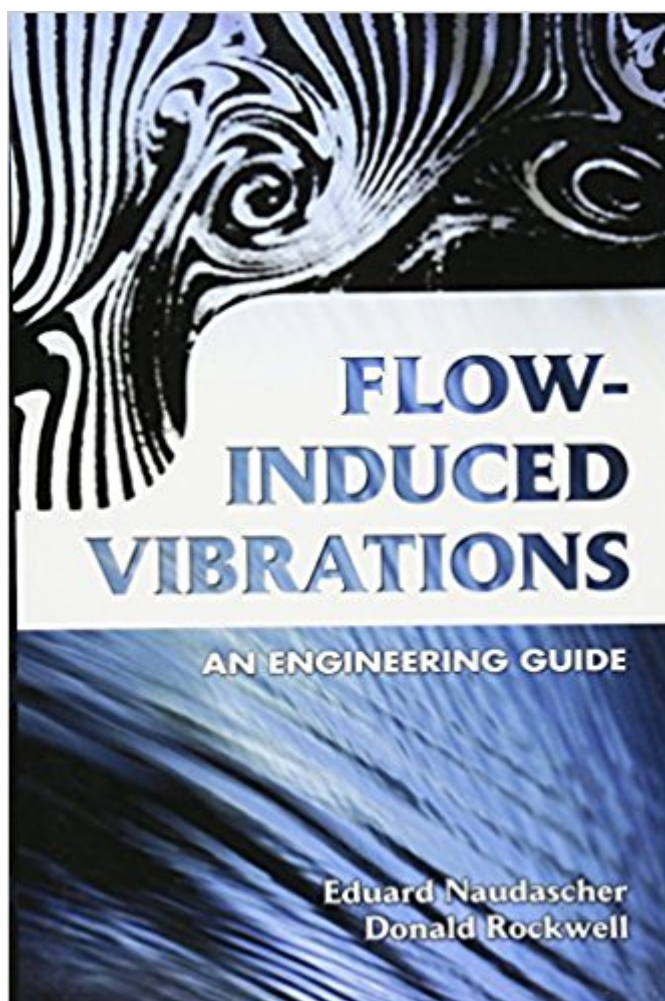


The book was found

Flow-Induced Vibrations: An Engineering Guide (Dover Civil And Mechanical Engineering)



Synopsis

Despite their variety, the vibration phenomena from many different engineering fields can be classified into a relatively few basic excitation mechanisms. The classification enables engineers to identify all possible sources of excitation in a given system and to assess potential dangers. This graduate-level text presents a synthesis of research results and practical experience from disparate fields in the form of engineering guidelines. It is particularly geared toward assessing the possible sources of excitation in a flow system, in identifying the actual danger spots, and in finding appropriate remedial measures or cures. Flow-induced vibrations are presented in terms of their basic elements: body oscillators, fluid oscillators, and sources of excitation. By stressing these basic elements, the authors provide a basis for the transfer of knowledge from one system to another, as well as from one engineering field to another. In this manner, well-known theories on cylinders in cross-flow or well-executed solutions from the field of wind engineering--to name just two examples--may be useful in other systems or fields on which information is scarce. The unified approach is broad enough to permit treatment of the major excitation mechanism, yet simple enough to be of practical use.

Book Information

Series: Dover Civil and Mechanical Engineering

Paperback: 432 pages

Publisher: Dover Publications (July 27, 2005)

Language: English

ISBN-10: 0486442829

ISBN-13: 978-0486442822

Product Dimensions: 6.1 x 0.9 x 9.2 inches

Shipping Weight: 1 pounds (View shipping rates and policies)

Average Customer Review: 4.4 out of 5 stars 2 customer reviews

Best Sellers Rank: #478,611 in Books (See Top 100 in Books) #23 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural Dynamics #129 in Books > Engineering & Transportation > Engineering > Chemical > Fluid Dynamics #391 in Books > Science & Math > Physics > Dynamics

Customer Reviews

Great reference for practical problems in industry.

"Flow-induced Vibrations" is constructed as an engineering guide primarily based on research sponsored by the Volkswagen Foundation located in Hannover, Germany. There are a staggering number of different disciplines and approaches to this subject, and from my own perspective this is one of the best guides published. The work is detailed, logically organized (on purpose), and is the most impressively illustrated work of its kind in print. Explanations are clear and crisp but do not leave the reader hanging either. The math used is first year calculus and can be understood by the average graduate engineer. This is not your treatise on fluid dynamics; it is clearly specific to vibrational analyses induced by fluid flow; air, water, or other. I am most pleased with owning a book of this quality and detail.

[Download to continue reading...](#)

Flow-Induced Vibrations: An Engineering Guide (Dover Civil and Mechanical Engineering) Code Check Plumbing & Mechanical 4th Edition: An Illustrated Guide to the Plumbing and Mechanical Codes (Code Check Plumbing & Mechanical: An Illustrated Guide) Elasticity: Tensor, Dyadic, and Engineering Approaches (Dover Civil and Mechanical Engineering) Dynamic Response of Infrastructure to Environmentally Induced Loads: Analysis, Measurements, Testing, and Design (Lecture Notes in Civil Engineering) Random Vibrations: Analysis of Structural and Mechanical Systems Mechanical Vibrations (6th Edition) Shigley's Mechanical Engineering Design (McGraw-Hill Series in Mechanical Engineering) Modern Compressible Flow: With Historical Perspective (McGraw-Hill series in mechanical engineering) Viscous Fluid Flow (McGraw-Hill Mechanical Engineering) Mathematical Handbook for Scientists and Engineers: Definitions, Theorems, and Formulas for Reference and Review (Dover Civil and Mechanical Engineering) The Finite Element Method: Linear Static and Dynamic Finite Element Analysis (Dover Civil and Mechanical Engineering) Groundwater and Seepage (Dover Civil and Mechanical Engineering) Dynamics of Fluids in Porous Media (Dover Civil and Mechanical Engineering) Analytical Fracture Mechanics (Dover Civil and Mechanical Engineering) Non-Linear Elastic Deformations (Dover Civil and Mechanical Engineering) Advanced Strength of Materials (Dover Civil and Mechanical Engineering) History of Strength of Materials (Dover Civil and Mechanical Engineering) Light Scattering, Size Exclusion Chromatography and Asymmetric Flow Field Flow Fractionation: Powerful Tools for the Characterization of Polymers, Proteins and Nanoparticles Molecular Vibrations: The Theory of Infrared and Raman Vibrational Spectra (Dover Books on Chemistry) Civil War: American Civil War in 50 Events: From the Very Beginning to the Fall of the Confederate States (War Books, Civil War History, Civil War Books) (History in 50 Events Series Book 13)

Contact Us

DMCA

Privacy

FAQ & Help