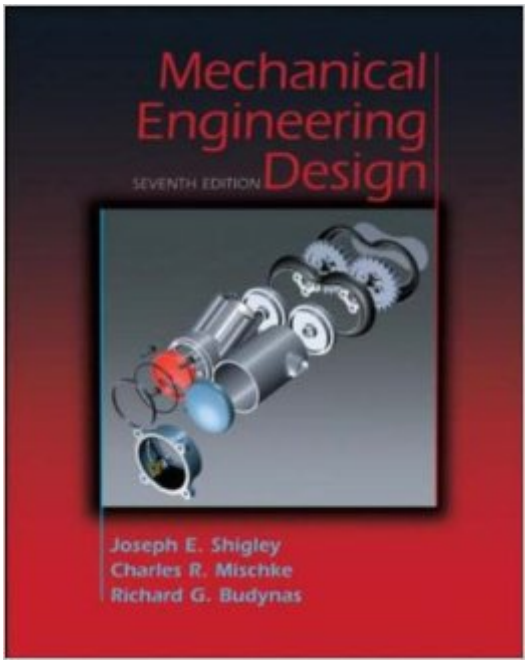
Mechanical Engineering Design (International Edition)



Synopsis

The seventh edition of "Mechanical Engineering Design" marks a return to the basic approaches that have made this book the standard in machine design for over 40 years. At the same time, the textbook has been significantly updated and modernized for today's engineering students and professional engineers. Working from extensive market research and reviews of the 6/e, the new 7/e features reduced coverage of uncertainty and statistical methods. Statistics is now treated (in chapter 2) as one of several methods available to design engineers, and statistical applications are no longer integrated throughout the text, examples and problem sets. Other major changes include updated coverage of the design process, streamlined coverage of statistics, a more practical overview of materials and materials selection (moved to chapter 3), revised coverage of failure and fatigue, and review of basic strength of materials topics to make a clearer link with prerequisite courses. Overall coverage of basic concepts has been made more clear and concise, with some advanced topics deleted, so that readers can easily navigate key topics. Problem sets have been improved, with new problems added to help students progressively work through them. The book has an Online Learning Center with several powerful components: MATLAB for Machine Design (featuring highly visual MATLAB simulations and accompanying source code); the "FEPC" finite element program, with accompanying Finite Element Primer and FEM Tutorials; interactive FE Exam questions for Machine Design; and Machine Design Tutorials for study of key concepts from Parts I and II of the text. Complete Problem Solutions and PowerPoint slides of book illustrations are available for instructors, under password protection. A printed Instructor's Solutions Manual is also available, with detailed solutions to all chapter problems.

Book Information

Paperback: 1088 pages
Publisher: McGraw Hill Higher Education; 7th edition (August 1, 2003)
Language: English
ISBN-10: 0071232702
ISBN-13: 978-0071232708
Product Dimensions: 8 x 1.4 x 10 inches
Shipping Weight: 4.1 pounds
Average Customer Review: 4.3 out of 5 starsÂ Â See all reviewsÂ (25 customer reviews)
Best Sellers Rank: #588,481 in Books (See Top 100 in Books) #59 inÂ Books > Engineering & Transportation > Engineering > Design #2187 inÂ Books > Engineering & Transportation >

Engineering > Mechanical

Customer Reviews

As a Mechanical Engineer that's been out of college for a few years, I find that I turn to this book on a weekly, or at least monthly, basis. My version is the 5th addition (the old grey cover of most past editions).As people have noted, you don't learn from this book. If you want more in-depth looks at statics, dynamics, etc - you'll still go back to your core textbooks. But, for example, if you want a formula to figure out the torque required for given loads transmitted by feed screws, you'll turn here.This book isn't Marks' handbook - but then again, it's easier to flip to a page for a subject and not wade through all of Marks' 1200 pages. It also isn't the Machinery's Handbook - giving you oodles of charts for different materials, fasteners, and what not. But it's a great bridge between the core textbooks and the very heavy (and tiny print) handbooks.There isn't an ME in my company that I haven't seen a version of this on his shelf. Almost all of them have it heavily tabbed. And as one said when he opened mine (which wasn't quite as broken in), "my copy usually falls open to the right page".I would highly recommend any of the version's of Mr. Shigley's book in whichever edition (all the names after Shigley keep changing). But I don't think I need to - as every ME will have to buy this his senior year.

I won't repeat the whole table of contents here, but the book covers most aspects of machine design-deflection, strength, fatigue, materials selection, bearings, screws, joining methods, and gears. However, cam design is not covered. There is some very useful information basic failure analysis. I think the book does a good job of cross referencing material in different sections of this book and other books by Shigley and Mischke. The book also provides some rules of thumb that can be useful if the engineer doesn't have much experience in a particular area. The section on weld strength is very useful for machine design. The math may be a little strong for non-engineers. In summary, this is a useful book for both mechanical engineering students and practicing mechanical engineers.

I notice the book gets some bad reviews here. The book is awsome and adequately comprehensive. Once and a while I'd find some references to things that didn't exist, and some charts seem incomplete. But, the text is well writen and is a must have for any mech eng. If you want to design a mechanical system that uses belts, gears, bearings, etc... this is very useful!!!And, although it's purely asthetic, the cover has that nice McGrawHill flat finish with glossy

highlights...nice touch.

I also have the machine design textbook by Juvinal. That one and this seem to be the two ubiquitous machine design textbooks out there. They are both quite good, but there are some subjects that are either not covered, or not covered in any real depth, by one or the other. This one for instance has the best description of the operation of involute gearing that I've ever seen. Had I read that, it likely may have saved me years of confusion on just how it works. This book also contains some very good material property data that I find useful as an engineer.Really, I wouldn't be willing to part with either of them.

This is a good book that goes into a lot of detail on specific problems. It was helpful in studying for and passing the P.E. test. I use this book occasionally at work, and enjoy reading it. It teaches solutions to high-level mechanical engineering problems. I recommend it for a mechanical engineer who is planning to take the P.E. exam, and enjoys mechanical engineering in general.

-- Shigley is dead both literally and figuratively!!!Quite possibly the worst book I have ever had for a class. I have seen the previous editions and they were good, the latest edition (7th) is terrible. It appears they tried to update the 5th and 6th editions by changing the end of chapter problems, but didn't bother to update some of the answers in the solution manual. In addition, they use equations in the solutions that aren't in the book. Which leaves the student trying to figure out where they got the answers. In several cases they added additional equations to the book that can be used to solve for the same parameters without giving any guidance on which equation to use (they all produce different results). Plus by adding pieces and parts of additional equation and tables all over the place the book forces the user to turn back and forth between numerous sections.To streamline (i.e. put in order) and correct the the book the instructor made over 100 pages of supplements to the text. Having to write >100 pages to make a 1000+ page book understandable is ridiculous.

This is a good practical reference book for machine designers.Although some examples could be clearer when it used with another text,Juvinall for example, the mechanical design topic is pretty well covered.

I used it for preparing an exam with Professional Eng. of Quebec, Canada. Verry helpfull, I will use this book for sure for future references. That is not just an exam book.

Shigley's Mechanical Engineering Design (McGraw-Hill Series in Mechanical Engineering) Mechanical Engineering Design (McGraw-Hill Mechanical Engineering) Code Check Plumbing & Mechanical 4th Edition: An Illustrated Guide to the Plumbing and Mechanical Codes (Code Check Plumbing & Mechanical: An Illustrated Guide) The Mechanical Design Process (Mcgraw-Hill Series in Mechanical Engineering) Significant Changes to the International Plumbing Code, International Mechanical Code and International Fuel Gas Code, 2012 Edition PE Mechanical Engineering: Mechanical Systems and Materials Practice Exam Fundamentals of Mechanical Vibrations: IBM PC 3.5 Version (Mcgraw Hill Series in Mechanical Engineering) Mechanical Engineering Design (International Edition) 2006 International Mechanical Code (International Code Council Series) Face Image Analysis by Unsupervised Learning (The Kluwer International Series in Engineering and Computer Science, Volume 612) (The Springer International Series in Engineering and Computer Science) Fundamentals of Air Pollution Engineering (Dover Civil and Mechanical Engineering) Flow-Induced Vibrations: An Engineering Guide (Dover Civil and Mechanical Engineering) Modal Testing, Theory, Practice, and Application (Mechanical Engineering Research Studies: Engineering Dynamics Series) CRC Handbook of Thermal Engineering (Mechanical and Aerospace Engineering Series) Fundamentals of Engineering Thermodynamics/Book and Disk (Mcgraw Hill Series in Mechanical Engineering) Design of Machinery with Student Resource DVD (McGraw-Hill Series in Mechanical Engineering) Connect 1-Semester Access Card for Shigley's Mechanical Engineering Design G.Dieter's Li.Schmidt's Engineering 4th (Fourth) edition(Engineering Design (Engineering Series) [Hardcover])(2008) International Law and International Relations (International Relations for the 21st Century) Algorithms: C++: Data Structures, Automation & Problem Solving, w/ Programming & Design (app design, app development, web development, web design, jquery, ... software engineering, r programming)