Mechanical Design Of Machine Elements And Machines: A Failure Prevention Perspective
Taking a failure prevention perspective, this book provides engineers with a balance between analysis and design. The new edition presents a more thorough treatment of stress analysis and fatigue. It integrates the use of computer tools to provide a more current view of the field. Photos or images are included next to descriptions of the types and uses of common materials. The book has been updated with the most comprehensive coverage of possible failure modes and how to design with each in mind. Engineers will also benefit from the consistent approach to problem solving that will help them apply the material on the job.

Book Information

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Customer Reviews

This book is the quintessence of terribleness. The writing style is obnoxious and it has mistakes all over the place. I was reading the example problem 5.19 on page 279-- it got the paris equation C coefficient conversion completely wrong and it literally took me an hour to figure out!!! (It should be 1.36e-10 instead of 3.03e-10, editors, have you even read the book????) I guess this book is so impossible to read that even the editors gave up. It also keeps referring to the examples and figures with wrong number which is a very very frustrating believe me if you ever read this book you know how frustrating it is. In conclusion, it is just a purely disgusting book I feel so bad that I need to use this one as my textbook. If you need this book for your class, my sympathy. If you want to use it to self study, do not not not get this book this is the worst choice ever ever ever. Also, I did find the 1993 version of this book called "failure of materials in mechanical design" which actually is a very good and in depth book. It has an accessible writing style and all the detailed derivations for the
formulas. It was written by Jack. Collins alone. To the other two guy was coauthoring this book, thanks a lot for rewriting such an awesome book and successfully turning it into a piece of s***

The content of this book is excellent. In addition to Shigley's "Mechanical Engineering Design" book, I think this would complete the collection. I found this book through google ebooks when trying to search for a specific way to perform bolt group slip/shear calculations. It turns out this book has a lot of sample calcs that I will be using early in my career as an engineer. I still haven't read through all of it, but I think the section on geometry design and cumulative damage will be next.

Great price compared to other machine design books. The design approach is slightly unorthodox, but with that said, it is a great accompanying text book as it provides a somewhat different perspective on conventional design problems. It is the first machine design book that I have seen that deals with spectral loading for fatigue calculations, which is a great inclusion.

I bought this book for a college machine design class and now use it every day at work as a mechanical engineer. The concepts and equations in this book are hard to find elsewhere and the authors did a very good job of explaining applications of each equation set.

This book is very difficult to learn from. I can see how it might be a great reference for a practicing designer. There are numerous typo’s, and material properties are scattered through many areas of the book, it would be great if they could have a complete set of material tables located in one spot. There are many places in the early chapter of the book that reference material 3 or more chapters ahead, once again not extremely useful for someone trying to grind through their first machine design class. The best part of this book is the picture on the front cover, don’t let it fool you into thinking its worth your money.

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