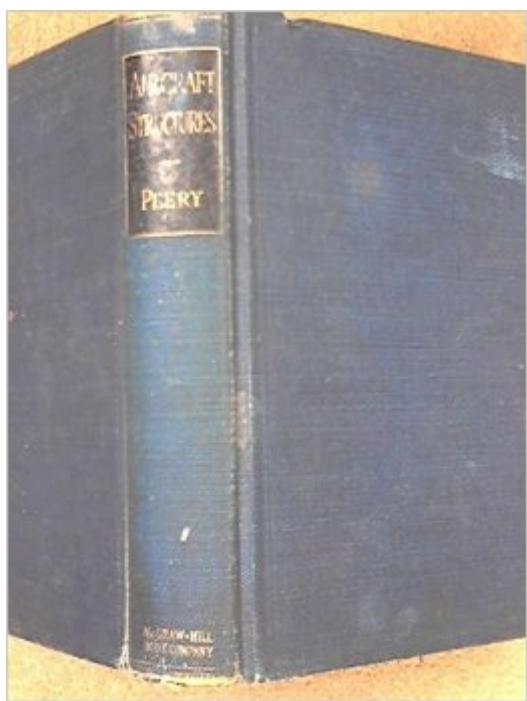


The book was found

# Aircraft Structures



## Synopsis

Still relevant decades after its 1950 publication, this legendary reference text on aircraft stress analysis is considered the best book on the subject. It emphasizes basic structural theory, which remains unchanged with the development of new materials and construction methods, and the application of the elementary principles of mechanics to the analysis of aircraft structures. Suitable for undergraduate students, this volume covers equilibrium of forces, space structures, inertia forces and load factors, shear and bending stresses, and beams with unsymmetrical cross sections. Additional topics include spanwise air-load distribution, external loads on the airplane, joints and fittings, deflections of structures, and special methods of analysis. Topics involving a knowledge of aerodynamics appear in final chapters, allowing students to study the prerequisite aerodynamics topics in concurrent courses. --This text refers to the Paperback edition.

## Book Information

Hardcover: 566 pages

Publisher: McGraw Hill; First Edition edition (1950)

Language: English

ISBN-10: 007049195X

ISBN-13: 978-0070491953

Product Dimensions: 9.1 x 6.2 x 1.5 inches

Shipping Weight: 3 pounds

Average Customer Review: 4.6 out of 5 stars See all reviews (27 customer reviews)

Best Sellers Rank: #1,646,429 in Books (See Top 100 in Books) #76 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural Dynamics

## Customer Reviews

David J. Perry's "Aircraft Structures" is indisputably a classic reference for the students and practicing engineers as well, and most likely a best text book ever written on the subject of the static strength and stability of metallic aircraft structures and its components. However, both editions, the original from 1950, and 2nd from 1982, contain a minor error in "Joints and Fittings" Chapter (page 304 of 1950 edition, page 397 of 2nd edition): The last paragraph contains a statement: "... in Fig. 12.15.(c), which yields maximum bearing stresses,  $4P/tb$  at the inside corner and  $2P/tb$  at the outside corners." Conversely, these bearing stress expressions don't agree with those (i.e.,  $4P/td$ ,  $2P/td$ ) shown in Fig. 12.15.(c). Because the text doesn't corroborate how it was arrived to the maximum pin bending moment  $4Pt/27$  [ $InLb$ ] shown on page 305, this discrepancy may confuse the

issue. That this indeed may lead to the confusion is evident in Michael Niu's "Airframe Stress Analysis and Sizing", 2nd edition, page 275, Eq. 9.1.1. Here in all likelihood Niu copied Peery's equation (12.8), but apparently unable to reconcile mentioned discrepancies, in the equation simply left out plate width "b", and not addressing the maximum bearing stress in question, boldly claims that this tensile stress is for "1.0 inch - wide strap". In the equation (12.8) Peery logically concludes, that if the axial stresses (as derived from the equation  $P/A = M/W$  at both plate faces) are four times (resp. two times) of the average stress value, then same should be valid for the pin bearing stresses too. In other words, at a point, the load intensity (unit loading) producing maximum axial stress in the plate has to be equal to the load intensity causing the maximum bearing stress on the pin.

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

Aircraft Dispatcher Oral Exam Guide: Prepare for the FAA Oral and Practical Exam to Earn Your Aircraft Dispatcher Certificate (Oral Exam Guide series) Jane's All the World's Aircraft (IHS Jane's All the World's Aircraft) Mechanics of Aircraft Structures Aircraft Structures for Engineering Students, Fifth Edition (Elsevier Aerospace Engineering) Aircraft Structures (Dover Books on Aeronautical Engineering) Aircraft Structures for Engineering Students, Fourth Edition (Elsevier Aerospace Engineering) Aircraft Structures for Engineering Students (Elsevier Aerospace Engineering) Aircraft Structures Aircraft Structures for Engineering Students, Third Edition Aircraft Structures, 2nd Edition Understanding Aircraft Structures Analysis of Aircraft Structures: An Introduction (Cambridge Aerospace Series) Analysis of Aircraft Structures: An Introduction Starting Out with Java: From Control Structures through Data Structures (2nd Edition) (Gaddis Series) Java Software Structures: Designing and Using Data Structures Java Software Structures: Designing and Using Data Structures (3rd Edition) Starting Out with Java: From Control Structures through Data Structures (3rd Edition) Design and Analysis of Composite Structures: With Applications to Aerospace Structures Introduction to Structures (Architect's Guidebooks to Structures) Diecast Toy Aircraft: An International Guide

[Dmca](#)