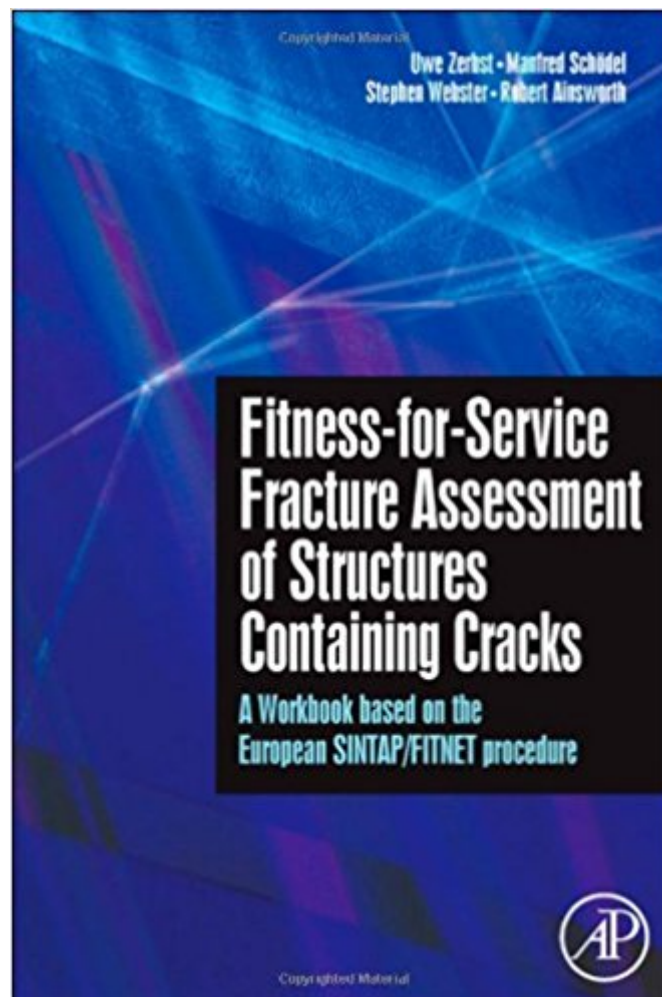




**Ebook Directory**  
the best source of ebook

The book was found

# **Fitness-for-Service Fracture Assessment Of Structures Containing Cracks: A Workbook Based On The European SINTAP/FITNET Procedure**





## Synopsis

The purpose of Fitness-for-Service Fracture Assessment of Structures Containing Cracks is to facilitate the use of fracture mechanics based failure assessment procedures for the evaluation and design of structures and components. All practical structures contain flaws and the optimum combination of cost efficiency and safety whilst achieving the required capability, can only be realised by using state of the art methods such as that represented by the European flaw assessment method SINTAP/FITNET to analyse the safety risk. This book is written by practitioners with extensive experience in both the development and use of integrity assessment methods and provides comprehensive information on the basic principles and use of analytical flaw assessment. It provides an introduction to the method, its background, how it can be applied, its potential and, importantly, its limitations. The explanations are complimented by using a large number of worked examples and validation exercises which illustrate all aspects of the procedure. In addition, for students and engineers who are new to the subject, a comprehensive glossary of basic terms used in fracture mechanics based integrity evaluations is included. The topics addressed include: Crack driving force (CDF) and failure assessment diagram (FAD) type analyses Preparation of the input parameters (crack dimensions, stress-strain properties, fracture toughness, statistical aspects) Determination of the model parameters, (stress intensity factor and yield load solutions) Treatment of combined primary and secondary loading, together with residual stress effects Analysis of the effect of constraint effects (treatment of small defects and section size effects) Treatment of mixed mode loading Consideration of the influences of strength mismatch Reliability aspects Comprehensive description of the use of structural integrity methods to optimise cost effectiveness and safety Detailed description of how to evaluate the integrity of structures containing cracks Valuable background information for understanding the methods, their potential and limitations Large number of worked examples, which demonstrate all aspects of the methods Descriptive, readable writing style Applicable to a wide range of interests, from the student (university or self study) to the expert who requires a 'state of the art' document

## Book Information

Hardcover: 320 pages

Publisher: Academic Press; 1 edition (October 31, 2007)

Language: English

ISBN-10: 0080449476

ISBN-13: 978-0080449470

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.8 pounds (View shipping rates and policies)

Average Customer Review: Be the first to review this item

Best Sellers Rank: #1,601,256 in Books (See Top 100 in Books) #50 in Books > Engineering & Transportation > Engineering > Materials & Material Science > Fracture Mechanics #826 in Books > Engineering & Transportation > Engineering > Civil & Environmental > Structural #2393 in Books > Textbooks > Engineering > Mechanical Engineering

## Customer Reviews

"The comprehensiveness of the compilation of the SINTAP/FITNET Procedure in this book, clear outline, worked examples, numerous formulas for important relationships, clear illustrations, an illustrated glossary, a comprehensive subject index: the level of presentation of all these items is excellent and may animate the reader to spend more time on the book than he may have had in mind before he started. This book is written by key experts in the field and is highly recommendable to a wide readership, in particular those engineers who want to be made aware of the latest state of the art of structural assessment." --Dr. Karl-Heinz Schwalbe, Consultant, Germany

The authors should be commended for making a very useful contribution to the area of fracture assessment of metallic structures. The book comprises a good mix of theory and practical procedures, which are complimented by many worked examples and validation exercises." --Dr Xiang Zhang, Cranfield University, U.K.

"...a very well written, articulate and informative presentation of the European flaw assessment method SINTAP/FITNET... The explanations are complemented by extensive and detailed worked examples and validation exercises illustrating the use of the procedure. This is a very welcome aspect of the book, since frequently the scientific and technical literature provides insufficient help to those wishing to apply the results presented. In summary, this book is an important contribution to the field of structural integrity, failure prevention and assessment, of great value to engineers and scientists working in a wide variety of sectors where metallic structures are used." --Professor P.M.S.T. de Castro, Universidade do Porto, Portugal

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

Fitness-for-Service Fracture Assessment of Structures Containing Cracks: A Workbook based on the European SINTAP/FITNET procedure  
Fitness: Fitness Nutrition and Fitness Motivation: Ultimate Guides to: Health, Nutrition and Muscle Building - Box Set (Fitness For Beginners, Health Fitness ... Workout Plan, Fitness Goals, Nutrit)  
Fracture and Fatigue Control in Structures: Applications of Fracture Mechanics (Prentice-Hall International Series in Civil Engineering and Engineering

Mechanics) Fracture and Fatigue Control in Structures: Applications of Fracture Mechanics (Astm Manual Series) The Food Service Professional Guide to Controlling Restaurant & Food Service Operating Costs (The Food Service Professional Guide to, 5) (The Food Service Professionals Guide To) Kickboxing Fitness: A Guide For Fitness Professionals From The American Council On Exercise (Guides for Fitness Professionals) (Ace's Group Fitness Specialty) Modern Criminal Procedure, Basic Criminal Procedure, and Advanced Criminal Procedure, 2017 Supplement (American Casebook Series) Importing the European Army: The Introduction of European Military Techniques and Institutions in the Extra-European World, 1600-1914 Probabilistic fracture mechanics and reliability (Engineering Applications of Fracture Mechanics) Fracture Mechanics of Concrete: Applications of Fracture Mechanics to Concrete, Rock and Other Quasi-Brittle Materials Food Service Menus: Pricing and Managing the Food Service Menu for Maximun Profit (The Food Service Professional Guide to Series 13) Civil Service Exam Secrets Study Guide: Civil Service Test Review for the Civil Service Examination (Mometrix Secrets Study Guides) Start Your Own Senior Services Business: Adult Day-Care, Relocation Service, Home-Care, Transportation Service, Concierge, Travel Service (StartUp Series) Fitness Nutrition: The Ultimate Fitness Guide: Health, Fitness, Nutrition and Muscle Building - Lose Weight and Build Lean Muscle Fitness Nutrition: The Ultimate Fitness Guide: Health, Fitness, Nutrition and Muscle Building - Lose Weight and Build Lean Muscle (Carbs, Protein, Muscle ... Workout Nutrition, Nutrition For Athletes) Stability of Structures: Elastic, Inelastic, Fracture and Damage Theories Fracture and Fatigue of Welded Joints and Structures (Woodhead Publishing Series in Welding and Other Joining Technologies) Nursing Assessment: Head-to-Toe Assessment in Pictures (Health Assessment in Nursing) Body by Science: A Research Based Program for Strength Training, Body building, and Complete Fitness in 12 Minutes a Week (NTC Sports/Fitness) On Hope and Healing: For Those Who Have Fallen Through the Medical Cracks

[Contact Us](#)

[DMCA](#)

[Privacy](#)

[FAQ & Help](#)