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Nota di contenuto	Front Cover; Biaxial/Multiaxial Fatigue and Fracture; Copyright Page; Contents; Preface; Part 1: Multiaxial Fatigue of Welded Structures; Chapter 1. Assessment of Welded Structures by a Structural Multiaxial Fatigue Approach; Chapter 2. Evaluation of Fatigue of Fillet Welded Joints in Vehicle Components Under Multiaxial Service Loads; Chapter 3. Multiaxial Fatigue Assessment of Welded Structures by Local Approach; Chapter 4. Micro-Crack Growth Behavior in Weldments of a Nickel-Base Superalloy Under Biaxial Low-Cycle Fatigue at High Temperature; Part 2: High Cycle Multiaxial Fatigue Chapter 5. Multiaxial Fatigue Life Estimations for 6082-T6 Cylindrical Specimens Under In-Phase and Out-of-Phase Biaxial Loadings Chapter 6. Long-Life Multiaxial Fatigue of a Nodular Graphite Cast Iron; Chapter 7. The Influence of Static Mean Stresses Applied Normal to the Maximum Shear Planes in Multiaxial Fatigue; Part 3: Non-Proportional and Variable-Amplitude Loading; Chapter 8. Fatigue Limit of Ductile Metals Under Multiaxial Loading; Chapter 9. Sequenced Axial and

Torsional Cumulative Fatigue: Low Amplitude Followed by High Amplitude Loading

Chapter 10. Estimation of the Fatigue Life of High Strength Steel Under Variable-Amplitude Tension with Torsion: Use of the Energy Parameter in the Critical Plane Chapter 11. Critical Plane-Energy Based Approach for Assessment of Biaxial Fatigue Damage where the Stress-Time Axes are at Different Frequencies; Chapter 12. Fatigue Analysis of Multiaxially Loaded Components with the FE-Postprocessor FEMFAT-MAX; Part 4: Defects, Notches, Crack Growth; Chapter 13. The Multiaxial Fatigue Strength of Specimens Containing Small Defects Chapter 14. An Analysis of Elasto-Plastic Strains and Stresses in Notched Bodies Subjected to Cyclic Non-Proportional Loading Paths Chapter 15. The Background of Fatigue Limit Ratio of Torsional Fatigue to Rotating Bending Fatigue in Isotropic Materials and Materials with Clear-Banded Structure; Chapter 16. Influence of Defects on Fatigue Life of Aluminium Pressure Diecastings; Chapter 17. Variability in Fatigue Lives: An Effect of the Elastic Anisotropy of Grains?; Chapter 18. Three-Dimensional Crack Growth: Numerical Evaluations and Experimental Tests Chapter 19. The Environment Effect on Fatigue Crack Growth Rates in 7049 Aluminium Alloy at Different Load Ratios Part 5: Low Cycle Multiaxial Fatigue; Chapter 20. A Multiaxial Fatigue Life Criterion for Non-Symmetrical and Non-Proportional Elasto- Plastic Deformation; Chapter 21. Cyclic Behaviour of a Duplex Stainless Steel Under Multiaxial Loading: Experiments and Modelling; Chapter 22. A Damage Model for Estimating Low Cycle Fatigue Lives Under Nonproportional Multiaxial Loading; Chapter 23. Microcrack Propagation Under Non-Proportional Multiaxial Alternating Loading Part 6: Applications and Testing Methods

Sommario/riassunto

The European Structural Integrity Society (ESIS) Technical Committee on Fatigue of Engineering Materials and Structures (TC3) decided to compile a Special Technical Publication (ESIS STP) based on the 115 papers presented at the 6th International Conference on Biaxial/Multiaxial Fatigue and Fracture. The 25 papers included in the STP have been extended and revised by the authors. The conference was held in Lisbon, Portugal, on 25-28 June 2001, and was chaired by Manuel De Freitas, Instituto Superior Tecnico, Lisbon. The meeting, organised by the Instituto Superior Tecnico and sponsored by the P
