

# Table of contents provided by Syndetics

- **I Fundamentals**
- **1 Introduction**
- **2 Load, Stress, and Strain**
- **3 Introduction to Materials and Manufacturing**
- **4 Stresses and Strains**
- **5 Deformation**
- **6 Failure Prediction for Static Loading**
- **7 Failure Prediction for Cyclic and Impact Loading**
- **8 Lubrication, Friction, and Wear**
- **II Machine Elements**
- **9 Columns**
- **10 Stresses and Deformation in Cylinders**
- **11 Shafting and Associated Parts**
- **12 Hydrodynamic and Hydrostatic Bearings**
- **13 Rolling-Element Bearings**
- **14 General Gear Theory: Spur Gears**
- **15 Helical, Bevel, and Worm Gears**
- **16 Fasteners and Power Screws**
- **17 Springs**
- **18 Brakes and Clutches**
- **19 Flexible Machine Elements**
- **20 Elements of Microelectromechanical Systems (MEMS)**
- **Appendix A Material Properties**
- **Appendix B Stress-Strain Relationships**
- **Appendix C Stress Intensity Factors for Some Common Crack Geometries**