



# Ultrasonic Guided Waves-based Structural Health Monitoring

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Taschenbuch. Book Condition: Neu. 221x152x27 mm. Neuware - Key industrial equipment (such as pipelines, aircraft structure and tanks) should meet the requirements for reliability, integrity and safety for a long-term operation. During its service, defects that might be caused by natural disasters or external impacts could lead to a significant reduction in a structure's strength and fatigue life. Therefore, structural health monitoring techniques, which are capable of achieving continuous monitoring and on-line damage detection, are important for increasing the service life and reducing the sustainment costs of key industrial equipment. Guided waves-based structural health monitoring technology is a multidisciplinary study which requires a deep understanding of materials, sensors, modeling forms, electronic circuits, signal processing methods, and diagnostic algorithms. Therefore, this book provides the readers with a summary of the fundamental knowledge as well as methods of ultrasonic guided waves and introduces them to some case studies of structural health monitoring as they are applied in the context of the key industrial equipment monitoring problems. 384 pp. Englisch.



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