1. Record Nr. UNINA9910438313803321

Titolo	Disc brake squeal : mechanism, analysis, evaluation, and reduction/prevention / / [edited by] Frank Chen, Chin An Tan, and Ronald L. Quaglia
Pubbl/distr/stampa	Warrendale, Pa. (400 Commonwealth Dr., Wallendale PA USA) : , : Society of Automotive Engineers, , c2006 [Piscataqay, New Jersey] : , : IEEE Xplore, , [2005]
Edizione	[1st ed.]
Descrizione fisica	1 PDF (x, 401 pages) : illustrations, digital file
Collana	Society of Automotive Engineers. Electronic publications.
Altri autori (Persone)	ChenFrank TanChin An QuagliaRonald L
Disciplina	629.2/46
Soggetti	Motor vehicles - Disc brakes - Vibration - Prevention
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Mechanisms and Causes of Brake Disc Squeal -- Contact and Interface Dynamics -- Parametric Vibration Induced by Moving Loads -- Complex Modes: Analysis and Design -- Complex Eigenvalue Analysis of Friction Moment-Induced Mode Coupling in One- and Two-Dimensional Models -- Nonlinear Vibration, Instability, and Brake Squeal Operation Simulation -- Vibration of Disc Brake Rotors -- Brake Pad Damping: Measurement, Design, and Application -- Dynomometer Testing -- Los Angeles City Traffic (LACT) Testing -- Noise Dynamometer and Vehicle Test Correlation -- Friction Materials Elastic Constant Measurements -- Empirical Mode Decomposition Analysis Technique -- Laser Metrology and Its Applications to Brake Squeal -- Squeal Reduction and Prevention.
Sommario/riassunto	Chapters written by professional and academic experts in the field cover: analytical modeling and analysis, CEA modeling and numerical methods, techniques for dynamometer and road test evaluation, critical parameters that contribute to brake squeal, robust design processes to reduce/prevent brake squeal via up-front design, and more.