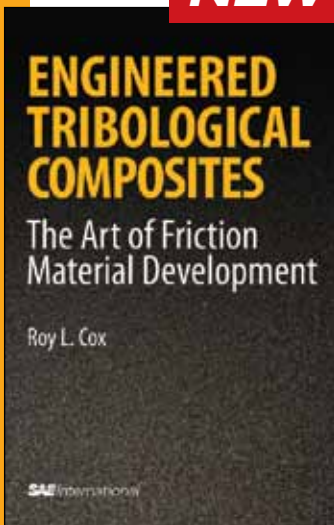


NEW



Engineered Tribological Composites

By Roy Cox

Roy Cox provides readers with a thorough presentation of the topic, beginning with the earliest work on brakes by Froom in the early 1900s and friction studies by daVinci in the 1400s. From there, details about the processes of wear and the components of tribological systems are presented. Methods of manufacturing friction materials are described, and the elements of friction material are detailed—binders, fibers, abrasives, and lubricants.

A large portion of the book delves deeply into materials for binders, resins, fibers, abrasives, lubricants, and fillers, providing background on the various materials, their pros and cons, and numerous ways they can be applied to friction systems. Much of this discussion focuses on the compositional makeup and effects of ingredients as they relate to the wear and friction performance of the final product.

Readers will gain a solid background about tribology, as well as a solid understanding of matrices, fibers and additives that make up engineered tribological composites. They will learn how manufacturing affects these composites, along with how friction and wear affect those materials. They will gain a better understanding of which materials provide the optimum balance of cost, friction and wear for various applications, enabling them to better create and apply engineered tribological composites for whatever application is at hand.

ISBN: 978-0-7680-3485-1, 524 pp.,

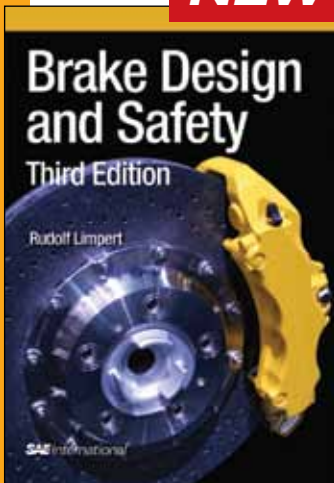
Hardbound 2011.

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Product Code R-401

ebook
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NEW



Brake Design and Safety, Third Edition

By Rudolf Limpert

The objectives of this third edition of an SAE classic title are to provide readers with the basic theoretical fundamentals and analytical tools necessary to design braking systems for passenger vehicles and trucks that comply with safety standards, minimize consumer complaints, and perform safely and efficiently before and while electronic brake controls become active.

This book, written for students, engineers, forensic experts, and brake technicians, provides readers with theoretical knowledge of braking physics, and offers numerous illustrations and equations that make the information easy to understand and apply.

New to this edition are expanded chapters on:

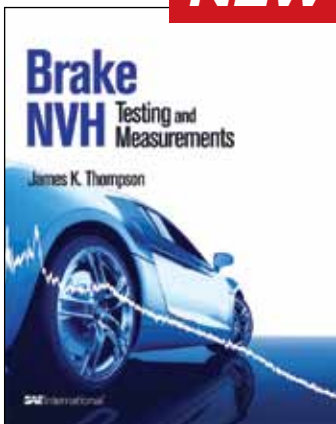
- Thermal analysis of automotive brakes
- Analysis of hydraulic brake systems
- Single vehicle braking dynamics

ISBN: 978-0-7680-3438-7, 432 pp., Hardbound 2011.

\$99.95 List

Product Code R-398

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Brake NVH: Testing and Measurement

By James K. Thompson

As other vehicle systems have become more refined, more attention must be placed on brake NVH issues because they can cause a negative customer experience. From the laboratory to the road, the use of technology as well as further study by engineers is helping to lessen noise, judder, and vibration in cars.

This book provides readers with a fundamental understanding of current practices for measuring and testing brake NVH. From coverage of basic definitions and concepts to in-depth analysis of on-road testing procedures, it will serve as a comprehensive reference guide for brake test technicians, test engineers, lab managers, and others who work on making brakes quieter, smoother, more refined, and more reliable. Readers will learn how to test for brake noise, what tools to use, and which recent standards and practices have led to the successful measurement of brake noise and vibration.

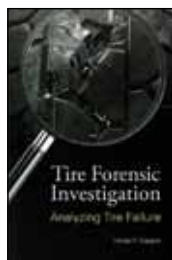
Topics covered include:

- Common brake noise and vibration issues
- Instrumentation, transducers, and other technical details
- Measurement practice for laboratory and on-road testing
- Brake pad damping and natural frequencies
- Current trends in brake noise and vibration measurements

ISBN: 978-0-7680-3480-6, 156 pp., Hardbound 2011.

\$79.95 List

Product Code R-399

eBook
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Tire Forensic Investigation Analyzing Tire Failure

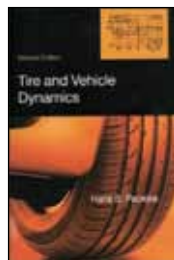
By Thomas Giapponi

Based on the author's 30 years of experience in the tire industry, this book looks at the methodical, physical, visual and tactile examination of the failed tire and identifies the various failure modes for passenger car and light truck tires.

978-0-7680-1955-1, 238 pp., Paperbound 2008.

\$79.95 List

Product Code: R-387



Tire and Vehicle Dynamics, Second Edition

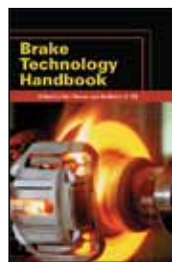
By Hans B Pacejka

This publication provides a complete reference on the mechanical behavior of pneumatic tires and their impact on vehicle performance. The comprehensive scope of the book includes developing an understanding of mathematical models of tire behavior, the incorporation of these models into vehicle models, and presenting an applied understanding of how the tire influences vehicle behavior.

978-0-7680-1702-1, 642 pp., Paperbound 2005.

\$79.95 List

Product Code: R-372



Brake Technology Handbook

By Karlheinz Bill, Bert J. Breuer

Translated and completely updated from the landmark German-language work, this book covers brake system fundamentals, requirements, design, construction, components, and subsystem functions for vehicles of all types (including passenger cars, commercial vehicles, off-road vehicles, motorcycles, racing vehicles and even aircraft).

978-0-7680-1787-8, 576 pp., Hardbound 2008.

\$119.95 List

Product Code: R-375

eBook
available

Disc Brake Squeal Mechanism, Analysis, Evaluation, and Reduction/Prevention

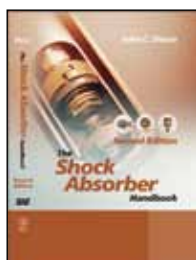
By Frank Chen, Chin An Tan, Ronald L. Quaglia

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.

978-0-7680-1248-4, 400 pp., Hardbound 2005.

\$99.95 List

Product Code: R-353



Shock Absorber Handbook, Second Edition

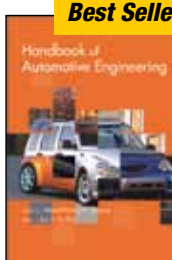
By Dr. John C. Dixon

This completely updated second edition remains the only English-language book devoted to the subject with comprehensive coverage of design, testing, installation, and use of the damper.

978-0-7680-1843-1, 432 pp., Hardbound 2007.

\$99.99 List

Product Code: R-381

**Best Seller**

Handbook of Automotive Engineering

By Ulrich W. Seiffert, Hans Hermann Braess

One of the most comprehensive encyclopedias of vehicle systems and design, this book features 1600 pages packed with information on automotive design and applications from over 40 subject matter experts.

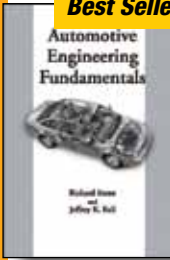
978-0-7680-0783-1, 638 pp., Hardbound 2005.

\$139.95 List

Product Code: R-312

Chassis

Best Seller



Automotive Engineering Fundamentals

By Richard Stone, Jeffrey K. Ball

The authors provide an overview, which is designed to give the student of automotive engineering a basic understanding of the principles involved with designing a vehicle.

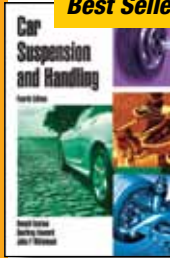
978-0-7680-0987-3, 612 pp., Hardbound 2004.

\$99.95 List

Product Code: R-199

ebook
available

Best Seller



Car Suspension and Handling, Fourth Edition

By Geoffrey Howard, Donald Bastow, John Peter Whitehead

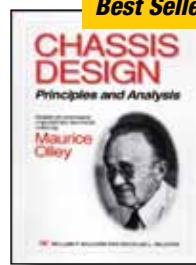
This fourth edition focuses on the suspension and handling of cars, or automobiles, as opposed to those characteristics of other types of road vehicles, while always recognizing that there are differences in suspension requirements for different classes of vehicles, and in various markets of the world for a given vehicle.

978-0-7680-0872-2, 474 pp., Hardbound 2004.

\$49.99 List

Product Code: R-318

Best Seller



Chassis Design Principles and Analysis

By William F. Milliken, Douglas L. Milliken

This book based on Olley's technical writings is the first complete presentation of his life and work. It provides insight into the development of chassis technology and its practical application by a master.

978-0-7680-0826-5, 676 pp., Hardbound 2002.

\$79.95 List

Product Code: R-206

The Automotive Chassis Engineering Principles

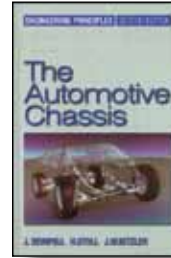
By J. Reimpell, H. Stoll, J. W. Betzler

This second English edition provides a clearly structured overview of chassis technology and includes over 400 illustrations relating basic engineering principles to the particular requirements of the chassis of vehicle mechanics.

978-0-7680-0657-5, 456 pp., Hardbound 2001.

\$69.95 List

Product Code: R-300



Riding on Air A History of Air Suspension

By Jack Gieck

This publication covers the history of air suspension, from the earliest patents in the mid-19th century to more current developments.

978-0-7680-0454-0, 272 pp., Paperbound 1999.

\$39.95 List

Product Code: R-235



ebook
available

The Shock Absorber Handbook

By John C. Dixon

This book provides comprehensive coverage of the design, installation, and use of the shock absorber. Among the subjects highlighted are fluid dynamics, valve characteristics, damper characteristics, installation and motion ratios, influence on vehicle ride and handling, testing machines, and methods of laboratory testing.

978-0-7680-0050-4, 495 pp., Paperbound 1999.

\$69.95 List

Product Code: R-176



ebook
available

Advanced Brake Technology

By Uwe Dausend, Bert J. Breuer

Advanced Brake Technology is an essential addition to the brake professional's library, covering important brake-related issues. Anti-lock braking systems (ABS), new material technologies, brake-by-wire systems, future brake technologies.

978-0-7680-1247-7, 416 pp., Paperbound 2003.

\$79.95 List

Product Code: R-352



ebook
available

Nonlinear and Hybrid Systems in Automotive Control

By Rolf Johansson, Anders Rantzer

With contributions from leading scientists in the field, this book presents an overview of research in this rapidly-expanding area. New approaches to solving theoretical problems, as well as numerous systems and control research issues, are covered.

978-0-7680-1137-1, 464 pp., Hardbound 2003.

\$79.99 List

Product Code: R-348



Best Seller



The Racing and High-Performance Tire Using the Tires to Tune for Grip and Balance

By Paul W. Haney

Based on 15 years of tire research, this book presents clear, non-academic explanations of how and why tires really work. Haney provides new insight into topics such as the complexity of rubber, how a pneumatic tire generates grip, and how to tune grip and balance using the load sensitivity of tires.

978-0-7680-1241-5, 286 pp., Hardbound 2003.

\$59.95 List

Product Code: R-351



ebook
available

Scrap Tires Disposal and Reuse

By Robert H. Snyder

This publication details the historical, technological, and economic issues related to the scrap tire industry, and the manner in which the scrap tire problem is addressed. The book provides advice on how scrap tires can be used for fuels, sealants, rubber mats, and more.

978-1-56091-682-6, 166 pp., Paperbound 1998.

\$29.95 List

Product Code: R-158



Tires, Suspension and Handling, Second Edition

By John C. Dixon

This book provides detailed coverage of the theory and practice of vehicle cornering and handling, making it an excellent resource for vehicle designers and engineering students who want to better understand and analyze the numerous factors affecting vehicle handling.

978-1-56091-831-8, 636 pp., Hardbound 1996.

\$69.95 List

Product Code: R-168

ebook available



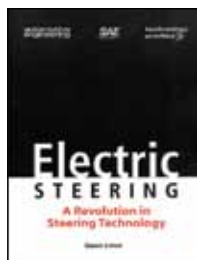
Spring Design Manual

The second edition of the Spring Design Manual ensures that engineers and designers have access to the latest SAE spring-related documents.

978-1-56091-680-2, 421 pp., 6 Sections, Paperbound 1996.

\$109.95 List

Product Code: AE-21



**Electric Steering
A Revolution in Steering Technology**

By Daniel J. Holt

This book offers information on how this revolutionary steering system evolved, and the effects its implementation will have on America's largest manufacturing industry.

978-0-7680-0919-4, 58 pp., Paperbound 2001.

\$99.99 List

Product Code: T-103

ebook available



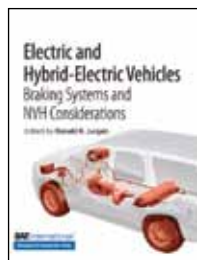
Bosch Automotive Handbook, 8th Edition

This new edition of the best-selling, reference book includes more than 580 pages of new and revised content covering topics such as: hybrid drives, fuel cells, chassis control, active safety, and automotive electronics. Covering hundreds of automotive subjects, this handbook also contains more than 1,000 illustrations, diagrams, tables, and sectional drawings.

978-0-7680-4851-3, 1266 pp., Paperbound 2011.

\$32.50 List

Product Code: BOSCH8



Electric and Hybrid-Electric Vehicles - Braking Systems and NVH Considerations

By Ronald K. Jurgen

This book is the fourth in a series of five volumes covering electric and hybrid-electric vehicle technology and features eight SAE technical papers, published from 2008 through 2010, that provide an overview of research on electric vehicle braking systems and electric vehicle NVH.

978-0-7680-5720-1, 93 pp., Paperbound 2010.

\$89.95 List

Product Code: PT-143/4



Honda R&D Technical Review: October 2010

This ebook gives unique insight into the cutting-edge technical developments from Honda's worldwide R&D team from April through September 2010.

978-0-7680-7404-2, PDF Only 2010.

\$100.00 List

Product Code: B-HON-008

ebook available



Electronic Braking, Traction, and Stability Controls, Volume 2

By Ronald K. Jurgen

This book contains 80 papers covering six years of research (2000-2005) on advances in electronic braking systems (including brake-by-wire and antilock braking systems), traction control systems (TCS, ASR); and stability control systems (VDC).

978-0-7680-1786-1, 656 pp., Hardbound 2006.

\$49.99 List

Product Code: PT-129



Modern Electric, Hybrid Electric, and Fuel Cell Vehicles Fundamentals, Theory, and Design, Second Edition

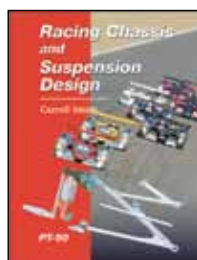
By Mehrdad Ehsani, Ali Emadi, Yimin Gao

Building on the foundation of the bestselling first edition, this second edition updates and expands its detailed coverage of the vehicle technologies that offer the most promising solutions to these issues affecting the automotive industry.

978-1-4200539-8-2, 557 pp., Hardbound 2009.

\$129.95 List

Product Code: B-884



Racing Chassis and Suspension Design

By Carroll Smith

Hand-selected by racing engineer legend Carroll Smith, the 28 SAE Technical Papers in this book focus on the chassis and suspension design of pure racing cars. These technical papers, written between 1971 and 2003, offer what Smith believed to be the best and most practical nuggets of racing chassis and suspension design information.

978-0-7680-1120-3, 348 pp., Paperbound 2004.

\$99.95 List

Product Code: PT-90



Honda R&D Technical Review: April 2009

This unique book gives rare insight into the work of Honda's worldwide R&D team, covering technical developments from October 2008 through March 2009. With special focus on fuel cell vehicles, the 33 papers included also cover other automotive topics, as well as motorcycle, power products, and other fundamental technologies.

978-0-7680-2162-2, 246 pp., 2009.

\$49.95 List

Product Code: B-HON-007

ebook available

Chassis



Honda R&D Technical Review: October 2008

This unique book gives chronicles the top Honda technical developments from April through September 2008. The 21 papers included give rare insight into the Honda's worldwide R&D team, and cover automotive, motorcycle, power products, and other fundamental technologies. Full-color diagrams complement the text.

978-0-7680-2101-1, 2008.

\$49.95 List

Product Code: B-HON-006

ebook
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Honda R&D Technical Review: April 2007

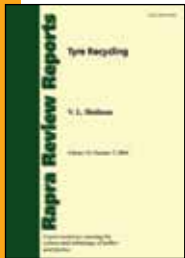
The 27 papers included in this volume chronicle the best of Honda's documented technical advancements from October 2006 through March 2007 and cover automotive, motorcycle, power products, and other fundamental technologies. Full-color diagrams complement the text.

978-0-7680-1937-7, 186 pp., 2007.

\$49.95 List

Product Code: B-HON-003

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available



Tyre Recycling

By V.L. Shulman

This book, primarily based upon information from the EU, summarizes current practices of tyre recycling and explores innovative alternatives available to simply disposing of tires.

978-1-85957-489-8, 144 pp., 2004.

\$153.00 List

Product Code: B-RAP-003

ebook
available



Carroll Smith's Engineer in Your Pocket A Practical Guide to Tuning the Race Car Chassis and Suspension

By Carroll Smith

A compilation of Smith's extensive knowledge gained over the past 40 years as a race driver and engineer for many winning teams, this book is laid out to make problem solving as simple as possible. When used in one direction, it lists handling problems and their possible causes. Flip the book over and the other side presents causes first and their possible effects.

Published by Carroll Smith. Distributed by SAE.

978-0-9651600-1-8, 32 pp., Paperbound 1998.

\$15.95 List

Product Code: B-789



The Global Chassis Sector Report: An Analysis of the Braking, Steering & Suspension Markets

This exclusive report from ABOUT Automotive and Autelligence addresses the critical issues currently facing the automotive chassis sector. The report also provides detailed coverage of the main players in the industry.

72 pp., PDF Only 2006.

\$767.00 List

Product Code: MR-AB-005

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NEW

Advanced Chassis Systems Report

This first edition report looks at the key development drivers in the chassis systems sector and provides analysis on chassis performance. The report also provides detailed sections on suspension systems, steering systems, braking system development and four-wheel steering, as well as profiles of the 27 major players.

130 pp., PDF Only 2011.

\$2110.00 List

Product Code: MR-SB-121

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NEW

Trends in the Global Tire Industry Report

Newly published, this report provides an in-depth overview of a currently strong tire market, and looks at the internal and external forces currently driving this sector. A region by region analysis is included, along with detailed company analysis of all the major industry players.

279 pp., PDF Only 2011.

\$2110.00 List

Product Code: MR-SB-097

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The Steering Systems Report

This second edition Steering Systems Report provides a detailed market overview including all the latest technological developments within the sector. Also covered are profiles of all the major players within the industry. The report goes into details of how the market is structured for EPS, Hydraulic, EHPS, Active Steering, Total Chassis Control, Steer-by-wire, and Four Wheel Steering.

73 pp., PDF Only 2009.

\$1830.00 List

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