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Catalog

New Release

Porsche: Excellence Was Expected 3

by Karl Ludvigsen

Porsche: Excellence was Expected, Karl Ludvigsen’s masterwork, is the unrivaled history of the Porsche company, its cars, and its motor racing heritage from the first Gmünd coupe in 1948 through its sixty years as an independent car company to its continued success under the auspices of the Volkswagen Group. Now four volumes, 2,834 pages and with nearly 3,000 photos and illustrations, every page of this all new *Excellence was Expected* has been revised and redesigned.

If the first edition of *Excellence Was Expected* was “the definitive archetypal marque history,” (Michael Scarlett, *Autocar*) this revision and update is much more so. Ludvigsen’s masterwork is once again set to achieve new milestones, just as the company it chronicles continues to shape our very definition of the term “sports car.”

Featured

Porsche—Origin of the Species. . . . 10

by Karl Ludvigsen

Jerry Seinfeld’s Porsche Gmünd coupe 356/2-040 serves as the inspiration for this in-depth exploration by the automotive historian Karl Ludvigsen into the specific influences and circumstances that brought forth the first Porsche-badged sports cars.

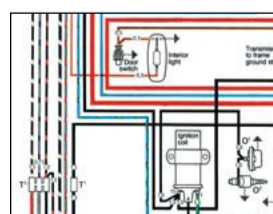
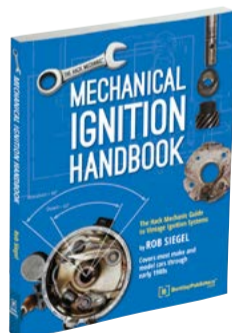
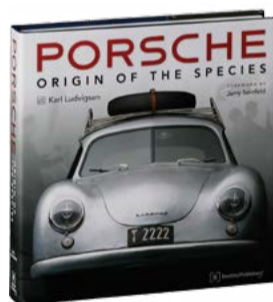
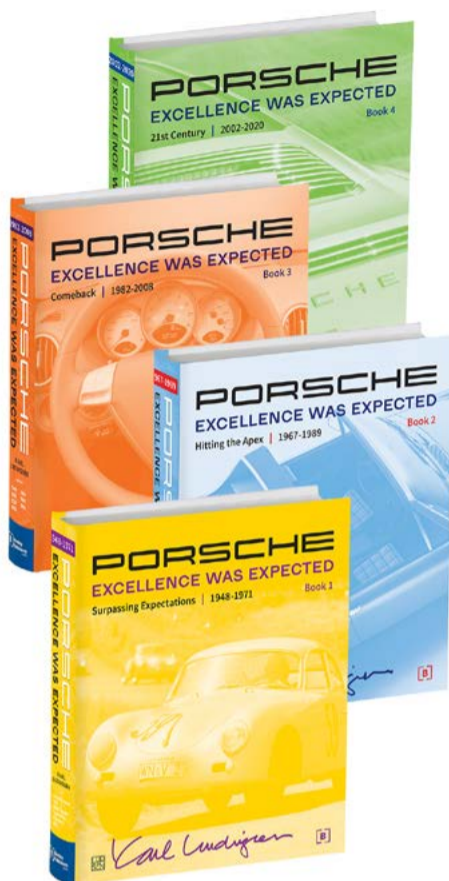
Mechanical Ignition Handbook: The Hack Mechanic Guide to Vintage Ignition Systems 23, 44

by Rob Siegel

This Hack Mechanic guide explains how mechanical ignition works, and shows you how to troubleshoot mechanical ignition problems. Includes details on how to set dwell angle, point gap, timing and advance, and more.

Volkswagen Beetle and Karmann Ghia (Type 1) Service Manual: 1966-1969 . . . 35

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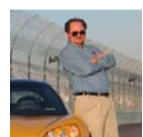
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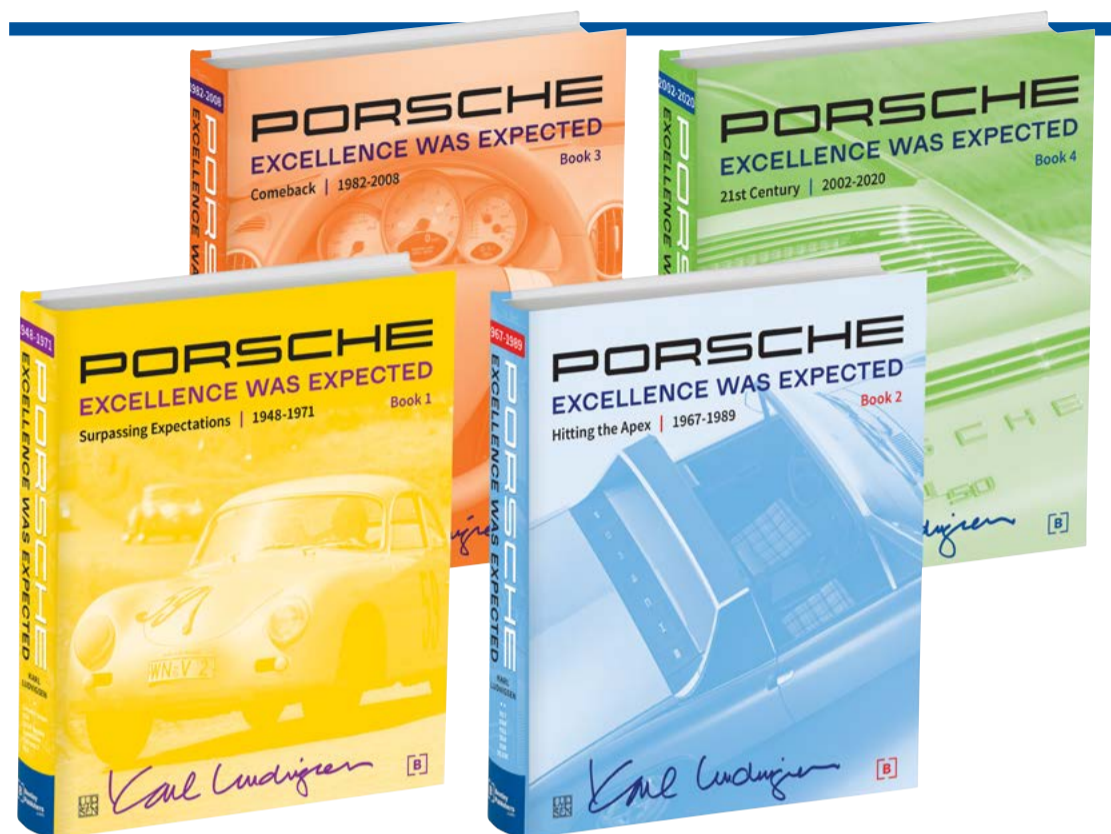
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Featured



Porsche: Excellence Was Expected by Karl Ludvigsen

ISBN 978-0-8376-1769-5

Bentley Code: GPXS

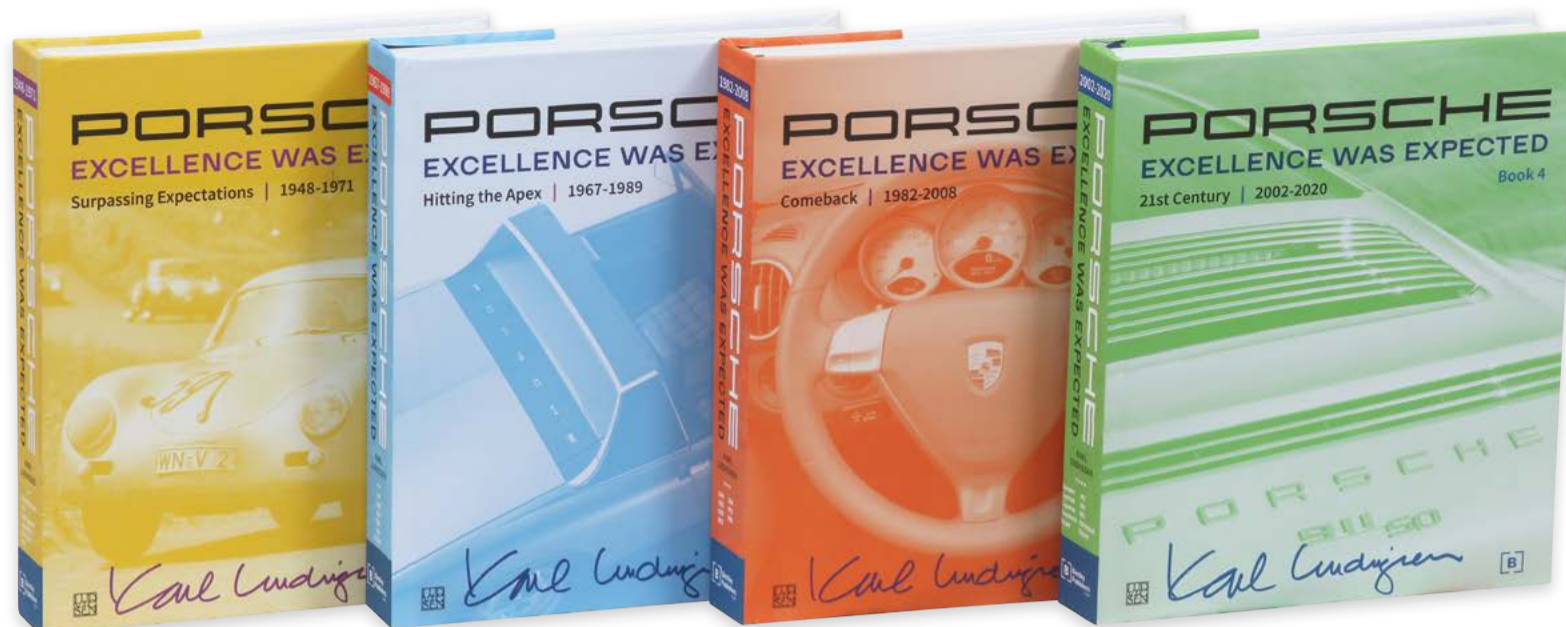
Price: \$524.95

4 Volume Set
Hardcover, 9 in. x 10.5 in.
2,836 pages, 2,912 photos, illustrations and diagrams

Knowing this will be his final update to *Porsche: Excellence Was Expected*, Karl Ludvigsen has not been content to simply add on a few new chapters to the end of his magnum opus. Instead, he has gone back to the very beginning to revise the entire book, which now tops out at over a million words and 2,900 photos and illustrations! By his own account, “I knew some passages were not correct. More importantly, I wanted to leave *Excellence* in the best possible condition with all my later knowledge and that of others included and interpreted.” To that end, Ludvigsen worked closely with the Porsche Archives as well as researching the many fresh interviews and recent memoirs that shed new light on the company and its products.

Remarkable both for its breadth of coverage and its technical depth, *Excellence was Expected* covers every road and racing car from the first Gmünd coupe through the development of the 2020 all-electric Taycan.

See the following pages for more information about *Porsche: Excellence Was Expected*.



Porsche: Excellence Was Expected by Karl Ludvigsen

ISBN 978-0-8376-1769-5

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4 Volume Set

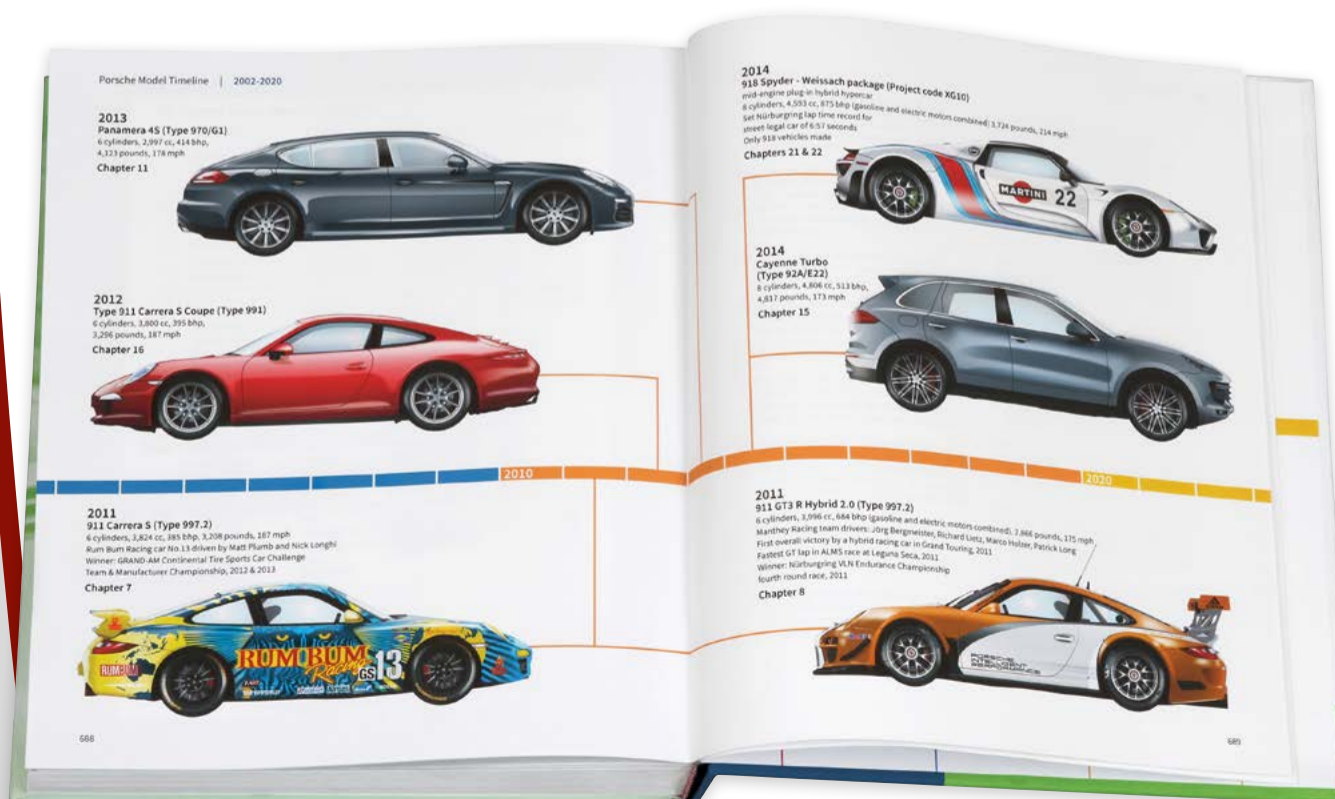
Hardcover, 9 in. x 10.5 in.

2,836 pages, 2,912 photos,
illustrations and diagrams

Porsche: Excellence was Expected, Karl Ludvigsen's masterwork, is the unrivaled history of the Porsche company, its cars, and its motor racing heritage from the first Gmünd coupe in 1948 through its sixty years as an independent car company to its continued success with the 2020 Taycan under the auspices of the Volkswagen Group.

Over 40 years ago, Ludvigsen's first edition of *Porsche: Excellence was Expected* was hailed as "the definitive archetypal marque history," and updates in 2003 and 2008 continued to enhance that reputation. For this final update, the first in over 10 years, Ludvigsen reviewed newly available Porsche archival material, conducted new in-depth interviews, and unearthed many fresh facts that allowed new and sometimes surprising interpretations of many aspects of the Porsche company and its cars.

Now four volumes, 2,834 pages and with nearly 3,000 photos and illustrations, every page of this all new *Excellence was Expected* has been revised and redesigned.



Each volume includes a Porsche model timeline featuring detailed illustrations of significant production and racing models that were commissioned exclusively for *Porsche: Excellence Was Expected*.

Porsche: Excellence Was Expected

Book 1: Surpassing Expectations 1948-1971

by Karl Ludvigsen

Hardcover, 9 in. x 10 1/2 in.

744 pages, 846 photos and illustrations



1 Surpassing Expectations 1948-1971

Production	Competition
356	550
America Roadster	550 A Spyder
Speedster	718
356 A	804 GP
356 B	Elva-Porsche
356 C	904/Carrera GTS
911	906/Carrera 6
912	911 R
911 S	910 Bergspyder
	907
	908
	909
	917K

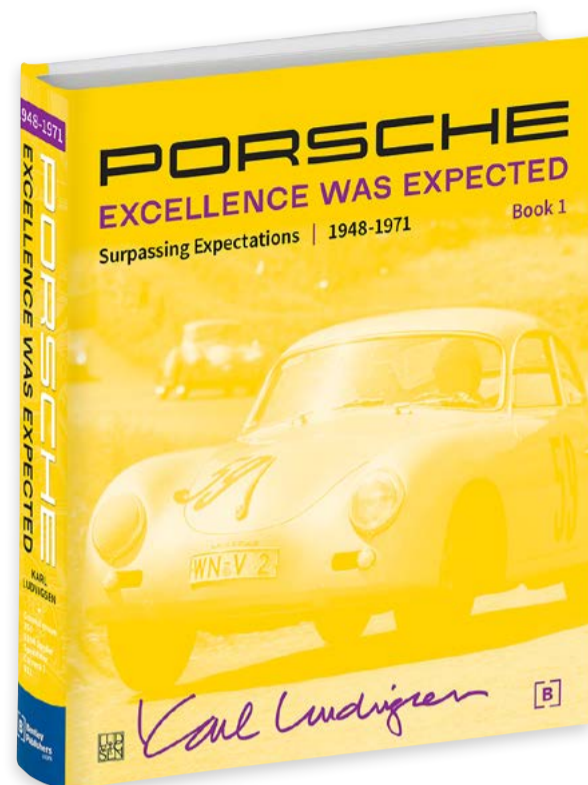
Long an important force in the design of German automobiles, Porsche's fledgling effort at building its own vehicles occurred just after World War II in the unlikely location of a sawmill in Gmünd, Austria. From those modest beginnings, Book 1 of **Porsche: Excellence Was Expected** by Karl Ludvigsen takes the reader through Porsche's move back to Stuttgart and its first forays into racing with its road cars.

Soon, in the tradition of Prof. Porsche, the company defined itself as one that found its own unique engineering solutions to any challenge.

For its own cars that meant exploiting the Volkswagen formula of a rear-mounted air-cooled engine driving the rear wheels. Those challenges also included competition, first at the local level and then on the international stage.

Gradually the 356 evolved and matured. After a long and fruitful life it was superseded by the brilliant 911 in 1965. In the same way some of the old guard—such as Huschke von Hanstein who ran public relations and competitions—gave way to young leaders like Ferdinand Piëch. Meanwhile the company continued its march towards the highest levels of motorsports contests, scoring victories in endurance racing, Formula One, rallying and in many different venues across the globe.

This first period of Porsche history was pivotal. Under Ferry Porsche the young car company confirmed its impeccable engineering credentials, became known globally through competition and continued its cautious expansion while remaining privately held and proudly independent of bankers. Just as this era of the company created the foundation for all of its future accomplishments, this first volume of Karl Ludvigsen's masterwork provides the building blocks for the fascinating history and developments to follow.



Butzi Porsche (right) poses with the 901, which showed the influence of his designs for the abandoned four-passenger T7 (Book 1, Chapter 35).



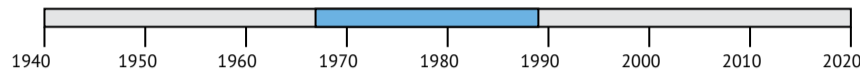
Porsche: Excellence Was Expected

Book 2: Hitting the Apex 1967-1989

by Karl Ludvigsen

Hardcover, 9 in. x 10 1/2 in.

652 pages, 647 photos and illustrations



2 Hitting the Apex 1967-1989

Production	Competition
914	917
914.6	Carrera RSR
911	IROC Carrera
911 Turbo Carrera	934
912E	935
930 Turbo	924 Carrera
924	953
928	956
911 SC	962

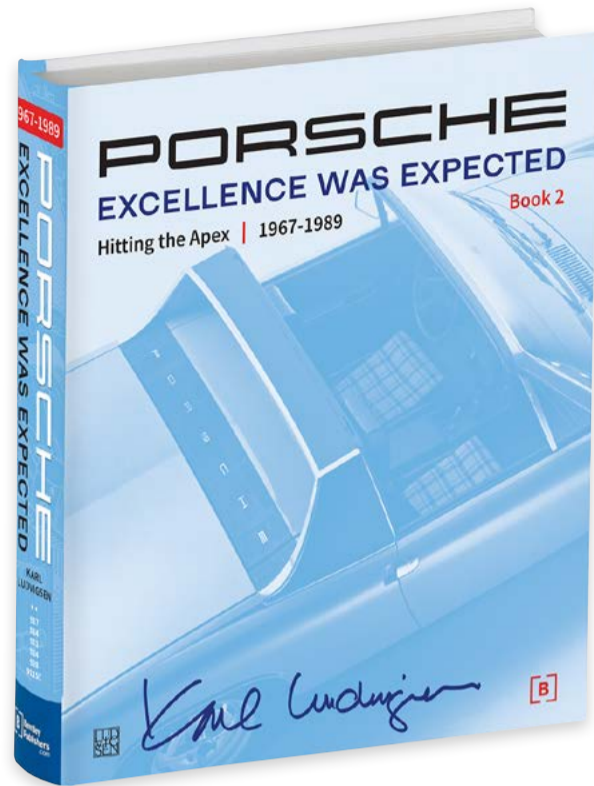
As author Karl Ludvigsen reveals in Book 2 of *Porsche: Excellence Was Expected*, the 1970s and 1980s were years of intense innovation for the Porsche factory. In fact, 1970 was to see the tiny automaker fulfill a major goal: its first overall victory at Le Mans. The company became a force in every arena of motorsports it entered, including Can Am, where Mark Donohue, George Follmer and the mighty Penske Racing 917s literally decimated the competition. Ludvigsen discusses in depth the development and campaigning of

Porsche's thoroughbred racers from this seminal era.

Porsche had long known the benefits of placing an engine amidships for its racing cars. However, in the late 1960s, Porsche and Volkswagen collaborated on a mid-engined sports car for the road. The author describes the development of this vehicle as well as its fortunes in the market place and its ventures onto racing circuits. He even discusses the sole pair of potent 914-based sportscars powered by the company's eight-cylinder racing motor.

In the late 1970s, the company adopted front-mounted engines and water-cooling in a move that was expected to spell the end for the venerable 911. The 924 and the impressive V-8 928 were both extremely successful in the American market, their primary target. Just as importantly, the Porsche engineers saw them as cars that could be more easily made to comply with ever-tightening Federal noise and emissions standards than the 911.

While detailing the company's models and its competition activities during this dramatic era for Porsche, Ludvigsen also explores the company's maturation process, the challenges facing the small automaker, and how it was to prepare for the future.



Inside the doors of the Turbo-look 911 Carrera and its sisters in 1985 were side-impact beams in all markets. (Book 2, Chapter 22).



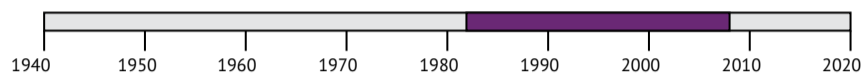
Porsche: Excellence Was Expected

Book 3: Comeback 1982-2008

by Karl Ludvigsen

Hardcover, 9 in. x 10 1/2 in.

742 pages, 846 photos and illustrations



3 Comeback 1982-2008

Production	Competition
959	959/961
928	McLaren-TAG F1
944	Porsche Carrera Cup
968	911 Carrera RS 3.8
911/964	911 Turbo 2/Turbo S2
911 Speedster	911 S LM GT
911 America Roadster	2708 Indycar
911 RS America	Footwork-Arrows FA12
911/993	911 Carrera RS 3.8
911/996	911 GT2
Boxster/986	WSC95
Cayenne/E1	911 GT1
Carrera GT	911 GT3
	911 GT3 RS

Porsche witnessed significant swings in its fortunes during the final two decades of the 20th Century. In Book 3 of *Porsche: Excellence Was Expected* author Karl Ludvigsen brings his industry experience and insider knowledge to bear in describing Porsche's pitfalls and its pivotal comeback.

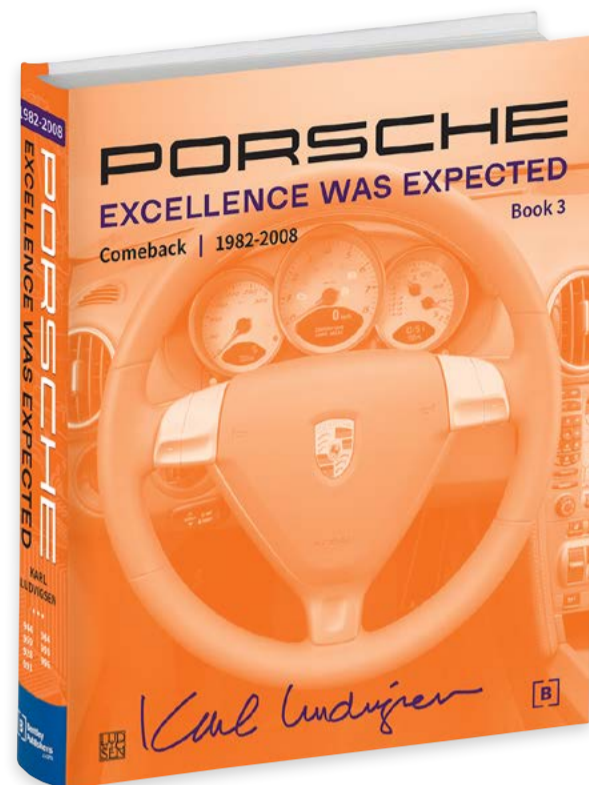
In the mid-1980s, the company's exploration of the FIA's Group B resulted in the fabulous all-wheel-drive 959 of 1985. It was fast, sophisticated and beautiful. It was also a money loser for the company. In this same period, Porsche conquered the highest levels of Formula One with the McLaren-TAG team. In contrast, Porsche lost its way with

the CART program and experienced a disappointing return to Formula One in 1991 with the Footwork Arrows team.

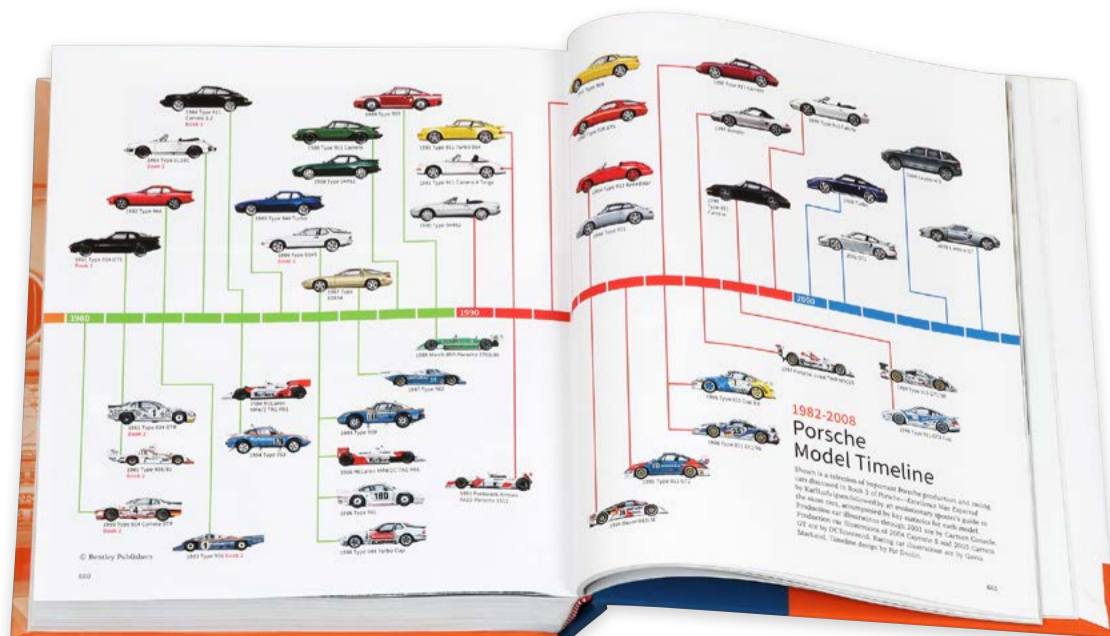
The 924 evolved into the 944, with its muscular flanks and its torquy inline-four. Well-received, the 944 earned the respect of even the toughest journalists. Ludvigsen's account shows how this model proliferation and the rise of the dollar took its toll on Porsche.

With the return of manufacturing specialist Wendelin Wiedeking in 1992 came massive changes that led to new efficiencies within the company. By the mid-1990s, the 911—as the Type 993—was Porsche's only product. Variations of the 911 also performed with distinction on the track, by way of the GT1, GT2 and GT3 racers available from the Porsche factory.

In addition, the company made a stock offering and reached into reserves to provide development funds for a pair of new automobiles. The resulting Boxster and Type 996 version of the 911 brought about a gradual resurgence for the little firm. Ludvigsen's Porsche history follows the carmaker into the first decade of the 21st century when the Cayenne SUV and the Carrera GT supercar expanded the Porsche product offering dramatically.



For the 2008 Transsiberia Rally the Cayennes were upgraded with rally dampers, better ramp angles and improved tires. In this, the last event of its kind, they filled the top five finishing places (Book 3, Chapter 28).



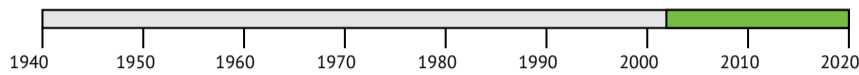
Porsche: Excellence Was Expected

Book 4: 21st Century 2002-2020

by Karl Ludvigsen

Hardcover, 9 in. x 10 1/2 in.

652 pages, 647 photos and illustrations



4 21st Century 2002-2020	
Production	Competition
Boxster/987	RS Spyder
Boxster /981	911 GT2
Cayman/987	911 GT2 RS
Cayman/981	911 GT3
Cayenne/E2	911 GT3 RS
Cayenne/E22	911 GT3 RS 4.0
Cayenne E-Hybrid	911 GT3 RSR
Panamera/970	911 GT3 Cup & Cup S
Panamera /971	911 GT3 R
Panamera S E-Hybrid	911 GT3 R Hybrid
Macan	Cayman GT4
911/997	918 RSR
911 /991	919 Hybrid
911/992	
918 Spyder	
Mission E/Taycan	

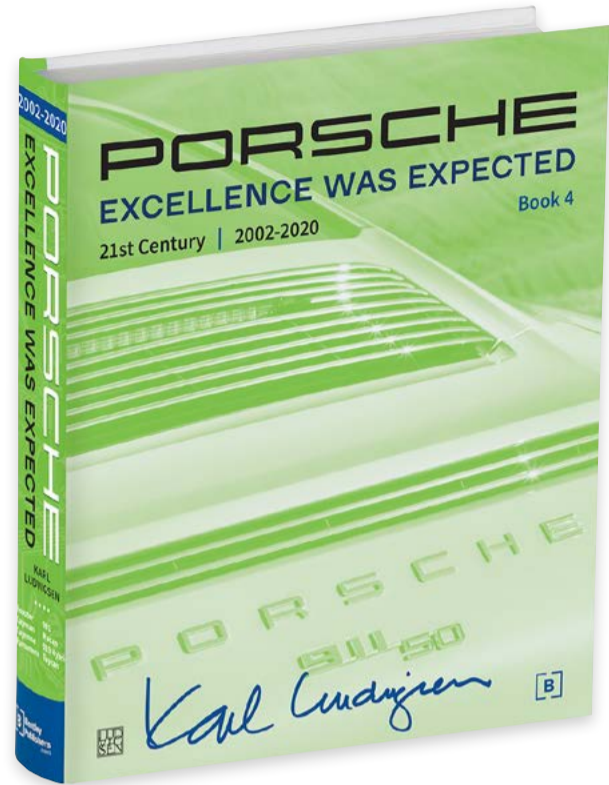
In Book 4 of *Porsche: Excellence Was Expected* Karl Ludvigsen recounts the dramatic events of 2008-09 that cast a deep shadow over what had been the world's most profitable car maker. Although the company became part of the VW Group, Porsche's reaction to the financial ructions was to launch one great new car after another. Among them was the sensational 918 Spyder, the hypercar whose first appearance at Geneva in 2010 went a long way to show that Porsche was still Porsche.

These were also the years of the creation and launch of the mid-engined Cayman coupe, which soon established a reputation as one of the world's best-handling sports cars. In 2016 Boxster and

Cayman were joined at the hip under the "718" title, a tribute to the great sports-racers of the 1950s and 1960s that carried that project number.

In 2009 Porsche introduced the Panamera, its most controversial offering since the Cayenne. Its complete overhaul in 2016 brought improved styling and new vee engines in a partnership with Audi. Many of the Panamera's components were shared with the Cayenne, which received a major upgrade in 2017. Since the 2014 model year it had a cheeky little sister, the Leipzig-built Macan. Also a fast seller, the Macan secured Porsche's financial future.

Flying the all-important sports-car flag was the evergreen 911 Carrera, first with the 997 and then the 991. The 992 arrived as a 2020 model with all the bells and whistles needed to keep it at the top of its class. Although a hybrid variant of the 992 was not imminent, most of the production Porsches were taking advantage of the exploits of the 919 Hybrid. Starting in 2015, this brilliantly engineered LMP1 racer won the 24 Hours of Le Mans three years running, testifying to Porsche's competitiveness. On the horizon was the all-electric Taycan pointing the way to the legendary sports-car maker's future.



Styling chief Harm Lagaaij admires a scale model of the new 997 version of the 911, shown here with fellow styling engineers Grant Larson (left) and Matthias Kulla (right). The new design is notable for the higher separation line between its rear bumper and bodywork. (Book 4, Chapter 4).





Karl Ludvigsen

A winner of numerous awards for his books and articles, Karl Ludvigsen has been active for 60 years as an automotive enthusiast, author and historian. As author, co-author or editor he has more than five dozen books to his credit. Three of his books have received the Nicholas-Joseph Cugnot Award from the Society of Automotive Historians, which in 2002 gave him its highest accolade, Friend of Automotive History.

Ludvigsen's career includes a dozen years in the auto industry as an executive with General Motors, Fiat and Ford and 15 years as the head of a leading London-based motor-industry management-consulting company. Born in Kalamazoo, Michigan in 1934, Ludvigsen has lived in England since 1980. In addition to his work as an author and historian he is a contributor to leading periodicals and a frequent speaker on automotive topics.

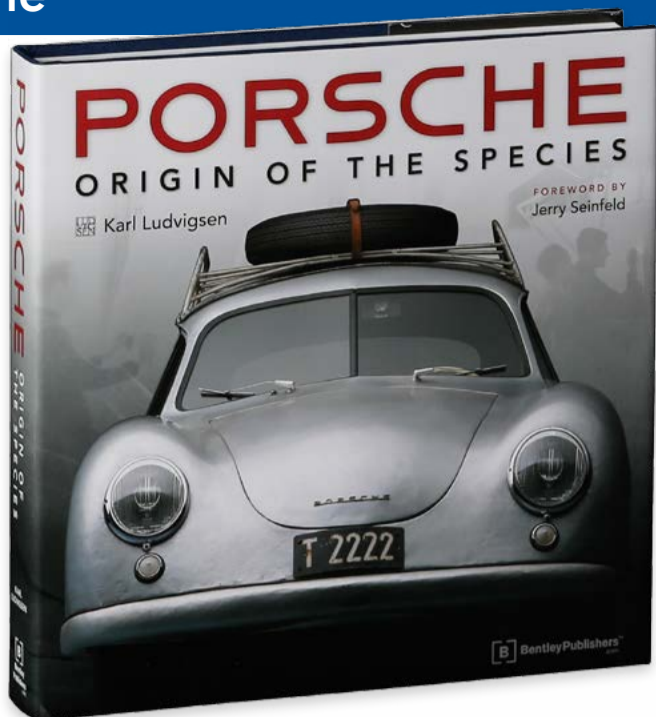
Karl has been a Member of the Society of Automotive Engineers since 1960 and is currently a member of its Historical Committee. He is a founder member of the International Motor Press Association, member of the Society of Automotive Historians, the Society For the History of Technology and the Guild of Motoring Writers.

Other titles by Karl:

- **Porsche – Origin of the Species** (page 10)
- **Corvette – America's Star-Spangled Sports Car: The Complete History 1952 – 1986** (page 60)
- **Battle for the Beetle** (page 33)
- **Ferdinand Porsche – Genesis of Genius** (page 11)
- **The V12 Engine** (page 46)
- **Classic Racing Engines** (page 46)

Awards include

- **2012 Dean Batchelor award** for *Porsche – Origin of the Species*
- **Best Book of 2012 by the Motor Press Guild** for *Porsche – Origin of the Species*
- **2009 Nicholas-Joseph Cugnot Award** for *Ferdinand Porsche – Genesis of Genius*
- **2008 Mercedes-Benz Montagu of Beaulieu Award** for *Ferdinand Porsche – Genesis of Genius*
- **2004 IAMA for Best Marque History and Best of Books** for *Porsche: Excellence was Expected*
- **2002 Friend of Automotive History Award from the Society of Automotive Historians**
- **2000 Nicholas-Joseph Cugnot Award** for *Battle for the Beetle*



Porsche—Origin of the Species

by Karl Ludvigsen

Foreword by Jerry Seinfeld

Bentley Stock No: GPGC

Price: \$149.95

ISBN 978-0-8376-1331-4

Hardcover, 10 1/2 in. x 10 1/2 in.

356 pages with 436 photos and illustrations

Within Jerry Seinfeld’s renowned Porsche collection resides an unassuming yet extraordinary piece of Porsche history: Porsche Gmünd coupe 356/2-040. Captured exclusively for this book in a series of evocative portraits by acclaimed automotive photographer Michael Furman, 040’s unsullied originality conveys with startling immediacy the combination of artistry, innovation and determination that went into its improbable creation. This cornerstone of the Seinfeld collection serves as the inspiration for *Porsche-Origin of the Species*, an in-depth exploration by the eminent automotive historian Karl Ludvigsen into the specific influences and circumstances that brought forth the first Porsche-badged sports cars.

“To perform one’s craft with his technical precision and beauty is the loftiest of levels in both authorship and car manufacture. It is no coincidence to me that the names Ludvigsen and Porsche are so closely associated. From Karl as well, excellence is always expected. And in this new telling of the story of the oldest Porsches, it is handsomely delivered.”

– Jerry Seinfeld,
from the Foreword to
Porsche – Origin of the Species

“...much more than just a coffee-table decoration... definitely a keeper for Porschephiles and all car enthusiasts.”

– The New York Times

“It is a fascinating read and one that we would put in the Top 10 of Porsche books. At 356 pages, with a great deal of unseen archive material, and some genuine revelations, its asking price seems a genuine bargain.”

– 911 & Porsche World

- Winner of the Best of Books award at the 22nd International Automotive Media Competition
- Winner of the Gold Medal for Book Writing - History, Single Marque or Manufacturer at the 22nd International Automotive Media Competition
- Winner of the 2013 Benjamin Franklin Gold Award for Best History Book from the Independent Book Publishers Association

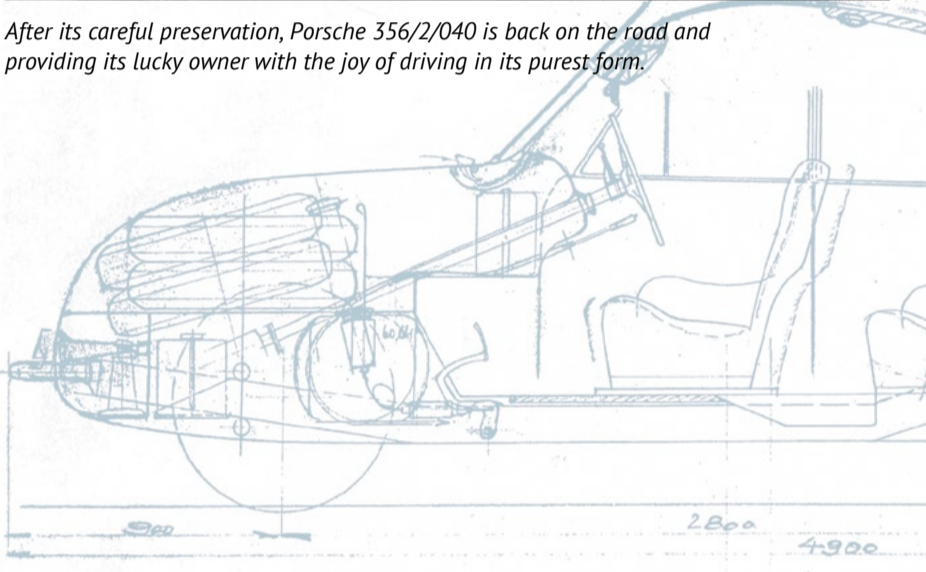




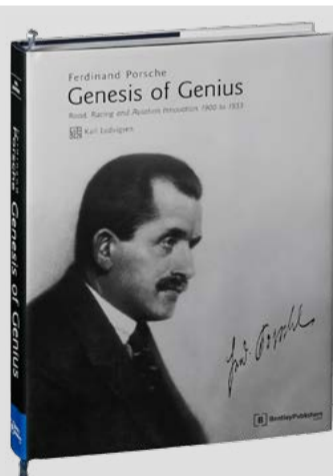
After its careful preservation, Porsche 356/2/040 is back on the road and providing its lucky owner with the joy of driving in its purest form.



Ferdinand Porsche with Auto Union colleagues Karl Feuereissen, August Jacob and Wilhelm Werner in 1936.



Otto Mathé posed in front of Zell am See's Grand Hotel with his 356/020-040.



**Ferdinand Porsche—
Genesis of Genius**
**Road, Racing and
Aviation Innovation
1900-1933**

by Karl Ludvigsen
Hardcover, 9.5 in. x 12 in.
496 pages
570 photos & illustrations,
including 7 color fold-out
drawings
ISBN 978-0-8376-1557-8

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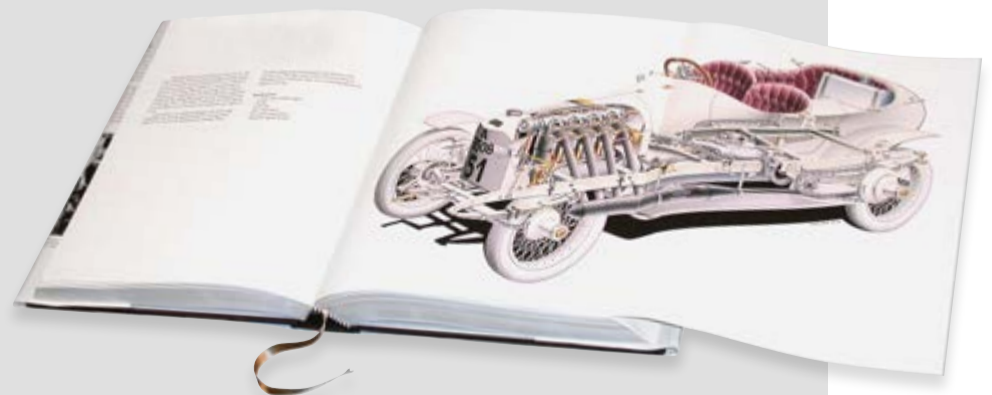
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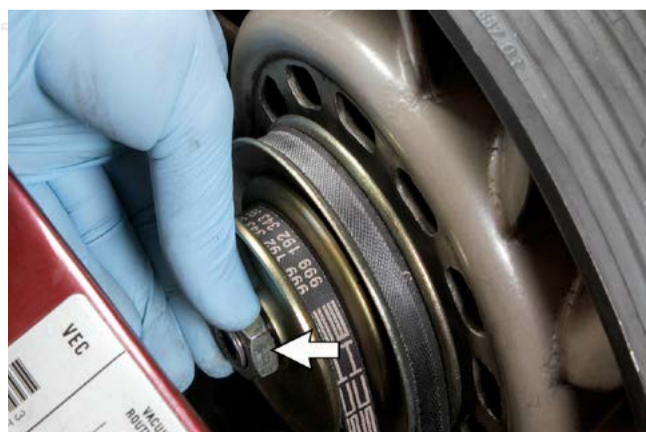


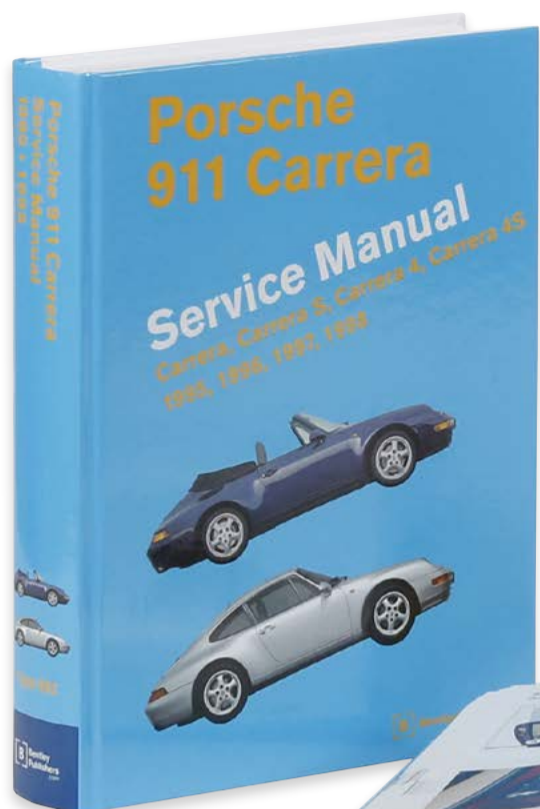
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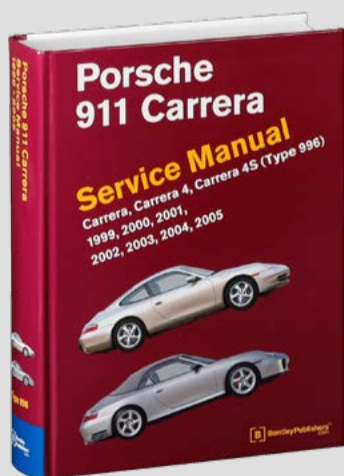
- 1995: 3.6 liter (M64.07 and M64.08)
- 1996-1998: 3.6 liter (OBD II M64.23 and M64.24)

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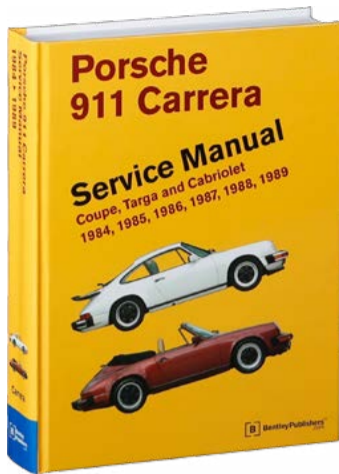
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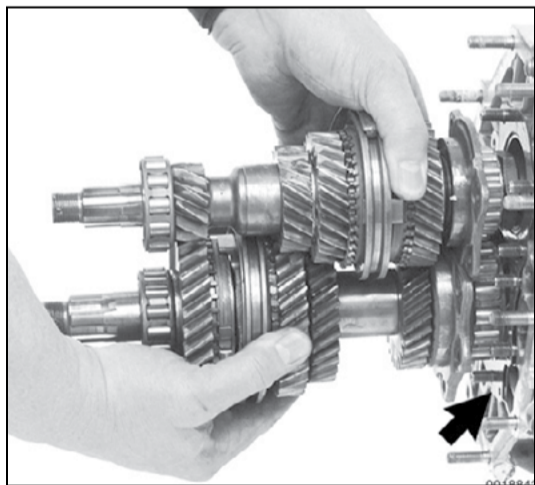
- 3.2 liter, air cooled, 6 cylinder horizontally opposed (930/21 and 930/25)

Transmissions covered:

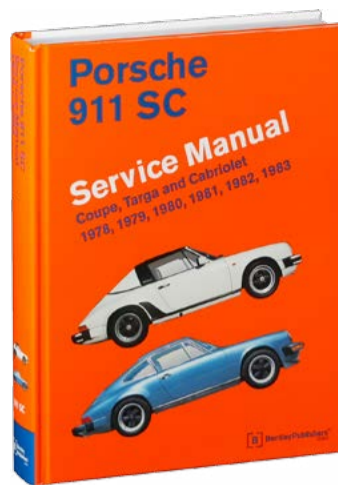
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**Manual
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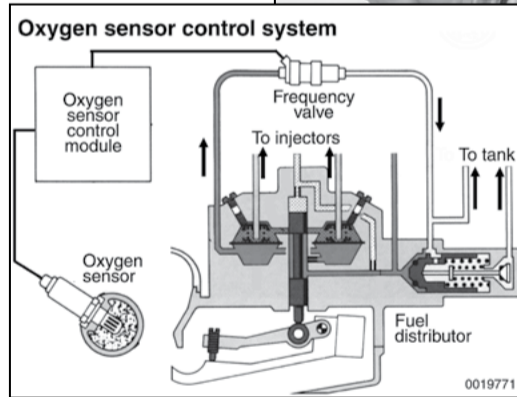
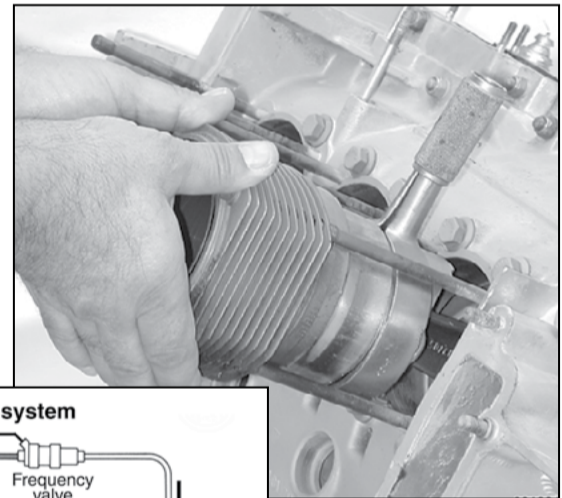
- 3.0 liter, air cooled, 6 cylinder horizontally opposed (930/04, 930/07 and 930/16)

Transmissions covered:

- 915 (5-speed, with cable-operated clutch)

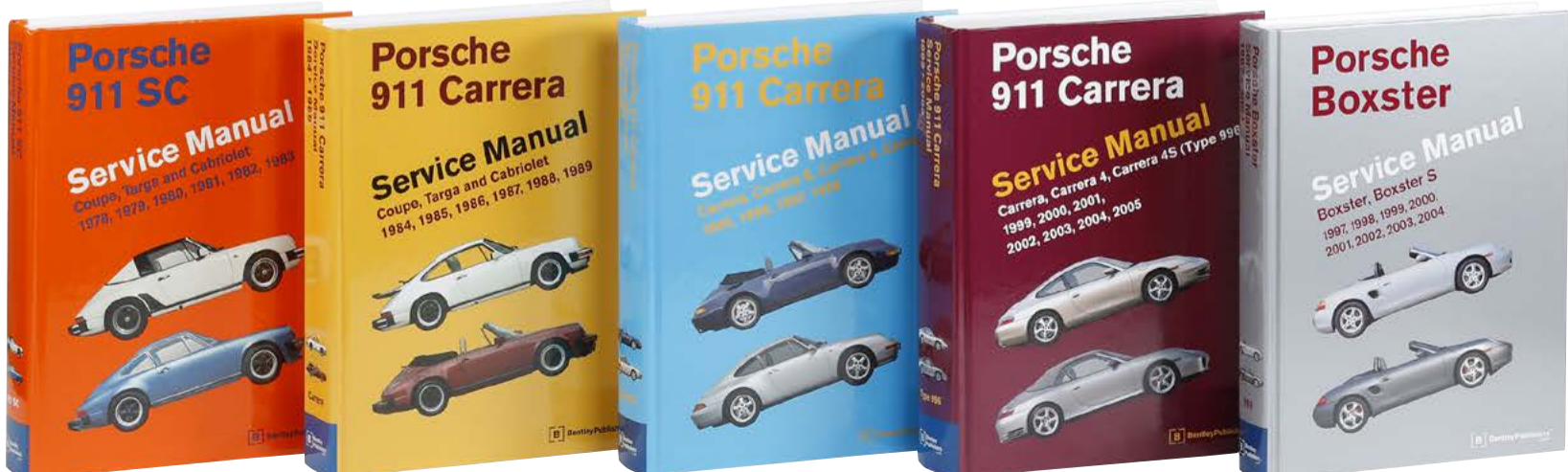
**Engine Disassembly
and Assembly**

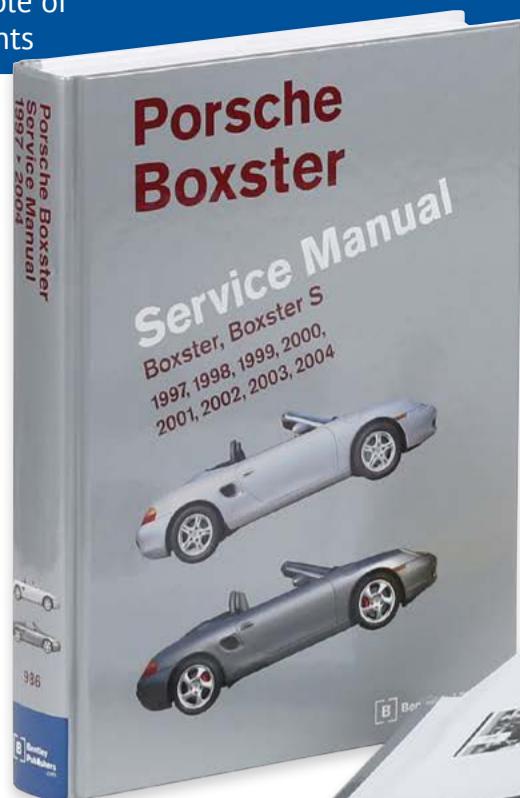
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**Engine Management-
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Learn about the inner workings of the CIS fuel injection system. Shown is the oxygen sensor control





**Porsche Boxster Service Manual:
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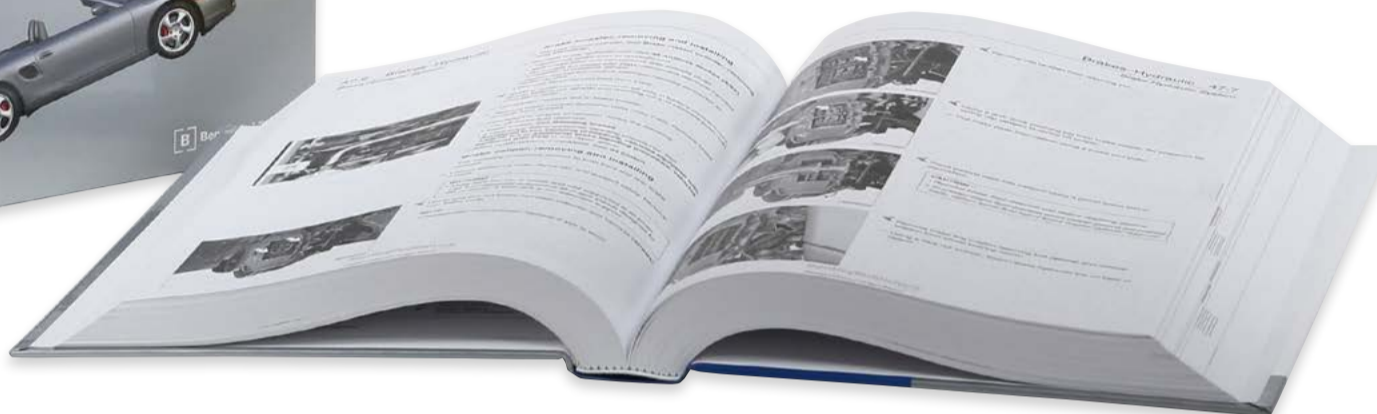
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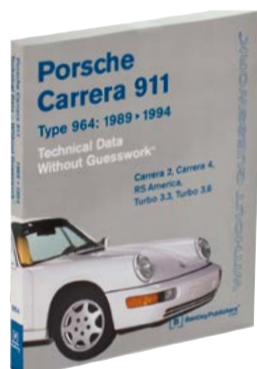
- Porsche Boxster: 5-speed (G86/00 and G86/01)
- Porsche Boxster S: 6-speed (G86/20)

Automatic transmissions covered:

- 1997-1999 Porsche Boxster: A86/00
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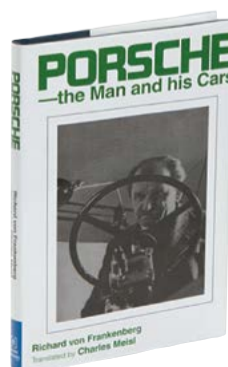
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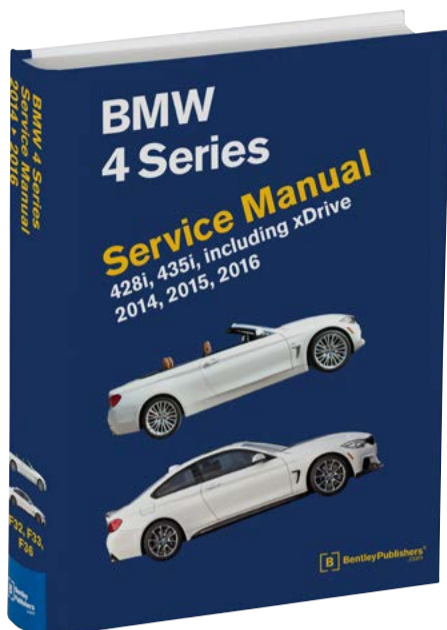
– Total BMW



The Bentley Service Manual Team

Everything that goes into a Bentley manual – from developing the outline, to meticulously disassembling the vehicle (and putting it back together again!), to taking hundreds of photographs of component locations – is done by our team of Technical Editors in our Cambridge office.

In authoring our manuals, our approach has been to go for the details, resulting in books that may look intimidating, but are easy to use. More detail and less “averaging of facts” leads to less guess work when you are working on a car.



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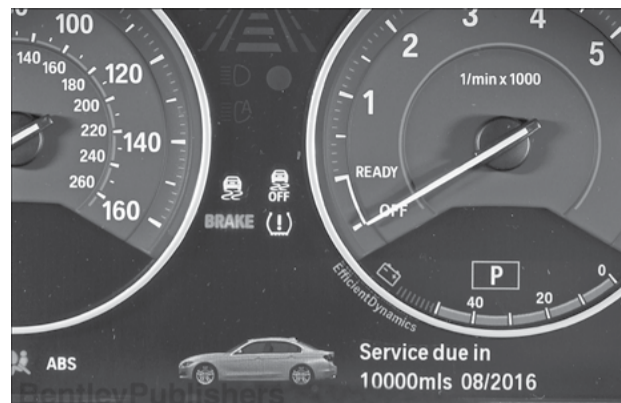
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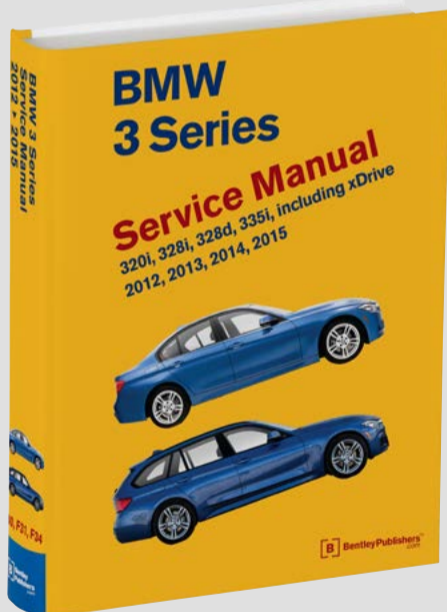
Learn how to reset condition-based service (CBS) intervals using iDrive. (020 Maintenance)

Engines (Gasoline):

- N20 engine: 428i, including xDrive
- N26 (SULEV) engine: 428i including xDrive
- N55 engine: 435i, including xDrive

Transmissions covered:

- Manual: GS6-17BG (4-cylinder models)
- Manual: GS6-45BZ (6-cylinder models, RWD)
- Manual: GS6X-45BZ (6-cylinder models, with xDrive)



BMW 3 Series (F30, F31, F34) Service Manual: 2012-2015

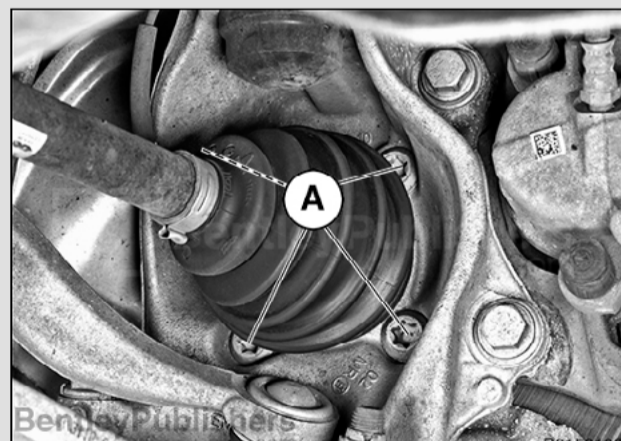
320i, 328i, 328d, 335i,
including xDrive

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Drive axle,
driveshaft and
wheel bearing
service are
covered.

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- N26 (SULEV) engine: 328i including xDrive
- N55 engine: 335i, including xDrive

Engine (Diesel):

- N47 engine: 328d, including xDrive

Transmissions covered:

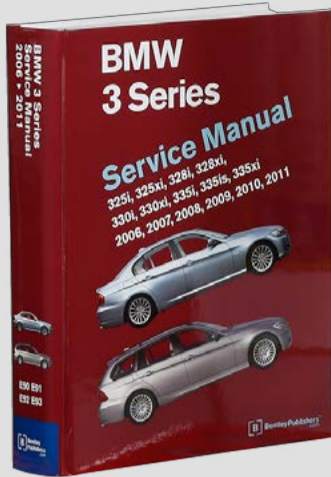
- Manual: GS6-17BG (6-speed)
- Manual: GS6-45BZ (6-speed)
- Manual: GS6X-45BZ (6-speed)
- Automatic: ZF GA8HP45Z (8-speed)

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**BMW 3 Series
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Service Manual:
2006-2011**

**325i , 325xi, 328i, 328xi,
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Normally aspirated models (6-cylinder 3.0 engines):

- N52 engine: 325i, 325xi, 330i, 330xi (2006)
- N52KP engine 328i, 328xi (2007-2011)
- N51(SULEV) engine: 328i, 328xi (2007-2011)

Twin turbo-charged models (6-cylinder 3.0 engines):

- N54 engine: 335i, 335xi (2009 - 2010), 335is (2011)
- N55 engine: 335i, 335xi (2011)

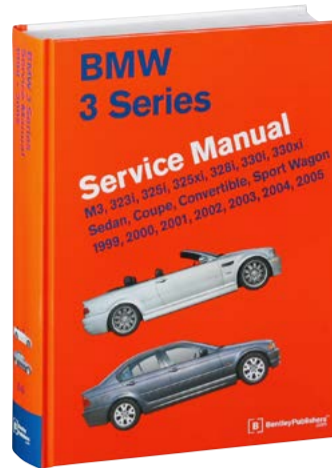
Transmissions covered:

- (remove, install, external service)
- Getrag GS6-17BG manual
- ZF GS6-37BZ manual
- ZF GS6-53DZ manual
- Getrag GS7D36SG double-clutch
- GM GA6L45R automatic
- ZF GA6HP19Z automatic

Bentley technical editors removing Valvetronic motor on N51 engine.



020 Maintenance
Learn how to reset condition based service (CBS) intervals using iDrive or stalk switch (cars without iDrive).



**BMW 3 Series (E46)
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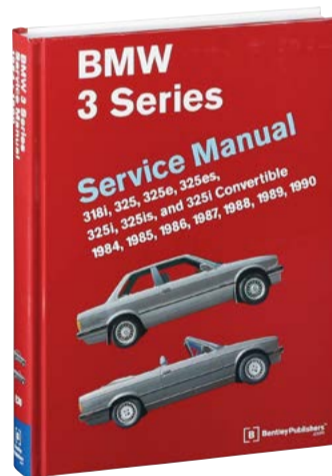
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B305\$139.95

The *BMW 3 Series (E46) Service Manual: 1999-2005* is a comprehensive source of service information and technical specifications available for the BMW E46 platform 3 Series models from 1999 to 2005.

Models and engines covered:

- 323i/Ci (M52 TU, 2.5 liter engine)
- 328i/Ci (M52 TU, 2.8 liter engine)
- 325i/Ci/xi (M54 / M56, 2.5 liter engine)
- 330i/Cis/xi (M54, 3.0 liter engine)
- M3 (S54, 3.2 liter Motorsport engine)



**BMW 3 Series (E30)
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Convertible**

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528 pages, 825
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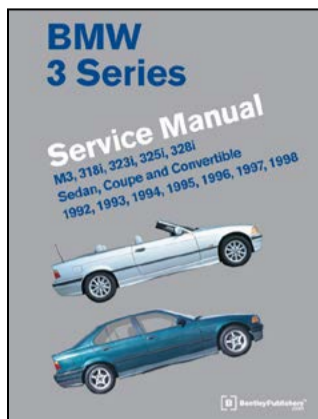
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BMW E30 models and engines covered in this BMW repair manual:

- 318i
- (M10, 1.8 liter engine)
- 325/e/es
- (M20, 2.7 liter engine)
- 325/i/is/Convertible
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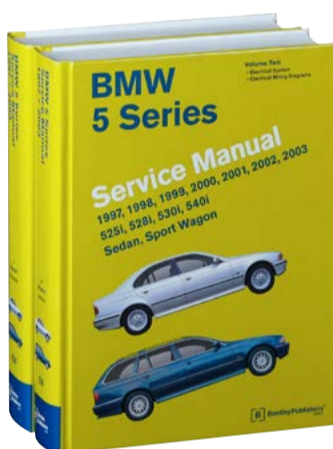
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Fuel injection systems covered:

- Bosch M 5.2, M 5.2.1, ME 7.2
- Siemens MS 41.0, MS 42.0, MS 43.0

Manual transmissions covered:

- Getrag S5D 250G, S6S 420G
- ZF S5D 320Z

Automatic transmissions covered:

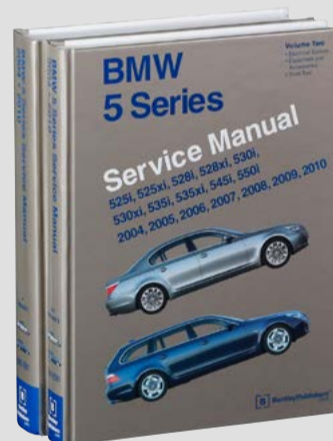
- A4S 270R, A4S 310R
- A5S 360R, A5S 390R
- A5S 325Z
- A5S 560Z, A5S 440Z

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Bentley technical editors removing motor cover on V8 (N62) engine.



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Models covered:

525i and 530i

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- N52 engine (2006-2007)

528i

- N52K engine (2008-2010)

535i

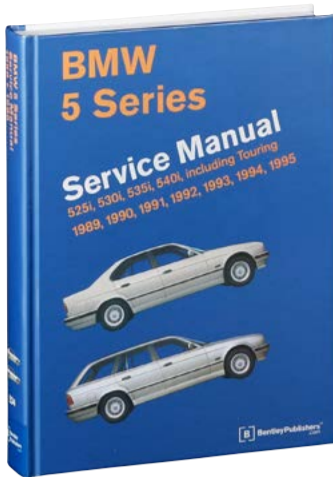
- N54 twin turbo engine (2008-2010)

545i

- N62 V8 engine (2004-2005)

550i

- N62 TU V8 engine (2006-2010)



**BMW 5 Series (E34)
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- 535i (M30 with DME 1.3) 1989-1993
- 540i (M60 with DME 3.3) 1994-1995

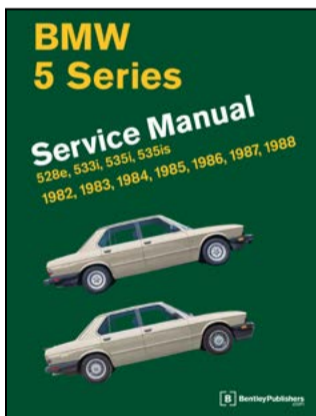
Transmissions covered:

**Manual (remove, install,
external service)**

- Getrag 260/5 and 260/6
- Getrag S5D 250G
- Getrag S6S 560G

**Automatic (remove, install,
external service)**

- ZF 4HP22/EH
- A4S 310R (THM-R1)
- ZF A5S 310Z
- ZF A5S 560Z



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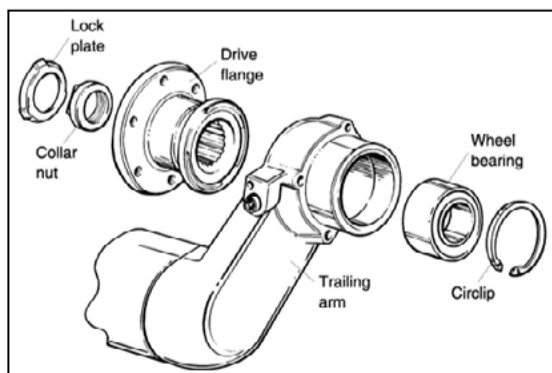
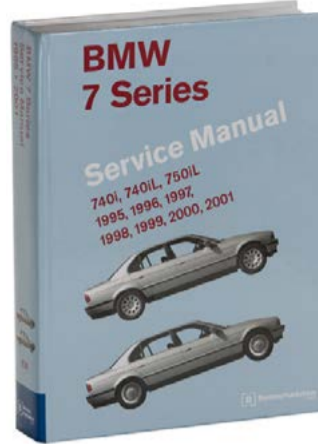


Fig. 4-14. Rear wheel bearing assembly. 17 Suspension-Rear



**BMW 7 Series (E38)
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1050 photos and illustrations
ISBN 978-0-8376-1618-6

B701.....\$129.95

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- V8 models and engines
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V12 models and engines:

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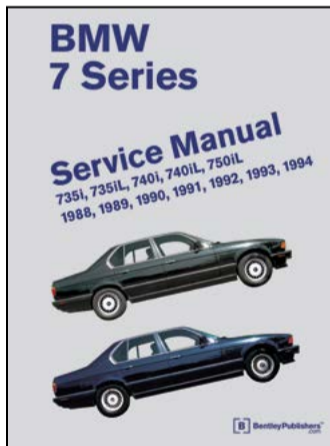
Engine management systems (Motronic):

- Bosch M3.3 (OBD I)
- Bosch M5.2 (OBD II)
- Bosch M5.2.1 (OBD II)
- Bosch M5.2.1 (OBD II / LEV)
- Bosch ME 7.2 (OBD II)

Automatic transmissions

(remove, install, external service):

- A5S 560Z
- A5S 440Z

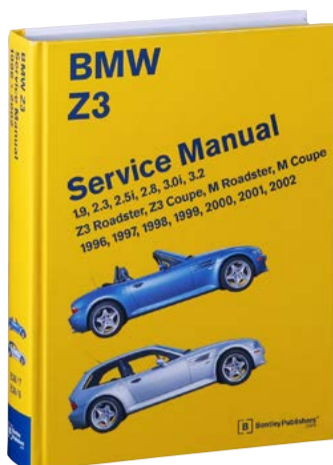


**BMW 7 Series (E32)
Service Manual:
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**735i, 735iL, 740i, 740iL,
750iL**
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786 photos and illustrations
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B794.....\$139.95

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- | | |
|------------------------------------|------------------------------------|
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| 735iL | 750iL |
| • (M30 - 3.5 liter engine) | • (M70 - 5.0 liter engine) |
| 740i | |
| • (M60 - 4.0 liter engine, OBD II) | |



**BMW Z3 (E36/7)
Service Manual:
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**1.9, 2.3, 2.5i, 2.8, 3.0i, 3.2
Z3 Roadster, Z3 Coupe,
M Roadster, M Coupe**
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BZ02.....\$119.95

Models, engines, and engine management systems covered:

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- M52 TU engine with Siemens DME MS 42.1 (6-cyl.)
- M54 engine with Siemens DME MS 43.0 (6-cyl.)

M Roadster, M Coupe:

- S52 engine with Siemens DME MS 41.1 (6-cyl.)
- S54 engine with Siemens DME MS S54 (6-cyl.)

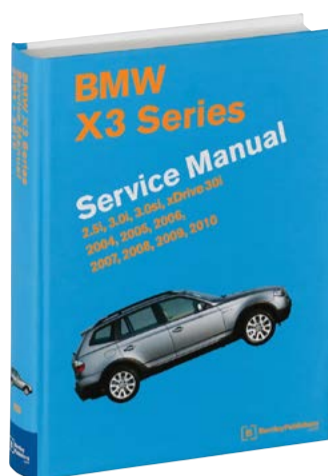


Electrical component locations being photographed in the Bentley Publishers workshop.

BMW Tech Info Online

Visit the Technical Discussion Forums for BMW, plus Audi, Mercedes-Benz, MINI, Porsche and Volkswagen at www.BentleyPublishers.com

For additional tech information and updates, see the Bentley Online Tech Library at www.BentleyPublishers.com



BMW X3 Service Manual: 2004-2010

2.5i, 3.0i, 3.0si, xDrive 30i
by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
1040 pages
1,884 photos, illustrations
and diagrams
ISBN: 978-0-8376-1731-2

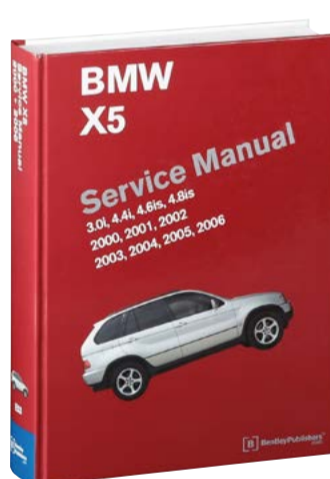
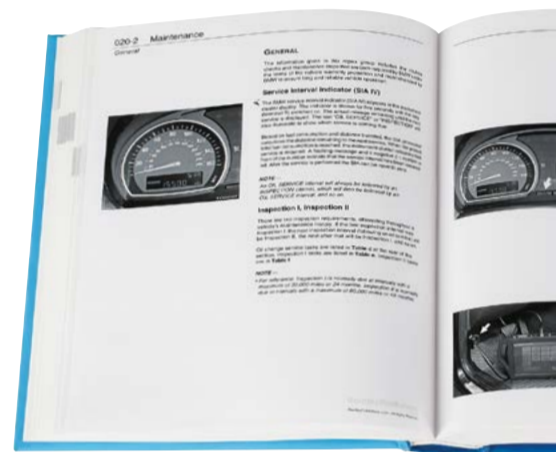
BX30.....\$129.95

Engines covered:

- M54 engine 2.5i, 3.0i (2004-2006)
- N52 engine 3.0si, xDrive 30i (2007-2010)

Transmissions covered:

- Manual: ZF GS6-37BZ (6-speed)
- Automatic: GM A5S390R (5-speed)
- Automatic: GM GA6L45R (6-speed)



BMW X5 Service Manual: 2000-2006
3.0i, 4.4i, 4.6is, 4.8is

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
1240 pages
Over 2100 photos,
illustrations and diagrams
ISBN: 978-0-8376-1643-8

BX56.....\$129.95

Models and engines:

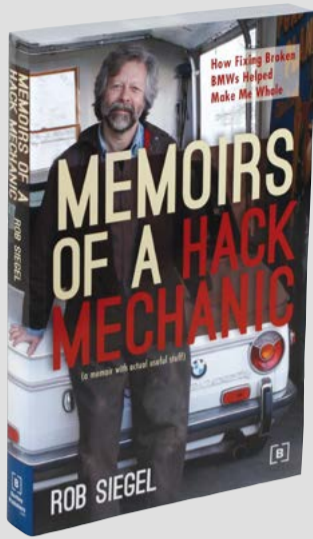
- 3.0i M54 engine, 6-cylinder 3.0 liter
- 4.4i M62 TU engine, V8 4.4 liter
- 4.4i N62 engine, V8 4.4 liter (Valvetronic)
- 4.6is M62 TU engine, V8 4.6 liter
- 4.8is N62 engine, V8 4.8 liter (Valvetronic)

Engine management systems (Motronic):

- Siemens DME MS 43
- Bosch DME ME 7.2
- Bosch DME 9.2.1

Additional technical content:

For additional technical content for E53 platform BMW X5 models, visit our [online technical library](#).



Memoirs of a Hack Mechanic

(a memoir with actual useful stuff)

How Fixing Broken BMWs Helped Make Me Whole

by Rob Siegel

Softcover, 6 in. x 9 in.
432 pages, 37 photos
ISBN 978-0-8376-1720-6

GBRS\$29.95

A geophysicist by day and self-professed car junkie in his free time, Siegel explores his passion for cars with unflinching honesty and offers a unique window into the Car Guy mind. Rob Siegel has owned over twenty-five BMW 2002s over the past three decades.

Rob's column, "The Hack Mechanic," appears in *Roundel*, the magazine of the **BMW Car Club of America**. You can also keep up with the latest news about the book by following **Memoirs of a Hack Mechanic on Facebook**.

"It is heartfelt; it is quirky; and it is mine—a memoir with actual useful stuff. Who else is going to tell you car stories, give you parenting tips, and tell you how to burn out a snapped-off stud with an oxyacetylene torch?"

—Rob Siegel,
"The Hack Mechanic"
Roundel, October 2012



Rob removing the engine from Maire Anne's '72 VW Bus in preparation for rebuild and transplant into a '68 VW Camper.



Putting the coupe to bed for the winter. This photo, shot by Yale Rachlin, so beautifully captures the care and intimacy that men are capable of feeling for their car.



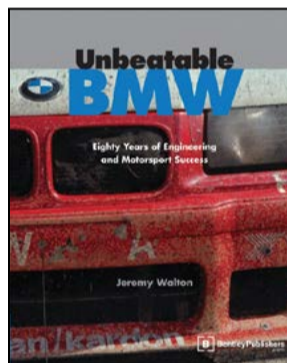
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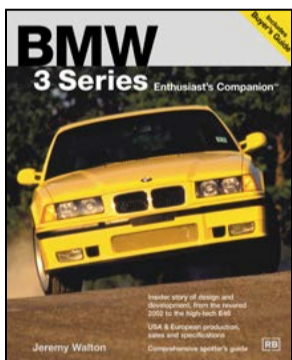
Unbeatable BMW Eighty Years of Engineering and Motorsport Success

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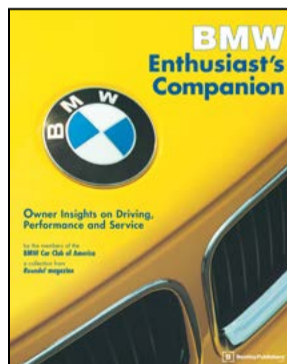


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BMW Enthusiast's Companion™

Owner Insights on Driving, Performance and Service by the Members of the BMW Car Club of America

Published by Bentley Publishers

Softcover, 8-1/2 in. x 11 in.

328 pages, 501 photos and illustrations
ISBN 978-0-8376-0321-6

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Mechanical Ignition Handbook: The Hack Mechanic Guide to Vintage Ignition Systems

by Rob Siegel

ISBN 978-0-8376-1767-1

Bentley Code: BHMI

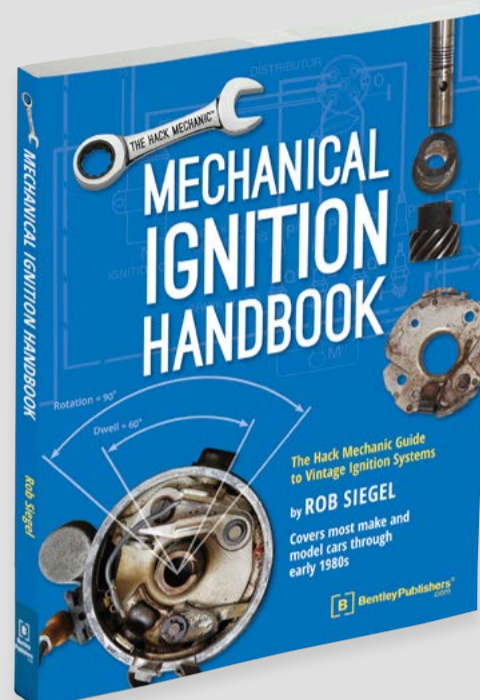
Price: \$22.95

Softcover, 8 in. x 10 in.

164 pages, 109 photos and illustrations

Mechanically timed ignition is easy to understand and wonderfully straightforward to diagnose and repair, which is good because it's one of the most likely things on an older car to die and leave you in the lurch.

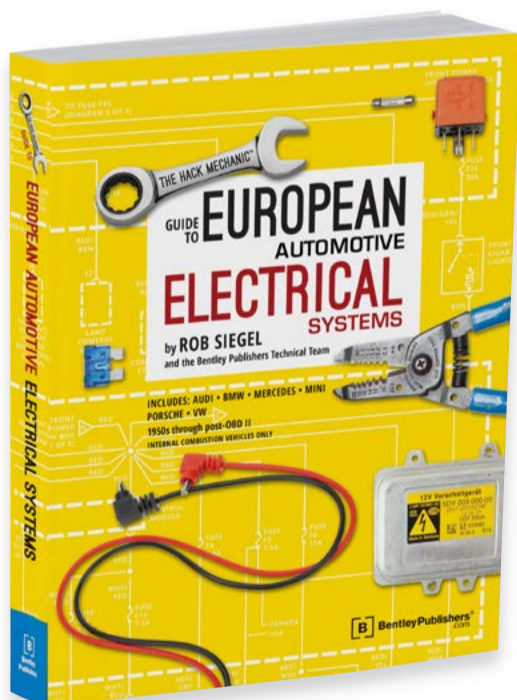
Rob Siegel—better known as the Hack Mechanic—explains how mechanical ignition works and discusses in detail how to set timing and advance. There is also a



full chapter on troubleshooting mechanical ignition problems.

If you are a vintage car owner who wants to understand how to adjust timing and advance to keep your favorite ride running smoothly, this is the book for you!

Applies to vintage cars from the 1950s up through the mid 1980s that have either points and breakers or mechanical ignition advance.



The Hack Mechanic Guide to European Automotive Electrical Systems

by Rob Siegel

and The Bentley Publishers Technical Team

ISBN 978-0-8376-1751-0

Bentley Code: BHME

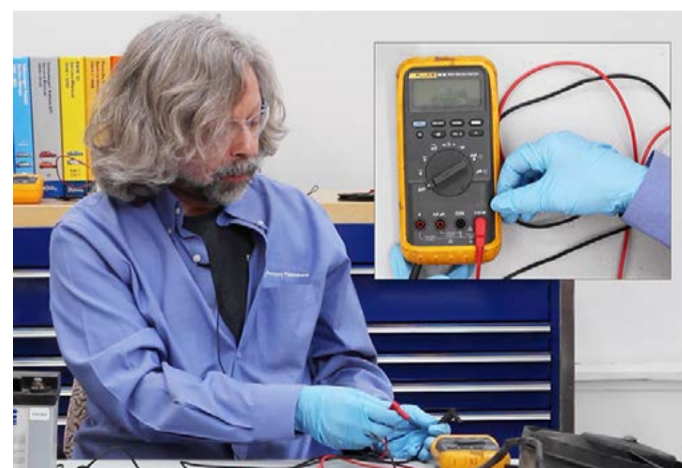
Price: \$39.95

Softcover, 8 3/8 in. x 11 in.

382 pages, 400 photos

Includes Audi, BMW, Mercedes, MINI, Porsche, VW
Covers 1950s through post-OBD II
Internal combustion vehicles only

Whether you are a DIY mechanic or a professional technician, **The Hack Mechanic Guide to European Automotive Electrical Systems** will increase your confidence in tackling automotive electrical problem-solving.



View Rob's automotive electrical how-to videos on YouTube

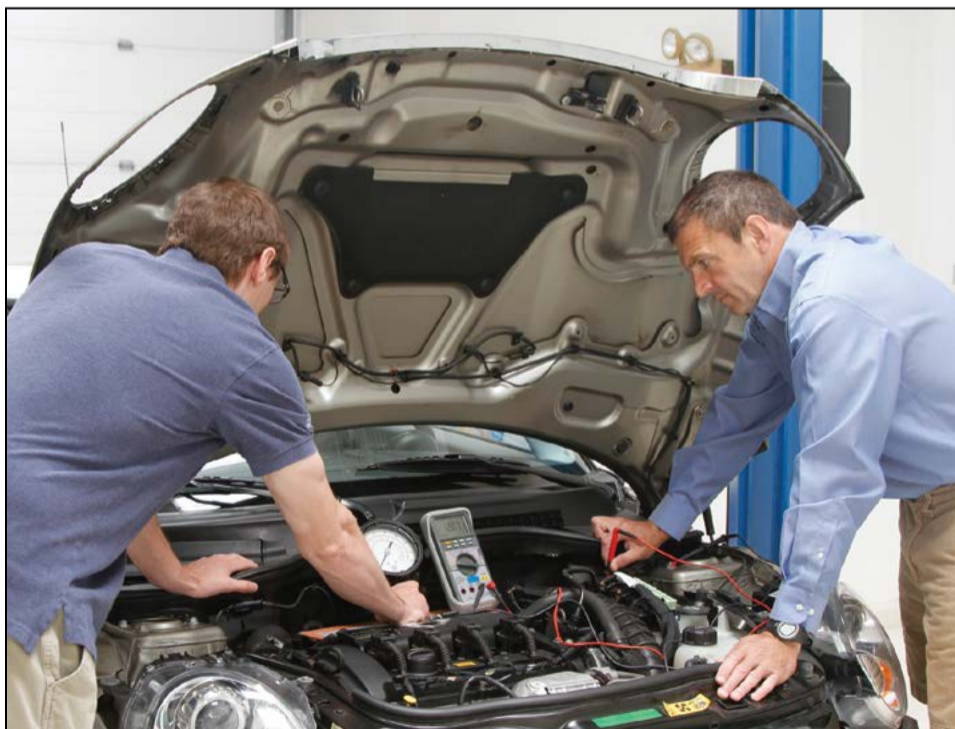
YouTube [YouTube.com/bentleypublishers](https://www.youtube.com/bentleypublishers)



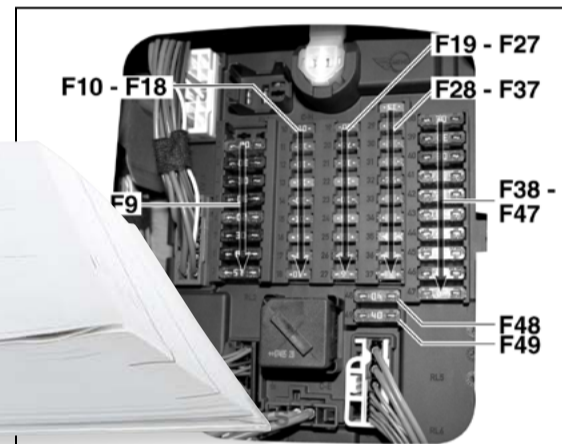
MINI Cooper Service Manuals

Each MINI Cooper Service Manual is packed with service information and specifications. The aim throughout our manuals has been simplicity, clarity and completeness, with practical explanations, step-by-step procedures and accurate specifications. Whether you're a professional or a do-it-yourself MINI owner, these manuals will help you understand, care for and repair your car.

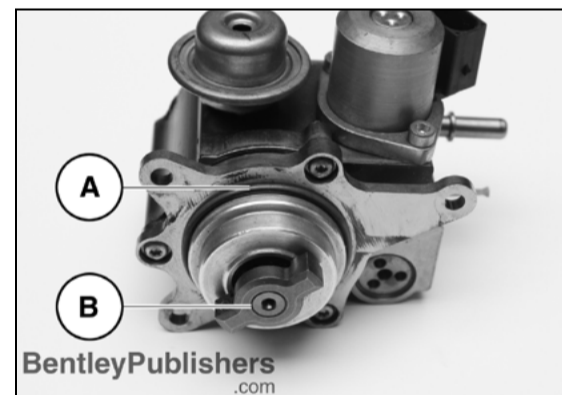
Check out our [Online Tech Library](#) to find supplemental technical content for MINI Cooper models.



Bentley technical editors testing fuel pump on the Cooper S engine.



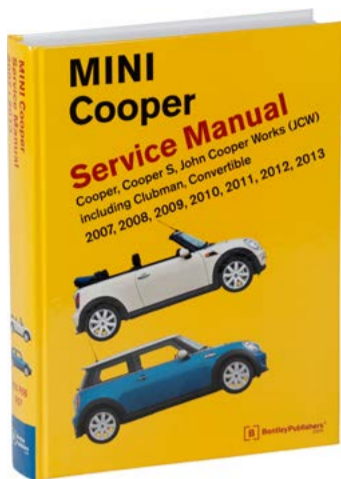
610 Electrical Components
Comprehensive fuse, relay, and electrical component locations.



160 Fuel Tank and Fuel Pump
High pressure fuel system service on Turbo engines, including replacing HP fuel pump.



020 Maintenance
Step-by-step instructions on resetting CBS service items.



MINI Cooper Service Manual: 2007-2013

Including Cooper, Cooper S, John Cooper Works (JCW) including Clubman, Convertible

by Bentley Publishers

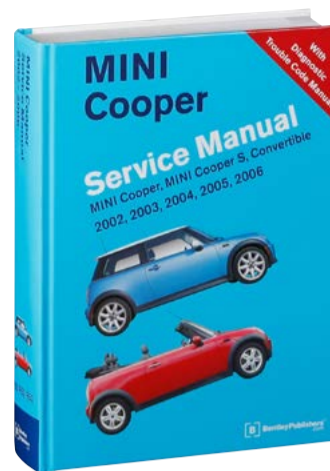
Hardcover
8-3/8 in. x 11 in.
1064 pages, 1785 photos and illustrations

Includes color MINI Cooper familiarization section
ISBN-13: 978-0-8376-1730-5

BM13\$139.95

Features:

- Procedures such as changing the ATF, replacing a dirty cabin microfilter and resetting the CBS (condition based service) system. This manual tells you what to do and how and when to do it.
- Engine and cylinder head service with variable camshaft timing (VANOS) setup and adjustment, including Valvetronic service on N12, N16 and N18 engines.
- Driveability troubleshooting and detailed repair information for the Siemens DME Engine Management Systems.
- Turbocharger and intercooler information, including component removal and replacement (Cooper S, JCW).
- Drivetrain maintenance
- Suspension repairs
- Manual and automatic transmission removal, installation, seal replacement and external service.
- Brake system repair information
- Heating and air conditioning repair
- Body adjustments and repairs
- Electrical system service
- Comprehensive wiring schematics, including fuses and grounds.
- MINI OBD II diagnostic trouble codes, SAE-defined and OBD II P-Codes, as well as basic scan tool information and OBD II Diagnostic Trouble Codes (DTCs).
- MINI factory tolerances, wear limits, adjustments, and tightening torques.



MINI Cooper Service Manual: 2002-2006

Including MINI Cooper, MINI Cooper S


by Bentley Publishers

Hardcover
8-3/8 in. x 11 in.
1424 pages
1902 photos and illustrations
ISBN 978-0-8376-1639-1

BM06\$139.95

Models & engines covered:

- **Cooper:** 1.6 liter normally aspirated engine

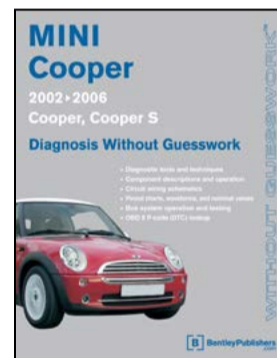


BONUS All the content of *MINI Cooper Diagnosis Without Guesswork: 2002-2006* is included in this manual!

- **Cooper S:** 1.6 liter supercharged engine

Transmissions covered:

- **Cooper:** Manual 5-speed transmission (Midlands, Getrag)
- Automatic continuously variable transmission (CVT)
- **Cooper S:** Manual 6-speed transmission (Getrag)
- Automatic with Agitronic (Aisin)



MINI Cooper Diagnosis Without Guesswork: 2002-2006

MINI Cooper, MINI Cooper S

by Bentley Publishers

Softcover
7 in. x 9 in.
336 pages
306 Photos and illustrations
ISBN 978-0-8376-1571-4

BMD6\$59.95

This *MINI Cooper Diagnosis Without Guesswork: 2002-2006* handbook is a diagnostic manual written for the professional technician and the MINI enthusiast. Not intended to be a repair manual, this handbook is your comprehensive source for engine management and on-board system diagnosis.

Volkswagen Repair Manuals

(water-cooled)

Bentley Volkswagen repair manuals provide factory repair procedures, specifications, tolerances, electrical wiring diagrams, and lubrication and maintenance information.

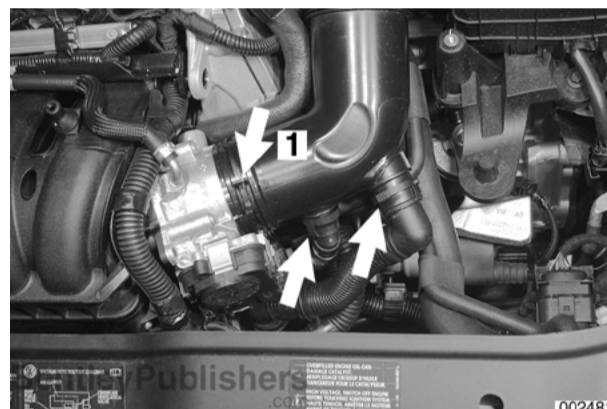
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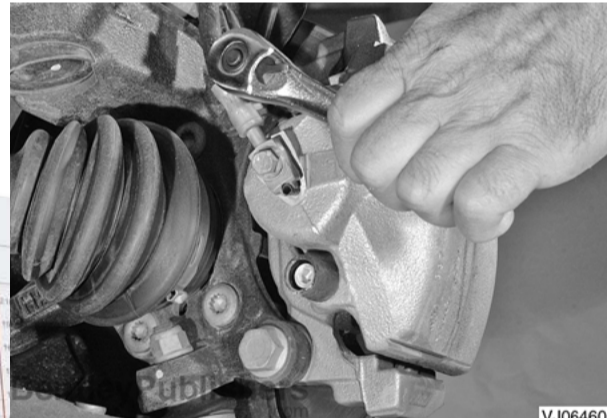
– VW Trends



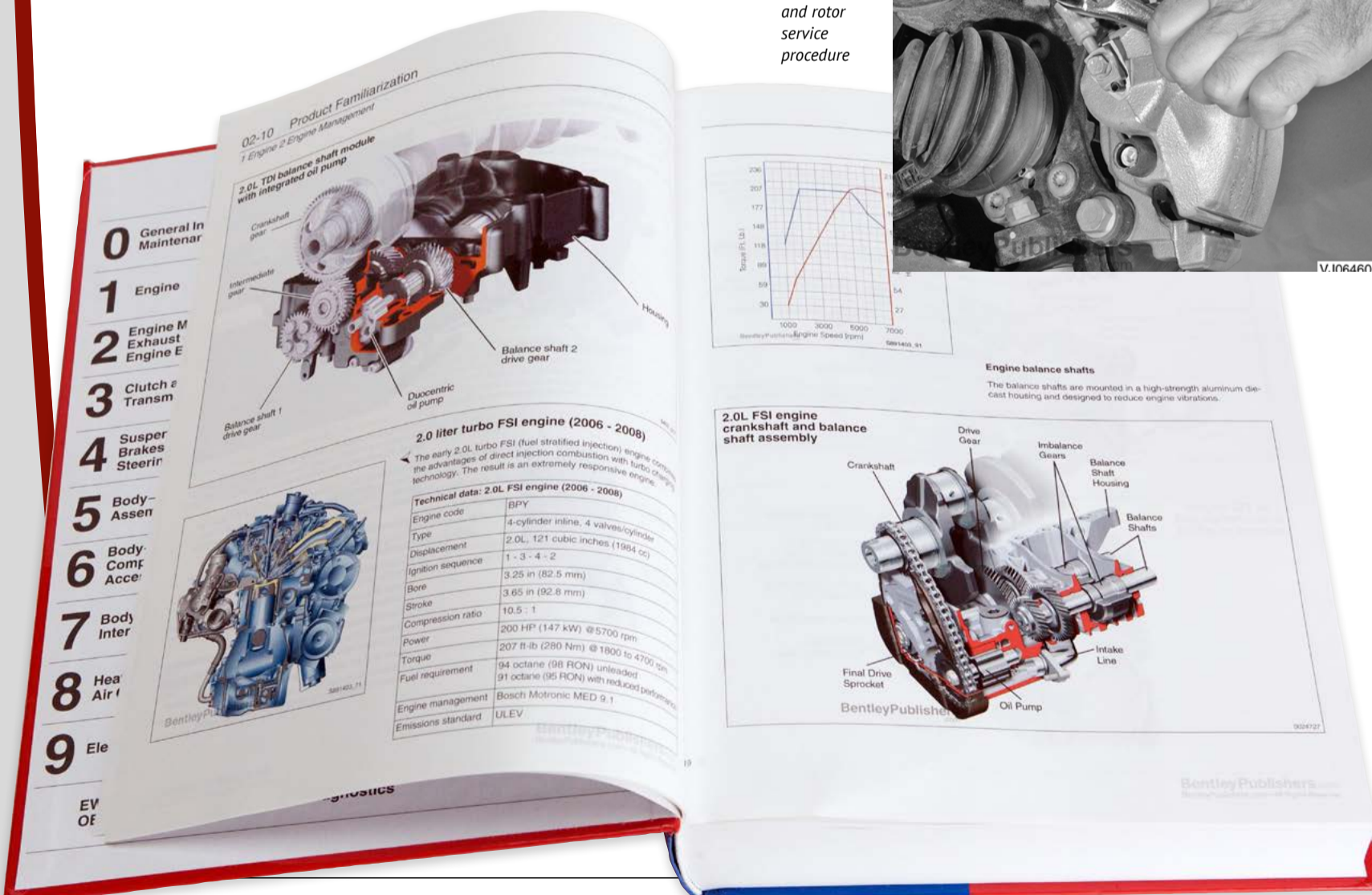
Bentley Publishers Service Publications editor conducting technical photography session at the Cambridge, MA studio.

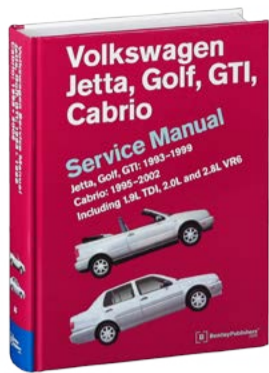


24 Fuel Injection
– Gasoline
Removing and installing the throttle valve



46 Brakes
– Mechanical
Detailed brake and rotor service procedure





Volkswagen Jetta, Golf, GTI, Cabrio Service Manual: Jetta, Golf, GTI: 1993-1999 Cabrio: 1995-2002

Including 1.9L TDI, 2.0L and 2.8L VR6

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.

996 pages, 852 illustrations and diagrams
278 pages of electrical wiring diagrams
Volkswagen Part No. LPV 800 116
ISBN 978-0-8376-1660-5

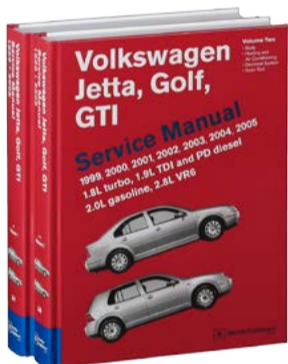
VG99.....\$99.95

Engines covered:

- 1.8 L gasoline (engine code ACC)
- 1.9 L diesel (engine codes AAZ, IZ, AHU)
- 2.0 L gasoline (engine code ABA)
- 2.8 L VR6 gasoline (engine code AAA)

Transmissions covered:

- 020 and 021 5-speed transmission
- 096 and 01M 4-speed automatic



Volkswagen Jetta, Golf, GTI Service Manual: 1999-2005

1.8L turbo, 1.9L TDI diesel, PD diesel, 2.0L gasoline, 2.8L VR6

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
2,008 total pages

4,140 photos, illustrations and diagrams
Volkswagen Part No. LPV 800 120

Sold only as a 2 volume set
ISBN 978-0-8376-1678-0

VG05.....\$139.95

Engines covered:

- 1.8L turbo gasoline (engine codes: AWD, AWW, AWP)
- 1.9L TDI diesel (engine code: ALH)
- 1.9L Turbo diesel Pumpe Düse (PD) (engine code: BEW)
- 2.0L gasoline (engine codes: AEG, AVH, AZG, BBW, BEV)
- 2.8L gasoline (engine code: AFP, BDF)

Transmissions covered:

- 02J 5-speed manual
- 02M 6-speed manual
- 01M 4-speed automatic
- 09A 5-speed automatic



Volkswagen Rabbit, GTI Service Manual: 2006-2009

2.0L, FSI, 2.5L

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
1040 pages, 1,792 photos, illustrations and diagrams
ISBN 978-0-8376-1664-3

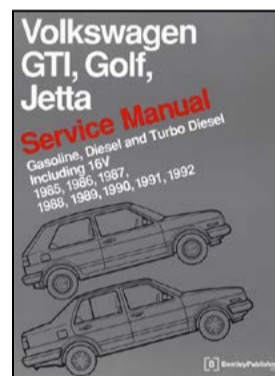
VR09.....\$119.95

Engines covered:

- 2.0L FSI turbo gasoline (engine code: BPY, CBFA, CCTA)
- 2.5L gasoline (engine code: BGP, BGQ, CBTA, CBUA)

Transmissions covered (remove, install, external service):

- 0A4 5-speed manual
- 02Q 6-speed manual
- 09G 6-speed automatic
- 02E 6-speed DSG



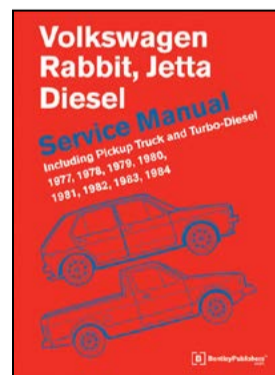
Volkswagen GTI, Golf, and Jetta Service Manual: 1985-1992

Gasoline, Diesel, and Turbo Diesel, incl. 16V

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.,
840 pages
698 illustrations and diagrams

299 pages of electrical wiring diagrams
Volkswagen Part No. LPV 800 112
ISBN 978-0-8376-1637-7

VG92.....\$89.95



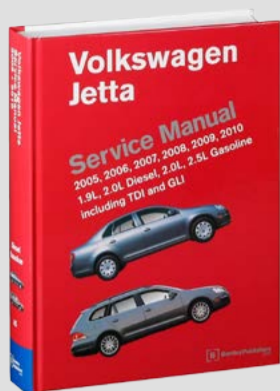
Volkswagen Rabbit, Jetta Diesel Service Manual: 1977-1984

Diesel Models, including Pickup Truck and Turbo Diesel

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.,
624 pages, 973 illustrations

Volkswagen Part No. LPV 800 122
ISBN 978-0-8376-1703-9

VRD4\$69.95



**Volkswagen Jetta (A5)
Service Manual:
2005–2010**

**1.9L and 2.0L diesel,
2.0L and 2.5L gasoline,
including TDI, GLI and
SportWagen**

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
1,352 pages

2,484 technical photos and illustrations
Includes 991 electrical wiring diagrams
ISBN 978-0-8376-1616-2

VJ10\$129.95

Engines covered:

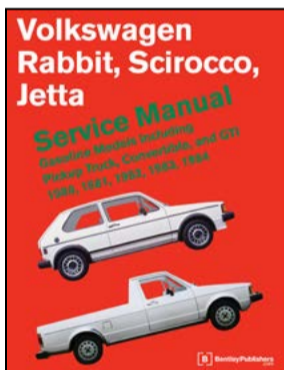
- 1.9L TDI PD diesel (engine code: BRM)
- 2.0L TDI common rail (engine code: CBEA, CJAA)
- 2.0L FSI turbo gasoline (engine code: BPY)
- 2.0L TSI turbo gasoline (engine code: CBFA, CCTA)
- 2.5L gasoline (engine code: BGP, BGQ, CBTA, CBUA)

**Transmissions covered
(remove, install, external service):**

- 0A4 5-speed manual
- 02Q 6-speed manual
- 09G 6-speed automatic
- 02E 6-speed DSG



Bentley technical editors working on a 2005 Jetta.



**Volkswagen Rabbit,
Scirocco, Jetta Service
Manual: 1980–1984**

**Gasoline Models, including
Pickup Truck, Convertible,
and GTI**

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.,
720 pages, 1,151 illustrations

Volkswagen Part No. LPV 800 104
ISBN 978-0-8376-1704-6

VRG4\$69.95

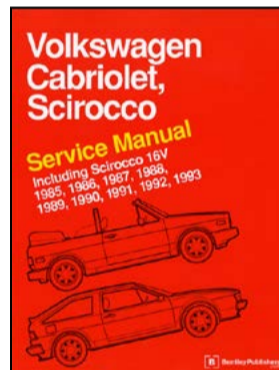
This Volkswagen Rabbit, Scirocco, Jetta service manual covers 1980-1984 models with gasoline engines built on the "A1" platform.

Engines covered:

- 1.5L with carburetor (engine code: FX)
- 1.6L with fuel injection (engine code: EJ)
- 1.7L with fuel injection (engine code: EN)
- 1.8L with fuel injection (engine code: JH)

Diesel engines covered:

- 1.6L Diesel (engine code: CK, CR, JK)
- 1.6L Turbo-Diesel (engine code: CY)



**Volkswagen Cabriolet,
Scirocco Service
Manual: 1985–1993**

Including Scirocco 16V

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.,
520 pages
860 illustrations and diagrams

Volkswagen Part No. LPV 800 113
ISBN 978-0-8376-1636-0

VS93\$79.95

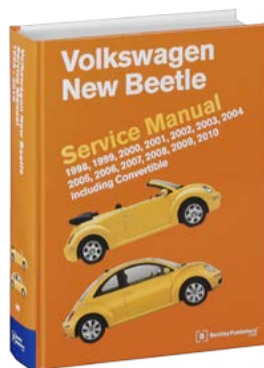
The *Volkswagen Cabriolet, Scirocco Service Manual: 1968-1979* is a definitive reference source of technical automotive repair and maintenance information for the A1 platform Volkswagen Cabriolet and Scirocco models.

Engine covered:

- 1.8L gasoline (engine code: 3H, 2H, PL)

Transmissions covered:

- 020 5 speed manual
- 010 3 speed automatic



**Volkswagen New Beetle
Service Manual:
1998–2010**

Including convertible
by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.,
1,664 pages
2,647 photos, illustrations and
diagrams

Volkswagen Part No. LPV 800 402
ISBN 978-0-8376-1640-7

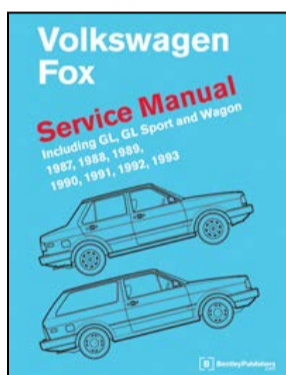
VB10.....\$149.95

Engines covered:

- 1.8L turbo gasoline (engine code: APH,AWV,AWP,BKF, BNU)
- 1.9L TDI diesel (engine code: ALH, BEW)
- 2.0L gasoline (engine code: AEG,AVH,AZG, BDC, BEV, BGD)
- 2.5L gasoline (engine code: BPR, BPS)

Transmissions covered:

- 02J 5-speed manual
- 02M 5- and 6-speed manual
- 0A4 5-speed manual
- 01M 4-speed automatic
- 09G 6-speed automatic
- 02E 6-speed direct shift gearbox (DSG)



**Volkswagen Fox Service
Manual: 1987–1993**

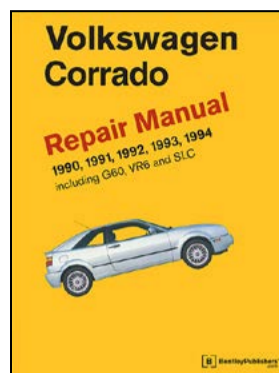
**Including GL, GL Sport
and Wagon**
by Bentley Publishers
Softcover, 8-3/8 in. x 11 in.,
440 pages
570 illustrations and diagrams

Volkswagen Part No. LPV 800 504
ISBN 978-0-8376-0363-6

VF93.....\$59.95

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purchased them all. But yours is the only one that
I now have and the only one that I will ever tell
others to buy.”*

—Robert L. Rainey Jr.

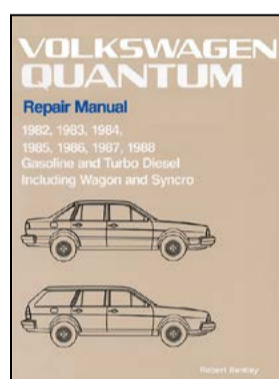


**Volkswagen Corrado
Repair Manual:
1990–1994**

Including G60, VR6 and SLC
by Volkswagen of America
Hardcover, 8-3/8 in. x 11 in.
1,064 pages
1,235 illustrations and diagrams

280 pages of electrical wiring diagrams
Volkswagen Part No. LPV 800 300
ISBN 978-0-8376-1699-5

VC94.....\$134.95

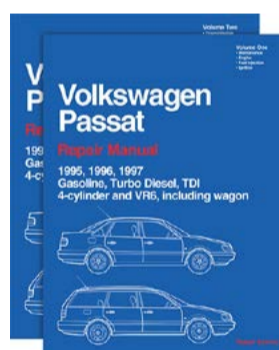


**Volkswagen Quantum
Repair Manual:
1982–1988**

**Gasoline and Turbo Diesel,
including
Wagon and Syncro**
by Volkswagen of America
Softcover, 8-3/8 in. x 11 in.,
1,344 pages

2,150 illustrations and diagrams
Volkswagen Part No. LPV 800 202
ISBN 978-0-8376-0341-4

VM88.....\$89.95



**Volkswagen Passat
Repair Manual:
1995–1997**

**Including Gasoline, Turbo
Diesel, TDI 4-cylinder, VR6,
and wagon**
by Volkswagen of America
Hardcover, 8-1/2 in. x 11 in.

2,368 pages, 2,464 illustrations and diagrams
Volkswagen Part No. LPV 800 207
ISBN 978-0-8376-1753-4

VP97.....\$189.95

The two volumes of this Volkswagen repair manual present the service and repair information for Volkswagen Passat and Passat wagon models sold in the US and Canada. For the professional automotive technician, this manual includes the factory specifications and procedures.



2 Volume Set

Volkswagen Passat Service Manual: 1998-2005
1.8L turbo, 2.8L V6, 4.0L W8, including Wagon and 4MOTION™

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
1,880 total pages
4,445 illustrations and

diagrams, Volkswagen Part No. LPV 800 209

Sold only as a 2 volume set

ISBN 978-0-8376-1669-8

VP05..... \$149.95

The *Volkswagen Passat Service Manual: 1998-2005* is a comprehensive source of service information and specifications for Volkswagen Passat models built on the B5 platform from 1998 through 2005.

Engines covered:

- 1.8L gasoline
- (engine codes AEB, ATW, AUG, AWM)
- 2.8L gasoline (engine codes AHA, ATQ)
- 4.0L gasoline (W8) (engine code BDP)

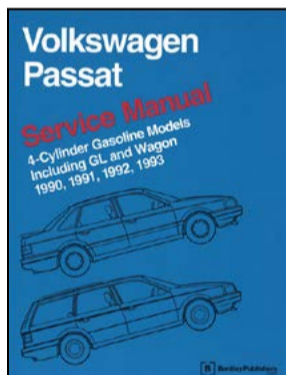
Transmissions covered:

- 5-speed manual (transmission codes: 012, 01W)
- 5-speed automatic (transmission code: 01V)
- 6-speed manual (transmission code: 01E)



Engine oil and filter changing procedures, including filter location.

Page 10 from Passat Familiarization section.



Volkswagen Passat Service Manual: 1990-1993
4-cylinder gasoline models including GL and Wagon

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.,
582 pages, 639 illustrations

Volkswagen Part No. LPV 800 205

ISBN 978-0-8376-1658-2

VP93..... \$69.95



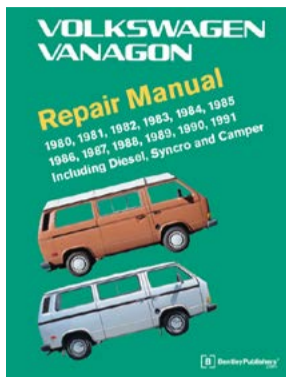
The *Volkswagen Passat Service Manual: 1990-1993* contains comprehensive repair information for B3 platform Passat models. It's heavily illustrated with high quality photographs and drawings, and covers routine maintenance and service work.

Engine and transmissions covered:

- 2.0L 16-valve gasoline (engine code 9A)
- 5-speed manual (transmission code 02A)
- 4-speed automatic (transmission code 096)

Features:

- Troubleshooting and repair of the CIS-E Motronic engine management system.
- Emission control tests, repairs and adjustments, including testing and replacing the oxygen sensor.
- Automatic and manual transmission maintenance, troubleshooting, adjustment and repair.
- Suspension and power steering service and repair, including strut replacement and complete wheel alignment specifications.
- Disc brake reconditioning and repair.
- Anti-lock braking system (ABS) troubleshooting and repair.
- Body adjustments and repairs, including sunroof.
- New heating and air conditioning information, including R-134a A/C systems.



**Volkswagen Vanagon
Repair Manual:
1980-1991**

**Including Diesel, Syncro,
and Camper**

by Volkswagen of America
Hardcover, 8-3/8 in. x 11 in.
1,388 pages

2,295 illustrations and diagrams
Volkswagen Part No. LPV 800 148
ISBN 978-0-8376-1665-0

VV91.....\$119.95

Engines covered:

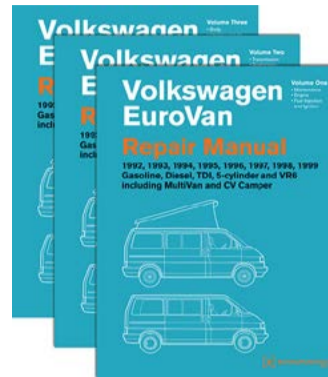
- 1.6L diesel (engine code: CS)
- 1.9L water-cooled Digijet (engine code: DH)
- 2.0L air-cooled (engine code: CV)
- 2.1L water-cooled Digifant (engine code: MV)

Transmissions covered:

- 090 3-speed automatic (rear wheel drive)
- 091 4-speed manual (rear wheel drive)
- 094 5-speed manual (rear wheel drive)
- 094-4WD 5-speed manual Syncro (four wheel drive)

Features:

- Fundamental automotive concepts, with simple explanations of basic troubleshooting, effective workshop practices and tools.
- Complete tune-up specifications for all models covered - including those with air-cooled, water-cooled and diesel engines.
- Engine and cylinder head service, including complete tear down and rebuilding procedures.
- Removal, installation and testing of fuel injection system components.
- Exhaust system component replacement, including Exhaust Gas Recirculation (EGR) system.
- Drivetrain maintenance, troubleshooting, adjustment and repair, for manual, automatic and Syncro (4WD) transmissions.
- Suspension component replacement, including front struts, rear shocks, springs, front stabilizer bar and alignment procedures and specifications.
- Heating and air conditioning component replacement, including heater booster (gas heater).



**Volkswagen EuroVan
Repair Manual:
1992-1999
(3 Volume Set)**

**Gasoline, Diesel, TDI,
5-cylinder, and VR6
including MultiVan and
CV Camper**

by Volkswagen of America

Softcover, 8-3/8 in. by 11 in., 2,722 pages,
2,361 illustrations and diagrams
404 electrical wiring diagrams
(includes model years 1992-2001)
Volkswagen Part No. LPV 800 149
Sold only as a 3 volume set
ISBN 978-0-8376-1681-0

VV99.....\$219.95

Engines covered:

- 2.8 Liter VR6 gasoline
- 2.5 Liter 5-cylinder gasoline
- 2.4 Liter diesel

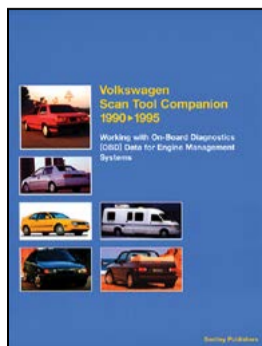
Transmissions covered:

- 02B and 02G 5-speed manual transmissions
- 098 and 01P 4-speed automatic transmissions



This manual also includes Volkswagen electrical system information, including the extra information that every professional needs, as well as basic instruction that takes the mystery out of electrical troubleshooting:

- Test equipment and Volkswagen Special Tools-why you need them, and how to use them
- Handling Components and Connectors-proper care and handling can save expense and future headaches
- Basic Electricity-an introduction, or a refresher, on the basics of how and why electrical circuits work (or don't!)
- Troubleshooting-the basic testing methods used to check circuits, isolate and identify faults, or just to figure out whether there's a problem
- Wiring Diagrams-including optional equipment and running production changes



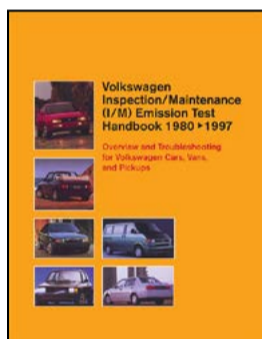
Volkswagen Scan Tool Companion 1990-1995

by Bentley Publishers
Softcover, 8-3/8 in. x 11 in.,
256 pages, 129 photos and
illustrations, 194 tables
Volkswagen Part No. LPV 800 902
ISBN 978-0-8376-0393-3

VD95.....\$59.95

Engines covered:

- AAA (2.8L 6-cylinder VR-6)
- AAF (2.5L, 5-cylinder)
- ABA (2.0L, 4-cylinder)
- ABG (1.8L, 4-cylinder)
- ACC (1.8L, 4-cylinder)
- ACU (2.5L, 5-cylinder)
- PG (1.8L, 4-cylinder G60)
- RV (1.8L, 4-cylinder)
- 1Z (1.9L, 4-cylinder TDI Diesel)
- 2H (1.8L, 4-cylinder)
- 9A (2.0L, 4-cylinder 16V)

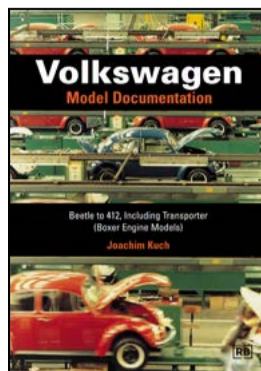


**Volkswagen Inspection/
Maintenance (I/M)
Emission Test Handbook
1980-1997**

by Volkswagen of America
Softcover, 8-3/8 in. by 11 in.,
122 pages, 40 illustrations and
diagrams

Volkswagen Part No. LPV 800 901
ISBN 978-0-8376-0394-0

VIM7.....\$39.95

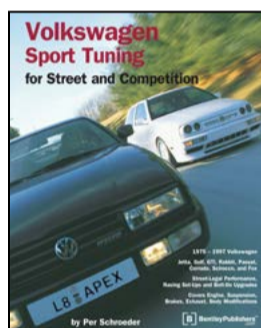


**Volkswagen Model
Documentation
Beetle to 412, Including
Transporter (Boxer
Engine Models)**

by Joachim Kuch
Softcover
6-5/8 in. x 9-3/8 in.

240 pages, 247 B&W photos and illustrations
ISBN 978-0-8376-0078-9

GVM1.....\$29.95



**Volkswagen Sport Tuning
for Street and
Competition**

by Per Schroeder
Softcover, 8 in. x 10 in.,
236 pages
330 photographs and
illustrations

ISBN 978-0-8376-0161-8

GVHW.....\$34.95

Volkswagen Sport Tuning for Street and Competition is a comprehensive guide for buying and modifying a water-cooled Volkswagen to get the best performance for autocrossing, road racing, or street-legal fun. *Volkswagen Sport Tuning for Street and Competition* gives detailed information on aspects of tuning from the theory behind performance modifications, to step-by-step bolt-ons, to specific modifications allowed in racing classes.



Bentley Publishers has a comprehensive line of Volkswagen literature and training information including:

Glovebox Owner's Literature

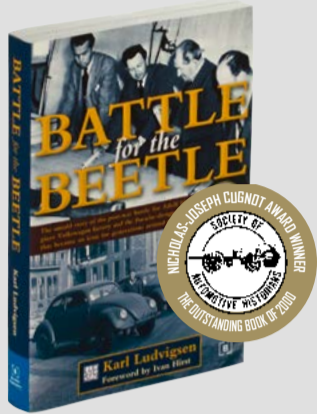
The owners manuals that originally ship with the vehicle. Titles available include model years as far back as 1972.

Technical Training: Self-Study Programs

Self Study Programs are produced by Volkswagen of America and are designed to help the Volkswagen dealership technician prepare for intensive factory training classes.

Note: Wholesale discounting not available on owner's manuals or training literature

Volkswagen Enthusiast Books



Battle for the Beetle
The untold story of the post-war battle for Adolf Hitler's giant Volkswagen factory and the Porsche-designed car that became an icon for generations around the globe

by Karl Ludvigsen

Softcover, 6-1/8 in. x 9-1/4 in.,
480 pages, 219 B&W photos and illustrations
ISBN 978-0-8376-1695-7

GGBP **\$39.95**

After World War II what was to be the fate of the odd bugshaped Volkswagen Beetle and its colossal bomb-battered factory? Karl Ludvigsen's hitherto-untold story makes revealing and engrossing reading.

"You don't need to be a car enthusiast or even a student of the auto industry to benefit from this remarkable book ... Covering so much of the automotive development of the 20th century, it is already one of the important books of the 21st."

—Road & Track



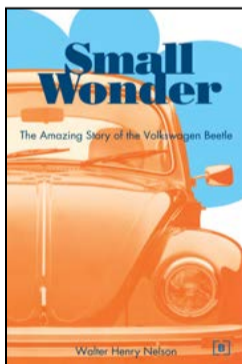
Chapter Four: Britain Meets The Beetle
Prototype VWs at the time of the Berlin Auto Show in February 1939.



Chapter Ten: The Making Of A Non-Decision
Inside the Frankfurt Show in 1951.



Chapter Five: Assessment By The Americans
Testing a captured Schwimmwagen.



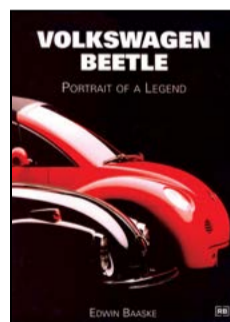
Small Wonder
The Amazing Story of the Volkswagen Beetle

by Walter Henry Nelson
Softcover, 5-1/2 in. x 8-3/8 in.,
380 pages, 36 B&W photos
ISBN 978-0-8376-0147-2

GVSW **\$29.95**

"From the early days on Ferdinand Porsche's drawing board through...the Beetle boom in America, it all makes for fascinating reading."

—Auto Restorer

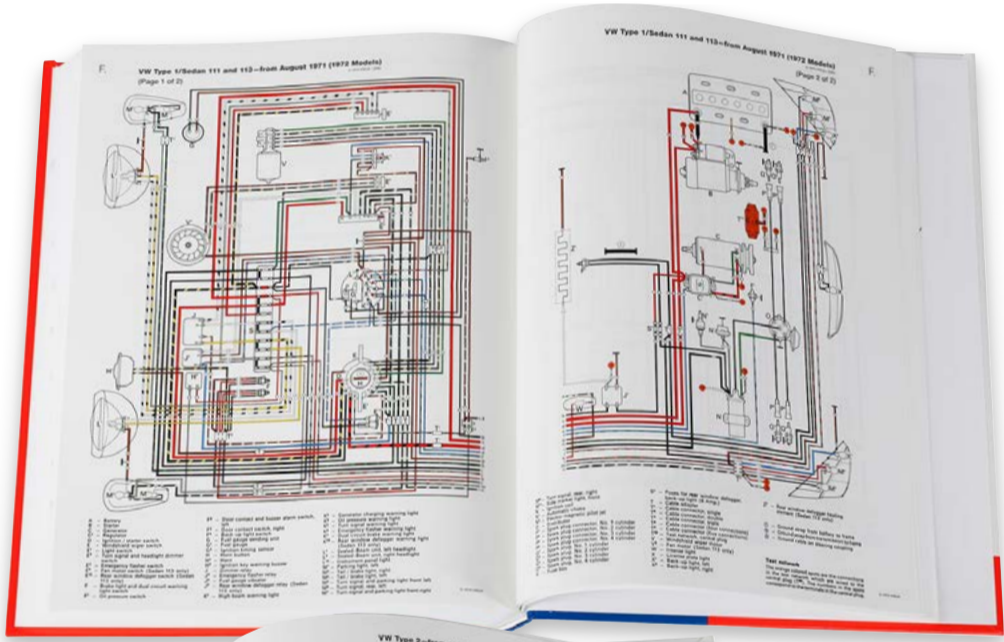
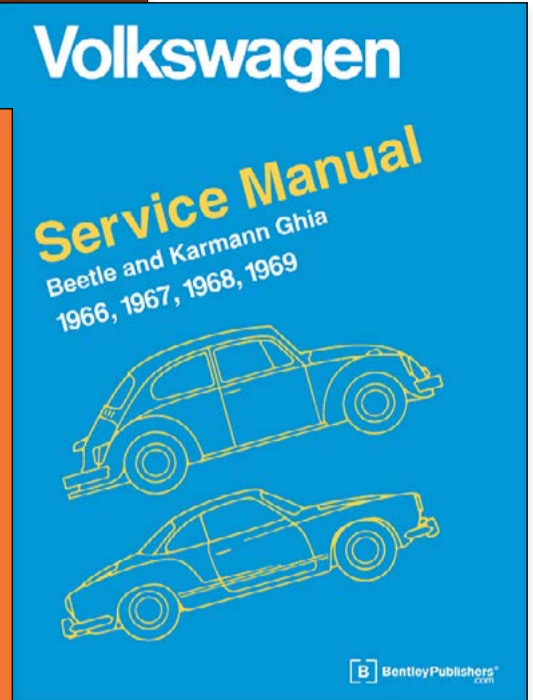
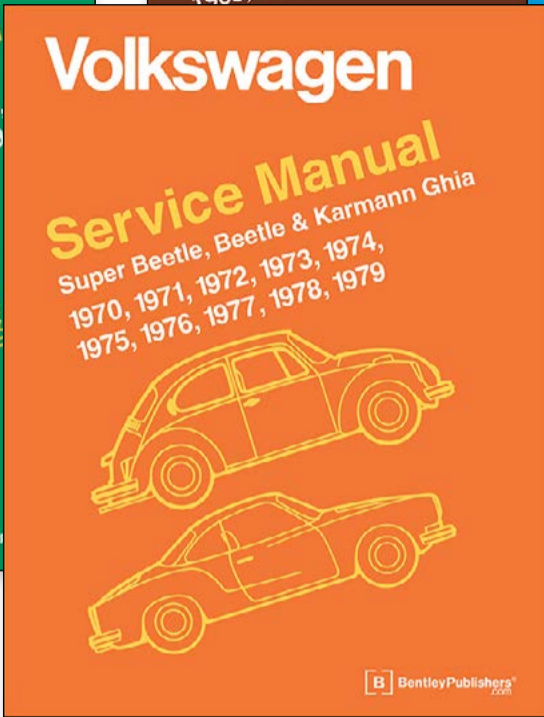
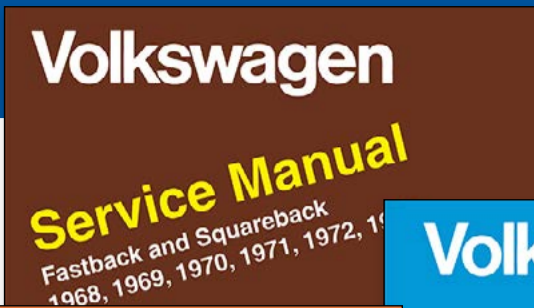
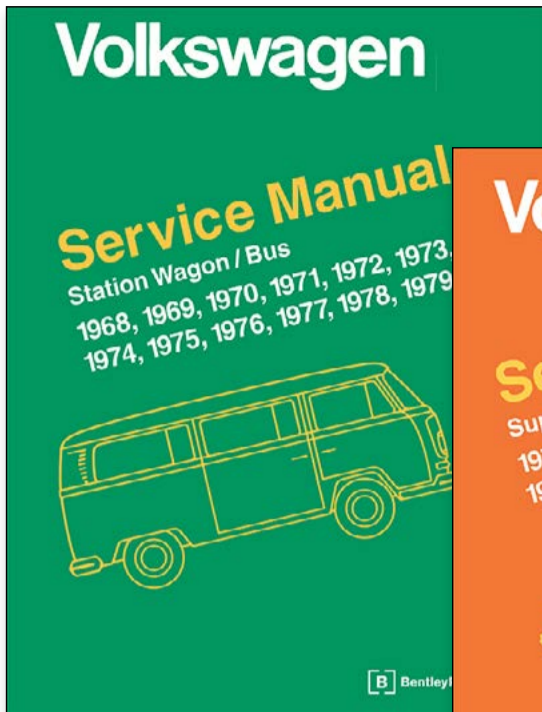


Volkswagen Beetle: Portrait of a Legend

by Edwin Baaske
Hardcover,
8-3/4 in. x 12 in.,
146 pages
18 color photos, 128 B&W

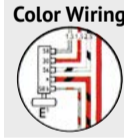
ISBN 978-0-8376-0162-5

GVBE **\$29.95**

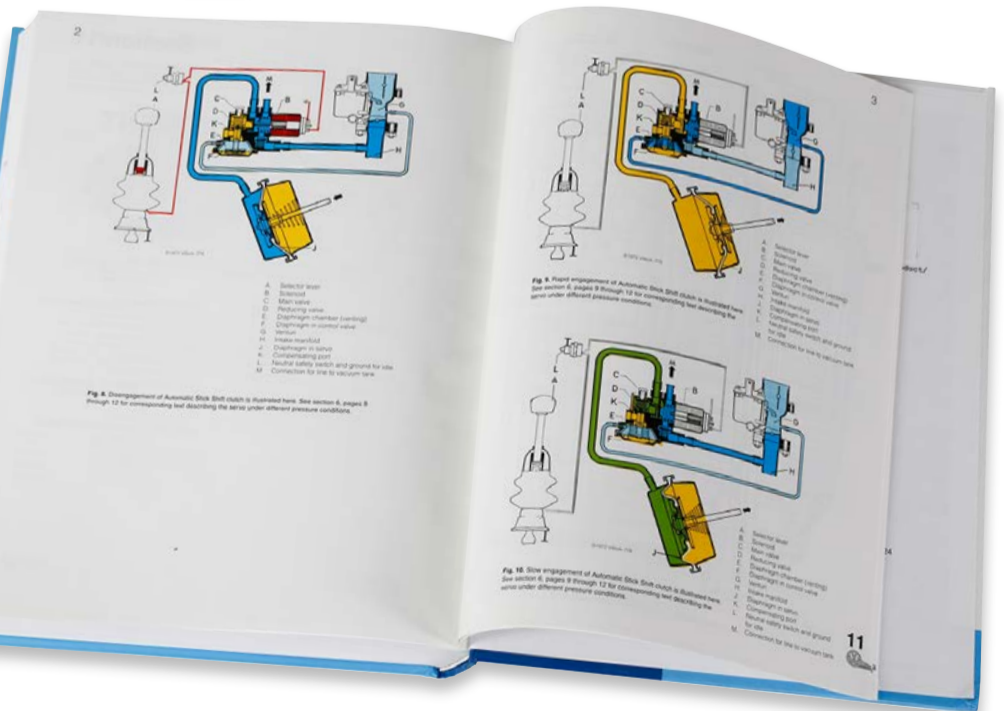
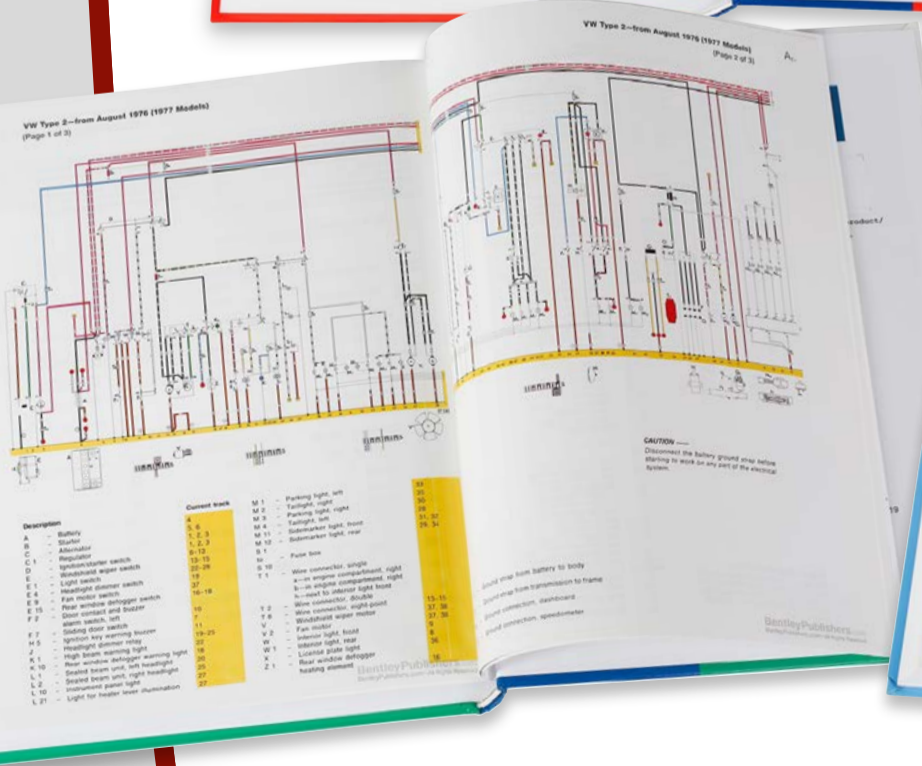


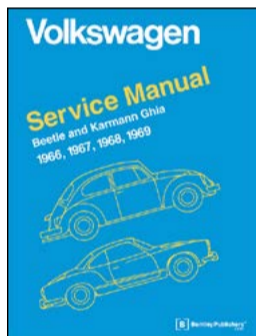
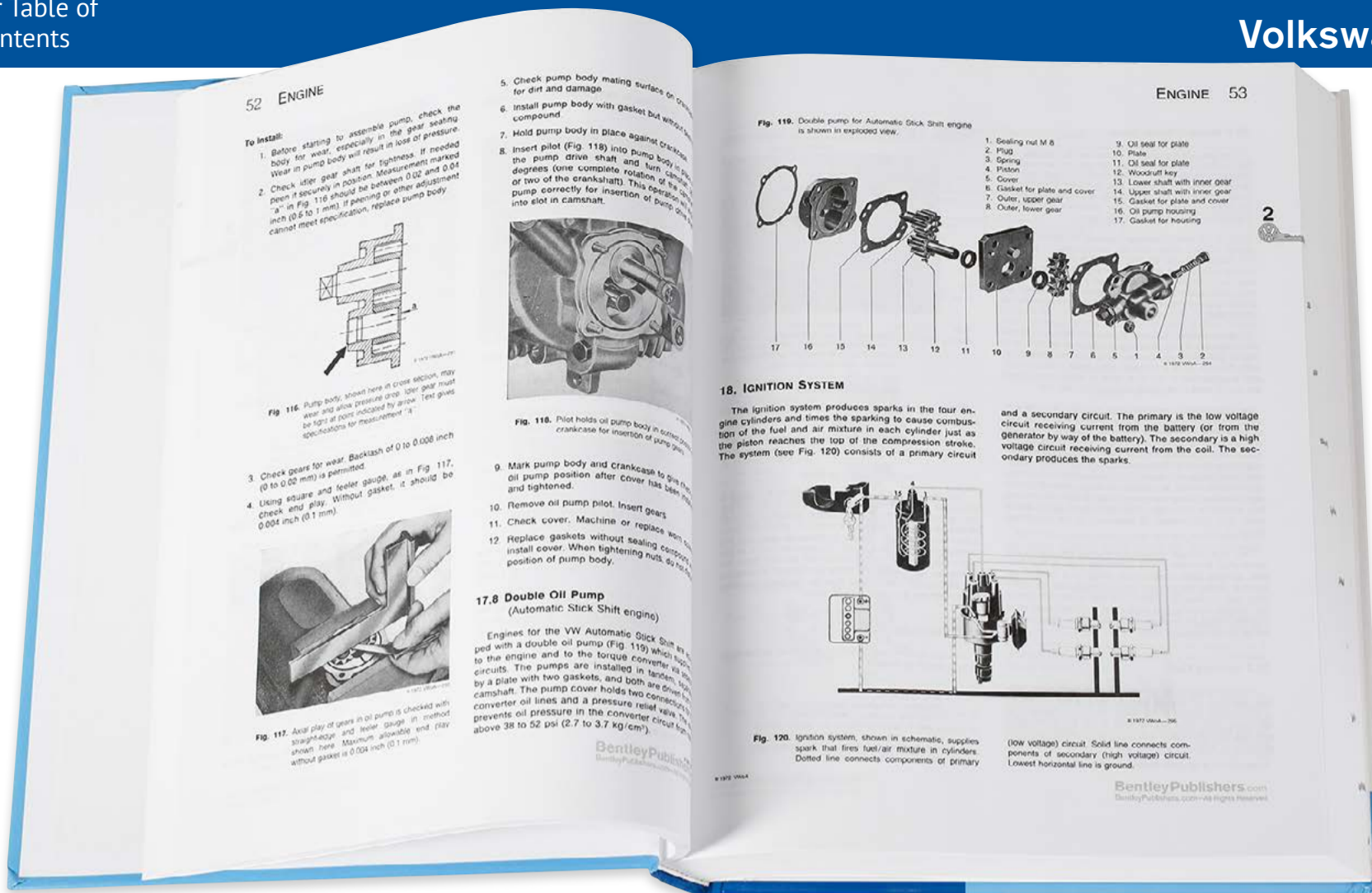
Volkswagen Repair Manuals (air-cooled)

Each of these manuals is a reference source of technical automotive repair and maintenance information for classic air-cooled Volkswagens. They were created specifically to cover models built for sale in the United States and Canada.



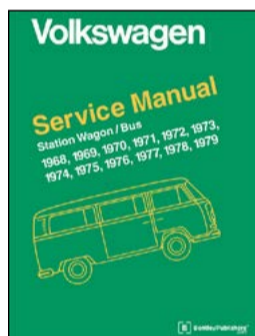
Contains color wiring diagrams





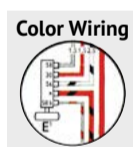
Volkswagen Beetle and Karmann Ghia Service Manual Type 1: 1966-1969

by Volkswagen of America
Hardcover, 8-1/2 in. x 11 in.
512 pages
959 illustrations and diagrams

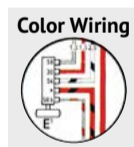


Volkswagen Station Wagon/Bus Service Manual Type 2: 1968-1979

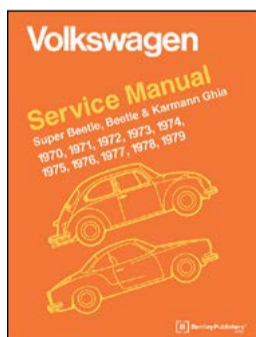
by Volkswagen of America
Hardcover, 8-1/2 in. x 11 in.
464 pages
753 illustrations and diagrams



Volkswagen Part No. LPV 997 169
ISBN 978-0-8376-1646-9
V121.....\$59.95

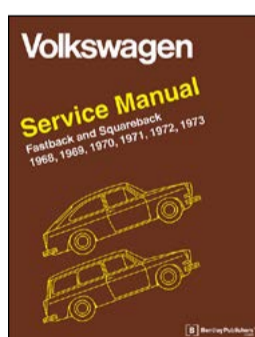


Volkswagen Part No. LPV 997 288
ISBN 978-0-8376-1635-3
V279.....\$59.95



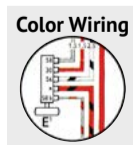
Volkswagen Super Beetle, Beetle and Karmann Ghia Service Manual Type 1: 1970-1979

by Volkswagen of America
Hardcover, 8-1/2 in. x 11 in.
496 pages
720 illustrations and diagrams

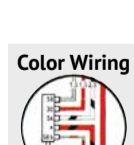


Volkswagen Fastback and Squareback Service Manual Type 3: 1968-1973

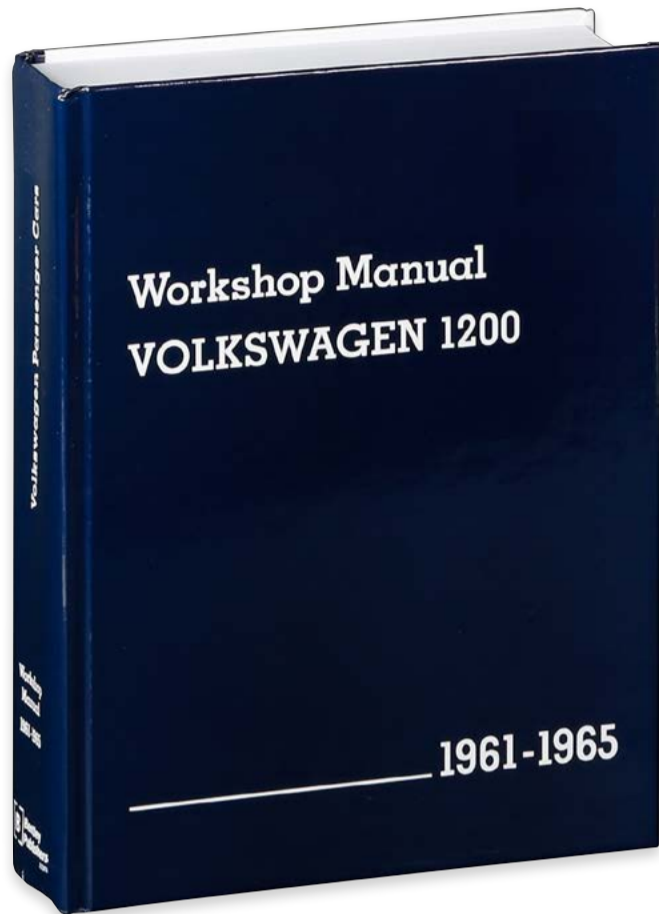
by Volkswagen of America
Hardcover, 8-1/2 in. x 11 in.
424 pages
764 illustrations



Volkswagen Part No. LPV 997 109
ISBN 978-0-8376-1623-0
V179.....\$49.95



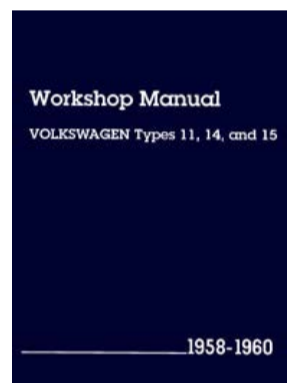
Volkswagen Part No. LPV 997 383
ISBN 978-0-8376-1700-8
VSQU.....\$54.95



Volkswagen 1200 - Removing and installing front axle

Volkswagen Workshop Manuals

These workshop manuals are vintage reproductions of Volkswagen service and repair information for air cooled Volkswagen models sold in the USA and Canada. These technical archive editions are historical records of the illustrations and procedures for routine Volkswagen maintenance, troubleshooting, repair and rebuilding.

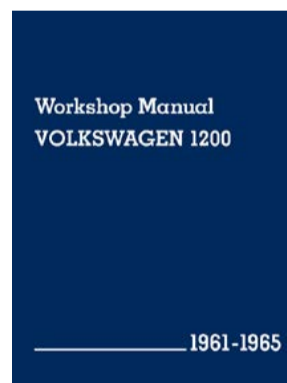


Volkswagen Workshop Manual Types 11, 14, and 15: 1958-1960 Beetle and Karmann Ghia

by Volkswagen of America

Softcover, 8-3/8 in. x 11 in.
1,016 pages
over 1,400 figures, illustrations and diagrams
Volkswagen Part No. LPV 800 137
ISBN 978-0-8376-0392-6

V160\$109.95

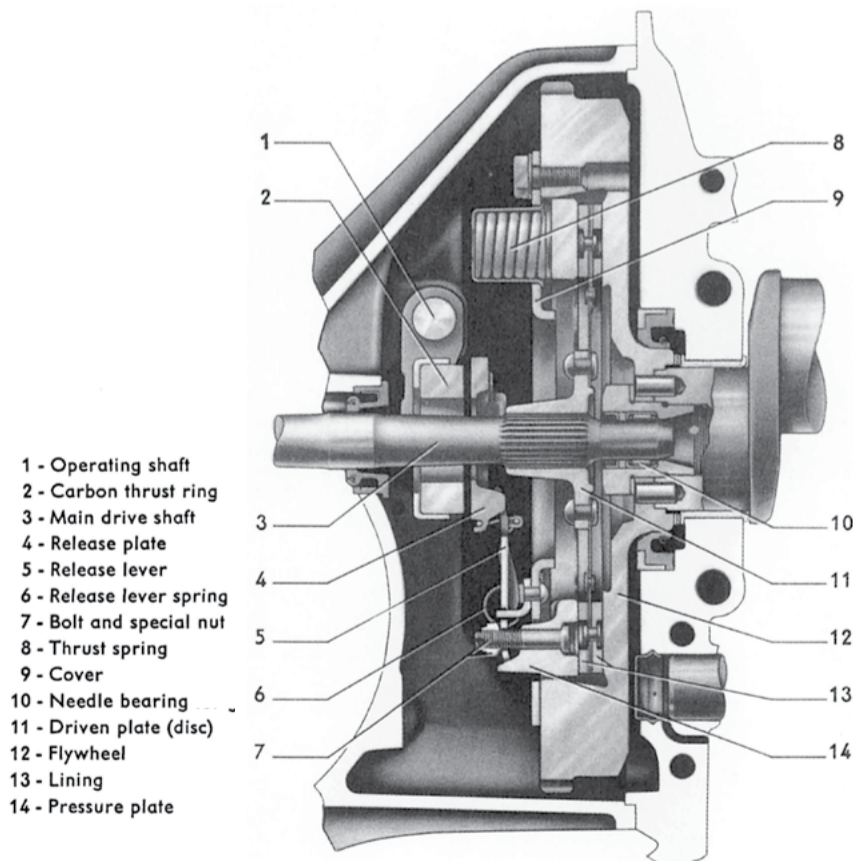


Volkswagen 1200 Workshop Manual: 1961-1965 Type 11, 14, and 15 (Beetle, Beetle Convertible, Karmann Ghia Coupe and Karmann Ghia Convertible)

by Volkswagen of America

Hardcover, 8-1/2 in. x 11 in.
1,364 pages
2,622 illustrations and diagrams
Volkswagen Part No. LPV 800 121
ISBN 978-0-8376-1702-2

V165\$139.95



Volkswagen 1200 Description of clutch



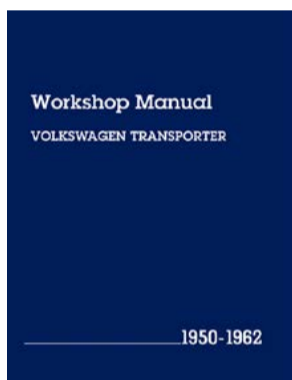
Volkswagen Workshop Manual: 1952-1957

Types 11, 14, and 15 (Beetle and Karmann Ghia)

by Volkswagen of America
Hardcover, 8-1/2 in. x 11 in.
704 pages
over 1,300 figures,
illustrations and diagrams

Volkswagen Part No. LPV 800 136
ISBN 978-0-8376-1711-4

V157 **\$119.95**



Volkswagen Transporter Workshop Manual: 1950-1962 Type 2

Kombi, Micro Bus, Micro Bus De Luxe, Pick-Up, Delivery Van and Ambulance

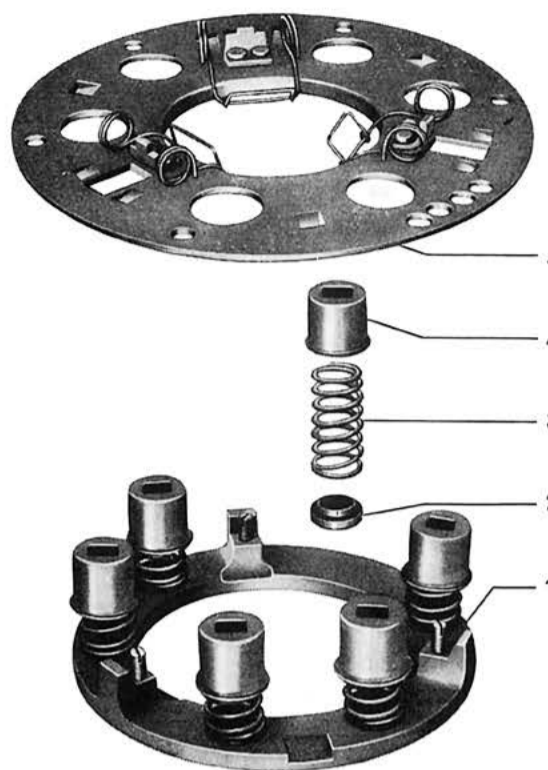
Hardcover, 8-1/2 in. x 11 in.
1,144 pages

Over 2,000 figures, illustrations and diagrams
Volkswagen Part No. LPV 800 138
ISBN 978-0-8376-1712-1

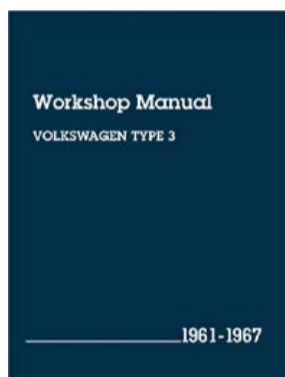
V262 **\$149.95**



Removal of door and window



Clutch disassembly



Volkswagen Type 3 Workshop Manual: 1961-1967

by Volkswagen of America

Softcover, 8-3/8 in. x 11 in.
1,152 pages
Over 2,000 figures,
illustrations and diagrams

29 pages of electrical wiring diagrams
Volkswagen Part No. LPV 800 139
ISBN 978-0-8376-1192-1

V367 **\$129.95**



Volkswagen Transporter Workshop Manual: 1963-1967, Type 2

Kombi, Micro Bus, Micro Bus De Luxe, Pick-Up, Delivery Van and Ambulance

by Volkswagen of America

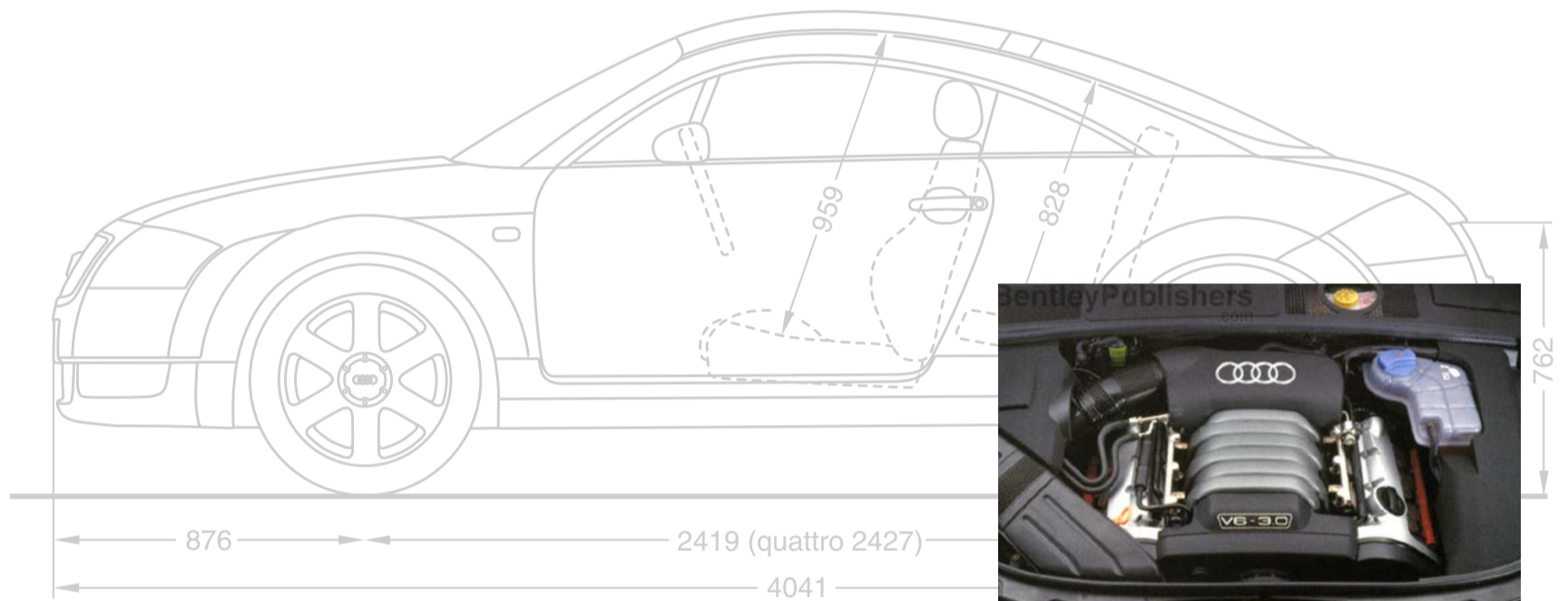
Hardcover, 8-1/2 in. x 11 in., 918 pages
1,450 illustrations and diagrams
Volkswagen Part No. LPV 800 135
ISBN 978-0-8376-1698-8

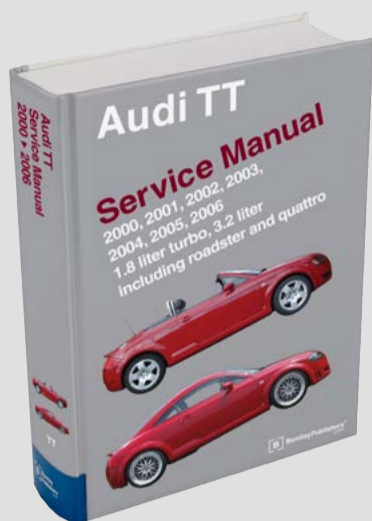
V267 **\$129.95**

Audi Repair Manuals

Bentley Publishers has designed these Audi repair manuals with the professional technician in mind. Finding applicable specifications is quick and easy, and repair procedures can be grasped after a minimum of reading.

These manuals are heavily illustrated with high-quality photographs and drawings, and cover aspects of maintenance and service work.





**Audi TT
Service Manual:
2000–2006**

**1.8L turbo, 3.2L,
including roadster
& quattro**

by Bentley Publishers

Hardcover
8-3/8 in. x 11 in.
978 pages, 1,826

B&W photos, illustrations and diagrams
Audi Literature No. W42AUDITT0006SM
ISBN: 978-0-8376-1625-4

AT06 \$129.95

Engines covered:

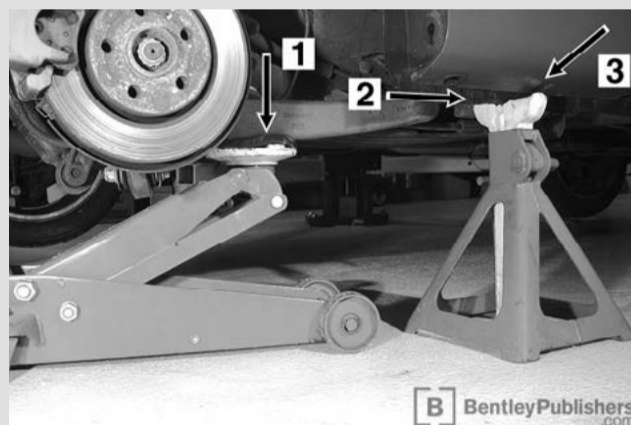
- 1.8L turbo gasoline
(engine code: ATC, AWP, AMU, BEA)
- 3.2L gasoline (engine code: BHE)

Transmissions covered:

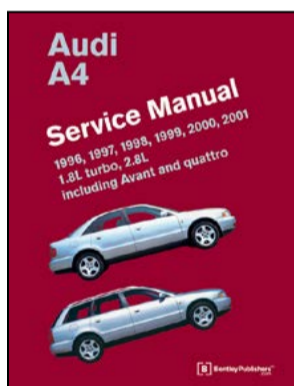
- 02J 5-speed manual (front wheel drive)
- 02M/02Y 5- and 6-speed manual (all wheel drive)
- 09G 6-speed automatic (front wheel drive)
- 02E 6-speed DSG (all wheel drive)



Bentley technical editors working on a TT Roadster.



03 Maintenance
Proper positioning of floor jack and jack stand to safely lift vehicle.



**Audi A4 Service
Manual: 1996–2001**
**1.8L Turbo, 2.8L, including
Avant & quattro**

by Bentley Publishers
Hardcover, 8-3/8 in. x 11 in.
1,524 pages
4,261 B&W photos,
illustrations and diagrams

Audi Literature No. W42AUA4962001RM
ISBN: 978-0-8376-1675-9

A401 \$139.95

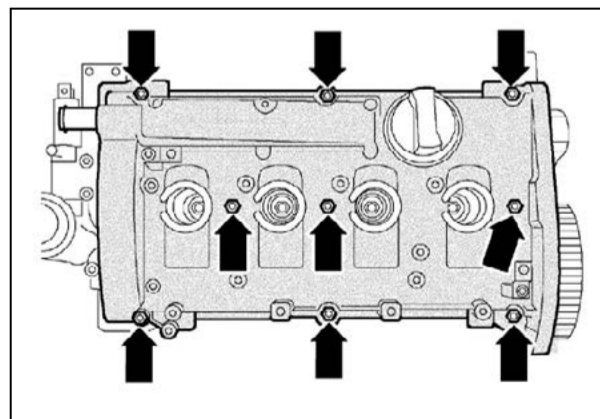
The Audi A4 (B5) Service Manual: 1996-2001 is a comprehensive source of service information and specifications for Audi A4 models built on the B5 platform from 1996 to 2001.

Engines covered:

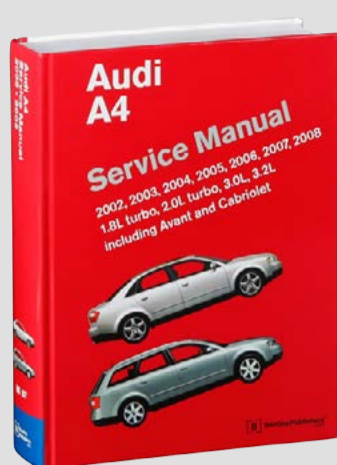
- 1.8L turbo gasoline (engine codes: AEB, ATW, AWM)
- 2.8L gasoline (engine codes: AFC, AHA, ATQ)

Transmissions covered:

- 5-speed Manual (transmission codes: 012, 01W, 01A)
- 5-speed Automatic (transmission code 01V)



15 Engine—Cylinder Head, Valvetrain
Loosen nuts -arrows- for cylinder head cover and remove cylinder head cover.



Audi A4 Service Manual: 2002-2008

1.8L turbo, 2.0L turbo, 3.0L, 3.2L, including Avant and Cabriolet

by Bentley Publishers

Hardcover,
8-3/8 in. x 11 in.
1430 pages
2610 photos, illustrations
and diagrams

ISBN: 978-0-8376-1574-5

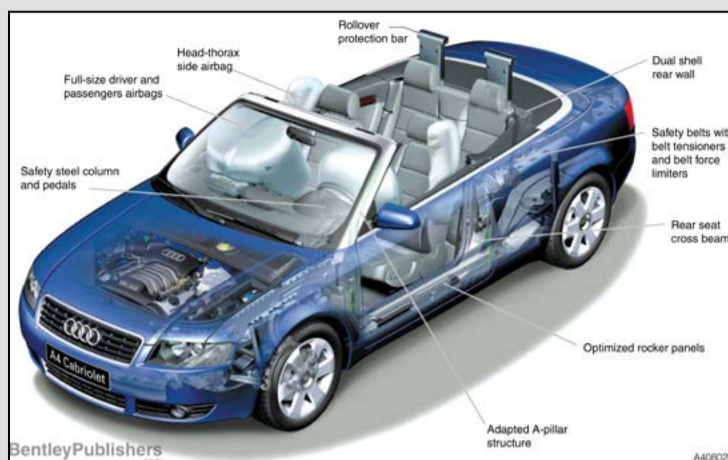
A408.....\$149.95

Engines covered:

- 1.8L turbo gasoline (engine code: AMB)
- 2.0L turbo FSI gasoline (engine codes: BGP, BWT)
- 3.0L gasoline (engine codes: AVK, BGN)
- 3.2L gasoline (engine codes: BKH)

Transmissions covered:

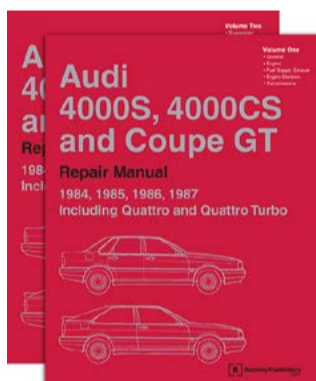
- 5-speed Manual (transmission codes: 012, 01W, 01A)
- 6-speed Manual (transmission codes: 01E, 01X, 02X)
- 5-speed Automatic (transmission code: 01V)
- 6-speed Automatic (transmission code: 09L)
- CVT (transmission code: 01J)



Technical model introduction information in full color. 02 Product Familiarization



8 Heating and Air Conditioning



Audi 4000S, 4000CS, and Coupe GT Repair Manual: 1984-1987

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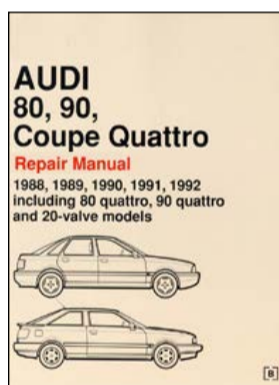
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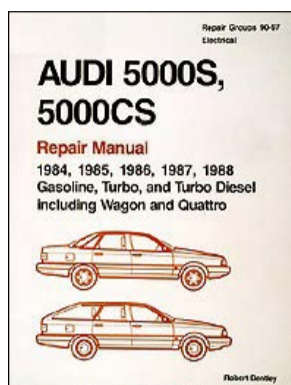
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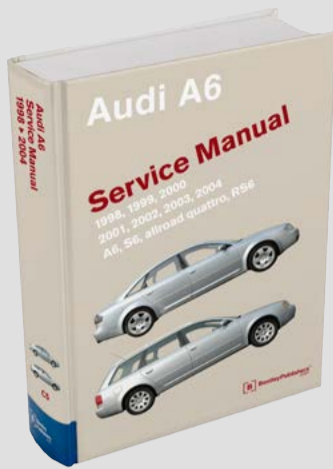


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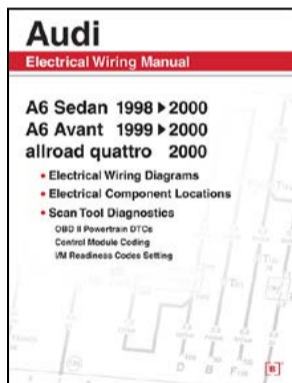
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02 - Product familiarization
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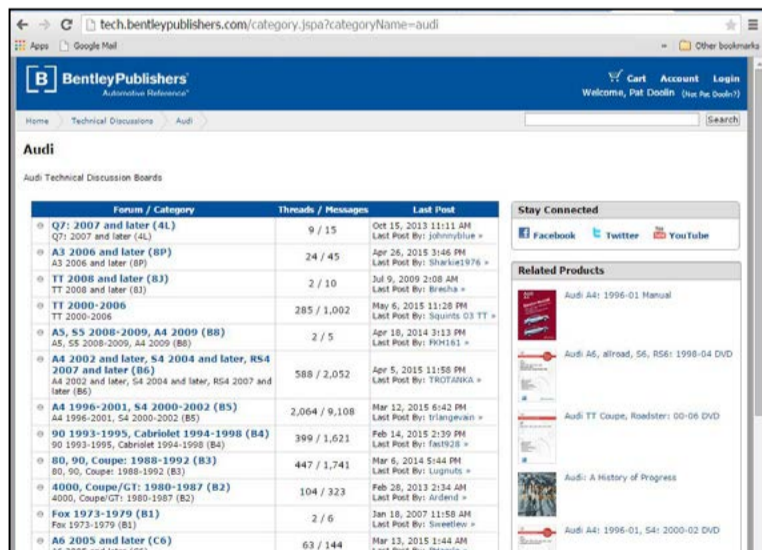
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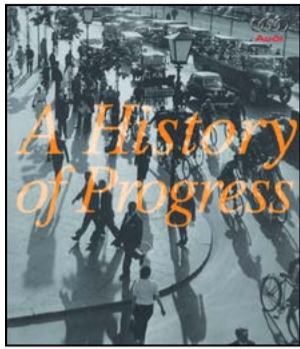
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by Audi AG

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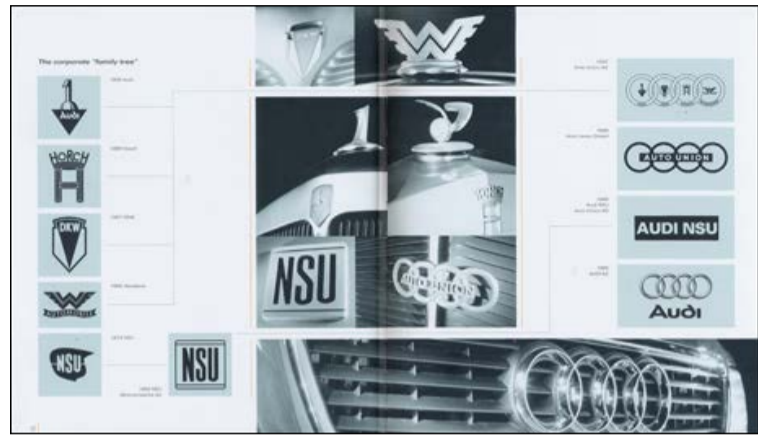
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Audi corporate family tree, pages 6-7

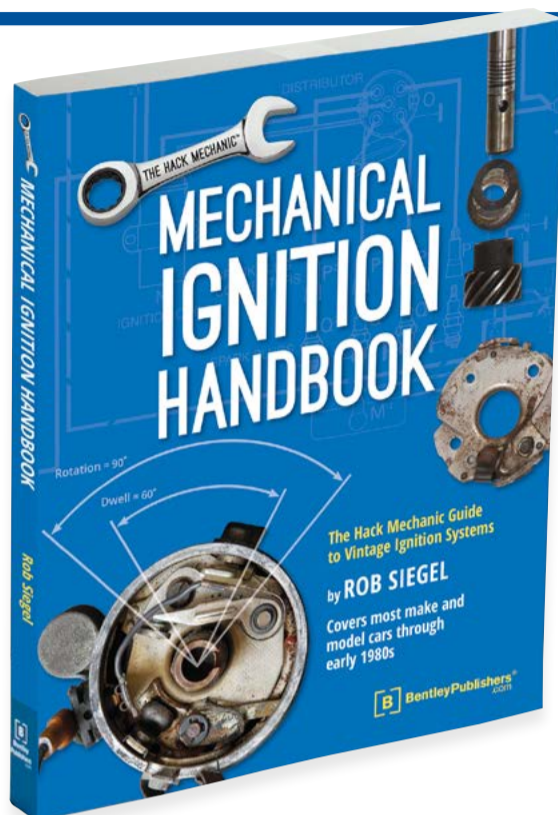
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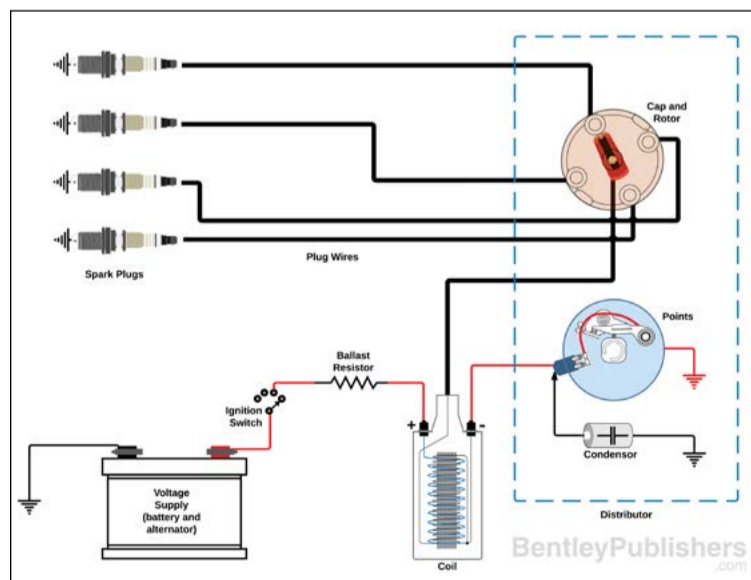
Engineering



Applies to vintage cars from the 1950s up through the mid 1980s that have either points and breakers or mechanical ignition advance.



Setting static timing with a multimeter. (Chapter 5, "Setting Ignition Timing")



The basic layout of the ignition system. (Chapter 2, "Mechanically Timed Ignition—Theory")

Mechanical Ignition Handbook: The Hack Mechanic Guide to Vintage Ignition Systems

by Rob Siegel

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- Locating the timing mark
- Finding top dead center
- Setting static and dynamic ignition timing
- Using both a standard and an advance timing light
- Testing coil resistance
- Retrofitting breakerless electronic ignition (for those who say "enough!")

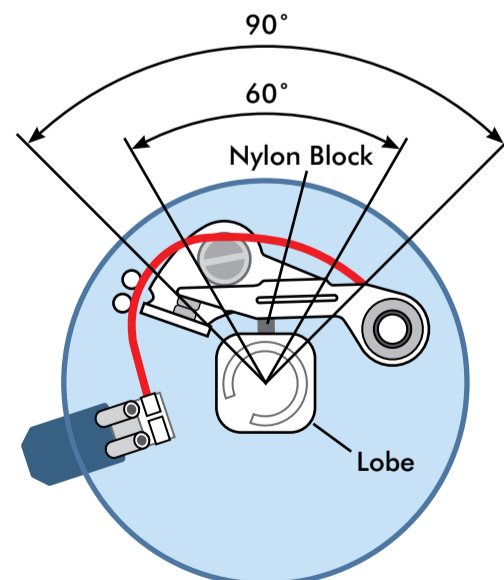
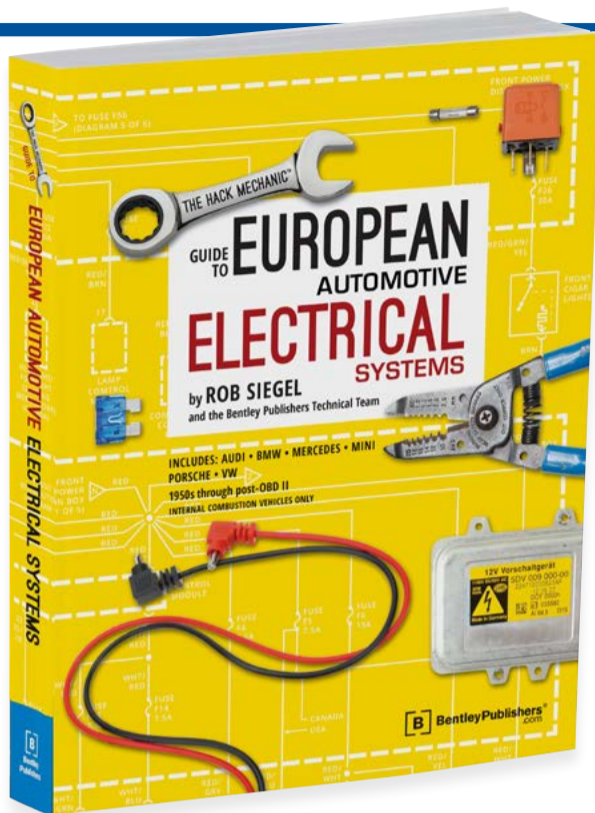


Illustration of rotation and dwell angle. (Chapter 3, "Point Gap and Dwell")



Includes Audi, BMW, Mercedes, MINI, Porsche, VW
Covers 1950s through post-OBD II
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The Hack Mechanic Guide to European Automotive Electrical Systems

by Rob Siegel
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Bentley Code: BHME

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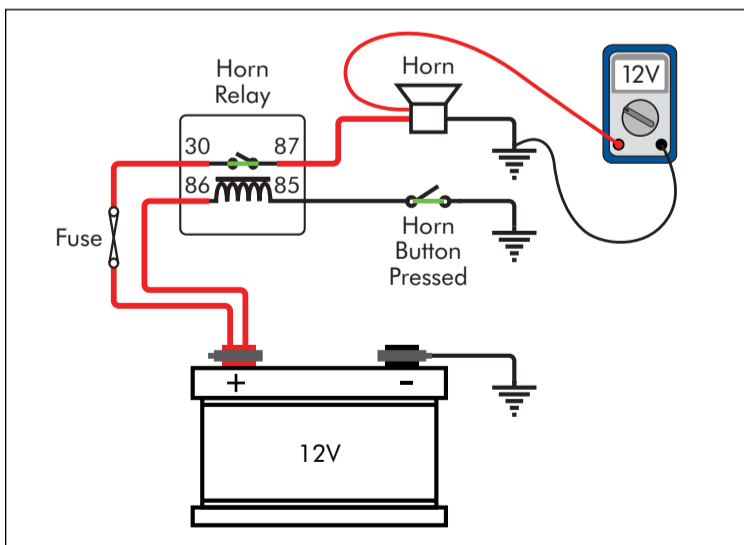
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Electrical issues in European cars can be intimidating. *The Hack Mechanic Guide to European Automotive Electrical Systems* shows you how to think about electricity in your car and then take on real-world electrical problems. The principles discussed can be applied to most conventional internal-combustion-engined vehicles, with a focus on European cars spanning the past six decades.

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Battery voltage should be about 12.6 V DC with the engine off. (Chapter 2, "Battery")

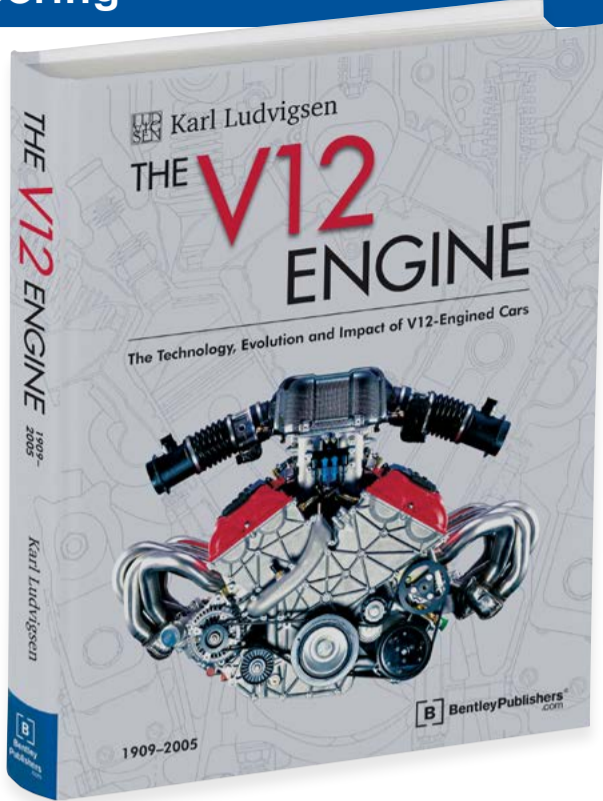


Using a multimeter to check for voltage at a device in a circuit. (Chapter 8, "Troubleshooting")

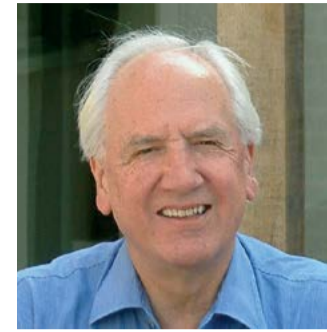


Read more about author **Rob Siegel** on page 50

See Rob's automotive electrical how-to videos on YouTube
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Author profile page 9

Blending business with technology, racing with record-breaking and luxury carriages with supercars, *The V12 Engine* takes the reader on a high-speed journey through some of the most exciting and exotic cars ever made.



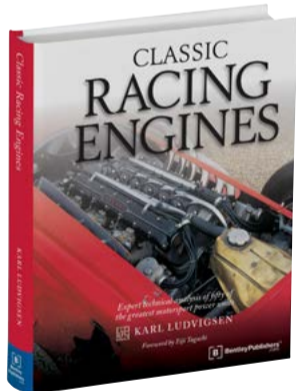
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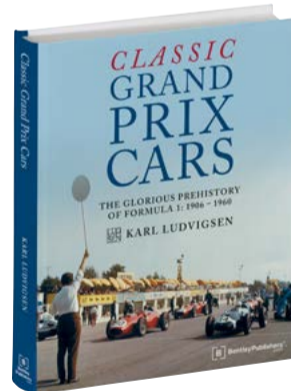
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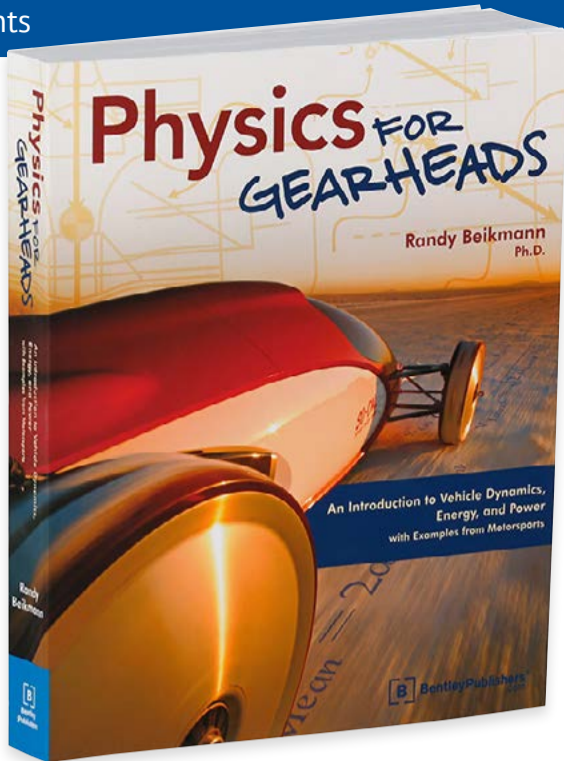
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Randy Beikmann

holds a Ph.D. in mechanical engineering from the University of Michigan. He is a technical specialist in automotive noise and vibration at the General

Motors Milford Proving Ground, where he has worked since 1983. He has published numerous papers on powertrain noise and vibration and has helped design and teach classes at GM within his engineering specialty. He currently holds three patents.

Section 4. Traction Limits in Longitudinal Acceleration 507

from load transfer; so with "only" 76% of the weight on the rear axle, the wheel spin limit (in g's) is equal to the tire's friction coefficient.

4.2 The Traction Limit for Rear-Wheel Drive—Take Two

There's obviously a problem with equation 17-2b, at least by itself. So let's look at the pieces that went into it. Remember that the calculated wheel spin limit was based on the load on the rear tires, and their friction coefficient. Let's check the rear axle load at the wheel spin limit by multiplying the acceleration from equation 17-2a by the mass of the car (to find force), then dividing by the friction coefficient:

$$F_{\text{rear-wheel}} = \frac{mg(L_r/L_{cg})}{1 - \mu_{\text{tire}}(L_r/L_{cg})}$$

Equation 17-3 At wheel-spin limit, RWD

Figures 6 plots the rear axle load on our car at the wheel-spin limit, assuming a 3,000-lb weight. Note that it is equal to the car's weight with 76% rear weight bias, but becomes greater than the weight with more bias. This would explain the high acceleration limit, but an axle load more than the vehicle weight is physically possible without downside. What's going on?

Physics is put to math

Section 5. G-forces, μ , and the End of the Slingshot Era 513

5 G-forces, μ , and the End of the Slingshot Era

Don Garlits was probably the most influential drag racer in history. Throughout his career, he took chances on developing new ways to make power and get it hooked to the track. He is best known for his Top Fuel dragsters, especially with making the rear-engine dragster (rear-end, really) the machine to beat. Up to 1970, all Top Fuelers were front-engine and called slingshots. They were beautiful machines, but the drivers were seated precariously behind and over the rear axle. Wrapped around the transmission and differential, and sitting behind

Physics is described with narrative

Section 5. G-forces, μ , and the End of the Slingshot Era 515

As mentioned, the slingshots were heavily rear-weight biased. But by 1970, drag tires had become sticky enough that this was no longer the right thing to do. In fact, Don said that in 1970, he had to run 150 pounds of lead ballast on the front of the car just to keep the front wheels on the track. Don said that it was hard to explain to people how adding weight to the front of the car could help you use the traction of the rear tires. It isn't your first choice. But if acceleration is limited by wheelstand (equation 17-5b) before the wheel-spin limit (equation 17-2b) is reached, it's the better choice.

The top of Figure 11 shows the original CG for Swamp Rat XIII (black), and how ballast would move the CG forward by 35.6 inches, and slightly down (red). That kept the front wheels down, but added extra mass to accelerate (there was no minimum weight at the time).

With the rear-engine dragster, Garlits had found a better way to achieve the right CG placement. By moving the driver ahead of the engine in Swamp Rat XIV (bottom of Figure 11), the driver acted as ballast to keep the front end down (instead of the 150 pounds of lead). Moving the driver in front of the engine also reduced the mass added by the roll cage, since it could be built into the existing frame. He was able to bring the car's weight (with driver) down from 1,760 to 1,510 pounds (150 pounds was from removing the transmission). That was over 14% lighter than the slingshot!

Figure 11 Outlines of Swamp Rat XIII, and Swamp Rat XIV with no wing, as it first ran. Each major component is shown as a solid steel sphere welded to its weight. The CG of Swamp Rat XIII is shown without ballast and with ballast (without black) and with ballast (red). The curved arrows show the major changes in component CG locations between the two cars.

The CG calculations for Swamp Rat XIII and XIV, both with the driver's weight (assumed 160 pounds) added, are shown in Table 2 and Table 3. Table 2: Swamp Rat XIII, without ballast, but in CG 35.6 inches

Note 6: Don was kind enough to estimate the weights of the major components of his dragsters, as summarized in Table 2 and Table 3. I used the drawings Ken Rogers provided for the head of the chapter to estimate the component CG locations.

Physics is mapped to graphics



**The Leading Edge
Aerodynamic Design
of Ultra-streamlined
Land Vehicles**

by Goro Tamai
Softcover
7 7/8 in. x 10 3/8 in.
304 pages
315 B&W photos,
illustrations and diagrams

ISBN 978-0-8376-0860-0

GRLE\$49.95

The Leading Edge summarizes the aerodynamic design and construction issues of solar cars and ultralight land vehicles. Author Goro Tamai draws on his own experience in designing solar cars at MIT to produce a book for the ground-up streamlined land-vehicle designer or constructor, as well as for the solar/electric/ultralight vehicle enthusiast. As with any engineering problem, the “best” body shape for solar cars, HPVs, or Electrathoners is not the body of absolute lowest drag. The vehicle system, including the driver, chassis, and energy/drive system must work in concert to produce the maximum output. *The Leading Edge* will help designers quantify the trade-offs, and make logical decisions.

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- Vehicles covered include solar cars, human-powered vehicles (HPV), solar bikes, electrathon racers, ground-up hybrid or pure electric vehicles, and fuel-economy record cars.
- Numerous examples using specific race cars and teams, and how designers solved problems.



Goro Tamai received his B.S. (1993) and M.S.(1995) in Mechanical Engineering from the Massachusetts Institute of Technology. He joined the MIT Solar Car Team during his

freshman year, and worked on a succession of cars, including the Galaxy, Solectria 5, Solectria 5x, Aztec, and Manta. His primary responsibility was in the design and fabrication of the chassis and body, but he also spent time in the drivetrain and battery groups.

Tamai helped drive the Galaxy to a sixth-place finish in the 1990 GM Sunrayce USA, and the Aztec to two first-place finishes in the 1993 and 1994 Tour de Sol commuter class. In 1995, he directed the development of the Manta, MIT’s first Sunrayce car since 1990. Tamai’s 18-member team constructed the Manta in a year and a half, finishing just in time for the Sunrayce 95 in Indianapolis. The team emerged victorious.

Since graduating from MIT, the author has actively consulted with a number of solar and electric racing teams. He currently works in the automotive industry in Michigan, USA.

“... an extensive treatise on the aerodynamics of streamlined land vehicles ... It is a valuable contribution towards advancing the technology in this important field.”

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**Bosch Fuel Injection &
Engine Management**

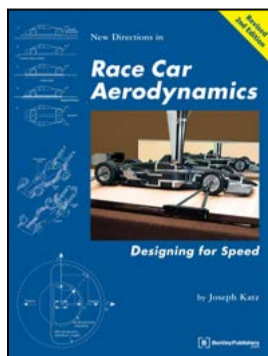
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Use of smoke trace for off-body flow visualization in the wind tunnel test section.

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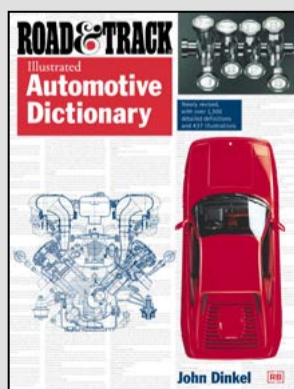


Prof. Joseph Katz
is Chairman of the
Aerospace Engineering
and Engineering
Mechanics department
at San Diego State
University. Joe received
the degrees of BSc,
MSc and DSc, the latter
in 1977 in Aerospace
Engineering after which
he spent two years at

the NASA Ames research center full-scale wind tunnel facility. During his academic career he taught and developed numerous graduate and undergraduate courses in both the Aerospace and the Mechanical Engineering departments, including two courses dealing with vehicle dynamics. His wide research interest spans between typical aerospace disciplines, and vehicle-related research with emphasis on engine cooling and vehicle dynamics.

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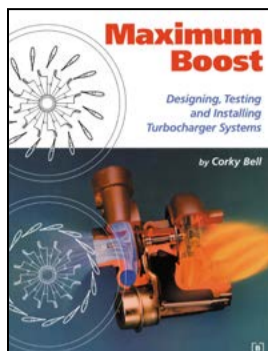
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260 pages
437 B&W photos &
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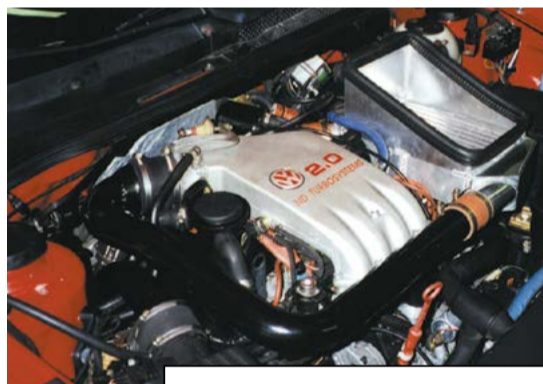
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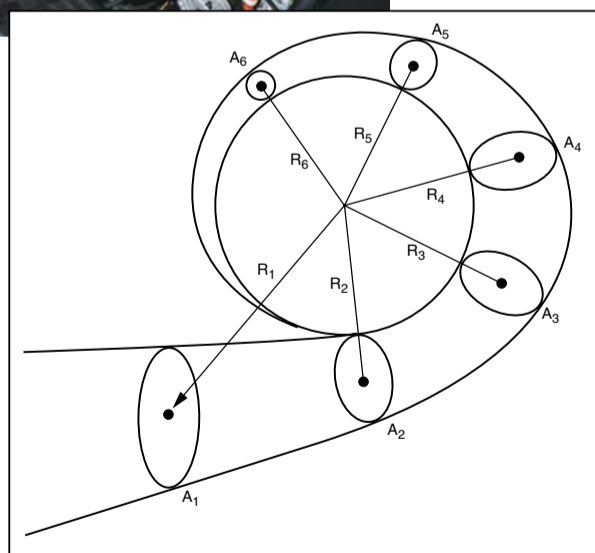
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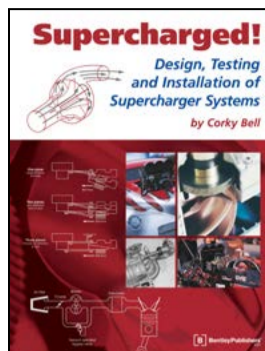
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Cabrio Turbo Engine



Chapter 3 Definition of the A/R ratio



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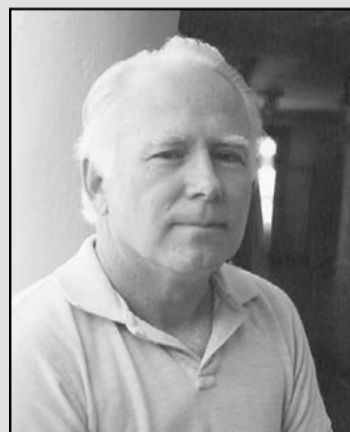
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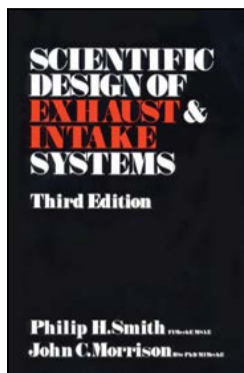


Corky Bell

Born in Albuquerque and raised somewhere between Illinois, Florida, Louisiana, Texas, New Mexico and Europe, he received a degree in mechanical engineering from Texas A&M. The author worked as an engineer

at Bell Helicopter for twelve years. In 1977, he opened Cartech Racing in Dallas after his interest in turbocharging and supercharging grew from a hobby into a business. He subsequently moved Cartech Racing to San Antonio and in 1992 formed Bell Engineering, to expand the scope of business by providing engineering and fabrication services for light aircraft.

While pursuing engineering as a career, Corky spent the years of 1965 through 1981 racing automobiles as an avocation. The hobby of race driving took Corky to events from Daytona to Riverside to Road America in Wisconsin. A minor honor was achieved in 1968 by scoring the highest number of points as an amateur racer in the Sports Car Club of America’s National race series.



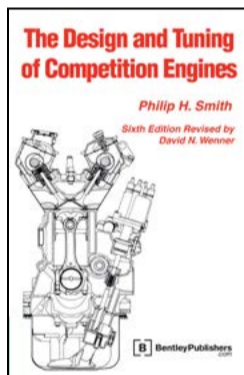
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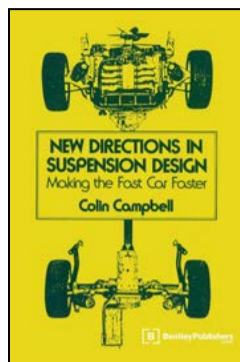
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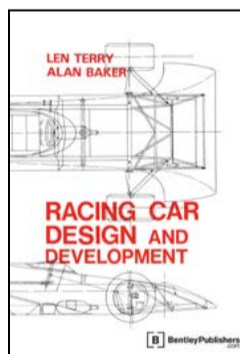
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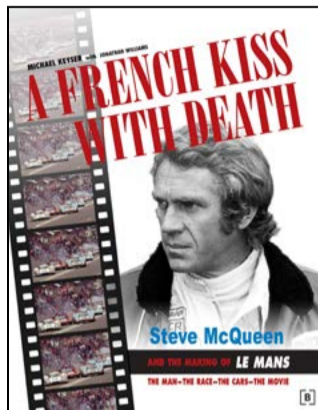
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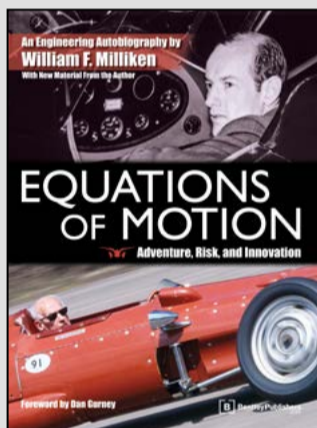
In text and photographs *A French Kiss With Death—Steve McQueen and the Making of Le Mans* examines the life of actor, Steve McQueen, the films in which he appeared and his love affair with the many cars and motorcycles he owned during his lifetime.



Steve McQueen at Le Mans

“The book features hundreds of excellent photos, while the writing is lively, the pace brisk, and the personal stories spellbinding...highly recommended.”

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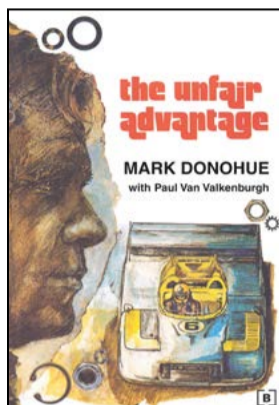
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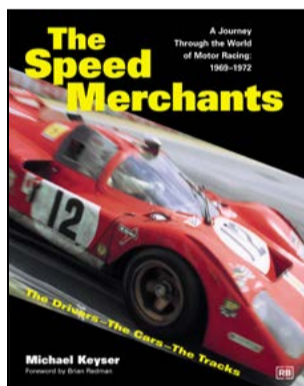


Bill Milliken, age 87, at the wheel of FWD Miller; 1997, Goodwood Hillclimb, England



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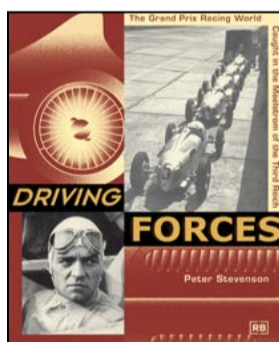
In 1974 Mark Donohue took a year off from driving at the height of his racing career and wrote *The Unfair Advantage*, a candid and revealing book about his journey through the world of auto racing—from amateur races in his own '57 Corvette to winning the Indy 500 in Roger Penske's McLaren M16.



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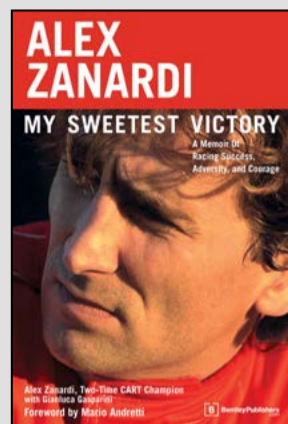
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First published in 1973, Michael Keyser's *The Speed Merchants* has been hailed among other books on racing as "the standard by which other works should be judged."



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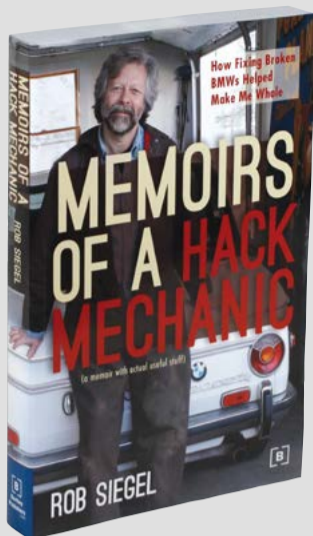
The racing world held its collective breath in 2001 when Alessandro Zanardi lost both his legs in a horrifying accident at the Lausitzring in Germany. The racing world held its breath again nineteen months later while witnessing his incredible return to racing. Bentley Publishers announces the publication of the North American edition of the Alex Zanardi biography, *My Sweetest Victory*, a book which has quickly sold over 50,000 copies in his native Italy.

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Alex Zanardi celebrating a triumphant victory at Long Beach in 1998.



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Rob's column, "The Hack Mechanic," appears in *Roundel*, the magazine of the **BMW Car Club of America**. You can also keep up with the latest news about the book by following **Memoirs of a Hack Mechanic on Facebook**.

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– Rob Siegel,
"The Hack Mechanic"
Roundel, October 2012



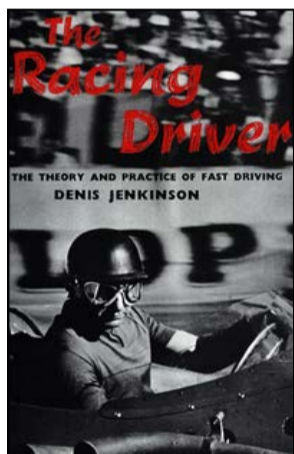
Rob removing the engine from Maire Anne's '72 VW Bus in preparation for rebuild and transplant into a '68 VW Camper.



Putting the coupe to bed for the winter. This photo, shot by Yale Rachlin, so beautifully captures the care and intimacy that men are capable of feeling for their car.

"This funny, frisky book . . . is flecked throughout with nuts and bolts of wisdom. . ."

– Dana Jennings, *The New York Times*



The Racing Driver

The Theory and Practice of Fast Driving

by Denis Jenkinson

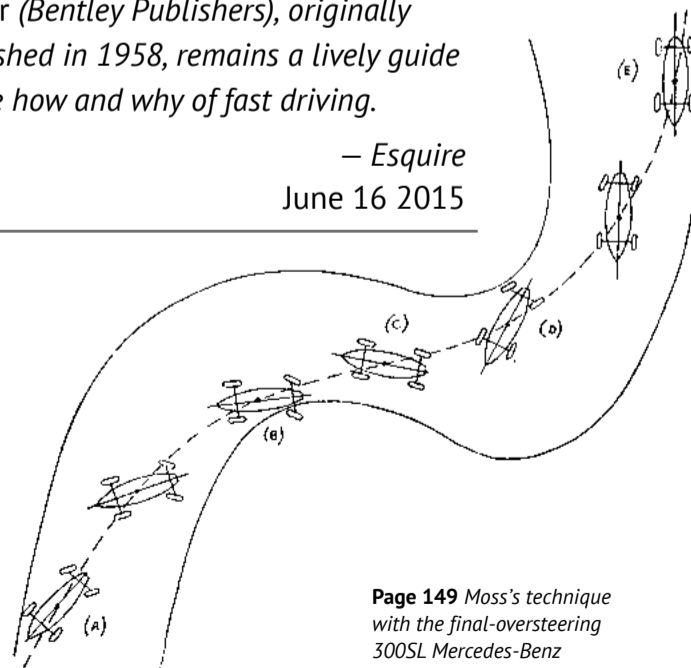
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228 pages
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When *The Racing Driver* was first published in the U.S. in 1959, *Road & Track* magazine hailed it as an "excellent book . . . the best ever written on contemporary drivers and their racing styles and habits." Over 45 years later, Denis Jenkinson's book has become a classic, highly valued for its historical perspective and views into the personalities of drivers who today seem larger than life.

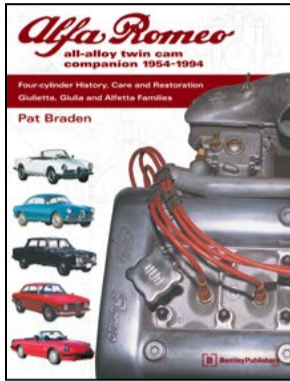
For the Dad Who Needs Speed. Packed with anecdotes about the biggest names from racing's golden age, *The Racing Driver* (Bentley Publishers), originally published in 1958, remains a lively guide to the how and why of fast driving.

– *Esquire*
June 16 2015



Page 149 Moss's technique with the final-oversteering 300SL Mercedes-Benz

Alfa Romeo



Alfa Romeo All-Alloy Twin Cam Companion: 1954-1994

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The Giulietta TI Berlina offered twin cam motoring for tens of thousands of Europeans, but only a handful of Americans.



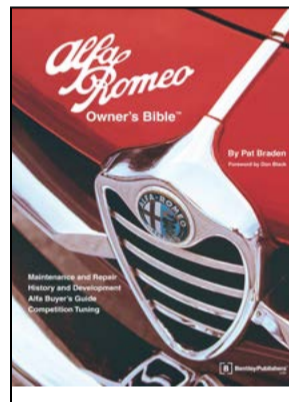
Stocks of the all-alloy, twin-cam engines await installation in new Alfa Romeo Giulias.



The basic underpinnings of the 1965 Giulia Spider Veloce (left) and 1973 GTV (right) were directly derived from the original Giuliettas of 1954.



Alfa Spider



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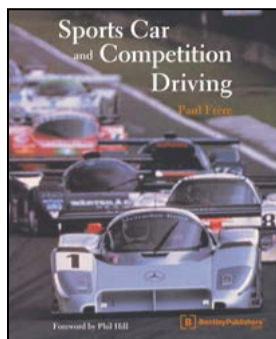
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Motorsports



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Foreword by Phil Hill

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First published in 1963, *Sports Car and Competition Driving* sold tens of thousands of copies, establishing it as a standard reference on driving. In this edition, newly revised in 1992, Frère builds on the strengths of the original by explaining how to meet the new challenges posed by radical new developments in automotive technology.

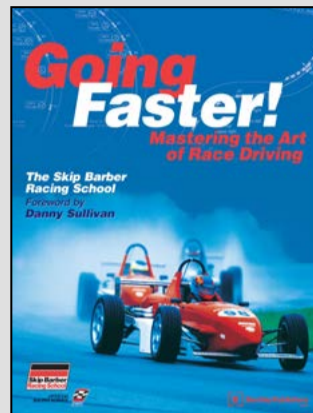


Paul Frère began his racing career in 1946 on motorcycles, but soon moved into automobiles and first drove in competition in the 1948 Spa 24 Hours Race, in a pre-war PB-type MG, finishing 4th in class and 15th overall. Over his distinguished career Frère

has had 11 first-place finishes in Spa production car races alone, in such diverse automobiles as Panhard, Oldsmobile, Chrysler, Alfa-Romeo, Jaguar, Aston Martin and Porsche. Frère had been writing as a journalist as long as he had been racing, since 1946, using his unique viewpoint as both championship driver and engineer to produce articles about automotive and technical subjects, as European Editor for *Road & Track*. Frère passed away on February 23, 2008 in Nice, France at the age of 91.



Chapter 4: From Slipping to Sliding
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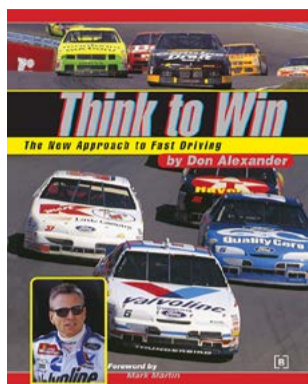
This complete racer's reference is the perfect resource for drivers from novice to expert. The fundamentals of fast driving are revealed in this definitive how-to book for racers. You will find the competition-proven methods of instructors and of professional drivers that will give you the know-how to work up the track and stay at the front.



Formula Dodge RT 2000's - Sebring, 2002

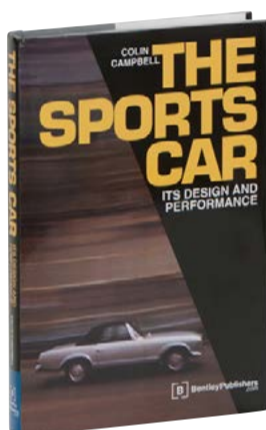
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Car & Driver Magazine, August, 1998



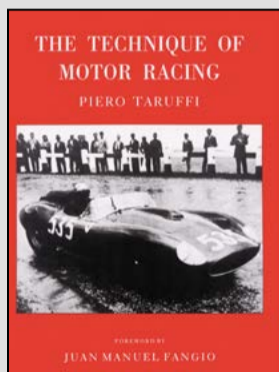
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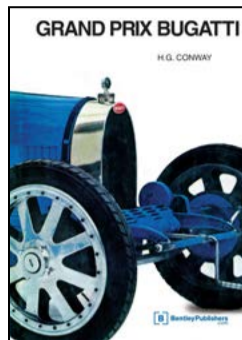
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Part 1 - Racing History

Part 2 - Design and Construction

Appendix 1

- Technical Data

Appendix 2

- Factory Register Data
- Serial Numbers (Type 35, Type 37, Type 43 and Type 51)

art and science of motor racing. He drove for the works teams of Ferrari, Maserati, Alfa Romeo, Mercedes-Benz, and others, in a career that spanned over 25 years and was crowned by his victory in the 1957 Mille Miglia.

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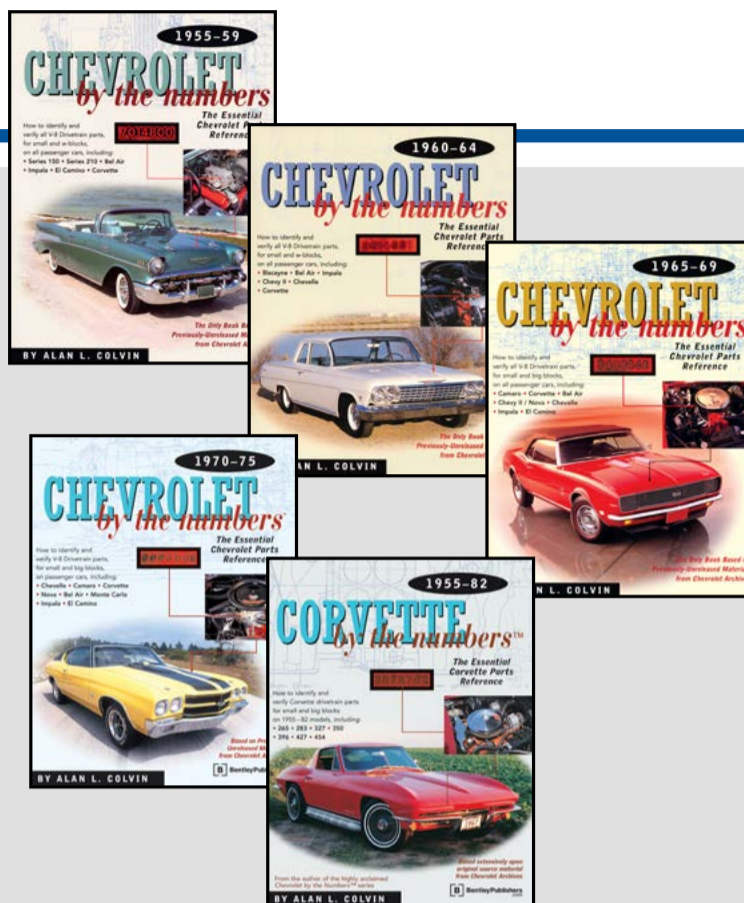
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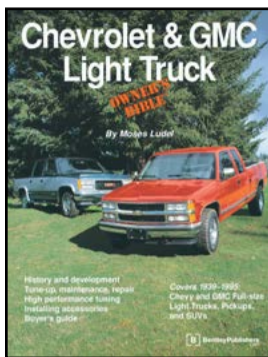
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Alan Colvin

Since 1985, Alan has been a freelance automotive feature writer, with articles regularly appearing in national magazines such as *Corvette Fever*, *Super Chevy*, *Musclecar Review*, *Automotive Restorer*, *Pontiac Enthusiast*, *Old Cars Weekly*, *Chevy High Performance*, as well as *Corvettemagazine.com*.

He has also authored several Q & A columns in several publications. For many years, he also was President of Colvin Media Group, Inc., a group of freelance writers and graphic designers which specialized in advertising and catalog copy and design, copy writing and online catalog publications.



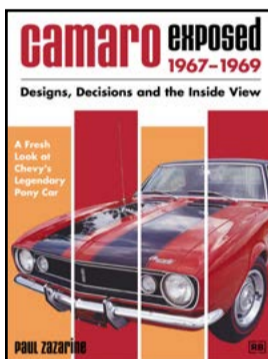


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Camaro Exposed: 1967-1969 tells the story of the formative and most collectable years of that classic pony car. With first-hand interviews and unpublished photos, this book is a great research tool and a terrific gift.



By mid-January 1965, the Camaro's shape and styling was in place. Even this early in the process, the basic headlamp, grille, and thin bladed bumper design were already in place.

Corvette



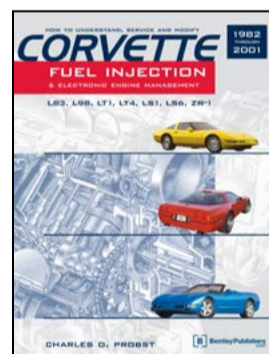
Corvette 427 Practical Restoration of a '67 Roadster

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"This book would be an inspiration for the restoration of not just a Corvette of any year, but almost any make or model car..."

– Vette



Corvette Fuel Injection & Electronic Engine Management

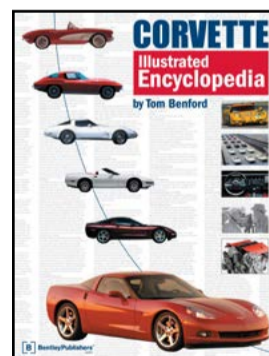
1982 through 2001: How to Understand, Service and Modify

by Charles O. Probst

Softcover, 8-3/8 in. x 11 in.
398 pages
193 photos and 333 diagrams
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ISBN 978-0-8376-0861-7

GFCV \$39.95

Engines covered: 1982-2001
•L83, L98, LS1, LS6, LT1, LT4, ZR1

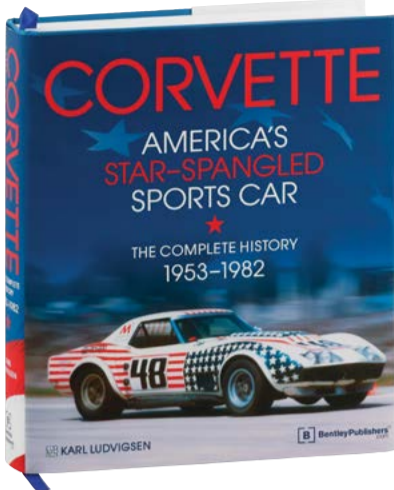


Corvette Illustrated Encyclopedia

by Tom Benford

Softcover
7 in. x 9-1/4 in., 324 pages
193 photos and illustrations
720 entries
ISBN 978-0-8376-0928-7

GCEB \$19.95



Corvette—America's Star-Spangled Sports Car
The Complete History 1953-1982

By Karl Ludvigsen



Silver Medal winner at the 2014 International Automotive Media Competition



Karl Ludvigsen with Corvette creators Zora Arkus-Duntov and Bill Mitchell

Hardcover, 9 in. x 10-1/2 in.
 784 pages, 989 photos
 ISBN: 978-0-8376-1659-9

GCSS \$24.95

What makes *Corvette—America's Star-Spangled Sports Car: The Complete History 1953-1982* unique is the fact that Ludvigsen does not stop at recounting what happened or cataloging model-year changes, equipment options, etc. (though these facts are well covered). He has added depth to the Corvette story through his desire to understand why the Corvette evolved as it did. Drawing on his many years in the industry and his expertise as an automotive historian, Ludvigsen takes the reader behind the scenes to reveal an insider's view of the people and events that gave rise to America's favorite sports car.

"...our favorite book on Chevrolet's most legendary product..."

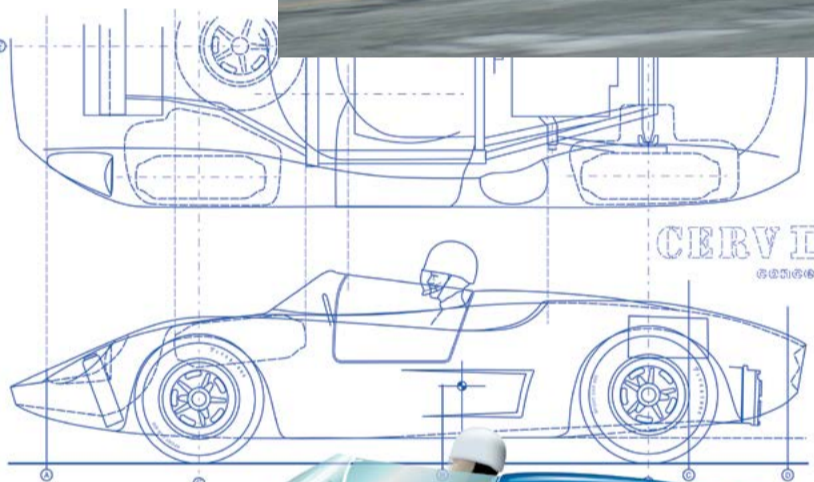
—Automobile Magazine

"Karl's concentration on the first three generations in Corvette—America's Star-Spangled Sports Car is compelling because it was early in the first generation that the Corvette was successfully defined for its enthusiast customers ... Karl tells this story in fascinating detail."

—Dave McLellan
 Corvette Chief Engineer,
 1975–1992

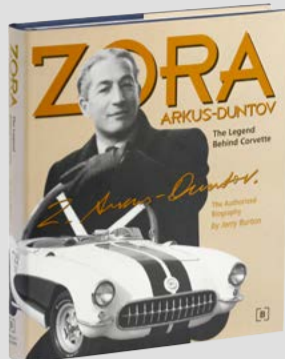
Read more about author **Karl Ludvigsen** on page 21

Ch 41:
 Greenwood at Sebring in '73



Ch 24: The planned CERV II, envisioned by Steven Cavalieri





**Zora Arkus-Duntov
The Legend Behind Corvette**
by Jerry Burton

Hardcover, 8 in. x 9 in
432 pages, 190 photos
ISBN: 978-0-8376-0858-7

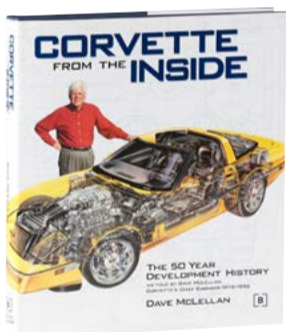
GCZA \$19.95

The story of Zora Arkus-Duntov, Corvette's primary advocate within General Motors and as the fiberglass sports car's first chief engineer. Author Jerry Burton, founding editor and current editorial director of *Corvette Quarterly*, has written the first major biography of Zora Arkus-Duntov. Burton takes the reader from Zora's roots in revolutionary Russia to his relentless pursuit of the American dream amidst the backdrop of New York and Detroit during the height of America's love affair with the automobile.

- Society of Automotive Historians Award of Distinction for books published in 2002
- IAMA Best of Books Award for 2002
- IAMA Gold medal for best Biography of 2002



Jerry Burton
Author of
*Zora Arkus-Duntov:
The Legend Behind
Corvette*



**Corvette from
the Inside**
**The 50 Year Development
History as told by Dave
McLellan, Corvette's Chief
Engineer 1975-1992**

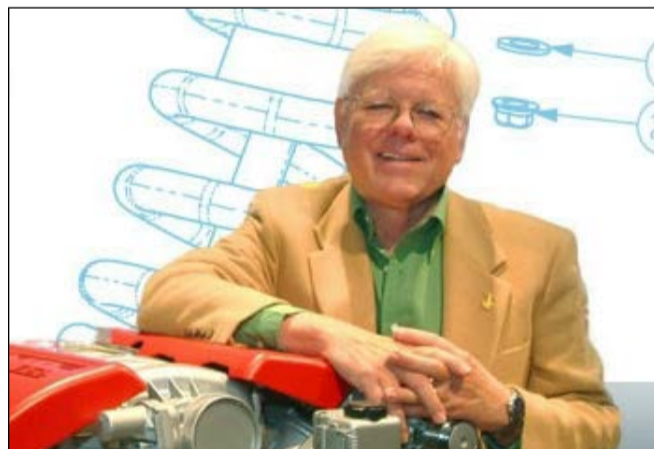
by Dave McLellan
Hardcover, 8 in. x 9 in.
288 pages

189 photos and illustrations
ISBN: 978-0-8376-0859-4

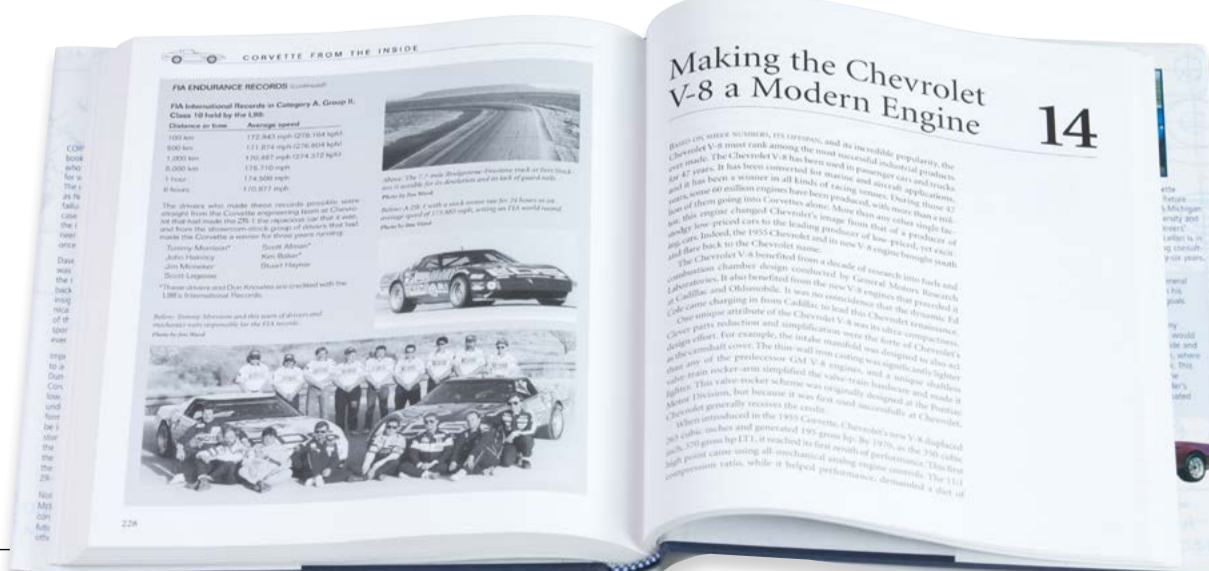
GCMC..... \$19.95

There's no one more qualified than Dave McLellan, the Corvette's second Chief Engineer to reflect upon the remarkable endurance of this legendary American icon. McLellan uses original sketches and charts drawn by him exclusively for this book, scores of archival photos from GM, photos from his personal collection, and of course his own first-hand memories of 32 years at General Motors.

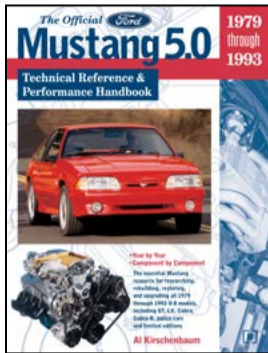
- IAMA Silver medal for History of a single marque, 2002



Dave McLellan
Author of *Corvette from the Inside:
The Fifty Year Development History*



Ford



**The Ford Mustang 5.0
Technical Reference &
Performance Handbook**

by Al Kirschenbaum

Softcover, 8-1/4 in. x 11 in.
442 pages, 272 photos &
illustrations

Ford Racing Part No.
M-1832-Z4

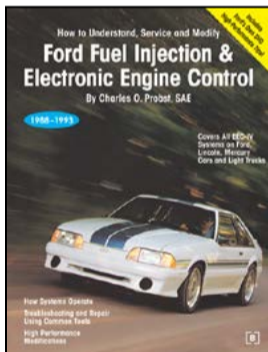
ISBN 978-0-8376-0210-3

GFM5 **\$49.95**

The essential Mustang resource for rebuilding, re-searching, restoring, and upgrading 1979 through 1993 V-8 models, including GT, LX, Cobra, Cobra-R, po-lice cars and limited editions.

Covers all 1979-1993 Mustangs including:

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- GLX
- Ghia
- Pace Car
- LX 5.0L
- Limited Edition LX
- Summer Special LX 5.0L
- Special Service GL
- Special Service LX
- GT
- Cobra
- Cobra R-Model
- Mustang SV0, Turbo GT, and Lincoln-Mercury Capri GS and RS



**Ford Fuel Injection &
Electronic Engine Control**

**How to Understand, Service
and Modify,
1988-1993**

by Charles O. Probst, SAE

Softcover, 8-1/2 in. x 11 in.
454 pages,
430 photos and illustrations

110 wiring diagrams

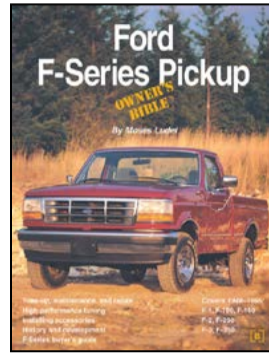
Ford Racing Part No. M-1832-Z1

ISBN 978-0-8376-0301-8

GFF9 **\$49.95**

This is the authoritative, hands-on book for Ford EEC-IV Engine control Systems used on Ford cars and trucks. More than 16 million cars and trucks are covered by this book.

As with his acclaimed Bosch fuel injection book, author Charles Probst worked with Ford engineers, trainers and technicians to bring you inside information on the operation of Ford engine control. His comprehensive troubleshooting, service procedures and tips will help you master Ford's engine control system.



**Ford F-Series Pickup
Owner's Bible™**

by Moses Ludel

Softcover, 8-3/8 in. x 11 in.
370 pages
763 photographs and
illustrations

Ford Racing Part No.
M-1832-Z2

ISBN 978-0-8376-0152-6

GOWF **\$39.95**

Author Moses Ludel has written the authoritative companion book for your F-Series pickup. His tips and suggestions cover the full range of F-Series duties and help you get the most from your pickup, whether it's a farm workhorse, weekend trailer puller, 4x4 trail crawler, rolling office, or daily driver.

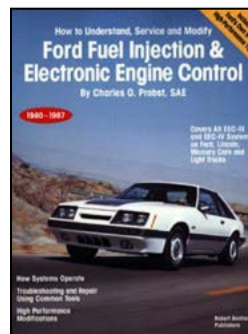
For the best high-performance tuning information, Moses went straight to the experts—Ford Motorsport. He worked directly with Ford's Special Vehicle Operations engineers to give you the "hot set-up" for your pickup from cams to camber adjustment.

"It's a fascinating hands-on ride, full of great detail drawn from the author's dual experience as mechanic and automotive journalist. Ludel lets you get the most out of your F-Series—whether the aim is restoring a vintage model or simply keeping a current truck up to snuff..."

—Field & Stream Magazine

**Comprehensive coverage of Ford F-Series truck
models 1948-1995, including:**

- Ford F-1
- Ford F-100
- Ford F-150
- Ford F-2
- Ford F-250
- Ford F-3
- Ford F-350



**Ford Fuel Injection &
Electronic Engine Control**

**How to Understand, Service
and Modify, 1980-1987**

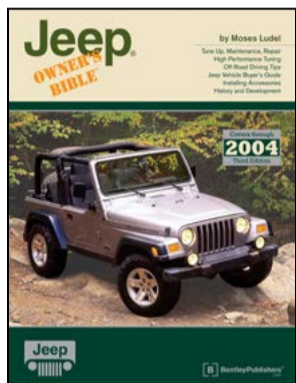
by Charles O. Probst, SAE

Softcover, 8-1/2 in. x 11 in.
330 pages
78 pages of wiring diagrams

ISBN 978-0-8376-0302-5

GFF8 **\$39.95**

Jeep



Jeep® Owner's Bible™ Updated 3rd Edition

by Moses Ludel

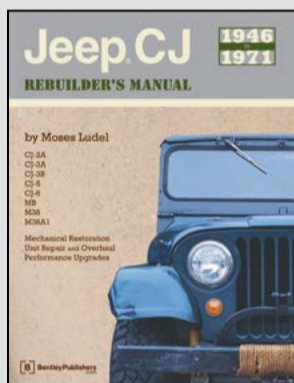
Softcover, 8-3/8 in. x 11 in.
504 pages
920 photos and illustrations
Mopar Performance Part No.:
P4510834
ISBN 978-0-8376-1117-4

GJE3.....\$39.95

*Tune Up, Maintenance, Repair; High Performance Tuning;
Off-Road Driving Tips; Jeep Vehicle Buyer's Guide;
Installing Accessories; History and Development*

Jeep vehicle authority and four-wheel drive expert Moses Ludel has once again updated his bestselling *Jeep® Owner's Bible™*. This third edition includes coverage for Jeep® models through 2004, and meets the needs of every Jeep vehicle owner – from the first time buyer to the most seasoned trail runner. In this edition Moses shares his knowledge of Jeep vehicle history, off-road driving tips, performance upgrades and modifications, selecting accessories that meet specific driving demands and step-by-step technical procedures.

From original military prototypes through groundbreaking new models, the *Jeep Owner's Bible* is a wholesale celebration of an American icon and the most thorough orientation to Jeep vehicles available.



Jeep® CJ Rebuilder's Manual: 1946 to 1971

by Moses Ludel

Softcover, 8-3/8 in x 11 in.
568 pages
1,371 photos & illustrations
Mopar Performance Part
No: P4510077
ISBN: 978-0-8376-1037-5

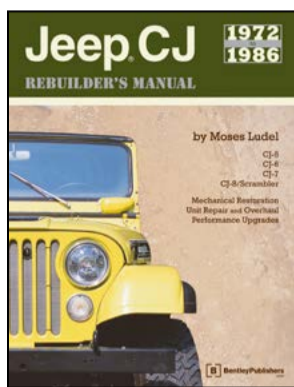
GJR1.....\$49.95

*Models covered: 1946 to 1971 Jeep CJ-2A, CJ-3A, CJ-3B,
CJ-5, CJ-6 and MB, M38, and M38A1.*

Moses Ludel, Jeep vehicle expert, automotive instructor and author of the *Jeep® Owner's Bible™*, breaks ground with his *Jeep® CJ Rebuilder's Manuals*. Is it time to rebuild the axles or install a locking differential on your vintage Jeep vehicle? Does your CJ model need a frame-off restoration? Between these covers you will find the unit repair and overhaul steps for rebuilding a Jeep CJ. Moses Ludel demystifies the most complex service procedures with a photograph marking each technical step.



Chapter 3
T98A/T-18 Four-Speed Rebuild



Jeep® CJ Rebuilder's Manual: 1972 to 1986

by Moses Ludel

Softcover, 8-3/8 in. x 11 in.

612 pages

1,749 photos and illustrations

Mopar Performance Part No:

P4510078

ISBN: 978-0-8376-0151-9

GJR2.....\$49.95

Models covered: 1946 to 1971, CJ-5, CJ-6, CJ-7, CJ-8/Scrambler

For an authentic restoration to original equipment standards or sensible upgrades that will enhance the performance of your vintage Jeep CJ, this is the book. If working on your Jeep vehicle engine, transmission, transfer case, axles, steering system, electrical system or body tub has seemed just beyond your skill level, here is the fix! Available in two volumes covering model years 1946 through 1971 and 1972 through 1986.

"There are no other books currently available for the CJ that provide the kind of detail that Ludel provides in his rebuilder's manuals. Whether you're looking to rebuild your CJ from the ground up or simply do standard repairs, these guides are indispensable. If you own a CJ, you should own these books."

— 4 Wheel Drive and Sport Utility Magazine



On the bench, the condenser and points come out easily. Old Autolite point sets have one hold-down screw. The breaker arm pivot slides over a support pin on the breaker plate.



Moses Ludel at Bentley's research workshop in Cambridge, Massachusetts.

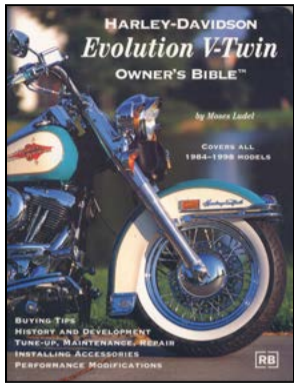
Moses Ludel

An avid fly fisherman, hunter, canoeist, dirt motorcyclist and four-wheeler, Moses Ludel took his first driver's license exam in the family CJ-5. Two years later, at age eighteen, he drove the Rubicon Trail by the back route, entering from the Miller Lake access and tracking the largely unmarked route across the Sierra Mountains to Placerville, California.

Moses worked as a master truck mechanic and heavy equipment operator before earning a Bachelor of Science (Pre-Law/Sociology) degree with honors from the University of Oregon. In 1982, he began teaching adult education courses in Automotive and Diesel Mechanics at the San Diego Job Corps while simultaneously pursuing an automotive writing and photojournalism career with an emphasis on performance and four-wheel drive vehicles.

A body of work now exceeding 2,500 illustrated technical features, stories and columns, plus five lengthy Owner's Bible books for Bentley Publishers, distinguishes Moses' publishing career. Magazine freelance credits include *Off-Road*, *Four-Wheeler*, *4WD SUV*, *4x4 Magazine Japan*, *Trailer Life*, *Motorhome*, *Popular Hot Rodding*, *Chevy Truck*, *Jp Magazine*, and many others. While living in the Northwest, Moses wrote the 'Drive Time' technical column for the *Portland Oregonian*, the region's largest metropolitan newspaper. For a dozen years, he served as technical editor and columnist for *Off-Road Magazine*. Moses shot the cover photo for the premier issue of *Jp Magazine* and wrote the *Jp* 'Q&A' tech column for several years before his return to the vocational education field.

Harley-Davidson



Harley-Davidson Evolution

V-Twin Owner's Bible™

by Moses Ludel
Softcover
7-7/8 in. x 10-3/8 in.
286 pages 530 photographs
and illustrations
ISBN 978-0-8376-0146-5

GOWH **\$34.95**

This book provides Harley-Davidson Evolution V-Twin owners, would-be owners and enthusiasts the information necessary to greater enjoyment of these fantastic bikes. Filled with buying and riding advice, service procedures, and performance and accessory modification how-tos, it covers essential information to better understand these bikes.

Whether your bike is an FLHS Electra Glide, an XLH Sportster 1200, or a Buell S3T Thunderbolt, Moses Ludel's *Harley-Davidson Evolution V-Twin Owner's Bible* will give you precisely the kind of information you need to buy, maintain, and enjoy your Harley-Davidson for years to come.

Covers Harley-Davidson Evolution V-Twin models from 1984 through 1998.

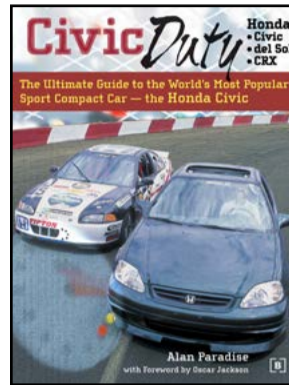
"...this book belongs in the hands of every Harley-Davidson Evolution V-Twin enthusiast..."

— Asphalt Angels Magazine

This book covers:

- Harley-Davidson History: A Shared Ownership Experience
- Buying an Evolution Motorcycle
- Riding Your Harley-Davidson
- Basic Service and Lubrication
- Engine Tune-up and Electrical Service
- Engine Troubleshooting and Service
- Primary Chain, Clutch, and Transmission
- Wheels, Hubs, Tires, and Brakes
- Chassis, Fork, and Suspension
- Performance Upgrades
- Accessories
- Detailing and Storing Your Harley-Davidson

Honda



Civic Duty

The Ultimate Guide to the World's Most Popular Sport Compact Car—the Honda Civic

by Alan Paradise
Softcover
7-7/8 in. x 10-3/8 in.
200 pages
135 color and B&W photos
ISBN 978-0-8376-0215-8

ISBN 978-0-8376-0215-8

GHCD **\$29.95**

Covers Honda Civic modification from the mechanical to the artistic, including del Sol and CR-X.

"In Civic Duty, Alan Paradise has put together a bible for the Honda Civic owner interested in hot rodding this popular compact car..."

— LACar.com March 28, 2001

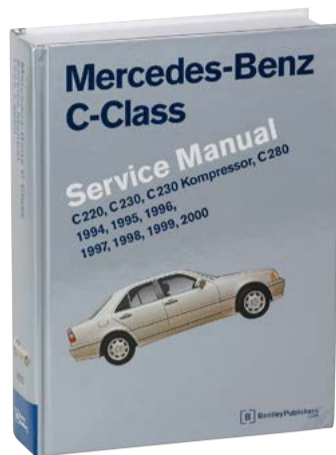
Alan Paradise



Over the past 15 years, Alan Paradise has established himself as a leading automotive journalist. In 1987, he pioneered a new enthusiast's niche by developing a publication to speak

to a new generation of performance enthusiasts. He defined this segment as "Sport Compact Cars". This vision of the automotive future gave way to the highly successful magazine, which bears that name. Paradise is credited with creating and developing *Sport Compact Car* magazine; serving as its editor for the title's first four years. He has also served on the staffs of numerous other niche-market publications, including *Truckin'*, *MiniTruckin'*, *EuroSportCar*, and *Street Rodder*. Currently, he is the editor of *Miata Magazine*, *PowerLine*, *Motor Trend Insider*, *British Motoring*, *SpinOff* and *Celebrity Garages*. He is a longtime performance enthusiast, owning and building a wide range of cars from classics, muscle cars, street rods, sports cars to import performance cars.

Mercedes-Benz



Mercedes-Benz C-Class (W202) Service Manual: 1994-2000

by Bentley Publishers
Hardcover
8-3/8 in. by 11 in.
1,244 pages
1,275 photos, illustrations and diagrams
ISBN 978-0-8376-1692-6

MBC0.....\$149.95

This manual contains in-depth maintenance, service and repair information for the Mercedes-Benz C-Class from 1994 to 2000. The aim throughout has been simplicity and clarity, with practical explanations, step-by-step procedures and accurate specifications. Whether you're a professional or a do-it-yourself Mercedes-Benz owner, this manual helps you understand, care for and repair your car.

Engines covered:

- C220
- C230
- C230 Kompressor
- C280

Transmissions covered:

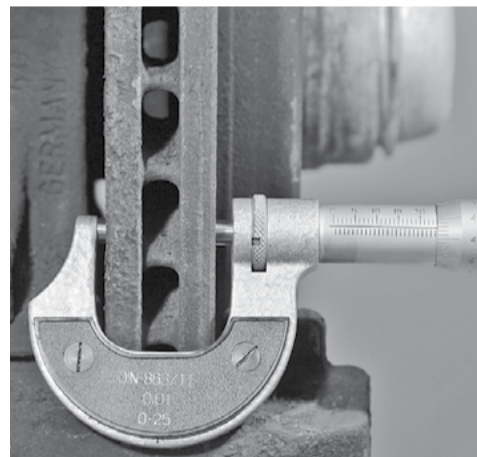
- 4-speed automatic (1994-1996)
- 5-speed automatic (1997-2000)

Additional technical content

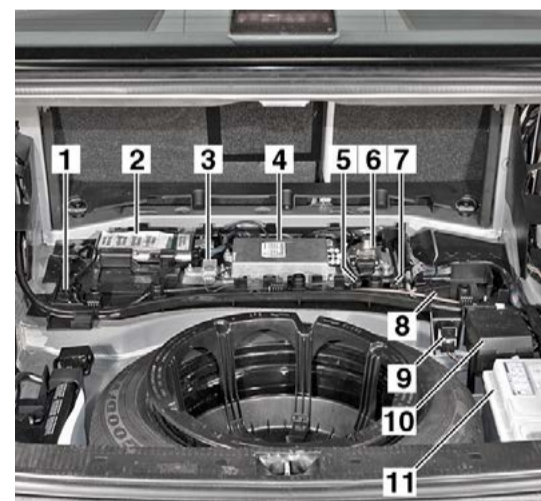
For additional technical content for the Mercedes-Benz C-Class models from 1994 through 2000, visit our [online technical library](#).



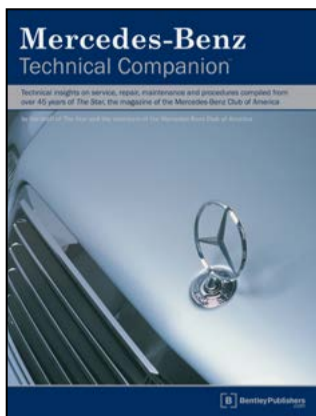
Bentley technical editors removing intake manifold on V6 (M 112) engine.



Section 00.04 Maintenance
Measuring brake rotor wear.



ECL Electrical Component Locations
Locations of hundreds of electrical components: Communication equipment under trunk floor.



Mercedes-Benz Technical Companion

by the staff of *The Star*
with the Mercedes-Benz
Club of America

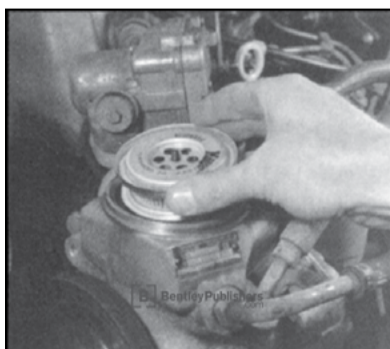
Softcover
8-3/8 in. x 11 in.
412 pages, 746 photos,
illustrations and diagrams
ISBN 978-0-8376-1033-7

GMCC.....\$49.95

Since 1956, informed Mercedes-Benz owners have relied upon *The Star*, the magazine of the Mercedes-Benz Club of America, for advice about maintenance, service and repair of their cars. Bentley Publishers has collected some of the best of these do-it-yourself articles and tech tips into the *Mercedes-Benz Technical Companion*™. No matter which Mercedes-Benz model you drive or desire, this compilation will serve as a valuable technical reference to help you understand and care for your Mercedes-Benz.

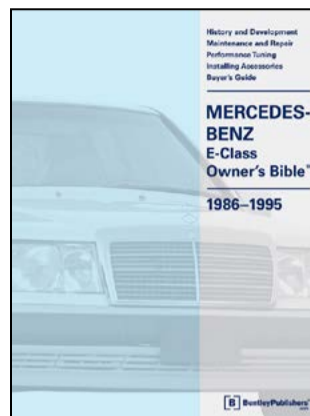
This book covers:

- Lubrication and Maintenance
- Engine, Transmission
- Fuel, Exhaust
- Electrical System
- Body, Interior
- Suspension, Steering, Tires, Wheels
- Brakes
- Heating, Air Conditioning
- Care and Preservation



**Chapter 1, Servicing the W126
300SD, Part I**
*Install new power steering fluid
filter, then refill reservoir with new
fluid.*

**Chapter 9, How to Wax Your
Car Like the Pros**
*Polishing with a fine cleaner to
remove paint scratches.*



Mercedes-Benz E-Class (W124) Owner's Bible™ 1986-1995

by Bentley Publishers

Softcover
8-3/8 in. x 11 in.
352 pages, 495 photos,
illustrations and diagrams
ISBN 978-0-8376-0230-1

GMOB.....\$49.95

The *E-Class Owner's Bible* is an E-class buyer's guide, maintenance handbook and technical reference source wrapped into one. It is full of tech tips, service hints and system descriptions, plus lots of insightful information about the W124 E-Class chassis.



**Chapter 1: Introduction
to the E-Class**
*The 500E [E500 above]
32-valve 5.0 liter V-8*

Models included in this Mercedes-Benz manual:

Gasoline engine:

- 260E
- 300E, 300E 2.6, 300E 2.8,
300E 4MATIC
- 300CE, 300CE cabrio
- 300TE, 300TE 4MATIC
- 400E
- 500E
- E320 sedan, coupe, cabrio
and wagon
- E420
- E500

Diesel engine:

- 300D Turbo, 300D 2.5 Turbo, 300TD Turbo, E300 Diesel

"Anyone who owns or wishes to own a 300E or one of its variants should make sure that Mercedes-Benz E-Class (W124) Owners Bible 1986-1995 has a place on their bookshelf."

—Star Magazine

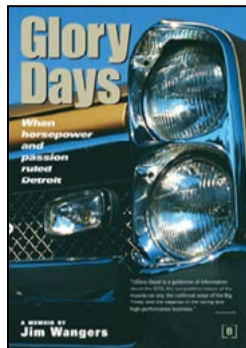
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Pontiac



Glory Days

When Horsepower and Passion Ruled Detroit

by Jim Wangers,
with Paul Zazarine

Softcover, 7 in. x 10 in.
348 pages, 223 illustrations
and photos, 53 in color
ISBN 978-0-8376-0208-0

GGTS \$39.95

In *Glory Days*, Jim Wangers uses his 45-year career in Detroit as the basis for explaining successful brand marketing for automobiles:

- Why brand management for cars is not the same as for other “branded” products
- How to position a model for the best possible tie-in promotion-and how not to
- What it takes to establish and evolve a brand image

“Any car maker’s greatest asset is their perceived image in the marketplace.” Wangers knows what he is talking about, for he was part of the most successful brand marketing campaign to ever come out of Detroit. At a time when such automotive legends as “Bunkie” Knudsen, Pete Estes, and John DeLorean held sway in the Motor City, Jim Wangers created and defined the American musclecar image, devising savvy brand marketing strategies to promote the car that started it all and became a cultural icon: the Pontiac GTO.

“The book provides what is perhaps one of the most comprehensive insights into the workings of the entire domestic auto industry”

Glory Days’ should be required reading for anyone even thinking about entering the greater automotive business.”

– Pontiac Enthusiast

**Chapter 8: The Tiger
Learns To Roar**
Jim Wangers with a ‘64 Goat

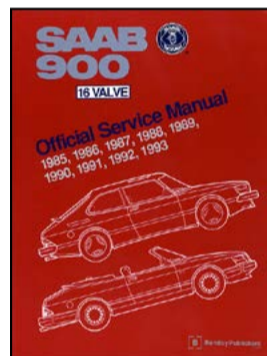


Saab

Saab Service Manuals

These Saab manuals are the only factory-authorized, comprehensive, single source of service information and specifications available. Whether you’re a professional technician or a do-it-yourselfer, these manuals will help you understand, care for, and repair your Saab.

Everything from fundamental automotive concepts and maintenance procedures to complex electrical system troubleshooting and complete engine overhaul is clearly explained. Critical updates and information from the Saab Service Information Manual, the Parts & Service Information System and Saab Service Training have been included, as well as fast, proven repair procedures and tips used by Saab technicians.



Saab 900 16 Valve Official Service Manual: 1985-1993

Including 1994 convertible

by Bentley Publishers

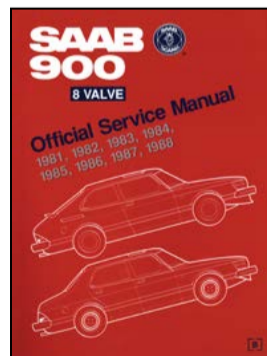
Hardcover, 8-3/8 in. x 11 in.
622 pages
1,025 illustrations and diagrams
Saab Part No. P/N 02 16 861

ISBN 978-0-8376-1693-3

S993 \$79.95

Models covered

- 1985–1993 Turbo, including Turbo SPG
- 1987–1993 Convertible
- 1986–1993 900S
- 1989–1993 900



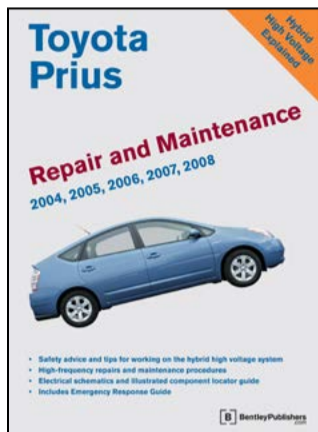
Saab 900 8 Valve Official Service Manual: 1981–1988

by Bentley Publishers

Softcover, 8-3/16 in. x 11 in.,
560 pages
860 illustrations and diagrams
Saab Part No. P/N 02 16 531
ISBN 978-0-8376-0310-0

S988 \$54.95

Toyota



Toyota Prius Repair and Maintenance Manual: 2004-2008

by Bentley Publishers
Softcover, 8-3/8 in. x 11 in.
648 pages
830 photos and illustrations
ISBN 978-0-8376-1553-0

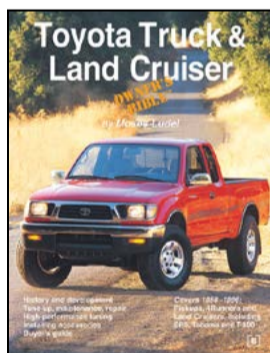
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- 2004-2008 Prius NHW20, 1NZ-FXE engine
- Safety advice and tips for working on the hybrid high voltage system
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"...a wealth of hybrid technology explained, lots of practical information on the entire car for second-generation Prius owners..."

— Road & Track



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794 photos and illustrations
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Volvo



Volvo 240 Service Manual: 1983-1993

by Bentley Publishers
Hardcover, 8-1/2 in. x 11 in.
572 pages
882 illustrations and diagrams,
including 66 pages of wiring
diagrams
ISBN 978-0-8376-1626-1

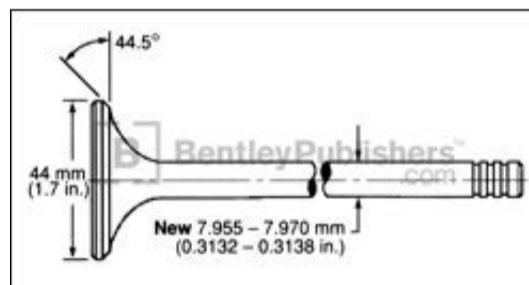
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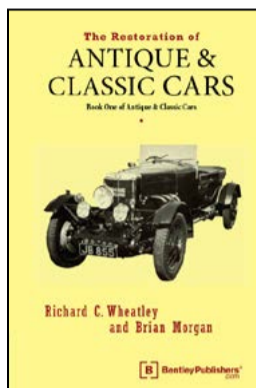


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British Cars



The Restoration of Antique and Classic Cars

Book One of Antique and Classic Cars

by Richard C. Wheatley with Brian Morgan

Hardcover, 5-1/2 in. x 8-1/2 in. 208 pages

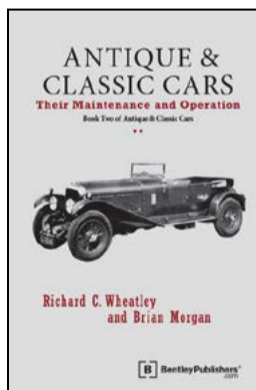
65 illustrations and photographs ISBN 978-0-8376-0135-9

X135.....\$34.95

The Restoration of Antique and Classic Cars by Richard C. Wheatley and Brian Morgan is an essential handbook for the automotive enthusiast who owns or is acquiring a car in need of restoration. Originally published in the United Kingdom in 1958 under the title *The Restoration of Vintage and Thoroughbred Cars*, today it is justifiably considered to be a classic and informative description of the work involved in overhauling and restoring antique and pre-war British cars.

Here is a practical book of interest to those embarking on the task of restoring a vintage or pre-war thoroughbred car...The authors...deal with their subject in great detail.

Motor Sport Magazine



Antique and Classic Cars: Their Maintenance and Operation

Book Two of Antique and Classic Cars

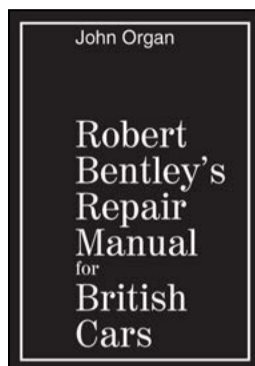
by Richard C. Wheatley with Brian Morgan

Hardcover, 5-1/2 in. x 8-1/2 in. 176 pages

40 illustrations and photographs ISBN 978-0-8376-0203-5

X003.....\$34.95

Antique & Classic Cars: Their Maintenance and Operation is a companion volume to Wheatley and Morgan's standard work *The Restoration of Antique and Classic Cars*. In this book they continue the story from where it was left previously, taking the reader out onto the road with his car, and instructing him how best to maintain it in the impeccable condition it deserves.



Robert Bentley's Repair Manual for British Cars

by John Organ

Softcover

7 in. x 10 in.

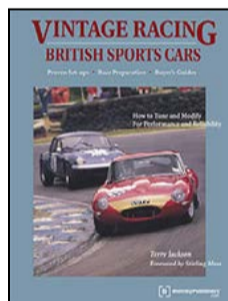
380 pages

377 B&W photos & illustrations

ISBN 978-0-8376-0041-3

X041.....\$44.95

Written in 1970, *Robert Bentley's Repair Manual for British Cars* is a classic in the field of British car repair and maintenance guides. Back in print after almost twenty-five years, this comprehensive reference book is extensively illustrated with detailed photographs, technical diagrams and charts. With fourteen chapters covering topics ranging from engine overhaul & reconditioning, curing universal joint failure and solving cooling system problems, this service manual is a crucial reference source of technical automotive repair information for pre-1970 British marque vehicles.



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by Terry Jackson

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Austin-Healey



The Complete Official 948 cc & 1098 cc Austin-Healey Sprite/ MG Midget: 1961-1966

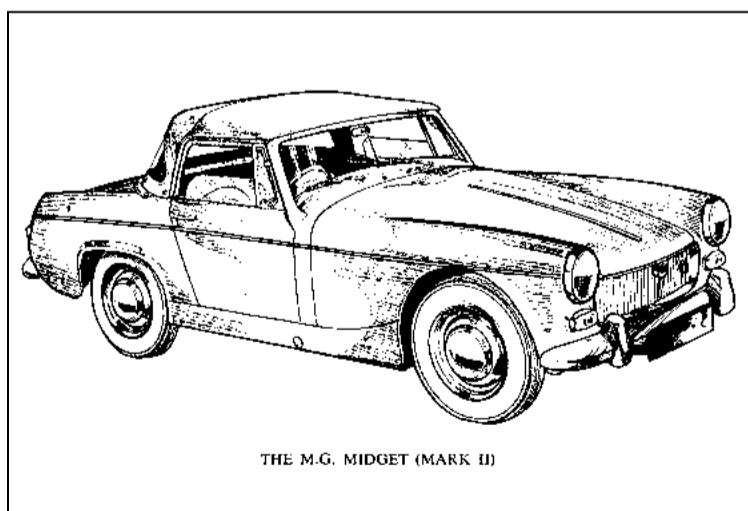
by British Leyland Motors
Hardcover, 8-1/2 in. x 11 in.
256 pages
218 illustrations and diagrams
ISBN 978-0-8376-1747-3

X023.....\$80.00

Originally published in 1967, *The Complete Official 948 cc & 1098 cc Austin-Healey Sprite / MG Midget: 1961-1966* was prepared in close cooperation with British Leyland Motors in order to provide complete, authentic maintenance and repair information. The Driver's Handbook at the beginning of this manual is similar to the handbook that was provided with every new 948 cc and 1098 cc Sprite and Midget. The Workshop Manual, making up the larger part of this book, is the official factory manual and was originally intended for use by dealer service departments. The publisher has incorporated additional factory procedures and specifications that have become available following the publication of the original factory information.

Includes:

- Official Austin-Healey Sprite / MG Midget Driver's Handbook
- Official Austin-Healey Sprite / MG Midget Workshop Manual
- Official Austin-Healey Sprite / MG Midget Special Tuning Manual



The Complete Official 1275 cc Austin-Healey Sprite/MG Midget: 1967-1974

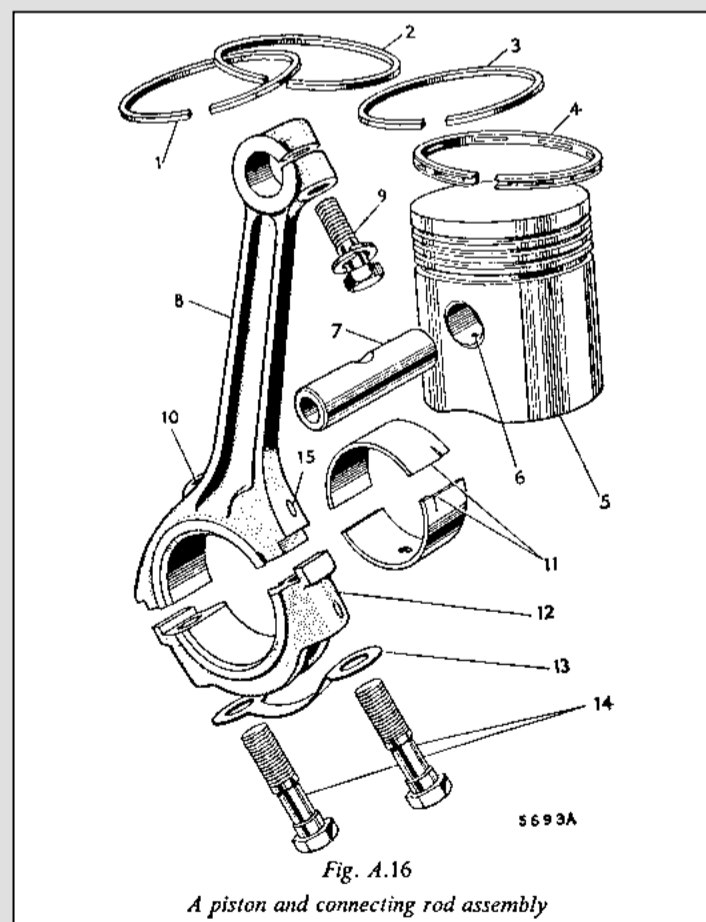
by British Leyland Motors
Hardcover, 8-1/2 in. x 11 in.
400 pages
411 illustrations and diagrams
ISBN 978-0-8376-1748-0

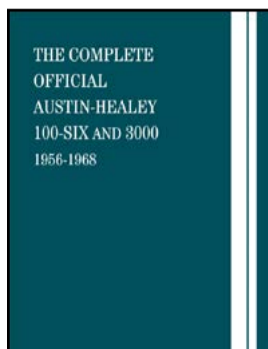
X027.....\$80.00

Includes:

- Official Austin-Healey Sprite / MG Midget Driver's Handbook
- Official Austin-Healey Sprite / MG Midget Workshop Manual
- Official Austin-Healey Sprite / MG Midget Workshop Manual Supplement (Engine Emission Control)

This manual contains emission control information that applies specifically to 1275 cc Sprite and Midget vehicles manufactured for the United Kingdom and North American markets, and an illustrated catalog of special tools. Including accurate and comprehensive service information for 1967-1974 1275 cc Sprite and Midget vehicles, this manual is an indispensable resource for both the professional mechanic and the 1275 cc Sprite and Midget enthusiast.



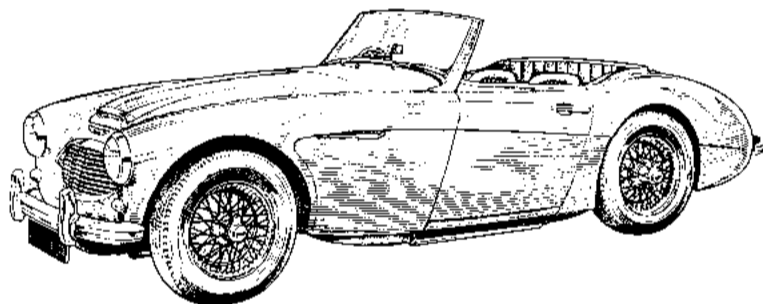


The Complete Official Austin-Healey 100-Six and 3000: 1956-1968

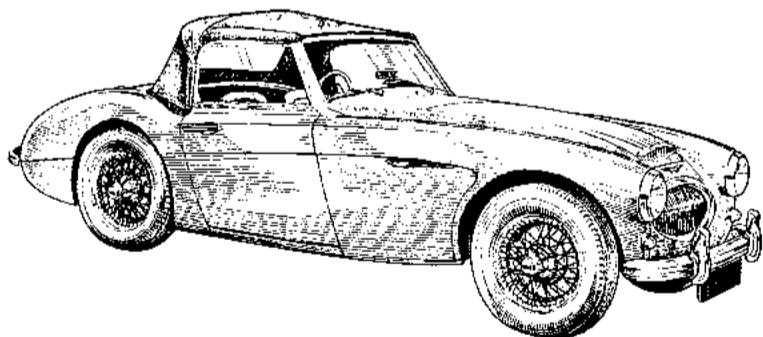
by British Leyland Motors
Hardcover, 8-1/2 in. x 11 in.
416 pages
369 illustrations and diagrams
ISBN 978-0-8376-1743-5

X133.....\$80.00

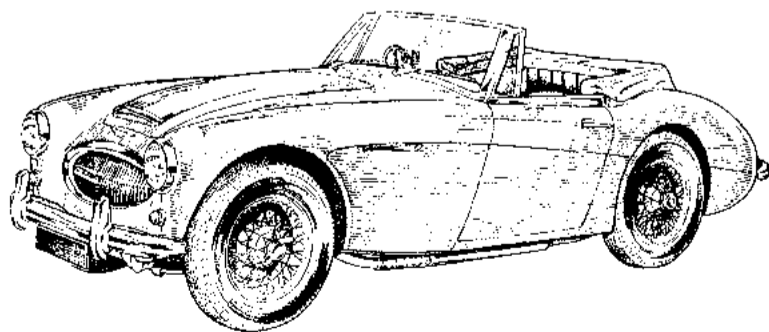
This manual was prepared in close cooperation with British Leyland Motors in order to provide complete, authentic, and up-to-date maintenance and repair information to owners, dealership service departments, and other professional mechanics. The Workshop Manual is the official factory manual and includes information from the Driver's Handbook, which is the handbook provided with every new Austin-Healey. This manual contains emission control information that applies specifically to Austin-Healeys manufactured for the United Kingdom and North American markets, and a complete, illustrated catalogue of special tools.



Austin-Healey '100-Six' (Series BNA) with hood lowered.



Austin-Healey '3000' (Series BNT) with the hood raised.



Austin-Healey '3000' Mk. II and early III Sports Convertible (Series BU and BU*) with Hood lowered.*

Jaguar



The Complete Official Jaguar "E", Series 1 and Series 2: 1961-1971

Includes Driver's Handbook, Workshop Manual, Special Tuning Manual

by Jaguar Cars, Ltd.

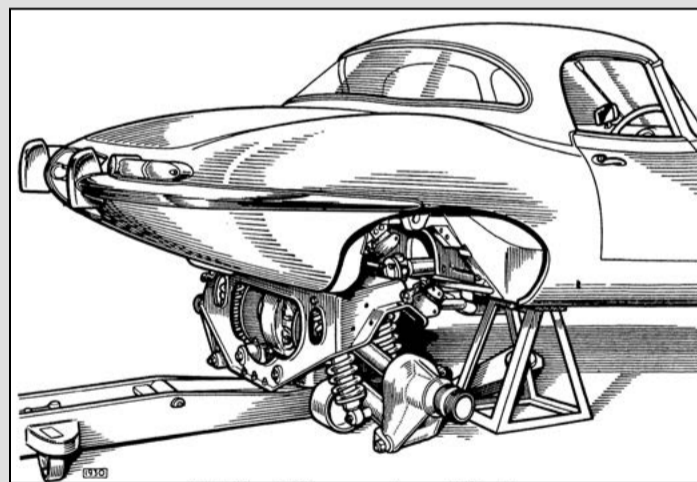
Hardcover, 8-1/2 in. x 11 in.
792 pages, 801 illustrations and diagrams
ISBN 978-0-8376-1764-0

X136.....\$105.00

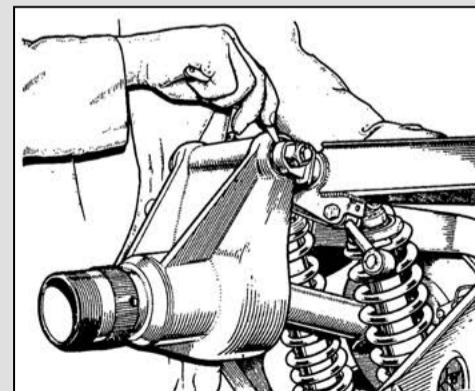
The Complete Official Jaguar "E": 1961 - 1971 compiles the original Jaguar service manuals (repair manuals) for the Series 1 and Series 2 E-Type into one handy volume. It also includes a reprint of the original owner's manual as well as a section on modifying an E-Type for what would now be considered vintage racing. It is an essential reference guide to repairing and maintaining a Jaguar E-Type.

Includes:

- Official Jaguar 4.2 "E" Type & 2+2 Driver's Handbook
- Jaguar Workshop Manual 3.8 "E" Type and 4.2 "E" Type Including Series 2
- Special Tuning Manual

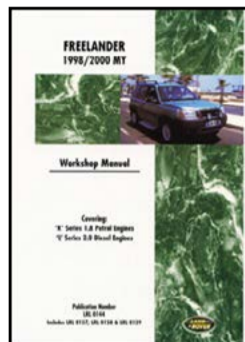


Page 489 Removal of the rear suspension assembly.



Page 498
Using the feeler gauges to measure the clearance between the hub carrier oil seal tracks and wishbone fork.

Land Rover



Land Rover Freelander Workshop Manual: 1998-2000

Softcover, 8-1/4 in. x 11-1/2 in.
586 pages
Rover Group Publication No.
LRL0144
ISBN 978-0-8376-1631-5

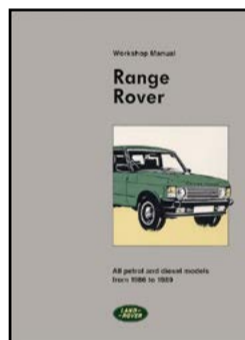
YRX6 \$139.95

Range Rover

Range Rover Workshop Manual: 1970-1985

Softcover, 8-1/4 in. x 11-1/2 in.
858 pages
Rover Group Publication No. AKM3630
ISBN 978-0-8376-0563-0

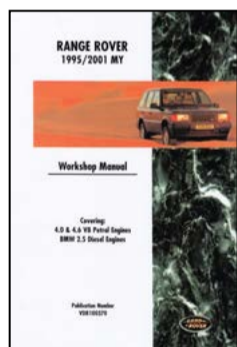
YVW1 \$104.95



Range Rover Workshop Manual: 1986-1989

Softcover, 8-1/4 in. x 11-1/2 in.
1,296 pages
Rover Group Publication
Nos. SRR660ENWM &
LSM180WS4
ISBN 978-0-8376-0606-4

YVW3 \$139.95



Range Rover Workshop Manual: 1995-2001

Softcover, 8-1/4 in. x 11-1/2 in.
572 pages
Rover Group Publication No.
VDR100370
ISBN 978-0-8376-0671-2

YVW5 \$149.95

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MG

Important note: In the 60s and early 70s, MG Midgets were essentially rebadged and slightly restyled Austin Healey Sprites. As such, MG Midget coverage from model years 1961 to 1974 can be found in:

[The Complete Official 948 cc & 1098 cc Austin-Healey Sprite / MG Midget 1961-1966 \(X023\) page 67](#)

[The Complete Official 1275 cc Austin-Healey Sprite / MG Midget 1967-1974 \(X027\) page 67](#)



The MG Workshop Manual: 1929-1955

Complete Tuning and Maintenance for Models from "M" type to "T.F. 1500"

by W.E. Blower

Hardcover
7 in. x 10 in.

608 pages, 368 illustrations
ISBN 978-0-8376-1746-6

X017 \$80.00

This is the classic MG service manual recommended by the factory and known simply among MG enthusiasts as the "Blower Book" - a tribute to its author. It provides tuning and maintenance procedures for MGs from the first "M" type Midget of 1929 through the TF 1500. As you would expect, the official MG repair information is given for normal maintenance and repair, along with complete specification data sheets, lubrication charts, wiring diagrams, and a complete list of engine parts. High-performance information covering supercharger installation, and the factory's Special Tuning Handbooks for Trials Work are also included, which will be of particular interest to vintage and historic racers.

Models included in this MG repair manual:

- M Midget 1929-1932
- F Magna 1931-1932
- D Midget 1931-1932
- J1 & J2 1932-1934
- J3 1932-1933
- J4 1933
- K3 1933-1934
- KN 1934-1935
- L1 & L2 Magna 1933-1934
- PA Midget 1934-1935
- PB Midget 1935-1936
- TB Midget 1939
- VA 1-1/2L 1937-1939
- SA 2L 1936-1939
- WA 2.6L 1939
- TC Midget
- NA Magnette
- TA Midget
- TD Midget
- Y Saloon
- YT Tourer
- QA Midget
- RA Midget
- TF Midget
- TF 1500



The Complete Official MGB: 1962-1974

Hardcover, 8-1/2 in. x 11 in.
480 pages, 650 illustrations
ISBN 978-0-8376-1761-9

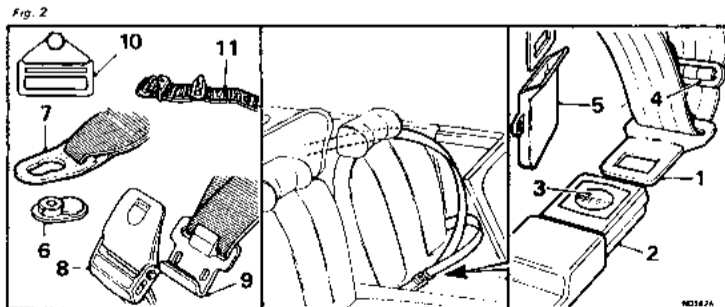
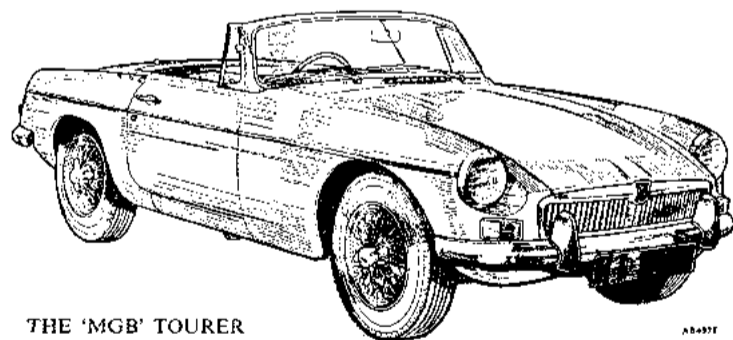
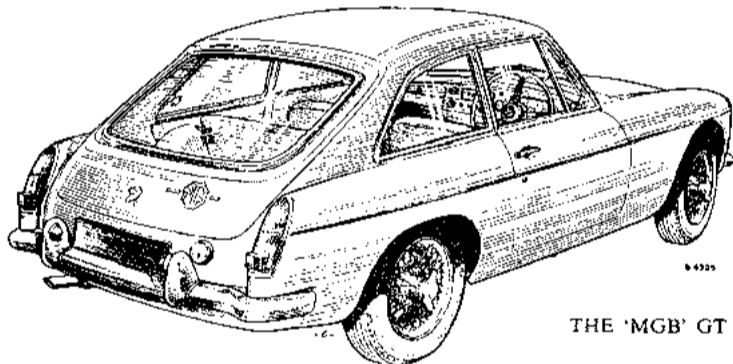
X115.....\$80.00

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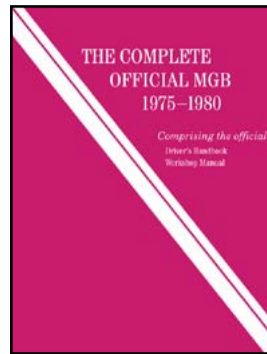
- Official MGB Driver's Handbook
- Official MGB Workshop Manual
- Official MGB Special Tuning Manual

Engines included in this MGB repair manual:

- 18G, 18GA, 18GB, 18GD, 18GF
- 18GG, 18GH, 18GJ, 18GK (Standard, Overdrive)
- 18V 581F, 18V 581Y (Standard)
- 18V 582F, 18V 582Y (Overdrive)
- 18V 583F, 18V 583Y (Automatic)
- 18V 584Z (Standard)
- 18V 585Z (Overdrive)
- 18V 672Z (Standard)
- 18V 673Z (Overdrive)



Page 29 Part 2 Driver's Handbook: Care and use of the belts.



The Complete Official MGB: 1975-1980 Workshop Manual

Hardcover, 8-1/2 in. x 11 in.
304 pages
419 illustrations and diagrams
ISBN 978-0-8376-1760-2

X112.....\$70.00

The Complete Official MGB: 1975-

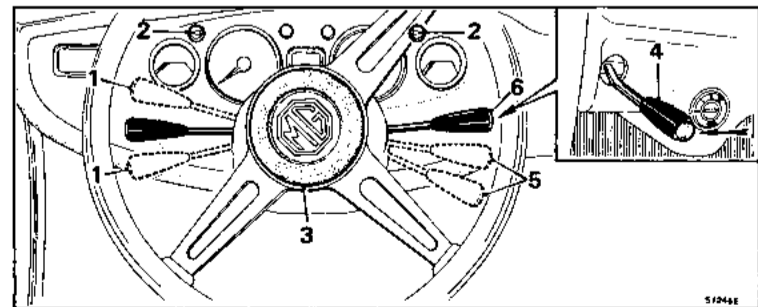
1980 includes technical coverage of models sold in the United Kingdom and in North America during the model years 1975-1980. The Driver's Handbook, which comprises the first part of this manual, is the handbook which was provided with new MGBs. The Workshop Manual, which comprises the second-and largest-portion of this manual, is the official MGB factory repair manual. This manual contains emission control information that applies specifically to MGBs manufactured for the US market, and a complete illustrated catalog of special tools.

Includes:

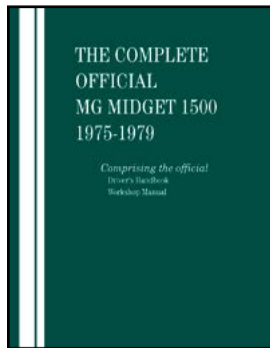
- Official MGB Driver's Handbook
- Official MGB Workshop Manual

Engines Included in this MGB repair manual:

Year	Engine
1975	18V 797AE Standard
1975	18V 798AE Overdrive
1976	18V 797AE Standard
1976	18V 798AE Overdrive
1976	18V 801AE Standard with Catalytic Converter
1976	18V 802AE Overdrive with Catalytic Converter
1977-1980	18V 883AE Standard with Catalytic Converter
1977-1980	18V 890AE Standard with Catalytic Converter
1977-1980	18V 884AE Overdrive with Catalytic Converter



Page 6 Instruments and Switches.



**The Complete Official
MG Midget 1500:
1975-1979**

Hardcover, 8-1/2 in. x 11 in.
384 pages
Over 650 illustrations
and diagrams
ISBN 978-0-8376-1744-2

X131 **\$70.00**

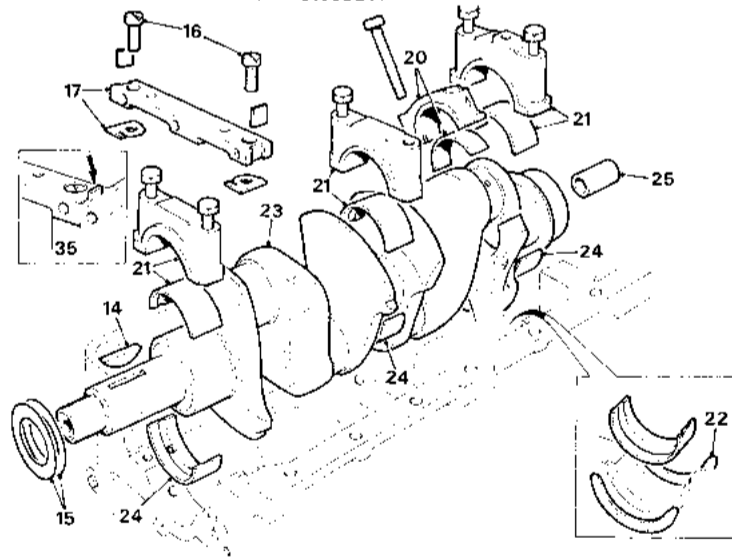
Originally published in 1980, *The Complete Official MG Midget 1500: 1975-1979* repair manual was prepared in close cooperation with British Leyland Motors in order to provide complete and authentic maintenance and repair information.

The Driver's Handbooks, which comprise the first three parts of this manual, are the handbooks that were provided with every new MG Midget 1500. The Workshop Manual, which comprises the fourth and largest-portion of this manual, is the official factory manual.

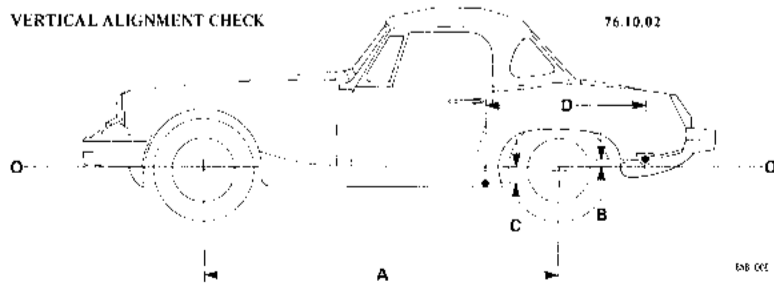
Includes:

- Official MG 1500 Driver's Handbook: 1975-1976 (USA Edition)
- Official MG 1500 Driver's Handbook: 1977-1978 (USA Edition)
- Official MG 1500 Driver's Handbook: 1979 (USA Edition)
- Official MG 1500 Workshop Manual

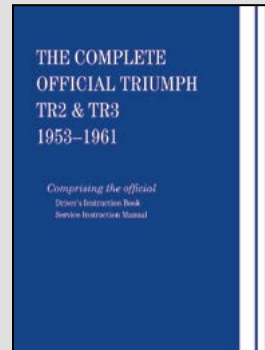
ENGINE — U.S.A. SPECIFICATION



VERTICAL ALIGNMENT CHECK



Triumph



**The Complete Official
Triumph TR2 & TR3:
1953-1961**

**Includes Driver's Instruction
book and Service Instruction
Manual**

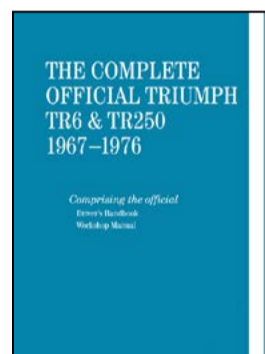
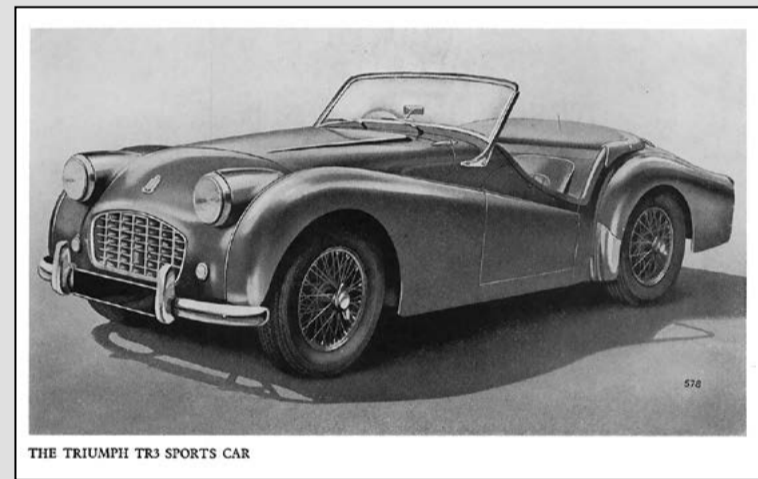
Hardcover, 8-1/2 in. x 11 in.
456 pages
337 photos and illustrations

ISBN 978-0-8376-1750-3

X125 **\$80.00**

Includes:

- Triumph TR2 & TR3 Owner's Manual: 1953-1961
- Triumph TR2 & TR3 Repair Manual: 1953-1961



**The Complete Official
Triumph TR6 & TR250:
1967-1976**

**Includes Driver's Handbook,
Workshop Manual**

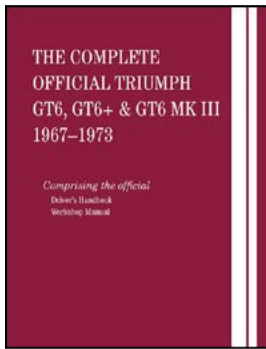
Hardcover, 8-1/2 in. x 11 in.
608 pages
987 illustrations and diagrams

ISBN 978-0-8376-1762-6

X119 **\$95.00**

Includes:

- Official Triumph TR6 and TR250 Driver's Handbook
- Official Triumph TR6 and TR250 Workshop Manual



The Complete Official Triumph GT6, GT6+ & GT6 MK III: 1967-1973

Includes Driver's Handbook, Workshop Manual

Hardcover, 8-1/2 in. x 11 in.
480 pages
856 photos and illustrations

ISBN 978-0-8376-1749-7

X120.....\$80.00

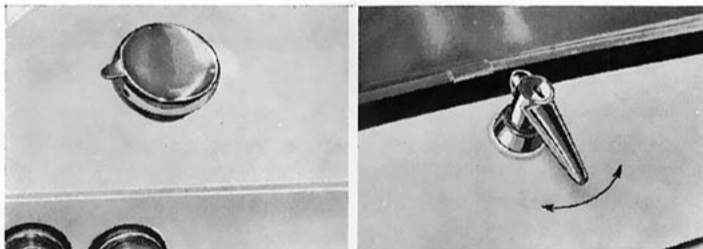
This manual is an accurate and comprehensive set of service information for Triumph GT6, GT6+ and GT6 MK III models sold in the UK and North America during the model years 1967-1973.

Includes:

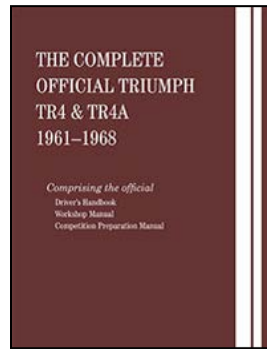
- Triumph GT6 Owner's Manual
- Triumph GT6+ Owner's Manual
- Triumph GT6 MK III Owner's Manual
- Triumph GT6, GT6+ and GT6 MK III Repair Manual



Triumph GT6+



Page 336 Part 1 Driver's Handbook: Rear Door.



The Complete Official Triumph TR4 & TR4A: 1961-1968

Includes Driver's Handbook, Workshop Manual

Hardcover, 8-1/2 in. x 11 in.
404 pages
ISBN 978-0-8376-1741-1

X121.....\$80.00

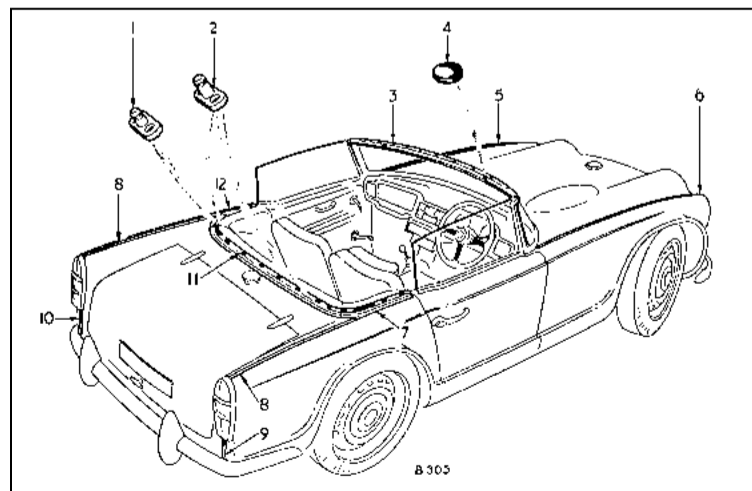
Includes:

- Triumph TR4 & TR4A Owner's Manual
- Triumph TR4 & TR4A Repair Manual
- Triumph TR4 & TR4A Competition Preparation Manual by R.W. "Kas" Kastner

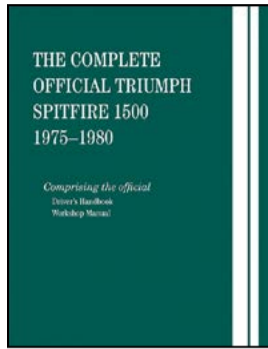
At the end of *The Complete Official Triumph TR4 & TR4A: 1961-1968* you'll find the complete text of the original TR4 & TR4A Competition Preparation Manual. Written by Triumph Competitions Manager R.W. "Kas" Kastner, this supplemental section contains factory-approved racing prep procedures specifically written for the TR4 and TR4A racer.



Page 277 Checking front wheel alignment.



Page 325 General arrangements of Beadings, Cappings and Mouldings.



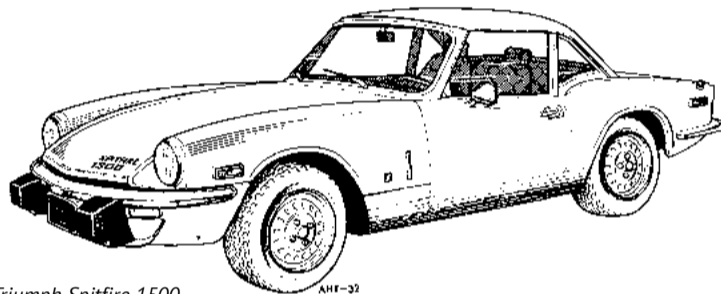
**The Complete Official
Triumph Spitfire 1500:
1975-1980**
**Includes Driver's Handbook,
Workshop Manual**
Hardcover, 8-1/2 in. x 11 in.
520 pages
781 illustrations and diagrams

ISBN 978-0-8376-1745-9

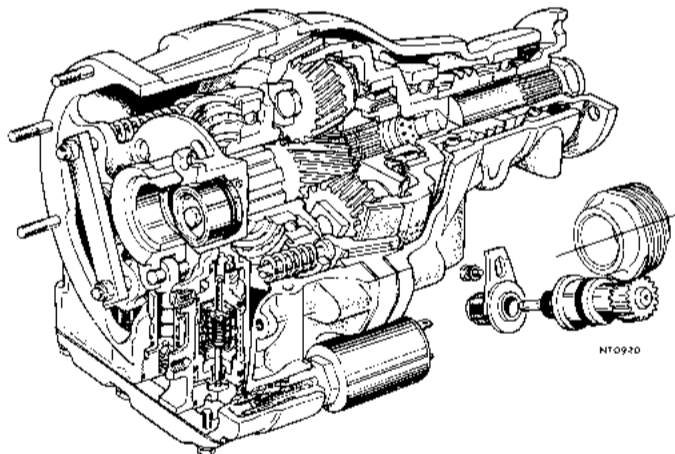
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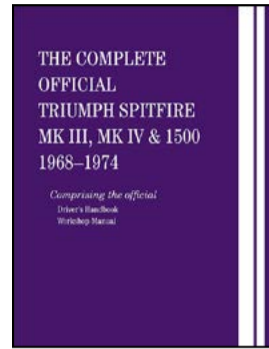
- Triumph Spitfire 1500 Owner's Manual: 1975-1980
- Triumph Spitfire 1500 Repair Manual: 1975-1980



Triumph Spitfire 1500



Page 282 Overdrive - J Type.



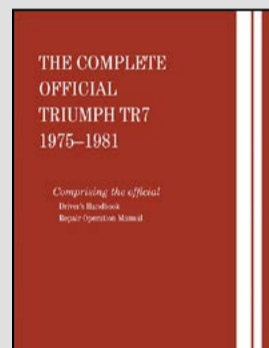
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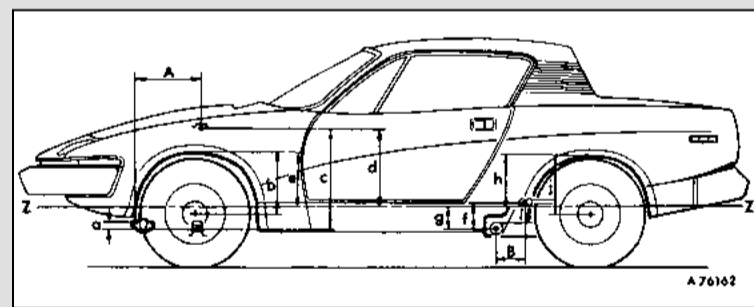


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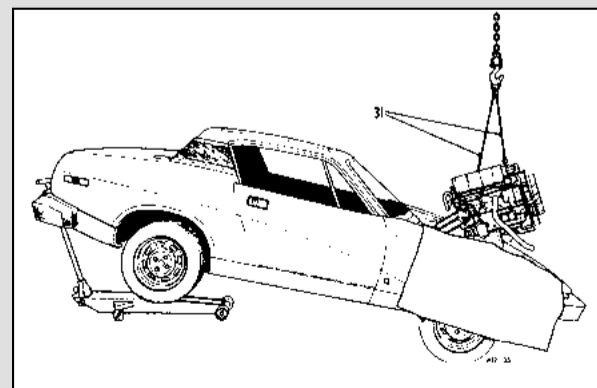
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