



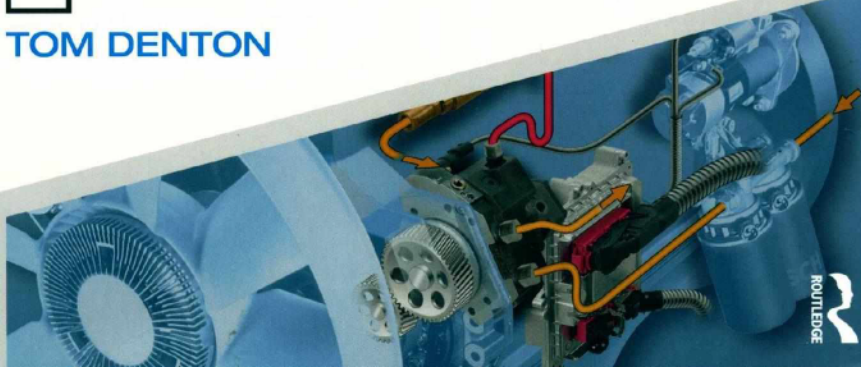
Second Edition

AUTOMOBILE MECHANICAL AND ELECTRICAL SYSTEMS



INSTITUTE OF THE
MOTOR INDUSTRY

TOM DENTON



ROUTLEDGE

Automobile Mechanical and Electrical Systems

The second edition of *Automobile Mechanical and Electrical Systems* concentrates on core technologies to provide the essential information required to understand how different vehicle systems work. It gives a complete overview of the components and workings of a vehicle from the engine through to the chassis and electronics. It also explains the necessary tools and equipment needed in effective car maintenance and repair, and relevant safety procedures are included throughout.

Designed to make learning easier, this book contains:

- ▶ Photographs, flow charts and quick reference tables
- ▶ Detailed diagrams and clear descriptions that simplify the more complicated topics and aid revision
- ▶ Useful features throughout, including definitions, key facts and 'safety first' considerations.

In full colour and with support materials from the author's website (www.automotive-technology.org), this is the guide no student enrolled on an automotive maintenance and repair course should be without.

Tom Denton is a Fellow of the Institute of the Motor Industry and a Member of the Institute of Road Transport Engineers and of the Society of Automotive Engineers. He has written over 20 textbooks, along with support materials, and world-leading eLearning courses.

Automobile Mechanical and Electrical Systems

Second Edition

Tom Denton

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Preface

One of the things that I find most interesting about automotive technology is how it advances and changes. It is also interesting that ideas from many years ago often return to favour. In this book, I have therefore concentrated on core technologies, in other words how things work, rather than giving details about specific vehicles or manufacturers. However, I have included some examples of existing and upcoming technologies as a guide to how things are changing.

This book is the first in the 'Automotive Technology: Vehicle Maintenance and Repair' series:

- ▶ Automobile Mechanical and Electrical Systems
- ▶ Automobile Electrical and Electronic Systems
- ▶ Automobile Advanced Fault Diagnosis
- ▶ Electric and Hybrid Vehicles
- ▶ Alternative Fuel Vehicles.

This book concentrates on essential knowledge and will cover everything you need to get started with your studies, no matter what qualification (if any) you are working towards. When you want more detailed information, you can move on to the other books. I hope you find the content useful and informative.

Comments, suggestions and feedback are always welcome at my website:



www.automotive-technology.org

On this site, you will also find lots of **free** online resources to help with your studies. Check out Chapter 6 for more information about the amazing resources to go with this and my other books. These resources work with the book, and are ideal for self-study or for teachers helping others to learn.

Good luck and I hope you find automotive technology as interesting as I still do.

