



EUROPA REFERENCE BOOKS  
for Automotive Technology

# Automotive Technology Basic Worksheets

## Solutions

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"Automotive Technology – Basic Worksheets" contains worksheets for the following subject areas:

**Service, Repairs, Diagnosis, Conversions and Retrofits.**

The worksheets are designed to form a foundation for operational situations.

- In each subject area, practical situations serve as an introduction to the topical contents. Comprehensive assignments provide the necessary basic technical knowledge. The learning situations found at the beginning of each topic can then be solved with this basic knowledge.
- Clearly outlined assignments can be solved independently in groups or with an instructor with the help of the "Modern Automotive Technology" textbook as well as the reference table.
- Circuit diagrams, maintenance schedules and work plans as well as functional descriptions are chosen such that they can be processed similarly to comparable job-related workflows.
- With the help of the accompanying ESI-Tronic CD, the student can obtain information and work on customised exercises.
- Content on operational organisation, operational communication and quality management can be found in the Service worksheets in the form of practical tasks.
- An example of a vehicle registration certificate, Part I, for registered vehicles in Europe, can be found on the inside back cover. Such documents are required to identify the vehicle during repair work and in locating spare parts in dealerships and auto parts stores.

The following tasks are given in the four subject areas:

### **1 SERVICE**

Maintaining and inspecting vehicles and systems according to specifications.

### **2 REPAIRS**

Checking, disassembling, exchanging and assembling simple components and systems.

### **3 DIAGNOSIS**

Identify and eliminate malfunctions

### **4 CONVERSIONS AND RETROFITS**

Performing customer-driven conversions

The worksheets, along with other vehicle technology textbooks such as "Modern Automotive Technology", Verlag Europa-Lehrmittel (ISBN 978-3-8085-23025), form a complete unit.

They are intended to help in carrying out practice-orientated lessons.

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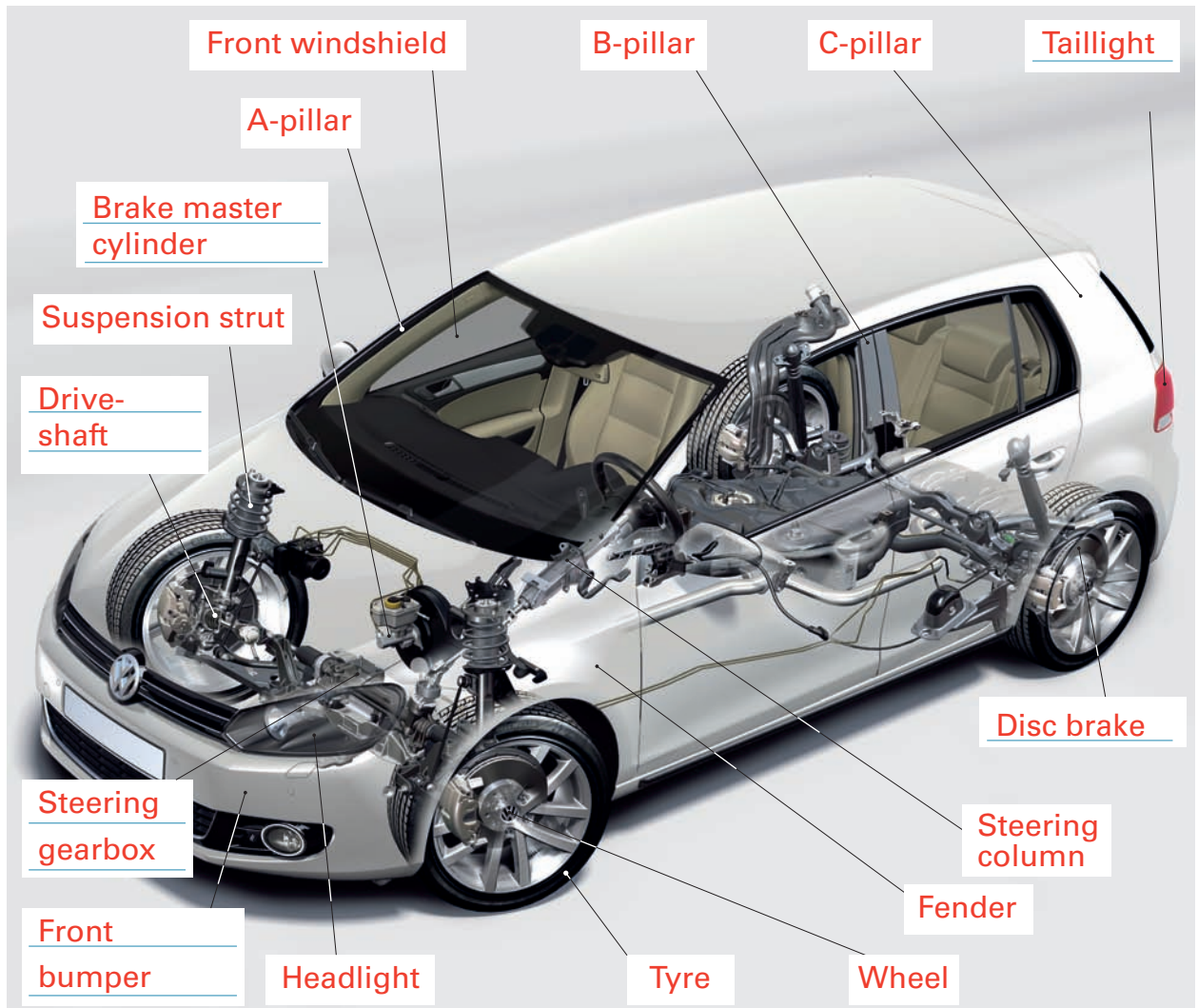
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The use of technical terms is required in on- and off-the-job communication.

1. Identify the parts and component groups.



2. Fill in the table with the correct part and its function.

Component-group	Part	Function
Wheel	Tyre	Good road adhesion
	Alloy rim	Connects tyre to wheel suspension
Springs, dampers	Coil spring	Enables wheel to go up and down; dampens oscillations
	Shock absorber	
Steering	Steering column	Transfers rotational movement; converts rotational movement to swiveling movement
	Steering gearbox	
Lighting-equipment	Headlights	Illuminate road
	Taillights	Signal functionality
Brakes	Brake master cylinder	Produces brake pressure
	Disc brake	Produces brake force