

Exploring Careers Through Technical Routes

Motor Vehicle



The Industry

Motor vehicle is an exciting industry to work in if you love cars and are passionate about fixing things. It is continually changing with the focus on tackling emissions and improving air quality as well as the development of new technologies and ensuring that the vehicles on our roads are as safe as possible.

A vehicle mechanic works out what has gone wrong with a vehicle and then how to repair it. You could work for a garage, manufacturer's service centre, in freight or commercial transport, for a construction company, vehicle hire, breakdown organisation, fast-fit outlet or car dealership.

Daily tasks may include: cleaning vehicle and machine interiors, exteriors, engines, engine components; assessment and diagnosis of mechanical problems; using diagnostic testing; estimating how long it will take to carry out repairs.

Autocity, run by The Institute of the Motor Industry (IMI), has information about careers in the motor vehicle industry
<http://www.autocity.org.ukorg.uk>

Skills and Requirements

This is a practical hands-on job and one in which you will need to update your skills and knowledge regularly with the continual evolution of new technologies.

You will also need:

- Excellent friendly customer service skills to maintain or develop relations with customers
- The ability to carry out written and verbal instructions
- Strong practical skills and problem solving
- The ability to quickly grasp new vehicle technologies
- Physical fitness and able to work in confined spaces
- Good eyesight and to carry out colour identification of wires and paint etc.
- Ability to demonstrate knowledge and understanding of mechanical and/or electrical components
- To build good working relationships with the team
- A can do attitude to work with attention to detail
- Good timekeeping skills enabling efficient, economic and safe servicing/repair of customer vehicles
- Understanding the implications of data protection laws on sensitive customer information

The automotive industry is a vital part of the UK economy with British cars being among the world's best kept with £21.1 billion spent on service and repair every year and supporting more than 345,000 British jobs.

<https://www.smm.co.uk/industry-topics/uk-automotive/>

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Working and Learning in Motor Vehicle



Job Roles & Progression

Study Programme

Level 2

Motor Vehicle Engineering
Light Vehicle Maintenance & Repair Principles
Vehicle Technology

Level 3

Automotive Engineering
Light/Heavy Vehicle Maintenance & Repair Principles
Vehicle Technology



Further study

Level 4 Advanced Automotive Diagnostic Techniques
HNC Automotive Diagnostics & Management Principles
Level 4 Diploma Automotive Master Technicians
BSc (Hons) Automotive Engineering
BEng (Hons) Automotive Mechanical and Automotive Engineering
IMI Accreditation Automotive Technician Accreditation (ATA)



Apprenticeships

Advanced Light Vehicle Mechanic



Career roles

Senior technician, workshop supervisor, garage manager or breakdown engineer
Specialise e.g. motorsport engineering, electric and hybrid cars or tuning and modifying vehicles for higher performance
Join the armed forces
You could also set up your own business

Calculation including problem solving

Tasks

1. Prepare a customer repair quote that includes both the costs of parts and labour.
2. Maintain a daily spreadsheet of all tasks e.g. fast fit operations, diagnostics, valeting, and align to each cost centre of the business.
3. Estimate the amount of screen wash and water you will need to fill all the washers for cars being serviced in a day.
4. Find the best price for 24 new spark plugs to order from a range of suppliers.
5. Work out the payroll month by month for the staff.

Links to GCSE Maths

1. **Number** (whole numbers - addition, subtraction, multiplication, using a calculator)
Geometry and measure (units of measure - unit pricing)
2. **Number** (whole numbers - multiplication and division; decimals)
3. **Ratio** (ratio in context)
Number (approximation - estimating calculations)
4. **Number** (whole numbers - multiplication and division, using a calculator)
Ratio, proportion and rates of change (percentages)
5. **Number** (financial maths – wages and salaries)

Communication, all forms

Tasks

1. Work safely at all times in line with HSE requirements.
2. Refer a customer to the correct person if you need help with their enquiry or complaint.
3. Clarify customer and vehicle needs by referring to the vehicle data and operating procedures.
4. Use your company's recording system accurately and report on work carried out weekly.
5. Draft an email to customers on your database about a special offer on tyres.

Links to GCSE English Language

1. **Analysing non-fiction** (non-fiction text types - instruction manual)
2. **Spoken Language** (speaking and listening; personal presence - body language, eye contact; voice)
3. **Analysing non-fiction** (non-fiction text types - manual; context - publication; purpose and audience)
4. **Writing** (writing non-fiction – writing a report; organising information and ideas - paragraphs, building sentences; literary techniques - informative language; vocabulary - use precise verbs)
5. **Writing** (writing non-fiction - email; literary techniques – persuasive devices)
Spelling, punctuation and grammar