

Occupational Requirements – Heavy Commercial Vehicle Mechanical Technology

Applicants seeking recognition of their qualifications¹ or experience in relation to the automotive trade will need to demonstrate knowledge and understanding of the occupational requirements listed below.

Successful recognition of these qualifications or experience will result in the applicant gaining the **Occupational Certificate as a Heavy Commercial Vehicle Technician**

Workplace and business

- Follow environmental and sustainability best practice in an automotive workplace
- Follow safe working practices in an automotive workplace
- Importance of own appearance when in public view and dealing with customers
- Pre-ordering goods and materials accurately for planned work
- Preparing products within prescribed costs
- Prioritising and planning work effectively within an automotive timeframe, including production schedule
- Receiving, handling, and managing stock, including pre-ordering for future use and/or planned work
- Use and maintain tools and equipment in an automotive workplace
- Work effectively with others in an automotive workplace

Work health and safety, and product safety

- Cleaning and sanitising of work areas, tools, and equipment
- Environmentally sustainable work practices, minimising waste and maximising sustainability
- Safe hygiene, health and work practices, paying attention to the workplace and people in it
- Understanding and complying with work healthy and safety, and implementing safe work practices

Communication

- Communicate effectively in an automotive workplace
- Having professional conversations with customers that meet their expectations
- Importance of effective communications across teams, colleagues, contractors, suppliers, and other professionals

¹ Where these qualifications have not been obtained under a training contract (apprenticeship).

- Providing advice and guidance about specialist matters to managers, colleagues, and customers, as required
- Reacting professionally and effectively in unexpected situations
- Respond to customer needs and enquires in an automotive workplace

Specific skills

- Carry out servicing operations
- Diagnose and repair:
 - Vehicle dynamic control systems
 - Compression ignition engine management systems
 - Charging systems
 - Starting systems
 - Heavy vehicle
 - air braking systems
 - drive shafts
 - emission control systems
 - compression ignition engines
 - Heavy commercial vehicle
 - steering systems
 - suspension systems
 - Cooling systems
 - Engine forced-induction systems
 - Heavy vehicle manual transmission
 - Heavy vehicle automatic transmission
- Develop and carry out diagnostic test strategies
- Inspect and service:
 - Diesel fuel injection systems
 - Final drive assemblies
 - Hydraulic systems
- Test and repair basic electrical circuits
- Test, charge and replace batteries and jump-start vehicles
- Working to deadlines

Additional skills to consider

- Assemble and install pneumatic system components
- Carry out:
 - Advanced gas metal arc welding
 - Heavy vehicle wheel alignment operations
 - Manual metal arc welding on components
 - Oxyacetylene welding, thermal heating and cutting
- Diagnose and repair:
 - Air conditioning and HVAC components
 - Automotive electrical systems

- Electronic body management systems
- Exhaust systems
- Heavy commercial vehicle electronic braking systems
- Heavy vehicle clutch systems
- Heavy vehicle commercial vehicle final drive assemblies
- Heavy vehicle diesel fuel injection systems
- Heavy vehicle hydraulic and air over hydraulic braking systems
- Hydraulic systems
- Integrated engine and transmission management systems
- Mechanical connection of heavy vehicle and trailers over 4.5 tonnes
- Network electronic control systems
- Inspect and service:
 - Air braking systems
 - Automatic transmissions
 - Braking systems
 - Engines
 - Manual transmission
 - Mechanical connections of heavy vehicles and trailers over 4.5 tonnes
 - Steering system
 - Suspension systems
- Inspect, diagnose and repair alternative fuel systems in heavy vehicle engines
- Inspect, service and repair auxiliary braking systems
- Inspect, test and replace heavy vehicle automatic transmissions
- Remove and install heavy vehicle engine assemblies
- Remove, inspect and refit heavy vehicle wheel and tyre assemblies
- Remove, inspect, repair and refit heavy vehicle tyres and tubes
- Repair radiators
- Retrofit automotive air conditioning and HVAC systems
- Select and use bearings, seals, gaskets, sealants and adhesives
- Service air conditioning and HVAC systems
- Use and maintain measuring equipment in an automotive workplace

Note

A successful automotive technician requires a well-rounded skill set that extends beyond technical proficiency alone. Strong diagnostic and problem-solving capabilities are essential for identifying faults efficiently and delivering effective repair solutions. Equally important are interpersonal and communication skills, which enable technicians to work collaboratively within teams and maintain professional relationships with customers and industry stakeholders.

Furthermore, the automotive industry continues to evolve rapidly, driven by advancements in vehicle technology, electronics, and alternative powertrains. As such, a commitment to

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continuous learning and the ability to adapt to emerging technologies are critical for long-term success. By developing and maintaining these competencies, aspiring automotive technicians can significantly enhance their employability, professional effectiveness, and overall contribution to the automotive industry.