



Australian Government

MEM20033 Service and repair mechanical automotive locking systems

Release: 1

MEM20033 Service and repair mechanical automotive locking systems

Modification History

Release 1. Supersedes and is equivalent to MEM20012 Service and repair mechanical automotive locking systems.

Application

This unit of competency defines the skills and knowledge required to identify service and repair requirements for mechanical automotive locking systems on commercial and private use vehicles.

It applies to work on commercial and private use vehicles. It applies to mechanical locking systems. It requires an ability to safely remove, repair, service and replace components.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: This unit has dual status and is to be regarded as both a Specialisation Band A unit and Specialisation Band B unit for progression to C5 (AQF level V).

Unit Weight: 4

Pre-requisite Unit

MEM11011 Undertake manual handling

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

MEM18001 Use hand tools

MEM18002 Use power tools/hand held operations

MEM20023 Assemble and test lock mechanisms

MEM20027 Maintain and service mechanical locking devices

MEM20015 Produce hand cut keys

MEM20016 Produce keys by cutting to code

MEM20017 Produce keys by duplication

Competency Field

Locksmithing

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Determine job requirements	1.1 Follow standard operating procedures (SOPs) 1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Select and use personal protective equipment (PPE) in accordance with SOPs 1.4 Identify job requirements from specifications
2. Identify service and repair requirements	2.1 Establish ownership and verify in accordance with organisational and industry procedures 2.2 Obtain system and component specifications and other relevant information from appropriate sources and in accordance with organisational and customer requirements 2.3 Establish service and repair requirements relevant to task in accordance with customer needs, SOPs and manufacturer specifications
3. Repair, replace and service automotive locking system	3.1 Identify risks and hazards and make area safe in accordance with SOPs 3.2 Select tools, equipment, materials and consumables, check for serviceability and use 3.3 Inspect lock assemblies and components and remove, repair, service and replace in accordance with SOPs, industry practices and factors impacting on feasibility of repair 3.4 Inspect sub-assemblies and assemblies, test and adjust for compliance to original factory assembly and functioning
4. Finalise servicing process	4.1 Check function of entire locking system and make required adjustments for compliance with operational specifications 4.2 Clean work area, tools and equipment and store in accordance with SOPs 4.3 Complete documentation and process in accordance with SOPs

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Specifications include one or more of the following:	• job sheets • work instructions • work orders.
Personal protective equipment (PPE) includes one or more of the following:	• face protection • hearing protection • dust masks and respirators • high-visibility vests or clothing • head protection • sun protection • gloves • knee pads • safety footwear • witches hats • warning signs and warning tapes • temporary safety barriers • fire extinguisher • first aid kit.
Appropriate sources of information include one or more of the following:	• catalogues • manufacturer manuals • drawings • detailed or technical sketches • computer software • internet • industry colleagues and experts • associated data sheets.
Other information includes one or more of the following:	• schedules • timeframes • access and site information • products • installation and upgrade requirements

	• specific client requests • materials • costings • warranties and service information • legislation, codes and regulatory requirements • work health and safety (WHS) requirements.
Customer requirements include one or more of the following:	• function and capabilities • access issues • service and maintenance requirements • product operation and warranty information • costings.
Risks and hazards include one or more of the following:	• accidental triggering of supplemental restraint systems (SRS) (air bags) • unique dangers arising from working on the roadside • non-compliance with manufacturer recommendations • materials handling, both chemical and environmental • physical hazards.
Associated equipment includes one or more of the following:	• air bags and other SRS equipment • steering locking devices.
Lock assemblies and components include one or more of the following:	• single and double-sided wafer • two and four-track • tibbe (rotating disc) • sidebar • split wafer • new and other mechanisms.
Tools and equipment include one (1) or more of the following:	• hand tools • security driver bits • special-purpose equipment • trim removal tools • fibre optic scope.
Materials and consumables include one or more of the following:	• lubricants • cleaning materials.
Documentation includes one or more of the following:	• procedures and measurements for opening specific vehicles • job sheets • invoices • warranties.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM20012 Service and repair mechanical automotive locking systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM20033 Service and repair mechanical automotive locking systems

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- establishing ownership of vehicle contents prior to commencing service and repair
- interpreting information specific for servicing and repairing mechanical automotive locking systems
- questioning, confirming and clarifying customer requirements
- identifying the type of locking components and checking functioning of locking systems on at least two occasions
- tracing faults and using appropriate tools and equipment to service and repair mechanical automotive locking systems on at least two occasions
- identifying actual and potential risks and hazards
- repairing, replacing and servicing locking assemblies using appropriate tools, equipment and procedures
- cleaning work area in accordance with original presentation, client requirements, industry standards and SOPs
- completing all documentation in accordance with SOPs.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- attachment methods for window winders, internal handles, snibs, trims, cylinders, locks and external handles
- sources of specifications and other relevant information for mechanical automotive locking systems
- principles of locking systems and component functions, operating principles and technical terminology for specific locks
- common design problems and faults arising from vandalism, misuse and wear
- tools, equipment and materials required for service and repair

- organisational procedures for establishing service requirements
- procedures to establish and verify vehicle ownership and reasons for verifying ownership
- operating principles for air bags including location and isolation techniques
- factors impacting on feasibility of repair or replacement
- dismantling procedures for automotive locks
- procedures for replacing worn and damaged parts, removing foreign objects and lubricating components
- organisational requirements for cleaning and storage
- documentation and recording procedures.
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Assessment Conditions

- Assessors must:
 - have vocational competency in servicing and repairing mechanical automotive locking systems at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the Standards for Registered Training Organisations 2015 or its replacement and comply with the National Vocational Education and Training Regulator Act 2011, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Where possible, assessment must occur in operational workplace situations. Where this is not possible or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment that reflects realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
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