



Australian Government

MEM20023 Assemble and test lock mechanisms

Release: 1

MEM20023 Assemble and test lock mechanisms

Modification History

Release 1. Supersedes and is equivalent to MEM20002 Assemble and test lock mechanisms.

Application

This unit of competency defines the skills and knowledge required to assemble and test lock mechanisms. Mechanisms are mechanical in nature and may be built to order, low volume or complex assemblies.

This unit applies to assembly of lever locks and cylinders within a master key system or to individually keyed lever locks cylinders. It requires application of locksmithing principles and practices.

Where the selection and use of engineering measuring equipment is required unit MEM12023 Perform engineering measurements or unit MEM12003 Perform precision mechanical measurement should also be selected as appropriate.

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

Band: A

Unit Weight: 6

Pre-requisite Unit

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

MEM18001 Use hand tools

Competency Field

Locksmithing

Unit Sector

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	1.1 Follow standard operating procedures (SOPs)

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<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
requirements	1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use personal protective equipment (PPE) in accordance with SOPs 1.4 Determine job requirements from specifications 1.5 Plan appropriate assembly sequence and method in accordance with specifications and SOPs
2. Prepare to assemble lock mechanisms	2.1 Select tools, equipment and materials to suit job requirements 2.2 Prepare work area and arrange components in accordance with SOPs and selected assembly technique 2.3 Disassemble and decode lock mechanisms in accordance with job requirements 2.4 Compile components and parts in accordance with assembly specifications 2.5 Identify defective or faulty parts and process in accordance with SOPs
3. Assemble lock mechanisms and decode assembled mechanisms	3.1 Identify locking mechanism using appropriate methods in accordance with SOPs 3.2 Apply locksmithing techniques and principles suited to assembly activity 3.3 Maintain records or process in accordance with SOPs 3.4 Fit component parts to ensure correct positioning and conformance with specifications 3.5 Handle and store components and/or assembly in a manner least likely to cause damage and in accordance with SOPs 3.6 Decode disassembled lock mechanism
4. Check finished products and mark, package and label products	4.1 Check operation of the lock mechanism and key for conformance to specifications 4.2 Identify and rectify faults in lock mechanism or key operation 4.3 Select marking equipment and mark products with correct door and key reference information in accordance with SOPs 4.4 Group, package and label products for installation 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:	• drawings • job sheets • work instructions.
Assembly specifications include one or more of the following:	• required components and parts • door handing • timeframe for completion • keying instructions • fitting requirements.
Documentation includes one or more of the following:	• door and key schedules • job sheet • pinning charts • hardware charts • manufacturer documentation • manufacturer warranties.
Lock mechanisms include one or more of the following:	• pin and disc tumbler cylinders • wafer tumbler cylinders • lever and warded locks • rotating pin • rotating disc • axial pin (tubular) • radial pin (dimple) • cruciform.
Components and parts include one or more of the following:	• wafers • pins • discs • levers • springs • key blanks • barrels • cylinder housings

	• cams and screws • circlips and tails.
Tools and equipment include one or more of the following:	• jigs • followers • tweezers • screwdrivers • circlip pliers • files • wire wheel.
Materials include one or more of the following:	• graphite powder • graphite-based lubricants • Teflon • silicone-based lubricants.
Reference information includes one or more of the following:	• system member • rank • key issue • dealer identification.
Stamping equipment includes one or more of the following:	• dedicated marking machine, either stamp or engrave • hand stamps • stamping block.

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM20002 Assemble and test lock mechanisms.

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 MEM20023 Assemble and test lock mechanisms

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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
- planning the assembly sequence and method in accordance with specifications and SOPs
- checking components and/or parts against key schedule and job instructions
- assembling lock mechanisms and checking key operates the lock on at least two occasions on at least two different mechanisms
- using tools and equipment to assemble lock mechanisms
- marking products with correct door and reference information using appropriate marking equipment
- identifying and rectifying faults in lock mechanism or key operation
- grouping, packaging and labelling products and completing and processing 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)
- operating principles of mechanical locking devices and components
- information on handwritten and computer-generated pinning charts, key and door schedules and hardware charts
- fitting requirements and sequence of assembly
- tools, equipment and materials for assembling lock mechanisms
- door and key reference information and marking methods.

Assessment Conditions

- Assessors must:
 - have vocational competency in assembling and testing lock mechanisms 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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