



Australian Government

MEM20002 Assemble and test lock mechanisms

Release: 1

MEM20002 Assemble and test lock mechanisms

Modification History

Release 1. Supersedes and is equivalent to MEM20002A Assemble and test lock mechanisms

Application

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

This unit applies to assembly of cylinders within a masterkey system or to individually keyed cylinders and 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, licensing 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
MEM20001	Produce keys

Competency Field

Locksmithing

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
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1	Determine job	1.1	Follow standard operating procedures (SOPs)
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Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.	
requirements	1.2 Comply with work health and safety (WHS) requirements at all times 1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs 1.4 Determine job requirements from specifications, drawings, job sheets or work instructions 1.5 Obtain appropriate authorisation, check signatures and confirm order 1.6 Plan appropriate assembly sequence/method in accordance with specifications and SOPs	
2 Prepare to assemble lock mechanisms	2.1 Disassemble lock mechanisms, as necessary 2.2 Compile components and parts in accordance with assembly specifications 2.3 Select tools, equipment and materials to suit job requirements 2.4 Prepare work area and arrange components in accordance with SOPs and selected assembly technique 2.5 Identify defective or faulty parts and process according to SOPs	
3 Assemble lock mechanisms and decode assembled mechanisms	3.1 Apply locksmithing techniques and principles appropriate to assembly activity 3.2 Maintain records or process in accordance with SOPs 3.3 Fit component parts to ensure correct positioning and conformance with specifications 3.4 Mark/tag/identify locking mechanism as appropriate in accordance with SOPs 3.5 Handle and store components and/or assembly in a manner least likely to cause damage and in accordance with SOPs	

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

		3.6	Identify the lock mechanism using appropriate method
		3.7	Decode lock mechanism (internal locking components)
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 stamping equipment and stamp 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 required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

Assembly specifications include one (1) or more of the following:

- required components and parts
- door handing
- timeframe for completion
- keying instructions
- fitting requirements

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**Documentation
includes one (1) or
more of the following:**

- door and key schedules
- job sheet
- pinning charts
- hardware charts
- manufacturer documentation
- manufacturer warranties

**Lock mechanisms
include one (1) 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 (1) 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 (1) or more
of the following:**

- jigs
- followers
- tweezers
- screwdrivers
- circlip pliers
- files
- wire wheel

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Materials include one (1) or more of the following:

- graphite:
 - powder
 - based lubricants
- Teflon
- silicone based lubricants

Reference information includes one (1) or more of the following:

- system member
- rank
- key issue
- dealer identification

Stamping equipment includes one (1) or more of the following:

- dedicated marking machine:
 - stamp
 - engrave
- hand stamps
- stamping block

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM20002A 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 MEM20002 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 on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- obtaining appropriate authorisation, checking signatures and confirming order
- planning the assembly sequence/method in accordance with specifications and SOPs
- checking components/parts against key schedule and job instructions
- assembling lock mechanisms and checking key operates the lock
- using tools and equipment to assemble lock mechanisms
- marking products with correct door and reference information using appropriate stamping 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.

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)
- types of mechanical locking devices
- information on handwritten and computer-generated pinning charts, key and door schedules, hardware chart, mechanical locking devices, mechanisms and components
- importance of obtaining authorisations
- difference between levers
- difference between key blanks
- fitting requirements and sequence of assembly
- tools, equipment and materials for assembling lock mechanisms
- door and key reference information and stamping 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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