



Australian Government

Assessment Requirements for MEM21022 Manufacture watch and clock components

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM21022A Manufacture watch and clock components

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
- identifying the need for replacement component parts, liaising with customer and determining costs
- interpreting watch and clock working drawings, manuals and other documentation that provide information on part design and tolerances
- setting up and mounting the material to be turned using appropriate chuck and manufacturing, finishing and fitting replacement watch or clock components to original tolerances using a watch and clockmaker's lathe
- performing milling operations using indexing and milling attachments on the lathe or bench-mounted milling machine to dimension and tolerances
- selecting and preparing appropriate tool or cutter to produce replacement parts
- producing replacement parts, including wheels and pinions with their teeth machined to the correct depth
- finishing manufactured components and recording and documenting repairs.

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)
- typical materials used in watch and clockmaking
- types of watch and clockmakers' lathes and attachments
- lathe accessories and tooling
- set up and safe operation of watch and clockmakers' lathes and attachments
- documentation requirements
- set up and safe operation of milling machines and attachments
- calculate speeds, feeds and indexing requirements
- surface finish requirements for clock and watch parts
- heat treatment requirements for replacement parts

- milling procedures.

Assessment Conditions

- Assessors must:
 - have vocational competency in manufacturing watch and clock components 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.

Links

Companion Volume implementation guides are found in VETNet -

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