



Australian Government

**Assessment Requirements for MEM21015
Perform precision watch timing and
adjustment**

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM21015A Perform precision watch timing and adjustment

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 and safe work practices
- identifying high-grade mechanical watch characteristics
- liaising with customer and verifying condition and performance
- identifying repair costs and preparing written quotation for service/repair
- servicing high-grade mechanical watches to achieve original manufacturer timekeeping standards and specifications in an appropriate work environment
- using appropriate hand tools and equipment to carry out precision watch timing and adjustments
- conducting watch performance testing and longitudinal testing
- analysing and interpreting results of watch performance testing and adjusting and rectifying errors in watch oscillating system
- conducting dynamic poising adjustment of balance wheel
- 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)
- types of high-grade mechanical watches by brand and complications
- characteristics of high-grade mechanical watch movements/components
- timekeeping accuracy for chronometers
- watch construction and components
- oscillator pivot friction and end shake adjustment
- positional error variation adjustments for mechanical watches
- balance amplitude/performance/rate variation adjustments for mechanical watches
- influence of out-of-poised balance wheel
- influence of the escapement on timekeeping
- influence of the balance spring design/characteristics on timekeeping

- balance spring inspection and adjustment techniques
- performance testing procedures for mechanical watches
- factors affecting isochronism
- workshop procedures for conducting dynamic poising.

Assessment Conditions

- Assessors must:
 - have vocational competency in performing precision watch timing and adjustment 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>