



Australian Government

MEM18008 Balance equipment

Release: 2

MEM18008 Balance equipment

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM18008 Balance equipment (Release 1).

Release 1. Supersedes and is equivalent to MEM18008B Balance equipment.

Application

This unit of competency defines the skills and knowledge required to check the balance and balancing of equipment.

Balancing may include the addition or removal of material and all specifications for machine operation and degree of balance to be supplied.

Where wheel and tyre balancing is required unit MEM27029 Maintain wheels and tyres should be selected.

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

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MEM18003	Use tools for precision work

MEM18006	Perform precision fitting of engineering components
MEM18055	Dismantle, replace and assemble engineering components

Competency Field

Maintenance and diagnostics

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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	Use appropriate personal protective equipment (PPE) in accordance with SOPs
		1.4	Identify job requirements from specifications, drawings, job sheets or work instructions
2	Check balance	2.1	Apply principles of equipment balance testing
		2.2	Select most appropriate balancing check procedure
		2.3	Set up component correctly and to site/manufacture's procedures for balance check
		2.4	Determine balance/out-of-balance and compare to specification requirements
		2.5	Record out-of-balance readings to prescribed procedures
3	Balance equipment	3.1	Apply principles and methods of rigid and/or flexible rotation balancing
		3.2	Use techniques of single and/or multi-plane balancing appropriate to application

Elements describe the essential outcomes.

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

3.3 Balance equipment utilising correct procedures

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.

Equipment includes one (1) or more of the following:

- static balancing machines
- sophisticated electronic dynamic balancing machines

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM18008 Balance equipment (Release 1).

Release 1. Supersedes and is equivalent to MEM18008B Balance equipment.

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 MEM18008 Balance equipment

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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
- identifying and interpreting specifications, charts, lists and drawings to balance equipment
- setting up component to be balanced to site/manufacturer's procedures and determining balance/out-of-balance and comparing to specifications
- operating balance equipment using appropriate techniques safely
- checking for compliance to specifications
- undertaking numerical operations, geometry, calculations and formulae for balancing equipment.

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)
- principles of balancing and reasons for testing equipment for balance
- effect of out of balance components on machine/equipment operation and life
- procedures for checking the balance of equipment
- most appropriate procedure to be applied to selected balancing situations and reasons for selection
- procedures for:
 - setting up the component to be balanced
 - operating the balancing equipment
 - recording out-of-balance readings
 - balancing out-of-balance equipment
- specifications of the component to be balanced
- principles and methods of rigid and flexible rotation balancing
- techniques of single and multiple plane balancing
- appropriate balancing technique for given balancing situations and reasons for selection
- precautions to be taken when adding or removing material to achieve balance.

Assessment Conditions

- Assessors must:
 - have vocational competency in balancing equipment 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.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including 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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