



Australian Government

Assessment Requirements for MEM09209

Detail bearings, seals and other componentry in mechanical drawings

Release: 1

Assessment Requirements for MEM09209 Detail bearings, seals and other componentry in mechanical drawings

Modification History

Release 1. Supersedes and is equivalent to MEM09209A Detail bearings, seals and other componentry in mechanical drawings.

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
- determining purpose and scope for drawing requirements relevant to the project utilising all available information
- identifying system requirements including bearings and seals for inclusion in drawing on at least two occasions
- determining the method of general tolerance, classes of fit and forms of geometric shapes from engineer, sketches or specifications
- producing mechanical drawings which detail bearings, seals and other componentry, applying general tolerances and ensuring drawing accurately reflects specifications on at least two occasions
- verifying parameters of the design brief with appropriate personnel
- consulting with appropriate support services and presenting and explaining drawing
- documenting and storing drawings 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
- different approaches to drawing
- awareness of copyright and intellectual property issues and legislation in relation to drawing
- quality assurance procedures
- sources of information
- personnel and support services to consult
- organisational standards for computer-aided drawing (CAD)
- order of drawing process

- organisational checking procedures for drawings
- layout and presentation requirements
- standards applicable to the work to be undertaken
- process of storing paper drawings and electronic drawing files
- International System of Units (SI)
- different types of bearings used in the manufacture of an engineering project
- different types of seals used in the manufacture of an engineering project
- components used in the manufacture of an engineering project
- surface texture finishes and machining processes
- geometric tolerances of an engineering component
- terminology associated with the preparation of mechanical drawings.

Assessment Conditions

- Assessors must:
 - have vocational competency in detailing bearings, seals and other componentry in mechanical drawings 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 that 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>