



**Australian Government**

**Assessment Requirements for MEM27025  
Maintain, diagnose and rectify fluid power  
controls in mobile equipment**

**Release: 1**

# Assessment Requirements for MEM27025 Maintain, diagnose and rectify fluid power controls in mobile equipment

## Modification History

Release 1: New unit

## 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 and interpreting specifications system/circuit diagrams, system operation and control data records and identifying and inspecting system components for compliance with specifications
- planning and undertaking sequential installation of fluid power systems and controls in accordance with manufacturer specifications and procedures
- checking and adjusting control and system operation using appropriate test equipment ensuring that the sequence of operations conforms to specifications and operational requirements
- recording/reporting any modifications/alterations to the system in accordance with SOPs
- fault finding fluid power systems control circuits and controllers using fault-finding techniques and appropriate test equipment and identifying and localising components not conforming to operational specifications for repair/replacement
- repairing/replacing faulty items after testing for compliance to specifications using appropriate tools, equipment and techniques
- reassembling control components to meet specifications
- verifying correct operation of system power control circuit and commission the fluid power system controls to specifications
- initiating maintenance and/or service follow-up procedures and completing maintenance and/or service reports according to 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)
- system operational and control requirements and specifications
- application of common fluid power system components and controllers
- basic electronic concepts, including current/voltage/power and solenoid coils
- pulse width modulation (PWM) and its function/application

- function of analogue controllers in simple fluid power systems
- digital controllers in mobile fieldbus systems (e.g. controller area network (CAN) bus) and their function and capabilities
- controller fault code interrogation and interpretation, where available
- circuit sensors and controllers
- temperature transducers
- data loggers – types and basic function
- special installation requirements
- fluid power and common test equipment and their application
- correct operational sequence of the system
- typical adjustments to correct sequencing variations from specification
- procedures for recording/reporting modifications/alterations and consequences of not recording/reporting
- fluid power system commissioning procedures
- components not complying with operational specification and typical causes of component failure
- cause of the faulty condition in the components and appropriate procedures for rectifying the faulty condition
- appropriate maintenance schedule and procedures
- appropriate control component repair procedures
- typical test equipment and its application
- common adjustments that can be made to control systems and their effect
- any maintenance/service follow-up procedures
- maintenance/service recording/reporting requirements.

## Assessment Conditions

- Assessors must:
  - have vocational competency in maintaining, diagnosing and rectifying fluid power controls in mobile 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
- 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>