



Australian Government

Assessment Requirements for MEM27009 Diagnose and rectify braking systems

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM18035B Diagnose and rectify braking systems

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, including brake dust, fibre and fluid control and protection procedures
- identifying and interpreting specifications, charts, lists, drawings and service documents to diagnose and rectify braking systems
- checking braking system for conformance to specifications and for compliance with relevant regulations
- checking friction materials and identifying as being serviceable or to be replaced
- undertaking calculations and numerical operations for diagnosing and rectifying braking systems
- measuring and recording brake operating dimensions and identifying variations of brake operating measurement from specifications
- checking operation of braking system for compliance to specifications and identifying faulty components for replacement
- checking braking system interaction with equipment control and recording systems and components
- removing, dismantling, handling and replacing braking system components safely
- cleaning components using appropriate solutions and safety precautions
- adjusting brake clearance, levers, linkages and pedal clearances using appropriate tools, equipment and procedures
- testing and recommissioning the braking system for compliance with specifications/regulations.

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 friction and heat as applied to braking systems
- function of the components of a variety of braking system types and arrangements
- typical applications of different types of braking systems

- requirements of relevant regulations as applying to mobile plant braking systems
- tools, techniques and equipment used to remove and dismantle braking system components
- procedures for:
 - checking braking systems for compliance with regulations
 - measuring brake operating dimensions recording brake operating dimensions
 - checking braking system operation
 - removing and dismantling braking system components
 - cleaning braking system components and solutions to be applied
 - adjusting brake clearances, levers, linkages and pedal clearances
 - checking for hydraulic, air and vacuum system leaks and restrictions
 - testing and recommissioning the braking system
- worn and defective friction materials
- specifications of the braking system
- corrective action to be taken when brake operating measurement varies from specification
- corrective action to be taken when faulty braking system components are identified
- characteristics of surface finishes and wear patterns as applied to braking system components
- reasons for identifying the components for reuse or replacement
- precautions to be taken when handling braking systems components
- reasons for selecting the chosen tools, techniques and equipment
- tests, tools, techniques and equipment required to test the braking system and reasons for selection.

Assessment Conditions

- Assessors must:
 - have vocational competency in diagnosing and rectifying braking systems 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>