



Australian Government

Assessment Requirements for MEM27032 Service combustion engines

Release: 1

Assessment Requirements for MEM27032 Service combustion engines

Modification History

Release 1. Supersedes and is equivalent to MEM18025B Service combustion engines

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
- assessing engine consumable fluids and components for levels and serviceability and identifying replacement consumables and components using manufacturers' data
- identifying and reporting on fluids and items which have abnormal appearance and flushing and cleaning engine of any residual fluids according to procedures
- undertaking numerical operations and calculations for servicing combustion engines
- removing/replacing engine fluids with correct fluids and/or additives to correct levels
- checking engine for leaks after servicing and, where required, securing all wiring, hoses and ducts free of moving parts
- carrying out minor running adjustments
- obtaining test samples of fluids for further testing
- recording and reporting service activities in accordance with 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)
- common defects that can be identified from the appearance of fluids and items
- procedures for:
 - reporting items/fluids with abnormal appearance
 - draining and flushing fluids from the engine, including the reasons for ensuring any residual/spilt fluids are removed from the engine
 - removing/replacing engine consumable fluids and components
 - checking serviced engines for leaks
 - taking test samples
 - reporting service activities
- principles of operation of the lubrication and cooling systems
- function of filters

- purpose of a range of additives and correct proportions to be used
- spilt containment and spilt kits
- appropriate grade and type of replacement fluid
- methods of fastening/securing wires, hoses and ducts
- specifications and procedures for undertaking minor running adjustments.

Assessment Conditions

- Assessors must:
 - have vocational competency in servicing combustion engines 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>