



Australian Government

**Assessment Requirements for MEM27004
Maintain and repair engine lubrication
systems**

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM18028B Maintain engine lubrication 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
- identifying and interpreting specifications, charts, lists, drawings and service documents prior to any testing on engine lubrication systems
- conducting operational checks of engine lubrication system and determining and recording oil flows, pressures and temperature using appropriate test equipment
- identifying faults of engine lubrication system and determining corrective action
- obtaining and interpreting the results of lubricating oil tests and making recommendations to future maintenance activities
- checking auxiliary lubrication systems for correct operation in accordance with specifications
- undertaking calculations and numerical operations for maintaining engine lubrication systems
- checking lubrication system components for wear and clearances using appropriate test equipment to manufacturer specifications
- removing/refitting and adjusting lubrication system components and make final adjustments to bring system in line with specifications
- recording/reporting test and work activities.

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)
- operation of the lubrication system and procedures for testing/checking lubrication
- tests to be undertaken and equipment and techniques to be used to determine oil flows, pressures and temperatures
- procedures for:
 - recording lubrication system test results
 - analysing lubricating oil samples and reasons that apply
 - removing/replacing lubrication system components

- adjusting lubrication systems
- recording test and repair activities
- checking lubrication systems for leaks
- specifications of the lubrication system components and appropriate corrective action for faulty components
- characteristics of lubricants and application of a variety of lubricants
- likely causes of a range of out of specification test results and appropriate corrective action to be taken
- implications of out of specification test results on maintenance schedules and requirements
- reasons for installing auxiliary lubrication systems on diesel plant and equipment
- operation of the auxiliary lubrication system
- measuring equipment/techniques used to determine lubrication system component wear and clearances.

Assessment Conditions

- Assessors must:
 - have vocational competency in maintaining engine lubrication 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>