



Australian Government

MEM27004 Maintain and repair engine lubrication systems

Release: 1

MEM27004 Maintain and repair engine lubrication systems

Modification History

Release 1. Supersedes and is equivalent to MEM18028B Maintain engine lubrication systems

Application

This unit of competency defines the skills and knowledge required to assess lubrication system operations and repair or replace faulty components.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Band: A

Unit Weight: 2

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MEM18055	Dismantle, replace and assemble engineering components

Competency Field

Fixed and mobile plant

Elements and Performance Criteria

Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
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|---|----------------------|-----|---|
| 1 | Determine job | 1.1 | Follow standard operating procedures (SOPs) |
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Elements describe the essential outcomes.

requirements

Performance criteria describe the performance needed to demonstrate achievement of the element.

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| | | 1.2 | Comply with work health and safety (WHS) requirements at all times |
| | | 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs |
| | | 1.4 | Identify job requirements from specifications, drawings, job sheets or work instructions |
| 2 | Assess lubrication system operation | 2.1 | Identify lubrication system and lubricant specifications prior to any testing |
| | | 2.2 | Undertake system checks safely and to prescribed procedures |
| | | 2.3 | Assess lubrication system operation, including condition and appropriateness of lubricant fluid, integrity of lubrication system and condition of components |
| | | 2.4 | Determine flows, pressures and temperatures and record |
| | | 2.5 | Identify leaks and any sources of contamination |
| | | 2.6 | Isolate faults to component level using test equipment and determine appropriate corrective action |
| | | 2.7 | Evaluate results of spectrographic or laboratory analysis and make recommendations regarding adjustments to future maintenance activities |
| | | 2.8 | Assess auxiliary lubrication systems for correct operation |
| 3 | Rectify faulty components | 3.1 | Determine component wear and clearances using appropriate test equipment and manufacturer recommendations |
| | | 3.2 | Select replacement components using manufacturers' data |
| | | 3.3 | Remove components and refit to engine |
| | | 3.4 | Make final adjustments that bring system in line with specifications |

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

3.5 Record test and rectification activities

3.6 Ensure engine is free of lubricant leaks after rectification work is carried out

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Faults include one (1) or more of the following:

- low or high pressure
- low or high temperature
- contamination
- excessive or too little consumption/flow
- leaks
- use of incorrect lubricant

Test equipment includes one (1) or more of the following:

- pressure/temperature gauges
- flow meters

Adjustments include setting one (1) or more of the following valves to specified pressures or flows:

- bypass
- regulating
- relief

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM18028B Maintain engine lubrication systems

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>