



**Australian Government**

# **MEM27032 Service combustion engines**

**Release: 1**

# MEM27032 Service combustion engines

## Modification History

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

## Application

This unit of competency defines the skills and knowledge required to check and assess engine consumable fluids and components for serviceability, perform the service procedures and report what has been carried out.

Servicing activities include obtaining and dispatching samples for spectrographic or laboratory analysis.

Where interpretation of technical drawings is required unit MEM09002 Interpret technical drawing should also be selected.

Where the selection and use of engineering measurement is required unit MEM12023 Perform engineering measurements should also be selected.

Where the selection and use of power tools/hand held operations is required unit MEM18002 Use power tools/hand held operations should also be selected.

This unit should not be selected if unit MEM18055 Dismantle, replace and assemble engineering components has already been selected.

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

**Band: A**

**Unit Weight: 2**

## Pre-requisite Unit

MEM11011	Undertake manual handling
MEM13015	Work safely and effectively in manufacturing and engineering
MEM16006	Organise and communicate information
MEM18001	Use hand tools

## Competency Field

Maintenance and diagnostics

## Elements and Performance Criteria

Elements describe the essential outcomes.

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

- |   |  |     |   |
|---|--|-----|---|
| 1 | <b>Determine job requirements</b>                | 1.1 | Follow standard operating procedures (SOPs)   |
|   |  | 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, job sheets or work instructions  |
| 2 | <b>Check and assess items for serviceability</b> | 2.1 | Assess engine consumable fluids and components for correct condition  |
|   |  | 2.2 | Identify replacement fluids/items using manufacturers' data   |
|   |  | 2.3 | Identify abnormal appearance/condition of engine consumables fluids and components and report to appropriate authority                                  |
|   |  | 2.4 | Apply lubricant, cooling system additives and filtering principles in checking and assessing items for serviceability                                   |
| 3 | <b>Perform servicing procedures</b>              | 3.1 | Drain, flush and replace engine fluids with correct fluid and/or additives to the correct level/concentration according to manufacturer recommendations |
|   |  | 3.2 | Remove engine consumable components and replace according to manufacturer recommended procedures  |
|   |  | 3.3 | Ensure engine is free of lubricant, water and air leaks after servicing work  |
|   |  | 3.4 | Secure hoses, wiring and ducts and keep clear of moving parts after servicing work, where required  |
|   |  | 3.5 | Make minor running adjustments to specification   |
|   |  | 3.6 | Obtain test samples of fluids from system as determined by SOPs   |
|   |  | 3.7 | Record servicing activities on report sheet/proforma, or provide accurate oral report   |

## 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.

**Engine consumable fluids and components include one (1) or more of the following:**

- filters
- coolants
- lubricants
- hydraulic and other fluids
- additives
- simple drive belts
- coolant hoses

**Running adjustments include one (1) or more of the following:**

- belt tensions
- shroud clearances

## Unit Mapping Information

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## Links

Companion Volume implementation guides are found in VETNet -

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