



Australian Government

MEM27003 Overhaul engine fuel system components

Release: 1

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Modification History

Release 1. Supersedes and is equivalent to MEM18027C Overhaul engine fuel system components

Application

This unit of competency defines the skills and knowledge required to recondition and reinstall fuel system components on large stationary or mobile diesel engines.

It includes removal and cleaning of fuel system components, assessing components for wear and defects, deciding whether a component should be reconditioned or replaced, reinstallation of reconditioned components in engines and testing of reconditioned components for effective operation.

Where breakdown testing and repair of compression ignition systems is required, unit MEM27002 Test and repair compression ignition systems should also be selected.

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

Band: A

Unit Weight: 8

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.

- | | |
|-------------------------------------|---|
| 1 Determine job requirements | <ul style="list-style-type: none">1.1 Follow standard operating procedures (SOPs)1.2 Comply with work health and safety (WHS) requirements at all times1.3 Use appropriate personal protective equipment (PPE) in accordance with SOPs1.4 Identify job requirements from specifications, drawings, job sheets or work instructions |
| 2 Clean and assess parts | <ul style="list-style-type: none">2.1 Disassemble components, including the use of specialised tools, according to manufacturer recommendations2.2 Assess fuel system components visually for abnormal wear or defects2.3 Interpret characteristics of surface finishes and wear patterns associated with fuel system components2.4 Decide whether components should be reconditioned or discarded and replaced using knowledge of fuel system and control functions, characteristics and applications2.5 Select appropriate cleaning method/solution and procedures2.6 Make parts identifiable according to their original location in the pump/injector and protect and store as required for reassembly2.7 Obtain and interpret measurements and part condition when determining reuse/replacement |
| 3 Recondition and | <ul style="list-style-type: none">3.1 Recondition and replace components identified as faulty |

Elements describe the essential outcomes.

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

set up equipment

- 3.2 Assemble components according to manufacturer specifications
- 3.3 Use test equipment to test components and set fuel system to specifications
- 3.4 Record reconditioning of components according to workplace procedures

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.

- Fuel system types include one (1) or more of the following:**
- port and helix
 - sleeve metering
 - unit injection
 - distributor
 - pressure/time

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>

