



Australian Government

MEM18021 Maintain hydraulic systems

Release: 2

MEM18021 Maintain hydraulic systems

Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM18021 Maintain hydraulic systems (Release 1).

Release 1. Supersedes and is equivalent to MEM18021B Maintain hydraulic systems.

Application

This unit of competency defines the skills and knowledge required to undertake preventive maintenance checks/adjustments on hydraulic systems, and fault-find, replace, repair or overhaul and recommission hydraulic systems.

Where the skills and knowledge required relate to mobile plant in agriculture, forestry, rail, marine and other transport operations unit MEM27017 Maintain, fault find and rectify hydraulic systems for mobile plant should be selected.

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

Band: B

Unit Weight: 4

Pre-requisite Unit

MEM09002	Interpret technical drawing
MEM11011	Undertake manual handling
MEM12023	Perform engineering measurements
MEM12024	Perform computations
MEM13015	Work safely and effectively in manufacturing and engineering
MEM14006	Plan work activities
MEM16006	Organise and communicate information
MEM18001	Use hand tools
MEM18002	Use power tools/hand held operations
MEM18003	Use tools for precision work
MEM18006	Perform precision fitting of engineering components

MEM18020	Maintain hydraulic system components
MEM18055	Dismantle, replace and assemble engineering components

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 Determine job requirements	<table><tr><td>1.1</td><td>Follow standard operating procedures (SOPs)</td></tr><tr><td>1.2</td><td>Comply with work health and safety (WHS) requirements at all times</td></tr><tr><td>1.3</td><td>Use appropriate personal protective equipment (PPE) in accordance with SOPs</td></tr><tr><td>1.4</td><td>Identify job requirements from specifications, drawings, job sheets or work instructions</td></tr></table>	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, drawings, job sheets or work instructions
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2 Undertake preventative maintenance checks/adjustments on hydraulic systems	<table><tr><td>2.1</td><td>Identify system components, assemblies or sub-assemblies and prepare for inspection/preventative maintenance</td></tr><tr><td>2.2</td><td>Carry out visual inspection and testing with appropriate test equipment according to fluid power principles, procedures and safety requirements</td></tr><tr><td>2.3</td><td>Perform scheduled preventive maintenance tasks, including obvious repairs and adjustments, according to manufacturers' specifications using fluid power techniques/practices</td></tr></table>	2.1	Identify system components, assemblies or sub-assemblies and prepare for inspection/preventative maintenance	2.2	Carry out visual inspection and testing with appropriate test equipment according to fluid power principles, procedures and safety requirements	2.3	Perform scheduled preventive maintenance tasks, including obvious repairs and adjustments, according to manufacturers' specifications using fluid power techniques/practices		
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3 Undertake fault finding on hydraulic systems	<table><tr><td>3.1</td><td>Identify designated hydraulic system components and carry out a visual inspection of the system for the collection of fault-finding data</td></tr><tr><td>3.2</td><td>Consult system operator and collect additional data,</td></tr></table>	3.1	Identify designated hydraulic system components and carry out a visual inspection of the system for the collection of fault-finding data	3.2	Consult system operator and collect additional data,				
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Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element. where appropriate	
		3.3	Check maintenance reports and preventative maintenance schedules and review for additional fault-finding data
		3.4	Undertake checks and tests
		3.5	Identify and verify faults and malfunctions
		3.6	Document or report faults and malfunctions to designated personnel using appropriate procedures
4	Repair and/or rectify hydraulic system	4.1	Isolate system or sub-assembly and discharge residue pressure safely in accordance with prescribed procedure and check for correct isolation
		4.2	Tag isolated system or sub-assembly according to SOPs
		4.3	Remove components or sub-assembly from system
		4.4	Dismantle components or sub-assemblies, examine and verify for replacement, repair or overhaul
		4.5	Select replacement items from appropriate sources
		4.6	Rectify faulty items
		4.7	Refit component or sub-assembly items to equipment and test for correct operation against specifications
5	Recommission hydraulic system	5.1	Recommission system or sub-assembly according to prescribed procedures and specifications
		5.2	Verify correct operation of the system using fluid power principles and system application techniques
		5.3	Instigate appropriate follow-up procedures
		5.4	Update maintenance records/service reports

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.

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

- leak testers
- escape rate gauges
- hand held pressure testers
- other appropriate equipment

Rectify includes one (1) or more of the following:

- replacement
- repair and/or reuse of components

Unit Mapping Information

Release 2. Supersedes and is equivalent to MEM18021 Maintain hydraulic systems (Release 1).

Release 1. Supersedes and is equivalent to MEM18021B Maintain hydraulic systems.

Links

Companion Volume implementation guides are found in VETNet -

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