



Australian Government

MEM27015 Diagnose and rectify drive line and final drives

Release: 1

MEM27015 Diagnose and rectify drive line and final drives

Modification History

Release 1. Supersedes and is equivalent to MEM18044C Diagnose and rectify drive line and final drives

Application

This unit of competency defines the skills and knowledge required to assess drive line and final drive operation, and repair or replace faulty components.

Testing and assessment of performance would typically require operation of plant and equipment. A licence may be required and users should check with the relevant authorities.

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

Band: A

Unit Weight: 4

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 requirements | 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 |
| | | | |
| 2 | Assess drive line and final drive operation | 2.1 | Apply operating principles of universal and constant velocity joints, conventional/limited slip and locking, differential action and reduction systems, and conventional/swing axle to assess operation of the drive line and final drive assemblies |
| | | 2.2 | Obtain and interpret relevant information prior to any testing |
| | | 2.3 | Undertake preliminary checks safely to prescribed procedures |
| | | 2.4 | Isolate faults to component level and determine appropriate corrective action |
| | | 2.5 | Use test equipment in accordance with SOPs |
| | | 2.6 | Assess component parts for reuse, repair or replacement |
| | | | |
| 3 | Repair/replace 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 and refit components to driveline and final drive assemblies using appropriate tools, equipment and techniques |
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Elements describe the essential outcomes.

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

- 3.4 Make adjustments using appropriate tooling/equipment and manufacturers' data
- 3.5 Verify drive line and final drive assemblies are free of excessive noise and operate to specification after work is carried out
- 3.6 Record all test and repair/replacement activities

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 and rectification activities are associated with one (1) or more of the following used in conventional and all-wheel drive equipment:

- wheeled plant/vehicles
- tracked plant/vehicles
- drive line assemblies
- final drive assemblies

Reduction systems include one (1) or more of the following:

- single reduction carrier
 - double reduction carrier
 - hub reduction
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Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM18044C Diagnose and rectify drive line and final drives

Links

Companion Volume implementation guides are found in VETNet -

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