



Australian Government

Assessment Requirements for AURLTD004 Diagnose and repair light vehicle steering systems

Release: 1

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Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- diagnose and repair a fault in a light vehicle power-assisted rack and pinion steering assembly
- diagnose and repair a fault in a light vehicle power steering pump
- diagnose and repair a fault in one of the following light vehicle steering components:
 - power steering hose
 - tie-rod end.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to diagnosing and repairing light vehicle steering systems, including procedures for working with high pressure and high temperature steering systems
- environmental requirements, including procedures for trapping, storing and disposing of power steering hydraulic fluid released from steering systems
- operating principles of light vehicle steering systems and associated components, including:
 - manual steering systems
 - power steering systems
- application, purpose and operation of the following components of light vehicle steering systems and components, including:
 - steering wheels, including clock springs
 - steering columns

- manual steering systems, including:
 - rack and pinion
 - steering boxes
- hydraulic power steering systems, including:
 - integral piston
 - power assisted rack and pinion
 - electronically controlled power steering systems
- electric steering systems, including steering angle sensors
- identification, function and basic operating principles of steering angles, including:
 - steering angles:
 - toe-in and toe-out
 - toe-out on turns
 - caster
 - camber
 - Ackermann principle of steering
 - steering axis inclination
- diagnostic testing procedures for light vehicle steering systems, including:
 - operational testing
 - hydraulic steering system testing
 - electronic and load sensing steering testing
 - analysing component wear analysis
- repair procedures for light vehicle steering systems, including procedures for removing, replacing and adjusting the systems
- post-repair testing procedures for light vehicle steering systems.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to the light vehicle steering systems that they have worked on, e.g. repair orders.

Assessors must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- automotive repair workplace or simulated workplace
- workplace instructions
- manufacturer steering system specifications

- one light vehicle with faults in its power-assisted rack and pinion steering system
- diagnostic equipment for light vehicle steering systems
- tools, equipment and materials appropriate for diagnosing and repairing light vehicle steering systems.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

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