



Australian Government

**Assessment Requirements for AURLTD104
Diagnose and repair light vehicle steering
systems**

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with AUR Automotive Retail, Service and Repair Training Package Version 6.0

Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- diagnose and repair a fault in a light vehicle in:
 - a power-assisted rack and pinion steering assembly
 - a power steering pump
 - at least one of the following steering components:
 - power steering hose
 - tie-rod end
- carry out a diagnostic test in the course of the above for at least one of the following faults:
 - leaking seals or hoses
 - low power steering fluid levels
 - worn components.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- methods to locate and interpret information required to diagnose and repair light vehicle steering systems, including:
 - information provided by customers and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair light vehicle steering systems, including:
 - establishing serviceability of tools and equipment
 - documentation procedures
 - housekeeping procedures, including:

- examination of tools and equipment
- storage of equipment
- identification, tagging and isolation of faulty equipment
- disposal of excess materials
- recycling procedures
- workplace health and safety (WHS) requirements relating to diagnosing and repairing light vehicle steering systems, including procedures for working with high pressure and high temperature steering systems
- environmental requirements relating to diagnosing and repairing light vehicle steering systems
- operating principles of light vehicle steering systems, including:
 - manual steering systems
 - power steering systems
- purpose and operation 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 procedures for analysing:
 - operational testing
 - hydraulic steering system testing
 - electronic and load sensing steering testing
 - 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

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.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links

Companion Volume Implementation Guide is found on VETNet -

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