



**Australian Government**

**Assessment Requirements for AURHTD102  
Diagnose and repair heavy vehicle steering  
systems**

**Release: 1**

# Assessment Requirements for AURHTD102 Diagnose and repair heavy vehicle steering systems

## 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 at least one of the following heavy commercial vehicle steering systems:
  - electronically assisted steering
  - hydraulic power assisted steering
- diagnose and repair a fault in at least three of the following heavy commercial vehicle steering components:
  - power steering pump
  - hydraulic valves
  - electronic valves
  - tie rods and linkages
  - king pin
  - front wheel bearings.

## 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 heavy vehicle steering systems, including:
  - information provided by customers and supervisors
  - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair heavy 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 heavy vehicle steering systems, including procedures for working with high pressure steering systems
- environmental requirements relating to diagnosing and repairing heavy vehicle steering systems, including procedures for trapping, storing and disposing of power steering hydraulic fluid released from steering systems
- purpose and operation of heavy vehicle steering systems and components, including:
  - manual steering systems, including:
    - steering box
    - steering column
    - tie rods and linkages
    - king pins
    - wheel bearings
  - hydraulic power assisted steering systems, including:
    - integral piston steering box
    - power steering pump
    - hydraulic valves
    - electronic valves
    - twin axle steering systems
    - electronically assisted steering systems
- identification, function and basic operating principles of steering angles, including:
  - toe-in and toe-out
  - toe-out on turns
  - caster
  - camber
  - Ackermann principle of steering
  - steering axis inclination
- diagnostic testing procedures for heavy vehicle steering systems, including procedures for analysing:
  - operational testing
  - hydraulic steering system testing
  - analysing component wear analysis
- repair procedures for heavy vehicle steering systems, including procedures for removing, replacing and adjusting:
  - power steering pump

- steering box
- steering column
- king pin
- electronically assisted steering
- tie rods and linkages
- wheel bearings
- post-repair testing procedures for heavy commercial 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 heavy commercial vehicle steering systems or components 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
- heavy commercial vehicle with faults in the power assisted steering systems and components specified in the performance evidence
- diagnostic equipment for heavy commercial vehicle steering systems
- tools, equipment and materials appropriate for repairing and adjusting heavy 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>