



**Australian Government**

**Assessment Requirements for AURHTD103  
Diagnose and repair heavy vehicle  
suspension systems**

**Release: 1**

# Assessment Requirements for AURHTD103 Diagnose and repair heavy vehicle suspension 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:
  - the following two heavy commercial vehicle suspension systems:
    - leaf spring suspension
    - air spring suspension
  - at least one of the following heavy commercial vehicle suspension systems:
    - equaliser beam suspension
    - torsion bar suspension
    - electronically controlled suspension.

## 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 suspension systems including:
  - information provided by customers and supervisors
  - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair heavy vehicle suspension 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 suspension systems, including identifying hazards and controlling risks associated with:
  - working with stored energy in spring, air springs, and torsion bars, including procedures for working with suspension components under tension
  - lifting, supporting and manual handling heavy suspension systems
- environmental requirements relating to diagnosing and repairing heavy vehicle suspension systems
- principles of heavy vehicle suspension systems and associated components, including:
  - rigid and independent suspensions
  - sprung and unsprung mass
  - ride height
  - spring dampers
  - spring types
- purpose and operation of heavy vehicle suspension systems and components, including:
  - air spring suspension
  - leaf spring suspension
  - front suspension
  - rear suspension, including single and tandem axle
  - equaliser beam suspension
  - torsion bar suspension
  - electronically controlled suspension
- equipment for diagnostic testing procedures, including scan tools
- diagnostic testing procedures for heavy vehicle suspension systems, including procedures for analysing:
  - component wear
  - checking axle alignment
  - checking fluid leaks
  - checking air leaks
  - checking ride height
  - control system tests
- repair procedures for heavy vehicle suspension systems, including procedures for:
  - removing, repairing and replacing suspension components, and springs and spring dampers
  - aligning axles
- post-repair testing procedures for heavy vehicle suspension 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 vehicle suspension 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 suspension system specifications
- heavy commercial vehicles with faults in the different suspension systems listed in the performance evidence
- diagnostic equipment for heavy commercial vehicle suspension systems
- tools, equipment and materials appropriate for repairing and adjusting heavy commercial vehicle suspension 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>