



**Australian Government**

**Assessment Requirements for AURHTY102  
Diagnose and repair mechanical  
connections of heavy vehicles and trailers  
over 4.5 tonnes**

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## **Assessment Requirements for AURHTY102 Diagnose and repair mechanical connections of heavy vehicles and trailers over 4.5 tonnes**

### **Modification History**

| <b>Release</b> | <b>Comments</b>                                                                                         |
|----------------|---------------------------------------------------------------------------------------------------------|
| 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 two of the following mechanical connections of a heavy vehicle and trailer:
  - fifth wheel assembly
  - king pins and upper couplers
  - pintle hook and drawbar
  - landing gear
- diagnose and repair a fault in both of the following:
  - electrical connections of a heavy vehicle and trailer
  - pneumatic connection of a heavy vehicle and trailer.

In the course of the above work, the candidate must:

- check for slack in the fifth wheel operation when connected to a trailer
- inspect top plate and brackets for cracks
- inspect the fifth wheel and mounting plate welds
- check fifth wheel operation using a lock tester.

### **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 mechanical connections of heavy vehicles and trailers over 4.5 tonnes, including:
    - information provided by customers and supervisors
    - manufacturer specifications and procedures or equivalent documentation
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- workplace procedures required to diagnose and repair mechanical connections of heavy vehicles and trailers over 4.5 tonnes, 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 mechanical connections of heavy vehicles and trailers over 4.5 tonnes, including procedures for:
    - lifting and supporting heavy vehicles and trailers
    - safely manoeuvring heavy vehicles and trailers
  - environmental requirements relating to diagnosing and repairing mechanical connections of heavy vehicles and trailers over 4.5 tonnes, including procedures for safely handling and disposing of lubricants
  - purpose and operation of mechanical connections of heavy vehicles and trailers over 4.5 tonnes, including:
    - fifth wheel assemblies
    - king pins and upper couplers
    - pintle hook and drawbar
    - landing gear
    - electrical connections
    - pneumatic connections
  - types and applications of fifth wheel lubricants
  - diagnostic testing procedures for mechanical connections of heavy vehicles and trailers over 4.5 tonnes, including:
    - checking for slack in the fifth wheel operation when connected to a trailer
    - inspecting top plate and brackets for cracks
    - inspecting the fifth wheel and mounting plate welds
    - checking fifth wheel operation using a lock tester
    - testing electrical connections
    - testing pneumatic connections
  - repair and adjustment procedures for mechanical connections of heavy vehicles and trailers over 4.5 tonnes, including:
    - fifth wheel assembly
    - king pins and upper couplers
    - pintle hook and drawbar
    - landing gear
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- electrical connections
  - pneumatic connections
  - post-repair testing procedures for mechanical connections of heavy vehicles and trailers over 4.5 tonnes.

## **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 mechanical connections of heavy vehicles and trailers 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 mechanical connection specifications
- two different heavy vehicle and trailer mechanical connections with faults
- lubricating equipment for mechanical connections of heavy vehicles and trailers
- tools, equipment and materials appropriate for repairing and adjusting mechanical connections of heavy vehicles and trailers.

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>

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