



**Australian Government**

**Assessment Requirements for AURLTQ101  
Diagnose and repair light vehicle final drive  
assemblies**

**Release: 1**

# Assessment Requirements for AURLTQ101 Diagnose and repair light vehicle final drive assemblies

## 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 both of the following light vehicle final drive assemblies:
  - removable carrier housing (banjo) type
  - integral carrier housing type
- carry out a diagnostic test in the course of the above for at least one of the following faults:
  - abnormal system noise
  - worn components
  - contaminated differential fluid.

## 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 final drive assemblies, including:
  - information provided by customers and supervisors
  - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair light vehicle final drive assemblies, 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 final drive assemblies, including procedures for working with hazardous oils
- environmental requirements relating to diagnosing and repairing light vehicle final drive assemblies, including procedures for trapping, storing and disposing of oils released from final drive assemblies
- operating principles of light vehicle final drive assemblies and associated components, including:
  - final drive gears, including:
    - gear types
    - gear ratios and torque reduction and multiplication
  - differential function
- purpose and operation of light vehicle final drive assemblies and components, including:
  - removable carrier housing (banjo) type final drives
  - integral carrier housing type final drives
  - transaxle final drives
  - differentials, including limited slip differentials
  - axle shafts for rigid axles, including:
    - semi floating live axles
    - three quarter floating live axles
    - fully floating live axles
- diagnostic testing procedures for light vehicle final drive assemblies, including procedures for:
  - road testing procedures, including:
    - final drive assembly noise diagnostic
    - wheel bearing noise diagnostic
  - pre-dismantling inspection procedures
- repair procedures for light vehicle final drive assemblies, including procedures for:
  - dismantling final drive assemblies
  - inspecting final drive assemblies
  - reassembling and adjusting pinion depth, pinion bearing preload, crown wheel and pinion backlash, side bearing preload and crown wheel and pinion tooth contact
  - repairing wheel bearings of rear wheel drive light vehicles
- post-repair testing procedures for light vehicle final drive assemblies.

## 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 final drive assemblies 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 light vehicle final drive assembly specifications
- two different light vehicles:
  - one with faults in its removable carrier housing (banjo) type final drive assembly
  - one with faults in its integral carrier housing type final drive assembly
- diagnostic equipment for light vehicle final drive assemblies
- tools, equipment and materials appropriate for light vehicle final drive assemblies.

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>