



Australian Government

Assessment Requirements for AURKTQ101 Diagnose and repair mobile plant final drive assemblies

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 faults in at least two mobile plant final drive assemblies as follows:
 - at least one differential carrier assembly
 - at least one of the following final drive assemblies:
 - double reduction
 - planetary final drive
 - chain drive.

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 mobile plant final drive assemblies, including:
 - information provided by customers and supervisors
 - manufacturer specifications and procedures or equivalent documentation
- workplace procedures required to diagnose and repair mobile plant 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 mobile plant final drive assemblies, including procedures for isolating and stabilising machinery
- environmental requirements relating to diagnosing and repairing mobile plant final drive assemblies, including procedures for trapping, storing and disposing of oils and fluids released from final drive assemblies
- operating principles of mobile plant final drive assemblies and associated components, including:
 - final drive gears, including:
 - gear types and specific lubrication requirements
 - gear ratios and torque reduction and multiplication
 - differential function
 - chain drives
- purpose and operation of mobile plant final drive assemblies and components, including:
 - differential carrier
 - limited slip, no-spin and differential lock
 - double reduction
 - planetary final drive
 - chain drive
- diagnostic testing procedures for mobile plant final drive assemblies, including:
 - sources of fluid leaks
 - abnormal final drive vibration, noises and operation
 - pre-dismantling inspection procedures
- repair procedures for mobile plant final drive assemblies, including procedures for:
 - dismantling final drive assemblies
 - inspecting final drive assemblies
 - reassembling and adjusting the following components:
 - pinion depth
 - pinion bearing preload
 - crown wheel and pinion backlash
 - side bearing preload
 - crown wheel and pinion tooth contact
 - chain drive system
- post-repair testing procedures for mobile plant 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 mobile plant 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 mobile plant final drive assembly specifications
- two different mobile plant with the final drive assemblies specified in the performance evidence
- diagnostic equipment for mobile plant final drive assemblies
- tools, equipment and materials appropriate for repairing and adjusting mobile plant 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>