



Australian Government

**Assessment Requirements for AURKTQ001
Diagnose and repair mobile plant final
drive assemblies**

Release: 1

Assessment Requirements for AURKTQ001 Diagnose and repair mobile plant final drive assemblies

Modification History

Release	Comment
Release 1	New unit of competency.

Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

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

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to diagnosing and repairing mobile plant final drive assemblies, including procedures for isolating and stabilising machines
- environmental requirements, 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 their:
 - final drive gears, including:
 - gear types and specific lubrication requirements
 - gear ratios and torque reduction and multiplication
 - differential function
 - chain drives
- application, 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:
 - pinion depth, pinion bearing preload, crown wheel and pinion backlash, side bearing preload, and crown wheel and pinion tooth contact
 - chain drive system
- post-repair testing procedures for mobile plant final drive assemblies.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

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.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

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