



Australian Government

Assessment Requirements for AURTTQ004 Overhaul final drive assemblies

Release: 1

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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:

- overhaul three different final drive assemblies, one of which must include a limited slip final drive assembly.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) procedures relating to overhauling final drive assemblies, including procedures for using:
 - specialised final drive assembly overhaul tools, equipment and machinery
 - chemicals and toxic substances
 - manual and mechanical lifting equipment
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from final drive assemblies
- types, characteristics and operating principles of final drive assemblies, including limited slip differentials
- final drive assembly overhaul procedures, including:
 - methods for cleaning and preparing final drive assemblies for overhaul
 - final drive dismantling procedures
 - final drive component inspection, measuring and evaluation procedures, including:
 - non-destructive testing procedures, including dye penetrant testing and magnetic particle testing
 - measuring crown wheel run-out and differential case assembly side play
 - measuring ring gear mounting surface run-out

- measuring limited slip differential components
- final drive component repair and adjustment procedures, including:
 - bearings and shims
 - collapsible spacers
 - limited slip differential components
- final drive assembly procedures, including procedures for adjusting component tolerances, including:
 - pinion gear depth
 - pinion bearing preload
 - crown wheel and pinion backlash
 - side bearing preload
 - obtaining and interpreting pinion to crown wheel contact pattern
 - adjustment procedures to gain correct contact pattern
- post-overhaul testing procedures for 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 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:

- mechanical repair workplace or simulated workplace
- workplace instructions
- manufacturer final drive assembly specifications
- three different final drive assemblies requiring overhaul
- tools, equipment and materials appropriate for overhauling and adjusting 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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