



Australian Government

Assessment Requirements for AURTTX008 Overhaul manual transmissions

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 manual transmissions, one of which must include a transaxle transmission.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to overhauling manual transmissions, including procedures for using:
 - specialised manual transmission 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 manual transmissions
- types, characteristics and operating principles of manual transmissions, including transaxles and conventional transmissions
- manual transmission overhaul procedures, including:
 - methods for cleaning and preparing manual transmissions for overhaul
 - transmission dismantling procedures
 - transmission component inspection, measuring and evaluation procedures, including:
 - non-destructive testing procedures, including dye penetrant testing and magnetic particle testing
 - assessing transmission case damage and alignment to engine

- measuring tolerances and clearances of components, including extension housing seal and bushing, bearings, gear wear and damage, synchroniser units and baulk rings, shift rails and forks, detents and interlock systems, and input, main, counter and output shafts
- transmission component repair and adjustment procedures, including:
 - bearings and shims
 - seals and bushings
 - speedometer drive gears
- transmission assembly procedures, including procedures for adjusting component tolerances, including:
 - bearing preload
 - shaft end float
 - final drive bearing preload
- post-overhaul testing procedures for manual transmissions.

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 manual transmissions 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 manual transmission specifications
- three different manual transmissions requiring overhaul, one of which must be a transaxle
- tools, equipment and materials appropriate for overhauling and adjusting manual transmissions.

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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