



Australian Government

Assessment Requirements for AURTTW003 Carry out machining operations

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:

- carry out machining operations on both ferrous and non-ferrous materials, using two of the following machines:
 - lathe
 - mill
 - surface grinder.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to carrying out machining operations, including operational risk assessment and treatments associated with:
 - electrical safety of machinery
 - machinery movement and operation
- basic machining procedures, including:
 - sharpening and shaping tools
 - identifying worn and damaged cutting tools
 - mounting and positioning cutting tools
 - setting machining parameters to achieve job requirements and maximise tool life, including speeds and feeds
 - types and application of coolants and lubricants
 - measuring to specified tolerances and dimensions
- procedures for machining using a lathe, mill and surface grinder, including:

- clamping and mounting work pieces
- setting speeds and feeds
- machining ferrous and non-ferrous materials
- requirements of Australian standards relevant to engine reconditioning, including:
 - AS4182 Automotive repairs – Code of practice for reconditioning reciprocating spark ignition engines
 - AS4427 Automotive repairs – Code of practice for reconditioning reciprocating compression ignition engines.

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 machining operations that they have carried out, 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 detailing work requirements, including work specifications
- AS4182 Automotive repairs – Code of practice for reconditioning reciprocating spark ignition engines
- AS4427 Automotive repairs – Code of practice for reconditioning reciprocating compression ignition engines
- machinery as specified in the performance evidence
- precision measuring equipment, including inside and outside metric and imperial micrometers
- ferrous and non-ferrous material relevant to carrying out machining operations.

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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