



Australian Government

Assessment Requirements for AURTTTC001 Inspect and service cooling systems

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:

- inspect and service the cooling systems of two different vehicles or machinery
- undertake post-service testing of above systems, which must include:
 - pressure testing
 - testing and adjusting coolant additives.

Knowledge Evidence

- Individuals must be able to demonstrate knowledge of:
- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to inspecting and servicing cooling systems, including procedures for working with:
 - hot pressurised cooling systems
 - rotating fans, belts and pulleys
 - coolant additives
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from cooling systems
- identification, function and basic operation of liquid cooling system, including:
 - engine coolant additives
 - water pumps
 - filters
 - thermostats
 - mechanical, hydraulic and electric fans
 - radiators and radiator caps

- heater core and heater valve
- expansion tanks
- heat exchangers
- core plugs
- hoses
- drive belts
- temperature sensors and gauges
- keel cooling, heat exchanger, raw water cooling and sacrificial anodes
- identification, function and basic operation of air cooling system, including:
 - cooling system controls, fans, fins and cowlings
- types, quantities and applications of coolant additives, including coolant concentration
- inspection procedures for cooling systems, including:
 - coolant concentration test
 - transient voltage test
 - cooling system components
 - cooling system pressure testing
- service and adjustment procedures for cooling systems, including:
 - system cleaning
 - coolant replacement
 - cooling system bleeding
- post-service testing procedures for cooling systems.

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 cooling systems 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 cooling system specifications
- two different vehicles or machinery with cooling systems requiring servicing
- cooling system test equipment
- tools, equipment and materials appropriate for inspecting and servicing cooling systems.

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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