



**Australian Government**

**Assessment Requirements for AURRTE008  
Install marine engines, controls and  
instruments**

**Release: 1**

# Assessment Requirements for AURRTE008 Install marine engines, controls and instruments

## 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:

- install and test prior to placing in service:
  - three different marine engines
  - the marine engine controls of the above engines
  - the marine instruments of the above engines.

## Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to installing marine engines, controls and instrumentation, including lifting and supporting procedures for marine engines
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from engines
- construction and operating principles of inboard and outboard engines, controls and instruments
- procedures for installing inboard engines, controls and instruments into vessels, including:
  - assessing engine bed dimensions, strength and material to suit engine size and power
  - measuring engine position and determining propeller or input shaft alignment
  - evaluating transom to ensure it suits engine manufacturer requirements, including:
    - measuring transom thickness, parallelism, angle and surface flatness
    - assessing transom condition
  - cutting and sealing transom cut-out to suit stern drive application
  - sealing transom plate to transom

- positioning, aligning and fastening front engine mounts
- lifting, supporting and manoeuvring engine
- checking and adjusting final alignment of engine
- procedures for installing outboard engine, controls and instruments to vessels, including:
  - ensuring engine meets vessel specifications
  - determining engine position according to centre line and height
  - sealing transoms
- procedures for testing the installation of inboard and outboard engines, controls and instruments in vessels, including checking for water leaks, fuel and oil leaks
- commissioning procedures for inboard and outboard engines, controls and instruments, including testing vessels under normal operating conditions.

## 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 engines, controls and instruments that they have installed in vessels, 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:

- marine repair workplace or simulated workplace
- workplace instructions
- manufacturer engine, controls and instrument specifications
- three different vessels requiring installation of engines, controls and instruments
- tools, equipment and materials appropriate for installing marine engines, controls and instruments.

## 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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