Australian Government

Assessment Requirements for AURRTX005 Analyse and evaluate faults in light marine transmission 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:

- analyse and evaluate a fault in the transmission systems of three different light marine vessels
- the above analysis and evaluation must involve two of the following systems:
  - stern drive
  - inboard shaft
  - 'V' drive
  - outboard transmission
  - counter rotating outboard propellers
  - jet drive.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- work health and safety (WHS) and occupational health and safety (OHS) requirements relating to analysing and evaluating faults in light marine transmission systems, including procedures for working with inboard propeller drive systems and rotating shafts
- environmental requirements, including procedures for trapping, storing and disposing of fluids released from transmissions
- principles and processes involved in planning and implementing analysis and evaluation of light marine transmission system faults
- design and planning of diagnostic procedures of light marine transmission systems
- types, functions, operation and limitations of light marine transmission systems, including:

  - stern drives, inboard shaft and 'V' drives, outboard transmissions, jet drives, and drivelines
  - shift controls
  - counter rotating outboard propellers
- vessel systems and their impact on light marine transmission system operation, including on engine and shaft alignment for inboard and stern drive installations
- testing procedures for light marine transmission systems, including:
  - engine and shaft alignment for inboard and stern drive installations
  - propeller matching
- types, functions, operation and limitations of diagnostic testing equipment required to analyse and evaluate faults in light marine transmission systems
- procedures for documenting and reporting the analysis and evaluation process
- requirements of Australian Design Rules (ADRs) relating to light marine transmission 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 light marine transmission 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:

- marine repair workplace or simulated workplace
- workplace instructions
- manufacturer transmission system specifications
- three different light marine vessels with faults in the transmission systems specified in the performance evidence
- diagnostic equipment for light marine transmission systems
- tools, equipment and materials appropriate for analysing and evaluating light marine transmission 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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