



Australian Government

**Assessment Requirements for MARC038
Operate main propulsion unit and auxiliary
systems**

Release: 1

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Modification History

Release 1. New unit of competency. Licensing/regulatory information has been incorporated in accordance with Regulatory requirements. Assessment Requirements have been strengthened in accordance with Regulatory requirements.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- carrying out pre-operational checks, including:
 - checking fuel system
 - checking leads, lines and connections
 - checking oils and lubricants
 - inspecting safety guards
- implementing safe and environmentally responsible work practices
- maintaining engine work load within specifications
- measuring and calculating volumes, consumption and servicing requirements
- monitoring noise levels for correct operation
- operating propulsion machinery and ancillary equipment
- recordkeeping
- using appropriate personal protective clothing and equipment (PPE).

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- basic operating principles of two and four-stroke engines
- environmental impacts and minimisation measures associated with operating propulsion machinery and auxiliary equipment
- environmental responsibilities
- factors associated with the safe operation of propulsion and auxiliary equipment
- hazards of refrigerant gases
- identification of components
- manufacturer specifications for operating propulsion machinery and auxiliary equipment
- operating principles and operating methods for propulsion machinery and auxiliary

equipment

- potential hazards and risks associated with operating propulsion machinery and auxiliary equipment
- potential hazards and risks involved with types of fuels, for example, petrol, diesel and liquefied petroleum gas (LPG)
- preparing for the use of propulsion machinery, auxiliary equipment and other mechanical equipment
- propulsion machinery and ancillary equipment, including:
 - ancillary equipment
 - bilge systems
 - cooling, lubricating and fuel systems
 - diesel engines
 - drive train assembly
 - low voltage electrical systems
 - machinery monitoring equipment
 - outboard engines
 - shore power leads and connections
 - steering gear
- routine checks required with the operation of propulsion machinery, auxiliary equipment and other mechanical equipment
- shore power connections and associated hazards
- use of low voltage electrical systems
- what to do in the case of malfunctions and emergencies with propulsion machinery, auxiliary equipment and other mechanical equipment
- WHS/OHS requirements and work practices.

Assessment Conditions

Assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment. As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment. Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Practical assessment must occur in a workplace, or realistic simulated workplace, under the normal range of workplace conditions. Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- a commercial vessel ≥ 5.0 m in length with propulsion power of ≥ 75 kW, or appropriate engine ashore
- applicable documentation, such as legislation, regulations, codes of practice, safety

management system, workplace procedures and operational manuals

- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) that are currently used in industry.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>