



Australian Government

**Assessment Requirements for MARC011
Manage a propulsion unit using
appropriate engine systems and support
services**

Release: 2

Assessment Requirements for MARC011 Manage a propulsion unit using appropriate engine systems and support services

Modification History

Release 2. Performance Evidence and Knowledge Evidence amended to include correct information.

Release 1. New unit of competency.

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:

- carrying out necessary calculations associated with managing propulsion unit
- communicating effectively with other personnel
- keeping records of monitoring and operation of safety and fire detection/suppression equipment, and any required remedial action
- maintaining records of operation and maintenance of propulsion unit, ancillary power units, equipment and any related safety incidents
- monitoring and evaluating performance of propulsion unit, ancillary power units and equipment
- reading and interpreting:
 - manufacturer instructions for operation of propulsion systems and auxiliary systems
 - maritime regulations, rules and instructions
- recognising problems that may occur with remote control of propulsion unit, ancillary power units and equipment, and taking appropriate preventative and remedial action
- recognising when performance of propulsion unit or ancillary power units and equipment is unsatisfactory or outside specified limits and taking appropriate action
- working collaboratively with other shipboard personnel and passengers during vessel operations.

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:

- characteristics of propulsion units, ancillary power units and equipment including operational limits, vessel stopping distances and turning circles at various draughts, speeds and conditions of loading
- dangers associated with operation of shipboard ancillary power units and related hazard prevention strategies
- marine engineering terms

- methods for controlling and managing operation of shipboard propulsion units, ancillary power units and equipment
- principles of operation and control of various shipboard emergency systems
- problems associated with remote control of propulsion unit, ancillary power units and equipment and appropriate preventative and remedial action and solutions
- procedures for monitoring and evaluating performance of propulsion unit, ancillary power units and equipment
- relevant sections of state and territory maritime regulations, National Standard for Commercial Vessels (NSCV) and Uniform Shipping Laws (USL) Code
- relationship between vessel speed and fuel consumption, including meaning of economical revolutions per minute (RPM) and its application
- relevant work health and safety (WHS)/occupational health and safety (OHS) legislation and policies
- requirements for waste management and control systems under the MARPOL Convention
- Sequence of required action when power unit becomes overloaded.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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.

Resources for assessment must include access to:

- tools, equipment, machinery, materials and personal protective equipment currently used in industry
- applicable documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- range of relevant exercises, case studies and/or simulations.

Links

Companion Volume implementation guides are found in VETNet -

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