



Australian Government

Assessment Requirements for MARB003 Service marine internal combustion engines, and propulsion and auxiliary systems

Release: 1

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Modification History

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:

- implementing safe and environmentally responsible work practices
- implementing workplace environmental and waste management procedures correctly
- reading and interpreting:
 - manufacturer specifications
 - safety data sheets (SDS)/material safety data sheets (MSDS).

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 combustion process
- basic electronic control unit and governor maintenance
- basic reverse/reduction gearbox maintenance
- basic timing diagrams
- circulating pumps and maintenance
- controllable pitch propellers maintenance
- cooling systems and cooling system maintenance
- couplings types, fittings, keys and keyways, securing nuts, locking
- environmental responsibilities, regulations and legislative requirements
- fuel systems and fuel system maintenance
- intake system and system maintenance
- instrumentation maintenance
- intermediate bearing maintenance
- lube oil:
 - system and system maintenance
 - contamination
- lubricating systems and systems maintenance
- maintenance of:
 - drive systems, belts, clutches, motors
 - hydraulic systems
 - pumping systems
 - refrigeration systems
 - sea water piping including corrosion control
 - shaft seals and rudder stock, glands and packings
 - steering systems
- marine two- and four- stroke:
 - diesel engines
 - petrol engines
- own ability and limits to rectify irregularities and faults
- principles and procedures of lubrication
- propeller and intermediate shafting alignment
- routine servicing of:
 - firefighting equipment in engine space
 - valves
- sterndrive and water jet drive units maintenance
- types, characteristics and functions of equipment/tools used in maintenance
- work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices.

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

MAR Maritime Training Package Companion Volume Implementation Guide at: -
http://companion_volumes.vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=22