



Australian Government

**Assessment Requirements for MARB012
Undertake maintenance of machinery,
machinery systems and structural
components**

Release: 1

Assessment Requirements for MARB012 Undertake maintenance of machinery, machinery systems and structural components

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:

- completing maintenance records
- developing effective planning documents
- implementing safe and environmentally responsible work practices
- managing legislative compliance and compliance records
- planning and organising application of control techniques for hull damage
- planning and preparing for maintenance including isolating equipment
- providing high quality report
- reading, interpreting and applying:
 - manufacturer instructions including all WHS/OHS requirements and safety data sheets (SDS)/material safety data sheets (MSDS)
 - operating and service manuals
- recognising damage to hull of small vessel and taking appropriate action according to operating instructions
- recognising faulty equipment including:
 - cooling water system corrosion
 - fuel oil contamination
 - lubricating oil contamination
- repairing pipe work
- selecting and using correct tools and equipment for maintenance task
- servicing valves.

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:

- appropriate mathematical procedures for estimating and measuring including calculating time to complete tasks
- back-flooding and down-flooding
- causes of vibrations and undue wear in power transmission system

- construction, layout and subdivision requirements of a typical vessel, including freeboard and bulkhead deck, watertight compartments, weather tight compartments and bulkheads of vessel
- costs of material, consumables and labour
- environmental protection requirements including safe disposal of waste material, safe use and storage of chemicals, and safe handling and storage of LPG
- environmental risks and hazards
- inspections to be undertaken on vessel hull during slipping or dry docking
- maintenance procedures and methodologies for:
 - batteries
 - cooling water systems including treatment
 - fuel systems including contamination
 - heat exchangers
 - hull maintenance including use of sacrificial anodes
 - hydraulic systems
 - lifesaving appliances
 - lubricating oil systems including contamination
 - power transmission systems
 - steering systems
 - starter motors, alternators and associated equipment
- material and stress characteristics in constructing a vessel
- methods of corrosion and how to prevent corrosion
- organisational requirements, policies and procedures for organising maintenance programs
- principal features of structure of a vessel
- procedures for recording and reporting workplace information
- types of tools and equipment, and procedures for their safe use and maintenance
- valve types and construction.

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>