



Australian Government

**Assessment Requirements for MARB020
Manage repairs and maintenance of a vessel
500 gross tonnage or more**

Release: 1

Assessment Requirements for MARB020 Manage repairs and maintenance of a vessel 500 gross tonnage or more

Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package Release 3.0.

Performance Evidence

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

- analysing current practice
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- attending to detail when completing documentation
- documenting information
- ensuring currency of relevant legislative and regulatory knowledge
- estimating resource and time requirements
- identifying potential barriers to implementing maintenance plan, analysing risks and establishing contingencies
- making decisions
- preparing appropriate reports on the outcomes of inspection and maintenance activities to ensure the seaworthiness of a vessel
- preparing docking requirements including repair lists and survey requirements
- preparing a detailed vessel maintenance plan that incorporates strategies addressing risk management, resource needs, monitoring and reporting arrangements, and quality assurance controls
- providing high quality reports
- sequencing maintenance activities logically, planning and documenting strategies to implement maintenance plans, setting goals and meeting time constraints
- undertaking forecasting and scheduling.

Knowledge Evidence

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

- beam theory and stress calculations
- construction of double bottoms, ship's hull, bulkheads, fore and aft ends, construction of tankers, bulk carriers and container vessels
- construction, materials, layout and subdivision requirements of a typical vessel, including the freeboard and bulkhead deck, watertight compartments, weather tight compartments, the bulkhead of the vessel and the collision bulkhead
- corrosion control measures including surface preparation, painting and antifouling
- fire protection on ships
- nature and causes of corrosion of marine surfaces and structures, and the available methods for its control
- preservatives and finishes used in marine maintenance, and the related procedures and precautions to be taken for preparation, application and storage
- principal features of the structure of a vessel
- properties and application of materials used in vessel construction
- relevant national and international legislation related to maintaining vessels
- stresses imposed on vessels at sea
- typical problems related to slipping, docking and maintaining vessels with appropriate action and solutions
- vessel and machinery specifications, vessel design machinery design drawings, operational manuals, specifications, and electrical and control circuit diagrams
- vessel planned maintenance system.

Assessment Conditions

As a minimum, 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.

Assessment must occur in workplace operational situations or where this is not available, in simulated workplace operational situations or an industry-approved marine operations site that replicate workplace conditions where the management of vessel maintenance and repairs can be demonstrated.

Resources for assessment include access to:

- relevant documentation including budgets and operating costs, service and maintenance records, workplace procedures, regulations and legal documentation and operation manuals.

Performance should be demonstrated consistently over time and in a suitable range of contexts.

Links

Companion Volume implementation guides are found in VETNet -

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