



Australian Government

Assessment Requirements for MARB042 Manage reported defects, damage, repairs and maintenance of a vessel

Release: 1

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Modification History

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

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:

- analysing current work practices
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- attending to detail when completing documentation
- documenting information, including completing compliance documentation
- 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
- operating vessel planned maintenance system
- preparing a detailed vessel maintenance plan that incorporates strategies addressing risk management, resource needs, monitoring and reporting arrangements, and quality assurance controls
- 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
- providing high quality reports
- sequencing maintenance activities logically, planning and documenting strategies to implement maintenance plans, setting goals and meeting time constraints
- monitoring one or more of the following preventative maintenance activities:
 - applying lubricants to moving parts
 - hull cleaning and painting
 - identifying deterioration of vessel structure and fittings, including cargo spaces, freshwater and ballast tanks
 - inspecting and repairing or replacing cargo handling equipment, including wires, blocks, shackles, chains and hooks
 - prescribed tank inspections
 - restoring weathered, rusted surfaces and corrosion

- routine maintenance inspections.

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 include knowledge of:

- beam theory and stress calculations
- compliance documentation, including as a minimum:
 - cargo gear and equipment register
 - maintenance schedules and records according to the planned maintenance system
 - port state/territory control inspection records
 - statutory survey certificates
 - statutory survey periodic inspection records
 - vessel general arrangement plans, docking plan and manuals relevant to maintenance requirements
- construction of double bottoms, ship's hull, bulkheads, fore and aft ends, construction of tankers, bulk carriers and container vessels and their limitations
- construction, materials, layout and subdivision requirements of a typical vessel, including the freeboard and bulkhead deck, watertight compartments, weather tight compartments, including doors, the bulkhead of the vessel and the collision bulkhead
- contingency plans for maintenance and repairs
- corrosion control measures, including surface preparation, painting and antifouling
- fire protection on ships
- limitations on strength of the vital constructional parts of a standard bulk carrier and interpretation of given figures for bending moments and shear forces
- maintenance plans - corrective and preventative
- methods to avoid the detrimental effects on bulk carriers of corrosion, fatigue and inadequate cargo handling
- 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
- vessel and machinery specifications, vessel design machinery design drawings, operational manuals, specifications, and electrical and control circuit diagrams.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory

requirements included within 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:

- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) currently used in industry.

Links

Companion Volume implementation guide can be found in VetNet -

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