



Australian Government

MARN4001A Manage seaworthiness of a vessel up to 80 metres

Release 1

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Modification History

Release 1

This is the first release of this unit.

This unit replaces and is equivalent to TDMMB607B Monitor condition and seaworthiness of a coastal vessel up to 80 metres.

Unit Descriptor

This unit involves the skills and knowledge required to manage vessel in a seaworthy condition for all stages of a voyage or operation being undertaken.

Application of the Unit

This unit applies to those working in the capacity of Master on a range of vessels up to 80 metres.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- 1 Supervise weather tight and watertight integrity of vessel**
 - 1.1 Principal *structural components* of vessel are identified from vessel drawings to understand the function of these components in relation to conventional vessel design
 - 1.2 Pumping and pipeline systems of vessel are investigated to establish survivability of vessel in case of flooding and mage control
 - 1.3 Procedures for maintaining weather tight and watertight integrity of vessel are interpreted and implemented according to vessel safety management plan and regulations
 - 1.4 Crew are instructed on requirements of plan and their responsibilities
 - 1.5 *Actions* are instigated to confirm weather tight and watertight integrity of vessel at all times
- 2 Take action to meet changed sea and weather conditions**
 - 2.1 Weather forecasts and observations of sea and weather conditions are used to predict situations that may jeopardise vessel weather tight and watertight integrity
 - 2.2 Effect of severe wind and rolling in associated sea conditions on vessel weather tight and watertight integrity is recognised
 - 2.3 Effect of water on deck on vessel weather tight and watertight integrity is ascertained
 - 2.4 Appropriate action is taken to maintain vessel weather tight and watertight integrity according to organisational procedures
- 3 Maintain records**
 - 3.1 *Relevant documents and records* are completed and maintained as required according to regulatory and organisational requirements
 - 3.2 Relevant documents are sent to appropriate bodies and copies are filed according to regulatory and organisational requirements
 - 3.3 Documents are stored according to regulatory and organisational requirements

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required Skills:

- Appropriately use bilge and other pumping arrangements
- Assess damage control measures
- Complete required records
- Maintain weather tight and watertight integrity of vessel
- Read and interpret vessel specifications, drawings and operational manuals

Required Knowledge:

- Bilge pumping arrangements
- Different vessel types
- Effects of adding and removing weights, water on deck, slack tanks, rolling period, stiff and tender vessel, additions or alterations to vessels
- Principal parts of vessel and their various functions
- Work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- attention to appropriate level of detail in recordkeeping
- attention to detail when completing documentation.

Context of and specific resources for assessment

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

Resources for assessment include access to:

- industry-approved marine operations site where managing seaworthiness of a vessel up to 80 metres can be demonstrated
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate managing seaworthiness of a vessel up to 80 metres
- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

Assessment processes and techniques must be appropriate to the language and literacy requirements of the work being performed and the capacity of the candidate.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

- Structural components must include:
- Design characteristics attributing to watertight integrity
 - Principal components of vessel structure
 - Structural arrangements to restrain fires
 - Watertight and collision bulkheads
- Actions may include:
- Closing openings
 - Ensuring passenger distribution does not exceed allowed limits.
 - Ensuring stores, cargo and equipment are properly stowed and lashed
 - Establishing procedures for restoring or managing weather tight and watertight integrity during an emergency
 - Maintaining stability condition within approved limits
 - Methods for testing tanks and other watertight openings
- Relevant documents and records may include:
- Deck and official log book entries
 - Notes of protest
 - Safety management plan

Unit Sector(s)

Not applicable.

Competency Field

Seamanship