



Australian Government

**Assessment Requirements for MARN009
Perform seamanship operations on board a
vessel up to 24 metres**

Release: 1

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Modification History

Release 1. New unit of competency. Licensing/regulatory information has been incorporated in accordance with Regulatory requirements. Assessment Requirements have been strengthened in accordance with Regulatory requirements.

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:

- anchor a vessel according to depth and prevailing winds
- applying work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- checking seaworthiness of vessel
- completing basic stability calculations
- correctly coiling and stowing ropes
- correctly interpreting vessel stability data
- maintaining watertight integrity of vessel
- performing an eye splice on natural and synthetic fibre rope
- performing appropriate whippings on ropes and line
- preparing and throwing a heaving line
- preparing for and anchoring vessel according to depth and prevailing winds
- recognising damaged or worn ropes, wires and chains
- safely handling ropes and wires
- safely operating winches or windlasses and capstans
- safely using:
 - blocks
 - drum ends or capstans
 - eye bolts and shackles
 - hooks
 - swivels
 - wires, ropes and chains
- securing anchor and equipment on completion of anchoring operations
- securing vessel at its berth according to operational requirements and prevailing conditions
- tying figure-eight knot, reef knot, bowline, single and double sheet bend, half hitch, clove hitch, round turn and two half hitches, and rolling hitch using natural or synthetic fibre rope
- using portable ladders to access heights up to 1.8 metres.

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:

- anchoring principles and methods for different conditions
- basic principles of stability
- basic structural parts of a small vessel
- communication techniques when operating lifting gear
- construction of vessel sufficient to understand which areas need to be made watertight
- correct application of common knots and hitches
- correct use and maintenance of equipment used for working aloft and over the side
- correctly slinging loads ready for lifting
- coverage and frequency of checks of vessels seaworthiness
- dangers of working with ropes under tension
- different types of anchors and where they can be most effectively used
- effect of design and hull on vessel stability
- effects on stability of:
 - adding and removing weights
 - additions or alterations to original vessel configuration
 - slack tanks
 - water on deck
 - hauling nets using power block
 - snagged trawl (hook up)
 - transferring weights using a crane or other lifting devices
- how to make vessel watertight
- inspection and maintenance of harnesses, safety lines and other equipment for working aloft
- irregularities in the condition and seaworthiness of the vessel affecting the safety and integrity of the vessel, its equipment and materials/cargo on board
- irregularities in the condition and seaworthiness of the vessel affecting the safety of crew and passengers
- maintenance of different types of rope, wire and chain
- method of calculating breaking strain and safe working load for ropes and equipment
- methods of securing cargo
- precautions to take when working aloft or over the side
- principles and limitations of lifting equipment and components
- principles of International Maritime Dangerous Goods (IMDG) code
- process for checking bow doors (barges) for seaworthiness
- procedures for checking and operating lifting equipment
- procedures for refuelling vessel with due regard to regulations and organisational procedures
- providing the required amount of detail in reports
- regulations affecting watertight integrity
- routine and emergency operation of anchors

- roll period and stiff and tender vessels
- safely working aloft or over the side
- securing methods for a vessel at sea, including:
 - accommodation and storage spaces
 - anchors
 - doors
 - engine room
 - galley stores and equipment
 - navigation lights
 - personnel facilities
 - hatches
 - large objects likely to move in a sea way
 - materials on deck and below
 - tanks
- selection and safe use of appropriate rigging and lifting gear, including:
 - blocks (including chain blocks and power blocks)
 - wires, ropes and chains
 - drum ends or capstans
 - eye bolts and shackles
 - hooks
 - lifting device
 - slings and chains
- use of sea anchors
- using stability book to determine loading limits and displacement from draft
- WHS/OHS requirements and work practices.

Assessment Conditions

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.

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, safety

management system (SMS), workplace procedures, operational manuals and stability booklets

- a commercial vessel ≥ 7.5 m in length
- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) currently used in industry.

Links

Companion Volume implementation guides are found in VETNet -

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