



Australian Government

MARK012 Steer a vessel under direction of the Master

Release: 1

MARK012 Steer a vessel under direction of the Master

Modification History

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

Application

This unit involves the skills and knowledge required to steer a vessel under the direction of the Master, complying with helm orders.

This unit applies to people working in the maritime industry in the capacity of:

- Able Seafarer - Deck on a range of vessels
- Integrated Rating
- Navigational Watch - Deck/Engine.

Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit.

- This unit is one of the requirements to obtain Australian Maritime Safety Authority (AMSA) certification as an Able Seafarer - Deck, Integrated Rating or Navigational Watch - Deck/Engine and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers. (STCW)
- Those regulatory requirements include STCW International Maritime Organization (IMO) model course competencies and areas of knowledge, understanding and proficiency, together with the estimated total hours required for lectures and practical exercises. Teaching staff should note that timings are suggestions only and should be adapted to suit individual groups of trainees depending on their experience, ability, equipment and staff available for training.

Pre-requisite Unit

Not applicable.

Competency Field

K – Manoeuvring Vessels

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Steer a steady course within acceptable limits in normal conditions under the direction of the Master

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Features of vessel that relate to its handling characteristics are recognised
- 1.2** Navigational equipment is used to steer a steady course
- 1.3** Situational awareness is maintained to ensure safety of vessel
- 1.4** Propulsion equipment is used and monitored to assist in steering a steady course within acceptable limits, having regard to the area of navigation and prevailing state of sea
- 1.5** Safe operating limits of propulsion and steering equipment are not exceeded
- 1.6** Automatic pilot and hand steering are used to steer a steady course, and course is altered smoothly and in a controlled way
- 1.7** Helm orders are followed and effective communication maintained with the Master on matters relevant to the safety and integrity of the vessel

2 Steer a vessel in adverse weather conditions under the direction of the Master

- 2.1** Nature of adverse weather conditions is identified and potential impact on the manoeuvrability of the vessel is determined and confirmed with the Master
- 2.2** Propulsion equipment is used and monitored to assist in steering a steady course within acceptable limits, having regard to the area of navigation and prevailing state of sea
- 2.3** Safe operating limits of propulsion and steering equipment are not exceeded
- 2.4** Situational awareness is maintained at all times to

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| | | review actions and ensure the safety of the vessel |
| | 2.5 | Automatic pilot and hand steering are used to steer a steady course, and course is altered smoothly and in a controlled way |
| | 2.6 | Helm orders are followed and effective communication maintained with the Master on matters relevant to the safety and integrity of the vessel |
| 3 | Steer a vessel in emergencies under the direction of the Master | |
| | 3.1 | Nature of the emergency is established and required action is determined and confirmed with the Master |
| | 3.2 | Helm orders are followed and effective communication maintained with the Master on matters relevant to the safety and integrity of the vessel |
| | 3.3 | Vessel is steered during the emergency to maintain the safety of the vessel and those onboard, and any other vessels or persons involved in the emergency |
| | 3.4 | Propulsion equipment is used under the direction of the Master and is monitored to assist in completing steering safely |
| | 3.5 | Safe operating limits of propulsion and steering equipment are not exceeded |
| 4 | Steer a vessel while towing and being towed under the direction of the Master | |
| | 4.1 | Correct towing procedures and precautions are applied when towing and being towed in relation to helm orders |
| | 4.2 | Helm orders are followed and effective communication maintained with the Master on matters relevant to the safety and integrity of the vessel |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Unit Mapping Information

This unit replaces and is equivalent to MARK005 Steer a vessel under direction of the Master.

Links

Companion Volume implementation guide can be found in VetNet -

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

Assessment Requirements for MARK012 Steer a vessel under direction of the Master

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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:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- changing from automatic pilot to hand steering and changing from hand steering to automatic pilot
- ensuring working behaviour reflects relevant current legislative and regulatory requirements
- maintaining situational awareness at all times
- steering a vessel:
 - coming to and leaving a mooring
 - in bad weather
 - in fog and restricted visibility
 - in heavy swell and surf
 - in the vicinity of large vessels
 - in wind and sea conditions that may affect the safety of the vessel
 - when approaching and departing in anchorage
 - while towing and being towed.

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 use and selection of personal protective equipment (PPE)
- effects on the overall operation of the vessel and on the steering characteristics of a vessel, including:
 - displacement and planning hulls
 - outboard and inboard propulsion units
 - rudders and propellers
 - trim and displacement
- features of a vessel that relate to its handling and steering characteristics, including:

- affect manoeuvrability
- effects of single or twin screw
- effects when moving astern
- rate of turn
- stopping ability
- use of controllable pitch propeller
- use of helm and rudder indicators
- relevant WHS/OHS requirements, work practices and pollution control regulation and policies
- use of magnetic and gyrocompasses as applied to the steering of a vessel.

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.

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