



Australian Government

MARK3002A Steer a vessel under direction of the Master

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 TDMMC1007C Steer a domestic vessel under the direction of the master or officer in charge of the watch.

Unit Descriptor

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

Application of the Unit

This unit applies to an Integrated Rating.

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

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| 1 Steer a steady course within acceptable limits in normal conditions | <ul style="list-style-type: none">1.1 Features of vessel that relate to its handling characteristics are recognised1.2 Navigational equipment is used to steer a steady course1.3 Situational awareness is maintained to ensure safety of vessel1.4 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 sea1.5 Safe operating limits of propulsion and steering equipment are not exceeded1.6 Automatic pilot and hand steering are used to steer a steady course and course is altered smoothly and in a controlled way1.7 Helm orders are followed and effective communication is maintained with the Master on matters relevant to the safety and integrity of the vessel |
| 2 Steer a vessel in adverse weather conditions | <ul style="list-style-type: none">2.1 Nature of adverse weather conditions is identified and potential impact on the manoeuvrability of the vessel is determined and confirmed with the Master2.2 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 sea2.3 Safe operating limits of propulsion and steering equipment are not exceeded2.4 Situational awareness is maintained at all times to review actions and ensure the safety of the vessel2.5 Automatic pilot and hand steering are used to steer a steady course and course is altered smoothly and in a controlled way2.6 Helm orders are followed and effective communication is maintained with the Master on matters relevant to the safety and integrity of the vessel |
| 3 Steer a vessel in emergencies | <ul style="list-style-type: none">3.1 Nature of the emergency is established and required action is determined and confirmed with the Master3.2 Helm orders are followed and effective communication is 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 on board 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 be towed**
- 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 is maintained with the Master on matters relevant to the safety and integrity of the vessel

Required Skills and Knowledge

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

Required Skills:

- Change over from automatic pilot to hand steering and vice versa
- Maintain situational awareness
- Steer a vessel:
 - in bad weather
 - in heavy swell and surf
 - through coming to and leaving a mooring
 - through towing and being towed
 - in the vicinity of large vessels

Required Knowledge:

- Effects of:
 - displacement and planing hulls
 - outboard and inboard propulsion units
 - rudders and propellers
 - trim and displacement on the steering characteristics of a vessel
- Features of a vessel that relate to its handling characteristics
- Helm orders
- Steering characteristics
- Use of magnetic and gyro-compasses
- 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:

- awareness of one's surroundings and changes to these surroundings
- ensuring behaviour reflects relevant current legislative and regulatory requirements.

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:

- appropriate vessel to demonstrate steering a vessel in normal conditions, heavy weather and emergency situations
- 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 steering a vessel under direction of the Master
- 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.

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|---|---|
| Features of vessel may include: | <ul style="list-style-type: none">• Displacement and planing hulls• Outboard and inboard propulsion units• Rudders and propellers |
| Navigational equipment may include: | <ul style="list-style-type: none">• Auto pilot• Gyro and magnetic compass• Manual steering arrangements• Off course alarms |
| Propulsion equipment may include: | <ul style="list-style-type: none">• Inboard engine• Outboard engine |
| Adverse weather conditions may include: | <ul style="list-style-type: none">• Fog and restricted visibility• Wind and sea conditions that may affect the safety of the vessel |
| Nature of the emergency may include: | <ul style="list-style-type: none">• Beaching• Collision• Disabled or partially disabled vessel• Grounding• Person overboard |

Unit Sector(s)

Not applicable.

Competency Field

Manoeuvring Vessels