



Australian Government

MARK2001A Handle a vessel up to 12 metres

Release 1

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Modification History

Release 1

This is the first release of this unit.

Unit Descriptor

This unit involves the skills and knowledge required to manoeuvre a vessel up to 12 metres in length. This includes the ability to berth, moor, anchor and manoeuvre a vessel during emergencies.

Application of the Unit

This unit applies to people working as Coxswain Grade 1 and Coxswain Grade 2 on a range of vessels up to 12 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

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| 1 Handle vessel in normal conditions | <ul style="list-style-type: none">1.1 <i>Features of vessel</i> that relate to its handling characteristics are recognised1.2 Details of <i>manoeuvres</i> are communicated to relevant personnel clearly and concisely using standard maritime vocabulary1.3 Situational awareness is maintained to ensure safety of manoeuvres1.4 Manoeuvres are completed to meet passage requirements1.5 <i>Propulsion equipment</i> is used and monitored to assist in completing manoeuvres safely1.6 Safe operating limits of propulsion and steering equipment are not exceeded |
| 2 Handle vessel in adverse weather conditions | <ul style="list-style-type: none">2.1 Nature of <i>adverse weather conditions</i> is identified and the potential impact on the manoeuvrability of the vessel is determined2.2 <i>Appropriate action</i> is taken to ensure the safety of the vessel2.3 Propulsion equipment is used and monitored to assist in completing manoeuvres safely2.4 Safe operating limits of propulsion and steering equipment are not exceeded2.5 Situational awareness is maintained at all times to review actions and ensure the safety of the vessel |
| 3 Handle vessel in emergencies | <ul style="list-style-type: none">3.1 <i>Nature of emergency</i> is established and required action is determined3.2 Risks to the vessel and the safety of persons on board are assessed and safety of required action is confirmed3.3 Details of action are communicated to relevant personnel clearly and concisely using standard maritime vocabulary3.4 Appropriate manoeuvres are made during the emergency to maintain the safety of the vessel and those on board, and any other vessels or persons involved3.5 Propulsion equipment is used and monitored to assist in completing manoeuvres safely3.6 Safe operating limits of propulsion and steering equipment are not exceeded |

4 Tow and be towed

- 4.1 ***Preparations for towing*** are made safely according to established nautical practice
- 4.2 ***Correct towing procedures*** and precautions are applied when towing and being towed

Required Skills and Knowledge

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

Required Skills:

- Anchor a vessel
- Handle a disabled or partially disabled vessel
- Manoeuvre a vessel crossing a bar
- Manoeuvre a vessel in:
 - bad weather
 - heavy swell and surf
 - vicinity of large vessels
- Manoeuvre a vessel through:
 - berthing and leaving a berth in various wind and tidal conditions
 - berthing in a pen
 - coming to and leaving a mooring
 - person overboard
 - steering astern through an 's' configuration
 - towing and being towed in varying weather conditions
 - turn short around
 - turning a vessel across the tide across the wind
- Manoeuvre to beach and refloat the vessel
- Maintain situational awareness
- Use appropriate communication

Required Knowledge:

- Avoidance of tropical revolving storm activity
- Effects of:
 - displacement and planing hulls
 - outboard and inboard propulsion units
 - rudders and propellers
- Features of a vessel that relate to its handling characteristics
- Manoeuvring characteristics of small power-driven vessels (heavily laden and lightly laden)
- Maritime publications and procedures relating to emergency response
- Procedures for towing and being towed
- Stability of a small vessel and stability terms
- Techniques for crossing a coastal bar with and against the sea

- Trim and displacement
- Use of a sea anchor
- 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:

- communicating effectively
- knowledge about how to handle small vessels in strong tidal streams, bad weather, heavy swell and surf, crossing a bar, and use of a sea anchor
- knowledge about towing arrangements for towage at sea and in sheltered waters
- knowledge about berthing and unberthing in various wind and tidal conditions.

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 up to 12 metres to demonstrate manoeuvring a vessel in normal 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 handling a vessel up to

12 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.

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| Features of vessel must include: | <ul style="list-style-type: none"> • Displacement and planing hulls • Outboard and inboard propulsion units • Rudders and propellers • Stability • Trim and displacement |
| Manoeuvres must include: | <ul style="list-style-type: none"> • Astern movements • Berthing and leaving a berth • Berthing in a pen • Coming to and leaving mooring • Retrieval of person overboard • Turning a vessel across tide and wind • Turning short around |
| Propulsion equipment must include: | <ul style="list-style-type: none"> • Inboard engine • Outboard engine |
| Adverse weather conditions must include: | <ul style="list-style-type: none"> • Fog and restricted visibility • Tropical revolving storm activity in the area • Wind and sea conditions that may affect the safety of the vessel |
| Appropriate action must include: | <ul style="list-style-type: none"> • Altering course to minimise the effect of wind and sea • Deploying a sea anchor to keep vessel head to sea • Heading to wind and sea to ride out the adverse weather • Reduction of speed • Seeking shelter |
| Nature of emergency must include: | <ul style="list-style-type: none"> • Beaching • Collision • Disabled or partially disabled vessel • Grounding • Person overboard |
| Preparations for towing must include: | <ul style="list-style-type: none"> • Communication with towed vessel • Means of transferring towing line to the towed vessel • Preparation of towing lines appropriate for the tow |
| Correct towing procedures must include: | <ul style="list-style-type: none"> • If the tow is manned, means of communication must be available • Methods of securing the tow line must be capable of being slipped • Towing lines and associated equipment must be of sufficient |

strength to ensure the tow can be safely conducted

Unit Sector(s)

Not applicable.

Competency Field

Manoeuvring Vessels