



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TDMMC907C MANOEUVRE A DOMESTIC VESSEL WITHIN THE LIMITS OF RESPONSIBILITY OF A COXSWAIN**

**Release: 1**

## TDMMC907C MANOEUVRE A DOMESTIC VESSEL WITHIN THE LIMITS OF RESPONSIBILITY OF A COXSWAIN

### Modification History

Not applicable.

### Unit Descriptor

**UNIT DESCRIPTOR:**

**This unit involves the skills and knowledge required to manoeuvre a commercial vessel within limits of responsibility of a coxswain, i.e. a vessel of less than 12 metres in length within inshore limits (within 15 nm). This includes berthing, mooring and anchoring operations and manoeuvring during emergencies and exceptional circumstances.**

**This unit has been retitled but covers the same functions as previous unit TDMMC901B *Manoeuvre a domestic vessel of less than 12 metres in length operating within inshore limits***

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### Application of the Unit

<b>Application of the unit</b>	The unit has applications in qualifications for Coxswains on commercial vessels of up to 12 metres in length operating within inshore limits, i.e. Certificate II in Transport&Distribution (Coastal Maritime Operations - Coxswain).
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### Licensing/Regulatory Information

<b>Licensing/legislative requirements</b>	The unit is consistent with the relevant maritime regulations describing mandatory requirements for a Coxswain. This includes applicable sections of State/Territory maritime licensing and regulatory requirements and the National Standard for Commercial Vessels (NSCV).and the USL Code.
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### Pre-Requisites

Not applicable.

## Employability Skills Information

Not applicable.

## Elements and Performance Criteria Pre-Content

<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>Performance Criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the Evidence Guide.</i>
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
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<b>1 Manoeuvring the vessel in normal conditions</b>	<ul style="list-style-type: none"><li>a Manoeuvres are made to safely progress the operation and keep the vessel in safe water</li><li>b Vessel's heading is maintained within acceptable limits as per the requirements of the manoeuvre, weather, tide, headreach and stopping distances</li><li>c Alterations of heading or power are smooth and controlled</li><li>d Communication is clear, concise and acknowledged according to good seamanship</li><li>e Vessel propulsion units are controlled as required to progress the operation and complement steering movements</li><li>f Safe operating limits of vessel propulsion and steering systems are not exceeded</li></ul>

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ELEMENT	PERFORMANCE CRITERIA
<b>1 Manoeuvr the vessel in normal conditions (continued)</b>	<ul style="list-style-type: none"> <li>g Adequate resources are organised prior to and during operations</li> <li>h Appropriate action is taken to minimise wash and to prevent damage to the marine environment</li> </ul>
<b>2 Manoeuvre the vessel during exceptional circumstances and emergencies</b>	<ul style="list-style-type: none"> <li>a Appropriate manoeuvres are safely made during the emergency or exceptional circumstance and to keep the vessel in safe water</li> <li>b Vessel's heading is maintained within acceptable limits with respect to the requirements of the manoeuvre, the nature of the emergency or exceptional circumstance and the existing sea, tide and weather conditions</li> <li>c Risks to the vessel and the safety of persons on board are assessed during manoeuvres and appropriate risk minimisation strategies developed and applied</li> <li>d Alterations of heading or power are appropriate to the emergency or exceptional situation</li> <li>e Appropriate action is taken in the event of an emergency to maintain the safety of the vessel and those on board and any other vessels and persons involved</li> <li>f Communication during the emergency is clear, concise and acknowledged at all times</li> </ul>

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## **Required Skills and Knowledge**

### **REQUIRED KNOWLEDGE**

*This describes the knowledge required for this unit.*

- 1 Relevant maritime regulations
- 2 Manoeuvring and propulsion characteristics for vessels of less than 12 metres in length operating, including stopping distances and turning circles at various draughts, speeds and loading
- 3 Effects of displacement and planing hulls on manoeuvring characteristics of small power driven vessels
- 4 Principles of stability and trim in a small vessel and the disposition of passengers and/or cargo required to maintain stability and trim within safe limits
- 5 Manoeuvring problems for vessels of less than 12 metres in length and appropriate action and solutions
- 6 Methods for controlling vessel speed and direction
- 7 Effects on manoeuvres of wind, currents and bottom topography
- 8 Effects of vessel wash on other waterways users and the environment
- 9 Characteristics of entrance bars and knowledge of manoeuvres for crossing those bars
- 10 Principles for avoiding being caught in severe weather conditions
- 11 Characteristics of adverse weather and sea conditions and the related precautions and manoeuvring techniques that should be applied to maintain the control and stability of the vessel
- 12 Requirements of the International Regulations for Preventing Collisions at Sea and other regulations set by local authorities
- 13 Maritime communication techniques
- 14 Relevant OH&S legislation and policies

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## **REQUIRED SKILLS**

*This describes the basic skills required for this unit.*

- 1 Communicate effectively with other personnel and passengers during vessel manoeuvres
- 2 Read and interpret vessel manufacturer's instructions on vessel operation
- 3 Read and interpret vessel marine regulations, rules and instructions concerning small vessel operations
- 4 Collect, manage and interpret information required for the safe navigation of the vessel
- 5 Plan the timing and sequence of vessel operations to be appropriate to the prevailing circumstances, sea and weather conditions and any navigational hazards
- 6 Work collaboratively with other shipboard personnel and passengers during vessel operations
- 7 Make appropriate estimates and calculations required during the course of vessel operations (e.g. fuel, distance, speed, time, etc.)
- 8 Determine appropriate procedures to allow for interaction effects with passing vessels
- 9 Recognise the effects of interaction with passing vessels and various operational situations such as squat, shallow water and narrow channel on vessel's handling and determine appropriate manoeuvring action required
- 10 Operate the vessel in accordance with manufacturer's instructions
- 11 Turn the vessel in various operational situations
- 12 Manoeuvre the vessel with minimal wash

## **Evidence Guide**

## Evidence Guide

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*The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.*

<b>1 Critical aspects of evidence required to demonstrate competency in this unit</b>	<p>Assessment must confirm appropriate knowledge and skills to:</p> <ul style="list-style-type: none"><li>a Manoeuvre a vessel of less than 12 metres in length within inshore limits:<ul style="list-style-type: none"><li>1 in normal and emergency situations and adverse weather conditions</li><li>2 during berthing and unberthing operations</li><li>3 while anchoring or mooring</li><li>4 when beaching and refloating a vessel</li><li>5 while crossing coastal bars</li></ul></li><li>b Exercise all required safety and hazard control procedures when manoeuvring a vessel of less than 12 metres in length within inshore limits</li><li>c Identify manoeuvring problems and take appropriate action</li><li>d Communicate effectively with others during manoeuvring operations</li></ul>
<b>2 Evidence required for demonstration of consistent performance</b>	<ul style="list-style-type: none"><li>a Performance is demonstrated consistently over a period of time and in a suitable range of contexts</li><li>b Consistently applies underpinning knowledge and skills when:<ul style="list-style-type: none"><li>1 completing defined manoeuvring operations</li><li>2 identifying and evaluating manoeuvring problems and determining appropriate courses of action</li><li>3 applying safety precautions relevant to manoeuvring</li></ul></li></ul>

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|   | operations  |
|   | 4 assessing operational capability of vessel and propulsion plant and equipment   |
| c | Shows evidence of application of relevant workplace procedures, including: <ul style="list-style-type: none"> <li>1 relevant maritime regulations</li> <li>2 OH&amp;S regulations and hazard prevention policies and procedures</li> <li>3 job procedures and work instructions</li> <li>4 manufacturer's guidelines relating to the use of propulsion and other on-board equipment, including information on capability and limitations</li> </ul> |
| d | Action is taken promptly to report accidents and navigational incidents   |

### Evidence Guide (continued)

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<b>2 Evidence required for demonstration of consistent performance (continued)</b>	<p>e Work is completed systematically with required attention to detail</p> <p>f Recognises and adapts appropriately to cultural differences in the workplace, including modes of behaviour and interactions among crew and others</p>
<b>3 Context of assessment</b>	<p>a Assessment of competency must comply with the assessment requirements of the relevant maritime regulations</p> <p>b Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training organisation:             <ul style="list-style-type: none"> <li>1 As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations, and</li> <li>2 Appropriate practical assessment must occur:</li> </ul> </p>



	<ul style="list-style-type: none"> <li>i at the registered training organisation; and/or</li> <li>ii on an appropriate working or training vessel</li> </ul>
<b>4 Specific resources required for assessment</b>	<p>Access is required to opportunities to:</p> <ul style="list-style-type: none"> <li>a manoeuvre a working or training vessel of less than 12 metres in length in an appropriate range of normal and real or simulated emergency inshore situations, including normal and adverse weather conditions; and/or</li> <li>b operate a suitably realistic small vessel simulator over an appropriate range of simulated manoeuvring situations and weather conditions</li> </ul>

## Range Statement

### Range Statement

**TDMMC907C MANOEUVRE A DOMESTIC VESSEL WITHIN THE LIMITS OF RESPONSIBILITY OF A COXSWAIN**

*The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.*

#### VARIABLE

#### SCOPE

#### 1. GENERAL CONTEXT

<b>a. Work must be carried out:</b>	1 in compliance with the relevant sections of the NSCV/USL Code dealing with vessels of less than 12 metres
<b>b. Work is performed:</b>	1 to defined procedures/methods either individually or in a team environment

*The Range Statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.*

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| <b>c. Work involves:</b> | 1 the use of some discretion and judgement in the application of fundamental nautical principles and known manoeuvring techniques across a variety of operational contexts for vessels of less than 12 metres operating within inshore limits |
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## 2. WORKSITE ENVIRONMENT

<b>a Vessel may include:</b>	1 any commercial vessel of less than 12 metres in length operating up to or within sheltered waters or inshore limits
<b>b Propulsion units may be:</b>	1 inboard or outboard and may include single or twin propeller systems
<b>c Manoeuvres may be carried out:</b>	1 by day or night in both normal and emergency situations 2 under normal and adverse conditions of weather and tide 3 during berthing and unberthing operations 4 while anchoring or mooring 5 when beaching and refloating a vessel 6 while crossing coastal bars
<b>d Manoeuvres may include:</b>	1 berthing and unberthing 2 berthing in a pen 3 mooring or anchoring

## Range Statement (continued)

**TDMMC907C MANOEUVRE A DOMESTIC VESSEL WITHIN THE LIMITS OF RESPONSIBILITY OF A COXSWAIN**

<b>VARIABLE</b>	<b>SCOPE</b>
<b>d Manoeuvres may include: (continued)</b>	<ul style="list-style-type: none"> <li>4 handling vessel in shallow water, rivers, estuaries and restricted waters</li> <li>5 steering astern</li> <li>6 use of inboard or outboard propulsion systems</li> <li>7 towing and being towed</li> </ul>
<b>e Manoeuvres may occur within in-shore limits, including:</b>	<ul style="list-style-type: none"> <li>1 at open water</li> <li>2 in tidal streams</li> <li>3 in confined waters</li> <li>4 in proximity to other vessels that are berthed, at anchor, underway but stopped, or underway and making way, particularly large vessels</li> <li>5 on or near bars</li> </ul>
<b>f Emergencies may include:</b>	<ul style="list-style-type: none"> <li>1 loss of propulsion or steering</li> <li>2 person overboard</li> <li>3 collision</li> <li>4 grounding</li> <li>5 cyclones or severe weather or when hove to</li> <li>6 fire or flooding on board vessel</li> <li>7 dragging an anchor and clearing a foul anchor</li> <li>8 loss of manoeuvrability in seas or when crossing bars</li> </ul>

VARIABLE	SCOPE
	9 machinery or power breakdown
<b>g Special handling techniques required in adverse weather may include:</b>	1 manoeuvring in the face of strong winds, high sea state, heavy swell and surf 2 keeping a vessel out of the trough of the sea 3 lessening drift 4 assisting a vessel in distress 5 incidental towing operations 6 launching rescue boats and survival craft 7 taking on board survivors from rescue boats and survival craft

**Range Statement (continued)**

**TDMMC907C MANOEUVRE A DOMESTIC VESSEL WITHIN THE LIMITS OF RESPONSIBILITY OF A COXSWAIN**

VARIABLE	SCOPE
<b>h Documentation and records may include:</b>	1 operational instructions 2 navigational charts 3 relevant maritime regulations 4 vessel's log 5 vessel manufacturer's instructions and recommended procedures 6 instructions of relevant maritime authorities 7 OH&S instructions and regulations

VARIABLE	SCOPE
<b>i Applicable legislation, regulations and codes may include:</b>	<ol style="list-style-type: none"> <li>1 relevant sections of the State and Territory maritime regulations and the NSCV/USL Code</li> <li>2 International Regulations for Preventing Collisions at Sea</li> <li>3 relevant Commonwealth, State and Territory OH&amp;S legislation</li> </ol>

## Unit Sector(s)

Not applicable.

## Field

Field MC Manoeuvring Vessel

## Relationship to other units

<b>Relationship to other units</b>	The unit may be assessed in conjunction with other units that relate to the functions of the occupation(s) concerned.
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