



**Australian Government**

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

# **TDMMR4301A Assist in mooring and anchor handling activities**

**Release: 1**

## **TDMMR4301A Assist in mooring and anchor handling activities**

### **Modification History**

Not applicable.

### **Unit Descriptor**

This unit involves the skills and knowledge needed to assist the responsible officer in a range of mooring and anchor handling activities as required of an integrated rating, including preparing for arrival or departure from an anchorage or mooring, handling mooring lines, carrying out stoppering and heaving line tasks, anchor operations, securing a vessel to a sea buoy, and securing a tug using either tug's or vessel's lines.

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### **Application of the Unit**

Not applicable.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

Not applicable.

### **Elements and Performance Criteria Pre-Content**

Not applicable.

# Elements and Performance Criteria

## Elements and Performance Criteria

<b>Element</b>	<b>Performance Criteria</b>
1 Carry out mooring and anchor handling tasks	<ul style="list-style-type: none"><li>1.1 Tasks required of an integrated rating in preparation for arrival and departure from an anchorage or mooring are completed in accordance with shipboard procedures</li><li>1.2 Mooring line handling, stoppering and heaving line tasks are performed in accordance with shipboard procedures</li><li>1.3 Mooring and unmooring operations are carried out in accordance with established procedures</li><li>1.4 Anchor operations are carried out in accordance with shipboard procedures</li><li>1.5 Vessel is secured to a sea buoy in accordance with shipboard procedures</li><li>1.6 A tug is secured using tug's or vessel's lines in accordance with shipboard procedures</li><li>1.7 Communications during mooring and anchor handling operations are clear and timely and involve the correct use of communications equipment where required</li></ul>
2 Follow safety and hazard control procedures	<ul style="list-style-type: none"><li>2.1 All required safety precautions and regulations are followed when carrying out routine mooring and anchor handling tasks</li><li>2.2 Operational hazards are identified and action is taken in conjunction with the officers, engineers and other team members to minimise or eliminate risk to personnel, vessel and the environment</li><li>2.3 Shipboard emergency and contingency plans are followed in the event of a failure or emergency associated with mooring and anchor handling equipment and machinery and associated systems</li></ul>

## **Required Skills and Knowledge**

Not applicable.

## Evidence Guide

### Critical aspects of evidence to be considered

Assessment must confirm appropriate knowledge and skills to:

Carrying out mooring and anchor handling tasks

Ensure the exercise of all required safety, environmental and hazard control precautions and procedures during mooring and anchor handling activities

Communicate effectively with others during mooring and anchor handling activities.

### Interdependent assessment of units

This unit of competency must be assessed in conjunction with other mandatory units that form part of a job role of an integrated rating on a commercial vessel.

### Required knowledge and skills

Knowledge of sections of relevant maritime regulations

Relevant OH&S and pollution control legislation and policies

Mooring and anchor handling procedures on board a vessel

Functions and responsibilities of the members of the bridge and engine room teams onboard a vessel

Procedures for carrying out the routine tasks required of an integrated rating when a vessel is arriving at or departing from a berth or anchorage

Types, features and characteristics of fibre and wire ropes

Hazards and related safety precautions when carrying out mooring and anchor handling activities

Signs of fatigue

Fatigue management principles and techniques

Communication techniques and equipment used during mooring and anchor handling operations.

### Resource implications

Access is required to opportunities to either:

demonstrate the ability to carry out mooring and anchor handling procedures through appropriate case studies, practical exercises and simulated situations; and/or

carry out mooring and anchor handling procedures on an operational commercial or training vessel.

### Consistency in performance

Applies underpinning knowledge and skills when:

carrying out mooring and anchor handling tasks

exercising all required safety, environmental and hazard control precautions and procedures during mooring and anchor handling tasks

communicating effectively with others during routine shipboard tasks.

Shows evidence of application of relevant workplace procedures including:

ISM Code and associated vessel's Safety Management System and procedures

OHS regulations and hazard prevention policies and procedures

job procedures and work instructions related to mooring and anchor handling activities

following housekeeping processes.

Action taken promptly to report operational incidents and problems in accordance with regulations and shipboard procedures.

Work is completed systematically with required attention to detail.

### Context for assessment

Assessment of competence must comply with the assessment requirements of the relevant maritime regulations.

Assessment of this unit must be undertaken within relevant marine authority approved and audited arrangements by a registered training organisation:

As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations

Appropriate practical assessment must occur:

at the registered training organisation, and/or

on an appropriate working or training vessel.

### **Critical aspects of evidence to be considered**

Assessment must confirm appropriate knowledge and skills to:

Carrying out mooring and anchor handling tasks

Ensure the exercise of all required safety, environmental and hazard control precautions and procedures during mooring and anchor handling activities

Communicate effectively with others during mooring and anchor handling activities.

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This unit of competency must be assessed in conjunction with other mandatory units that form part of a job role of an integrated rating on a commercial vessel.

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Relevant OH&S and pollution control legislation and policies

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## Range Statement

### General context

Work must be carried out in compliance with relevant maritime regulatory requirements. Work is performed as a member of an anchoring or mooring party under defined operational requirements, with some accountability and responsibility for self and others in achieving the prescribed outcomes. It involves the application of basic mooring and anchor handling procedures across a variety of operational contexts. Following of orders and instructions of the officer on watch is required.

### Worksite environment

Vessel may include any Australian or international commercial vessel.

Mooring operations include:

- throwing heaving lines
- running out mooring lines
- reporting distance off
- securing mooring lines
- letting go mooring lines
- recovering mooring lines
- making fast fore and aft to a fixed terminal or jetty
- making fast to a single point mooring
- making fast to a conventional buoy mooring
- preparing mooring area for operations
- making fast and letting go tugs
- adjusting moorings during a port stay
- securing mooring area on departure
- rigging gangways, accommodation ladders and pilot ladders
- stowing mooring lines after use.

Mooring equipment includes:

- man-made fibre and wire-rope moorings
- heaving lines and stoppers - (rope and chain)
- tension winches
- stand clone winches
- electric, hydraulic and hand driven capstans/drum ends
- dead men and fairheads.

Equipment malfunctions or problems may include:

- failure of moorings or equipment
- damage to moorings
- insufficiency of moorings
- poor leads
- inability to maintain ship in position.

Routine and emergency anchor operations may include:

- dropping, paying out and holding an anchor
- reporting amount and lie of cable
- letting go and weighing anchor
- securing to a single anchor
- securing to twin anchors
- recovering anchor
- clearing anchor and cable



recovering a foul hawse  
hanging off an anchor.

Anchor equipment may include:

cable  
securing arrangements  
anchor balls  
cable locker.

Operational hazards during mooring or anchor handling operations may include:

failure of moorings, anchor or equipment  
damage to moorings  
insufficiency of moorings  
faulty or damaged machinery and equipment  
moving and rotating machinery  
using equipment beyond safe working limits  
cables and ropes  
poor leads  
inability to maintain ship in position  
moving heavy loads using unsafe lifting procedures  
slippery deck  
poor housekeeping procedures  
non-compliance with safe working procedures.

#### **Sources of information/documents**

Documentation/records may include:

ISM Code safety management system plans, procedures, checklists and instructions  
IMO STCW 95 Code and Convention  
AMSA Marine Orders  
orders and instructions of the officer on watch  
vessel and company procedures  
instructions of relevant Maritime Authorities  
relevant Australian and international standards.

#### **Applicable International, Australian and State/Territory regulations and legislation**

Applicable procedures and codes may include:

relevant sections of IMO STCW 95 Code and Convention  
relevant sections of AMSA Marine Orders  
ISM Code  
relevant international, Australian and State/Territory OH&S legislation.

#### **General context**

Work must be carried out in compliance with relevant maritime regulatory requirements. Work is performed as a member of an anchoring or mooring party under defined operational requirements, with some accountability and responsibility for self and others in achieving the prescribed outcomes. It involves the application of basic mooring and anchor handling procedures across a variety of operational contexts. Following of orders and instructions of the officer on watch is required.

#### **Worksite environment**

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preparing mooring area for operations  
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damage to moorings  
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**Unit Sector(s)**

Not applicable.