



**Australian Government**

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

# **TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

**Revision Number: 1**

## TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG

### Modification History

Not applicable.

### Unit Descriptor

**UNIT DESCRIPTOR:**

**This unit involves the skills and knowledge required by an Integrated Rating to carry out a range of anchor handling, towage and supply duties at an off-shore oil or gas rig under the direction of the Chief Officer or Master and in accordance with the Safe Working Code of Practice for the Australian Offshore Support Vessel Industry.**

**This includes, including preparing for and concluding anchor handling deck operations; perform deck duties during anchor running/retrieval operations; and performing a range of supply duties while at a rig.**

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### Application of the Unit

<b>Application of the unit</b>	The unit has application in the qualification for an Integrated Rating, i.e. Certificate III in Transport&Distribution(Maritime Operations - Integrated Rating).
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### Licensing/Regulatory Information

<b>Licensing/legislative requirements</b>	The unit is consistent with the relevant sections of STCW 95 and Marine Orders under the Australian Navigation Act 1912, describing the specific requirements for Integrated Ratings.
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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
<b>1 Prepare for anchor handling operations</b>	<ul style="list-style-type: none"> <li>a Pre-anchor handling duties are carried out in accordance with established procedures within the limits of responsibility of an integrated rating and under the direction of the officer in charge</li> <li>b Briefing meeting is attended prior to anchor handling operations and information is obtained and interpreted on the proposed work program and any unusual aspects of job or hazards that may be encountered</li> <li>c The deck is cleared of all unnecessary materials and prepared for operations</li> <li>d Deck area in contact with work/tow wire is made free from dents, scores, jags and deformations</li> <li>e Required tools and equipment are checked to ensure they are operational and brought on deck in preparation for operations</li> <li>f Prior to anchor handling activities, checks are made that all personnel other than those engaged in anchor handling tasks are cleared from the deck</li> </ul>
ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
<p><b>2 Perform deck duties during anchor running/retrieval operations using the permanent chain chaser system</b></p>	<ul style="list-style-type: none"> <li>a The tugger winch is operated as per procedures within the limits of responsibility of an integrated rating and under the direction of the officer in charge</li> <li>b Chaser pennant is received from the rig and connected to the work wire</li> <li>c The wire securing system is operated in accordance with established procedures and under the direction of the officer in charge</li> <li>d Chaser pennant is returned to the rig</li> <li>e The storage winch is operated in accordance with established procedures</li> </ul>
<p><b>3 Perform deck duties during anchor retrieval operations using the pennant and buoy system</b></p>	<ul style="list-style-type: none"> <li>a Buoy is bought on board in accordance with established procedures within the limits of responsibility of an integrated rating and under the direction of the officer in charge</li> <li>b Surface pennant is connected to work wire</li> <li>c Work wire is disconnected in accordance with established procedures and under the direction of the officer in charge</li> <li>d Buoy pennant wires are transferred from work winch to the storage drums under the direction of the officer in charge</li> </ul>
<p><b>4 Perform deck duties during anchor running operations using the pennant and buoy system</b></p>	<ul style="list-style-type: none"> <li>a Pennant wires are transferred from storage winch to work winch</li> <li>b The buoy is deployed in accordance with established procedures within the limits of responsibility of an integrated rating and under the direction of the officer in charge</li> </ul>

ELEMENT	PERFORMANCE CRITERIA
<b>5 Conclude anchor handling operations</b>	<ul style="list-style-type: none"> <li>a Post-anchor handling duties are carried out in accordance with established procedures within the limits of responsibility of an integrated rating and under the direction of the officer in charge</li> <li>b At the conclusion of operations, tools and equipment are inspected for damage and maintained in good working order</li> <li>c All tools and equipment are cleared from the deck and correctly stowed in preparation for future operations</li> <li>d Input is provided at operational debriefing meetings after anchor handling operations to identify problems or other issues requiring attention</li> <li>e Appropriate action is taken on problems or issues identified during anchor handling operations within the limits of responsibility of an integrated rating</li> </ul>

ELEMENT	PERFORMANCE CRITERIA
<b>6 Perform rig towage duties</b>	<ul style="list-style-type: none"> <li>a The tow is connected in accordance with established procedures within the limits of responsibility of an integrated rating</li> <li>b During tow, winches are manned and operated as per the master's directions</li> <li>c During tow, directions of the master are followed at all times</li> <li>d The tow is disconnected in accordance with established procedures within the limits of responsibility of an integrated rating</li> </ul>
<b>7 Perform supply duties</b>	<ul style="list-style-type: none"> <li>a Supply duties at a rig are carried out in accordance with established procedures within the limits of responsibility of an integrated rating</li> </ul>

<b>ELEMENT</b>	<b>PERFORMANCE CRITERIA</b>
<b>8 Follow safety and hazard control procedures</b>	<ul style="list-style-type: none"><li>a All required safety precautions and regulations are followed when carrying out established procedures within the limits of responsibility of an integrated rating</li><li>b Operational hazards are identified and action is taken in conjunction with others to minimise or eliminate risk to personnel, vessel, rig and the environment</li><li>c Work safety meetings are attended and all operational and safety instructions are clarified prior to the commencement of operations</li><li>d Verbal/non-verbal means of communication are clarified and used in a clear and appropriate manner</li><li>e Appropriate techniques are used to manage fatigue in the workplace</li><li>f Electronic methods of communication are used as required in accordance with established procedures within the limits of responsibility of an integrated rating</li><li>g Emergency and contingency plans are followed in the event of a failure or emergency associated with rig shift and anchor handling operations</li></ul>

## **Required Skills and Knowledge**

### **REQUIRED KNOWLEDGE**

*This describes the knowledge required for this unit.*

- 1 Applicable sections of the Safe Working Code of Practice for the Australian Offshore Support Vessel Industry and other relevant maritime regulations, as they relate to the responsibilities of integrated rating during anchor handling, towage and supply operations at a rig
- 2 Relevant OH&S and pollution control legislation and policies
- 3 Functions and responsibilities of integrated ratings during anchor handling, towage and supply operations
- 4 Procedures for carrying out anchor handling, towage and supply operations at an off-shore oil and/or gas rig within the limits of responsibility of an integrated rating
- 5 Typical hazards and related safety precautions when carrying out anchor handling, towage and supply operations
- 6 Requirements for personal protection clothing and equipment and its use when carrying out anchor handling, towage and supply operations
- 7 Personal protection clothing and equipment and its purpose
- 8 Signs of fatigue
- 9 Fatigue management principles and techniques, including statutory requirements on hours of rest
- 10 Basic environmental protection measures
- 11 Communication techniques used during anchor handling, towage and supply operations

### **REQUIRED SKILLS**

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

- 1 Use basic verbal and other communication skills required when carrying out anchor handling, towage and supply duties at a rig
- 2 Read, interpret and apply basic instructions, regulations and standard operating

## REQUIRED SKILLS

- procedures relevant to anchor handling, towage and supply duties at a rig
- 3 Work safely and collaboratively with others when carrying out anchor handling, towage and supply duties at a rig
  - 4 Select and safely use tools and equipment as per operating instructions
  - 5 Recognise problems that may occur during anchor handling, towage and supply duties at a rig and take appropriate action
  - 6 Store tools and equipment after use as per standard operating procedures
  - 7 Adapt to differences in vessels, equipment and standard operating procedures
  - 8 Follow required work schedule as per company requirements

## Evidence Guide

<b>Evidence Guide</b> <b>TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE</b> <b>AND SUPPLY DUTIES AT A RIG</b>
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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>	Assessment must confirm appropriate knowledge and skills to: <ol style="list-style-type: none"><li>a Prepare for and conclude anchor handling and towage operations on board a rig supply vessel</li><li>b Perform duties of an integrated rating during:<ol style="list-style-type: none"><li>1 anchor running/retrieval operations using the permanent chain chaser system</li><li>2 anchor running/retrieval operations using the pennant and buoy system</li></ol></li><li>c Perform duties of an integrated rating during towage operations at a rig</li><li>d Perform duties of an integrated rating during supply</li></ol>
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**Evidence Guide**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE**  
**AND SUPPLY DUTIES AT A RIG**

	<p>operations at a rig</p> <p>e Ensure the exercise of all required safety, environmental and hazard control precautions and procedures during anchor handling, towage and supply operations at a rig</p> <p>f Communicate effectively with others during anchor handling, towage and supply operations at a rig</p>
<p><b>2 Evidence required for demonstration of consistent performance</b></p>	<p>a Performance is demonstrated consistently over a period of time and in a suitable range of contexts</p> <p>b Consistently applies underpinning knowledge and skills when:</p> <ol style="list-style-type: none"> <li>1 preparing for and concluding anchor handling, towage and supply operations</li> <li>2 performing duties of an integrated rating during anchor handling, towage and supply operations</li> <li>3 exercising all required safety, environmental and hazard control precautions and procedures during anchor handling, towage and supply operations at a rig</li> <li>4 communicating effectively with others during anchor handling, towage and supply operations at a rig</li> </ol> <p>c Shows evidence of application of relevant workplace procedures, including:</p> <ol style="list-style-type: none"> <li>1 Safe Working Code of Practice for the Australian Offshore Support Vessel Industry</li> <li>2 sections of relevant maritime regulations</li> <li>3 ISM Code and associated vessel's safety management system and procedures</li> </ol>

**Evidence Guide (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

<p><b>Evidence 2 required for demonstration of consistent performance (continued)</b></p>	<p>4 OH&amp;S regulations and hazard prevention policies and procedures</p> <p>5 standard operating procedures and work instructions</p> <p>d Action is taken promptly to report operational incidents and problems in accordance with regulations and shipboard procedures</p> <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>
<p><b>3 Context of assessment</b></p>	<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:</p> <p>1 As a minimum, assessment of knowledge must be conducted through appropriate written/oral examinations, and</p> <p>2 Appropriate practical assessment must occur:</p> <p>i at the registered training organisation; and/or</p> <p>ii on an appropriate working or training vessel</p>
<p><b>4 Specific resources required for assessment</b></p>	<p>Access is required to opportunities to:</p> <p>a demonstrate the ability to carry out routine integrated rating tasks during anchor handling, towage and supply operations on board a rig or supply vessel through appropriate case studies, practical exercises and simulated situations; and/or</p> <p>b carry out routine integrated rating tasks during anchor</p>

**Evidence Guide (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

handling, towage and supply operations on an operational support vessel or rig

**Range Statement**

**Range Statement**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

*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 Safe Working Code of Practice for the Australian Offshore Support Vessel Industry and other relevant maritime codes and regulatory requirements
<b>b. Work is performed:</b>	1 under the direction of the officer in charge as an integrated rating within a team carrying out anchor handling, towage and supply duties at an off-shore oil and/or gas rig
<b>c. Work involves:</b>	1 the application of established shipboard procedures and techniques across a variety of operational contexts
<b>d. Work requires:</b>	1 the following of orders and instructions of the officer in charge of the watch

**2. WORKSITE ENVIRONMENT**

**Range Statement**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

<b>a Vessel may include:</b>	1 any commercial an oil and gas rig, or vessel supporting off-shore oil or gas rig operations
<b>b Anchor handling, towage and supply duties may be carried out:</b>	1 by day or night in both normal and emergency situations 2 under any possible weather and sea conditions

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

<b>VARIABLE</b>	<b>SCOPE</b>
<b>c Duties of an integrated rating during anchor running/retrieval operations using the permanent chain chaser system are performed under the direction of the officer in charge and include:</b>	1 connecting tugger wire to the work wire and using it to run the work wire along the deck to the shark jaws 2 connecting tugger wire to the chaser pennant 3 receiving the chaser pennant from the rig crane and directing it over the shark jaws until the eye of the pennant is forward of the jaws 4 securing the chaser pennant in the shark jaws with locking pins and disconnecting the crane hook and tugger wire 5 connecting the work wire to the chaser pennant and removing locking pins from the shark jaws 6 positioning the chaser pennant over the shark jaws, and clamping and securing it with locking pins. 7 disconnecting the work wire from the chaser pennant. 8 connecting the tugger wire to the chaser pennant and taking up the weight of the chaser pennant

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

	<p>9 connecting the chaser pennant to the crane hook.</p> <p>10 clearing the deck of personnel and loose tools and equipment during connecting and disconnecting operations</p> <p>11 paying out the tugger until slack and then disconnecting from the chaser pennant.</p> <p>12 stowing tools and equipment or preparing them for the next anchor operation</p>
<p><b>d Duties of an integrated rating during anchor retrieval operations using the pennant and buoy system are performed under the direction of the officer in charge and include:</b></p>	<p>1 connecting tugger wire to the work wire and using it to run the work wire along the deck to the shark jaws</p> <p>2 connecting the buoy catcher lasso to the work wire, (or the tugger wire if appropriate)</p> <p>3 lassoing the buoy and signalling the winch driver to bring the buoy onto the deck so as to trap the surface pennant in the shark jaws</p> <p>4 securing the surface pennant in the shark jaws with locking pins</p> <p>5 disconnecting the buoy from the surface pennant and stowing it securely</p> <p>6 connecting the work wire to the surface pennant and removing locking pins from the shark jaws</p> <p>7 clearing the deck personnel and loose tools and equipment during connecting and disconnecting operations</p> <p>8 recording pennant numbers and lengths as they come on board (if required)</p> <p>9 transferring the buoy pennant wires from work winch to the storage drums</p>

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

<b>VARIABLE</b>	<b>SCOPE</b>
<p><b>e Duties of an integrated rating during anchor running operations using the pennant and buoy system are performed under the direction of the officer in charge and include:</b></p>	<ol style="list-style-type: none"> <li>1 delivering the first buoy pennant to the work winch and connecting to the work wire</li> <li>2 coordinating the spooling onto the work winch with the work winch operator, ensuring that the correct number of pennants are transferred</li> <li>3 connecting the tugger wire to the work wire and using it to run the work wire along the deck to the shark jaws</li> <li>4 clearing the deck of personnel and loose tools and equipment during connecting and disconnecting operations</li> <li>5 preparing the buoy and positioning it on deck for deployment</li> <li>6 securing the surface pennant in the shark jaws with locking pins and disconnecting the work wire</li> <li>7 connecting the buoy to the surface pennant and removing the locking pins from the shark jaws</li> </ol>
<p><b>f Duties of an integrated rating during towage duties using the bridle system are performed under the direction of the officer in charge and include:</b></p>	<ol style="list-style-type: none"> <li>1 connecting the tugger wire to the tow wire and using it to run the tow wire along the deck, (through the towing pod if applicable) to the shark jaws</li> <li>2 connecting the towing spring to the tow wire when applicable</li> <li>3 connecting the tugger wire to the bridle/fore pennant, lowered from the rig</li> <li>4 receiving the bridle/fore pennant is received from the rig and directing it over the shark jaws until the eye of the bridle/fore pennant is immediately forward of the jaws</li> <li>5 securing the bridle/fore pennant in the shark jaws with locking pins and the crane hook and tugger wire are</li> </ol>

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

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|    | disconnected  |
| 6  | connecting the tow wire, (towing spring if used) to the bridle/fore pennant   |
| 7  | where applicable, raising the retractable guide pins to restrict sideways movement of the tow wire                    |
| 8  | fitting the anti-chaffing device in accordance with towing requirements and instructions                              |
| 9  | clearing the deck of personnel and loose tools and equipment and removing locking pins from the shark jaws            |
| 10 | hoisting navigational shapes or lights as required  |
| 11 | maintaining watch over tow line and other equipment throughout the tow to ensure the tow wire integrity is maintained |

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

<b>VARIABLE</b>	<b>SCOPE</b>
<b>g Tools and equipment required for anchor handling, towage and supply duties include but are not restricted to:</b>	1 A-frame, anchors
	2 bolster, bridle, Bruce anchor
	3 camlock, chaffers (Scotchman), crown chain, Cyclops
	4 D-shackle, day shapes, dolly
	5 fuse link
	6 jewellery
	7 gob plate, gob wire
	8 hinge link

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

	<ul style="list-style-type: none"> <li>9 J-hook, jaws</li> <li>10 lasso, monkey face</li> <li>11 pawl, pelican hook, pelican hook, pennant, permanent chain chaser (PCC), piggy back, pigtail</li> <li>12 roller, safety hook, screens, shark's jaws, Stevin anchor, stretch section, stringer, sub-sea buoy</li> <li>13 towing pins, towing sleeve, towing spring, tuggers</li> <li>14 winches</li> </ul>
<p><b>h Personal protection clothing and equipment may include:</b></p>	<ul style="list-style-type: none"> <li>1 ear muffs/plugs and gloves</li> <li>2 goggles</li> <li>3 life-jacket</li> <li>4 overalls and vests</li> <li>5 steel capped boots</li> <li>6 sun glasses and sun hat</li> <li>7 wet weather gear</li> </ul>
<p><b>i Operational hazards may include:</b></p>	<ul style="list-style-type: none"> <li>1 moving heavy loads using unsafe lifting procedures</li> <li>2 unsecured machinery, components or equipment</li> <li>3 slippery deck</li> <li>4 ropes and wires</li> <li>5 sharp tools and implements</li> <li>6 moving and rotating equipment and machinery</li> <li>7 faulty machinery equipment handling equipment and lifting gear</li> </ul>



**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

8 using equipment beyond safe working limits

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

VARIABLE	SCOPE
<b>i Operational hazards may include: (continued)</b>	9 poor housekeeping procedures 10 non-compliance with safe working procedures
<b>j Fatigue management strategies may include:</b>	1 recognition of symptoms of fatigue 2 arranging to take a break when symptoms of fatigue are identified 3 maintenance of personal fitness and health 4 appropriate dietary habits 5 avoidance of excessive consumption of alcohol prior to duties 6 following statutory requirements related to hours of rest
<b>k Documentation and records may include:</b>	1 Safe Working Code of Practice for the Australian Offshore Support Vessel Industry 2 ISM Code safety management system plans, procedures, checklists and instructions 3 relevant IMO Conventions and Codes 4 AMSA Marine Orders 5 orders and instructions of the officer on watch

**Range Statement (continued)**  
**TDMMR5307B CARRY OUT ANCHOR HANDLING, TOWAGE AND SUPPLY DUTIES AT A RIG**

	6 vessel and company procedures
	7 instructions of relevant maritime authorities
<b>I Applicable legislation, regulations and codes may include:</b>	<ul style="list-style-type: none"> <li>1 Safe Working Code of Practice for the Australian Offshore Support Vessel Industry</li> <li>2 relevant sections of IMO Conventions and Codes</li> <li>3 relevant sections of AMSA Marine Orders</li> <li>4 ISM Code</li> <li>5 Marine Pollution Act (MARPOL)</li> <li>6 Petroleum (Submerged Lands) Act</li> <li>7 relevant international, Commonwealth, State and Territory OH&amp;S legislation</li> </ul>

**Unit Sector(s)**

Not applicable.

**Field**

Field R Carry Out Operations on Equipment and Systems

**Relationship to other units**

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