



**Australian Government**

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

# **AURR346435B Launch and recover vessel from crane, gantry and forklift**

**Release: 1**

## AURR346435B Launch and recover vessel from crane, gantry and forklift

### Modification History

Not Applicable

### Unit Descriptor

<b>Unit descriptor</b>	<p>This unit of competency describes the skills and knowledge required to launch and recover a vessel from a crane, gantry or forklift.</p> <p>It requires the ability to identify and confirm work requirements, launch and recover the vessel and complete work finalisation processes.</p> <p>Licensing, legislative, regulatory or certification requirements may apply to this unit in some jurisdictions (e.g. forklift licence and vessel operation licence). Users are advised to check with the relevant regulatory authority.</p>
------------------------	---

### Application of the Unit

<b>Application of the unit</b>	<p>This unit applies to individuals who undertake the launching and recovery of a vessel from a crane, gantry or forklift in a marine environment.</p>
--------------------------------	--

### Licensing/Regulatory Information

Refer to Unit Descriptor

### Pre-Requisites

<b>Prerequisite units</b>		

## Employability Skills Information

<b>Employability skills</b>	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 performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.
---	--

## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for work	1.1. Confirm nature and scope of work to be carried out 1.2. Locate occupational health and safety (OHS) and workplace environmental and sustainable procedures and practices applicable to the work 1.3. Access and interpret repair method, workshop manuals and manufacturer information 1.4. Check and prepare tools, equipment and materials 1.5. Set up work area 1.6. Carry out pre-launch check 1.7. Carry out pre-launch vessel check
2. Launch vessel	2.1. Attach and position slings and lifting equipment to hull 2.2. Manoeuvre and operate crane, gantry or forklift to place vessel in suitable depth of water at launch site avoiding damage to vessel and the environment 2.3. Remove slings and lifting equipment 2.4. Move vessel from launch site to safe area 2.5. Move crane, gantry or forklift from launch site 2.6. Carry out all activities according to industry regulations and guidelines, OHS and environmental legislation, and enterprise policies and procedures
3. Recover vessel	3.1. Position crane, gantry or forklift to lift point ensuring suitable depth of water is present 3.2. Manoeuvre vessel into recovery area and align with lifting equipment 3.3. Attach and position slings and lifting equipment to hull to prevent hull damage 3.4. Operate lifting equipment avoiding damage to vessel and environment 3.5. Secure vessel 3.6. Carry out all activities according to industry regulations and guidelines, OHS and environmental legislation, and enterprise policies and procedures
4. Clean up work area and finalise work	4.1. Clean and inspect equipment and tooling according to workplace requirements 4.2. Tag unserviceable equipment and faults identified in accordance with workplace requirements 4.3. Clean work area, dispose of waste and scrap, and store tools and equipment in accordance with

ELEMENT	PERFORMANCE CRITERIA
	workplace procedures 4.4. Finalise and process work completion documentation and give to appropriate persons, as required

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

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

#### Required skills

Required skills include:

- technical skills to the level required to use workplace technology related to vessel launching and recovery, to use specialist tooling and equipment and computerised measuring equipment, and to report and record actions
- communication skills to the level required to confirm work requirements and diagnosis and repair procedures and specifications, to communicate effectively regarding work requirements with supervisor, other workers and customers, to relate to people from a range of social, cultural and ethnic backgrounds and of varying physical and mental abilities, and to report work outcomes and problems
- literacy skills to the level required to research, analyse and interpret information related to work orders and manufacturer and component supplier requirements, and to record servicing details
- numeracy skills to the level required to correctly complete tests and measurements, including assessing tolerances, applying accurate measurements and calculating material requirements
- problem-solving skills to the level required to identify technical and procedural problems to avoid planning and scheduling problems, and time and material wastage
- team skills to the level required to work effectively and cooperatively with others to optimise workflow and productivity

#### Required knowledge

Required knowledge includes

- water depth requirements for vessel flotation
- pre-launch inspection procedures, equipment requirements and standards
- lifting sling equipment and vessel attachment points
- techniques for manoeuvring a crane, gantry, forklift and attached vessel
- manufacturer and component supplier specifications, including workshop manuals

**REQUIRED SKILLS AND KNOWLEDGE**

and repair guides

- applicable commonwealth, state or territory legislation, regulations, standards and codes of practice, including OHS, personal safety and environment, relevant to the vessel launching and recovery from a crane, gantry and forklift, including safe lifting requirements and launch site licensing requirements
- organisational policies and procedures, including quality, reporting and recording procedures, related to vessel launching and recovery from a crane, gantry and forklift

## Evidence Guide

<b>EVIDENCE GUIDE</b>	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
<b>Overview of assessment</b>	
<b>Critical aspects for assessment and evidence required to demonstrate competency in this unit</b>	<p>Assessors must be satisfied that the candidate can competently and consistently:</p> <ul style="list-style-type: none"> <li>• observe safety procedures and requirements</li> <li>• communicate effectively with others involved in or affected by the work</li> <li>• select methods and techniques which are appropriate to the circumstances</li> <li>• complete preparatory activity in a systematic manner</li> <li>• launch and recover a vessel using a crane, gantry and forklift</li> <li>• complete workplace and equipment records and workplace clean-up requirements.</li> </ul>
<b>Context of, and specific resources for assessment</b>	<ul style="list-style-type: none"> <li>• The application of competency is to be assessed in the workplace or a simulated environment that reflects as far as possible the actual working environment.</li> <li>• Assessment is to occur using standard and authorised work practices, safety requirements and environmental constraints.</li> <li>• Assessment is to comply with relevant regulatory requirements, including specified Australian standards.</li> <li>• Where applicable, reasonable adjustment must be made to work environments and training situations to accommodate ethnicity, age, gender, demographics and disability.</li> <li>• The following resources should be made available: <ul style="list-style-type: none"> <li>• workplace location</li> <li>• vessel and a crane, gantry and forklift</li> <li>• materials relevant to the launching and recovery of vehicles using crane, gantry or forklift</li> <li>• equipment, hand and power tools appropriate to the launching and recovery of vessel using crane, gantry forklift</li> <li>• specifications and work instructions.</li> </ul> </li> </ul>
<b>Method of assessment</b>	<ul style="list-style-type: none"> <li>• Assessment must satisfy the endorsed Assessment Guidelines of this Training Package.</li> </ul>

<b>EVIDENCE GUIDE</b>	
	<ul style="list-style-type: none"> <li>• Assessment methods must confirm consistency and accuracy of performance (over time and in a range of workplace relevant contexts) together with application of Required Skills and Knowledge.</li> <li>• Assessment methods must be by direct observation of tasks and include questioning on Required Skills and Knowledge to ensure its correct interpretation and application.</li> <li>• Assessment may be applied under project-related conditions (real or simulated) and require evidence of process.</li> <li>• Assessment must confirm a reasonable inference that competency is able not only to be satisfied under the particular circumstance, but is able to be transferred to other circumstances.</li> <li>• Competence in this unit may be assessed in conjunction with other functional units which together form part of the holistic work role.</li> </ul>
<b>Guidance information for assessment</b>	Assessment processes and techniques must be culturally sensitive and appropriate to the language and literacy capacity of the candidate and the work being performed.

## Range Statement

<b>RANGE STATEMENT</b>	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b>Vessels</b>	<p>Vessels may include:</p> <ul style="list-style-type: none"> <li>• vessels up to 10 metres in length with a maximum beam of 2.5 metres</li> <li>• single or multi-hulled</li> <li>• flat bottomed</li> <li>• planing and displacement hulls</li> </ul>
<b>Conditions</b>	<p>Conditions may include:</p> <ul style="list-style-type: none"> <li>• coastal</li> </ul>



<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• estuary</li> <li>• day and night</li> <li>• salt and/or freshwater</li> <li>• varying water depth</li> <li>• climatic conditions</li> </ul>
<b>Lifting equipment</b>	<p>Lifting equipment may include:</p> <ul style="list-style-type: none"> <li>• crane</li> <li>• gantry</li> <li>• forklift</li> <li>• slings</li> <li>• specialised lift equipment</li> </ul>
<b>Launch site surface</b>	<p>Launch site surface may include:</p> <ul style="list-style-type: none"> <li>• sand</li> <li>• gravel</li> <li>• bitumen</li> <li>• concrete</li> </ul>
<b>Launch site location</b>	<p>Launch site location may include:</p> <ul style="list-style-type: none"> <li>• ramp</li> <li>• slipway</li> <li>• marina</li> <li>• harbour in saltwater or freshwater</li> </ul>
<b>Pre-launch check</b>	<p>Pre-launch check may include:</p> <ul style="list-style-type: none"> <li>• obtaining climate information and tidal conditions</li> <li>• checking launch site</li> <li>• site inspection</li> </ul>
<b>Pre-launch vessel check</b>	<p>Pre-launch vessel check may include:</p> <ul style="list-style-type: none"> <li>• checking safety equipment</li> <li>• checking hull condition</li> <li>• checking propulsion unit</li> <li>• checking fuel status</li> <li>• checking equipment is secured</li> </ul>
<b>Securing vessel</b>	<p>Securing vessel may include:</p> <ul style="list-style-type: none"> <li>• transporting vessel from the recovery area to a safe position (storage or trailer)</li> <li>• lowering vessel onto storage location or trailer</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• removing slings and lifting equipment after vessel is moved from launch site to safe area</li> <li>• moving vessel to storage rack (or trailer)</li> </ul>
<b>Tooling and equipment</b>	<p>Tooling and equipment may include:</p> <ul style="list-style-type: none"> <li>• hand tools</li> <li>• testing equipment, including multimeters</li> <li>• power tools</li> <li>• air tools</li> <li>• specialist tools and equipment</li> </ul>
<b>Safe operating procedures</b>	<p>Safe operating procedures may include operational risk assessments associated with marine licence requirements and the International Regulations for Preventing Collisions at Sea 1972 (COLREGS), and include:</p> <ul style="list-style-type: none"> <li>• rope, chain and steel cable dangers</li> <li>• vessel and dockside flammable materials</li> <li>• fire prevention</li> <li>• rope, chain and steel cable dangers</li> <li>• vessel and dockside flammable materials</li> <li>• toxic substances</li> <li>• electrical safety</li> <li>• machinery movement and operation</li> <li>• manual and mechanical lifting and shifting</li> <li>• working in proximity to others</li> </ul>
<b>Information/documents</b>	<p>Information/documents may include:</p> <ul style="list-style-type: none"> <li>• verbal, written and graphical instructions issued by authorised internal and external persons</li> <li>• parts listing prices and catalogues</li> <li>• inventory systems</li> <li>• material safety data sheets (MSDS)</li> <li>• diagrams or sketches</li> <li>• engineer's design specifications and instructions</li> <li>• manufacturer specifications</li> <li>• industry standards (e.g. American Boat and Yacht Council, National Marine, Manufacturer's Association and US Coast Guard)</li> <li>• Australian standards</li> </ul>

<b>RANGE STATEMENT</b>	
	<ul style="list-style-type: none"> <li>• workplace specifications and requirements</li> <li>• current boating licence</li> </ul>
<b>Legislative requirements</b>	<p>Legislative requirements are to be in accordance with applicable commonwealth, state or territory legislation, regulations, certification requirements and codes of practice, and may include:</p> <ul style="list-style-type: none"> <li>• award and enterprise agreements</li> <li>• industrial relations</li> <li>• Australian standards</li> <li>• Australian Design Rules</li> <li>• confidentiality and privacy</li> <li>• OHS</li> <li>• the environment</li> <li>• equal opportunity</li> <li>• anti-discrimination</li> <li>• duty of care</li> </ul>
<b>OHS requirements</b>	<p>OHS requirements are to be in accordance with applicable commonwealth, state or territory legislation and regulations, and organisational safety policies and procedures, and may include:</p> <ul style="list-style-type: none"> <li>• personal protective equipment and clothing</li> <li>• safety equipment</li> <li>• first aid equipment</li> <li>• hazard and risk control</li> <li>• elimination of hazardous materials and substances</li> <li>• manual handling, including shifting, lifting and carrying</li> <li>• emergency procedures</li> <li>• road rules</li> <li>• safe driving policy</li> </ul>
<b>Environmental requirements</b>	<p>Environmental requirements may include:</p> <ul style="list-style-type: none"> <li>• waste management</li> <li>• noise</li> <li>• dust</li> <li>• clean-up management</li> </ul>
<b>Organisational policies and procedures</b>	<p>Organisational policies and procedures may include:</p> <ul style="list-style-type: none"> <li>• quality policies and procedures, including</li> </ul>

**RANGE STATEMENT**

	<p>Australian standards</p> <ul style="list-style-type: none"><li>• OHS, sustainability, environment, equal opportunity and anti-discrimination</li><li>• manufacturer specifications and industry codes of practice</li><li>• safe work procedures</li><li>• reporting and recording procedures</li></ul>
--	--

**Unit Sector(s)**

<b>Unit sector</b>	Marine
--------------------	--------

**Co-requisite units**

<b>Co-requisite units</b>		

**Competency field**

<b>Competency field</b>	
-------------------------	--