



**Australian Government**

# **TLILIC3003 Licence to operate a bridge and gantry crane**

**Release: 1**

# **TLILIC3003 Licence to operate a bridge and gantry crane**

## **Modification History**

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

## **Application**

This unit specifies the skills and knowledge required to operate bridge cranes and gantry cranes safely.

Bridge crane means a crane that:

- consists of a bridge beam or beams, that are mounted to end carriages at each end, and
- is capable of travelling along elevated runways, and
- has 1 or more hoisting mechanisms arranged to traverse across the bridge.

Gantry crane means a crane that:

- consists of a bridge beam or beams supported at one or both ends by legs mounted to end carriages, and
- is capable of travelling on supporting surfaces or deck levels, whether fixed or not, and
- has a crab with 1 or more hoisting units arranged to travel across the bridge.

This unit applies to the activities of a person operating bridge crane or gantry crane that is:

- controlled from a permanent cabin or control station on the crane, or
- remotely controlled and having more than 3 powered operations, including the application of load estimation and slinging techniques to move a load.

A person performing this work is required to hold a bridge and gantry crane high risk work (HRW) licence

This unit requires a person operating a bridge crane or gantry crane to plan the work, conduct routine checks, transfer loads, and shut down and secure crane after completing the operation.

## **Licensing/Regulatory Information**

This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations, HRW and meets Commonwealth, state and territory HRW licensing requirements.

Any alteration to this unit would result in a unit that would not be acceptable to work health and safety (WHS)/occupational health and safety (OHS) regulators for the purpose of licensing.

## Pre-requisite Unit

Not applicable.

## Competency Field

LIC – Licensing

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Plan work

### PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1 Potential workplace hazards are identified
- 1.2 Hazard control measures are identified consistent with appropriate standards to ensure the safety of personnel and equipment
- 1.3 Weight (mass) of load is estimated in consultation with associated personnel
- 1.4 Appropriate paths for moving load/s in work area are determined
- 1.5 Crane is appropriate to the load/s
- 1.6 Appropriate communication methods are identified in consultation with associated personnel

#### 2 Conduct routine checks

- 2.1 Appropriate hazard prevention/control measures are applied to work area in accordance with procedures
- 2.2 Crane is accessed in a safe manner
- 2.3 Crane is visually checked for any damage or defects
- 2.4 All signage and labels are checked to ensure they are visible and legible, in accordance with the appropriate standard

- 2.5 Routine pre-operational crane checks are carried out in accordance with procedures
- 2.6 All controls are located and identified
- 2.7 Crane service logbook is checked for compliance
- 2.8 Crane is started in accordance with procedures and is checked for any abnormal noises
- 2.9 Crane safety devices are tested in accordance with procedures
- 2.10 Post-start operational checks are carried out in accordance with procedures
- 2.11 Communications equipment is checked for serviceability
- 2.12 All damage and defects are reported and recorded in accordance with procedures, and appropriate action is taken

### **3 Transfer loads**

- 3.1 Hoist block is positioned over load following directions from associated personnel, as required
- 3.2 Test lift is carried out in accordance with procedures to allow for checks to be safely made, in consultation with relevant personnel
- 3.3 Loads are transferred using all relevant crane movements in accordance with procedures and appropriate standard
- 3.4 All required communications signals are interpreted correctly in accordance with procedures and appropriate standard
- 3.5 Crane is operated in accordance with procedures
- 3.6 Load movements are monitored constantly, to ensure safety of personnel and load, and structural stability
- 3.7 Unplanned and/or unsafe situations are responded to in accordance with procedures

### **4 Shut down and secure crane**

- 4.1 Crane is parked in accordance with procedures
- 4.2 Crane and equipment are stowed and secured in accordance with procedures and appropriate standard
- 4.3 Relevant motion locks and brakes are applied as required
- 4.4 Crane is shut down in accordance with procedures

- 4.5 Routine post-operational crane checks are carried out in accordance with procedures
- 4.6 Hazard prevention/control measures are removed as required
- 4.7 All damage and defects are reported and recorded in accordance with procedures, and appropriate action is taken

## Foundation Skills

The language, literacy, numeracy and employment skills that are essential to performance that are not explicit in the unit are listed below.

Skill	Performance feature
Employment skills to:	<ul style="list-style-type: none"> <li>operate a bridge gantry crane in different types of workplaces transferring key principles of safe operation to different contexts</li> <li>improve own performance in safely and efficiently operating a bridge gantry crane by incorporating learnings from different workplaces and different conditions into current performance</li> </ul>
Numeracy skills to:	<ul style="list-style-type: none"> <li>interpret numerical information including:               <ul style="list-style-type: none"> <li>selecting appropriate bridge gantry crane in accordance with load and workplace conditions</li> <li>load weight assessment, to ensure compliance with bridge gantry crane data plate specifications</li> <li>controlling and monitoring instrument readings</li> </ul> </li> </ul>
Language skills to:	<ul style="list-style-type: none"> <li>use and interpret vocabulary specific to bridge gantry crane operations and workplace procedures to communicate with other workplace personnel</li> <li>use non-verbal feedback to support effective communication</li> <li>use relevant two-way radio conventions</li> </ul>
Literacy (reading ) skills to:	<ul style="list-style-type: none"> <li>interpret documentation that includes technical specificity including:               <ul style="list-style-type: none"> <li>bridge gantry crane data plate</li> <li>plant operation manuals and manufacturer specifications</li> <li>workplace procedures, including emergency plan</li> <li>workplace signage and labels</li> </ul> </li> </ul>
Literacy (writing) skills to:	<ul style="list-style-type: none"> <li>accurately record and maintain information relating to operating a gantry crane, including:               <ul style="list-style-type: none"> <li>incident reports</li> <li>vehicle checking and maintenance records</li> </ul> </li> </ul>
Self-management	<ul style="list-style-type: none"> <li>implement risk control measures</li> </ul>

Skill	Performance feature
skills to:	<ul style="list-style-type: none"><li>initiate emergency management strategies</li></ul>

## Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment

Non-essential conditions can be found in the Companion Volume Implementation Guide.

## Unit Mapping Information

This unit is equivalent to TLILIC3003A Licence to operate a bridge and gantry crane.

## Links

Companion Volume implementation guides are found in VETNet -  
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>