



**Australian Government**

# **TLILIC0016 Licence to operate a bridge and gantry crane**

**Release: 1**

# TLILIC0016 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. Competence in this unit, does not in itself result in a High-Risk Work Licence (HRWL) to operate this plant.

Bridge crane means a crane that:

- consists of a bridge beam or beams, that are mounted to end carriages at each end, and
- can travel along elevated runways, and
- has one 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
- can travel on supporting surfaces or deck levels, whether fixed or not, and
- has a crab with one or more hoisting units arranged to travel across the bridge

This unit applies to the activities of a person operating a 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 three powered operations.

A person performing this work is required to hold a bridge and gantry crane HRWL.

This unit requires a person operating a bridge crane or gantry crane to:

- plan for the work/task
- prepare for the work/task
- perform work/task
- pack up.

## Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit of competency. This unit is based on the licensing requirements of Part 4.5 of the Model Work Health and Safety (WHS) Regulations and meets Commonwealth, state and territory HRWL requirements.

The National Assessment Instrument (NAI) is the mandated assessment for the HRWL to operate the relevant licencing class as detailed in this unit.

## Pre-requisite Unit

Not applicable.

## Competency Field

LIC - Licencing Units.

## Unit Sector

Not applicable.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

#### 1 Plan work/task

### PERFORMANCE CRITERIA

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

- 1.1 Task requirements are identified from work orders or equivalent, a lift plan is confirmed with associated personnel and a site inspection conducted in accordance with workplace procedures
- 1.2 Working area is inspected and appropriate paths for operating the bridge or gantry crane and moving/placing load/s in work area are assessed and determined in accordance with workplace procedures
- 1.3 Work area operating surface is assessed to determine the quality of ground suitability for operational gantry crane in accordance workplace procedures
- 1.4 Bridge or gantry crane Rated Capacity (RC) and lifting gear Working Load Limit (WLL) are established for the load/s and work/task requirements in accordance with manufacturer specifications and workplace procedures
- 1.5 Relevant hazard identification and risk elimination/control measures are applied and advised to relevant person/s in accordance with workplace procedures
- 1.6 Traffic management plan implementation is confirmed and followed in accordance with workplace procedures

- 1.7 Appropriate communication procedures are identified and tested with associated personnel in accordance with workplace procedures
  - 1.8 All tasks are confirmed to ensure requirements for the relevant work area in accordance with workplace procedures
  - 1.9 Information required to ensure that lifting equipment and gear inspection, use, maintenance and storage complies with manufacturer requirements is obtained and interpreted
- 2 Prepare for work/task**
- 2.1 Consultation with workplace personnel is established and maintained to ensure all crane and lifting operations are clear and consistent with site requirements in accordance with a lift plan and workplace procedures
  - 2.2 Risk control measures for hazards identified are checked for implementation in accordance with the lift plan and safe work procedures
  - 2.3 Bridge or gantry crane is accessed safely in accordance with manufacturer specifications and safe work procedures
  - 2.4 Pre-start bridge or gantry crane checks are carried out and any damage and defects are reported, recorded and appropriate action is taken in accordance with safe work procedures and manufacturer specifications
  - 2.5 Bridge or gantry crane is set up and rigged correctly with any lifting gear as per lift plan and in accordance with relevant manufacturer specifications, including load chart/s and safe work procedures
  - 2.6 Operational checks are carried out and any damage and defects are reported, recorded and appropriate action is taken in accordance with manufacturer specifications and safe work procedures
  - 2.7 All controls are located, identified and tested in accordance with relevant manufacturer specifications and safe work procedures
  - 2.8 Crane logbook is inspected and is correct for the crane and type, and required rectifications have been signed off in accordance with manufacturer requirements and safe work procedures

- 2.9 Weather and work environment conditions are assessed to determine any impact on bridge or gantry crane operations in accordance with manufacturer requirements and safe work procedures
  - 2.10 Weight of load is identified, calculated or estimated
  - 2.11 Derated WLL of lifting equipment resulting from selected slinging techniques is calculated
  - 2.12 Suitable lifting points and slinging techniques are identified
  - 2.13 Lifting equipment and gear are prepared for safe use
  - 2.14 Load destination is confirmed for stability ensuring it is able to bear the load and is prepared for safe access and landing
- 3 Perform work/task**
- 3.1 Lifts are determined within the RC of the bridge or gantry crane in accordance with load chart/s and lift plan
  - 3.2 Hook block is safely positioned over the load in accordance with safe work procedures and if crane is controlled from cabin following directions from associated personnel
  - 3.3 Lifting equipment and gear are connected to load and used safely in accordance with the lift plan and safe work procedures
  - 3.4 Test lift is carried out in accordance with safe work procedures
  - 3.5 Loads are transferred using relevant bridge or gantry crane movements and tag lines, as required, in accordance with lift plan and safe work procedures
  - 3.6 Load and bridge or gantry crane movement is monitored constantly and operated safely in accordance with lift plan and safe work procedures
  - 3.7 All required communication signals are correctly interpreted and followed whilst crane is operated in accordance with safe work procedures

- 3.8 Load is lowered and landed safely in accordance with lift plan and safe work procedures
  - 3.9 Lifting gear is disconnected from load and positioned safely and efficiently for next task in accordance with lift plan and safe work procedures
  - 3.10 Lifting equipment and gear are inspected for defects, and defective items are isolated, tagged and reported
- 4 Pack up**
- 4.1 Bridge or gantry crane is parked in accordance with manufacturer specifications and safe work procedures
  - 4.2 Bridge or gantry crane lifting gear and associated equipment are stowed and secured in accordance with safe work procedures
  - 4.3 Relevant motion locks and brakes are applied, as required, in accordance with manufacturer specifications and safe work procedures
  - 4.4 Bridge or gantry crane is shut down and secured to prevent unauthorised access/use in accordance with safe work procedures
  - 4.5 Post-operational bridge or gantry crane checks are carried out in accordance with safe work procedures and manufacturer specifications

## Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

## Range of Conditions

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

Non-essential conditions may be found in the TLI Transport and Logistics Training Package Companion Volume Implementation Guide.

## Unit Mapping Information

This unit replaces and is equivalent to TLILIC0006 Licence to operate a bridge and gantry crane.

## **Links**

Companion Volume Implementation Guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>