



**Australian Government**

# **TLIB0019 Inspect, prepare and start an electric tram**

**Release: 1**

# TLIB0019 Inspect, prepare and start an electric tram

## 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 involves the skills and knowledge required to inspect, prepare and start an electric tram in accordance with relevant regulations and workplace practices.

It includes checking and preparing an electric tram, visually examining an electric tram, conducting on-tram checks, and starting and positioning an electric tram for service in accordance with workplace requirements.

People achieving competence in this unit will need to fulfil the applicable state/territory legislated rail safety requirements and to comply with relevant codes of practice and/or guidelines, as well as relevant road rules and tramway regulatory requirements.

Work is performed under minimal supervision, generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

## Pre-requisite Unit

Not applicable.

## Competency Field

B – Equipment Checking and Maintenance.

## Unit Sector

Rail sector.

## Elements and Performance Criteria

### ELEMENTS

Elements describe the essential outcomes.

### PERFORMANCE CRITERIA

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

- 1 Plan and prepare electric tram**
  - 1.1 Planned roster is checked and interpreted for day's tram driving activities
  - 1.2 Allocation of electric trams is checked in conjunction with network control office or planned roster
  - 1.3 Electric tram inspection and preparation duties are identified and interpreted
  - 1.4 Tram schedules, notices and other operational and regulatory documentation are accessed and interpreted in accordance with workplace procedures
  - 1.5 Communications equipment required for the day's operations is obtained and checked to ensure it is functional
  - 1.6 Hazards are identified, risks are assessed and risk control measures are implemented
  - 1.7 Required personal protective equipment (PPE) is obtained for use prior to tram driving activities
  - 1.8 Electric tram to be inspected and prepared is located in the depot
  - 1.9 Depot safety and electrical equipment awareness procedures are followed while locating tram in the depot
- 2 Visually inspect and prepare electric tram**
  - 2.1 Features, functions and location of electric tram and associated equipment are identified
  - 2.2 Logbook is checked to confirm serviceability of unit
  - 2.3 Pre-start internal and external safety and maintenance checks are conducted in accordance with work health and safety (WHS)/occupational health and safety (OHS) and other workplace policies and procedures
  - 2.4 Electric tram and equipment are checked visually, and defects and deficiencies are recorded and rectified, isolated, tagged or reported, as required, in accordance with workplace procedures and regulatory requirements
  - 2.5 Availability of traction power and sand are checked against journey requirements, as required, in accordance with workplace procedures and regulatory requirements
  - 2.6 Relevant WHS/OHS and regulatory requirements are followed
  - 2.7 Documentation for electric tram inspection and preparation results

is completed in accordance with workplace procedures

### **3 Conduct on-tram checks**

- 3.1** Electric tram is checked in correct sequence and all lights are confirmed as operating to optimum requirements
- 3.2** Pre-departure mechanical checks are performed and correct functioning of all equipment confirmed in accordance with workplace procedures and manufacturer operating requirements
- 3.3** Supervisory controls and indicators are checked to ensure they are functioning correctly and appropriate actions taken if they are not working correctly
- 3.4** Communications equipment is checked to ensure it is functioning correctly and appropriate actions are taken if not working correctly
- 3.5** Seat, windows, blinds and other personal in-cab equipment are checked and adjusted for correct functionality, safety and comfort
- 3.6** Ancillary equipment is checked and is confirmed to be operational in accordance with operating requirements
- 3.7** Fire extinguisher, point bars and any other required tools are checked to confirm they are in position

### **4 Start electric tram**

- 4.1** Electric tram is started in accordance with instructions and any operating faults are recognised, diagnosed, reported and recorded in appropriate records for follow-up
- 4.2** Where critical or serious equipment faults cannot be readily rectified, electric tram is shut down and reported for rectification in accordance with procedures
- 4.3** Instruments and gauges are observed and readings interpreted to confirm effective operation
- 4.4** Actions are taken to determine cause of identified problem in instruments and gauges, and situation is rectified or reported, as required, in accordance with workplace procedures
- 4.5** Sand operation is checked after starting and appropriate actions taken, as required, if not effectively functioning
- 4.6** Pre-departure checks are carried out to ensure electric tram is braking and powering effectively and is safe to move

### **5 Position electric tram**

- 5.1** Authority to move and position electric tram is obtained and relevant personnel are advised of intention and procedures
- 5.2** Electric tram is positioned in accordance with operational

requirements and directions

- 5.3 Tram performance is monitored during operation to confirm effective operation or to identify defects
- 5.4 Equipment defects are identified, rectified and recorded or relevant personnel are advised for assistance
- 5.5 Relevant WHS/OHS and regulatory requirements are followed to ensure safety and to prevent injury and damage
- 5.6 Relevant personnel are advised electric tram is secured in required position and is ready for service
- 5.7 Required documentation concerning inspecting, preparing and starting up electric tram is completed and processed in accordance with workplace procedures

## 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.

## Unit Mapping Information

This unit replaces and is equivalent to TLIB3078 Inspect, prepare and start an electrical tram.

## Links

Companion Volume Implementation Guides are found in VETNet -

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

# Assessment Requirements for TLIB0019 Inspect, prepare and start an electric tram

## Modification History

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

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- adapting to differences in trams and associated equipment and procedures
- checking and replenishing sand on an electric tram, as required
- checking electric tram equipment in accordance with workplace procedures
- conducting pre-operational and in-cab checks in accordance with workplace operational procedures
- conducting a visual inspection of an electric tram and associated equipment in accordance with workplace procedures
- identifying and assessing tram defects and deficiencies and taking appropriate actions to report, isolate, repair or replace identified defective equipment in accordance with workplace procedures
- identifying job hazards and required actions to minimise, control or eliminate identified hazards
- interpreting and following instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring and anticipating operational problems and hazards and taking appropriate actions
- operating and checking electronic communications equipment to required protocol
- reading, interpreting and following relevant instructions, information, workplace procedures and signs
- selecting and using required personal protective equipment (PPE) conforming to work health and safety (WHS)/occupational health and safety (OHS) and industry standards.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- cleaning requirements for an electric tram
- communication equipment checks
- electric tram controls, instruments and indicators and their purpose, location and use
- external features of an electric tram that must be checked during a pre-operational visual inspection
- functions of:
  - all supervisory indicators and controls and related checks for correct operation
  - ancillary systems on an electric tram and related checks for correct operation
  - operating controls to start, accelerate, decelerate and stop an electric tram
  - sand as used on an electric tram and the procedures for checking and refilling sand levels and carrying out sand system testing processes on an electric tram
- monitoring devices, braking and power equipment, safety systems, ancillary systems and any signalling systems
- principles, purpose and location of controls, monitoring devices, braking, power source and traction systems
- rail safety, WHS/OHS, and environmental procedures and regulations
- relevant state/territory road traffic authority and tramway operating procedures
- requirements for completing relevant documentation when inspecting, preparing and starting an electric tram
- typical defects that can occur on an electric tram and related actions to be taken
- workplace procedures for:
  - adjusting controls to optimise the operation of an electric tram
  - braking and safety system procedures for an electric tram
  - emergency response procedures
  - identifying equipment defects and assessing for appropriate actions
  - managing and controlling hazardous situations when preparing and starting up an electric tram
  - minor maintenance including cleaning
  - on-tram pre-operational checks for an electric tram
  - operating electronic communications equipment in accordance with required protocol
  - raising and lowering a pantograph or trolley pole on an electric tram, as fitted
  - starting and operating ancillary systems on an electric tram
  - start-up procedures for an electric tram
  - visual inspection procedures for an electric tram.

## Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the

time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate tram workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment include access to:

- a range of relevant exercises, case studies and/or simulations
- relevant and appropriate materials, tools, equipment and PPE currently used in industry
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

## Links

Companion Volume Implementation Guides are found in VETNet -

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