



Australian Government

TLIB3078 Inspect, prepare and start an electrical tram

Release: 1

TLIB3078 Inspect, prepare and start an electrical 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

Not applicable.

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 Roster is checked and interpreted for day's tram driving activities
 - 1.2 Allocation of electric trams is checked in conjunction with tram controllers and roster clerk
 - 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 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 basic 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 correctly performed and correct functioning of all equipment is 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 action is taken if they are not working correctly
 - 3.4 Communications equipment is checked to ensure it is functioning correctly and appropriate action is taken if it is 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 are interpreted to confirm effective operation
 - 4.4 Action is taken to determine cause of identified problem in instruments and gauges, and situation is rectified or reported, as required
 - 4.5 Sand operation is checked after starting and appropriate action is 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.

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

Unit Mapping Information

This unit replaces and is equivalent to TLIB3078A Inspect, prepare and start an electric 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 TLIB3078 Inspect, prepare and start an electrical 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 action to report, isolate, repair or replace identified defective equipment in accordance with workplace procedures
- identifying job hazards and required action 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 action
- operating and checking electronic communications equipment to required protocol
- reading and interpreting relevant instructions, procedures and information and signs
- selecting and using required personal protective equipment 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:

- braking and safety system procedures for an electric tram
- cleaning requirements for an electric tram
- communication equipment checks
- electric tram controls, instruments and indicators and their purpose, location and use
- emergency procedures
- 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
- functions of ancillary systems on an electric tram and related checks for correct operation
- functions of 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
- on-tram pre-operational checks for an electric tram
- operating controls to start, accelerate, decelerate and stop an electric tram
- principles, purpose and location of controls, monitoring devices, braking, power source and traction systems
- procedures for adjusting controls to optimise the operation of an electric tram
- procedures for identifying equipment defects and assessing for appropriate action
- procedures for managing and controlling hazardous situations when preparing and starting up an electric tram
- procedures for minor maintenance including cleaning
- procedures for operating electronic communications equipment in accordance with required protocol
- procedures for raising and lowering a pantograph or trolley pole on an electric tram
- procedures for starting and operating ancillary systems on an electric tram
- relevant 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
- start-up procedures for an electric tram
- typical defects that can occur on an electric tram and related action that should be taken
- visual inspection procedures for an electric tram.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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Assessment must occur in workplace operational situations or, where this is not available, 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:

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

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