



Australian Government

TLIC3030 Operate and monitor a heritage steam locomotive

Release: 2

TLIC3030 Operate and monitor a heritage steam locomotive

Modification History

Release 2. This is the second release of this unit of competency in the TLI Transport and Logistics Training Package:

- Minor statement changes in Performance Evidence
- Minor statement changes in Knowledge Evidence
- Minor statement changes in Assessment Conditions.

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 operate and monitor a heritage steam locomotive in accordance with relevant workplace procedures, rail regulations and codes of practice.

It includes operating heritage steam locomotive controls, monitoring its performance and maintaining its operational condition during a journey. It also includes working collaboratively with other train crew and relevant personnel.

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.

Work is performed under minimal supervision, generally within a team environment. It involves the application of routine operational principles and procedures when maintaining the safety and operation of a heritage steam locomotive, across a variety of operational contexts in the Australian heritage rail system.

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

Pre-requisite Unit

Not applicable.

Competency Field

C – Vehicle Operation.

Unit Sector

Rail sector.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Operate heritage steam locomotive

PERFORMANCE CRITERIA

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

- 1.1** Steam locomotive handling techniques, and track and road knowledge are interpreted and applied to eliminate or minimise risk of injury to personnel or damage to equipment, rolling stock and load
- 1.2** Acceleration and braking techniques are applied safely within track, road and weather conditions
- 1.3** Steam locomotive and rolling stock movement between sections is monitored and vehicles are positioned safely in accordance with relevant codes of practice, systems of safeworking and related requirements

2 Operate and monitor on-board equipment

- 2.1** Steam locomotive equipment is monitored and operated to maintain optimum running conditions and to identify faults, defects and deficiencies
- 2.2** Appropriate actions are taken in response to identified faults, defects and deficiencies to ensure safe operation of steam locomotive, including communications with operations controller, as required
- 2.3** Faults, defects and deficiencies are assessed to determine risk of damage to equipment or injury to personnel

3 Respond effectively to external operating factors

- 3.1** Instructions are verified, as required, interpreted and followed, in accordance with relevant codes of practice, rail regulatory requirements and workplace policies and procedures, to ensure actions taken are appropriate and safe
- 3.2** Fixed and hand signals, and verbal movement commands are interpreted and followed, in accordance with relevant rail regulations, codes of practice and workplace policies and procedures, to ensure actions taken are appropriate and safe
- 3.3** Hazardous situations are recognised and interpreted, and appropriate initiatives and actions are taken to minimise risk to personnel and equipment in accordance with workplace procedures and applicable regulatory requirements

4 Work

- 4.1** Safe operation and monitoring of steam locomotive is

collaboratively

maintained in collaboration with train crew, network control officer and relevant personnel in accordance with workplace requirements and rail resource management principles

- 4.2 Potential or actual conflicts or grievances with other train crew, network control officer and relevant personnel when operating a steam locomotive are recognised and resolved in accordance with workplace procedures and rail resource management principles
- 4.3 Regular communication is maintained with train crew, network control officer, drivers of other trains and relevant personnel when operating a steam locomotive in accordance with workplace procedures and regulatory requirements
- 4.4 Train crew, network control officer, drivers of other trains and relevant personnel are advised of operational problems, delays, safety incidents and emergency situations
- 4.5 Information provided by train crew, network control officer, drivers of other trains and other relevant personnel about the ongoing operation of steam locomotive is interpreted and applied to driving activities in accordance with workplace procedures and applicable regulatory requirements

5 Follow all applicable rail regulatory requirements

- 5.1 Rail regulatory requirements applicable to operating a steam locomotive and the train and track or road concerned, are accessed, clarified as required and interpreted
- 5.2 Relevant rail regulatory requirements are applied and followed when operating a steam locomotive
- 5.3 Rail resource management principles are applied in all rail operations involving a steam locomotive in accordance with workplace procedures and applicable rail regulatory requirements

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 TLIC3030A Operate and monitor a heritage steam locomotive.

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 TLIC3030 Operate and monitor a heritage steam locomotive

Modification History

Release 2. This is the second release of this unit of competency in the TLI Transport and Logistics Training Package:

- Minor statement changes in Performance Evidence
- Minor statement changes in Knowledge Evidence
- Minor statement changes in Assessment Conditions.

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 heritage steam locomotives and associated equipment and procedures
- checking and replenishing fluids and carrying out lubrication processes on a heritage steam locomotive
- communicating effectively and working collaboratively with others as part of a train crew
- completing relevant documentation
- identifying job hazards and taking required actions to minimise, control or eliminate identified hazards
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring heritage steam locomotive performance
- reading and interpreting relevant instructions, procedures, information and signs relevant
- recognising problems that may arise when operating and monitoring a heritage steam locomotive and taking appropriate actions.

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:

- applicable state/territory legislated rail safety requirements, relevant codes of practice and/or guidelines and local rail regulations
- communicating and working collaboratively with train crew, network control officer and other relevant personnel requirements
- documentation requirements when operating and monitoring a steam locomotive performance
- heritage steam locomotive controls, instruments and indicators and their purpose, location and use
- operating controls to start, accelerate, decelerate and stop a heritage steam locomotive
- rail danger zones
- rail resource management principles as they apply to operating and monitoring heritage steam locomotive performance
- rail safety, work health and safety (WHS)/occupational health and safety (OHS), and environmental procedures and regulations
- speed and load limits for a heritage steam locomotive
- steam engine operation principles, monitoring devices, braking equipment, ancillary systems and signalling systems
- track and bridge limitations, speed limitations, gauge limitations, curves and gradients, curfews, location of signals and crossings, emergency crossovers and operation of a turntable
- train schedules, heritage steam locomotive allocation and operational instructions
- typical faults that can occur on a heritage steam locomotive and related actions that should be taken when repairing, isolating, replacing, reporting and recording faulty equipment
- workplace procedures for:
 - adjusting controls to maximise efficient and safe running
 - braking and safety system procedures
 - emergency response procedures
 - identifying equipment defects and assessing them for appropriate actions
 - managing safety incidents and hazardous situations that may arise when operating and monitoring heritage steam locomotive performance
 - minor maintenance, cleaning, lubricating and servicing a heritage steam locomotive
 - operating and monitoring a heritage steam locomotive
 - operating and monitoring the performance of ancillary equipment on a heritage steam locomotive
 - operating requirements for a heritage steam locomotive.

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 rail corridor 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 must include access to:

- relevant and appropriate materials, tools, equipment and personal protective equipment (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>