



**Australian Government**

# **TLIC3072A Conduct the duties of an assistant on a heritage locomotive**

**Release 1**

# **TLIC3072A Conduct the duties of an assistant on a heritage locomotive**

## **Modification History**

Release 1 - New unit of competency

## **Unit Descriptor**

This unit involves the skills and knowledge required to conduct the duties of an assistant on a heritage locomotive in accordance with workplace procedures and the requirements of relevant rail regulations and codes of practice.

It includes carrying out or assisting with the following activities on a heritage locomotive in accordance with organisational requirements: checking, preparing and starting up prior to operation; coupling, uncoupling and shunting; assisting with operations and stabling.

Licensing or certification requirements are not applicable to this unit.

## **Application of the Unit**

People achieving competence in this unit will need to fulfil the legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines and local rail regulations and codes of practice as they apply to the operation of railway systems.

## **Licensing/Regulatory Information**

Not applicable.

## **Pre-Requisites**

Not applicable.

## **Employability Skills Information**

This unit contains employability skills.

## **Elements and Performance Criteria Pre-Content**

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

## Elements and Performance Criteria

- |  |   |
|--|---|
| <b>1 Prepare to operate a heritage locomotive</b>                    | <ul style="list-style-type: none"><li>1.1 Roster is checked and interpreted for day's operational activities</li><li>1.2 Allocation of locomotive is checked and confirmed</li><li>1.3 Train schedules/notices and other operational and regulatory documentation is accessed and interpreted in accordance with workplace procedures</li><li>1.4 Required personal protective equipment is obtained for use while operating the locomotive</li><li>1.5 Trackside safety and basic electrification awareness procedures are followed while locating the allocated heritage locomotive</li></ul>   |
| <b>2 Assist with preparing and starting a heritage locomotive</b>    | <ul style="list-style-type: none"><li>2.1 Logbook is checked to confirm serviceability of heritage locomotive</li><li>2.2 Locomotive is confirmed as being securely stabled prior to commencing preparation and safety checks</li><li>2.3 Preparation and safety checks are conducted in accordance with occupational health and safety (OH&amp;S) and other workplace policies and procedures</li><li>2.4 Fluid levels and mechanical equipment are checked and appropriate action is taken if required</li><li>2.5 Locomotive is started in accordance with manufacturer and/or organisational instructions</li><li>2.6 For critical or serious equipment faults that cannot be readily rectified, locomotive is shut down, faulty equipment is isolated and tagged, and problem reported for rectification</li><li>2.7 All instruments and gauges are observed, readings are interpreted to confirm effective air and electrical operation, and where a problem is indicated, action is taken to determine the cause and to rectify or report the situation</li><li>2.8 Fluid levels are rechecked after starting and appropriate action is taken as required</li><li>2.9 Assistance is provided with pre-departure checks</li><li>2.10 Logbook and other service records on the locomotive are completed in accordance with organisational requirements</li></ul> |
| <b>3 Assist with coupling, uncoupling and securing rail vehicles</b> | <ul style="list-style-type: none"><li>3.1 Rail vehicles are positioned to meet coupling requirements in accordance with organisational policies and procedures</li><li>3.2 Coupling systems are identified and applied appropriately to couple and/or uncouple rail vehicles</li></ul>  |

3.4 Connecting hoses and electrical couplings are connected/disconnected in accordance with organisational policies and procedures

3.5 Hand brakes and other securing devices are applied/released attached/removed in accordance with organisational policies and procedures

#### **4 Assist with operating a heritage locomotive**

4.1 Safeworking activities are undertaken in accordance with organisational and/or network owner policies and procedures

4.2 Supervisory controls and indicators are monitored and operated in accordance with organisational policies and procedures

4.3 Assistance is provided with communications for network control officers and ground staff

4.4 Observation of all aspects of the rail corridor and environs is maintained and communicated to driver in accordance with organisational and/or network owner policies and procedures

4.5 When driver is incapacitated train is stopped, network control is informed and instructions are followed in accordance with organisational policies and procedures

4.6 Assistance with locomotive operation is provided as requested by driver

#### **5 Assist with stabling a heritage locomotive**

5.1 Locomotive is secured in accordance with directions, organisational procedures and rail regulations

5.2 Locomotive is shut down in accordance with manufacturer and/or operator instructions

5.3 Logbook and other service records on the locomotive are completed in accordance with organisational requirements

5.4 Cab is secured in accordance with organisational procedures

## Required Skills and Knowledge

This section describes the knowledge and skills required for this unit.

### Required knowledge:

- Braking and safety system procedures for heritage locomotives
- Communication equipment checks
- External features of a heritage locomotive that must be checked during a pre-operational visual inspection
- Functions of auxiliary systems on a motive power unit and related checks for correct operation
- In-cab pre-operational checks for a heritage locomotive
- Local procedures and operating requirements
- Lubrication requirements for a motive power unit
- Operating controls to start, accelerate, decelerate and stop a heritage locomotive
- Operating procedures for heritage locomotives
- Principles, purpose and location of controls, monitoring devices, braking, power source and traction systems
- Procedures for checking fuel and fluid levels, and carrying out lubrication processes on a heritage locomotive
- Procedures for identifying equipment defects and assessing for appropriate action
- Procedures for managing and controlling hazardous situations when preparing and starting up a heritage locomotive
- Procedures for starting and operating auxiliary systems on a heritage locomotive
- Procedures to be followed in an emergency
- Relevant safety, OH&S and environmental procedures and regulations
- Requirements for completing relevant documentation when inspecting and preparing a heritage locomotive
- Start-up procedures for heritage locomotives
- Visual inspection procedures for a heritage locomotive

### Required skills:

- Check and replenish fluids and carry out lubrication requirements on a heritage locomotive
- Communicate effectively with others when inspecting and preparing a heritage locomotive
- Complete documentation related to operating a heritage locomotive
- Conduct a visual inspection of a heritage locomotive and associated equipment
- Document outcomes of visual inspection of a heritage locomotive
- Interpret and follow instructions and prioritise work
- Operate electronic communication equipment to required protocol
- Prepare a heritage locomotive prior to service
- Read and interpret instructions, procedures, information and signs relevant to operating a

heritage locomotive

- Work collaboratively with others as part of a train crew

## Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

### **Critical aspects for assessment and evidence required to demonstrate competency in this unit**

- The evidence required to demonstrate competency in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:
  - the required knowledge and skills
  - relevant legislation and workplace procedures
  - other relevant aspects of the range statement
- Assessment must include exercises which demonstrate competent performance of the following in a range of situations:
  - assisting with pre-operational activities
  - coupling and uncoupling a heritage locomotive
  - stabling a heritage locomotive

### **Context of and specific resources for assessment**

- Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- Resources for assessment include:
  - a range of relevant exercises, case studies and/or other simulated practical and knowledge assessment, and/or
  - access to an appropriate range of relevant operational situations in the workplace
- In both real and simulated environments, access is required to:
  - relevant and appropriate materials and equipment, and
  - applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

### **Method of assessment**

- As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests
- Practical assessment must occur:
  - through activities in an appropriate range of situations in the workplace

## Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance.

Motive power equipment may include:

- auxiliary systems
- automatic control systems
- braking systems
- drive systems
- instrumentation
- communication systems
- warning equipment
- power source
- vigilance systems
- traction systems
- head and marker lights

Inspection of a heritage locomotive may include:

- lights
- hoses
- couplings
- doors and door locks
- springs
- brake equipment
- wheels
- seals
- sand and fuel
- electrical cables
- glass windows and doors
- compressor oil levels
- audible faults (e.g. hiss of escaping air)
- visible faults (e.g. oil leaks, tears and cracks)

In-cab pre-operational checks will include:

- brake checks
- vigilance control test
- functionality checks of supervisory controls and indicators
- radio communication check
- seat
- windows and blinds
- air conditioners and heaters
- door locks
- fire extinguishers
- emergency toolbox

Relevant personnel may include:

- train crew
- train controllers and signallers
- maintenance personnel



Safety and personal protective equipment may include:

- gloves
- sunscreen and sunglasses
- safety glasses
- insect repellent
- safety headwear and footwear
- two-way radios
- hand lamps
- flags
- safety devices
- audible indicators
- breathing equipment
- fire extinguishers
- high visibility clothing
- hearing protection

Information and documents may include:

- notices in driver notice board/box
- train driver roster sheet and/or table card
- operational instructions, policies and procedures
- emergency procedures manual

Applicable legislation, regulations and codes may include:

- legislated rail safety requirements including acts and regulations from each applicable state and territory together with any nationally approved compliance codes and/or guidelines
- relevant Australian Standards and related requirements
- relevant state/territory OH&S legislation
- relevant state/territory environmental protection legislation

## **Unit Sector(s)**

Not applicable.

## **Competency Field**

C – Vehicle Operation