



Australian Government

TLIC3073 Fire a steam locomotive

Release: 1

TLIC3073 Fire a steam locomotive

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 conduct the duties of an assistant on a steam locomotive in accordance with workplace procedures and the requirements of relevant rail regulations and codes of practice.

It includes preparing for operations, preparing and starting the locomotive, assisting with un/coupling and securing the locomotive, and assisting in operating and stabling the locomotive in accordance with organisational 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 to fire a steam locomotive.

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

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Prepare to assist with operating a

- 1.1 Roster is checked and interpreted for day's operational activities

steam locomotive

- 1.2 Allocation of locomotive is checked
- 1.3 Train schedules/notices and other operational and regulatory documentation are accessed and interpreted in accordance with workplace procedures
- 1.4 Personal protective equipment required to operate the locomotive is obtained
- 1.5 Trackside safety and electrification awareness procedures are followed while locating allocated locomotive

2 Prepare and start a steam locomotive

- 2.1 Logbook is checked to confirm serviceability of locomotive
- 2.2 Locomotive is confirmed as being securely stabled prior to commencing preparation and safety checks
- 2.3 Preparation and safety checks are conducted in accordance with work health and safety (WHS)/occupational health and safety (OHS) and other organisational policies and procedures
- 2.4 Water levels and fuels are checked and replenished as required
- 2.5 Mechanical equipment is checked and appropriate action is taken as required
- 2.6 Fire is lit and steam is raised in accordance with organisational instructions, with consideration for thermal expansion and in accordance with environmental procedures and practices
- 2.7 For critical or serious equipment faults that cannot be readily rectified, fire is dropped, faulty equipment is isolated and problem is reported for rectification
- 2.8 All indicators and gauges are continuously monitored and readings are interpreted to confirm effective pressure, water level and air operation, and where a problem is indicated, action is taken to determine the cause and to rectify or report the situation
- 2.9 Operation of locomotive equipment is established and verified
- 2.10 Locomotive lubrication, cleaning, preparation, and provisioning are undertaken in accordance with organisational requirements
- 2.11 Logbook and other service records on the locomotive are completed in accordance with organisational requirements

3 Assist with

- 3.1 Rail vehicles are positioned to meet coupling requirements in

coupling, uncoupling and securing rail vehicles		accordance with organisational policies and procedures
	3.2	Coupling systems are identified and applied appropriately to couple and/or uncouple rail vehicles
	3.3	Connecting hoses and electrical couplings are connected/disconnected in accordance with organisational policies and procedures
	3.4	Hand brakes and other securing devices are applied/released and attached/removed in accordance with organisational policies and procedures
4 Assist with operating a steam locomotive	4.1	Safeworking activities are undertaken in accordance with organisational and/or network owner policies and procedures
	4.2	Gauges and indicators are monitored and operated in accordance with organisational policies and procedures
	4.3	Boiler is fired to meet load requirements in accordance with environmental procedures and practices
	4.4	Water level is maintained to ensure safe boiler operation meets load requirements and track characteristics
	4.5	Assistance with communications is provided when communicating with Network Control Officer and ground staff
	4.6	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
	4.7	In case of driver being incapacitated, train is stopped, Network Control Officer is informed and instructions are followed in accordance with organisational policies and procedures
	4.8	Assistance with locomotive operation is provided as requested by driver
5 Assist with stabling a steam locomotive	5.1	Locomotive is secured in accordance with directions, workplace procedures and rail regulations
	5.2	Boiler water levels are checked and replenished as required
	5.3	Locomotive is shut down in accordance with operator instructions
	5.4	Ash is disposed of responsibly in accordance with network owner and operator policies

- 5.5 Assistance is provided to conduct a post-operational inspection
- 5.6 Logbook and other service records on the locomotive are completed in accordance with organisational requirements
- 5.7 Controls are secured in accordance with organisational 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 TLIC3073A Fire a steam locomotive.

Links

Companion Volume implementation guides are found in VETNet -

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