



Australian Government

TLIB3053 Maintain mechanical signalling locking and interlocking devices

Release: 1

TLIB3053 Maintain mechanical signalling locking and interlocking devices

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 maintain mechanical signalling locking and interlocking devices in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes diagnosing and correcting faults in the devices, and testing and adjusting the repaired equipment to meet workplace and manufacturer standards.

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 mechanical signalling locking and interlocking devices, as part of workplace activities across a variety of operational contexts within the Australian rail system.

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

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

**1 Diagnose
locking/interlocking
equipment faults**

- 1.1 Out-of-specification or non-operating mechanical locking and interlocking signalling equipment /components are correctly identified through operational testing
- 1.2 Viability of adjustments/replacements/repairs to equipment/components is correctly evaluated to ensure cost effective operations
- 1.3 Work is planned to ensure minimum disruption to train operations and safe repair activities
- 1.4 Support/assistance with diagnosis or repair operations is obtained through liaison with appropriate personnel

**2 Correct equipment
faults**

- 2.1 Mechanical locking and interlocking signalling equipment and component cleaning/lubrication and adjustment is performed to specifications to ensure required level of operations
- 2.2 Equipment and components are replaced or repaired in accordance with operational specifications to ensure required level of operations
- 2.3 Viability of repairs to replaced equipment/components is evaluated and equipment is tagged for repair or disposed of in accordance with workplace requirements
- 2.4 Liaison with or support to other personnel is maintained to ensure equipment is maintained within specification

**3 Test and adjust
locking/interlocking
equipment**

- 3.1 Locking/interlocking equipment functions are tested to ensure operational compliance with required standards
- 3.2 Final cleaning, lubricating and adjustments to equipment are carried out to ensure operational compliance
- 3.3 Equipment is locked/secured as specified to ensure safety and protection from elements or people
- 3.4 Records of repair activities are correctly completed and forwarded to appropriate personnel for use in identifying future maintenance 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.

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

Unit Mapping Information

This unit replaces and is equivalent to TLIB3053A Maintain mechanical signalling locking and interlocking devices.

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 TLIB3053 Maintain mechanical signalling locking and interlocking devices

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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:

- applying relevant workplace procedures
- applying relevant test procedures
- communicating effectively with others
- completing relevant documentation
- identifying job hazards and taking required action to minimise, control or eliminate identified hazards
- implementing contingency plans
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with operating procedures
- operating mechanical signalling equipment
- reading and interpreting relevant instructions, procedures, information and signs
- repairing and replacing mechanical locking and interlocking equipment
- reporting and/or rectifying identified problems, faults or malfunctions promptly , in accordance with regulatory requirements and workplace procedures
- selecting and using hand, portable, power and air tools
- using chemicals, solvents and lubricants in accordance with safety data sheets (SDSs)/material safety data sheets (MSDSs) and/or manufacturer instructions and organisational procedures
- working collaboratively with others
- working systematically with required attention to detail without injury to self or others, or damage to goods or equipment.

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
- contents of technical specifications and manuals
- documentation/authorisation processes and procedures
- fault detection techniques
- hazards that may exist when repairing and adjusting mechanical locking and interlocking signalling equipment, and ways of controlling the risks involved
- mechanical fitting techniques
- organisational procedures
- principles of railway signalling, particularly those dealing with mechanical locking and interlocking equipment
- problems that may occur when repairing and adjusting mechanical locking and interlocking signalling equipment, and action that can be taken to report or resolve these problems
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- SDSs/MSDSs, manufacturer instructions and workplace procedures for repairing and adjusting mechanical locking and interlocking signalling equipment.

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 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, rail industry standards, SDSs/MSDSs, regulations, codes of practice and operation manuals.
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