



**Australian Government**

# **TLIB3094 Check and repair track geometry**

**Release: 2**

# **TLIB3094 Check and repair track geometry**

## **Modification History**

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

- PC 3.1 grammatical error corrected
- PC 4.3 deleted with outcomes moved to PC 4.1
- Minor Performance Evidence added
- 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 check and repair track geometry, in accordance with safeworking and regulatory requirements, workplace procedures and rail network geometry specifications.

It includes determining the job requirements, restoring track geometry, checking track compliance after work and completing required documentation.

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 in a team environment. It involves the application of routine operational principles and procedures when checking and repairing track geometry, 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

Rail sector.

## 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 Determine job requirements**

**1.1** Faults and deficiencies in track geometry are identified, and work required to restore track to required standard is determined

**1.2** Hazards are identified, risks assessed and control measures implemented

**1.3** Appropriate repair methods are identified to enable repairs to be conducted

**1.4** Job requirements and resources are determined in accordance with workplace procedures and scope of work

#### **2 Restore track geometry**

**2.1** Survey data is used as required to establish correct geometry

**2.2** Appropriate lifting and lining methods and equipment are used to lift and line track to restore running surface to required geometry in accordance with workplace standards and procedures

#### **3 Confirm compliance after work**

**3.1** Track geometry is checked for compliance with rail network standards

**3.2** Vertical and horizontal structural and overhead clearances are checked against required standards to allow safe passage of trains

**3.3** Track structure where work has been undertaken is checked for compliance with standards required to enable reinstatement of service

**3.4** Appropriate operating conditions are applied in accordance with workplace procedures

#### **4 Complete documentation**

**4.1** Required documentation procedures and processes are

confirmed in accordance with workplace procedures

- 4.2** Documentation 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.

## Unit Mapping Information

This unit replaces and is equivalent to TLIB3094B Check and repair track geometry.

## 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 TLIB3094 Check and repair track geometry

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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 three separate occasions and include:

- adapting to differences in measuring and repair equipment in accordance with operating procedures
- applying relevant workplace procedures
- assessing and identifying track geometry defects against required rail network standards and applying appropriate restrictions
- certifying track to operational standards after repair work is completed
- checking platform and rail structures clearances horizontal and vertical alignment
- checking the horizontal and vertical alignment, cross-level, cant and gauge of the track
- confirming safe clearances of any structure erected adjacent to or over the track
- determining appropriate repair methods for identified faults
- identifying job hazards and taking required action to minimise, control or eliminate identified hazards
- identifying, selecting and using tools and equipment required for checking and repairing track geometry
- implementing contingency plans
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- planning and organising work, including determining work requirements and work methods
- reading and interpreting relevant instructions, procedures, information, plans, drawings and specifications
- recording and reporting results of track work in accordance with workplace procedures
- reporting and rectifying identified problems within limits of own role, in accordance with

- regulatory requirements and workplace procedures
- selecting and using appropriate lifting and lining methods, and equipment to correct geometry defects
- using appropriate lifting and lining methods, and equipment to restore running surface to required geometry
- using appropriate measurement methods to assess and correct track geometry defects
- 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:

- documentation and/or work authorisation and work completion processes and procedures
- emergency procedures
- fault detection techniques
- hazards that may exist when checking and repairing track geometry, and ways of controlling the risks involved
- maintenance and measuring of track geometry workplace procedures and network standards
- problems that may occur when checking and repairing track geometry, and action that can be taken to report or resolve these problems that may occur when measuring track geometry
- relevant rail network standards, technical specifications and workplace manuals and/or procedures
- relevant work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- relevant work recording procedures
- track certification requirements
- track geometry acceptance network standards
- track geometry maintenance methods and techniques
- track stability and the work requirements for different weather conditions
- workplace procedures for checking and repairing track geometry.

## 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.

Practical assessment must occur in an appropriate range of situations in the rail environment.

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:

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

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