



Australian Government

TLIS0004 Measure and mark track for resurfacing

Release: 1

TLIS0004 Measure and mark track for resurfacing

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 undertake measurement and marking of track for resurfacing operations in accordance with rail network standards, safeworking and regulatory requirements, and workplace procedures.

It includes identifying and marking track obstructions, using appropriate measurement tools to measure the range of geometry elements, calculating recording and marking data for resurfacing operations, and recording and reporting results.

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 measuring and marking track for resurfacing across a variety of operational contexts.

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

Pre-requisite Unit

Not applicable.

Competency Field

S – Construction and Installation

Unit Sector

Rail sector.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential Performance criteria describe the performance needed to

outcomes.

demonstrate achievement of the element.

- | | |
|--|---|
| 1 Plan for resurfacing | 1.1 Scope of resurfacing work, including ramp-in and ramp-out points, mode of machine application and requirements for measurements are determined |
| | 1.2 Appropriate survey or relevant documentation is selected in accordance with workplace procedures |
| | 1.3 Survey plaques and monuments are located and accurately interpreted as required |
| | 1.4 Hazards are identified, risks are assessed and control measures are implemented |
| 2 Mark or protect obstructions | 2.1 Track obstructions are identified |
| | 2.2 Track obstructions are marked or protected, as required, in accordance with workplace procedures |
| 3 Measure geometry and record results | 3.1 Equipment appropriate to task is selected and checked in accordance with manufacturer instructions and workplace procedures |
| | 3.2 Equipment is operated in accordance with manufacturer or work instructions to provide appropriate data for analysis |
| | 3.3 Track geometry is measured in accordance with workplace procedures |
| | 3.4 Measurements are recorded in accordance with workplace procedures |
| 4 Mark track | 4.1 Offsets and machine adjustment values are calculated as required and recorded in accordance with workplace procedures |
| | 4.2 Track data is marked on track as required in accordance with workplace procedures |
| 5 Use/report data | 5.1 Data is compared to track maintenance/construction tolerances in accordance with workplace procedures |
| | 5.2 Results are reported 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 TLIS3039 Measure and mark track for resurfacing.

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 TLIS0004 Measure and mark track for resurfacing

Modification History

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 equipment in accordance with workplace procedures
- applying relevant safeworking system and workplace procedures
- calculating, recording and marking data for resurfacing operations from information sources such as survey sheets, survey marks and curve compensation charts
- completing relevant documentation
- identifying and marking track obstructions
- identifying job hazards and taking required actions to minimise, control or eliminate identified hazards
- identifying, selecting and using tools and equipment
- interpreting and following operational instructions
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring work activities in terms of planned schedule
- reading and interpreting relevant instructions, procedures, information, plans, drawings and specifications
- reading track geometry data
- recording and reporting results in accordance with workplace procedures
- reporting and/or rectifying identified problems, in accordance with workplace procedures
- using appropriate measurement tools to measure the range of geometry elements
- 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:

- hazards that may exist when measuring and marking track for resurfacing, and ways of controlling the risks involved
- methods of marking and protecting obstructions
- obstructions to resurfacing operations, including operation of tampers, ballast regulators and

stabilisers

- problems that may occur when measuring and marking track for resurfacing operations, and actions that can be taken to report or resolve these problems
- relevant rail danger zones
- relevant records procedures
- relevant rail safety, work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- safeworking system procedures
- track data requirements for resurfacing
- track geometry parameters associated with maintenance and/or construction such as alignment, top, line, twist, superelevation
- workplace procedures for recording and analysing track parameters.

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 or, where this is not available, 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:

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