



Australian Government

TLIS3041 Construct timber or composite points and crossings

Release: 1

TLIS3041 Construct timber or composite points and crossings

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 construct points and crossings on timber or composite bearers in accordance with rail industry standards, safeworking and regulatory requirements, and workplace procedures.

It includes preparing for construction work, carrying out relevant construction work, preparing points and crossings for transport, 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.

The unit involves the application of routine operational principles and procedures when constructing points and crossings on undrilled timber or composite bearers, 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

S – Construction and Installation

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 points and

1.1 Work requirements are established to identify scope of work

crossings	and resources required
	1.2 Construction design or plan is obtained and interpreted
	1.3 Hazards are identified, risks are assessed and control measures are implemented
	1.4 Required resources are acquired
	1.5 Assembly area is prepared or identified in accordance with workplace procedures
	1.6 Delivered materials are checked for compliance with design
2 Fabricate points and crossings	2.1 Structure is fabricated according to design specification
	2.2 Bearers are selected for correct length, placed on assembly area and marked up, in accordance with specified design and workplace procedures
	2.3 Reference rail is selected, marked up and fixed to bearers, in accordance with specified design and workplace procedures
	2.4 Remaining steelwork is adjusted for correct geometry and is attached to bearers, in accordance with specified design and workplace procedure
	2.5 Dimensions, geometry and condition are checked for compliance with design
	2.6 Non compliances are repaired or replaced as required in accordance with workplace procedures
3 Prepare points and crossings for transport	3.1 Transport requirements are confirmed
	3.2 Transport requirements are followed in accordance with manufacturer instructions and workplace procedures
	3.3 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.

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

Unit Mapping Information

This unit replaces and is equivalent to TLIS3041A Construct timber or composite points and crossings.

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 TLIS3041 Construct timber or composite points and crossings

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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 two** separate occasions and include:

- applying relevant safeworking system and workplace procedures
- assembling track layouts to plans and specifications
- identifying job hazards and taking required action to minimise, control or eliminate identified hazards
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- reading and interpreting relevant technical data, standards and drawings
- using appropriate equipment to make accurate measurements on points and crossings
- using geometric and dimension principles to ensure compliance with design
- working systematically with required attention to detail without injury to self or others, or damage to 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:

- appropriate hand tools, power tools and equipment required to complete activities
- clearances and tolerances
- different types of timber or composite sleepers and bearers, and their individual characteristics
- documentation and record keeping requirements
- features and principles of points and crossings operation
- hazards that may exist when constructing timber or composite points and crossings, and ways of controlling the risks involved
- measurement techniques
- point and crossing manufacturer instructions, rail industry standards and workplace

procedures

- problems that may occur when constructing timber or composite points and crossings, and action that can be taken to report or resolve these problems
- rail bending techniques applied to point and crossing components
- relevant safety data sheets (SDSs)/material safety data sheets (MSDSs) and/or manufacturer instructions and workplace procedures
- relevant safety, work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- techniques for constructing timber or composite points and crossings
- workplace procedures for constructing timber or composite points and crossings.

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

Links

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