



Australian Government

TLIB2082 Repair steel structures

Release: 2

TLIB2082 Repair steel structures

Modification History

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

- 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 repair steel structures and their components in accordance with safeworking and regulatory requirements, and workplace procedures.

It includes determining job requirements, preparing and maintaining components, performing repairs, cleaning up the site after maintenance activities and completing 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 within a team environment. It involves the application of routine operational principles and procedures when repairing structures and their components, 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

Elements describe the essential outcomes.

1 Determine job requirements

PERFORMANCE CRITERIA

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

1.1 Structures are inspected as required to locate defects

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

1.3 Job requirements are determined in accordance with workplace procedures, and scope of work and resources required are identified

2 Prepare component for repair

2.1 Components requiring repair are prepared in accordance with requirements

2.2 Materials required for job are identified and organised as required to enable appropriate repair of components

2.3 Surfaces of components are treated using appropriate methods and materials as required

2.4 Components are assembled using appropriate lifting methods to ensure safety

2.5 Connection locations are checked for clearances and tolerances to allow smooth fitting of components

2.6 Fastening of components is performed to specification as required

3 Perform repairs

3.1 Steel members are accurately marked, drilled and cut in accordance with workplace procedures

3.2 Component is replaced or repaired to required standard in accordance with workplace procedures

3.3 Replaced or repaired components are connected to the structure by approved methods in accordance with workplace procedures

3.4 Connections between steel members are tightened, repaired or replaced using approved material and techniques

3.5 External steel deficiencies in components are treated

with suitable materials as required to minimise degradation of components

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| 4 | Clean up site | 4.1 | Workplace procedures and environmental regulations and standards relevant to site clean-up are confirmed and clarified as required |
| | | 4.2 | Waste is minimised and reused or disposed of in accordance with relevant workplace procedures and environmental regulations and standards |
| | | 4.3 | Cleaning products and materials are disposed of in accordance with relevant workplace procedures and environmental regulations and standards |
| | | 4.4 | Established site restoration practices are followed and problems with these practices are identified and reported |
| 5 | Complete documentation | 5.1 | Required documentation procedures and processes are confirmed |
| | | 5.2 | Documentation is filled in legibly and proofread |
| | | 5.3 | Documentation is 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 TLIB2082A Repair steel structures.

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 TLIB2082 Repair steel structures

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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 tools and equipment and work requirements in accordance with operating procedures
- applying relevant workplace procedures
- following operational instructions and work sequences when undertaking steel structures repair
- identifying defects in accordance with workplace procedures
- identifying job hazards and taking required action to minimise, control or eliminate identified hazards
- implementing contingency plans
- modifying activities depending on operational contingencies, risk situations and environments
- reading and interpreting relevant plans and specifications
- repairing a range of defect types in accordance with workplace procedures
- repairing existing steel structures using a range of repair techniques
- replacing steel components in accordance with workplace procedures
- reporting and/or rectifying identified problems, faults or malfunctions, in accordance with regulatory requirements and workplace procedures
- selecting and using relevant tools and equipment in accordance with workplace procedures.

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:

- basic steel component assembly techniques
- functions of different types of steel structures
- hazards that may exist when repairing structures and/or components and ways of controlling the risks involved

- information on the use of epoxy and grouts for mortar pads in accordance with safety data sheets (SDS)/material safety data sheets (MSDS) and/or manufacturer instructions and organisational procedures
- problems that may occur during the repair of steel structures and action that can be taken to report or resolve these problems
- relevant rail danger zones
- relevant rail safety, work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- relevant recording and documentation procedures
- steel structures repair methods and techniques
- workplace procedures for repairing steel structures.

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, using techniques and defect types in the workplace.

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 simulated practical and knowledge assessments
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation including workplace procedures, regulations, rail industry standards, codes of practice and operation manuals.

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