



Australian Government

TLIW0004 Grind rails

Release: 1

TLIW0004 Grind rails

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 grind rail and welds in accordance with rail network standards, safeworking and regulatory requirements, and workplace procedures.

It includes determining job requirements, grinding weld and/or weld repair, grinding rail to repair surface defects, and completing all required documentation. This unit relates to the grinding of new welds and weld repairs, wheel burns, rail batter and overflow in plain track.

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 some supervision, generally within a team environment. It involves the application of routine operational principles and procedures when grinding rail and welds, 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

W – Equipment and Systems Operations

Unit Sector

Rail sector.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

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| 1 Determine job requirements | 1.1 New welds and weld repairs are located |
| | 1.2 Defects relating to wheel burns, rail battering and rail overflow are identified |
| | 1.3 Hazards are identified, risks are assessed and control measures are implemented |
| | 1.4 Appropriate equipment is selected |
| | 1.5 Appropriate repair method and/or profile is selected to ensure completed work will meet specifications |
| | 1.6 Site is cleared of obstructions and combustible material |
| 2 Grind weld and/or weld repair | 2.1 Rail is ground to profile using approved equipment in accordance with workplace procedures |
| | 2.2 Grinding equipment is operated safely in accordance with work health and safety (WHS)/occupational health and safety (OHS) and environmental requirements |
| | 2.3 Rail gauge face is ground to match adjacent rail in curves in accordance with rail network standards and procedures |
| | 2.4 Rail profile and vertical and horizontal alignment are measured to ensure compliance with rail network standards |
| | 2.5 Rail surface condition is assessed for compliance with rail network standards |
| 3 Grind rail to repair surface defects | 3.1 Rail is ground using approved equipment in accordance with workplace procedures |
| | 3.2 Grinding equipment is operated safely in accordance with WHS/OHS and environmental requirements |
| | 3.3 Finished surface is checked to ensure compliance with rail network specification |
| 4 Complete documentation | 4.1 Required documentation procedures and processes are confirmed |
| | 4.2 Documentation is filled in legibly and proofread |
| | 4.3 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 TLIW2012 Grind rails.

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 TLIW0004 Grind rails

Modification History

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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:

- applying grinding techniques to achieve rail profile and surface condition to meet requirements of rail network standards and procedures
- applying relevant safeworking system and workplace procedures
- grinding welds and weld repairs using appropriate grinding wheel speed and rate of metal removal
- identifying job hazards and taking required action to minimise, control or eliminate identified hazards
- identifying job requirements
- 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 grinding equipment safely
- reading and interpreting relevant rail network technical data, drawings, instructions and manuals
- reporting and/or rectifying identified problems, faults or malfunctions, in accordance with workplace procedures
- selecting and using hand tools, power tools and equipment
- 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 record keeping requirements
- grinding methods and results
- hazards that may exist when grinding rail and welds, and ways of controlling the risks

involved

- manufacturer instructions and workplace procedures for operating grinding equipment
- problems that may occur when grinding rail and welds, and action that can be taken to report or resolve these problems
- rail network standards for rail profile and surface condition including vertical and horizontal alignment
- relevant rail safety, work health and safety (WHS)/occupational health and safety (OHS) and environmental procedures and regulations
- relevant safeworking systems and operational procedures
- workplace procedures for grinding rail and welds.

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, 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.

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