

Title	Repair track ballast mud spots		
Level	4	Credits	6

Purpose	People credited with this unit standard are able to: prepare to repair track ballast mud spots; repair track ballast mud spots; and complete post mud spot repair inspection and complete documentation.
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Classification	Rail Transport > Rail Infrastructure
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Available grade	Achieved
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Guidance Information

- 1 Assessment against this unit standard is to be carried out within the context of an organisation operating under a current, valid Rail Licence issued in accordance with the provisions of the Railways Act 2005. The organisation's operating rules, codes, and instructions, referred to in this unit standard, are those the organisation has in place to meet the requirements of the Rail Licence.
- 2 Legislation relevant to this unit standard includes:
Health and Safety at Work Act 2015;
Railways Act 2005.
- 3 Definitions
Organisational procedures refer to documents that include – worksite rules, codes, and practices; equipment operating instructions; documented quality management systems; and health and safety requirements.
Work plan refers to instructions that may include – work/service order, verbal instruction, formal work plan.
- 4 Assessment information
All activities and evidence must be in accordance with organisational procedures and work plan.

Outcomes and performance criteria

Outcome 1

Prepare to repair track ballast mud spots.

Performance criteria

- 1.1 Safety requirements are followed.
- Range personal protective equipment (PPE), tools and equipment, communication equipment.
- 1.2 Hazards are identified and control methods are implemented.
- 1.3 Rail permission systems are followed.
- Range may include but is not limited to – track protection, permit, track access.
- 1.4 Work plan for the renewing of track ballast is interpreted and followed.
- Range may include but is not limited to – removal of existing ballast, cleaning of existing ballast, quantity of new ballast to be used, formation works such as separating geo-textile fabric layer, loading and unloading of new ballast, work methods.
- 1.5 Underground services are identified and located.
- Range may include but is not limited to – signalling, power, communications, gas, water.
- 1.6 Tools and equipment are selected and pre-operational check is completed.
- Range may include but is not limited to – front-end loaders, ballast wagons, road trucks, hand tools and small plant, on-track machinery, ballast sled, ballast cleaner, ballast regulator.
- 1.7 Ballast is checked in terms of quality and quantity.
- 1.8 Drainage profile is determined.
- 1.9 Sleepers, rail, and fastenings are checked in terms of suitability for ballast mud spot repair.

Outcome 2

Repair track ballast mud spots.

Performance criteria

- 2.1 Existing ballast is removed.
- 2.2 Formation is checked, and if required, repaired.
- Range may include but is not limited to – drainage, capping layer, geo-textile fabric.

- 2.3 Ballast is reinstated, compacted, and tamped.
- 2.4 Ballast profile is established to meet track stability requirements.
- 2.5 Temporary speed restriction is applied, if required.

Outcome 3

Complete mud spot repair inspection and complete documentation.

Performance criteria

- 3.1 Measurements are taken and any exceedances are identified, reported and mitigated.
- Range top, line, cant, twist, gauge.
- 3.2 Sleepers, rail and fastenings are checked.
- 3.3 Completed work is checked for compliance with work plan.
- 3.4 Documentation is completed.

Planned review date	31 December 2026
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	24 February 2022	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact the Hanga-Aro-Rau Manufacturing, Engineering, and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.