

Title	Demonstrate and apply knowledge of track ballast		
Level	3	Credits	3

Purpose	People credited with this unit standard are able to: describe track ballast; prepare to undertake track ballast activities; undertake track ballast activities; and check work and complete documentation of track ballast activities.
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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 the:
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 or 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

Describe track ballast.

Performance criteria

1.1 Track ballast is described.

Range profile, condition, formation, function, causes of damage, drainage.

Outcome 2

Prepare to undertake track ballast activities.

Performance criteria

2.1 Safety requirements are followed.

Range personal protective equipment (PPE), tools and equipment, communication equipment.

2.2 Rail permission systems are followed.

Range may include but is not limited to – track protection, permit, track access.

2.3 Locations of underground services are identified.

Range may include but is not limited to – power, communications, gas, water.

2.4 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 cleaners, ballast regulators.

2.5 Quantity of ballast is determined.

Outcome 3

Undertake track ballast activities.

Performance criteria

3.1 Where necessary, existing ballast is removed.

3.2 Unloading and distribution of ballast is conducted.

3.3 Removed materials are stored to be reused or disposed of.

3.4 Ballast profile is established to meet track geometry requirements.

Outcome 4

Check work and complete documentation of track ballast activities.

Performance criteria

- 4.1 Completed work is checked.
- 4.2 Required documentation is completed.

Replacement information	This unit standard replaced unit standard 19788.
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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 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.