

Title	Prepare and maintain fastening systems in a rail environment		
Level	3	Credits	5

Purpose	People credited with this unit standard are able to: describe fastening systems; prepare to maintain fastening systems; maintain fastening systems; and check work 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
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 Range
Fastening systems – may include but is not limited to – rail to sleeper, rail to rail, anchoring systems.
- 5 Assessment information
 - a All activities and evidence must be in accordance with organisational procedures and work plan.
 - b Competence is to be demonstrated maintaining a minimum of three fastening or anchoring systems.

Outcomes and performance criteria

Outcome 1

Describe fastening systems in a rail environment.

Performance criteria

1.1 Fastening systems are described in terms of use and limitations.

Range rail to sleeper, rail to rail, anchoring systems.

1.2 Fastening systems are described in terms of components.

Outcome 2

Prepare to maintain fastening systems in a rail environment.

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 Tools and equipment are selected and pre-operational check is completed.

2.4 Fastening system components are selected and checked.

Range may include but is not limited to – fastenings, plates, rail anchors, bolts, nuts, washers, clips, shims.

Outcome 3

Maintain fastening systems in a rail environment.

Performance criteria

3.1 Existing fastening system is checked.

3.2 Fastening system is tightened or replaced.

3.3 Where required, regauging is carried out using methods appropriate to sleeper type.

Outcome 4

Check work and complete documentation for the maintenance of fastening systems in a rail environment.

Performance criteria

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

Replacement information	This unit standard replaced unit standard 19785.
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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.