

Title	Repair track gear systems on machines		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: identify misalignment in a tracked machine undercarriage; measure wear in track components and determine repair procedures; and repair track gear.
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Classification	Motor Industry > Vehicle Steering and Suspension
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Available grade	Achieved
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Guidance Information

- 1 It is recommended that people hold credit for Unit 15483, *Demonstrate knowledge of machine track gear and undercarriage systems and their repair procedures*; Unit 21671, *Carry out general engineering tasks in the motor industry*; Unit 21685, *Use the oxyacetylene welding process in the automotive industry*; and Unit 24375, *Hard face automotive components using an electric or oxyacetylene welding process* before being assessed against this unit standard.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 3 Performance of the outcomes of this unit standard must comply with the following: Health and Safety at Work Act 2015.
- 4 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.
- 5 Definitions
Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.
Service information refers to information such as technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.
Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe working practices.

- 6 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

Outcomes and performance criteria

Outcome 1

Identify misalignment in a tracked machine undercarriage.

Performance criteria

- 1.1 Misalignment faults in the track frame are identified, and their cause noted.
Range may include – undercarriage spread, tilt, bow, twist, cracking.
- 1.2 Misalignment faults in the idler assemblies and sprocket are identified, and their cause noted.

Outcome 2

Measure wear in track components and determine repair procedures.

Range may include – links, pins, bushes, shoes, rollers, idlers, sprockets, spring tensioner.

Performance criteria

- 2.1 Wear in track components is measured.
- 2.2 The repair method for each track component is determined from the extent of the wear.

Outcome 3

Repair track gear.

Performance criteria

- 3.1 The track gear is dismantled.
- 3.2 Unserviceable components are repaired or replaced.
- 3.3 The track gear is reassembled, and components requiring repositioning are positioned.
- 3.4 Track tension is adjusted, and track alignment checked.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	9 November 1993	31 December 2022
Review	2	4 October 1996	31 December 2022
Review	3	26 February 1999	31 December 2022
Review	4	25 January 2008	31 December 2022
Review	5	29 July 2021	N/A
Revision	6	16 December 2021	N/A

Consent and Moderation Requirements (CMR) reference

0014

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.