

Title	Demonstrate knowledge of vehicle body construction, and the effect of impact on vehicles		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of: vehicle body construction; and, the effects of impact on vehicles.
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Classification	Motor Industry > Collision Repair
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturers specifications, service information, company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of the Health and Safety at Work Act 2015; and any subsequent amendments and replacements.
- 3 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 may include – technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of vehicle body construction.

Performance criteria

- 1.1 Vehicle body construction methods are described.

Range body-over-frame, unibody, space frame, hybrid.

1.2 Crush zones are described.

Range may include – convolutions, punched holes, dimples; passenger safety, collision energy absorption, collision energy transfer.

1.3 The purpose of metals used in vehicle body construction is described and their general locations identified.

Range mild steel, high strength steel, ultra-high strength steel, aluminium alloy, magnesium.

Outcome 2

Demonstrate knowledge of the effects of impact on vehicles.

Performance criteria

2.1 The angles of impact on vehicles are described.

Range side, full frontal, rear end, roof, roll-over, underbody.

2.2 Effects of impact on vehicles are identified.

Range body panels – visible, hidden, direct, indirect; unbodies – frontal impact, rear end collision, side collision, roof impact, roll-over, underbody; frames and truck chassis – vertical bending, side bending, crushing, twisting, diagonal twisting; mechanical parts – steering and suspension, steering column, wheel alignment, power train, engine, exhaust system; safety systems– seat belts, air bags, seats, door locks, bonnet and boot lid locks, roll bars; other components – seat frames, glass, lamps, interior.

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	29 January 1996	31 December 2018
Review	2	20 December 1998	31 December 2018
Revision	3	16 October 2003	31 December 2018
Review	4	26 November 2007	31 December 2018
Review	5	21 April 2016	31 December 2023
Review	6	10 December 2020	N/A

Consent and Moderation Requirements (CMR) reference	0014
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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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.