

Title	Demonstrate knowledge of motor vehicle safety systems and damaged systems		
Level	3	Credits	4

Purpose	This theory-based unit standard is for people who wish to enter or are employed in the collision repair industry. People credited with this unit standard are able to demonstrate knowledge of motor vehicle safety systems, and damaged motor vehicle safety systems.
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Classification	Motor Industry > Collision Repair
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Available grade	Achieved
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Guidance Information

- 1 Legislation and references
Performance of the outcomes of this unit standard must comply with the following:
Health and Safety at Work Act 2015;
Hazardous Substances and New Organisms Act 1996;
Land Transport Rules: Frontal Impact 2001, Rule 32006/1; Head Restraints 2001, Rule 32010/1; Seatbelts and Seatbelt Anchorages 2002, Rule 32011.

- 2 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.

Land Transport Rules are available online at <https://www.nzta.govt.nz/>.

- 3 Definitions
Company requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, product quality specifications and legislative requirements.
Service information may include but is not limited to – vehicle structural repairer code of practice, technical information of a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions and specifications; technical terms and descriptions; and detailed illustrations. This may be accessed from the manufacturer.
- 4 Assessment
Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, service information, company and legislative requirements.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of motor vehicle safety systems.

Range may include but is not limited to – braking systems, air bags, restraints, proximity sensors, collision avoidance systems.

Performance criteria

- 1.1 Purposes of motor vehicle safety systems are described.
- 1.2 Legislation and standards relevant to motor vehicle safety systems are identified.
- 1.3 Methods of testing motor vehicle safety systems are described.
- 1.4 Cost and ramifications of misdiagnosing faults in motor vehicle safety systems are described.
- 1.5 Storage procedures for air bags and pretensioners are described.

Outcome 2

Demonstrate knowledge of damaged motor vehicle safety systems.

Performance criteria

- 2.1 Damaged seat belts and buckles, and the importance of replacing with belts and buckles that comply with legislation, is identified.

Range includes but is not limited to – damaged webbing, broken and/or pulled threads, cut loops at belt edge, bowed webbing, colour fading of material, retractor not locking.
minimum of five required.
- 2.2 Types of damage to inertia reel systems are identified.
- 2.3 Types of damage to seat belt anchoring points, and the importance of them meeting standards are identified.

Range includes but is not limited to – no movement, no deformation.
- 2.4 Method of removing and replacing child safety restraints is described.
- 2.5 Braking system faults caused by an accident are identified.

Range includes but is not limited to – hydraulic system, air system, anti-lock braking system (ABS).

2.6 Damage limits to the steering column, joints, and wheels are identified.

Range includes but is not limited to – mounting brackets, steering shaft and column, wheel rims.

2.7 Accident damage to seats and seat anchoring points is identified.

2.8 Ramifications of improper repair to motor vehicle safety systems are identified.

Planned review date	31 December 2027
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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 2027
Review	6	25 May 2023	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 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.