

<b>Title</b>	<b>Describe safe working practices and precautions on vehicles equipped with air bags and seatbelt pre-tensioners</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	This theory-based unit standard is for people who work in the motor industry. People credited with this unit standard are able to demonstrate knowledge of safe working practices and precautions on vehicles equipped with air bag systems, and on vehicles equipped with seatbelt pre-tensioners.
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<b>Classification</b>	Motor Industry > Vehicle Bodywork
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<b>Available grade</b>	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 manufacturer's specifications, service information, company and legislative requirements.
- 2 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the current version of including updated amendments to, and replacements of – Hazardous Substances and New Organisms Act 1996; Health and Safety at Work Act 2015; Land Transport Rules: Vehicle Repair 1998, Rule 34001; Heavy Vehicles 2004, Rule 31002; Seatbelts and Seatbelt Anchorages 2002, Rule 32011; Seatbelts and Seatbelt Anchorages Amendment 2005, Rule 32011/1; Frontal Impact 2001, Rule 32006/1.
- 3 Land Transport Rules are available online at <https://www.nzta.govt.nz/>.
- 4 Air bags and seatbelt pre-tensioners consist of an explosive charge and are therefore classified as explosive articles under the Hazardous Substances and New Organisms Act 1996.
- 5 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 – 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.

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## Outcomes and performance criteria

### Outcome 1

Demonstrate knowledge of safe working practices and precautions on vehicles equipped with air bag systems.

Range electronic system (single and dual stage), self-contained all mechanical system.

### Performance criteria

- 1.1 Air bag identification and warning labels on a vehicle are identified.
- 1.2 Locations of airbags, side curtains, and knee bolsters/air bags in a vehicle are described.
- 1.3 The layout and locations of components in an air bag system are described.
- Range includes but is not limited to – rear sensors (safing or arming sensors), front sensors (discriminating, crash, impact sensors), control module, air bag modules, clock spring.
- 1.4 Sequence and timing of events that occurs before, during, and after air bag deployment are described.
- 1.5 The safety precautions necessary when working with vehicles fitted with air bags are defined.
- Range may include but is not limited to – battery and power supply, welding and heating, repairs and replacements to system, personal protection and handling procedures, handling and treating non-deployed air bag module as an explosive device, electrical testing precautions (including inadvertent tampering when testing other systems), loom identification, labelling, disposal, storage.
- 1.6 Procedures to take to ensure air bag circuit operates as intended are identified.
- Range may include but is not limited to – checking fault codes, warning lamp operation.

### Outcome 2

Demonstrate knowledge of safe working practices and precautions on vehicles equipped with seatbelt pre-tensioners.

Range mechanical, explosive.

**Performance criteria**

- 2.1 Purpose of seatbelt pre-tensioners is identified.
- 2.2 Construction and operation of the seatbelt pre-tensioner are described.  
Range includes but is not limited to – gas generator, cylinder, piston, cable, temperature range.
- 2.3 Safety precautions when working on vehicles equipped with seatbelt pre-tensioners are described.
- 2.4 Seat belt pre-tensioner inspection procedures are described.  
Range visual inspection, determining if deployed.
- 2.5 Procedures for storing and disposing of seatbelt pre-tensioners are described.

<b>Replacement information</b>	<p>This unit standard and unit standard 24000 were replaced by unit standard 30573.</p> <p>This unit standard and unit standard 22799 replaced unit standard 2629.</p>
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**This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.**

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	19 May 2006	31 December 2018
Review	2	21 April 2016	31 December 2020
Review	3	26 October 2017	31 December 2020
Rollover	4	27 August 2020	31 December 2021

<b>Consent and Moderation Requirements (CMR) reference</b>	0014
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.