
PANELBEATING
Identify and work on damaged motor
vehicles with anti-lock braking systems
(ABS)

level:	4
credit:	5
final date for comment:	December 2008
expiry date:	December 2009
sub-field:	Motor Industry
purpose:	This unit standard is for people who work in the motorbody industry. People credited with this unit standard are able to demonstrate knowledge of anti-lock braking systems (ABS), and diagnose and isolate ABS on damaged vehicles.
entry information:	Recommended: Unit 5772, <i>Identify motor vehicle suspension, steering, and brake systems, and the effects of collision</i> , or demonstrate equivalent knowledge and skills.
accreditation option:	Evaluation of documentation and visit by NZQA and industry.
moderation option:	A centrally established and directed national moderation system has been set up by the NZ Motor Industry Training Organisation.
special notes:	<ol style="list-style-type: none">1 The following legislation must be consulted and followed where applicable: Health and Safety in Employment Act 1992; Transport (Vehicle Standards) Regulations 1990.2 When the performance criteria state <i>company guidelines</i>, it is assumed that it is to the same standard as the product and vehicle manufacturers' standards.

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Elements and Performance Criteria

element 1

Demonstrate knowledge of ABS.

performance criteria

- 1.1 Purpose of the ABS is identified according to the vehicle manufacturers' information.
- 1.2 Principles of how ABS operate are identified according to the vehicle manufacturers' specifications.
- 1.3 The major components on an ABS are identified according to the vehicle manufacturers' specifications.

Range: may include but is not limited to – speed sensors, electronic control unit, hydraulic unit, gravity sensor, proportioning valve, stop lamp switch, master cylinder.
- 1.4 Legislation and standards relevant to vehicle safety systems are identified.
- 1.5 Methods of testing ABS are identified according to the vehicle manufacturers' specifications.

element 2

Diagnose and isolate ABS on damaged vehicles.

performance criteria

- 2.1 Tools and equipment are identified to check the system according to the manufacturers' specifications.
- 2.2 When working with motor vehicle safety systems, safe working practices are carried out throughout the task.

Range: personal safety; safety of other people; vehicle safety; workshop safety; environmental safety; tool, equipment, and machine safety.

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- 2.3 ABS faults caused by an accident are identified visually, and are noted according to company guidelines.
- Range: may include but is not limited to – leaks, loose and broken components, disconnected wires, blown fuse, self-test codes.
- 2.4 Speed sensors are identified and isolated according to the vehicle manufacturers' specifications.
- 2.5 ABS electronic control unit is identified and isolated to prevent damage according to the vehicle manufacturers' specifications.
- 2.6 Faulty ABS components are replaced according to the vehicle manufacturers' specifications, and legislation.

Comments on this unit standard

Please contact the NZ Motor Industry Training Organisation jlane@mito.org.nz if you wish to suggest changes to the content of this unit standard.

Please Note

Providers must be accredited by the Qualifications Authority or a delegated inter-institutional body before they can register credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be accredited by the Qualifications Authority before they can register credits from assessment against unit standards.

Accredited providers and Industry Training Organisations assessing against unit standards must engage with the moderation system that applies to those standards.

Accreditation requirements and an outline of the moderation system that applies to this standard are outlined in the Accreditation and Moderation Action Plan (AMAP). The AMAP also includes useful information about special requirements for providers wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

This unit standard is covered by AMAP 0014 which can be accessed at <http://www.nzqa.govt.nz/site/framework/search.html>.