
VEHICLE BODYWORK
Determine the effects and report on
complex damage to vehicle body
systems and structure

level:	5
credit:	6
final date for comment:	December 2008
expiry date:	December 2009
sub-field:	Motor Industry
purpose:	People credited with this unit standard are able to demonstrate knowledge of the effects of complex damage on vehicle body systems and structure, and complete a report detailing appropriate repair solutions to restore the vehicle to comply with legislative requirements.
entry information:	Open.
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 and other sources must be consulted and followed where applicable: Consumer Guarantees Act 1993; Fair Trading Act 1986; Health and Safety in Employment Act 1992; Land Transport Rules; Traffic Regulations 1976; Transport (Vehicle Standards) Regulations 1990.2 Land Transport Rules are produced for the Minister of Transport by Land Transport New Zealand. These rules are available online at http://www.landtransport.govt.nz.

VEHICLE BODYWORK
Determine the effects and report on
complex damage to vehicle body
systems and structure

- 3 Reference to *company requirements* means that the standard must comply with any policies, procedures, and requirements of the company involved, and the ethical codes of relevant professional management organisations.
- 4 For the purpose of this unit standard, *complex damage* is defined as damage to vehicle body systems and structure where a number of interacting components and/or systems may have many potential problems and/or solutions to consider. The effects of final residual damage may require a thorough disassembly to determine the extent of hidden and structural damage.
- 5 Reference to *suitable equipment* means manufacturer's equipment that is recognised within the industry as being the most suited to complete the task to a professional and competent manner with due regard to safe working practices.

Elements and Performance Criteria

element 1

Demonstrate knowledge of the effects of complex damage on vehicle body systems and structure.

performance criteria

- 1.1 The series of events from initial impact to residual damage during the collision of a vehicle are explained according to crash analysis findings.

Range: peak or maximum dynamic crush, period of deformation, restitution phase; primary damage, secondary damage.

VEHICLE BODYWORK
Determine the effects and report on
complex damage to vehicle body
systems and structure

- 1.2 Vehicle design factors to manage and distribute crash energy are described according to the vehicle manufacturers' specifications.
- Range: factors include but are not limited to – frontal impact, roof crush and/or roll-over ratings, passenger safety cage, crush zones, intrusion bars, use of high strength metals and composites, energy absorbing bumpers, interior padding, steering column collapse.
- 1.3 Factors that contribute to the complexity of determining collision damage on a vehicle are described in terms of their effects.
- Range: factors include but are not limited to – previous collision damage and/or faulty repairs, corrosion, multiple impact, mechanical and electrical componentry, repair methods.
- 1.4 Considerations to take into account when determining the effects of complex damage are described in terms of repair requirements.
- Range: considerations include but are not limited to – write-off and insurance company limits, vehicle safety, alignment requirements, customer satisfaction, legislation, suitable equipment, availability of replacement components, manufacturer's repair standards.

element 2

Complete a report detailing appropriate repair solutions to restore the vehicle to comply with legislative requirements.

performance criteria

- 2.1 Information to determine the repair requirements is sourced and/or made available to enable an estimate and/or quotation to be completed.
- Range: sources may include but are not limited to – insurance company requirements, vehicle manufacturer's specifications, customer requirements, Land Transport Rules, vehicle body repair manuals.

VEHICLE BODYWORK
Determine the effects and report on
complex damage to vehicle body
systems and structure

- 2.2 Procedures to determine extent of complex damage are identified in consultation with management, manufacturer, insurance company and/or customer.
- Range: primary damage, secondary damage;
measuring systems, manufacturer's specifications.
- 2.3 Full extent of damage is determined and recorded from inspection, dismantling, and measurement.
- 2.4 A report is compiled that meets company and/or insurance requirements.

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>.