
**AUTOMOTIVE WORKSHOP
ENGINEERING**
**Demonstrate knowledge of an oxy-
acetylene welding plant in the motor
industry**

level:	2
credit:	2
planned review date:	December 2009
sub-field:	Motor Industry
replacement information:	This unit standard and unit standard 21685 replaced unit standard 230 and unit standard 3885.
purpose:	This theory-based unit standard is for people who are at pre-employment level or who have recently started work in the motor body industry. People credited with this unit standard are able to demonstrate knowledge of the oxy-acetylene welding process in the motor industry, and welding faults.
entry information:	Open.
accreditation option:	Evaluation of documentation 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 Legislation relevant to this unit standard includes but is not limited to Health and Safety in Employment Act 1992.2 <i>Company guidelines</i> include workplace standards, practices, and procedures, which must comply with current legislative requirements. It is assumed the policy also meets product manufacturer's specifications, recommendations, and standards.

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Elements and Performance Criteria

element 1

Demonstrate knowledge of the oxy-acetylene welding process in the motor industry.

performance criteria

- 1.1 Purpose of using an oxy-acetylene plant is explained according to the plant manufacturer's specifications.
- Range: includes but is not limited to – brazing, fusion welding, soldering, low temperature brazing, heating metal, cutting.
- 1.2 Principle of how an oxy-acetylene plant operates is explained according to the plant manufacturer's specifications.
- Range: includes but is not limited to – gas bottles, welding tips, regulators, hose, cutting tips, heat range.
- 1.3 Safety precautions required for oxy-acetylene welding are described according to the manufacturer's instructions, company guidelines, and legislative requirements.
- Range: includes but is not limited to – personal safety, safety to others, gas leaks, safety to vehicle and/or adjacent areas, workshop.
- 1.4 Procedures when using an oxy-acetylene welding plant are explained according to the plant manufacturer's specifications.
- Range: includes but is not limited to – brazing, fusion welding, soldering, low temperature brazing, heating metal, cutting; metal preparation.
- 1.5 Procedures for shutting down an oxy-acetylene welding plant are described according to the plant manufacturer's instructions.
- 1.6 Manufacturer's instructions are identified to establish manufacturer's specifications for use.

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element 2

Demonstrate knowledge of welding faults.

performance criteria

2.1 Welding faults and causes are described according to the plant manufacturer's specifications and company guidelines.

Range: includes but is not limited to – undercutting, lack of penetration, lack of fusion, excessive splatter, irregular weld shape.

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>.