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| Title | Use a MIG welding plant in the motor industry | | |
| Level | 3 | Credits | 3 |

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| Purpose | This unit standard is for people who wish to enter or are employed in the motor industry. People credited with this unit standard are able to MIG weld metal pieces in the motor industry, and shutdown and maintain a MIG welder. |
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| Classification | Motor Industry > Automotive Workshop Engineering |
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| Available grade | Achieved |
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| Entry information | |
| Recommended skills and knowledge | Unit 21683, <i>Demonstrate knowledge of MIG welding in the motor industry</i> , or demonstrate equivalent knowledge and skills. |

Explanatory notes

- 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 (this includes the knowledge and/or use of suitable tools and equipment).
- 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 – Health and Safety at Work Act 2015.
- 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 – 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.

Outcomes and evidence requirements

Outcome 1

MIG weld metal pieces in the motor industry.

Evidence requirements

- 1.1 MIG welder is set up according to the welding machine manufacturer's specification.
- 1.2 Metal is prepared for welding.
- Range no contaminants on the surface to be welded, weld joint is correctly set up for the type of weld being carried out, suitable gap between joint edges, metal positioned securely.
- 1.3 Heat and arc shielding of adjacent vehicles, tools and machine components is carried out to prevent any damage and risk of fire and explosion.
- 1.4 The metal is welded in position according to the welding machine manufacturer's specification.
- Range may include but is not limited to – lap joint, offset butt joint, butt joint with backing, plug weld using 6mm and 8mm holes, open butt joint, butt weld, fillet, lap, plug; two pieces of mild steel up to 100mm in length and 0.8 to 1.6mm thickness; welds to be carried out in the horizontal, vertical and overhead positions.
- 1.5 Welds are checked for faults and destructively tested.
- Range no undercutting, no sign of porosity, full penetration, consistent width and height, neat appearance.

Outcome 2

Shutdown and maintain a MIG welder.

Evidence requirements

- 2.1 Welding equipment is shutdown after use and put away according to the manufacturer's instructions and legislative requirements, with no damage to equipment, electronics, or injury to people.
- Range gas shut off, power leads disconnected, plant stored in a safe place.
- 2.2 MIG welder is maintained according to the welding machine manufacturer's specifications.

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| Replacement information | This unit standard and unit standard 21683 replaced unit standard 3884. |
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| Planned review date | 31 December 2021 |
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Status information and last date for assessment for superseded versions

| Process | Version | Date | Last Date for Assessment |
|--------------|---------|---------------|--------------------------|
| Registration | 1 | 27 July 2005 | 31 December 2018 |
| Review | 2 | 21 April 2016 | N/A |

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| 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>.

Please note

Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMRs). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact the MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.