Title	**Use a MIG welding plant in the automotive industry**		
Level	**3**	**Credits**	**3**

Purpose	People credited with this unit standard are able to MIG weld metal pieces in the automotive industry, and shutdown and maintain a MIG welder.

Classification	Motor Industry > Automotive Workshop Engineering

Available grade	Achieved

Guidance Information

1 Evidence presented for assessment against this unit standard must be consistent with safe work practices and be in accordance with applicable service information, and company requirements and legislative requirements. This includes the knowledge and use of suitable tools and equipment.

2 Legislation, regulations and/or industry standards relevant to this unit standard may include:
- Health and Safety at Work Act 2015;

and any subsequent amendments and replacements.

3 Definitions
Company requirements refer to instructions to staff on policy and procedures that are available in the workplace. These requirements may include – company policies and procedures, work instructions, product quality specifications and legislative requirements.
Service information refers to information such as technical information for a vehicle, machine, or product detailing operation; installation and servicing procedures; manufacturer instructions; technical terms and descriptions; and detailed illustrations.
Suitable tools and equipment refer to industry approved tools and equipment that are recognised within the industry as being the most suited to complete the task in a professional and competent manner with due regard to safe work practices.

Outcomes and performance criteria

Outcome 1

MIG weld metal pieces in the motor industry.

Performance criteria

1.1 MIG welder is set up.

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 are carried out.

1.4 The metal is welded in position.

Range may include – 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.

Performance criteria

2.1 Welding equipment is shut down after use and put away.

Range gas shut off, power leads disconnected, plant stored in a safe place.

2.2 MIG welder is maintained.

Replacement information	This unit standard and unit standard 21683 replaced unit standard 3884.

Planned review date	31 December 2026

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	31 December 2023
Review	3	24 March 2022	N/A

Consent and Moderation Requirements (CMR) reference	0014

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.