

<b>Title</b>	<b>Identify and align structural damage on a motor vehicle</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	This unit standard is for people who work in the collision repair industry. People credited with this unit standard are able to assess the extent of the structural damage, prepare to align the vehicle body and align a vehicle body.
----------------	---

<b>Classification</b>	Motor Industry > Collision Repair
-----------------------	-----------------------------------

<b>Available grade</b>	Achieved
------------------------	----------

---

### Guidance Information

- 1 Legislation and references  
Performance of the outcomes of this unit standard must comply with the following:  
Health and Safety at Work Act 2015;  
Ozone Layer Protection Act 1996;  
Land Transport Rules.

- 2 Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

Land Transport Rules are available online at <https://www.nzta.govt.nz/>.

- 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 – vehicle structural repairer code of practice, 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.  
*Suitable tools and equipment* means 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 working practices.

- 4 Range  
Assessment against this unit standard applies to replacing and repairing damaged welded-on steel structural panels.

Evidence of three repairs is required.

- 5 Assessment  
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.

For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.

- 6 Recommended skills and knowledge  
Unit 23992, *Use a gas metal arc welding plant in the automotive and related industries*; and Unit 23979, *Use vehicle unibody chassis alignment equipment and measuring systems*; or demonstrate equivalent knowledge and skills.

---

## Outcomes and performance criteria

### Outcome 1

Assess the extent of the structural damage.

### Performance criteria

- 1.1 Identify and evaluate the extent of the damage and generate a repair plan.
- Range may include – side, full frontal, rear end, underbody, angle, direct damage, indirect damage.
- 1.2 Misaligned and damaged mechanical parts are checked, assessed and recorded as part of the repair plan.
- Range may include but is not limited to – steering, suspension, power train, wheels, engine, exhaust system.
- 1.3 Misaligned and damaged body panels and parts are checked, assessed and recorded as part of the repair plan.
- Range may include but is not limited to – bonnet, guards, doors, quarter panels, front and rear panels, boot lid, inner guard panels, firewall, wheel arches, roof, under body, pillars, sill panels, radiator panel, hinges.
- 1.4 Misaligned rails and cross members are checked and assessed and recorded as part of the repair plan.

**Outcome 2**

Prepare to align the vehicle body.

**Performance criteria**

2.1 Suitable tools and equipment for aligning the damage are selected.

Range may include but is not limited to – hammers, dollies, spoons, welding equipment, body jacks, levers, drill, panel pullers, clamps, chains, alignment and measuring systems, metal cutting equipment, chains.

**Outcome 3**

Align a vehicle body.

**Performance criteria**

3.1 Body is secured to alignment machine.

3.2 Pull angles and anchor points for damaged area are identified, and clamps and/or hooks are attached to the vehicle body and secured.

3.3 If heat is used, manufacturer's recommendations are followed.

Range manufacturer temperature limitations, time heat can be applied to metal.

3.4 Damaged structural panels are realigned.

3.5 Related panel damage is realigned.

3.6 Body measurements meet manufacturer specifications.

3.7 No damage to adjacent panels, glass, trim, fittings, or vehicle electronics, is confirmed as a result of the alignment operation.

3.8 Parts removed are test fitted, aligned, and checked that they operate correctly.

3.9 Protective coatings, sound deadener pads, and sealers are replaced, and anti-corrosion procedures are carried out during and after repair.

<b>Planned review date</b>	31 December 2027
----------------------------	------------------

**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	29 January 1996	31 December 2018
Review	2	20 December 1998	31 December 2018
Revision	3	16 October 2003	31 December 2018
Review	4	26 November 2007	31 December 2018
Review	5	21 April 2016	31 December 2027
Review	6	25 May 2023	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](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.