

<b>Title</b>	<b>Remove and install vehicle engine exterior components</b>		
<b>Level</b>	<b>3</b>	<b>Credits</b>	<b>2</b>

<b>Purpose</b>	People credited with this unit standard are able to remove vehicle engine exterior components, install vehicle engine exterior components, and check installed vehicle engine exterior components.
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<b>Classification</b>	Motor Industry > Engines
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<b>Available grade</b>	Achieved
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### Guidance Information

- 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.
- Legislation, regulations and/or industry standards relevant to this unit standard may include:
  - Health and Safety at Work Act 2015;
  - Resource Management Act 1991;
and any subsequent amendments and replacements.

If working on air conditioning componentry then legislation also includes:

- Ozone Layer Protection Act 1996;
  - Ozone Layer Protection Regulations 1996;
- 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.

**4 Range**

This unit standard may include the following vehicle engine exterior components – radiator, radiator overflow bottle, alternator, fans, water pump, pulleys, air cleaners, air intake ducting, and ancillary parts and air conditioning componentry; evidence of five components is required.

**Outcomes and performance criteria****Outcome 1**

Remove vehicle engine exterior components.

**Performance criteria**

- 1.1 Components that are to be removed are identified and checked, and damage and defects are identified, recorded, and reported.
- 1.2 Components are removed from the engine.

**Outcome 2**

Install vehicle engine exterior components.

**Performance criteria**

- 2.1 Components are fitted to the engine.  
Range replacement or existing components.
- 2.2 All bolts, clamps, and fasteners are tightened.
- 2.3 All connections are fitted.
- 2.4 All fluids are refilled.

**Outcome 3**

Check installed vehicle engine exterior components.

**Performance criteria**

- 3.1 All installed vehicle engine exterior components are checked for operation.

<b>Planned review date</b>	31 December 2026
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	20 September 2002	31 December 2018
Review	2	25 February 2008	31 December 2018
Review	3	21 April 2016	31 December 2023
Review	4	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](mailto:qualifications@hangaarorau.nz) if you wish to suggest changes to the content of this unit standard.