

Title	Repair hand held motors		
Level	4	Credits	10

Purpose	This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to diagnose hand held equipment motor faults, and repair hand held equipment motors.
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Classification	Motor Industry > Engine Repairs
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Available grade	Achieved
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Explanatory notes

- 1 Unit standard Range one motor from – a chainsaw, line trimmer, hedge cutter, or concrete cutter.
- 2 The following legislation and amendments are required to be consulted and followed where applicable:
 - Health and Safety in Employment Act, 1992.
- 3 Reference to *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 to a professional and competent manner with due regard to safe working practices.
- 4 Because of the particular nature of this unit standard, it is essential that the practical assessment evidence is obtained from commercial jobs in the workplace under normal workplace conditions.

Outcomes and evidence requirements

Outcome 1

Diagnose hand held equipment motor faults.

Evidence requirements

- 1.1 Safe working practices are observed throughout the task.
 - Range personal safety, safety of others, equipment safety.
- 1.2 Suitable tools and equipment are selected and used that enable equipment faults to be diagnosed.

- 1.3 The motor in the equipment item is tested according to manufacturer's specifications, its mechanical condition noted, and a repair procedure recommendation is made.

Range ignition system tests, compression test, crankcase pressure (vacuum) test, tachometer test, spark plug condition check, carburettor pressure test, exhaust system check.

Outcome 2

Repair hand held equipment motors.

Evidence requirements

- 2.1 Safe working practices are observed throughout the task.

Range personal safety, safety of others, equipment safety.

- 2.2 Suitable tools and equipment are selected and used that enable equipment faults to be repaired.

- 2.3 The condition of the motor parts is determined by removing, cleaning and inspecting components, and their condition is noted.

Range piston, rings, gudgeon pin, connecting rod, connecting rod bearings, cylinder block and/or liner, cylinder head, crankshaft, crankshaft bearings, gaskets, seals, valves, sealing faces.

- 2.4 Motor components found to be damaged and/or worn beyond the manufacturer's stated limits are replaced according to manufacturer's specifications.

- 2.5 Fuel system components are dismantled, the fuel system is cleaned, and damaged and worn parts are replaced according to manufacturer's specifications.

- 2.6 Exhaust system components are repaired and/or replaced according to manufacturer's specifications.

- 2.7 Ignition system components are repaired and/or replaced, and adjustments carried out according to manufacturer's specifications.

- 2.8 Motor components are lubricated, and settings are made according to manufacturer's specifications.

Range settings – controls, carburettor, ignition timing.

- 2.9 The motor is run and tested in the manner prescribed by the manufacturer to ensure its operation conforms with manufacturer's specifications.

This unit standard is expiring. Assessment against the standard must take place by the last date for assessment set out below.

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	28 September 1994	31 December 2016
Review	2	21 February 1999	31 December 2016
Review	3	25 January 2008	31 December 2016
Rollover	4	19 November 2010	31 December 2016
Rollover	5	18 February 2016	31 December 2020

Consent and Moderation Requirements (CMR) reference

0014

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, or an inter-institutional body with delegated authority for quality assurance, 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.

Consent requirements and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). 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.

This unit standard is expiring