

Title	Test a diesel engine on a dynamometer and determine engine condition using test results		
Level	4	Credits	4

Purpose	This unit standard is for people in the automotive repair industry. People credited with this unit standard are able to test a diesel engine using a dynamometer, and determine engine condition using test results.
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Classification	Motor Industry > Engine Repairs
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Available grade	Achieved
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Entry information	
Recommended skills and knowledge	Unit 15448, <i>Demonstrate knowledge of engine performance testing, and tune and test a 4 stroke diesel engine</i> , or demonstrate equivalent knowledge and skills.

Explanatory notes

- 1 The following legislation must be consulted and followed where applicable:
 - Health and Safety in Employment Act 1992.
- 2 Reference to *suitable test equipment* means industry approved test equipment that is recognised within the industry as being the most suited to carry out the test in a professional and competent manner with due regard to safe working practices.
- 3 For 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

Test a diesel engine using a dynamometer.

Evidence requirements

- 1.1 Safe working practices are observed throughout the task.

Range	personal safety, safety of others, equipment and vehicle and machine safety.
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1.2 Suitable test equipment is selected and used to enable the engine to be tested.

1.3 Preparation of the engine is carried out for the dynamometer test.

Range includes but is not limited to – basic mechanical condition, fluid levels, sufficient fuel, engine cooling and forced air requirements, instrument and gauge hook-up.

1.4 The engine is operated on the dynamometer according to the equipment manufacturers' instructions.

Range includes but is not limited to – power output tests, engine torque tests.

Outcome 2

Determine engine condition using test results.

Evidence requirements

2.1 An analysis of the engine condition is made based on the information obtained from the tests.

2.2 A recommendation report specifies the remedial work necessary to correct deficiencies found as a result of an analysis, in accordance with the engine and/or the vehicle manufacturers' trouble-shooting guides and specifications.

Replacement information	This unit standard, unit standard 967, and unit standard 15448 have been replaced by unit standard 24278, unit standard 24279, and unit standard 24280.
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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	23 February 1999	31 December 2016
Revision	2	16 April 2003	31 December 2016
Review	3	16 December 2004	31 December 2016
Review	4	25 January 2008	31 December 2016
Rollover	5	19 November 2010	31 December 2016
Rollover	6	18 February 2016	31 December 2020

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, 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