

Title	Inspect and service outboard engines		
Level	3	Credits	4

Purpose	<p>This unit standard is intended for people in the trailer boat repair industry.</p> <p>People credited with this unit standard are able to: inspect outboard engines for condition and operation; and carry out outboard engine service.</p>
----------------	--

Classification	Motor Industry > Engines
-----------------------	--------------------------

Available grade	Achieved
------------------------	----------

Guidance Information

- 1 It is recommended that people hold credit for Unit 15436, *Demonstrate knowledge of the construction and operation, and servicing requirements of outboard engines* before being assessed against this unit standard.
- 2 Evidence presented for assessment against this unit standard must be consistent with safe working 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.
- 3 Performance of the outcomes of this unit standard must comply with the following: Consumer Guarantees Act 1993; Health and Safety at Work Act 2015.
- 4 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.
- 5 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 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 working practices.

- 6 Assessment against this standard includes both two-stroke and four-stroke engines.
- 7 For this unit standard, it is essential that the practical assessment evidence is obtained in the workplace under normal workplace conditions.
-

Outcomes and performance criteria

Outcome 1

Inspect outboard engines for condition and operation.

Performance criteria

- 1.1 Precautions are observed throughout the task.

Range includes but is not limited to – accidental starting, operating the engine in water, using test wheels, wearing safety equipment, using an engine stand, precautions when handling hazardous substances, using equivalent replacement parts, conducting tests on running engines, testing electronic components, replacing locking type fasteners.

- 1.2 Customer requirements are determined and noted before any work is carried out.

- 1.3 Inspection procedures are carried out.

Range includes but is not limited to – covers, power head assembly, gearcase, propeller, anodes; damage, corrosion, leaks, functioning of components, security of components.

Outcome 2

Carry out outboard engine service.

Performance criteria

- 2.1 Precautions are observed throughout the task.

Range includes but is not limited to – accidental starting, operating the engine in water, using test wheels, wearing safety equipment, using an engine stand, precautions when handling hazardous substances, using equivalent replacement parts, conducting tests on running engines, testing electronic components, replacing locking type fasteners.

- 2.2 Lubrication requirements are completed.

2.3 Refuelling procedures are carried out.

Range may include but is not limited to – removing stale or contaminated fuel, following manufacturer fuel-oil mixing instructions for two-stroke engines, using correct octane rating fuel.

2.4 New engine preparation procedures are carried out.

2.5 Off-season storage procedures are carried out.

2.6 Pre-season service procedures are carried out.

Range includes but is not limited to – visual inspection, lubrication check, battery check, control system installation, electrical check, fuel system check, cooling system check, synchronisation and linkage adjustment checks, engine tune check.

Planned review date	31 December 2025
----------------------------	------------------

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	23 February 1999	31 December 2022
Revision	2	16 April 2003	31 December 2022
Review	3	25 January 2008	31 December 2022
Review	4	29 April 2021	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 MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.