Title	Install an outboard motor on a power boat		
Level	4	Credits	8

Purpose	People credited with this unit standard are able to: confirm plan for installing an outboard motor; install motor ancillary and electrical components; and install an outboard motor on a power boat.
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Classification	Boating Industries > Boatbuilding	
Available grade	Achieved	

### Guidance Information

- 1 Legislation, regulations, references and/or industry standards relevant to this unit standard include but are not limited to the:
  - Health and Safety at Work Act 2015
  - Health and Safety in Employment Regulations 1995
  - Resource Management Act 1991
  - Hazardous Substances and New Organisms Act 1996

Any new, amended or replacement Acts, regulations, rules, 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.

2 Definitions

*Manufacturers' specifications* refer to technical information of a boat or product detailing: operation, installation and servicing procedures; technical terms and descriptions; and illustrations. Manufacturer specifications must be followed to ensure compliance with manufacturer warranty, safe operation, and operation that meets manufacturer performance claims.

*Workplace policies and procedures* refer to the documented procedures and policies providing guidelines for the tasks and activities carried out in the workplace. This typically includes relevant health and safety requirements to eliminate hazards and/or risks in the workplace.

3 Assessment information

All required equipment must be setup, started up, operated, and shutdown in accordance with the manufacturers' specifications and workplace policies and procedures.

4 It is recommended that people hold credits for Unit 15454, *Explain power boat propeller operation, types, and servicing* and Unit 15465 *Check and determine the suitability of a propeller for a power boat.* or demonstrate equivalent skills and knowledge before being assessed against this unit standard.

# Outcomes and performance criteria

# Outcome 1

Confirm plan for installing an outboard motor.

## Performance criteria

- 1.1 Planned installation is confirmed as compatible with power boat and intended use for the destination.
  - Range space, horsepower, vessel strength, transom height, propeller type, regulatory requirements.

## Outcome 2

Install motor ancillary and electrical components.

## Performance criteria

- 2.1 Motor ancillary components are installed.
  - Range motor ancillary components dashboard systems, cable conduit/s, tubing, steering system, control system, throttle control, gearshift control, fuel system.
- 2.2 Electrical components are installed.
  - Range electrical components wiring looms, battery securement and storage, battery systems, batteries.

## Outcome 3

Install an outboard motor on a power boat.

### **Performance criteria**

- 3.1 Components for an outboard motor install are prepared and connected.
  - Range outboard mounting, control cables, outboard electrical loom, fuel system.
- 3.2 Outboard motor is installed.
- 3.3 Completed installation is checked.
- 3.4 Engine is tested and checked.
- 3.5 Instruments are calibrated.

31 December 2030

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

Process	Version	Date	Last Date for Assessment
Registration	1	27 October 2006	31 December 2018
Review	2	20 April 2017	31 December 2027
Review	3	26 June 2025	N/A

Consent and Moderation Requirements (CMR) reference	0136		
This CMR can be accessed at http://www.nzga.govt.nz/framework/search/index.do.			

#### Comments on this unit standard

Please contact Hanga-Aro-Rau Engineering, Manufacturing and Logistics Workforce Development Council at <u>qualifications@hangaarorau.nz</u> if you wish to suggest changes to this unit standard.