

Title	Describe electric propulsion motors for power boats		
Level	3	Credits	3

Purpose	People credited with this unit standard are able to describe: the different types and applications, the electrical system requirements and the health and safety requirements, for marine electric propulsion motors.
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Classification	Motor Industry > Trailer Boat Systems
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Available grade	Achieved
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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](#)
- [Maritime Rules and Transport Act 1994](#)

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 of the tasks and activities carried out in the workplace. This typically includes relevant health and safety policies to manage risk in the workplace.

Outcomes and performance criteria

Outcome 1

Describe the different types and applications of marine electric propulsion motors.

Range transom and bow mounted, electric hybrid, bow or stern thrusters.

Performance criteria

- 1.1 Different types of marine electric propulsion motors and their applications in marine vessels are described.

- 1.2 Operating principles of marine electric propulsion motors are explained in accordance with manufacturer's specifications.

Outcome 2

Describe the electrical system requirements for marine electric propulsion motors.

Performance criteria

- 2.1 Battery requirements are described.
- 2.2 Circuit protection requirements are described.
- 2.3 Operating voltages used are described.
- 2.4 Charging systems are described.
- 2.5 Control systems are described.

Outcome 3

Describe the health and safety requirements when working with marine electric propulsion motors.

Performance criteria

- 3.1 Safe working standards and regulations applicable are identified.
- 3.2 Appropriate personal protective equipment is described in accordance with workplace policies and procedures.
- 3.3 Tool and equipment safety procedures are described in accordance with workplace policies and procedures.
- 3.4 Personal safety measures are explained.
- 3.5 Disposal of batteries is explained.

Planned review date	31 December 2030
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 June 2025	N/A

Consent and Moderation Requirements (CMR) reference	0136
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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 Engineering, Manufacturing and Logistics Workforce Development Council at qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.

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