

Title	Explain marine engine operation		
Level	2	Credits	4

Purpose	People credited with this unit standard are able to describe the operation sequence of marine engines and explain marine engine timing operation and firing order.
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Classification	Boating Industries > Boatbuilding
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Available grade	Achieved
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Guidance Information

Assessment information

Range

Marine engines - petrol and diesel; two-stroke and four-stroke.

Outcomes and performance criteria

Outcome 1

Describe the operation sequence of marine engines.

Performance criteria

1.1 Operation sequence of marine engines is described.

Range induction, compression, power, exhaust.

Outcome 2

Explain marine engine timing operation and firing order.

Performance criteria

2.1 Marine engine timing operation is explained in accordance with manufacturer's specifications.

Range marine engine timing operation include – valve timing, fuel injection pump timing, ignition timing.

2.2 The firing order for internal combustion marine engines is explained in terms of the power cycle.

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Status information and last date for assessment for superseded versions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	23 November 2017	31 December 2027
Review	2	29 May 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 this skill standard.