

Title	Inspect, diagnose, and repair a two stroke marine engine		
Level	4	Credits	6

Purpose	People credited with this unit standard are able to inspect, diagnose, and repair faults in a two stroke marine engine.
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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](#).
 - [Resource Management Act 1991](#).

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; or illustrations. Manufacturers' specifications must be followed in all instances 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 manage hazards and/or risks in the workplace.
- 3 Assessment information

Assessment for this unit standard must include evidence for two inspect, diagnose, and repair jobs.

Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with manufacturers' specifications, workplace policies and procedures and legislative requirements.

Outcomes and performance criteria

Outcome 1

Inspect and diagnose faults in a two stroke marine engine.

Performance criteria

1.1 Visual inspection is carried out prior to testing.

Range fuel and oil system leaks, fuel and recirculation hoses, corroded connectors, check air cleaner and duct, check lube system, spark, cooling system leaks, oiling systems.

1.2 Engine operating temperature is tested.

1.3 Operating engine parts are tested.

Range testing includes – ignition system, compression test, exhaust system, fuel pump pressure, fuel system vacuum test, induction valve, cooling system, fuel delivery system.

1.4 Outcome and diagnosis are recorded.

Outcome 2

Repair faults in a two stroke marine engine.

Performance criteria

2.1 Faults in two stroke marine engine systems are repaired.

Range may include – ignition system, exhaust system, fuel pump, fuel system, fuel and oil system, fuel pump pressure, cooling system leaks, oiling systems, cooling systems, fuel delivery system; evidence for the repair of three different faults is required over two jobs.

2.2 Completed repairs are checked and tested to ensure manufacturers' specifications are met.

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 July 2018	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.