

Title	Explain and install a power boat fuel system		
Level	4	Credits	5

Purpose	People credited with this unit standard are able to: explain a power boat fuel system; install a fuel tank; install pipework, fillers and breathers; and connect and test a fuel system.
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Classification	Boating Industries > Boatbuilding
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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](#).
- [Marine Protection Rules Part 199](#).

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 Assessment information

All required equipment must be set up, started up, operated, and shutdown in accordance with workplace policies and procedures.

- 3 Definitions

Job specifications refer to the standard requirements of the job being undertaken.

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

Operational considerations refer to key factors, requirements, constraints, and conditions that need to be considered when working with power boat fuel systems.

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.

Outcomes and performance criteria

Outcome 1

Explain a power boat fuel system.

Performance criteria

- | | |
|-------|---|
| 1.1 | Components of a power boat fuel system are explained in terms of purpose and function. |
| Range | components include but are not limited to – anti syphon valves, surge tanks. |
| 1.2 | Possible locations and sizes for fillers and breathers are explained in accordance with operational considerations and workplace policies and procedures. |
| 1.3 | Fuel tank is described in terms of materials used, volume, capacity, and weight. |
| 1.4 | The function and arrangement of tank baffles, filler, and breather tubes are explained. |
| 1.5 | Emission standards for a power boat fuel system are explained in terms of purpose. |

Outcome 2

Install a fuel tank.

Performance criteria

- | | |
|-------|---|
| 2.1 | Installation requirements of the fuel tank are checked and confirmed in accordance with engine manufacturers' specifications and job specifications. |
| Range | visual inspection, testing, pre-installation of sensors and fittings, fuel tank foundations and mounts, positioning, clearances, hose clamping, retention clips, security of fitting. |
| 2.2 | Fuel tank is installed in accordance with job specifications and workplace policies and procedures. |

Outcome 3

Install pipework, fillers, and breathers.

Performance criteria

- 3.1 Pipework is installed in accordance with engine manufacturers' specifications and workplace policies and procedures.

Range pipework includes - hoses and retention.

- 3.2 Fillers and breathers are located and installed in accordance with job specifications and workplace policies and procedures.

Outcome 4

Connect and test a fuel system.

Performance criteria

- 4.1 Pipework is connected to fuel tank in accordance with workplace policies and procedures.

- 4.2 Fuel sensor is connected in accordance with workplace policies and procedures.

- 4.3 Installed fuel system is checked and tested to ensure engine manufacturers' specifications, emission standards and job 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	27 October 2006	31 December 2019
Review	2	23 November 2017	31 December 2027
Review	3	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.