

## Field      Manufacturing

### Review of *Boating Industries* unit standards

Subfield	Domain	ID
Boating Industries	Boatbuilding	9922, 9944, 9949, 18158, 18159, 18162, 18163, 18170, 23243, 23244, 23249, 23257, 25344, 29238, 29546, 30204, 30771, 30772, 30781, 31200, 31202, 31203
	Marina Operations and Services	9918

Hanga-Aro-Rau Manufacturing, Engineering and Logistics the Workforce Development Council has completed the review of the unit standards listed above.

**Date new versions published**

**May 2025**

**Planned review date**

**December 2030**

### Summary

These unit standards were reviewed as part of the review of the New Zealand Certificate in Power Boat Systems Servicing and Repair (Technician) (Level 4) [Ref: 3848], the New Zealand Certificate in Power Boat Rigging (Level 4) [Ref: 3847] and the New Zealand Certificate in Yacht Rig Structures (Level 4) [Ref: 3126]. This review was triggered by the regular 5-year review cycle.

The review process was undertaken between August 2024 and February 2025 and involved MAST academy and industry stakeholder representatives.

Unit standards in this application have been reviewed and updated so that they are in line with current industry practice and to ensure they are fit for purpose.

### Main changes

- Guidance Information was updated to reflect current legislation and assessment information, and definitions were added and updated for clarity.
- Unit standard 30772 was changed from Level 2 to Level 3 to align the content to the level of the assessment.
- Unit standard 30772 and 9918 updated to include additional Performance Criteria and updates to existing outcomes and PCs were made.
- The titles of unit standards 18163, 23249, 23257, 25344, 29238, 30204, 30771, 30772, 30781, 31200, 31202 and 9918 were amended to align with the contents of the standards.
- A shift in terminology across all unit standards from the words *trailer boat* to *power boat* to include all on water boats, not just boats that can go onto a trailer.
- Standard Setting Body was changed from New Zealand Marine and Composites Industry Training Organisation to Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council.

**The last date for assessment of superseded versions of Category B unit standards is 31 December 2027**

### Detailed list of unit standards – classification, title, level, and credits

All changes are in **bold**.

Key to review category	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

Manufacturing > Boating Industries > Boatbuilding

ID	Title	Level	Credit	Review Category
9922	Produce templates or patterns used in the marine industry	3	4	B
9944	Describe the properties and uses of aluminium alloys in boatbuilding	2	4	B
9949	Describe the properties and uses of steel in boatbuilding	2	4	B
18158	Select, use, and care for hand tools used in the marine or composite industry	2	5	B
18159	Select, use, and care for portable power tools used in the marine or composite industry	3	5	B
18162	Calculate quantities and costs for marine or composite projects	3	5	B
18163	Demonstrate knowledge of marine or composite construction drawings and produce a related freehand sketch <b>Describe marine or composite construction drawings and produce a related freehand sketch</b>	3	2	B
18170	Contribute to a project team in a marine or composite workplace	3	5	B
23243	Explain the causes and prevention of material deterioration in the marine environment	4	10	B
23244	Apply health and safety procedures in a marine or composite workplace	3	5	B
23249	Install electrical systems in a production trailer boat <b>Install electrical systems in a power boat</b>	4	5	B
23257	Demonstrate knowledge of, and install a production trailer boat fuel system <b>Explain and install a power boat fuel system</b>	4	5	B
25344	Demonstrate knowledge of marine or composite workplaces <b>Explain marine or composite workplaces</b>	2	3	B
29238	Demonstrate and apply knowledge of sustainability practices in a marine or composite industry <b>Apply sustainability practices in the marine or composite industry</b>	4	5	B
29546	Collaborate within a project team in the marine or composite industry	4	5	B
30204	Demonstrate knowledge of marine electrical systems <b>Explain marine electrical systems</b>	4	8	B
30771	Demonstrate knowledge of forced air intake systems on a marine engine <b>Explain forced air intake systems on a marine engine</b>	3	4	B
30772	Demonstrate knowledge of a marine diesel fuel system <b>Describe a marine diesel fuel system</b>	2 3	2 3	B

30781	Demonstrate knowledge of marine engine operation <b>Explain marine engine operation</b>	2	4	B
31200	Demonstrate basic knowledge of a carburettor system in a marine engine <b>Explain operations, servicing and repairing of a carburettor system in a marine engine</b>	3	3	B
31202	Demonstrate knowledge of petrol and an electronic fuel injection (EFI) system for a marine engine <b>Explain petroleum based fuel suitability and an electronic fuel injection (EFI) system for a marine engine</b>	3	4	B
31203	Diagnose, repair, and test marine engine electrical wiring faults	4	5	B

Manufacturing > Boating Industries > Marina Operations and Services

ID	Title	Level	Credit	Review Category
9918	Launch and retrieve trailer boats <b>Launch and retrieve power boats</b>	3	4	B