

Title	Demonstrate knowledge of the sail construction process in the sailmaking industry		
Level	3	Credits	4

Purpose	People credited with this unit standard are able to demonstrate knowledge of: obtaining sail measurements; materials used on sails; sail attachments and hardware; and sail assembly processes.
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Classification	Industrial Textile Fabrication > Sailmaking
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Available grade	Achieved
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Guidance Information

1 Definition

Class rules refer to a set of rules and regulations prescribed by the International Sailing Federation, which states the standard requirements for producing, modifying, maintaining, or repairing a boat or its components including sails. The rules and regulations apply to racing and recreational sailing and administered locally by Yachting New Zealand. Yachting New Zealand's website is <http://www.yachtingnz.org.nz/>.

2 Reference textbooks available at www.bookdepository.com:

Marino, Emiliano. *The Sailmaker's Apprentice: A guide for the self-reliant sailor*. 2001. International Marine (McGraw-Hill Companies).
Whidden, Tom and Levitt, Michael. *The Art and Science of Sails*. 2016. New South Publishing.

Outcomes and performance criteria

Outcome 1

Demonstrate knowledge of obtaining sail measurements.

Performance criteria

1.1 Principal dimensions of sails are explained in accordance with textbook instructions.

Range includes – sail plan, class rules, measuring.

1.2 Standard letter coding for measurements and their meanings are described in accordance with class rules and sail manufacturer specifications.

Range includes – P, E, I, J, LP, SPL, FL.

1.3 Allowances when measuring are described in accordance with class rules and sail manufacturer specifications.

Outcome 2

Demonstrate knowledge of materials used on sails.

Performance criteria

2.1 Materials are explained in terms of uses in accordance with material manufacturer specifications.

Range materials include – wovens, laminates, polyvinyl chloride (PVC), leather.

2.2 Sewing characteristics of sails are described in terms of type of materials.

Range evidence of two different types of materials is required.

2.3 Sail layout and shaping is described in accordance with sail manufacturer specifications.

Outcome 3

Demonstrate knowledge of sail attachments and hardware.

Performance criteria

3.1 Sail attachments are explained in terms of functions in accordance with class rules and sail manufacturer specifications.

Range attachments include – tapes, webbing, rope or cord, tell tales, sail letters.

3.2 Sail hardware are described in terms of functions in accordance with sail manufacturer specifications.

Range hardware include – fasteners, fittings, headboards, end caps, batten pocket protectors, press eyes, eyelets, rings, hanks, track slides and slugs, shackles, rope cleats, wire rope, thimbles, ferrules.

Outcome 4

Demonstrate knowledge of sail assembly processes.

Performance criteria

4.1 Procedures for laying out, marking and cutting sails are described in accordance with class rules and sail manufacturer specifications.

Range manual, computer aided design (CAD).

4.2 Procedures for assembling sails are described in accordance with sail manufacturer specifications.

Range may include but is not limited to – adhesives, sewing, corner patches, back tacking, hems, edge treatments, leech and foot lines, luff rope, press eyes, reinforcing, rings, piston hanks, tell tales, slides;
evidence of two procedures is required.

Planned review date	31 December 2025
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	26 March 2007	31 December 2022
Rollover and Revision	2	27 January 2015	31 December 2022
Revision	3	20 July 2017	31 December 2022
Review	4	27 August 2020	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 the NZ Marine and Composites Industry Training Organisation training@nzmarine.com if you wish to suggest changes to the content of this unit standard.