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| Title | Explain yacht spar and rigging systems | | |
| Level | 4 | Credits | 6 |

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| Purpose | People credited with this unit standard are able to explain: spinnaker and gennaker systems; rig related sail storage systems; reefing and vang systems; and hydraulic rigging systems. |
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| Classification | Boating Industries > Boatbuilding |
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| Available grade | Achieved |
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Guidance Information

1 Definitions

Spar refers to a strong pole used on a ship to support sails and rigging. Common types of spars include the mast, yard, boom, and gaff, each serving a specific function in the sail plan of a vessel.

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.

2 Assessment Information

Regulatory lighting includes the requirements of the International Regulations for Preventing Collisions at Sea (COLREGS), available at www.imo.org.

Explanation of yacht spars and rigging systems must include a schematic diagram.

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It is recommended that people hold credits for unit standard 18171, *Explain spars and rigging for boatbuilding*, or demonstrate equivalent skills and knowledge before being assessed against this unit standard.

Outcomes and performance criteria

Outcome 1

Explain spinnaker and gennaker systems.

Performance criteria

1.1 Simple parachute spinnaker systems are explained in terms of setup options.

Range may include – topping lift options, downhaul options, jockey poles, lazy braces, gybing systems, changing strops, tweakers, pole storage, pole ends, halyards.

1.2 Asymmetrical spinnaker systems are explained in terms of setup options.

Range may include – pole systems, gybing techniques, peeling techniques, pole articulation, pole retraction and/or storage, pole ends, halyards.

1.3 Gennaker systems are explained in terms of setup options.

Outcome 2

Explain rig related sail storage systems.

Performance criteria

2.1 Lazy jack type storage systems are explained in terms of configuration and operation.

2.2 Furling systems are explained in terms of configuration and operation.

Range furling systems include – in mast, in boom, headsail.

Outcome 3

Explain reefing and vang systems.

Performance criteria

3.1 Reefing systems are explained in terms of configuration and operation.

Range reefing systems include – slab, roller.

3.2 Vang systems are explained in terms of configuration and operation.

Range vang systems include – simple mechanical, air and spring lift.

Outcome 4

Explain hydraulic rigging systems.

Performance criteria

4.1 Hydraulic rigging systems are explained in terms of applications.

Range may include – hydraulic vang, outhaul, backstay, mast jack, winch and ram applications.

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| 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 | 14 December 2007 | 31 December 2020 |
| Review | 2 | 27 September 2018 | 31 December 2027 |
| Review | 3 | 24 July 2025 | N/A |

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| 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 unit standard.