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| <b>Title</b> | <b>Demonstrate knowledge of yacht spar and rigging systems</b> |                |          |
| <b>Level</b> | <b>4</b>   | <b>Credits</b> | <b>6</b> |

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

- 1 Recommended for entry: Unit 18171, *Demonstrate knowledge of spars and rigging*.
- 2 Explanation of yacht spars and rigging systems must include a schematic diagram.
- 3 Definition  
*Workplace policies and procedures* refer to the documented procedures and policies providing guidelines of the tasks and activities carried out in the workplace. This typically includes relevant health and safety requirements to manage risk in the workplace.
- 4 Regulatory lighting includes the requirements of the International Regulations for Preventing Collisions at Sea (COLREGS), available at [www.jag.navy.mil](http://www.jag.navy.mil).

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### 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.  

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| Range | may include – topping lift options, downhaul options, jockey poles, lazy braces, gybing systems, changing strops, tweakers, pole storage, pole ends, halyards; evidence of three systems is required. |
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1.2 Asymmetrical spinnaker systems are explained in terms of setup options.

Range may include – pole systems, gibing techniques, peeling techniques, pole articulation, pole retraction/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 – 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 – slab, roller.

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

Range vang systems – 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 includes – hydraulic vang, outhaul, backstay, mast jack, winch and ram applications.

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| <b>Planned review date</b> | 31 December 2023 |
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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 | N/A                      |

**Consent and Moderation Requirements (CMR) reference**

0136

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 ITO [training@nzmarine.com](mailto:training@nzmarine.com) if you wish to suggest changes to the content of this unit standard.