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| Title | Use ropes, knots and lashings on a vessel | | |
| Level | 3 | Credits | 5 |

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| Purpose | <p>This unit is intended for persons working at an entry level in the industry or persons wishing to enter the industry at an entry level.</p> <p>People credited with this unit standard are able to, on a vessel: describe the care and stowage of fibre ropes; describe the construction of ropes and handle ropes; splice, whip, bind, and stop ropes; select and tie knots and lashings; and use tackles and winches.</p> |
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| Classification | Maritime > Navigation and Seamanship |
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| Available grade | Achieved |
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Guidance Information

- 1 Legislation relevant to this unit standard includes:
Health and Safety at Work Act 2015.
Maritime Transport Act 1994 and subsequent amendments.
- 2 Reference
Owen, P. *Adlard Coles Book of Knots*. London: Adlard Coles Nautical, 2006. ISBN 0713681527.
- 3 Definitions
Accepted industry practice refers to approved codes of practice and standardised procedures accepted by the wider maritime industry as examples of best practice.
MTOP stands for Maritime Transport Operator Plan which refers to the documented operational plan required for all commercial vessels as a part of the Maritime Operator Safety System (MOSS), the operator certification system established under Part 19 of the maritime rules and administered by Maritime New Zealand.
Operating procedures refers to the safe operating procedures documented in the vessel's Marine Transport Operator Plan as well as any undocumented standard operating procedures for that vessel.
Vessel refers to any form of commercial or military watercraft; sometimes used in maritime circles interchangeably with the word ship.
- 4 Assessment information
All activities and evidence must be in accordance with accepted industry practice and vessel operating procedures.

Outcomes and performance criteria

Outcome 1

Describe the care and stowage of fibre ropes on a vessel.

Performance criteria

1.1 Stowage of ropes is described in terms of the need to maintain availability for use, and to protect the integrity of the rope.

Range protection from – heat, ultraviolet light, chemicals, water.

1.2 Action to take when signs of damage are identified, are described.

Range damage – abrasion, ultraviolet light damage, melting, rot.

Outcome 2

Describe the construction of ropes and handle ropes on a vessel.

Performance criteria

2.1 Fibres used in the manufacture of ropes used on a vessel are described in terms of their uses and properties.

Range fibres – natural fibre, polyester, nylon, polypropylene, polyethylene;
properties – behaviour on breaking, resistance to abrasion, ability to stretch, buoyancy, comparative load bearing strength.

2.2 Rope is identified by its construction.

Range monofilament, non-rotational rope, laid, braid, multi-plait.

2.3 Correct methods of coiling and flaking ropes are selected and carried out in accordance with their construction type.

Range one of – laid, braid, multi-plait.

2.4 Lines are secured to cleats and bollards.

2.5 The use of a heaving line is demonstrated.

Outcome 3

Splice, whip, bind, and stop ropes on a vessel.

Performance criteria

3.1 Ropes are spliced.

Range three strand laid rope – back splice, eye splice, short splice, long cut splice;
multi plait rope – eye splice.

3.2 Whippings are tied.

Range one of – sail makers whipping, common whipping.

3.3 A rope stopper is applied on a fibre rope.

3.4 Binding and melting of synthetic ropes is carried out.

Outcome 4

Select and tie knots and lashings on a vessel.

Performance criteria

4.1 Knots and lashings are selected and tied, consistent with the intended purpose of the knots or lashing.

Range reef knot, round turn and two half hitches, bowline, sheet bend (single and double), clove hitch, figure of eight.

Outcome 5

Use tackles and winches on a vessel.

Performance criteria

5.1 The purpose of tackles is described in terms of the mechanical advantage gained.

5.2 The uses of tackles are described.

5.3 The operation of tackles is demonstrated.

Range gun tackle, handy billy, two-fold purchase, three-fold purchase.

5.4 The safe use of winches is described and demonstrated.

Range hand operated winch, powered winch or windlass.

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| 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 | 24 September 1997 | 31 December 2012 |
| Review | 2 | 27 July 2001 | 31 December 2012 |
| Review | 3 | 26 May 2003 | 31 December 2012 |
| Review | 4 | 22 October 2010 | 31 December 2016 |
| Review | 5 | 15 October 2015 | 31 December 2022 |
| Review | 6 | 26 November 2020 | N/A |

Consent and Moderation Requirements (CMR) reference

0054

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Competenz qualifications@competenz.org.nz if you wish to suggest changes to the content of this unit standard.