



Australian Government

MARN1001A Apply general purpose hand skills aboard a vessel

Release 1

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Modification History

Release 1

This is the first release of this unit.

Unit Descriptor

This unit involves the skills and knowledge required to perform general purpose hand duties aboard a vessel.

Application of the Unit

This unit applies to general purpose hands working in the maritime industry on vessels up to 80 metres. They could be working independently or as part of a vessel crew.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | |
|---------------------------------|---|
| 1 Use and maintain ropes | 1.1 <i>Rope types</i> and common areas of use are correctly identified |
| | 1.2 Ropes are checked for wear and any damage is reported according to |

- workplace procedures
- 1.3 Ropes are coiled and stowed correctly
 - 1.4 **Knots and hitches** are tied neatly and securely, and are used according to their correct application
 - 1.5 Ropes are spliced neatly and securely according to their correct application and rope ends are whipped where instructed, to maintain good condition
- 2 Operate deck machinery and emergency stops**
- 2.1 Prior to use, **deck machinery** is checked and prepared for operation
 - 2.2 **Operations** are carried out safely according to instructions
 - 2.3 Emergency stops on motor and machinery are operated in response to an emergency situation
- 3 Assist in securing vessel at anchor**
- 3.1 Prior to letting go, anchor and equipment are prepared as instructed and organisational communications are followed
 - 3.2 Instructions provided are complied with in relation to quantity of anchor cable run out or recovered
 - 3.3 During operation, control of the cable is maintained within safe operating limits
 - 3.4 On completion of anchoring operations, anchor and equipment are secured according to instructions
 - 3.5 Throughout all operations, anchoring area is kept free of loose ropes, wires and debris
- 4 Assist in securing and adjusting vessel position during mooring operations**
- 4.1 At all times, **mooring lines** and associated equipment are handled safely
 - 4.2 Mooring plan and organisational communications are followed
 - 4.3 Throughout **mooring operations**, mooring area is kept free of loose ropes, wires and debris
 - 4.4 Tension on ropes is maintained at an appropriate level for the stage and nature of the operation
 - 4.5 Mooring lines are secured according to instructions provided
 - 4.6 Equipment malfunction or problems encountered during operations are promptly reported

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|---|--|
| 5 Assist in securing vessel for sea | <ul style="list-style-type: none">5.1 Cargo and cargo handling equipment are checked to ensure they are stowed securely5.2 Hatches and openings are checked to ensure they are secured, where necessary5.3 Maintenance equipment is returned to storage location and secured5.4 Assistance is provided in testing equipment as instructed5.5 All mooring lines are stowed and secured5.6 Assistance is provided in stowing the gangway |
| 6 Perform tasks aloft and over vessel side | <ul style="list-style-type: none">6.1 Area and equipment for working aloft or over the side are prepared as instructed6.2 Required precautions are taken when working aloft or over the side6.3 Chairs, safety harnesses and appropriate safety equipment are used according to workplace procedures6.4 Tasks are completed safely according to instructions and organisational safety management system6.5 After use, equipment is maintained and stored |
| 7 Assist with safe refuelling operations | <ul style="list-style-type: none">7.1 All personal protective equipment is accessed and used7.2 Safety boundary for the refuelling process is established7.3 Instructions are followed to ensure spill prevention systems are correctly deployed7.4 Instructions are followed in completing tasks related to the refuelling or fuel transfer process |

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required Skills:

- Assist in different types of mooring operations
- Handle ropes and wires
- Lash cargo
- Operate emergency stops
- Perform an eye splice, back splice and a short splice
- Perform common whipping on ropes
- Prepare deck machinery for use
- Secure equipment and objects for sea passage, transit in port or ready for use
- Tie common knots, bends and hitches
- Undertake refuelling operations safely
- Use capstans
- Use cranes and derricks
- Use different anchoring and mooring winches
- Use synthetic rope and wire mooring lines

Required Knowledge:

- Anchor cable markings
- Characteristics of different types of mooring ropes
- Construction of different types of rope
- Correct application of common knots, bends and hitches
- Different configurations of mooring lines for various parts of a vessel
- Different types of anchor
- Emergency stop procedures
- Hazards that could occur if the operation is not properly controlled
- Maintenance of different types of rope
- Means of access
- Organisational:
 - safety management system
 - standard operating procedures
- Procedures for working in confined spaces
- Refuelling procedures
- Requirements for access equipment
- Work health and safety (WHS)/occupational health and safety (OHS) requirements and work

practices

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to, and satisfy all of, the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

- anchoring in varying weather conditions
- following all instructions carefully
- working safely at all times.

Context of and specific resources for assessment

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- industry-approved marine operations site where general purpose hand skills can be conducted
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate performing general

purpose hand skills

- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

Assessment processes and techniques must be appropriate to the language and literacy requirements of the work being performed and the capacity of the candidate.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

- Rope types may include:
- Braided
 - Kevlar
 - Natural fibre
 - Polyester
 - Plaited
 - Wire core rope
 - Wire rope
- Knots and hitches must include:
- Bowline
 - Clove hitch
 - Eye splice
 - Reef knot
 - Round turn and two half hitches
 - Rolling hitch
 - Short splice
- Deck machinery may include:
- Capstans
 - Cranes
 - Derricks
 - Winches
 - Windlasses
- Operations must include:
- Anchoring in varying weather conditions
 - Berthing and unberthing
 - Loading or discharging
- Mooring lines may include:
- Back springs
 - Bow and stern ropes
 - Breast lines
 - Fore and aft springs
- Mooring operations may include:
- Adjustments from both fore and aft mooring positions
 - Making fast and letting go to a single-point mooring
 - Making fast and letting go fore and aft to a wharf
 - Rigging and recovering means of access to the vessel
- Tasks may include:
- Hull maintenance
 - Painting
 - Renewing wires and ropes

Unit Sector(s)

Not applicable.

Competency Field

Seamanship