



Australian Government

MARC062 Perform mooring operations

Release: 1

MARC062 Perform mooring operations

Modification History

Release 1. This is the first release of this unit of competency in the MAR Maritime Training Package.

Application

This unit involves the skills and knowledge required to carry out mooring operations according to relevant requirements and regulations.

This includes preparing a berth, receiving and securing lines, returning heaving line, landing a gangway and letting go of a vessel.

This unit applies to people working in the maritime industry as a Linesperson.

Licensing/Regulatory Information

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

C – Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare a berth

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

1.1 Relevant documentation and records are identified and accessed in accordance with workplace procedures

1.2 Positioning information is obtained, checked, and confirmed

as accurate in accordance with workplace procedures

- 1.3** Bridge marker is set in accordance with workplace procedures
- 1.4** Briefing is obtained and interpreted on issues related to mooring operations
- 1.5** Communications equipment is prepared and set to correct channels in accordance with workplace procedures
- 1.6** Berth conditions are checked, and made clear and ready for mooring and unmooring
- 1.7** Portainer cranes and gantries/loaders are correctly positioned for berthing of vessel
- 1.8** Safety concerns are communicated to pilot of vessel with due care not to interfere with tug and vessel communications

2 Receive and secure lines

- 2.1** Heaving line received from mooring launch or vessel and in accordance with workplace procedures
- 2.2** First lines are received from vessel and secured to applicable bollards/hooks in accordance with workplace procedures and pilot directions
- 2.3** Additional lines are received from vessel and are attached to applicable bollards/hooks in accordance with workplace procedures
- 2.4** Correct method for crossing mooring lines over and between another vessel's mooring lines is followed
- 2.5** Mooring line is dipped when another vessel occupies the bollard in accordance with port and workplace procedures
- 2.6** Safe distance from snapback zones and demarcated area is maintained during line tensioning
- 2.7** Workplace procedures and safe work practices are followed during receipt and securing of lines at all times

3 Return heaving line

- 3.1** Vessel crew is made aware of planned heaving line return operations in accordance with workplace procedures
- 3.2** Heaving line is returned to vessel in accordance with workplace procedures and supervisor instructions

4 Land a gangway

- 4.1** Gangway vicinity is cleared of all personnel in accordance

with port and workplace procedures

- 4.2 Gangway is landed safely and efficiently in accordance with port and workplace procedures

5 Let go of vessel

- 5.1 Vessel crew is made aware of intentions to let go in accordance with workplace procedures
- 5.2 Singling up processes are carried out in accordance with port procedures and required safety precautions
- 5.3 Mooring lines are kept clear of propeller and thrusters during singling up process in accordance with safety precautions
- 5.4 Remaining lines are released in accordance with supervisor instructions and workplace procedures
- 5.5 Stand clear procedures are immediately implemented when required in accordance with supervisor instructions and workplace procedures
- 5.6 Required precautions and workplace procedures and safe work practices are followed during mooring operations at all times

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to MARC022 Perform mooring and unmooring activities.

Links

Companion Volume Implementation Guides are found in VETNet -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>

Assessment Requirements for MARC062 Perform mooring operations

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- communicating effectively with other personnel when mooring and unmooring a vessel using standard nautical terms
- following all orders carefully and systematically
- following work instructions
- handling mooring lines on deck of lines launch, flaking and positioning of mooring lines
- handling rope appropriately and correctly:
 - applying a chain stopper to a natural cordage rope
 - applying a chain stopper to a wire rope
 - applying a stopper to a synthetic fibre rope
 - attaching a line to a bollard or bitt with all lines in correct order such as up through the eye
 - flaking down a rope
 - heaving on a line in collaboration with other members of a mooring team
 - storing and caring for ropes and lines
 - tying knots such as bowline, reef knot, overhand knot, figure of eight knot, sheet bends and clove hitch and splicing and whipping, round turn two half hitches
- handling wire mooring lines in lines launch
- identifying and correctly using:
 - personal protective equipment (PPE)
 - various types of ropes, steel wires and mooring equipment
- initiating timely action in response to defects or damage
- interpreting and following procedures for mooring operations, including safety instructions and precautions
- recognising dangers and hazards before and during mooring operations, and taking appropriate action to report and/or rectify them
- recognising problems that may occur during mooring operations and taking appropriate

action to report and/or resolve them

- taking proper care of ropes and mooring equipment
- types of methods and configurations used for headlines and sternlines
- using various vehicles for towing mooring lines, as required
- working effectively as a member of a mooring and /or unmooring team.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- awareness of line launches propeller when towing mooring lines
- communications techniques and equipment required during mooring operations
- correct method of crossing ship's mooring lines over and or between other vessel's mooring lines already berthed
- dangers and hazards associated with mooring systems:
 - 'snap back' when a line breaks
 - back strain from carrying a line, heaving on a line or heaving on a line
 - being hit by a heaving line being thrown down from a vessel
 - being struck by a parting line
 - demarcated areas
 - falling off the edge of the wharf into the water
 - increase in risk when lines are being released
 - mixing rings and wire rope
 - securing a gangway
 - snapback zone
 - standing clear of lines under tension
 - stepping inside the bight of a line
 - trip hazards such as crane lines
- factors that affect mooring operations, including the effects of wind, weather, tides, sea conditions, currents, draft changes and surges from passing vessels on mooring operations
- hazards and problems, and appropriate preventative and remedial action and solutions
- methods for mooring and unmooring a vessel, including:
 - block and tackle and vehicle towbar method for handling and securing gangway
 - required rope handling techniques and precautions
- monitor mooring loads and tension on ropes and equipment
- operational characteristics of different types of lines, equipment and facilities used in mooring operations including:
 - structure and characteristics of ropes, lines and wires
- operational procedures and layouts of various types of shore-side loading and discharging terminals and wharves

- PPE required for use during mooring operations
- procedures for assessing stresses on lines and gear used in mooring operations
- reason for and correct method of dipping mooring line
- relevant manufacturer guidelines relating to use of machinery, including instructions on equipment capability and limitations
- relevant work WHS/OHS codes of practice, policies and procedures
- safety drills and equipment used for lines launch
- standard nautical terms in relation to mooring activities and related equipment
- technique for releasing fowled mooring lines under wharfs and around ship anchors.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

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

Assessment must occur in workplace operational situations, and where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

Resources for assessment must include access to:

- applicable documentation such as workplace procedures, regulations, codes of practice, operation manuals, manufacturer instructions and procedures
- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) currently used in industry including:
 - bridge marker:
 - at night vehicle with flashing hazard light
 - flag
 - vehicles used for towing mooring lines.

Links

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