



Australian Government

MARC057 Perform dogging on board a vessel

Release: 1

MARC057 Perform dogging on board a vessel

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 apply slinging techniques select and inspect lifting gear and/or direct crane/operator in moving a load.

This unit applies to people working in the maritime industry in the capacity of:

- Able Seafarer - Engine/Deck or Integrated Rating who apply safe work practices when undertaking basic dogging on a range of vessels
- Navigational Watch - Deck/Engine.

Licensing/Regulatory Information

Legislative and regulatory requirements are applicable to this unit.

- This unit is one of the requirements to obtain Australian Maritime Safety Authority (AMSA) certification as an Able Seafarer - Engine/Deck, Integrated Rating or Navigational Watch - Deck/Engine and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).

Pre-requisite Unit

Not applicable.

Competency Field

C – Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

PERFORMANCE CRITERIA

Elements describe the essential outcomes.

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

1 Plan job

- 1.1** Relevant site information is obtained for related task in accordance with workplace procedures
- 1.2** Sea conditions and use of tag lines are assessed in accordance with workplace procedures
- 1.3** Hazards and potential hazards associated with slinging and directing loads are identified in accordance with workplace procedures
- 1.4** Hazard control measures consistent with appropriate standards are identified to ensure safety of personnel and equipment in accordance with workplace procedures
- 1.5** Weight, dimensions and load centre of gravity (CG) are identified and assessed
- 1.6** Suitable lifting/slinging points on load are established
- 1.7** Appropriate lifting equipment needs are assessed, including rig/vessel crane limitations, in accordance with workplace procedures
- 1.8** Appropriate communication methods are established in consultation with crane/operators and other appropriate personnel
- 1.9** Manufacturer specifications/information is obtained for special loads, as required

2 Select and inspect equipment

- 2.1** Lifting equipment appropriate to task is selected and inspected for serviceability in accordance with workplace procedures
- 2.2** Damaged or excessively worn lifting equipment is identified, labelled and isolated in accordance with workplace procedures
- 2.3** Appropriate communication equipment is selected and serviceability checked
- 2.4** Appropriate personal protective equipment (PPE) is selected and checked

3 Prepare site and equipment

- 3.1** Hazard prevention/control measures are applied consistent with appropriate standards to ensure safety of personnel and equipment in accordance with workplace

procedures

3.2 Clear communications and roles of deck crew are established when working cargo with a rig crane or another vessel in accordance with workplace procedures

3.3 Appropriate slinging method is selected

3.4 Lifting equipment is prepared and assembled, as required

3.5 Load landing destination is prepared

4 Perform tasks

4.1 Knots, hitches and bends using fibre and synthetic ropes are correctly made and used in course of deck operations

4.2 Lifting equipment is attached and secured to lifting hook using appropriate techniques

4.3 Lifting hook is positioned over load CG

4.4 Lifting equipment is attached and secured to load in an appropriate manner

4.5 Tag line is attached and secured, as required

4.6 Test lift is conducted to ensure load security

4.7 Load is moved, and stability and control are maintained at all times

4.8 Appropriate communication methods and communication signals are applied to safely coordinate load movement within sight and out-of-sight of ship's crane operator

4.9 Loads are correctly rigged using appropriate ropes and rigging gear in accordance with workplace procedures

4.10 Load is landed to ensure it is stable and secure from movement, is in position to be lashed with appropriate consideration given to effects of vessel's motion on stowed cargo when lashing cargo

5 Shut down job, clean up and maintain equipment

5.1 Lifting equipment is removed or disconnected from load and prepared for next task or storage

5.2 Defective equipment is isolated and tagged in accordance with workplace procedures

- 5.3 Lifting equipment is stored in accordance with workplace procedures
- 5.4 Hazard prevention/control measures are removed, as required, in accordance with workplace procedures
- 5.5 Excess materials from work area are removed, as required, in accordance with workplace procedures
- 5.6 Defects are reported and recorded in accordance with workplace procedures, and appropriate action is taken
- 5.7 Rope, wire and cables are stowed and maintained in accordance with workplace procedures and manufacturer instructions

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.

Unit Mapping Information

This unit replaces and is equivalent to MARC032 Perform dogging on board a vessel

Links

Companion Volume implementation guide can be found in VetNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>

Assessment Requirements for MARC057 Perform dogging on board a vessel

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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 and performance criteria on at least one occasion and include:

- adapting to differences in vessels, equipment and standard operating procedures (SOPs)
- applying different methods for making temporary connections to loads using fibre and synthetic ropes
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and work practices
- applying risk assessment and hazard control strategies, including hierarchy of control
- appropriately using and selecting personal protective equipment (PPE)
- calculating rated capacity of lifting equipment
- communicating with other personnel through:
 - adopting appropriate worksite protocol
 - fixed channel two-way radio
 - hand signals
 - listening
 - questioning to confirm understanding
 - signage
 - written instructions
- directing crane operators to move loads in a safe manner, using a slewing crane
- inspecting and caring for a wide range of lifting equipment to appropriate Australian Standards and/or manufacturer specifications
- interpreting rated capacity and working load limit tags
- selecting and inspecting lifting equipment, ropes and chains
- splicing natural fibre and synthetic ropes
- taking actions to promptly report and/or rectify accidents, safety incidents and operational problems according to regulations and procedures
- using and maintaining ropes, wires and chains
- using communications signals for directing crane operators to move loads in a safe manner, using a slewing crane, including:
 - hoist down – hand
 - hoist down – whistle

- hoist up – hand
- hoist up – whistle
- luff boom down – hand
- luff boom down – whistle
- luff boom up – hand
- luff boom up – whistle
- slew left – hand
- slew left – whistle
- slew right – hand
- slew right – whistle
- stop – hand
- stop – whistle
- telescope in – hand
- telescope in – whistle
- telescope out – hand
- telescope out – whistle
- working safely and collaboratively with others during lifting operations on a vessel.

Knowledge Evidence

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

- appropriate mathematical procedures for estimating and measuring loads
- appropriate standards relevant to the full range of techniques for undertaking dogging activities, including:
 - International Safety Management (ISM) Code, safety management system (SMS) plans, procedures, checklists and instructions
 - manufacturer specifications
 - relevant Australian and international standards and regulations
 - relevant WHS/OHS requirements and work practices
 - vessel and company procedures
- appropriate selection and use of personal protective equipment (PPE)
- defective equipment, including:
 - broken or stretched wires
 - cut/damaged fibres
 - damaged lifting and associated equipment
 - excessive wear
- work hazards, including:
 - equipment in load path
 - heights

- insufficient lighting
- pedestrian and plant traffic
- radio interference
- sea conditions and weather, including wind, lightning and storms
- trip hazards
- hierarchy of hazard identification and control, including:
 - administrative controls
 - elimination
 - engineering controls
 - isolation
 - substitution
- lifting equipment, including:
 - beam clamps
 - blocks
 - chains
 - eyebolts
 - fibre ropes
 - grabs
 - hoists
 - hooks
 - lifting beams
 - pallet forks and cages
 - personnel boxes
 - plate clamps
 - shackles
 - spreaders
 - tackles
 - trolleys wire ropes
 - winches
- load destination, including:
 - ground
 - loading platforms
 - suspended floors
 - vehicles
 - other vessels and barges
- stability and safety factors of load to be lifted are in line with manufacturer specifications
- site information, including:
 - deck conditions (even, uneven, steel and wood)
 - local conditions, such as access and egress
 - sea conditions

- work method statements
- types of cranes and their functions
- types of knots, bends and hitches in common use, their characteristics, applications and limitations, and methods of tying them using synthetic and fibre rope of varying construction and size
- types of lifting equipment and slinging techniques, and their limitations and performance in a wide range of conditions, including slings (wire and synthetic), beams, accessories, clamps, work boxes, bins and pallets
- use of dunnage
- WHS/OHS requirements and work practices.

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.

Practical assessment must occur in a workplace, or realistic simulated workplace, under the normal range of workplace conditions.

Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant personal protective equipment (PPE) currently used in industry.

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