



Australian Government

MARC051 Operate deck machinery and steering gear on a vessel up to 80 metres

Release: 1

MARC051 Operate deck machinery and steering gear on a vessel up to 80 metres

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 operate steering gear and deck machinery on a vessel less than 80 metres.

It includes preparing for operation, operating steering gear and deck machinery, and completing operations.

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

- Master of a commercial vessel less than 35 metres in length within the exclusive economic zone (EEZ)
- Master of a vessel less than 80 metres in length in inshore waters
- Chief Mate or Deck Watchkeeper on a vessel less than 80 metres in length within the EEZ.

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 a Master of a commercial vessel less than 80 metres in length as defined in the National Standard for Commercial Vessels (NSCV) Part D.

Pre-requisite Unit

Not applicable.

Competency Field

C – Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

PERFORMANCE CRITERIA

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

1 Prepare for operation

- 1.1** Routine pre-operational checks of steering gear or deck machinery are completed prior to use according to manufacturer specifications and organisational procedures
- 1.2** Equipment is set up in accordance with organisational procedures
- 1.3** Tools and equipment appropriate to work requirements are selected, checked for safety and set up for operation
- 1.4** Equipment faults or malfunctions are identified and reported according to organisational procedures
- 1.5** Work health and safety (WHS)/occupational health and safety (OHS) hazards in the work area are identified, and risks are assessed and reported according to organisational procedures

2 Operate steering gear and deck machinery

- 2.1** Suitable personal protective equipment (PPE) is selected and used according to organisational procedures
- 2.2** Steering gear and deck machinery are operated in a safe and controlled manner
- 2.3** Performance and efficiency of steering gear and deck machinery operations is monitored
- 2.4** Safe operational practices are used to anticipate and control hazards
- 2.5** Adverse sea and weather conditions which may impact on the operation of steering gear and deck machinery are identified and operational practices are adjusted to maintain safety of vessel and personnel

3 Complete operations

- 3.1** Shutdown procedures are conducted according to manufacturer instructions and organisational procedures
- 3.2** Malfunctions, faults, irregular performance or damage to steering gear and deck machinery are reported according to organisational procedures

- 3.3 Steering gear and deck machinery are cleaned and secured according to organisational procedures
- 3.4 Operational records are completed according to organisational procedures

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 MARC014 Operate deck machinery and steering gear on a vessel up to 80 metres.

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 MARC051 Operate deck machinery and steering gear on a vessel up to 80 metres

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 and performance criteria on at least one occasion and include:

- applying instructions on the operation of steering gear and deck machinery
- communicating effectively with others
- completing required records relating to the operation of steering gear and deck machinery
- following work schedules in accordance with organisational instructions and safety management system (SMS)
- initiating and operating emergency steering systems
- recognising faulty equipment and taking appropriate action
- recognising routine hazards and problems while operating steering gear and deck machinery
- selecting and using relevant tools and equipment
- working safely and collaboratively with others when operating and maintaining deck machinery and steering gear.

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:

- basic principles of hydraulics
- communication techniques and signals needed during the operation of steering gear and deck machinery on vessels less than 80 metres
- principal features and operating characteristics of steering gear and deck machinery used on vessels less than 80 metres
- problems related to the operation of steering gear and deck machinery and appropriate actions and solutions
- procedures for checking and inspecting steering gear and deck machinery used on vessels less than 80 metres
- procedures for the safe operation of steering gear and deck machinery
- procedures for, and operation of, emergency steering systems
- records that must be maintained on a vessel less than 80 metres
- relevant state and territory maritime work health and safety (WHS)/occupational health and safety (OHS) and pollution control regulations and policies

- safety, environmental and hazard control precautions and procedures relevant to the operation of steering gear and deck machinery.

Assessment Conditions

Assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in 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:

- a commercial vessel greater than or equal to 12 metres in length or realistic simulated workplace
- applicable documentation, such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- tools, equipment, machinery and materials currently used in industry, including:
 - basic hydraulic systems
 - emergency steering gear
 - personal protective equipment (PPE)
 - winch or windlass or capstan.

Links

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