



Australian Government

MARC013 Operate auxiliary machinery systems up to 1500 kW

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to operate auxiliary machinery systems up to 1500 kW according to technical specifications and safe operating limit.

This unit applies to engine workers in the maritime industry working as a Marine Engine Driver Grade 1 Near Coastal on vessels up to 1500 kW.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

C - Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1 Prepare for operation

- 1.1 Risks to self, others and the environment are identified according to organisational procedures
- 1.2 Routine pre-operational checks of auxiliary machinery systems are completed prior to use according to manufacturer specifications and organisational procedures

2 Operate auxiliary machinery systems

- 2.1 Suitable personal protective equipment is selected and used according to organisational procedures
- 2.2 Auxiliary machinery systems are operated in a safe and controlled manner
- 2.3 Performance of auxiliary machinery system operations are monitored

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| | 2.4 | Adverse sea and weather conditions that may impact on operation of auxiliary machinery systems are identified and operational practices are adjusted to maintain safety of vessel and personnel |
| | 2.5 | Faults or malfunctions are identified and recorded according to organisational procedures |
| | 2.6 | Faults or malfunctions are rectified and corrective actions are taken and recorded according to organisational procedures |
| | 2.7 | Procedures to be undertaken in emergencies are recognised and implemented |
| 3 Complete operations and check auxiliary machinery systems | 3.1 | Shut-down procedures are conducted according to manufacturer instructions and organisational procedures |
| | 3.2 | Operational records are completed as required according to organisational procedures and regulatory requirements |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

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

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| Auxiliary machinery systems must include: | <ul style="list-style-type: none"> • cargo discharging or loading systems • commercial refrigeration and freezer plants • compressed air • control air systems • deck machinery |
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- hydraulics
- fire, bilge and ballast pumping systems
- fixed gas and foam firefighting systems
- fresh water generation
- fuel and lubricating oil purification systems
- sewage treatment
- steering system including rudder

Emergencies must include:

- loss of:
 - control air pressure
 - electrical power
- failure of steering system
- hydraulic failure

Operational records must include:

- logbooks
- maintenance records
- plant and equipment manufacturer instructions and recommended procedures
- relevant maritime authority documentation relating to operating auxiliary machinery systems
- standard operating procedures from the organisation's safety management system

Unit Mapping Information

This is a new unit. This unit is equivalent to MARC4003A Operate auxiliary machinery systems up to 1500 kW.

Links

Companion Volume implementation guides are found in VETNet -

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