



**Australian Government**

# **MARC050 Operate auxiliary machinery systems up to 1500 kW**

**Release: 1**

# MARC050 Operate auxiliary machinery systems up to 1500 kW

## 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 auxiliary machinery systems up to 1500 kW according to technical specifications and safe operating limit.

It includes preparing for operation, operating auxiliary machinery systems, completing operations and checking auxiliary machinery systems.

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

- Chief Engineer on vessels with inboard engines less than 1500 kW within the exclusive economic zone (EEZ)
- Second Engineer on vessels with inboard engines less than 3000 kW within the EEZ
- Chief or Second Engineer on vessels with outboard engines with unlimited propulsion power within the EEZ
- assistant under the direct supervision of the Chief Engineer
- worker in the engine room of a vessel less than 80 metres in length with propulsion power less than 3000 kW.

## 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 Marine Engine Driver Grade 1 Near Coastal as defined in the National Standard for Commercial Vessels (NSCV) Part D.

Note: Relevant state/territory training and qualification requirements need to be fulfilled by any persons carrying out installation, maintenance and/or repair of refrigeration equipment, especially with regard to preventing the escape of refrigerants into the atmosphere and to conduct electrical work.

## 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.

- |  |   |
|--|---|
| <b>1 Prepare for operation</b>               | <p><b>1.1</b> Risks to self, others and the environment are identified according to organisational procedures</p> <p><b>1.2</b> Routine pre-operational checks of auxiliary machinery systems are completed prior to use according to manufacturer specifications and organisational procedures</p>   |
| <b>2 Operate auxiliary machinery systems</b> | <p><b>2.1</b> Suitable personal protective equipment (PPE) is selected and used according to organisational procedures</p> <p><b>2.2</b> Auxiliary machinery systems are operated in a safe and controlled manner</p> <p><b>2.3</b> Performance of auxiliary machinery system operations is monitored</p> <p><b>2.4</b> 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</p> <p><b>2.5</b> Faults or malfunctions are identified and recorded according to organisational procedures</p> <p><b>2.6</b> Faults or malfunctions are rectified and corrective actions are taken and recorded according to organisational procedures</p> <p><b>2.7</b> Procedures to be undertaken in emergencies are recognised and implemented</p> |

- 3 Complete operations and check auxiliary machinery systems**
- 3.1** Shutdown 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

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 MARC013 Operate auxiliary machinery systems up to 1500 kW.

## Links

Companion Volume implementation guide can be found in VetNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>