



Australian Government

MARC053 Operate marine internal combustion engines and associated systems up to 1500 kW

Release: 2

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Modification History

Release 2. This is the second release of this unit of competency in the MAR Maritime Training Package.

- Minor statement changes in unit Application
- Minor MO505 statement changes in Knowledge Evidence
- Minor statement changes in Assessment Conditions.

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 a marine internal combustion engine and associated systems up to 1500 kW according to technical specifications and safe operating limits.

It includes operating marine internal combustion engines and associated systems and completing operations.

This unit applies to people working in the maritime industry in the capacity of Marine Engine Driver Grade 1 Near Coastal.

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 specified in Marine Order 505.

Seafarers seeking certification should check with AMSA.

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 Risks to self, others and the environment are identified according to organisational procedures

1.2 Routine pre-operational checks of marine internal combustion engines and associated systems are completed prior to use according to manufacturer specifications and organisational procedures

2 Operate marine internal combustion engines and associated systems

2.1 Suitable personal protective equipment (PPE) is selected and used according to organisational procedures

2.2 Marine internal combustion engines and associated systems are operated in a safe and controlled manner

2.3 Performance of marine internal combustion engines and associated systems operations is monitored

2.4 Adverse sea and weather conditions that may impact on operating marine internal combustion engines and associated 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, where possible, and corrective actions are taken and recorded according to organisational procedures

2.7 Restrictions are applied to operations, as necessary, and are agreed to with the Master

2.8 Procedures to be undertaken in the event of an emergency are recognised and implemented

3 Complete operations

- 3.1** Shutdown procedures are conducted according to manufacturer instructions and organisational procedures
- 3.2** 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 MARC015 Operate marine internal combustion engines and associated 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>