



Australian Government

MARB031 Maintain marine internal combustion engines, propulsion plant and auxiliary systems

Release: 2

MARB031 Maintain marine internal combustion engines, propulsion plant and auxiliary systems

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 statement changes in Assessment Conditions.

Release 1. New unit of competency. Licensing/regulatory information has been incorporated in accordance with Regulatory requirements. Assessment Requirements have been strengthened in accordance with Regulatory requirements.

Application

This unit involves the skills and knowledge required to complete basic maintenance of marine internal combustion engines, propulsion plant and auxiliary systems.

This unit of competency applies to people working in the maritime industry in the capacity of Marine Engine Driver Grade 2 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 2 Near Coastal, as specified in Marine Order 505.

Seafarers seeking certification should check with AMSA.

Pre-requisite Unit

Not Applicable.

Competency Field

B – Equipment Checking and Maintenance

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 maintenance activities

- 1.1** Maintenance plan is accessed to determine maintenance requirements for engines, propulsion plant and auxiliary systems
- 1.2** Inspections are conducted and additional non-routine maintenance requirements are determined
- 1.3** Manufacturer specifications for machinery and equipment are obtained
- 1.4** Tasks are planned and sequenced in conjunction with others involved in or affected by maintenance work
- 1.5** Consumables and equipment are selected and checked for serviceability

2 Complete preventative maintenance

- 2.1** Machinery and equipment are safely isolated according to work health and safety (WHS)/occupational health and safety (OHS) requirements and organisational practices
- 2.2** WHS/OHS risk control measures and procedures for carrying out work are followed
- 2.3** Work area is prepared
- 2.4** Preventative maintenance is carried out in compliance with technical specifications
- 2.5** Methods for dealing with unexpected situations are selected on the basis of safety and specified work outcomes
- 2.6** Maintenance work is checked to verify that it conforms to technical specifications and complies with survey requirements, as required

3 Complete breakdown maintenance

- 3.1** Nature of breakdown is confirmed using maintenance records and or logbook entries related to reported breakdown
- 3.2** Restrictions are applied to operations, where necessary, and Master is informed

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| | 3.3 | Machinery and equipment are safely isolated according to WHS/OHS requirements and organisational practices |
| | 3.4 | Repair work is carried out according to technical specifications |
| | 3.5 | Master is notified of completion of repair work and details are documented |
| 4 | Complete hull maintenance | |
| | 4.1 | Checks of vessel hull, equipment and fittings are carried out according to maintenance schedules, survey requirements and vessel manufacturer instructions |
| | 4.2 | Deterioration in vessel structure, equipment and fittings is identified |
| | 4.3 | Checks on propeller, stern tube and rudder are carried out in accordance with organisational procedures, safety regulations and survey requirements |
| | 4.4 | WHS/OHS risk control measures and procedures for carrying out work are followed |
| | 4.5 | Work area is prepared |
| | 4.6 | Maintenance work is checked to verify it conforms to technical specifications and complies with survey requirements, as required |
| 5 | Clean up and complete documentation | |
| | 5.1 | Work area is cleared and cleaned |
| | 5.2 | Materials are disposed of or recycled according to legislative and workplace requirements |
| | 5.3 | Tools and equipment are cleaned, checked and stored according to workplace procedures |
| | 5.4 | Machinery and equipment are returned to service and monitored for correct operation according to organisational practices |
| | 5.5 | Maintenance report is completed according to workplace procedures |

Foundation Skills

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

competency.

Range of Conditions

Non-essential conditions may be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to MARB006 Maintain marine internal combustion engines, propulsion plant and auxiliary systems.

Links

Companion Volume Implementation Guides are found in VETNet -

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