



Australian Government

MARB035 Contribute to routine engine maintenance on a vessel

Release: 1

MARB035 Contribute to routine engine maintenance on a vessel

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 contribute to servicing engines and engine components on a vessel.

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

- Able Seafarer - Engine or Integrated Rating who assists under the direction of the officer in charge of the engineering watch in performing a range of engine maintenance activities on a range of vessels
- Navigational Watch - Deck/Engine.

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 an Able Seafarer - Engine, Integrated Rating or Navigational Watch - Deck/Engine and to meet regulatory requirements this unit must be delivered consistent with Marine Orders and with the relevant sections of the International Convention on Standards of Training, Certification and Watchkeeping for Seafarers (STCW).
- Those regulatory requirements include STCW International Maritime Organization (IMO) model course competencies and areas of knowledge, understanding and proficiency, together with the estimated total hours required for lectures and practical exercises. Teaching staff should note that timings are suggestions only and should be adapted to suit individual groups of trainees depending on their experience, ability, equipment and staff available for training.

Pre-requisite Unit

Not applicable.

Competency Field

B – Equipment Checking and Maintenance

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 Plan engine maintenance tasks	1.1	Planned maintenance system is accessed to establish engine maintenance requirements for vessel
	1.2	Maintenance tasks are proposed and prioritised in conjunction with others involved in or affected by the maintenance work
	1.3	Resource requirements are identified and accessed to ensure efficient completion of tasks
	1.4	Maintenance tasks are recorded in the maintenance schedule according to workplace procedures
2 Prepare for engine service	2.1	Nature and scope of work requirements are confirmed according to workplace procedures
	2.2	Service procedures, workshop manuals and manufacturer specifications are accessed and interpreted
	2.3	Tools, equipment and materials required for servicing are identified and prepared
	2.4	Engine and components are visually inspected for external signs of defects according to maintenance documentation
	2.5	Electrical components are identified and electrical equipment used safely
	2.6	Engine is started, ran up to operating temperature and checked for leaks, abnormal noises and pressures
	2.7	Test results are compared with manufacturer/component supplier specifications to determine compliance or non-compliance
	2.8	Results are documented with supporting information and recommendations are made about serviceability and

- repair
- 3 Service engines and engine components**
 - 3.1** Work health and safety (WHS)/occupational health and safety (OHS) requirements are identified and observed
 - 3.2** Service operations are performed according to workplace procedures and manufacturer/component supplier specifications
 - 3.3** Fluid level checks and replenishments are carried out according to manufacturer/component supplier specifications
 - 3.4** Appropriate lubricants are applied to engine
 - 3.5** Equipment/components requiring replacement are changed according to manufacturer/component supplier specifications
 - 3.6** Adjustments are made according to manufacturer/component supplier specifications
 - 4 Complete work**
 - 4.1** Engine is inspected to ensure protective guards, cowlings and safety features are in place
 - 4.2** Engine is cleaned according to workplace procedures
 - 4.3** Materials to be reused are collected and stored according to manufacturer specifications and workplace procedures
 - 4.4** Tools and equipment are cleaned, maintained and stored according to manufacturer specifications and workplace procedures
 - 4.5** Waste and scrap are removed according to legislative requirements and workplace procedures
 - 4.6** Unserviceable equipment is tagged and faults are identified and reported 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

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 MARB016 Contribute to routine engine maintenance on a vessel.

Links

Companion Volume implementation guide can be found in VetNet -

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