



**Australian Government**

# **Assessment Requirements for MARB027 Perform basic servicing and maintenance of main propulsion unit and auxiliary systems**

**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.

**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.

## Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying state or territory work health and safety (WHS)/occupational health and safety (OHS) requirements (specifically relating to personal protective equipment (PPE), use of tools and equipment, workplace environment and safety, handling of materials, hazard control and hazardous materials and substances) as per legislative requirements and vessel operating procedures
- completing all work required to service, replace and repair faulty equipment to specification/s
- completing relevant logbooks and service reports
- implementing safe operating procedures, including recognising and preventing hazards: associated with:
  - worksite visitors and the public
- performing emergency shutdown and stopping of equipment
- reading and interpreting:
  - gauges
  - safety data sheets (SDS)/material safety data sheets (MSDS)
- selecting and using appropriate processes, tools and equipment
- servicing and maintaining propulsion machinery and auxiliary equipment to manufacturer specifications
- undertaking basic servicing tasks.

## Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria and include knowledge of:

- basic servicing tasks, including:
  - battery maintenance

- checking shaft glands, strainers, cooling system, fuel levels and fuel systems
- greasing
- visually checking for oil leaks
- visually checking, identifying and reporting obvious equipment faults
- bleeding fuel systems
- care of extra low voltage electrical systems on a vessel, including precautions necessary when charging batteries
- environmental impacts and minimisation measures associated with servicing and maintaining propulsion machinery and auxiliary equipment
- identifying faulty items or components and appropriate actions required to rectify faults
- manufacturer specifications for servicing and maintaining propulsion machinery and auxiliary equipment
- operating principles and operating methods for propulsion machinery and auxiliary equipment
- process for servicing and maintaining propulsion machinery and auxiliary equipment to manufacturer specifications, including:
  - ancillary deck equipment
  - bilge systems
  - cooling and lubricating systems
  - diesel engines
  - drive train assembly
  - fuel systems
  - low voltage electrical systems
  - monitoring machinery
  - outboard engines
  - shore power leads and connections
  - steering gear
- processes of maintaining propulsion machinery and auxiliary equipment
- relevant WHS/OHS and PPE requirements including:
  - emergency procedures, including emergency shutdown and stopping of equipment
  - job safety analyses (JSAs) and safe work method statements
  - potential risks and hazards associated with servicing and maintaining propulsion machinery and auxiliary equipment
  - safe and environmentally responsible work practices in servicing and maintenance activities
- routine checks required when servicing and maintaining propelling machinery, auxiliary equipment and other mechanical equipment.

## Assessment Conditions

Assessors must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

As a minimum, assessment must satisfy applicable regulatory requirements, which include requirements in the Standards for Registered Training Organisations current at the time of assessment.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Practical assessment must occur in a workplace, or realistic simulated workplace, under the normal range of workplace conditions. Simulations and scenarios may be used where situations cannot be provided in the workplace or may occur only rarely, in particular for situations relating to emergency procedures and adverse weather conditions where assessment would be unsafe, impractical or may lead to environmental damage.

Resources for assessment must include access to:

- a commercial vessel greater than or equal to 5.0 metres with propulsion power of greater than or equal to 75 kW, or appropriate engine ashore
- applicable documentation, such as legislation, regulations, codes of practice, safety management system, workplace procedures and operational manuals
- tools, equipment, machinery, materials and relevant PPE currently used in industry.

## Links

Companion Volume Implementation Guides are found in VETNet -

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