



Australian Government

MARB053 Assist with routine maintenance on a commercial vessel

Release: 2

MARB053 Assist with routine maintenance on a commercial vessel

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. 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 carry out routine maintenance on a commercial vessel.

It includes selecting and setting up equipment and materials, following instructions to carry out routine maintenance on vessel machinery, preparing and painting surfaces, and storing tools and equipment.

This unit applies to people working in the maritime industry under the general supervision of the Master or Engineer of a commercial vessel in the capacity of a General Purpose Hand.

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 General Purpose Hand 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 Prepare for routine maintenance

- 1.1** Routine maintenance tasks and appropriate equipment are identified, and work schedule is prepared in accordance with workplace procedures and the vessels Safety Management System (SMS) and supervisor instructions
- 1.2** Personal protective equipment (PPE), tools and equipment are selected correctly according to work health and safety (WHS)/occupational health and safety (OHS) requirements, supervisor and manufacturer instructions
- 1.3** Equipment is inspected prior to use to ensure it is in safe working condition according to workplace procedures and supervisor instructions
- 1.4** Portable and corded electrical appliances are inspected, tagged and any damaged or unserviceable equipment is reported according to workplace procedures and supervisor instructions
- 1.5** Cleaning agents and chemicals are selected and prepared according to manufacturer instructions, safety data sheets (SDS)/material safety data sheets (MSDS) and supervisor instructions

2 Prepare work area

- 2.1** Hazards are identified, and work area prepared according to workplace procedures and supervisor instructions
- 2.2** Work area is protected by barricades or warning signs, as appropriate, to reduce risk to self, crew members and others according to workplace procedures and supervisor instructions

3 Carry out routine maintenance on vessel

- 3.1** PPE, tools and equipment are used correctly according to WHS/OHS safety requirements, supervisor and manufacturer instructions
- 3.2** Routine maintenance and housekeeping are carried out using appropriate tools according to supervisor and manufacturer instructions

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| | 3.3 | Damaged machinery and equipment are identified, tagged and reported according to workplace procedures and supervisor instructions |
| 4 Use paints and chemicals | 4.1 | Appropriate PPE, tools and equipment are selected and used according to WHS/OHS safety requirements, supervisor and manufacturer instructions |
| | 4.2 | Surfaces are prepared using correct equipment according to supervisor and manufacturer instructions |
| | 4.3 | Paints and chemicals are mixed and applied using appropriate applicators according to manufacturer instructions and SDS/MSDS |
| 5 Stow and maintain tools and equipment | 5.1 | Equipment and tools are cleaned, returned to operating condition and stowed securely according to WHS/OHS safety requirements, supervisor and manufacturer instructions |
| | 5.2 | Waste material from cleaning and maintenance tasks is collected, treated and disposed of or recycled according to workplace procedures and supervisor instructions |
| | 5.3 | Work area is cleaned and maintained according to workplace procedures and supervisor instructions |

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

Unit Mapping Information

This unit replaces and is equivalent to MARB033 Assist with routine maintenance of a vessel.

Links

Companion Volume Implementation Guides are found in VETNet -

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

Assessment Requirements for MARB053 Assist with routine maintenance on a commercial vessel

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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:

- completing maintenance records
- completing risk assessment
- complying with workplace requirements including:
 - manufacturer and supervisor instructions
 - safe and environmentally responsible work practices
 - safety data sheets (SDS)/material safety data sheets (MSDS)
 - Safety Management System (SMS)
 - work health and safety (WHS)/occupational health and safety (OHS) requirements and safe work practices
 - workplace procedures
- identifying, tagging out and reporting of faulty equipment
- selecting and using correct tools and equipment for cleaning and maintenance tasks, including:
 - applicators
 - appropriate personal protective equipment (PPE)
 - barricades
 - chemicals and cleaning supplies
 - handheld power tools
 - hand tools
 - paint and anticorrosive agents
 - warning signages
- undertaking routine maintenance under supervision, including:
 - checking cooling system, fuel, grease and oil, and battery charge levels
 - greasing and lubricating

- inspecting fan belts, leads, lines, connections, air filters, hydraulics and lighting.

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:

- awareness of the dangers of operating electrical tools in a vessel/residual-current device (RCD) testing
- component parts, operation and routine maintenance requirements of vessel machinery
- environmental and waste management procedures, including:
 - preventative measures with regard to damage to the environment caused by servicing, maintenance and cleaning activities
 - safely using and disposing of cleaning and maintenance debris, including oil containers, fuel, chemical residues and paint
- equipment cleaning and preservation techniques
- hazards associated with machinery spaces
- maintenance hazards and problems
- paint types and applications
- portable corded electrical appliances test and tag requirements
- principles and procedures of machinery lubrication as they relate to vessel machinery
- rust treatment
- techniques for maintenance of surfaces, including timber, fibre glass, steel and aluminium
- vessel routine maintenance tasks including necessary permits
- workplace requirements, including:
 - manufacturer instructions
 - relevant pollution control legislation
 - SMS
 - SDS/MSDS for chemicals and cleaning agents
 - WHS/OHS requirements and safe work practices, including:
 - Code of Practice for Health and Safety in Shipboard Work
 - state/territory WHS/OHS legislation
 - workplace procedures, including:
 - cleaning and maintenance
 - tagging out
 - using hand tools for routine maintenance operations.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory

requirements included within the Standards for Registered Training 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
- applicable documentation such as legislation, regulations, codes of practice, SMS, workplace procedures and operational manuals
- tools, equipment, machinery and materials and PPE currently used in industry.

Links

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