



Australian Government

MARB1001A Assist with routine maintenance of a vessel

Release 1

MARB1001A Assist with routine maintenance of a vessel

Modification History

Release 1

This is the first release of this unit.

Unit Descriptor

This unit involves the skills and knowledge required to carry out general routine maintenance on a vessel up to 80 metres.

Application of the Unit

This unit applies to general purpose-hands working in the maritime industry on vessels up to 80 metres as part of a vessel crew.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

- | | |
|--|--|
| 1 Select and set up equipment and materials for | 1.1 <i>Equipment</i> is selected according to type of cleaning to be undertaken |
| | 1.2 Equipment is checked to ensure it is clean and serviceable |

- cleaning**
- 1.3 Suitable dry and wet cleaning agents and chemicals are selected and prepared according to manufacturer instructions and work health and safety (WHS)/occupational health and safety (OHS) requirements
 - 1.4 Suitable personal protective clothing and equipment is selected and used where necessary
- 2 Clean work area**
- 2.1 Work area to be cleaned is prepared and any hazards are identified
 - 2.2 Work area is barricaded or warning signs are provided, as appropriate, to reduce risk to self and other crew members
 - 2.3 Correct cleaning agents are selected and applied according to manufacturer instructions and WHS/OHS requirements
 - 2.4 Equipment is used correctly and safely
- 3 Follow instructions to carry out routine maintenance of vessel machinery**
- 3.1 Suitable personal protective clothing is selected and used according to WHS/OHS safety requirements
 - 3.2 Greasing, lubrication and other routine servicing of vessel machinery and equipment is carried out according to supervisor and manufacturer instructions
 - 3.3 ***Routine adjustments and repairs*** are made to vessel machinery and equipment according to supervisor and manufacturer instructions
 - 3.4 Faulty vessel machinery and equipment is identified and reported according to workplace procedures
- 4 Prepare and paint surfaces**
- 4.1 Suitable personal protective clothing is selected and used according to WHS/OHS requirements
 - 4.2 ***Surfaces*** are prepared using correct equipment
 - 4.3 Rust remover, rust converter and undercoats are applied according to manufacturer specifications
 - 4.4 Paints are mixed in correct proportions according to manufacturer specifications
 - 4.5 Finishing coat is applied using brush, roller or spray gun
- 5 Maintain and store tools, equipment and chemicals**
- 5.1 Equipment and tools are cleaned, returned to operating order and stored according to supervisor and manufacturer instructions
 - 5.2 ***Environmental procedures*** are followed and waste from cleaning and maintenance tasks is collected, treated and disposed of, or recycled according to workplace procedures

- 5.3 Work area is cleaned and maintained according to workplace requirements
- 5.4 Malfunctions, faults, wear or damage to tools are reported according to workplace procedures
- 5.5 Chemicals are stored according to supervisor and manufacturer instructions

Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required Skills:

- Complete maintenance records
- Demonstrate safe and environmentally responsible work practices
- Read, interpret and apply manufacturer instructions including all WHS/OHS requirements and data safety sheets (SDS)/material safety data sheets (MSDS)
- Recognise faulty equipment
- Select and use correct tools and equipment for the cleaning or maintenance task

Required Knowledge:

- Component parts, operation and routine maintenance requirements of vessel machinery
- Equipment cleaning and preservation techniques
- Maintenance hazards and problems
- Paint types and applications
- Principles and procedures of machinery lubrication as they relate to vessel machinery
- Procedures for using hand tools for routine maintenance operations
- Relevant WHS/OHS and pollution control legislation
- Rust treatment
- Techniques for maintenance of surfaces including paint, timber, fibre glass, steel and aluminium
- Types, characteristics and functions of:
 - equipment/tools used in cleaning and maintenance
 - vessel machinery and equipment
- Workplace procedures for cleaning and maintenance

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, the required skills and knowledge, the range statement and the Assessment Guidelines for the Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the Elements, Performance Criteria, Required Skills, Required Knowledge and include:

Context of and specific resources for assessment

- ensuring currency of relevant WHS/OHS skills and knowledge
- implementing workplace environmental and waste management procedures correctly.

Performance is demonstrated consistently over time and in a suitable range of contexts.

Resources for assessment include access to:

- industry-approved marine operations site where assisting with routine maintenance of a vessel may be conducted
- tools, equipment and personal protective equipment currently used in industry
- relevant regulatory and equipment documentation that impacts on work activities
- range of relevant exercises, case studies and/or other simulated practical and knowledge assessments
- appropriate range of relevant operational situations in the workplace.

In both real and simulated environments, access is required to:

- relevant and appropriate materials and equipment
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals.

Method of assessment

Practical assessment must occur in an:

- appropriately simulated workplace environment and/or
- appropriate range of situations in the workplace.

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate to this unit:

- direct observation of the candidate assisting with routine maintenance of a vessel
- direct observation of the candidate applying relevant WHS/OHS requirements and work practices.

Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.

In all cases where practical assessment is used it should be combined with targeted questioning to assess Required Knowledge.

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

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below.

- | | |
|---|--|
| Equipment may include: | <ul style="list-style-type: none">• Cleaning supplies• Hand held power tools• Hand tools• Grease guns• Paint and rust prevention material• Personal protective equipment |
| Personal protective clothing and equipment may include: | <ul style="list-style-type: none">• Boots• Gloves• Hat/hard hat• Hearing protection• Overalls• Protective eyewear• Respirator or face mask• Safety harness• Sun protection• Wet weather gear |
| Work area may include: | <ul style="list-style-type: none">• Battery room• Engine room• Exposed deck area• Firefighting equipment spaces• Store room• Wheelhouse and accommodation area |
| Routine adjustments and repairs may include: | <ul style="list-style-type: none">• Checks of cooling system, fuel, grease and oil, battery levels• Dismantling and assembling• Inspections of fan belts, leads, lines, connections, air filters, hydraulics, lighting• Minor adjustments• Testing |
| Surfaces may include: | <ul style="list-style-type: none">• External and internal bulkhead• Funnel• Hatches and coamings• Hull• Masts |
| Environmental procedures must include: | <ul style="list-style-type: none">• Preventative measures with regard to damage to natural areas caused by servicing, maintenance and cleaning activities |

- Safely using and disposing of cleaning and maintenance debris including oil containers, fuel and chemical residues, paint

Unit Sector(s)

Not applicable.

Competency Field

Equipment Checking and Maintenance