



Australian Government

MARC002 Maintain hull out of water

Release: 1

MARC002 Maintain hull out of water

Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to carry out basic maintenance to vessel hull while it is out of water.

This unit applies to engine workers in the maritime industry working as a Marine Engine Driver Grade 3 Near Coastal on vessels up to 500 kW or as a Marine Engine Driver Grade 2 Near Coastal on vessels up to 750 kW or as a Marine Engine Driver Grade 1 Near Coastal on vessels up to 1500 kW.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

C - Equipment Operations

Unit Sector

Not applicable.

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Prepare for work

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| 1.1 | Planned maintenance program for hull type and construction material is accessed to determine hull maintenance requirements |
| 1.2 | Vessel is inspected and additional maintenance requirements are determined |
| 1.3 | Maintenance tasks are planned and sequenced in conjunction with others involved in or affected by maintenance work |
| 1.4 | Repair tools and equipment are selected and checked for serviceability |

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| | 1.5 | Work area is prepared |
| 2 Carry out required maintenance and repairs to hull, equipment and fittings | 2.1 | Suitable personal protective equipment is selected and used according to work health and safety (WHS)/occupational health and safety (OHS) requirements |
| | 2.2 | Permits for hot work, confined space entry and other high risk activities are completed according to organisational and regulatory requirements |
| | 2.3 | Tasks are performed according to manufacturer specifications, maintenance yard requirements and organisational practices |
| 3 Clean up and complete documentation | 3.1 | Work area is cleared and cleaned so it is in a serviceable condition |
| | 3.2 | Materials are disposed of or recycled according to legislative and organisational requirements |
| | 3.3 | Tools and equipment are cleaned, checked and stored according to organisational procedures |
| | 3.4 | Maintenance report is completed according to workplace procedures |

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

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

Range of Conditions

Specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Range is restricted to essential operating conditions and any other variables essential to the work environment.

- Maintenance tasks include one or more of the following:
- examining anchors and cables
 - inspecting and repairing:
 - hull fittings
 - stern drive and jet drive systems
 - watertight and weather tight hatches
 - inspecting and replacing anodes
 - withdrawing and examining:
 - propeller, shafts and seals
 - rudder, rudder stock and seals

Unit Mapping Information

This is a new unit. This unit is equivalent to MARC2002A Maintain hull out of water.

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 MARC002 Maintain hull out of water

Modification History

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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:

- ensuring work is carried out to regulatory requirements for issue or endorsement of relevant certificates
- explaining procedures and techniques for hull maintenance according to regulations and vessel operating procedures
- implementing safe and environmentally responsible work practices
- planning and preparing for maintenance including systematic isolation, dismantling and reassembly of parts
- reading, interpreting and applying:
 - manufacturer instructions including all WHS/OHS requirements and safety data sheets (SDS)/material safety data sheets (MSDS)
 - operating and service manuals for maintenance of vessel hull
- recognising:
 - faulty equipment
 - hull damage and deterioration
 - and taking appropriate action according to organisational procedures
- selecting and using correct tools and equipment for maintenance task.

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:

- component parts, operation and routine maintenance requirements of vessel, equipment and fittings
- differences in vessels, hull structures and equipment
- functions of underwater equipment
- hazards of working in confined spaces
- hull maintenance
- maintenance hazards and problems
- nature and causes of corrosion of marine surfaces and structures, and available methods for its control
- organisational procedures for maintenance

- principles and procedures of lubrication as they relate to underwater vessel equipment and fittings
- procedures for:
 - checking and inspecting vessel hull as part of routine maintenance program
 - initiating and coordinating repair and/or replacement of underwater equipment and fittings
- relevant WHS/OHS legislation
- types, characteristics and functions of equipment/tools used in maintenance
- use of sacrificial anodes.

Assessment Conditions

Assessors must satisfy National Vocational Education and Training Regulator (NVR)/Australian Quality Training Framework (AQTF) assessor requirements.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

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.

Resources for assessment must include access to:

- tools, equipment, machinery, materials and personal protective equipment currently used in industry including:
 - hand and power tools
 - ladders
 - specialised tools
 - cleaning chemicals
 - lubricants
 - rags
 - rust treatments
 - spare parts
 - spent oils and grease
 - used components
- applicable documentation such as legislation, regulations, codes of practice, workplace procedures and operational manuals
- range of relevant exercises, case studies and/or simulations.

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