



Australian Government

MARD002 Manage operations and maintenance on vessels limited by tonnage or near coastal operations

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to manage the operations of a commercial ocean-going vessel limited by tonnage or near coastal operations. It includes administration of vessel stability, cargo operations and planned maintenance system in compliance with Australian and international regulations and guidelines, protection of the marine environment and the safety of the vessel and people on board.

This unit applies to people who work in the maritime industry as Master or Chief Mate on a vessel of up to 500 gross tonnage (GT) or as a Watchkeeper on a vessel up to 3000 GT or as Master or Chief Mate on vessels up to 3000 GT operating in near coastal waters.

The unit is consistent with the relevant sections of STCW 95 and Marine Orders under the Australian Navigation Act 2012.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

D – Administration and Human Resources

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 Manage maintenance of vessel stability and safety parameters

- 1.1 Vessel dynamic stability is interpreted and analysed
- 1.2 Vessel stability is correctly maintained in normal and adverse operational conditions
- 1.3 Vessel safety parameters are correctly maintained within normal operational limits during cargo operations

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| 2 Administer planning of cargo operations on vessel limited by tonnage or near coastal operations | 2.1 | Impact of cargo operations on vessel stability is managed |
| | 2.2 | Draft survey is conducted and used |
| | 2.3 | Appropriate procedures are administered for all cargo operations |
| 3 Administer planned maintenance system | 3.1 | Vessel routine preventative maintenance plan is correctly interpreted and implemented |
| | 3.2 | Arrangements are made for maintenance activities to be carried out at required times |
| | 3.3 | Repairs to vessel hull or equipment and/or repair or replacement of equipment or components are organised according to procedures |
| 4 Dock or slip vessel limited by tonnage or near coastal operations | 4.1 | Type of slipway, dock or vessel lifting facility is identified and suitability for type of hull assessed |
| | 4.2 | Hull data is correctly interpreted and recorded |
| | 4.3 | Appropriate plan is prepared for procedures to be taken onboard vessel prior to, during and on completion of proposed slipping or docking operations |
| | 4.4 | Cradle is correctly prepared prior to slipping of vessel |
| | 4.5 | Appropriate precautions are taken prior to slipping and refloating of vessel and when shoring/supporting vessel |
| | 4.6 | Vessel is correctly refloated after slipping and maintenance operations |
| 5 Carry out inspection and maintenance procedures on vessel limited by tonnage or near coastal operations | 5.1 | Inspections of vessel hull, equipment and components are carried out according to company maintenance schedules and vessel manufacturer instructions |
| | 5.2 | Deterioration of vessel structure and fittings is identified and appropriate maintenance action is initiated according to work health and safety (WHS)/occupational health and safety (OHS) and pollution control requirements, company procedures and manufacturer instructions |
| | 5.3 | Lubricants, marine preservatives or finishes are applied correctly using appropriate application equipment according to WHS/OHS requirements, company procedures and manufacturer instructions |

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| | 5.4 | Problems in application of lubricants, marine preservatives, finishes and other maintenance materials and chemicals are identified and reported, and appropriate remedial action is initiated |
| | 5.5 | Records of maintenance and lubrication work carried out are completed according to procedures |
| 6 Administer correct selection and use of maintenance equipment and materials | 6.1 | Tools and equipment are correctly identified and used according to WHS/OHS requirements |
| | 6.2 | Maintenance materials are obtained |
| | 6.3 | Defective equipment and materials are identified and reported |

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.

Vessel include one or more of the following:	• vessel up to 500 GT operating in international waters • vessel up to 3000 GT operating in near coastal waters
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Deterioration of vessel structure and fittings include one or more of the following:	• corrosion of hull fittings and equipment • decay of timber surfaces • osmosis and underwater blistering of painted and fibreglass finishes
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Unit Mapping Information

This is a new unit. This unit is equivalent to MARD5002A Manage operations and maintenance on vessels limited by tonnage or near coastal operations.

Links

Companion Volume implementation guides are found in VETNet -

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