Australian Government

MARC001 Complete engine room tasks

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to perform tasks to support the operation of marine internal combustion engines, marine propulsion systems, vessel machinery and auxiliary systems.

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 Plan tasks	1.1	Work plan is developed and sequenced in conjunction with others involved in or affected by plan, according to organisational procedures
	1.2	Timelines, jobs and work priorities are confirmed with Master and other relevant authorities, when applicable

2	**Conduct refuelling operations**	2.1	Tank levels are correctly measured and reported pre and post fuelling operations
		2.2	Fuel capacity is calculated
		2.3	Tools and equipment are selected and checked for serviceability
		2.4	Safety boundary and signage for refuelling operation are accessed and used
		2.5	Fire and spill prevention systems are correctly deployed
		2.6	All personal protective equipment is accessed and used
		2.7	Refuelling operations are performed safely and effective communication is maintained with relevant personnel to ensure safety and integrity of vessel and crew
		2.8	Appropriate action is taken to handle incidents arising during fuelling operations according to organisational procedures and regulatory requirements
3	**Maintain stock and consumables**	3.1	Stock levels and consumables are monitored and maintained at required levels
		3.2	Stock and consumables are reordered as required
		3.3	Records of stock inventories and consumables are maintained and discrepancies are identified
4	**Perform general housekeeping tasks**	4.1	Housekeeping tasks are clarified against work plan
		4.2	Appropriate equipment for specific tasks is determined, prepared and used
		4.3	Housekeeping tasks are performed and assessed against task requirements
		4.4	Procedures for handling, storing and disposing of cleaning liquids are implemented according to regulatory requirements
5	**Stow and manage flammable and explosive materials**	5.1	Hazards related to flammable and explosive materials are identified
		5.2	Suitability of stowage areas is verified against regulatory requirements and organisational procedures
		5.3	Procedures for safe handling and stowage of flammable and

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		explosive materials are implemented according to regulatory requirements and organisational practices
6 Prepare simple reports	6.1	Requirements for simple reports are identified
	6.2	Information is prepared according to organisational procedures
	6.3	Calculations for fuel consumption and voyage duration are completed
	6.4	Information is assessed for accuracy, currency and relevance for inclusion in report
	6.5	Report is written using appropriate terminology

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.

Tools and equipment include one or more of the following:	• bunding
	• firefighting equipment
	• personal protective clothing and equipment
	• scupper plugs
	• signage
	• spill kit

Incidents include one or more of the following::	- fire - spillage on board - spillage over the side
Stock and consumables include one or more of the following:	- anodes - batteries - cleaning material and equipment - filters - fuel - lubricants - paint - spare parts - water
Housekeeping tasks include one or more of the following:	- correct disposal of waste - correct storage of: - tools - equipment - chemicals - general cleaning - pumping of bilges - removal or lashing of loose items
Flammable and explosive materials include one or more of the following:	- battery generated gases - chemicals - fuels - liquefied petroleum gas (LPG) - lubricating oils - oil soaked rags (spontaneous combustion)
Simple reports include one or more of the following:	- breakdown reports - maintenance logs - repair requests and reports - running logs

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Unit Mapping Information

This is a new unit. This unit is equivalent to MARC2001A Complete engine room tasks.

Links

MAR Maritime Training Package Companion Volume Implementation Guide at: - http://companion_volumes.vetnet.education.gov.au/Pages/TrainingPackage.aspx?pid=22

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