



Australian Government

MARE001 Communicate effectively when performing engineering duties

Release: 1

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Modification History

Release 1. New unit of competency.

Application

This unit involves the skills and knowledge required to communicate effectively when performing engineering duties on board a commercial vessel and includes communicating with others; reading and interpreting engineering publications, specifications, instructions and other documents; reading and interpreting equipment performance indications; using available tools to communicate between the bridge, engine control room and main engine room; and using a computer to enter and retrieve engineering information.

This unit applies to the work of a Marine Engineering Watchkeeper on commercial vessels greater than 750 kW and an Engineer Class 3 Near Coastal.

This unit has links to legislative and certification requirements.

Pre-requisite Unit

Not applicable.

Competency Field

E - Communication

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 Apply information to engineering watchkeeping duties | 1.1 Relevant engineering publications and other documentation are identified and accessed |
| | 1.2 Required information is extracted from relevant engineering publications and other documentation and is appropriately applied to work activities according to established marine engineering practice |
| | 1.3 Information in relevant engineering publications and other documentation used in day-to-day work is applied to work |

- activities
- 1.4 Engineering specifications and drawings are correctly read and interpreted, and information is applied according to established marine engineering practice
- 2 Apply engineering information**
- 2.1 Readings on performance indicators are correctly made and interpreted
- 2.2 Engineering information, procedures, instructions and directions are obtained, interpreted and applied
- 2.3 Standard drawing symbols, appropriate instrumentation and process control terms are correctly used in relation to actions and functions of marine equipment and plant
- 2.4 Engineering drawings and control loops are correctly sketched as required
- 2.5 Engineering reports, running sheets and other engineering documentation relevant to the performance of engineering duties are correctly and accurately completed
- 3 Communicate between bridge, engine control room and main engine room**
- 3.1 Available tools are correctly used to communicate between bridge, engine control room and main engine room
- 3.2 Appropriate records of engineering communications are completed according to organisational procedures and regulatory requirements
- 4 Communicate with officers, crew and others**
- 4.1 Clear and precise communication is used and established communication practices are followed
- 4.2 Communication misunderstandings are avoided using appropriate confirmation techniques and established communication practices
- 4.3 Messages concerning vessel safety and operations are received, read, clarified as required, correctly interpreted and applied to engineering activities
- 4.4 Appropriate techniques are used when communicating with multilingual crew to ensure communication is effective and messages are clearly understood
- 4.5 Non-verbal communication is appropriately used when working and communicating with others
- 4.6 Feedback, instruction and training on work performance is effectively provided to engine room crew according to vessel

procedures and established engineering practice

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.

Relevant engineering publications and other documentation include one or more of the following:

- anti pollution and environmental protection regulations and procedures, including relevant sections of the International Convention for the Prevention of Pollution from Ships (MARPOL)
- instructions of relevant maritime authorities and classification societies concerning shipboard machinery operations, maintenance and repair
- International Safety Management (ISM) Code safety management system plans, procedures, checklists and instructions
- machinery and vessel manufacturer specifications, instructions and recommended procedures
- marine engineering publications and manuals
- relevant sections of national and international regulations, International Maritime Organization (IMO) Conventions and Codes, including Australian Maritime Safety Authority (AMSA) Marine Orders and class society rules dealing with shipboard machinery maintenance and repair
- operational and maintenance logs, running sheets and records, including computer databases of running information and maintenance records
- vessel and organisational planned operational and maintenance

- procedures and instructions
- vessel safety and emergency contingency plans and procedures, including relevant sections of the International Convention for the Safety of Life at Sea (SOLAS)
 - vessel survey as it relates to shipboard plant, equipment and machinery
- Performance indicators include one or more of the following:
- computer screens
 - gauges
 - instrumentation
- Available tools include one or more of the following:
- alarms
 - hand held radios
 - internal communication systems

Unit Mapping Information

This is a new unit. This unit is equivalent to MARE5001A Communicate effectively when performing engineering duties.

Links

Companion Volume implementation guides are found in VETNet - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=772efb7b-4cce-47fe-9bbd-ee3b1d1eb4c2>