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| **MSA Unit 98** | | | **QCF Ref: J/505/9327** |
| Title: | **Control Dry Cargo Operations on Domestic Vessels** | | |
| Level: | **3** | | |
| Credit value: | **4** | | |
| Learning outcomes - The learner will: | | Assessment criteria - The learner can: | |
| 1. Know safe procedures and practices for cargo operations | | 1.1 Explain safe working procedures and practices for cargo operations  1.2 Explain the sections of the Maritime & Coastguard Agency (MCA) ‘Code of Safe Working Practices For Merchant Seamen’ that relate to cargo operations | |
| 2. Know the principles of ship stability affecting cargo operations | | 2.1 Explain the effects on stability during and after loading and discharging of cargo  2.2 Explain the effect of free surface in fuel and water tanks on stability at all stages of loading and discharging | |
| 3. Know how to carry out loading, stowage, securing, care on passage and discharging of cargo | | 3.1 Explain how to draw up a cargo plan before commencing operations  3.2 Explain how to implement a cargo plan  3.3 Explain the correct procedures for opening and closing cargo holds, including wooden, pontoon and Mcgregor type hatch covers  3.4 Explain the correct procedures for operating access equipment for hatches, hatch covers, rampways, shell doors and ramps  3.5 Explain the correct procedures for the approval, maintenance and safe use of cargo handling equipment  3.6 Explain the correct procedures for rigging cargo gear, slings and other types of lifting equipment  3.7 Explain the correct procedures for using cargo gear, slings and other types of lifting equipment in accordance with specified procedures  3.8 Explain how to carry out operations for different types of cargo according to plan  3.9 Explain how to secure cargo for passage  3.10 Explain how to implement cargo care requirements on passage for different types of cargo | |
| 4. Know how to correctly separate and secure different cargoes | | 5.1 Explain how to correctly segregate different types of cargo  5.2 Explain how to block, lash, shore and tom cargo, including the use of dunnage, taking into account the prevailing and forecast weather and characteristics of the cargo  5.3 Explain how to secure heavy loads, vehicles and trailers in accordance with the securing arrangement manual | |
| 5. Know the additional requirements for loading, carriage and discharge of hold cargoes | | 5.1 Explain the requirements for preparing and cleaning holds before loading as appropriate for different types of cargo  5.2 Explain the requirements for cleaning holds after discharge of cargo  5.3 Explain the requirement to keep bilges, strum boxes and drain wells clean and suctions in working order  5.4 Explain the need for block or solid cargo stows as appropriate to the type of cargo  5.5 Explain how to operate cargo hold ventilation systems appropriate for the type of cargo carried | |
| 6. Know the additional requirements for the safe carriage of deck cargoes | | 6.1 Explain the requirements for different types of cargo  6.2 Explain how to secure different types of deck cargo to maintain the safety of the ship as well as the cargo  6.3 Explain how to stow deck cargo so that access is left to essential equipment and spaces, and unrestricted views for safe navigation are maintained  6.4 Explain how to stow deck cargo to ensure the weight is evenly distributed and does not exceed the maximum permissible load | |
| 7. Know the additional requirements for the safe carriage of packaged dangerous goods | | 7.1 Explain how to stow different types of packaged dangerous goods in the appropriate location  7.2 Explain how to apply the United Nations (UN) classes of dangerous goods, as defined in the International Maritime Dangerous Goods (IMDG) Code and other sources, when handling and stowing such goods  7.3 Explain the meanings of the labels, marks and signs used to designate cargoes within those classes as indicated in the IMDG Code and other sources including cargo separation, marking and documentation  7.4 Explain how to apply the specified procedures for checking, loading, carriage and discharge of dangerous and hazardous cargo in packaged form | |
| 8. Know the additional requirements for safe Roll-On Roll-Off (ro-ro) operations | | 8.1 Explain how to use equipment to monitor atmosphere in ro-ro cargo spaces and other areas  8.2 Explain how to apply the specified procedures for ventilation of ro-ro spaces during loading and discharging of vehicles in port, and on voyage and in emergencies  8.3 Explain how to maintain ro-ro vessel stability and watertight integrity | |
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| Additional information about the unit | | This unit is designed for study by those working towards meeting the requirements for a BML Dry Cargo Operations Endorsement | |
| Unit aim(s) | | The aim of the unit is to provide the knowledge underpinning proficiency for controlling dry cargo operations on domestic vessels, including the requirements for a BML Dry Cargo Operations Endorsement | |
| Unit expiry date | |  | |
| Details of the relationship between the unit and relevant national occupational standards (if appropriate) | | MSA Maritime NOS 2012: A01, B14, B35 | |
| Details of the relationship between the unit and other standards or curricula (if appropriate) | | MCA syllabus for the BML Dry Cargo Operations Endorsement | |
| Assessment requirements specified by a sector or regulatory body (if appropriate) | | Assessment will be by a combination of the following methods – assignment; knowledge based testing; project work; presentation; practical demonstration; other - as agreed in consultation with the external verifier | |
| Endorsement of the unit by a sector or other appropriate body (if required) | | Maritime Skills Alliance  Maritime & Coastguard Agency | |
| Location of the unit within the subject/sector classification system | | Transportation Operations and Maintenance | |
| Name of the organisation submitting the unit | | Skills for Logistics, for the Maritime Skills Alliance | |
| Availability for use | |  | |
| Availability for delivery | |  | |
| Guided Learning Hours | | 40 | |