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| MSA Unit 136 | **QCF Ref: XXXXX** | |
| Title: | **Control Roll On – Roll Off Operations On Domestic Vessels** | |
| Level: | **3** | |
| Credit value: | **2** | |
| Learning outcomes - The learner will: | | Assessment criteria - The learner can: |
| 1. Know the regulatory framework within which Roll On–Roll Off (Ro-Ro) operations are carried out | | 1.1 Explain the content of Maritime & Coastguard Agency (MCA) ‘M’ notices covering Roll On–Roll Off (Ro-Ro) operations.  1.2 Explain the requirements of Safety Management Systems as they relate to Ro-Ro operations  1.3 Explain the sections of the Maritime & Coastguard Agency (MCA) Code of Safe Working Practices for Merchant Seamen that relate to Ro-Ro operations  1.4 Explain the content of the MCA Code of Ro-Ro Ships Stowage and Securing of Vehicles  1.5 Explain the content of Cargo Securing Manuals |
| 2. Understand the specific stability considerations applying to Ro-Ro operations | | 2.1 Explain the information contained in a ship’s stability book  2.2 Explain the effects on stability during and after loading and discharging of cargo  2.3 Explain the effect of free surface in fuel and water tanks on stability at all stages of loading and discharging  2.4 Explain the effect on stability of free surface water on vehicle decks  2.5 Explain the effect of point and axle weight loading on stability on vehicle decks and ramps  2.6 Explain the stability calculations which must be completed before sailing  2.7 Explain the effect of flooding and damage stability factors |
| 3. Know the systems for opening and closing bow and stern doors, other hull openings, mezzanine decks, and vehicle ramps | | 3.1 Explain how to operate bow and stern doors, other hull openings, mezzanine decks, and vehicle ramps  3.2 Explain the checks to be carried out on watertight seals and securing devices  3.3 Explain the visual and audible alarms relating to vehicle deck operations |
| 4. Know how to control vehicle deck operations | | 4.1 Explain how to plan the loading and discharging of vehicles and foot passengers including:   * briefing crew members on the intended operation * checking vehicles presented for shipment are suitable for carriage, including those carrying dangerous goods and livestock * separation of vehicles in different categories * distribution of vehicles on vehicle decks taking into account vehicle categories, weights, stability, trim and draft * maintaining adequate spacing between vehicles to allow passenger and crew access * separation of foot passengers and vehicles when both use the same ramp   4.2 Explain safety procedures to be followed for vehicle deck operations  4.3 Explain the audible and visual alarms in use during vehicle deck operations  4.4 Explain the requirements and procedures for counting passengers  4.5 Explain the personal protective equipment which must be worn by crew engaged in vehicle deck operations  4.6 Explain how to maintain effective communications and give directions to crew members throughout the operation  4.7 Explain the need for crew members to be able to give clear directions and instructions to vehicles and passengers  4.8 Explain the reports and communications required between the vehicle deck, bridge, other departments, and passenger decks |
| 5. Know the requirements for the carriage of dangerous goods | | 5.1 Explain the content of the International Maritime Dangerous Goods Code (IMDG Code)  5.2 Explain the purpose of a Document of Compliance for the Carriage of Dangerous Goods on a vessel  5.3 Explain how to implement the provisions of the IMDG Code  5.4 Explain where to obtain further advice on dangerous goods presented for shipment  5.5 Explain which classes of dangerous goods are not permitted to be carried on board passenger vessels  5.6 Explain emergency procedures to follow in the event of any emergency arise involving dangerous goods |
| 6. Know how to secure vehicles | | 6.1 Explain the different securing methods available  6.2 Explain the different securing points which may be found on vehicles  6.3 Explain the different securing points and devices which may be found on a vessel  6.4 Explain how different items of equipment are used to secure a vehicle  6.5 Explain how a vehicle’s own fittings may be used to assist in securing the vehicle  6.6 Explain the maintenance of securing equipment  6.7 Explain how to assess the number and level of vehicle securing devices to be used taking account of forecast sea and weather conditions, and vessel condition and limitations |
| 7. Know how to control vehicle deck atmosphere | | 7.1 Explain the requirements for vehicle deck ventilation  7.2 Explain the operation of ventilation machinery  7.3 Explain the different levels of ventilation which may be required during loading and discharging, and on passage  7.4 Explain how the atmosphere can be tested |

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| **Additional information** |  |
| Additional information about the unit | This unit is designed for study by those working towards meeting the requirements for a BML (Boatmaster Licence) Ro-Ro Operations Endorsement |
| Unit aim(s) | The aim of the unit is to provide the knowledge underpinning proficiency for controlling Ro-Ro operations on domestic vessels, including the requirements for a BML Ro-Ro 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 Ro-Ro Operations Endorsement |
| Assessment requirements specified by a sector or regulatory body (if appropriate) | Knowledge will be tested either in writing or orally, (and if the latter subsequently recorded). |
| 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 |
| Name of the organisation submitting the unit | SQA, for the Maritime Skills Alliance |
| Availability for use |  |
| Availability for delivery |  |
| Guided Learning Hours | 20 |