



| <b>Subject Area no. 20 Cargo &amp; ballast</b>  |  |  |   |
|---|--|--|---|
| <b>Principle:</b> The company develops and implements planning and operational processes for cargo and ballast, to ensure these are carried out effectively without injury to people and damage to the environment. |  |  |   |
| <b>Level</b>  | <b>Expectations</b>  | <b>Targets</b>   | <b>Suggested objective evidence</b>   |
| <b>Basic</b>  | The company has procedures for cargo & ballast operations. | Procedures cover:<br>Identification of designated person(s)<br>Preparation of holds<br>Ensuring systems are operational, as necessary prior, during and on completion.<br>Planning the cargo operation with stress/stability calculations for all stages of the operation.<br>Cargo operation monitoring<br>Cargo care at sea<br>Record keeping<br>Ballast Water management including heavy weather ballast. | Verification that procedures include: <ul style="list-style-type: none"> <li>• The master has received all the required cargo information .</li> <li>• The operations are approved and monitored by the master</li> <li>• Cargo operations are planned and carried out as per loading manual and the BLU Code/ IMSBC Code that are available onboard</li> <li>• Ballast operations comply with IBWM certificate and BWM plan and include:</li> <li>• Verification of cargo plans during superintendent’s visits.</li> </ul> |



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| Basic<br>(cont'd)                   | <p>Safety precautions are established for cargo and ballast operations.</p> <p>There is a maintenance program in place for hold structure, hull internals, fittings, hatch covers and cargo equipment</p> | <p>Procedures shall include:</p> <ul style="list-style-type: none"> <li>- meeting between master and terminal representative</li> <li>- use of PPE</li> <li>- restrictions for hold entry</li> </ul> <p>The planned maintenance &amp; inspection program includes hold structure, ballast tank and hull internals, fittings, hatch covers and cargo equipment</p> | <p>Condition of cargo holds, and ballast tanks is monitored.</p> <p>Condition of hatch covers, and cargo gear and associated equipment is regularly monitored</p> |



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| Intermediate                        | <p>Detailed procedures are available for all aspects of cargo operations.</p> <p>Guidance is available for certain specialized cargoes.</p> | <p>Procedures cover stowage and securing of cargo (where applicable), ventilation, monitoring of cargo temperatures and atmosphere for special cargoes, bilge drainage, guidance on hold cleaning and fumigation, familiarisation of stevedores on operation of vessel's cargo gear.</p> <p>Depending on the fleet vessels' specification to include as applicable: Coal; Grains; Deck cargo; Dangerous cargo; Iron ore, etc; Fertilisers; Nickel ore.</p> | <p>Verification of procedures</p> <p>Verification of maintenance and inspection records</p> <p>Procedures or case-specific circulars</p> |



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| <b>Intermediate (cont'd)</b>                   | <p>The company ensures that procedures covering cargo and ballast operations are effectively implemented.</p> <p>Detailed maintenance &amp; inspection procedures are in place.</p> | <p>Procedures include references to:<br/>Shore verification of cargo plans prior to the commencement of each operation, incl. review of anticipated stress and stability calculations for all anticipated intermediate steps of the operation.<br/>Establishment of occasional distant assessments for all cargo-related documentation, incl. hold cleaning</p> <p>Maintenance &amp; inspection procedures include inspection and testing of cargo hatches and ballast pumps, testing and calibration of gas meters, inspection and testing of cargo gear, hold inspection,</p> | <p>Superintendents reports.<br/>Distant assessment records.<br/>Terminal or third-party feedback.<br/>Reviews carried out by office staff of cargo plans and responses to vessels.</p> |



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| <b>Advanced</b>                     | <p>Standardised forms are used for planning and operational record keeping.</p> <p>All Deck officers shall be familiarised with the ship-specific cargo equipment and systems prior to assuming duties in the planning and execution of cargo and ballast operations</p> | <p>Forms are developed where applicable for cargo and ballast operations covering procedures mentioned under Basic and Intermediate above.</p> <p>Procedures cover:</p> <p>Shipboard familiarization on the cargo equipment and systems is carried out upon embarkation</p> <p>CBT and onboard training on cargo operations is provided to operation level officers.</p> <p>Operational level deck officers are trained on using loading software for stress and stability calculations, towards understudying the rank above.</p> | <p>Verification of forms</p> <p>Familiarisation and training records / appraisal reports</p> |



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| Level                               | Expectations  | Targets  | Suggested objective evidence   |
| <b>Excellence</b>                   | <p>All third-party reports and comments related to cargo and ballast operations are recorded and reviewed for the continuous improvement of operations and performance.</p> <p>Suitably qualified company representatives carry out comprehensive audits and assessments of cargo and ballast operations.</p> | <p>All third-party inspection reports, including, but not limited to, terminal feedback reports, are reviewed and recorded for statistical analysis and for the continuous improvement of vessel operations and performance.</p> <p>Audits and assessments using a standard form verify:</p> <ul style="list-style-type: none"> <li>- operational practices</li> <li>- proficiency levels of personnel</li> <li>- record keeping</li> <li>- identifying additional training needs</li> </ul> <p>Action plans from the assessment are followed up and closed out.</p> | <p>Records of reviews and analysis of inspection findings and feedback reports, showing actions taken for improving operations and performance.</p> <p>Audit and assessment reports and action plans</p> |



**Notes:**

Horizontal lines for notes, overlaid with a large, light gray 'DRAFT' watermark.