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**REPUBLIC OF THE PHILIPPINES**

**DEPARTMENT OF TRANSPORTATION**

**MARITIME INDUSTRY AUTHORITY**

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| **INVENTORY OF TEACHING AIDS AND REFERENCES** |

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| **Training Course:** | Ratings as Able Seafarer Engine in a Manned Engine-Room or Designated to Perform Duties in a Periodically Unmanned Engine-Room |
| **Name of Maritime Training Institution:** |  |

| *Note: Substitute textbooks and videos can be used provided they contain the same content of the required.* | **Self-Assessment** | **Tabletop Evaluation** | **Inspection** | **Remarks** |
| --- | --- | --- | --- | --- |
| **To be accomplished by applicant MTI** | **To be accomplished by designated Tabletop Evaluator** | **To be accomplished by designated Evaluation and Inspection Team (EIT)** |
| **Items** | **Hardcopy** | **Electronic Copy** | **Complied** | **Not Complied** | **Complied** | **Not Complied** |  |
| **Teaching Aids (A):** |
| 1. Visual Presentations
 |  |  |  |  |  |  |  |
| 1. Training videos about the following:
* How to maintain an engineering watch as support level
* Fueling and transferring operation including connecting/ disconnecting hoses and securing same
* How to measure tank level by top and bottom sounding
* Ballasting, deballasting and bilge transfer operation
* Reporting incidents regarding transfer operations
* Hoist and lifting equipment
* Surface preparations techniques
* Safe disposal of waste materials
* How to use various hand and power tools and measuring instruments
* Types of metal works
* Safe handling, stowage and securing of stores
* Pollution prevention of marine environment
* Use and operation of antipollution equipment
* Different voltages onboard
* Different tools for measuring/testing electrical equipment
 |  |  |  |  |  |  |  |
| 1. Safety Posters
* Standard hand signals for controlling crane operations
 |  |  |  |  |  |  |  |
| 1. IMO Charts and Symbols
 |  |  |  |  |  |  |  |
| 1. Manual/s
* Sample of manufacturer’s safety guidelines and shipboard instructions
* Equipment instructional manual
* Practical Guidance on communication for safe lifting and hoisting operations (OMHEC)
 |  |  |  |  |  |  |  |
| 1. Forms
* Sample work permits
 |  |  |  |  |  |  |  |
| 1. Exercise Sheets

A7.1 Receive order and communicate with the OOW in carrying out the procedures for relieving, maintaining and handing over of a watch and relieve, maintain and handover a watchA7.2 Identification and Reporting of unsafe conditions, potential hazards and deviations from the norm of main propulsion and auxiliary machineriesA7.3 Monitoring of performance of auxiliary machineries and record appropriate entries in the engine logbookA7.4 Carry out the fueling and oil transfer operationsA7.5 Carry out the operating procedures of bilge and ballast system transfer operationA7.6 Operate the following equipment:* valves and pumps
* hoist and lifting equipment
* hatches, watertight doors, ports and related equipment

A7.7 Perform basic crane, winch and hoist signal in accordance with established procedureA7.8 Perform isolation and emergency procedures in the operation of electrical equipmentA7.9 Recognize and report electrical hazards and unsafe electrical equipmentA7.10 Apply surface preparation techniques and use equipment for painting, lubrication and cleaning to carry out maintenance proceduresA7.11 Use hand and power tools, measuring instruments and machine tools to carry out shipboard maintenance and repairA7.12 Carry out the procedures for safe handling, stowage and securing of storesA7.13 Use the anti-pollution equipment in accordance with the established proceduresA7.14 Perform occupational health and safety procedures |  |  |  |  |  |  |  |
| **IMO References (R):***MTIs may use additional references as deemed necessary to meet the intended learning outcomes of this training course.* |
| 1. International Convention on Standards of Training, Certification and Watchkeeping for Seafarers, 1978, as amended
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (2000). *Standard Marine Communication Phrases (SMCP)*.
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (2003). *Code of Safe Working Practice for Cargo Stowage and Securing*
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (2005). *Guidelines for Ballast Water Exchange. (MEPC.124(53)*
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (2011). *Revised Guidelines for Systems for Handling Oily Wastes in Machinery Spaces of Ships Incorporating Guidance Notes for an Integrated Bilge Water Treatment System (IBTS)* (MEPC.1/ Circ.642, As amended MEPC.1/CIRC.676)
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. (2011). *International Convention for the Prevention of Pollution from Ships (MARPOL)*
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization. (2012). *International Maritime Dangerous Goods Code (IMDG 2016 Edition)*
 |  |  |  |  |  |  |  |
| **Bibliography (B):***The MTIs may choose books from the following bibliography or they may use other or additional references provided it has similar content of the latest edition. Electronic publications may be accepted as alternatives to printed copies of the latest editions and must be sourced from authorized publishers.* |
| 1. Baltic and International Council & The International Bunker Industry Association. *Bunkering guide*. BIMCO Bagsvaerd Denmark; The International Bunker Industry Association Ground Floor Latimer House 5-7 Cumberland Place Southampton, Hampshire.
 |  |  |  |  |  |  |  |
| 1. ClassNK (latest edition). *Good maintenance onboard ships.* ClassNK, 4-7 Kioi-cho, Chiyoda-ku, Tokyo, Japan.
 |  |  |  |  |  |  |  |
| 1. Emerson Process Management (latest edition). *Control Valve Handbook* (4th Ed.). Emerson Electric Co., 8000 West Florissant Avenue, P.O. Box 4100 St. Louis, U.S.A.
 |  |  |  |  |  |  |  |
| 1. Flanagan G.T.H. (latest edition). *Marine Boilers* (3rd Ed.) Butterworth-Heinemann. Oxford, United Kingdom
 |  |  |  |  |  |  |  |
| 1. Fernandez, E. (latest edition). *Marine Electrical Technology* (7th Ed.). Shroff Publishers & Distributors Pvt. Ltd., Mumbai, India.
 |  |  |  |  |  |  |  |
| 1. Hall, D. (latest edition). *Practical Marine Electrical Knowledge* (2nd Ed.). Witherby Seamanship International Ltd., Livingston West Lothian, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. Hunt, E. C. (Ed.) (latest edition) *Modern Marine Engineer’s Manual.* (Vol. 1) (3rd Ed.). Cornell Maritime Press, 101 Waterway Centreville, MD 21617, United States.
 |  |  |  |  |  |  |  |
| 1. Hunt, E.C. Harbach, J. A., &Rowen, A.L. (Eds.). (latest edition). *Modern Marine Engineer’s Manual.* (Vol. 2) (3rd Ed.). Cornell Maritime Press, 101 Waterway Centreville, MD 21617, United States.
 |  |  |  |  |  |  |  |
| 1. Jackson, L. (latest edition). *Reed's Instrumentation and Control System (Vol. 10).* Bloomsburry Publishing*,* 50 Bedford Square, London.
 |  |  |  |  |  |  |  |
| 1. Leugner, L. O. *The Practical Handbook of Machinery Lubrication* (latest edition). Maintenance Technology International Inc., 8 Riverview Cir Unit 9 Cochrane, AB T4C 1X1, Canada.
 |  |  |  |  |  |  |  |
| 1. Lloyd’s Registers (latest edition). *Understanding Ballast Water Management. Lloyd’s* Register Group Limited, London, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. Wankhede, A. & Kantharia, R. (latest edition). *The Ultimate Guide to Personal Safety in Ships.* Maritime Insight*,* Whitefield, Bangalore, India.
 |  |  |  |  |  |  |  |
| 1. Maritime Coast Guard Agency (latest edition). C*ode of Safe Working Practices for Merchant Seaman*. The Stationery Office, London, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. Marcos, F. G. (latest edition). *Modern Marine Engineers Handbook*. SSP MAKATI San Antonio Village, 1203, 7708 Saint Paul Road, San Antonio Village, Makati, Metro Manila.
 |  |  |  |  |  |  |  |
| 1. McGeorge, H. D. (latest edition). *Marine Auxiliary Machinery* (7th Ed.). Butterworth-Heinemann, Oxford, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. McGeorge, H. D. *Marine Electrical Equipment and Practice* (latest edition). Butterworth-Heinemann, Oxford, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. Sanguri, M. & Kantharia, R. (latest edition). *A Guide to Operating Oily Water Separator on Ships.* Marine Insight, Whitefield, Bangalore, India.
 |  |  |  |  |  |  |  |
| 1. Taylor, D. A. (latest edition). *Introduction to Marine Engineering* (Rev. 2nd Ed.) Elsevier Butterworth-Heinemann, Linacre House, Jordan Hill, Oxford OX2 8DP, UK 30 Corporate Drive, Suite 400, Burlington, MA 01803, USA.
 |  |  |  |  |  |  |  |
| 1. Thomas, R.E. (latest edition). *Thomas’s Stowage. The Properties and Stowage of Cargoes.* Brown, Son and Ferguson, Ltd. 1a, 426 Drumoyne Rd, Glasgow Metropolitan Area G51 4DA, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. Timings, R. (latest edition). *Fabrication and Welding Engineering*. Newnes: Elsevier Linacre House, Jordan Hill, Oxford OX2 8DP, UK 30 Corporate Drive, Suite 400, Burlington, MA 01803, USA.
 |  |  |  |  |  |  |  |
| 1. U. S. Department of Energy (latest edition). *DOE Fundamentals Handbook, Mechanical Science (Vol. 2).* U.S Department of Energy, Washington D.C.
 |  |  |  |  |  |  |  |
| 1. U. S. Department of Labor. (latest edition). *Hand and Power Tools*. U.S. Government Printing Office, Washington, D.C. (latest edition)
 |  |  |  |  |  |  |  |
| 1. Jackson, L. & Morton, T. D. (latest edition). *Reed’s General Engineering Knowledge for Marine Engineers.* Adlard Coles Nautical, 36 Soho Square, London.
 |  |  |  |  |  |  |  |
| 1. McGeorge, H. D. (latest edition). *General Engineering Knowledge* (3rd Ed.). Routledge Publishing, Abingdon, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (latest edition). *Ballast Water Management Convention and the Guidelines for its Implementation*. Witherby Seamanship International Livingston West Lothian, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. International Labour Office Geneva (latest edition). *Accident Prevention on Board Ship at Sea and in Port*. ILO Publications, International Labour Office, CH-1211 Geneva 22, Switzerland.
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (latest edition). *Guidelines for the Development of Shipboard Marine Pollution Emergency Plans.* Witherby Seamanship International, Livingston West Lothian, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. International Maritime Organization (latest edition). *ISM Code: International Safety Management Code and Guidelines for its Implementation.* Witherby Seamanship International, Livingston West Lothian, United Kingdom.
 |  |  |  |  |  |  |  |
| 1. International Shipping Federation (latest edition). *On board Training Record Book for Ratings Forming Part of Engineering Watch and Ratings Qualifying as Able Seafarer Engine.* Marisec Publications, 38 St Mary Axe, London.
 |  |  |  |  |  |  |  |
| **Website References (W):** |
| 1. <http://ocean.nationalgeographic.com/ocean/critical-issues-marine-pollution>
 |  |  |  |  |  |  |  |
| 1. <http://ww.marineinsight.com/misc/marine-safety/watertight-doors-on-ships-a-general-overview>
 |  |  |  |  |  |  |  |
| 1. <http://www.marineinsight.com/marine/understanding-sounding-ullage-and-frequency-of-sounding>
 |  |  |  |  |  |  |  |
| 1. <http://maritimeaccident.org/2012/03/oceanic-discovere-fatality-watertight-door-safety-not-watertight/#respond>
 |  |  |  |  |  |  |  |
| 1. <http://ehs.wsu.edu/ohs/Factsheets/FAQEyeFaceProtection.html>
 |  |  |  |  |  |  |  |
| 1. <http://marinelife.about.com/od/conservation/tp/effectsofoilspills.htm>
 |  |  |  |  |  |  |  |
| 1. <http://viswalab.net/viswalab/viswaweb/fqt.html>
 |  |  |  |  |  |  |  |

*Note: The above websites are recommended references only.*

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| **Accomplished by** | **:** |  |  | **Date** | **:** |  |
|  |  | Name and Signature ofMTI’s Authorized Representative |  |  |  |  |

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| **Table Top Evaluator’s Comments:** |
|  |  |  | **Date of Evaluation** |  |  |  |
|  | **Table Top Evaluator’s Name & Signature** |  |  |  |  |  |
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| **Inspector’s Comments:** |
|  |  |  | **Date of Inspection** |  |  |  |
|  | **Inspector’s Name & Signature** |  |  |  |  |  |
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