

“OPERATION AND MAINTENANCE OF ELECTRONICALLY CONTROLLED ENGINES - MAN B & W ME-C”

3-DAY TRAINING COURSE

• LEARNING OBJECTIVES

The overall aim of this Training Course is to increase the awareness of Engineer Officers to the concept, key components, operation and maintenance of the MAN B & W ME type of main engine. The participants, on completing the course, will be able to fully understand:



- the camshaft less concept of the MAN B&W ME B & C types of engine that is based on a mechanical-hydraulic system for the actuation of fuel injection pumps and exhaust gas valves, electronically controlled by a computer control system.
- the HPS system for delivering the necessary high-pressure hydraulic oil flow for the operation of the engine-driven piston pumps and their swash plate principle of operation.
- the function of the HCU cylinder unit, the FIVA valve, the distribution block, the accumulator, the cylinder lubricator, the exhaust gas actuator and the fuel oil pressure booster.
- the engine control and adjustment system including the Multipurpose Controller, the Main and Local Operating Panel, the Pneumatic and Tacho System, and
- the HMI interface of the Main Operating Panel, its function, alarms, indications, process information and maintenance tasks.

- DAILY SCHEDULE**

| | TOPICS |
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| DAY ONE | Introduction – Learning Objectives |
| | Introduction to MAN B&W ME Low Speed Engines – Designations – Lay Out |
| | Engine Control System (MPC, MOP, LOP, Pneumatic System, Tacho System) |
| | HPS System - FIVA Valves – Fuel Pressure Booster Unit – Exhaust Valve Actuators |
| DAY TWO | MOP Display and Functions |
| | Overview of List of Alarms |
| | Electrical Noise Detection – Examples |
| | Selected Service Letters |
| | Case Studies |
| DAY THREE | Practice at the ATHINA MLDC Full-Mission Engine Simulator De-briefing Assessment |

