

## MARINE ENGINEERS RESPONSIBILITIES

Marine engineers responsibilities are during their watch at the manned engine room for the main propulsion system.

- 1) Design and oversee testing, installation, and repair of marine apparatus and equipment.
- 2) Conduct analytical, environmental, operational, or performance studies in order to develop designs for products, such as marine engines, equipment, and structures.
- 3) Prepare, or direct the preparation of, product or system layouts and detailed drawings and schematics.
- 4) Evaluate operation of marine equipment during acceptance testing and shakedown cruises.
- 5) Analyze data in order to determine feasibility of product proposals
- 6) Confer with research personnel in order to clarify or resolve problems, and to develop or modify designs.
- 7) Investigate and observe tests on machinery and equipment for compliance with standards.
- 8) Conduct environmental, operational, or performance tests on marine machinery and equipment.
- 9) Determine conditions under which tests are to be conducted, as well as sequences and phases of test operations.
- 10) Maintain and coordinate repair of marine machinery and equipment for installation on vessels.
- 11) Inspect marine equipment and machinery in order to draw up work requests and job specifications.
- 12) Review work requests, and compare them with previous work completed on ships in order to ensure that costs are economically sound.
- 13) Prepare technical reports for use by engineering, management, or sales personnel.
- 14) Maintain contact with, and formulate reports for, contractors and clients in order to ensure completion of work at minimum cost.
- 15) Coordinate activities with regulatory bodies in order to ensure repairs and alterations are at minimum cost, consistent with safety.
- 16) Procure materials needed to repair marine equipment and machinery.
- 17) Act as liaisons between ships' captains and shore personnel in order to ensure that schedules and budgets are maintained, and that ships are operated safely and efficiently.
- 18) Check, test, and maintain automatic controls and alarm systems.
- 19) Maintain records of engineering department activities, including expense records and details of equipment maintenance and repairs.
- 20) Perform monitoring activities in order to ensure that ships comply with international regulations and standards for life saving equipment and pollution preventatives.
- 21) Prepare plans, estimates, design and construction schedules, and contract specifications, including any special provisions.

- 22) Schedule machine overhauls and the servicing of electrical, heating, ventilation, refrigeration, water, and sewage systems.
- 23) Supervise other engineers and crewmembers, and train them for routine and emergency duties.