

# Marine Engineers



Design, develop, and take responsibility for the installation of ship machinery and related equipment including propulsion machines and power supply systems.

## Tasks –

- Prepare, or direct the preparation of, product or system layouts and detailed drawings and schematics.
- Inspect marine equipment and machinery to draw up work requests and job specifications.
- Conduct analytical, environmental, operational, or performance studies to develop designs for products, such as marine engines, equipment, and structures.
- Design and oversee testing, installation, and repair of marine apparatus and equipment.
- Prepare plans, estimates, design and construction schedules, and contract specifications, including any special provisions.
- Maintain contact with, and formulate reports for, contractors and clients to ensure completion of work at minimum cost.
- Analyze data to determine feasibility of product proposals.
- Procure materials needed to repair marine equipment and machinery.
- Review work requests and compare them with previous work completed on ships to ensure that costs are economically sound.
- Perform monitoring activities to ensure that ships comply with international regulations and standards for life saving equipment and pollution preventatives.
- Supervise other engineers and crew members and train them for routine and emergency duties.

## Knowledge –

- Engineering and Technology —
- Design
- Mechanical
- Mathematics
- Customer and Personal Service
- Physics
- Administration and Management
- Computers and Electronics
- English Language
- Production and Processing
- Transportation
- Building and Construction
- Clerical
- Economics and Accounting
- Personnel and Human Resources
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## Abilities –

- Problem Sensitivity — The ability to tell when something is wrong or is likely to go wrong. It does not involve solving the problem, only recognizing there is a problem.
- Written Expression — The ability to communicate information and ideas in writing so others will understand.
- Mathematical Reasoning — The ability to choose the right mathematical methods or formulas to solve a problem.
- Near Vision — The ability to see details at close range (within a few feet of the observer).
- Oral Expression — The ability to communicate information and ideas in speaking so others will understand.
- Far Vision — The ability to see details at a distance.
- Fluency of Ideas — The ability to come up with a number of ideas about a topic (the number of ideas is important, not their quality, correctness, or creativity).
- Originality — The ability to come up with unusual or clever ideas about a given topic or situation, or to develop creative ways to solve a problem.
- Perceptual Speed — The ability to quickly and accurately compare similarities and differences among sets of letters, numbers, objects, pictures, or patterns. The things to be compared may be presented at the same time or one after the other. This ability also includes comparing a presented object with a remembered object.
- Selective Attention — The ability to concentrate on a task over a period of time without being distracted.
- Flexibility of Closure — The ability to identify or detect a known pattern (a figure, object, word, or sound) that is hidden in other distracting material.
- Visual Color Discrimination — The ability to match or detect differences between colors, including shades of color and brightness.

## Personality Code – IRE

**Qualification** – 4 years degree