Marine Engineers

- Education/Training Required: Bachelor's degree
- Annual Earnings: $72,990
- Growth: 10.9%
- Annual Job Openings: 495
- Self-Employed: 12.4%
- Part-Time: 25.0%

Our sources did not provide separate job openings data for this occupation. The job openings listed here are shared with Marine Architects.

Level of Stress Tolerance Needed: 71.7 (out of 100)

Most Stressful Aspects: Impact of Decisions on Co-workers or Company Results (86.0); Importance of Being Exact or Accurate (83.0); Duration of Typical Work Week (75.0); Time Pressure (68.8).

Least Stressful Aspects: Deal With Physically Aggressive People (2.0); Pace Determined by Speed of Equipment (8.0); Deal With Unpleasant or Angry People (35.8); Frequency of Conflict Situations (46.5).

Design, develop, and take responsibility for the installation of ship machinery and related equipment, including propulsion machines and power supply systems. Prepare, or direct the preparation of, product or system layouts and detailed drawings and schematics. Inspect marine equipment and machinery in order to draw up work requests and job specifications. Conduct analytical, environmental, operational, or performance studies in order 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. Investigate and observe tests on machinery and equipment for compliance with standards. Coordinate activities with regulatory bodies in order to ensure repairs and alterations are at minimum cost consistent with safety. Prepare technical reports for use by engineering, management, or sales personnel. Conduct environmental, operational, or performance tests on marine machinery and equipment. Maintain contact with, and formulate reports for, contractors and clients to ensure completion of work at minimum cost. Evaluate operation of marine equipment during acceptance testing and shakedown cruises. Analyze data in order to determine feasibility of product proposals. Determine conditions under which tests are to be conducted, as well as sequences and phases of test operations. Procure materials needed to repair marine equipment and machinery. Confer with research personnel to clarify or resolve problems and to develop or modify designs. Review work requests and compare them with previous work completed on ships to ensure that costs are economically sound. Act as liaisons between ships' captains and shore personnel to ensure that schedules and budgets are maintained and that ships are operated safely and efficiently. Perform monitoring activities to ensure that ships comply with international regulations and standards for lifesaving equipment and pollution preventatives. Check, test, and maintain automatic controls and alarm systems. Supervise other engineers and crewmembers and train them for routine and emergency duties.

Personality Type: Realistic. Realistic occupations frequently involve work activities that include practical, hands-on problems and solutions. They often deal with plants; animals; and real-world materials such as wood, tools, and machinery. Many of the occupations require working outside and do not involve a lot of paperwork or working closely with others.

GOE—Interest Area: 15. Scientific Research, Engineering, and Mathematics. **Work Group:** 15.07. Research and Design Engineering. **Other Jobs in This Work Group:** Aerospace Engineers; Biomedical Engineers; Chemical Engineers; Civil Engineers; Computer Hardware Engineers; Electrical Engineers; Electronics Engineers, Except Computer; Marine Architects; Marine Engineers and Naval Architects; Materials Engineers; Mechanical Engineers; Nuclear Engineers.

Skills—Science: Using scientific rules and methods to solve problems. **Technology Design:** Generating or adapting equipment and technology to serve user needs. **Installation:** Installing equipment, machines, wiring, or programs to meet specifications. **Mathematics:** Using mathematics to solve problems. **Operations Analysis:** Analyzing needs and product requirements to create a design. **Systems Analysis:** Determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.

Education and Training Program: Naval Architecture and Marine Engineering. **Related Knowledge/Courses: Engineering and Technology:** The practical application of engineering science and technology. This includes applying principles, techniques, procedures, and equipment to the design and production of various goods and services. **Design:** Design techniques, tools, and principles involved in production of precision technical plans, blueprints, drawings, and models. **Physics:** Physical principles, laws, their interrelationships, and applications to understanding fluid, material, and atmospheric dynamics, and mechanical, electrical, atomic, and subatomic structures and processes. **Mechanical Devices:** Machines and tools, including their designs, uses, repair, and maintenance. **Building and Construction:** Materials, methods, and the tools involved in the construction or repair of houses, buildings, or other structures such as highways and roads. **Computers and Electronics:** Circuit boards, processors, chips, electronic equipment, and computer hardware and software, including applications and programming.

Work Environment: Outdoors; noisy; sitting.

Marking Clerks

- Education/Training Required: Short-term on-the-job training
- Annual Earnings: $20,440
- Growth: –7.7%
- Annual Job Openings: 439,327
- Self-Employed: 0.2%
- Part-Time: 44.2%

Our sources did not provide separate job openings data for this occupation. The job openings listed here are shared with Order Fillers, Wholesale and Retail Sales; Stock Clerks, Sales Floor; and Stock Clerks—Stockroom, Warehouse, or Storage Yard.

Level of Stress Tolerance Needed: 63.2 (out of 100)

Most Stressful Aspects: Frequency of Conflict Situations (59.8); Deal With Unpleasant or Angry People (57.5).

Least Stressful Aspects: Deal With Physically Aggressive People (8.8); Pace Determined by Speed of Equipment (9.7); Consequence of Error (25.7); Level of Competition (41.3).

Print and attach price tickets to articles of merchandise, using one or several methods, such as marking price on tickets by hand or using ticket-printing machine. Put price information on tickets, marking by hand or using ticket-printing machine. Compare printed price tickets with entries on purchase orders to verify accuracy and notify supervisor of discrepancies. Pin,