



**Code: 7353**  
Family: Construction, Maintenance, and Skilled Labor  
Service: Operation and Construction  
Group: River, Harbor, and Transportation  
Series: Marine

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## **CLASS TITLE: MARINE ENGINEER**

### **CHARACTERISTICS OF THE CLASS**

Under general supervision, coordinates and performs operation and maintenance functions related to the power machinery of City-owned tugboats; and performs related duties as required

### **ESSENTIAL DUTIES**

- Operates tugboat propulsion plant, auxiliary power source and pumping machinery
- Inspects and maintains proper lubrication of all equipment, pumps and generators
- Repairs and adjusts equipment and machinery spaces as necessary
- Takes direction from tugboat pilot regarding the signaling, starting and shutting down of marine engine
- Operates and maintains all electrical, hydraulic and pneumatic equipment on board
- Uses hand and power tools to perform routine repairs of equipment
- Orders materials and supplies as necessary
- Starts and stops tugboats under varying nautical and climatic conditions

**NOTE:** *The list of essential duties is not intended to be inclusive; there may be other duties that are essential to particular positions within the class.*

### **MINIMUM QUALIFICATIONS**

#### **Education, Training, and Experience**

- One year of work experience as a marine engineer operating a diesel engine aboard a motor vessel on the Great Lakes or the high seas

#### **Licensure, Certification, or Other Qualifications**

- Current Merchant Mariner's Document (MMD) issued by the United States Coast Guard

### **WORKING CONDITIONS**

- Exposure to outdoor weather conditions (e.g., lake exposure)
- Exposure to loud noise, fumes or dust, oily or wet environment

### **EQUIPMENT**

- Communication equipment (e.g., two-way radio, dispatch communications equipment, multi-channel system)
- Personal protective equipment
- Standard tools and equipment used to maintain and prepare propulsion engines and other machinery on a tugboat

### **PHYSICAL REQUIREMENTS**

- Heavy lifting (up to 75 pounds) is required

- Ability to walk and stand for extended or continuous periods of time
- Ability to move one's hands and arms to grasp or manipulate objects

## **KNOWLEDGE, SKILLS, ABILITIES, AND OTHER WORK REQUIREMENTS**

### **Knowledge**

Considerable knowledge of:

- \*the operation and maintenance of marine engines and auxiliary equipment
- \*applicable emergency operations and procedures
- \*tugboat mechanical and electronic systems and equipment

Some knowledge of:

- \*applicable communications equipment and devices
- \*use of safety equipment and protective gear
- \*applicable safety procedures and code standards specific to tugboat operations, including Coast Guard and OSHA standards

Knowledge of applicable City and department policies, procedures, rules, regulations, and ordinances

### **Skills**

- \*ACTIVE LISTENING - Give full attention to what other people are saying, take time to understand the points being made, ask questions as appropriate, and not interrupt at inappropriate times
- \*COORDINATION WITH OTHERS - Adjust actions in relation to others' actions
- \*EQUIPMENT MAINTENANCE - Perform routine maintenance on equipment and determine when and what kind of maintenance is needed
- \*OPERATION MONITORING - Watch gauges, dials, or other indicators to make sure a machine is working properly

### **Abilities**

- COMPREHEND ORAL INFORMATION - Listen to and understand information and ideas presented through spoken words and sentences
- SPEAK - Communicate information and ideas in speaking so others will understand
- COMPREHEND WRITTEN INFORMATION - Read and understand information and ideas presented in writing
- CONCENTRATE - Concentrate on a task over a period of time without being distracted
- RECOGNIZE PROBLEMS - Tell when something is wrong or is likely to go wrong
- RECOGNIZE SPATIAL ORIENTATION - Know one's location in relation to the environment or know where other objects are in relation to one's self

### **Other Work Requirements**

- PERSISTENCE - Persist in the face of obstacles on the job
- INITIATIVE - Demonstrate willingness to take on job challenges

- COOPERATION - Be pleasant with others on the job and display a good-natured, cooperative attitude
  - DEPENDABILITY - Demonstrate reliability, responsibility, and dependability and fulfill obligations
  - ATTENTION TO DETAIL - Pay careful attention to detail and thoroughness in completing work tasks
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All employees of the City of Chicago must demonstrate commitment to and compliance with applicable state and federal laws, and City ordinances and rules; the City's Ethics standards; and other City policies and procedures.

The City of Chicago will consider equivalent foreign degrees, accreditations, and credentials in evaluating qualifications.

\* May be required at entry.

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City of Chicago  
Department of Human Resources  
Date: November, 2012