

Position: **Benchmark Job #194**

Ministry: Transportation and Highways

Working Title: **Junior Marine Engineer**

Branch: Marine Branch - Kootenay Lake Ferry

Level: Range 13

Location: Balfour

NOC Code: 7434

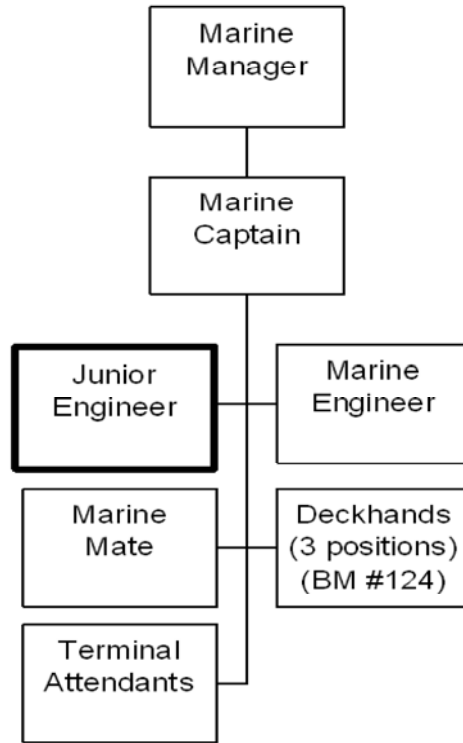
## PRIMARY FUNCTION

To perform maintenance, and repair functions on ferry equipment, engines and systems.

## JOB DUTIES AND TASKS

1. Performs maintenance functions on ferry equipment, engines and systems
  - a. starts and shuts down main engines of ferry
  - b. monitors, reads and records all pressure and temperature gauges, investigates malfunctions if gauges record out of normal range, changes and synchronizes generator gauges
  - c. monitors and carries out regular oil and fuel changes and takes fuel and oil from shed onto vessel
  - d. performs annual refit servicing of pumps, tanks and systems and inspects valves, packing and gaskets
  - e. services all water and oil pumps, heating systems, hot water tanks, furnace, and a variety of related equipment and machinery, located in various compartments below deck
  - f. sets valve and gear clearances
  - g. pumps out bilges and sewage
  - h. ensures that all fire extinguishers and sprinkler systems are operational
  - i. inspects gear trains, air compressors and generators
  - j. inspects and maintains the external structure of the vessel including propeller shaft and sea valves etc. during annual refit
  - k. removes paint and repaints vessel areas and equipment
  - l. maintains a clean and safe environment in the engine room
2. Performs repair functions on ferry equipment, engines and systems
  - a. maintains and repairs deck machinery, pumps and davits
  - b. assists engineer in performing repairs to vessel equipment and machinery including complete stripping down and re-building of main engines and auxiliary engines, generators, pumps and all related mechanical, electrical hydraulic or pneumatic equipment
  - c. performs hull repairs using welding and cutting techniques
  - d. operates on board lathes, welders, cutting equipment as required
3. Performs other related duties
  - a. conducts and maintains inventory of spare parts and orders parts for engine room
  - b. participates in emergency team responses such as rescue boat crew with a person overboard, marine emergency situations or directing passengers to evacuation ladders

- c. provide first response to below deck fires with fire extinguisher or wearing fire fighting clothing and breathing equipment works hoses under direction to fight on board fires
- d. signs delivery slips for oil and fuel
- e. performs night watchman duties, makes various repairs to equipment, takes on fuel and starts all engines and equipment to have vessel operational ready for first sailing.



FACTOR	REASON FOR CLASSIFICATION	DEGREE	POINTS
1	<p><b>JOB KNOWLEDGE</b></p> <p>Understand and apply accepted mechanical and electrical methods to maintain vessel equipment and assist engineers in the repair, maintenance, re-building and installation of engines and vessel systems.</p>	E	145
2	<p><b>MENTAL DEMANDS</b></p> <p>Judgement to assess repair requirement problems and choose and approach using a combination of accepted electrical or mechanical methods and equipment to carry out assigned electrical or mechanical repairs and to assist Engineer in the repair, maintenance, rebuilding and installation of engines and vessel systems.</p>	D	100
3	<p><b>INTERPERSONAL COMMUNICATION SKILLS</b></p> <p>Discretion required to exchange information needing an explanation regarding equipment malfunctions and repair work requirements with co-workers and engineer.</p>	C	30
4	<p><b>PHYSICAL COORDINATION AND DEXTERITY</b></p> <p>Significant coordination and dexterity required to use measuring instruments to set valve clearances, operate welding equipment and use various hand tools to repair equipment to close tolerances.</p>	D	22.5
5	<p><b>RESPONSIBILITY FOR WORK ASSIGNMENTS</b></p> <p>Guided by general procedures or instructions, selects alternative course of action to inspect, adjust, maintain, service or repair mechanical, electrical, hydraulic or pneumatic equipment on ferry.</p>	D	75
6	<p><b>RESPONSIBILITY FOR FINANCIAL RESOURCES</b></p> <p>Financial responsibility to sign for fuel and oil received.</p>	A	5

<b>FACTOR</b>	<b>REASON FOR CLASSIFICATION</b>	<b>DEGREE</b>	<b>POINTS</b>
7	<b>RESPONSIBILITY FOR PHYSICAL ASSETS/INFORMATION</b> Significant responsibility to assist in performing full maintenance of all equipment and machinery on vessel and technical facilities.	D	22.5
8	<b>RESPONSIBILITY FOR HUMAN RESOURCES</b> Limited or no responsibility for human resources.	A	5
9	<b>RESPONSIBILITY FOR WELL BEING/SAFETY OF OTHERS</b> Moderate care and attention to ensure the appropriate monitoring and servicing of all ferry equipment for the safe operation of the vessel.	C	15
10	<b>SENSORY EFFORT/MULTIPLE DEMANDS</b> Intense attention to detail to almost always observe visually by smell and by hearing monitor performance of vessel machinery and equipment while vessel is in operation.	D	18
11	<b>PHYSICAL EFFORT</b> Heavy physical effort to frequently crawl, crouch, push, pull, lift and work in awkward positions below deck to monitor, maintain and repair equipment.	E	24
12	<b>SURROUNDINGS</b> Exposure to working in confined spaces almost always.	E	12
13	<b>HAZARDS</b> High level of exposure to hazards from almost always inspecting and repairing moving equipment on ferry vessel.	E	12

Total Points: 486

Level: Range 13