WANJOHI BRIAN MBUGUA

Engineering Watch Officer (EOOW) III/1

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Profile

Dedicated and results-oriented marine engineer with 3+ years' experience who takes pride in problem solving and efficiency. I believe most modern challenges can be solved through employing innovation, technology and passion.

Experience

ENGINE CADET | HANA SHIPPING | SOUTH KOREA|

09/2022 - 10/2023

- Conducted engineering watches ensuring safe and efficient operation of shipboard propulsion machinery, auxiliary equipment, and power generation systems; responding to machinery alarms and failures and taking immediate corrective actions to avoid downtime or damage to equipment.
- Collaborated with the bridge team to provide operational feedback and ensure safe vessel navigation during port and at-sea operations.
- Operation and maintenance of the main engine and auxiliary machineries including but not limited to generators, auxiliary boiler, refrigeration and air condition system, sewage treatment plant, air-compressors, purifiers, pumps, hydrophore, calorifier and other mechanical systems; to ensuring operational readiness.
- Documented detailed and accurate log entries of operational data, maintenance activities, and any significant incidents, ensuring compliance with regulatory and safety standards.
- General ship electrical maintenance and emergency battery management.
- Conducted pre-bunkering checks and assisted in coordinating bunkering operations, ensuring that all operations adhered to company safety standards and MARPOL regulations.
- Bunker management by conducting daily soundings, documenting fuel transfer, maintaining accurate logs of fuel quantities and bunker change over in Sulphur emission controlled areas so as to comply with IMO regulations
- Preparation of all necessary reports such as NOON, ARRIVAL, SAILING, fuel consumption and other engine room publications according to Company instructions.
- Conducted routine inspections, troubleshooting and maintenance of on-board systems; identifying potential issues and initiating corrective actions thus keeping systems running efficiently and preventing downtime.

- Monitored engine room equipment and systems, performed tests and recorded performance data for analysis so as to ensure the safety and reliability of vessels and engines.
- Management of inventories such as workshop utilities and spare parts so as to ensure there is minimal downtime in case machinery breakdown
- Routine inspections of safety and emergency equipment such lifeboats, emergency generators and emergency fire pump
- Ensure safety of personnel and machinery during operation, maintenance or repair by conducting job safety assessments and drafting work permits.
- Developed and maintained a high level of readiness for emergency situations and familiarization of safety protocols through proactive training and participation in drills
- Collaborated with the engineering team to ensure the ship's compliance with MARPOL, SOLAS, and other relevant maritime safety and environmental regulations.

SHIFT TECHNICIAN | THIKA POWER LTD | NRB, KENYA |

06/2021 - 09/2022

- Operating a closed-loop Rankine cycle power plant with a Steam turbine. This includes 5
 MAN 18V 48/60B engines, 1 MARC2 steam turbine, water tube boilers, fire tube boilers, and
 their auxiliaries such as air compressors, centrifugal separators, pumps, chemical dosing
 units and analyzers, heat exchangers, a reverse osmosis plant and an effluent treatment
 plant.
- Record Keeping; equipment running hours, work permits and work report, bunker report, power generation, steam quality analysis, steam turbine running parameters, engine running parameters, SFOC and SLOC analysis.
- Updating the JD Edwards integrated ERP software suite on the fuel stock, Inventory management system and Engine running.
- Receiving and issuance of handovers to shift technicians
- Engine Auxiliaries maintenance
 - o Servicing of various types of valves on the DCC (Diesel Combined Cycle) system.
 - Servicing Starting, Working and Instrument/Control (Rener) Air Compressors.
 - Servicing various pumps including multi-stage pumps, diaphragm pumps, centrifugal pumps & elastomer progressive cavity pumps
- Servicing HFO and Lube oil Separators (GEA Westfalia).
- Took part in the 18000 running hour preventive maintenance of 4 MAN 18V 48/60B engines, which involved: engine parts to inspect worn-out surfaces or elements to either machine or replace them entirely and later on, assembled them back. These parts included:
 - o Cylinder heads, inlet and exhaust valves and cylinder liners
 - Pistons, camshafts, start air valves, HT engine driven cooling water pump, fuel injection pumps and fuel injectors
 - o Turbocharger, charge air coolers, lube oil system, control air system and booster units.

- Tug boat engine machinery maintenance and repair i.e., pumps, valves, main engine, compressors, and generators
- Tug boat engine room operations, monitoring pressure and temperature levels and proper lubrication of parts.
- Barge hull works and repair i.e., welding and gas cutting
- Workshop practice; Fabrication and Lathe works

Education

BSc Marine Engineering | Jomo Kenyatta University of Agriculture and Technology | Nov 2019

• Upper Second Class Honors

High School Diploma | Memon High School |

Nov 2013

• Grade - A

Skills & Core competence

- Marine Engineering systems
- Troubleshooting and repair
- Safety management and compliance
- Strong communication and interpersonal skills
- MS Office applications

- AutoCAD/ Autodesk Inventor
- Collaboration/Teamwork
- Leadership skills
- Problem-solving and technical skills
- Initiative/Proactive
- Detail oriented

Certification/Licenses

Kenya Maritime Authority

Class III/1 Certificate of Competency (Engine)

Engineering Board of Kenya & Institution of Engineers of Kenya

Graduate Engineer

Maritime Industry Authority of Philippines

- Advanced Fire-fighting
- Medical First Aid
- Survival Craft and Rescue Boats
- Ship security awareness training

- Seafarers with designated security duties
- Engine Resource Management
- Marine High Voltage
- Basic STCW

References

- 1. Mr. Yoon Yong Dae Chief Engineer at Hana Shipping Ltd (+82)1094039626 | Yyd.yoonyongdae@gmail.com
- 2. Mr. Anthony Njoroge Supervisor at Thika Power Ltd (+254)790214775 | tonynjoroge38@gmail.com
- 3. Mr. Fred Ogutu Chief Engineer at Specialised Vessel Services Ltd (+254)721736873/ (+258)862018084 | fredycharly660@gmail.com

Project

Marine Radio Life Jacket - Lead

| 09/2018 - 07/2019 |

Designed and developed a signaling and communication system for a Lifejacket. Put in practice both fluids and electrical systems. Utilized C++ in programming Arduino micro controllers for the project.