The Engine Department

The Engine Department of a cruise ship is part of the Marine Operations Division. Although the Engine Department team is primarily responsible for the safe and smooth operation of the ship's propulsion systems, main and auxiliary engines, the engineering department is also responsible for all technical operations and mechanical equipment onboard the cruise ship, as well as ship's electrical system, safety and fire fighting systems, HVAC and waste disposal systems. The Engine department aboard a cruise ship offers jobs for two types of crew: Chief Engineer, Staff Chief Engineer, marine engineering, maritime engineer, mechanical engineering, electrical engineering, electronics engineering, HVAC Engineer, Engine Cadet jobs are Engine Officers positions while Motorman, Fitter, Plumber, Oiler, Wiper / Engine Utility Man jobs are Engine Ratings positions.

- **Chief Engineer** - the Chief Engineer is responsible for the entire technical operations of the vessel including engineering, electrical, and mechanical divisions. The Chief Engineer is the head of the entire Engine Department aboard the cruise ship, the highest-ranking officer within the department and along with the Captain /Master one of the most important figures in the Marine Operations division on the ship. The Chief Engineer has overall responsibility for all technical operations and equipment onboard the cruise ship and assisted by his subordinate officers (Staff Chief Engineer, Chief Electrical Engineer, Chief Refrigeration Engineer, Hotel Service Engineer) makes sure that systems and equipment within every subdivision of the Engine Department are operating correctly and are maintained up to the highest possible standards of the cruise line and international regulations - main and auxiliary engines, generators, electrical and electronic systems, communication systems, heating, cooling, ventilation systems, plumbing, waste management systems, the machinery in the lifeboats, rescue boats etc. The Chief Engineer makes sure that Staff Chief Engineer and other senior engine department officers are fully familiar with his/her duties and could assume his/her position at any time should that becomes necessary and is also responsible for the professional, safety and emergency drills training of subordinate officers and crew. **Requirements**: National Certificate of Competency (Marine Engineer Officer – no limitation for other than ro-ro vessel). Master degree or Polytechnical degree of technical ship's operation. Strong leadership skills and previous cruise ship experience as a senior officer required. Master’s Degree from Excellent verbal and written command of the English language required. Salary range: $5600-8700 U.S. per month, depending on the cruise line.

- **Staff Chief Engineer / Assistant Chief Engineer** - the Staff Chief Engineer / Assistant Chief Engineer is the second in charge and second highest-ranking officer within the Engine Department of a cruise ship. The Staff Chief Engineer / Assistant Chief Engineer must be fully conversant with all of the Chief Engineer's functions and be able to assume his/her duties and take charge of the ship's Engine Department at any moment. The Staff Chief Engineer / Assistant Chief Engineer oversees and supervises the day-to-day operations of the entire engineering department aboard the ship and is actively participating in instructions and training of all the engine department officers and staff. He/she would assist the Chief Engineer in all mechanical, electrical, electronic, environmental matters aboard the ship and HR issues within the Engine Department, as well as ordering parts and equipment for the department and budget proposals. The Staff Chief Engineer / Assistant Chief Engineer works in close cooperation with the ship's
Safety Officer in order to ensure the proper maintenance and outstanding mechanical conditions of all the safety equipment and systems aboard the cruise ship, such as fire-fighting and sprinkler systems, water-tight and fire-proof doors and all the safety equipment within the engine room.

**Requirements**: Certificate of Competency: IMO III/2 (First officer or more – no limitation for other than ro-ro vessels). Strong leadership skills and previous ship experience as a senior officer required. Excellent verbal and written command of the English language required. Salary range: $5600-8000 U.S. per month, depending on the cruise line. Possibilities for promotion from Staff Chief Engineer / Assistant Chief Engineer to Chief Engineer position.

- **First Engineer** - the 1st engineer is responsible for the daily maintenance and operations of the engineering and technical aspects of the vessel as directed by the chief engineer and staff chief engineer. The 1st Engineer is directly responsible for all work performed in the engine room and for the maintenance of the main and auxiliary engines of the cruise ship. The First Engineer supervises and works in close cooperation with the 2nd and 3rd engineers, engine cadet and engine ratings and is also responsible for their on-the-job training, thus ensuring safe working conditions. The 1st Engineer reports to the Staff Chief Engineer and the Chief Engineer of the ship. The other duties of the First Engineer include, but are not limited to scheduling and assigning the daily work of subordinate engineers and engine ratings, keeping track of their regular and overtime working hours, ensuring that all machinery, fighting and safety equipment within the engine room is working properly and according to the company standards and international safety regulations. The 1st Engineer is also responsible for overseeing the bunkering of fuel and lubrication oil and transferring from the ship to a barge or shore based facilities of used oil, sludge and residual liquids used by the ship's engineering equipment. **Requirements**: STCW-95 approved 1st Engineer unlimited Certificate of Competency. Experience as a first engineer or a second engineer on board ships. Degree in Mechanical or Marine Engineering from accredited maritime school or equivalent and excellent verbal and written command of the English language required. Salary range: $4300-5800 U.S. per month, depending on the cruise line. Possibilities for promotion from 1st Engineer to Staff Chief Engineer position.

- **Second Engineer** - the 2nd engineer is performing duties as delegated by the chief engineer and staff chief engineer. The second engineer acts as Engineer Watch Officer in the engine control room overseeing the operation, maintenance and repairs of subordinate engineers and engine ratings members of the cruise ship's engineering team. The 2nd engineer must be familiar and proficient in maintenance and repairs of the main and auxiliary engines and their belonging systems and equipment, ship’s plants for fresh and sea water, boiler plant with related systems and equipment, emergency generators with their related systems, steering gear, stabilizers, propeller shafts, stern tubes, bow thrusters, pneumatic valves with all belonging systems and equipment. The second engineer is also responsible for the maintenance of the ship's safety and emergency equipment - Watertight, fire and splash doors; lifeboats, life rafts and rescue boats winches; tender boats, lifeboats and rescue boats engines etc. **Requirements**: STCW-95 approved 2nd Engineer License (CoC) without limitations (STCW-95 approved). Experience as a 2nd engineer or a 3rd engine on board ships. Degree in Mechanical or Marine Engineering from accredited maritime school or equivalent and good verbal and written command of the English language required. Salary range: $3600-4800 U.S. per month, depending on the cruise line. Possibilities for promotion from 2nd Engineer to 1st Engineer position.

- **Third Engineer** - the 3rd engineer performs duties as delegated by the chief engineer and staff chief engineer. He/she may be assigned to engine control room watch duties and in this case assists the Engineer Watch Officer by locally monitoring the safe and proper operation of all main propulsion and auxiliary engines and their belonging systems, machinery and equipment within the engine room. In case the third engineer is assigned to the ship's hotel maintenance engineering team, he/she will assist the Hotel Service Engineer in the maintenance and repair of all machineries, equipment and systems outside the main engine room and with hotel area refurbishment projects. **Requirements**: STVW-95 approved 3rd Engineer License (CoC). Degree
in Mechanical or Marine Engineering from accredited maritime school or equivalent and good verbal and written command of the English language required. Salary range: $2800-$4200 U.S. per month, depending on the cruise line. Possibilities for promotion from 3rd Engineer to 2nd Engineer position.

- **Hotel Service Engineer / Hotel Maintenance Engineer** - the hotel service engineer is managing the entire hotel technical department of a cruise ship. He/she is responsible for the maintenance and repair of all machineries, equipment and systems outside the main engine room. The hotel service engineer is in charge of all the technical personnel dealing with electrical, electronic, plumbing and air conditioning systems of a cruise ship, as well as chlorination of drinking water, the general water distribution of the ship and that in the swimming pools and jacuzzis. 
  
  **Requirements:** minimum class 4 Engineering Certificate of Competency and extensive experience with minimum two years in subordinate positions on board ships required. Very good experience with AC, refrigeration systems, managing a large team of plumbers / fitters and good command of the English language required. Salary range: $5400-$7500 U.S. per month, depending on the cruise line.

- **Engine Cadet / Junior Third Engineer** - the engine cadet closely follows the instructions of the First Engineer and attends the engine control room usually as part of the First Engineer's watch. The Engine Cadet assists in the maintenance and repair of engine room equipment, as well as other mechanical equipment throughout the ship. As part of the training process duties that are customary to the engine department will be assigned to the Engine Cadet by the Chief Engineer. Although on training the professional performance of the Engine Cadet will be evaluated for continued long-term career with the cruise line. Upon attainment of a National License and completion of at least one assignment aboard a cruise ship the most qualified candidates with the best performance evaluations could be promoted to Third Engineer position depending on current openings in the company's fleet. 
  
  **Requirements:** completion of a four year Maritime Engineering program OR current enrolment in an accredited Maritime Engineering program. National License (STCW III/1) and valid medical certificate required. Excellent verbal and written command of the English language required. Salary range: $5400-$7500 U.S. per month, depending on the cruise line.

- **Chief Electrical Engineer / Chief Electrician** - the chief electrical engineer/chief electrician has the responsibility of overseeing the operation and maintenance of the electrical plant and associated electrical systems throughout the cruise ship. The chief electrical engineer/chief electrician must ensure that all electrical equipment and machinery on board the ship, such as elevators, fire alarm systems, diesel electric propulsion, navigation equipment, norecocontrol systems, cycloconverter propulsion system and all associated systems are properly operated and maintained according to the applicable regulations and international standards. The chief electrical engineer/chief electrician reports directly to the ship's chief engineer and supervises the operations of the subordinate members of the cruise ship electrical team - first, second and third electrical engineers/electricians. The chief electrical engineer/chief electrician must be present in the Engine Control Room during maneuvers, drills and emergencies. He/she must work in close cooperation with the Chief Engineer to ensure that all waste streams and environmental systems within the department are operated and maintained according to the international regulations and up to cruise line's environmental policies and standards. 
  
  **Requirements:** Bachelor of Science in Electrical Engineering (or equivalent 4-year university degree). Experience with large electrical plants on ships or offshore installations required. Computer literacy and good verbal and written command of the English language required. Salary range: $3500-$5200 U.S. per month, depending on the cruise line.

- **Electrical Engineer / Electrician** - the electrical engineer/electrician is responsible for the proper maintenance and repairs of the electrical systems on board the cruise ship as directed by the Chief Electrical Engineer / Chief Electrician. The responsibility for maintenance and repairs of the ship's various electrical systems/equipment is distributed among the electrical engineers/electricians according to their specific duties. The ship's electrical equipment/systems
maintained by electrical engineers/electricians include (but are not limited to) machineries inside
the engine room, emergency and auxiliary generators, emergency and auxiliary switchboards,
ship's stabilizers, electrical installations of lifeboats and rescue boats, fire alarm and fire door
control systems, lifeboats, mooring and anchor winches, CO2 system, ship's public address and
public clock systems, laundry equipment, swimming pool and jacuzzi systems. All electrical
engineers/electricians work under the direct supervision of the chief electrical engineer/chief
electrician. Requirements: education as electrical, electronic, or power engineer (Bachelor of
Science in Electrical Engineering or equivalent university or college degree is preferred, but not
mandatory). Computer literacy and good verbal and written command of the English language
required. Salary range: $2400-3000 U.S. per month, depending on the cruise line. Possibilities for
promotion from Electrical Engineer / Electrician to Chief Electrical Engineer / Chief Electrician
position.

• **Electronic Engineer** - the electronic engineer is responsible for the maintenance and repair of all
electronic equipment and systems aboard the cruise ship and works under the supervision of the
Chief Electrical Engineer. The ship's equipment/systems maintained by the electronic engineer
include (but are not limited to) electronic and navigation equipment on the bridge, satellite
communication system, electronic equipment in the engine control room, ship's entertainment and
TV systems including TV sets, ship's telephone system, telephone sets and personal pagers,
camera surveillance system, public address system, UPS systems, fire detection systems, fire
and water-tight doors control systems. The electronic engineer also works in close cooperation
with the ship's Production/Stage Manager and Sound/Light Technicians to ensure proper
maintenance of entertainment systems and stage equipment - show lights, audio/video, platform
lifts and theatre curtains. Requirements: Bachelor's Degree or Technical Diploma from accredited
university or college. Relevant working experience required. Computer literacy and good verbal
and written command of the English language required. Salary range: $1900-2500 U.S. per
month, depending on the cruise line.

• **Electronic Engineer Junior - Communication** - on some cruise ships in addition to electronic
engineer positions there is also a specialized Electronic Engineer Junior - Communication
position. The electronic engineer junior officer works under the supervision of the electronic
engineer officer and the ship's chief electrical officer. The electronic engineer junior officer is
directly responsible for the for the maintenance and repair of ship's communication systems, such
as satellite communication systems, C-Band satellite communication, telephone System, ship's
internal communication systems including portable VHF radios and pagers, satellite TV system
and public address system. Requirements: relevant college degree and professional experience.
Computer literacy and good verbal and written command of the English language required. Salary
range: $1700-2000 U.S. per month, depending on the cruise line. Possibilities for promotion from
Electronic Engineer Junior to Electronic Engineer position.

• **Chief Refrigeration Engineer / HVAC Engineer / Chief Air Conditioning Technician** - the chief
refrigeration engineer (also known as chief air conditioning technician) is a three stripe officer that
oversees and supervises the operation, maintenance and repair of the ship's HVAC
equipment/system, domestic refrigeration plant, ventilation, cooling, freezing, provision,
equipment, all air conditioning throughout the vessel plus ice skating arena equipment (available
on certain cruise ships only). The chief refrigeration engineer reports to the ship's Chief Staff
Engineer/Chief Engineer and is in charge of maintenance and repair of the engine room and
galley ventilation systems, multi-flow beverage machines, mini-bar units and ice making
machines. He/she is also responsible for duties distribution and training of subordinate
refrigeration engineers. The chief refrigeration engineer checks and ensures that all
environmental systems within the department are operated and maintained up to cruise line's
standard and international regulations. Requirements: national diploma or certificate for
Refrigeration Technician. Minimum of 3 years working experience required (experience as
refrigeration engineer on cruise ship preferred). Computer literacy and very good verbal and
• Refrigeration Engineer / Air Conditioning Technician - the refrigeration engineer (also known as air conditioning technician) reports to the chief refrigeration engineer and under his/her supervision ensures that maintenance and repair of the ship's HVAC equipment/system, domestic refrigeration plant, ventilation, cooling, freezing, provision, equipment, all air conditioning throughout the vessel plus ice skating arena equipment (available on certain cruise ships only) are up to the cruise line's standards and international regulations. The refrigeration engineer is carrying day-to-day maintenance and repair of the engine room and galley ventilation systems, multi-flow beverage machines, mini-bar units and ice making machines as directed by the chief refrigeration engineer. Requirements: national diploma or certificate for Refrigeration Technician and relevant working experience required. Good verbal and written command of the English language required. Salary range: $2600-3800 U.S. per month, depending on the cruise line. Possibilities for promotion from Refrigeration Engineer / Air Conditioning Technician to Chief Refrigeration Engineer / Chief Air Conditioning Technician position.

• Motorman (responsible for the daily maintenance and cleaning of specific engine parts as directed by the Chief Engineer). Experience with minimum one to two years on board ships required. Diploma from accredited maritime training school or facility and good English Language skills required. Salary range: $1500-2400 U.S. per month, depending on the cruise line.

• Fitter (responsible for the daily maintenance and cleaning of engines and mechanical equipment as directed by the Chief Engineer). Experience with minimum one to two years on board ships required. Diploma from accredited maritime training school or facility and basic English Language skills required. Salary range: $1400-2200 U.S. per month, depending on the cruise line.

• Oiler - Oiler is an engine department rating position. The job of an Oiler onboard is to assist ship engineers lubricating bearings and other moving parts of engines and other mechanical equipment aboard the cruise ship. The oiler participates in the general maintenance of ship's main power plant, auxiliary engines and generators in order to ensure that oil temperature is within the standard limits and oil gauges are all working properly. Requirements: previous work experience in a related field and willingness to train. Basic command of the English language required. Salary range: $1100-1500 U.S. per month, depending on the cruise line. Possibilities for promotion from Oiler to Fitter rating position.

• Wiper / Engine Utility Man - the engine utility man / wiper is an entry level rating position within the engine department of the cruise ship. The engine utility man / wiper provides general assistance to licensed engineers and superior engine room ratings in different tasks in the engine room, such as general maintenance and repair of the various machinery and equipment, material handling equipment throughout the ship including elevators and winches, general cleaning and painting of the engine room, trash pick up, tools and instruments pick up and cleaning. Requirements: previous work experience in a related field and willingness to train. Basic command of the English language required. Salary range: $1000-1200 U.S. per month, depending on the cruise line. Possibilities for promotion from Wiper / Engine Utility Man to Oiler rating position.

• Plumber (responsible for the maintenance and repair of all plumbing). Experience with minimum one to two years on board ships required. Basic English Language skills required. Salary range: $1500-1900 U.S. per month, depending on the cruise line.

• Upholsterer (re-upholstering of all furniture as required). Entry level position, basic English Language skills required. Salary range: $900-1300 U.S. per month, depending on the cruise line.

• Fireman (responsible for safety and firefighting on board the ship). Fire fighting certificate and basic English Language skills required. Salary range: $1400-1800 U.S. per month, depending on the cruise line.