



Döhle Yacht Crew

Guide to Careers on Superyachts Engineering Positions

Engineer/Chief Engineer

Experience – Chief Engineer

Most Chief Engineers have reached their position by starting out as a Junior Engineer on board superyachts, in the merchant marine or the Royal Navy. They should have broad experience of maintaining and repairing all of the mechanical and electrical operations on board, including engines, generators, air conditioning systems, electrical systems and water makers.

The Chief Engineer will be expert in preventative maintenance and troubleshooting and will have the ability to manage and supervise engine repairs, re-hauls and general upkeep in the Engine Room.

Engineers need to be highly practical and have a good understanding of how the systems on the yacht work – most of all ready to get hands dirty and work in noisy, sometimes confined spaces.

Experience or an understanding of International Safety Management (ISM) or Mini ISM is required for many yachts.

Practical experience with repairs of mechanics, such as with watersports equipment, air conditioning, refrigerators, electrical wiring, diesel engines, generators, and plumbing is useful.

Experience – Assistant/Junior Engineer

Assistant/Junior Engineers are sometimes employed on larger yachts as an entry-level position. It is the Assistant Engineer's job to assist all other members of the Engineering department with their work. As you gain experience you may be responsible for specific tasks yourself. It is a great way of learning all about engineering on board a superyacht in a 'hands-on' way, and can be a good stepping-stone to an Engineer position.

Responsibilities

The Chief Engineer is in charge of the engineering department and is responsible for its safe and efficient operation. He/she reports directly to the Captain and manages the Engineers, Electricians and ETOs.

The Chief Engineer is likely to get involved in the day-to-day work of maintaining the mechanical and electrical operations of the yacht, supervising the rest of the team and ensuring that all planned maintenance takes place. Additionally the Chief Engineer will coordinate operations with shore-side engineers. Many yachts have warranty and/or service contracts for all of the mechanical and electrical equipment and shore-side engineers undertake the vast majority of service and repair work.

The Chief Engineer also needs the ability to manage and train subordinate staff in the engine room and should have a good knowledge of outsourcing contractors and shore based repairs when necessary.

Depending on the vessel and whether you are a Junior or Chief Engineer, responsibilities on a superyacht can include:

- Maintaining the smooth running of mechanical and electrical systems from AV to sewage systems and everything in between!
- Ensuring that the vessel is in good mechanical order and is safe to take guests and crew out to sea
- Polishing/cleaning, correct maintenance of engine room & all technical equipment, computer/electronics/network administration skills. Safe fuelling/fuel handling
- Maintenance of air conditioning and electrical equipment
- General maintenance of interior technical equipment such lights, vacuums, galley & laundry equipment, etc. In more senior positions this can include budgeting, accounting/bookkeeping, purchasing, scheduling, human resources/crew management (if applicable), business relations (with management, accounting, owner's office, etc.)

On some smaller yachts a single person may be both Engineer and Mate. In more senior positions, Engineer responsibilities can easily and often escalate into refit/build management, with many more specialist skills required, such as planning for tankage, engine rooms, electronics/computer, security requirements, etc. as well as Project Management/Owners Representative.

Qualifications

The Chief Engineer should hold the MCA STCW Chief Engineer (Yachts) certification appropriate for the engine capacity, or Merchant Navy Second Engineer or Chief Engineer certification. In some larger yachts the Merchant Navy certification is the required certification.

A Junior Engineer may have experience of working on board superyachts as a Deckhand. Alternatively you may have experience of working in other marine engineering or general engineering sectors. Any skills or experience relevant to the systems on board - e.g. marine engines (inboard and outboard), generators, air conditioning, water makers, electric and electronic systems, etc.) will be advantageous.

Where Next?

The Junior Engineer can progress to become a Senior Engineer, or can take up shore based engineering roles.

A Chief Engineer can progress to bigger and bigger yachts taking on more management responsibilities.

An experienced Chief Engineer would be in demand in a number of roles within the marine industry. Boatbuilding and shipbuilding firms employ Engineering Managers and Directors to head up their engineering teams, and port operations also require Engineers. It is also possible that experience gained is relevant for yacht surveying work.

Electronic Technical Officer (ETO)

Experience

Electronic Technical Officers (ETOs) and/or Electricians are generally employed on larger superyachts where the Engineering department comprises around 4 or 5 crew. In some instances one person may fulfil both roles, or there may be different individuals for each. If there is no ETO or Electrician on board, their responsibilities would fall to the Engineer.

ETOs and Electricians usually report to the Chief Engineer.

The ETO may already be a qualified engineer on a yacht who has developed skills in electric or electronics.

Responsibilities

The ETO is responsible for maintaining all aspects of the yachts electrical and electronic systems. This position requires an awareness of guest comfort and yacht safety. Good fault finding skills and a good understanding of yacht systems are essential.

- All radio, radar, telephones, satellite communications and navigation systems
- Electrical of main, auxiliary and machinery
- Switchboards and electrical distribution
- Elevators
- Maintaining bridge equipment
- Maintaining galley equipment
- Interior services (lighting, power, gym equipment, sauna etc.)
- Tenders/jet skis, seabobs
- Personal electronic equipment belonging to guests
- Liaising with shore based technicians

Qualifications

The ETO may already be a qualified engineer on a yacht who has developed skills in electric or electronics.

Experience in working in similar systems to those on board would be expected, such as computers, radio and radar.

Where Next?

With suitable experience and qualifications the ETO can progress to become a Chief Engineer.

The ETO can progress to a number of shore-based roles within the marine industry including boatbuilding. The ETO's skills are also valued in numerous other shore-based industries.

Audio Visual and Information Technology Engineer (AVIT)

Experience

Relevant experience in similar industries ashore.

There are increasing numbers of dedicated computer system and networking engineers as superyachts get bigger and more complex.

Responsibilities

The Audio Visual and Information Technology Engineer (AVIT) on a superyacht reports directly to the Chief Engineer and is responsible for maintaining all aspects of entertainment systems, computer/server systems and communications. This position requires and awareness of guest comfort which is high on their priority list. Good fault finding skills are essential and an ability to build rapport with guests is integral.

- AV systems installations and integration
- Antenna operation and maintenance (broadband, VSAT and MTN C Band, Inmarsat systems etc.)
- IT server maintenance and support
- PC station hardware and software support
- Wireless networks
- PABX and UHF systems

Qualifications

Experience in working in similar systems to those on board would be expected, such as AV and presentation equipment, computers and IT systems and servers.

Where Next?

The AVIT can progress to a number of shore-based roles within the marine industry including boatbuilding. The AVIT's skills are also valued in numerous other shore-based industries.



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