

Marine engineer Job Description

A free job description template for the Maritime industry

Company Name: _____

Location: _____

Employment Type: _____

Reports To: _____

Date: _____

DISCLAIMER

This marine engineer job description template is designed to reflect Australian workplace standards and maritime industry practices at the time of publication. Confirm the applicable modern award for your business and ensure compliance with all relevant employment and maritime safety laws.

1. Position overview

A marine engineer officer operates and maintains a vessel's main and auxiliary engines, machinery and power systems, keeps engine-room watch, and carries out planned maintenance and fault repair to keep the ship running safely at sea. The role combines hands-on mechanical work and diagnostics with system monitoring, safety compliance and supervision of engine-room ratings.

In Australia, marine engineers on offshore vessels are typically covered as engineer officers under the Maritime Offshore Oil and Gas Award 2020 (MA000086). This award uses eight vessel schedules and aggregate annual salaries, so the classification and pay depend on the vessel type and the engineer's certificate of competency.

This template provides a foundation for creating clear, compliant job descriptions that attract qualified engineer officers while setting appropriate expectations for the role. Once crewed, manage your swing rosters efficiently with rostering software.

2. Key responsibilities

Engine operation

Operating and controlling the vessel's main and auxiliary engines and machinery, including propulsion, generators, pumps and steering gear, throughout the voyage.

System monitoring

Monitoring propulsion and power systems, fuel and cooling systems, alarms and control panels, and adjusting settings to maintain safe and efficient operation.

Planned maintenance

Carrying out scheduled planned maintenance on engines, machinery and equipment, and recording work in the vessel's maintenance system.

Fault diagnosis and repair

Diagnosing mechanical, electrical and hydraulic faults, carrying out repairs at sea, and escalating major defects to the chief engineer promptly.

Fuel and lube management

Managing fuel, lubricating oil and consumables, monitoring bunkers, and following procedures for bunkering, transfers and record keeping.

Watchkeeping and supervision

Standing engine-room watch, following safety and MARPOL environmental requirements, and supervising and directing engine-room ratings during operations.

3. Skills and attributes

- Mechanical aptitude: Strong hands-on skills in operating, maintaining and repairing marine engines, machinery and associated systems.
- Fault diagnosis: Ability to systematically troubleshoot mechanical, electrical and hydraulic faults and carry out effective repairs at sea.
- Safety awareness: Consistent compliance with marine safety, STCW and MARPOL requirements, and alertness to hazards in the engine room.
- Team leadership: Confidence supervising and directing engine-room ratings and coordinating with deck and bridge crew.
- Watchkeeping discipline: Reliability to stand engine-room watch, respond to alarms promptly and work safely during long swings at sea.
- Physical fitness: Capacity for physically demanding work in confined, hot and noisy engine spaces, meeting offshore medical and fitness standards.

4. Qualifications and requirements

The qualifications for marine engineer positions are certificate-based and depend on the vessel type and the level of engine-room responsibility. Some are mandatory, while others are preferred or desirable.

- AMSA Certificate of Competency (required) — A current AMSA Certificate of Competency (Marine Engineer) appropriate to the vessel and role
- STCW certification (required) — Valid STCW basic safety training and any additional STCW certificates required for the vessel
- Working rights (required) — Eligibility to work in Australia
- Offshore medical (required) — A current seafarer or offshore medical certificate meeting fitness-for-duty standards
- Offshore vessel experience — Previous engine-room experience on offshore or supply vessels is advantageous but not always essential
- Additional safety tickets — Offshore survival, sea survival or firefighting tickets are desirable depending on the vessel and operation

5. Working conditions

- Swing rosters with extended periods living and working on board offshore
- Physically demanding work in confined, hot and noisy engine spaces
- Engine-room watchkeeping, including nights and weekends at sea
- Compliance with marine safety, STCW and MARPOL requirements
- Use of personal protective equipment and offshore safety procedures

- Time away from home for the duration of each offshore swing

6. Award information

Maritime offshore oil and gas award 2020

Marine engineers working on offshore vessels are covered as engineer officers by the Maritime Offshore Oil and Gas Award 2020 (MA000086). This modern award sets minimum pay, allowances and conditions for crew on vessels servicing offshore oil and gas operations.

Unlike hourly-rated awards, MA000086 uses eight vessel schedules and aggregate annual salaries, with overtime rolled into the salary rather than paid separately. Because of this structure, refer to the Maritime Offshore Oil and Gas Award guide for current figures rather than quoting hourly rates. Note that the rig and production workforce is instead covered by the separate Hydrocarbons Industry (Upstream) Award (MA000062).

Certificates, swings and salary structure

Marine engineer roles require a current AMSA Certificate of Competency (Marine Engineer) and valid STCW tickets appropriate to the vessel, so classification is tied to certification and vessel type. Offshore crews typically work swing rosters — set periods on board followed by set periods off — rather than standard weekly hours.

Because aggregate annual salaries under MA000086 already incorporate overtime and many penalties, confirm the vessel schedule that applies and check whether an enterprise agreement applies in place of the award. Use award interpretation software to keep pay and rostering aligned with the correct instrument.

7. Frequently asked questions

About the role

Q: What does a marine engineer do?

A marine engineer officer operates and maintains a vessel's main and auxiliary engines, machinery and power systems, keeps engine-room watch, and carries out planned maintenance and fault repair to keep the ship running safely at sea. On offshore vessels they also manage fuel and lubricating oil, follow marine safety and MARPOL requirements, and supervise engine-room ratings. It is a hands-on, certificate-based role combining mechanical work with system monitoring and safety compliance.

Q: What award covers marine engineers in Australia?

Marine engineers working on offshore vessels are typically covered as engineer officers by the Maritime Offshore Oil and Gas Award 2020 (MA000086), which sets pay, allowances and conditions for offshore crew. The rig and production workforce is instead covered by the separate Hydrocarbons Industry (Upstream) Award (MA000062). Some businesses may be covered by an enterprise agreement, so always confirm which instrument applies.

Q: How is pay structured under the Maritime Offshore Award?

Unlike hourly-rated awards, the Maritime Offshore Oil and Gas Award (MA000086) uses eight vessel schedules and aggregate annual salaries, with overtime rolled into the salary rather than paid separately. Because of this structure, refer to our Maritime Offshore Oil and Gas Award guide for current figures rather than quoting an hourly rate, and confirm the vessel schedule that applies to your operation.

Q: Do I need to include pay rates in a job description?

It's not legally required, but indicating the salary structure can attract more applicants and set clear expectations. Because offshore engineers are paid aggregate annual salaries, you can reference the applicable vessel schedule or use phrases like 'aggregate salary as per award' or 'competitive offshore package based on certificate and experience.' See our Maritime Offshore Award guide for guidance.

Qualifications

Q: What certificate does a marine engineer need?

Marine engineers require a current AMSA Certificate of Competency (Marine Engineer) appropriate to the vessel and level of responsibility, along with valid STCW certification. The specific grade of certificate depends on the vessel type and engine-room role. Confirm the exact certificate class your vessel requires before recruiting.

Q: Are STCW tickets required for a marine engineer?

Yes. Valid STCW basic safety training is generally mandatory, and additional STCW certificates may be required depending on the vessel and operation. Offshore roles often also call for survival, sea survival or firefighting tickets. Check the specific STCW and safety requirements for your vessel and keep certificates current using licence and certification management.

Q: What qualifications should I require vs prefer for a marine engineer?

Mandatory requirements usually include a current AMSA Certificate of Competency (Marine Engineer), valid STCW certification, working rights in Australia and a current offshore or seafarer medical. Preferred qualifications include previous offshore or supply-vessel experience and additional safety tickets. Match the certificate grade to your vessel so you neither under-qualify nor over-restrict the candidate pool.

Q: Can I hire marine engineers without offshore experience?

It depends on the vessel and role. The AMSA Certificate of Competency and STCW tickets are essential, but prior offshore experience is often preferred rather than strictly required for junior engineer positions. Focus on the correct certificate grade, mechanical competence, safety discipline and fitness for offshore work, and provide vessel-specific familiarisation on joining.

Employment

Q: Should I hire casual or permanent marine engineers?

This depends on your vessel program. Permanent full-time or part-time engineers provide crew consistency and stronger retention across regular swings, while casual arrangements can cover relief and peak periods. Because the Maritime Offshore Oil and Gas Award uses aggregate salaries, confirm how each employment type is treated under the applicable vessel schedule or enterprise agreement before deciding.

Q: How are overtime and penalties handled for marine engineers?

Under the Maritime Offshore Oil and Gas Award (MA000086), engineer officers are paid aggregate annual salaries that already incorporate overtime and many penalties rather than paying them separately by the hour. This reflects the swing-roster nature of offshore work. Confirm the vessel schedule that applies and use award interpretation software to keep pay aligned with the correct instrument.

Q: What are swing rosters for marine engineers?

Offshore crews typically work swing rosters — a set period living and working on board followed by a set period off — rather than standard weekly hours. Swing patterns vary by vessel and operator. Set clear expectations in the job description about the swing length, time on and off board, watchkeeping and any mobilisation or travel, and manage them with rostering software.

Q: What should I include in a marine engineer employment contract?

Key elements include: position title and engineer grade, vessel or fleet, employment type, aggregate salary and applicable award or agreement, swing roster pattern, reporting structure, main duties and required certificates such as the AMSA Certificate of Competency and STCW tickets. Track certificate expiries with licence and certification management so crew stay compliant.

Rostering

Q: How far in advance should I provide swing rosters to marine engineers?

Award and agreement rostering rules vary, so confirm the notice period that applies to your vessel. As a general practice, publishing swing rosters well in advance gives engineers visibility of their time on and off board and supports travel planning. Using rostering software helps ensure compliance and reduces last-minute changes.

Q: How do I roster marine engineers across multiple vessels?

Assign engineers based on certificate grade, vessel requirements and swing availability, balancing time on board with mandatory rest between swings. Use rostering tools to track swings, monitor rest periods and arrange relief cover when engineers are due to come off. This keeps vessels crewed and avoids scheduling engineers beyond safe limits.

Q: What rest and break arrangements apply to marine engineers?

Rest and watchkeeping arrangements are set by the applicable award or agreement and by marine safety and STCW hours-of-rest rules. Because engineers stand watch and work swings offshore, set clear policies and ensure hours are recorded accurately. Use time and attendance tools to support compliance with rest requirements between watches and swings.

Q: How do I manage marine engineer availability and certificates for rostering?

Collect swing availability and certificate details during onboarding and keep them up to date. Use HR software and licence and certification management to track when each engineer is available and whether their AMSA Certificate of Competency and STCW tickets are current. Set clear policies about availability and certificate renewals to simplify crewing and avoid gaps.