

Marine Engine Driver interview questions

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What to expect

Interviews for Marine Engine Driver roles focus on your technical ability with diesel engines and auxiliary systems, your understanding of AMSA safety and environmental regulations, and how you handle fault finding under pressure in an engine room. Employers also check your certificate of competency and sea time.

- **Technical and diagnostic:** Questions on diesel engine operation, cooling, fuel and lubrication systems, and using diagnostic software such as Cummins INSITE or Volvo Penta.
- **Safety and compliance:** How you apply marine safety and environmental regulations, manage engine room hazards and keep records.
- **Scenario and fault finding:** A hypothetical breakdown or performance issue, asking you to describe your diagnostic steps and priorities.
- **Behavioural:** Past examples of teamwork, shift handovers or dealing with an unexpected mechanical problem at sea.
- **Process and certification:** Your AMSA certificate of competency, sea time, and how you keep your qualifications current.

A typical interview starts with a short conversation about your sea time and certificate, then moves to technical questions about engines and systems. You may be given a scenario to talk through, followed by behavioural questions about working in a small engine room crew. Some employers include a practical or simulator based assessment, and they will ask to see your AMSA certificate of competency.

1. Walk me through how you would diagnose a diesel engine that is losing power under load.

Why they ask

Tests your systematic fault finding and knowledge of fuel, air and cooling systems.

How to structure your answer

Use a logical walk through: start with symptoms, check fuel supply, air intake, cooling, then use diagnostic software to read fault codes. Explain each step and what you would rule out.

Example answer

"First I would check the fuel system for blocked filters or a failing lift pump. Then I would check the air intake for a restricted filter or turbo issue. I would look at the cooling system to see if the engine is derating due to high temperature. If those are clear, I would connect Cummins INSITE to read active and stored fault codes and check live data for fuel pressure and boost. I would also check the exhaust for excessive smoke and listen for unusual noises. Based on that, I would test the injectors or the turbo as needed."

2. How do you ensure compliance with marine safety and environmental regulations in the engine room?

Why they ask

Shows your awareness of AMSA requirements and your role in keeping the vessel compliant.

How to structure your answer

Break it into daily routines, record keeping and emergency procedures. Mention AMSA requirements and your role in drills.

Example answer

"I start each shift with a check of the engine room for leaks, loose fittings and correct operation of alarms. I keep fuel, oil and coolant records up to date as required by AMSA and the vessel's safety management system. I follow the oil discharge and garbage management rules, and I make sure bilge water is treated before discharge. I participate in drills and know where the emergency shutdowns and firefighting equipment are."

3. You are on a ferry approaching a berth and the main engine alarms sound for low oil pressure. What do you do?

Why they ask

Tests your judgement under pressure and your ability to prioritise safety.

How to structure your answer

Use a priority based structure: immediate safety of vessel and people, then diagnosis, then communication with the bridge, then action.

Example answer

"I would immediately inform the bridge so they can take control of the vessel and prepare for an emergency stop or anchoring. I would reduce engine load or shut down if the alarm is critical, following the vessel's procedures. Then I would check the oil level and look for leaks. If the level is low, I would top up and investigate why. I would check the oil pressure sender and gauge for a false alarm. I would not restart the engine until I was satisfied the pressure is normal and the fault is fixed."

4. Tell me about a time you found a mechanical fault that others had missed.

Why they ask

Assesses problem solving, attention to detail and how you work within a crew.

How to structure your answer

STAR: situation, task, action, result.

Example answer

"On a fishing boat, the crew reported a vibration that they thought was a propeller issue. I was tasked with checking the engine. I noticed the vibration was worse at certain RPM. I checked the engine mounts and found one was cracked. I replaced the mount and aligned the engine, which removed the vibration. The skipper was able to keep the vessel on schedule without hauling out for a propeller check."

5. What does your AMSA certificate of competency allow you to do, and how do you maintain it?

Why they ask

Verifies your credentials, sea time and currency of training.

How to structure your answer

Describe your certificate class, sea time, and how you keep up with STCW refresher training and medicals.

Example answer

"I hold a Marine Engine Driver Grade 1 certificate of competency, which allows me to operate and maintain engines on vessels up to a certain power. I keep my sea time log up to date and complete STCW refresher courses in firefighting, first aid and survival at sea as required. I also have a current medical and I make sure my records are ready for AMSA audit."

6. How have you used diagnostic software like Cummins INSITE or Volvo Penta Diagnostic Tool in your work?

Why they ask

Tests your practical tool skills and ability to interpret engine data.

How to structure your answer

Talk through a specific example: what you connected, what you looked for, what you found.

Example answer

“On a tug with a Cummins engine, I used INSITE to read a fault code for low fuel rail pressure. I checked live data and saw the pressure was dropping under load. I tested the fuel filters and found one was restricted. After replacing it, I cleared the code and monitored the data to confirm the pressure stayed within range. I also used Volvo Penta Diagnostic Tool on a ferry to reset a service indicator and check sensor values after a coolant change.”