



Engine Room Marine Inspection Checklist

<https://marineinspection.app/>

Inspector Name: _____ Date: _____
Signature: _____

Bilge & Ballast Systems

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 1 | Bilge system operational and compliant with regulations | ■ | ■ | ■ | ■ |
| 2 | Ballast water treatment system functioning and compliant with regulations | ■ | ■ | ■ | ■ |
| 3 | Ballast pumps and valves operable and free of leaks | ■ | ■ | ■ | ■ |
| 4 | Bilge alarms tested and functional | ■ | ■ | ■ | ■ |
| 5 | Ballast management system documented and operational | ■ | ■ | ■ | ■ |

Cooling Systems & Heat Exchangers

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 6 | Engine cooling system operational and temperature-controlled | ■ | ■ | ■ | ■ |
| 7 | Heat exchangers cleaned, inspected, and serviceable | ■ | ■ | ■ | ■ |
| 8 | Freshwater cooling system for engines in good working condition | ■ | ■ | ■ | ■ |
| 9 | Sea water cooling pumps operational and free of blockages | ■ | ■ | ■ | ■ |
| 10 | Exhaust gas heat recovery systems operational | ■ | ■ | ■ | ■ |

Crew Manning & Training

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|--|------|--------|---------|----|
| 11 | Crew certifications (STCW) valid and updated | ■ | ■ | ■ | ■ |
| 12 | Crew familiarization with machinery and safety procedures documented | ■ | ■ | ■ | ■ |
| 13 | Engine room personnel trained in emergency response procedures | ■ | ■ | ■ | ■ |

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|--|------|--------|---------|----|
| 14 | Crew medical certificates and safety training available | ■ | ■ | ■ | ■ |
| 15 | Emergency drills and safety training conducted regularly | ■ | ■ | ■ | ■ |

Engine Room Condition & Maintenance

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 16 | Engine room free of excessive oil spills and leaks | ■ | ■ | ■ | ■ |
| 17 | Main engines and auxiliaries properly lubricated | ■ | ■ | ■ | ■ |
| 18 | Engine room bilge systems operational and properly maintained | ■ | ■ | ■ | ■ |
| 19 | Machinery inspected and serviced according to schedule | ■ | ■ | ■ | ■ |
| 20 | Machinery foundations and supports in good condition | ■ | ■ | ■ | ■ |

Engine Room Safety Equipment

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 21 | Personal protective equipment (PPE) available and in good condition | ■ | ■ | ■ | ■ |
| 22 | Emergency escape breathing devices (EEBD) available and functional | ■ | ■ | ■ | ■ |
| 23 | Escape routes clearly marked and unobstructed | ■ | ■ | ■ | ■ |
| 24 | Emergency alarms tested and operational | ■ | ■ | ■ | ■ |
| 25 | Safety signage in engine room visible and legible | ■ | ■ | ■ | ■ |

Fire Safety & Detection

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 26 | Fire detection system fully functional and tested | ■ | ■ | ■ | ■ |
| 27 | Fixed fire suppression systems (CO2, foam) operable | ■ | ■ | ■ | ■ |
| 28 | Fire extinguishers serviced and in place in engine room | ■ | ■ | ■ | ■ |
| 29 | Fire dampers and ventilation systems functional | ■ | ■ | ■ | ■ |
| 30 | Engine room fire doors properly sealed and self-closing | ■ | ■ | ■ | ■ |

LNG Gas Handling & Containment Systems

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|--|------|--------|---------|----|
| 31 | LNG cargo tank systems in good condition and operational | ■ | ■ | ■ | ■ |
| 32 | Gas detection systems functional and tested | ■ | ■ | ■ | ■ |

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 33 | Gas leakage prevention measures intact and tested | ■ | ■ | ■ | ■ |
| 34 | LNG reliquefaction and vaporization systems operational | ■ | ■ | ■ | ■ |
| 35 | Cargo gas pumps and associated systems inspected | ■ | ■ | ■ | ■ |

Power Generation & Emergency Systems

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|--|------|--------|---------|----|
| 36 | Main and auxiliary engines operational and tested | ■ | ■ | ■ | ■ |
| 37 | Emergency power generator operational and in good condition | ■ | ■ | ■ | ■ |
| 38 | Battery systems for emergency power functional and tested | ■ | ■ | ■ | ■ |
| 39 | Power distribution systems and circuits in operational condition | ■ | ■ | ■ | ■ |
| 40 | Critical power systems (bridge, engine control) operational | ■ | ■ | ■ | ■ |

Pumps & Auxiliary Equipment

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 41 | Bilge pumps and ballast pumps inspected and serviceable | ■ | ■ | ■ | ■ |
| 42 | Fire pumps and emergency pumps fully operational | ■ | ■ | ■ | ■ |
| 43 | Freshwater, sewage, and other auxiliary pumps functional | ■ | ■ | ■ | ■ |
| 44 | Pumps lubricated and serviced as per maintenance schedule | ■ | ■ | ■ | ■ |
| 45 | Pump motor controls tested and operational | ■ | ■ | ■ | ■ |

Ventilation & Exhaust Systems

| Sr No. | Inspection Item | Good | Repair | Replace | NA |
|--------|---|------|--------|---------|----|
| 46 | Engine room ventilation systems functional | ■ | ■ | ■ | ■ |
| 47 | Exhaust gas cleaning systems operational | ■ | ■ | ■ | ■ |
| 48 | Exhaust fans and ventilation ducts free of blockages | ■ | ■ | ■ | ■ |
| 49 | Engine exhaust systems inspected for leaks or corrosion | ■ | ■ | ■ | ■ |
| 50 | Ventilation alarms tested and functional | ■ | ■ | ■ | ■ |