

Ship Maintenance Checklist

This page outlines the preventive maintenance workflow for ship operations.

Weekly Ship Maintenance Checklist

1. Engine Room Inspection

- ☐ Check main engine oil levels and quality
- ☐ Inspect auxiliary engines and generators
- ☐ Monitor coolant levels and condition
- ☐ Check for any unusual noises or vibrations
- ☐ Inspect belts and hoses for wear

2. Deck Maintenance

- ☐ Inspect deck plating for rust or damage
- ☐ Check lifesaving equipment condition
- ☐ Test emergency lighting systems
- ☐ Inspect mooring lines and winches
- ☐ Clean and check navigation lights

3. Safety Systems

- ☐ Test fire detection and alarm systems
- ☐ Check emergency fuel shut-off mechanisms
- ☐ Inspect fire extinguishers and fire fighting equipment
- ☐ Verify life raft securing mechanisms
- ☐ Test emergency communications equipment

4. Navigation Equipment

- ☐ Test radar system functionality
- ☐ Check GPS and navigation instruments

- ☐ Verify compass calibration
- ☐ Test depth sounders
- ☐ Inspect radio equipment

5. Hull and Structure

- ☐ Check for hull damage or deterioration
- ☐ Inspect watertight doors and seals
- ☐ Monitor bilge pump operation
- ☐ Check ballast systems
- ☐ Inspect anchor and chain condition

Note: All maintenance activities must be logged in the ship's maintenance record system. Report any deficiencies immediately to the chief engineer or appropriate supervisor.

Component Thresholds and Acceptable Ranges

Engine Room Parameters

- Main engine oil pressure: 4.0-5.5 bar at rated speed
- Oil temperature: 70-95°C
- Coolant temperature: 75-85°C
- Generator frequency: 60Hz $\pm 1\%$
- Belt tension: 1/2 inch deflection under moderate pressure

Safety System Parameters

- Fire detection system response time: < 30 seconds
- Emergency fuel shut-off activation: < 5 seconds
- Fire extinguisher pressure: Green zone on gauge
- Emergency radio battery charge: > 85%

Navigation System Tolerances

- Radar range accuracy: $\pm 1.5\%$ of the range scale in use
- GPS position accuracy: < 15 meters
- Magnetic compass deviation: $< \pm 2$ degrees
- Depth sounder accuracy: ± 0.5 meter in depths $< 50\text{m}$

Hull and Structure Specifications

- Maximum hull thickness reduction: $< 10\%$ of original thickness
- Watertight door closure time: 20-40 seconds
- Bilge pump capacity: Minimum $5.5\text{m}^3/\text{hour}$
- Anchor chain wear: $< 12\%$ diameter reduction

Important: These thresholds are general guidelines. Always refer to manufacturer specifications and class requirements for exact values specific to your vessel.