ASSETSTAGE
DATA STAGING & QUALITY PLATFORM

Maritime CMMS Setup Guide

Industry-specific guide for implementing CMMS systems in maritime operations, including vessel hierarchies, SFI classification, and regulatory compliance.

Setting up a CMMS (Computerized Maintenance Management System) in maritime operations requires careful attention to vessel-specific structures, international standards, and compliance obligations. This guide outlines the best practices for implementing CMMS in shipping fleets, offshore units, and other marine assets.

1. Vessel Hierarchies

The vessel hierarchy is the backbone of a maritime CMMS. It provides the logical breakdown of a ship's systems and equipment. A well-structured hierarchy enables accurate maintenance scheduling, spares planning, and regulatory reporting.

Key considerations:

- Top level: Vessel (IMO number, name, flag).
- Next levels: Major systems (propulsion, power generation, cargo handling, safety systems).
- Break down to subsystems and equipment level for maintainable items.
- Align with classification society requirements and survey processes.
- Ensure traceability from equipment to maintenance records and spare parts.

2. SFI Classification System

The SFI (Skipsteknisk Forskningsinstitutt) coding system is widely adopted in the maritime industry for standardizing vessel systems and components. Using SFI ensures consistency across fleets and simplifies integration with shipyards, suppliers, and regulators.

Best practices for SFI usage:

- Adopt SFI groups 100-900 for all major vessel systems.
- Map CMMS equipment classes to SFI codes for consistency.
- Use SFI for spares cataloging to simplify procurement and inventory control.
- Regularly audit SFI coding to prevent drift and misclassification.
- Train crew and technical staff on SFI basics to avoid free-text creep.

3. Regulatory Compliance

Maritime operations must comply with IMO, SOLAS, MARPOL, ISM Code, and class society requirements. Your CMMS should facilitate compliance by structuring data and workflows to capture required evidence.

Compliance essentials:

- Link maintenance tasks to statutory regulations and survey intervals.
- Maintain electronic records ready for port state control and class audits.
- Track safety-critical equipment separately and highlight overdue work.
- Automate reminders for surveys, inspections, and safety drills.
- Ensure change management workflows are auditable and version controlled.

4. Implementation Steps

- 1. Define scope: Identify vessels, fleets, and systems to be included.
- 2. Build vessel hierarchies aligned with SFI and class requirements.
- 3. Import asset registers, drawings, and OEM manuals into staging.
- 4. Configure CMMS with templates for tasks, failure codes, and attributes.
- 5. Pilot on one vessel, validate data, and collect crew feedback.
- 6. Roll out across fleet with phased adoption and training sessions.
- 7. Establish governance: assign data stewards, monitor KPIs, and audit regularly.

5. Maritime CMMS Setup Checklist

- ✓ Vessel hierarchy defined and approved by technical management.
- ✓ SFI coding applied to systems, equipment, and spares.
- ✓ Compliance requirements mapped into maintenance tasks.
- ✓ Pilot vessel data validated and lessons captured.
- ✓ Fleet rollout plan approved with training schedule.
- ✓ Governance roles assigned (data steward, CMMS admin, fleet superintendent).
- ✓ KPIs and dashboards configured for ongoing monitoring.

AssetStage accelerates maritime CMMS setup with staging environments, validation tools, and fleet-wide consistency checks.