

Computerized Maintenance Management Systems

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WHEELHOUSE™



AWARD WINNING MARINE MAINTENANCE SYSTEM

- Turnkey Implementation
- Operator/Systems Manuals

www.WheelHouseTech.com

DC Kits



Spare Parts



Oil & Coolant Analysis



Benchmark

What Industry?

- Low Capacity Factor
- Tightening Budgets
- Need Life Extension
- Need Safety Culture
- Regulatory Complexity
- Worker Skill Issues
- Aging Workforce
- Watchstander Fatigue/HF



Maintenance Management System

- Asset Management
 - Dateplate, warranty, specifications
- Maintenance Management
 - Inspections, planned maintenance, corrective maintenance, modifications, condition monitoring
- Work Management
 - Planning, scheduling, assigning, reserving, tracking, job costing
- Inventory Management
 - Allocating, storing, retrieval, requisitioning
- Maintenance History
 - Installation, preventive maintenance, corrective maintenance , modifications, as found
- Safety Management
 - Work precautions, special tools, LOTO, confined space, work aloft, electrical safety
- Document Management
 - Engineering documents, maintenance manuals, service manuals, troubleshooting guides, drawings and schematics
- Procurement/Fulfillment
 - Sourcing, fulfillment, logistics, distribution

Three Management Challenges

- Aging Workforce
- Aging Vessels
- Regulatory Compliance



How can CMMS contribute to addressing these issues?

The Aging Workforce

What's Up

- Workforce Age
- Employment Duration (Delayed Retirement)
- Knowledge Isolation
- Maintenance is Mundane

What's Down

- Marine Recruitment
- Diversity
- Shared Knowledge
- Maintenance Innovation

CMMS Impact – Worker Enablement through planned maintenance, innovative maintenance technologies, mining maintenance history, knowledge repository, document library

Aging Vessels

What's Up

- Average Vessel Age
- New Construction Cost
- Operating Cost
- Obsolescence

What's Down

- Available Credit
- Grants/Funding
- Utilization

CMMS Impact – VLE, Time between Refit, planned obsolescence/replacement, Planned/predictive/condition monitoring replaces RTF, (Modified) RCM to reduce unnecessary maintenance.

Regulatory Compliance

What's Up

- Emissions Requirements
- Discharge Requirement
- Disposal Costs
- Compliance Costs

What's Down

- Waste Discharge
- Stack Emissions
- Fuel Burn
- Disposal Costs

CMMS Impact – Inspections to support/demonstrate continuous compliance (USCG, Class, ISM, OSHA, EPA).

Implementing a CMMS

- Success Factors
 - Outsource turnkey implementation
 - Reusable Equipment Templates
 - Maintenance Process Review and Optimization
 - Training
- Pitfalls
 - Data Structure – garbage in/garbage out (See outsource above)
 - Management and first line support
 - Slow Pace
- Technology Considerations
 - Software as a Service Business Model (SaaS)
 - Cloud Computing (Demand computing, infinitely scalable, Zero IT overhead, Very low cost)
 - Common browser interface
 - Open Source (Lowers cost, no restrictions, highly integratable)
 - Feature Release are automatic – no software installs