

HYDRAULIC MONITORING SYSTEM

INTELLIGENT CONTROL. MAXIMUM RELIABILITY.

MHT's Hydraulic Monitoring System combines 45 years of hydraulic expertise with advanced digital technology to deliver the next generation of vessel operation solutions. The system comprehensively monitors and digitizes the operating status of onboard hydraulic equipment such as winches, cranes, power blocks, and hydraulic pumps, providing real-time insights that drive safer, smarter, and more efficient operations.

1. SYSTEM OVERVIEW & KEY FEATURES

- CENTRALIZED MONITORING**
All onboard hydraulic equipment and pumps are displayed as intuitive symbols on a single screen, allowing the entire system status to be understood at a glance.
- REAL-TIME DATA MEASUREMENT**
Operating pressure, oil temperature, speed settings, and other key parameters are measured in real time and visualized in dynamic graphs.
- AUTOMATIC DATA STORAGE & ANALYSIS**
Operation data is automatically recorded and stored. Historical data can be analyzed for operating hours, pressure trends, and performance evaluation.
- FUTURE REMOTE MONITORING**
Satellite communication enables real-time data analysis by shipowners and MHT experts from shore, providing powerful remote support.

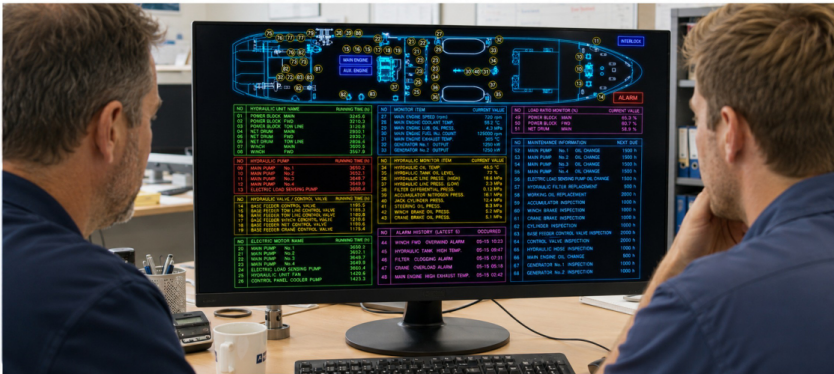
3. WHY CHOOSE MHT'S SYSTEM?

- VISUALIZE THE INVISIBLE**
Transform complex hydraulic systems into clear data and graphs, increasing operational confidence.
- FROM COST TO INVESTMENT**
Significantly reduce future maintenance costs and prevent losses caused by unexpected failures.



2. KEY BENEFITS & VALUE PROPOSITION

- EARLY DETECTION & MINIMIZED DOWNTIME**
Quickly identify the root cause of issues by analyzing accumulated data.
 - Example: If pressure on the main drum of the purse winch drops, the system can identify causes such as contamination in the compensator of the control valve.
 - Benefit: Repairs can be made without stopping operations, or with minimal downtime.
- EFFICIENT MAINTENANCE PLANNING BASED ON OPERATING HOURS**
We propose parts replacement and maintenance based on actual operating hours, not fixed time intervals.
 - Example: Before docking, analyze cumulative operating hours to determine which pumps require maintenance.
 - Benefit: Reduces unnecessary maintenance, lowers costs, and enables efficient repair planning.
- OPTIMIZED ENERGY EFFICIENCY (INTEGRATED WITH LOAD SENSING SYSTEM)**
Integrated with the Electric Load Sensing System, the system supplies only the pressure required when needed.
 - Performance: Reduces pressure loss (e.g., from 10 MPa to 0 MPa), minimizing energy consumption.
 - Benefit: Lowers power consumption and suppresses oil leakage during idle periods, protecting equipment and the environment.
- POWERFUL SHORE-BASED SUPPORT**
Online data analysis via satellite allows shipowners and MHT engineers to check vessel conditions remotely.
 - Benefit: Receive accurate advice and solutions from experts on shore, even for complex hydraulic issues.



MHT's Hydraulic Monitoring System is more than a monitoring tool— it is the intelligent foundation that maximizes the stability and profitability of your operations.