WHITE PAPER

aage hempel group

# THE IMPORTANCE OF EXPERIENCED, TRAINED, AND CERTIFIED TECHNICIANS IN MARITIME SERVICE:

## Ensuring quality with Aage Hempel Group

STEVE REEVE

# Executive Summary

The maritime industry relies on sophisticated navigational, communication, and safety equipment to ensure the smooth operation of vessels and the safety of crew and cargo. The quality of service performed on this equipment is critical, as even minor errors can lead to significant operational disruptions or, worse, catastrophic accidents. This white paper outlines the importance of engaging experienced, trained, and certified technicians to carry out services on board vessels. It highlights the role of ongoing training and certification in ensuring quality service delivery. Furthermore, it explores how the Aage Hempel Group's unwavering commitment to technician training sets the company apart in providing unparalleled service that meets and exceeds customer expectations.

## The Critical Role of Technicians in Maritime Operations

Modern vessels rely on complex navigational, communication, and safety systems to operate efficiently. These systems are designed to comply with international maritime regulations and ensure the safety of crew, cargo, and the environment. When servicing these systems, it is crucial to deploy technicians with a deep understanding of their intricacies.

Key reasons include:

- **Regulatory Compliance:** Navigational and safety systems must meet IMO (International Maritime Organization) and SOLAS (Safety of Life at Sea) standards. A certified technician ensures these requirements are met during servicing.
- **System Complexity:** Maritime systems integrate advanced technology, requiring highly specialized knowledge for diagnostics, maintenance, and repair.
- **Operational Continuity:** Misdiagnosis or improper repairs can lead to vessel downtime, impacting schedules and profitability.
- **Safety:** Incorrect servicing of safety equipment, such as GMDSS (Global Maritime Distress and Safety System) or radar systems, can jeopardize crew and vessel safety during emergencies. In Annex 1 you can find a standard Checklist for the correct operations of the bridge equipment, including navigational, communications, and safety equipment, so as to comply with both IMO and SOLAS.

**2%**

**turnover**

**is invested in training our technicians**

# Aage Hempel Group: A Benchmark in Quality Through Technician Excellence

At Aage Hempel Group, we recognize the mission-critical nature of the systems we service. We prioritize hiring, training, and certifying technicians to meet the highest industry standards. Our commitment is built on the following pillars:

**1. Comprehensive Technician Training**

Aage Hempel invests heavily in continuous training for our technicians. Training programs include:

- Advanced courses on specific manufacturers' equipment.
- Hands-on simulations to mimic real-world conditions.
- Updates on the latest regulatory changes and technological advancements.

Our training programs ensure that technicians remain at the cutting edge of the industry, capable of addressing any challenge with confidence.

**2. Global Certification Standards**

We ensure our technicians maintain certifications from leading manufacturers and classification societies, such as DNV, Lloyd's Register, and ABS. These certifications confirm their expertise in working with specialized equipment and adherence to international standards.

**3. Focus on Quality and Reliability**

Our technicians are trained not just to repair, but to diagnose and proactively identify potential issues.

This results in:

- Reduced vessel downtime.
- Long-term equipment reliability.
- Assurance of regulatory compliance
- Global Coverage, Local Expertise. With a global network of offices and service hubs, Aage Hempel Group can dispatch trained technicians to any location worldwide. Our teams are familiar with diverse vessel types and can seamlessly address customer requirements in any port.

## Why Choose Aage Hempel Group for Your Maritime Service Needs?

1. **Unmatched Expertise:** We take pride in having some of the most skilled and extensively trained technicians in the maritime sector.
2. **Commitment to Quality:** Continuous investment in technician training reflects our dedication to service excellence.
3. **Comprehensive Solutions:** We handle all aspects of navigational, communication, and safety equipment service, from installation and calibration to maintenance and repair.
4. **Customer-Centric Approach:** We tailor our services to meet your specific operational needs, ensuring optimal performance and regulatory compliance.

# Conclusion

The importance of experienced, trained, and certified technicians in servicing maritime navigational, communication, and safety equipment cannot be overstated. Poorly executed services can lead to costly disruptions, regulatory violations, or safety risks.

At Aage Hempel Group, our investment in technician training and certification underscores our commitment to delivering the highest levels of service quality. By choosing Aage Hempel, customers gain a trusted partner who ensures their vessels are equipped for safe, reliable, and efficient operations.

# How to **Contact Us**

For more information about our services or to discuss your specific requirements, contact Aage Hempel Group today.

aage hempel group

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Annex 1

# Checklist for the correct operations of the bridge equipment

Below is a comprehensive checklist for crew members of a merchant vessel, focusing on navigational, communications, and safety equipment found on the bridge. If any issues are identified during the checks, remember that Aage Hempel Group offers professional, experienced, and certified assistance - both remotely and presential - to resolve them promptly. The checklist is organized by equipment type, with explanations for each:

| NAVIGATIONAL EQUIPMENT | CHECKLIST |
|---|---|
| **RADAR SYSTEM** | • Check operational status: Power on and confirm proper functionality of the radar display.<br>• Verify tuning: Ensure gain, sea clutter, and rain clutter are adjusted.<br>• Perform performance test: Use the radar performance monitor (if available).<br>• Inspect overlays: Ensure integration with AIS and ECDIS (if applicable).<br>• Confirm range scales: Check all range scales for accuracy. |
| **ELECTRONIC CHART DISPLAY AND INFORMATION SYSTEM (ECDIS)** | • Update charts: Ensure electronic navigational charts (ENCs) are up to date.<br>• Check safety parameters: Verify settings like safety depth, safety contour, and cross-track limits.<br>• Perform route checks: Ensure planned route is loaded, approved, and free of errors.<br>• Inspect back-up systems: Confirm redundancy or back-up ECDIS availability. |
| **AUTOMATIC IDENTIFICATION SYSTEM (AIS)** | • Verify operational status: Check the display and ensure correct functioning.<br>• Confirm ship's data: Ensure ship's static and dynamic information is accurate.<br>• Test alarms: Verify alarms for CPA (Closest Point of Approach) and TCPA (Time to CPA). |
| **GLOBAL NAVIGATION SATELLITE SYSTEM (GNSS/GPS)** | • Check signal strength: Ensure sufficient satellites are tracked for accurate positioning.<br>• Verify position accuracy: Cross-check with other navigation systems.<br>• Inspect antenna: Check for physical damage or obstruction. |
| **GYRO COMPASS** | • Inspect error log: Record and monitor errors in deviation.<br>• Calibrate heading: Compare with magnetic compass and correct deviations.<br>• Verify interface: Ensure integration with autopilot and radar. |

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|---|---|
| **MAGNETIC COMPASS** | • Inspect physical condition: Look for bubbles or misalignments in the compass.<br>• Adjust deviation card: Ensure it is up-to-date and correctly recorded.<br>• Cross-check alignment: Compare readings with gyro compass and GPS heading. |
| **AUTOPILOT** | • UpdateTest manual and auto modes: Ensure seamless switching between modes.<br>• Verify heading inputs: Confirm autopilot maintains the set course.<br>• Check alarms: Test off-course alarms and emergency manual override. |
| **SPEED LOG** | • Verify readings: Compare speed over water and ground with GPS data.<br>• Check calibration: Ensure speed log is accurately calibrated. |
| **ECHOSOUNDER** | • Test functionality: Power on and verify depth readings.<br>• Inspect transducer: Check for any physical damage (If access is physically possible, and a sea valve is installed). |
| **VOYAGE DATA RECORDER (VDR)** | • Check recording status: Confirm that it is operational, with no alarms.<br>• Inspect capsule: Ensure the storage capsule is secure and accessible. The colour should be orange, confirm that it has not faded, and reflective tape is in good condition.<br>• Perform system test: Run diagnostics to verify correct operation. |
| **COMMUNICATION EQUIPMENT** | **CHECKLIST** |
| **VERY HIGH FREQUENCY (VHF) RADIO** | • Test transmission and reception: Check communication clarity on all channels.<br>• Inspect antenna: Ensure antenna is undamaged and unobstructed.<br>• Confirm DSC (Digital Selective Calling): Test DSC functionality. |
| **GLOBAL MARITIME DISTRESS AND SAFETY SYSTEM (GMDSS)** | • Inspect power source: Verify uninterrupted power supply, and GMDSS batteries.<br>• Check MF/HF radios: Test medium and high-frequency radios for functionality.<br>• Test satellite equipment: Verify Inmarsat and other satellite communication systems.<br>• Confirm EPIRB and SART: Ensure emergency beacons are operational and registered. |
| **INTERNAL COMMUNICATIONS** | • Check intercom system: Verify functionality between bridge and other compartments.<br>• Inspect sound-powered telephones: Test emergency communication lines. |

# Annex 1

| SAFETY EQUIPMENT | CHECKLIST |
|---|---|
| **GENERAL ALARM SYSTEM** | • Test alarms: Confirm that all audible and visual signals are functional.<br>• Inspect control panel: Ensure buttons and indicators are operational. |
| **EMERGENCY POSITION-INDICATING RADIO BEACON (EPIRB)** | • Check battery expiration: Verify expiry date and replace if needed.<br>• Test activation: Perform a test as per the manufacturer's guidelines.<br>• Inspect mounting: Ensure EPIRB is securely mounted and accessible. |
| **SEARCH AND RESCUE TRANSPONDER (SART)** | • Perform test: Verify functionality with onboard radar.<br>• Inspect battery life: Replace if approaching expiry date.<br>• Check storage: Ensure SART is stowed correctly. |
| **FIRE DETECTION SYSTEM** | • Test detectors: Verify sensors are functional throughout the bridge.<br>• Inspect alarms: Confirm all alarm indicators are operational, without any alarms showing. |
| **BRIDGE NAVIGATION WATCH ALARM SYSTEM (BNWAS)** | • Test activation: Ensure BNWAS activates as per set time intervals.<br>• Verify alarms: Confirm audible and visual alerts.<br>• Check interface: If applicable, Ensure integration with autopilot and navigation systems. |
| **DOCUMENTATION AND RECORDS** | • Update logbooks: Ensure navigation, communication, and safety equipment checks are recorded.<br>• Review manuals: Keep all operational manuals and emergency procedures readily accessible.<br>• Inspect certificates: Verify the validity of GMDSS and safety equipment certifications. |
| **EMERGENCY PROCEDURES** | • Conduct drills to familiarize crew with equipment operation in emergencies.<br>• Ensure redundancy plans for critical systems. |

This checklist ensures safe and efficient operation of all bridge equipment while adhering to regulatory standards like SOLAS and IMO guidelines.