



Human Element Maritime Enhancement Tool (H.EL.M.E.T)



Steering Gear Tested from 10 degrees PORT to 10 degrees STBD instead of Hard to PORT/STBD.

- HELMET ELEMENT 6 'Navigation' – Item 4 'Bridge Equipment and Communication Systems'
- Dry - BMS Subject Area 16 'Critical Equipment' (Basic & Intermediate Level)
- TMSA 4A Vessel Reliability and Maintenance (Critical Equipment) 1.4
- SOLAS V Reg. 26 – Steering gear: testing and drills
- 33 CFR 164.25 Tests before entering or getting underway
- BPG 5th Edition - 4.2.1 Operation and Testing
- VIQ 7th Edition - Chapter 4 'Navigation and Communications', Para 4.3, 10.39

FINDING: During a remote Navigational assessment using VDR data, our Assessor noticed that the steering gear test that should be carried out prior to departure was not finally performed as per relevant Regulations.

It was observed that only one pump was used to test steering gear, while no alarms were evidenced during the tests. In addition, use of the magnetic telephone for communication between the navigation bridge and the steering gear compartment could not be identified.

IS THIS IMPORTANT?

The steering gear system is one of the most critical systems of the vessel and in case of failure, control is lost and the vessel can easily go off-track or risk with collision or grounding.

SUGGESTIONS

In order to avoid such risks:

- Test the steering gear system (main and auxiliary) within 12 hours prior to departure.
- Conduct a test to both the main and the auxiliary steering gear system using one of the two available pumps. Do the same test by employing only the second pump, and finally repeat a final test by using both pumps simultaneously.
- Ensure that the alarms for remote steering gear control system power failure and steering gear power unit failure, function satisfactorily during tests.
- Establish sufficient communication between the navigation bridge and the steering gear compartment through the conventional telephone and the magnetic telephone.



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