



FINDINGS OF CONCERN

Office of Investigations and Casualty Analysis

February 16, 2023
Washington, DC

Findings of Concern 005-23

DYNAMIC TESTING OF LIFEBOATS

Purpose. The U.S. Coast Guard issues findings of concern to disseminate information related to unsafe conditions that were identified as causal factors in a casualty and could contribute to future incidents. Findings of concern are intended to educate the public, state, or local agencies about the conditions discovered so they may address the findings with an appropriate voluntary action or highlight existing applicable company policies or state/local regulations.

The Incident. While conducting weekly lifeboat drills onboard a U.S.-flagged container ship, the brake mechanism of the starboard lifeboat launching system experienced a failure. The crew was able to secure the lifeboat, and upon further investigation, noticed that a thrust bearing had been installed incorrectly (backward) during annual maintenance. The weekly lifeboat drill had been the first time the launching mechanism was used post-annual maintenance and the vessel was already underway. The thrust bearing was reinstalled by the crew while underway and the manufacturer met the vessel at its next port of call to confirm proper installation. The USCG marine casualty investigation concluded that a dynamic winch brake test had been completed on the port lifeboat after the annual maintenance, but only a static winch brake test had been conducted on the starboard lifeboat because it was on the pier side while the vessel was docked at the time.

Contributing Factors and Analysis.

- Had the Master or Owner's representative known that a dynamic load test was required following annual lifeboat launching system maintenance, they would have had to make arrangements to shift the vessel to starboard-to in order to have the starboard lifeboat over the water in order to safely conduct the lifeboat dynamic load test while in port. This test would have uncovered the incorrectly installed thrust bearing prior to the ship getting underway.
- The Master and Owner's representative failed to realize that a static load test in lieu of a dynamic load test following annual maintenance was not in accordance with SOLAS requirements and US regulation.

Findings of Concern. Coast Guard investigators have identified the following measures for owners/operators of similar vessels to mitigate the risks associated with the contributing factors identified above.

- The Coast Guard strongly reminds vessel owners, operators, and crews of the requirement for completion of a dynamic winch brake test following annual lifeboat launching appliance maintenance. Static winch brake tests are not authorized by the Coast Guard following annual maintenance required by SOLAS 74/78 (2014 Cons.) III/20.11.3 and outlined in MSC/Circ 1206/3.1.



UNITED STATES COAST GUARD
U.S. Department of Homeland Security

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- Although it is undesirable to conduct a dynamic winch brake test over land due to potential damage to the lifeboat and injury of personnel, a dynamic test must be completed following annual maintenance. Vessel owners must comply with dynamic load testing requirements prior to departure from port and may need to make arrangements to have the vessel shift to accommodate an over-water test.

Closing. These findings of concern are provided for informational purpose only and do not relieve any domestic or international safety, operational, or material requirements. For any questions or comments please contact the Office of Investigations and Analysis, Investigations Division, Commandant (CG-INV-1), at (202) 372-1029 or by email to CG-INV@uscg.mil.