

M2242

Posted on 20.05.2024 by Adam Parnell

Category: [Superyachts](#)

Report Title Near miss - breach of watertight integrity

Initial Report

While underway during a busy trip, the lookout performed their deck rounds. They found the shell door fully open when they entered the tender bay, which is located on the lower deck, approximately 8" above the waterline. Water entered the tender bay due to the vessel's movement and swell.

This caused the loss of some equipment but, fortunately, the vessel's stability was not severely affected. The issue

was quickly reported, and the door was secured safely.

Upon investigation, it was found that there was severe salt build-up inside the controls of the door, which had caused a 'short' of the 'open door' button. This caused the door to operate and open without any human control.

The bridge has indicators for the door status, but they are inconspicuous and inaudible. There is also an isolation

switch, but the Standard Operating Procedure (SOP) did not include using it at sea.

Subsequently, the company installed a Deadman switch into the door system to eliminate the single point of failure,

updated the SOPs, informed the fleet (especially the sister ships), and reviewed the risk assessments for similar issues

elsewhere on the vessel.

Comment

This incident highlights a critical flaw in the design of the vessel's tender bay doors, requiring immediate action to

prevent potential accidents. CHIRP commends the crew members for their vigilance in detecting and averting a

severe malfunction and notes that good old-fashioned safety rounds brought this to the master's attention before

the amount of water being taken on board seriously affected the superyacht's stability.

The vessel's alarm systems and reliance on a single point of failure raise concerns about the thoroughness of

consultation concerning the ergonomics of alarms and controls during construction. Alarms placed in inconspicuous places that cannot be seen and are inaudible due to normal background sounds are useless. Management's proactive steps to eliminate this single point of failure and update safety procedures in the Safety Management System (SMS) are commendable. However, CHIRP also recommends prioritising enhancements to the weatherproofing and sealing mechanisms of the tender bay doors, alongside measures to combat corrosion. Maintaining watertight integrity in vessel design and operation is paramount, and CHIRP feels that implementing these measures and enhanced crew maintenance training is necessary. This incident highlights the importance of addressing vulnerabilities in vessel design, particularly concerning environmental factors and technical failures.

Key Issues

Design – There was a latent defect that meant the equipment was not fit for purpose either on the bridge for alerting or on the tender deck against exposure to the weather. Do critical controls for your vessel's opening and closing appliances rely on a single point of failure? Have you checked?

Alerting – How well do your alarms alert you to a problem? Can you recognise the alarm from its sound or light function? Are you shown these alarms as part of your familiarisation?

Situational Awareness – During your motor yacht's operational service, ask questions to identify potential single points of failure for operational and personal safety.

loss_of_awarenessAwareness

designDesign

alertingAlerting



