

M2125

Posted on 19.04.2023 by Adam Parnell

Category: [Superyachts](#)

Report Title No gas detection equipment carried on board

Initial Report

Our reporter worked on a commercial yacht under 500gt where allegedly there were no enclosed spaces, even though there were compartments below decks that were not ventilated. No gas detection equipment was carried on board and it was impossible to determine whether bilge spaces, chain lockers, steering flats etc., were safe to enter or work in.

Comment

This reporter is to be praised for raising this matter and for showing a high level of safety awareness. Enclosed spaces kill an average of 10 seafarers every year.

The definition of an enclosed space can be found in SOLAS Regulation XI-1/7 as well as The Code of Safe Working Practice (COSWP) chapter 15:

A space which is not designed for continuous worker occupancy and has either or both the following characteristics: limited openings for entry and exit and/or inadequate ventilation.

Enclosed spaces do exist on super yachts, and can include areas such as chain lockers, bunker tanks, paint lockers, battery lockers, peak tanks, cofferdams, sail lockers and void spaces. Arguably non-tank spaces are more dangerous as crews are less aware of the risks. Never assume that a space is not an enclosed space- always check!

If access to any of the above spaces is required, then proper entry procedures **must** be followed. These include a risk assessment (RA), a test of the atmosphere using properly calibrated portable atmosphere testing equipment and the completion of a permit to work (PtW). If the testing equipment is not on board, then entry must not be attempted. The testing equipment should be capable of testing and displaying the amounts of oxygen, carbon monoxide, hydrogen sulphide and flammable gases. Vessels which do not have properly approved and calibrated gas measuring equipment and portable gas-freeing fans should obtain them before any enclosed space entry is undertaken, and in any case the compartment should be thoroughly vented for several hours prior to entry.

Although there are some exemptions to the rules for carrying gas measuring equipment, *CHIRP's*

Superyacht Advisory Board were united in their belief that it should always be used, particularly as it is relatively cheap (many models cost less than \$500 USD). The crew must also receive training in calibrating and using the equipment. Calibration can usually be carried out on board, although some models can only be calibrated ashore. The importance of proper recording of the maintenance of the equipment is essential and cannot be overstated.

Concerning gas-freeing fans, they should be sourced to ensure that the largest space can be thoroughly vented with enough force ventilation to ensure that no pockets of atmosphere with insufficient O₂, toxic and/or flammable gases remain. When sampling the atmosphere, always make sure that the sampling is representative of the space to be entered- several sample points must be obtained, often at different heights off the deck.

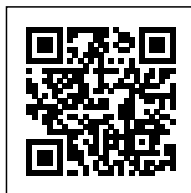
The Advisory Board also recommended that the 2-monthly entry and rescue drills required by SOLAS should not only focus on the physical drill and the rescue but raise awareness during the drill of what constitutes an enclosed space. It is best practice to identify these spaces eg with signage or similar (We recommend "Enclosed space – no entry allowed until all entry RA and PtW requirements are met")

Key Issues

Culture- Underestimating or ignoring hazards are signs of a poor safety culture. In this incident there appears to have been no thought given to ensuring that enclosed spaces on the super yacht can be ventilated and tested for safe entry. The reporter has challenged this culture by raising this report, which is commendable.

Capability- Identifying enclosed spaces is not always easy; are you confident in your ability to do so?

Local practices- Owners are recommended to commission an external safety audit to ensure that hazards are correctly identified and that minimum safety management standards are being applied.



There are no comments yet.