



## Risks of lithium-ion batteries need to be understood: report

*By admin On September 27, 2022 In Insurance Marine News, Keep, Marine Hull, Marine Liability, Political Risk, Credit & Finance*

A report of Malta's Marine Safety Investigation Unit (MSIU) into the total loss of 220 gt commercial yacht **Siempre** has highlighted the need for crews to understand the risks posed by lithium-ion batteries on board.

Three UK crew members and a Spanish stewardess escaped uninjured but had to jump overboard when a fire broke out on the after deck of the yacht in September 2021 when the vessel was in the port of Olbia, Italy, having arrived from Bonifacio, France. The fire started during the night and the crew was woken by a fire alarm. They were rescued from the water by a tender from another yacht in the marina after their attempts to extinguish the rapidly-spreading blaze proved unsuccessful.

Shore-based fire-fighting teams continued to battle the blaze, using water and foam, but had to make several further interventions over the following two days, even after the ship sank, when flames and smoke emerged from parts of the vessel that were above the water level.

The partially submerged **Siempre** caused the temporary closure of sections of the marina, until the yacht was re-floated and towed to a shipyard. Information on the extent of pollution (if any) within the marina, due to the fire, the fire-fighting actions and / or the capsizing of the yacht, was not available to the safety investigation.

The yacht was subsequently declared a constructive total loss. It was refloated in November 2021.

The report noted a number of similar recent cases which have raised concerns over the fire-related risks of Li-ion batteries – including the threat of 'thermal runaways', violent cell venting and extremely high temperatures, and the difficulties of extinguishing them with conventional fire-fighting systems.

The MSIU investigation could not locate the exact seat of the fire, but evidence suggested it most likely began in the Lithium-ion battery of an electric hydrofoil surfboard. Crew members on a neighbouring yacht had noticed the rapid spread of the fire, with flames reaching a height of 2.5 metres within a few seconds.

It was deemed likely that the presence of several Li-ion batteries in the area where the fire began would have enabled it to intensify and spread even more rapidly. Once the fire had intensified and spread to the leisure equipment, fitted with combustible components, it did not take long for the various flammable fittings, fabrics, wood panels, etc, to contribute to the fire spread through most of the yacht before the fire could be brought under control.

The crew members appeared to be aware of the risks associated with Lithium-ion batteries and had sought to stow a dead battery safely, following advice received from the manufacturers, as well as ensuring that the recharging of the batteries and leisure equipment was always monitored, but may not have been fully aware of the risks presented by a faulty battery.

The MSIU has made two recommendations designed to ensure that yacht crew members were made aware of the hazards and are guided on proper handling and disposal procedures for such batteries.

Siempre was a 220 gt commercial yacht, owned by Black Pepper Yachting Partnership since July 2<sup>nd</sup> 2020 and managed by Private Yacht Group Ltd, UK. The yacht was built by SRT Deniz Araclari Imalati Sanayi ve Ticaret Ltd. STI, Turkey, in 2010.

[https://mtip.gov.mt/en/msiu/Documents/MY%20Siempre\\_Final%20Safety%20Investigation%20Report.pdf](https://mtip.gov.mt/en/msiu/Documents/MY%20Siempre_Final%20Safety%20Investigation%20Report.pdf)

<https://www.nautilusint.org/en/news-insight/telegraph/yacht-battery-blaze-sparks-further-fire-safety-concerns/>