



Container ship fires on the rise again?

After a seemingly ‘benign’ period, we have seen several serious container ship fires lately, including a large one leading to tragic loss of life. Congested ports in Asia and increasing traffic of large container ships around Africa are also a cause for concern.

Published 05 December 2024

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Cargo-related fires on board container ships have long been a hot topic in the industry – and rightly so: In 2023, we saw on average one container cargo fire every 9 days, according to statistics from [Cargo Incident Notification System \(CINS\)](#). This is an increase compared with 2020, when the number was approximately one container fire every two weeks.

For the first few months of 2024, things were looking more promising, though. Up until May 2024, we did not experience any large-scale or high severity fires for a relatively long time. Then, on May 26 the container ship *Northern Juvenile* caught fire outside Singapore. On 19 July the *Maersk Frankfurt* caught fire off the west coast of India, a casualty that tragically cost a seafarer's life. And just last week, the container ship *YM Mobility* suffered severe explosions and fire onboard while it was docked in Ningbo, China.

Why are container ship fires seemingly on the rise again – and what can be done to reverse the trend?

Risky routes and congested ports

The frequency of fire incidents has been high for a long time. This is concerning considering the severity of many of these incidents. The extent of damage depends on factors which are largely a matter of luck, such as the location of the container on board, the proximity to other containers, and whether the fire occurs in port or at sea. However, it is important to note that the increased focus on safety measures, improved booking systems, and innovative fire detection and firefighting systems all have had a positive impact on mitigating the fire risks.

In Gard, our primary focus is always to save lives and to ensure the well-being of people. The environment comes second, property and values come third. On the environmental side, the impact of containerized cargo fires can be significant. Fires and flooded cargo holds generate substantial amounts of waste.

There is currently also a huge challenge with congested ports, particularly in Asia. It takes a lot of time to get vessels in distress into port, to conduct investigations and discharge cargo. This potentially increases the loss and environmental impacts. On top of this, of course, comes the owners' concern of getting the vessel back in service as quickly as possible.

Another “new challenge” is that ship traffic around the Cape of Good Hope is increasing due to the missile attacks in the Red Sea. Ultra large container ships which used to go through the Suez Channel are now diverted around the African continent. The problem is that there are very few (if any at all) ports in Africa that have the scale and infrastructure available to accommodate the largest container ships with their draft and stack heights. This means that if something goes wrong, a ship in distress will have very few alternatives if a port of refuge is needed on a voyage around Africa. Luckily, we have so far not experienced any large container ship fires along the African coast, but these challenges have materialized in several cases concerning stow collapses on board liner ships lately.

Cargoes of concern

The sheer volume of containers shipped remains a fundamental challenge. Even with measures to deter and detect misdeclarations before carriage, some unsafe cargoes are likely to slip through the net. The increasing number of larger container ships also means that the risk is more concentrated, with more cargo and higher values on one keel.

The “Cargo Integrity Group” of the International Cargo Handling Coordination Association (ICHCA) has identified [fifteen “cargoes of concern”](#), six of which pose a treat when it comes to container fires. In Gard, we have seen fires originating from all these cargoes:

- Charcoal

- Calcium Hypochlorite
- Lithium Ion Batteries
- Cotton and wool
- Fishmeal
- Seed Cake

Fire statistics from the CINS reveal that batteries are an increasing cause of container cargo fires. Various types of Lithium-ion batteries are the most common fire source, paralleled only by charcoal and various types of chemicals. Importantly, electrical vehicles (EVs) are increasingly being shipped in containers, not just on conventional car carries, and with the rise in trade of EVs, a new market for used EV batteries also rises. In Gard, we have seen container fire incidents involving both new and used EV batteries.

Related reading: [The risk of ev battery fires should not be downplayed - Gard](#)

Regulatory and industry efforts

The principal challenge is still to avoid dangerous goods being misdeclared and inadequately secured for transportation. The container lines are focusing on these issues, but there is probably still a way to go. We hope that the relatively positive development with fewer large-scale incidents (up until May 2024) may be a sign that container ship owners and operators are investing more time and resources in fire detection, training and fire/fighting capabilities onboard.

IMO work to improve and amend fire-fighting detection & control regulations for large container ships continues. New regulations for newly designed ships are expected to come into force in a few years' time. In that context, a lot of good work is being conducted by other institutions such as EMSA and the [Cargosafe project](#), as well as the EU-driven [Overheat project](#). Operators have also taken several measures on their own to improve their fire-fighting ability, using remotely operated devices, sensors and [other technology](#). More companies are using software to identify cargo misdeclaration and the World Shipping Council is working on a [common system](#) to address the issue.

An area of increasing focus is how we can make shippers more accountable. China is taking positive steps in targeting and pursuing those who fraudulently mis-declare cargoes. In this context, Gard and other Clubs are prioritizing recovery actions, seeking to push the financial costs of cases down the contractual chain.

Approximately 250 million containers are shipped annually, meaning that in most cases, everything goes well and according to plan. Still, container cargo fires are a growing concern, and even a small fire or 'near miss' should be considered a serious incident. It can quickly turn into a full-blown crisis.