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8
6
4
2
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8

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EDITION
NO. 01/22

**FIRE IN CONTAINERS –
A POSITIVE DEVELOPMENT FOR ON-BOARD FIRE FIGHTING**

FIRE IN CONTAINERS – A POSITIVE DEVELOPMENT FOR ON-BOARD FIRE FIGHTING

As insurance brokers, professional claims handling is one of the key services which we offer to our clients, and we subsequently deal with a large number of different cases of various nature.

One of the most complex type of claims has always been fire damage on board container ships and in particular fires breaking out inside containers. What makes these type of claims stand out is the unpredictable source of the fire, alongside its potential spread to other containers.

The International Group of P&I Clubs pool claims for fires are reported to have increased by more than tenfold between 2016 and 2020, from \$25 million to \$333 million, with cases involving fires in containers providing a key cause. There have been 16 serious container ship fires in the past five years, resulting in tragic loss of life as well as millions of dollars in claims.

With crew likely to be among the last to know ‘what’s in the box’, fighting a blaze in the stack from deck level is also extremely difficult. Despite the catastrophes, attempts to extinguish container fires still largely involve crews aiming hoses at the outside, in a ‘boundary cooling’ damage limitation method which does not target the fire’s main body.

Although the industry had faced various examples of catastrophic fires on board container ships, an appliance specifically designed to fight fires inside the container had simply never been available.

However, this changed when VIKING Life-Saving Equipment introduced just such an appliance, in the shape of the HydroPen™ System.

Since launching the HydroPen, there have been several cases in which the crew was able to successfully keep the fire in a container under control by using this new safety equipment and hence, avoiding potential catastrophic consequences.

We have, therefore, decided to bring this important fire-fighting appliance to the attention of our clients and are happy to have Lasse Boesen, Senior Product Manager of VIKING LIFE-SAVING EQUIPMENT A/S and Martin Birgersson, Claims Manager of the Swedish Club, as guest editors to elaborate on this important topic and to share their professional opinion about this new emergency fire-fighting appliance.

HydroPen is a drilling and spraying device which attaches to existing ship firehoses. Deployed by a single member of the crew and driven only by water from the vessel’s fire-main, down to a 2,5 bar of pressure, the drill penetrates the container door before the HydroPen automatically switches to spray mode to fight the fire behind. Using a telescopic lift, the HydroPen can be raised to fight a container fire high up in the stack. In all cases, once the unit is in place, the crew member can leave the vicinity to let the HydroPen get on with fighting the fire at its source. Please see also the illustrating [video](#).



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As mentioned above, the device has already been deployed on several occasions to fight real container fires, thereby preventing threats to crew safety and potential catastrophes for cargoes and ships.

We would like to highlight this success as this normally occurs with only limited public knowledge as limiting or preventing cargo damage does not normally result in too many headlines.

An example occurred in November 2021, when the crew noticed smoke coming from a container on the deck. According to the incident report, within 13 minutes, the ship's HydroPen was in position and suppressing a fire inside the box. The fire did not reach the development stage.

The incident is also noteworthy because the source of the blaze was a batch of lithium-ion batteries, providing a direct comparison with a very similar fire incident on board a container ship in 2020. In that case, traditional boundary cooling was used to contain and fight the fire.

Despite a serious incident being averted in this case, investigators noted that flames were still visible from the original container four hours after emergency services began fighting the fire. Furthermore, a fire-fighting tug was called into action to support the efforts of those on board, while the fire was not actually extinguished until the box was offloaded in Kolkata.

Another important advantage of the HydroPen is that the operation of the device requires only minimal training, with crew undertaking straightforward exercises after delivery on board using a dummy drill. The dummy drill, which is supplied with the HydroPen System, enables the crew to apply and activate the HydroPen to a container on board, without damaging the container.

The training issue is important as previous equipment available to the crew proved ineffective and added to an understandable reluctance to move too close to a fire source whose true combustibility was unknown. Improved equipment will reduce risks because seafarers will be more confident in getting to grips with an incident in the first instance.

Martin Birgersson, P&I Claims Manager of The Swedish Club says: "We were involved in a recent case with Georg Duncker. In this case, the container was luckily at a reachable level from the lashing bridges. Nevertheless, the HydroPen was used with great success. Under the right circumstances and applied effectively, it's our strong belief that the HydroPen, or a similar product, could be a crucial tool for fighting fires in burning containers and thus possibly saving the vessel, cargo and crew."

If you would like to receive more information about the HydroPen, you are welcome to contact your designated claims handler at Georg Duncker or directly Lasse Boesen of VIKING LIFE-SAVING EQUIPMENT A/S.



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