

# Containing the risks of mega-ships

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Vessels got significantly bigger in 2019, exposing the shipping industry to new logistical challenges and marine insurers to a range of new risks



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Since the earliest days of marine insurance, products have evolved as risks and exposures have increased in size and complexity. Ships have become bigger, which consequently leads to bigger risks for everyone.

As international markets continue to grow, the costs associated with shipping goods are continually being reduced and this has made the container the most efficient method of transportation for the majority of today's trade.

It enables companies to manufacture goods in low-cost countries and then ship their products all over the world.

As a result of this trend, the need for greater capacity and new construction technology has enabled the size of container ships to increase dramatically – by 1,200% in the past 50 years.

Larger containerships offer economies of scale, but there are operational limitations. A substantial amount of cargo is needed to make it commercially feasible and the service frequency must be adequate. However,

these larger ships are restricted by the number of ports that can accommodate them.

There are many ports and inland transportation systems that need substantial investment before they can deal with these new mega-ships. Waterways and ports have to be continuously dredged to provide safe passage and, so far as the port infrastructure is concerned, equipment needs to be available and capable of offloading large quantities of containers quickly.

#### Accumulation

Unknown accumulation is also a challenge for marine underwriters. The largest containerships can carry cargo values of more than \$1bn, depending on the trade and route.

The loss of more than 345 containers overboard from a ship in

January 2019 was an exceptional event. It is the second-largest known container loss of a ship due to severe weather and is a recent example of the risks underwriters face while insuring cargo aboard these ships.

In addition, modern cargo policy has significantly broadened the insurable risk. Provisions such as "selling price valuation" and "control of damaged goods/fear of loss/brand protection" have increased the overall numbers of cargo claims.

The phenomenon of misdeclared cargo and improperly shipped hazardous material is caused by insufficient knowledge, the indifference of parties or simply to save money as larger shipments and hazardous cargo are more costly to transport.

Carrier alliances are adding to the complexity, as one shipping

line will often be carrying another's containers and relying on their performance to screen and vet cargo. This is something that has to be closely controlled.

It is also expected container volumes will increase globally over the next five years, which will escalate the number of containers and the value in port. The range of challenges faced by cargo surveyors will be amplified by the introduction of larger ships, carrying growing numbers of containers.

#### Container casualties

The container trade will continue to grow over the years to come, and so will container casualties. Explosions on board large container shipping vessels are generating, on average, a large loss incident every 60 days. Everyone is looking at risk and yet fires seem to be increasing and collisions are another problem. We see new incidents every week.

We have also seen operational technology such as navigational systems and engine controls are networked together with information technology and the Internet, which calls for cyber risk management on-board. Ships are increasingly using automated digital systems such as the Internet of Things (IoT) and

machine learning technologies, with the aim to increase accuracy and efficiency and improve decision making compared to human intervention.

However, there is little evidence to suggest that autonomous ships, machine learning technologies and intelligent containers will drive any reduction in container casualties. While it may help with issues such as grounding and collision, human intervention still plays a huge part in stowing, lashing, securing and scheduling pressures.

The market will continue to need specialist surveyors, with specific marine cargo and container experience. Those surveyors must be part of a reliable and informed international network, so continuity of service is maintained across the world.

The market is also going to see the need for a greater diversity of skills such as fire investigators, who understand the marine industry and, as cyber fraud is growing rapidly in every industry sector globally, we will undoubtedly also need the assistance of multi-skilled technology specialists in the very near future. ■

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