

Sealing maritime heritage

Mariehamn Maritime Museum, Finland

CHALLENGE:

The Pommern is a renowned museum ship in the Mariehamn Maritime Museum in Finland. Built in 1903, Pommern is the only four-masted steel merchant barque in the world left in its original state and has been a center piece in the museum since 1957.

Following a significant investment into the ship's refurbishment and preservation, the ship was moved into a floating dry dock constructed by EE Engineering. To ensure the dry dock remained watertight during the ship's refurbishment, Trelleborg was tasked with providing a purpose-built, leak-free alternative to a standard D-fender.



SOLUTION:

Trelleborg developed a specially-designed Gina gasket (G110-80) that would produce the same results as a conventional D-fender solution, but only required a single gasket. Supplied as a U-frame to fit the dry dock door, the gasket ensured the ship was protected from water ingress. This approach facilitated less fixation materials on the dock door and meant the installation was simple and hassle free.

In addition to the gasket, Trelleborg's low-friction, wear-resistant UHMW-PE fender panels were used to guide the floating dry dock door into its recess before the Gina gasket was compressed. The fender panels were faced with Trelleborg's ultra-high molecular weight polyethylene UHMW-PE, which was a first choice for this and other heavy-duty applications, combining very low friction with excellent impact strength and wear-resistance superior to steel.

Trelleborg's single, specially-designed G110-80 gasket provided the level of watertightness needed for the ship's refurbishment, which was supplied as a U-frame to fit the dry dock door and protect against water ingress.

A watertight upgrade



Royal Van Lent, Amsterdam

CHALLENGE:

The Royal Van Lent shipyard at the port of Amsterdam set out to upgrade its facilities in order to enable the construction of luxury superyachts of up to 160 meters in length.

As part of the upgrade, a self-contained floating dry dock door was built to keep each yacht afloat during construction. Crucial to this was a high-quality sealing solution that would prevent water ingress and damage to the mega yachts. With manufacture on such a large scale, finding the right partner to supply the seals was critical.

Trelleborg supplied one of its highly-resilient and multi-functional G150-125 gaskets, ensuring watertight closure of the dry dock door, which was critical for ensuring the luxury yachts were not exposed to humidity or water during construction.

SOLUTION:

Securing the dry dock door and ensuring it was completely leak-free was not possible with a standard D-fender. In response, Trelleborg supplied one of its highly-resilient and multi-functional Gina gaskets (G150-125). This was critical for ensuring that the luxury yachts were not exposed to humidity or water during the construction process.

Made from natural rubber with varying hardnesses, Trelleborg's Gina gasket ensures watertight closure, greater tolerance bandwidth and lower jacking force. Varying hardnesses also enables the gasket to withstand variation in hydrostatic pressure and remain watertight throughout construction.

