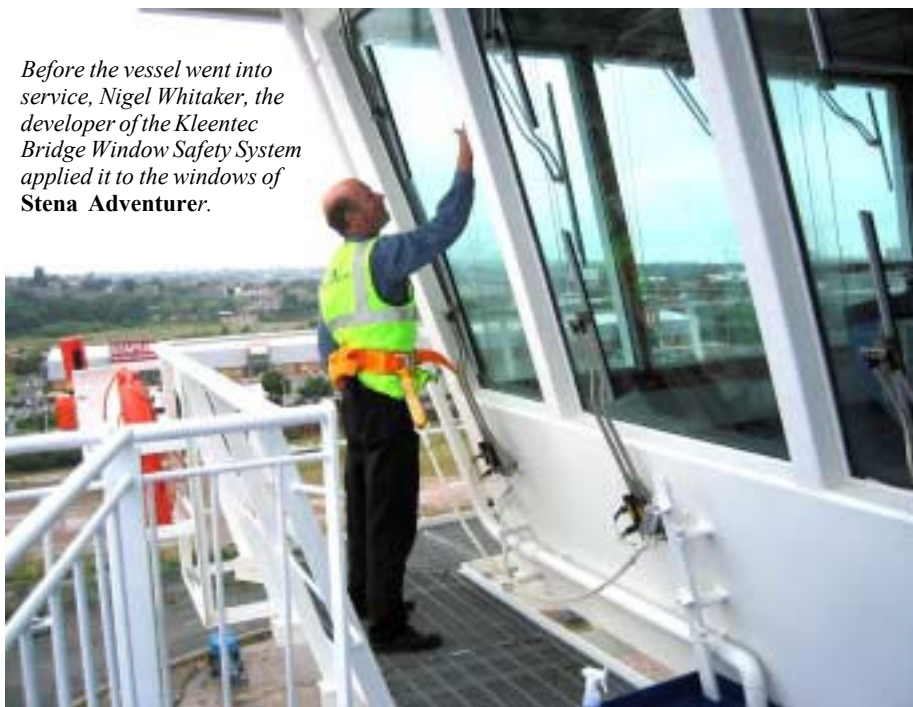


*Before the vessel went into service, Nigel Whitaker, the developer of the Kleentec Bridge Window Safety System applied it to the windows of Stena Adventurer.*



## Seeing without wipers

**British company Kleentec Marine has launched its 'Bridge Window Safety System' to give tug skippers, amongst others, a high level clarity of vision despite the worst of sea and weather conditions.**

According to the manufacturer, it is a safety system where cost-effective simplicity belies a heavy-duty ability to perform and it has been met with universal approval by captains who have experienced it first hand – on their own wheelhouse windows.

Under a microscope, the surface of clean glass is a mass of pits and craters to which salt and other dirt can cling and water will hold as it drains slowly away – often after the next curtain of spray has hit the window. The Kleentec system makes the glass water-repellent by chemically bonding an invisible layer of non-stick polymer to its surface, forming an impenetrable barrier.

If the water cannot cling, it runs quickly away time after time, taking with it any kind of dirt, including rust staining and salt spray - leaving the window crystal clear. This means clear vision by day as well as after dark, when working lights illuminate the scene, rather than confuse it by being refracted in water on the glass.

Ferry captains on the Irish Sea have welcomed its introduction; indeed, some no longer use windscreen wipers – and it can cost less to treat all the windows on the bridge for a year than it does to repair one faulty wiper.

System developer Nigel Whitaker says: "The invisible non-stick polymer we bond to glass creates an impenetrable barrier second to none in repelling any kind of dirt, including rust staining and salt spray. Any that does come to rest on the surface is rinsed away instantly by

rain or more spray. The simplicity of the system makes it both inexpensive and easily maintainable by the ship's own crew," he adds. "This is not glass cleaning; it is 21<sup>st</sup>-century vision engineering."

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