

 SURELINE®

# Real Time Rope Monitoring

## Straight To The Core

### VESSEL TOWAGE

- During vessel towage, there are many factors to consider, and these can be found and detailed within SOLAS documents and other tug operator support documents.
- With respect to towing ropes, factors such as internal and external friction and the build-up of heat are key considerations. Shock loading is also a factor where a sudden high load is transferred from a low or static situation, leading to a sudden peak load, often higher than recommended rope load limits. Rope failure can be the end result impacting the towing operation, the crew and the vessels involved.
- Towing assembly management plans should be in place and supported by the rope manufacturer. For the first time, towing operations can be further supported by the use of Sureline® and Sureline® data systems, helping to de-risk towage operations.

### Sureline® is a novel remote rope tension sensor offering:

Peace of mind and real-time monitoring of rope health & tensions

A step change in safety for vessel operators and crew alike

Allows users confidence to operate winches and tension ropes whilst monitoring the safe working loads of the ropes

Real-time data for more effective decision making

Data for rope failures

### HOW SURELINE® CAN HELP

- Sureline® can be used as a single-point rope sensor or deployed with multiple sensors in different ropes to offer real-time information during towing operations. This gives vital information to the tug master, helping avoid over-tensioning of the tow line during vessel towage.
- Sureline® takes seconds to install into a towing rope and can monitor and report up to 10 data points per second, and when calibrated, the sensor is accurate to  $\pm 5\%$ . Data is shown in real-time to a dashboard on a tablet or mobile phone and can show live rope tension, rope angle, slew angle, peak loads, etc., with the operator setting warning thresholds.
- With increasing vessel sizes and TUG bollard pull, Sureline® provides new insights into towing rope dynamics, offering enhanced and safer towage operations.





# SURELINE<sup>®</sup>

## Straight To The Core

### Sureline<sup>®</sup> is:

Quick and easy to install

The system provides real-time data to a mobile dashboard and stores it in the cloud for 24/7 access.

Measures rope tension, rope angle, slew angle, peak loads and more

Delivers insights across a variety of rope types and diameters.

Gives you real peace of mind for safer operations

Provides unique rope data to help to comply with MEG4/SOLAS guidelines



Manufactured by



## LANKHORST

Transforming industry through innovation