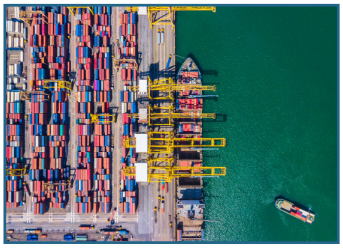
FORCE MEASUREMENT SOLUTIONS

CASE STUDY

Maritime

About

Interface has been a longtime leader in the maritime industry. From hydrofoil testing to yacht rigging inspection, and even on the enormous cranes used on shipping docks, we provide solutions for a wide variety of applications in maritime.

The U.S. maritime industry employs over 400,000 workers and according to the National Marine Manufacturers Association (NMMA), annual sales of boats, marine products and services were estimated at $42B. This includes organizations that develop hardware to support shipyards, marine terminals, fishing, aquaculture, seafood processing, commercial diving, and marine transportation.

Challenge

When dealing with vehicles or large machinery of any kind, accuracy in testing is critical to not only product performance and design quality, but also safety. Maritime manufacturers need the highest quality testing equipment available to ensure designs can create, hold, lift or withstand tremendous forces, from rough waters to heavy shipping containers. However, these products come with the added challenge of needing to perform at highest level in harsh conditions like extremely cold temperatures, storms and especially underwater.

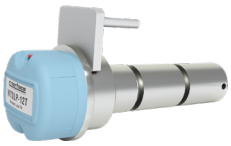
Interface Solutions

Interface is top choice in or around the water because our load cells can wirelessly transmit data through underwater applications and harsh weather conditions. These load cells can survive through underwater submersions at different capacities, and still be able to relay information to those at the surface level. Interface load cells can also regulate harsh maritime situations such as underwater tension lines, underwater oil drilling, and storm and tsunami monitoring.

Interface wireless load pins, load shackles, and tension links are ideal for sea applications paired with our different wireless sensor transmitters, receivers, and handheld displays. Our Wireless Crosby Bow Load Shackles are used for mooring line tension testing and rigging inspections.

WTSSHK-B Wireless Bow Shackle

WTS-BS-1-HS Handheld Display

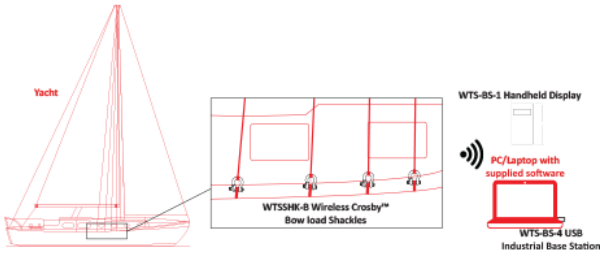


WTSLP Wireless Load Pin

WTSTL Wireless Tension Link Load Cell

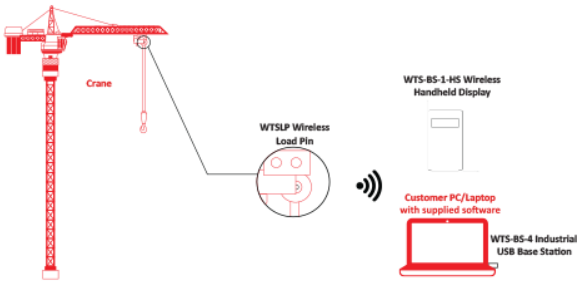
Our load shackles are also inter-changeable with our WTSTL Wireless Tension Link Load Cell. The WTS-BS-4 Wireless Industrial USB Base Station is a popular transmitter that gives outstanding coverage and can be easily paired with one of our handheld displays such as the WTS-BS-1-HA Wireless Handheld Display for Multiple Transmitters, or the WTS-BS-1-HS Wireless Handheld for Single Transmitters.

WTS Yacht Rigging Inspection



A customer wanted to have a complete rigging inspection to make sure the mast, still lines, and all movable hoisting lines were functional and meet the proper specifications for sailing. They also wanted to test the tension of the forestay, shroud, and backstay cables, as well as movable lines when sailing. Interface suggested a WTSSHK-B Wireless Crosby™ Bow Load Shackle paired with the WTS-BS-1 Wireless Handheld Display for Unlimited Transmitters, to allow the customer to switch and view between multiple shackles being tested. The WTS-BS-4 USB Industrial Base Station can also be attached to a computer to display real time measurements from the shackles and log data. Using this solution, the customer was able to conduct both a running and standing rigging inspection of their ship or vessel and was able to determine if all lines were functional and met safety standards.

Crane Force Regulation



When a customer wanted to regulate the maximum number of heavy loads being lifted, so that production time can be both safe for workers and efficient and complete lifting duties faster and with little or no expense, Interface proposed a wireless solution, so that there would be no long cable interference during production. We provided a WTSLP Wireless Stainless Steel Load Pin that is custom made to be used for all types of cranes. This product great for lifting both short and long distances. Paired with the WTS Wireless Telemetry System, force is measured and logged. With this system, the customer was able to monitor the continuous force from the crane and gather information on loads being lifted. Data is transmitted and logged to a computer for monitoring.

Commercial Fishing Wire Rope Testing

A commercial fishing owner wanted to measure the force tension of the wire fishing rope connected to the fishing cage when their vessel goes to catch. They wanted to ensure the wire rope is strong and safe enough to hold the maximum capacity of fish in the cage. Interface provided its WTSTL Wireless Tension Link Load Cell, which was attached between the end of the cable, and the end that hooks onto the fishing net. This tension link can measure the forces of the full net of fish, or a heavy load at maximum capacities. The data can then be transmitted to both the WTS-BS-1-HS Handheld Display for Single Transmitters, or to the laptop through the WTS-BS-4 USB Industrial Base Station. Using this solution, the customer was able to determine if the fishing cable on their vessel was strong enough to hold the fish cage or net at maximum capacity.

Learn More

Interface provides a host of additional information on application examples and products fit for the harsh conditions of the maritime industry on our new solutions page.

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