

# Catenary Mooring System Load Shackles

Industry: Maritime

## Summary

### Customer Challenge

A customer has a catenary mooring system, which is used for a variety of offshore applications. They need to ensure the anchors and chains are securely locked to the node. They need to measure the strength and fatigue of the main node the chains and anchors attach to, so they do not risk any mooring lines breaking or the node being damaged.

### Interface Solution

Depending on how many points there are on the node, Interface's special submersible ISHK-B Bow Type Crosby™ Cabled Load Shackles are attached to the node. The chains and anchors are then attached to the shackles. The shackles measure the forces implemented by the chains and anchors, and results are displayed, logged, and graphed using the 9325-1 Portable Sensor Display. This instrument also comes with supplied software to connect to the customer's PC.

### Results

Interface's submersible shackles and instrumentation helped verify the tensions of the anchors and chains attached to the node of their catenary mooring system.

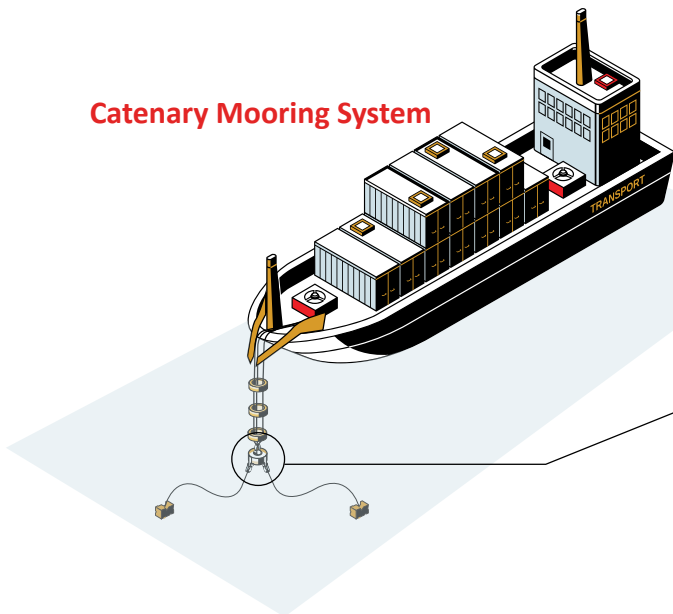
## Materials

- Submersible ISHK-B Bow Type Crosby™ Cabled Load Shackles
- 9325-1 Portable Sensor Display with supplied software
- Customer PC or Laptop

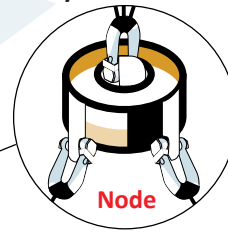
## How It Works

1. The submersible ISHK-B Bow Type Crosby™ Cabled Load Shackles are attached to the node of the catenary mooring system. The chains and anchors are then attached to the shackles.
2. When the anchors are let loose, thus causing tension on the chains attached to the shackles, force measurements are read using the 9325-1 Portable Sensor Display. With the supplied software, results can be logged and graphed to the customer's computer.

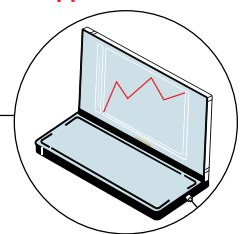
### Catenary Mooring System



### Submersible ISHK-B Bow Crosby™ Load Shackles



### Customer PC with supplied software



9325-1 Portable Sensor Display