

Measurement Technology NW designs and manufactures sophisticated testing and measurement instrumentation systems for a variety of commercial, research, and government clients worldwide.

Contact: Dave Heiss
Measurement Technology NW

Email: daveh@mtnw-usa.com

Phone: 206-634-1308

Fax: 206-634-1309



Your source for advanced winch line control and monitoring systems

Project Profile #2 – Washington State Ferries

Washington State Ferries is the largest ferry system in the United States, serving eight counties within Washington and the Province of British Columbia in Canada. The existing system consists of 10 routes and 20 terminals served by 29 vessels, and it's an essential part of Western Washington's highway network - carrying over 11 million vehicles and 26 million people per year. For several Puget Sound island communities, WSF ferries provide the only link for automobile travel with the mainland.



As part of a safety upgrade to state ferry terminals, WSF engineers wanted to install line tension monitors to the heavily used auto and passenger transfer spans that connect vessel and terminal. "We have hoist systems that raise and lower the transfer spans onto load pins once a ferry is in position at the dock," explained James Schufreider, Marine Mechanical Engineer with Washington State Ferries. "When a span is lowered onto the pins, our winch operators would sometimes payout too much cable – causing it to slacken on the drum and get tangled/miswound later when the span was raised. We were very concerned about potential cable damage causing early failure of this system."

Measurement Technology Northwest was called in to develop a dedicated line monitoring system consisting of an LCI-100 Dual Tension Display (modified for this application), one or two 7,000 pound tension links, and interconnect cables. The LCI-100 interfaces with the analog output of the tension links, and provides a visual display of line tension along with the added safety of high/low tension alarm setpoints. This new system shuts off the winch automatically so tension stays on the cable and miswinding cannot occur. The only requirements are annual calibration checks and visual inspections to ensure continued trouble-free performance.



According to James Schufreider, "the LCI system is terrific. We can program custom setpoints on-site for each installation to accommodate varying equipment loads, brands, ages, and placement. We can also calibrate unbalanced loads so there isn't any excessive counterweighting. Now our winch operators are better able to do their jobs safely and with more consistent results. Overall it's been a great experience. I can't say enough about the equipment or the technical support we've received from Measurement Technology NW."

The LCI-100 line control instrument is a robust, full-featured workhorse that offers exceptional performance and readability in demanding environments from -40°C to +75°C.

Both the LCI-100 and the LCI-90 units are available in Dual Tension Display configurations, allowing them to display two channels of line tension for winch and wire rope applications.

The UL-approved LCI series also feature an easy-to-follow English language menu for field calibration changes, I/O channel configuration, alarm settings, network settings, and screen layout – all accessed through the five pushbutton front keypad.

“As an engineer, I know that there will always be some quirks discovered during an equipment installation,” noted James. “Measurement Technology NW’s support during this phase was awesome. They were super-dependable, always there to help with the fine-tuning, and when we agreed on modifications they would automatically upgrade all our previously installed units to the same level of performance. WSF was so impressed we decided to sole-source this system – a very unusual move for a state agency!”

Measurement Technology NW produces a wide range of precision line control products, including the LCI-90 and LCI-100 series, WinchDAC, and more. To learn how we can help your company reach its goals, contact us at 206-634-1308, or send an email inquiry to lcj@mtnw-usa.com.

Measurement Technology NW

4211 - 24th Avenue West
Seattle, WA 98199

www.mtnw-usa.com