

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

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*Your source for advanced winch line control and monitoring systems*

## Project Profile #4 – Everett Engineering

In the world of tugboats, horsepower is king. Speed and maneuverability are great enhancements, but if you don't have horsepower - lots of horsepower - your days as a tugboat operator are probably numbered. How all that horsepower gets applied to the work of moving ships and hauling barges is a complicated story, but measuring how much of a tug's horsepower becomes useable force is much easier. Pacific Northwest tugboat operators just call Everett Engineering.

Everett Engineering is a Level 4 certified facility for testing bollard pull, as well as winches, spoolers, and other line tension applications. Dan Martin, owner of Everett Engineering, explains: "We hook up a 400,000 pound load cell to the tug's wire, then measure and certify the total bollard pull generated during the test. Along with ABS certification we can also provide a readout showing how much they pulled and when during the test they pulled it."

However, Everett Engineering's portable test apparatus was at the end of its useful life and getting increasingly finicky. "Plugs and wires had to be connected and disconnected just right or they'd break, the battery charging system was beginning to cause voltage fluctuations, and the darned thing was just too awkward to set up over and over again. We'd go out to the test site and start piecing things together, and I'm sure clients would take one look at that old beast and begin worrying about how accurate a reading it was going to give them."



Once the decision was made to build a new portable testing unit, Dan had no trouble finding a company that would do it right - he called **Measurement Technology NW**. At the heart of Everett Engineering's new testing unit is our rugged LCI-90 display. It's bright electroluminescent screen, 9-18VDC or 18-36VDC power configuration, and multiple input/output capabilities made it the perfect candidate for

the job. Easy-to-use calibration menus are accessible through five sealed front panel pushbuttons (once an LCI unit has been installed the operator has no need to access the rear of the display), and the LCI-90's heavy-duty stainless steel face and epoxy-potted Lexan window hold up to even the toughest conditions. The LCI-90 is sized to be a drop-in replacement for the now-defunct LM-2000 displays, and is available in several configurations including: *Standard* (line speed, payout, and tension), *Drum Counter* (line speed and payout, using sensors at the winch drum), *Dual Tension* (two tension readings), and *Quad* (two tension readings plus line speed and payout).

For tugboat bollard pull certifications and winch/spooler tests, Everett Engineering selected our Standard LCI-90 display.



"I'm completely happy with the job", said Dan, "The LCI-90 screen is bright and easy to read even in full sunlight, it's accurate, well-protected, and it looks and performs a whole lot more professionally than our old system ever did. Measurement Technology NW added an extra serial plug to interface with our Fluke meter, and made sure the final product was built to work the way we work. I could have gone elsewhere, but I'm glad I didn't. MTNW put together a top-quality piece of equipment for us, and I give them the ultimate compliment - I'd use them again!"

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 upgrade its winch instrumentation systems and stay at the top of its game, contact us at 206-634-1308, or send an email inquiry to [ICI@mtnw-usa.com](mailto:ICI@mtnw-usa.com).

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