



## Stellar Technology

237 Commerce Drive Amherst, NY 14228 • USA Tel: 716.250.1900 Fax: 716.250.1909 Web: stellartech.com Email: info@stellartech.com

## **In-Line Load Cell**

Monitors Deadline Anchor



Deadline anchors, also known as Hercules anchors or wire line anchors, are heavy duty industrial tie-down winches strong enough to hold down just about anything. They are used to secure everything from cargo cranes or large equipment on barges and ships, to the crown block on derricks on offshore oil platforms.

These anchors don't go into the water; instead they are fastened securely to the deck or superstructure and provide an anchor for the steel cable that is attached to whatever large mass you want to immobilize. The pull capacity on these powerful electric winches can reach 150,000 pounds. At such high tension it is critical that the forces be closely monitored to prevent costly – and dangerous – overloading of the cables, winches, or tie down anchors.

In order to continually monitor the load forces on these anchors, a mounting fixture was developed using a cantilever design and an integral STI load cell. Stellar engineers customized a Model RDE900 in-line tension load cell rated at 40,000lbs with an overload without damage rating of 80,000lbs. It has 0.2% accuracy (BFSL) and provides 4-20mA output via an outrigger amplifier mounted to the load cell. The entire load cell is manufactured from stainless steel, fully welded, and shock and vibration protected. A conduit electrical connection with shielded polyurethane cable insures reliable performance in this rugged application.