



**Strainstall**

**The World of Load Measurement and Stress Analysis**



Picture courtesy of Statoil

Strainstall's WMS2000's monitoring technology is amongst the leaders in adaptability and applications engineering. Our systems will function with all known designs of winches and mooring gear, and can be configured for specific and challenging offshore environments including drilling rigs and ships, accommodation platforms, production platforms, tugs, supply boats, loading buoys, tankers and barges.

Designed to provide real-time winch and anchor line data during rig positioning and mooring, the system utilises strain gauged load cells to measure load with proximity sensors or encoders monitoring other parameters. PC and PLC based monitoring packages are available, and system configurations range from basic stand-alone winch monitoring packages to comprehensive mooring load monitoring and control systems. The application software is menu driven and operator friendly, and may be configured to interface with other onboard monitoring and control systems. All products used are designed, engineered and manufactured for continuous operation to provide the operator with critical information



Local Winch Display Screen



### System Features

- Load cell measurement capacities to 1,500 tonnes and higher
- Stainless steel, dual channel, marine rated load cells
- Marine rated shipboard signal cables with wet mateable connectors
- Redundancy built in throughout the system as required
- Zone 1 & Zone 2 certifications
- Certified by ABS and DNV as required
- 25 year design life

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System design includes:

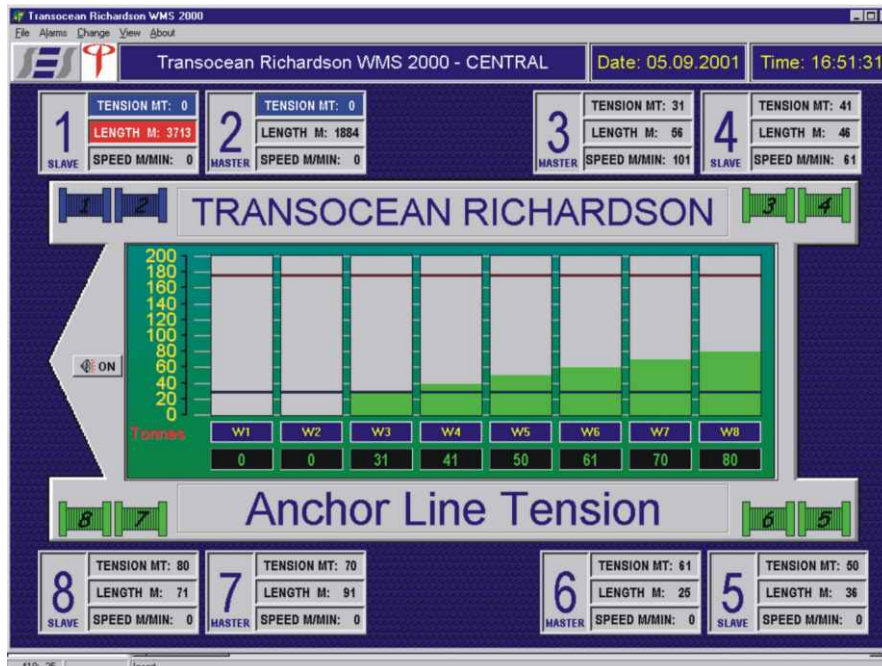
- Measurement and local display of tension, speed and length
- Audible and visible alarms for High Tension, High Speed and Bitter End
- Central display of tension length and speed, alarms and alarm settings
- Storage of historical data for trend analysis, display and hard copy to printer
- Communication with other systems (EMP, APM, DP etc)
- Event log with capacity for 10,000 records/events
- Installation for classified areas are available
- Real-time monitoring of winches
- Historical data presentation/trends
- Diagnostic functions
- Maintenance functions
- Enhanced calibration functions



Applications:

- Single winch, tension only or in combination with line out and speed
- Mobile rigs - drilling, production, combined (both local and central display)
- FPSO's - monitoring of turret mooring, mooring of shuttle tankers
- Tugs and anchor handling units. Load measurement in towing hooks, 'shark jaws' and winches located on deck
- Winch monitoring of VLCC's, gas carriers and other special vessels
- Customised systems to match the clients specific requirements

Main System Display Screen



Past Clients include:

Maersk Jutlander  
Stena Dee  
Drillstar

Deapsea Bergen  
Transocean Searcher  
Transocean Winner

Strainstall's team of experienced engineers operate from offices in Cowes, Bath and Aberdeen (UK), Norway, Belgium, USA and Dubai.

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Application Note: OG100