

FSHR TENSION MONITORING IN DEEPWATER WEST AFRICA

Monitoring tension on strain gauge sensors linked to data loggers with ROV readable subsea displays.

THE PROBLEM

A large Engineering Procurement Installation and Construction (EPIC) contractor required a system to monitor tension during the installation of multiple Free Standing Hybrid Risers (FSHR) on a deepwater development in West Africa.

Pulse provided a tension monitoring system based on strain gauge sensors linked to data loggers with ROV readable subsea displays.

THE SOLUTION

- Assembly of four strain gauges per FSHR
- Data loggers with ROV readable subsea displays
- Pulse proprietary water sealing packaging
- System installation and offshore commissioning.

THE RESULT

- Real-time tension feedback enabling up-thrust given by each buoyancy can compartment to be monitored during installation
- Robust and field-proven components provide consistently accurate data
- Pulse proprietary packaging prevents water ingress up to 300 bar and provides impact protection
- Expedited delivery of system using off the shelf components to meet client's demanding schedule.

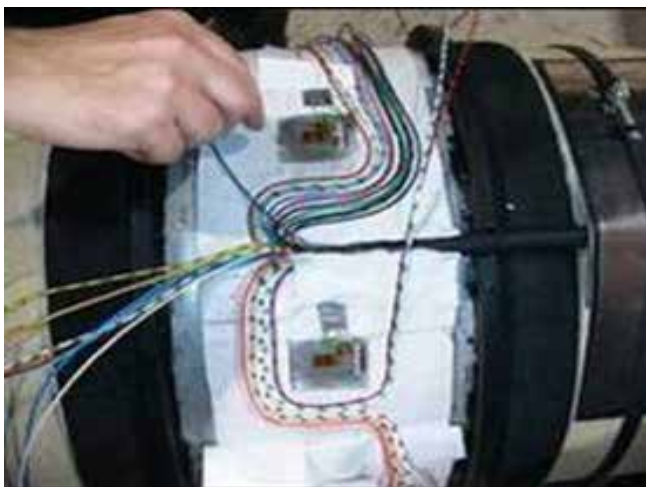


Photo 1: Strain gauges installed on Lower Riser Assembly (LRA)



Photo 2: Strain gauge assembly ready for deployment protected by Pulse proprietary water sealing package

Photo 3 (below): Subsea ROV readable displays indicating measured tension



A system to monitor tension during the installation of multiple Free Standing Hybrid Risers (FSHR) on a deepwater development in West Africa.