

Load testing



Load testing

Offshore pedestal mounted cranes

Straininstall provides an instrumentation and monitoring service for offshore pedestal mounted cranes, which satisfies the Safe Working Load testing requirements of API Spec C, 7th Edition.

The API 2C Spec, 7th Edition is an international standard which covers all offshore crane applications. Its purpose is to provide definitive technical guidance and unambiguous design rules to ensure cranes are designed to operate safely in the challenging offshore environment.

It recommends that new cranes shall be tested to between 1.1 and 1.3 times the Safe Working Load for fixed structures and up to 2 times the Safe Working Load for floating platforms, in order to verify the design.

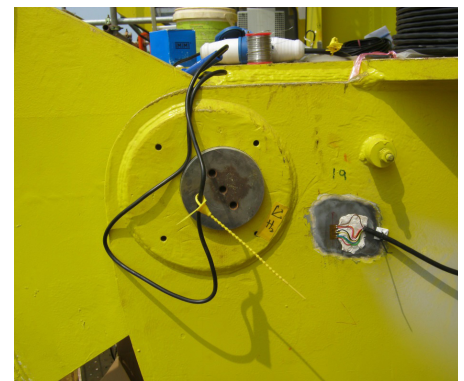
Straininstall's service comprises:

- Provision and installation of strain gauges (rosettes and linear) and temperature sensors
- Hire of data acquisition system to accommodate all sensor channels and to provide real-time data display and storage of data for subsequent reporting
- Monitoring during load test, with real-time intervention in the event of structural problems
- Data analysis and reporting

Read on to learn about Straininstall's load testing work in Malaysia...

Features/benefits:

- Full load testing instrumentation and monitoring service
- Data acquisition system - provides real-time data and storage for later analysis
- Project success in Malaysia and Singapore
- Monitoring expertise from a world-leading load measurement and monitoring company in Straininstall



Straininstall's team of experienced engineers operate from offices in the Europe, UAE, Malaysia and Singapore

Straininstall (Europe)
T: +44 (0)1761 414939
F: +44 (0)1761 416655
E: enquiries@straininstall.com

Straininstall (Malaysia)
T: +603 8060 4450
F: +603 8068 3063
E: sales@straininstallmalaysia.com.my

Straininstall (Middle East)
T: +971 4880 4380
F: +971 4880 4381
E: info@straininstall.ae

Straininstall (Qatar)
T: 00974 4427 4928
F: 00974 4427 4858
E: info@straininstall.ae

Straininstall (Singapore)
T: +65 6561 4628
F: +65 6561 7928
E: sales@straininstall.com.sg

Load testing of offshore pedestal mounted cranes

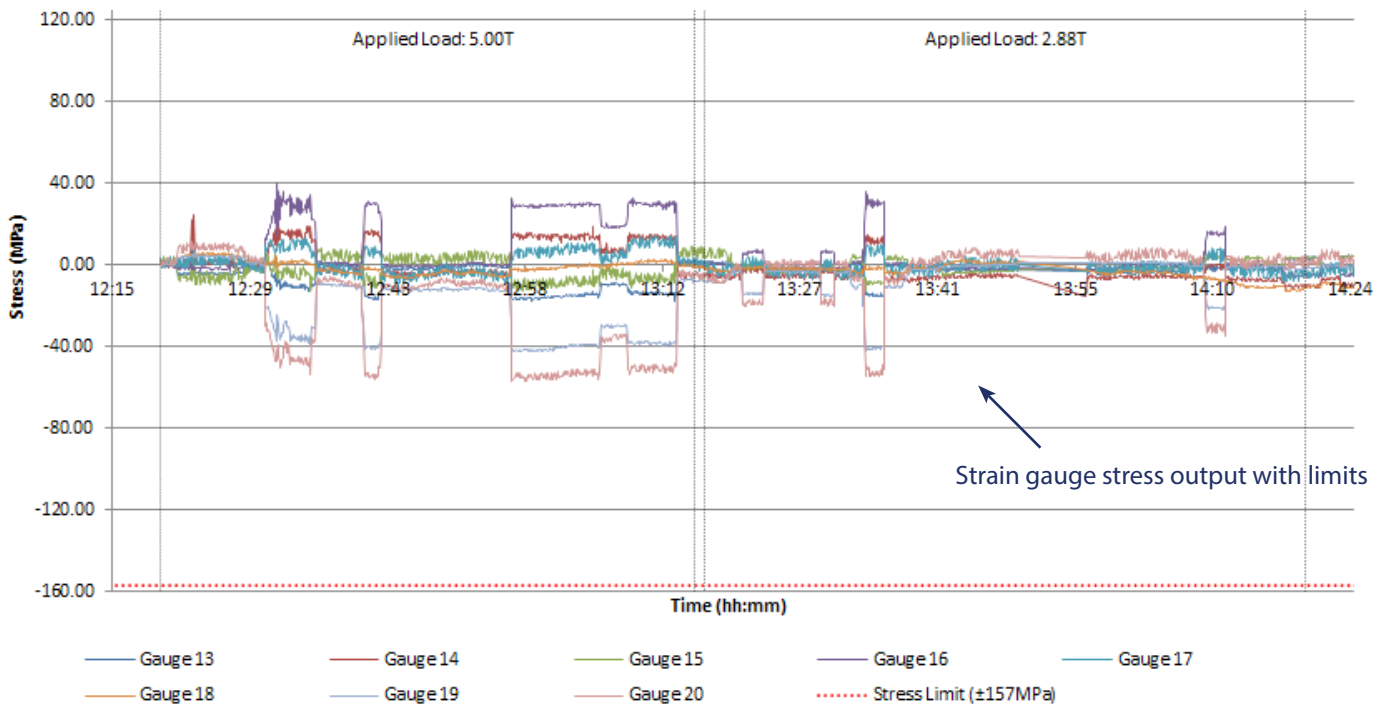


A recent project in Malaysia involved 36 no rosette strain gauges (3 channel) and 21 no linear strain gauges.

These were distributed around the structure, with 28 locations on the boom and 29 locations on the main body and provided a representative sample of measurements. Straininstall began installation of the strain gauges during final stages of the crane fabrication, in order to minimise any downtime and delays to the overall fabrication programme for the platform.

The 129 strain channels were connected to a datalogger with sufficient channel expansion. Thermocouple temperature sensors were also installed at various positions along the boom and main body of the crane to compensate for strain induced due to temperature variations.

After completion of the sensor and datalogger installation, a programme of load testing was undertaken. Various combinations of load, boom radius and boom angle were tested. Straininstall has carried out this test successfully in Malaysia and Singapore.



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