



Inspection Report

Office: **Lloyd's Register EMEA - Energy, Coventry**

Date: **26 September 2012**

This certificate is issued to **Gantry Railing Limited** to certify that the undersigned Surveyor to Lloyd's Register EMEA did at their request attend at their **Sudmeadow works, Gloucester** on **26 September 2012** for the purpose of witnessing a lateral load test of the **undernoted Gantrail Clip** in accordance with the requirements of **Gantry Railing Limited Order No. 11110**

Gantry Railing Limited Type 9220/20 Clip.
Bolt Material to BS EN ISO 898-1 Grade 8.8
Nut Material to BS EN 20898-2 1994 (ISO 898-2:1992) Grade 10 (plus washer)

Design Load 235 KN

Test Procedure

The above Clip was subjected to lateral load testing in accordance with Gantry Railing Limited Test Procedure No. TESTBS5950. The procedure is based on BS 5950 Part 1: 2000 – Section 2.1.2.5 and Section 7.

The Clip was welded to a plate with a 6mm (throat) fillet weld on the back and along both sides and a 4mm (throat) fillet weld in the "V" notch. The plate was bolted down onto a test rig simulating normal fixing conditions with a measured torque of 250 Nm. The cap was set in the central position.

Pre Load Test (Design Load)

The Clip was subjected to a pre-load of 235 KN for one minute duration for preliminary bedding down.

Proof Test (1.3 x Design Load)

A test load of 306 KN was applied in gradual stages. The load was held for 30 seconds.

Strength Test (1.6 x Design Load)

The proof load was increased in gradual stages to 378 KN. The load was held for 30 seconds.

Proof / Strength Test Result

The pre-load test, proof test and strength test were all considered acceptable. There was no indication of mechanical damage or distortion on the Clip or bolt.

Failure Load

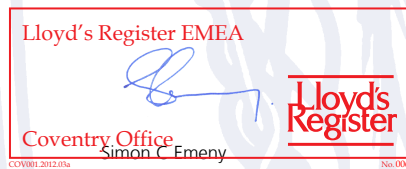
The strength load was increased gradually until no further increment could be maintained. The failure load was 454kN. Following removal of the load and dis-assembly, a visual examination of the Clip was carried out. No weld damage was noted. The bearing surfaces of the clip showed distortion consistent with the material yielding.

Gantry Railing Limited Test Certificate GTR-0062 was endorsed.

Calibration of test equipment was verified.

Gauge NFPG274

Torque Wrench 2004/280441



Surveyor to Lloyd's Register EMEA

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