



Test Certificate

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

Date: **12 September 2014**

This Certificate is issued to **Gantry Railing Limited** to certify that the undersigned Surveyor did, at their request, attend their **Sudmeadow Works, Gloucester** on **02 September 2014** for the purpose of witnessing the testing of the undernoted Gantry Railing Limited Clip in accordance with the requirements of Gantry Railing Limited Order No. **13436**.

Gantry Railing Limited Type 2219 Clip.
M20 Bolt Material to BS EN ISO 898-1 Grade 8.8
M20 Nut Material to BS EN ISO 898-2 Grade 8

Design Load 235 KN

Test Procedure

The above Clip was subjected to lateral 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 sides and back of base, and 4mm (throat) in 'V' notch and front edges of base.

The Stet was bolted down onto a test rig simulating normal fixing conditions with a measured torque of 350 Nm.

Pre Load Test (Design Load)

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

Acceptance Test Load (1.3 x Design Load)

A test load of 306KN was applied in gradual stages.

Strength Test Load (1.6 x Design Load)

The proof load was increased in gradual stages to 376KN.

Proof / Strength Test Result

The pre-load test, proof test and strength test were all considered acceptable.

Failure Load

The load could not be increased above 445KN and upon dis-assembly of the components, it was observed that the cause of failure was in the weld across the front of the clip in the 'V' notch. There was very little distortion to the clip and bolt.

Calibration status of test equipment verified and traceability to UKAS confirmed.



Stephen Meredith
Surveyor to Lloyd's Register EMEA

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