



Test Certificate

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

Date: **20 March 2015**

This Certificate is issued to **Gantry Railing Limited** to certify that the undersigned Surveyor did, at their request, attend their **Sudmeadow Works, Gloucester** on 09 January 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 1216 Clip.
M16 Bolt Material to BS EN ISO 898-1 Grade 8.8
M16 Nut Material to BS EN ISO 898-2 Grade 8

Design Load 165 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 5mm (throat) fillet weld sides and back of base, and 4mm (throat) in 'V' notch and front edges of base.

The Clip was bolted down onto a test rig simulating normal fixing conditions with a measured torque of 200 Nm.

Pre Load Test (Design Load)

The Clip was subjected to a pre-load of 165KN for one minute duration for a preliminary bedding down load.

Acceptance Test Load (1.3 x Design Load)

A test load of 215KN was applied in gradual stages.

Strength Test Load (1.6 x Design Load)

The proof load was increased in gradual stages to 264KN.

Proof / Strength Test Result

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

Failure Load

The clip was not taken to failure load. Upon dis-assembly of the components, it was observed that there was very little distortion to the clip cap, clip base, bolts, nuts and washers. The bearing area of the boss and 'V' notch showed even stress distribution.

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



Stephen Meredith
Surveyor to Lloyd's Register EMEA

A subsidiary of Lloyd's Register Group Limited

Lloyd's Register Group Limited, its affiliates and subsidiaries and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.