



Test Certificate

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

Date: **05 May 2017**

This Certificate is issued to **Gantry Railing Limited** to certify that the undersigned Surveyor to Lloyd's Register EMEA did, at their request, attend their **Sudmeadow Works, Gloucester** on **25 April 2017** 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. 15870.

Gantry Railing Limited Type 8219 Clip.
M20 Bolt Material BS EN ISO 898-1 Grade 8.8
M20 Nut Material BS EN ISO 898-2 Grade 8
Design Load 235kN

Test Procedure

The above Clip was subjected to lateral testing in accordance with Gantry Railing Limited Test Procedure No. Cliptst Issue 4 & recorded as GTR-0125. The procedure is based on BS 5950 Part 1: 2000 – Section 2.1.2.5 and Section 7.

The Clip base was welded to a plate with a 5mm (throat) fillet weld along the back/sides of the base & a 3mm (throat) fillet weld in the 'V' notch / front edges.

The Clip was bolted down with the cap at the centre position onto a test rig simulating normal fixing conditions with a measured torque of 350Nm.

Pre Load Test (Design Load)

The Clip was subjected to a pre-load of 235kN for one minute duration as 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 470kN. The desired 1.6 x Design Load was achieved.

Proof / Strength Test Result

The pre-load test, proof load test & strength test were acceptable.

Failure Load

The test was stopped at 470kN. Upon disassembly of the components, the clip base showed signs of deformation on the contact face but had not yielded significantly. The cap showed pressure marks on the triangular base with deformation to the thrust face. The bolts were in good condition.

Gantry Railing Ltd Equipment Record Card Item No. 150
Pressure gauge serial No. S8814 (HFGP274 Hydraulic) 0-10000 psi,
calibrated 16/01/2017, Certificate No. PG274.
Certificate issued by Hi-Force Hydraulic Tools (UKAS 0822)
Gantry Railing Ltd Equipment Record Card Item No. 138
Torque Wrench Serial No. 2007/223056-1000 Nm, calibrated
08/07/2016, due 08/07/2017. Certificate No. U164505,
Certificate Issued by Quasartronics Ltd (UKAS 0511)



David Hodges
Surveyor to Lloyd's Register EMEA

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