



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 2524 Clip.
M24 Bolt Material BS EN ISO 898-1 Grade 10.9
M24 Nut Material BS EN ISO 898-2 Grade 10
Design Load 140kN

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-0122. The procedure is based on BS 5950 Part 1: 2000 – Section 2.1.2.5 and Section 7.

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 750Nm.

Pre Load Test (Design Load)

The Clip was subjected to a pre-load of 140kN for one minute duration as a preliminary bedding down load.

Acceptance Test Load (1.3 x Design Load)

A test load of 182kN was applied in gradual stages.

Strength Test Load (1.6 x Design Load)

The proof load was increased in gradual stages to 224kN. The desired 1.6 x Design Load was achieved.

Proof / Strength Test Result

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

Failure Load

At 275kN the test was stopped as the assembly was unable to sustain pressure. Upon disassembly of the components, the clip body showed signs of plastic deformation on the clip thrust face. The special washer showed pressure marks from the bolt thread & fixing washer.

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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