

16 December 2009

Ref: ST0511

Design Quintessence
Attention: Ian Wood
Unit 25
7-9 Percy Street
AUBURN NSW 2144

RE: LOADING CAPACITY FOR GLOBAL TRUSS STAGE12 PLATFORM

We have previously assessed the above platform and certified the platform to have a capacity of 5.0kPa UDL. Since this certificate was issued, Design Quintessence has had the platform tested by the University of Sydney and the results recorded in report No T673.

Under Section 8 Testing in AS1664.1:1997 a prototype can be tested and certified provided the prototype conforms to

- a) Acceptance for strength
- b) Acceptance for Serviceability.

In the unit tested by the University of Sydney, a set of point loads were applied to the timber decking to simulate an uniform distributed load over the decking. The load was applied at a stroke rate of 1mm per minute.

See Design Quintessence Drawing No 407-145 for testing, typical graphics and stage geometry.

Strength

Under AS1664.1:1997, the structure must be able to hold the ultimate load for 5 minutes without failure.

Based on the results presented, the maximum test load that the structure maintained for 5 minutes without failure was 32kN. After applying the factors of safety and taking into account the area of the platform, this load is equivalent to a UDL of 7.5kPa.

Serviceability

AS1664.1:1997 requires that the structure conform to serviceability requirements for this type of structure under the maximum load.

After applying the factors of safety (from AS1664.1) and applying the long term load factors from AS1170, the expected deflections based on the test results would provide a span / deflection ratio greater than 250.

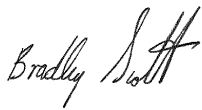
This certification relates to the platform as tested by the University of Sydney. The platform was tested with 1.05m high legs.

Summary

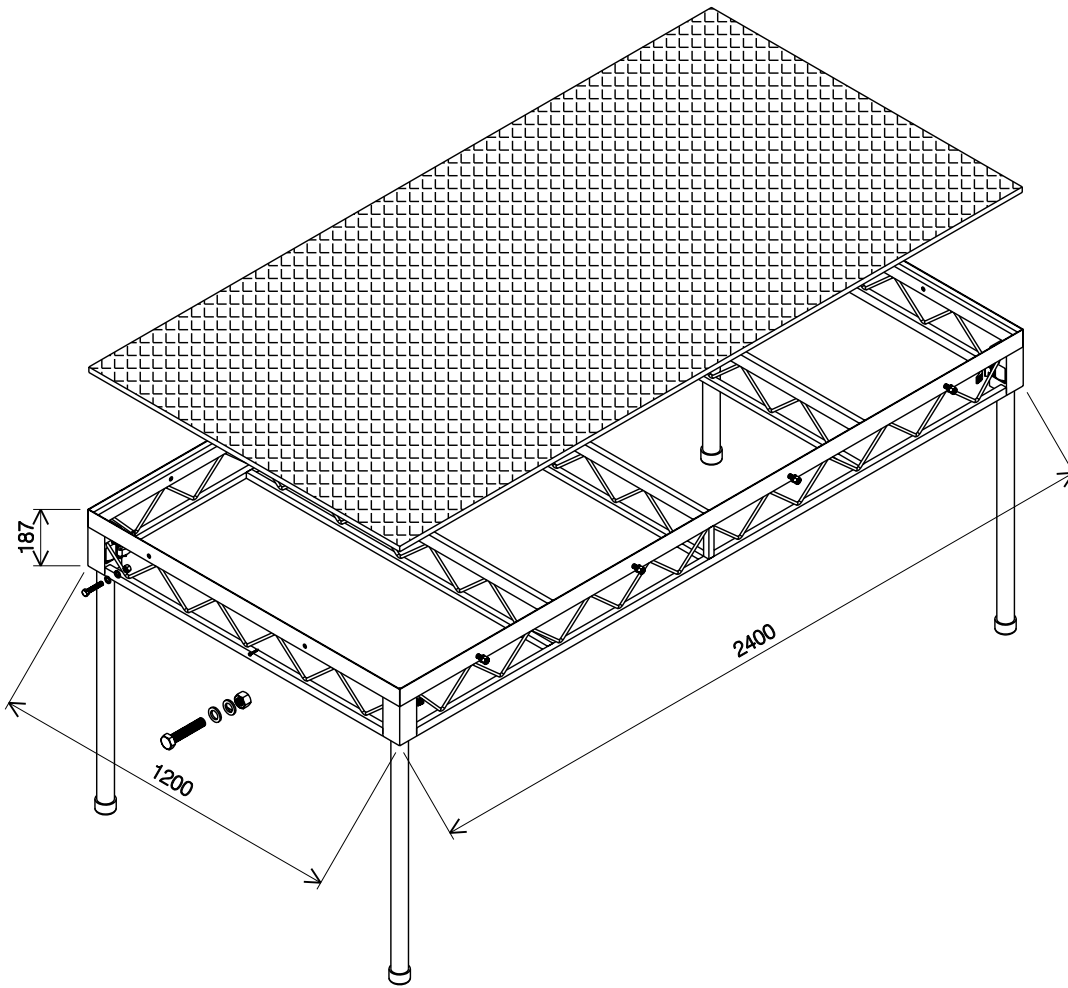
The platform as tested by the University of Sydney, with a leg height of 1.05m and a platform dimension of 1.2m x 2.4m, with the decking as tested can withstand an ultimate load of 7.5kPa.

The platform should not have any horizontal loads applied to it unless it is adequately braced for sway and should be placed on an even surface to ensure all legs have adequate bearing.

Yours faithfully

A handwritten signature in black ink that reads "Bradley Scott". The signature is written in a cursive style with a large initial 'B' and 'S'.

Bradley Scott
BE(Hons) MIE(Aust) CPEng NPER



ISOMETRIC DRAWING OF PERFORMER STAGE AS TESTED BY THE SCHOOL OF CIVIL ENGINEERING, UNIVERSITY OF SYDNEY - TEST No. T673



FIGURE 6. TEST ARRANGEMENT FOR GLOBAL TRUSS PERFORMER STAGE

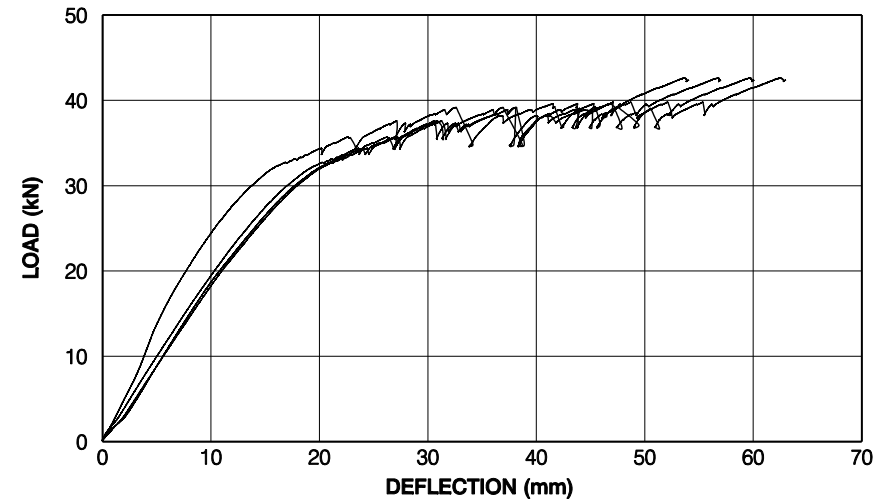


FIGURE 17. TOTAL LOAD-DEFLECTION CURVES FOR GLOBAL TRUSS PERFORMER STAGE



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CLIENT:

DRAWING:

PERFORMER STAGE TEST



SCALE N/A

DRAWN:
12/12/07

DRAWING No.:
407/145