CERTIFICATE OF TESTING

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CLIENT:	Maxmade Limited Reliance Works Rainhill Prescot Merseyside L13 9JF	CLIENT'S REF:	3890
		JOB NUMBER:	MAX 0102
		TEST PERIOD:	3/8/96 to 4/8/96
ISSUED TO:	Mr. A.P.McCarthy	PAGE	1 OF 2

Title: Load Carrying Capacity of Coldstore Ceiling

Test standard(s): Customer Specified

Test piece description: Standard Top-Hat Section Type A (2)

Date test piece received: 31/7/96

METHOD

A 3.6 metre length of Standard top-hat section was supported at 3 points (1.5 metre centres) using M12 BZP studding and fixtures. These being assembled in accordance with Maxmade drawing numbers TH9 and TH10.

Each support studding was attached to a load cell and grounded to the test rig fixture.

Load was applied to each flange of the beam via a wooden loading platen using sand bottles.

The load was arranged over a length of the beam to achieve the maximum load specified at each support point. To compensate for the length of beam tested, additional load was therefore required to achieve the maximum specified. See Figure 1 Photograph showing the test set up.

Dial test indicators were positioned at 2 support points and at a central position between the two supports and deflections of the inverted top-hat section recorded.

Load was then maintained on the test sample for a period of 16 hours. All load was then removed and any residual deflections recorded.

RESULTS

A 3.6 metre length of standard top-hat section type A (2) when assembled in accordance with Maxmade drawing nos. TH9 and TH10 withstood a uniformly distributed load of 427.5kg/m. This being 1.5 times the design load of 285kg/m.

The applied load to each support point was 641kg which is based on a maximum span between supports of 1.5 metres.
i.e. 1.5 x 285 x 1.5 = 641kg (6.29kN)

Certified that the specimens detailed hereon have been subjected to the tests as required by the contract/order unless otherwise stated above.

TEST ENGINEER: _____

APPROVED BY: _____

ISSUE DATE: 13/9/96

At maximum load a worst case deflection of 4.88mm was recorded at a position central to the two support points.

Maximum load was then retained for 16 hours and upon removal of load a resulting permanent deformation of 4.6mm was recorded.

At Maximum load a deflection of 5.38mm was recorded at a support point with a residual 4.32mm when the load was removed. This was due to localized deformation of the top hat section and the necked washer at the support point.

During the test , the plastic covers fitted over the M12 nut and necked washer remained in place.

TEST EQUIPMENT USED

3off 50kN Mayes Load Cells	LDC 001, 003, 125
3off Shape Readout Units	LOI 007, 009, 010
3off Dial Test Indicators	DIG 036, 067, 148

Figure 1 Photograph showing a general view of the Standard Top-Hat Section Type A (2) under load. Photo No. TC 105417.