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STATIC LOAD TESTING REPORT

Report No: NM16-2027.1 **Date:** 23 February 2016

Client: SCIENTIA COFFINS & CASKETS
A2 / 22 Powers Road
SEVEN HILLS NSW 2147

Contact: Mr. Isaac Leung **Order No:** COD

Test Date: 23 February 2016

Scope: The static load testing of a constructed coffin and associated hardware.
The client requested testing to establish a Working Load Limit of 150 kg's with a Safety Factor of 2.

Test Sample Identity: MDF constructed coffin body, with metal handles.

Paul Titterton
NSW State Manager

Anthony Millard
Mechanical Testing Officer
Approved Signatory

NATA Accredited Laboratory No: 15535
Accredited for compliance to ISO/IEC 17025

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Test Description: The nominated coffin and associated hardware was subjected to a static load test. A calibrated, class A, 'S' type load cell (S/N: 80143) was used to measure the static load which was applied using ballast. Various static loads were applied and held for varying times as shown in test results.

Test Methodology: The nominated coffin and associated hardware was loaded with varying amounts of ballast and raised by 4 of the 6 attached handles, these being the two forward and two rearward. As close as practicable ballast was distributed to reproduced loading in imparted by a human body, i.e. higher concentration towards the torso.

Where test were performed with the lid in situ the lid fixings were not used.

Rigging incorporated load distribution beams to ensure equal loading of each of the four handles, Refer figure 1.

Engagement of the rigging with the handles was by means of choked synthetic fibre round-slings to eliminate point loading.

Varying loads were applied and held for durations shown in test results.

After each test loading the structure of the coffin, handles and attachment of handles were assessed for any permanent deflection and/or damage.

Note: For loads 323kg and above the coffin could not hold sufficient ballast and permit fitting of the lid. In these cases some ballast was placed atop the lid to provide the required load.

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Test Results:

1 Static Load Testing

Applied Test Load (Kg's)	Test Duration at Full Load	Tested With Lid	Results and Observations
120	30 Seconds	No	Supported test load with no evidence of permanent damage or deformation to handles and/or coffin.
195	30 Seconds	Yes	Supported test load with no evidence of permanent damage or deformation to handles and/or coffin.
262	30 Seconds	Yes	Supported test load with no evidence of permanent damage or deformation to handles and/or coffin.
323	5 Minutes	Yes	Supported test load with no evidence of permanent damage or deformation to handles and/or coffin. Refer figure 2.
368	30 Seconds	Yes	Supported test load with no evidence of permanent damage or deformation to handles and/or coffin.

Test Conclusion:

The coffin withheld a load of 323kgf for a period of 5 minutes without evidence of failure, permanent deformation, damage or loss of functionality. This establishes a Working Load Limit of 150kg's with a Safety Factor of 2.

The coffin subsequently supported a load of 368kg's without damage.

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Figure 1: General test configuration.

Figure 2: Coffin supporting 323kg's.