Door Hinge Load Testing Method

Carried out by Opus International Consultants Limited

Client Instructions:
Load test door and hinges in increments of load.

Test Method:

The system under test consisted of a solid core interior door attached to a finger jointed radiate pine door jam using three (3) Moddica hinges. This was set up onto a timber frame gib board lined wall within the laboratory.

The dimensions of the door were:
- Height: 2100mm
- Width: 810mm
- Thickness: 41mm
- Mass of door: 45.65kg

The hinges were fixed with the centre of the hinge 180, 980 & 1780mm from the top of the door. The system was loaded in increments using various weights attached to the top outer corner of the door.

Findings:

At a load of approximately 340kg a cracking sound was heard but there was no visible damage to the system. The door at all times was able to be opened and closed with relative ease.

A total load, including the mass of the door, of **365kg** was applied with no visible damage to the system.

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**Load applied**

**Door jam fixed to wall**

**Moddica hinge**

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16 June 2008
Job Number: 1-L0080.00
Lab Ref Number: 034/08