



17 September 2008

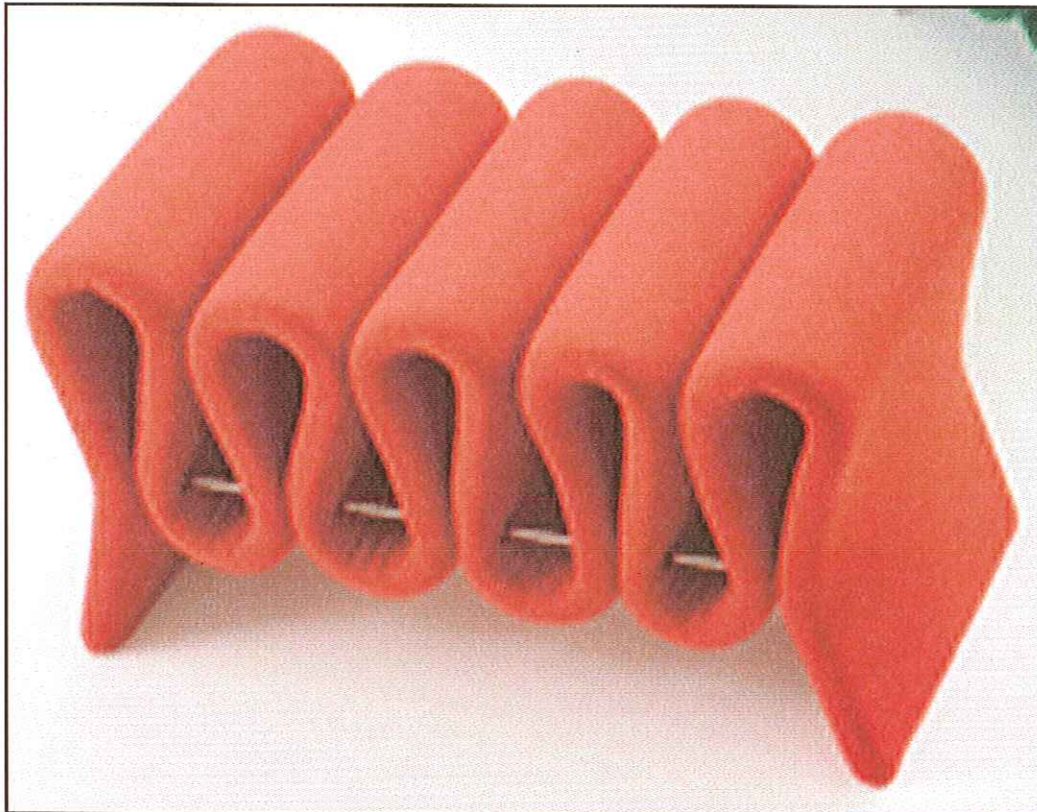
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MATERIAL EVALUATION REPORT

Client: SCHIAVELLO (VIC) PTY LTD
Subject: EVALUATION OF HEDGE CHAIR
Client Reference: Mr. B MISSEN
Order No.: TBC
Correlation/Report No.: V080905/3

1.0 INTRODUCTION.

It was requested that a "hedge" occasional chair be tested based on the requirements of AS 4688.2 - "Furniture Fixed Height Chairs part 2: Determination of Strength and Durability" - 2000. The chair as supplied was tested with no fabric covering and was to be tested using a reduced test programme for evaluation purposes only.



Chris Vines
Senior Metallurgist
Victoria, AUSTRALIA

2.0 SEAT STATIC LOAD TESTING.

The as submitted chair was subjected to the seat static load tests in accordance with section 7.1 of AS4688.2 using the class six requirements but with only 2 tests performed. The following test parameters were used;

Load mechanism:	Hydraulic
Load measurement:	Gedge 0-1200 kg load cell 94580 (Cal 356-Z-4)
Chair position:	As received
Load pad:	Seat #1
Load applied:	204 kg
Load duration:	10 seconds per application
Load cycles:	2 cycles per location.
Location of tests:	Seat Loading Point (SLP - Vs) and 100mm from front edge (V's)
Date of test:	09/09/2008

No evidence of any fractured or distorted components indicating loss of serviceability was observed and no defects considered likely to result in injury to the user were observed

The four corners of the chair were then raised 100mm to prevent the middle leg set contacting the floor. The test was then repeated at the various test levels (2, 3 and 4) in order to determine the maximum load achievable before permanent bending was observed. At a load of 160 kg (level 4) some minor bending of the frame was observed. Testing was suspended at this point.

3.0 ARM SIDEWAYS LOAD TEST

The as submitted chair was subjected to the arm sideways load tests in accordance with section 7.3 of AS4688.2 using the class six requirements. The following test parameters were used;

Load mechanism:	Hydraulic
Load measurement:	Gedge 0-1200 kg load cell (Cal 356-Z-4)
Load Pads:	Arm #1 & #2
Load applied:	61 kg
Load duration:	10 seconds per application
Load cycles:	2 cycles per location
Change in arm spread:	3mm
Date of test:	09/09/2008

After loading the chairs arms were intact and serviceable. No evidence of any fractured or distorted components indicating loss of serviceability was observed and no defects considered likely to result in injury to the user were observed



4.0 ARM DOWNWARDS LOAD TEST

The as submitted chair was subjected to the arm downwards load tests in accordance with section 7.4 of AS4688 using the class six requirements. The following test parameters were used;

Load mechanism:	Hydraulic
Load measurement:	Gedge 0-1200 kg load cell (Cal 356-Z-4)
Load balance:	Laurel 0-5000 kg load cell (Cal 356-4H-2)
Load Pads:	Seat #1 & #3
Load applied:	122 kg (arm) 120 kg (balance)
Load duration:	10 seconds per application
Load cycles:	2 cycles per location
Change in arm height:	1mm (on release)
Date of test:	10/09/2008

No evidence of any fractured or distorted components indicating loss of serviceability was observed and no defects considered likely to result in injury to the user were observed

5.0 LEG FORWARD STATIC LOAD TEST

The as submitted chair was subjected to the leg forward static loads tests in accordance with sections 7.7 of AS4688.2 - 2000 using the class 6 requirements. The following test parameters were used;

Load mechanism:	Hydraulic
Load measurement:	Laurel 0-5000 kg load cell (Cal 356-4H-2)
Load applied - Back:	76 kg
- Seat:	180 kg
Load Pad:	Small #1
Load duration:	10 seconds per application
Load cycles:	2 cycles per location.
Location of tests:	Rear base frame
Date of test:	10/09/2008

After loading the chair showed no evidence of any fractured or distorted components indicating loss of serviceability and no defects considered likely to result in injury to the user were observed



6.0 LEG SIDEWAYS STATIC LOAD TEST

The as submitted chair was subjected to the leg sideways static loads tests in accordance with sections 7.8 of AS4688.2 - 2000 using the class 6 requirements. The following test parameters were used;

Load mechanism:	Hydraulic
Load measurement:	Laurel 0-5000 kg load cell (Cal 356-4H-2)
Load applied - Side:	76 kg
- Seat:	180 kg
Load Pad:	Small #1
Load duration:	10 seconds per application
Load cycles:	2 cycles per location.
Location of tests:	Side of seat at frame height
Date of test:	10/09/2008

After loading the chair showed no evidence of any fractured or distorted components indicating loss of serviceability and no defects considered likely to result in injury to the user were observed.

7.0 SEAT IMPACT TEST

The as submitted chair was subjected to the seat impact tests in accordance with section 7.10 of AS4688 - 2002 using the class 6 requirements. The following test parameters were used;

Load system:	Seat Impact unit #1
Drop height:	300mm
Drop location:	Seat Loading Position
Drop cycles:	2 cycles per location
Date of test:	10/09/2008

After testing the chair showed no evidence of any fractured or distorted components indicating loss of serviceability and no defects considered likely to result in injury to the user were observed

8.0 ARM IMPACT TESTS

The as submitted chair was subjected to the arm impact tests in accordance with section 7.12 of AS4688.2 - 2000 using the class 6 requirements. The following test parameters were used;

Load system:	Impact hammer #1
Drop height:	620mm (relative) and 68° to the horizontal
Impact location:	Top centre of chair back
Impact cycles:	2 impacts total.
Date of test:	10/09/2008

After testing the chair showed no evidence of any fractured or distorted components indicating loss of serviceability and no defects considered likely to result in injury to the user were observed

9.0 DROP TESTS

The as submitted chair was subjected to the drop tests in accordance with section 7.13 of AS4668.2-2000 using the requirements for a non-stackable chair with legs longer than 200mm for class 6. The following test parameters were used;

Impact location:	Single front leg
Drop angle:	10° from horizontal
Drop cycles:	2 drops total.
Drop height:	450mm
Drop mat:	2mm rubber 60 Shore A on concrete
Date of test:	10/09/2008

After testing the chair showed no evidence of any fractured or distorted components indicating loss of serviceability and no defects considered likely to result in injury to the user were observed