

Test Report No. 7191032606-MEC12/02-OCS
dated 07 Jun 2012
(QM-0412-054Rev1)

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PSB Singapore

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Subject:

Testing of Office Chair submitted by Merryfair Chair System Sdn Bhd on 26 Apr 2012.

Tested For:

Merryfair Chair System Sdn Bhd
No 2, Jalan Koporat 1/KU9, Taman Perindustrian Meru,
42200 Klang, Selangor D.E.
Malaysia

Date of Test:

30 Apr 2012 to 04 Jun 2012

Description of Sample:

Two complete sets of Chair as shown in the photograph 1 were received. The following descriptions were given by the client:

Model : Wing
Product Type : Office Chair
Country of Origin : Malaysia

Method of Test:

As requested by the client, the tests were conducted in accordance with the following standard:

ANSI/BIFMA X5.1 – 2011 "General-Purpose Office Chairs – Tests"

The tests were conducted at TÜV SÜD PSB furniture test laboratory, a FIRA (UK) Accredited Testing Laboratory, located at No.1 Science Park Drive. Singapore 118221.



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TÜV[®]

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Results:

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Static – Type I	Functional load = 890 N Proof load = 1334 N Duration = 1 min	Passed	Functional load: No loss of serviceability
6	Back Strength Test – Static – Type III	Functional load = Proof load = Duration =	N/A	Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
7	Base Test – Static	Loading force = 11.1 KN Duration = 1 min Cycles = 2	Passed	No sudden & major change in the structural integrity of the base.
8	Drop Test – Dynamic	Highest seat position: Functional load = 102 kg Proof load = 136 kg Drop ht = 152 mm Lowest seat position: Functional load = 102 kg Proof load = 136 kg Drop ht = 152 mm	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
9	Swivel Test – Cyclic	Seat load = 113 kg Total cycles = 120000 60000 highest position 60000 lowest position Rate = 5 – 15 cycles/min	Passed	No loss of serviceability
10	Tilt Mechanism Test – Cyclic	Seat load = 102 kg Cycles = 300000 Rate = 10 – 30 cycles/min	Passed	No loss of serviceability to the tilt mechanism
11	Seating Durability test – Cyclic - Impact Test - Front Corner Load-Ease Test – Cyclic – Off Center	Seat load = 57 kg Drop ht = 30 mm Cycles = 100000 Rate = 10 - 30 cycles/min Seat load = 734 N Cycle = 40000 Rate = 10 - 30 cycles/min	Passed	No loss of serviceability



Results:

Clause	Test	Parameters	Results	Requirement
12	Stability Tests - a) Rear Stability i) Type I b) Front Stability	Loading = <u>130</u> kg Vertical Load = 600 N Horizontal force = 20 N	Passed	Chair shall not tip over.
13	Arm Strength Test – Vertical – Static	Functional load = 750 N Proof load = 1125 N Duration = 1 min	Passed	Functional load: No loss of serviceability. For a height adjustable arm, it must hold the position within 6mm. Proof Load: No sudden & major change in structural integrity. For a height adjustable arm, it must not has a sudden drop in height of greater than 25mm. Loss of serviceability is acceptable
14	Arm Strength Test – Horizontal – Static	Functional load = 445 N Proof load = 667 N Duration = 1 min	Passed	Functional load: No loss of serviceability. Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable

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Results:

Clause	Test	Parameters	Results	Requirement
15	Back Durability Test – Cyclic – Type I	Seat weight = 102 kg Loading force = 445 N Cycles = 120000 Rate = 10 - 30 cycles/min	Passed	No loss of serviceability
16	Back Durability Test – Cyclic – Type III	Seat weight = Loading force = Cycles = Rate =	N/A	
17	Caster / Chair Base Durability Test – Cyclic - Pedestal Base Chairs - Chairs with Legs	Seat weight = 113 kg Cycles: 2000 (Obstacles) 98000 (No obstacles) Rate = 10 ± 2 cycles/min	Passed	
	Caster Retention for Each Caster	Applied force = 22 N	Passed	No part of castor shall separate from base
18	Leg Strength Test – Front & Side Application - Front Load Test	Functional load = Proof load = Duration =	N/A	Functional load: No loss of serviceability
	- Side Load Test	Functional load = Proof load = Duration =		Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
19	Footrest Static Load Test – Vertical	Functional Load, Force, F1 = Footrest adjustment, Force F1 = Force, F2 = Duration = Proof Load, Force = Duration =	N/A	Functional Load: No loss of serviceability or sudden loss of footrest height. Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable




Results:

Clause	Test	Parameters	Results	Requirement
20	Footrest Durability Test – Vertical – Cyclic	Loading force = Cycles = Rate =	N/A	No loss of serviceability. Adjustable footrest that move more than 25mm in the first 500 cycles shall be considered to have lost their serviceability.
21	Arm Durability Test – Cyclic	Applied force = 400 N Cycles = 60000 Rate = 10 – 30 cycles/min	Passed	No loss of serviceability.
22	Out Stop Tests for Chairs with Manually Adjustable Seat Depth	Seat weight = Loading weight = Cycles =	N/A	
23	Tablet Arm Static Load Test	Applied load = Duration =	N/A	No sudden and major change in the structural integrity of the chair. After test, tablet arm must allow egress from the unit; other losses of serviceability are acceptable
24	Tablet Arm Load Ease Test – Cyclic	Force = Cycles = Rate =	N/A	No loss of serviceability

Remarks:

- 1) N/A: Not applicable due to features not available on chair.


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 Chin Fook Onn
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 Consumer & Safety Products
 Mechanical Centre



Photograph 1 : Wing



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July 2011

