

# Test Report No. 7191032606-MEC12/03-OCS

dated 11 Jul 2012  
(QM-0412-054Rev1)



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 09 Jul 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 : Robin  
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.



Laboratory:  
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TUV®

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**Results:**

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Static – Type I	Functional load = Proof load = Duration =	N/A	Functional load: No loss of serviceability  Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
6	Back Strength Test – Static – Type III	Functional load = 667 N Proof load = 1112 N Duration = 1 min	Passed	
7	Base Test – Static	Loading force = Duration = Cycles =	N/A	No sudden & major change in the structural integrity of the base.
8	Drop Test – Dynamic	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 = Total cycles = Rate =	N/A	No loss of serviceability
10	Tilt Mechanism Test – Cyclic	Seat load = Cycles = Rate =	N/A	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

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**Results:**

Clause	Test	Parameters	Results	Requirement
12	Stability Tests - a) Rear Stability i) Type III  b) Front Stability	Loading = 60 kg Force = 145 N  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 = Loading force = Cycles = Rate =	N/A	No loss of serviceability
16	Back Durability Test – Cyclic – Type III	Seat weight = 102 kg Loading force = 334 N Cycles = 120000 Rate = 10-30 cycles/min	Passed	
17	Caster / Chair Base Durability Test – Cyclic  - Pedestal Base Chairs  - Chairs with Legs	Seat weight = Cycles: 2000 (Obstacles) 98000 (No obstacles) Rate =	N/A	
	Caster Retention for Each Caster	Applied force =	N/A	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

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**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.

 A handwritten signature in black ink, appearing to read 'Gavin Ong', positioned above a horizontal line.
 

Gavin Ong  
Associate Engineer

 A handwritten signature in black ink, appearing to read 'Chin Fook Onn', positioned above a horizontal line.
 

Chin Fook Onn  
Product Manager  
Consumer & Safety Products  
Mechanical Centre



**Photograph 1 : Robin**



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July 2011

