

# TEST REPORT



Your Ref: - QM-1205-056 Rev 1

Date: 02 Mar 2006

Our Ref: 54S060452/KLU

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DID: 6885 1414

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## **Subject:**

Testing of office chair submitted by Merryfair Chair System Sdn Bhd on 24 Jan 2006.

## **Tested For:**

Merryfair Chair System Sdn Bhd  
Lot 36, Rawang Industrial Estate  
48000 Rawang, Selangor, Malaysia  
Tel: 603-60915133  
Fax: 603-60916233  
Attn: Mr. Chong SB

## **Date of Test:**

26 Jan – 02 Mar 2006

## **Description of Sample:**

Two pieces of office chair as shown in the photograph were received. The following descriptions were given by the client :

Brand/Model/Serial No : Fulkrum (P069)  
Country of Origin : Malaysia  
Product Type : Swivel high back office chair

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**Method of Test:**

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

ANSI/BIFMA X5.1-2002 "General-Purpose Office Chairs – Tests"

**Results:**

Clause	Test	Parameters	Results	Requirement
5	Back Strength Test – Static – Type I	Functional load: 890N Proof load: 1334N Duration: 1 min	Passed	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: 667N Proof load: 1112N Duration: 1 min	Passed	
7	Base Test – Static	Loading force: 11.1KN 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: 102kg Proof load: 136kg Drop ht: 152mm (6in)  Lowest seat position: Functional load: 102kg Proof load: 136kg Drop ht: 152mm (6in)	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: 102kg Cycles: 60,000 highest position 60,000 lowest position Rate: 5-15 cycles/min	Passed	No loss of serviceability
10	Tilt Mechanism Test – Cyclic	Seat load: 102kg Cycles: 300,000 Rate: 10-30 cycles/min	Passed	No loss of serviceability to the tilt mechanism
11	Seating Durability test – Cyclic			No loss of serviceability
	- Impact Test	Seat load: 57kg Drop ht: 25mm (1in) Cycles: 100,000 Rate: 10-30 cycles/min	Passed	
	- Front Corner Load-Ease Test – Cyclic – Off Center	Seat load: 734N Cycle: 40,000 Rate: 10-30 cycles/min	Passed	

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**Results (Con't):**

Clause	Test	Parameters	Results	Requirement
12	Stability Tests			
	a) Rear Stability - Locked - Unlocked	Seat weight: 79kg	Passed	Force required for front support to lift off shall be more than: - Type I : 89N - Type II : 89N - Type III : 156N
	b) Front Stability	Vertical Load: 600N Horizontal force: 20N	Passed	Chair shall not tip over
13	Arm Strength Test – Vertical – Static	Functional load: 890N Proof load: 1334N Duration: 1min	Passed	Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
14	Arm Strength Test – Horizontal – Static	Functional load: 445N Proof load: 667N Duration: 1min	Passed	
15	Back Durability Test – Cyclic – Type I	Seat weight: 102kg Loading force: 445N Cycles: 120,000 Rate: 10-30 cycles/min	Passed	No loss of serviceability
16	Back Durability Test – Cyclic – Type III	Seat weight: 102kg Loading force: 334N Cycles: 120,000 Rate: 10-30 cycles/min	Passed	
17	Caster / Chair Base Durability Test – Cyclic			
	- Pedestal Base Chairs	Seat weight: 102kg Cycles: 2 000 (Obstacles) 98 000 (No obstacles) Rate: 10±2 cycles/min	Passed	No loss of serviceability
	- Chairs with Legs	Seat weight: 102kg Cycles: 2 000 (Obstacles) 98 000 (No obstacles) Rate: 10±2 cycles/min	N/A	No loss of serviceability
	Caster Retention for Each Caster	Applied force: 22N	Passed	No part of castor shall separate from base

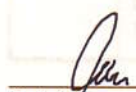



**Results (Con't):**

Clause	Test	Parameters	Results	Requirement
18	Leg Strength Test – Front & Side Application  - Front Load Test  - Side Load Test	Functional load: 334N Proof load: 556N Duration: 1 min (each leg)  Functional load: 334N Proof load: 512N Duration: 1 min (front and rear leg)	N/A	Functional load: No loss of serviceability  Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable
19	Footrest Durability Test – Vertical – Cyclic	Loading force: 890N Cycles: 50,000 Rate: 10-30 cycles/min	N/A	No loss of serviceability
20	Arm Durability Test – Cyclic	Applied force: 400N Cycles: 60,000 Rate: 10-30 cycles/min	Passed	Structural breakage or loss of serviceability shall constitute failure
21	Out Stop Tests for Chairs with Manually Adjustable Seat Depth	Seat weight: 70kg Loading weight: 25kg Cycles: 25	N/A	No loss of serviceability
22	Tablet Arm Static Load Test	Applied load: 68kg Duration: 5 min	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
23	Tablet Arm Load Ease Test – Cyclic	Applied load: 35kg Cycles: 100,000 Rate: 14±6 cycles/min	N/A	No loss of serviceability

**Remarks:**

N/A – test is not applicable to the chair due to feature not available.

  
Kelvin Lau  
Associate Engineer

  
Seah Chong An  
Assistant Vice President  
Consumer & Safety Products  
Testing Group



Fulkrum Office Chair

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