

TEST REPORT

Your Ref: -

Date: 22 Sep 2006

Our Ref: 54S064151/KLU

Page: 1 of 6

DID: 6885 1414

Fax: 6779 3903

NOTE: This report is issued subject to PSB Corporation's "Terms and Conditions Governing Technical Services". The terms and conditions governing the issue of this report are set out as attached within this report.



Subject:

Testing of office chair submitted by Benel Singapore Pte Ltd on 24 Jul 2006.

Tested For:

Benel Singapore Pte Ltd
59 Loyang Way
Singapore 508750
Tel: 68731118
Fax: 65451118

Attn: Ms Esther Tay

Date of Test:

28 Jul – 22 Sep 2006

Description of Sample:

One piece of office chair as shown in the photograph was received. The following descriptions were provided by the client :

Brand/Model/Serial No : Q-Mesh/QM2-QNB
Product Type : Office Chair
Country of Origin : Singapore

Handwritten initials in black ink, appearing to be 'KA' followed by a stylized signature.



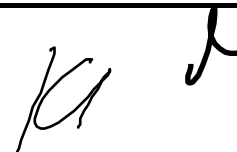
Method of Test:

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 II | 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) | Passed | Functional load: No loss of serviceability Proof Load: No sudden & major change in structural integrity. Loss of serviceability is acceptable |
| | | Lowest seat position: Functional load: 102kg Proof load: 136kg Drop ht: 152mm (6in) | Passed | |
| 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 | |



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 II | 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 function / feature not available.



 Kelvin Lau
 Associate Engineer



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



Q-Mesh QM2-QNB Office Chair

KA *J*

This Report is issued under the following conditions:

1. Results of the testing/calibration in the form of a report will be issued immediately after the service has been completed or terminated.
2. Unless otherwise requested, a report shall contain only technical results. Analysis and interpretation of the results and professional opinion and recommendations expressed thereupon, if required, shall be clearly indicated and additional fee paid for, by the Client.
3. This report applies to the sample of the specific product/equipment given at the time of its testing/calibration. The results are not used to indicate or imply that they are applicable to other similar items. In addition, such results must not be used to indicate or imply that PSB Corporation approves, recommends or endorses the manufacturer, supplier or user of such product/equipment, or that PSB Corporation in any way "guarantees" the later performance of the product/equipment.
4. The sample/s mentioned in this report is/are submitted/supplied/manufactured by the Client. PSB Corporation therefore assumes no responsibility for the accuracy of information on the brand name, model number, origin of manufacture, consignment or any information supplied.
5. Additional copies of the report are available to the Client at an additional fee. No third party can obtain a copy of this report through PSB Corporation, unless the Client has authorised PSB Corporation in writing to do so.
6. PSB Corporation may at its sole discretion add to or amend the conditions of the report at the time of issue of the report and such report and such additions or amendments shall be binding on the Client.
7. All copyright in the report shall remain with PSB Corporation and the Client shall, upon payment of PSB Corporation's fees for the carrying out of the tests/calibrations, be granted a license to use or publish the report to the third parties subject to the terms and conditions herein, provided always that PSB Corporation may at its absolute discretion be entitled to impose such conditions on the license as it sees fit.
8. Nothing in this report shall be interpreted to mean that PSB Corporation has verified or ascertained any endorsement or marks from any other testing authority or bodies that may be found on that sample.
9. This report shall not be reproduced wholly or in parts and no reference shall be made by the Client to PSB Corporation or to the report or results furnished by PSB Corporation in any advertisements or sales promotion.
10. Unless otherwise stated, the tests are carried out in PSB Corporation Pte Ltd, No.1 Science Park Drive Singapore 118221.

June 2006