

Test Report

No.: SDHG1407010795FT

Date: Jul.24, 2014

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FOSHAN ZHONG MENG SHENG YE FURNITURE CO., LTD
NO.6 GAOJIAO NANFANG INDUSTRIAL, LONGJIANG TOWN,
SHUNDE AREA, GUANGDONG PROVINCE, CHINA.

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description : SWIVEL CHAIR
Sample Receiving Date : Jul.15, 2014
Sample Resubmission Date : Jul.23, 2014
Test Performing Date : Jul.15, 2014 to Jul.24, 2014

Test Result Summary

Test(s) Requested	Result(s)
Clause 5, 6, 8, 12.3, 12.4, 13 and 14 of ANSI/BIFMA X5.1:2011 (Type I & III)	PASS

Summary:

1. For further details, please refer to the following page(s).

Signed for and on behalf of
SGS-CSTC Co., Ltd.



Bill Wang
Approved signatory



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Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

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TESTS AND RESULTS
Test Conducted:

Clause 5, 6, 8, 12.3, 12.4, 13 and 14 of ANSI/BIFMA X5.1:2011 General-Purpose Office Chairs – Tests.

General Test Condition:

The following test program was conducted in a laboratory environment maintained at 15°C to 25°C and 50%±5 RH. The sample was individually tested after conditioning in the test environment for at least 24 hours prior to conducting the test.

The complete detailed procedures may be found in the referenced specification and are only summarized herein.

No. of Sample:

1 piece (Sample 1). For more sample information and pictures, please refer to the following page.

Chair Type: Type I & III. For the classification of types, please refer to Annex A.

Test	Test Description and Requirements	Test Results
Safety, Durability and Structural Adequacy		
5	Backrest Strength Test - Static - Type I	
5.4.1	Functional Load There shall be no loss of serviceability to the chair when 890 N (200 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 90 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees ± 10 degrees throughout the loading of the backrest.	PASS
5.4.2	Proof Load There shall be no sudden and major change in the structural integrity of the chair, loss of serviceability is acceptable, when 1334 N (300 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 90 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees ± 10 degrees throughout the loading of the backrest.	PASS
6	Backrest Strength Test - Static - Type II & III	
6.4.1	Functional Load There shall be no loss of serviceability to the chair when 667 N (150 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 90 degrees ± 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees ± 10 degrees throughout the loading of the backrest.	PASS

Test	Test Description and Requirements	Test Results
6.4.2	Proof Load There shall be no sudden and major change in the structural integrity of the chair, loss of serviceability is acceptable, when 1112 N (250 lbf.) is applied to the backrest at the specified position for one (1) minute. With the backrest at its back stop position, apply a force that is initially 90 degrees \pm 10 degrees to the plane of the backrest. The force is not intended to be maintained at 90 degrees \pm 10 degrees throughout the loading of the backrest.	PASS
8	Drop Test - Dynamic	
8.4.1	Functional Load Test There shall be no loss of serviceability when a test bag weighing 102 kg (225 lb.) is free fell from 152 mm (6 in.) above the uncompressed seat to the specified position on seat. Remove the bag, and set height to its lowest position and repeat the test for chairs with seat height adjustment features.	PASS
8.4.2	Proof Load Test There shall be no sudden and major change in the structural integrity of the chair. Loss of serviceability is acceptable when a test bag weighing 136 kg (300 lb.) is free fell from 152 mm (6 in.) above the uncompressed seat to the specified position on seat. Remove the bag, and set height to its lowest position and repeat the test for chairs with seat height adjustment features.	PASS
12	Stability Tests	
12.3.1	Rear Stability Test for Type III Chairs Place a support fixture made of a 1.5 mm \pm 0.4 mm (0.060 in. \pm 0.015 in.) thick polypropylene, 356 mm (14 in.) wide and 711 mm (28 in.) tall against the chair back so that it approximates the contour of the back. Load the chair with 6 disks (10 kg each). Place the first disk on the seat so it touches the support fixture. As each disk is added to the stack slide it along the lower disk until it contacts the support fixture. Apply a horizontal force to the highest disk. The location of the force application is 6 mm (0.25 in.) from the top of the disk. For chairs with seat height (as measured at the front of the bottom of the lowest disk when all disks are in the chair) less than 710 mm (28.0 in.), calculate the force as follows: <ul style="list-style-type: none"> • $F = 0.1964 (1195 - H)$ Newton. H is the seat height in mm. • $[F = 1.1 (47 - H)$ pounds force.]. H is the seat height in inches. For chairs with seat height equal to or greater than 710 mm (28.0 in.), a fixed force of 93 N (20.9 lbf.) shall be applied. The chair shall not tip over.	PASS

Test	Test Description and Requirements	Test Results
12.3.2	<p>Rear Stability Test for Type I and II Chairs</p> <p>Place a support fixture made of a 1.5 mm \pm 0.4 mm (0.060 in. \pm 0.015 in.) thick polypropylene, 356 mm (14 in.) wide and 711 mm (28 in.) tall against the chair back so that it approximates the contour of the back. Load the chair with 13 disks. Place the first disk on the seat so it touches the support fixture. As each disk is added to the stack slide it along the lower disk until it contacts the support fixture. If the chair does not tip over and the tilt mechanism does not tilt to its most rearward position (i.e., at its tilt stop) when the disks are placed in the chair, the chair shall also be tested according to 12.3.1 with the chair in the unlocked position.</p> <p>The chair shall not tip over.</p>	PASS
12.4	<p>Front Stability</p> <p>- <u>Test Procedure - Alternative A</u> (This alternative may only be used on chairs that do not have a seat surface that will support the stability loading fixture (i.e., mesh, web or strap seat support surfaces))</p> <p>Apply a vertical load of 600 N (135 lbf.), through a 200 mm (7.87 in.) diameter disk, the center of which is 60 mm (2.4 in.) from the front center edge of the load-bearing surface of the seat. Apply a horizontal force of 20 N (4.5 lbf.) at the same level of the plane of the top of the seat. The force shall be coincident with the side-to-side centerline of the seat.</p> <p>- <u>Test Procedure - Alternative B</u></p> <p>Apply a vertical load of 600 N (135 lbf.), by means of the front stability loading fixture at a point 60 mm (2.4 in.) from the front center edge of the load-bearing surface of the chair. Apply a horizontal force of 20 N (4.5 lbf.) at the same level of the plane of the top of the seat. The force shall be coincident with the side-to-side centerline of the seat. The chair shall not tip over as the result of the force application.</p>	PASS
13	Arm Strength Test - Vertical - Static	
13.4.1	<p>Functional Load</p> <p>Apply an initially vertical pull force of 750N (169lbs.) to the load adapter which is 127 mm (5 in.) long and at least as wide as the width of the arm shall be attached to the top of the arm rest structure such that the load will be applied at the apparent weakest point that is forward of the chair backrest, for one (1) minute.</p> <p>There shall be no loss of serviceability. For a height adjustable arm, failure to hold its height adjustment position to within 6 mm (0.25 in.) from its original set position as the result of the loading is considered a loss of serviceability.</p>	PASS

Test	Test Description and Requirements	Test Results
13.4.2	Proof Load Apply an initially vertical pull force of 1125N (253 lbs.) to the load adapter which is 127 mm (5 in.) long and at least as wide as the width of the arm shall be attached to the top of the arm rest structure such that the load will be applied at the apparent weakest point that is forward of the chair backrest, for one (1) minute. There shall be no sudden and major change in the structural integrity of the chair. For a height adjustable arm, a sudden drop in height of greater than 25 mm (1 in.) does not meet this requirement. Loss of serviceability is acceptable.	PASS
14	Arm Strength Test - Horizontal - Static	
14.4.1	Functional Load Apply an initially horizontal pull force of 445 N (100 lbf.) to the load adapter which is a loading device or strap, not greater than 25 mm (1 in.) in horizontal width, shall be attached to the arm so that the load is initially applied horizontally to the armrest structure at the apparent weakest point (for armrests that pivot in the horizontal plane, apply the load at the pivot point), for one (1) minute in the outward direction. A functional load applied once shall cause no loss of serviceability.	PASS
14.4.2	Proof Load Apply an initially horizontal pull force of 667 N (150 lbf.) to the load adapter which is a loading device or strap, not greater than 25 mm (1 in.) in horizontal width, shall be attached to the arm so that the load is initially applied horizontally to the armrest structure at the apparent weakest point (for armrests that pivot in the horizontal plane, apply the load at the pivot point), for one (1) minute in the outward direction. A proof load applied once shall cause no sudden and major change in the structural integrity of the unit. Loss of serviceability is acceptable.	PASS

Annex A: Classification of Chair Types

- **Type I. Tilting chair:** A chair with a seat that tilts with a counterbalancing force. Chairs of this type are typically referred to as synchro-tilt, center-tilt, knee-tilt.
- **Type II. Fixed seat angle, tilting backrest:** A chair that provides a fixed seat angle with a tilting backrest.
- **Type III. Fixed seat angle, fixed backrest:** A chair that provides a fixed seat angle with a fixed backrest. This may include chairs with legs, including sled base chairs.

Remark:

1. /

SAMPLE INFORMATION AND PICTURES

Weight: 19.95kg

Overall Dimensions: 669mm L x 620 ~ 670mm W x 992 ~ 1103mm H

Base Radius: 350mm

Sample as Received



View 1



View 2



View 3



View 4

End of Report