

ZHEJIANG SUNON FURNITURE MANUFACTURE CO., LTD

NO.923 NINGDONG RD XIAOSHAN ECONOMY&TECHNOLOGY DEVELOPMENT ZONE, HANGZHOU, ZHEJIANG, CHINA

The following sample(s) was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion. Results apply to the sample as received.

Sample Description	H2 CHAIR (REGULAR VERSION)
Style / Item No.	P19-ZA011, REGULAR VERSION
P.O./ Ref No.	SQ202009597
Supplier Name	SUNON
Manufacturer Name	LOHO FURNITURE
Sample Receiving Date	OCT 13, 2020
Test Performing Date	OCT 13, 2020 TO OCT 29, 2020

Test Result Summary

Test(s) Requested	Result(s)
ANSI/BIFMA X5.1-2017 Excluding Clause 6, 18, 19, 21, 22, 23	PASS
Remark:	
1. This declaration of conformity is only based on the result of this laboratory activity, the impact of the uncertainty of the results was not included.	
2. For further details, please refer to the following page(s).	

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




David Fan
Approved Signatory



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Test Conducted: ANSI/BIFMA X5.1 -2017 General-Purpose office chairs -Tests

Test Result:

Test Item	Test Principle & Requirement	Test Result
Backrest Strength Test - Static - Type I and II (Functional Load) (Clause 5)	There shall be no loss of serviceability when a force of 667N (150lbf.) is applied 70± 10° to the back at 406mm (16in.) above the seat for 1 minute.	PASS
Backrest Strength Test - Static - Type I and II (Proof Load) (Clause 5)	There shall be no sudden and major change in the structural integrity (loss of serviceability is acceptable) when a force of 1001N (225lbf.) is applied 70± 10° to the back at 406mm (16in.) above the seat for 1 minute.	PASS
Drop Test–Dynamic (Functional Load) (Clause 7)	There shall be no loss of serviceability when a 102kg (225lb.) weight free falls from 152mm (6in.) height to the center of the seat one time (for the seat height is adjustable, test one time in its highest position then one time in its lowest position).	PASS
Drop Test Dynamic (Proof Load) (Clause 7)	There shall be no sudden and major change in the structural integrity (loss of serviceability is acceptable) when a 136kg (300lb.) weight free falls from 152mm(6in.) height to the center of the seat one time (for the seat height is adjustable, test one time in its highest position then one time in its lowest position).	PASS
Swivel Test – Cyclic (Clause 8)	There shall be no loss of serviceability after 120,000 cycles of rotation with a 122kg (270lb.) load on the seat (for the seat height is adjustable, test 60,000 cycles in its highest position then 60,000 cycles in its lowest position).	PASS
Tilt Mechanism Test – Cyclic –Type I & II (Clause 9)	There shall be no loss of serviceability after moving the mechanism between the front and back stops for 300,000 cycles with a 109kg (240lb.) load on the seat.	PASS
Seating Durability Tests – Cyclic (Impact Test) (Clause 10.3)	There shall be no loss of serviceability after a 57kg (125lbs.) weight free falls onto the seat from 36mm (1.4in.) height for 100,000 cycles.	PASS
Seating Durability Tests – Cyclic (Front Corner Load – Ease Test – Cyclic – Off-center) (Clause 10.4)	There shall be no loss of serviceability after loading two seat front corner with 890N (200lbf.) for 20,000 cycles respectively.	PASS
Rear Stability Test for Type III Chairs (Clause 11.3.1)	The chair shall not tip over when applying a horizontal force to 6mm (0.25 in.) from the top of disk with 6 disks on the chair against backrest support fixture. Determine the horizontal force: H ≥710mm, F = 93N; H < 710 mm, F = 0.1964 (1195-H) where: H is the seat height measured at the front of the bottom of the lowest disk when all disks are in the chair, in mm	PASS
Rear Stability Test for Type I and II Chairs (Clause 11.3.2)	The chair shall not tip over when applying 13 disks on the seat against backrest support fixture.	PASS



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Test Item	Test Principle & Requirement	Test Result
Front Stability (Clause 11.4)	The chair shall not tip over when applying a horizontal outward force of 20N (4.5lbf.) from the seat with a vertical load of 61kg (135lbf.) at a point 60mm (2.4in.) from the front center edge of the load bearing surface of the seat.	PASS
Arm Strength Test – Vertical – Static (Functional Load) (Clause 12)	There shall be no loss of serviceability when a force of 750N (169lbf.) is applied vertically to the armrest for 1 minute.	PASS
Arm Strength Test – Vertical – Static (Proof Load) (Clause 12)	There shall be no sudden and major change in the structural integrity (loss of serviceability is acceptable) when a force of 1125N (253lbf.) is applied vertically to the armrest for 15s.	PASS
Arm Strength Test – Horizontal – Static (Functional Load) (Clause 13)	There shall be no loss of serviceability when a force of 445N (100lbf.) is applied horizontally outward to the armrest for 1 min.	PASS
Arm Strength Test – Horizontal – Static (Proof Load) (Clause 13)	There shall be no sudden and major change in the structural integrity (loss of serviceability is acceptable) when a force of 667N (150lbf.) is applied horizontally outward to the armrest for 15s.	PASS
Back Durability Test – Cyclic –Type I (Clause 14)	There shall be no loss of serviceability when a force of 445N (100lbf.) is applied 90° ± 10° to the back at 406mm (16in.) above the seat for 120,000 cycles with 109kg (240lbs.) weight on the seat.	PASS
Back Durability Test – Cyclic–Type II & III (Clause 15)	There shall be no loss of serviceability when a force of 334N (75lbf.) is applied 90° ± 10° to the back at 406mm(16in.) above the seat for 120,000 cycles with 109kg (240lbs.) weight on the seat.	PASS
Caster/Chair Base Durability Test for Pedestal Base Chairs (Clause 16.1)	There shall be no loss of serviceability after cycling a travel of (762±50)mm ((30±2)in.) for 2,000 cycles over a surface with obstacles and then 98,000 cycles over a surface without obstacles with a 122kg (270lb.) load on seat. The caster should not separate under 22N (5lbs.) pulling force.	PASS
Caster/Chair Frame Durability Test for Non-pedestal Chairs with Casters (Clause 16.2)	There shall be no loss of serviceability after cycling a travel of (762±50)mm ((30±2)in.) for 2,000 cycles over a surface with obstacles and then 98,000 cycles over a surface without obstacles with a 122kg (270lb.) load on seat. The caster should not separate under 22N (5lbs.) pulling force.	NA
Leg Strength Test (Front Load Test) (Functional Load) (Clause 17.3)	There shall be no loss of serviceability when a horizontal rearward force of 334N (75lbf.) is applied inward to each front leg individually for 1 minute.	NA
Leg Strength Test (Front Load Test) (Proof Load) (Clause 17.3)	There shall be no sudden and major change in the structural integrity (loss of serviceability is acceptable) when a horizontal rearward force of 503N (113lbf.) is applied inward to each front leg individually for 1 minute.	NA
Leg Strength Test (Side Load Test) (Functional Load) (Clause 17.4)	There shall be no loss of serviceability when a horizontal sideward force of 334N (75lbf.) is applied inward to each front and rear leg individually for 1 minute.	NA



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Test Item	Test Principle & Requirement	Test Result
Leg Strength Test (Side Load Test) (Proof Load) (Clause 17.4)	There shall be no sudden and major change in the structural integrity (loss of serviceability is acceptable) when a horizontal sideward force of 503N (113lbf.) is applied inward to each front and rear leg individually for 1 minute.	NA
Arm Durability Test- Cyclic (Clause 20)	There shall be no loss of serviceability when a force of 400N (90lbf.) is applied simultaneously to each arm at a 10°±1° angle for 60,000cycles.	PASS
Structural Durability Test – Cyclic (Clause 24)	There shall be no loss of serviceability after applying a force of 334 N (75 lbf.) to the unit frame midway between front and rear of the seat at the height of the midpoint of the seat frame structure for 25000 cycles with a 109 kg (240 lb.) on the center of the seat. One cycle shall consist of one outward force application and removal and one inward force application and removal.	NA
Base Test – Static (Appendix C)	There shall be no sudden and major change in the structural integrity when a compression force of 11120N (2500lbf.) load is applied for 1 minute. The force is then removed and reapplied for 1 minute. The center column may not touch the test platform during load applications.	PASS (See remark 3)

Remark:

1. Type of chair:

Type I – tilt chair: A chair with a seat and backrest that tilt (either in unison or in synchronization) with a counterbalancing force. Chairs of this type are typically referred to as synchro-tilt, center-tilt, knee-tilt, etc.

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.

2. NA=Not applicable

3. The test was performed by SGS internal laboratory.



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Sample Information

Overall dimension: 718 mm (L)×720 mm (W)×1030 mm -1123 mm (H)

Radius of base: 350 mm

Weight: 18.95 kg

Photo Appendix



Sample as received - View 1



Sample as received - View 2



Sample as received - View 3



Sample as received - View 4

SGS authenticate the photo on original report only

End of Report

