

Test Report

No.: AJHL2110003694FT

Date: NOV 17, 2021

Page: 1 of 8

DOREL HOME FURNISHINGS EUROPE LTD

BUILDING 4, IMPERIAL PLACE MAXWELL ROAD BOREHAMWOOD WD6 1JN UNITED KINGDOM

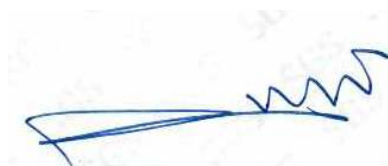
The following sample(s) was / were submitted and identified on behalf of the client. SGS is not responsible for the authenticity, integrity and results of the data and information and / or the validity of the conclusion. Results apply to the sample as received.

Sample Description	HINTON OFFICE CHAIR RED - JLP
Style / Item No.	AOC0546-JLP
Buyer Name	JOHN LEWIS PARTNERSHIP UK
Supplier Name	DOREL HOME FURNISHINGS EUROPE LTD
Manufacturer Name	ZHEJIANG HENGLIN CHAIR IND.CO
Country of Origin	CHINA
Country of Destination	UK
Sample Receiving Date	OCT 18, 2021
Test Performing Date	OCT 18, 2021 TO NOV 16, 2021

Test Result Summary

Test(s) Requested	Result(s)
BS EN 1335-2:2018 Excluding Clause 6 information for use	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: BS EN 1335-2:2018 Office furniture- Office work chair- Part 2: Safety requirements

Test Result:

Test Item	Test Method & Test Requirement	Test Result
Safety requirements (BS EN 1335-2:2018, 4)		
General (BS EN 1335-2:2018, 4.1)	The chair shall be so designed as to minimise the risk of injury to the user. All parts of the chair with which the user comes into contact during intended use, shall be so designed that physical injury and damage to property are avoided. These requirements are fulfilled when: a) the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded with minimum 2 mm radius; b) the edges of handles are rounded or chamfered in the direction of the force applied; c) all other edges and corners are free from burrs and rounded or chamfered; d) the ends of accessible hollow components are closed or capped. Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided. It shall be possible to operate the adjusting devices from sitting position in the chair. It shall not be possible for any load bearing part of the chair to come loose unintentionally.	PASS
Shear and squeeze points (BS EN 1335-2:2018, 4.2)		
Shear and squeeze points under influence of powered mechanisms (BS EN 1335-2:2018, 4.2.1)	There shall be no accessible shear and squeeze points created by parts of the chair operated by powered mechanisms, i.e. springs, gas lifts and motorized systems.	PASS
Shear and squeeze points during use (BS EN 1335-2:2018, 4.2.2)	There shall be no accessible shear and squeeze points created by loads applied during normal use. Shear and squeeze points are not acceptable if there is a risk of injury created by the weight of the user during normal movements and actions, e.g. manipulating levers and crank handles.	PASS



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Test Item	Test Method & Test Requirement	Test Result
Stability tests and requirements (BS EN 1335-2:2018, 4.4)		
When tested according to Table 1, the seating shall not overturn.		
Corner stability (BS EN 1022:2018, 7.3.3)	This test is only applicable on seating possible to apply the loading pad at the specified position. Define the loading point 60 mm from the edge of the load bearing structure on a line as specified at the corner. Apply a force F_1 of 300 N vertically at the loading point for (5 ± 2) s. For seating with multiple seats apply the force F_1 at the loading point on one outside seating position.	PASS
Forwards overturning (BS EN 1022:2018, 7.3.1)	Apply a force F_1 of 600 N (for seating with multiple seats apply two forces simultaneously) vertically at the point on the centre line of the seat 60 mm behind the front edge of the load bearing structure. Apply a force F_2 of 20 N horizontally outwards from the point each vertical load contacts the seat surface for (5 ± 2) s. For seating with a leg rest to support the weight of the user, repeat the test procedure on the leg rest with the leg rest fully extended.	PASS
Forward overturning for chairs with footrests (BS EN 1022:2018, 7.3.2)	For seating with tubular foot rests or the foot rest depth is less than 120 mm, apply the vertical force F_1 of 1100 N at the most onerous point along the tube centre line or the middle of the foot rest surface. For all other seating with foot rests apply the vertical force F_1 of 1100 N at the most onerous point 60 mm from the edge of the foot rest. Apply a force F_2 of 20 N horizontally outwards from the point the vertical load contacts the foot rest surface for (5 ± 2) s.	NA
Sideways overturning for chairs without arm rests (BS EN 1022:2018, 7.3.4)	This test is applicable to all seating where the top edge of the seat on the transverse plane is 50 mm or less above the height of the loaded seat loading point. Apply a force F_1 of 600 N vertically at a point 60 mm behind the edge of the load bearing structure on the side nearest the stopped feet and on the seat transverse plane. In the transverse plane, apply a sideways force F_2 of 20 N horizontally outwards from the point the vertical load contacts the seat surface for (5 ± 2) s.	PASS
Sideways overturning for chairs with arm rests (BS EN 1022:2018, 7.3.5.1 & 7.3.5.2)	This test is applicable to all seating with arms on the transverse plane is more than 50 mm above the seat loading point. Apply a force F_1 of 250 N vertically at a point 100 mm to the seat median plane nearest the stopped feet and on the transverse plane. Apply a force F_2 of 350 N vertically at a position on the centre line of the arm up to a maximum 40 mm inwards from the outside edge of arm structure on the transverse plane, but not less than 40 mm from the front or rear edge of the arm structure. If the transverse plane does not intersect with arm rest, apply force F_2 at 40 mm from the front or rear of the arm structure nearest the transverse plane. Apply a horizontal force F_3 of 20 N outwards and perpendicular to the line joining the stopped feet, for at least 5s, at the upper surface of the seat or arm rest in line with the vertical force F_2 .	PASS



Test Item	Test Method & Test Requirement	Test Result
Rearwards overturning for chairs without back rest inclination and for chairs with adjustable backrest inclination that can be locked (BS EN 1022:2018, 7.3.6)	The test is not applicable to seating that has adjustable back rest inclination that cannot be locked in position. Apply a vertical force F_1 of 600N to the seat at seat loading point. Apply the force F_2 ($F_2 = 0.2857(1000-H)$ N, H = Height of loaded seat above the floor, in mm) for (5 ± 2) s horizontally rearwards to the seating back at back loading point B, or at the top edge of back rest, whichever is the lower. When the seating has more than one sitting place, apply the procedure on two most adverse sitting places simultaneously.	PASS
Rearwards overturning for chairs with back rest inclination (BS EN 1022:2018, 7.4.2)	The test method applies to all values of $\theta \geq 10^\circ$ and values of γ between 90° and 170° . If the seating has a locking system it shall be disabled. Load the seat with 13 loading discs so that the discs are firmly settled against the back rest.	PASS
Strength and durability (BS EN 1335-2:2018, 5) The strength and durability requirements are fulfilled when, after testing in accordance with Table 2: a) there are no fractures of any member, joint or component; b) there is no loosening of joints intended to be rigid; and c) the chair fulfils its functions after removal of the test loads.		
Combined seat and back static load test (BS EN 1728:2012, 7.3)	Apply a vertical force F_1 of 1600N at point "A". Keep the seat loaded and apply a force F_2 of 560N at point "B". When fully loaded the force shall act at $90^\circ \pm 10^\circ$ to the back rest plane. Remove the back force and then the seat force. Repeat the operation for 10 cycles.	PASS
Seat front edge static load test (BS EN 1728:2012, 7.4)	Position the smaller seat loading pad at loading point F or J. Apply a vertical downward force of 1600N through the centre of the loading pad. Repeat the operation for 10 cycles.	PASS
Foot rest static load test (BS EN 1728:2012, 7.8)	Apply a downward force of 1300N to the seat at the seat loading point. Apply a vertical force acting 80 mm from front edge of the load bearing structure of the foot rest at those points most likely to cause failure. For round cross section ring shaped footrests, apply the force through the centre of the ring cross section. If the seating tends to overturn, increase the load on seat to a magnitude that just prevents overturning and record the load used. Repeat the operation for 10 cycles.	NA



Test Item	Test Method & Test Requirement	Test Result																								
Seat and back durability (BS EN 1728:2012, 7.9)	The seat load shall be applied vertically. The back rest force shall be applied at an angle of $90^{\circ} \pm 10^{\circ}$ to the back rest when fully loaded. All chairs shall be tested to steps 1 to 5. Chairs with a locking device for seat and/or back rest angle movements shall be tested in step 2 first with the device locked for half of the cycles and then with the device unlocked for the other half of the cycles. In steps 3, 4 and 5 the mechanism shall be set free to move. If the back rest pad is pivoting around a horizontal axis and is free to move, the horizontal force shall be applied on the axis. If height adjustable, the axis shall be set as close as possible to 300 mm above point "A". If the axis cannot be adjusted to 300 mm, adjust the force to produce the same bending moment.	PASS																								
	<table><tr><th>Step</th><th>Loading point</th><th>Force (N)</th><th>Number of cycles</th></tr><tr><td>1</td><td>A</td><td>1500</td><td>120000</td></tr><tr><td>2</td><td>C B</td><td>1200 320</td><td>80000</td></tr><tr><td>3</td><td>J E</td><td>1200 320</td><td>20000</td></tr><tr><td>4</td><td>F H</td><td>1200 320</td><td>20000</td></tr><tr><td>5</td><td>D and G (alternating)</td><td>1100</td><td>20000</td></tr></table>		Step	Loading point	Force (N)	Number of cycles	1	A	1500	120000	2	C B	1200 320	80000	3	J E	1200 320	20000	4	F H	1200 320	20000	5	D and G (alternating)	1100	20000
	Step		Loading point	Force (N)	Number of cycles																					
	1		A	1500	120000																					
	2		C B	1200 320	80000																					
	3		J E	1200 320	20000																					
	4		F H	1200 320	20000																					
5	D and G (alternating)	1100	20000																							
Armrests durability (BS EN 1728:2012, 7.10)	Apply the force of 400N on each arm rest at the point most likely to cause failure, but not less than 100 mm from the front or rear edge of the arm rest length and through the centre of the width of the arm rest, but not more than 100 mm from the inner edge of the arm rest. Apply the force to both arm rests simultaneously for seating with only one seating position and to one arm rest only for seating with multiple seating positions. Repeat the test for 60000 cycles.	PASS																								
	Armrest downward static load test – central (BS EN 1728:2012, 7.5)		Apply the force to both arm rests simultaneously and vertically at the middle point of the arm rest length and centred side to side. In the case of an arm rest which is not horizontal, or which is curved, the length is measured in a horizontal plane 20 mm below the highest point of the arm rest. Test force (N): 750 Number of cycles: 5 Test force (N): 900 Number of cycles: 5	PASS																						



Test Item	Test Method & Test Requirement	Test Result
Rolling resistance test and requirements (BS EN 1335-2:2018, 5.3)		
Rolling resistance test and requirements (BS EN 1335-2:2018, 5.3)	The unloaded chair shall be tested for rolling resistance according to BS EN 1728:2012, 6.30 and shall fulfil the following requirements: a) the castors shall be of identical construction; b) the rolling resistance shall be ≥ 12 N. The chair shall be placed on the test floor and shall be pushed or pulled over a distance of at least 550 mm. A speed of (50 ± 5) mm/s shall be maintained over the measuring distance. The force shall be applied at a height of (200 ± 50) mm above the test surface. Record the force used to push or to pull the chair over the distance from 250 mm to 500 mm as the rolling resistance.	PASS
Information for use (BS EN 1335-2:2018, 6)		
Information for use (BS EN 1335-2:2018, 6)	Information for use shall be available in the language of the country in which the product will be available to the end user. It shall contain at least the following details: a) information regarding the intended use; b) information regarding possible adjustments; c) instruction for operating the adjusting mechanisms; d) instruction for the care and maintenance of the chair; e) information for chairs with seat height adjustments with energy accumulators that only trained personnel may replace or repair seat height adjustment components with energy accumulators; f) information on the choice of castors in relation to the floor surface.	NT
Functional tests (BS EN 1335-2:2018, Annex A)		
Arm rest downward static load test – front (BS EN 1728:2012, 7.6)	Apply the force of 450N to both arm rests simultaneously and vertically acting at 75 mm from the front edge and centred side to side. Repeat the operation for 5 cycles.	PASS
Arm rest sideways static load test (BS EN 1728:2012, 7.7)	Apply an outward force of 400N to one arm rest or to each arm rest of the unit simultaneously at the points along the arm rest most likely to cause failure, but not less than 100 mm from the end of the arm rest structure. Repeat the operation for 10 cycles.	PASS
Swivel test (BS EN 1728:2012, 7.11)	The base of the chair shall be secured on a rotating table so that the rotating axis of the chair coincides with the rotating axis of the table. The upper part of the chair shall be loosely fixed in such a way as not to hinder the rotation of the base. Load the seat in loading point A with a mass M_1 of 60kg and in loading point C with a mass M_2 of 35kg. The angle of rotation shall be 360° at a rate of (10 ± 5) cycles/minute. Change direction after each rotation. Repeat the operation for 120000 cycles.	PASS



Test Item	Test Method & Test Requirement	Test Result
Foot rest durability (BS EN 1728:2012, 7.12)	Apply the specified downward force of 900N to the seat at the seat loading point. Apply a vertical force of 900N acting 80 mm from front edge of the load bearing structure of the foot rest at those points most likely to cause failure. For round cross section ring shaped footrests, the force shall be applied through the centre of the ring cross section. If the seating tends to overturn, increase the load on seat to a magnitude that just prevents overturning and record the load used. Repeat the operation for 50000 cycles.	NA
Castor and chair base durability (BS EN 1728:2012, 7.13)	Not apply to chairs with castors which are braked when the chair is loaded. The chair shall be placed on a rotating table so that the rotating axis of the chair coincides with the rotating axis of the table. Load the seat in point A with M ₁ of 110 kg. The base shall be loosely fixed in such a way that there is no rotation of the base but that the natural movements of the castors are not prevented. The castors shall be left free to swivel, the table shall be rotated with a rate of 6 cycles per minute. The angle of rotation shall be from 0° to 180° and back. One rotation forward and one rotation backward constitutes one cycle. Repeat the operation for 36000 cycles.	PASS

Remark:

1. NA = Not applicable; NT = Not tested



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Sample Information

Overall dimension: 680 mm (L)×695 mm (W)×910 mm -1005 mm (H)

Radius of base: 345 mm

Weight: 12 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



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