REPORT

Issued by an Accredited Testing Laboratory

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Date	Reference	Page
2022-03-30	1113979C	1 (1)

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Testing of seating furniture according to EN 16139:2013

(3 appendices)

Customer:	Johanson Design AB
Test object/ID:	Seating furniture/Robbie 03-46 with castors
Test method:	EN 16139:2013 Furniture - Strength, durability and safety - Requirements for non-domestic seating. Test level 1
Scope:	Complete test
Date of test:	2021-04-23 – 2021-05-18
Test result:	The tested object passed the test
Reservation:	The test results in this report apply solely to the specimen tested
Test environment:	23 ± 2ºC and 50 ± 5% relative humidity
Measurement uncertainty:	Decision rule according to EN ISO IEC 17025:2018 clause 3.7 No account is taken of measurement uncertainty when reporting numerical results

RISE Research Institutes of Sweden AB
Department Building and Real Estate - Technical Wood Assessment

Performed by

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Examined by

Bengt-Åke Andersson

Appendices

1. Test result (3 pages)
2. Test object (1 page)
3. Pictures (1 page)

Appendix 1

Test result

Abbreviations: N/A = Not applicable
N/T = Not tested

Table 1

1.	Safety	EN 16139	Result
1.1	General requirements The seating shall be so designed as to minimise the risk of injury to the user. All accessible parts shall be so designed that physical injury and damage are avoided. This requirement is met when: a) accessible corners are rounded or chamfered; b) the edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair are rounded or chamfered; c) the edges of handles are rounded or chamfered in the direction of the force applied; d) all other edges are free from burrs and rounded or chamfered; e) the ends of hollow components are closed or capped. Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided. It shall not be possible for any load bearing part of the seating to come loose unintentionally. All parts which are lubricated to assist sliding shall be designed to protect users from lubricant stains when in normal use	4.1	Pass
1.2	Shear and squeeze points With the exception of tipping seats there shall be no shear and squeeze points created by parts of the seating operated by powered mechanisms, e.g. springs and gas lifts. There shall be no shear and squeeze points created by forces applied during normal use as well as during normal movements and actions Note! Shear and squeeze points that are created only during manually setting up and folding are acceptable, because the user can be assumed to be in control of his/her movements and to be able to cease applying the force immediately upon experiencing pain.	4.2	Pass

Appendix 1

Table 2

2.	**Stability**	**EN 1022:2018**	**Result**
2.1	Forwards overbalancing Requirement ≥ 20 N	7.3.1	Pass >50 N
2.2	Forwards overturning for seating with footrest	7.3.2	N/A
2.3	Corner stability test Requirement 30 kg	7.3.3	Pass
2.4	Sideways overbalancing, all seating without arms Requirement ≥ 20 N	7.3.4	Pass >100 N
2.5	Sideways overbalancing, all seating with arms Requirement ≥ 20 N	7.3.5.2	N/A
2.6	Sideways overbalancing, seating with raised side edges	7.3.5.3	N/A
2.7	Rearwards overbalancing, all seating with backs Requirement ≥ 155 N	7.3.6	Pass >200 N

Table 3

3.	**Strength, durability**	**Reference EN 1728**	**Cycles**	**EN 16139 level 1**	**Result**
3.1	Seat and back static load test	6.4	10	Seat: 1600 N Back: 560 N	Pass
3.2	Seat front edge static load test	6.5	10	1300 N	Pass
3.3	Vertical static load on back rests	6.6	10	600 N Seat: 1300 N	Pass
3.4	Foot rest and leg rest static load test	6.8 and 6.9	10	1300 N	N/A
3.5	Arm sideways static load test	6.10	10	400 N	N/A
3.6	Arm downwards static load test	6.11	5	750 N	N/A
3.7	Vertical upwards static load on arm rests for stackable seating	6.13.2	10	250 N	N/A
3.7 Annex B	Vertical upwards static load on arm rests for seating which may be moved when occupied	6.13.1	10	1200 N	N/A

Appendix 1

3.	Strength, durability	Reference EN 1728	Cycles	EN 16139 level 1	Result
3.8	Seat and back durability test	6.17	100 000	Seat: 1000N Back: 300 N	Pass
3.9	Seat front edge durability test	6.18	50 000	800 N	Pass
3.10	Arm durability test	6.20	30 000	400 N	N/A
3.11	Foot rest durability test	6.21	50 000	1000 N	N/A
3.12	Leg forward static load test	6.15	10	500 N Seat: 1000 N	Pass
3.13	Leg sideways static load test	6.16	10	400 N Seat: 1000 N	Pass
3.14	Seat impact test	6.24	10x2	240 mm	Pass
3.15	Back impact test	6.25	10	210 mm/38°	Pass
3.16	Arm impact test	6.26	10	210 mm/38°	N/A
3.17	Auxiliary writing surface static load test	6.14	10	300 N	N/A
3.18	Auxiliary writing surface durability test	6.22	10 000	150 N	N/A

Appendix 2

Test object

Test object/ID:	Seating furniture/Robbie 03-46 with castors

Dimensions [1]

Width:	545 mm
Depth:	570 mm
Height:	805 mm
Seat height:	456 mm
Mass:	9 kg
Stability dimensions: EN 1335-2:2000	255 mm

Components

Base:	Aluminum, 4-arm
Seat shell:	Oak veneered, moulded CMHR, 11 mm
Castors:	Ø 54.5 mm

Sampling:	The test object was selected by the customer
Date of arrival at RISE test laboratory:	2021-04-28
Observed defects before testing:	No defects

[1] The dimensions are only intended to unambiguously identify the test object and do not claim to be metrologically accurate

Appendix 3

Pictures

Figure 1

Figure 2

Figure 3

Figure 4

Verification

Transaction 09222115557472474819

Document

1113979C Johanson Design Robbie 03 46 with castors EN 16139
Main document
6 pages
Initiated on 2022-06-29 17:05:59 CEST (+0200) by Bengt-Åke Andersson (BA)
Finalised on 2022-06-30 09:53:55 CEST (+0200)

Signing parties

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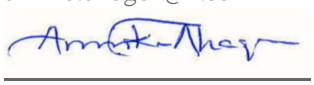

Signed 2022-06-30 09:53:55 CEST (+0200)