

Scandinavian Business Seating AS

Sundveien, N-7374 Røros,
Norway

Fürth, 30.12.2016

Test report no. FUHLFP2016-14273

Receipt of sample: 25.10.2016; period of investigation: 25.10.2016 – 30.12.2016

Technical laboratory management: Kerstin Scharrer / Hardlines Laboratory: Eberhard Klöber

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Test item: "HÅG Conventio W - 9832" Office swivel chair

Test General safety tests according to EN 1729:2016

Determination:

Essential components of the tests were the safety, functionality, fitness-for-use and ergonomic properties. Basis of the tests were the EN 1729-1:2016, EN 1729-2:2016 and considering the current state of the art of technology and ProdSG.

In summary, the test results **have satisfied** the requirements of the above nominated test standards.

Notes:

- Technical characteristics and results as well as detailed test conditions and requirements are presented on the following pages.
- The test sample complies with dimension class 5 of EN 1729-1:2016.

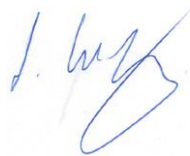
Intertek Consumer Goods GmbH
Hardlines Testing Laboratory

Reviewed by:



Eberhard Klöber
Manager – Hardlines

Tested by:



Leopold Walz
Test Engineer / BD Manager – Hardlines

Product identification:

Test sample:	Office swivel chair
Model name:	"HÅG Conventio W - 9832"
Item number:	--
Manufacturer:	Scandinavian Business Seating AS Sundveien, 7374 Røros, Norway
Number of test samples:	1 piece
Distributor:	Scandinavian Business Seating AS
Distributor's item number	./.
Distributor's PO number:	./.
Delivered on:	25.10.2016
Delivered by:	Scandinavian Business Seating AS

Product documents:

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Scope of the investigations:

General test and safety requirements according to

- EN 1729-1:2016, Furniture - Chairs and tables for educational institutions – Part 1: Functional dimensions
- EN 1729-2:2016, Furniture - Chairs and tables for educational institutions – Part 2: Safety requirements and test methods

Key to findings

P =	passed
F =	failed
n.a. =	not applicable

Applicability of measurements:

The test results refer only to the objects to be tested. The digital images in this report are intended as supplementary information and are not an integral part of this test report.

Measurement uncertainty:

Unless otherwise indicated, all measured dimensions are accurate in accordance with DIN 7168-g in accordance with DIN ISO 2768 part 1 "c" for new structures. For all other physical measurement values, the uncertainty range is < 5 %. Testing was done in standard climate conditions of 23°C / 50% relative humidity.

Test equipment list

The test equipment list contains a list of the measuring tools used and measuring equipment, gauges, templates and load weights that were used in accordance with the scope of the investigations.

Testing machines and devices as well as any connections that are necessary for the performance of tests are not an integral part of the test equipment list.

The following test equipment were available for testing in accordance with the scope of the investigations:

Clause	Test equipment	Equipment no.
General tests	Ruler	PM_HL_18.321
General tests	Band ruler 3000 mm	PM_HL_18.367
General tests	Calliuer	PM_HL_17.044
Strength and durability tests	Load cell 5 kN	PM_HL_18.358
Strength and durability tests	Load cell 5kN	PM_HL_18.359
Strength and durability tests	Load cell 5kN	PM_HL_18.360
Strength and durability tests	Load cell 5 kN	PM_HL_18.361
Strength and durability tests	Load cell 2 kN	PM_HL_18.362
Strength and durability tests	Load cell 5,5 kN	PM_HL_18.363
Strength and durability tests	Seat dummy	PM_HL_18.199
Stability	Pull-Push-Gauge	PM_HL_17.026
Stability	Stability Table	PM_HL_18.107
Stability	Load disc 10 Kg	PM_HL_18.231
Stability	Load disc 10 Kg	PM_HL_18.232
Stability	Load disc 10 Kg	PM_HL_18.233
Stability	Load disc 10 Kg	PM_HL_18.234
Stability	Load disc 10 Kg	PM_HL_18.235
Stability	Load disc (wood)	PM_HL_18.216
Stability	Load disc (wood)	PM_HL_18.217
Stability	Load disc (wood)	PM_HL_18.218
Stability	Load disc (wood)	PM_HL_18.219
Stability	Load disc (wood)	PM_HL_18.220
Stability	Load disc (wood)	PM_HL_18.221
Stability	Load disc (wood)	PM_HL_18.222
Stability	Load disc (wood)	PM_HL_18.223
Stability	Load disc (wood)	PM_HL_18.224
Stability	Load disc (wood)	PM_HL_18.225
Stability	Load disc (wood)	PM_HL_18.226
Stability	Load disc (wood)	PM_HL_18.227
Stability	Load disc (wood)	PM_HL_18.228
Stability	Load disc (wood)	PM_HL_18.229
Loading point template - A-B	Measurement template	PM_HL_18.109
Strength and durability tests	Durability test stand	PM_HL_18.153
Strength and durability tests for castor	Linear axis test stand	PM_HL_18.066

General Testing

Technical characteristics

General dimensions (measurements in mm)

Width	590
Height	850 - 1002
Depth	595
Weight	7.76 kg

Brief description of the sample

Office swivel chair with following features:

- Removable seat and back covers
- Black plastic footbase
- 150 mm gas lift for seat height adjustment
- Armrests are optional

Product pictures:



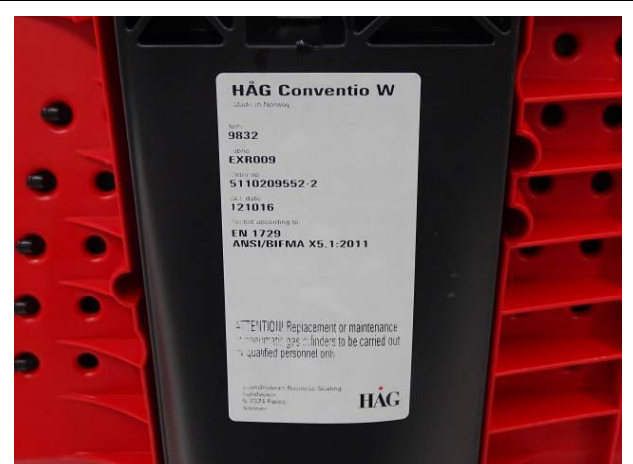
Pic.1: Front view



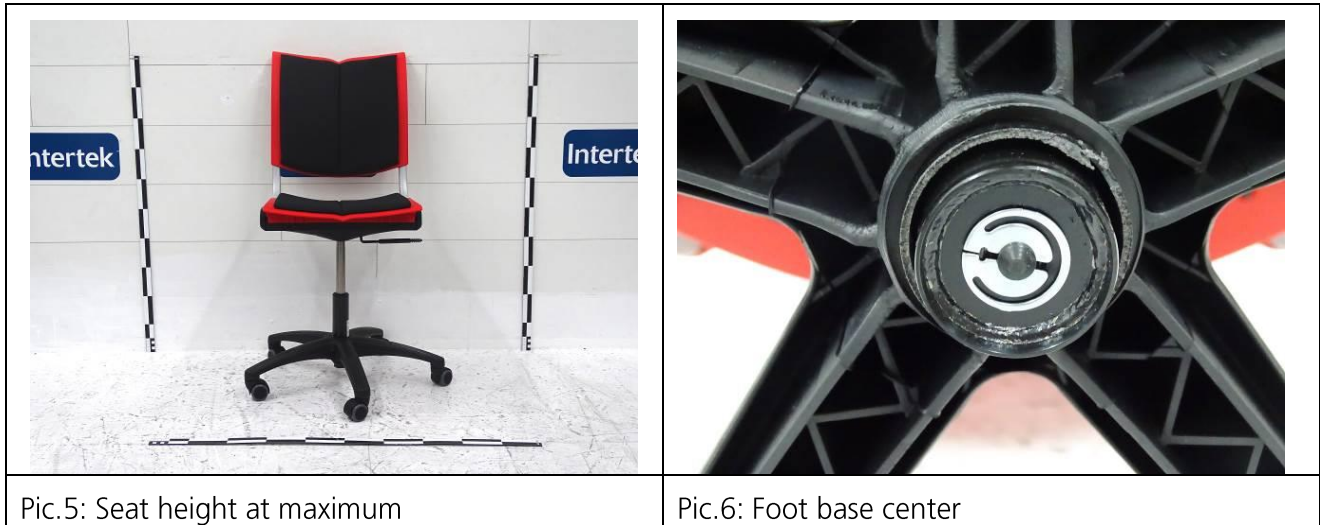
Pic.2: Side view



Pic.3: Base view



Pic.4: Product marking



Technical testing

Dimensions according to EN 1729-1:2016

Description	Requirement Class / Size 5B	Actual measurement	Verdict
h ₈ Seat height (± 10)	430	365 - 511	P
t ₄ Effective seat depth (± 20)	380	410	P
b ₃ Seat width, min.	360	430	P
x, Distance point S – backside of the backrest upholstery, max.	50	18	P
h ₇ Back rest height, min.	100	390	P
b ₄ Back rest width, min.	300	420	P
r ₂ Horizontal radius of the back rest, min.	300	> 400	P
α Seat inclination	-5° bis +7°	-1°	P
γ Angle between seat and back	95° - 110°	95°	P
p Armrest height above the seat (-20/+10)	210	--	n.a.
r Width between the armrests	420 – 470	--	n.a.
q Distance backrest – armrest, max.	250	--	n.a.
o Armrest width, min.	20	--	n.a.
n Armrest length, min	80	--	n.a.

Safety requirements acc. to EN 1729-2:2016

EN 1729-2:2016			
Clause	Test description	Actual results	Verdict
4	Safety requirements		
	a) Radius of edges which are in direct contact with the user > 2 mm	Radius > 2 mm	P
	b) Edges of handles shall have a radius of > 2 mm	Radius > 2 mm	P
	c) All other edges chamfered / rounded	Edges chamfered / rounded	P
	d) Gaps and openings of accessible, movable parts of powered mechanism < 8 mm or > 25 mm	Gaps and openings < 8 mm or > 25 mm	P
	e) Moveable parts, except while folding and unfolding, shall be < 8 mm or > 25 mm	No other moveable parts	n.a.
	f) Adjustment devices shall not be unintentionally operated	Adjustment devices not able to be unintentionally operated	P
	g) No open tubular openings	No open tubular openings	P
	h) Parts shall not be removable without a tool	Parts not removable without a tool	P
	i) Lubricated parts shall be covered	Protected against soiling	P
	j) The finishing of the work surface shall not exceed silk-matt	No work surface	n.a.
	k) Chairs shall not overturn acc. to 5.2	No overturning acc. to 5.2	P
	l) Chairs shall show no defects which affects the safety and no loss of function after the test acc. to 5.3	no defects which affects the safety and no loss of function after the test acc. to 5.3	P
	m) Tables shall not overturn acc. to 7.2 of EN 1730	No table	n.a.
	n) Tables shall show no defects which affects the safety and no loss of function after the test acc. to 6.2 of EN 1730	No table	n.a.

Test and sequence	Reference	Parameters	Units and values for Class 5	Verdict
1.Stability forwards	EN 1729-2:2016, 5.2.2	Seat force, N Horizontal Force, N;	600 20	P
2. Stability sideways (without armrests)	EN 1729-2:2016, 5.2.3	Seat force, N Horizontal Force, N;	600 20	P
3. Stability backwards	EN 1729-2:2016, 5.2.4	Seat force, N Backrest force, N;	600 180	P
4. Seat and back static load test	EN 1728:2012, 6.4	Cycles Seat force; N; Back force; N:	10 2000 max. 700	P
5. Seat and back durability test	EN 1728:2012, 6.17	Cycles Seat force; N; Back force; N:	100 000 1250 300	P
6.Seat front edge durability test	EN 1728:2012, 6.18	Cycles Force; N:	50 000 800	P
7. Sideways static load test	EN 1728:2012, 6.16	Cycles Seat force; N; Sideways force; N:	10 1300 max.500	n.a.
8. Forwards static load test	EN 1728:2012, 6.15	Cycles Seat force; N; Sideways force; N:	10 1300 max.500	n.a.
9. Seat impact test	EN 1728:2012, 6.24	Cycles Drop height, mm	10 300	P
10. Back impact test	EN 1728:2012, 6.25	Cycles Drop height, mm	10 620	P
11. Drop test	EN 1728:2012, 6.27.3	Cycles Drop height, mm	5 600	n.a.