



Page 1(12) 2019-08-22-001 Test Report No. Rev. 01 Flokk AS Customer Fridtjof Nansens vei 12 P.o Box 5055 Majorstuen-0301 Oslo, Norway **Customer contact** Product & Brands v/ Christian Eide Lodgaard Test item RH New Logic 200 & 220 Serial No. 5110445321-1 Order No. 2019-08-22-001 Date of receipt. 2019-09-19 2019-09-24 / 2019-11-21 Testing commenced / finished Flokk AS, Test 275 Sundveien 201 Performing Laboratory. 7374 Røros, Norway +47 72 40 72 00 Norsk Akkreditering Accreditation No.: Test 275 Postboks 155 Accredited by. Bedriftssenter Accreditation valid from: 2013-04-18 2001 Lillestrøm Accreditation valid to: 2023-02-16 +47 64 84 86 00 EN 1335-1:2000 Tested according to. EN 1335-2:2018 Test result. The test item passed the test specifications as a type A chair. Tested by: Approved by: Christian Andersson Ole Eliassen 2019-12-06 Product tester 2019-12-06 QHSE manager Date Name Sign. Date Name Sign. Position **Position** Additional information. The test results refer only to the sample tested. The temperature during testing has been within the specified range 15°- 25° Celsius. There has been a gap in the temperature logging between 2019-10-17, 18:50 to 2019-10-25, 09:31, though there are no indications that the temperature has been outside the specified Rev.01. Added measurements model 200 **Abbreviations** =Passed F =Failed NA =Not applicable

=Not tested





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Measurement	Description	Uncertainty U (mm)
а	Seat height	4,01
Ь	Seat depth	7,79
c	Depth of seat surface	2,31
d	Seat width	5,29
e	Inclination of seat surface	2,25
f	Height of the back supporting point S above the seat surface	21,30
g	Height of the back pad	4,35
h	Height of the upper edge back rest above the seat surface	10,61
i	Back rest width	5,03
k	Horizontal radius of back rest	NA
I .	Back rest inclination adjustment range	1,72
n	Length of the useful area of the arm rest	8,93
o	Width of the useful area of the arm rest	1,56
Þ	Height of the useful area of the arm rest above the seat	11,02
q	Distance from the front of the useful area of the arm rests to the front edge of the seat	7,79
r	Clear width between the useful area of the arm rests	15,60
s	Maximum offset of the underframe	1,70
t	Stability dimension	5,60

Measurement	Description	Uncertainty U (N)
7.3.3	Corner stability test (EN 1022:2018)	3,23
7.3.1	Forwards overturning (EN 1022:2018)	3,37
7.3.4	Sideways overturning for chairs without armrests (EN 1022:2018)	3,49
7.3.5.1 & 7.3.5.2	Sideways overturning for chairs with armrests (EN 1022:2018)	2,43
7.3.6	Rearwards overturning for chairs without back rest inclination and for chairs with backrest inclination that can be locked (EN 1022:2018)	3,91
7.4.2	Rearwards overturning for chairs with back rest inclination (EN 1022:2018)	6,84
All relevant	All load cells used during mechanical testing (EN 1728:2012)	<12
6.30	Rolling resistance of the unloaded chair (EN 1728:2012)	1,15

The given expanded uncertainty U, is the result of the multiplication of the standard uncertainty u, and coverage factor k=2, which for a normal distribution equals to a probability of $\approx 95\%$.

Decision rules employed by the laboratory, unless inherent in the requested specification or standard: Chair measurements. A result is compliant when the measured value is within the requirement (i.e. less or equal to an upper limit, greater or equal to a lower limit), without taking into consideration the measurement uncertainty. Stability, strength and durability. A result is compliant when the measured value including the expanded measurement uncertainty is within the requirement (i.e. less or equal to an upper limit, greater or equal to a lower limit).





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Brief description of the test item upon receipt.

Office work chair, model RH New Logic 200 (low backrest) and 220 (high backrest).

- Adjustable seat height, sitting depth and backrest inclination using levers on the RH side of the seat.
 Markings on the seat height gas spring: STABILUS STAB-O-MAT, DIN EN16955 4D, 161 19E 811 171.
 Markings on the backrest inclination gas spring: STABILUS BLOC-O-LIFT, 387428 0650N 091/19 BC 40.
- · Adjustable tension of the seat inclination using a knob on the LH side of the seat.
- Seat inclination may be locked using a lever on the LH side of the seat.
- · Adjustable backrest height using a lever at the bottom RH side of the backrest.
- Adjustable lumbar support protrusion using a hand pump at the bottom LH side of the backrest.
- Adjustable armrest height using levers on the outside of the armrests.
- · Adjustable armrest width using levers on the rear side of the armrest bracket.
- The armrest top can be adjusted in the fore and aft direction and tilted inwards.
- Soft castors Ø65mm, marked EMI.
- Aluminum 5-star base, marked SS 4250-2B, 740118.
- · Seat pan made of plastic and upholstered with textile over PUR foam.
- Backrest made of plastic and upholstered with textile over PUR foam.

For additional information see end of life matrix in annex 3.









Remarks:

No remarks upon receipt.





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Standard: EN 1335-1:2000 - Dimensions Model 220

Classification according to the type classes following EN 1335-1:2000

Dimensions	(x)	Adjustability		Ту	ре А		Measured value	Result
			(-) allow.	Min.a)	Max.a)	(+) allow.		N/A
Seat		g.						
Seat Height ^{b)}	(a)	Adjustable Adjustment range	Yes No	400 120	510 ⊗	Yes Yes	394 – 526 132	P P
Seat Depth	(b)	Non-adjustable Adjustable Adjustment range	Yes No	No 400 50	No 420 ⊗	Yes Yes	 400 – 499 99	NA P P
Depth of seat surface	(c)		No	380	8	Yes	477	Р
Seat width	(d)		No	400	8	Yes	442	Р
Inclination of seat surface [°]	(e)	Non-adjustable Adjustable Adjustment range	Yes No	No -7 6	No -2 ⊗	Yes Yes	 -15,5 - +8,6 24,1	NA P P
Backrest		the the second of the second		*				
Height of the back supporting point "S" above the seat surface.	(f)	Non-adjustable Adjustable Adjustment range	Yes No	No 170 50	No 220 ⊗	Yes Yes	 135 – 233 98	NA P P
Height of the back pad - adjustable in height - non-adjustable in height	(g)		No No	220 260	8	Yes Yes	620	P NA
Height of the upper edge of the back rest above the seat surface	(h)		No	360	8	Yes	581 – 681	Р
Back rest width	(i)		No	360	8	Yes	433	Р
Horizontal radius of the backrest	(k)		No	400	8	Yes	>400	Pι
Backrest inclination [°]	(1)	Adjustment range	No	15	8	Yes	21 (45,1)	P2
Armrest								
Length of armrest	(n)		No	200	8	Yes	231	P
Width of armrest ^{c)}	(0)		No	40	8	Yes	98	Р
Height of armrest above the seat	(p)	Non adjustable Adjustable	No Yes	200 200	250 250	No Yes	 199 – 315	NA P ³
Distance from the front of the armrest to the front edge of the seat surface ^{d)}	(p)		No	100	8	Yes	116 – 208	Р
Clear width between the armrest ^{e)}	(r)		Yes	460	510	Yes	318 – 515	P4
Underframe								
Maximum offset of the underframe (anti-stumbling –dimension)	(s)		Yes	8	365f)	No	397	Р
Stability dimensionh)	(t)		No	195	8	Yes	250	Р

- a) For adjustable functions the Min. and Max. values must be obtained.
- b) The minimum range of adjustment is suitable for working surface heights between at least 680 mm and 780 mm. For some part of the user group a foot rest is required
- c) The requirement applies over the minimum value n (See clause 6.13).
- d) The requirement applies from a height of 170 mm above point "A" (See clause 6.15).
- e) The requirement applies to ¾ of the seat depth b (Measured from the front edge of the seat) with the backrest in its foremost position (see clause 6.16).
- f) If swivel castors are fitted the requirement is 415 mm
- g) x is the maximum horizontal distance between parts of the upper part of the chair and the axis of rotation ((see clause 6) not used on type A chairs)
- h) See clause 4.
- No requirement specified.

Remarks.

- 1) Measured using a R=400 template.
- 2) Backrest angle including seat angle e in parenthesis.
- 3) Armrests considered rigid and are < 5mm from flat within the useful part (200×50) of the armrest. Armrest top adjusted to horizontal.
- 4) Armrest rotated maximum inwards during the minimum measurement.





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Standard: EN 1335-1:2000 - Dimensions Model 200

Classification according to the type classes following EN 1335-1:2000

Dimensions	(x) Adjustability			Ту	pe A		Measured value	Result
			(-) allow.	Min.a)	Max.a)	(+) allow.		N/A
Seat		· · · · · · · · · · · · · · · · · · ·						
Seat Height ^{b)}	(a)	Adjustable Adjustment range	Yes No	400 120	510 ⊗	Yes Yes	394 – 526 132	P* P*
Seat Depth	(b)	Non-adjustable Adjustable Adjustment range	Yes No	No 400 50	No 420 ⊗	Yes Yes	 386 – 484 98	NA P P
Depth of seat surface	(c)		No	380	8	Yes	477	P*
Seat width	(d)		No	400	8	Yes	442	P*
Inclination of seat surface [°]	(e)	Non-adjustable Adjustable Adjustment range	Yes No	No -7 6	No -2 ⊗	Yes Yes	 -15,5 - +8,6 24,1	NA P* P*
Backrest								
Height of the back supporting point "S" above the seat surface.	(f)	Non-adjustable Adjustable Adjustment range	Yes No	No 170 50	No 220 ⊗	Yes Yes	 153 – 257 104	NA P P
Height of the back pad - adjustable in height - non-adjustable in height	(g)		No No	220 260	8	Yes Yes	518	P NA
Height of the upper edge of the back rest above the seat surface	(h)		No	360	8	Yes	581 – 681	Р
Back rest width	(i)		No	360	8	Yes	431	Р
Horizontal radius of the backrest	(k)	La di	No	400	8	Yes	>400	Р
Backrest inclination [°] Armrest	(1)	Adjustment range	No	15	8	Yes	21 (45,1)	P*
Length of armrest	(n)		No	200	8	Yes	231	P*
Width of armrest ^{c)}	(0)		No	40	8	Yes	98	P*
Height of armrest above the seat	(p)	Non adjustable Adjustable	No Yes	200	250 250	No Yes	 199 – 315	NA P*
Distance from the front of the armrest to the front edge of the seat surfaced)	(p)		No	100	8	Yes	116 – 208	P*
Clear width between the armrest ^{e)}	(r)		Yes	460	510	Yes	318 – 515	P*
Underframe	III-OIRO							
Maximum offset of the underframe (anti-stumbling –dimension)	(s)		Yes	8	3650	No	397	P *
Stability dimensionh)	(t)		No	195	8	Yes	250	P*

- a) For adjustable functions the Min. and Max. values must be obtained.
- b) The minimum range of adjustment is suitable for working surface heights between at least 680 mm and 780 mm. For some part of the user group a foot rest is required
- c) The requirement applies over the minimum value n (See clause 6.13).
- d) The requirement applies from a height of 170 mm above point "A" (See clause 6.15).
- e) The requirement applies to 3/4 of the seat depth b (Measured from the front edge of the seat) with the backrest in its foremost position (see clause 6.16).
- f) If swivel castors are fitted the requirement is 415 mm
- g) x is the maximum horizontal distance between parts of the upper part of the chair and the axis of rotation ((see clause 6) not used on type A chairs)
- h) See clause 4.
- ⊗ No requirement specified.

Remarks.

*) Results from Model 220





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Standard: EN 1335-2:2018 - Safety requirements

Clause	Requirements / Remarks	Result
ı	Scope	
	See standard.	- VIII
2	Normative references	
	See standard	(907)
3	Terms and definitions	
4	See standard	
4 4.1	Safety requirements General	
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;	P
	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.	
	Remarks	
4.2	Shear and squeeze points	
4.2.1	Shear and squeeze points under influence of powered mechanisms	
	There shall be no accessible shear and squeeze points created by parts of the chair operated by powered	
2.272	mechanisms, i.e. springs, gas lifts and motorized systems.	
4.2.2	Shear and squeeze points during use	
	There shall be no accessible shear and squeeze points created by loads applied during normal use. Shear	P
	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.	
	Remarks	
12	Accessibility determined according to CEN/TR 1702:2018 clause 6.	
4.3	Sequence of testing All applicable tests shall be carried out on the same sample.	
	The chair shall be tested for stability according to EN 1022:2018,7.3 and in the order of Table 1.	
	The state of the s	
	The chair shall be tested for strength and durability according to EN 1728:2012, Clause 7 and in the	
	order of Table 2.	INFO
	With the exception of the armrest downward static load test - central test, which shall be performed	
	before and after the stability test according to Table 1, the chair shall be tested for stability after the	
	strength and durability tests according to Table 2.	
	Remarks	





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Clause	Requir	Requirements / Remarks							
4.4		ty tests and requirements							
		ested according to Table 1, the seating shall not overturn.				P			
	12,777,000,7700	Remarks							
	Require	Requirements for 7.3.6; 130N							
CI		Actual result of test 4.4 and table							
Ciauses EN 1022	given in 2:2018	Test		L	.oads	Result			
	7.3.3	Corner stability	Fı		300N	>367N			
	7.3.1	Forward overturning	Fi		600N	600N			
	7.3.1	Forward overturning	F ₂		20N	72N			
	7.3.2	Forward overturning for chairs with footrests	Fi		1100N	NA			
	7.3.2	Tot ward over turning for Chairs with loot ests	F ₂		20N	NA			
	7.3.4	Sideways overturning for chairs without armrests	Fi		600N	NA			
	7.5.1	Sideways over turning for chairs without armirests	F ₂		20N	NA			
		Sideways overturning for chairs with armrests			250N	250N			
7.3.5.1	and 7.3.5.2.				350N	350N			
			F ₃		20N	58N			
	7.3.6	Rearwards overturning for chairs without backrest inclination			600N	600N			
	7.3.6	and for chairs with backrest inclination that can be locked.	F ₂	0,2857	*(1000-Ha)	227N			
7.4 Rearwards overturning for chairs with backrest inclination. No. of discs				13	>14				
Clause	Require	ements / Remarks				Result			
4.5		ural safety requirements uctural safety requirements are met when the requirements accor	ding to 5.2 ar	e fulfilled.		Р			
	Remar								
Clause		ements / Remarks				Result			
5 5.1 5.2	Strength and durability 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.								
	Remar	Remarks							
	-	Actual results of test 5 and table	2						
Clauses EN 1728	given in 8:2012	Test	For	ce	Cycles	Result			
-	7.3	Combined seet and back static lead test	16	00 N					
	7.3	Combined seat and back static load test F ₂ 560N			Р				
	**************************************	The state of the s			1,000	10.00			

Clauses given in EN 1728:2012	Test		Force	Cycles	Result
7.3		Fı	1600 N	10	
7.3	Combined seat and back static load test	F ₂	560N	10	Р
7.4	Seat front edge static load test	F	1600 N	10	Р
7.8	Foot rest static load test	F	1300 N	10	Р
	Seat and back durability				
	Step I -Loading Point A	F	1500 N	120000	P
	Step 2- Loading Point C	F	1200 N	80000	Р
	Loading Point B	F	320 N	80000	
7.9	Step 3- Loading Point J	F	1200 N	20000	Р
	Loading Point E	F	320 N	20000	P
	Step 4- Loading Point F	F	1200 N	20000	
	Loading Point H	F	320 N	20000	P
	Step 5- Loading Point D and Ga	F	1100 N	20000	P
7.10	Arm rest durability	F	400 N	60000	Р
(1==4()	A d d	F	750 Nb	5	Р

a) In derogation to EN 1728:2012, 7.2.5 and 7.2.8, the loading point D shall be 150 mm to the right of point A and the loading point G shall be 150 mm to the left of point A.

Arm rest downward static load test - central

6.1 and 6.2

b) This test shall be carried out before the stability tests

c) This test shall be carried out after the stability tests





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Clause	Requirements / Remarks	Result
5.3	Rolling resistance test and requirements The rolling resistance test shall be carried out after the stability (according to Table 1) and after the strength and durability tests (according to Table 2). The unloaded chair shall be tested for rolling resistance according to 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.	P
	Remarks See annex 2.	
6	6 Information for use 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.	Р
	Remarks See annex 3.	

End of test report





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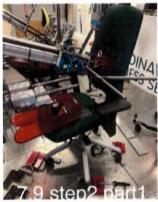
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Annex I - Photo documentation



































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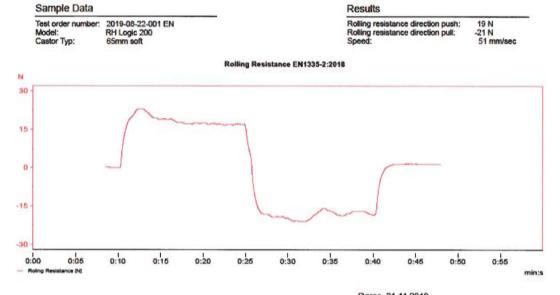
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Annex 2 - Rolling resistance.

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Office Chair rolling resistance test acc. NS-EN 1335-2:2018, clause 5.3



Røros, 21.11.2019 Operator: Christian Andersson





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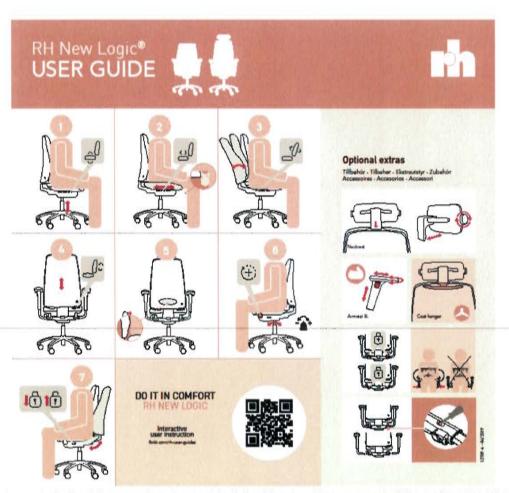
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Annex 3 - User guide.

CONGRATULATIONS

on the purchase of your RH New Logic chair!







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CONGRATULATIONS on the purchase of your RH New Logic chair!

RH New Logic® USER GUIDE









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Companent	Material resources	Matarial recycling	dycling*	incineration with anargy recovery	
Cinton	Plantic, steni	~	10000 00000		-
l'ootbuse	Aluminium	7		0 - 1.50	-
Graphite.	Stool, plantic	~			GLIAMANTE
Sgat migchanism	Stort, aluminium, plantic	~			GUANANTE
Seat, back and neckreat shall	Plants	~			(84)
Sout, back and nockress foam	PUR Igem		v		200
Sest, back and neckreat cover	Textile		V		CHAPTER ST
Nockreat stern	Plantic	~			
Armess top and body	Pleatic	V		/	Photosophics.
Armenat skam	Steel	V			THE PERSON NAMED IN
Packaging	Cardboard	· ·			
Packaging	Expanded polystyrune		~		Street, or other Designation of the last