

Hepro A/S  
Övermoan 9  
N-8250 ROGNAN  
NORWAY

## Testing of stand-up chair according to EN 1335-1, -2, -3 (3 appendices)

<b>Customer:</b>	Hepro A/S
<b>Test object/ID:</b>	Stand-up chair /Hepro Ståstøttestol
<b>Test method:</b>	EN 1335-1:2000 Office furniture - Office work chair - Part 1: Determination of dimensions EN 1335-2:2009 Office furniture - Office work chair - Part 2: Safety requirements EN 1335-3:2009 Office furniture - Office work chair - Part 3: Test methods
<b>Scope:</b>	Complete test
<b>Date of test:</b>	2017-02-31 – 2017-05-15
<b>Test result:</b>	The tested object passed the test Ståstøttestol is assessed to meet all the relevant dimensions for a stand-up chair according to EN 1335-1:2000
<b>Reservation:</b>	The test results in this report apply solely to the specimen tested
<b>Test environment:</b>	23 ± 2°C and 50 ± 5% relative humidity

### RISE Research Institutes of Sweden AB Building Technology - Wood Technological Assessment

Performed by

Examined by

Hans Eriksson

Bengt-Åke Andersson

### Appendices

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

### RISE Research Institutes of Sweden AB

Postal address	Office location	Phone / Fax / E-mail
Box 857 SE-501 15 BORÅS Sweden	Brinellgatan 4 SE-504 62 BORÅS	+46 10 516 50 00 +46 33 13 55 02 info@ri.se

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Appendix 1

**Test result**

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

Table 1

1.	General requirements	EN 1335-2	Result
1.1	<p>Distance between accessible movable parts shall be either <math>\leq 8</math> mm or <math>\geq 25</math> mm in any position during movement</p> <p>Accessible corners shall be rounded with minimum 2 mm radius</p> <p>Edges of the seat, back rest and arm rests which are in contact with the user when sitting in the chair shall be rounded with minimum 2 mm radius</p> <p>Edges of handles shall be rounded with minimum 2 mm radius in the direction of the force applied</p> <p>All other edges shall be free from burrs and shall be rounded or chamfered</p> <p>Ends of accessible hollow components shall be closed or capped</p> <p>Movable and adjustable parts shall be designed so that injuries and inadvertent operation are avoided</p> <p>It shall be possible to operate the adjusting devices from sitting position in the chair</p> <p>Load bearing parts shall not come loose unintentionally</p> <p>All parts which are lubricated to assist sliding (greasing, lubricating, etc.) shall be designed to protect users from lubricant stains when in normal use</p>	4.1	Pass
1.2	Information for use	5.	Not assessed

Table 2

2.	Stability	EN 1335-3	Result
2.1	Front edge overturning	7.1.1	Pass
2.2	Forwards overturning	7.1.2	Pass
2.3	Forwards overturning for chairs with footrest	7.1.3	N/A
2.4	Sideways overturning for chairs without arm rests	7.1.4	Pass
2.5	Sideways overturning for chairs with arm rests	7.1.5	N/A
2.6	Rearwards overturning	7.1.6	Pass
2.7	Rearwards overturning for chairs with adjustable back rest inclination	7.1.7	Pass

Appendix 1

Table 3

3.	Strength, durability (safety)	EN 1335-3	Cycles	Load EN 1335-2	Result
3.1	Seat front edge - Static load test	7.2.1	10	1600 N	Pass
3.2	Seat and back – Static load test	7.2.2	10	Seat: 1600 N Back: 560 N	Pass
3.3	Foot rest – Static load test	7.2.6	10	1300 N	Pass
3.4	Seat and back - Position A	7.3.1	120 000	1500 N	Pass
3.5	Seat and back - Position C-B	7.3.1	80 000	Seat: 1200 N Back: 320 N	Pass
3.6	Seat and back - Position J-E	7.3.1	20 000	Seat: 1200 N Back: 320 N	Pass
3.7	Seat and back - Position F-H	7.3.1	20 000	Seat: 1200 N Back: 320 N	Pass
3.8	Seat and back - Position D-G	7.3.1	20 000	1100 N	Pass
3.9	Armrests – Fatigue testing	7.3.2	60 000	400 N	N/A
3.10	Armrests – Vertical static load (Before stability test)	7.3.3	5	750 N	N/A
3.11	Armrests – Vertical static load (After stability test)		5	900 N	N/A
3.12	Rolling resistance	7.4		≥ 12 N	5 N <sup>1</sup>

Table 4

4	Functional tests	EN 1335-3	Cycles	Load	Result
4.1	Armrests – Vertical static load (front edge)	7.2.4	5	450 N	N/A
4.2	Armrests – Horizontal static load	7.2.5	10	400 N	N/A
4.3	Swivel test	7.3.3	120 000	Pos. A 60 kg Pos. B 35 kg	N/A
4.4	Foot rests – Fatigue test	7.3.4	50 000	900 N	N/A
4.5	Castor and chair base durability	7.3.5	36 000	Pos. A 110 kg	Pass

<sup>1</sup> The chair is equipped with a brake system which ensures the user to sit down safely in the chair

Appendix 1

The dimensions are reported in table 5-6. The dimensions are given in millimetres, unless specified otherwise. Measured values outside the requirements for A-type chairs are given in *bold italics*. The index refers to EN 1335-1

Table 5

Dimensions	index	Type A				Results
		(-) allow.	Min.	Max.	(+) allow.	
<b>SEAT</b>						
Seat height - Adjustment range	a	yes no	400 120	510	yes yes	<b>495 - 670</b> 175
Seat depth - Adjustment range	b	yes no	400 50	420	yes yes	440 Not adjustable
Depth of seat surface	c	no	380		yes	420
Seat width	d	no	400		yes	420
Inclination of seat surface - Adjustment range	e	yes no	-2° 6°	-7°	yes yes	+16° - (-13°) 29°

Table 6

Dimensions	index	Type A				Results
		(-) allow.	Min.	Max.	(+) allow.	
<b>BACK REST</b>						
Height of the back supporting point "S" above the seat surface - Adjustment range	f	yes no	170 50	220	yes yes	140 - 260 120
Height of back pad – adjustable in height – non-adjustable	g	no no	220 260		yes yes	230
Height of the upper edge of back rest above the seat surface	h	no	360		yes	290 - 410
Back rest width	i	no	360		yes	370
Hor. radius of the back rest	k	no	400		yes	<b>300<sup>2</sup></b>
Backrest inclination adjustment range	l	no	15°		yes	34°

<sup>2</sup> The manufacturer can provide different backrests with different radius of the backrest

## Appendix 2

**Description of test object**

Test object ID: Stand-up chair /Hepro Ståstøttestol

**Dimensions**

Seat height: 495 – 670 mm

Mass: 17.1 kg

**Components**

Underframe: Base in aluminium

Seat: Wooden frame

Backrest: Moulded plastic

Castors: Ø75 mm

Upholstery: Flexible foam, fabric

Sampling: The test object was selected by the customer

Date of arrival at  
SP test laboratory: 2017-01-16

Observed defects before testing: No defects

## Appendix 3

## Pictures



Figure 1



Figure 2

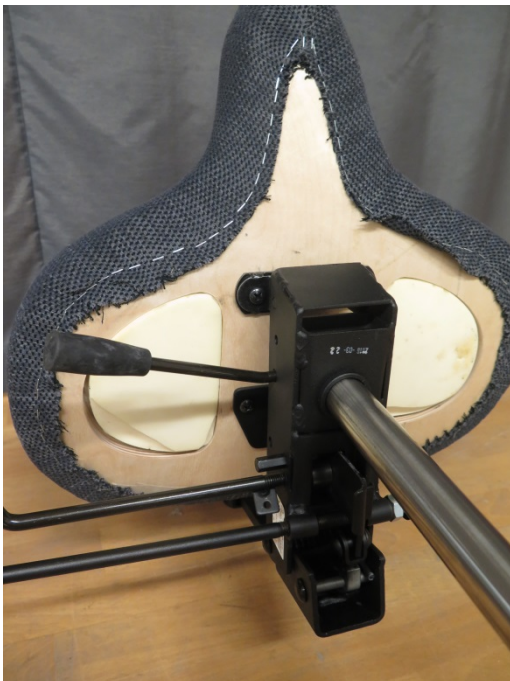


Figure 3



Figure 4