

Test- report

Nr. Q MBL N 938 2053e

Reported to:

HÅG asa
Sundveien
7366 Røros
Norway

Object:

Office work chair model "HÅG Futu"
(6 samples supplied by the manufacturer)

Order:

Safety test for the GS-Label

Findings:

The office work chair model "HÅG Futu" **meets** the requirements for the GS-Label.
The test was carried out to DIN EN 1335, part 1, part 2 and part 3, ed. 08.2002, DIN 4550, ed. 12.2004 considering the state of art of safety technique.

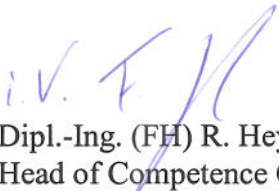
The office work chair model "HÅG Futu" complies with type A of DIN EN 1335, part 1. Thus the requirements for ergonomic design of the EU-Visual Display Terminal Directive as laid out in DIN EN ISO 9241 part 5, ed. 08.1999 are met.

Note:

In connection with the signed general agreement the right to use the GS-Label is granted.

Nuremberg, 2009-01-27
Q MBL N hy/ra/şe

LGA QualiTest GmbH
Furniture Test Institute


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Test Results

Object

Article: Office work chair of model "HÅG Futu"
Article no.: 1020
Number of samples: 6 + castors type "W"
Samples
Delivered by: HÅG asa
Delivered: 11.11., 29.12.2008 and 19.01.2009
Reg. No.: 1073/1-6, 1246 and 15715

Scope of tests

General examination

Technical tests

- Dimensions to DIN EN 1335-1
- Safety Requirements to DIN EN 1335-2
- Durability seat centre to DIN EN 1335-3
- Alternating bending load on seat and back to DIN EN 1335-3
- Additional test of the pivoting back to DIN EN 1335-3
- Durability of arms to DIN EN 1335-3
- Arm rest static load to DIN EN 1335-3
- Stability to DIN EN 1335-3
- Rolling resistance to DIN EN 1335-3
- Instruction Manual to DIN EN 1335-2
- Marking of the chair to DIN 4551
- Marking of the Gas cylinder to DIN 4550
- PAH-risk analysis

Applicability of test results

The test results refer solely to the samples tested. The digital pictures shown in this report are for additional information only and are not part of this report.

Measurement uncertainty

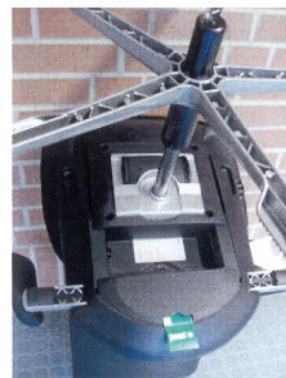
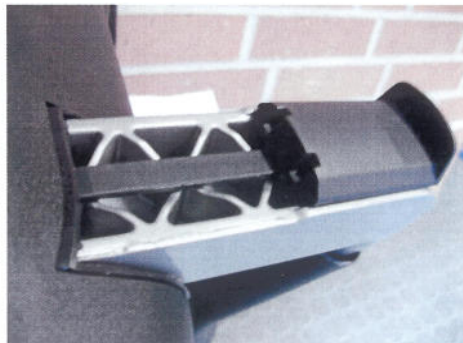
Unless otherwise stated all dimensions are measured to an accuracy according to DIN 7168-g for old constructions resp. DIN ISO 2768 part 1 "c" for new constructions. For all other physical values the measurement uncertainty is < 5 %.

The test has been carried out at standard climate 23 °C/50 % r.h.

General examination

Brief description of the samples

- Seat height adjustable by means of gas spring from Suspa
- Denomination of gas spring:
17-04-19 DIN 4550-4 04 08 /1
- Seat mechanism made of aluminum die cast with tilt action (in Balance) blockable in normal position by handle
- Tilt resistance of the mechanism adjustable in 5 positions by handle
- Separate seat depth adjustment by horizontal movement of the backrest in rearward direction by means of press button
- Backrest with height adjustable lumbar support
- Arm rests adjustable in height and in clear width
- Base made of aluminum die cast (AL 4250)
- 5 brake unloaded twin wheel swivel castors type "H" and "W"
- Lettering of castors: none
- Castor manufacturer: JENP JOU



Technical Test

Dimensions to EN 1335 - Office work chairs

Type A Model 1020

Denomination/code letter	nominal size (mm)	actual size (mm)	
Seat height ^{a)} adjustment range	a ≤ 400 to ≥ 510 120 min.	400 – 548 (at 0° seat inclination) 148	+ +
Seat depth adjustable adjustment range	b ≥ 400 to ≤ 420 50 min.	385 – 460 (by mechanism movement)	+1)
Seat depth	c 380 min.	460	+
Seat width	d 400 min.	470	+
Inclination of seat surface fixed adjustment range	e -2° to -7° ≤ -2° to ≥ -7°	+7° to -19°	+
Height of back supp. point "S" above the seat; adj. range	f ≤ 170 to ≥ 220 50 min.	160 - 255	+
Height of back rest: - adjustable in height not adjustable in height	g 220 min. 260 min.	600	+
Height of upper edge of the back rest above the seat	h 360 min.	554	+
Back rest width	i 360 min.	375	+
Back rest radius horizontal	k 400 min.	400	+
Back rest inclination Adjustable range	l 15° min.	19° in rearward direction 9° in forward direction	+
Length of the armrest	n 200 min.	200	+
Width of the armrest ^{b)}	o 40 min.	70	+
Height of the armrest fixed above the seat adjustable	p 200 to 250 ≤ 200 to ≥ 250	197 - 295	+
Distance of the armrest to the front edge of the seat ^{c)}	q 100 min.	135 high / 160 low	+
Clear width between armrests ^{d)}	r 460 to 510.	430 – 520	+
Max. span of the base ^{e)}	s 365 max	389	+
Stability dimension	t 195 min.	246,5	+

1) + 80 mm separate way for seat depth.

a) The limits of the minimum adjustable range consider work heights of min 680 mm to 780 mm. Some users need a foot rest.

b) This requirement applies for a minimum length of "n".

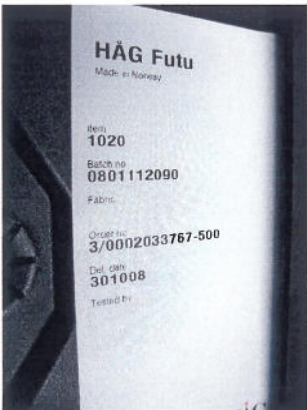
c) This requirement applies for a length from 170 mm above point "A".

d) This requirement applies for ¾ of the seat depth "b" (measured from the seat front edge) with back rest setting most forwarded.

e) When castors are used the requirement is: 415 mm.

Test Requirements	Results	+ positive - negative ./ not applicable
Safety (EN 1335-2 cl. 4.1) Edges and corners, shearing and crushing points Adjustment devices Joints Soiling Chemical tests (PAH) Seat and back rest (EN 1335-3 cl. 7 and 8) Durability test seat centre Alternate bending load of seat and back Alternate bending load off centre Alternate bending load - lateral Arm rests (EN 1335-3 cl. 9) Durability test Test under vertical static load Functional load Overload Stability (EN 1335-3 cl. 5) Front edge overturning Forwards overturning Sideways overturning Rearward overturning      	Requirements met Edges at the slide for the seat depth adjustment will be smoothed risk analysis carried out Requirements met 1500 N, 120000 cycles 1200 N/320 N, 80000 cycles 1200 N/320 N 20000 cycles 1100 N, 20000 cycles Requirements met 400 N and 60000 cycles 750 N each, 5 LW 900 N each, 5 LW Requirements met 47 kg (with armrest) 96 N (with armrest) 44 N (with armrest) > 13 discs (with armrest)	+ + + + +1) + + + + + + + + + + + +

1) Note: The accessibility and the selection of the materials show no suspicion concerning a PAK-risk (see document ZEK 01.01-08 of ZLS).

Test Requirements	Results	+ positive - negative ./ not applicable
Rolling resistance (EN 1335-3 cl.. 6) Rolling resistance Type "W" ≥ 12 N Rolling resistance Type "H" ≥ 15 N Fatigue	Requirements met Type "W" 14.2 N Type "H" 18.5 N 100 hours	 + + +
User's information (EN 1335-2 cl. 5)  - Information how to operate the unit - Information on the type of chair and how to operate the adjustment settings. - Information on the use of the adjustment device - Information on care & maintenance - Information on seat- and back rest adjustments - For chairs provided with seats adjustable in height by energy storage elements an additional information is required that only trained personnel may replace or repair the energy storage elements. - Information as to the type of castors with respect to the flooring	Requirements met 1) 2)   	 + + + + + +
Marking of the chair (DIN 4551 cl.. 8) Name or label of manufacturer Type designation Year of construction		Requirements met + + +
Marking of gas spring (DIN 4550 cl. 7) Manufacturer Type designation Classification Date of production - week/year	Requirements met Suspa 17-04-19 DIN 4550-4 04 08 /1	 + + + +

Note: 1) Standard fitting when selling according to the statement of the orderer.

2) The check of the mounting instructions/ user's information does not include a full check in the sense of the DIN EN 62079.