LGA QualiTest GmbH
Institute for Product Testing and Quality Control
Furniture Test Institute

Test-report

Nr. **Q IWQ MBL 734 1973**

Reported to: HÅG asa
7366 RØROS
Norway

Object: Office work chair model range "H09"
(7 samples supplied by the manufacturer)

Order: Safety test (assumption of the GS-Label)

Findings:

The office work chair Model range "H09" **meet** the requirements for the GS-Label.
The test was carried out acc. to DIN EN 1335, part 1, part 2 and part 3, ed. 08.2002 considering the state of art of safety technique.
The office work chairs comply with type A of DIN EN 1335, part 1. Thus the requirements for ergonomic design of the EU-Video Display Terminal Directive as laid out in DIN EN ISO 9241 part 5, ed. 08.1999 are met.
The reference models H09 9120, 9130, 9220, 9230, 9320 and 9430 were tested standing in for the complete office work chair Model Range "H09". The types of the whole model range differ only in the design of the backrests.
Note:
In connection with the signed general agreement the right to use the GS-Label is granted.

Nürnberg, 21.06.2005
QIWQMBL hy/ ra/ şe

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This test report consists of 6 pages.

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Test Results

Object:

Article:	Office work chair Model Range "H09"
Type/Model:	H09 9120, 9130, 9220, 9230, 9320 and 9430
Number of samples:	1 each and 1 additional H09 9230
delivered:	15.11. 2004 and 13.06.2005
Reg. Nr.:	884/1-6 and 439
delivered by:	HÅG asa

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

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.
The model range H09 consist the model types H09 9120, 9130, 9220, 9230, 9320, 9230, 9420 and 9430.

Measurement incertainty

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 incertainty is < 5 %. The test has been carried out at standard climate 23 °C/50 % r.h.

General examination

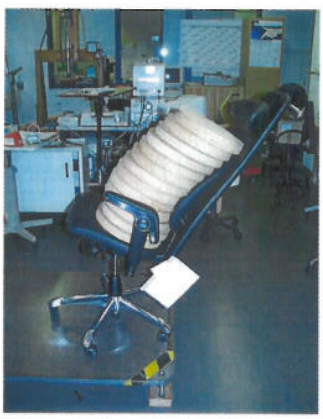
Brief description of the samples

- Seat height adjustable by means of gas spring from SUSPA
- Denomination of gas spring: 17-04-26 DIN 4550-4 09 04 /1
- Seat mechanism with tilt function,
- Initial tension adjustable by means of hand wheel
- Sliding seat adjustable in 7 positions by hand lever
- Seat inclination lockable by hand lever
- Seat plate made of plastic (PP)
- Seat padded and upholstered
- Backrest with adjustable lumbal support in height, available in different design, in low version and high version with headrest.
- Backrest covered with network, leather or only with backrest pads.
- Arm rests adjustable in height and width.
- Arm pads able to turn down
- Base made of aluminium die cast
- 5 brake unloaded twin wheel swivel castors type "H" or "W"
- Denomination of castors: GR
- Castor manufacturer: Guy Raymond

Prüfkriterium / Anforderung		Ergebnis	+ positiv - negativ
Technical testing **Dimensions in accordance with EN 1335 – 1** **Models H09 9220 and 9230** **Office swivel chairs Type A**			
Denomination/code letter	**nominal size (mm)**	**actual size (mm)**	
Seat height [a)] adjustable from	**a** ≤ 400 to ≥ 510 120 min.	391 – 522 131	+ +
Seat depth min. adjustable from	**b** 400/420 50 min.	395 – 517	+1)
Seat depth	**c** 380 min.	480	+
Seat width	**d** 400 min.	450	+
Seat inclination range adjustable	**e** ≤-2° up to ≥ -7° 6° min.	+3° - -25° 28°	+ +
Height of support point "S" above seat- adjustable range	**f** ≤ 170 up to ≥ 220 50 min.	170 – 265 95	+2) +
Height of back rest: - adjustable in height not adjustable in height	**g** 220 min. 260 min.	model 9220 9230 780 1050	+3)
Height of upper edge of the back rest above the seat	**h** 360 min.	model 9220 9230 653 936	+3)
Back rest width	**i** 360 min.	480	+3)
Back rest radius horizontal	**k** 400 min.	> 400	+3)
Back rest inclination Adjustable range	**l** 15° min.	30° (complete range)	+
Length of the armrest	**n** 200 min.	232	+
Width of the armrest [b)]	**o** 40 min.	58	+
Height of the armrest fixed above the seat adjustable	**p** 200 to 250 ≤ 200 to ≥ 250	204 – 299	+
Distance of the armrest to the front edge of the seat [c)]	**q** 100 min.	103 - 115	+1)
Clear width between armrests [d)]	**r** 460 to 510.	454 - 534	+
Max. span of the base [e)]	**s** 365 max	391	+
Stability dimension	**t** 195 min.	259	+

1) + 83 mm separate way for sliding seat.
2) The results can be transferred to the whole model range.
3) All remaining backrests of the model range also pass the required values.
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.

Prüfkriterium / Anforderung	Ergebnis	+ positiv - negativ
Safety *) (EN 1335-2 cl.. 4.1)	Requirements met	
Edges and corners, shearing and crushing points		+1)
Adjustment devices		+
Joints		+
Soiling		+
Seat and back rest (EN 1335-3 cl. 7 and 8)	Requirements met	
Durability test seat centre	1500 N, 120000 cycles	+
Alternate bending load of seat and back	1200 N/320 N, 80000 cycles	+
Alternate bending load off centre	1200 N/320 N 20000 cycles	+
Alternate bending load - lateral	1100 N, 20000 cycles	+
Arm rests (EN 1335-3 cl. 9)	Requirements met	
Durability test	400 N and 60000 cycles	+
Test under vertical static load		
Functional load	750 N each, 5 LW	+
Overload	900 N each, 5 LW	+
Stability (EN 1335-3 cl. 5)	Requirements met	
Forwards overturning		+
Front edge overturning		+
Sideways overturning		+
Rearward overturning		+



1) Potential pinch points are not available under normal use

Prüfkriterium / Anforderung	Ergebnis	+ positiv - negativ
Rolling resistance*) (EN 1335-3 cl.. 6)	Requirements met	
Rolling resistance Type "W" ≥12 N Type "H" > 15 N	Type "W" 12 N Type "H" 26,5 N	+ +
Fatigue	100 hours	+
User's information (EN 1335-2 cl. 5)	Requirements met	
• 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		+
Marking of the chair (DIN 4551 cl.. 8)	Requirements met	
Name or label of manufacturer		+
Type designation		+
Year of construction		+
Marking of gas spring (DIN 4550 cl. 7)	Requirements met	
Manufacturer		+
Type designation		+
Classification		+
Date of production - week/year		+

* unless otherwise specified the specifications as laid down in the relevant standards shall apply.