LGA QualiTest GmbH
Furniture Test Institute

Test-report

No **Q MBL N 938 1677e**

Reported to: HÅG asa
7366 RØROS
Norway

Object: Visitor's chair model range „HÅG Sideways"
models 9730, 9740 (skid base chair, stackable)
models 9732, 9742 (conference swivel chair)
(4 sample supplied by the manufacturer)

Order: Safety test following DIN EN 13 761 and DIN EN 1728, as well as DIN 68 878 for of the GS-Label

Findings:
The test contained the following safety technical criteria according to the Equipment and Product Safety Act:
Functional dimensions, workmanship, stability, as well as static and dynamic load.
The tests for contractual use were carried out following DIN EN 13761, ed. 12. 2002 in connection with DIN EN 1728, ed. 08.2004, as well as DIN 68 878 part 1, ed. 01.1987 (tilt-fall-test with 80 000 cycles total).

Strength and stability showed no failure and **meet** the requirements for contractual use.

Technical data and details of the test are on the following pages.
Note:
In connection with the signed outline agreement the permission to use the **GS-Label** is given.

Nürnberg, 11/08/2008, modiefied 14/08/2008
Q MBL N hy/ra/şe

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Test Results

Object

Article:	Visitor's chairs model range "HÅG Sideways"
Model:	models 9730, 9740 (skid base chair, stackable) models 9732, 9742 (conference swivel chair)
Number of samples:	4
Delivered:	09.07. and 15.07.2008
Reg. No.:	Reg. 645-1/2 und 660-1/2
Delivered by:	HÅG asa

Scope of tests

General examination

Safety test following DIN EN 1728, ed. 08.2004, in connection with DIN EN 13 761, ed. 12.2002, DIN EN 1335, part 2 and part 3, ed. 08.2002 and DIN EN 1022, ed. 09.2005, DIN 68 878, part 1, ed. 01.1987 tilt-fall-test 80 000 cycles for contractual use.

Functional dimensions
Workmanship
Stability
Corrosion test
Dynamic test
Static test
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 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

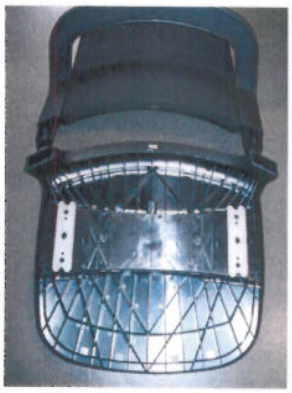
Dimensions (mm)

models	9730	9740
Overall height:	860 mm	860 mm
Overall widht:	595 mm	595 mm
Overall depth:	645 mm	645 mm
Weight:	10,0 kg	10,4 kg

Brief description of the sample

- Skid bas visitor's chair with tilt action, stackable
- Skid frame made of round steel rod Ø 12 mm, multiple bended, fixed on two pivot points each, with four glides
- Plain bearings made of plasic (POM), as well as shaped steel clambing plate with four mounting screws M6 x 50 mm fixed to the seat shell
- Seat and backrest incl. armrest bow made of plastic (PP) from comp. Plastunion
- Backrest lattice shaped, optional with fully upholsery















Dimensions (mm)

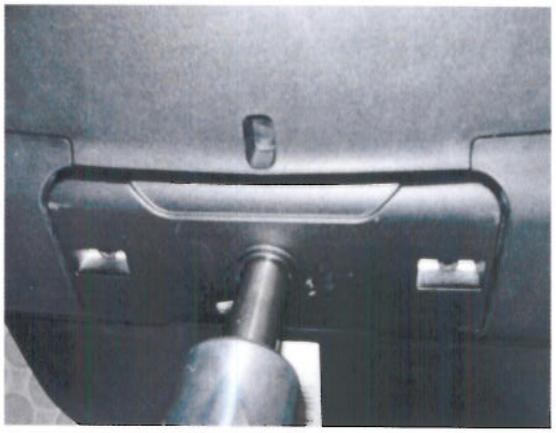
models	9732	9742
Overall height:	830 mm	830 mm
Overall widht:	530 mm	530 mm
Overall depth:	685 mm	685 mm
Weight:	10,1 kg	10,4 kg

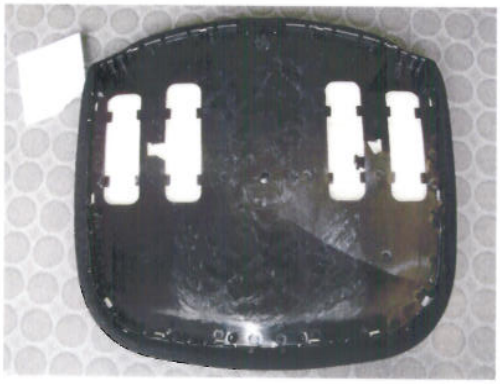
Brief description of the sample

-Visitor's swivel chairs with tilt action
- Swivel column not height adjustable from SUSPA
  Type 17 - 04-19 DIN 4550-4 04 08 /1
  outer diameter of the bearing tube of the gas spring 28 mm.
- Seat and backrest incl. armrest bow made of plastic (PP) from comp. Plasunion
- Backrest lattice shaped, optional with fully upholstery
- Chair base with four beams made of alu die-casting
- Denomination: 1 N 126162 AL 4250
- 4 glides made of plastic, at the end of the base beams





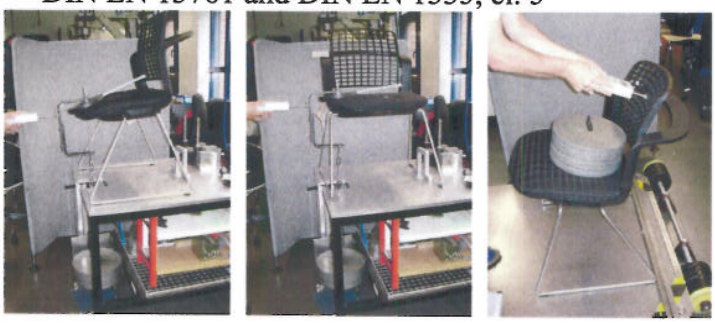


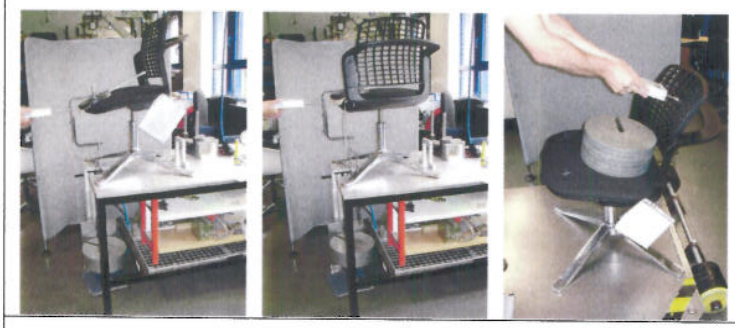



Inspection Characteristic/Requirement			Results	+ passed - failed ./. n. a.
Technical tests				
Functional dimensions (mm) (DIN EN 13 761 Pkt. 4)			Requirement met	
Seat height: (measured with template as in DIN EN 1335 - 1)	**a**	400 to 500 mm	458 (skid base) 452 (swivel chair)	+ +
Seat depth: (measured 230 mm above the loaded seat)	**b**	380 to 470 mm	460/470	+
Seat width:	**d**	mind. 400 mm	490	+
Distance between arm rests	**r**	mind. 460 mm	./.	./.
Maximum offset of the underframe [e)]	**s**	365f)	395	./.
Stability dimension	**t**	195 min.	288	+
Workmanship			Requirement met	
- Corners and edges shall have no burrs and shall be cut off or rounded (haptic test);				+
- Chairs made of wood shall be free of quality reducing knots, insect bites, rotting and dulls				./.
- All metal parts visible during intended use shall be corrosion resistant				+
- Chemical tests (PAHs)				+

1) Note: The accessibility and the sellection of the materials show no suspition concerning a PAH-risk (see dokument ZEK 01.01-08 of ZLS).

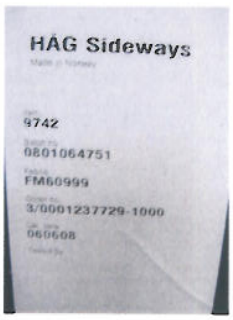
Inspection Characteristic/Requirement	Results	+ passed - failed ./. n. a.
Corrosion test	Requirements met	
Test condition		
Test to DIN EN ISO 6270 part 2, ed. 09.2005		
Stability	Requirements met See photos	
Test conditions Test to DIN EN 1022, ed. 09.2005/1335, ed. 08.2002		
Tilting to the front Load 60 kg + 20 N	skid base chair: 50 N without gl. swivel chair: >100 N	
Tilting to the side without armrests - Load 60 kg + 20 N	>100 N / >100 N	
Tilting to the side with armrests Load 25 kg / 35 kg + 20 N	27N. / 21 N	
Tilting to the rear. Seat load 60 kg skid base chair: Backrest load 154.8 N (Seat height 458 mm) swivel chair: Backrest load 156.6 N (Seat height 452 mm)	250 N / 240 N	
Front edge overturning to DIN EN 1335, part 3, cl. 5.1 Load >27 kg	up to 50 kg only swivel chair	
Requirements - No overturning under test load according to DIN EN 13761 and DIN EN 1335, cl. 5		+






Inspection Characteristic/Requirement	Results	+ passed - failed ./. n. a
Test of static and dynamic strength **For four legged chairs** **Tilt-fall-test following DIN 68 878, part 1, ed. 01.1987** **Test conditions** Height of the tilted legs: 30 mm Test frequency: 10 min^{-1} Proof load forwards and rearwards: 850 N Proof load to the left and right: 425 N Point of entry above the loaded seat: 300 mm Number of cycles each test sequence: 20 000*) **Requirements** No fractures or significant deformation, that affects the safe use of the chair, may occur *) increased number of cycles for chairs for contractual use	Requirements met  	+
Static test of the backrest **Test conditions** Seat load: 850 N Back load static 90° to the inclination: 750 N Point of entry above the loaded seat: 300 mm Period of the stress: 10 min **Requirements** No fractures or significant deformation, that affects the safe use of the chair, may occur	Requirements met 	+

Inspection Characteristic/Requirement	Results	+ passed - failed ./. n. a.
Test of static and dynamic strength **Table 1** (Numbering to DIN EN 1728:2004)	Requirements met	
Test Conditions		
6.2.1 Static load of seat and back 10 cycles Seat load 1.600 N, Back load 560 N, reduced to 410 N		+
6.2.2 Static load of seat front edge 10 cycles Seat load 1.300 N,		+
6.5 Horizontal static load test of the armrests 10 cycles; load 400 N		+
6.6 Vertical static load test of the armrests 10 cycles; load 700 N		+
6.7 Combined seat and back fatigue test 100 000 cycles, load 1000 N/300 N		+
6.8 Seat front edge fatigue test 50 000 cycles, load 1000 N		+
6.10 Arm fatigue test 30 000 cycles, load 400 N		+
6.12 Leg forward static load test 10 cycles, load 500 N		./.
6.13 Leg sideways static load test 10 cycles, load 400 N		./.

Inspection Characteristic/Requirement	Results	+ passed - failed ./. n. a.
6.15 Seat impact test Drop height 180 mm 10 cycles **Requirements** No fracture or deformation that interfere with safe use of the chair may occur	 	+
User's information	Requirements met [1)]	+
Each chair shall be accompanied by information for use in the language of the country in which it will be delivered to the end user. It shall contain at least the following details: • Information about the intended use • Information on care&maintenance		 + +
Marking Name or label of manufacturer to GPSG § 5 Abs. 1 b Type designation to GPSG § 5 Abs. 1 b Year of construction **Marking of gas spring** (DIN 4550 cl. 7)	 Requirements met Requirements met	+ +
Manufacturer Type designation Classification Date of production - week/year	Suspa Type 17 - 04-19 DIN 4550-4 11 07 /1	+ + + +

1)Standard fitting when selling
A risk analysis to GPSD was carried out. The check does not include a full check in the sense of the DIN EN 62 079.