

**Test-
report**

Nr. IWQ MBL 733 1640/3

Reported to: HÅG asa
P. O. Box 50 55 MAJ

0301 Oslo
Norwegen

Object: Visitor's Chair "H04" (cantilever)
(1 sample supplied by the client)

Order: Safety test following E DIN EN 1728
and DIN EN 13 761

Findings:

The test contained the following safety technical criteria according to the Equipment Safety Act:

Functional dimensions, workmanship regarding DIN VDE 1000, ed. 03.1979 and DIN 31 001, ed. 04.1983, resp. DIN EN 292, Part 1, ed. 11.1991 and Part 2, ed. 06.1995, DIN EN 294, ed. 08.1992, DIN EN 349, ed. 06.1993 as well as stability to DIN EN 1022, ed. 01.1997, static and dynamic load.

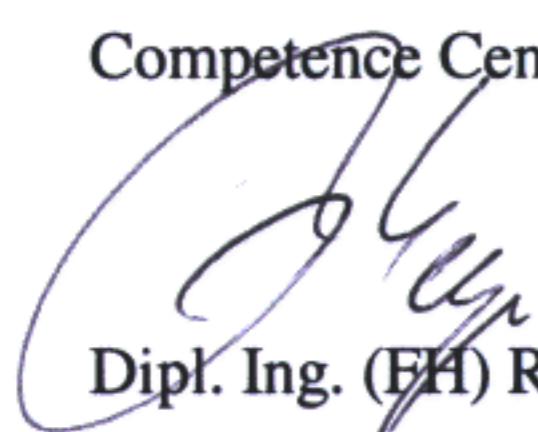
Strength and stability showed no failure and meet the requirements for contractual use.
Technical data and details of the test are reported on the following pages.

Note: In connection with the signed skeleton agreement the permission to use the GS-Label is given.

Nürnberg, 17.11.2003
IWQ hy/ kl/ şe

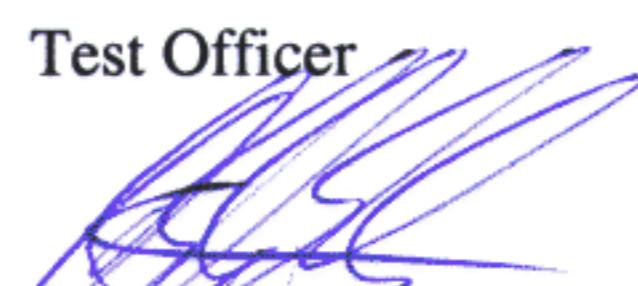
LGA - PRODUCTS Division
Institute for Product Testing
and Quality Control

Competence Centre IWQ MBL


Dipl. Ing. (FH) R. Heym



Test Officer


Eberhard Klöber

This test report consists of 7 pages.

T e s t R e s u l t s

Object

Article: Visitor's chair model: H04

Number of samples: 1

Delivery date: 11.09.2003

Delivered by: HÅG asa

Scope of tests

General examination

Safety test following E DIN EN 1728, ed. 04.1995, in connection with DIN ENN 13 761, ed. 12.2002 and DIN EN 1022, ed. 01.1997

Functional dimensions

Workmanship

Stability

Corrosion test

Dynamic test

Static test

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

Dimensions (mm)

Height: 910
Width: 593
Depth: 592

Weight: 11,6 kg

Brief description of the sample

- Frame made of welded Steel tube
- Seat and back padded and upholstered
- Legs fitted with glides



Sample

Prüfkriterium / Anforderung	Ergebnis	+ positiv – negativ ./. entfällt
Technical tests		
Functional dimensions (mm) (DIN EN 13 761 Pkt. 4)	Requirement met	
Seat height: a 400 to 500 mm (measured with template as in DIN EN 1335 - 1)	445	+
Seat depth: b 380 to 470 mm (measured 230 mm above the loaded seat)	436	+
Seat width: d mind 400 mm	449	+
Distance between Arm rests r min. 460 mm	467	+
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		+

Prüfkriterium / Anforderung	Ergebnis	+ positiv – negativ .entfällt
Corrosion test Test condition Test to DIN 50 017, ed. 10.1982 Duration of one cycle: 24 hours Test climate: 1 st stage: 8 hours (40 ± 3 °C) approx. 100 % relative humidity with dewing of the sample 2 nd Stage: 16 hours (23°C/50% r.h.) Cooling down to standard climate Number of cycles: 2 - Assessment to DIN 53 209 and DIN 53 210 after cleaning the sample with running water	Requirement met	
Requirements - Rust grade 0; no blistering of the varnish		
Stability Test conditions Test to DIN EN 1022, ed. 01.1997 Requirements - No overturning under test load	Requirements met	+ +

Prüfkriterium / Anforderung	Ergebnis	+ positiv - negativ ./. entfällt
Test of static and dynamic strength (E DIN EN 1728)	Requirements met	
Test Conditions		
6.2 Static load of seat and back 10 cycles Seat load 1.300 N, Back load 560 N, reduced to 410 N		+
6.5 Arm and wing sideway static load test 10 cycles Load 400 N		./.
6.6 Arm downward static load test 10 cycles Load 800 N		./.
6.15 Seat impact test Drop height 180 mm 10 cycles		+
6.16 Back impact test Drop height 210 mm 10 cycles		+
6.17 Arm impact test Drop height 200 mm 10 cycles		./.
6.18 Drop test Drop height 200 mm 10 cycles		+

Prüfkriterium / Anforderung	Ergebnis	+ positiv - negativ ./. entfällt
6.7 Combined seat and back fatigue test load 1000 N/330 N 50 000 cycles		+
6.8 Seat front edge fatigue test 1000 N 50 000 cycles		+
6.12 Leg forward static load test Load 500 N 10 cycles		+
6.13 Leg sideways static load test Load 390 N 10 cycles		+
Requirements		
No fracture or deformation that interfere with safe use of the chair may occur		+