

<b>Prüfbericht-Nr.:</b> <i>Test Report No.:</i>	21199787_003	<b>Auftrags-Nr.:</b> <i>Order No.:</i>	3064932	Seite 1 von 7 Page 1 of 7
<b>Kunden-Referenz-Nr.:</b> <i>Client Reference No.:</i>	N/A	<b>Auftragsdatum:</b> <i>Order date:</i>	2012-11-16	
<b>Auftraggeber:</b> <i>Client:</i>	Scandinavian Business Seating AS; 7374 Røros-Norway			
<b>Prüfgegenstand:</b> <i>Test item:</i>	visitors swivel chairs for contract use			
<b>Bezeichnung / Typ-Nr.:</b> <i>Identification / Type No.:</i>	"Håg Conventio Wing" 9812, 9822, 9832			
<b>Auftrags-Inhalt:</b> <i>Order content:</i>	Mechanical test acc. to ANSI/BIFMA X5.1			
<b>Prüfgrundlage:</b> <i>Test specification:</i>	ANSI/BIFMA X5.1: 2011-05 General - Purpose Office Chairs - Tests			

<b>Wareneingangsdatum:</b> <i>Date of receipt:</i>	2012-11-15, 2012-12-11
<b>Prüfmuster-Nr.:</b> <i>Test sample No.:</i>	900077926-900077928, 900077899-900077901
<b>Prüfzeitraum:</b> <i>Testing period:</i>	2013-01-07 – 2013-05-07
<b>Ort der Prüfung:</b> <i>Place of testing:</i>	Furniture testing laboratory Dresden
<b>Prüflaboratorium:</b> <i>Testing laboratory:</i>	TÜV Rheinland LGA Products GmbH
<b>Prüfergebnis*:</b> <i>Test result*:</i>	Pass



<b>geprüft von / tested by:</b>	<b>kontrolliert von / reviewed by:</b>
2013-05-15 André Paul (SV)	2013-05-15 Andreas Möschner (SV)
<i>Datum</i> Date	<i>Datum</i> Date
<i>Name / Stellung</i> Name / Position	<i>Name / Stellung</i> Name / Position
<i>Unterschrift</i> Signature	<i>Unterschrift</i> Signature

**Sonstiges / Other:** The visitors swivel chairs for contract use model range "Håg Conventio Wing" complies to type I in accordance with ANSI/BIFMA X5.1-2011 and meets the requirements for performance and safety for type I of this standard.

**Zustand des Prüfgegenstandes bei Anlieferung:** Prüfmuster vollständig und unbeschädigt  
*Condition of the test item at delivery:* Test item complete and undamaged

* Legende:	1 = sehr gut	2 = gut	3 = befriedigend	4 = ausreichend	5 = mangelhaft
	P(ass) = entspricht o.g. Prüfgrundlage(n)	F(ail) = entspricht nicht o.g. Prüfgrundlage(n)	N/A = nicht anwendbar	N/T = nicht getestet	
Legend:	1 = very good	2 = good	3 = satisfactory	4 = sufficient	5 = poor
	P(ass) = passed a.m. test specification(s)	F(ail) = failed a.m. test specification(s)	N/A = not applicable	N/T = not tested	

**Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.**  
*This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.*

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**Liste der verwendeten Prüfmittel**  
**List of used test equipment**

<b>Prüfmittel</b> <i>Test equipment</i>	<b>Prüfmittel-Nr. / ID-Nr.</b> <i>Equipment No. / ID-No.</i>	<b>Nächste Kalibrierung</b> <i>Next calibration</i>
Messschieber / vernier calliper 0-150 mm	01969	05.2014
Messschieber / vernier calliper 0-300 mm	02089	05.2014
Maßstab / measuring rod 1000 mm	02082	05.2014
Belastungsschablone Stühle / loading point template for chairs	02259	03.2015
Stuhlmesssstand 2 dimensional / chair measuring device 2 dimensional	01970	02.2015
Gesäßattrappe für Stuhlmesssstand / seat loading pad for chair measuring device	02254	03.2015
Waage / scales 30 kg	02238	03.2015
Standsicherheitsprüfgerät / stability test device	02245	03.2015
Standsicherheitsscheiben / discs 10 kg	02041 - 02052	03.2014
Handkraftmessgerät / portable force measuring instrument	02084	04.2014
Doppelprüfstand Sitz-Rücken / Double test machine seat-backrest	07076	01.2015
5 Kanalsteuerung / 5 channel control	01965	04.2014
Kraftmessdose / force sensor 5 kN; AST 04-3596	01974	04.2014
Kraftmessdose / force sensor 2 kN; AST 97-3862	01981	02.2014
Kraftmessdose / force sensor 5 kN; AST 52460	01984	02.2014
Druckstück / loading pad D200, R300/12	02241, 02242, 02243, 02244	03.2014
Kraftmessdose / force sensor 5 kN; AST 05-4481	01990	02.2014
Kraftmessdose / force sensor 5 kN; AST 04-3595	01973	02.2014
Armlehnendruckstück / arm loading pad	02257, 02258	03.2014
Rückendruckstück / back loading pad 305x89	02630	02.2015
5 Kanalsteuerung / 5 channel control	02093	04.2014

**Produktbeschreibung**  
**Product description**

Visitors swivel chairs model range „Håg Conventio Wing“ 9812 (without upholstery), 9822 (with seat upholstery) and 9832 (seat and backrest upholstered); with or without armrests

- seat height adjustable by means of “150 mm” gas spring from Stabilus
- denomination of the gas spring: STAB-O-MAT “D”, DIN 4550-4, 086 12D 007 782
- seat with permanently swing mechanism
- seat support /mechanism frame made of plastic (PA GF30 %)
- backrest support made of bended aluminium tube 24.0 x 24.0 x 1.8 mm, plugged into seat shell and backrest shell
- seat shell and backrest shell made of plastic (PP), optional with upholstery made of foam covered with fabric / underside covered with fleece
- armrests optional, armrest made of plastic (PA GF30 %), plugged into seat support
- plastic base “113002” from RGE made of PA6 30 % GF
- 5 break unloaded twin wheel swivel castors type “W” or “H” optional, with a diameter of 50 mm, type “H”: 125104, type “W”:125108,
- Marking of castors: none
- Castor manufacturer: JENP YOU

fig.1	fig.2	fig.3	fig.4
			
fig.5	fig.6	fig.7 + 8	fig.8
			

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Absatz Clause	ANSI/BIFMA X5.1: 2011-05 Anforderungen - Prüfungen / Requirements - Tests	Messergebnisse - Bemerkungen Measuring results - Remarks	Bewertung Evaluation
<b>General Information</b>			
- The content of the test basic was shortened. For details be referred to the original document.			
<b>1</b>	<b>Scope</b>		
<b>2</b>	<b>Definitions</b>		
<b>3</b>	<b>General</b>		
<b>4</b>	<b>Types of Chairs</b>		
<b>Technical Tests acc. to ANSI BIFMA X5.1 cl. 5 to cl. 24</b>			
<b>5</b>	Back Strength Test - Static - Type I <i>functional load: 890 N (200 lbf.) proof load: 1334 N (300 lbf.) loading time: each 1 minute</i>	During the test with proof load the backrest supports bended slowly. In accordance with the acceptance level the requirement is passed.	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
<b>6</b>	Back Strength Test - Static - Type II & III <i>functional load: 667 N (150 lbf.) proof load: 1112 N (250 lbf.) loading time: each 1 minute</i>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
<b>7</b>	Base test -Static <i>load: 11 120 N (2500 lbf.) loading time: 2x 1 minute</i>		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
<b>8</b>	Drop Test - Dynamic <i>functional load: 102 kg (225 lb.) proof load: 136 kg (300 lb.) drop height: each 152 mm (6 in.)</i>		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
<b>9</b>	Swivel test - Cyclic <i>seat load: 113 kg (250 lb.) cycles: 60 000 for fixed seat height 120 000 for adjustable seat height</i>		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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10	Tilt Mechanism Test - Cyclic seat load: 102 kg (225 lb.) cycles: 300 000		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
11	Seating Durability Test – Cyclic impact test impact load: 57 kg (125 lb.) impact height: 30 mm (1.2 in.) cycles: 100 000  front corner load-ease test - cyclic - off-center load: 734 N (165 lbf.) cycles: 20 000		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
12	Stability Test rear stability for chairs type III seat load: 6 discs horizontal force if $H \geq 710$ mm (28.0 in.): $F \geq 93$ N (20.9 lbf.) horizontal force if $H < 720$ mm (28.0 in.): $F \geq 0.1964 (1195-H)$ N [ $F \geq 1.1 (47-H)$ pounds]  rear stability for chairs type I & II seat load: minimum 11 discs  front stability vertical load: 600 N (135 lbf.) horizontal force: $\geq 20$ N (4.5 lbf.)	> 13 discs till 73 N	P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
13	Arm Strength Test – Vertical – Static fuctional load: 750 N (169 lbf.) proof load: 1125 N (253 lbf.) loading time: each 1 minute		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
14	Arm Strength Test – Horizontal – Static fuctional load: 445 N (100 lbf.) proof load: 667 N (150 lbf.) loading time: each 1 minute		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
15	Back Durability Test- Cyclic – Type I seat load: 102 kg (225 lb.) backrest force: 445 N (100 lbf.) backrest width $\leq 406$ mm (16 in.): 120 000 cycles in center backrest width $< 406$ mm (16 in.): 80 000 cycles in center 20 000 cycles off-center right 20 000 cycles off-center left		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>

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16	<p>Back Durability Test- Cyclic – Type II &amp; III</p> <p>seat load: 102 kg (225 lb.) backrest force: 334 N (75 lbf.) backrest width ≤ 406 mm (16 in.): 120 000 cycles in center backrest width &lt; 406 mm (16 in.): 80 000 cycles in center 20 000 cycles off-center right 20 000 cycles off-center left</p>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
17	<p>Caster/chair base durability test - Cyclic</p> <p>seat load: 113 kg (250 lb.) cycles: 2 000 over obstacles 98 000 without obstacles</p>		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
18	<p>Leg Strength Test – Front and Side Application</p> <p>front load test functional load: 334 N (75 lbf.) proof load: 503 N (113 lbf.) loading time: each 1 minute</p> <p>side load test functional load: 334 N (75 lbf.) proof load: 503 N (113 lbf.) loading time: each 1 minute</p>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
19	<p>Footrest Static Load Test – Vertical</p> <p>functional load: 445 N (100 lbf.) additional simultaneous functional load: 445 N (100 lbf.) additional functional load: 890 N (200 lbf.) proof load: 1334 N (300 lbf.) loading time: each 1 minute</p>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
20	<p>Footrest Durability Test – Vertical - Cyclic</p> <p>load: 890 N (200 lbf.) cycles: 50 000</p>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
21	<p>Arm Durability Test – Cyclic</p> <p>load: 400 N (90 lbf.) cycles: 60 000</p>		P <input checked="" type="checkbox"/> F <input type="checkbox"/> N/A <input type="checkbox"/> N/T <input type="checkbox"/>
22	<p>Out Stop Test for Chairs with Manually Adjustable Seat Depth</p> <p>seat load: 74 kg (163 lb.) falling weight: 25 kg (55 lb.) cycles: 25</p>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>

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Absatz <i>Clause</i>	<b>ANSI/BIFMA X5.1: 2011-05</b>	Messergebnisse - Bemerkungen	Bewertung
	<i>Anforderungen - Prüfungen / Requirements - Tests</i>	<i>Measuring results - Remarks</i>	<i>Evaluation</i>
<b>23</b>	Tablet Arm Static Load Test <i>load: 68 kg (150 lb.)</i> <i>loading time: 1 minute</i>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>
<b>24</b>	Tablet Arm Load Ease Test - Cyclic <i>load: 343 N (77 lbf.)</i> <i>cycles: 100 000</i>		P <input type="checkbox"/> F <input type="checkbox"/> N/A <input checked="" type="checkbox"/> N/T <input type="checkbox"/>