Prüfbericht-Nr.: *Test Report No.:*	**21199787_002**	**Auftrags-Nr.:** *Order No.:*	3064932	Seite 1 von 7 *Page 1 of 7*
Kunden-Referenz-Nr.: *Client Reference No.:*	N/A	**Auftragsdatum:** *Order date:*	2012-11-16	
Auftraggeber: *Client:*	Scandinavian Business Seating AS; 7374 Røros-Norway			
Prüfgegenstand: *Test item:*	quadruped visitors chairs for contract use			
Bezeichnung / Typ-Nr.: *Identification / Type No.:*	"Håg Conventio Wing" 9811, 9821, 9831			
Auftrags-Inhalt: *Order content:*	Mechanical test acc. to ANSI/BIFMA X5.1			
Prüfgrundlage: *Test specification:*	ANSI/BIFMA X5.1: 2011-05 General - Purpose Office Chairs - Tests			

Wareneingangsdatum: *Date of receipt:*	2012-11-15
Prüfmuster-Nr.: *Test sample No.:*	900077923 - 900077925
Prüfzeitraum: *Testing period:*	2013-01-07 – 2013-05-07
Ort der Prüfung: *Place of testing:*	Furniture testing laboratory Dresden
Prüflaboratorium: *Testing laboratory:*	TÜV Rheinland LGA Products GmbH
Prüfergebnis*: *Test result*:*	Pass

geprüft von / *tested by*:

2013-05-15	André Paul (SV)	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

kontrolliert von / *reviewed by*:

2013-05-15	Andreas Möschner (SV)	
Datum *Date*	**Name / Stellung** *Name / Position*	**Unterschrift** *Signature*

Sonstiges / *Other*: The visitors quadruped 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*

Prüfbericht-Nr.: 21199787_002
Test Report No.:

Liste der verwendeten Prüfmittel
List of used test equipment

Prüfmittel *Test equipment*	**Prüfmittel-Nr. / ID-Nr.** *Equipment No. / ID-No.*	**Nächste Kalibrierung** *Next calibration*
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
Stuhlmessstand 2 dimensional / chair measuring device 2 dimensional	01970	02.2015
Gesäßattrappe für Stuhlmessstand / seat loading pad for chair measuring device	02254	03.2015
Waage / scales 30 kg	02238	03.2015
Standsicherheitsprüfgerät / stability test devicde	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 quadruped chairs model range „Håg Conventio Wing“ 9811 (without upholstery), 9821 (with seat upholstery) and 9831 (seat and backrest upholstered); with or without armrests, stackable

- legs made of aluminium tube 24.0 x 24.0 x 1.8 mm, plugged into seat support / seat mechanism
- 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
- legs with plastic glides, glides plugged into the end of the legs

fig.1	fig.2	fig.3	fig.4
			
fig.5	**fig.6**	**fig.7 + 8**	**fig.9**
		 	

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

Absatz *Clause*	**ANSI/BIFMA X5.1: 2011-05** Anforderungen - Prüfungen / *Requirements - Tests*	Messergebnisse - Bemerkungen *Measuring results - Remarks*	Bewertung *Evaluation*
10	Tilt Mechanism Test - Cyclic *seat load: 102 kg (225 lb.)* *cycles: 300 000*		P ☒ F ☐ N/A ☐ N/T ☐
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 ☒ F ☐ N/A ☐ N/T ☐
12	Stability Test *rear stability for chairs type III* *seat load: 6 discs* *horizontal force if H ≥ 710 mm (28.0 in.):* *F ≥ 93 N (20.9 lbf.)* *horizontal force if H < 720 mm (28.0 in.):* *F ≥ 0.1964 (1195-H) N [F ≥ 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: ≥ 20 N (4.5 lbf.)*	> 14 discs till 30.5 N	P ☒ F ☐ N/A ☐ N/T ☐
13	Arm Strength Test – Vertical – Static *fuctional load: 750 N (169 lbf.)* *proof load: 1125 N (253 lbf.)* *loading time: each 1 minute*		P ☒ F ☐ N/A ☐ N/T ☐
14	Arm Strength Test – Horizontal – Static *fuctional load: 445 N (100 lbf.)* *proof load: 667 N (150 lbf.)* *loading time: each 1 minute*		P ☒ F ☐ N/A ☐ N/T ☐
15	Back Durability Test- Cyclic – Type I *seat load: 102 kg (225 lb.)* *backrest force: 445 N (100 lbf.)* *backrest width ≤ 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 ☒ F ☐ N/A ☐ N/T ☐

Absatz *Clause*	**ANSI/BIFMA X5.1: 2011-05** Anforderungen - Prüfungen / *Requirements - Tests*	Messergebnisse - Bemerkungen *Measuring results - Remarks*	Bewertung *Evaluation*
16	Back Durability Test- Cyclic – Type II & III *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 < 406 mm (16 in.):* *80 000 cycles in center* *20 000 cycles off-center right* *20 000 cycles off-center left*		P ☐ F ☐ N/A ☒ N/T ☐
17	Caster/chair base durability test - Cyclic *seat load: 113 kg (250 lb.)* *cycles: 2 000 over obstacles* *98 000 without obstacles*		P ☐ F ☐ N/A ☒ N/T ☐
18	Leg Strength Test – Front and Side Application *front load test* *fuctional load: 334 N (75 lbf.)* *proof load: 503 N (113 lbf.)* *loading time: each 1 minute* *side load test* *fuctional load: 334 N (75 lbf.)* *proof load: 503 N (113 lbf.)* *loading time: each 1 minute*		P ☒ F ☐ N/A ☐ N/T ☐
19	Footrest Static Load Test – Vertical *fuctional 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 ☐ F ☐ N/A ☒ N/T ☐
20	Footrest Durability Test – Vertical - Cyclic *load: 890 N (200 lbf.)* *cycles: 50 000*		P ☐ F ☐ N/A ☒ N/T ☐
21	Arm Durability Test – Cyclic *load: 400 N (90 lbf.)* *cycles: 60 000*		P ☒ F ☐ N/A ☐ N/T ☐
22	Out Stop Test for Chairs with Manually Adjustable Seat Depth *seat load: 74 kg (163 lb.)* *falling weight: 25 kg (55 lb.)* *cycles: 25*		P ☐ F ☐ N/A ☒ N/T ☐

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23	Tablet Arm Static Load Test *load: 68 kg (150 lb.)* *loading time: 1 minute*		P ☐ F ☐ N/A ☒ N/T ☐
24	Tablet Arm Load Ease Test - Cyclic *load: 343 N (77 lbf.)* *cycles: 100 000*		P ☐ F ☐ N/A ☒ N/T ☐