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Order no. 616293 rev 1
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Test report

Materiale:

Model: Trionic Walker 12er also covers 9er and 14er
Rollators - ISO Classification 12.06.06

Type:	Rollator	Materials:	All TIG welded aluminium frame and plastics	
SWL	150 kg	Serial no.	201002-000138	6061 TG

See appendix 2

Sampling: The test material was sampled by the client and received at the Danish Technological Institute on 19-09-2014.

Method: ISO 11199-2:2005 Walking aids manipulated by both arms - Requirements and test methods – Part 2: Rollators. Section 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, 4.8, 4.9, 4.10, 4.11, 5.3, 5.4, 5.5, 5.13, 6.2 and 6.3.

The testing was carried out under normal indoor conditions.

Period: The testing was carried in the period 19-09-2014 to 05-01-2015.

Result: Trionic Walker 12er meets the requirements of ISO 11199-2:2005.

Individual results appear from Appendix 1.

Storage: The test material will be returned after 1 month, unless otherwise agreed.

Terms: The test was performed according to the attached conditions, which are according to the guidelines laid down by DANAK (The Danish Accreditation). The testing is only valid for the tested specimen. The test report may only be extracted, if the laboratory has approved the extract.

09-01-2015, Danish Technological Institute, Wood Technology, Taastrup
Revised 12-01-2015. This report replaces all previous for this sample

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Verifier

Individual test results

Requirements

		Result
4.1	**Manoeuvrability** The front wheel diameter shall be no less than 75 mm. The front wheel diameter of rollators manufactured for outdoor use shall be no less than 180 mm. The wheel width of rollators manufactured for outdoor use shall be no less than 22 mm.	Passed Passed Passed
4.2	**Stability** When tested according to the forward stability test (see 5.3), the angle of the plane at the point of rollator tilting shall be no less than 15.0° from the horizontal. When tested according to the backward stability test (see 5.4), the angle of the plane at the point of rollator tilting shall be no less than 7.0° from the horizontal. When tested according to the sideways stability test (see 5.5), the angle of the plane at the point of rollator tilting shall be no less than 3.5° from the horizontal.	Passed Passed Passed

Tipping angles are measured as indicated in the table below	**TIPANGLE**
5.3 Forward-direction stability test:	>23.0°
With accessory item: Basket 5 kg	>23.0°
5.4 Backward-direction stability test:	13.0°
With accessory item:	
5.5 Sideway-direction stability test, right:	5.8°
With accessory item	
5.5 Sideway-direction stability test, left:	5.9°
With accessory item:	

Individual test results

		Result
4.3	**Brakes**	
	All rollators with more than two wheels shall have running brakes that are easy to operate by the user when the rollator is in motion.	Passed
	All rollators with more than two wheels and which have a resting seat, or are designed for outdoor use, shall have parking brakes, which may be integrated with the running brakes.	Passed
	Maximum grip distance for operating running brakes shall be no greater than 75 mm as measured in accordance with 5.7.1.1 (see Figure 4).	Passed
	When tested according to the running brake test (see 5.7.1), the rollator shall not move more than 10 mm in 1 min.	Passed
	Maximum force to apply and release brakes shall not exceed: a.) 60 N pushing force, and b.) 40 N pulling force.	Passed
	When tested for the parking brake test (see 5.7.2), the rollator shall not move more than 10 mm in 1 min.	Passed
	If the effectiveness of the brake will be reduced by wear, it shall have means for the compensation of wear.	Passed
	Brake performance shall not be adversely affected by folding, unfolding or adjusting actions. If re-adjustment of the brakes is necessary following an adjusting action of the rollator, tools shall not be required (e.g. height adjustment).	Passed
4.4	**Handgrip**	
	The handgrip width shall be no less than 20 mm and not more than 50 mm. The requirement is not applicable to anatomic handgrips.	Passed
	The hand grip shall be securely fixed to the handle of the rollator as judged by the inspector.	Passed
	The handgrip shall be replaceable or easy to clean.	Passed
4.5	**Leg section and tip**	
	Where there is no wheel, the leg section shall end in a tip designed to prevent the leg section from piercing through it, when the rollator is used as intended by the manufacturer (see 4.7). Where there is no wheel, the tip shall be replaceable. Where there is no wheel, the tip shall not cause discolouring of the walking surface, as verified by visual inspection. That part of the tip that contacts the walking surface shall have a minimum diameter of 35 mm. Compliance shall be verified by measurement. When inspected in accordance with 5.9, the rubber tip shall be securely fixed to the leg of the rollator as judged by the inspector.	N/A
4.6	**Resting seat**	
	When tested in accordance with 5.10, no part of the rollator shall crack or break.	Passed
4.7	**Mechanical durability**	
	When tested in accordance with the static loading test (see 5.11), no part of the rollator shall crack or break and the permanent set of the rollator height shall not exceed 1 %.	Passed
	When tested in accordance with the fatigue test (see 5.12), no part of the rollator shall crack or break.	Passed

Individual test results

Loading and deformations are made as indicated in the table below: SWL = 150 kg

Loading	Deformation before load	Deformation after load
122 % of SWL (min. 420 N) for 5 second, applied over a minimum period of 2 seconds.	0 mm	8 mm

Fatigue test

A cyclic (max. 1 Hz.) force of 81 % of SWL (min. 280 N) for 200.000 times, with wheels travelling with min. 0.4 m/loading cycle. If failure occurs, record this and the number of cycles.	F(1) = 0.25 Hz F(2) = 0.25 Hz	V(1)/F(1) = 1.3 m V(2)/F(2) = 1.3 m
	V(1) = 0.33 m/s V(2) = 0.33 m/s	

Note: X(1) means initial values, X(2) means values at the end of testing

		Result
4.8	**Adjusting devices** Each of the height adjustment devices shall be clearly marked with its maximum allowable elongation. When the walking aid is inspected in accordance with 5.13, the adjustment mechanisms shall operate as intended by the manufacturer.	Passed Passed
4.9	**Folding mechanism** When the walking aid is in the working position and inspected in accordance with 5.13, the folding mechanism shall stay securely locked, as judged by the inspector.	Passed
4.10	**Adjustment of handles** The handles may be adjustable but shall be securely fixed when in use and verified by inspection. On rollators having handles that may be angled or positioned so that they come outside the rollator and jeopardizes the stability of the rollator, either a physical stop shall prevent the unsafe position or a warning showing the safe limits of adjustment shall be fixed on the rollator. The instructions for use shall explain the consequences such an adjustment may have on the stability.	Passed Passed
4.11	**Materials and finish** The rollator materials shall not cause discolouring of skin or clothing when the rollator is in normal use. All parts of the rollator shall be free from burrs, sharp edges or projections that could cause damage to clothing or discomfort to the user.	Passed Passed
5.13	**Final inspection** When all tests have been completed, inspect the rollator and all its mechanisms and functions for satisfactory operation as specified by the manufacturer.	Passed

Individual test results

		Result
6.0	**Information supplied by the manufacturer**	
6.2	Each rollator shall be clearly and indelibly marked with the following:	
	a.) maximum user mass;	Passed
	b.) maximum safe working load (SWL) to be marked on accessories;	Passed
	c.) maximum allowed angle between the longitudinal centreline of the handle and the direction of motion, if the handles are sideways adjustable;	Passed
	d.) manufacturer's name or trade name and address;	Passed
	e.) manufacturer's model identification name and/or number;	Passed
	f.) month and year of manufacture;	Passed
	g.) maximum extension of the height adjustment, marked on the adjusting members;	Passed
	h.) maximum width of the rollator;	Passed
	i.) whether or not the walking aid is designed for indoor or outdoor use, in accordance with 4.1	Passed
6.3	**Documentation** The following information shall be contained in the instruction for use and/or assembly, or clearly and indelibly marked on the product:	
	a.) maximum rollator height;	Passed
	b.) minimum rollator height;	Passed
	c.) maintenance and cleaning instructions, including a description of the method and suitable cleaning agents and any precautions needed to avoid corrosion and/or ageing of the materials used in construction of the rollator;	Passed
	d.) instructions for assembly, adjustment of all kinds, folding and unfolding;	Passed
	e.) warnings and advice about precautions relating to safe distances between moving and stationary parts (see EN 12182:1999, Clauses 12 and 13, for guidance);	Passed
	f.) maximum safe working load (SWL) for load carrying accessories such as basket, tray, shopping bag, etc.;	Passed

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Photo

Trionic Walker 12er

DANISH TECHNOLOGICAL INSTITUTE

The general conditions pertaining to assignments accepted by Danish Technological Institute shall apply in full to the technical testing and calibration at Danish Technological Institute and to the completion of test reports and calibration certificates within the relevant field.

Danish Accreditation (DANAK)

DANAK was established in 1991 in pursuance of the Danish Act No. 394 of 13 June 1990 on the promotion of Trade and Industry.

The requirements to be met by accredited laboratories are laid down in the "Danish Agency for Trade and Industry's ("Erhvervsfremme Styrelsens") Statutory Order on accreditation of laboratories to perform testing etc. and GLP inspection. The statutory order refers to other documents, where the criteria for accreditation are specified further.

The standards DS/EN ISO/IEC 17025 "General requirements for the competence of testing and calibration laboratories" and DS/EN 45002 "General criteria for the assessment of testing laboratories" describe fundamental criteria for accreditation. DANAK uses guidance documents to clarify the requirements in the standards, where this is considered to be necessary. These will mainly be drawn up by the "European co-operation of Accreditation (EA)" or the "International Laboratory Accreditation Co-operation (ILAC)" with the purpose of obtaining uniform criteria for accreditation. In addition, DANAK draws up Technical Regulations with specific requirements for accreditation that are not contained in the standards.

In order for a laboratory to be accredited it is, among other things, required:

- that the laboratory and its personnel are not subject to any commercial, financial or other pressures, which might influence their technical judgement
- that the laboratory operates a documented quality system
- that the laboratory has at its disposal all items of equipment, facilities and premises required for correct performance of the service that it is accredited to perform
- that the laboratory management and personnel have technical competence and practical experience in performing the service that they are accredited to perform
- that the laboratory has procedures for traceability and uncertainty calculations
- that accredited testing or calibration is performed in accordance with fully validated and documented methods
- that the laboratory keeps records, which contain sufficient information to permit repetition of the accredited test or calibration
- that the laboratory is subject to surveillance by DANAK on a regular basis
- that the laboratory shall take out an insurance, which covers liability in connection with the performance of accredited services

Reports carrying DANAK's logo are used, when reporting accredited services and show that these have been performed in accordance with the rules for accreditation.