

TESTING REPORT

ROLLATORS - ISO classification 12.06.06
in accordance with the INTERNATIONAL STANDARD ISO 11199-2:2005

Testing No.

07.44A

This page is page 1 of a total of 2 pages

These records should under no circumstances be reproduced, except in their total, without permission in writing from the testing laboratory

These records are not an approval of the product tested, but is merely a record of testing results for a specific sample product

Product tested: **Walker**

Product received: **08.08.2007**

Testing ordered by: **Trionic**
Campus Telge
Mariekällgatan 3
SE-151 81 Södertälje

Tel.: **+46 8 550 15 334**

Person to contact: **Stefan Kindberg**

Product delivered by: **The orderer**

8/8-07

DATE

Jesper Holtze
Testing executive, Jesper Holtze

Bruno Wolff
Co-reader, Bruno Wolff

AMENDMENT 01 to TESTING RECORDS 07.44A

ROLLATORS - ISO classification 12.06.06
in accordance with the INTERNATIONAL STANDARD ISO 11199-2:2005

Testing No.
08.08A

This page is page 1 of a total of 6 pages

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The testing records are organised in conformity with the international standard ISO 11199-2, i.e. section numbers in the records are similar to the corresponding requirements in the standard.

Not fulfilled requirements recorded are indicated by the use of underlined text. These requirements are listed and commented upon on the last page of this report.

Product tested: **Walker**

Product received: 03.03.2008

Testing ordered by: Trionic
Campus Telge
Mariekällgatan 3
SE-151 81 Södertälje

Tel.: +46 8 550 15 334

Person to contact: Stefan Kindberg

Product delivered by: The orderer

4/3-08

DATE



Testing executive, Jesper Holtze



Co-reader, Bruno Wolff

DESCRIPTION OF THE PRODUCT

The manufacturer identifies the sample product tested as follows:

- name of product Walker
- serial no. 200802 - 000094
- date of manufactory 2008 - 02



SUMMARY OF THE TESTING

The testing was carried out in accordance with the following sections of the international standard ISO 11199-2 "Walking aids manipulated by both arms – Requirements and test methods –":

- 4 Requirements**
- 5 Test methods**
- 6 Information supplied by the manufacturer**

The Trionic Walker was tested with the only possible handgrip angle between the longitudinal centreline of the handgrip and the direction of motion of 0°. It was found to comply with the appropriate sections of the international standard ISO 11199-2 "Walking aids manipulated by both arms – Requirements and test methods –".

Remark that this is an amendment to the former report, 07.44A, and Trionic Walker is only tested concerning brakes, handgrips and static strength.

The detailed testing results are recorded in the "Testing Records" next page.

The testing took place in the period from 03.03.08 to 03.03.08

Where applicable, the standard EN ISO 12182 has been used for the quantification of requirements not quantified in the ISO 11199-2 or other standards referred to.

The testing was carried out under normal indoor conditions.

The testing laboratory upon request can inform tolerances of measurements.

TESTING RESULTS

REQUIREMENTS

<p>4.3</p>	<p>Brakes</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>When tested according to the running brake test (see 5.7.1), the rollator shall not move more than 10 mm in 1 min.</p> <p>Maximum force to apply and release brakes shall not exceed:</p> <ul style="list-style-type: none"> a.) 60 N pushing force, and b.) 40 N pulling force. <p>When tested for the parking brake test (see 5.7.2), the rollator shall not move more than 10 mm in 1 min.</p> <p>If the effectiveness of the brake will be reduced by wear, it shall have means for the compensation of wear.</p> <p>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).</p>	<p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p>
<p>4.4</p>	<p>Handgrip</p> <p>The handgrip width shall be no less than 20 mm and not more than 50 mm.</p> <p>The requirement is not applicable to anatomic handgrips.</p> <p>The hand grip shall be securely fixed to the handle of the rollator as judged by the inspector.</p> <p>The handgrip shall be replaceable or easy to clean.</p>	<p>Anatomic handgrips</p> <p>-</p> <p>Ok</p> <p>Ok</p>

REQUIREMENTS – CONTINUED

4.7	<p>Mechanical durability</p> <p>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 %.</p> <p>When tested in accordance with the fatigue test (see 5.12), no part of the rollator shall crack or break.</p>	<p>Ok</p> <p>-</p>
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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	~ 0 mm

SUMMARY OF THE TESTING

- product name Walker
- serial no.
- date of manufacture

The testing was carried out in accordance with the following sections of the international standard ISO 11199-2 "Walking aids manipulated by both arms – Requirements and test methods –":

- 4 Requirements**
- 5 Test methods**
- 6 Information supplied by the manufacturer**

The Trionic Walker was tested with the only possible handgrip angle between the longitudinal centreline of the handgrip and the direction of motion of 0°. It was found to comply with the appropriate sections of the international standard ISO 11199-2 "Walking aids manipulated by both arms – Requirements and test methods –".

Remark that this is an upgrade from the former report, 06.27A, while it's only the brakes that differ from the former rollator and therefore only the brakes that are tested.

The detailed testing results are recorded in the "Testing Records" attached to this report.

The testing took place in the period from 08.08.07 to 08.08.07

Where applicable, the standard EN ISO 12182 has been used for the quantification of requirements not quantified in the ISO 11199-2 or other standards referred to.

The testing was carried out under normal indoor conditions.

The testing laboratory upon request can inform tolerances of measurements.

TESTING RECORDS

ROLLATORS - ISO classification 12.06.06
in accordance with the INTERNATIONAL STANDARD ISO 11199-2:2005

Testing No.

07.44A

This page is page 1 of a total of 9 pages

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These records are not an approval of the product tested, but is merely a record of testing results for a specific sample product

The testing records are organised in conformity with the international standard ISO 11199-2, i.e. section numbers in the records are similar to the corresponding requirements in the standard.

Not fulfilled requirements recorded are indicated by the use of underlined text. These requirements are listed and commented upon on the last page of this report.

Product tested: **Walker**

Product received: **08.08.2007**

Testing ordered by: **Trionic**
Campus Telge
Mariekällgatan 3
SE-151 81 Södertälje

Tel.: **+46 8 550 15 334**

Person to contact: **Stefan Kindberg**

Product delivered by: **The orderer**

8/8 - 07

DATE

Jesper Høltze

Testing executive, Jesper Høltze

Bruno Wolff

Co-reader, Bruno Wolff

Dept. of Mobility, quality assurance and testing

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 **DANAK**
TEST Reg. nr. 347

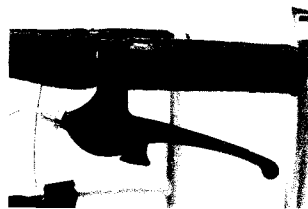
DESCRIPTION OF THE PRODUCT

The manufacturer identifies the sample product tested as follows:

- name of product Walker
- serial no.
- date of manufactory

The Trionic Walker is a three wheel driving rollator, with an extra fourth wheel at front. The rollator is some kind of innovative both because of its extra front wheel and also because of its untraditional sporty design; the wheels are mounted on an exocentric axle in such a way that it easier can clime over prevention such as kerbstone.

A bendable moveable seat and a roomy basket is a part of the rollator that also can be folded in convenience of transportation. The Walker is mainly fabricated in eloxicated aluminium tubing's assembled with a minimum of welding.



Type of brake tested

TESTING RESULTS

REQUIREMENTS

4.1	<p>Manoeuvrability</p> <p>The front wheel diameter shall be no less than 75 mm.</p> <p>The front wheel diameter of rollators manufactured for outdoor use shall be no less than 180 mm.</p> <p>The wheel width of rollators manufactured for outdoor use shall be no less than 22 mm.</p>	<p>Ok - 310 mm</p> <p>Ok - 55 mm</p>
4.2	<p>Stability</p> <p>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.</p> <p>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.</p> <p>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.</p>	<p>The test was carried out with 5 kg in the basket or on the seat.</p>

Tipping angles are measured as indicated in the table below with a static force of 250 N, plus eventually extra weight depending on accessory, mentioned in table.	TIPANGLE
<p>5.3 Forward-direction stability test:</p> <p>With accessory item: 5 kg in basket</p>	> 15°
<p>5.4 Backward-direction stability test:</p> <p>With accessory item: 5 kg at seat</p>	> 15°
<p>5.5 Sideway-direction stability test, right:</p> <p>With accessory item: 5 kg in basket</p>	3.5° load evenly distributed.
<p>5.5 Sideway-direction stability test, left:</p> <p>With accessory item: 5 kg in basket</p>	3.5° load evenly distributed.

REQUIREMENTS - CONTINUED

<p>4.3</p>	<p>Brakes</p> <p>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.</p> <p>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.</p> <p>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).</p> <p>When tested according to the running brake test (see 5.7.1), the rollator shall not move more than 10 mm in 1 min.</p> <p>Maximum force to apply and release brakes shall not exceed:</p> <ul style="list-style-type: none"> a.) 60 N pushing force, and b.) 40 N pulling force. <p>When tested for the parking brake test (see 5.7.2), the rollator shall not move more than 10 mm in 1 min.</p> <p>If the effectiveness of the brake will be reduced by wear, it shall have means for the compensation of wear.</p> <p>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).</p>	<p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p>
<p>4.4</p>	<p>Handgrip</p> <p>The handgrip width shall be no less than 20 mm and not more than 50 mm.</p> <p>The requirement is not applicable to anatomic handgrips.</p> <p>The hand grip shall be securely fixed to the handle of the rollator as judged by the inspector.</p> <p>The handgrip shall be replaceable or easy to clean.</p>	<p>Ok - 35 mm</p> <p>-</p> <p>Ok</p> <p>Ok</p>

REQUIREMENTS – CONTINUED

<p>4.5</p>	<p>Leg section and tip</p> <p>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).</p> <p>Where there is no wheel, the tip shall be replaceable.</p> <p>Where there is no wheel, the tip shall not cause discolouring of the walking surface, as verified by visual inspection.</p> <p>That part of the tip that contacts the walking surface shall have a minimum diameter of 35 mm. Compliance shall be verified by measurement.</p> <p>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.</p>	<p>N/A</p>
<p>4.6</p>	<p>Resting seat</p> <p>When tested in accordance with 5.10, no part of the rollator shall crack or break.</p>	<p>Ok</p>
<p>4.7</p>	<p>Mechanical durability</p> <p>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 %.</p> <p>When tested in accordance with the fatigue test (see 5.12), no part of the rollator shall crack or break.</p>	<p>Ok</p>

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 vertical 8 mm horizontal measured between handles	0 mm vertical 8 mm horizontal measured between handles

Fatigue test

<p>A cyclic (max. 1 Hz.) force of 81 % of SWL (min. 280 N) for 200.000 times, with wheels travelling with max. 0,4m/loading cycle. If failure occurs, record this and the number of cycles.</p>	<p>0,5 Hz</p> <p>121 Kg</p>
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REQUIREMENTS – CONTINUED

<p>4.8</p>	<p>Adjusting devices</p> <p>Each of the height adjustment devices shall be clearly marked with its maximum allowable elongation.</p> <p>When the walking aid is inspected in accordance with 5.13, the adjustment mechanisms shall operate as intended by the manufacturer.</p>	<p>Ok</p>
<p>4.9</p>	<p>Folding mechanism</p> <p>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.</p>	<p>Ok</p>
<p>4.10</p>	<p>Adjustment of handles</p> <p>The handles may be adjustable but shall be securely fixed when in use and verified by inspection.</p> <p>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.</p>	<p>Handles can only be adjusted up and down.</p> <p>N/A</p>
<p>4.11</p>	<p>Materials and finish</p> <p>The rollator materials shall not cause discolouring of skin or clothing when the rollator is in normal use.</p> <p>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.</p>	<p>Ok</p>

REQUIREMENTS

<p>5.13</p>	<p>Final inspection</p> <p>When all tests have been completed, inspect the rollator and all its mechanisms and functions for satisfactory operation as specified by the manufacturer.</p>	<p>Ok</p>
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6.0 INFORMATION SUPPLIED BY THE MANUFACTURER

6.2	<p>Information supplied by the manufacturer</p> <p>Each rollator shall be clearly and indelibly marked with the following:</p> <ul style="list-style-type: none"> a.) maximum user mass; b.) maximum safe working load (SWL) to be marked on accessories; c.) maximum allowed angle between the longitudinal centreline of the handle and the direction of motion, if the handles are sideways adjustable; d.) manufacturer's name or trade name and address; e.) manufacturer's model identification name and/or number; f.) month and year of manufacture; g.) maximum extension of the height adjustment, marked on the adjusting members; h.) maximum width of the rollator; i.) whether or not the walking aid is designed for indoor or outdoor use, in accordance with 4.1 	<p>Ok</p> <p>Ok</p> <p>N/A</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p>
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6.0 INFORMATION SUPPLIED BY THE MANUFACTURER

<p>6.3</p>	<p>Documentation</p> <p>The following information shall be contained in the instruction for use and/or assembly, or clearly and indelibly marked on the product:</p> <ul style="list-style-type: none"> a.) maximum rollator height; b.) minimum rollator height; 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; d.) instructions for assembly, adjustment of all kinds, folding and unfolding; e.) warnings and device about precautions relating to safe distances between moving and stationary parts (see EN 12182:1999, Clauses 12 and 13, for guidance); f.) maximum safe working load (SWL) for load carrying accessories such as basket, tray, shopping bag, etc.; 	<p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p> <p>Ok</p>
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SUPPLEMENTARY COMMENTS AND TESTING RESULTS

NOTICE: The comments and testing results recorded on this page and the pages to follow are not a part of the accredited testing system.