

Testing laboratory for Walking Aids

Test report

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Walking Chair (Class. code 120609 according to EN ISO 9999)

Product: 20.000-6 Cavalier Large

None foldable, height adjustable, solid wheels, handgrips of polyurethane, bicycle seat, body support and tool set.

Manufacturer: Petra by Connie Hansen Denmark

Tested by request of:

 Petra by Connie Hansen
 Byåsen 18 Ganløse
 DK-3660 STENLØSE
 Denmark

Product id.:
 20.000-6

Product name:
 Cavalier Large

Attn.: Connie Hansen

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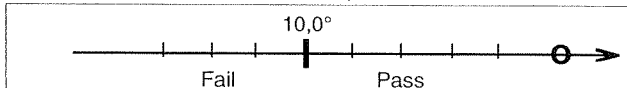
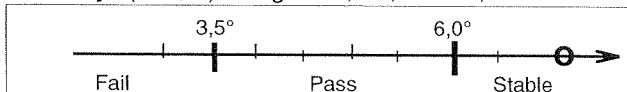
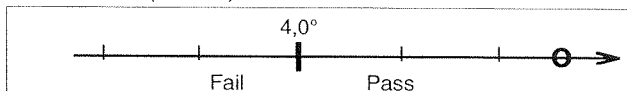
The tests are performed according to: Relevant parts of: EN ISO 11199-1:1999, EN ISO 11199-2:1999, EN 1985:1998, Kravspes., 121812, SINTEF, H, HMI, VTT, v. 4.

Test results
For maximum user weight (mass): 85 kg

Fatigue: Passed loading of body support and seat: Yes
 (200 000 cycles loaded with 679 N ± 2,0 N)

Static loading: (Loaded with 1 280 N ± 3,3 N) **Passed: Yes**
 (Body support, seat and handgrips)

Stability: (Loaded with 250 N ± 4,0 N)

Forwards (=>10,0°): 23,1° **Passed: Yes**

Sideways (=>3,5°): right: 13,1°, left: 13,3° **Passed: Yes**

Backwards (=>4,0°): 22,9° **Passed: Yes**

Handgrip angle, right: 85,0° Angles are fixed.

Handgrip angle, left: 85,0°

 0 is straight forwards/backwards,
 + is outwards at the back and
 - is inwards at the back,
 measured in the horizontal plane

Measurements

 Maximum width: 740 mm
 Maximum length: 1050 mm
 Turning diameter: 1230 mm
 Swing dia., load on inner/outer: 2810 / 2820 mm
 Height to upper edge body supp.: 990 - 1140 mm
 Height to upper surface seat: 750 - 830 mm
 Width between handgrip centres: 450 mm
 Usable length of handgrips: 110 mm
 Handgrip width: 30 mm
 Handle tubing diameter: 22 mm
 Wheels, dia. x width: 290 x 42 mm

Weight³(mass): (with tool set) 19,4 kg
³ not accredited measurement, not asked for in the standard

Measurement uncertainty of all mass-combinations used for loadings are within ± 2% of the specified force values. Measurement uncertainty of angle measurements for stability, inclusive of rounding down to the nearest 0,1° are within +0,25° and -0,15°. The temperature of the test environment was within 21° ± 5°C during the tests.

20.000-6 Cavalier Large

Inspection on Arrival: No irregularities that may influence the test results.

Instruction manual: Manual with instructions for assembly, use and maintenance in Danish.

Materials: **Frame:** Polyester painted steel tubings. Handle tubings in chromium plated steel tubings.
Handgrips: Polyurethane.

Marking and labelling:

Maximum user weight (mass), name of manufacturer, model identification, serial number and maximum height.

Description:

Height adjustable walking chair with body support, supporting bicycle seat and adjustable, hand operated brakes on the rear wheels. Each brake handle operates one wheel only. The walking chair has parking brakes. The walking chair is equipped with a set of tools for adjustment. The walking chair has no light-reflecting devices. The walking chair has four large solid wheels. The front wheels are steered by means of a bicycle handlebar. The body support is padded and covered with textile fabric. The supporting seat is a standard bicycle seat. The handgrips are moulded from polyurethane and have low stopping edges front and rear. The height of the body support, seat and handle bars may be adjusted individually. The body support and seat may also be adjusted in the forward and aft directions. All by means of the tools provided. The adjustments are not graduated. Maximum height is marked on the handlebar adjustment by means of marking and text. The other adjustments may be adjusted to their logical limits which cannot be misinterpreted. The walking chair may not be folded or dismantled for transport and storage.

Functional evaluation:

The Walking chair satisfy the intentions stated by the manufacturer and the relevant parts of: EN ISO 11199-1:1999, EN ISO 11199-2:1999, EN 1985:1998, Kravspes., 121812, SINTEF, H, HMI, VTT, v. 4.

General remarks:


The static loading test was performed separately on the body support, the seat and the handgrips. The handgrips were loaded one at the time with half the loading. Forwards stability was measured loading the front of the body support, 30 mm rear of the front edge (23,1°) and with the loading on the handlebar (15,6°). Both results satisfy the requirement, but the result from loading the body support has been quoted in the test results as these are more realistic in a user situation. Sideways stability angles were measured loading the handgrips (RH 13,1°; LH 13,3°) and the body support (RH 15,1°; LH 15,6°). The smallest values are quoted in the test results. Backwards stability was measured loading the seat, 30 mm in from the rear of the seat. The requirement limits for stability indicated in the test results are the limits suggested in EN 1985:1998 for Walking Chairs, but the higher requirements given in Kravspes., 121812, SINTEF, H, HMI, VTT, v. 4 are satisfied. Fatigue tests were performed loading the body support and the seat in two separate tests.

Summary of results:

The product fulfils the requirements of the relevant parts of: EN ISO 11199-1:1999, EN ISO 11199-2:1999, EN 1985:1998, Kravspes., 121812, SINTEF, H, HMI, VTT, v. 4.

Month and year of manufacture is lacking, but may be traced from the serial number. Address of the manufacturer is given in the manual included with the product.

Oslo, 2002-10-08



as per authorisation

Bernt S. Eie, Head of Laboratory

This test report is valid only for the product that has been tested. This report has been issued by a testing laboratory accredited by Norwegian Accreditation (NA) in accordance with NS-EN ISO/IEC 17025. The accreditation entails that the laboratory meets the requirements stipulated by NA with regard to competence and testing system for the test methods included in the accreditation. This also implies that the laboratory has a satisfactory quality assurance system and traceability to accredited or national calibration laboratories. This report shall not be reproduced except in full.

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