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Pripomoļ ki za hojo, ki se upravljajo z eno roko - Zahteve in preskusne metode - 1. del: Podlaktne bergle (ISO 11334-1:2007)

Assistive products for walking manipulated by one arm - Requirements and test methods - Part 1: Elbow crutches (ISO 11334-1:2007)

Gehhilfen für einarmige Handhabung - Anforderungen und Prüfverfahren - Teil 1: Unterarmgehstützen (ISO 11334-1:2007)

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EUROPEAN STANDARD

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English Version

Assistive products for walking manipulated by one arm - Requirements and test methods - Part 1: Elbow crutches (ISO 11334-1:2007)

Produits d'assistance à la marche manipulés avec un bras - Exigences et méthodes d'essai - Partie 1: Cannes à appui antibrachial (ISO 11334-1:2007)

Gehhilfen für einarmige Handhabung - Anforderungen und Prüfverfahren - Teil 1: Unterarmgehstützen (ISO 11334-1:2007)

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Foreword

This document (EN ISO 11334-1:2007) has been prepared by Technical Committee ISO/TC 173 "Technical systems and aids for disabled or handicapped persons" in collaboration with Technical Committee CEN/TC 293 "Assistive products for persons with disability", the secretariat of which is held by SIS.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by August 2007, and conflicting national standards shall be withdrawn at the latest by August 2007.

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INTERNATIONAL STANDARD

ISO 11334-1

Second edition
2007-02-01

Assistive products for walking manipulated by one arm — Requirements and test methods —

Part 1: Elbow crutches

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Produits d'assistance à la marche manipulés avec un bras — Exigences et méthodes d'essai —

Partie 1: Cannes à appui antibrachial

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Foreword

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 11334-1 was prepared by Technical Committee ISO/TC 173, *Assistive products for persons with disability*.

This second edition cancels and replaces the first edition (ISO 11334-1:1994), which has been technically revised.

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ISO 11334 consists of the following parts, under the general title *Assistive products for walking manipulated by one arm — Requirements and test methods*:

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— *Part 1: Elbow crutches*

— *Part 4: Walking sticks with three or more legs*

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Assistive products for walking manipulated by one arm — Requirements and test methods —

Part 1: Elbow crutches

1 Scope

This part of ISO 11334 specifies requirements and test methods for elbow crutches fully equipped with handgrip and tip. The methods specify testing of separation, static load capacity, fatigue and resistance to low temperature embrittlement.

This part of ISO 11334 also gives the requirements relating to safety, ergonomics, performance, and information to be supplied by the manufacturer, including marking and labelling.

The requirements and tests are based on every-day usage of elbow crutches when performing the through-swing gait, for a maximum user mass as specified by the manufacturer. This part of ISO 11334 is applicable to elbow crutches specified for a user mass of not less than 35 kg.

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Requirements and test methods for friction of rubber tips against the walking surface are dealt with separately.

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NOTE The recommendations given in Annex A supplement the requirements given in this part of ISO 11334.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9999, *Assistive products for persons with disabilities — Classification and terminology*

EN 1041, *Information supplied by the manufacturer with medical devices*

3 Terms and definitions

For the purpose of this document, the following terms and definitions apply.

3.1
elbow crutch
assistive product for walking with one leg, a handle and a non-horizontal forearm support

See Figure 1.

NOTE Classification no. 12 03 06, according to ISO 9999.

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3.2
handle
part of the crutch to which the handgrip is attached

3.3
handgrip
part of the crutch which is intended by the manufacturer to be held by the hand when the crutch is in use

See Figure 1, item 5.

3.4
handgrip length
h
dimension of the handgrip measured longitudinally where the hand rests, starting at the lowest point as near as possible to the front stop of the handgrip, and ending at the point as near as possible to the rear stop and at the shortest possible distance from the tip

See Figures 1 and 2.

NOTE If there is no rear stop, the maximum handgrip length is 110 mm.

3.5
front handgrip reference point
lowest point next to the front stop where the handgrip length starts

See Figure 1, item 7 and Figure 2, item 6.

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3.6
rear handgrip reference point
point next to the rear stop where the handgrip length stops

See Figure 1, item 8 and Figure 2, item 7.

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3.7
handgrip support line
line drawn through the front and the rear handgrip reference points

See Figure 1, item 6 and Figure 2, item 4.

3.8
handgrip width
width of the handle measured horizontally at the thickest part of the handgrip where the hand rests

See Figure 2, item 5.

3.9
datum
point on the upper surface of the handgrip measuring one-third of the length from the rear handgrip reference point

See Figure 2, item 3.

3.10
arm section
part of the crutch which is above the rear handgrip reference point

3.11
leg section
part of the crutch which is below the rear handgrip reference point

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3.12
cuff
forearm support as used on an elbow crutch to hold the forearm in the correct position and prevent sideways movement

See Figure 1, item 2.

3.13
cuff support line
line drawn from the rear handgrip reference point and touching the inside rear bottom face of the cuff at maximum extension of the arm section

See Figure 1, item 1 and Figure 2, item 1.

3.14
cuff internal width
y
maximum internal dimension of the cuff measured left to right

See Figure 3.

3.15
cuff internal depth
x
internal dimension of the cuff measured front to back

See Figure 3.

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3.16
cuff internal height
z
inside measurement of the cuff which is approximately parallel to the cuff support line and which supports the forearm

See Figure 2.

3.17
tip
part of the crutch which is in contact with the ground

See Figure 1, item 3.

3.18
leg section axis
line drawn from the rear handgrip reference point and through the centre of the tip at maximum extension of the leg section

See Figure 1, item 4.

3.19
arm section length
a
distance measured between the rear handgrip reference point and the highest point where the cuff support line touches the inside rear face of the cuff

See Figure 1.

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