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## Walking aids manipulated by one arm – Requirements and test methods – Part 4: Walking sticks with three or more legs (ISO 11334-4:1999)

The European Standard EN ISO 11334-4:1999 has the status of a Swedish Standard. This document contains the official English version of EN ISO 11334-4:1999.

Swedish Standards corresponding to documents referred to in this Standard are listed in "Catalogue of Swedish Standards", issued by SIS. The Catalogue lists, with reference number and year of Swedish approval, International and European Standards approved as Swedish Standards as well as other Swedish Standards.

## Gånghjälpmedel som hanteras med en arm – Krav och provningsmetoder – Del 4: Gåstöd med tre eller flera stödpunkter (ISO 11334-4:1999)

Europastandarden EN ISO 11334-4:1999 gäller som svensk standard. Detta dokument innehåller den officiella engelska versionen av EN ISO 11334-4:1999.

Motsvarigheten och aktualiteten i svensk standard till de publikationer som omnämns i denna standard framgår av "Katalog över svensk standard", som ges ut av SIS. I katalogen redovisas internationella och europeiska standarder som fastställts som svenska standarder och övriga gällande svenska standarder.



EUROPEAN STANDARD  
NORME EUROPÉENNE  
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**EN ISO 11334-4**

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English version

**Walking aids manipulated by one arm - Requirements and test methods - Part 4: Walking sticks with three or more legs (ISO 11334-4:1999)**

Aides à la marche manipulées avec un bras - Exigences et méthodes d'essai - Partie 4: Canes de marche avec au moins trois jambes ou plus (ISO 11334-4:1999)

Gehhilfen für einarmige Handhabung - Anforderungen und Prüfverfahren - Teil 4: Gehstöcke mit drei oder mehr Beine (ISO 11334-4:1999)

This European Standard was approved by CEN on 25 January 1999.

CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration. Up-to-date lists and bibliographical references concerning such national standards may be obtained on application to the Central Secretariat or to any CEN member.

This European Standard exists in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the Central Secretariat has the same status as the official versions.

CEN members are the national standards bodies of Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom.



EUROPEAN COMMITTEE FOR STANDARDIZATION  
COMITÉ EUROPÉEN DE NORMALISATION  
EUROPÄISCHES KOMITEE FÜR NORMUNG

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## **Foreword**

The text of the International Standard ISO 11334-4:1999 has been prepared by Technical Committee ISO/TC 173 "Technical systems and aids for disabled or handicaped persons" in collaboration with Technical Committee CEN/TC 293 "Technical aids for disabled persons", 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 1999, and conflicting national standards shall be withdrawn at the latest by August 1999.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

### **Endorsement notice**

The text of the International Standard ISO 11334-4:1999 was approved by CEN as a European Standard without any modification.

NOTE: Normative references to International Standards are listed in annex ZA (normative).

# Walking aids manipulated by one arm — Requirements and test methods —

## Part 4: Walking sticks with three or more legs

### 1 Scope

This part of ISO 11334 specifies requirements and methods of testing the stability, static load capacity and fatigue of walking sticks with three or more legs and fully equipped with handle and tips. It also gives the requirements relating to safety, ergonomics, performance, marking and labelling.

The requirements and tests are based on everyday usage of walking sticks with three or more legs, manufactured for a user weight (mass) of not less than 35 kg.

This part of ISO 11334 is not applicable to walking sticks with three or more legs with underarm or forearm support.

NOTE Recommendations further to the requirements are given in annex A.

### 2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of ISO 11334. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this part of ISO 11334 are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 9999:1998, *Technical aids for disabled persons — Classification*.

ISO 10993-1, *Biological evaluation of medical devices — Part 1: Evaluation and testing*.

### 3 Terms and definitions

For the purposes of this part of ISO 11334, the following terms and definitions apply (see also Figures 1 to 7).

#### 3.1

##### **walking stick with three or more legs**

walking stick with three or more legs and a handle, but without an underarm or forearm support

NOTE 1 Classification No. 12 03 16 in accordance with ISO 9999:1998.

NOTE 2 Throughout this document the term walking stick refers to a walking stick with three or more legs.

### 3.2

#### **handgrip**

that part of the walking stick which is normally held in the hand when the walking stick is in use

### 3.3

#### **handgrip length**

dimension of the handgrip measured longitudinally where the hand rests

See Figure 4.

NOTE Where the front end or the rear end of the handgrip is not clear, the full length of the handgrip that can support the weight of the user is defined as the handgrip length.

### 3.4

#### **handgrip width**

dimension of the handgrip measured horizontally at the thickest point where the hand rests

See Figure 4.

### 3.5

#### **handle**

that part of a walking stick to which the handgrip is attached

### 3.6

#### **tip**

that part of a walking stick which is in contact with the ground

### 3.7

#### **walking-stick height**

dimension measured vertically from the highest point on the handgrip to the ground where the tips of the walking stick rest

See Figures 5, 6 and 7.

NOTE Walking sticks are grouped in six sizes, as given in Table A.1.

### 3.8

#### **walking-stick depth**

maximum outside dimension of a walking stick measured horizontally in the direction of movement

See Figures 5, 6 and 7.

### 3.9

#### **walking-stick width**

maximum outside dimension of a walking stick measured horizontally at right angles to the direction of movement

See Figures 5, 6 and 7.

### 3.10

#### **telescoping members**

those parts of a walking stick which slide into each other to provide height adjustment

### 3.11

#### **locking device**

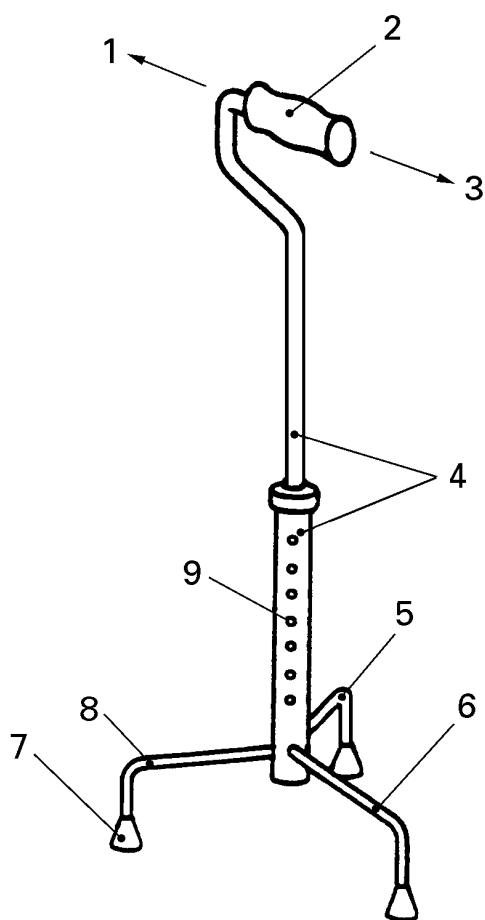
that part of a walking stick which provides locking of the height and/or other adjustment mechanisms

### 3.12

#### **user weight**

body mass of the person using the product as a technical aid

NOTE Standard user weight is 100 kg for adults and 35 kg for children.

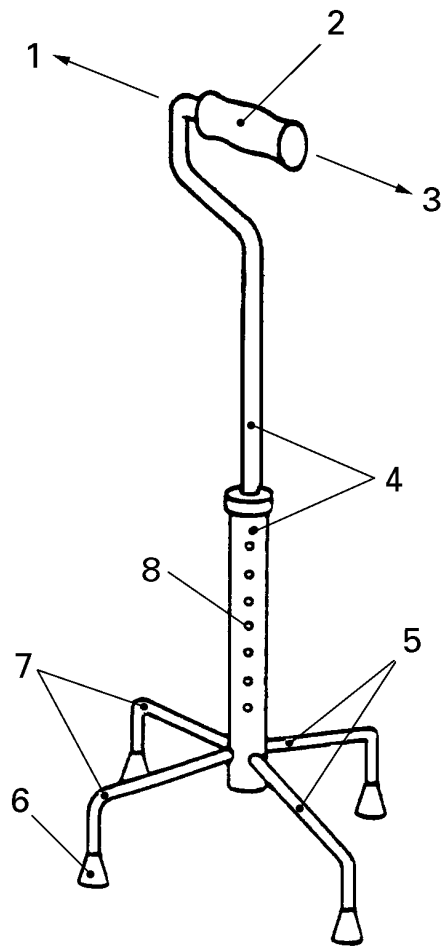


**Key**

- 1 Front
- 2 Handgrip
- 3 Rear
- 4 Telescoping members
- 5 Side leg
- 6 Rear leg
- 7 Tip
- 8 Front leg
- 9 Height-adjusting and locking device

**Figure 1 — Example of a walking stick with three legs**

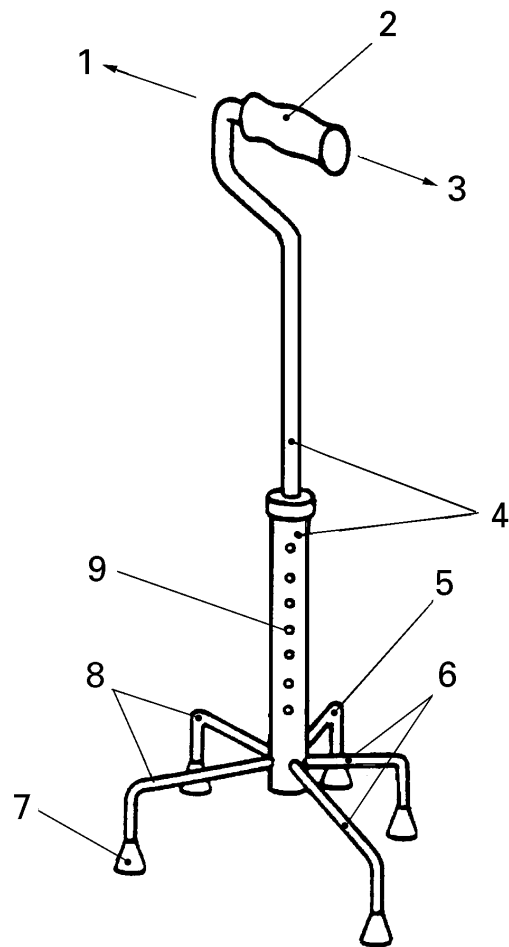




**Key**

- 1 Front
- 2 Handgrip
- 3 Rear
- 4 Telescoping members
- 5 Rear legs
- 6 Tip
- 7 Front legs
- 8 Height-adjusting and locking device

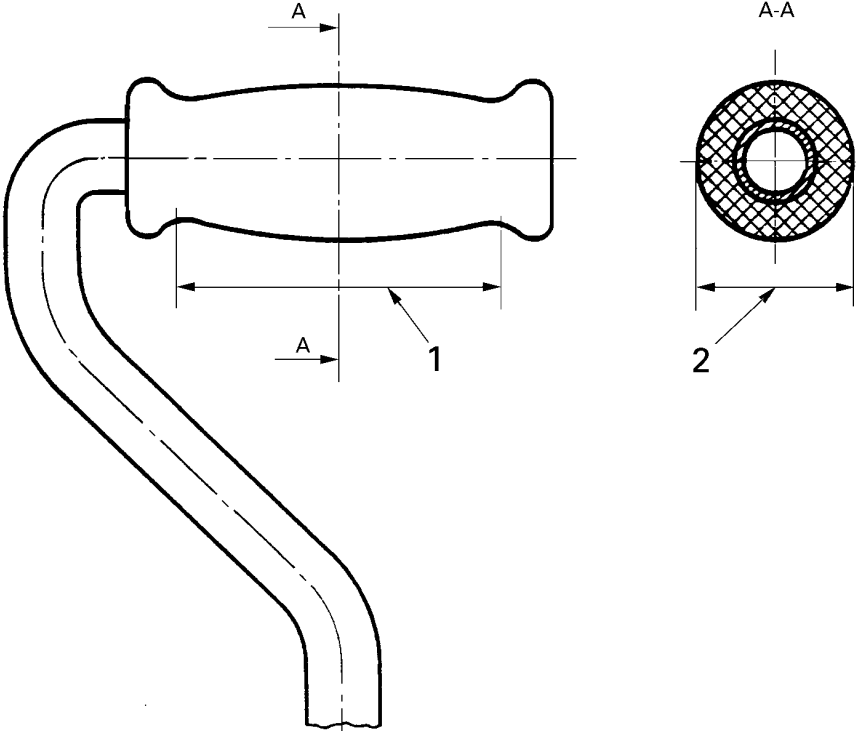
**Figure 2 — Example of a walking stick with four legs**



**Key**

- 1 Front
- 2 Handgrip
- 3 Rear
- 4 Telescoping members
- 5 Side leg
- 6 Rear legs
- 7 Tip
- 8 Front legs
- 9 Height-adjusting and locking device

**Figure 3 — Example of a walking stick with five legs**



- Key**
- 1 Handgrip length, *l*
  - 2 Handgrip width

**Figure 4 — Details of handle and handgrip**