INTERNATIONAL STANDARD

ISO 20957-8

Second edition
2017-10

Stationary training equipment —

Part 8: Steppers, stairclimbers and climbers — Additional specific safety requirements and test methods

Équipement d'entraînement fixe —

Partie 8: Monte-escaliers, escalators et simulateurs d'escalade — Exigences spécifiques de sécurité et méthodes d'essai supplémentaires

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

ISO 20957-8 was prepared by the European Committee for Standardization (CEN) Technical Committee CEN/TC 136, *Sports, playground and other recreational facilities and equipment*, in collaboration with ISO Technical Committee TC 83, *Sports and other recreational facilities and equipment*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

This second edition cancels and replaces the first edition (ISO 20957-8:2005), which has been technically revised.

The main changes compared to the previous edition are as follows:

— the Scope has been simplified;

— the formulation has been aligned to ISO 20957-1;

— Clause 5 has been specified and restructured;

— Clause 6 has been specified and restructured.

A list of all parts in the ISO 20957 series can be found on the ISO website.

Stationary training equipment —

Part 8: Steppers, stairclimbers and climbers — Additional specific safety requirements and test methods

1 Scope

This document specifies safety requirements for stepper, stairclimber and climber machines (hereafter called training equipment) performed from either a standing or sitting position. The requirements are in addition to the general safety requirements of ISO 20957-1, with which this document is intended to be read in conjunction.

This document is applicable to stationary training equipment type stepper, stairclimber and climber training equipment, within classes S and H. Additional requirements are provided for accuracy class A.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 4649:2010, *Rubber, vulcanized or thermoplastic — Determination of abrasion resistance using a rotating cylindrical drum device*

ISO 20957-1, *Stationary training equipment — Part 1: General safety requirements and test methods*

EN 71-1, *Safety of toys — Part 1: Mechanical and physical properties*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 20957-1 and the following apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

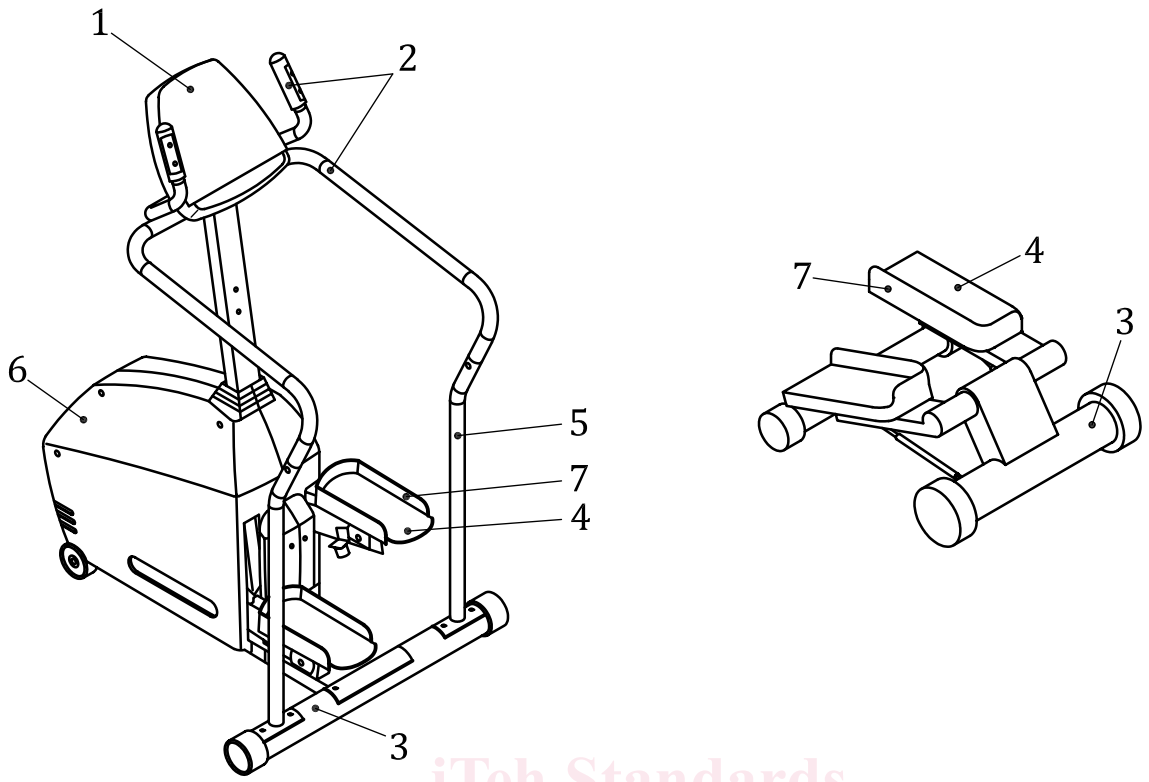
— ISO Online browsing platform: available at http://www.iso.org/obp

3.1
stepper
stationary training equipment where the feet move in a reciprocating motion where the foot is not required to leave the foot pedal

Note 1 to entry: See Figure 1 a).

3.2
ministepper
stepper (3.1) with a hinge point height to the floor <200 mm

Note 1 to entry: See Figure 1 b).



a) Stepper **b) Ministepper**

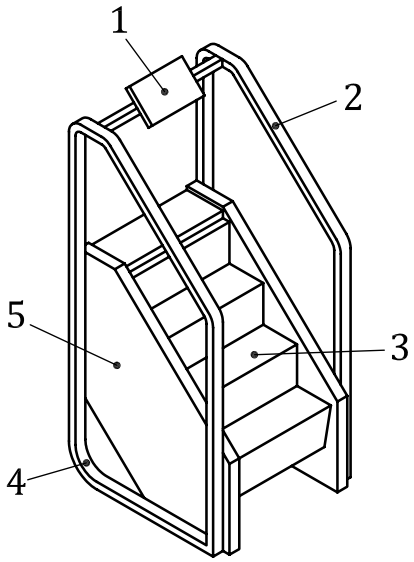
Key

1 display
2 hand grip
3 base frame
4 footplatform
5 handrail/handlebar
6 housing
7 footplatform guard

Figure 1 — Examples of steppers

3.3
stairclimber
stationary training equipment similar to a moving mechanical staircase or escalator where the user's foot must leave the staircase in order to perform the action of climbing

Note 1 to entry: See Figure 2.

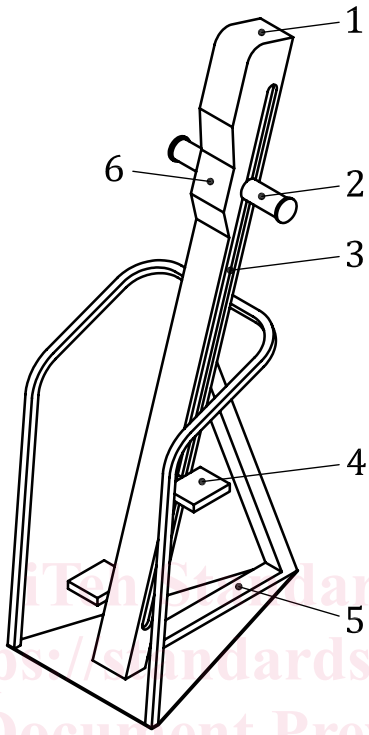


Key
1 display
2 handrail
3 stair
4 base frame
5 housing

Figure 2 — Example of a stairclimber

3.4
climber
stationary training equipment that is equipped with feet and hand positions both of which can be moved in a reciprocating simulated climbing motion

Note 1 to entry: See Figure 3.



Key
1 display
2 movable handgrip
3 track rail
4 foot pedal
5 base frame
6 resistance adjustment

Figure 3 — Example of a climber