SLOVENSKI STANDARD

SIST EN 957-10:2005

01-november-2005

Nepremiļ na oprema za vadbo ï 10. del: Sobna kolesa z nepomiļ nim kolesom ali brez prostega kolesa, dodatne posebne varnostne zahteve in preskusne metode

Stationary training equipment - Part 10: Exercise bicycles with a fixed wheel or without freewheel, additional specific safety requirements and test methods

Stationäre Trainingsgeräte - Teil 10: Trainingsfahrräder mit starrem Antrieb oder ohne Freilauf, zusätzliche besondere sicherheitstechnische Anforderungen und Prüfverfahren

Appareils d'entraînement fixes - Partie 10 : Bicyclettes d'exercice avec une roue fixe ou sans roue libre, exigences spécifiques de sécurité et méthodes d'essai supplémentaires

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English version

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This European Standard was approved by CEN on 27 June 2005.

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, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden, Switzerland and United Kingdom.

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Contents

Foreword

This European Standard (EN 957-10:2005) has been prepared by Technical Committee CEN/TC 136 “Sports, playground and other recreational equipment”, the secretariat of which is held by DIN.

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of an identical text or by endorsement, at the latest by February 2006, and conflicting national standards shall be withdrawn at the latest by February 2006.

This European Standard EN 957 *“Stationary training equipment”* consists of the following parts:

— *Part 1: General safety requirements and test methods*

— *Part 2: Strength training equipment, additional specific safety requirements and test methods*

— *Part 4: Strength training benches, additional specific safety requirements and test methods*

— *Part 5: Pedal crank training equipment, additional specific safety requirements and test methods*

— *Part 6: Treadmills, additional specific safety requirements and test methods*

— *Part 7: Rowing machines, additional specific safety requirements and test methods*

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

— *Part 9: Elliptical trainers, additional specific safety requirements and test methods*

— *Part 10: Exercise bicycles with a fixed wheel or without freewheel, additional specific safety requirements and test methods*

Part 3 has been amalgamated with part 2 after CEN Enquiry.

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

Introduction

This part of EN 957 amends and supplements EN 957-1. The requirements of this specific standard take priority over those in the general standard.

1 Scope

This part of EN 957 specifies safety requirements for exercise bicycles with a fixed wheel or without freewheel that have an inertia of > 0,6 kg x m^2 in addition to the general safety requirements of EN 957-1 and should be read in conjunction with it.

This part of EN 957 is applicable to stationary training equipment type exercise bicycles with a fixed wheel or without freewheel (type 10) (hereafter referred to as training equipment) within the classes S and H.

Any attachment provided with the exercise bicycle with a fixed wheel or without freewheel for the performance of additional exercises are subject to the requirements of EN 957-1.

2 Normative references

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

EN 563, *Safety of machinery — Temperatures of touchable surfaces — Ergonomics data to establish temperature limit values for hot surfaces.*

EN 957-1:2005, *Stationary training equipment — Part 1: General safety requirements and test methods*

EN ISO 12100-1, *Safety of machinery — Basic concepts, general principles for design — Part 1: Basic terminology, methodology (ISO 12100-1:2003)*

ISO 4210, *Cycles — Safety requirements for bicycles*

3 Terms and definitions

For the purposes of this European Standard, the terms and definitions given in EN 957-1:2005 and the following apply.

3.1
flywheel
rotating mass designed to create inertia

3.2
freewheel
gearing mechanism which is designed to disengage the flywheel from the pedal mechanism in one direction

3.3
seat pillar
the connection between the frame and the seat provided to adjust the height of the seat

3.4
seat tube
part of the frame where the seat pillar is inserted

3.5
handlebar stem
connection between the frame and the handlebar provided to adjust the height of the handlebar

3.6
emergency brake
equipment designed to stop the movement of the pedals in case of emergency

3.7
locking system
mechanism designed to immobilize any rotating part of the equipment which cannot be operated without the use of a specific tool, e. g. key

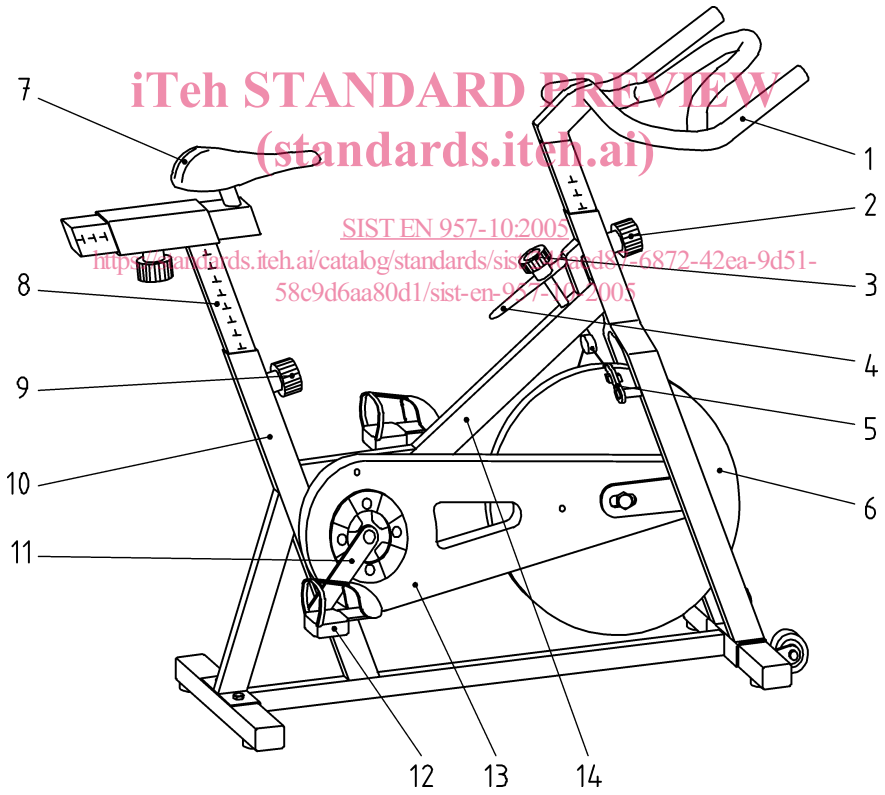
3.8
dynamic direction
direction in which the force is applied during normal exercise as described in the user's manual

3.9
housing
encasement of potentially hazardous elements

3.10
transmission guard
encasement of potentially hazardous transmission elements

4 Classification

Only the classification as defined in 4.4 of EN 957-1:2005 applies.



Key

1	Handlebar	8	Seat pillar
2	Handlebar adjustment	9	Seat adjustment
3	Resistance adjustment	10	Seat tube
4	Emergency brake	11	Pedal crank
5	Resistance system (brake)	12	Pedal
6	Flywheel	13	Transmission guard
7	Seat	14	Frame

Figure 1 — Example of an exercise bicycle without freewheel

5 Safety requirements

5.1 External construction

5.1.1 Transmission elements and rotating parts, squeeze and shear points

Training equipment where the pedal cranks have a greater diameter than the housing shall have a distance between the pedal cranks and the stationary parts of the construction of not less than 10 mm. This requirement does not apply if the housing has a greater diameter than the pedal crank.

Transmission elements shall be covered in accordance with EN ISO 12100-1. All other parts shall be tested with the test finger in accordance with EN 957-1. The test finger shall not become trapped or come into contact with moving parts which do not have a smooth surface. The radius of the edge of the flywheel shall be at least 2,5 mm. The edges of the pedals shall be free of burrs, rounded or protected in some other way.

Test in accordance with 6.1.1 and 6.2.

5.1.2 Temperature rise

When tested in accordance with 6.3, accessible parts of the equipment shall not have a temperature greater than 65 °C.

5.2 Intrinsic loading

For class S the seat pillar shall be tested with 4 times the maximum body mass specified by the manufacturer or 4 000 N whichever is greater. For class H the seat pillar shall be tested with 3 times the maximum body mass specified by the manufacturer or 3 000 N whichever is greater. For both classes the pedals and the crank shall be tested 4 times the maximum body mass specified by the manufacturer or 4 000 N whichever is greater.

Testing in accordance with 6.4.

The seat shall be in accordance with ISO 4210.

After the test in accordance with 6.4, the training equipment shall be capable of functioning according to the manufacturer's information on the correct use.

During the tests of the seat pillar and the pedals the training equipment shall not tip over.

The clamped seat pillar shall not slip by more than 5 mm into the seat tube during the test.

5.3 Seat pillar — Seat

5.3.1 General

The height of the seat shall be adjustable without a tool for class S equipment.

For class H, if a tool is required to adjust the seat height, it shall be provided by the manufacturer and clear instructions on how to use it shall be given in the user's instruction manual.

5.3.2 Insertion depth

The minimum insertion depth of the seat pillar in its highest position shall be of 55 mm.

The seat pillar shall have a permanent mark and the word "STOP" indicating the minimum insertion depth. The mark may be dispensed with if the minimum insertion depth is given by the design.