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**Stationary training equipment —**

Part 5:

**Pedal crank training equipment,  
additional specific safety requirements  
and test methods**

*Équipement d'entraînement fixe —*

*Partie 5: Appareils d'entraînement à pédales — 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.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

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 20957-5 was prepared by CEN (as EN 957-5) and was adopted, under a special “fast-track procedure”, by Technical Committee ISO/TC 83, *Sports and recreational equipment*, in parallel with its approval by the ISO member bodies.

ISO 20957 consists of the following parts, under the general title *Stationary training equipment*:

- *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*

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## Foreword

This European Standard has been prepared by the Technical Committee CEN /TC 136 "Sports, playground and other recreational equipment", of which the secretariat 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 **November 1996**, and conflicting national standards have to be withdrawn at the latest by **November 1996**.

This standard consists of the following parts:

EN 957-1, *General safety requirements and test methods*.

EN 957-2, *Strength training equipment, additional specific safety requirements and test methods*.

EN 957-4, *Strength training benches, additional specific safety requirements and test methods*.

EN 957-5, *Pedal crank training equipment, additional specific safety requirements and test methods*.

prEN 957-6, *Tread mills, additional specific safety requirements and test methods*.

prEN 957-7, *Rowing machines, additional specific safety requirements and test methods*.

prEN 957-8, *Stair climbers and steppers, additional specific safety requirements and test methods*.

This part of EN 957 should be read in conjunction with EN 957-1.

Annex A is given for information only.

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

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## EN 957-5:1996 (E)

## Introduction

This part of EN 957 concerns the safety of crank training equipment.

It 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 pedal crank training equipment in addition to the general safety requirements of EN 957-1.

This part of EN 957 is applicable to stationary training equipment type pedal crank training equipment (type 5) as defined in clause 3 within the classes S, H and A, B, C.

Any attachment provided with the pedal crank training equipment for the performance of additional exercises are subject to the requirements of EN 957-1.

This part of EN 957 is not applicable to roller stands as they cannot be made safe in a reasonable way.

## 2 Normative references

This European Standard incorporates by dated or undated reference, provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies.

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

EN 292, *Safety of machinery — Basic concepts, general principles for design*.

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

EN 957-1:1996, *Stationary training equipment — Part 1: General safety requirements and test methods*.

ISO 4210, *Cycles — Safety requirements of bicycles*.

## 3 Definitions

For the purpose of this standard the definitions of EN 957-1 and the following apply:

**pedal crank training equipment (hereinafter referred to as training equipment):** Stationary apparatus similar to a bicycle on which work is carried out by pedalling.

NOTE 1 The work rate  $P$  in watts results from the product of the braking moment  $M$  in  $\text{N} \cdot \text{m}$  and the angular velocity  $\omega = 2 \pi \cdot n$ .

$$P = M \cdot 2 \cdot \pi \cdot n / 60$$

where:

$n$  is the speed of the pedal, in revolutions per minute.

NOTE 2 Figures 1 to 3 are intended only to give examples and to illustrate the names of the components.