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**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB 17498.8-2008

Replacing GB 17498.8-2008

**Indoor stationary training equipment - Part 8: Steppers, stair
climbers and climbers - Additional specific safety requirements
and test methods**

(English Translation)

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1.Structure and Drafting Rules of Standardization Documents".

Drafting.

This document is Part 8 of GB/T 17498 "Indoor Fixed Fitness Equipment". GB/T 17498 has already published the following parts.

---Part 1.General safety requirements and test methods;

---Part 2.Additional Special Safety Requirements and Test Methods for Strength Training Equipment;

---Part 4.Additional Special Safety Requirements and Test Methods for Strength Training Benches;

---Part 5.Additional special safety requirements and test methods for stationary exercise bikes and upper limb crank exercise equipment;

---Part 6.Additional Special Safety Requirements and Test Methods for Treadmills;

---Part 7.Additional Special Safety Requirements and Test Methods for Rowing Machines;

---Part 8.Additional special safety requirements and test methods for steppers, stair climbers and climbing machines;

---Part 9.Additional Special Safety Requirements and Test Methods for Elliptical Trainers;

---Part 10.Additional special safety requirements and test methods for exercise bikes with fixed wheels or without flywheels.

This document replaces GB 17498.8-2008 "Fixed Fitness Equipment - Part 8.Additional Features for Steppers, Climbing Machines and Stair Climbers".

Compared with GB 17498.8-2008, the main technical changes in "Special Safety

Requirements and Test Methods" are as follows, except for structural adjustments and editorial modifications.

---Added descriptions of the scope regarding additional requirements for Class S, Class H, and Class A (see Chapter 1);

---Added terms and definitions (see 3.2, 3.5, 3.9);

---A legend has been added (see Figure 4);

---The original Clause 5.2.1 has been amended, its content simplified and adjusted, and some content has been moved to Clause 5.5.1 of the new standard (see 5.2.1).

(Version 5.2.1 of the 2008 edition)

---The specific requirements for inherent loads have been changed, now allowing Category H to withstand 2.5 times the human body weight, and Category S to withstand 2 times, and also capable of withstanding 4 times the static load without damage.

The deformation was set and adjusted so that each support surface could withstand 2.5 times the static load calculated by the formula without damage (see 5.3).

(2008 version 5.3);

---The requirements for handrails/handrails have been changed from permanent deformation not exceeding 3% to not damaging normal use (see 5.4, 2008 version).

(5.4)

---Added dimensional requirements for footboards, footboard guardrails, and anti-slip surfaces (see 5.5, 2008 edition of 5.5);

---Added additional requirements for tiered chairs (see 5.9);

---Added additional requirements for seated steppers (see 5.10);

---The required motion frequency for temperature testing has been changed from 60 steps/min to 40 cycles/min, and a formula for calculating power has been provided.

(See 6.2, 6.3 in the 2008 edition);

---The testing requirements for inherent loads have been changed, and are now divided into two types. unassociated and associated (see 6.3, 6.4 in the 2008 version);

---A friction test has been added (see 6.5);

---The runtime requirement for the H-class durability test has been changed from running for 15 minutes and then stopping for 15 minutes to running for 20 minutes and then stopping.

Machine time 15 minutes [see 6.6.1, 6.6a (2008 edition)];

---The required motion frequency for the non-speed-correlated stepper durability test has been changed from 60 steps/min to 40 cycles/min.

The power calculation formula is given (see 6.6.3, 6.6 in the 2008 edition);

---Added operational cycle requirements for the Level A additional requirement test (see 6.7, 2008 version 6.7);

---An experiment involving going up and down stairs was added (see 6.8);

---Added testing of the braking system and the clearance between the movable steps and the ground or structure (see 6.9);

---Added additional requirements tests for seated steppers (see 6.10);

---Added test report requirements (see Chapter 7).

This document is modified to adopt ISO 20957-8:2017 "Stationary fitness equipment - Part 8. Steppers, stair climbers and other equipment with additional features".

Special safety requirements and test methods.

The technical differences between this document and ISO 20957-8:2017, and the reasons therefor, are as follows.

---ISO 20957-1 has been replaced with the normatively referenced GB/T 17498.1 to adapt to my country's technical conditions.

The following editorial changes have been made to this document.

---To harmonize with existing standards, the standard title has been changed to "Indoor stationary fitness equipment - Part 8. Steppers, stair climbers and ladders".

Special safety requirements and test methods for mountaineering equipment.

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This section was proposed by the China National Light Industry Council.

This section is under the jurisdiction of the National Technical Committee on Standardization of Stationery and Sports Equipment (SAC/TC514).

Introduction

GB/T 17498 "Indoor Fixed Fitness Equipment" is divided into 9 parts. Part 1 covers general requirements, while the other parts cover specific requirements for particular equipment.

Special requirements. For fitness equipment covered by special requirements, the safety requirements are a combination of general requirements and these special requirements. GB/T 17498 is proposed.

It consists of 9 parts.

---Part 1.General Safety Requirements and Test Methods. This section describes the general safety requirements and test methods for indoor stationary fitness equipment.

Verification method.

---Part 2.Additional Special Safety Requirements and Test Methods for Strength Training Equipment. The purpose is to describe strength training equipment.

Additional special safety requirements and testing methods for materials.

---Part 4.Additional Special Safety Requirements and Test Methods for Strength Training Benches. The purpose is to describe the specific safety requirements and test methods for strength training benches.

Additional special safety requirements and testing methods for the stool.

---Part 5.Additional special safety requirements and test methods for stationary exercise bikes and upper limb crank exercise equipment. The purpose is to...

This describes the special safety requirements and test methods for stationary exercise bikes and upper limb crank exercise equipment.

---Part 6.Additional Special Safety Requirements and Test Methods for Treadmills. The purpose is to describe the additional special safety requirements for treadmills.

Requirements and test methods.

---Part 7.Additional Special Safety Requirements and Test Methods for Rowing Machines. The purpose is to describe the additional special safety requirements for rowing machines.

Requirements and test methods.

---Part 8.Additional Special Safety Requirements and Test Methods for Steppers, Stair Climbers, and Mountain Climbers. The purpose is to describe the specific safety requirements and test methods for steppers.

Additional special safety requirements and testing methods for ladder machines, stair climbers, and mountaineering machines.

---Part 9.Additional Special Safety Requirements and Test Methods for Elliptical Trainers. The purpose is to describe the additional safety requirements and test methods for elliptical trainers.

Special safety requirements and testing methods.

---Part 10.Additional Special Safety Requirements and Test Methods for Exercise Bikes with Fixed Wheels or Without Freewheels. The purpose is to describe...

Additional safety requirements and testing methods for exercise bikes with fixed wheels or