SLOVENSKI STANDARD
oSIST prEN ISO 4210-8:2022

01-januar-2022

Kolesa - Varnostne zahteve za kolesa - 8. del: Preskusne metode za pedala in gonilke (ISO/DIS 4210-8:2021)

Cycles - Safety requirements for bicycles - Part 8: Pedal and drive system test methods (ISO/DIS 4210-8:2021)

Fahrräder - Sicherheitstechnische Anforderungen an Fahrräder - Teil 8: Prüfverfahren für Pedale und Antriebssystem (ISO/DIS 4210-8:2021)

Cycles - Exigences de sécurité des bicyclettes - Partie 8: Méthodes d'essai des pédales et du pédalier (ISO/DIS 4210-8:2021)

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Part 8: Pedal and drive system test methods

Cycles — Exigences de sécurité des bicyclettes —

Partie 8: Méthodes d'essai des pédales et du pédalier

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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 of 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 www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 149, *Cycles*, Subcommittee SC 1, *Cycles and major sub-assemblies*.

This second edition cancels and replaces the first edition (ISO 4210-8:2014), which has been technically revised.

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

— xxx xxxxxxx xxx xxxx

A list of all parts in the ISO 4210 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Introduction

This International Standard has been developed in response to demand throughout the world, and the aim has been to ensure that bicycles manufactured in compliance with this International Standard will be as safe as is practically possible. The tests have been designed to ensure the strength and durability of individual parts as well as of the bicycle as a whole, demanding high quality throughout and consideration of safety aspects from the design stage onwards.

The scope has been limited to safety considerations, and has specifically avoided standardization of components.

If the bicycle is to be used on public roads, national regulations apply.

Cycles — Safety requirements for bicycles — Part 8: Pedal and drive system test methods

1 Scope

This part of ISO 4210 specifies pedal and drive system test methods for ISO 4210-2.

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 4210-1, *Cycles — Safety requirements for bicycles — Part 1: Terms and definitions*

ISO 4210-3, *Cycles — Safety requirements for bicycles — Part 3: Common test methods*

IEC 60529:2001, *Degrees of protection provided by enclosures (IP Code)*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4210-1 apply.

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

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

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

4 Test methods

4.1 Pedal — Static strength test

Screw the pedal spindle securely into a suitable rigid fixture with its axis horizontal, as shown in Figure 1. Place a steel U-shaped loading block, dimensioned as shown in Figure 1, so that its edge is located at 40 mm from the end of the pedal. The width of the U-shaped block shall be such that its edges are aligned with the edges of the pedal. The loading block shall be free to rotate as shown in Figure 1 to ensure a constant contact with the pedal.

For pedals with binding systems, the force may instead be applied to a cleat fitted onto the pedal.

Apply a vertically downward force of 1 500 N for 5 min to the centre of the U-shaped loading block, as shown in Figure 1. Release the force and examine the pedal assembly and the spindle.

For folding pedals, check for any changes to the setting of the folding mechanism.

If the folding pedal has two different riding sides, the test shall be applied on each side.

For pedals with a single riding side, the test shall be applied only on the riding side.

Dimensions in millimetres

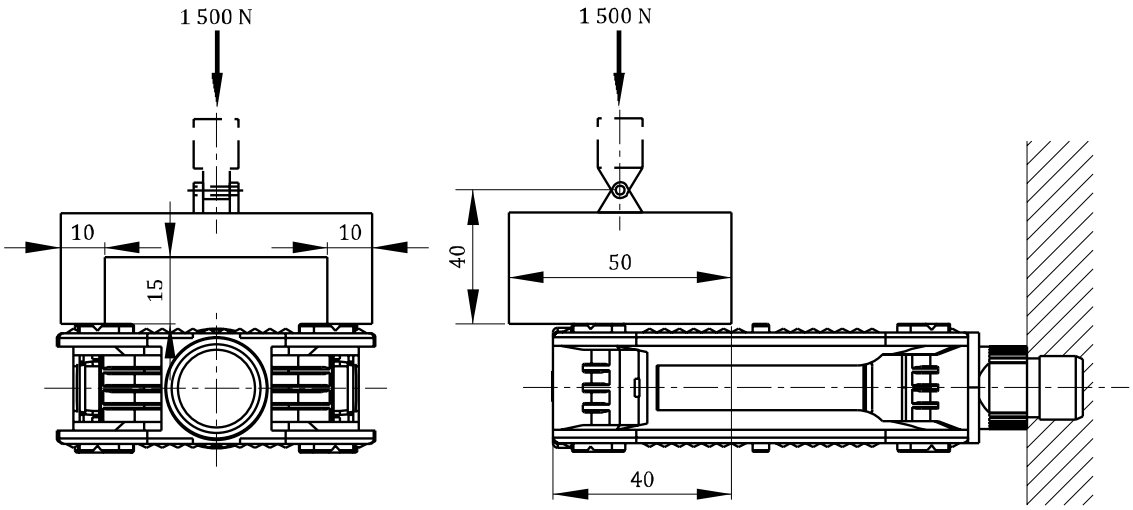


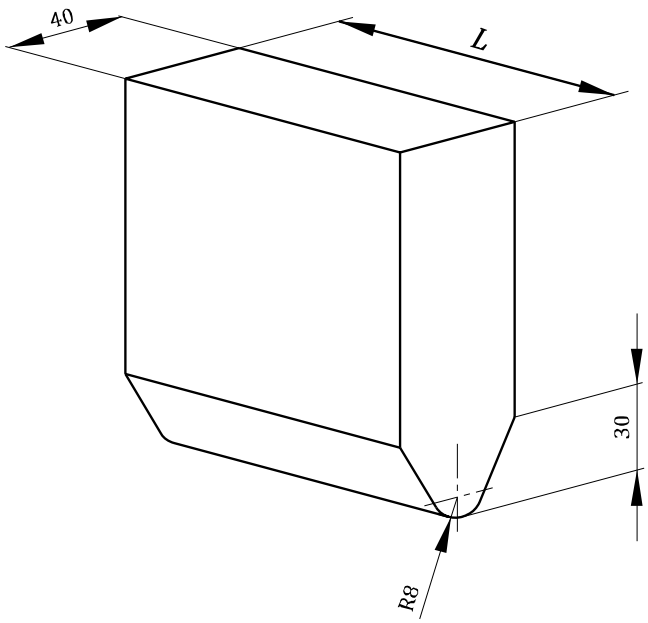
Figure 1 — Pedal/pedal-spindle assembly — Static strength test

4.2 Pedal — Impact test

Screw the pedal-spindle securely into a suitable rigid fixture with its axis horizontal as shown in Figure 3 and release a striker of the design shown in Figure 2 and mass of 15 kg from a height of 400 mm to strike the pedal at the centre of the pedal. Pedal with binding system may set cleat on pedal and drop on it. The length of the striker shall be equal to or wider than the length of the tread surface. For pedals with binding systems, the cleat shall be attached and the cleat length shall be used instead of the tread surface length.

NOTE See ISO 4210-3, Annex B.

Dimensions in millimetres



Key

L length of the striker

Figure 2 — Striker dimensions