SLOVENSKI STANDARD
SIST EN ISO 8098:2014

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SIST EN 14765:2006+A1:2008

Kolesa - Varnostne zahteve za kolesa za mlajše otroke (ISO 8098:2014)

Cycles - Safety requirements for bicycles for young children (ISO 8098:2014)

Fahrräder - Sicherheitstechnische Anforderungen an Kinderfahrräder (ISO 8098:2014)

Cycles - Exigences de sécurité relatives aux bicyclettes pour jeunes enfants (ISO 8098:2014)

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Cycles - Exigences de sécurité relatives aux bicyclettes pour jeunes enfants (ISO 8098:2014)

Fahrräder - Sicherheitstechnische Anforderungen an Kinderfahrräder (ISO 8098:2014)

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Contents

Page

Foreword....3

Foreword

This document (EN ISO 8098:2014) has been prepared by Technical Committee ISO/TC 149 “Cycles” in collaboration with Technical Committee CEN/TC 333 “Cycles” the secretariat of which is held by UNI.

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of an identical text or by endorsement, at the latest by December 2014, and conflicting national standards shall be withdrawn at the latest by June 2015.

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The text of ISO 8098:2014 has been approved by CEN as EN ISO 8098:2014 without any modification.

INTERNATIONAL STANDARD

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Cycles — Safety requirements for bicycles for young children

Cycles — Exigences de sécurité relatives aux bicyclettes pour jeunes enfants

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Contents

Page

Foreword ..... **iv**

Introduction ..... **v**

1 Scope **1**

2 Normative references **1**

3 Terms and definitions **1**

4 Requirements and test methods **3**
4.1 Brake tests and strength tests — Special requirements 3
4.2 Toxicity 4
4.3 Sharp edges 4
4.4 Security and strength of safety-related fasteners 4
4.5 Crack detection methods 5
4.6 Protrusions 5
4.7 Brakes 5
4.8 Steering 12
4.9 Frames 19
4.10 Front fork 22
4.11 Wheels 23
4.12 Rims, tyres and tubes 26
4.13 Pedals and pedal/crank drive system 26
4.14 Saddles and seat-posts 31
4.15 Chain-guard 35
4.16 Stabilizers 35
4.17 Luggage carriers 37
4.18 Lighting systems and reflectors 37
4.19 Warning device 38

5 Instructions **38**

6 Marking **39**
6.1 Requirement 39
6.2 Durability test 39

Annex A (informative) **Steering geometry** **40**

Annex B (informative) **Verification of free fall velocity** **42**

Bibliography **43**

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. www.iso.org/directives

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The committee responsible for this document is ISO/TC 149, *Cycles*, Subcommittee SC 1, *Cycles and major sub-assemblies*.

This third edition cancels and replaces the second edition (ISO 8098:2002), which has been technically revised.

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 it 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.

For safety requirements for toy bicycles intended for very young children see national regulations and standards.

Cycles — Safety requirements for bicycles for young children

1 Scope

This International Standard specifies safety and performance requirements and test methods for the design, assembly and testing of fully assembled bicycles and sub-assemblies for young children. It also provides guidelines for instructions on the use and care of the bicycles.

This International Standard is applicable to bicycles with a maximum saddle height of more than 435 mm and less than 635 mm, propelled by a transmitted drive to the rear wheel.

It is not applicable to special bicycles intended for performing stunts (e.g. BMX bicycles).

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 1101, *Geometrical product specifications (GPS) — Geometrical tolerancing — Tolerances of form, orientation, location and run-out*

ISO 5775-1, *Bicycle tyres and rims — Part 1: Tyre designations and dimensions*

ISO 5775-2, *Bicycle tyres and rims — Part 2: Rims*

ISO 6742-2, *Cycles — Lighting and retro-reflective devices — Part 2: Retro-reflective devices*

ISO 11243, *Cycles — Luggage carriers for bicycles — Concepts, classification and testing*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

3.1
bicycle
two-wheeled cycle

3.2
brake-lever
lever which operate the brake device

3.3
braking force
tangential rearward force between the tyre and the ground or the tyre and the drum or belt of the test machine

3.4
crank assembly
<fatigue testing> drive and non-drive crank arms, pedal-spindles or adaptors, bottom-bracket spindle, and the first component of the drive system, e.g. the chain-wheel cluster

3.5
cycle
any vehicle that has at least two wheels and is propelled solely or mainly by the muscular energy of the person on that vehicle, in particular by means of pedals

3.6
exposed protrusion
protrusion which through its location and rigidity could present a hazard to the rider either through heavy contact with it in normal use or should the rider fall onto it in an accident

3.7
fracture
unintentional separation into two or more parts

3.8
highest gear
gear ratio which gives the greatest distance travelled for one rotation of the cranks

3.9
lowest gear
gear ratio which gives the shortest distance travelled for one rotation of the cranks

3.10
maximum inflation pressure
maximum tyre pressure recommended by the tyre or rim manufacturer for a safe and efficient performance, and if the maximum rim pressure was marked on both the tyre and rim, maximum tyre pressure according to the lower marked maximum inflation pressure on the rim or tyre

3.11
maximum saddle height
vertical distance from the ground to the top of the saddle surface, measured with the saddle in a horizontal position with the seat-post set to the minimum insertion depth

3.12
pedal tread surface
surface of a pedal that is presented to the underside of the foot

3.13
quick-release devices
lever actuated mechanism that connects, retains, or secures a wheel or any other component

3.14
stabilizers
removable auxiliary wheels fitted to enable the rider to balance

3.15
toe-clip
device attached to the pedal to grip the toe end of the rider's shoe but permitting withdrawal of the shoe

3.16
toe-strap
device to securely locate a rider's shoe on a pedal

3.17
visible crack
crack which results from a test where that crack is visible to the naked eye

4 Requirements and test methods

4.1 Brake tests and strength tests — Special requirements

4.1.1 Definition of brake tests

Brake tests to which accuracy requirements apply, as in 4.1.4, are those specified in 4.7.2.3 to 4.7.8.4 inclusive.

4.1.2 Definition of strength tests

Strength tests to which accuracy requirements apply, as in 4.1.4, are those involving static, impact or fatigue loading as specified in 4.8 to 4.14 inclusive and 4.16.

4.1.3 Numbers and condition of specimens for the strength tests

In general, for static, impact and fatigue tests, each test shall be conducted on a new test sample, but if only one sample is available, it is permissible to conduct all of the tests on the same sample with the sequence of testing being fatigue, static and impact.

When more than one test is conducted on the same sample, the test sequence shall be clearly recorded in the test report or record of testing.

NOTE It should be noted that if more than one test is conducted on the same sample, earlier test can influence the results of subsequent tests. Also, if a sample fails when it has been subjected to more than one test, a direct comparison with single testing is not possible.

In all strength tests, specimens shall be in the fully finished condition.

It is permitted to carry out tests with dummy assemblies such as a fork or handlebar when carrying out frame or handlebar stem tests.

4.1.4 Tolerances

Unless stated otherwise, accuracy tolerances based on the nominal values shall be as follows:

— Forces and torques: 0/+5 %

— Masses and weights: ±1 %

— Dimensions: ±1 mm

— Angles: ±1°

— Time duration: ±5 s

— Temperatures: ±2 °C

— Pressures: ±5 %

4.1.5 Fatigue test

The force for fatigue tests is to be applied and released progressively, not to exceed 10 Hz. The tightness of fasteners according to manufacturer's recommended torque can be re-checked not later than 1 000 test cycles to allow for the initial settling of the component assembly. (This is considered applicable to all components, where fasteners are present for clamping.) The test bench shall be qualified to meet dynamic requirements of 4.1.4.

NOTE Examples of suitable methods are listed in Reference[7] in the Bibliography.