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

GB/T 3565.8-2022

**Safety requirements for bicycles - Part 8: Pedal and drive
system test methods**

自行车安全要求 第8部分：脚踏与驱动系统试验方法

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Foreword

This document was issued on 30 December 2022 by the State Administration for Market Regulation; Standardization Administration of the PRC and takes effect on 1 October 2023.

It is a GB/T standard: recommended rather than compulsory, but it is the text a Chinese reviewer applies when assessing a submission.

It is classified under ICS 43.150, Chinese classification Y14.

Introduction

GB (T) 3565 "Safety Requirements for Bicycles" was drafted according to the safety requirements of bicycle products.

To produce bicycles that are as safe as possible. GB (T) 3565 "Bicycle Safety Requirements" consists of 9 parts.

--- Part 1.Terms and definitions. The purpose is to unify the terminology used in each part of the standard.

--- Part 2.Requirements for city and touring bicycles, youth bicycles, mountain bikes and racing bicycles. purpose is

Classify the safety requirements of Category 4 bicycles into mandatory national standards for easy enforcement.

--- Part 3. General test methods. The purpose is to centralize and unify the general test methods for bicycle safety requirements and facilitate operation.

--- Part 4. Brake test method. The purpose is to carry out professional tests on the brake requirements in the bicycle safety requirements, and provide a basis for the brake test

Opportunities for method improvement.

--- Part 5. Test methods for handlebars. The purpose is to carry out professional tests on the handlebar requirements in the bicycle safety requirements, and to provide a basis for the handlebar test

Opportunities for method improvement.

--- Part 6. Test methods for frame and fork. The purpose is to conduct a professional review of the requirements for frame and front fork in bicycle safety requirements.

Test and provide opportunities for improved test methods for frames and forks.

--- Part 7. Test methods for wheels and rims. The purpose is to conduct a professional review of the requirements for wheels and rims in bicycle safety requirements

Test and provide opportunities for improvement of test methods for wheels and rims.

--- Part 8. Test methods for pedals and drive systems. The purpose is to meet the requirements for pedals and drive systems in bicycle safety requirements

Conduct specialized tests and provide opportunities for improved test methods for pedal and drive systems.

--- Part 9. Test methods for saddles and saddle tubes. The purpose is to conduct a professional review of the requirements for saddles and saddle tubes in bicycle safety requirements

Test, and provide opportunities for the improvement of test methods for saddles and saddle tubes.

GB 3565.2 is a mandatory national standard, and 7 test method standards (GB/T 3565.3~GB/T 3565.9) are recommended national standards

Standard, used in conjunction with GB 3565.2. These test method standards are designed to ensure the strength and reliability of individual components as well as the complete bicycle

It meets the requirements and requires consideration of safety issues from the design stage.

The scope of GB (T) 3565 is limited to product safety considerations. If bicycles are used on public roads, national road traffic regulations must be followed.

Communication safety laws and related management regulations.

To improve repeatability and reproducibility, and to take into account suitability, size and operator effects for all types of bicycles, the test

The machine test method reflects the current advanced level and is more popular than the road test method.

The safety and quality of bicycles is related to the traffic life safety of consumers. Since 1983, my country has released three versions of

GB 3565. It has been 17 years since GB 3565-2005 was issued and implemented.

Provided technical support. GB 3565-2005 "Safety Requirements for Bicycles" is equivalent to ISO 4210.1996 "Safety Requirements for Two-wheeled Bicycles"

Require". In 2014, ISO 4210 was revised and released again, from the original 1 standard to 9 standards. For this reason, GB 3565 also changed from the original 1

One standard was revised into nine standards, and the standard level was synchronized with the international standard, and continued to provide technical support for the safety of bicycle products in my country.

Bicycle Safety Requirements

Part 8. Test methods for pedal and drive systems

1 Scope

GB/T 3565.8-2022 covers the bench tests for the parts a rider pushes against - the pedals and the drive system. Pedals are taken through a static load strength test, an impact test and a dynamic durability test; the drive system is loaded statically, with one method for chain drives and another for belt drives; the drive belt is pulled to tensile strength; and the crank assembly goes through a fatigue test. Everything named here carries the rider's whole weight through a handful of small parts, applied again and again and often out of the saddle, which is why fatigue rather than a single overload is the usual way these components end. A crank or a pedal spindle breaks without warning and drops the rider onto the frame at speed; a chain or a belt that lets go takes away the resistance the rider is pushing into and does much the same thing. The impact test is there because pedals are struck against kerbs, rocks and the ground in ordinary use and have to stay serviceable afterwards. Part 8 of the GB/T 3565 series, supplying the test methods used with the requirements part for the bicycle types it covers; written for component makers, bicycle assemblers and test laboratories.

This document describes the static load strength, impact and dynamic durability of bicycle pedals and the static load strength and tensile strength of the drive system and test methods for fatigue tests.

This document is applicable to the test of pedals and drive system components of bicycle types involved in GB 3565.2.

2 Normative references

The contents of the following documents constitute the essential provisions of this document through normative references in the text. Among them, dated references

For documents, only the version corresponding to the date is applicable to this document; for undated reference documents, the latest version (including all amendments) is applicable to

this document.

GB/T 3565.1 Bicycle Safety Requirements Part 1.Terms and Definitions (GB/T 3565.1-2022, ISO 4210-1.

2014, MOD)

GB/T 3565.3-2022 Bicycle Safety Requirements Part 3.General Test Methods (ISO 4210-3.2014, IDT)

GB/T 4208-2017 Enclosure protection level (IP code) (IEC 60529.2013, IDT)

3 Terms and Definitions

The terms and definitions defined in GB/T 3565.1 apply to this document.

4 Test method

4.1 Pedal --- static load strength test

As shown in Figure 1, the pedal shaft is screwed on a rigid support in a horizontal position, and the pedal surface is 40mm away from the end of the pedal.

Place a platen at the center of the platen, apply a vertical downward force of 1500N at the center of the platen, and keep it for 5min. If the pedal width is less than

75mm, the outside of both sides of the pressure plate should be flush with the outside of the pedal width direction. After removing this force, check the pedal parts and the pedal shaft, if any

If the pedals are folded, check their folding positioning function.