

ICS 43.150
CCS Y14



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

GB/T 3565.5-2022

Safety requirements for bicycles - Part 5: Steering test methods

自行车安全要求 第5部分：车把试验方法

Issued on: December 30, 2022

Implemented on: October 1, 2023

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

Table of Contents

1 Scope	1
2 Normative references	1
3 Terms and Definitions	1
4 Test method	1
4.1 Handlebar grips and handlebar covers	1
4.2 Steering tube---lateral bending test	2
4.3 Cross tube and stem tube assembly---lateral bending test	3
4.4 Riser---forward bending test	5
4.5 Handlebar to handlebar riser --- fixed strength test	7
4.6 Handlebar Steering Tube to Front Fork Steering Tube --- Moment Reliability Test.....	8
4.7 Handlebar to handlebar cross tube---moment reliability test	9
4.8 Extended handlebar to handlebar cross tube---moment reliability test	9
4.9 Cross tube and stem tube assembly---fatigue test	10

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 7 test method standards are designed to ensure the strength and reliability of individual components and bicycles

Meet the requirements, and require consideration of safety aspects from the design stage.

The scope of GB (T) 3565 is limited to product safety considerations. If bicycles are used on public roads, the "Chinese People's

The Road Traffic Safety Law of the Republic and relevant 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 released 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 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 5. Test methods for handlebars

1 Scope

GB/T 3565.5-2022 is the part of the bicycle safety series that describes how the handlebar assembly is tested. It sets out the heat and cold tests on grips and handlebar covers, the lateral bending test on the steering tube and on the cross tube and stem tube assembly, the forward bending test on the riser, the fixing strength test between handlebar and riser, and the moment reliability tests taken at the handlebar steering tube to front fork steering tube joint, at the handlebar to cross tube joint and at the extended handlebar to cross tube joint, closing with a fatigue test on the cross tube and stem tube assembly. The handlebar is the one component a rider is holding when it lets go, and a failure there takes away steering and support at the same moment, at speed; a grip that turns or pulls off after a season of cold and sun does the same thing more slowly. The loads reaching the bars are a mix of steady bending and repeated reversals, so a single static pull proves little on its own, which is why the fatigue and moment reliability tests sit alongside the bending ones. The methods apply to the bicycle types covered by GB 3565.2 and are used by bicycle makers, handlebar and stem suppliers, and testing laboratories.

This document describes the heat and cold tests, lateral bending test, forward bending test, fixing strength test, force

Test methods for moment reliability test and assembly fatigue test.

This document is applicable to the test of handlebar components of the 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 3565.2-2022 Bicycle Safety Requirements Part 2.City and Touring Bicycles, Youth Bicycles, Mountain Bicycles

Requirements for racing bicycles (ISO 4210-2.2015, MOD)

Note. There is no technical difference between the referenced content of GB 3565.2-2022 and the referenced content of ISO 4210-2.2015.

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

3 Terms and Definitions

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

4 Test method

4.1 Handlebar grips and handlebar caps

4.1.1 Freezing test

At room temperature, immerse the handlebars with grips or covers in water for 1 hour, then place the handlebars in the freezer until the temperature drops

When the temperature is below -5°C, take the handlebar out of the freezer, and when the temperature reaches -5°C, apply a

70N force, as shown in Figure 1.This force is maintained until the temperature of the