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

GB/T 4570-2022

Test method of durability for motorcycles and mopeds

摩托车和轻便摩托车耐久性试验方法

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Table of Contents

Foreword	3
1 Scope	4
2 Normative references	4
3 Terms and definitions	5
4 Test conditions	5
5 Test items and test methods	7
6 Test report	12
Appendix A (Normative) Routine operations	13
Appendix B (Informative) Failure classification principle	14
Appendix C (Normative) Durability assessment indicator calculation	15
Appendix D (Informative) Parameter record form	17
Appendix E (Informative) Test record form	18

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 July 2023.

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

1 Scope

GB/T 4570-2022 covers durability testing of motorcycles and mopeds - the conditions the test runs under, the test items and the method for each, and what the test report has to contain. The conditions clause fixes the ground rules before a machine turns a wheel: the manufacturer supplies the product technical documentation, and the test vehicle has to meet the safety and environmental performance required of it. The test items open with measurement of the main dimensions and mass parameters to GB/T 5373 and continue through the running programme itself. Around that sit the annexes that make one laboratory's result comparable with another's. Routine operations are normative, so servicing during a run cannot be used to nurse a machine through it. Failure classification is written down, so a broken part is scored the same way by everyone. The durability assessment indicator is calculated by a prescribed method rather than by each house's own arithmetic, and record forms are supplied for the parameters and for the test itself. Durability is the property a manufacturer claims first and a rider discovers last, which is why

the method, not the outcome, is what this document pins down. Written for motorcycle manufacturers, component suppliers and test houses.

This document specifies the test conditions, test items, test methods and test reports of durability tests for motorcycles and mopeds.

This document applies to the durability tests of motorcycles and mopeds (hereinafter referred to as "motorcycles" unless otherwise specified).

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.

GB 4569, Limit and measurement method of noise emitted by stationary -
Motorcycles and mopeds

GB/T 5359.1, Term for motorcycles and mopeds - Part 1.Types of vehicles

GB/T 5359.2, Term for motorcycles and mopeds - Part 2.Performance of vehicles

GB/T 5373, Measuring method of dimensions and masses parameter for
motorcycles and mopeds

GB/T 5378, Methods of road test for motorcycles and mopeds

GB/T 7031, Mechanical vibration - Road surface profiles - Reporting of measured
data

GB 7258, Technical specifications for safety of power-driven vehicles operating on
roads

GB 14622, Limits and measurement methods for motorcycle pollutant discharge
(China stage IV)

GB 15742, Performance requirements and test methods of horn for motor vehicles

GB 15744, The limits and measurement methods of fuel consumption for
motorcycles and mopeds

GB 16169, Limit and measurement method of noise emitted by accelerating -

Motorcycles and mopeds

GB 18176, Limits and measurement methods for emissions of pollutants from mopeds (CHINA IV)

GB/T 18387, Limits and test method of magnetic and electric field strength from electric vehicles

GB 20073, Performance and measurement method for braking of motorcycles and mopeds

GB 24155, Safety specifications for electric motorcycles and electric mopeds

GB/T 24156, Electric motorcycles and electric mopeds - Power performance - Test methods

GB/T 24157, Test methods of range and indication for the state of charge for electric motorcycles and electric mopeds

GB 34660, Road vehicles - Requirements and test methods of electromagnetic compatibility

JTG B01, Technical standard of highway engineering

3 Terms and definitions

For the purpose of this document, terms and definitions given in GB/T 5359.1 and GB/T 5359.2 apply.

4 Test conditions

4.1 General test conditions

4.1.1 Before testing, the manufacturer shall provide product technical documentation.

4.1.2 The safety and environmental performance of the test vehicle shall comply with the following mandatory standards.

-- GB 14622, Limits and measurement methods for motorcycle pollutant discharge (China stage IV);

-- GB 18176, Limits and measurement methods for emissions of pollutants from mopeds (CHINA IV);

-- GB 16169, Limit and measurement method of noise emitted by accelerating -

Motorcycles and mopeds.

4.1.3 Before the performance test, the test vehicle shall be run-in according to the product technical documentation. During the run-in period, the engine and transmission lubricants shall be replaced according to the requirements of the product technical documentation; no parts shall be adjusted or replaced at will; detailed driving inspection records shall be kept. The mechanical moving parts of the electric motorcycles shall be lubricated in accordance with the provisions of the product technical documentation. Before the performance test, the power battery (pack) used in the test vehicle shall be a fully charged battery that has been manufactured within three months (or as specified in the product technical documentation) and has been charged and discharged no more than 50 times.

4.1.4 The loading mass of the test vehicle shall comply with the relevant provisions of GB/T 5378.

4.1.5 The specifications and working pressure of the tires of the test vehicle shall comply with the provisions of the technical documentation accompanying the vehicle, and the pressure error shall not exceed ± 10 kPa.

4.2 Test conditions for termination

If any of the following situations are found during the test, the test shall be terminated.

- a) The steering, braking, transmission, wheel system, etc. cannot ensure driving safety;
- b) The frame or its welds are damaged by cracks, desoldering or other damage that makes it impossible to continue the test;
- c) The assembly to be assessed in the test is severely damaged and needs to be replaced.

4.3 Test road

4.3.1 The driving test road conditions shall be.

- a) Urban highway. urban traffic arterial street that meets the requirements of JTG B01; the road surface roughness shall be Class C or above as specified in GB/T