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

GB/T 28529-2025

Replacing GB/T 28529-2012

Platform brake testers

平板式制动检验台

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Foreword

This document complies with the provisions of GB/T 1.1-2020 "Standardization Work Guidelines Part 1: Structure and Drafting Rules of Standardization Documents". Drafting.

This document replaces GB/T 28529-2012 "Flat-plate Brake Testing Bench". Compared with GB/T 28529-2012, the main differences are in structural adjustments and...

Aside from editorial changes, the main technical changes are as follows.

- a) The terms "wheel load," "difference between indicated braking force values," "difference between indicated wheel load values," and "starting force of the brake plate" and their definitions have been added (see 3.3). 3.6, 3.7, 3.9);
- b) The terms and definitions for "maximum weighing" and "deflection" have been changed (see 3.5, 3.8, and 3.3, 3.5 in the 2012 edition);
- c) The "Classification and Model" section has been changed (see Chapter 4, Chapters 4 and 5 of the 2012 edition);
- d) An additional requirement for "environmental adaptability" has been added (see 5.1.1);
- e) The requirements for "Technical Specifications" and "Units of Measurement" have been changed (see 5.1.2.1, 5.1.2.2, and 6.1.2 and 6.1.3 in the 2012 edition);
- f) The requirements for "resolution" and "discrimination" have been removed (see Table 2 in the 2012 edition);

- g) An additional requirement for "display device resolution" has been added (see 5.1.2.2);
- h) The requirement for a "flat platform structure" has been added (see 5.1.2.3);
- i) The requirement for "functionality" has been added (see 5.2);
- j) The requirements for "indication error" and "indication difference" have been changed (see 5.3.1, 5.3.2, Table 2 of the 2012 edition);
- k) Added requirements for "braking force repeatability" and "vehicle braking rate repeatability" (see 5.3.3.1, 5.3.3.3);
- l) The requirements for "wheel load repeatability" have been changed (see 5.3.3.2, Table 2 of the 2012 edition);
- m) The requirements for "zero drift" have been changed (see Table 2 in 5.3.4, 2012 edition);
- n) The requirement for "no-load variability" has been added (see 5.3.5);
- o) The requirements for "off-center load error" have been changed (see Table 2 in 5.3.6, 2012 edition);
- p) Added the requirement for "wheel load overload performance" (see 5.3.7);
- q) The requirements for "platform" have been changed (see 5.4.1, 7.4.1 in the 2012 version);
- r) The requirements for "flatness" have been changed (see 5.4.2.1, 6.3.1 in the 2012 edition);
- s) The requirements for "deflection" have been changed (see 5.4.2.2, 6.3.2 in the 2012 version);
- t) The requirement for "starting force of the brake plate" has been added (see 5.4.2.4);
- u) The requirement for a "display device" has been added (see 5.4.3);
- v) Increased requirements for the electrical system's "braking force, maximum wheel load response time," "inter-channel sampling time difference," and "voltage withstand capability" (see... 5.4.4.2~5.4.4.4, 5.4.5.1);
- w) The requirements for "grounding" of electrical systems have been changed (see 5.4.5.3, 6.5.2 in the 2012 edition);
- x) The requirements for "Appearance Quality" have been changed (see 5.5, 6.1.4 in the 2012 version);
- y) The requirements for "calibration device" have been changed (see 5.6, 6.7 in the 2012 edition).

Please note that some content in this document may involve patents. The issuing

organization of this document assumes no responsibility for identifying patents.

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This document is under the jurisdiction of the National Automotive Repair Standardization Technical Committee (SAC/TC247).

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This document was first published in 2012, and this is its first revision.

1 Scope

This document specifies the classification and models, technical requirements, test methods, inspection rules, marking, packaging, and transportation of flat-plate brake testing benches. Transportation and storage.

This document applies to the design, production, inspection, and use of flatbed automotive brake testing benches. Flatbed motorcycle brake testing benches are also applicable. use.

2 Normative references

GB/T 191

GB/T 13306

GB/T 13384

GB 38900-2020

GB/T 44411-2024

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 Platform Brake Test Bench

A device used to simulate the braking of a motor vehicle on a flat road and to test its braking performance.

3.2 Rated loading capacity

The flatbed brake testing bench is allowed to bear the maximum static axle load of the vehicle being tested.

3.3 wheelweight

Wheel load capacity of motor vehicles.

[Source. JT/T 1279-2019, 3.2, with modifications]

3.4 Brake platen

Used to support the wheels of the vehicle under inspection, and to transmit braking force and wheel load to the force sensor when the vehicle is braking and weighing. part.

3.5 maximum weight

The maximum static wheel load that a flatbed brake testing bench can weigh is [not specified].

3.6 [Source. GB/T 13564-2022, 3.10, with modifications]

The absolute value of the difference in the no-load braking force readings measured by the coaxial left and right brake plates of the flat plate brake test bench at the same test point.

3.7 [Source. JT/T 1279-2019, 3.4, with modifications]

The absolute value of the difference in wheel load no-load indication error measured by the coaxial left and right brake plates of the flat plate brake test bench at the same weighing point.

3.8 deflection

Under maximum static wheel load, when the brake plate deforms, the displacement in the normal plane of the brake plate at the loading point is adjacent to that of the brake plate.

The ratio of the maximum span of the fulcrum.

Note. The normal plane is the plane perpendicular to the contact surface of the brake plate.

3.9 4 Classification and Model

Smoothly push (pull) the brake plate along the direction of travel of the vehicle being inspected. When the braking force reading of the plate brake test bench changes, the applied force... (pull.

[Source. JJG1020-2017, 3.6, modified]