

ICS 43.020
CCS T 04



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

GB/T 46416-2025

**Passenger cars - Straight-ahead braking on the split-surface -
Vehicle stability test method**

乘用车 对开路面直线制动 车辆稳定性试验方法
(English Translation)

Issued on: October 5, 2025

Implemented on: May 1, 2026

Issued by: State Administration for Market Regulation

Table of Contents

Preface
1 Scope
2 Normative References
3 Terms and Definitions
4 Symbols
5 Test equipment
6 Variables
7 Test conditions
8 Test Methods
9 Data Processing
Appendix A (Informative) Comparison of this document with the structural numbering of ISO 14512:1999
Appendix B (Informative) Technical Differences between this Document and ISO 14512:1999 and Their Reasons
Appendix C (Normative) Test Report - General Data and Test Conditions
Appendix D (Normative) Data Processing Methods
Appendix E (Informative) Test Report - Results Presentation
References

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 is modified to adopt ISO 14512:1999 "Passenger cars - Straight-line braking open-loop test method on road surfaces with different coefficients of adhesion".

This document has undergone significant structural adjustments compared to ISO 14512:1999. A table comparing the structural numbering changes between the two documents is provided.

See Appendix A.

This document differs significantly from ISO 14512:1999. The relevant clauses are indicated in vertical margins.

Single lines (-) are indicated. A summary of these technical differences and their causes can be found in Appendix B.

The following editorial changes have been made to this document.

---The standard name has been changed to "Stability Test Method for Passenger Cars Braking on Straight-Line Road".

Please note that some content in this document may involve patents. The issuing organization of this document assumes no responsibility for identifying patents.

This document was proposed by the Ministry of Industry and Information Technology of the People's Republic of China.

This document is under the jurisdiction of the National Automotive Standardization Technical Committee (SAC/TC114).

1 Scope

This document describes a test method for evaluating vehicle stability when a passenger car is subjected to straight-line braking on a split-road surface.

This document applies to vehicles in category M1. Vehicles in categories M2 and N1 with a gross vehicle weight of less than 3500 kg shall refer to this document for the same purpose.

This document applies to vehicles equipped with anti-lock braking systems.

2 Normative references

The contents of the following documents, through normative references within the text, constitute essential provisions of this document. Dated citations are not included.

For references to documents, only the version corresponding to that date applies to this document; for undated references, the latest version (including all amendments) applies.

This document.

GB/T 3730.1 Terms and definitions for automobiles, trailers and automobile combinations - Part 1: Types GB/T 3730.2 Road vehicle quality vocabulary and codes (GB/T 3730.2-1990, ISO 1176:1990, IDT) GB/T 5620 Road Vehicles - Motor Vehicles and Trailers - Braking - Terminology and Definitions (GB/T 5620-2020, ISO 611.

2003, IDT)

GB/T 12549 Terminology and Definitions for Vehicle Handling Stability GB/T 15089 Classification of Motor Vehicles and Trailers GB 21670-2025 Technical Requirements and Test Methods for Braking Systems of Passenger Cars GB/T 40501-2021 General conditions for testing the handling stability of light-duty vehicles (ISO 15037-1:2019, MOD)

3 Terms and Definitions

The terms and definitions defined in GB/T 3730.1, GB/T 3730.2, GB/T 5620, GB/T 12549, and GB/T 15089, as well as the following terms and definitions.

This applies to this document.

Real-time monitoring of vehicle status allows for adjustments to engine torque and yaw moment as needed, ensuring the vehicle moves according to the driver's intentions.

Active safety system.

[Source. GB/T 30677-2014, 3.2, with modifications]

4 Symbols

The symbols given in Table 1 are applicable to this document.