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

GB/T 44128-2024

**Road vehicles - Braking threshold pressures for heavy
commercial vehicle combinations with fully pneumatic braking
systems - Test with roller brake tester**

道路车辆 重型商用列车气压制动系统制动开始压力 滚筒制动试验台测量方法

(English Translation)

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Foreword

This document is in accordance with the provisions of GB/T 1.1-2020 "Guidelines for standardization work Part 1: Structure and drafting rules for standardization documents" Drafting.

This document is modified from ISO 20918:2007 "Road vehicles, heavy commercial trains, pneumatic brake systems - brake start pressure roller brakes". "Measurement Methods for Dynamic Test Benches".

Compared with ISO 20918:2007, this document has many structural adjustments. The comparison table of structural number changes between the two documents is shown in Appendix A.

The technical differences between this document and ISO 20918:2007 and their reasons are as follows:

- Added the vehicle types applicable to the document (see Chapter 1) to clarify the vehicle types suitable for domestic use;
- ISO 611 was replaced by the normative reference GB/T 5620 to adapt to my country's technical conditions and increase operability;
- Added normative reference to GB/T 15089 to adapt to my country's technical conditions;
- Changed the sign of the roller rotation resistance (see 3.1) because the universal standard symbol for force is F.

The following editorial changes were made to this document.

- Changed the expression of scope (see Chapter 1) to conform to the expression of national standards;
- Changed the selection of the initial brake pressure value of the right axle (see Appendix C). The value in the original ISO file was incorrect.

1 Scope

This document specifies the recommended braking start pressure of the pneumatic brake system of heavy commercial trains, the measurement method, recording and value taking of the braking start pressure of the train pneumatic brake system.

This document is applicable to the measurement of the brake start pressure of the pneumatic brake system of Category N and Category O vehicles specified in GB/T 15089.

2 Normative references

The contents of the following documents constitute the essential clauses of this document through normative references in this document.

For referenced documents without a date, only the version corresponding to that date applies to this document; for referenced documents without a date, the latest version (including all amendments) applies to This document.

GB/T 5620 Road vehicles - Terms and definitions for braking of motor vehicles and trailers (GB/T 5620-2020, ISO 611:2003, IDT)

GB/T 15089 Classification of motor vehicles and trailers

ISO 21069-1 Roller brake test bench test method for brake systems of road vehicles with a maximum permissible gross mass of 3.5 tonnes or more

3 Terms and definitions

The terms and definitions defined in GB/T 5620 and the following apply to this document.

3.1 Rolling resistance

F_a

The resistance generated by the roller when the vehicle generates braking force or torque on the roller brake test bench.

3.2 Trailer control pressure

P_m

Pressure at the trailer control line connection.

3.3

P_c

The air pressure in the brake chamber of the brake system.

3.4

P_t

The trailer control pressure measured when the braking force or torque begins to increase beyond the rolling resistance.

Note: This pressure can only be measured during the pressurization process.