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

GB/T 25028-2025

Replacing GB/T 25028-2010

Wheel loaders - Boosters for the brake system

轮胎式装载机 制动系统用加力器

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Table of Contents

1.Scope	1
2 Normative References	1
3.Terms and Definitions	1
4.Basic Requirements	2
5 Performance Requirements	3
6.Pre-experiment preparation	4
7.Test Methods	5
8.Inspection Rule	11

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 supersedes GB/T 25028-2010 "Technical Conditions for Power Adder for Braking Systems of Tire-Type Loaders" and is consistent with GB/T 25028- Compared to.2010, aside from structural adjustments and editorial changes, the main technical changes are as follows:

- The scope has been changed (see Chapter 1, Chapter 1 of the.2010 edition);
- The terms and definitions have been changed (see Chapter 3, Chapter 3 of the.2010 edition);
- Category content has been removed (Chapter 4 of the.2010 edition);
- The relevant requirements have been revised (Chapter 5, Chapter 5 of the.2010 edition);
- The relevant test methods have been modified (see Chapter 7, Chapter 6 of the.2010 edition). 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 China Machinery Industry Federation. This document is under the jurisdiction of the National Technical Committee on Standardization of Earthmoving Machinery (SAC/TC334). This document was drafted by: Chongqing Huipu Hydraulic Power Manufacturing Co., Ltd., Wuhu Shengli Technology Co., Ltd., and Tianjin Engineering Machinery Research Institute. Research Institute Co., Ltd., Shaoxing Precision Machinery Manufacturing Co., Ltd., and Hebei Hengsheng Machinery Technology Co., Ltd. The main drafters of this document are. Lu Qiwen, Hu Danhong, Deng Yanfang, Tu Jianxin, Li Juntao, Wu Guodong, Lin Suyi, Tu Jinzhi, and Wang Anzhi. The release history of this

document and the document it replaces is as follows:

---First released in.2010;

---This is the first revision. Power booster for tire-mounted loader braking system

1 Scope

GB/T 25028-2025 is the Chinese national standard covering the air-over-hydraulic booster in a loader's brakes - its boost ratio and response, the sealing and the endurance in cycles, and the residual braking left when the air supply fails, which is what stops a loaded machine on a slope. Issued on 31 October 2025, it has been in force since 1 May 2026, replacing GB/T 25028-2010.

This document defines the terminology and definitions of boosters used in the braking systems of tire-mounted loaders, and specifies the basic requirements and performance specifications for boosters. Requirements, pre-test preparation, test methods, inspection rules and marking, packaging, transportation and storage. This document applies to boosters used in air-jacking hydraulic braking systems of wheeled loaders; boosters used in other earthmoving machinery should refer to this document for implementation.

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 11118.1 Hydraulic Oils (L-HL, L-HM, L-HV, L-HS, L-HG)

GB 12981 Motor vehicle brake fluid

GB/T 13384 General Technical Requirements for Packaging of Mechanical and Electrical Products

GB/T 21153 Units and Measurement Accuracy of Dimensions, Performance and Parameters of Earthmoving Machinery

3 Terms and Definitions

The following terms and definitions apply to this document.

3.1 booster In an air-to-hydraulic braking system, the input compressed air pressure energy is converted into output liquid pressure energy, which in turn outputs high-pressure braking fluid. The device.

3.2 The cavity through which the air intake is connected to the brake air passage.

3.3 The cavity through which the oil inlet connects to the liquid storage tank.

3.4 hydraulic brake cavity The cavity through which the oil outlet connects to the brake fluid circuit.

3.5 pE The working air pressure value designed for the product.

3.6 The maximum allowable air pressure value specified in the design.