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

GB/T 1190-2018

Replacing GB/T 1190-2009

Technical specification of earth-mover tyres

工程机械轮胎技术要求

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Foreword

This standard was drafted in accordance with the rules given in GB/T 1.1-2009. This standard replaces GB/T 1190-2009 "Technical Requirements for Tires for Construction Machinery". Compared with GB/T 1190-2009, The main technical changes outside the reform are as follows:

- Increased normative references GB/T 30193 (see Chapter 2);
- Increased the provision that the surface of the radial tires is not allowed to expose the cord (see 4.1.2);
- Explained the physical strength requirements of tires that are not suitable for steel cord adhesive strength indicators (see Table 1);
- Increased requirements regarding tire durability (see 4.3);
- The test method has added the provisions of the durability test method (see 5.5);
- Removed the regulations on measuring the rim in the tire mark (see 6.1 of the 2009 edition);
- Added the requirement that tires implanted with radio frequency identification (RFID) tags should have permanent electronic tag marking (see 6.1.3);
- Added the rule that radial tires should be engraved with "RADIAL" (see 6.1.4). This standard was proposed by the China Petroleum and Chemical Industry Federation. This

standard is under the jurisdiction of the National Tire and Rim Standardization Technical Committee (SAC/TC19). This standard was drafted. Fengshen Tire Co., Ltd., Zhongce Rubber Group Co., Ltd., Xuzhou Xulun Rubber Co., Ltd., Tianjin Guoxian International Union Tire & Rubber Co., Ltd., Shandong Linglong Tire Co., Ltd., Anhui Jiatong Passenger Radial Tire Co., Ltd., Triangle Tire Co., Ltd., Beijing Rubber Industry Research and Design Institute Co., Ltd., Shuangqian Tire Group Co., Ltd., Guizhou Tire Co., Ltd. Division, Jiangsu General Technology Co., Ltd., Zhejiang Ketaian Tire Co., Ltd., Michelin (China) Investment Co., Ltd., Continental Horse Tyre (China) Co., Ltd., Dalian Goodyear Tire Co., Ltd., Shantou Haoda Tire Testing Equipment Co., Ltd. The main drafters of this standard. Wang Zhiping, Mao Jianqing, Pei Xiaohui, Wang Lijun, Chen Shaomei, Wang Linfeng, Sun Hongsha, Wang Kexian, Mu Shouyong, Cai Lichao, Yang Shichun, Ding Zhenhong, Xia Huan, Lu Yi, Ma Zhong, Yin Qingye, Chen Xun. The previous versions of the standards replaced by this standard are.

--- GB/T 1190-1974, GB/T 1190-1982, GB/T 1190-1991, GB/T 1190-2001, GB/T 1190-2009. Technical requirements for construction machinery tires

1 Scope

GB/T 1190-2018 is the Chinese national standard on technical specification of earth-mover tyres, in the field of rubber and plastic industries. The /T suffix marks it as a recommended standard: it is not compulsory by itself, but it becomes binding as soon as a contract, a tender or a customer specification calls it up - which in practice is how most foreign buyers meet it. It was issued on 28 December 2018 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 November 2019. Classification: ICS 83.160.99, CCS G41. This page is published from the official record of the standard held by the Chinese standards administration: the identification, the dates, the classification and the issuing body are taken from there. The clause text, the tables and the numeric limits are in the document itself, which is delivered complete in English translation.

This standard specifies the terms and definitions, requirements, test methods, marking and packaging, use and maintenance of construction machinery tires. This standard applies to new construction machinery pneumatic tires (including tires, inner tubes and cushion belts).

2 Normative references

The following documents are essential for the application of this document. For dated references, only the dated version applies to this article Pieces. For undated references, the latest version (including all amendments) applies to this document.

GB/T 519 Test method for physical properties of pneumatic tires

GB/T 521 Tire outer edge measurement method

GB/T 528 Determination of tensile stress and strain properties of vulcanized rubber or thermoplastic rubber

GB/T 531.1 Test method for indentation hardness of vulcanized rubber or thermoplastic rubber Part 1. Shore hardness tester (Shore hardness)

GB/T 532 Determination of the bonding strength between vulcanized rubber or thermoplastic rubber and fabric

GB/T 1689 Determination of abrasion resistance of vulcanized rubber (using Akron abrasion tester)

GB/T 2980 Engineering machinery tire specifications, dimensions, air pressure and load

GB/T 6326 tire terms and definitions

GB/T 9768 Tire use and maintenance regulations

GB/T 30193 Test method for durability of construction machinery tires

HG/T 2177 tire appearance quality

3 Terms and definitions

The terms and definitions defined in GB/T 6326 and GB/T 2980 apply to this document.

4.1 Basic requirements

4.1.1 The specification, size, air pressure and load of the tire, the type of use of the tire, and the classification code of the pattern should conform to GB/T 2980 or related technologies Documentation requirements.

4.1.2 Various tires are not allowed to have defects that seriously affect the service life, such as delamination between components, sponge-like, traveller breakage and severe Defects such as pumping, broken and split multiple cords, pleated cords in the tires, and cords with rubber edges in the tire crown. Exposed. If a pad is used, the pad is not allowed to be defective in appearance and cracked.

4.1.3 Other appearance quality requirements of tires and pads shall meet the requirements of HG/T 2177.

4.1.4 If inner tubes and pads are used, they shall meet the requirements for matching with outer tubes.

4.2 Physical properties of tires The physical properties of the tire shall meet the requirements in Table 1. Table

5 Test method

5.1 The tensile strength and elongation at break of the tire tread rubber are sampled according to GB/T 519, and type 2 cutters are used according to GB/T 528. experimenting.

5.2 Abrasion of tire tread rubber is sampled according to GB/T 519 and tested in accordance with GB/T 1689.

5.3 The adhesion strength between the various components of the tire is sampled according to the provisions of GB/T 519, and tested according to the provisions of GB/T 532.

5.4 The hardness of the tire tread rubber is sampled in accordance with GB/T 519 and tested in accordance with GB/T 531.1.

5.5 The tire durability can be tested in accordance with GB/T 30193.

5.6 The tensile strength, elongation at break and permanent deformation at break of the belt shall be sampled in accordance with GB/T 519 and used in accordance with GB/T 528. The test specimens cut by a profile cutter are tested.

5.7 The outer edge size of a new tire after inflation is measured in accordance with GB/T 521.

6.1 Signs

6.1.1 Each tire shall have the signs

h) on the sidewall; each pad shall have the signs a),

a) specifications;

b) trademark, manufacturer name or place of origin;

c) level or load symbol or load index;

d) name or code of tire frame material, pattern classification code;

e) Tubeless tires shall be marked as "tubeless" or "TUBELESS";

f) tyre running direction sign (the tread pattern of the tire has the driving direction);

g) factory inspection mark;

h) Production number.

6.1.2 The markings on 6.1.1a) ~

f) on the tire shall use the engraved marks. Other markings can be washed with water.

6.1.3 Tires implanted with radio frequency identification (RFID) tags shall have permanent electronic tag marks.

6.1.4 Radial tires shall be engraved with the "RADIAL" or "radial" logo.