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

GB/T 13651-2023

Replacing GB/T 13651-2009

Retreaded aircraft tyres

航空翻新轮胎

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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 13651-2009 "Aviation Retreaded Tires": Compared with GB/T 13651-2009, except for structural adjustments and editing In addition to sexual changes, the main technical changes are as follows:

- a) Changed the scope of application (see Chapter 1, Chapter 1 of the:2009 edition);
- b) Changed the content of tire inspection (see 4:1,:2009 version of 4:1);
- c) Deleted the relevant content on tire repair (see 4:1:1:2:1 and 4:1:1:2:2 of the:2009 version);
- d) Changed the requirements for the size of the inflatable outer edge (see 4:3:4, 4:2:4 of the:2009 version);
- e) Added requirements for expansion size after use (see 4:3:5);
- f) Changed the requirements for dynamic performance testing (see 4:3:6, 4:2:5 of the:2009 version);
- g) Changed the requirements for static balance performance (see 4:3:9, 4:2:8 of the:2009 edition);
- h) Changed the relevant requirements for appearance quality measuring instruments (see 5:7, 5:6 of the:2009 version);
- i) The test method for internal defects has been changed (see 5:8, 5:7 of the:2009 edition);
- j) Inspection rules are deleted (see Chapter 6 of the:2009 edition);
- k) Added the content of gradual upgrade of renovation level (see Chapter 7): Please note that some content in this document may be subject to patents: The publisher of this document assumes no responsibility for identifying patents: This document is proposed by China Petroleum and Chemical Industry Federation: This document is under the jurisdiction

of the National Tire and Rim Standardization Technical Committee (SAC/TC19): This document was drafted by: China National Chemical Corporation Shuguang Rubber Industry Research and Design Institute Co., Ltd.; Guilin Lanyu Aviation Tire Development Co., Ltd: Division, Tsinghua University, Wuxi Yilong Aviation Equipment Co., Ltd: The main drafters of this document: Gao Jing, Li Yuting, Lu Hengyu, Ma Ying, Liu Dameng, Su Renran, Fu Yuncui, Qin Qifu: The previous versions of this document and the documents it replaces are as follows:

---First published as GB 13651-1992 in:1992, revised for the first time in:1998, and revised for the second time in:2009;

---According to the National Standards Announcement of the People's Republic of China (No: 7 of:2017) and the conclusion on the integration and streamlining of mandatory standards, since:2017 Converted to recommended standard GB/T 13651-2009 on March 23;

1 Scope

GB/T 13651-2023 is the Chinese national standard on retreaded aircraft 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 27 November 2023 by the State Administration for Market Regulation; Standardization Administration of China, and has been in force since 1 June 2024. Classification: ICS 83.160.20, CCS G 41. 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 document specifies the requirements, test methods, marking, storage and use and retreading of civil aviation retreaded tires (hereinafter referred to as "retreaded tires") The level is gradually upgraded: This document applies to the retreading of civil aviation tires:

2 Normative reference documents

The contents of the following documents constitute essential provisions of this document through normative references in the text: Among them, the dated quotations For undated referenced documents, only the version corresponding to that date applies to this document; for undated referenced documents, the latest version (including all amendments) applies to this document:

GB/T 6326 Tire terminology GB 9745 aviation tires

GB/T 9746 Aviation tire series

GB/T 9747 Aviation tire test methods

GB/T 13652 Aerospace tire surface quality

GB/T 22039 Laser digital non-destructive testing method for aviation tires

HG/T 2195 Aviation tire use and maintenance

3 Terms and definitions

The terms and definitions defined in GB/T 6326 and the following apply to this document: 3:

1 The process used to verify that a batch of retreaded tires is ready for the next use cycle:

4 Requirements

1 Tire inspection The following inspection should be used to determine whether aviation tires can be retreaded:

a) Appearance inspection All tires should be visually inspected for their treads, sidewalls, beads and airtight layers to determine whether they need to be repaired or scrapped:

b) Air needle inspection Tires can be checked with a dry, filtered gas (such as air or nitrogen) to check whether the exhaust eye of the carcass is clear: Check whether the carcass is delaminated and whether the condition of the bead and airtight layer (tubeless tires) meets the retreading requirements:

c) Internal inspection If necessary, use holography, laser digital, X-ray, etc: to check the internal defects of the carcass to determine whether it meets the requirements for renovation: