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

GB/T 25767-2025

Replacing GB/T 25767-2010

Rolling bearings - Tapered rollers

滚动轴承 圆锥滚子

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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 25767-2010 "Rolling Bearings - Tapered Rollers". Compared with GB/T 25767-2010, the only changes are structural adjustments. Aside from editorial changes, the main technical changes are as follows:

- a) The application of product geometric technical specifications has been increased (see Table 1 and Figure 1);
- b) The geometric tolerances and surface roughness values for the tapered roller section have been changed (see Table 2; Tables 1 and 2 in the 2010 edition);
- c) Added requirements for tapered rollers with a diameter of $80\text{mm} < D_w \leq 150\text{mm}$ (see Tables 2 and 3); added tapered roller length tolerances (see...), Table 3);
- d) Requirements for dents and impacts on the working surfaces of tapered rollers, along with their detection methods and inspection rules, have been added (see 6.5.2, 7.5.4, and 8.2);
- e) Added magnetic particle and eddy current testing for tapered rollers (see 7.5.2 and 7.5.3);
- f) The tolerance grades for tapered rollers that can be omitted from the marking have been changed (see 9.1, 2010 edition of 9.1);
- g) The method of measuring roundness error using a 60° V-block has been removed (see A.2 of Appendix A, 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 Rolling Bearings (SAC/TC98). This document was drafted by: Luoyang Bearing Research Institute Co., Ltd., Jiangsu Lixing General Steel Ball Co., Ltd., and

Ningbo Haiyate Roller Co., Ltd. Limited Liability Company, Gansu Hailin Zhongke Technology Co., Ltd., Zhejiang Wuzhou Xinchun Group Co., Ltd., Luoyang Rencheng Bearing Parts Co., Ltd. Limited Liability Company, Henan Weichuang Bearing Precision Technology Co., Ltd., Zhejiang Chengben Bearing Roller Co., Ltd., Changzhou Guangyang Bearing Co., Ltd. Shanghai Renben Group Co., Ltd. The main drafters of this document are. Li Feixue, Du Xiaoyu, Sha Xiaojian, Cheng Su, Shi Yi, Shi Yingying, Ye Huiqing, Guo Haoqing, Geng Zhongdian, and Zhang Song. Zhang Shuwu. This document was first published in.2010, and this is its first revision. Rolling bearing tapered roller

1 Scope

GB/T 25767-2025 is the Chinese national standard covering the tapered roller as a component in its own right - its dimensions and tolerances, the crowning of the profile that keeps the stress off the ends, the surface finish and the hardness, and the sorting into size groups for assembly. It replaces GB/T 25767-2010, with the mounting dimensions standard GB/T 5868-2025. In force from 1 February 2026. Issued on 31 October 2025, it has been in force since 1 February 2026, replacing GB/T 25767-2010.

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 1182-2018 Product Geometric Specification (GPS) - Geometric Tolerances. Shape, Orientation, Position and Runout Tolerances

GB/T 3203-2016 Carburized Bearing Steel

GB/T 4199-2003 Definition of Tolerances for Rolling Bearings

GB/T 4249-2018 Product Geometry Specification (GPS) - Basic Concepts, Principles and Rules

GB/T 4380-2004 Evaluation of roundness error using two-point and three-point methods

GB/T 6930-2024 Rolling Bearings Vocabulary

GB/T 8597-2013 Rust-proof packaging for rolling bearings

GB/T 18254-2016 High Carbon Chromium Bearing Steel

GB/T 24606-2021 Non-destructive testing of rolling bearings - Magnetic particle testing

GB/T 24608-2023 Inspection Rules for Rolling Bearings and Their Commodity Parts

GB/T 30565-2025 General Principles of Eddy Current Testing in Nondestructive Testing

GB/T 32324-2015 Methods for measuring and evaluating the roundness and waviness errors of rolling bearings

GB/T 34891-2017 Technical conditions for heat treatment of high carbon chromium bearing steel parts for rolling bearings

JB/T 6641-2017 Residual Magnetism of Rolling Bearings and Its Evaluation Method

JB/T 7051-2006 Method for measuring and evaluating the surface roughness of rolling bearing parts

JB/T 8881-2020 Technical Conditions for Heat Treatment of Carburized Bearing Steel Parts for Rolling Bearings

3 Terms and Definitions

The terms and definitions defined in GB/T 4199-2003 and GB/T 6930-2024, as well as the following terms and definitions, apply to this document.

3.1 Roller nominal diameter Used to identify the diameter of a roller; the maximum theoretical diameter in the radial plane at the imaginary sharp corner of the large end of the tapered roller.

3.2 Single roller diameter The distance between two parallel tangents that are tangent to the actual surface of the roller in a plane perpendicular to the roller axis.