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

GB/T 5868-2025

Replacing GB/T 5868-2003

Rolling bearings - Mounting dimensions

滚动轴承 安装尺寸

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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 5868-2003 "Rolling Bearing Installation Dimensions". Compared with GB/T 5868-2003, except for structural adjustments and... Aside from editorial changes, the main technical changes are as follows:

- a) The definitions of symbols such as Da, Db, Ew, and Fw have been changed (see Chapter 4, Chapter 3 of the.2003 edition);
- b) The installation dimensions of cylindrical roller bearings in series 10 with nominal inner diameters d=220mm~380mm have been added, and the dimensions have been modified. The N/NF200E model has a nominal inner diameter d=25mm~200mm and the N/NF300E model has a d=40mm~150mm. Db(min) values for cylindrical roller bearings (see Tables 3 and 4,.2003 editions);
- c) Added size series 48 with nominal inner diameter d=220mm~380mm and d=5mm~12mm, as well as nominal inner diameter Mounting dimensions for 49-type machine-made ring needle roller bearings with dimensions d=150mm~440mm (see Table

5);

d) Installation dimensions for tapered roller bearings in size series 29, 30, 31, and 32 have been added (see Tables 6, 8, 9, and 12); metric dimensions have also been added.

Installation of tapered roller bearings in size series 20 and size series 22, 03, 23, etc., with inner diameter $d=20\text{mm}\sim 25\text{mm}$. Dimensions (see Tables 10, 11, 13, and 15);

e) The mounting dimensions for some thrust ball bearings in series 11, with nominal inner diameters $d=380\text{mm}\sim 670\text{mm}$, have been added (see...). Table 16);

f) The mounting dimensions for thrust self-aligning roller bearings in series 92 and other sizes with nominal inner diameters $d=150\text{mm}\sim 190\text{mm}$ have been added (see...). Table 17).

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., Harbin Bearing Manufacturing Co., Ltd., and Suzhou Bearing Factory Co., Ltd. Wuxi Abbe Precision Bearing Co., Ltd., Changzhou Guangyang Bearing Co., Ltd., Wuxi Sunshine Precision Machinery Co., Ltd., Henan University of Science and Technology Wuxi Huayang Rolling Bearing Co., Ltd. The main drafters of this document are. Song Yucong, Li Manchang, Wang Huijuan, Zhou Hao, Lian Weifeng, Yang Hao, Qiu Ming, and Li Kaiyuan. This document was first published in 1986, revised for the first time in 2003, and this is the second revision. Rolling bearing mounting dimensions

1 Scope

GB/T 5868-2025 is the Chinese national standard covering the shaft and housing dimensions a bearing has to be mounted against - the fillet radii, the shoulder heights and diameters for each bearing series, which is what a designer copies straight into the drawing. Issued on 31 October 2025, it has been in force since 1 February 2026, replacing GB/T 5868-2003.

This document specifies the dimensions of the shaft and bearing housing bore, which are related to the rolling bearing (hereinafter referred to as "installation dimensions"). This document applies to applications under normal use conditions where the external dimensions conform to GB/T 283-2021, GB/T 297-2015, and GB/T 301- Bearings conforming to GB/T 5801-2020 and GB/T 5859-2023, and adapter sleeves conforming to GB/T 9160.1-2017. Choose the appropriate size.

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 the date noted applies; for undated references, the latest version (including all amendments) applies. In this document.

GB/T 6930 Rolling Bearings Vocabulary

3 Terms and Definitions

The terms and definitions defined in GB/T 6930 apply to this document.

4 Symbols

The following symbols apply to this document. Unless otherwise stated, all symbols in the figures and tables represent nominal dimensions. Ba, Bb. Width of the inner hole of the spacer. D. Bearing outer diameter. Da. Bearing housing shoulder diameter. Db. Diameter of the inner hole of the retaining ring or the diameter of the shoulder of the bearing housing. d. Inner diameter of the bearing. da. shoulder diameter. db, dc, dd. outer diameter of the retaining ring or inner diameter of the spacer. d

1. Inner diameter of the lock bushing. Ew. Overall outer diameter of the roller (needle). Fw. Overall inner diameter of the roller (needle). h. Shoulder height of shaft and bearing housing bore. Nb, Nt. Isolation width. rasmax. Maximum single fillet radius for shaft shoulders and bearing housing bore shoulders. rsmn. Minimum single chamfer size of the bearing (axial and radial). Sa. Width of the relief groove for mounting on the back of the outer ring opposite the cage of the tapered roller bearing. Sb. Width of the relief groove for mounting on the front of the outer ring opposite the cage of the tapered roller bearing.