



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

GB/T 7308.3-2021

**Plain bearings - Thin-walled half bearings with or without flange
- Part 3: Measurement of peripheral length**

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Foreword

GB/T 7308 ``Sliding bearings with flanges or thin-walled bearings without flanges" is divided into the following three parts.

---Part 1.Tolerances, structural elements and inspection methods;

---Part 2.Measurement of bearing wall thickness and flange thickness;

---Part 3.Circumference measurement.

This part is Part 3 of GB/T 7308.

This section was drafted in accordance with the rules given in GB/T 1.1-2009.

This part uses the redrafting method to modify and adopt ISO 3548-3.2012 ``Sliding bearings with flanges or thin-walled bearings without flanges, Part 3

Minutes. Circumference Measurement.

Compared with ISO 3548-3.2012, this part has structural adjustments, adding Chapter 17 "Perimeter compression under inspection load"

"Verification of measurement accuracy" and Appendix F (informative appendix) "Verification method of circumference compression under measurement load".

Compared with ISO 3548-3.2012, there are technical differences in this part. The clauses involved in these differences have been passed through its outer margins.

The vertical single line (|) is marked, and the corresponding technical differences and their reasons are listed in Appendix G.

This section also made the following editorial changes.

---The following symbols have been modified to be consistent with the symbols of GB/T 7308.1 and GB/T 7308.2.

- * The symbol of higher degree is changed from a to h , aA to hA , and $aB1$ $aB2$ to hB ;
- * The symbol for the width of the flangeless bearing bush is changed from B to $B1$;
- * The symbol of inspection die width (with flange bearing) is changed from B to $Bcb1$;
- * The symbol for the width of the base of the inspection die is changed from $B2$ to $Bcb2$;
- * The symbol of inspection die width (without flange bearing) is changed from $B3$ to $Bcb3$;
- * The symbol of friction factor is changed from F to f ;
- * The width symbol of the flanged bearing bush except the flange thickness is changed from Z to $B3$ (including the symbols and dimensions in Figure 6, Table 7, and Table 10.

line);

* The wall thickness symbol on the top of the bearing bush is changed from s_{ot} to s_3 ;

* The symbol of measurement uncertainty is changed from U to u ;

* The sign of the fillet radius is changed from H to r .

---Corrected the error of the H_{cb} dimension guide line in Figure 6.

---Corrected the error of the D_{ms} size guide line in Figure 7.

---Change the reproducibility condition 1 and condition 2 in Table 16, Table 17, E.2 to condition I and condition II, and the reproducibility calculation formula

$|x_1 - x_2|$ represents the difference between 1 and 2 of the measurement order.

--- In Appendix A, Figure A.1 and Figure A.6 are replaced with the text after the figure number is removed, and Figure A.2, Figure A.3, Figure A.4, and Figure A.5 are corrected in turn to

Figure A.1, Figure A.2, Figure A.3, Figure A.4. This adjustment corrected the original calculation format, the figure number in the calculation example, and the following figure.

The corresponding error.

---In Appendix B, Figure B.1 and Figure B.5 are replaced with the main text after the figure number is removed, and Figure B.2, Figure B.3, and Figure B.4 are sequentially corrected to Figure B.1, Figure B.2, and Figure B.4.

Figure B.3. This adjustment corrected the error that the calculation format in the original text and the figure number in the calculation example did not correspond to the following figure.

--- In E.1.5, Table 15 is corrected to Table 17, ISO original text is wrong.

--- In E.2, Table 14 is corrected to Table 16, and Table 15 is corrected to Table 17. The ISO original text is incorrect.

--- Added "Appendix F (informative appendix) verification method for circumference compression under measured load".

This part was proposed by China Machinery Industry Federation.

This part is under the jurisdiction of the National Sliding Bearing Standardization Technical Committee (SAC/TC236).

Drafting organizations of this section. China National Machinery Productivity Promotion Center, Yantai Dafeng Bearing Co., Ltd., Hangzhou Bearing Shijiazhuang Co., Ltd., Cheng Dusheng Sanqiang Railway Fittings Co., Ltd., Lin'an Dongfang Sliding Bearing Co., Ltd.

This part is explained by the National Standardization Technical Committee of Sliding

Bearings.

Sliding bearings have flanges or thin-walled bushes without flanges

Part 3.circumference measurement

1 Scope

This part of GB/T 7308 specifies the circumference measurement of flanged or non-flanged thin-walled bearings according to GB/T 27939, and explains all

The required inspection methods and measuring equipment.

The thin-walled bearing shell springs apart in a free state and is non-cylindrical. Therefore, the perimeter of the bearing bush can only be forced by special measuring equipment.

Measure under.

In addition, measurement equipment other than those shown in this section can also be used, but its measurement accuracy needs to be consistent with the provisions of Chapter 17.

This section applies to the measurement of flanged or flangeless thin-walled bearings, its specifications see GB/T 7308.1.

2 Normative references

The following documents are indispensable for the application of this document. For dated reference documents, only the dated version applies to this article

Pieces. For undated reference documents, the latest version (including all amendments) is applicable to this document.

GB/T 7308.1 Thin-walled bearings with flanges or without flanges for sliding bearings-Part 1.Tolerances, structural elements and inspection methods

(GB/T 7308.1-2021, ISO 3548-1.2014, MOD)

GB/T 27939 Quality control technology and inspection of sliding bearing geometry and material quality characteristics (GB/T 27939-2011,

ISO 12301.2007, IDT)

3 Terms and definitions

The following terms and definitions apply to this document.

3.1

Peripherallength