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

GB/T 273.2-2018

**Rolling bearings -- Boundary dimensions, general plan -- Part 2:
Thrust bearings**

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Foreword

GB/T 273 "Rolling bearing dimensions overall plan" is divided into three parts.

---Part 1. Tapered roller bearings;

---Part 2. Thrust bearings;

--- Part 3. Radial bearings.

This part is the second part of GB/T 273.

This part is drafted in accordance with the rules given in GB/T 1.1-2009.

This part replaces GB/T 273.2-2006 "General plan for the dimensions of rolling bearing thrust bearings", and GB/T 273.2-2006

In contrast to the editorial changes, the main technical changes are as follows.

--- Added the definition of one-way flat-bottom thrust bearing, two-way flat-bottom thrust bearing and central shaft ring (see Chapter 3);

--- Modified the definition of some symbols (see Chapter 4, Chapter 4 of the.2006 edition);

--- Adjusted the position of Figure 1 and Figure 2 in the standard (see Chapter 4, 5.2 and 5.3 of the.2006 edition);

--- Removed the provisions for chamfering contours (see 5.1 of the.2006 edition);

--- Added a description of the unit of measurement for each of the formulas (A.1) and (A.2) (see A.3, A.4).

This part uses the translation method equivalent to ISO 104.2015 "Rolling bearing thrust

bearing size overall plan".

The documents of our country that have a consistent correspondence with the international documents referenced in this part are as follows.

---GB/T 274-2000 Rolling bearing chamfer size maximum (idtISO 582.1995)

---GB/T 6930-2002 Rolling Bearing Vocabulary (ISO 5593.1997, IDT)

---GB/T 7811-2015 Rolling bearing parameter symbol (ISO 15241.2012, IDT)

This section also made the following editorial changes.

--- Revised the standard name, the standard name was changed to "Rolling bearing dimensions overall plan part 2. thrust bearing".

This part was proposed by the China Machinery Industry Federation.

This part is under the jurisdiction of the National Rolling Bearing Standardization Technical Committee (SAC/TC98).

This section drafted by. Luoyang Bearing Research Institute Co., Ltd., Zhangzhou Meiya Special Bearing Factory, Hefei Jinchang Bearing Co., Ltd., Zhejiang

High-speed Rail Bearing Co., Ltd., Shandong Jinna Machinery Engineering Technology Co., Ltd.

1 Scope

This part of GB/T 273 specifies the preferred dimensions of one-way and two-way flat-bottom thrust bearings.

In addition, this section also specifies the minimum inner diameter of the race and the maximum outer diameter of the collar for the size series of 11, 12, 13, 14, 22, 23 and 24 bearings.

size.

This section also specifies the extension rules for the overall dimensions of the one-way thrust bearing dimensions, see Appendix A.

Note. For the dimensions of the self-aligning thrust bearing (non-flat bottom) and the aligning seat washer, see ISO 20516 [2].

2 Normative references

The following documents are indispensable for the application of this document. For dated references, only dated versions apply to this article.

Pieces. For undated references, the latest edition (including all amendments) applies to this

document.

ISO 582 rolling bearing chamfer size maximum
(Rolling bearings - Chamfer dimensions - Maximum values)
(Ues)

ISO 5593 Rolling Bearing Vocabulary (Rolling bearings - Vocabulary)

ISO 15241 rolling bearing parameter symbols
(Rolling bearings - Symbols for physical quantities)

3 Terms and definitions

The following terms and definitions defined by ISO 5593 apply to this document.

3.1

One-way flat-bottom thrust bearing single-direction thrust bearing with flat back faces

It is only used for flat-bottomed thrust bearings that can withstand axial loads in one direction.

3.2

Two-way flat-bottom thrust bearing double-direction thrust bearing with flat back faces

Flat-bottomed thrust bearing for axial loads in both directions.

3.3

Central shaft central shaft washer

The middle ring mounted on the shaft.

[ISO 20516:2007, definition 3.5]

4 symbol

The symbols given in ISO 15241 and the following symbols apply to this document.

Unless otherwise indicated, the symbols shown in Figures 1 and 2 and the values shown in Tables 1 through 9 all indicate nominal dimensions.

B. the height of the middle ring

D. outer diameter of the seat

D₁. inner diameter of the seat

D_{1smin}. the smallest single inner diameter of the seat

d. one-way flat-bottom thrust bearing shaft inner diameter

D1. one-way flat-bottom thrust bearing shaft outer diameter

D1smax. the largest single outer diameter of the shaft

D2. inner diameter of the shaft in the two-way flat-bottom thrust bearing

D3. outer diameter of the shaft ring of the two-way flat-bottom thrust bearing

D3smax. the largest single outer diameter of the central shaft

r. shaft ring and seat back chamfer size

Rsmin. minimum single chamfer size on the back of the collar and race

R1. middle shaft ring end chamfer size

R1smin. minimum single chamfer size for the end face of the shaft collar

T. one-way flat-bottom thrust bearing height

T1. two-way flat-bottom thrust bearing height

Fig.1 One-way flat-bottom thrust bearing Fig.2 Two-way flat-bottom thrust bearing

5.1 General

The maximum single chamfer size corresponding to rsmin in Tables 1 to 9 and r1smin in Tables 7 to 9 is specified in ISO 582.

The chamfer dimensions r and r1 apply only to the chamfers indicated in Figures 1 and 2, and the other chamfers are not sized, but should not be acute.

5.2 one-way flat bottom thrust bearing

The dimensions of the one-way flat-bottom thrust bearing are shown in Tables 1 to 6.

Table 1 One-way thrust bearing---diameter series 0 unit is mm

d D rsmin

Size series

d D rsmin

Size series

0.3

0.3

0.3

0.3