

ICS 21.100.20

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

GB/T 307.4-2017

Replacing GB/T 307.4-2012

**Rolling bearings -- Thrust bearings -- Geometrical product
specifications (GPS) and tolerance values**

Issued on: November 1, 2017

Implemented on: May 1, 2018

**Issued by: General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China, Standardization
Administration of the People's Republic of China**

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Foreword

GB/T 307 is divided into four parts.

---GB/T 307.1 Rolling bearing radial bearing product geometry specification (GPS) and tolerance values;

---GB/T 307.2 Principles and methods for measurement and inspection of rolling bearings;

---GB/T 307.3 General technical rules for rolling bearings;

---GB/T 307.4 Rolling bearing thrust bearing product geometry specification (GPS) and tolerance values.

This part is the fourth part of GB/T 307.

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

This part replaces GB/T 307.4-2012 "Rolling bearing tolerances Part 4. Thrust bearing tolerances", and GB/T 307.4-

Compared with.2012, the main technical changes are as follows.

---Modified standard name (see cover and front page, cover and front page of.2012 edition);

---Modified the meaning and representation of the symbol (see Chapter 4, Chapter 4 of the.2012 edition);

--- Added pattern annotation (see Figure 1 ~ Figure 4);

--- It is clear that the tolerance value of Si does not apply to the central shaft ring (see Table 2, Table 4, Table 6, Table 8, Table 1, Table 3, Table 5, Table 7 of the.2012 edition);

--- Added four appendices and references (see Appendix A ~ Appendix D and references).

This part uses the translation method equivalent to ISO 199:2014 "Rolling bearing thrust bearing product geometry technical specification (GPS) and public

Difference.

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

---GB/T 6930-2002 Rolling Bearing Vocabulary (ISO 5593:1997, IDT)

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, Shanghai Tianan Bearing Co., Ltd.

Introduction

This part is the geometry of the mechanical parts specified in the Product Geometric Specifications (GPS) system (see ISO /T R14638 [10] Master Plan)

Prime standard.

Unless otherwise specified, the basic principles of ISO /GPS given in ISO 8015 [7] apply to this part, given in ISO 14253-1 [8].

The default principles apply to the technical specifications established in accordance with this section.

It is recommended to consider the relationship between functional requirements and measurement methods and measurement uncertainty. The traditional measurement method is ISO 1132-

A description is given in 2[5], and measurement uncertainty is recommended to focus on ISO 14253-2 [9].

Rolling bearing thrust bearing

Product Geometric Specifications (GPS) and tolerance values

1 Scope

This part of GB/T 307 specifies the dimensional characteristics of the thrust bearing, the limit deviation from the nominal size and the tolerance value to limit the thrust.

The interface of the bearing (except for chamfering). The nominal form factor is given in ISO

104 [1].

This section does not apply to certain special types of thrust bearings (such as thrust needle roller bearings) or thrust bearings used in special occasions (such as special Thrust precision bearings). The tolerances of these bearings are given in the corresponding standards.

The chamfer size limit is given in ISO 582 [3].

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 5593 Rolling Bearing Vocabulary (Rollingbearings-Vocabulary)

ISO 14405-1 Geometrical Product Specifications (GPS) Dimensional Tolerance Part 1. Linear Dimensions (Geometricalproduct

Specifications(GPS)-Dimensionaltolerancing-Part 1.Linearsizes)

ISO /T S17863 Product Geometry Specification (GPS) Geometric tolerances for moving components (Geometricalproductspecifica-

Tion(GPS)-Geometricaltolerancingofmoveableassemblies)

3 Terms and definitions

The terms and definitions defined by ISO 5593, ISO 14405-1 and ISO /T S17863 apply to this document.

4 symbol

To indicate the application of the ISO /GPS system, ie ISO 8015 [7], the technical product documentation (as shown) should contain dimensional characteristics,

These feature-related dimensional specifications are described in Table 1 and Figures 1 through 4.

The description of the symbols is consistent with the GPS terminology; see Appendix A for the relationship to traditional terms.

The tolerance values associated with the characteristics are denoted by t plus the characteristic symbol, such as $t_{\Delta dmp}$.

The default ISO size specification set in this section is consistent with ISO 14405-1, which is valid for two-point sizes. Some specification modifiers are in

It is described in Appendix D.

The terms in ISO 14405-1 are not completely equivalent to the definitions of the traditional terms in ISO 1132-1 [4]. See Appendix C for the differences.

Table 1 Nominal size symbols, characteristic symbols, and specification modifiers

Nominal size symbol a characteristic symbol a GPS symbol and specification modifier b, c description d

One-way bearing shaft ring nominal inner diameter 1,2

deltadmp

The average size of the inner diameter of the shaft in any section (out

Deviation from its nominal size from two-point size

1,2

Table 1 (continued)

Nominal size symbol a characteristic symbol a GPS symbol and specification modifier b, c description d

d Vdsp

Two-point size of the inner diameter of the collar in any section

range

1,2

D2

Two-way bearing middle shaft nominal diameter 3,4

deltad2mp

The average size of the inner diameter of the middle shaft in any section

(from two-point size) deviation from its nominal size

3,4

Vd2sp

Two-point size of the inner diameter of the inner shaft ring in any section

range

3,4