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

GB/T 4604.1-2012

Replacing GB/T 4604-2006

**Rolling bearings -- Internal clearance -- Part 1: Radial internal
clearance for radial bearings**

滚动轴承 游隙 第1部分：向心轴承的径向游隙

(English Translation)

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Foreword

GB/T 4604 "Rolling clearance" is divided into two parts.

--- Part 1. radial bearings radial clearance;

--- Part 2. Four-point contact ball bearing axial clearance.

This is Part 1 GB/T 4604's.

Rules in this section in accordance with GB/T 1.1-2009 given draft.

This Part replaces GB/T 4604-2006 "Rolling radial clearance." Compared with the GB/T 4604-2006, in addition to editorial modifications in addition, the main technical changes are as follows.

--- Added "long cambered roller bearings" terms and definitions (see 3.2);

--- Increased deep groove ball bearings, aligning ball bearings, cylindrical roller bearings and needle roller bearing clearance value portion size segment (see Table 1 ~ Table 4);

--- Adds a tapered bore cylindrical roller bearings radial clearance values \u200b\u200b(see Table 5);

--- Increased cylindrical and tapered bore long cambered roller bearing radial clearance values \u200b\u200b(see Tables 6 and 7);

--- Remove the "Machine double row cylindrical roller bearings radial clearance" (2006 edition Appendix A).

This section uses the translation method is equivalent to using ISO 5753-1. section 2009 "Rolling clearance 1. radial bearings radial clearance Gap. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

--- GB/T 3882-1995 Rolling bearings, spherical ball bearings and eccentric dimensions

(neq ISO 9628:1992)

--- GB/T 4199-2003 Rolling defined tolerances (ISO 1132-1:2000, MOD)

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

--- GB/T 7811-2007 Rolling Parameter Symbol (ISO 15241:2001, IDT) this part is proposed by China Machinery Industry Federation.

This part of the National Standardization Technical Committee of Rolling (SAC/TC98) centralized.

This section is drafted. Luoyang Bearing Research Institute Co., Ltd., Suzhou Bearing Co., Ltd., Changshu Great Wall Bearing Co., Ltd., Dalian Metallurgical Gold Bearing Co., Ltd.

1 Scope

This section GB/T 4604 provisions of the radial clearance of the following types of radial bearings.

--- Type radial contact groove ball bearings, spherical ball bearings, except;

--- Aligning ball bearings;

--- Cylindrical Roller Bearings;

--- Needle roller bearings, drawn cup needle roller bearings, except;

--- Long cambered roller bearings;

--- Spherical roller bearing.

This section gives the radial clearance values for six types of cylindrical bore bearings, but also gives the conical bore self-aligning ball bearings, cylindrical roller bearings, long Cambered roller bearings and spherical roller bearings radial clearance value of.

Radial clearance values prescribed spherical ball bearings in the ISO 9628.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated edition applies to this article Member. For undated references, the latest edition (including any amendments) applies to this document.

ISO 1132-1:2000 Rolling tolerances - Part 1. Terms and definitions

(Rolling bearings-Tolerances-Part 1. Terms and definitions) ISO 5593 Rolling vocabulary

(Rolling bearings-Vocabulary) ISO 9628 rolling bearings, spherical ball bearings and

eccentric dimensions and tolerances (Rolling bearings-Insert

bearings and eccentric locking collars-Boundary dimensions and tolerances) ISO 15241 Rolling

Parameter Symbol (Rolling bearings—Symbols for quantities)

3 Terms and Definitions

ISO 1132-1, ISO 5593, and define the following terms and definitions apply to this document.

Radial clearance radial internal clearance directions at different angles, not subjected to any external loads, a ring relative to the other the arithmetic mean of the ferrule is moved from one extreme position opposite radial eccentricity limit position of radial distance.

Note 1: This average includes a ferrule amount of displacement in different angular positions relative to each other and the amount of displacement of the rolling element set of opposing ferrule in different angular positions.

Note 2: In each of the ferrule opposite extreme eccentric position to each other, the relative axial position relative to the peer group and the rolling roller track position, in fact, should be a relatively ring. Another eccentric rings in the limit position.

[ISO 1132-1:2000, the definition 8.1.1] 3.2 Long cambered roller bearings
toroidal roller bearing Rolling the convex spherical roller, inner and outer ring raceway axial plane is greater than the radius of the outer ring rolling single row self-aligning roller bearings track radius.

GB/T 4604.1-2012/ISO 5753.1:2009