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

GB/T 5800-2003

Replacing GB/T 5800-2003

**Rolling bearings -- Instrument precision bearings -- Part 1:
Boundary dimensions, tolerances and characteristics of metric
series bearings**

(English Translation)

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Foreword

GB/T 5800 "Rolling instrument precision bearings" is divided into two parts.

- Part 1. Metric series bearing dimensions, tolerances and characteristics;
- Part 2. Inch series bearings dimensions, tolerances and characteristics.

This is Part 1 GB/T 5800's.

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

This Part replaces GB/T 5800-2003 content "Rolling instrument precision bearings" Metric series section, and GB/T 5800-Compared to 2003, in addition to editorial changes outside the main technical changes are as follows.

- Deleted the contents of inch series bearings (see 2003 edition of the Table 3, Table 4, Table 9 and Table 10, Tables 5 to 8 and 11 Part of the contents);
- Modify some of the terms and definitions (see 31, 2003, version 3.1.);
- Modify some symbols (see Chapter 4, 2003 edition of the Table 1);
- Increasing the angular contact ball bearing structure schematic diagram [see Figure 1b)];
- Modify the inner end face of the vertical bore (Sd) formula (see Table 2 and Table 4, 2003 edition of the tables 5 and 7).

This section uses the translation method identical with ISO 1224-1:2007 "Rolling Instrument precision bearings - Part 1. Metric series Bearing dimensions, tolerances and characteristics. " Consistency correspondence between this part of international documents and normative references of our files are as follows.

- GB/T 273.3-1999 Rolling bearings dimensions, general plan (eqvISO 15.1998)
- GB/T 274-2000 Rolling chamfer dimensions Max (idtISO 582.1995)
- GB/T 4199-2003 Rolling defined tolerances (ISO 1132-1:2000, MOD)

--- 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., Zhongshan City, Pacific Century Bearing Manufacturing Co., Ltd.

1 Scope

This section GB/T 5800 provisions of the instrument precision metric series bearing type, dimensions, tolerances and clearance for the optional Grouping, torque and define test conditions and the bearing limits the yield ratio and other characteristics.

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.

GB/T 6930-2002 Rolling vocabulary (ISO 5593:1997) ISO 15 Rolling bearings dimensions, general plan (Rollingbearings-Radialbearings-Boundary dimensions, generalplan) ISO 582 Rolling maximum chamfer dimensions (Rollingbearings-Chamferdimensions-Maximumvalues) ISO 1132-1 Rolling tolerances - Part 1. Terms and definitions (Rollingbearings-Tolerances-Part 1.

Termsanddefinitions) ISO 15241 Rolling Parameter Symbol (Rollingbearings-Symbolsforquantities)

3 Terms and Definitions

And the following terms and definitions GB/T 6930 and ISO 1132-1 defined apply to this document.

The inner circle of the hole on the end face of verticality perpendicularityofinnerringborewithrespecttotheface radially inner tangential reference plane parallel to the end face, the maximum axial single chamfer at both ends from the inner surface of 1.2 times , Bore the same points total online prime amount of variation in the relative size of the position.

Assembled bearing outer ring flange on the back of axial runout axialrunoutofouterringflangebackfaceofassembledbearing in the radial distance from the axis of the outer ring at the back of the flange equal to half the average diameter of the outer ring flange on the back of the outer Circle different angular positions relative to the inner axial difference between the maximum and minimum distance between a fixed point.

Note: In order to measure the effective inner and outer ring raceway should be in contact with all the balls.

Torque nature torquequality the average torque means the instrument ball bearings and maximum torque.

NOTE: In the low (near zero) or operating restrictions radian commonly expressed when the maximum torque is available at a certain speed torque average judge.

GB/T 5800.1-2012/ISO 1224-1:2007