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

GB/T 16940-2012

Replacing GB/T 16940-1997

**Rolling bearings -- Sleeve type linear ball bearings -- Boundary
dimensions and tolerances**

滚动轴承 套筒型直线球轴承 外形尺寸和公差

(English Translation)

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Foreword

This standard rule according to GB/T 1.1-2009 given draft.

This standard replaces GB/T 16940-1997 "linear motion bearings linear ball bearings - Boundary dimensions and tolerances", and GB/T 16940-1997 compared to the main technical changes are as follows.

- Modify the "standard name" (see cover and first page, and the 1997 version of the cover page);
- An increase of some normative references (see Chapter 2);
- Modify some of the terms and definitions (see Chapter 3, Section 3 of the 1997 edition);
- Modify some symbols (see Chapter 4, Chapter 4 of the 1997 edition);
- The dimensions table merge, delete the 2 series, 4 series, an increase of 5 series, also an increase of some 1 Series Overall feet Inches (see Table 1, 1997 edition of the Tables 1 to 4);
- Remove the 4 series of open type bearing structure diagram (see Fig. 3, 1997);
- Remove the tolerance level of the L6M level, increasing the level and L6JA L6J level (see Chapter 6, Chapter 7, 1997 edition);
- Increased tolerances are not applicable instructions bearing type (Table 3, Table 5, Table 7, Table A.1 footnote);
- Added the stipulated tolerances (see 6.3);
- Bearing tolerances of the basic scheme was changed to "informative appendix" (see Appendix A, 1997 edition Table 5);
- Delete the provisions of the code method (1997 edition Appendix A).

This standard uses the translation method identical with ISO 10285:2007 "Rolling sleeve

type linear ball bearings - Boundary dimensions and tolerances." Correspondence between the consistency of the standards of international documents and normative references of the following documents.

--- 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 standard also made the following editorial changes.

--- Deleted directory and international standards preface;

--- Included in this International Standard amendments or technical corrigenda.

The standard proposed by China Machinery Industry Federation.

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

This standard was drafted. Luoyang Bearing Research Institute Co., Ltd., Harbin Bearing Group Corporation.

Introduction

Linear motion rolling linear motion different from the support provided by rotational movement of this type of bearing the standard of using balls as rolling elements, in about the axis of the cylindrical body of the bearing raceway for several pieces of closed loop motion.

Linear ball bearings are usually used for one or more of the following requirements.

- a) smooth low friction movement, no crawling or vibration;
- b) the relative linear movement between the bearing and the shaft, only a small force.

The above requirements and other requirements, the proper use of various types of linear motion rolling bearings (closed sleeve type, Adjustment sleeve type, sleeve type opening) to achieve. The user should consult the manufacturer and the type and size of the bearing a reasonable choice.

GB/T 16940-2012/ISO 10285:2007 Rolling sleeve type linear ball bearings Dimensions and Tolerances

1 Scope

This standard specifies the definition sleeve type linear motion ball bearings, dimensions and tolerances.

This standard applies to table 1 specified size range.

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 Rolling tolerances - Part 1. Terms and definitions
(Rollingbearings-Tolerances-Part 1.

Termsanddefinitions) ISO 5593 Rolling vocabulary (Rollingbearings-Vocabulary) ISO 13012
Rolling sleeve type linear ball bearings Accessories (Rollingbearings-Linearmotion,
recirculating bal, sleevetype-Accessories) ISO 15241 Rolling Parameter Symbol
(Rollingbearings-Symbolsforquantities)

3 Terms and Definitions

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

Sleeve type linear ball bearings sleevetypelinearballbearing to achieve a straight line along the axis for unrestricted movement of the sleeve is designed with a number of closed recirculating ball rolling fairways linear motion bearings.

Axle shaft

Linear ball bearings for reciprocating motion along a circular shaft along.

Nominal inside diameter of the ball group nominalborediameterofbalcomplement Cut the ball inside with all the theoretical diameter of the cylinder.

Sleeve nominal width nominaloutersleevewidth Defining the distance between two end faces of the theory of linear ball bearing width between.

Runout radialrunout

The difference between the maximum and minimum radial distance between the centerline of the outer surface of the cylindrical sleeve and the inner diameter of the ball group.

Closed sleeve type linear ball bearings closedsleevetypelinearballbearing the sleeve type linear ball bearing sleeve is continuous or imaginary is continuous, in most cases, by selecting the seat with the shaft GB/T 16940-2012/ISO 10285:2007