



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 1514-3 : 2006

(ISO 582 : 1995)

(JBIA)

**Rolling bearings — Tolerances of
bearings — Part 3 : Chamfer
dimensions—Maximum values**

ICS 21.100.20

Reference number : JIS B 1514-3 : 2006 (E)

PROTECTED BY COPYRIGHT

 **Documents**
Document Sharing Hub

85

Foreword

This translation has been made based on the original Japanese Industrial Standard established by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee according to the proposal of establishing a Japanese Industrial Standard from The Japan Bearing Industrial Association (JBIA) with a draft being attached based on the provision of Article 12 Clause 1 of the Industrial Standardization Law.

Consequently JIS B 1514 : 2000 is withdrawn and replaced with this Standard, JIS B 1514-1 and JIS B 1514-2.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

JIS B 1514 consists of the following parts under the general title “*Rolling bearings—Tolerances of bearings—*”:

—*Part 1 : Radial bearings*

—*Part 2 : Thrust bearings*

—*Part 3 : Chamfer dimensions—Maximum values*

Date of Establishment: 2006-09-20

Date of Public Notice in Official Gazette: 2006-09-20

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Machine Elements

JIS B 1514-3 : 2006, First English edition published in 2007-03

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

© JSA 2007

All rights reserved. Unless otherwise specified, no part of this publication may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying and microfilm, without permission in writing from the publisher.

Printed in Japan

PROTECTED BY COPYRIGHT

HN
Documents
Document Sharing Hub

Contents

	Page
Introduction	1
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Symbols for quantities	2
4.1 Radial bearings	2
4.2 Thrust bearings	2
4.3 Chamfer dimension	3
5 Maximum values of chamfer dimensions	3
5.1 Radial bearings (except for tapered roller bearings)	3
5.2 Grooved side, loose ribs and thrust collars of radial bearings with locating snap ring groove	4
5.3 Non-rib side of single row cylindrical roller bearings and outer ring front face side of angular contact ball bearings	4
5.4 Tapered roller bearings	5
5.5 Thrust bearings	5
6 Shaft and housing fillet radius	5

Rolling bearings—Tolerances of bearings— Part 3 : Chamfer dimensions—Maximum values

Introduction This Japanese Industrial Standard has been prepared based on the third edition of **ISO 582** *Rolling bearings—Chamfer dimensions—Maximum values* published in 1995 without any modifications of the technical contents.

In addition, “Information” given sidelines or dotted underlines is the matters not stated in the original International Standard.

1 Scope This part of **JIS B 1514** specifies the maximum chamfer dimensions of rolling bearings specified in **JIS B 1512** (hereafter referred to as “bearings”), radial bearings with locating snap ring specified in **JIS B 1509** and separate thrust collars specified in Annex of **JIS B 1533**.

NOTES 1 The maximum chamfer dimensions specified in this Standard are not applicable to special type bearings or bearings for particular fields of application.

2 The International Standard corresponding to this part of **JIS B 1514** is as follows.

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standard and **JIS** are **IDT** (identical), **MOD** (modified) and **NEQ** (not equivalent) according to **ISO/IEC Guide 21**.

ISO 582 : 1995 *Rolling bearings—Chamfer dimensions—Maximum values* (**IDT**)

2 Normative references The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS B 1509 *Rolling bearings—Radial bearings with locating snap ring—Dimensions and tolerances*

NOTE : **ISO 464 : 1995** *Rolling bearings—Radial bearings with locating snap ring—Dimensions and tolerances* is identical with the said standard.

JIS B 1512 *Rolling bearings—Boundary dimensions*

NOTE : References shown below are equivalent to the said standard.

ISO 15 : 1998 *Rolling bearings—Radial bearing—Boundary dimensions, general plan*

ISO 104 : 1994 *Rolling bearings—Thrust bearings—Boundary dimensions*

sions, general plan

ISO 355 : 1977 *Rolling bearings—Metric tapered roller bearings—Boundary dimensions and series designations*

ISO 12043 : 1995 *Rolling bearings—Single-row cylindrical roller bearings—Chamfer dimensions for loose rib and non-rib sides*

ISO 12044 : 1995 *Rolling bearings—Single-row angular contact ball bearings—Chamfer dimensions for outer ring non-thrust side*

JIS B 1533 *Rolling bearings—Cylindrical roller bearings*

NOTE : ISO 246 : 1995 *Rolling bearings—Cylindrical roller bearings, separate thrust collars—Boundary dimensions* is equivalent to the said standard.

3 Terms and definitions For the purposes of this Standard, the following definitions apply.

3.1 radial direction chamfer dimension (of a bearing ring or washer) the distance between the imaginary sharp ring or washer corner and the intersection of the chamfer and the ring/washer face in an axial plane

3.2 axial direction chamfer dimension (of a bearing ring or washer) the distance between the imaginary sharp ring or washer corner and the intersection of the chamfer and the bore surface or outside surface of the ring/washer in an axial plane

4 Symbols for quantities For the purposes of this Standard, the following and figure 1 shall apply.

4.1 Radial bearings

d : nominal bore diameter of bearing

D : nominal outside diameter of bearing

r : nominal chamfer dimension for inner ring or outer ring (except for single-row tapered roller bearing)

r_1 : nominal chamfer dimension for outer ring of single-row tapered roller bearing, grooved side, loose ribs and thrust collars of bearing with locating snap ring groove, non-rib side of single-row cylindrical roller bearing and outer ring front face side of angular contact ball bearing

4.2 Thrust bearings

r : nominal chamfer dimension for shaft washer or housing washer

r_1 : nominal chamfer dimension for central washer