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**Rolling bearings — Static load ratings**

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In the event of any doubts arising as to the contents,  
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## Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Bearing Industry Association (JBIA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied *mutatis mutandis* pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS B 1519** : 2009), which has been technically revised.

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# Rolling bearings — Static load ratings

## Introduction

This Japanese Industrial Standard has been prepared based on **ISO 76** : 2006, Edition 3, and its Amendment 1 : 2017 with some modifications of the technical contents to reflect the local conditions in Japan. The amendment to the said International Standard has been incorporated into this Standard.

The dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

## 1 Scope

This Standard specifies the methods for calculating the basic static load rating and the static equivalent load for rolling bearings.

- This Standard is designed by the relevant standards specified in **JIS B 1511** and applied to bearings manufactured from high quality hardened bearing steel specified in **JIS G 4805** or **ISO 683-17** or alloy steel with equivalent quality.
- This Standard is not applicable in the case where there is a considerable truncation of the area of contact between the rolling elements and the ring raceways and where special surface treatment or coatings are used. The same limitation applies where application conditions cause deviations from a normal load distribution in the bearing, for example misalignment. Where there is reason to assume that such conditions prevail, the user should consult the bearing manufacturer for recommendations and the evaluation of the static equivalent load.
- Double-row radial bearings and double-direction thrust bearings are, when referred to in this Standard, presumed to be symmetrical.
- This Standard is not applicable to designs where the rolling elements operate directly on outer surface of the shaft or the inner surface of the housing, unless that surface is equivalent in all respects to the bearing surface it replaces
- Guidelines are given in Clause 9 for static safety factors to be applied in heavy loaded applications.

**NOTE** The International Standard corresponding to this Standard and the symbol of degree of correspondence are as follows.

ISO 76 : 2006 *Rolling bearings — Static load ratings* + Amendment 1 : 2017 (MOD)

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 21-1**.