



JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS B 0104 : 1991

(Reaffirmed : 2001)

Rolling bearings—Vocabulary

ICS 01.040.21; 21.100.20

Descriptors : vocabulary, terminology, rolling bearings

Reference number : JIS B 0104 : 1991 (E)



Documents

Document Sharing Hub

54 S

Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of International Trade and Industry through deliberations at the Japanese Industrial Standards Committee in accordance with the Industrial Standardization Law:

Date of Establishment: 1970-01-01

Date of Revision: 1991-02-01

Date of Reaffirmation: 2001-09-20

Date of Public Notice in Official Gazette: 2001-09-20

Investigated by: Japanese Industrial Standards Committee
Divisional Council on Machine Elements

JIS B 0104:1991, First English edition published in 2002-06

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 2002

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

Rolling bearings—Vocabulary

1 Scope This Japanese Industrial Standard establishes a vocabulary of terms relating rolling bearings (hereafter referred to as “bearings”).

Remarks 1 The following standard is a normative reference to this Standard.

JIS B 1512 *Rolling bearings—Boundary dimensions*

2 The following International Standard corresponds to this Standard.

ISO 5593 *Rolling bearings—Vocabulary*

3 This Standard supplements several entries not included in **ISO 5593**. For the terms existing in **ISO 5593**, their definitions are identical with this Standard.

2 Classification of terms Classification of terms specified in this standard is in the following orders.

01 Bearings

01.01 Rolling bearings—General

01.02 Radial bearings

01.03 Thrust bearings

01.04 Linear bearings

01.05 Ball bearings

01.06 Roller bearings

02 Bearing parts

02.01 Bearing parts—General

02.02 Features of bearing parts—General

02.03 Bearing rings

02.04 Bearing washers

02.05 Rolling elements

02.06 Cages

03 Bearing arrangement and sub-units

03.01 Bearing arrangements

03.02 Sub-units

03.03 Rolling element and cage assemblies

04 Dimensions

04.01 Dimension plans and series

04.02 Axes, planes, directions

04.03 Boundary dimensions**04.04 Dimensions of sub-units and parts****05 Dimensions associated with tolerances****05.01 Bore diameter and outside diameter****05.02 Width and height****05.03 Chamfer dimensions****05.04 Ball dimensions****05.05 Roller dimensions****05.06 Form****05.07 Running accuracy****05.08 Internal clearance****06 Torque, loads and life****06.01 Torque****06.02 Actual loads****06.03 Equivalent loads****06.04 Load ratings****06.05 Life****06.06 Calculation factors****07 Miscellaneous****07.01 Housings****07.02 Location and securing****07.03 Others****3 Terms and definitions** The terms and definitions shall be as follows.

The English equivalent is shown for informative reference.

Remarks 1 In the column of terms a word or words printed in boldface and placed in parentheses, which are part of the complete term, may be omitted unless such omission introduces any ambiguity.

2 In English equivalents the part placed in parentheses is omitted in general. Several closely related terms, which can be defined by the same texts apart from a few words, are grouped in a single entry with placing the words to be substituted in order to obtain the different meanings in square brackets. These are the same in the columns of definitions and English equivalents.

Example : 玉[ころ]循環リニア軸受 TAMA [KORO] ZYUNKAN RINIA
ZIKUKE, recirculating ball [roller] linear bearing

- 3 Illustrations are shown for an example, and mostly are simplified. Those through Attached Fig. 113 correspond to **ISO 5593**.
- 4 A term printed in italics in the column of definitions is defined in another entry of this Standard, and a term combined also is printed in italics. For example “static radial load”, which is absent in the column of terms but printed in italics in the column of definitions, is a term applied combining the terms of “static load” and “radial load”.

- Informative references
- 1 While the index number corresponds to **ISO 5593**, the terms not included in **ISO 5593** are numbered with initiating the last two digits at 51 and followed by * mark for distinction.
 - 2 English equivalents are the terms given in **ISO 5593**. However, **ISO 5593** has no term of English equivalent to the term the index number of which is followed by * mark.
 - 3 Figures shown after Attached Fig. 151 are not in **ISO 5593**.

01 Bearings 01.01 Rolling bearings—General

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.01.01	(転がり)軸受	(KOROGARI) ZIKUKE	A bearing operating with rolling (rather than sliding) motion between the parts supporting load and moving in relation to each other. It comprises <i>raceway</i> members and <i>rolling elements</i> with or without means for their spacing and/or guiding. May be designed to support radial, axial or combined radial and axial load.	Attached Figs. 1 to 33.	rolling bearing
01.01.02	単列軸受	TANRETU ZIKUKE	A <i>rolling bearing</i> with one row of <i>rolling elements</i> .	Attached Figs. 1 to 4, 6, 8 to 15, 17, 18, 21 to 24, 27 to 31.	single row (rolling) bearing
01.01.03	複列軸受	HUKURETU ZIKUKE	A <i>rolling bearing</i> with two rows of <i>rolling elements</i> .	Attached Figs. 5, 7, 16, 20, 25, 26.	double row (rolling) bearing
01.01.04	多列軸受	TARETU ZIKUKE	A <i>rolling bearing</i> with more than two rows of <i>rolling elements</i> supporting load in the same direction. It is preferable to specify the number of rows and type of bearing, for example "four row cylindrical roller radial bearing".	Attached Fig. 19	multi-row (rolling) bearing
01.01.05	総転動体軸受	SÔ-TENDÔTAI ZIKUKE	A <i>rolling bearing</i> without a <i>cage</i> and in which the sum of the clearances between the <i>rolling elements</i> in each row is less than the diameter of the rolling elements and small enough to give satisfactory function of the bearing.	Attached Figs. 14, 22, 23.	full complement (rolling) bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.01.06	アンギュラコン タクト軸受	ANGYURA KONTAKUTO ZIKUUE	A <i>rolling bearing</i> with a <i>nominal contact angle</i> greater than 0° but less than 90°.	Attached Figs. 4, 5, 7, 10, 12, 16, 17, 20, 21, 27, 29, 31.	angular contact (rolling) bearing
01.01.07	非調心軸受	HI-TYÔSIN ZIKUUE	A <i>rolling bearing</i> which resists misalignment between the axes of its <i>raceways</i> .	Attached Figs. 1 to 6, 8 to 14, 17 to 30.	rigid (rolling) bearing
01.01.08	自動調心軸受	ZIDÔ TYÔSIN ZIKUUE	A <i>rolling bearing</i> which can accommodate angular misalignment and angular motion between the axes of its <i>raceways</i> due to one <i>raceway</i> being <i>spherical</i> .	Attached Figs. 7, 15, 16, 31.	self-aligning (rolling) bearing
01.01.09	外部調心軸受	GAIBU TYÔSIN ZIKUUE	A <i>rolling bearing</i> which can accommodate angular misalignment between its <i>axis</i> and the axis of its <i>housing</i> by means of a spherical form on one <i>ring</i> or <i>washer</i> surface, which mates with a complementary seat surface in an <i>aligning housing ring</i> , in an <i>aligning seat washer</i> or in the housing.	Attached Fig. 8	external aligning (rolling) bearing
01.01.10	分離形軸受	BUNRIGATA ZIKUUE	A <i>rolling bearing</i> with separable <i>sub-units</i> .	Attached Figs. 6, 9 to 14, 19 to 21, 24 to 26, 28 to 31.	separable (rolling) bearing
01.01.11	非分離形軸受	HI-BUNRIGATA ZIKUUE	A <i>rolling bearing</i> from which, after final manufacturing assembly, neither <i>bearing ring</i> can be freely separated.	Attached Figs. 1 to 5, 7, 8, 15 to 17, 22, 23, 27.	non-separable (rolling) bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.01.12	二つ割り軸受	HUTATU-WARI ZIKUUE	A <i>rolling bearing</i> with both <i>rings</i> and the <i>cage</i> , if used, divided into two semicircular pieces to facilitate mounting.	Attached Fig. 18.	split (rolling) bearing
01.01.13	メートル系軸受	MÉTORU-KEI ZIKUUE	A <i>rolling bearing</i> originally designed with <i>boundary dimensions</i> and tolerances primarily in round metric units.	—	metric (rolling) bearing
01.01.14	メートル系系列軸受	MÉTORU-KEIRETU ZIKUUE	A <i>rolling bearing</i> which conforms to a metric series of an ISO dimension plan .	—	metric series (rolling) bearing
01.01.15	インチ系軸受	INTI-KEI ZIKUUE	A <i>rolling bearing</i> originally designed with <i>boundary dimensions</i> and tolerances in imperial (inch) units.	—	inch (rolling) bearing
01.01.16	インチ系系列軸受	INTI-KEIRETU ZIKUUE	A <i>rolling bearing</i> which conforms to an inch series of an ISO dimension plan .	—	inch series (rolling) bearing
01.01.17	開放軸受	KAIHÔ ZIKUUE	A <i>rolling bearing</i> with neither <i>seals</i> nor <i>shields</i> .	Attached Figs. 1, 4 to 7, 9 to 19, 21, 24 to 31.	open (rolling) bearing
01.01.18	シール軸受	SÎRU ZIKUUE	A <i>rolling bearing</i> which is fitted with a <i>seal</i> on one or both sides. Information: There are single and double bearings.	Attached Figs. 2, 8, 20.	sealed (rolling) bearing
01.01.19	シールド軸受	SÎRUDO ZIKUUE	A <i>rolling bearing</i> which is fitted with a <i>shield</i> on one or both sides. Information: There are single and double bearings.	Attached Fig. 3.	shielded (rolling) bearing
01.01.20	キャップ軸受	KYAPPU ZIKUUE	A <i>rolling bearing</i> which is fitted with one or two <i>seals</i> , one or two <i>shields</i> or with one seal and one shield.	Attached Figs. 2, 3, 8, 20.	capped (rolling) bearing
01.01.21	(潤滑剤)封入軸受	(ZYUNKATUZAI) HÛNYÔ ZIKUUE	A <i>rolling bearing</i> which has been charged with lubricant by the manufacturer.	—	prelubricated (rolling) bearing
01.01.22	(航空機)機体用軸受	(KÔKÔKI) KITAI-YÔ ZIKUUE	A <i>rolling bearing</i> which, by reason of design or execution, is intended for use in the general structure of an aircraft, including its control systems.	—	airframe (rolling) bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.01.23	計器用精密軸受	KEIKI-YÔ SEIMITU ZIKUKE	A <i>rolling bearing</i> which, by reason of design or execution, is intended for use in instruments.	—	instrument precision (rolling) bearing
01.01.24	鉄道車両車軸用 軸受	TETUDÔ SYARYÔ-YÔ ZIKUKE	A <i>rolling bearing</i> which, by reason of design or execution, is intended for use in railway axleboxes. The most common type is <i>radial roller bearing</i> .	Attached Fig. 20.	railway axlebox (rolling) bearing
01.01.25	組合せ用軸受	KUMIAWASE-YÔ ZIKUKE	One of the <i>rolling bearings</i> in a <i>matched pair</i> or a <i>matched stack</i> .	—	matched (rolling) bearing
01.01.51*	基本軸受	KIHON ZIKUKE	A <i>bearing</i> of which the <i>boundary dimensions</i> conform to JIS B 1512 .	—	standard (rolling) bearing
01.01.52*	特定軸受	TOKUTEI ZIKUKE	A <i>bearing</i> of which the <i>boundary dimensions</i> are based on a particular <i>dimension series</i> not according to JIS B 1512 .	—	established line (rolling) bearing
01.01.53*	ミニアチュア軸 受	MINITYUA ZIKUKE	In general, a <i>bearing</i> with a <i>nominal outside diameter</i> up to 9 mm.	—	miniature (rolling) bearing
01.01.54*	小径軸受	SYÔKEI ZIKUKE	In general, a <i>bearing</i> with a <i>nominal bore diameter</i> up to 10 mm and <i>nominal outside diameter</i> at least 9 mm.	—	extra small (rolling) bearing
01.01.55*	小形軸受	KOGATA ZIKUKE	A <i>bearing</i> with a <i>nominal bore diameter</i> 10 mm or larger and <i>nominal outside diameter</i> up to about 80 mm.	—	small size (rolling) bearing
01.01.56*	中形軸受	TYÛGATA ZIKUKE	A <i>bearing</i> with a <i>nominal outside diameter</i> between approximate 80 mm and 180 mm.	—	medium size (rolling) bearing
01.01.57*	大形軸受	ÔGATA ZIKUKE	A <i>bearing</i> having a <i>nominal outside diameter</i> between approximate 180 mm and 800 mm.	—	large size (rolling) bearing
01.01.58*	超大形軸受	TYÔ-ÔGATA ZIKUKE	A <i>bearing</i> having a <i>nominal outside diameter</i> exceeding approximately 800 mm.	—	extra large size (rolling) bearing
01.01.59*	熱安定化軸受	NETUANTEIKA ZIKUKE	A <i>bearing</i> processed thermal stabilizing treatment.	—	heat stabilized (rolling) bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.01.60*	コンバインド軸受	KONBAINDO ZIKUUE	A bearing having both <i>rolling elements</i> bearing the <i>radial</i> and <i>axial loads</i> respectively.	Attached Fig. 151.	combined (rolling) bearing
01.01.61*	組合せ軸受	KUMIAWASE ZIKUUE	A bearing combined two or more bearings in <i>back-to-back</i> , <i>face-to-face</i> or <i>tandem arrangement</i> . Informative references 1 There are back-to-back, face-to-face and tandem duplex bearings. 2 See 01.01.25 for matched bearing, 03.01.06 for matched pair and 03.01.07 for matched stack.	Attached Figs. 152, 153, 154.	duplex (rolling) bearing
01.01.62*	互換性(サブユニット)軸受	GOKANSEI (SABU-YUNITTO) ZIKUUE	A bearing, in a group of apparently identical <i>separable bearings</i> , so designed and manufactured as that any assembling with the <i>sub-units</i> will not impair the function. Informative reference : See 03.02.02 for interchangeable sub-unit.	—	(rolling) bearing with interchangeable sub-unit
01.01.63*	非互換性(サブユニット)軸受	HI-GOKANSEI (SABU-YUNITTO) ZIKUUE	A bearing, in a group of apparently identical <i>separable bearings</i> , designed and manufactured not to be intended using by optionally assembling with the <i>sub-units</i> .	—	(rolling) bearing with non- interchangeable sub-unit

01.02 Radial bearings

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.02.01	ラジアル軸受	RAZIARU ZIKUUE	A <i>rolling bearing</i> designed to support primarily <i>radial load</i> , having a <i>nominal contact angle</i> between 0° and 45° inclusive. Principal parts are <i>inner ring</i> , <i>outer ring</i> and <i>rolling elements</i> with or without a <i>cage</i> .	Attached Figs. 1 to 23.	radial (rolling) bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.02.02	ラジアルコン タクト軸受	RAZIARU KONTAKUTO ZIKUUE	A radial rolling bearing with a nominal contact angle of 0°.	Attached Figs. 1 to 3, 6, 8, 11, 13 to 15, 18, 19, 22, 23.	radial contact (rolling) bearing
01.02.03	アンギュラコン タクトラジアル 軸受	ANGYURA KONTAKUTO RAZIARU ZIKUUE	A radial rolling bearing with a nominal contact angle greater than 0° up to and including 45°.	Attached Figs. 4, 5, 7, 10, 12 16, 17, 20, 21.	angular contact radial (rolling) bearing
01.02.04	インサート軸受	INSÂTO ZIKUUE	A radial rolling bearing with a spherical outside surface and an extended inner ring with a locking device. Primarily intended for use in a simple type of housing.	Attached Fig. 8	insert (rolling) bearing
01.02.05	テーパ穴軸受	TÊPA-ANA ZIKUUE	A radial rolling bearing with an inner ring with tapered bore.	Attached Figs. 7, 19.	tapered bore (rolling) bearing
01.02.06	フランジ付き軸 受	HURANZI-TUKI ZIKUUE	A radial rolling bearing with an external radial flange on one of its rings, usually the outer ring or cup.	Attached Fig. 21.	flanged (rolling) bearing
01.02.07	トラックローラ (軸受)	TORAKKU RÔRA (ZIKUUE)	A radial rolling bearing with a heavy section outer ring, intended for use as a roller to roll on a track, for example a cam track.	Attached Figs. 22, 23.	track roller (rolling bearing)
01.02.08	ヨーク形トラッ クローラ(軸 受)	YÔKUGATA TORAKKU RÔRA (ZIKUUE)	A track roller rolling bearing intended for mounting in a yoke.	Attached Fig. 22.	yoke type track roller (rolling bearing)
01.02.09	スタッド形ト ラックローラ (軸受)	SUTADDOGATA TORAKKU RÔRA (ZIKUUE)	A track roller rolling bearing in which the inner member is extended on one side in the form of a shaft for cantilever mounting of the bearing.	Attached Fig. 23.	stud type track roller (rolling bearing)

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.02.10	万能組合せ用軸受	BANNÔ KUMIAWASE-YÔ ZIKUUE	A radial rolling bearing which, when used together with one or more similar bearing(s), selected at random, yields predetermined characteristics in a paired or stack mounting.	—	universal matching (rolling) bearing
01.02.51*	円筒穴軸受	ENTÔ-ANA ZIKUUE	A radial bearing of which the bearing bore is a cylindrical bore.	—	cylindrical bore (rolling) bearing
01.02.52*	円筒外徑面軸受	ENTÔ GAKEIMEN ZIKUUE	A radial bearing of which the bearing outside surface is a cylindrical surface.	—	cylindrical outside surface (rolling) bearing
01.02.53*	球状外徑面軸受	KYŪZYÔ GAKEIMEN ZIKUUE	A radial bearing of which the bearing outside surface is a spherical surface.	Attached Fig. 155.	spherical outside surface (rolling) bearing
01.02.54*	輪溝付き軸受	WAMIZO-TUKI ZIKUUE	A bearing having a locating snap ring groove.	Attached Fig. 156.	(rolling) bearing with locating snap ring groove
01.02.55*	止め輪付き軸受	TOMEWA-TUKI ZIKUUE	A bearing equipped with a locating snap ring.	Attached Fig. 157	(rolling) bearing with locating snap ring
01.02.56*	アダプタ付き軸受	ADAPUTA-TUKI ZIKUUE	A bearing equipped with an adapter assembly.	Attached Fig. 158.	(rolling) bearing with adapter assembly
01.02.57*	調心輪付き軸受	TYÔSINRIN-TUKI ZIKUUE	A radial bearing equipped with an aligning housing ring.	Attached Fig. 159.	radial (rolling) bearing with aligning housing ring

01.03 Thrust bearings

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.03.01	スラスト軸受	SURASUTO ZIKUKE	A <i>rolling bearing</i> designed to support primarily <i>axial load</i> , having a <i>nominal contact angle</i> greater than 45° up to and including 90°. Principal parts are <i>shaft washer</i> , <i>housing washer</i> and <i>rolling elements</i> with or without a <i>cage</i> .	Attached Figs. 24 to 31.	thrust (rolling) bearing
01.03.02	アキシアルコンタクト軸受	AKISIARU KONTAKUTO ZIKUKE	A <i>thrust rolling bearing</i> with a <i>nominal contact angle</i> of 90°.	Attached Figs. 24 to 26, 28, 30.	axial contact (rolling) bearing
01.03.03	スラストアンギュラコンタクト軸受	SURASUTO ANGYURA KONTAKUTO ZIKUKE	A <i>thrust rolling bearing</i> with a <i>nominal contact angle</i> greater than 45° and smaller than 90°.	Attached Figs. 27, 29, 31.	angular contact thrust (rolling) bearing
01.03.04	単式スラスト軸受	TANSIKI SURASUTO ZIKUKE	A <i>thrust rolling bearing</i> intended to support <i>axial load</i> in one direction only.	Attached Figs. 24, 26, 28 to 31.	single-direction thrust (rolling) bearing
01.03.05	複式スラスト軸受	HUKUSIKI SURASUTO ZIKUKE	A <i>thrust rolling bearing</i> intended to support <i>axial load</i> in both directions.	Attached Figs. 25, 27.	double-direction thrust (rolling) bearing
01.03.06	(複列)複式スラスト軸受	(HUKURETU) HUKUSIKI SURASUTO ZIKUKE	A <i>double-direction thrust rolling bearing</i> having two rows of <i>rolling elements</i> , each supporting <i>axial load</i> in one direction only.	Attached Fig. 25.	double row double-direction thrust (rolling) bearing
01.03.51*	平面座スラスト軸受	HEIMENZA SURASUTO ZIKUKE	A <i>thrust bearing</i> in which <i>back face</i> of the <i>housing washer</i> is flat.	Attached Figs. 160, 161.	thrust (rolling) bearing with flat back face(s)
01.03.52*	調心座スラスト軸受	TYÔSINZA SURASUTO ZIKUKE	A <i>thrust bearing</i> in which <i>back face</i> of the <i>housing washer</i> is spherical.	Attached Figs. 162, 163.	thrust (rolling) bearing with spherical back face(s)

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.03.53*	調心座金付き ラスト軸受	TYÔSINZAGANE-TUKI SURASUTO ZIKUUEKE	A <i>thrust bearing</i> , in which <i>back face</i> of the <i>housing washer</i> is spherical, equipped with an <i>aligning seat washer</i> .	Attached Fig. 164.	thrust (rolling) bearing with aligning seat washer(s)

01.04 Linear bearings

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.04.01	リニア軸受	RINIA ZIKUUEKE	A <i>rolling bearing</i> designed for linear relative motion between its <i>raceways</i> in the direction of rolling.	Attached Figs. 32, 33.	linear (motion) (rolling) bearing
01.04.02	玉[ころ]循環リ ニア軸受	TAMA (KORO) ZYUNKAN RINIA ZIKUUEKE	A <i>linear motion rolling bearing</i> with means for the recirculation of the balls [rollers].	Attached Fig. 33	recirculating ball [roller] linear bearing

01.05 Ball bearings

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.05.01	玉軸受	TAMA ZIKUUEKE	A <i>rolling bearing</i> with balls as <i>rolling elements</i> .	Attached Figs. 1 to 10, 24 to 27, 33.	ball bearing
01.05.02	ラジアル玉軸受	RAZIARU TAMA ZIKUUEKE	A <i>radial rolling bearing</i> with balls as <i>rolling elements</i> .	Attached Figs. 1 to 10.	radial ball bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.05.03	溝玉軸受	MIZO TAMA ZIKUUEKE	A <i>radial ball bearing</i> the raceways of which are grooves generally with a cross-section of an arc of a circle with a radius slightly larger than half the ball diameter.	Attached Figs. 1 to 6, 8 to 10.	groove ball bearing
01.05.04	深溝玉軸受	HUKAMIZO TAMA ZIKUUEKE	A <i>radial ball bearing</i> in which each ring has uninterrupted raceway grooves with a cross-section matching about 1/3 of the ball circumference.	Attached Figs. 1 to 3, 8	deep groove ball bearing
01.05.05	入れ溝付き(玉)軸受	IREMIZO-TUKI (TAMA) ZIKUUEKE	A <i>groove ball bearing</i> having a <i>filling slot</i> in one <i>shoulder</i> of each ring to permit the insertion of a larger number of balls than in a <i>deep groove ball bearing</i> .	Attached Fig. 5.	filling slot (ball) bearing
01.05.06	カウンタボア玉軸受	KAUNTA-BOA TAMA ZIKUUEKE	A <i>groove ball bearing</i> with one <i>outer ring shoulder</i> completely or partly removed.	Attached Fig. 6.	counterbored ball bearing
01.05.07	マグネット(玉)軸受	MAGUNETO (TAMA) ZIKUUEKE	A <i>radial contact groove ball bearing</i> with one <i>outer ring shoulder</i> completely removed, making this ring separable.	Attached Fig. 6.	magneto (ball) bearing
01.05.08	3点接触(玉)軸受	SANTEN SESSYOKU (TAMA) ZIKUUEKE	A <i>single row radial ball bearing</i> in which, when under purely radial load, each loaded ball makes contact with one of the raceways at two points and with the other raceway at one point. Under pure axial load on the bearing, each ball makes contact with each raceway at only one point.	Attached Fig. 9.	three point contact (ball) bearing
01.05.09	4点接触(玉)軸受	YONTEN SESSYOKU (TAMA) ZIKUUEKE	A <i>single row angular contact ball bearing</i> in which, when under purely radial load, each loaded ball makes contact with each of the two raceways at two points. Under pure axial load on the bearing, each ball makes contact with each raceway at only one point.	Attached Figs. 10, 27.	four point contact (ball) bearing
01.05.10	スラスト玉軸受	SURASUTO TAMA ZIKUUEKE	A <i>thrust rolling bearing</i> with balls as <i>rolling elements</i> .	Attached Figs. 24 to 27.	thrust ball bearing
01.05.11	スラスト4点接触(玉)軸受	SURASUTO YONTEN SESSYOKU (TAMA) ZIKUUEKE	A <i>four point contact ball bearing</i> having <i>contact angles</i> greater than 45°.	Attached Fig. 27.	single row double-direction thrust ball bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.05.12	複列単式スラスト玉軸受	HUKURETU TANSIKI SURASUTO TAMA ZIKUUE	A single-direction thrust rolling bearing having two concentric rows of balls, both supporting load in the same direction.	Attached Fig. 26.	double row single-direction thrust ball bearing
01.05.51*	アンギュラ玉軸受	ANGYURA TAMA ZIKUUE	An angular contact radial bearing with balls as rolling elements. Informative reference : In general, it refers mostly to single row non-separable counterbored ball bearing.	Attached Fig. 165.	angular contact ball bearing
01.05.52*	合せ内輪[外輪]アンギュラ玉軸受	AWASE-NAIRIN [GAIRIN] ANGYURA TAMA ZIKUUE	A single row angular contact ball bearing in which raceway of the inner ring [outer ring] is divided into two pieces in a radial plane.	Attached Figs. 166, 167.	single row angular contact ball bearing with two-piece inner ring [outer ring]
01.05.53*	複列内向き[外向き]アンギュラ玉軸受	HUKURETU UTIMUKI [SOTOMUKI] ANGYURA TAMA ZIKUUE	A double row angular contact ball bearing in which acting lines of the rolling element load intersect inside [outside] the pitch circle of the ball set.	Attached Figs. 168, 169.	double row angular contact ball bearing with vertex of contact angles inside [outside] of bearing
01.05.54*	自動調心玉軸受	ZIDÔ-TYÔSIN TAMA ZIKUUE	A self-aligning bearing with balls as rolling elements. Informative reference : In general, among such radial ball bearings capable of self-aligning, it refers mostly to double row ball bearing with spherical raceway in the outer ring.	Attached Fig. 170	self-aligning ball bearing
01.05.55*	マキシムム形玉軸受	MAKISIMAMUGATA TAMA ZIKUUE	A filling slot ball bearing having a cage containing many balls to the utmost.	—	maximum type ball bearing
01.05.56*	ピボット玉軸受	PIBOTTO TAMA ZIKUUE	A ball bearing, which consists of an outer ring and several balls, intended to support a conical end of rotating axle.	Attached Fig. 171.	pivot ball bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.05.57*	スラストアン ギョ五軸受	SURASUTO ANGYURA TAMA ZIKUUE	An angular contact thrust bearing with balls as rolling elements.	—	angular contact thrust ball bearing
01.05.58*	(軸受) ユニット 用五軸受	(ZIKUUE) YUNITTO-YÔ TAMA ZIKUUE	A ball bearing intended for use in a bearing unit.	Attached Figs. 8, 155.	ball bearing for rolling bearing unit

01.06 Roller bearings

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.06.01	ころ軸受	KORO ZIKUUE	A rolling bearing with rollers as rolling elements.	Attached Figs. 11 to 23, 28 to 32.	roller bearing
01.06.02	ラジアルころ軸 受	RAZIARU KORO ZIKUUE	A radial rolling bearing with rollers as rolling elements.	Attached Figs. 11 to 23.	radial roller bearing
01.06.03	円筒ころ軸受	ENTÔ KORO ZIKUUE	A radial rolling bearing with cylindrical rollers as rolling elements.	Attached Figs. 11, 17 to 19.	cylindrical roller (radial) bearing
01.06.04	円すいころ軸受	ENSUI KORO ZIKUUE	A radial rolling bearing with tapered rollers as rolling elements.	Attached Figs. 12, 20, 21.	tapered roller (radial) bearing
01.06.05	針状ころ軸受	HARIZYÔ KORO ZIKUUE	A radial rolling bearing with needle rollers as rolling elements.	Attached Figs. 13, 14, 22, 23.	needle roller (radial) bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.06.06	シェル形針状ころ軸受	SYERUGATA HARIZYÔ KORO ZIKUUEKE	A <i>needle roller radial bearing</i> with a thin pressed steel outer ring (<i>drawn cup</i>), which may have one closed end or both ends open. Usually employed without inner ring.	Attached Fig. 14.	drawn cup needle roller bearing
01.06.07	凸面ころ軸受	TOTUMEN KORO ZIKUUEKE	A <i>radial rolling bearing</i> with <i>convex rollers</i> as <i>rolling elements</i> .	Attached Fig. 16.	convex roller (radial) bearing
01.06.08	凹面ころ軸受	ÔMEN KORO ZIKUUEKE	A <i>radial rolling bearing</i> with <i>concave roller</i> as <i>rolling elements</i> .	Attached Fig. 15.	concave roller (radial) bearing
01.06.09	球面軌道ころ軸受	KYÛMEN KIDÔ KORO ZIKUUEKE	A <i>self-aligning, radial rolling bearing</i> with <i>convex rollers</i> or <i>concave rollers</i> as <i>rolling elements</i> . With <i>convex rollers</i> the outer ring has a <i>spherical raceway</i> , with <i>concave rollers</i> the inner ring has a <i>spherical raceway</i> .	Attached Figs. 15, 16.	spherical (radial) roller bearing
01.06.10	交差ころ軸受	KÔSA KORO ZIKUUEKE	An <i>angular contact rolling bearing</i> with one row or <i>rollers</i> , each roller positioned crosswise in relation to the adjacent rollers, such that an <i>axial load</i> in one direction is supported by half the <i>roller set</i> (every second roller) whilst an axial load in the opposite direction is carried by the other half of the roller set.	Attached Fig. 17.	crossed roller bearing
01.06.11	スラストころ軸受	SURASUTO KORO ZIKUUEKE	A <i>thrust rolling bearing</i> with <i>rollers</i> as <i>rolling elements</i> .	Attached Figs. 28 to 31.	thrust roller bearing
01.06.12	スラスト円筒ころ軸受	SURASUTO ENTÔ KORO ZIKUUEKE	A <i>thrust rolling bearing</i> with <i>cylindrical rollers</i> as <i>rolling elements</i> .	Attached Fig. 28.	cylindrical roller thrust bearing
01.06.13	スラスト円すいころ軸受	SURASUTO ENSUI KORO ZIKUUEKE	A <i>thrust rolling bearing</i> with <i>tapered rollers</i> as <i>rolling elements</i> .	Attached Fig. 29.	tapered roller thrust bearing
01.06.14	スラスト針状ころ軸受	SURASUTO HARIZYÔ KORO ZIKUUEKE	A <i>thrust rolling bearing</i> with <i>needle rollers</i> as <i>rolling elements</i> .	Attached Fig. 30.	needle roller thrust bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.06.15	スラスト球面軌道ころ軸受	SURASUTO KYŪMEN KIDŌ KORO ZIKUUE	A self-aligning, thrust rolling bearing with convex rollers or concave rollers as rolling elements. With convex rollers the housing washer has a spherical raceway, with concave rollers the shaft washer has a spherical raceway.	Attached Fig. 31.	spherical thrust roller bearing
01.06.51*	自動調心ころ軸受	ZIDŌ-TYŌSIN KORO ZIKUUE	A self-aligning bearing with convex rollers as roller elements. Informative references 1 In general, among such radial roller bearings capable of self-aligning, this refers to double row roller bearing having spherical raceway in the outer ring. 2 This also is referred to as KYŪMEN KORO ZIKUUE.	Attached Figs. 172, 173.	self-aligning roller bearing
01.06.52*	棒状ころ軸受	BŌZYŌ KORO ZIKUUE	A radial bearing with long cylindrical rollers as rolling elements.	Attached Fig. 174.	long cylindrical roller bearing
01.06.53*	ソリッド形針状ころ軸受	SORIDDOGATA HARIZYŌ KORO ZIKUUE	A needle roller bearing having a bearing ring formed by machining process.	Attached Fig. 175.	machined ring needle roller bearing
01.06.54*	複列内向き[外向き]円すいころ軸受	HUKURETU UTIMUKI [ISOTOMUKI] ENSUI KORO ZIKUUE	A double row tapered roller bearing incorporating one double row inner ring [outer ring] and two single row outer rings [inner rings].	Attached Figs. 176, 177.	double row tapered roller bearing with vertex of contact angles inside [outside] of bearing

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
01.06.55*	スラスト自動調 心ころ軸受	SURASUTO ZIDÔ- TYÔSIN KORO ZIKUKE	A <i>self-aligning thrust bearing</i> with <i>rollers</i> as <i>rolling elements</i>. Informative references 1 In general, among such thrust roller bearings capable of self-aligning, this refers mostly to single row roller bearing having spherical raceway in the housing washer. 2 It also is referred to as SURASUTO KYÛMEN KORO ZIKUKE.	Attached Fig. 178	self-aligning thrust roller bearing

02 Bearing parts

02.01 Bearing parts—General

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.01.01	軸受部品	ZIKUKE BUHIN	One of the individual parts comprising a <i>rolling bearing</i> but excluding all accessories.	—	(rolling) bearing parts
02.01.02	軌道輪	KIDÔRIN	An annular part of a <i>radial rolling bearing</i> incorporating one or more <i>raceways</i> .	Attached Figs. 34, 35.	(rolling) bearing ring
02.01.03	軌道盤	KIDÔBAN	An annular part of a <i>thrust rolling bearing</i> incorporating one or more <i>raceways</i> .	Attached Fig. 36.	(rolling) bearing washer
02.01.04	分離形軌道輪 [軌道盤]	BUNRIGATA KIDÔRIN [KIDÔBAN]	A <i>bearing ring</i> [<i>bearing washer</i>] which may be independently and freely separated from a complete <i>rolling bearing</i> .	Attached Figs. 36, 40, 41.	separable bearing ring [bearing washer]
02.01.05	互換性軌道輪 [軌道盤]	GOKANSEI KIDÔRIN [KIDÔBAN]	A <i>separable bearing ring</i> [<i>bearing washer</i>] which can be replaced by another ring [another washer] of a similar group without impairing the function of the bearing.	Attached Fig. 35.	interchangeable bearing ring [bearing washer]
02.01.06	1か所割り軌道輪	1-KASYO-WARI KIDÔRIN	A <i>bearing ring</i> which is split or fractured across its <i>raceway(s)</i> , in one place only, to facilitate manufacturing assembly.	Attached Fig. 37.	single-split bearing ring
02.01.07	二つ割り軌道輪	HUTATU-WARI KIDÔRIN	A <i>bearing ring</i> which is split or fractured across its <i>raceway(s)</i> , in two places, to facilitate manufacturing assembly and/or mounting. The two splits are generally diametrically opposite one another.	Attached Fig. 38.	double-split bearing ring
02.01.08	合せ軌道輪[軌道盤]	AWASE KIDÔRIN [KIDÔBAN]	A <i>bearing ring</i> [<i>bearing washer</i>] divided into two annular pieces in a plane perpendicular to its <i>axis</i> . Each piece incorporates at least part of a <i>raceway</i> .	Attached Fig. 39.	two-piece bearing ring [bearing washer]

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.01.09	つば輪	TUBAWA	A separable basically flat washer the outer or inner part of which serves as an <i>inner ring rib</i> or <i>outer ring rib</i> for a <i>cylindrical roller radial bearing</i> .	Attached Fig. 40.	loose rib
02.01.10	L形つば輪	L-GATA TUBAWA	A separable ring having an L-shaped section, the outer part of which serves as an <i>inner ring rib</i> for a <i>cylindrical roller radial bearing</i> .	Attached Fig. 41.	(separate) thrust collar
02.01.11	案内輪	ANNAIRIN	A separate ring in a <i>roller bearing</i> with two or more rows of <i>rollers</i> , used to separate the rows and to guide the <i>rollers</i> .	Attached Fig. 42.	guide ring
02.01.12	(位置決め)止め 輪	(ITIGIME) TOMEWA	A single-split ring of constant section, used in a <i>snap ring</i> groove to locate axially a <i>rolling bearing</i> in its <i>housing</i> or on its shaft.	Attached Fig. 34.	locating snap ring
02.01.13	保持止め輪	HOZI TOMEWA	A single-split ring of constant section, used in a <i>snap ring</i> groove to serve as a <i>rib</i> retaining the <i>rollers</i> or the <i>cage</i> (with <i>rolling elements</i>) in a <i>rolling bearing</i> .	—	retaining snap ring
02.01.14	(軌道輪〔軌道 盤〕)間座	(KIDÔRIN [KIDÔBAN]) KANZA	An annular part used between two <i>bearing rings</i> or <i>bearing washers</i> or the two parts of a <i>two-piece bearing ring</i> or <i>two-piece bearing washer</i> to maintain a specified <i>axial distance</i> between them.	Attached Figs. 43, 56.	(ring [washer]) spacer
02.01.15	(軸受)シール	(ZIKUUKU) SÎRU	A circular closure comprising one or several parts, affixed to one <i>bearing ring</i> or <i>bearing washer</i> and extending towards the other ring or washer, with which it makes contact or forms a narrow labyrinth-shaped gap, for the purpose of preventing leakage of lubricant or ingress of foreign substances.	Attached Fig. 44.	(bearing) seal
02.01.16	(軸受)シールド	(ZIKUUKU) SÎRUDO	A circular closure, usually of pressed sheet metal, affixed to one <i>bearing ring</i> or <i>bearing washer</i> and extending towards the other ring or washer, covering the interspace but not making contact with the other ring or washer.	Attached Fig. 45.	(bearing) shield

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.01.17	フリंगा	HURINGA	A component part attached to an <i>inner ring</i> or <i>shaft washer</i> to supplement, by centrifugal action, the protection of a <i>rolling bearing</i> against ingress of foreign substances.	Attached Fig. 46.	flinger
02.01.18	転動体	TENDÔTAI	A <i>ball</i> or <i>roller</i> which rolls between <i>raceways</i> .	Attached Figs. 34 to 36, 47, 62 to 69.	rolling element
02.01.19	(軸受)保持器	(ZIKUUEKE) HOZIKI	A <i>bearing part</i> which partly surrounds all or several of the <i>rolling elements</i> and moves with them. Its purpose is to space the rolling elements and generally also to guide and/or retain them in the bearing.	Attached Figs. 34 to 36, 70 to 76.	(rolling bearing) cage
02.01.20	(転動体)セパ レータ	(TENDÔTAI) SEPARÊTA	A <i>bearing part</i> which is placed between adjacent <i>rolling el- ements</i> and moves with them, the main purpose being to space the rolling elements.	Attached Fig. 47.	(rolling element) separator
02.01.51*	ラビリンスシー ル	RABIRINSU SÎRU	A <i>seal</i> forming narrow gaps to keep closure.	---	labyrinth seal

02.02 Features of bearing parts—General

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.02.01	軌道	KIDÔ	A surface of a load supporting part of a <i>rolling bearing</i> , suit- ably prepared as a rolling track for the <i>rolling elements</i> .	Attached Figs. 48 to 50.	raceway
02.02.02	非クラウニング 軌道	HI-KURAUNINGU KIDÔ	A <i>raceway</i> the generatrix of which, in a plane perpendicu- lar to the direction of rolling, is a straight line.	Attached Fig. 49.	straight raceway

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.02.03	クラウニング軌道	KURAUNINGU KIDÔ	A basically cylindrical or conical <i>raceway</i> which has a continuous slightly convex curvature in a plane perpendicular to the direction of rolling to prevent stress concentration at the ends of contacts between <i>rollers</i> and the <i>raceway</i> .	—	crowned raceway
02.02.04	球面軌道	KYÔMEN KIDÔ	A <i>raceway</i> having the form of part of the surface of a sphere.	Attached Fig. 52.	spherical raceway
02.02.05	軌道溝	KIDÔ MIZO	A <i>raceway</i> of a <i>ball bearing</i> in the form of a groove, generally with a cross-section of an arc of a circle with a radius slightly larger than half the <i>ball diameter</i> .	Attached Figs. 48, 60.	raceway groove
02.02.06	(溝の)肩	(MIZO NO) KATA	A flank of a <i>raceway groove</i> .	Attached Fig. 48.	(groove) shoulder
02.02.07	つば	TUBA	A narrow ridge parallel to the direction of rolling, projecting from a <i>raceway</i> surface, generally for the purpose of supporting and/or guiding and/or retaining the <i>rolling elements</i> in a <i>rolling bearing</i> .	Attached Figs. 49, 50.	rib
02.02.08	保持器案内面	HOZIKI ANNAIMEN	A cylindrical surface of a <i>bearing ring</i> or a <i>bearing washer</i> intended to guide a <i>cage</i> radially.	Attached Figs. 49, 50.	cage riding land
02.02.09	入れ溝	IREMIZO	A slot in a <i>rib</i> or a <i>shoulder</i> of a <i>bearing ring</i> or <i>bearing washer</i> to permit the insertion of <i>rolling elements</i> .	Attached Fig. 51.	filling slot
02.02.10	側面	SOKUMEN	A surface of a ring [a washer] [...] perpendicular to the axis of the ring [the washer] [...].	Attached Figs. 48 to 52.	face (of a ring [a washer] [...])
02.02.11	軸受内径面	ZIKUKE NAIKEIMEN	The bore of the <i>inner ring</i> or <i>shaft washer</i> of a <i>rolling bearing</i> .	Attached Figs. 49 to 51, 60.	bearing bore

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.02.12	円筒穴	ENTÔ ANA	A <i>bearing bore</i> or a bore of a <i>bearing part</i> whose generatrix is a basically straight line parallel to the <i>bearing axis</i> or the axis of the bearing part.	Attached Figs. 49, 51.	cylindrical bore
02.02.13	テーパ穴	TÊPA ANA	A <i>bearing bore</i> or a bore of a <i>bearing part</i> whose generatrix is a basically straight line intersecting the <i>bearing axis</i> or the axis of the bearing part.	Attached Fig. 50.	tapered bore
02.02.14	軸受外径面	ZIKUKE GAIKEIMEN	The outside surface of the <i>outer ring</i> or the <i>housing washer</i> of a <i>rolling bearing</i> .	Attached Figs. 48, 51, 52, 60.	bearing outside surface
02.02.15	軌道輪[軌道盤]の面取り	KIDÔRIN [KIDÔBAN] NO MENTORI	A surface of a <i>bearing ring</i> [<i>bearing washer</i>] joining the bore or outside surface with one of the <i>faces</i> of the ring [the washer].	Attached Figs. 48, 49, 52.	ring [washer] chamfer
02.02.16	研削逃げ	KENSAKU NIGE	A groove or slot at the root of a <i>rib</i> or flange of a <i>bearing ring</i> or <i>bearing washer</i> to facilitate grinding.	Attached Figs. 49, 50.	grinding undercut
02.02.17	シール(接触)面	SÎRU (SESSYOKU) MEN	A surface with which a seal is intended to make sliding contact.	Attached Fig. 44.	sealing (contact) surface
02.02.18	シール[シールド]溝	SÎRU [SÎRUDO] MIZO	A groove intended for the retention of a <i>bearing seal</i> [<i>bearing shield</i>].	Attached Figs. 44, 45.	seal [shield] groove
02.02.19	輪溝	WAMIZO	A groove to accommodate a <i>locating snap ring</i> or a <i>retaining snap ring</i> .	Attached Fig. 48.	snap ring groove
02.02.20	油溝	ABURA MIZO	A groove in a <i>bearing part</i> for conveying lubricant.	Attached Figs. 42, 43.	lubrication groove
02.02.21	油穴	ABURA ANA	A hole in a <i>bearing part</i> for conveying lubricant to the <i>rolling elements</i> .	Attached Figs. 42, 43.	lubrication hole

02.03 Bearing rings

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.03.01	(軸受)内輪	(ZIKUUEKE) NAIRIN	A <i>bearing ring</i> incorporating the <i>raceway(s)</i> on its outside surface.	Attached Figs. 34, 49.	(bearing) inner ring
02.03.02	(軸受)外輪	(ZIKUUEKE) GAIRIN	A <i>bearing ring</i> incorporating the <i>raceway(s)</i> on its inside surface.	Attached Figs. 34, 48.	(bearing) outer ring
02.03.03	(軸受)コーン	(ZIKUUEKE) KÔN	An <i>inner ring</i> of a <i>tapered roller bearing</i> .	Attached Figs. 35, 54, 56.	(bearing) cone
02.03.04	(軸受)カップ	(ZIKUUEKE) KAPPU	An <i>outer ring</i> of a <i>tapered roller bearing</i> .	Attached Figs. 35, 54.	(bearing) cup
02.03.05	ダブルコーン	DABURU KÔN	A <i>bearing cone</i> having two <i>raceways</i> .	Attached Fig. 43.	double cone
02.03.06	ダブルカップ	DABURU KAPPU	A <i>bearing cup</i> having two <i>raceways</i> .	Attached Fig. 56.	double cup
02.03.07	広幅内輪	HIROHABA NAIRIN	A <i>bearing inner ring</i> extended on one or both sides in order to improve the guidance of a shaft in its bore and/or to permit the fixing of a locking device and/or to provide additional space for sealing devices.	Attached Fig. 46.	extended inner ring
02.03.08	肩おとし内輪	KATA-OTOSI NAIRIN	An <i>inner ring</i> of a <i>groove ball bearing</i> with one <i>shoulder</i> completely or partly removed.	Attached Fig. 53.	stepped inner ring
02.03.09	肩おとし外輪	KATA-OTOSI GAIRIN	An <i>outer ring</i> of a <i>groove ball bearing</i> with one <i>shoulder</i> completely or partly removed.	Attached Fig. 53.	counterbored outer ring
02.03.10	シェール形外輪	SYERUGATA GAIRIN	A <i>bearing outer ring</i> , commonly of a <i>needle roller radial bearing</i> , made of sheet metal drawn to shape with one end closed (closed end drawn cup) or both ends open.	Attached Fig. 57.	(bearing) drawn cup

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.03.11	フランジ付き外輪	HURANZI-TUKI GAIRIN	A bearing outer ring with a flange (<i>outer ring flange</i>).	Attached Fig. 55.	flanged outer ring
02.03.12	調心外輪	TYÔSIN GAIRIN	A bearing outer ring having a spherical outside surface to accommodate permanent angular misalignment between its axis and the axis of its housing.	Attached Fig. 58.	aligning outer ring
02.03.13	調心輪	TYÔSIN RIN	A ring used between an aligning outer ring and a housing bore, having a spherical inside surface matching the spherical outside surface of the outer ring.	Attached Fig. 58.	aligning housing ring
02.03.14	球状外端面	KYÛZYÔ GAIKEIMEN	An outside surface, for example of a bearing outer ring, having the form of part of the surface of a sphere.	Attached Figs. 46, 58.	spherical outside surface
02.03.15	(軌道輪の)背面	(KIDÔRIN NO) HAIMEN	That face of a bearing ring which is intended to support axial load.	Attached Figs. 53, 54.	back face (of a bearing ring)
02.03.16	(軌道輪の)正面	(KIDÔRIN NO) SYÔMEN	That face of a bearing ring which is not intended to support axial load.	Attached Figs. 53, 54.	front face (of a bearing ring)
02.03.17	外輪フランジ	GAIRIN HURANZI	A flange on the outside of a bearing outer ring for the purposes of axially locating the bearing in its housing and to support axial load.	Attached Fig. 55.	outer ring flange
02.03.18	(外輪)フランジ背面	(GAIRIN) HURANZI HAIMEN	That side of an outer ring flange which is intended to support axial load.	Attached Fig. 55.	(outer ring) flange back face
02.03.19	大つば	ÔTUBA	A rib on the back face side of the raceway of a cone, intended to guide the rollers and support roller large end face thrust.	Attached Fig. 54.	cone back face rib
02.03.20	小つば	KOTUBA	A rib on the front face side of the raceway of a cone, intended to retain the rollers and, in the case of a bearing with a cup front face rib, to support roller small end face thrust.	Attached Figs. 54, 59.	cone front face rib

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.03.21	カップ正面つば	KAPPU SYÔMEN TUBA	A rib on the front face side of the raceway of a cup, intended to guide the rollers and support roller large end face thrust.	Attached Fig. 59.	cup front face rib
02.03.22	中つば	NAKATUBA	A central integral rib of a bearing ring with two raceways, for example, a double cone.	Attached Fig. 50.	centre rib
02.03.23	内輪背面[正面] の面取り	NAIRIN HAIMEN [SYÔMEN] NO MENTORI	A surface joining the back face [front face] of a bearing inner ring with the bore of the ring.	Attached Figs. 53, 56.	inner ring back face [front face] chamfer
02.03.24	外輪背面[正面] の面取り	GAIRIN HAIMEN [SYÔMEN] NO MENTORI	A surface joining the back face [front face] of a bearing outer ring with the outside surface of the ring.	Attached Figs. 53, 56.	outer ring back face [front face] chamfer
02.03.51*	複列内輪[外輪]	HUKURETU NAIRIN [GAIRIN]	An inner ring [outer ring] having two raceways.	Attached Figs. 179, 180.	double row inner ring [outer ring]
02.03.52*	つば付き内輪 [外輪]	TUBA-TUKI NAIRIN [GAIRIN]	An inner ring [outer ring] with guide rib(s).	Attached Fig. 181.	inner ring [outer ring] with rib(s)

02.04 Bearing washers

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.04.01	軸軌道盤	ZIKU KIDÔBAN	A bearing washer which is intended to be mounted on a shaft.	Attached Figs. 36, 60.	shaft washer
02.04.02	ハウジング軌道 盤	HAUZINGU KIDÔBAN	A bearing washer which is intended to be mounted in a housing.	Attached Figs. 36, 52, 60.	housing washer

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.04.03	中央軌道盤	TYŪÔ KIDÔBAN	A bearing washer having a raceway on each face, used between the two rows of rolling elements of a double row, double-direction thrust rolling bearing.	Attached Fig. 61.	central washer
02.04.04	調心ハウジング軌道盤	TYÔSIN HAUZINGU KIDÔBAN	A housing washer having a spherical back face to accommodate permanent angular misalignment between its axis and the axis of its housing.	Attached Fig. 61.	aligning housing washer
02.04.05	調心座金	TYÔSIN ZAGANE	A washer used between an aligning housing washer and the thrust supporting surface of a housing, one face of which has a concave spherical surface matching the spherical back face of the aligning housing washer.	Attached Fig. 61.	aligning seat washer
02.04.06	球状背面	KYŪZYÔ HAIMEN	A housing washer back face which, or a zone of which, is convex with a spherical form.	Attached Fig. 61.	spherical back face
02.04.07	軸軌道盤[ハウジング軌道盤]背面	ZIKU KIDÔBAN [HAUZINGU KIDÔBAN] HAIMEN	A face of a shaft washer [a housing washer] intended to support axial load, generally opposite a raceway face.	Attached Figs. 52, 60.	shaft washer [housing washer] back face
02.04.08	軸軌道盤背面の面取り	ZIKU KIDÔBAN HAIMEN NO MENTORI	A surface joining the shaft washer back face with the bore of the washer.	Attached Fig. 60.	shaft washer back face chamfer
02.04.09	ハウジング軌道盤背面の面取り	HAUZINGU KIDÔBAN HAIMEN NO MENTORI	A surface joining the housing washer back face with the outside surface of the washer.	Attached Figs. 52, 60.	housing washer back face chamfer

02.05 Rolling elements

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.05.01	玉	TAMA	A spherical <i>rolling element</i> .	—	ball
02.05.02	ころ	KORO	A <i>rolling element</i> having an axis of symmetry and being circular in cross-section in any plane perpendicular to that axis.	Attached Figs. 62 to 69.	roller
02.05.03	玉[ころ]コンブ リメント	TAMA [KORO] KONPURIMENTO	All of the <i>balls</i> [the <i>rollers</i>] in a particular <i>rolling bearing</i> .	—	ball [roller] complement
02.05.04	玉[ころ]セット	TAMA [KORO] SETTO	The <i>balls</i> [rollers] in one row of a <i>rolling bearing</i> .	—	ball [roller] set
02.05.05	円筒ころ	ENTÔ KORO	A <i>roller</i> the generatrix of the outside surface of which is a basically straight line parallel with the roller axis.	Attached Figs. 62, 68.	cylindrical roller
02.05.06	針状ころ	HARIZYO KORO	A <i>cylindrical roller</i> of small diameter with a large ratio of length to diameter. It is generally accepted that the length is between three and ten times the diameter, which does not usually exceed 5 mm. The ends of a needle roller may be one of several shapes.	Attached Fig. 63.	needle roller
02.05.07	円すいころ	ENSUI KORO	A <i>roller</i> the generatrix of the outside surface of which is a basically straight line intersecting the roller axis. The general shape is that of a truncated cone.	Attached Fig. 64.	tapered roller
02.05.08	凸面ころ	TOTUMEN KORO	A <i>roller</i> the outside surface of which has a convex curvature in a plane containing its axis.	Attached Figs. 66, 67.	convex roller
02.05.09	凹面ころ	ÔMEN KORO	A <i>roller</i> the outside surface of which has a concave curvature in a plane containing its axis.	Attached Fig. 65.	concave roller
02.05.10	対称凸面ころ	TAISYÔ TOTUMEN KORO	A <i>convex roller</i> the outside surface of which is symmetrical about the plane perpendicular to the roller axis through the middle of the roller.	Attached Fig. 66.	convex symmetrical roller

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.05.11	非対称凸面ころ 非対称凸面ころ	HI-TAISYÔ TOTUMEN KORO	A <i>convex roller</i> the outside surface of which is asymmetrical about the plane perpendicular to the roller axis through the middle of the roller.	Attached Fig. 67.	convex asymmetrical roller
02.05.12	クラウニングころ クラウニングころ	KURAUNINGU KORO	A basically <i>cylindrical roller</i> or basically <i>tapered roller</i> the outside surface of which has a continuous slightly convex curvature in a plane containing the roller axis to prevent stress concentration at the ends of the contacts between the roller and the <i>raceways</i> .	Attached Fig. 182.	crowned roller
02.05.13	リリーフエンドころ リリーフエンドころ	RIRIHU ENDO KORO	A <i>roller</i> with a slight modification of diameter at the ends of its outside surface to prevent stress concentration at the ends of the contacts between the roller and the <i>raceways</i> .	Attached Fig. 68.	relieved end roller
02.05.14	たわみころ たわみころ	TAWAMI KORO	A <i>roller</i> made by winding steel strip in helical form.	Attached Fig. 69.	spiral wound roller
02.05.15	(ころ)端面 (ころ)端面	(KORO) TANMEN	A surface at the end of a <i>roller</i> , basically perpendicular to the roller axis.	Attached Fig. 62.	roller end face
02.05.16	(ころ)大端面 (ころ)大端面	(KORO) DAITANMEN	The <i>face</i> at the large end of a <i>tapered roller</i> or a <i>convex asymmetrical roller</i> .	Attached Figs. 64, 67.	roller large end face
02.05.17	(ころ)小端面 (ころ)小端面	(KORO) SYÔTANMEN	The <i>face</i> at the small end of a <i>tapered roller</i> or a <i>convex asymmetrical roller</i> .	Attached Figs. 64, 67.	roller small end face
02.05.18	(ころ)端面の逃げ (ころ)端面の逃げ	(KORO) TANMEN NO NIGE	An indentation, dimple or undercut about the centre of a <i>roller end face</i> .	Attached Fig. 64.	roller recess
02.05.19	ころの面取り ころの面取り	KORO NO MENTORI	A surface jointing the outside surface of a <i>roller</i> with one of the <i>roller end faces</i> .	Attached Figs. 62, 64, 67.	roller chamfer
02.05.51*	鋼球 鋼球	KÔKYÛ	A <i>ball</i> made of steel.	—	steel ball

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.05.52*	棒状ころ	BÔZYÔ KORO	A <i>cylindrical roller</i> of relatively large diameter with a large ratio of length to diameter. Informative reference: It refers generally to rollers whose length is between 3 and 10 times the diameter exceeding 5 mm up to and including 15 mm.	—	long cylindrical roller
02.05.53*	(転動体の) 転動面	(TENDÔTAI NO) TENDÔMEN	Surface of <i>rolling element</i> to come into rolling contact with a <i>raceway surface</i> .	Attached Fig. 182.	rolling contact surface (of rolling element)

02.06 Cages

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.06.01	波形保持器	NAMIGATA HOZIKI	A <i>rolling bearing cage</i> comprising one or two corrugated annular parts.	Attached Fig. 70.	ribbon cage
02.06.02	冠形保持器	KANMURIGATA HOZIKI	A <i>rolling bearing cage</i> with <i>cage prongs</i> the form of which permits the assembling of the cage with the <i>rolling elements</i> by elastic deformation.	Attached Fig. 71.	snap cage
02.06.03	かご形保持器	KAGOGATA HOZIKI	A one-piece <i>rolling bearing cage</i> having <i>cage pockets</i> surrounding the <i>rolling elements</i> .	Attached Fig. 72.	window type cage
02.06.04	つの形保持器	TUNOGATA HOZIKI	A one-piece <i>rolling bearing cage</i> with <i>cage prongs</i> .	Attached Fig. 73.	prong type cage
02.06.05	ピン形保持器	PINGATA HOZIKI	A <i>two-piece cage</i> with <i>cage pins</i> joining the two cage parts together.	Attached Fig. 74.	pin type cage
02.06.06	合せ保持器	AWASE HOZIKI	A <i>rolling bearing cage</i> comprising two annular parts joined together, generally by rivets, <i>cage pins</i> or <i>cage stays</i> .	Attached Figs. 70, 75, 76.	two-piece cage

No.	Term (Japanese character)	Reading	Definition	Remarks	English equivalent (informative)
02.06.07	二つ割り保持器	HUTATUWARI HOZIKI	A <i>rolling bearing cage</i> which is split in two places to facilitate assembly. The two splits are generally diametrically opposite one another.	—	double-split cage
02.06.08	(保持器の)ポケット	(HOZIKI NO) POKETTO	An aperture or gap in a <i>rolling bearing cage</i> to accommodate one or more <i>rolling elements</i> .	Attached Figs. 70 to 73, 75, 76.	cage pocket
02.06.09	(保持器の)柱	(HOZIKI NO) HASIRA	A portion of a <i>rolling bearing cage</i> separating adjacent <i>cage pockets</i> .	Attached Figs. 72, 75.	cage bar
02.06.10	(保持器の)つの	(HOZIKI NO) TUNO	A cantilever <i>cage bar</i> projecting from the annular body of a <i>rolling bearing cage</i> or from one part of a <i>two-piece cage</i> .	Attached Figs. 71, 73.	cage prong
02.06.11	(保持器の)ピン	(HOZIKI NO) PIN	A <i>cage stay</i> which is basically cylindrical and may pass through an axial hole in a <i>roller</i> .	Attached Fig. 74.	cage pin
02.06.12	(保持器の)ステー	(HOZIKI NO) SUTÊ	One of several parts used to join the two annular parts of a <i>two-piece cage</i> together and to maintain them at a specified distance from each other.	Attached Fig. 76.	cage stay
02.06.13	軌道輪〔軌道盤〕 案内保持器	KIDÔRIN [KIDÔBAN] ANNAI HOZIKI	A <i>rolling bearing cage</i> radially guided (centred) by a land on a <i>bearing ring</i> or <i>bearing washer</i> (<i>cage riding land</i>).	—	land riding cage
02.06.51*	もみ抜き保持器	MOMINUKI HOZIKI	A <i>cage</i> produced by cut machining.	—	machined cage
02.06.52*	打抜き保持器	UTINUKI HOZIKI	A <i>cage</i> produced by press forming. Informative reference : It also is called PURESU HOZIKI.	—	pressed cage
02.06.53*	成形保持器	SEIKEI HOZIKI	A <i>cage</i> moulded by injection, die casting, sintering or the like.	Attached Fig. 184.	moulded cage
02.06.54*	(保持器の)リベット	(HOZIKI NO) RIBETTO	A rivet intended use for joining two pieces of cage part.	---	cage rivet