SLOVENSKI STANDARD
SIST ISO 3228:2015

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Nadomešča:
SIST ISO 3228:2001

Kotalni ležaji - Uliti in stiskani okrovi za vgradnjo ležajev - Mejne mere in tolerance

Rolling bearings - Cast and pressed housings for insert bearings - Boundary dimensions and tolerances

Roulements - Logements moulés et emboutis pour roulements "insert" - Dimensions d'encombrement et tolérances

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ICS:

21.100.20	Kotalni ležaji	Rolling bearings

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INTERNATIONAL STANDARD

ISO 3228

Fourth edition
2013-02-01

Rolling bearings — Cast and pressed housings for insert bearings — Boundary dimensions and tolerances

Roulements — Logements moulés et emboutis pour roulements "insert" — Dimensions d'encombrement et tolérances

Reference number
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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 3228 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Subcommittee SC 6, *Insert bearings*.

This fourth edition cancels and replaces the third edition (ISO 3228:1993), which has been technically revised. In particular, this fourth edition has been extended. Boundary dimensions and tolerances of cast housings for diameter series 3 have been added in Tables 2, 4, 6 and 8. In addition, boundary dimensions and tolerances of larger size cast flanged housings, oval and cast take-up housings for diameter series 2 have been added in Tables 5 and 7.

Rolling bearings — Cast and pressed housings for insert bearings — Boundary dimensions and tolerances

1 Scope

This International Standard specifies boundary dimensions and tolerances for cast and pressed housings for insert bearings for which boundary dimensions are given in ISO 9628[1].

It applies to plummer block housings, flanged housings and take-up housings.

The inclusion of relubrication features is optional, but when provided it is intended that they intersect the zone specified in ISO 9628[1] in such a way that lubricant satisfactorily feeds from the housing through this zone. The exact design of the relubrication features is not otherwise covered by this International Standard.

2 Normative references

The following documents, in whole or in part, are normatively referenced in this document and are indispensable for its application. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 5593, *Rolling bearings — Vocabulary*

ISO 15241, *Rolling bearings — Symbols for quantities*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 5593 apply.

4 Symbols

4.1 General

For the purposes of this document, the symbols given in ISO 15241 and those in 4.2 to 4.7 apply.

The symbols (except those for tolerances) shown in Figures 1 to 6, and the values given in Tables 1 to 10 denote nominal dimensions, unless specified otherwise.

NOTE Figures 1 to 6 are drawn schematically and do not necessarily show all design details. The grease nipple positions in Figures 1 to 4 are examples. Other positions are at the discretion of the manufacturer.

4.2 Cast plummer block housing

See Figure 1 and Tables 1 and 2.

A (overall) width of base

D_a spherical seating diameter of housing

H distance from mounting base to centreline of spherical seating diameter

H_1 height of feet

J centre distance between bolt holes

L (overall) length of base

N width of bolt hole

N_1 length of bolt hole

Δ_{Hs} deviation of single distance from mounting base to centreline of spherical seating diameter

4.3 Cast flanged housing, square

See Figure 2 and Tables 3 and 4.

A (overall) width

A_1 width of flange

A_2 distance from mounting face to centreline of spherical seating diameter

D_a spherical seating diameter of housing

J centre distance between bolt holes

L (overall) length

N diameter of bolt hole

X position tolerance of bolt holes

Δ_{A2s} deviation of single distance from mounting face to centreline of spherical seating diameter

4.4 Cast flanged housing, oval

See Figure 3 and Tables 5 and 6.

A (overall) width

A_1 width of flange

A_2 distance from mounting face to centreline of spherical seating diameter

D_a spherical seating diameter of housing

H height of flange

J centre distance between bolt holes

L (overall) length

N diameter of bolt hole

X position tolerance of bolt holes

Δ_{A2s} deviation of single distance from mounting face to centreline of spherical seating diameter

4.5 Cast take-up housing

See Figure 4 and Tables 7 and 8.

A (overall) width (attachment end)

A_1 width of location slot

A_2 width of flange in which location slot is provided

D_a spherical seating diameter of housing

H (overall) height

H_1 distance between bottoms of location slots

H_2 height (attachment end)

L (overall) length

L_1 distance from attachment end face to centreline of spherical seating diameter

L_2 length (attachment end)

L_3 length of location slot

N diameter of attachment hole

N_1 length of attachment slot

N_2 height of attachment slot

Δ_{H1s} deviation of single distance between bottoms of location slots

4.6 Pressed plummer block housing

See Figure 5 and Table 9.

A (overall) width of base

D_a spherical seating diameter of housing

H distance from mounting base to centreline of spherical seating diameter

H_1 height of feet

J centre distance between bolt holes

L (overall) length of base

N diameter of bolt hole

Δ_{Js} deviation of single centre distance between bolt holes

Δ_{Ns} deviation of single diameter of bolt hole

4.7 Pressed flanged housings, round, triangular and oval

See Figure 6 and Table 10.

A (overall) width

A_1 width of flange

D_a spherical seating diameter of housing

H height (round, triangular, oval)

H_1 distance from straight edge to centreline of spherical seating diameter (triangular)

H_2 limit diameter of flat surface

J pitch circle diameter of bolt holes (round and triangular); centre distance between bolt holes (oval)

L (overall) length of flange (oval)

N side dimension of square bolt hole

Δ_{Js} deviation of single pitch circle diameter of bolt holes (round and triangular); deviation of single centre distance between bolt holes (oval)

Δ_{Ns} deviation of single side dimension of square bolt hole

5 Boundary dimensions and tolerances

5.1 General

Boundary dimensions and tolerances are given in Tables 1 to 10.

Where “max.” is shown in Tables 1 to 10, this indicates that the value is both the nominal value and the largest actual value permitted. Where “min.” is shown in Tables 1 to 8, this indicates that the value is both the nominal value and the smallest actual value permitted.

5.2 Cast housings

Boundary dimensions and tolerances for cast housings are given in Tables 1 to 8.

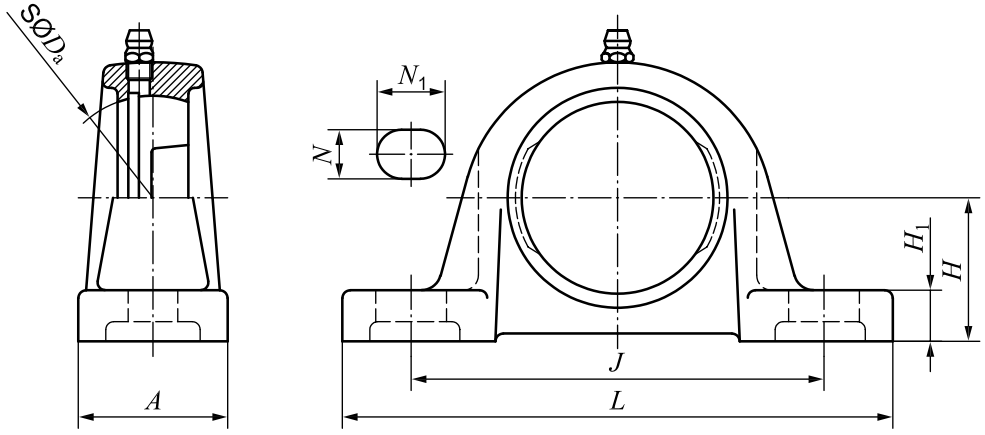

Figure 1 — Cast plummer block housing

Table 1 — Cast plummer block housings — Diameter series 2

Dimensions and tolerance values in millimetres

D_a	L	A	J	H	Δ_{Hs}	H_1	N		N_1
	max.	max.				max.	min.	max.	min.
40	129	39	96	30,2	±0,25	17	10,5	12,5	16
47	134	39	96	33,3	±0,25	17	10,5	12,5	16
52	142	39	105	36,5	±0,25	17	10,5	12,5	16
62	167	48	121	42,9	±0,25	20	13	15	19
72	172	48	126	47,6	±0,25	20	13	15	19
80	186	55	136	49,2	±0,25	20	13	15	19
85	192	55	146	54	±0,3	22	13	15	19
90	208	61	159	57,2	±0,3	23	17	19,5	20,5
100	233	61	172	63,5	±0,3	25	17	19,5	20,5
110	243	71	186	69,9	±0,3	27	17	19,5	22
120	268	73	203	76,2	±0,3	34	21	25	24
125	274	74	210	79,4	±0,3	34	21	25	24
130	300	83	217	82,6	±0,35	35	21	25	24
140	305	84	232	88,9	±0,35	38	21	25	24
150	330	95	247	95,2	±0,35	41	21	25	24
160	356	100	262	101,6	±0,35	44	25	29	34
180	390	111	308	115	±0,35	46	25	29	34