International Standard **ISO** 6125

Spherical plain radial bearings; joint type — Tolerances

Rotules lisses d'articulation à contact radial — Tolérances

First edition — 1979-12-15

UDC 621.822.3   Ref. No. ISO 6125-1979 (E)

Descriptors : bearings, plain bearings, radial bearings, spherical bearings, dimensional tolerances.

ISO 6125-1979 (E)

FOREWORD

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been set up 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6125 was developed by Technical Committee ISO/TC 4, *Rolling bearings,* and was circulated to the member bodies in September 1978.

It has been approved by the member bodies of the following countries :

Australia	Hungary	Poland
Austria	India	Romania
Belgium	Italy	South Africa, Rep. of
Canada	Japan	Sweden
Chile	Korea, Dem. P. Rep. of	Switzerland
China	Korea, Rep. of	United Kingdom
Czechoslovakia	Libyan Arab Jamahiriya	USA
France	Mexico	USSR
Germany, F.R.	Netherlands	Yugoslavia

No member body expressed disapproval of the document.

Spherical plain radial bearings; joint type — Tolerances

1 SCOPE AND FIELD OF APPLICATION

This International Standard specifies the tolerances for boundary dimensions (except chamfer dimensions) of spherical plain radial bearings, joint type, for example, the bearings defined by ISO 6124.

Chamfer dimension limits are given in ISO 582.

These tolerances apply, under the general conditions given in ISO 1132, to ground inner and outer rings before coating or plating, the outer rings being unsplit and unfractured.

They do not normally apply to spherical plain bearings for airframe applications.

2 REFERENCES

ISO 582, *Rolling bearings — Metric series bearings — Chamfer dimension limits.*[1]

ISO 1132, *Rolling bearings — Tolerances — Definitions.*[2]

ISO 6124, *Spherical plain radial bearings, joint type — Dimension series E and G — Boundary dimensions.*

3 DEFINITIONS

The concepts to which the tolerances specified in this International Standard apply are defined in ISO 1132.

4 SYMBOLS

d = bearing bore diameter, nominal

Δ_{dmp} = single plane mean bore diameter deviation

V_{dp} = bore diameter variation in a single radial plane

V_{dmp} = mean bore diameter variation

Δ_{Bs} = deviation of a single width of the inner ring

D = bearing outside diameter, nominal

Δ_{Dmp} = single plane mean outside diameter deviation

V_{Dp} = outside diameter variation in a single radial plane

V_{Dmp} = mean outside diameter variation

Δ_{Cs} = deviation of a single width of the outer ring

5 TOLERANCE VALUES

TABLE 1 — Inner ring

Tolerance values in micrometres

d mm		Δ_{dmp}		V_{dp}	V_{dmp}	Δ_{Bs}	
over	incl.	high	low	max.	max.	high	low
—	10	0	− 8	8	6	0	− 120
10	18	0	− 8	8	6	0	− 120
18	30	0	− 10	10	8	0	− 120
30	50	0	− 12	12	9	0	− 120
50	80	0	− 15	15	11	0	− 150
80	120	0	− 20	20	15	0	− 200
120	150	0	− 25	25	19	0	− 250
150	180	0	− 25	25	19	0	− 250
180	250	0	− 30	30	23	0	− 300
250	315	0	− 35	35	26	0	− 350

TABLE 2 — Outer ring

Tolerance values in micrometres

D mm		Δ_{Dmp}		V_{Dp}	V_{Dmp}	Δ_{Cs}	
over	incl.	high	low	max.	max.	high	low
10	18	0	− 8	10	6	0	− 240
18	30	0	− 9	12	7	0	− 240
30	50	0	− 11	15	8	0	− 240
50	80	0	− 13	17	10	0	− 300
80	120	0	− 15	20	11	0	− 400
120	150	0	− 18	24	14	0	− 500
150	180	0	− 25	33	19	0	− 500
180	250	0	− 30	40	23	0	− 600
250	315	0	− 35	47	26	0	− 700
315	400	0	− 40	53	30	0	− 800
400	500	0	− 45	60	34	0	− 900

---

[1] At present at the stage of draft. (Revision of ISO 582-1972.)

[2] At present at the stage of draft. (Revision of ISO/R 1132-1969.)