



AMERICAN NATIONAL STANDARD

ABMA Standard ISO Standard

Spherical plain bearings – Part 1: Radial spherical plain bearings

Secretariat
American Bearing Manufacturers Association

Approved November 5, 1999



1200 19th Street, NW
Suite 300
Washington, DC 20036-2422
202-429-5155
202-223-4579 fax
E-mail: abma@dc.sba.com
Web site: www.abma-dc.org

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FOREWORD

(This foreword is not part of ANSI/ABMA/ISO 12240-1:1998.)

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (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 authorized 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 committee are circulated to member bodies for voting. Publication as an International Standard requires approval of at least 75% of the member bodies casting a vote.

International Standard 12240-1 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*, Subcommittee 7, *Spherical plain bearings*.

This first edition cancels and replaces ISO 6124-1:1987, ISO 6124-2:1982, ISO 6124-3:1982 and ISO 6125:1982 of which it constitutes a technical revision.

ISO 12240 consists of the following parts, under the general title *Spherical plain bearings*:

- *Part 1: Radial spherical plain bearings*
- *Part 2: Angular contact radial spherical plain bearings*
- *Part 3: Thrust spherical plain bearings*
- *Part 4: Spherical plain bearing rod ends*

This standard was processed and approved for submittal to ANSI by Accredited Standards Committee B3 on Ball and Roller Bearings. Committee approval of this standard does not necessarily imply that all committee members voted for its approval.

Suggestions for the improvement of this standard gained through experience with its use will be welcomed. These should be sent to: American Bearing Manufacturers Association, Secretariat, ANSI ASC B3, 1200 19th Street, NW, Suite 300, Washington DC 20036-2422.

Spherical plain bearings —

Part 1: Radial spherical plain bearings

1 Scope

This part of ISO 12240 specifies dimension series, tolerances and radial internal clearances for radial spherical plain bearings.

The dimensions and tolerances specified in this part of ISO 12240 have been selected to permit the design of radial spherical plain bearings using a wide choice of sliding material combinations.

The specified tolerance values apply to finished, radial spherical plain bearings before any coating, plating, ring splitting or ring fracturing.

In the case of surface treated radial spherical plain bearings, there may be slight deviations from the specified tolerance values.

Radial spherical plain bearings need not conform to the designs illustrated but compliance is required as regards the dimensions, tolerances and radial internal clearances specified.

NOTE — Spherical plain bearings for airframe applications are not covered by this part of ISO 12240.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 12240. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 12240 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 582:1995, *Rolling bearings – Chamfer dimensions – Maximum values.*

ISO 1132-1:—¹⁾, *Rolling bearings – Tolerances – Part 1: Terms and definitions.*

ISO 6811:1998, *Spherical plain bearings – Vocabulary.*

ISO 12240-4:1998, *Spherical plain bearings – Part 4: Spherical plain bearing rod ends.*

1) To be published. (Revision of ISO 1132:1980)