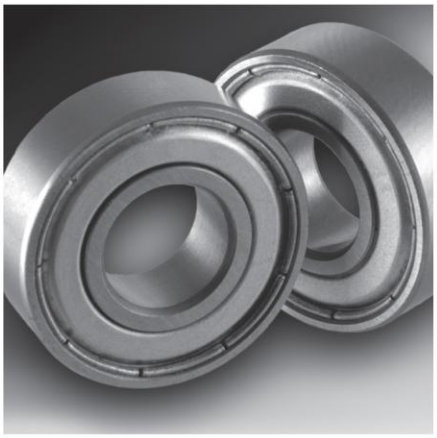

AMERICAN NATIONAL STANDARD

ABMA Standard

Aerospace — Airframe spherical roller bearings, single-row, self-aligning, sealed, intermediate duty — Inch series

Sponsor

American Bearing Manufacturers Association

ANSI/ABMA/ISO 14197-S2010
(Identical Adoption of ISO 14197:1998)

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ABMA FOREWORD

(This foreword is not part of this standard.)

IS0 (the International Organization for Standardization) is a worldwide federation of national standards bodies (IS0 member bodies). The work of developing International Standards is carried out through IS0 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.

The text is approved as an International Standard if a two-thirds majority of the P (participating)-members of the TC/SC are in favor and not more than one-quarter of the total number of votes cast are negative.

This International Standard was prepared by Technical Committee ISO/TC 20, Aircraft and space vehicles – Subcommittee 15, Airframe bearings.

This standard was processed and approved for submittal to ANSI for national adoption by Accredited Standards Committee B3. Committee approval of the national adoption of this standard does not necessarily mean that all committee members voted for its adoption.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time.

This standard is maintained under stabilized maintenance and will be reviewed by Accredited Standards Committee B3 on a 10-year cycle. Any materially affected and interested party that feels this standard should be revised or withdrawn should submit their rationale for revision or withdrawal to the B3 Secretariat at the address below.

Suggestions for the improvement of this standard gained through experience with its use will be welcomed. These suggestions should be sent to:

ASC B3 Secretariat
American Bearing Manufacturers Association
2025 M Street, N.W., Suite 800
Washington, DC 20036

First edition
1998-04-01

Aerospace — Airframe spherical roller bearings, single-row, self-aligning, sealed, intermediate duty — Inch series

Aéronautique et espace — Roulements pour structures d'aéronefs: roulements, à rotule, sur une rangée de rouleaux, avec joints d'étanchéité, série intermédiaire — Série en inches

Reference number
ISO 14197:1998(E)

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.

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.

International Standard ISO 14197 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 15, *Airframe bearings*.

Annex A of this International Standard is for information only.

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Printed in Switzerland

Introduction

At the time this International Standard was developed, the Imperial unit sizes of airframe roller bearings were dominant in world application. The basis for this International Standard is the Imperial units provided in annex A. For new applications, the use of metric series airframe roller bearings is encouraged.

Aerospace — Airframe spherical roller bearings, single-row, self-aligning, sealed, intermediate duty — Inch series

1 Scope

This International Standard specifies the characteristics, boundary dimensions, tolerances, internal clearances and permissible loads of inch series single-row, self-aligning, sealed, intermediate duty spherical roller bearings used in airframe applications. These bearings are designed to withstand only slow rotations and oscillations under load and are intended for use between fixed and moving parts of an aircraft structure and their control surfaces.

The airframe roller bearings covered by this International Standard are designed to operate in the temperature range of – 54 °C to +150 °C.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this International Standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this International Standard 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 683-17:—[1)], *Heat-treated steels, alloy steels and free-cutting steels — Part 17: Ball and roller bearing steels*.

ISO 1132:1980, *Rolling bearings — Tolerances — Definitions*.

ISO 2082:1986, *Metallic coatings — Electroplated coatings of cadmium on iron or steel*.

ISO 4520:1981, *Chromate conversion coatings on electroplated zinc and cadmium coatings*.

ISO 5593:1997, *Rolling bearings — Vocabulary*.

ISO 8075:1985, *Aerospace — Surface treatment of hardenable stainless steel parts*.

ISO 14190:1998, *Aerospace — Airframe rolling bearings: ball and spherical roller bearings — Technical specification*.

AMS 2417E:1993, *Plating, zinc-nickel alloy*.[2)]

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1) To be published. (Revision of ISO 683-17:1976)

2) Available from: SAE International
400 Commonwealth Drive
Warrendale, PA 15096-0001
USA