



AMERICAN NATIONAL STANDARD

ABMA Standard

Aerospace — Airframe spherical roller bearings, single-row, self-aligning, diameter series 3 and 4 — Metric series

Sponsor

**American Bearing
Manufacturers Association**

**ANSI/ABMA/ISO 14191-S2010
(Identical Adoption of ISO 14191:1998)**

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ABMA FOREWORD

(This foreword is not part of this standard.)

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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.

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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 Any materially affected and interested party that feels this standard should be revised or withdrawn should submit their rationale for revision or withdrawal to the B3 Secretariat at the address below.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
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INTERNATIONAL ISO
STANDARD 14191

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Aerospace — Airframe spherical roller bearings, single-row, self-aligning, diameter series 3 and 4 — Metric series

Aéronautique et espace — Roulements pour structures d'aéronefs: roulements, à rotule, sur une rangée de rouleaux, série de diamètres 3 et 4 — Série métrique



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Foreword

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Aerospace — Airframe spherical roller bearings, single-row, self-aligning, diameter series 3 and 4 — Metric series

1 Scope

This International Standard specifies the characteristics, boundary dimensions, tolerances, internal clearances and permissible loads of metric series single-row, self-aligning spherical roller bearings of diameter series 3 and 4, in accordance with ISO 15, 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 15:1998, *Rolling bearings — Radial bearings — Boundary dimensions, general plan.*

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⁾

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

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