



AMERICAN NATIONAL STANDARD
ABMA Standard

Aerospace — Airframe needle track roller, stud type, single-row, sealed — Inch series

Sponsor

**American Bearing
Manufacturers Association**

**ANSI/ABMA/ISO 13415-S2010
(Identical Adoption of ISO 13415:1997)**

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ABMA
American Bearing Manufacturers Association

ABMA
2025 M Street, NW
Suite 800
Washington, DC 20036
Ph: 202-367-1155
Fax: 202-367-2155
E-mail: info@americanbearings.org
www.americanbearings.org

ABMA FOREWORD

(This foreword is not part of this standard.)

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.

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CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time.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 Any materially affected and interested party that feels this standard should be revised or withdrawn should submit their rationale for revision or withdrawal to the B3 Secretariat at the address below.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

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Aerospace — Airframe needle track roller, stud type, single-row, sealed — Inch series

Aéronautique et espace — Galets de came à aiguilles, sur axe, à une rangée, avec joints, pour cellule d'aéronef — Série «inch»



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International Standard ISO 13415 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 15, *Airframe bearings*.

Annexes A and B of this International Standard are for information only.

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International Organization for Standardization
Case postale 56 • CH-1211 Genève 20 • Switzerland
Internet central@iso.ch
X.400 c=ch; a=400net; p=iso; o=isocs; s=central

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Introduction

At the time this International Standard was developed, the Imperial units sizes of airframe needle roller bearings were dominant in world application. The basis for this International Standard is the imperial units provided in annex A.

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Aerospace — Airframe needle track roller, stud type, single-row, sealed — Inch series

1 Scope

This International Standard specifies the characteristics, boundary dimensions, tolerances, internal clearances and permissible static radial loads of inch series, single-row, stud type needle track rollers used in airframe applications.

The airframe needle track rollers covered by this International Standard are designed to operate in the temperature range $-54\text{ }^{\circ}\text{C}$ to $+121\text{ }^{\circ}\text{C}$.

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 3161:1996, *Aerospace — UNJ threads, with controlled root radius, for aerospace — Inch series.*

ISO 3353:1976, *Aerospace — Rolled threads for bolts — Lead and runout requirements.*

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

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

ISO 6158:1984, *Metallic coatings — Electroplated coatings of chromium for engineering purposes.*

ISO 13411:1997, *Aerospace — Airframe needle roller, cylindrical roller and track 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
400 Commonwealth Drive
Warrendale, PA 15096-0001
USA