



**AMERICAN NATIONAL STANDARD**  
**ABMA Standard**

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

**Sponsor**

**American Bearing  
Manufacturers Association**

**ANSI/ABMA/ISO 13417-S2010  
(Identical Adoption of ISO 13417:1997)**

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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.

**CAUTION NOTICE:** This American National Standard may be revised or withdrawn at any time.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 Any materially affected and interested party that feels this standard should be revised or withdrawn should submit their rationale for revision or withdrawal to the B3 Secretariat at the address below.**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  
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## **Aerospace — Airframe needle track roller, stud type, single-row, sealed — Metric series**

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



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Reference number  
ISO 13417:1997(E)

## Foreword

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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 13417 was prepared by Technical Committee ISO/TC 20, *Aircraft and space vehicles*, Subcommittee SC 15, *Airframe bearings*.

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

## 1 Scope

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

The airframe needle roller bearings covered by this International Standard are designed to operate in the temperature range  $-54\text{ °C}$  to  $+121\text{ °C}$ .

## 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 286-2:1988, *ISO system of limits and fits — Part 2: Tables of standard tolerance grades and limit deviations for holes and shafts.*

ISO 683-17:—<sup>1)</sup>, *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 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 5855-1:1988, *Aerospace — MJ threads — Part 1: General requirements.*

ISO 5855-2:1988, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts.*

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*<sup>2)</sup>.

<sup>1)</sup> To be published. (Revision of ISO 683-17:1976)

<sup>2)</sup> Available from: SAE International

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