



ANSI/ABMA/ISO 13416:1997

AMERICAN NATIONAL STANDARD

ABMA Standard

ISO Standard

**Aerospace –
Airframe needle track
roller, yoke type,
single-row, sealed –
Metric series**

Secretariat
American Bearing Manufacturers Association

Approved July 20, 1999



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FOREWORD

(This foreword is not part of ANSI/ABMA/ISO 13416:1997.)

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 13416 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 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.

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

1 Scope

This International Standard specifies the characteristics, boundary dimensions, tolerances, internal clearances and permissible radial static loads of metric series, single-row, yoke 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 2859-1:—²⁾, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection.*

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.*³⁾

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

²⁾ To be published. (Revision of ISO 2859-1:1989)

³⁾ Available from: SAE International
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Warrendale, PA 15096-0001
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