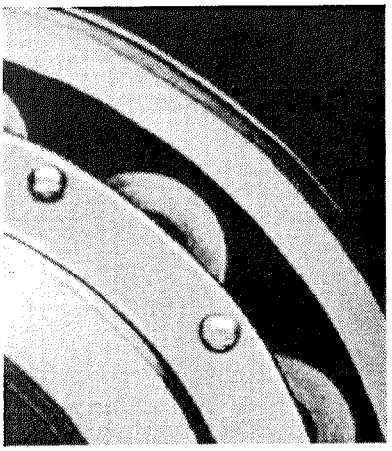

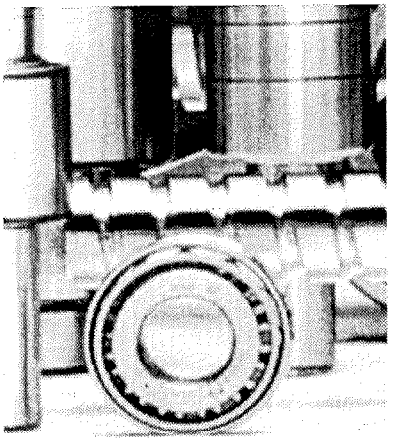

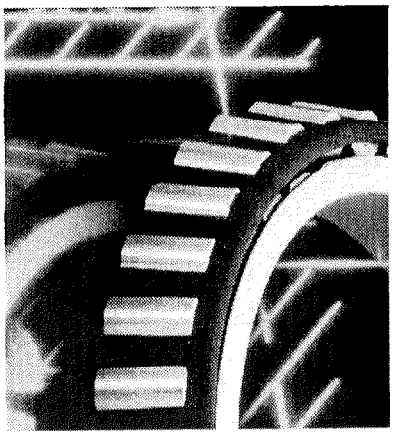

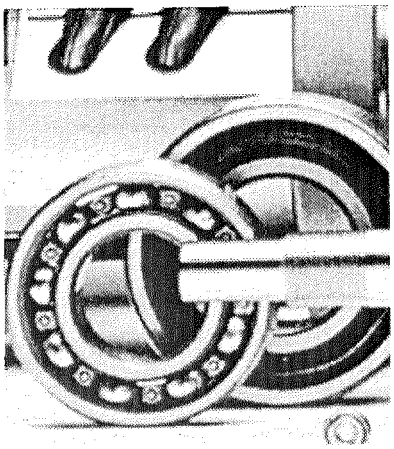

ANSI/ABMA/ISO 14190:1997

AMERICAN NATIONAL STANDARD

ABMA Standard

ISO Standard

Aerospace – Airframe rolling bearings: ball and spherical roller bearings – Technical Specification

Secretariat
American Bearing Manufacturers Association

Approved July 20, 1999

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Foreword

(This foreword is not part of ANSI/ABMA/ISO 14190:1997.)

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 14190 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.

Aerospace – Airframe rolling bearings: ball and spherical roller bearings – Technical Specification

Secretariat
American Bearing Manufacturers Association

Approved July 20, 1999
American National Standards Institute, Inc.

Introduction

In 1986, ISO TC 4, *Rolling bearings*, approved a new work item to revise the International Standard on airframe bearings, ISO 1002:1983, *Rolling bearings — Airframe bearings — Characteristics, boundary dimensions, tolerances, static load ratings*. The work item was assigned to ISO TC 4, *Rolling bearings* and TC 20, *Aircraft and space vehicles*, Joint Working Group on airframe bearings.

Later that same year, ISO TC 4/TC 20 JWG on airframe bearings agreed that a technical specification for the procurement of airframe bearings should be prepared as part of the revision process.

The work item was subsequently transferred to ISO TC 20/SC 15, *Airframe bearings.*

As a result, this International Standard has been developed for the procurement of airframe ball and roller bearings and is supplemented with International Standards for each bearing type.

Contents

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Aerospace — Airframe rolling bearings: ball and spherical roller bearings — Technical specification

1 Scope

This International Standard specifies the required characteristics, inspections and tests, quality assurance and conditions for qualification, permissible static loads, acceptance and delivery conditions for rigid and self-aligning airframe ball and spherical roller bearings. These bearings are designed to withstand, under load, slow rotations and small oscillations only.

It is applicable to all airframe ball and spherical roller bearings in the referenced International Standards or in a design specification.

The fact that a rolling bearing is not included in this International Standard does not preclude its use in airframe applications.

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

ISO 2859-1:—[1)], *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection.*

ISO 4288:1996, *Geometrical Product Specifications (GPS) — Surface texture: Profile method — Rules and procedures for the assessment of surface texture.*

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

ISO 6507-1:1997, *Metallic materials — Vickers hardness test — Part 1: Test Method.*

ISO 6508-1:—[2)], *Metallic materials — Rockwell hardness test (scales A, B, C, D, E, F, G, H, K, N, T) — Part 1: Test method.*

ISO 9001:1994, *Quality systems — Model for quality assurance in design, development, production, installation and servicing.*

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

2) To be published. (Revision of ISO 6508:1986 and ISO 1024:1989)