

International Standard 1002

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Rolling bearings — Airframe bearings — Characteristics, boundary dimensions, tolerances, static load ratings

Roulements — Roulements utilisés dans la structure des aéronefs — Caractéristiques, dimensions d'encombrement, tolérances, charges statiques de base

First edition — 1983-06-01

UDC 621.822.6/.8 : 629.7.02

Ref. No. ISO 1002-1983 (E)

Descriptors : bearings, rolling bearings, airframe bearings, characteristics, dimensions, dimensional tolerances, static loads.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards institutes (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 set up 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 committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 1002 was developed by Technical Committee ISO/TC 4, *Rolling bearings*, and was circulated to the member bodies in December 1981.

It has been approved by the member bodies of the following countries :

Austria	India	Romania
Brazil	Ireland	Spain
Canada	Italy	Sweden
China	Japan	Switzerland
Czechoslovakia	Korea, Dem. P. Rep. of	United Kingdom
Egypt, Arab Rep. of	Korea, Rep. of	USA
Germany, F.R.	Poland	USSR

The member body of the following country expressed disapproval of the document on technical grounds :

France

This International Standard cancels and replaces ISO Recommendation R 1002-1969, of which it constitutes a technical revision.

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Rolling bearings — Airframe bearings — Characteristics, boundary dimensions, tolerances, static load ratings

1 Scope and field of application

This International Standard specifies characteristics, boundary dimensions, tolerances and static load ratings of rolling bearings, other than tapered roller bearings, used in airframes, as distinct from those used in connection with power plants, auxiliary drives, accessories and instruments in aircraft. For the purposes of this International Standard, an airframe is defined as the general structure of an aircraft and includes its control surfaces, all flaps and doors and their respective mechanisms. Both metric and inch series bearings are included because of established usage in the aircraft industry.

The bearings included in this International Standard are usually full complement bearings (no cage and full complement of rolling elements) with basically cylindrical bore and outside surface and are sealed or shielded. The bearings have an extended inner ring, except for those in table 3. The bearings are normally supplied adequately charged with suitable grease, and the external surfaces of the bearings may be protected by the same grease.

In view of the design requirements, it is generally not possible to select standard bearings from ISO 15 for airframe applications, but for metric series bearings the boundary dimensions given in ISO 15 have been used where possible.

The fact that a bearing is not included in this International Standard does not exclude the possibility that it may be used to advantage in airframe applications.

2 References

ISO 15, *Rolling bearings — Radial bearings — Boundary dimensions — General plan*.

ISO 76, *Rolling bearings — Static load ratings*.

ISO 1132, *Rolling bearings — Tolerances — Definitions*.