

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

4

ISO RECOMMENDATION R 1224

ROLLING BEARINGS

INSTRUMENT PRECISION BEARINGS

1st EDITION

January 1971

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Printed in Switzerland

Also issued in French and Russian. Copies to be obtained through the national standards organizations.

BRIEF HISTORY

The ISO Recommendation R 1224, *Rolling bearings – Instrument precision bearings*, was drawn up by Technical Committee ISO/TC 4, *Rolling bearings*, the Secretariat of which is held by the Sveriges Standardiseringskommission (SIS).

Work on this question led to the adoption of Draft ISO Recommendation No. 414, which included Draft ISO Recommendation No. 560 and which was circulated to all the ISO Member Bodies for enquiry in October 1968. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies :

Austria	India	Spain
Belgium	Israel	Sweden
Czechoslovakia	Italy	Switzerland
France	Netherlands	Turkey
Germany	Poland	U.A.R.
Greece	Romania	United Kingdom
Hungary	South Africa, Rep. of	U.S.A.

The following Member Body opposed the approval of the Draft :

Japan

This Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided to accept it as an ISO RECOMMENDATION.

ROLLING BEARINGS

INSTRUMENT PRECISION BEARINGS

1. SCOPE

This ISO Recommendation establishes the characteristics that define instrument precision rolling bearings, their types, boundary dimensions, tolerances and internal clearances, classifications used for selective assembly, torque definitions and test conditions, and limitations of yield rates.

2. CHARACTERISTICS

Instrument precision rolling bearings comprise bearings with critical functional requirements for use in any unit that can, in a general sense, be characterized as an instrument. Satisfactory performance of these bearings necessitates that they be produced to tolerances of the same order as ISO 4 Tolerance classe 5 or better, including specific limits for diameter variation of bore and outside diameter. In addition, these bearings must be particularly free from foreign matter and meet one or more specific requirements in the following categories :

- (a) low torque or uniform torque or both, either at starting or in rotation (this requirement does not apply to bearings with contact type seals);
- (b) smooth running or vibration limitations;
- (c) limitations of bearing yield rates.

Due to the many specialized requirements that exist in instrument applications, specification of these categories should be established only after full agreement between producer and user.