UDC 621.822.6/.8 : 629.13 : 003.62

Ref. No.: ISO/R 300/Part III - 1968 (E)

ISO

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION

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ISO RECOMMENDATION
R 300
PART III

ISO IDENTIFICATION CODE FOR ROLLING BEARINGS
GROUP V: AIRFRAME BEARINGS

1st EDITION
January 1968

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BRIEF HISTORY

The ISO Recommendation R 300/Part III, *ISO Identification Code for rolling bearings— Groupe V: airframe 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 by the Technical Committee began in 1959 and led, in 1963, to the adoption of a Draft ISO Recommendation.

In April 1965, this Draft ISO Recommendation (No. 642) was circulated to all the ISO Member Bodies for enquiry. It was approved, subject to a few modifications of an editorial nature, by the following Member Bodies:

Australia	India	Switzerland
Austria	Italy	Sweden
Canada	Japan	Turkey
Czechoslovakia	Netherlands	U.A.R.
France	Poland	United Kingdom
Germany	Romania	U.S.A.
Hungary	Spain	Yugoslavia

One Member Body opposed the approval of the Draft:

U.S.S.R.

The Draft ISO Recommendation was then submitted by correspondence to the ISO Council, which decided, in January 1968, to accept it as an ISO RECOMMENDATION.

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ISO Recommendation R 300/Part III January 1968

ISO IDENTIFICATION CODE FOR ROLLING BEARINGS

GROUP V: AIRFRAME BEARINGS

INTRODUCTION

Purpose of the Code

This ISO Identification Code for airframe rolling bearings has been developed to identify and, as far as possible, describe each bearing on the basis of dimensional and functional interchangeability.

The Code provides a universal language for describing and identifying bearings for the purpose of facilitating communications between the user and the manufacturer. It is also intended to simplify handling by the user of identical bearings made by different manufacturers and identified by different numbers, whose meaning may be difficult to interpret, since the various designation systems used by manufacturers are not identical and generally differ from this Code.

The Code is not meant to give any intimation whatsoever of the availability of different types of bearing. For such purpose the bearing manufacturers' catalogues should be consulted.

Scope of the Code

This Code applies only to airframe rolling bearings of ball or roller designs made to metric and inch dimensions in accordance with ISO Recommendation R . . . *, *Airframe bearings — Dimensions.*

Generally these bearings have limited application and are thereby limited in design variations as compared to bearings coded by the ISO Recommendation R 300/Part I, *ISO Identification code for rolling bearings.* It is important to take advantage of the limited variations, in order to give the shortest possible code, thereby permitting the use of a fully descriptive code on the bearings, should this be required. The Code makes no provisions for the numbering or identification of component parts of bearings or internal details of construction.

Structure of the Code

The structure of the Code is a system of alternate groups of figures and letters. The Code identifies a ball or roller bearing by means of one group of figures indicating the bearing bore diameter, followed by letters indicating the bearing type, a series number indicating the geometrical pattern and dimensions, followed by letters to indicate design modifications such as clearances and metallurgical characteristics, etc., as shown in the Table below.

TABLE

Section 1			Section 2
Basic number			Design variations
Bore	Type	Series No.	
		Geometry and dimensions	Plating steel clearance
0 or 00	A or AA	0 or 00	A

* At present Draft ISO Recommendation No. 474.

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Application of the Code

The requirements set forth in the Code should be followed exactly. A thorough study of the complete Code and the construction and content of each section should therefore precede any endeavour to apply or interpret the Code.

As airframe rolling bearings are not standardized in internal details of construction, the Code should be applied with caution in order to avoid the use of identical numbers for bearings of a given type and size but of different internal design, or with different properties which may materially affect functional interchangeability. Conversely, there may be cases in which bearings of different numbers may be dimensionally and functionally interchangeable.

Geometric pattern, boundary dimensions, tolerances, internal clearance, metallurgy, plating characteristics and sealing or shielding characteristics are found in the relevant ISO Recommendations.

1. SECTION 1: BASIC NUMBER

Section 1 (basic number) comprises symbols representing bore diameter, bearing type, geometry and dimensions which are found in ISO Recommendation R ...*, *Airframe bearings—Dimensions*. These characteristics are coded in the following manner:

1.1 Bore

The bore-code consists of one or two digit figures representing the bore diameter. For inch series bearings, the bore is expressed in sixteenths of an inch. For example, a 0.500 in bore is written as 8, because there are 8/16 in, in 0.500 in (exception: in the inch series, 0.1900 in is expressed as 3).

For metric series bearings, the bore is expressed directly in millimetres. These figures, when combined with the series numbers (table numbers in ISO Recommendation R ...*, *Airframe bearings—Dimensions*) indicate whether the symbols represent metric or inch dimensions.

1.2 Type

The type-code consists of one or two letters to indicate airframe use and type of shield. Letters are assigned as follows:

(*a*)	Airframe	Symbol A
(*b*)	Airframe shielded	Symbol AP
(*c*)	Airframe sealed	Symbol AE

1.3 Series

The series-code consists of one or two digit numbers.

The series number should agree with the table number assigned to the dimensions of given bearings as shown in ISO Recommendation R ...*, *Airframe bearings—Dimensions*. The series or table number determines whether the bearings are metric or inch series.

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