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Rolling bearings — Parts library — Part 1: Reference dictionary for rolling bearings

Roulements — Bibliothèque de composants —

Partie 1: Dictionnaire de référence des roulements



Reference number
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ISO copyright office
Case postale 56 • CH-1211 Geneva 20
Tel. + 41 22 749 01 11
Fax + 41 22 749 09 47
E-mail copyright@iso.org
Web www.iso.org

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Contents

Page

| | |
|--|----|
| Foreword | iv |
| Introduction..... | v |
| 1 Scope | 1 |
| 2 Normative references | 2 |
| 3 Terms, definitions and abbreviated terms | 3 |
| 3.1 Terms and definitions | 3 |
| 3.2 Abbreviated terms | 8 |
| 4 Representation of ontology concepts as dictionary entries..... | 8 |
| 4.1 Bearing classes | 8 |
| 4.2 Bearing property definitions | 14 |
| 4.3 Property data types | 16 |
| 5 Classification principles | 16 |
| 5.1 Connection to pre-existing classifications | 16 |
| 5.2 Class hierarchy | 16 |
| 6 Computer-sensible description | 17 |
| 6.1 External file | 17 |
| 6.2 Information model and conformance class | 18 |
| Annex A (normative) Information object registration | 22 |
| Annex B (normative) Classification of rolling bearings..... | 23 |
| Annex C (normative) Definitions of rolling bearing classes | 25 |
| Annex D (normative) Definitions of rolling bearing properties..... | 41 |
| Annex E (informative) Computer-interpretable listings | 60 |
| Annex F (informative) Simplified illustrations of rolling bearing classes..... | 61 |
| Bibliography..... | 65 |
| Index | 66 |

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established 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. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

In other circumstances, particularly when there is an urgent market requirement for such documents, a technical committee may decide to publish other types of document:

- an ISO Publicly Available Specification (ISO/PAS) represents an agreement between technical experts in an ISO working group and is accepted for publication if it is approved by more than 50 % of the members of the parent committee casting a vote;
- an ISO Technical Specification (ISO/TS) represents an agreement between the members of a technical committee and is accepted for publication if it is approved by 2/3 of the members of the committee casting a vote.

An ISO/PAS or ISO/TS is reviewed after three years in order to decide whether it will be confirmed for a further three years, revised to become an International Standard, or withdrawn. If the ISO/PAS or ISO/TS is confirmed, it is reviewed again after a further three years, at which time it must either be transformed into an International Standard or be withdrawn.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights.

ISO 23768-1 was prepared by Technical Committee ISO/TC 4, *Rolling bearings*.

ISO 23768 consists of the following parts, under the general title *Rolling bearings — Parts library*:

- *Part 1: Reference dictionary for rolling bearings* [Technical Specification]

The intent is that a reference dictionary for linear motion rolling bearings will form the subject of a part 2 and a reference dictionary for spherical plain bearings will form the subject of a part 3.

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Introduction

This part of ISO 23768 defines the means to achieve an electronic representation of rolling bearing data by providing a reference dictionary needed to describe various data about rolling bearings. This part of ISO 23768 is intended to facilitate the use, manipulation and exchange of rolling bearing data for manufacturing, distribution and usage.

Rolling bearing data consist of entities of the rolling bearing application domain together with their descriptive properties and domains of values. Descriptive properties specified by this part of ISO 23768 include, but are not limited to, geometrical and dimensional data, identification and designation data, miscellaneous and spare part data, material data.

Each entity, property or domain of values defines an entry of the rolling bearing reference dictionary. The rolling bearing reference dictionary constitutes the formal and computer-sensible representation of the rolling bearing data. Each rolling bearing datum is associated with a computer-sensible and human-readable definition, and with a computer-sensible identification. Identification of a dictionary entry allows for unambiguous reference from any application. Definitions and identifications of dictionary entries consist of instances of the EXPRESS entity data types defined in the common dictionary schema, resulting from a joint effort between ISO/TC 184/SC 4/WG 2 and IEC SC 3D, or in its extensions defined in the logical series of parts of ISO 13584.

This part of ISO 23768 is intended for use, among others, by manufacturers, rolling bearing vendors or producers, and developers of manufacturing software. This part of ISO 23768 is intended to allow or improve several capabilities, including:

- the provision of a common set of definitions for use in describing rolling bearings,
- the integration and sharing of rolling bearing data between software applications,
- direct import of vendor rolling bearing data into customer databases or applications, and
- a reduction of the level of effort required for manufacturers to maintain accurate and current rolling bearing information from multiple sources and for multiple applications.

Some of the definitions of classes and properties of rolling bearings are taken from International Standards on rolling bearings and from Reference [11].