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Plain bearings — Pedestal plain bearings —

Part 3: Centre flange bearings

Paliers lisses — Paliers lisses à chaise sur le sol —

Partie 3: Paliers à bride centrale

Reference number
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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.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 123, *Plain bearings,* Subcommittee SC 3, *Dimensions, tolerances and construction details*.

This second edition cancels and replaces the first edition (ISO 11687-3:1995), which has been technically revised.

The main changes compared to the previous edition are as follows:

— in Clause 2, the normative references have been updated;

— the former Clause 6 is now Clause 7.

A list of all parts in the ISO 11687 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user’s national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Plain bearings — Pedestal plain bearings —

Part 3:
Centre flange bearings

1 Scope

This document specifies design characteristics for centre flange bearings for the size range 9 to 28, as well as design characteristics for shafts.

It is applicable to centre flange bearings used mainly in electrical and turbo engineering industries.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 185, *Grey cast irons — Classification*

ISO 630-2, *Structural steels — Part 2: Technical delivery conditions for structural steels for general purposes*

ISO 683-3, *Heat-treatable steels, alloy steels and free-cutting steels — Part 3: Case-hardening steels*

ISO 1302, *Geometrical Product Specifications (GPS) — Indication of surface texture in technical product documentation*

ISO 2768-1, *General tolerances — Part 1: Tolerances for linear and angular dimensions without individual tolerance indications*

ISO 2768-2, *General tolerances — Part 2: Geometrical tolerances for features without individual tolerance indications*

ISO 4381, *Plain bearings — Tin casting alloys for multilayer plain bearings*

ISO 8062-3, *Geometrical product specifications (GPS) — Dimensional and geometrical tolerances for moulded parts — Part 3: General dimensional and geometrical tolerances and machining allowances for castings*

ISO 12129-1, *Plain bearings — Tolerances — Part 1: Fits*

ISO 12129-2, *Plain bearings — Tolerances — Part 2: Tolerances on form and position and surface roughness for shafts and thrust collars*

ISO 14737, *Carbon and low alloy cast steels for general applications*

ASTM B124/B124M, *Standard Specification for Copper and Copper Alloy Forging Rod, Bar, and Shapes*

3 Terms and definitions

No terms and definitions are listed in this document.

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ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— ISO Online browsing platform: available at https://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

4 Types of bearing

4.1 General

According to their design, centre flange bearings can be classified as per 4.2 to 4.5, each characteristic being designated by a letter symbol.

Figure 1 shows an example of centre flange bearing. It represents centre flange bearings, which are ready to be installed, in the size ranges 9 to 28.

The symbols above Figure 1 explain only the type illustrated; the complete type required shall be specified in the below-mentioned sequence when ordering.

4.2 Housing

M Centre flange bearing with cooling fins

4.3 Heat dissipation

N Natural cooling

W Water cooling in oil sump

U Circulation pump and natural cooling

T Circulation pump and water cooling in oil sump

Z Recirculating oil lubrication with external cooling of oil

4.4 Shape of bore for journal bearing and type of lubrication

C Circular cylindrical bore without oil ring

L Circular cylindrical bore with split oil ring not fixed on a rotating shaft

Y Lobed bearing with two sliding surfaces without oil ring

V Lobed bearing with four sliding surfaces without oil ring

4.5 Thrust bearing

Q Without sliding surfaces [non-locating (free) bearing]

B Plain sliding surfaces with oil grooves (guide bearing)

K Wedge surfaces

A Tilting pads

} (design and dimensions at the manufacturer's discretion)

4.6 Seal

The type and dimensions shall be subjected to agreement.

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