INTERNATIONAL STANDARD

ISO 3547-7

Second edition
2020-05

Plain bearings — Wrapped bushes —

Part 7: Measurement of wall thickness of thin-walled bushes

Paliers lisses — Bagues roulées —

Partie 7: Mesurage de l'épaisseur de paroi des bagues minces

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).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

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 5, *Quality analysis and assurance*.

This second edition cancels and replaces the first edition (ISO 3547-7:2007), which has been technically revised.

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

— Clauses 2, 3, 4, 5, 6, 7 and 8 have been updated;

— Figure 3 has been updated;

— Figure 5 has been implemented.

A list of all parts in the ISO 3547 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.

Plain bearings — Wrapped bushes —

Part 7: Measurement of wall thickness of thin-walled bushes

1 Scope

This document describes, following ISO 12301, the checking methods and measuring equipment used for measuring the total wall thickness of thin-walled bushes in the finished state.

NOTE All dimensions in this document are given in millimetres.

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 12301, *Plain bearings — Quality control techniques and inspection of geometrical and material quality characteristics*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

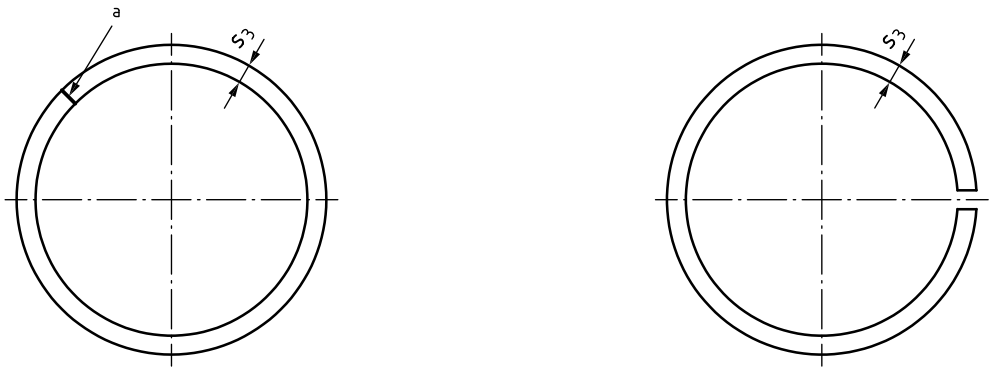
ISO and IEC maintain terminological databases for use in standardization at the following addresses:

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

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

3.1
wall thickness
s_3
radial distance between the opposing measuring points at the inner and outer cylindrical surface

Note 1 to entry: See Figure 1.



a) Clinched bush **b) Split bush**

a Clinch.

Figure 1 — Wall thickness, s_3

4 Symbols and units

For the purposes of this document, the symbols and units given in Table 1 apply.

Table 1 — Symbols and units

Symbol	Parameter	SI unit
a_{ch}	axial distance to measuring position from the edge of the bush	millimetre
B	width of the bush	millimetre
D_o	outside diameter of the bush	millimetre
F_{pin}	measuring pin load	newton
M	number of measuring lines	—
s_3	wall thickness	millimetre

5 Purpose of checking

The purpose of checking is to ensure that the wall thickness and wall thickness tolerances are in accordance with ISO 3547-1. If this measurement is required, it is designated by s_3; see ISO 3547-1.

6 Checking methods

6.1 Measuring principle

The gauging axis of the measuring device shall be in the radial direction and perpendicular to the outside surface of the test piece in order to find the minimum value of the wall thickness. The measured values may be recorded by a single measurement or by a sum measurement, as represented symbolically in Figure 2.