INTERNATIONAL STANDARD

ISO 6526

Second edition
2017-10

Plain bearings — Pressed bimetallic half thrust washers — Features and tolerances

Paliers lisses — Demi-flasques de butée bimétalliques découpés à la presse — Caractéristiques et tolérances

Reference number
ISO 6526:2017(E)

ISO copyright office
Ch. de Blandonnet 8 • CP 401
CH-1214 Vernier, Geneva, Switzerland
Tel. +41 22 749 01 11
Fax +41 22 749 09 47
copyright@iso.org
www.iso.org

Contents

Page

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 on 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 the following URL: 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 6526:1983), which has been technically revised.

Plain bearings — Pressed bimetallic half thrust washers — Features and tolerances

1 Scope

This document specifies the main features and tolerances for pressed bimetallic half thrust washers having an outside diameter up to 160 mm.

NOTE 1 All the linear dimensions and tolerances are expressed in millimetres.

NOTE 2 The main dimensions for the half thrust washers are not the subject of this document.

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 286-2, *Geometrical product specifications (GPS) — ISO code system for tolerances on linear sizes — Part 2: Tables of standard tolerance classes and limit deviations for holes and shafts*

3 Terms and definitions

No terms and definitions are listed in this document.

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

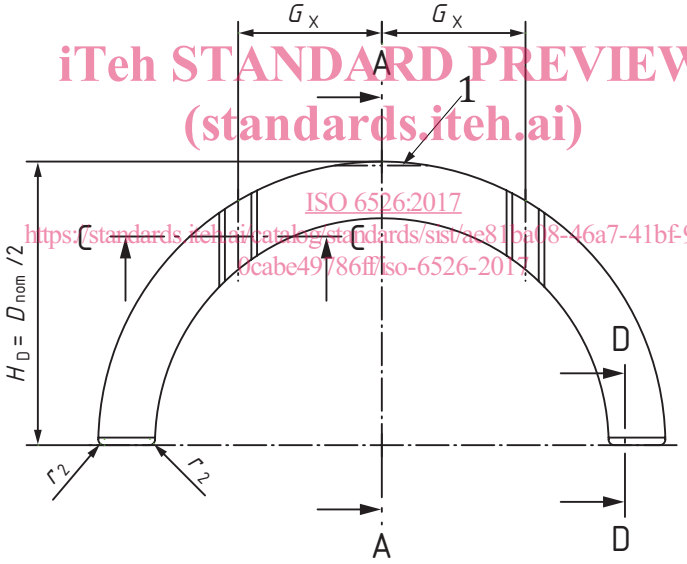
— ISO Online browsing platform: available at https://www.iso.org/obp

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

4 Symbols

D	outside diameter of the washer
D_{nom}	nominal outside diameter of the washer
d	inside diameter of the washer
H_D	washer height
e_T	total washer thickness
E_D	height at lug top
F_D	height at lug root
A	lug width
α	groove side angle
G_W	groove width

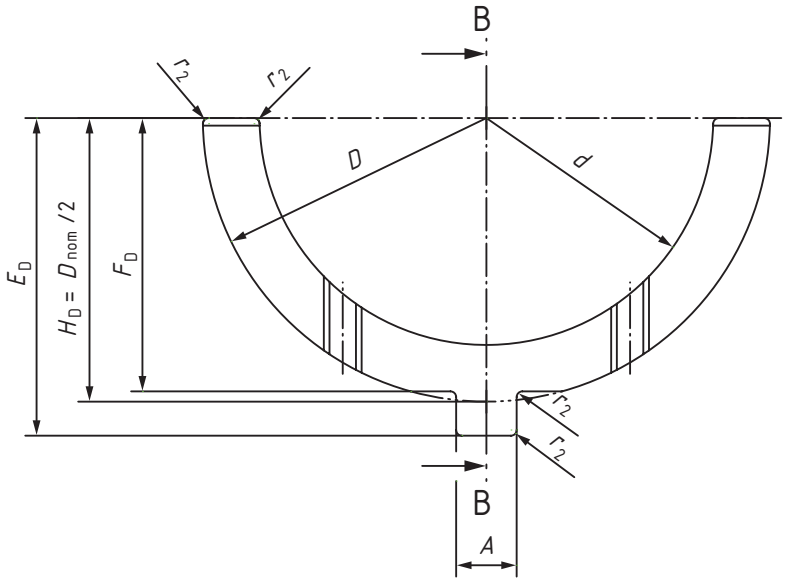
G_E	wall thickness at the back of the groove
G_x	distance between groove and the washer axis
r_1	width of back chamfer or radius
r_2	lug and joint face radius and lug fillet radius
r_3	width of sliding surface chamfer or radius
L_j	scalloped toe width at joint face
t_1	depth of the sliding chamfered relief
t_2	depth of the sliding flat relief
l_2	height of the sliding flat relief
β	sliding surface relief angle at joint faces
p	flatness limit



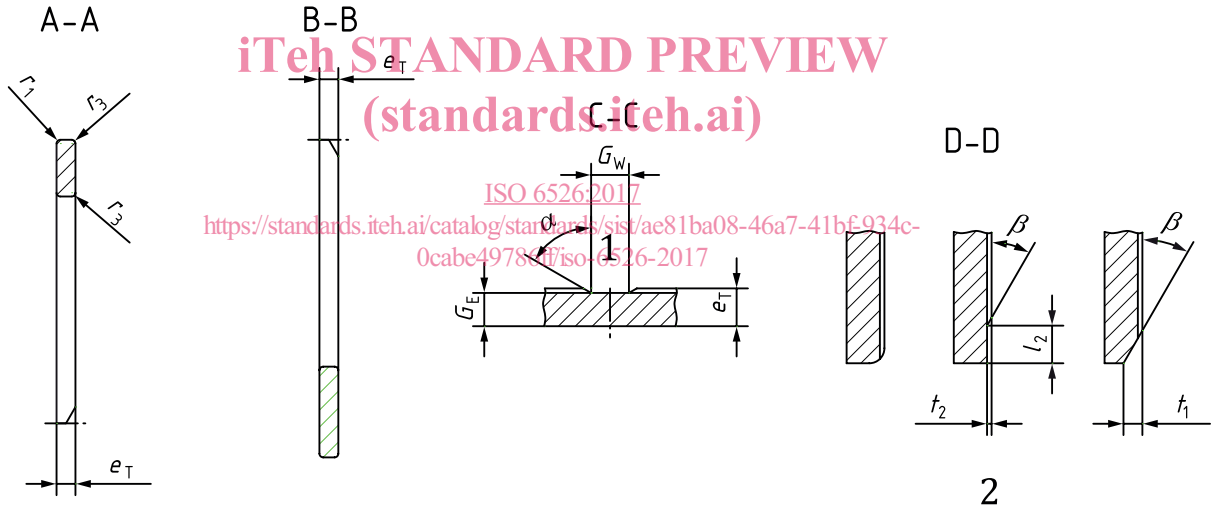
a) Without lug

Key

1 optional flat



b) With lug



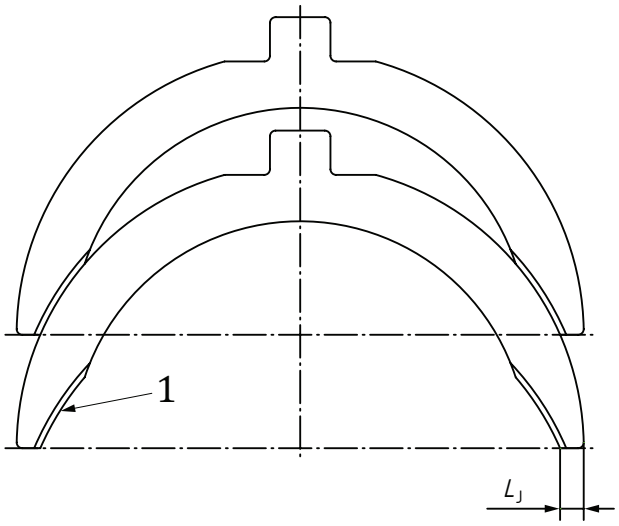
c) Cross sections

Key

1 groove

2 blanking radius and joint face sliding surface relief

Figure 1 — Half thrust washers with and without lug



Key

1 blanking fall-away

Figure 2 — Blanking fall-away for scalloped toe thrust washers

5 General tolerances

For dimensions without tolerance indication, the following values apply:

— linear dimensions: ±0,25 mm;

— angular dimensions: ±5°.

6 Tolerances for diameters and for heights

Tolerances for the outside diameter, D, and the inside diameter, d, are shown in Tables 1 and 2. The difference $D - d$ should be greater than $7 \cdot e_T$.

Tolerances for heights H_D and F_D are shown in Table 3.

Table 1 — Tolerance for the outside diameter, D

D		Tolerance
Above	Up to and including	
—	120	0 −0,25
120	160	0 −0,35

Table 2 — Tolerance for the inside diameter, d

D		Tolerance for d
Above	Up to and including	
—	120	+0,25 0
120	160	+0,35 0

Table 3 — Tolerances for heights H_D and F_D

D		Tolerance for H_D	Tolerance for $F_D = H_{Dmin} - (r_{2max} + 0,5)$
Above	Up to and including		
—	120	0 −0,20	0 −0,5
120	160	0 −0,25	

7 Total thickness

Total thickness, e_T, is shown in Table 4.

For over-sizes, it is recommended to increase the total thickness by a 0,10 step to which the same tolerance as for the corresponding original size is applied.

Table 4 — Total thickness, e_T

D		e_T				Tolerance for e_T
		Preferred dimensions (original size)				
Above	Up to and including	1,75	2	2,5	3	
—	80	x	x			0 −0,05
80	120		x	x		0 −0,06
120	160			x	x	0 −0,07

8 Locating lug

8.1 Lug width

Lug width, A, is shown in Table 5.

Table 5 — Lug width, A

D		A	
Above	Up to and including	Preferred dimension	Tolerance
—	80	8	−0,25 −0,50
80	120	10	
120	160	12	