

International Standard



6526

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

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

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

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Descriptors : bearings, plain bearings, washers (spacers), thrust washers, dimensions, dimensional tolerances.

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of developing International Standards is carried out through ISO technical committees. Every member body interested in a subject for which a technical committee has been authorized 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.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 6526 was developed by Technical Committee ISO/TC 123, *Plain bearings*, and was circulated to the member bodies in May 1982.

It has been approved by the member bodies of the following countries:

Austria	Germany, F.R.	Sweden
Brazil	India	United Kingdom
Czechoslovakia	Italy	USA
Egypt, Arab Rep. of	Poland	USSR
France	Romania	

No member body expressed disapproval of the document.

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

1 Scope and field of application

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

NOTES

- 1 All the linear dimensions and tolerances are expressed in millimetres.
- 2 The main dimensions for the half thrust washers are not the subject of an International Standard.

2 Symbols

The following symbols are used in this International Standard:

D	=	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	=	depth of the sliding surface relief
l	=	height of of the sliding relief
β	=	sliding surface relief angle at joint faces
p	=	flatness limit

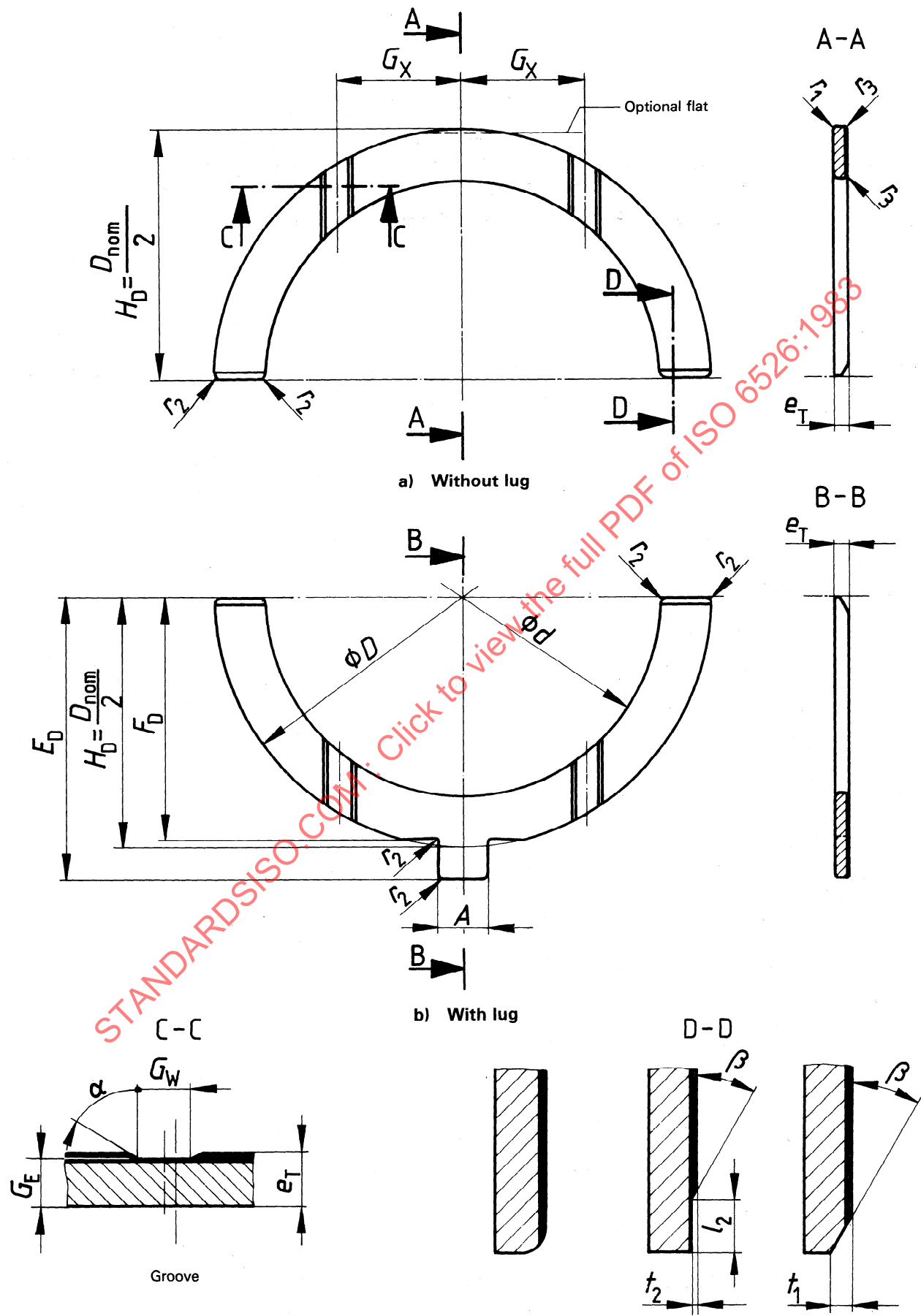


Figure 1 — Half thrust washers with and without lug

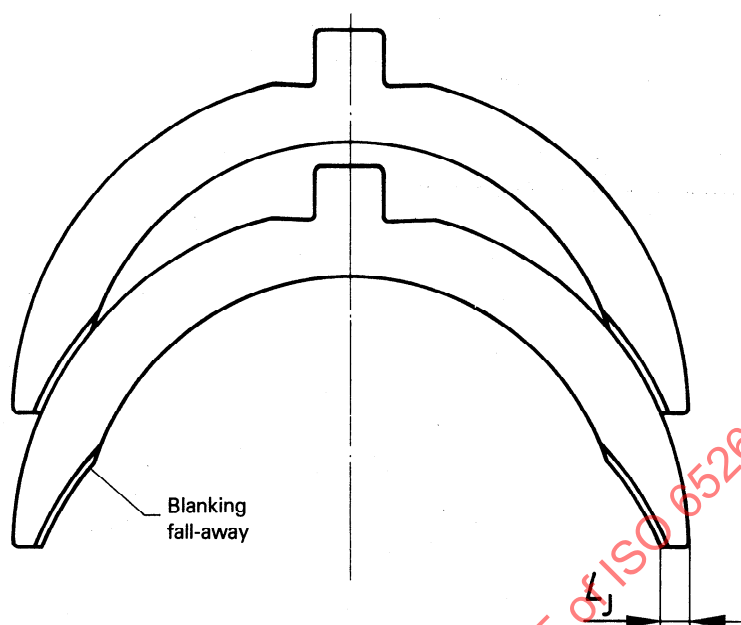


Figure 2 — Blanking fall-away for scalloped toe thrust washers

3 General tolerances

For dimensions without tolerance indication, the following values apply:

- linear dimensions: $\pm 0,25$ mm
- angular dimensions: $\pm 5^\circ$

4 Tolerances for diameters and for heights

4.1 Tolerance for the outside diameter, D

Table 1

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

4.2 Tolerance for the inside diameter, d

Table 2

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

NOTE — The difference $D-d$ should be greater than $7 \times e_T$

4.3 Tolerances for heights H_D and F_D

Table 3

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	

5 Total thickness, e_T

Table 4

D		e_T				Tolerance for e_T
Above	Up to and including	Preferred dimensions (original size)				
		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

NOTE — 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.

6 Locating lug

6.1 Lug width, A

Table 5

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

6.2 Notch recess

The notch recesses to be mostly manufactured with a tolerance J_s13 .

6.3 Lug length

The length of the lug is determined by dimension E_D given in table 6.

Table 6

D		E_D
Above	Up to and including	Preferred dimension*
—	80	$H_D + 5$
80	160	$H_D + 8$

* Dimension E_D is left without a tolerance because it is the difference of two dimensions for which the normal tolerance of $\pm 0,25$ mm would apply.

NOTE — Lug design is usually as shown in figure 1 b), but washers can also be provided with an offset locating lug in order to avoid incorrect assembly.