

इंटरनेट

मानक

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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 4531-2 (1988): Swivels, Part 2: Dimensions of Bowpiece  
[MED 14: Cranes, Lifting Chains and Related Equipment]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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*Indian Standard*  
**SPECIFICATION FOR SWIVELS**  
**PART 2 DIMENSIONS OF BOWPIECE**  
*( First Revision )*

**1. Scope** — Covers the dimensions of bowpiece used for both ball bearing and plain bearing swivels.

**2. Dimensions**

**2.1** The dimensions of bowpiece shall be as given in Table 1. Most dimensions in this series are geometrically similar and have been based on one common factor which is the theoretical diameter  $A$ , of the shank of the eye or hook. Some dimensions have to be adapted to fit other standards and must, therefore, diverge slightly from precise geometrical similarity. These include all dimensions associated with the screw thread or ball bearing, such as the actual shank dimensions.

**2.2** The nominal diameter of the bore in the bowpiece ( dimensions  $D_1$  ) shall be subject to the following tolerances:

Up to and including 20 mm diameter bore	$+ 1.0 \text{ mm}$ $- 0$
Over 20 mm diameter bore, up to and including 45 mm diameter bore	$+ 1.2 \text{ mm}$ $- 0$
Over 45 mm diameter bore	$+ 1.6 \text{ mm}$ $- 0$

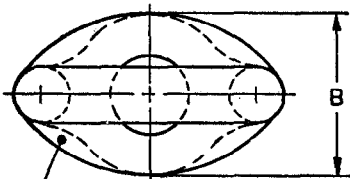
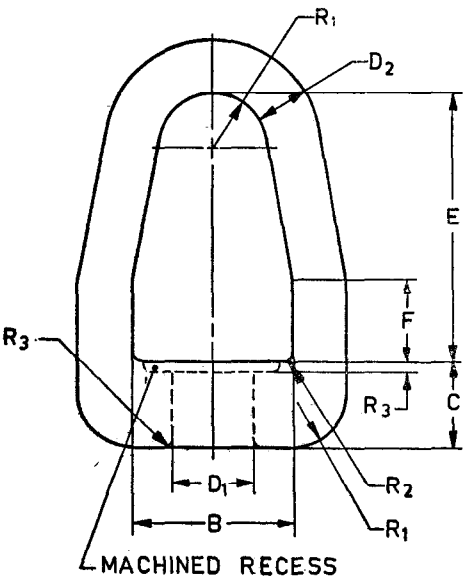
Adopted 20 January 1988

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TABLE 1 DIMENSIONS OF BOWPIECE  
( Clause 2.1 )

All dimensions in millimetres.



Safe Working Load kN	Theoretical Shank dia, A	B (2.30 A)	C (1.25 A)	E (4.00 A)	F (1.25 A)	D <sub>1</sub> (Bore)	D <sub>2</sub> (0.80 A)	R <sub>1</sub> (0.80 A)	R <sub>2</sub> (0.15 A)	R <sub>3</sub> (0.10 A)
10	16	37	20	64	20	20	13	13	2	2
12.5	18	41	22	72	22	20	14	14	3	2
16	20	46	25	80	25	25	16	16	3	2
20	23	53	29	92	29	25	18	18	3	2
25	26	60	32	104	32	30	21	21	4	3
32	29	67	36	116	36	30	23	23	4	3
40	32	74	40	128	40	35	26	26	5	3
50	36	83	45	144	45	40	29	29	5	4
63	40	92	50	160	50	40	32	32	6	4
80	45	104	56	180	56	45	36	36	7	5
100	51	117	64	204	64	55	41	41	8	5
125	57	131	71	228	71	60	46	46	9	6

EXPLANATORY NOTE

This standard, first issued in 1968, has been revised to align with the current manufacturing practices. This standard ( Part 2 ) covers the dimensions of bowpiece used for both ball bearing and plain bearing swivels. Part 1 of this standard covers the general requirements of swivels including material, workmanship, tests and marking details. The dimensional requirements of eye ( round and elongated ) are covered in Part 3 of this standard.

In the preparation of this standard, assistance has been derived from BS 4283 : 1968 'Swivels for lifting purposes', issued by the British Standards Institution ( BSI ).