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मानक

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IS 362 (1991): Parliament Hinges -Specification [CED 15: Builder Hardware]



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“Knowledge is such a treasure which cannot be stolen”

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IS 362 : 1991
(Reaffirmed 2006)

भारतीय मानक
पार्लियामेन्ट हिंज — विशिष्टि
(पाँचवां पुनरीक्षण)

Indian Standard
PARLIAMENT HINGES — SPECIFICATION
(*Fifth Revision*)

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(Including Amendment No. 1)

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BUREAU OF INDIAN STANDARDS
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NEW DELHI 110002

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Price Group 3

AMENDMENT NO. 1 JULY 2006
TO
IS 362 : 1991 PARLIAMENT HINGES —
SPECIFICATION

(Fifth Revision)

(Page 4, clause 9.1) — Insert the following Note at the end of the clause:

‘NOTE — Hinges may be packed in multiples of five if required by the purchaser.’

(CED 15)

FOREWORD

This Indian Standard (Fifth Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Builder's Hardware Sectional Committee had been approved by the Civil Engineering Division Council.

This standard was first published in 1951 and subsequently revised in 1962, 1968, 1975 and 1990. The fifth revision is issued incorporating Amendment No. 1 and incorporating general updatation.

While issuing this revision, the Sectional Committee took note of acute scarcity of materials like brass and other alloys in the country and the need for conserving their use in the national interest. However, in view of the demand for hardware items of these materials in the overseas markets, they have been retained, specifically to meet the requirements of export trade. For all indigenous use, it is strongly recommended that hinges made of these materials should not be used.

This standard contains 5.1.1 which call for an agreement between the manufacturer and the purchaser permitting the latter to use his option to suit his requirements.

For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS 2 : 1960 'Rules for rounding off numerical values (*revised*)'. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

Indian Standard
PARLIAMENT HINGES — SPECIFICATION
(Fifth Revision)

1 SCOPE

This standard lays down the requirements regarding materials, manufacture, finish, marking and packing of parliament hinges.

2 REFERENCES

The Indian Standards listed in Annex A are necessary adjuncts to this standard.

3 TYPES

Parliament hinges shall be of the following three types:

- Type 1 Cast
- Type 2 Pressed
- Type 3 Fabricated

4 MATERIALS

4.1 Materials for different types of parliament hinges shall be as follows:

- Type 1 Cast Brass
- Type 2 Mild Steel, Aluminium Alloy
- Type 3 Extruded Aluminium Alloy

4.2 The materials used for different types of parliament hinges shall comply with the requirements given in Table 1.

5 DIMENSIONS AND TOLERANCES

5.1 The dimensions of different types and sizes of parliament hinges and tolerances thereon shall be as given in Tables 2 to 4 read with Fig. 1.

NOTE — The size of parliament hinges shall be designated by the width between the flanges.

5.1.1 However, parliament hinges may be manufactured to other dimensions if so agreed to between the purchaser and the manufacturer.

6 MANUFACTURE

6.1 General

Hinges shall be well made and shall be free from flaws and defects of all kinds. All hinges shall be cut clean and square and shall be provided with hinge pins as in 6.3. The hole for the hinge pin shall be central and square to the knuckles. All sharp edges and corners shall be removed.

6.2 Knuckles

The sides of the knuckle shall be straight and at right angles to the flap. The movement of the hinges shall be free, easy and square and shall not have any play or shake. Washer shall be provided between the knuckles for Type 1 and Type 3 hinges. The washer shall be of the same diameter as the butt and shall be made of nylon, plastic or any other suitable material.

Table 1 Requirements for Materials for Parliament Hinges
(Clause 4.2)

Item (1)	Material (2)	Suitable Grade in Indian Standards (3)
Flap	Extruded aluminium alloy rods and sections	Grade 63 400 WP or 65 032 WP of IS 733 : 1983
	Extruded aluminium alloy tubes and hollow sections	Grade 63 400 WP or 65 032 WP or 64 430 WP of IS 1285 : 1975
	Aluminium alloy sheet	Grade 52 000-H1 or 53 000-H1 of IS 737 : 1986
	Mild steel sheet	Grade 0-1 079 of IS 1079 : 1988
	Cast brass	LCB 2 of IS 292 : 1983
Pin	Aluminium alloy wire	Grade 65 032 WP or 64 430 WP of IS 739 : 1977
	Mild steel wire	Minimum 1/4 H of IS 280 : 1978
	Phosphor bronze wire	IS 7608 : 1987
	Brass wire	Minimum half hard of IS 4413 : 1981

6.3 Pins

The hinge pins shall be of diameters as specified in Tables 2 to 4 for different sizes of hinges, and shall fit inside the knuckle firmly. The rivetted head shall be well formed so as not to allow any play or shake, and shall allow easy movement of the hinge, but shall not cause looseness. The hinge pin shall be made of mild steel or brass. In the case of brass hinges, however, the hinge pin may be made of phosphor bronze, if so required by the purchaser. The hinge pin shall be of mild steel or aluminium alloy in the case of aluminium alloy hinges.

NOTE — In locations susceptible to corrosion, use of brass or phosphor bronze hinge pins is recommended in case of brass hinges.

6.4 Screw Holes

All screw holes shall be clean and countersunk. The screw holes shall be suitable for countersunk

head wood screws (see IS 6760 : 1972) of the numbers specified in Tables 2 to 4 for different sizes of hinges. The number of holes to be punched in hinges of different sizes shall be as specified in Tables 2 to 4.

6.4.1 Position of Holes

The centre line of the holes shall be parallel to the pin. When only three screw holes are provided in each flap, they shall be in one line but when more than three holes are provided in each flap they shall be distributed in zig-zag manner as shown in Fig. 1. The minimum distance from the ends of the flap, either parallel to the pin or across it, shall not be less than 7 mm. The distance of the end of hole nearest to inner edge, where holes are provided in zig-zag manner from the inner edge of the flap, shall also be not less than 7 mm. All screw holes in each flap shall be equidistant from one another.

Table 2 Dimensions for Aluminium Alloy Parliament Hinges
(Clauses 5.1, 6.3, 6.4 and Fig. 1)

All dimensions in millimetres.

Size of Hinge	Width Between Flanges	Length	Width	Diameter of Butt	Diameter of Pin	Length of Joint	Thickness of Flap	Number of Screw Holes	Holes for Screw Designation
(1)	A	B	C	D	d	E	(8)	(9)	(10)
50	50±1	100±1	20±1	10.5	4.5	48	3	6	8
65	65±1	100±1	20±1	10.5	4.5	48	3	6	8
75	75±1	100±1	20±1	10.5	4.5	48	3	6	8
100	100±1	125±1	27±1	16.5	6.3	63	5	8	10
125	125±1	125±1	27±1	16.5	6.3	63	5	8	10
150	150±1	125±1	27±1	16.5	6.3	63	5	8	10
175	175±1	125±1	27±1	16.5	6.3	63	5	8	10
200	200±1	125±1	27±1	16.5	6.3	63	5	8	10

NOTE — For dimensions given under columns 5 to 8 tolerances shall be in accordance with IS 3965 : 1981 and IS 2525 : 1982.

Table 3 Dimensions for Cast Brass Parliament Hinges
(Clauses 5.1, 6.3, 6.4 and Fig. 1)

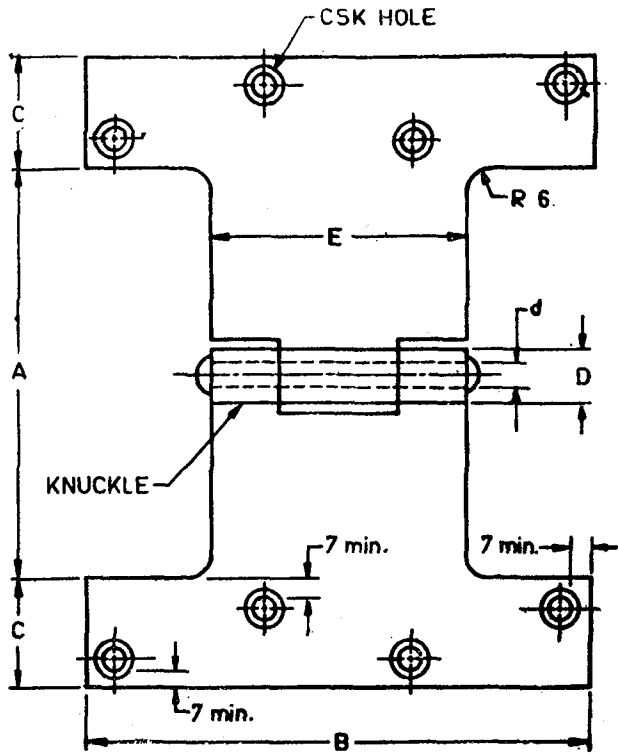
All dimensions in millimetres.

Size of Hinge	Width Between Flanges	Length	Width	Diameter of Butt	Diameter of Pin	Length of Joint	Thickness of Flap	Number of Screw holes in Each Hinge	Holes for Screw Designation
(1)	A	B	C	D	d	E	(8)	(9)	(10)
50	50±1	100±1	20±1	8±0.3	4.5±0.10	48±1	3.5±0.3	6	8
65	65±1	100±1	20±1	8±0.3	4.5±0.10	48±1	3.5±0.3	6	8
75	75±1	100±1	20±1	8±0.3	4.5±0.10	48±1	3.5±0.3	6	8
100	100±1	125±1	27±1	12.5±0.3	6.5±0.10	63±1	5±0.3	8	10
125	125±1	125±1	27±1	12.5±0.3	6.5±0.10	63±1	5±0.3	8	10
150	150±1	125±1	27±1	12.5±0.3	6.5±0.10	63±1	5±0.3	8	10
175	175±1	125±1	27±1	12.5±0.3	6.5±0.10	63±1	5±0.3	8	10
200	200±1	125±1	27±1	12.5±0.3	6.5±0.10	63±1	5±0.3	8	10

Table 4 Dimensions for Mild Steel Parliament Hinges
(Clauses 5.1, 6.3, 6.4 and Fig. 1)

All dimensions in millimetres.

Size of Hinge	Width Between Flanges <i>A</i>	Length <i>B</i>	Width <i>C</i>	Diameter of Butt <i>D</i>	Diameter of Pin <i>d</i>	Length of Joint <i>E</i>	Thickness of Flap	Number of Screw Holes	Holes for Screw Designation
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
50	50±2	100±1	20±1	—	6.3±0.06	48±1	2.24±0.08	6	8
65	65±2	100±1	20±1	—	6.3±0.06	48±1	2.24±0.08	6	8
75	75±2	100±1	20±1	—	6.3±0.06	48±1	2.24±0.08	6	8
100	100±3	125±1	27±1	—	8±0.06	63±1	2.5±0.06	8	10
125	125±3	125±1	27±1	—	8±0.06	63±1	2.5±0.06	8	10
150	150±3	125±1	27±1	—	8±0.06	63±1	2.5±0.06	8	10
175	175±3	125±1	27±1	—	8±0.06	63±1	2.5±0.06	8	10
200	200±3	125±1	27±1	—	8±0.06	63±1	2.5±0.06	8	10



All dimensions in millimetres.

FIG. 1 A TYPICAL PARLIAMENT HINGE

7 FINISH

7.1 Brass parliament hinges shall have either bright or satin finish and shall be suitably protected against discoloration.

7.2 Aluminium alloy hinges shall be anodized to a bright, natural, mat or satin finish or dyed. The anodic coating shall not be less than Grade AC 10 of IS 1868 : 1982, if so required by the purchaser.

NOTE — For exterior use the thickness of anodic coating shall not be less than Grade AC 25 of IS 1868 : 1982.

7.3 Mild steel parliament hinges shall be finished bright or electro-galvanized as specified by the purchaser.

8 MARKING

8.1 Each parliament hinge shall be clearly and permanently marked with the name of the manufacturer and his trade-mark, if any.

NOTE — In case of aluminium alloy hinges intended for external use they shall also be marked with letter 'E'.

8.1.1 The hinge may also be marked with the Standard Mark.

9 PACKING

9.1 Hinges shall be packed in cardboard boxes in the following quantities:

Size	Number of Pieces
Sizes 75 mm and below	12 pieces in each package
Sizes above 75 mm	6 pieces in each package

9.2 Each package shall be labelled showing the following particulars:

- Type of hinges;
- Size of hinges;
- Quantity of hinges; and
- Name of the manufacturer or his trade-mark, if any.

10 SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

The method of selecting parliament hinges and criterion for conformity shall be as given in Annex B.

ANNEX A

(Clause 2)

LIST OF INDIAN STANDARDS

IS No.	Title	IS No.	Title
280 : 1978	Specification for mild steel wire for general engineering purposes (<i>third revision</i>)	1285 : 1975	Specification for wrought aluminium and aluminium alloy extruded round tube and hollow sections (for general engineering purposes) (<i>second revision</i>)
292 : 1983	Specification for leaded brass ingots and castings (<i>second revision</i>)	1868 : 1982	Specification for anodic coatings on aluminium and its alloys (<i>second revision</i>)
733 : 1983	Specification for wrought aluminium alloy bars, rods and sections (for general engineering purposes) (<i>third revision</i>)	2525 : 1982	Dimensions for wrought aluminium and aluminium alloys, wire (<i>first revision</i>)
737 : 1986	Specification for wrought aluminium and aluminium alloy sheet and strip for general engineering purposes (<i>third revision</i>)	3965 : 1981	Dimensions for wrought aluminium and aluminium alloy bar, rod and section (<i>first revision</i>)
739 : 1977	Specification for wrought aluminium and aluminium and aluminium alloy wire for general engineering purposes (<i>second revision</i>)	4413 : 1981	Specification for brass wires for general engineering purposes (<i>first revision</i>)
1079 : 1988	Specification for hot rolled carbon steel sheet and strip (<i>fourth revision</i>)	4905 : 1968	Methods for random sampling
		6760 : 1972	Specification for slotted countersunk head wood screws
		7608 : 1987	Specification for phosphor bronze wire for general engineering purposes (<i>first revision</i>)

ANNEX B
(Clause 10.1)

SCALE OF SAMPLING AND CRITERIA FOR CONFORMITY

B-1 LOT

In any consignment, all the parliament hinges of the same type and size and manufactured from the same material under similar conditions of production shall be grouped together to constitute a lot.

B-2 SAMPLE SIZE

B-2.1 The number of parliament hinges to be selected from a lot shall depend on the size of the lot and shall be in accordance with col 1 and 2 of Table 5.

Table 5 Scale of Sampling and Criteria for Conformity

Lot Size	Sample Size	Permissible Number of Defectives
(1)	(2)	(3)
Up to 150	13	0
151 to 300	20	1
301 to 500	32	2
501 to 1 000	50	3
1 001 and above	80	5

B-2.2 Parliament hinges for testing shall be selected at random. For this purpose reference may be made to IS 4905 : 1968.

B-3 NUMBER OF TESTS

All parliament hinges selected in B-2 shall be checked for dimensional requirements (see 5), defects in manufacture (see 6), and finish (see 7). Any hinges which fails to satisfy any one or more of the characteristics shall be considered as defective hinge.

B-4 CRITERIA FOR CONFORMITY

A lot shall be considered as conforming to the requirements of this standard if the number of defective hinges among those tested does not exceed the corresponding number given in col 3 of Table 5, otherwise it shall be considered as not conforming to the requirements of this standard.

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Amendments are issued to standards as the need arises on the basis of comments. Standards are also reviewed periodically; a standard along with amendments is reaffirmed when such review indicates that no changes are needed; if the review indicates that changes are needed, it is taken up for revision. Users of Indian Standards should ascertain that they are in possession of the latest amendments or edition by referring to the latest issue of ‘BIS Catalogue’ and ‘Standards: Monthly Additions’.

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