IS 364 (1993): Fanlight Catch -Specification [CED 15: Builder Hardware]

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IS 364 : 1993
(Reaffirmed 2003)

भारतीय मानक

पंखाकार खिड़की पकड़ — विशिष्टि

(तीसरा पुनरीक्षण)

Indian Standard

FANLIGHT CATCH — SPECIFICATION

(Third Revision)

UDC 683·3:6 : 69·028·6

BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

August 1993

Price Group 2

FOREWORD

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

This standard was first published as a tentative standard in 1952 and issued as a formal standard in 1956. The standard was revised subsequently in 1962 and 1970. This revision of the standard makes reference to the latest Indian Standards for various types of materials specified therein. Consequently, it also indicates the designations for various materials in accordance with the latest version of these standards.

This standard is intended chiefly to cover the technical provisions relating to fanlight catches, mainly used in ventilators, fanlights and such other units required to provide openings for ventilation.

In the formulation of this standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

The Composition of the Committee responsible for the preparation of the standard is given at Annex B.

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

FANLIGHT CATCH — SPECIFICATION

(Third Revision)

1 SCOPE

1.1 This standard lays down the requirements regarding material, dimensions, manufacture and finish of fanlight catches commonly used on ventilators in buildings.

2 REFERENCES

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

3 TYPES

3.1 Fanlight catches shall be of the following types according to the material used:

a) Mild steel fanlight catches,

b) Aluminium alloy fanlight catches, and

c) Cast brass fanlight catches.

4 MATERIAL

4.1 Mild Steel Sheet

Mild steel used in the manufacture of fanlight catches shall conform to Grade 0 of IS 1079 : 1988 and shall satisfy the following bend test:

'Suitable test pieces shall, at room temperature, be bent either by pressure or by blows from a hammer through 180° across the direction of rolling and 90° in the direction of rolling around thickness equal to that of test piece, without showing any signs of fracture or cracking on outside of the bent portion'.

4.2 Mild Steel Wire

Mild steel wire used for hinge pin shall have a tensile strength of 40 kg/mm², *Min* conforming to $\frac{1}{4}$ H of IS 280 : 1978 and shall satisfy the wrapping test given below:

'It shall withstand without breaking or splitting being wrapped 8 times round its own diameter and subsequently straightened'.

4.3 Aluminium Alloy

Aluminium alloy used in the manufacture of fanlight catch shall conform to designation 5230-M of IS 617 : 1975.

4.4 Cast Brass

Cast brass used in the manufacture of fanlight catch shall conform to LCB-2 of IS 292 : 1983.

4.5 Steel Wire for Springs

Steel wire for spring shall conform to Grade 1 of IS 4454 (Part 1) : 1981.

4.6 Aluminium Alloy Rod and Wire

Aluminium alloy rod and wire used for the hinge pin shall conform to one of the following grades:

a) 64430 WP of IS 733 : 1983, or

b) 64430 WP of IS 739 : 1992.

5 DIMENSIONS

5.1 The leading dimensions of fanlight catch shall conform to those specified in Fig. 1 and the tolerances thereon shall be as follows:

Dimension	*Tolerance*
mm	mm
Up to and including 5	± 0·2
Above 5 and up to and including 25	± 0·5
Above 25	± 1

6 MANUFACTURE

6.1 Fanlight catches shall be well made, free from flaws and defects of any kind. The movement of the plunger shall be smooth, easy and square.

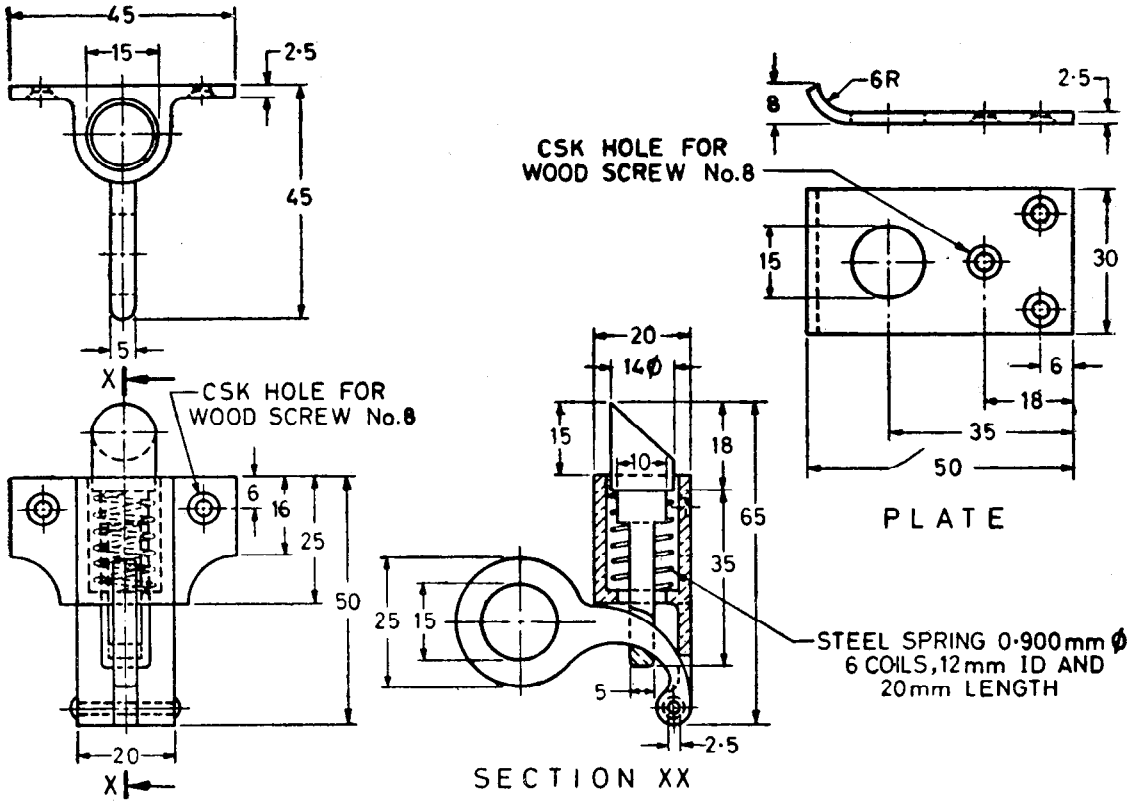
6.2 The screw holes shall be clean and countersunk. The heads of the riveted hinge pin shall be well formed and shall allow the hook to function without any friction or undue play. All sharp edges and corners shall be removed.

7 FINISH

7.1 Aluminium alloy fanlight catches shall be anodized after the initial fabrication work. A coating not less than 0·015 mm is recommended for normal use. The anodic film may be transparent or dyed as desired by the purchaser. For exterior use, where sunlight falls on the fittings, only light fast colours like light fast bronze or light fast gold or plain anodic finishes shall be employed and the thickness of the anodic film shall be not less than 0·025 mm.

7.2 Brass fanlight catches shall have satin finish or other finish as specified by the purchaser.

7.3 Mild steel fanlight catches may be stove enamelled to a colour and finish, as desired by the purchaser.



All dimensions in millimetres.

FIG. 1 TYPICAL DESIGN OF 14 mm FANLIGHT CATCH

8 MARKING

8.1 Each fanlight catch shall be clearly and permanently marked with the manufacturer's name or trade-mark.

8.1.1 The fanlight catch may also be marked with the Standard Mark.

9 PACKING

9.1 Mild steel or brass fanlight catches shall be wrapped in paper and aluminium alloy fanlight catches in either tissue paper or polythene film and packed in cartons in accordance with the usual trade practice. Each carton shall bear a label showing the name or trade-mark of the manufacturer, type and quantity of fanlight catches.

10 SAMPLING

10.1 Lot

In any consignment, all the fanlight catches of the same type and manufactured at the same time shall be grouped together to constitute a lot.

10.2 Lot Size and Sample Size

The number of fanlight catches to be selected from the lot shall depend on the size of the lot and shall be in accordance with col 1 and 2 of Table 1.

Table 1 Scale of Sampling and Criterion for Acceptance

Lot Size	Sample Size	Permissible Number of Defectives
(1)	(2)	(3)
Up to 100	13	0
101 to 300	20	1
301 ,, 500	32	2
501 ,, 1 000	50	3
1 001 and above	80	5

10.2.1 The number of fanlight catches to be selected in the sample depends upon the size of the lot and shall be in accordance with col 1 and 2 of Table 1. These fanlight catches shall be selected at random and for this purpose, reference may be made to IS 4905 : 1968.

10.3 Tests

All the fanlight catches selected as in **10.2** shall be checked for dimensional requirements (*see* **5**), defects in manufacture (*see* **6**) and finish (*see* **7**). Any fanlight catch which fails to satisfy any one or more of the characteristics shall be considered as a defective fanlight catch.

10.4 Criterion for Conformity

A lot shall be considered as conforming to the requirements of this standard if the number of defectives found in the sample does not exceed the corresponding acceptance number given in col 3 of Table 1, otherwise it shall be considered as not conforming to the requirements of the standard.

ANNEX A
(*Clause* 2.1)

LIST OF REFERRED INDIAN STANDARDS

IS No.	*Title*	*IS No.*	*Title*
280 : 1978	Mild steel wire for general engineering purposes (*third revision*)	739 : 1992	Wrought aluminium and aluminium alloy wire for general engineering purposes (*third revision*)
292 : 1983	Leaded brass ingots and castings (*second revision*)	1079 : 1988	Hot rolled carbon steel sheet and strip (*fourth revision*)
617 : 1975	Aluminium and aluminium alloys ingots and castings for general engineering purposes (*second revision*)	4454 (Part 1) : 1981	Steel wires for cold formed springs : Part 1 Patented and cold drawn steel wires — unalloyed (*second revision*)
733 : 1983	Wrought aluminium and aluminium alloy bars, rods and sections (for general engineering purposes) (*third revision*)	4905 : 1968	Methods for random sampling

ANNEX B
(*Foreword*)

COMPOSITION OF TECHNICAL COMMITTEE

Builders Hardware Sectional Committee, CED 15

Chairman	*Representing*
SHRI P. KRISHNAN	Central Public Works Department, New Delhi
Members	
SHRI V. K. AGARWAL SHRI A. K. AGARWAL (*Alternate*)	Hindalco Industries Ltd, Bombay
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SHRI R. K. BHANDARI SHRI R. L. SHARMA (*Alternate*)	Delhi Development Authority, New Delhi
SHRI SUDHIR BATRA	Mech (India) Industries, Delhi
CONTROLLER OF STORES	Railway Board (Ministry of Railways)
SHRI S. M. GARG SHRI B. M. GARG (*Alternate*)	D.P. Garg & Co, Noida
SHRI A. GHOSH SHRI A. K. SARKAR (*Alternate*)	National Test House, Calcutta
SHRI N. C. JAIN LT-COL B. PARGHI (*Alternate*)	Ministry of Defence, New Delhi
SHRI L. A. JAISINGHANI SHRI L. K. SINGH (*Alternate*)	Fixopan Engineers Pvt Ltd, New Delhi
SHRI S. C KAPOOR SHRI I. C. KHANNA (*Alternate*)	Directorate General of Supplies & Disposals, New Delhi
SHRI RAM F. KEWALRAMANI	Indian Institute of Architects, Bombay
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COL P. C. KHANNA SHRI ANIL CHADHA (*Alternate*)	Argent Industries, New Delhi
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Member Secretary
HEMANT KUMAR
Joint Director (Civ Engg), BIS

Standard Mark

The use of the Standard Mark is governed by the provisions of the *Bureau of Indian Standards Act, 1986* and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

Bureau of Indian Standards

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Review of Indian Standards

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 Handbook' and 'Standards Monthly Additions'. Comments on this Indian Standard may be sent to BIS giving the following reference :

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Amendments Issued Since Publication

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