

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 6863 (2005): Clevis Pins with Head [PGD 31: Bolts, Nuts and Fasteners Accessories]



“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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भारतीय मानक  
शीर्ष वाली क्लेविस पिन  
( दूसरा पुनरीक्षण )

*Indian Standard*  
CLEVIS PINS WITH HEAD  
( *Second Revision* )

ICS 21.060.50

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

## NATIONAL FOREWORD

This Indian Standard ( Second Revision ) which is identical with ISO 2341 : 1986 'Clevis pins with head' issued by the International Organization for Standardization ( ISO ) was adopted by the Bureau of Indian Standards on the recommendations of the Bolts, Nuts and Fasteners Accessories Sectional Committee and approval of the Medical Instruments, General and Production Engineering Division Council.

The original version of this standard was issued in 1973 and revised in 1981. This second revision is being published harmonizing with ISO 2341 : 1986 by adoption of to make pace with the latest developments taken place at international level.

The text of ISO Standard has been approved as suitable for publication as an Indian Standard without deviations. Certain terminology and conventions are, however, not identical to those used in Indian Standards. Attention is drawn particularly to the following:

- a) Wherever the words 'International Standard' appear, referring to this standard, they should be read as 'Indian Standard'.
- b) Comma ( , ) has been used as a decimal marker while in Indian Standards, the current practice is to use a point ( . ) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exist. The corresponding Indian Standards, which are to be substituted in their places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 1234 : 1997 <sup>1)</sup> Split pins — Metric series	IS 549 : 2005 Split pins — Specification ( <i>third revision</i> )	Identical
ISO 2081 : 1986 Metallic coatings — Electroplated coatings of zinc on iron or steel	IS 1573 : 1986 Electroplated coatings of zinc on iron and steel ( <i>second revision</i> )	Technically equivalent
ISO 3269 : 1988 <sup>1)</sup> Fasteners — Acceptance inspection	IS 1367 ( Part 17 ) : 2004 Technical supply conditions for threaded steel fasteners: Part 17 Inspection, sampling and acceptance procedure ( <i>fourth revision</i> )	do
ISO 4520 : 1981 Chromate conversion coatings on electroplated zinc and cadmium coatings	IS 9839 : 1981 Chromate conversion coatings on electroplated zinc and cadmium coatings	Identical

As decided by the Committee additional requirements of packaging, BIS Certification Marking and Marking are given in National Annex A. These additional requirements are part of this standard.

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.

<sup>1)</sup> Since revised in 2000.

*Indian Standard*  
**CLEVIS PINS WITH HEAD**  
*( Second Revision )*

**1 Scope and field of application**

This International Standard specifies the characteristics of clevis pins with head, with metric dimensions and nominal diameters,  $d$ , from 3 to 100 mm inclusive.

**2 References**

ISO 1234, *Split pins — Metric series.*

ISO 2081, *Metallic coatings — Electroplated coatings of zinc on iron or steel.*

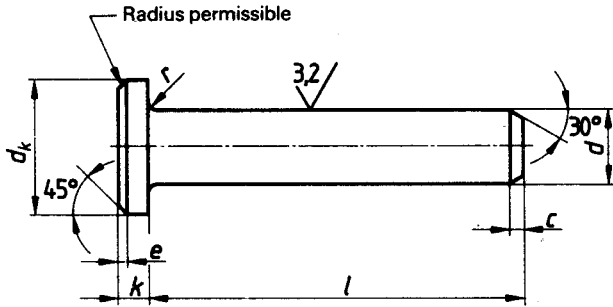
ISO 3269, *Fasteners — Acceptance inspection.*

ISO 4520, *Chromate conversion coatings on electroplated zinc and cadmium coatings.*

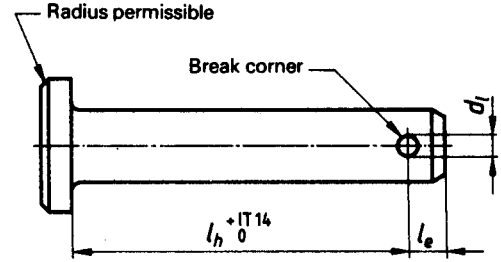
3 Dimensions

Surface roughness values in micrometres

**Type A**  
 Without split pin hole



**Type B**  
 With split pin hole



NOTES

- 1 Other dimensions, angles and surface roughness value, see type A.
- 2 In cases where a distance  $l_h$  which is not in accordance with  $l - l_e$  is necessary, this distance should be fixed in the designation (see clause 5), but in no case may the values for  $l_e$  be smaller than those given in the table.

NOTE — For railway applications and in cases where the split pins are subjected to alternating transverse forces, it is recommended that the next larger split pin and corresponding hole diameter to that specified be used.

Dimensions in millimetres

<i>d</i>	h11 <sup>1)</sup>	3	4	5	6	8	10	12	14	16	18	20	22	24	27	30	33	36	40	45	50	55	60	70	80	90	100		
<i>d<sub>k</sub></i>	h14	5	6	8	10	14	18	20	22	25	28	30	33	36	40	44	47	50	55	60	66	72	78	90	100	110	120		
<i>d<sub>i</sub></i>	H13 <sup>2)</sup>	0,8	1	1,2	1,6	2	3,2	3,2	4	4	5	5	5	6,3	6,3	8	8	8	8	10	10	10	10	13	13	13	13		
<i>c</i>	max.	1	1	2	2	2	2	3	3	3	3	4	4	4	4	4	4	4	4	4	4	4	6	6	6	6	6		
<i>e</i>	≈	0,5	0,5	1	1	1	1	1,6	1,6	1,6	1,6	2	2	2	2	2	2	2	2	2	2	3	3	3	3	3	3		
<i>k</i>	js14	1	1	1,6	2	3	4	4	4	4,5	5	5	5,5	6	6	8	8	8	8	9	9	11	12	13	13	13	13		
<i>l<sub>e</sub></i>	min.	1,6	2,2	2,9	3,2	3,5	4,5	5,5	6	6	7	8	8	9	9	10	10	10	10	10	12	12	14	14	16	16	16		
<i>r</i>		0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	0,6	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
<i>l</i> <sup>3)</sup>																													
nom.	min.	max.																											
6	5,75	6,25																											
8	7,75	8,25																											
10	9,75	10,25																											
12	11,5	12,5																											
14	13,5	14,5																											
16	15,5	16,5																											
18	17,5	18,5																											
20	19,5	20,5																											
22	21,5	22,5																											
24	23,5	24,5																											
26	25,5	26,5																											
28	27,5	28,5																											
30	29,5	30,5																											
32	31,5	32,5																											
35	34,5	35,5																											
40	39,5	40,5																											
45	44,5	45,5																											
50	49,5	50,5																											
55	54,25	55,75																											
60	59,25	60,75																											
65	64,25	65,75																											
70	69,25	70,75																											
75	74,25	75,75																											
80	79,25	80,75																											
85	84,25	85,75																											
90	89,25	90,75																											
95	94,25	95,75																											
100	99,25	100,75																											
120	119,25	120,75																											
140	139,25	140,75																											
160	159,25	160,75																											
180	179,25	180,75																											
200	199,25	200,75																											

1) Other tolerances, for example a11, c11, f8, as agreed between customer and supplier.

2) Hole diameter *d<sub>i</sub>* = nominal size of the split pin (see ISO 1234).

3) For nominal lengths above 200 mm, steps of 20 mm.



#### 4 Specifications and reference International Standards

<b>Material</b>	St = Free-cutting steel or cold-heading steel, hardness 125 to 245 HV. Other materials as agreed between customer and supplier.
<b>Surface finish</b>	Plain, i.e. pins to be supplied in natural finish treated with a rust-preventative lubricant, unless otherwise specified by agreement between customer and supplier.
	Preferred coatings are black oxide, phosphate coating or zinc plating with chromate conversion coating (see ISO 2081 and ISO 4520). Other coatings as agreed between customer and supplier. All tolerances shall apply prior to the application of a plating or coating.
<b>Workmanship</b>	Parts shall be uniform in quality and free of irregularities or detrimental defects. No burrs shall appear on any part of the pin.
<b>Acceptability</b>	The acceptance procedure is covered in ISO 3269.

#### 5 Designation

Example for the designation of a clevis pin, steel, type B, with nominal diameter  $d = 20$  mm and nominal length  $l = 100$  mm :

**Clevis pin ISO 2341 - B - 20 × 100 - St**

Example for the same pin with a split pin hole of  $\phi 6,3$  mm :

**Clevis pin ISO 2341 - B - 20 × 100 × 6,3 - St**

Example for the same pin with distance  $l_h = 80$  mm :

**Clevis pin ISO 2341 - B - 20 × 100 × 6,3 × 80 - St**

Example for the same pin with a standard split pin hole :

**Clevis pin ISO 2341 - B - 20 × 100 × 80 - St**

**NATIONAL ANNEX A**  
*( Foreword )*

**A-1 PACKAGING**

Unless otherwise specified the packaging of pins shall be done in cartons or boxes in quantities of 100, 500 or 1 000. Each carton shall have pins of one size only. The size and quantity shall be clearly indicated on the cartons or boxes.

**A-2 BIS CERTIFICATION MARKING**

Details available with the Bureau of Indian Standards.

**A-3 MARKING**

The cartons containing the pins shall be marked with size and indication of the source of manufacture.

## Bureau of Indian Standards

BIS is a statutory institution established under the *Bureau of Indian Standards Act, 1986* to promote harmonious development of the activities of standardization, marking and quality certification of goods and attending to connected matters in the country.

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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 Catalogue' and 'Standards : Monthly Additions'.

This Indian Standard has been developed from Doc : No. PG/BP 33 ( 0437 ).

#### Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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