भारतीय मानक
Indian Standard

IS 1552 : 2025

वस्त्रादि — जूट लूम्स के लिए पिच-बाउंड वायर रीड — विशिष्टि

(तीसरा पुनरीक्षण)

Textiles — Pitch-Bound Wire Reeds for Jute Looms — Specification

(Third Revision)

ICS 59.120.30

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July 2025 **Price Group 6**

Textile Machinery and Accessories Sectional Committee, TXD 14

FOREWORD

This Indian Standard (Third Revision) was adopted by the Bureau of Indian Standards, after the draft finalized by the Textile Machinery and Accessories Sectional Committee had been approved by the Textiles Division Council.

Pitch-bound wire reeds for jute looms are specialized components crucial in weaving jute yarns. These reeds are treated with pitch, derived from coal tar or petroleum, enhancing their durability and performance within the loom.

In jute weaving, wire reeds hold warp threads in place while weft threads are woven through, forming the fabric. The pitch coating protects reeds from wear and tear due to friction, prolonging their lifespan and ensuring consistent weaving quality.

Pitch-bound wire reeds are indispensable in jute looms, facilitating efficient production of various jute-based products like sacks, bags, carpets, and textiles.

This standard was first published in 1960 and subsequently revised in 1968 and 1978. In this revision the following modifications have been done:

a) Marking clause has been modified;

b) Reference clause has been updated; and

c) Sampling clause has been incorporated.

Annex A is a ready reference for converting porter into metric count.

The composition of the Committee responsible for the revision of this standard is given in 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 : 2022 ‘Rules for rounding off numerical values (*second revision*)’. 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

TEXTILES — PITCH-BOUND WIRE REEDS FOR JUTE LOOMS — SPECIFICATION

(Third Revision)

1 SCOPE

This standard covers dimensions and other requirement of pitch-bound reeds used in the jute industry.

2 REFERENCES

The standards give below contain provisions which, through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this standard are encouraged to investigate the possibility of applying the most recent edition of these standards:

IS No.	*Title*
IS 1141 : 1993	Seasoning of timber — Code of practice (*second revision*)
IS 2500 (Part 1) : 2000/ISO 2859-1 : 1999	Sampling procedure for inspection by attributes: Part 1 Sampling schemes indexed by acceptance quality limit (AQL) for lot-by-lot inspection (*third revision*)
IS 8566 : 1977	Specification for steel wire for reeds

3 NOMENCLATURE

The shape and the name of various components of pitch-bound wire reeds are given in Fig. 1.

4 MATERIALS

4.1 Dents

The reed wire used for making dents shall conform to IS 8566.

4.2 The ribs should be made from well-seasoned timber of suitable species (*see also* IS 1141).

4.3 The cotton or jute twine used should be uniformly bitumanized and shall be free from knots.

4.4 The recommended size of back wire used for reinforcing baulks is 3.25 mm × 1.00 mm.

5 WORKMANSHIP

5.1 The pitch or coal tar used in twine shall not have trickled down from one baulk towards the other and it shall also not have permeated the paper covering.

5.2 The dents shall be rust free, shall have rounded edges, and shall be finished smooth.

6 DIMENSIONS

6.1 The principal dimensions of the pitch-bound wire reed for jute looms shall be as given in Table 1.

Table 1 Principal Dimensions

(*Clause* 6.1)

Sl No.	Characteristic	Requirement		Tolerance
		For Narrow Looms	For Broad Looms	
(1)	(2)	(3)	(4)	(5)
i)	Overall width, mm	As agreed		± 5 mm
ii)	Overall height, mm	140	165	± 3 mm
iii)	Working (inside) height, mm	As agreed		± 2 mm

Table 1 (*Concluded*)

Sl No.	Characteristic	Requirement		Tolerance
		For Narrow Looms	For Broad Looms	
(1)	(2)	(3)	(4)	(5)
iv)	Depth of dent, mm	3.25	6.00	± 0.05 mm within a reed and ± 0.10 mm between the reeds
v)	Thickness of baulk, mm	16.0	17.5	± 1.5 mm
vi)	Angle of dent	90º		± 2º

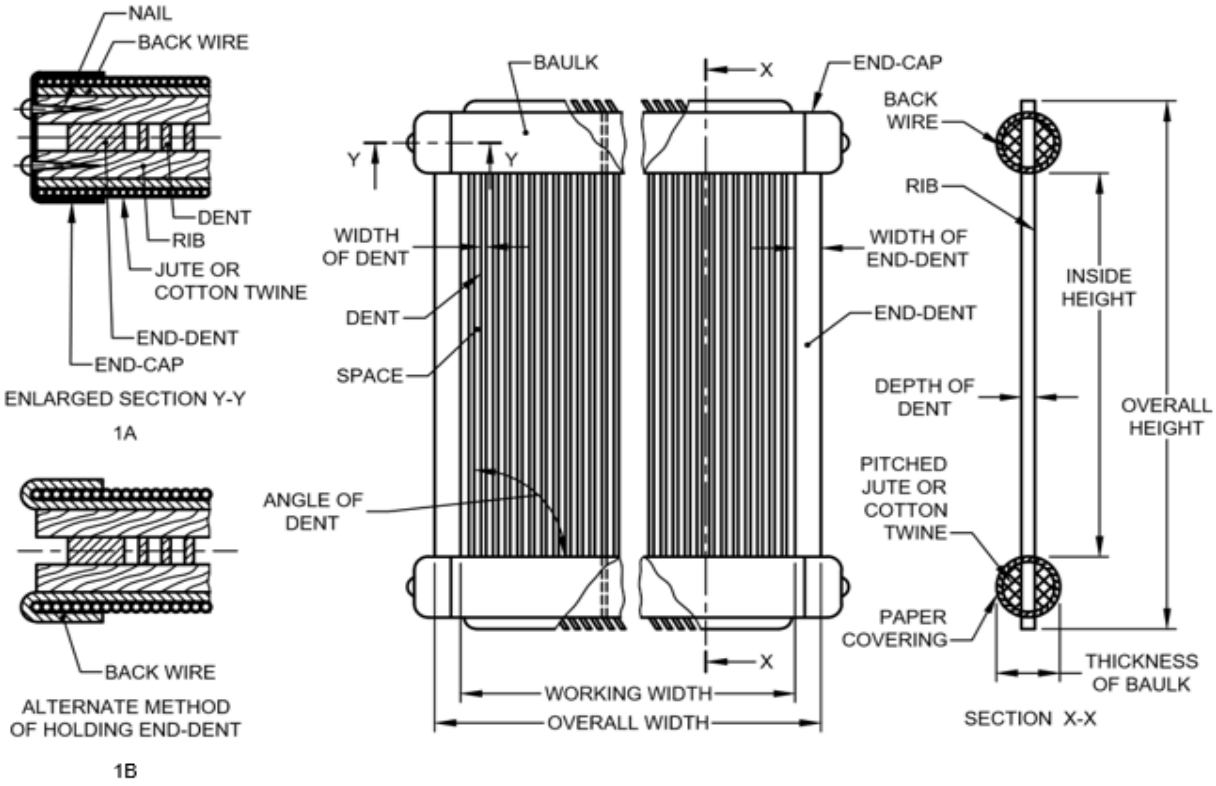

FIG. 1 NOMENCLATURE

6.2 Dent Width

The count wise width of dent shall be as follows:

Sl No.	*Count of Reed*	*Width of*	
		Dent mm	*End Dent mm*
(1)	(2)	(3)	(4)
i)	For narrow looms:		
	a) Up to and including 12	2.00	
	b) Above 12 up to and including 17	1.60	
	c) Above 17 up to and including 19	1.40	5.75
	d) Above 19 up to and including 32	1.20	
ii)	For broad looms:		
	a) Up to and including 35	1.00	
	b) Above 35	0.70	

NOTE — The tolerance shall be ± 0.05 within a reed and ± 0.10 between reeds for width of dent ± 1.00 mm for width of dent.

6.3 Count of Reed

The count of reed shall be as specified in the contract or order (or as declared on the reed) subject to a tolerance of ± 0.064 metric count.

The metric count shall be determined by:

a) Counting the number of units (each consisting of one dent and one air space) per decimetre (100 mm) at 5 different places on the reed and taking its average. (Porter of reed = metric count/2.13)

or

b) Measuring the average of 5 readings for the distance covered by 20 units (each consisting of one dent and one air space) in millimetres on the reed (say x mm), then metric count = $\frac{2\,000}{x}$
(Porter = 939.8/x)

NOTE — This method eliminates any error arising out of fraction of a unit of one dent and one air space in the method in **6.3(a)**.

7 DESIGNATION

The reed shall be designated as follows:

Count of reed × overall width (mm) × depth of dents (mm)

Example:

12 × 940 × 3.25

8 SAMPLING

Unless otherwise agreed to between the buyer and the seller, to ascertain the conformity of product(s) to the requirements of this specification, or as specified in IS 2500 (Part 1) shall be followed.

9 MARKING

9.1 Each reed shall be marked with reed count on end dents.

9.2 The declared porter of reed in the marking (if so required by the purchaser) shall not form the basis of any arbitration.

9.3 Each bundle or case shall be marked with the following:

a) Designation of reed (*see* 7);
b) Number of reeds in bundle or case;
c) Manufacturer’s name and/or trade-mark;
d) Indication of the source of manufacture; and
e) Other declarations required as per law in force.

9.4 BIS Certification Marking

The product(s) conforming to the requirements of this standard may be certified as per the conformity assessment schemes under the provisions of the *Bureau of Indian Standards Act*, 2016 and the Rules and Regulations framed thereunder, and the products may be marked with the Standard Mark.

10 PACKING

10.1 Each reed shall be wrapped with good quality wax paper after antirust oil has been applied to it.

10.2 A suitable number of wrapped reeds (*see* **10.1**) shall be packed with waterproof paper in bundles and/or cases as specified in the contract or order.

ANNEX A

(*Foreword*)

METRIC REED COUNTS CORRESPONDING TO 5 TO 24 PORTERS

[Metric reed count = No. of units (each consisting of one dent and one air space) per decimetre].

Sl No.	*Porter*	*Metric Reed Count*
(1)	(2)	(3)
i)	5	10.5
ii)	$5\frac{1}{4}$	11.0
iii)	$5\frac{1}{2}$	11.5
iv)	$5\frac{3}{4}$	12.0
v)	6	13.0
vi)	$6\frac{1}{4}$	13.5
vii)	$6\frac{1}{2}$	14.0
viii)	$6\frac{3}{4}$	14.5
ix)	7	15.0
x)	$7\frac{1}{4}$	15.5
xi)	$7\frac{1}{2}$	16.0
xii)	$7\frac{3}{4}$	16.5
xiii)	8	17.0
xiv)	$8\frac{1}{4}$	17.5
xv)	$8\frac{1}{2}$	18.0
xvi)	$8\frac{3}{4}$	18.5
xvii)	9	19.0
xviii)	$9\frac{1}{4}$	19.5
xix)	$9\frac{1}{2}$	20.0
xx)	$9\frac{3}{4}$	20.5
xxi)	10	21.5
xxii)	$10\frac{1}{4}$	22.0
xxiii)	$10\frac{1}{2}$	22.5
xxiv)	$10\frac{3}{4}$	23.0

Table (*Continued*)

Sl No.	*Porter*	*Metric Reed Count*
(1)	(2)	(3)
xxv)	11	23.5
xxvi)	$11\frac{1}{4}$	24.0
xxvii)	$11\frac{1}{2}$	24.5
xxviii)	$11\frac{3}{4}$	25.0
xxix)	12	25.5
xxx)	$12\frac{1}{4}$	26.0
xxxi)	$12\frac{1}{2}$	26.5
xxxii)	$12\frac{3}{4}$	27.0
xxxiii)	13	27.5
xxxiv)	$13\frac{1}{4}$	28.0
xxxv)	$13\frac{1}{2}$	28.5
xxxvi)	$13\frac{3}{4}$	29.5
xxxvii)	14	30.0
xxxviii)	$14\frac{1}{4}$	30.5
xxxix)	$14\frac{1}{2}$	31.0
xl)	$14\frac{3}{4}$	31.5
xli)	15	32.0
xlii)	$15\frac{1}{4}$	32.5
xliii)	$15\frac{1}{2}$	33.0
xliv)	$15\frac{3}{4}$	33.5
xlv)	16	34.0
xlvi)	$16\frac{1}{2}$	35.0
xlvii)	17	36.0
xlviii)	$17\frac{1}{2}$	37.0
xlix)	18	38.5
l)	$18\frac{1}{2}$	39.5
li)	19	40.5
lii)	$19\frac{1}{2}$	41.5

Table (*Concluded*)

Sl No.	*Porter*	*Metric Reed Count*
(1)	(2)	(3)
liii)	20	42.5
liv)	$20\frac{1}{2}$	43.5
lv)	21	44.5
lvi)	$21\frac{1}{2}$	46.0
lvii)	22	47.0
lviii)	$22\frac{1}{2}$	48.0
lix)	23	49.0
lx)	$23\frac{1}{2}$	50.0
lxi)	24	51.0

ANNEX B

(*Foreword*)

COMMITTEE COMPOSITION

Textile Machinery and Accessories Sectional Committee, TXD 14

Organization	*Representative(s)*
Central Manufacturing Technology Institute, Bengaluru	DR NAGAHANUMAIAN **(*Chairperson*)**
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Indian Jute Mills Association, Kolkata	SHRI BHUDIPTA SAHA SHRI TANMOY SINGHA (*Alternate*)
Indian Textile Accessories and Machinery Manufacturers Association, Mumbai	SHRI N. D. MHATRE SHRI CHANDRESH SHAH (*Alternate*)
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Lohia Corp Limited, Kanpur	SHRI HITESH UPENDRA BHONDE SHRI HIMANSHU SHUKLA (*Alternate*)
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Organization	*Representative(s)*
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SCIENTIST 'B'/ASSISTANT DIRECTOR
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