

वस्त्रादि — जूट लूमस के शटल में प्रयुक्त
सहायक उपकरण — विशिष्टि
(पहला पुनरीक्षण)

**Textiles — Accessories for Use in
Shuttles for Jute Looms —
Specification**
(*First Revision*)

ICS 59.120.30

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FOREWORD

This Indian Standard (First 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.

A shuttle is a tool designed to neatly and compactly store a holder that carries the thread of the weft yarn while weaving with a loom. Shuttles are thrown or passed back and forth through the shed, between the yarn threads of the warp in order to weave in the weft.

This standard was first published in 1971. The revision has been brought out to incorporate the following changes:

- a) Forward has been incorporated;
- b) Reference clause has been incorporated;
- c) Marking clause has been modified; and
- d) Packing and sampling clauses have been incorporated.

The composition of the Committee responsible for the formulation of this standard is given in [Annex A](#).

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 — ACCESSORIES FOR USE IN SHUTTLES FOR JUTE LOOMS — SPECIFICATION

(*First Revision*)

1 SCOPE

This standard prescribes requirements of accessories, such as offset tip, cover, cover lock, drag spring, pin and bristles for use in shuttles for jute looms.

2 REFERENCES

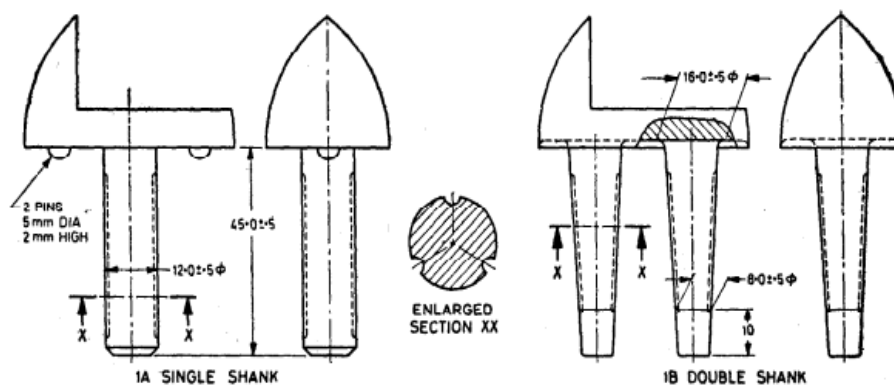
The standards given below contain provisions which through reference in this text, constitute provisions of this standard. At the time of publication, the editions indicated were valid. All standards are subject to revision and parties to agreements based on these standards are encouraged to investigate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

<i>IS No.</i>	<i>Title</i>
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 (<i>third revision</i>)

3 REQUIREMENTS

3.1 Offset Tip

Offset tip should be either single or double shank.



All dimensions in millimetres.

FIG. 1 OFFSET SHUTTLE TIP

3.1.1 Material

3.1.1.1 Single shank

Single shank should be low carbon steel.

3.1.1.2 Double shank

Double shank should be malleable cast iron with hardness at flat and conical portion from 110 HRB to 125 HRB. The shanks should be softer than the rest of the portion.

3.1.2 Shape and Dimension

The dimensions of the offset tip of a typical pattern shall conform to the applicable requirements given in [Fig. 1](#).

3.2 Cover

3.2.1 Material

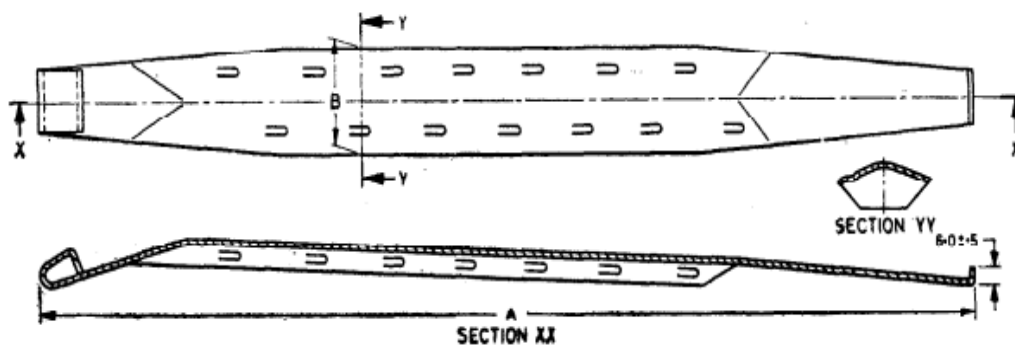
Hot-rolled spring steel of 17 SWG case, hardened at both ends up to approximately 10 cm from either end and having hardness between 40 HRC to 50 HRC.

3.2.2 Shape and Dimension

The dimensions of the cover of shuttle of a typical pattern shall conform to the applicable requirements given in [Fig. 2](#).

To access Indian Standards click on the link below:

https://www.services.bis.gov.in/php/BIS_2.0/bisconnect/knowyourstandards/Indian_standards/isdetails/



All dimensions in millimetres.

FIG. 2 SHUTTLE COVER

<i>Sl No.</i>	<i>Length A</i>	<i>Width B</i>
(1)	(2)	(3)
i)	381	38
ii)	406	38
iii)	432	38
iv)	457	38
Tolerance, mm	± 2.0	± 1.0

3.3 Cover Lock

3.3.1 Material

Spring steel of 16 SWG.

3.3.2 Shape

A typical type of cover lock is shown in [Fig. 3](#).

3.4 Drag Spring

3.4.1 Material

Spring steel of 28 SWG having hardness between 38 HRC to 40 HRC.

3.4.2 Shape

A typical type of drag spring is shown in [Fig. 4](#).

3.5 Eye

3.5.1 Material

It shall preferably be made of porcelain glazed inside or any other suitable material with smooth surface inside. The ends of the eye shall be rounded off.

3.5.2 Shape

A typical type of eye is shown in [Fig. 5](#).

3.6 Pin

Pins for cover and cover lock shall be made of 8 SWG steel wire. Other pins used in the shuttle may be made of steel wire of fine gauge or as agreed to between the buyer and the seller.

3.7 Bristles

Shall be of nylon monofilament.

4 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.

5 MARKING

5.1 Each accessory shall be marked with the following information:

- a) Manufacturer's name, initials or trademark;
- b) Indication of the source of manufacture;
- c) Gross and net mass;
- d) Lot/batch number;
- e) Country of origin; and
- f) Date of manufacture.

5.2 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.

6 PACKING

The accessories shall be packed as agreed to between the buyer and the seller.

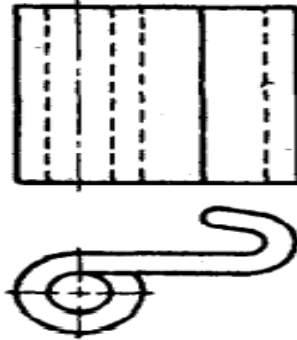


FIG. 3 COVER LOCK

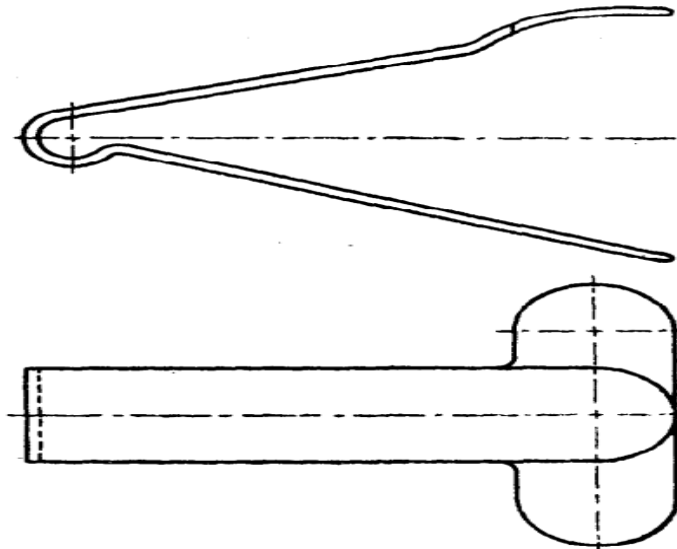


FIG. 4 DRAG SPRING

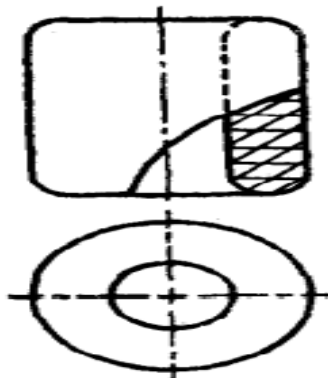


FIG. 5 EYE

ANNEX A

(Foreword)

COMMITTEE COMPOSITION

Textile Machinery and Accessories Sectional Committee, TXD 14

<i>Organization</i>	<i>Representative(s)</i>
Central Manufacturing Technology Institute, Bengaluru	DR NAGAHANUMAIAN (<i>Chairperson</i>)
ATE Enterprises Private Limited, New Delhi	SHRI ABHIJIT KULKARNI SHRI ANIL KUMAR SHARMA (<i>Alternate</i>)
Bajaj Industries Private Limited, Kolkata	REPRESENTATIVE
Bhowmick Calculator, Kolkata	SHRI GOUTAM BHOWMICK SHRI VIVEKANANDA BHOWMICK (<i>Alternate</i>)
Bombay Textile Research Association, Mumbai	SHRI VIJAY GAWDE SHRI R. A. SHAIKH (<i>Alternate</i>)
Central Manufacturing Technology Institute, Bengaluru	SHRI B. R. MOHANRAJ SHRI K. SARAVANAN (<i>Alternate</i>)
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ICAR - Central Institute for Research on Cotton Technology, Mumbai	DR N. SHANMUGAM DR T. SENTHIL KUMAR (<i>Alternate</i>)
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Indian Jute Mills Association, Kolkata	SHRI BHUDIPTA SAHA SHRI TANMOY SINGHA (<i>Alternate</i>)
Indian Textile Accessories and Machinery Manufacturers Association, Mumbai	SHRI N. D. MHATRE SHRI CHANDRESH SHAH (<i>Alternate</i>)
Inspiron Engineering Private Limited, Ahmedabad	SHRI ANKUR SONI
Kusters Calico Machinery Limited, Karjan	SHRI DEVANG PARIKH SHRI SHUBHASIS SUR (<i>Alternate</i>)
Lagan Engineering Company Limited, Kolkata	REPRESENTATIVE
Lakshmi Machine Works Limited, Coimbatore	SHRIMATI KALPANA A. SHRIMATI DIVYA V. (<i>Alternate</i>)
Laxmi Shuttleless Looms Private Limited, Ahmedabad	SHRI KETAN SANGHVI
Ludlow Jute Limited, Kolkata	REPRESENTATIVE

<i>Organization</i>	<i>Representative(s)</i>
Ministry of Heavy Industries and Public Enterprises, Department of Heavy Industry, New Delhi	SHRI SANJEEV GUPTA SHRI S. SUNDAR (<i>Alternate</i>)
National Safety Council, Navi Mumbai	SHRI LALIT R. GABHANE SHRI R. R. DEOGHARE (<i>Alternate</i>)
Office of the Textile Commissioner, Mumbai	SHRI N. K. SINGH SHRI NAROTTAM KUMAR (<i>Alternate</i>)
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Synthetic and Art Silk Mills Research Association, Mumbai	DR MANISHA MATHUR SHRI SANJAY SAINI (<i>Alternate</i>)
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Truetzschler India Private Limited, Ahmedabad	SHRI PRAVIN KANDGE SHRI SHILADITYA JOSHI (<i>Alternate</i>)
Veer mata Jijabai Technological Institute, Mumbai	DR SURANJANA GANGOPADHYAY DR S. P. BORKAR (<i>Alternate</i>)
BIS Directorate General	SHRI J. K. GUPTA, SCIENTIST 'E'/DIRECTOR AND HEAD (TEXTILES) [REPRESENTING DIRECTOR GENERAL (<i>Ex-officio</i>)]

Member Secretary
SHRI SWAPNIL
SCIENTIST 'B'/ASSISTANT DIRECTOR
(TEXTILES), BIS

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Amendments Issued Since Publication

Amend No.	Date of Issue	Text Affected

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