

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“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 7958 (1976): Hand Vices [PGD 6: Earth, Metal And Wood Working Hand Tools]



“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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*Indian Standard***SPECIFICATION FOR  
HAND VICES**

**1. Scope** — Covers requirements of hand vices used for hand operations such as filing, polishing, etc.

**2. Nomenclature** — See Fig. 1.

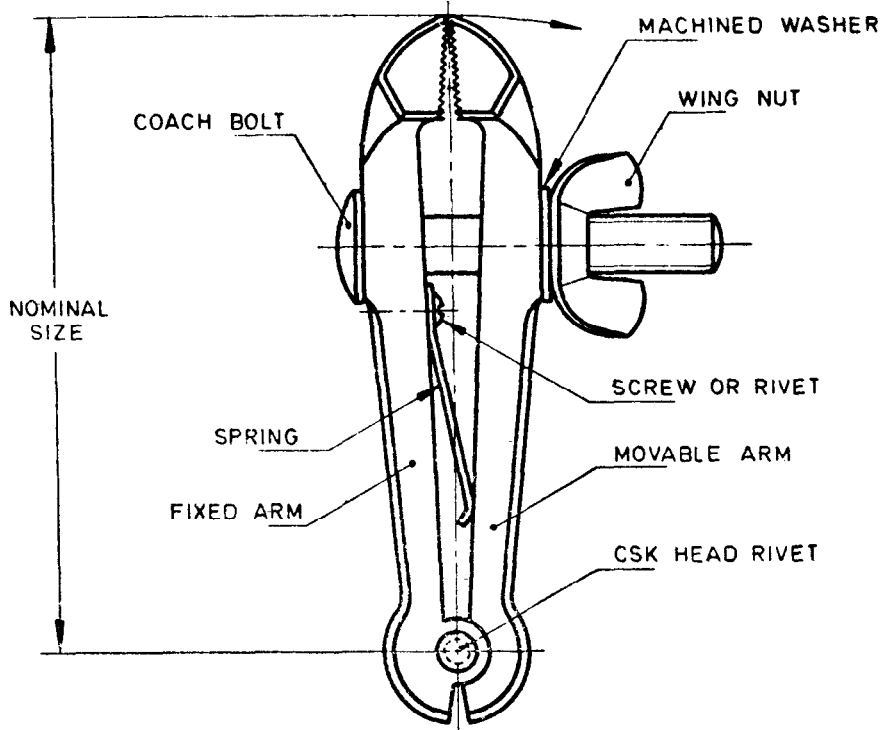


FIG. 1 NOMENCLATURE

**3. Dimensions**

**3.1 Fixed Arm** — Shall be as given in Fig. 2.

**3.2 Movable Arm** — Shall be as given in Fig. 3.

**3.3 Spring** — Shall be as given in Fig. 4.

**3.4 Wing Nut, Coach Bolt, Washer and Rivet**

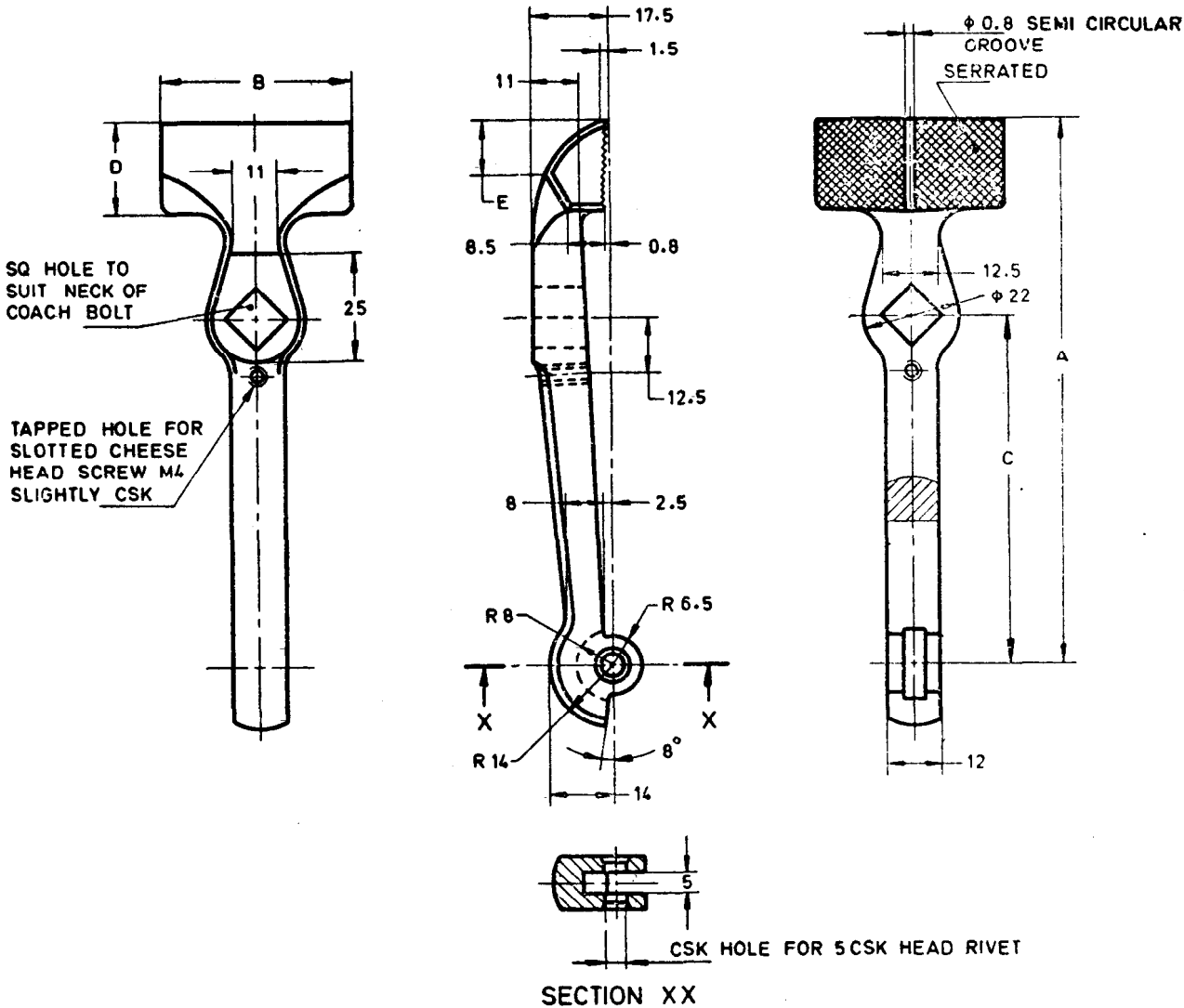
Nominal Size mm	Wing Nut*	Coach Bolt†	Washer Size‡ mm	Rivet Countersunk Head 60°§ mm
100	M8	M8	8.4	5
125	M10	M10	10.5	5

\*Conforming to IS : 2636-1972 Wing nuts ( first revision ).  
†Conforming to IS : 2609-1972 Coach bolts ( first revision ).  
‡Conforming to IS : 2016-1967 Plain washers ( first revision ).  
§Conforming to IS : 2155-1962 Rivets for general purposes ( below 12 mm diameter ).

Adopted 9 February 1976

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SECTION XX  
All dimensions in millimetres.

Nominal Size	A	B	C	D	E
100	100	35	68	12	6.5
125	125	43	80	20	12

FIG. 2 DIMENSIONS FOR FIXED ARM

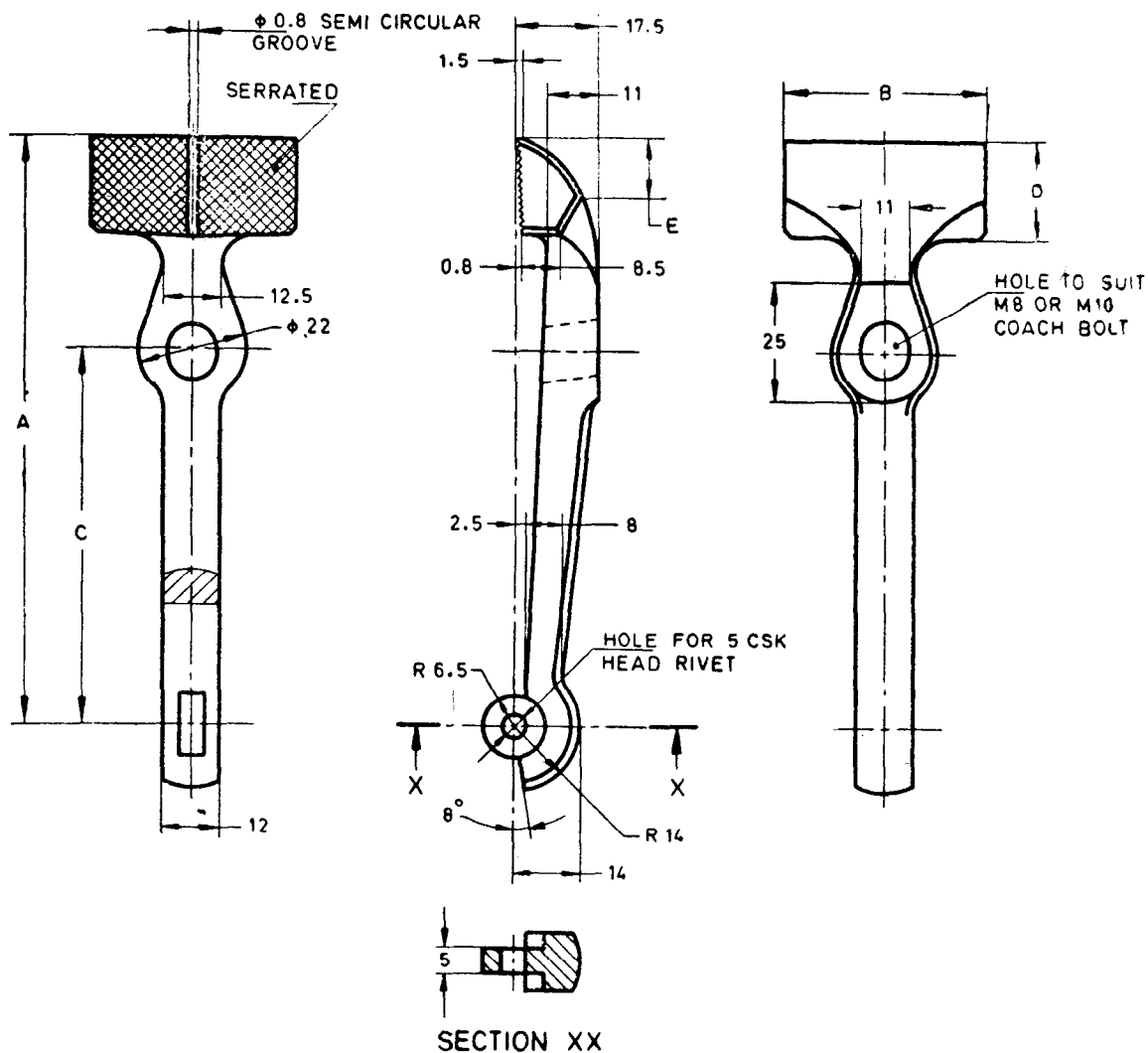
3.5 The tolerances on untoleranced dimensions shall be in accordance with the best manufacturing practices.

3.6 The illustrations are diagrammatic only and are not intended to give the details of design.

4. Material — Suitable materials meeting the requirements laid down in 5 and 9.

Example:

Component	Material
Coach bolt and arms	T50 of Schedule VI of IS : 1570-1961 ' Schedules for wrought steels for general engineering purposes ' with a maximum sulphur and phosphorus content of 0.05 percent each
Screw	C15 of Schedule II of IS : 1570-1961
Spring	T70Mn65 of Schedule VI of IS : 1570-1961 with a maximum sulphur and phosphorus content of 0.05 percent each
Washer	Brass conforming to IS : 319-1974 'Specification for free cutting brass bars, rods and sections ( third revision ) '



All dimensions in millimetres.

Nominal Size	A	B	C	D	E
100	100	35	68	12	6.5
125	125	43	80	20	12

FIG. 3 DIMENSIONS FOR MOVABLE ARM

## 5. Hardness

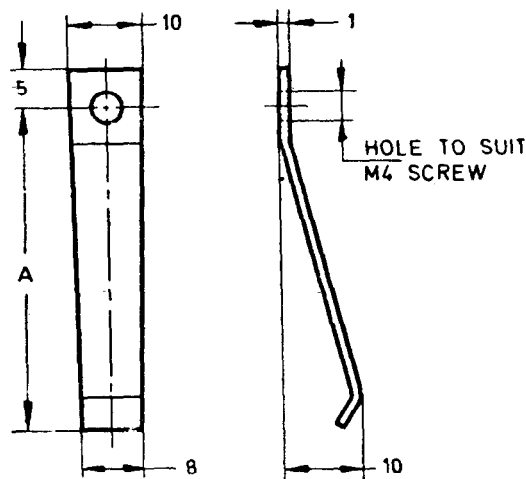
Jaws 400 to 500 HV ( $\approx$  41 to 49 HRC)

Spring 450 to 550 HV ( $\approx$  45 to 52 HRC)

**6. Manufacture, Workmanship and Finish** — The arms shall be forged and machined and shall be free from pits, seams, cracks and other defects. The faces of the jaws shall be serrated and provided with a groove across its length in the middle. The grooves in the jaws shall coincide when the vice is in closed position. The land round the holes of the threaded part of the wing nuts shall be machined smooth. The arms shall be hinged together by countersunk head rivet and finished flush. The spring shall be suitably screwed or riveted to the fixed arm. The threads of the adjusting screw and wing nut shall be full, true and accurate. The top portion of the jaws shall be finished bright.

**7. Designation** — A hand vice of 100 mm nominal size shall be designated as:

Vice 100, IS : 7958



All dimensions in millimetres.

Nominal Size	A
100	40
125	43

FIG. 4 DIMENSIONS FOR SPRING

**8. Preservation and Packing** — Each hand vice shall be delivered in a clean and new condition free from dirt, rust and foreign deposits and shall be coated with suitable preservative. They shall be suitably packed in accordance with the best trade practice.

**9. Tests**

**9.1 Striking Test** — A mild steel plate 1 mm thick shall be interposed between the jaws and each jaw shall be given six normal blows with 500-g hammer throughout its length at several places. On completion of this test the jaws shall show no sign of cracks or any other damage.

**9.2 Gripping Test** — One end of a square mild steel bar of side 11 mm and length 125 mm shall be fully gripped in the middle of the jaws across their length. The arms of the vice shall then be firmly held by the left hand and the vice kept in vertical position. Attempt shall then be made to move the free end of the bar to and fro along the length of the jaws by the normal pressure of right hand. The bar shall not move and the serration of the jaws shall not suffer any damage on completion of the test.

**10. Marking** — The hand vices shall be clearly and legibly stamped with the nominal size, manufacturer's name, initials and the trade-mark. If required by the purchaser, the year of manufacture shall also be legibly stamped.

**10.1 Certification Marking** — Details available with the Bureau of Indian Standards.

EXPLANATORY NOTE

While preparing this standard assistance has been derived from the following publications, issued by the Controllerate of Inspection, General Stores, Kanpur:

- Specification No. IND/GS/530 (e) Vices, Hand.
- Drg No. IND/GS/1695 (e) Vices, Hand, 100 mm.
- Drg No. IND/GS/1696 (d) Vices, Hand, 125 mm.