

**BUREAU OF INDIAN STANDARDS**

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भारतीय मानक मसौदा

पशु चिकित्सा सर्जिकल उपकरण - खुर परीक्षण संदंश - विशिष्टि

(IS 10963 का पहला पुनरीक्षण)

*Draft Indian Standard*

**VETERINARY SURGICAL INSTRUMENTS - HOOF  
TESTING FORCEPS - SPECIFICATION**

*(First Revision of IS 10963)*

ICS 11.220

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Veterinary Hospital Planning and Surgical  
Instruments Sectional Committee, MHD 13

Last date for comments: **02/11/2023**

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FOREWORD

*(Formal clauses will be added later)*

This Indian Standard was originally published in 1984 with the title 'Specification for Gimlet for Trephine'. This revision has been brought out to align the cross-references to the latest editions.

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*)'

## 1 SCOPE

This Indian Standard specifies requirements for hoof testing forceps used in veterinary surgery.

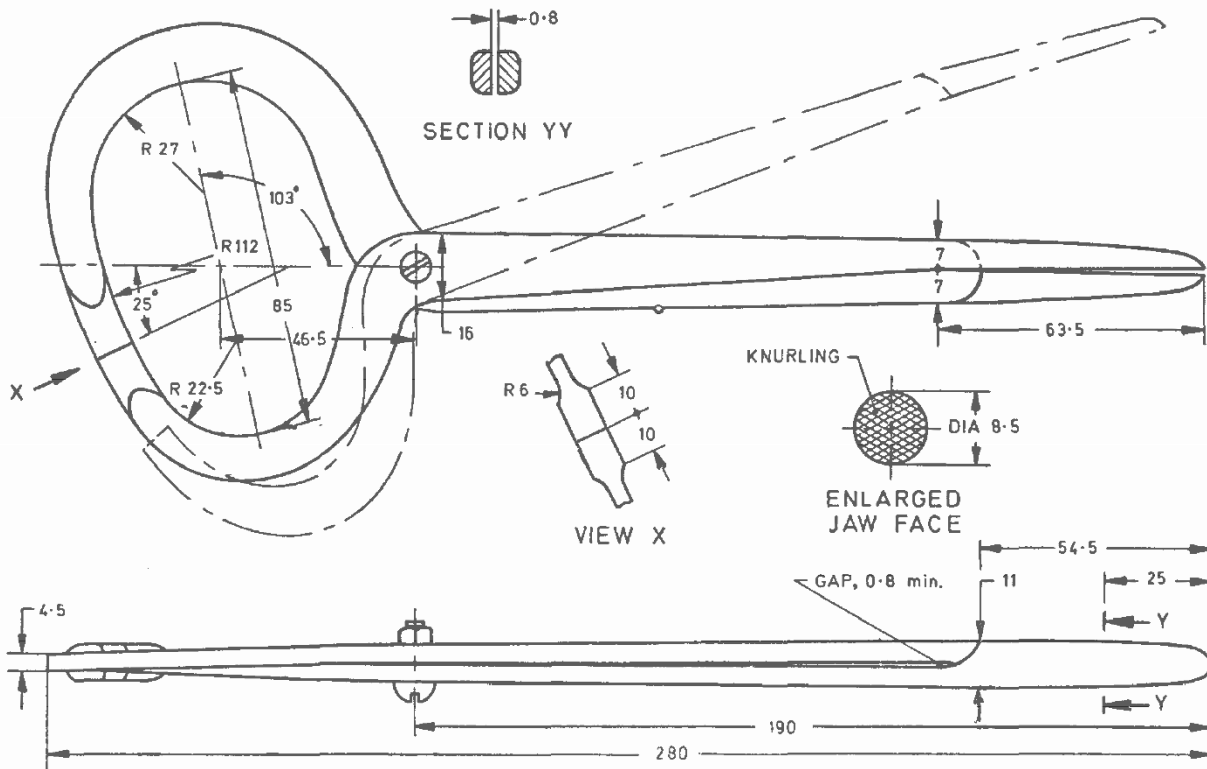
## 2 REFERENCES

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 this standard are encouraged to investigate the possibility of applying the most recent editions of these standards.

<i>IS No.</i>	<i>Title</i>
<i>IS 2102 (Part 1) :1993</i>	General tolerances: Part 1 tolerances for linear and angular dimensions without individual tolerance indications (Third Revision)
IS 6603:2001	Stainless steel bars and flats - Specification (First Revision)
IS 1501 (Part 1): 2020	Metallic Materials — Vickers Hardness Test Part 1 Test Method (Fifth Revision)
IS 7531:1990	Surgical instruments - Corrosion resistance of stainless steel surgical instruments - Methods of tests (First Revision)

## 3 SHAPE AND DIMENSIONS

**3.1** The dimensions of the hoof testing forceps shall be as given in Fig. 1.



**All dimensions in millimeters.  
Fig. 1 Forceps, Hoof Testing**

### 3.2 Tolerances

Deviations shall conform to the Coarse class of IS 2102 (Part 1)

## 4 MATERIAL

### 4.1 Components

Stainless steel conforming to designation 20Cr13 or 30Cr13 of IS 6603.

### 4.2 Screw

The screw shall be of the same material as used for forceps.

## 5 MANUFACTURES, WORKMANSHIP AND FINISH

5.1 Forceps shall be free from pits, burrs, cracks, flaws and all other surface defects.

5.2 The knurling on the jaws shall be well defined and without pitting.

**5.3** The edges, except for knurling shall be even, rounded and nowhere sharp.

**5.4** With the handles open at 20 degrees, there shall be no undue play at the joint. There shall be no undue stiffness.

**5.5** The forceps shall be passivated and polished bright.

## **6 HARDNESS**

The forceps shall have hardness of 400 *HV* to 500 *HV* when tested in accordance with IS 1501.

## **7 TESTS**

### **7.1 Functional Test**

A piece of mild steel flat 3 mm thick shall be placed between the jaws. The handle shall be pressed firmly together with one hand and an attempt shall be made with the other to remove the mild steel flat. The flat shall not be easily pulled. The forceps on opening shall not show any sign of damage.

**7.1.1** A block of hard wood 20 mm thick shall be placed between the knurled jaws of the forceps. A load of 45 kg shall be applied gradually to the tips of the handles (22.5 kg on each handle) and allowed to act for 2 min. On completion of the test, the forceps shall show no sign of damage.

### **7.2 Corrosion Resistance**

The forceps shall pass the test given in IS 7531: 1975 'Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments'.

## **8 MARKING**

The forceps shall be legibly and indelibly stamped with the following:

- a) Name of manufacturer, its initials or recognized trade-mark, year of manufacture and,
- b) the words 'Stainless Steel' or letters 'SS'.

### **8.1 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.

## **9 PACKING**

As specified in the contract or order, or agreed to between the purchaser and the supplier.