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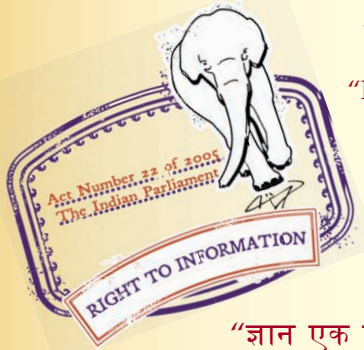
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IS 7549 (1975): timber half wrought for sporting rifles
[CED 9: Timber and Timber Stores]



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Indian Standard
SPECIFICATION FOR
TIMBER HALF WROUGHT FOR
SPORTING RIFLES

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SPECIFICATION FOR TIMBER HALF WROUGHT FOR SPORTING RIFLES

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Indian Standard

SPECIFICATION FOR TIMBER HALF WROUGHT FOR SPORTING RIFLES

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 27 January 1975, after the draft finalized by the Timber Stores Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Wooden members of sporting arms are important constituents of sporting weapons and enhance the aesthetic value of the weapon and impart a sense of pride to the owner. There has, therefore, been ever increasing demand for such members and in view of the expanding industry, both in public sector and in ordnance factories, and immense export potentialities, it has been considered necessary to evolve a standard on the subject with a view to giving proper guidance in its manufacture.

0.3 In the formulation of the standard due weightage has been given to international co-ordination among the standards and practices prevailing in different countries in addition to relating it to the practices in the field in this country.

0.4 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*. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

1. SCOPE

1.1 This standard covers the requirements of timber half wroughts for the following sporting arms:

- a) 8 mm (0.315") — Sporting rifles
- b) 5.5 mm (0.22") — Sporting rifles
- c) Double bore shot guns

*Rules for rounding off numerical values (*revised*).

2. TERMINOLOGY

2.1 For the purpose of this standard the definitions given in IS: 707-1968* and the following shall apply.

2.1.1 Borer Hole— A hole caused by the attack of wood boring insects and other organisms.

2.1.2 Brashness— Brittleness of wood caused by condition of growth, partial decay, dry rot or dote. It causes timber to break suddenly into two pieces without splintering when under stress. Such a tendency is also indicated by timbers of exceptionally low specific gravity or when the weight of the piece is far too low when compared to the average weight of other pieces of the same.

2.1.3 Centre-Heart— The core of a log including the pith.

2.1.4 Check— A separation of fibres along the grain which is confined to one face of a piece of wood.

2.1.5 Decay— Disintegration of wood tissues caused by fungi (wood destroying) or other micro-organisms.

2.1.6 Dote— An early stage of decay characterized by local discolouration of the wood most frequently in the form of streaks along the grain but sometimes as spots.

2.1.7 Grain— A descriptive term applied to the alignment of cells and tissues.

2.1.7.1 Straight grain— Grain in which the vertical elements are laid parallel to the axis of the tree.

2.1.7.2 Cross grained timber— Timber in which the fibre alignment deviates from a direction parallel to the long axis of the piece.

2.1.8 Half Wrought— Semi-finished timber on which further operations have to be done either by hand or by machine in order to complete the process.

2.1.9 Shake— A partial or complete separation between adjoining layers of tissues as seen in end surfaces.

2.1.10 Split— A separation of fibres which extends from one face of a piece of wood to another and runs along the grain of the piece.

2.1.10.1 Hair split— A very thin, short, superficial separation of fibres along the grain.

*Glossary of terms applicable to timber and timber products (*first revision*).

2.1.11 Warp — A deviation in sawn timber from a true plane surface or distortion due to stresses causing departure from a true plane,

or

A distortion of a piece of wood from its original shape.

3. SPECIES OF TIMBER

3.1 Unless otherwise specified, wooden members, that is, butt- and fore-ends of sporting arms shall be manufactured from any of the timber species mentioned in Table 1.

TABLE 1 SPECIES OF TIMBER

| SL. NO. | STANDARD TRADE NAME | BOTANICAL NAME | ABBREVIATION |
|---------|---------------------|------------------------------|--------------|
| (1) | (2) | (3) | (4) |
| i) | Amari | <i>Amoora</i> spp. | AMA |
| ii) | Bird chery | <i>Prunus padus</i> | — |
| iii) | Bola | <i>Morus laevigata</i> Wall. | BOL |
| iv) | Maple | <i>Acer</i> spp. | MAP |
| v) | Walnut | <i>Juglans</i> spp. | WAL |

4. GENERAL REQUIREMENTS

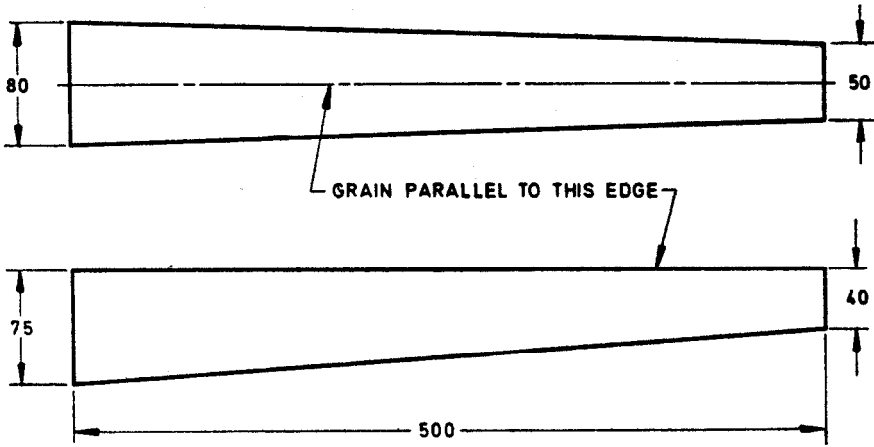
4.1 The half wroughts shall be well-seasoned to a moisture content not exceeding 20 percent and the slope of grain shall not exceed 1 in 15. They shall be free from centre-heart (pith), any kind of decay (rot), dead knots, live knot, checks, shakes, splits, borer holes, warp and any other defect except those permitted under 6.1. Plugging of defects shall not be permissible.

4.2 The number of growth rings per centimetre shall be not less than three and not more than eight. The weight at 12 percent moisture content shall not be less than 510 kg/m³.

4.3 The half wroughts shall be planed on both the broader faces.

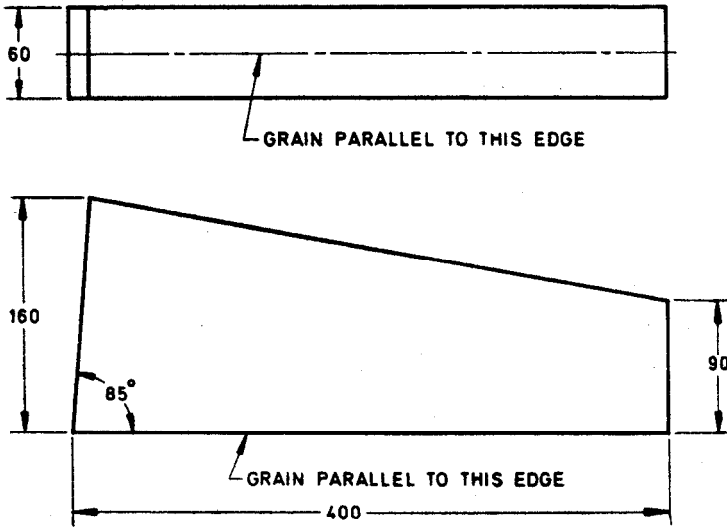
5. DIMENSIONS AND TOLERANCES

5.1 Dimensions — The half wroughts shall conform to the dimensions as shown in Fig. 1 to 3.



All dimensions in millimetres.

FIG. 1 HALF WROUGHT FOR FORE-END OF 8 mm (0.315") AND 5.5 mm (0.22") SPORTING RIFLES



All dimensions in millimetres.

FIG. 2 HALF WROUGHT FOR BUTT END OF 8 mm (0.315") AND 5.5 mm (0.22") SPORTING RIFLES

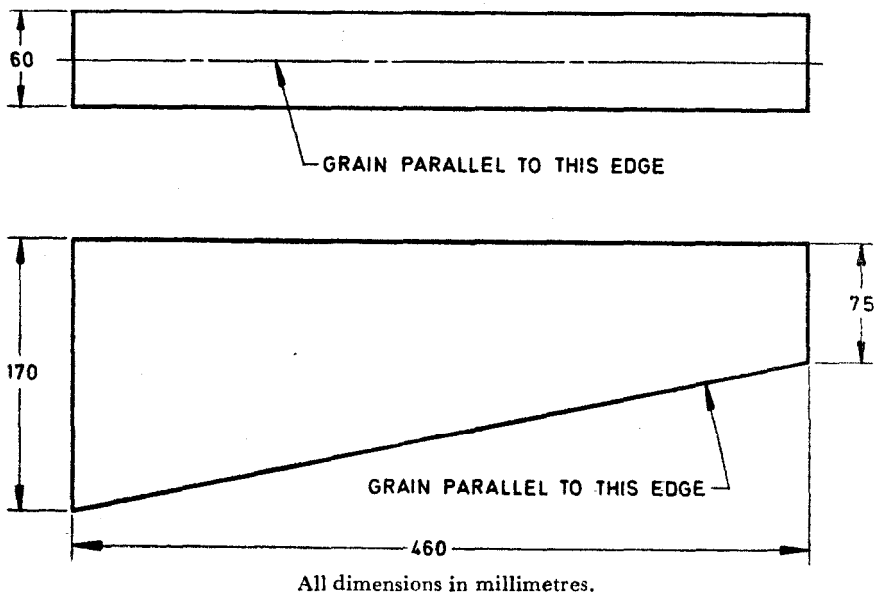


FIG. 3 HALF WROUGHT FOR BUTT END OF DOUBLE BORE SHOT GUN

5.2 Tolerances—The following tolerances shall be permissible in the half wroughts:

| | |
|-----------|--------|
| Length | +50 mm |
| Thickness | +13 mm |
| Width | +25 mm |

5.3 No negative tolerance shall be permissible.

6. PERMISSIBLE DEFECTS

6.1 Live Knots for Butt End Only—One knot not more than 13 mm in diameter and located not more than 150 mm away from the broader/rear end of the half wrought not less than 30 mm from any edge.

6.1.1 Localized Cross-Grain—Any localized cross-grain arising from the presence of permissible live knot.

6.2 Sapwood—Not exceeding 20 percent of surface area; provided it is sound and the half wroughts containing sapwood is given prophylactic treatment (dip in—dip out) with 10 percent solution of coppernephthenate in white spirit or any other suitable organic solvent.

7. DELIVERY

7.1 The half wroughts shall be delivered in a clean condition.

8. END COATING

8.1 Immediately after inspection, the ends of each accepted half wrought shall be adequately coated up to a distance of 8 cm, with any of the following moisture-proof compositions:

- a) Resin and lamp black (10 : 1), melted, mixed applied hot, or
- b) Hardened gloss oil (*see* IS : 1141- 1973*).

9. MARKING

9.1 Each accepted half wrought shall be legibly and indelibly marked with the following information:

- a) Manufacturer's name or trade-mark, if any;
- b) Year of manufacture; and
- c) Species of timber (*see* 3).

9.1.1 The half wroughts may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution (Certification Marks) Act and the Rules and Regulations made thereunder. The ISI Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well-defined system of inspection, testing and quality control which is devised and supervised by ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

*Code of practice for seasoning of timber (*first revision*).

INDIAN STANDARDS

ON

TIMBER STORES

IS:

- 620-1965 General requirements for wooden tool handles (*second revision*)
- 2133-1962 Wooden tent pins
- 2674-1964 Plywood case-battened construction
- 2891-1964 Wooden handles for felling axes and hand axes
- 2892-1964 Wooden handles for picks and beaters
- 2893-1964 Wooden handles for adzes
- 2894-1965 Wooden handles for wood working chisels and gauges
- 2895-1965 Wooden handles for engineers' files
- 2896-1965 Wooden handles for carpenters' augers
- 2897-1965 Wooden handles for shovels
- 2922-1964 Wooden tentmallets
- 3053-1965 Cane baskets for general purposes
- 3084-1965 Pencil slats
- 3386-1965 Wooden fence posts
- 3806-1966 Wooden beaters
- 4435-1967 Wooden ladders
- 4650-1968 Anvil blocks
- 4953-1968 Wooden handles for hand hammers
- 5942-1970 Wooden handles for *POWRAHS*
- 6641-1972 Wooden disc for tents
- 6642-1972 Masons mallets
- 6643-1972 Wooden pins for bivouac tents
- 6644-1972 Tinman's mallets
- 6656-1972 Caulking mallets
- 6676-1972 Bossing (plumbers), mallets
- 6729-1972 Wooden paddles
- 7344-1974 Bamboo tent poles

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