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मानक

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IS 12862 (1989): Specification for fire fighting shovel for forest fires [CED 22: Fire Fighting]



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“Knowledge is such a treasure which cannot be stolen”

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Indian Standard

**FIRE FIGHTING—SHOVEL FOR FOREST
FIRES—SPECIFICATION**

भारतीय मानक

अग्नि शमन — दावाग्नि बुझाने के लिये शोवल — विशिष्ट

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FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards on 15 December 1989, after the draft finalized by the Fire Fighting Sectional Committee had been approved by the Civil Engineering Division Council.

Modern forest fire techniques in suppression of fires are being introduced in this country. Some of the important equipments which are required are relating to hand tools, water handling equipments, etc. On the request of Ministry of Environment and Forest, Indian Standards covering specification for some of the important tools are being formulated so that on the basis of the same, these could be indigenously manufactured in this country and also users could procure these tools of proper specification. This standard covers the specification for shovel for forest fire.

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

FIRE FIGHTING—SHOVEL FOR FOREST FIRES—SPECIFICATION

1 SCOPE

1.1 This standard covers requirements for shovels closed back style type for use in construction of fire lines during wild fire suppression work.

2 MATERIALS

2.1 It shall be made from steel containing 50 to 62 percent carbon, 30 to 90 percent manganese, not more than 0.04 percent sulphur and not more than 0.42 percent phosphorus. The full length of the blade and 100 mm of the socket measured from blade shoulder shall be hardened to Rockwell hardness of not more than 47 nor less than 40 on the Rockwell C scale.

3 DIMENSION

3.1 The dimensions and tolerances shall be as given in Fig. 1. It shall be formed in such a manner that the handle socket and forward-turned stops are integral with the blade. The centre portion of the blade, at the shoulder, shall be arched to form a frog with an open or hollow recess in the back. The back of the blade frog shall be reinforced and covered by a steel plate concentric with the blade back. The plate shall be resistance seam welded to the blade and all welds shall be faired to the blade surface. The blade shoulders shall be turned to form non-cutting, forward turned steps. Except for the steps, all rolled or folded edges incorporated on the blade shoulders and that part of the shoulder socket which laps over the steel plate shall be closed to within 0.8 mm or less of an adjacent metal surface.

4 MASS

4.1 The mass of the complete shovel assembly shall be 1.5 ± 0.25 kg.

5 WORKMANSHIP

5.1 The blade and socket shall be free from cracks, laps, burrs and other rough surfaces. All radii and contours shall be faired and smoothly finished. Exposed surfaces, except the cutting edge shall have a smooth barrel tumbled finish or better.

6 MARKING

6.1 Shovel shall be marked with the nominal

mass and indication of the source of manufacture.

7 SAMPLING AND CRITERIA FOR CONFORMITY

7.1 Sampling

7.1.1 Lot

The tool of the same type produced by the same manufacturer shall be grouped together to constitute a lot.

7.1.2 Each lot shall be considered individually for the purpose of evaluation of quality in accordance with the specification.

7.1.2.1 The number of samples for testing to be taken at random from a lot and the criteria for conformity shall be as given in **7.1.2.2** and **7.1.2.3**.

7.1.2.2 From each lot, a number of samples as indicated in col 2 of Table 1 shall be selected at random. They shall be examined visually as far as possible in respect of requirement specified in **3**, **5** and **6**. All the samples tested shall pass these requirements for the lot to be declared to conform to these requirements.

Table 1 For Lots Produced Under Quality Control System

No. of Items in the Lot	Sample Size
(1)	(2)
Up to 25	3
26 to 50	5
51 to 100	6

7.1.2.3 In respect of mass (*see 4*) one sample will be tested and shall pass the test for the lot to be declared to conform to the requirements.

7.1.2.4 In the absence of a certificate from manufacturer about the conformity of the specification for the material (*see 2.1*), one item each shall be taken from each consignment separately and examined individually in respect of the relevant requirement of the specification.

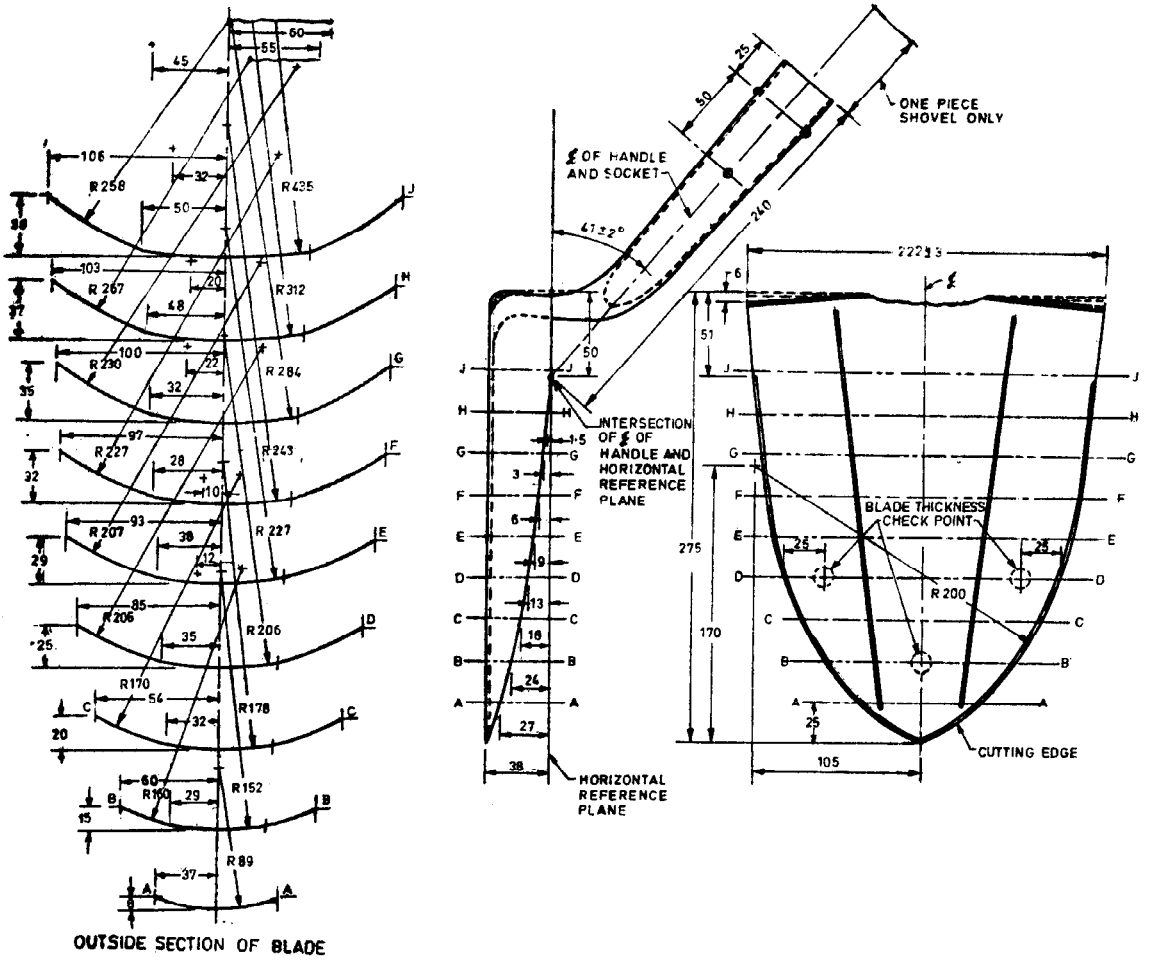


FIG. 1 SHOVEL FOR FOREST FIRE

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