IS 11931 (1987): sewer cleaning metal rods [CED 24: Public Health Engineering.]

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SPECIFICATION FOR SEWER CLEANING METAL RODS

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

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SPECIFICATION FOR SEWER CLEANING METAL RODS

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Indian Standard

SPECIFICATION FOR SEWER CLEANING METAL RODS

0. FOREWORD

0.1 This Indian Standard was adopted by the Indian Standards Institution on 20 March 1987, after the draft finalized by the Public Health Engineering Equipment Sectional Committee had been approved by the Civil Engineering Division Council.

0.2 Sewer cleaning metal rods are extensively used for removing blockages in the sewers. The users do not have at present, any standards on which they can base their requirements. The standard, which is intended to fulfil the need, gives the dimensions, materials and constructional requirements of sewer cleaning metal rods.

0.3 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.

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1. SCOPE

1.1 This standard lays down the requirements for material, dimensions, construction and testing of metal rods for sewer cleaning.

2. DIMENSION

2.1 The cleaning metal rods shall have a length of 1·0 m and 8 mm diameter, their ends bent to a length of 12 mm at an angle of 108° to prevent the rods from rotating inside the coupling.

2.2 Tolerances — Tolerances of metal rods shall be as follows:

a) Length = ± 10 mm

b) Dia = + 0·5 mm

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

3. MATERIAL

3.1 The cleaning rods shall be made out of steel conforming to IS: 8051-1976* and IS : 8052-1976†.

4. CONSTRUCTION

4.1 The cleaning metal rods and coupling shall be of steel and free from cracks, spots, etc, and the surface shall be clean and smooth. Appropriate heat treatment should be given to make the rods flexible.

4.2 Each rod shall be provided with a steel coupling arrangement and nuts to enable the rods to connect each other in quick succession. Tapping is done on both sides of the coupling to a distance of 16 mm with one with right hand threads and the other with left hand threads. The threads shall conform to IS: 4218 (Parts 1 to 6)‡. The coupling shall be provided with a hole on each side at a distance of 20 mm from the ends to engage the cleaning rods end (*see* Fig. 1).

4.2.1 Each cleaning rods shall be provided with two nuts, one with right hand threading and the other with left hand threading. Threading shall conform to IS : 4218 (Parts 1 to 6)‡.

5. TESTING

5.1 Bend Test — The metal cleaning rods shall be bent at an angle of 90° at radius 625 mm and a torque of 26 kg.m is applied for 5 hours. The rods should retain elasticity and should not show any sign of crack after the test.

6. MARKING

6.1 Each rod and coupling shall be marked with the manufacturer's name and its trade-mark.

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*Specification for steel ingots and billets for the production of volute, helical and laminated springs for automotive suspension.

†Specification for steel ingots and billets for the production of volute, and helical springs (for railway rolling stock).

‡ISO metric screw threads:

Part 1 Basic and design profiles (*first revision*).

Part 2 Diameter pitch combinations (*first revision*).

Part 3 Basic dimensions for design profiles (*first revision*).

Part 4 Tolerancing system (*first revision*).

Part 5 Tolerances (*first revision*).

Part 6 Limits of sizes for commercial bolts and nuts (diameter range 1 to 52 mm) (*first revision*).

6.1.1 The rods and the coupling may also be marked with Standard Mark.

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard 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 BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

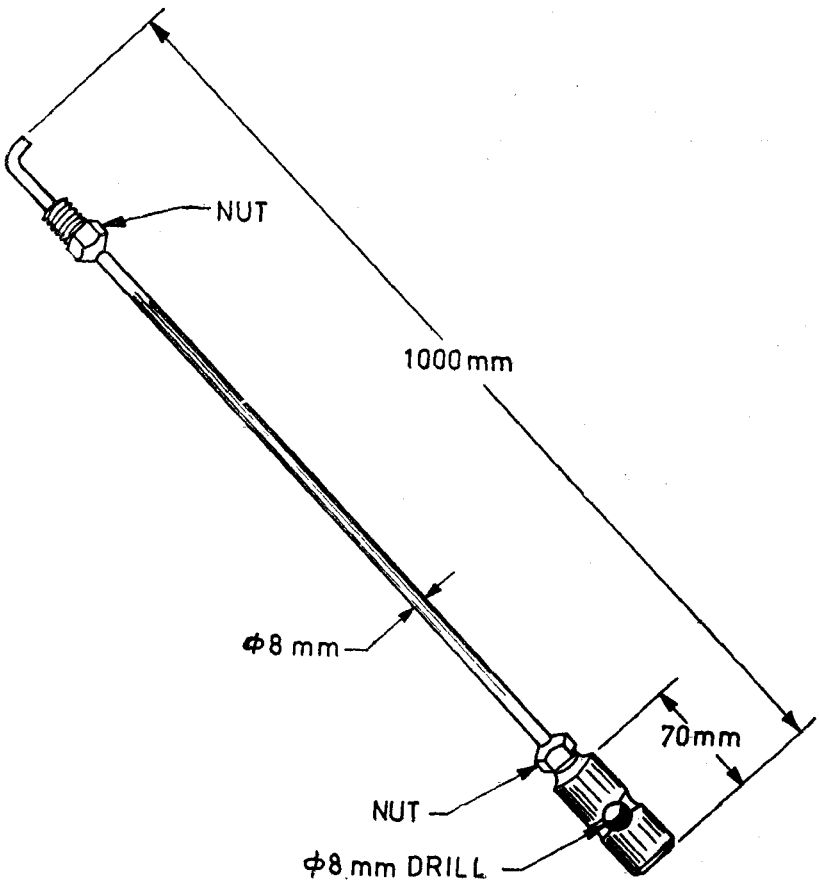

FIG. 1 METAL CLEANING METAL ROD

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