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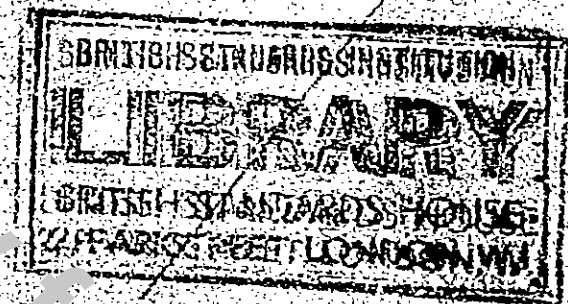
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BRITISH STANDARD 1387: 1957
[UDC 621.643.23]

**STEEL TUBES
AND TUBULARS
SUITABLE FOR SCREWING
TO B.S. 21 PIPE THREADS**



BRITISH STANDARDS INSTITUTION

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BRITISH STANDARD SPECIFICATION

STEEL TUBES AND
TUBULARS

SUITABLE FOR SCREWING
TO B.S. 21 PIPE THREADS

B.S. 1387 : 1957

Price 6/- net

BRITISH STANDARDS INSTITUTION

INCORPORATED BY ROYAL CHARTER

BRITISH STANDARDS HOUSE, MARK ST., LONDON, W.1

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THIS BRITISH STANDARD, having been approved by the Mechanical Engineering Industry Standards Committee and endorsed by the chairman of the Engineering Divisional Council, was published by the authority of the General Council on 30th November, 1957.

First published (as B.S. 1387), February, 1938.

First revision (as war emergency B.S. 789A), October, 1940.

Second revision, July, 1947.

Third revision, November, 1957.

The Institution desires to call attention to the fact that this British Standard does not purport to include all the necessary provisions of a contract.

In order to keep abreast of progress in the industries concerned, British Standards are subject to periodical review. Suggestions for improvements will be recorded and the due course brought to the notice of the committees charged with the revision of the standards to which they refer.

A complete list of British Standards, numbering over 2500, indexed and cross-indexed for reference, together with an abstract of each standard will be found in the Institution's Yearbook, price 15s.

This British Standard makes reference to the following:

B.S. 21 Pipe threads.

B.S. 427 Tables of diamond pyramid hardness numbers.

Vickers hardness test. Part 1. Testing of metals.

British Standards are revised, when necessary, by the issue either of amendment slips or of revised editions. It is important that users of British Standards should ascertain that they are in possession of the latest amendments or editions.

The following B.S.I. references relate to the work on this standard:—
Committee reference MEE/45 Draft for comment CX(MEE) 1843

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CO-OPERATING ORGANIZATIONS

The Mechanical Engineering Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:—

- *Admiralty
- Air Ministry
- Associated Offices' Technical Committee
- Association of Consulting Engineers (Incorporated)
- British Chemical Plant Manufacturers' Association
- British Compressed Air Society
- British Electrical and Allied Manufacturers' Association
- British Engineers' Association
- British Internal Combustion Engine Manufacturers' Association
- *British Iron and Steel Federation
- British Railways, The British Transport Commission
- Central Electricity Authority and Area Boards
- *Crown Agents for Oversea Governments and Administrations
- D.S.I.R.—Mechanical Engineering Research Laboratory
- Engineering Equipment Users' Association
- *Gas Council
- High Commission of India
- Institute of Marine Engineers
- *Institute of Petroleum
- Institution of Civil Engineers
- Institution of Gas Engineers
- Institution of Heating and Ventilating Engineers
- *Institution of Mechanical Engineers
- Institution of Mechanical Engineers (Automobile Division)
- Institution of Production Engineers
- Locomotive and Allied Manufacturers' Association of Great Britain
- Machine Tool Trades Association
- Ministry of Labour and National Service (Factory Inspectorate)
- Ministry of Power
- Ministry of Supply
- Ministry of Transport and Civil Aviation
- *Ministry of Works
- National Coal Board
- National Physical Laboratory (D.S.I.R.)
- Radio Industry Council
- War Office

The organizations marked with an asterisk in the above list, together with the following, were directly represented on the Committee entrusted with the preparation of this standard:—

- Association of Heating and Ventilating and Domestic Engineering Employers
- British Wrought Iron Association
- Gas List Tube Association
- Institute of Plumbing
- Institute of Refrigeration
- Institution of Chemical Engineers
- Institution of Municipal Engineers
- Institution of Naval Architects
- Institution of Public Health Engineers
- Institution of Water Engineers
- London County Council
- Metropolitan Water Board
- Royal Society for the Promotion of Health
- Society of Chemical Industry
- Individual manufacturers of steel tubes

BRITISH STANDARD SPECIFICATION FOR
STEEL TUBES AND TUBULARS SUITABLE
FOR SCREWING TO B.S. 21 PIPE THREADS

FOREWORD

A British Standard for steel tubes and tubulars was first issued in 1938 as B.S. 789, covering three classes of tubes designated gas, water and steam qualities.

In 1940, as a war emergency measure, B.S. 789A was issued; it provided for two qualities: light weight, one gauge lighter than the previous gas weight, and heavy weight, the same as the previous water weight.

In 1947, B.S. 1387 was issued; it reverted to three classes, namely, Class A, which was somewhat lighter than the previous light weight, and Classes B and C, which were the original gas and steam weights of B.S. 789.

In 1951 the International Organization for Standardization (ISO) began work on recommendations for international standards for steel tubes. As a result of this work, in which the B.S.I. took an active part, the ISO issued Recommendation R...* for the type of tubes covered by B.S. 1387 in 1947. This Recommendation provides for a more consistent thickness under the thread than is given in B.S. 1387 : 1947. The present revised standard replaces the 1947 edition, and conforms to the ISO series, namely:—

Light, which is unaltered from B.S. 1387 : 1947, Class A, and is the same as ISO 'Light series II'.

Medium, which is in conformity with the 'ISO Medium series'.

Heavy, which is in conformity with the 'ISO Heavy series'.

This British Standard differs principally from the 1947 edition in the following respects:—

a. The minimum outside diameter for *Medium* and *Heavy* is the same as the maximum diameter of internal thread and therefore slightly less than for Classes B and C.

b. The total outside diameter tolerances for *Medium* and *Heavy* for 1 in., 1¼ in. and 1½ in. nominal bore have been decreased from 0.031 in. to 0.030 in. The tolerance for 2 in. nominal bore has been decreased from 0.045 in. to 0.040 in. and for 2½ in. nominal bore from 0.050 in. to 0.045 in.

c. Some of the thicknesses of both *Heavy* and *Medium* have been

* ISO R... Seamless and welded steel tubes suitable for screwing in accordance with ISO Recommendation R7. (A number has not yet been allocated to this ISO Recommendation.)

increased by one Standard Wire Gauge and some decreased by one or two gauges.

d. The weights per foot of both plain end and screwed and socketed tubes are the ISO agreed values.

e. The ISO recommendation, that there should be no limit on the plus tolerance on thickness, has been adopted.

f. The weight tolerance on a single tube has been altered from minus 7½ per cent to minus 8 per cent plus 10 per cent, in conformity with ISO Recommendation R...*

g. The random lengths now specified have a minimum of 13 ft in conformity with ISO Recommendation R...*

h. New identification colours have been adopted for *Medium* and *Heavy* tubes.

British Standard sockets to this standard meet the requirements of ISO Recommendation R50.†

Existing British Standard Codes of Practice for Building relating to town gas and water, and also the relevant by-laws, preclude the use of *Light* tubes for these services.

NOTE. This British Standard does not indicate the services for which the tubes are appropriate. Where the use of tubes is not controlled by by-laws or regulations, reference should be made to the Code of Practice relating to the particular application.

SPECIFICATION

PART 1. GENERAL

SCOPE

1. This British Standard applies to welded and seamless, screwed and socketed steel tubes and tubulars, and to plain end steel tubes suitable for screwing to B.S. 21, 'Pipe threads', of nominal bores from ¼ in. to 2½ in. inclusive. Three thicknesses of tube are provided for as specified in Table 1 and are designated *Light*, *Medium* and *Heavy*.

DEFINITIONS

2. For the purposes of this British Standard the following definitions shall apply:—

a. *Tube*. The term 'tube' denotes a straight tube of uniform bore.

NOTE. The term 'tube' is synonymous with the term 'pipe'.

b. *Socket*. The term 'socket' denotes the screwed coupling utilized in jointing the tubes together.

NOTE. The term 'socket' is synonymous with the term 'coupler'.

* ISO R... Seamless and welded steel tubes suitable for screwing in accordance with ISO Recommendation R7. (A number has not yet been allocated to this ISO Recommendation.) This Recommendation gives the corresponding metric dimensions to the inch values.

† ISO R50: Steel sockets screwed in accordance with ISO Recommendation R7. This Recommendation gives the corresponding metric dimensions to the inch values.