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VALVES, GAUGES AND OTHER SAFETY FITTINGS

FOR APPLICATION TO LAND BOILERS AND TO PIPING INSTALLATIONS FOR AND IN CONNECTION WITH LAND BOILERS

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VALVES, GAUGES AND OTHER SAFETY FITTINGS

FOR APPLICATION TO LAND BOILERS AND TO PIPING INSTALLATIONS FOR AND IN CONNECTION WITH LAND BOILERS

B.S. 759 : 1955

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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 under the authority of the General Council on 30th December, 1955.

First published, 1937.

First revision, March, 1950.

Second revision, December, 1955.

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 in 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 12s. 6d.

This standard makes reference to the following British Standards:

B.S. 10.* Tables of pipe flanges (for land use).
B.S. 21. Pipe threads. Part 1. Basic sizes and tolerances.
B.S. 24. Materials used in the construction of railway rolling stock.
Part 3B. Springs and spring steel. Section One.
* Part 4. Steel forgings, blooms and castings. Specification No. 8, Class B.
B.S. 84.* Screw threads of Whitworth form.
B.S. 592. Carbon steel castings for general engineering purposes.
B.S. 806. Ferrous pipes and piping installations for and in connection with land boilers.
B.S. 970. Wrought steels. En. 3A. '20' Carbon steel (hot rolled or normalized).
B.S. 1121. Methods for the analysis of iron and steel.
B.S. 1306 : Part 1. Non-ferrous pipes and piping installations for and in connection with land boilers.
B.S. 1398. Carbon-molybdenum steel castings.

* Under revision.

B.S. 1400. Copper alloy ingots and castings.
B.S. 1452. Grey iron castings.
B.S. 1461. Three per cent chromium-molybdenum steel castings.
B.S. 1726. Guide to the method of specifying helical compression springs.
B.S. 1780. Pressure gauges.
B.S. 2060. Copper alloy globe valves for general purposes.
B.S. .....† Copper alloy gate valves for general purposes.
B.S. .....† Copper alloy check valves for general purposes.

† In course of preparation.

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/34/6 Draft for comment CT(MEE)8095.

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CONTENTS

	Page
Co-operating organizations	6
Foreword	7
SECTION ONE : GENERAL REQUIREMENTS	
1. Scope	9
2. Materials, temperature and pressure limits	9
3. Scantlings	10
SECTION TWO : METHOD OF CONSTRUCTION	
4. Castings	10
5. Packing of cocks	10
6. Bonnets or covers, and spindles	10
7. Direction of flow	11
8. Direction of operation	11
9. Moving parts	11
10. Valve seats	11
11. Joints	11
12. Flanges	11
SECTION THREE : SPECIAL REQUIREMENTS	
(A) SAFETY VALVES	
13. General	12
14. Definitions	12
15. Minimum aggregate area	12
16. Over pressure	13
17. Pressure drop	13
18. Attachment to boiler	14
19. Openings in shell	14
20. Discharge passage and waste steam pipe	14
21. Design pressure for safety valve discharge piping for steam	14
22. Slip expansion joints for discharge piping for steam safety valves	15
23. Drainage	15
24. Moving parts	15
25. Bearings for levers	15
26. Attachments of weights and springs	15
27. Easing gear	15
28. Lift	15
29. Springs	16
30. Final setting	18
31. Marking	19

	Page
(B) HIGH AND LOW WATER ALARMS	
32. Construction	19
(C) STOP VALVES	
33. Marking	19
(D) FEED VALVES	
34. General	19
35. Operating positions	19
36. Marking	20
(E) BLOW-DOWN MOUNTINGS	
37. General	20
38. Blow-down and scum discharges	20
(F) WATER GAUGES	
39. Cleaning facilities	20
40. Cock handles	20
41. Drains	20
42. Protectors	20
43. Glass size	21
44. Safety devices	21
45. Gauge columns	21
46. Cocks	21
47. Isolating cocks or valves	21
(G) PRESSURE GAUGES	
48. General	21
49. Connections	22
50. Gauge cocks	22
(H) TEST CONNECTIONS	
51. Inspector's pressure gauge attachment	22
(J) FUSIBLE PLUGS	
52. General	22
53. Type of plug	23
54. Material	23
55. Attachment to boiler	23
SECTION FOUR : TESTING AND INSPECTION	
56. Hydraulic test	23
57. Inspection	23
58. Testing facilities	24
APPENDIX	
Hot rolled spring steel bars for helical and volute springs	25

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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 Manufacturers' Association
Machine Tool Trades Association
*Ministry of Fuel and Power
*Ministry of Labour and National Service (Factory department)
Ministry of Supply
*Ministry of Transport and Civil Aviation
*Ministry of Works
National Coal Board
National Physical Laboratory
Radio Industry Council
War Office

The Government departments and scientific and industrial 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 British Standard:—

Boiler Manufacturers
Boiler Mountings and Fittings Manufacturers
British Coal Utilization Research Association
British Valve Manufacturers' Association
British Welding Research Association
Coil Spring Federation Research Organization
Combustion Engineering Association
Institute of Welding
Institution of Electrical Engineers
Insurance Engineers Ltd.
Lloyd's Register of Shipping
Spray Equipment Manufacturers' Association
Tube Manufacturers
Water-Tube Boilermakers' Association

BRITISH STANDARD SPECIFICATION FOR

VALVES, GAUGES AND OTHER SAFETY FITTINGS

FOR APPLICATION TO LAND BOILERS AND TO PIPING INSTALLATIONS FOR AND IN CONNECTION WITH LAND BOILERS

FOREWORD

This revised British Standard, which has been authorised by the Mechanical Engineering Industry Standards Committee, supersedes B.S. 759: 1950. It deals with the materials and construction of valves, gauges and other fittings, but does not relate to their installation, for which reference should be made to the British Standard for the particular type of boiler under consideration.

The following general recommendations are made, however, for the guidance of users:—

a. Safety valves. It is recommended that at least two safety valves should be fitted to each boiler, one of which may be a high steam and low water safety valve, and that in no case should the bore of the seat of the valve be less than ¾ in.

Safety valves should be mounted so that the axis of the valve is vertical.

Shut-offs or obstructions of any description should not be placed between the boiler and the safety valve.

b. Economiser safety valves. Economisers should be fitted with at least one 2 in. diameter valve. It is recommended that wherever practicable only 2 in. diameter valves should be fitted, the required area being made up by fitting several valves of this size where necessary.

Where the economiser is composed of two or more sections with circulating devices at least one 2 in. valve should be fitted on each section.

This paragraph (*b*) does not apply to economisers connected directly to the boiler drum without the interposition of a shut-off valve or valves.

c. Blow-down mountings. Each boiler should be fitted with a suitable blow-down valve or cock placed at, or as near as practicable to, the lowest point of the boiler.

For locomotive type, vertical, and marine type boilers, the valve or cock should be attached direct to the boiler or to a suitable pad or stand block. For water tube boilers the valve or cock should be outside the brickwork with a substantial steel pipe between it and the mudbox.

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