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BRITISH STANDARD 1099 : 1960

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SPECIFICATION FOR

SMALL FUSION-WELDED STEEL AIR RECEIVERS

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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 29th July, 1960.

First published May, 1943.
First revision July, 1960.

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 3000, indexed and cross-indexed for reference, together with an abstract of each standard, will be found in the Institution's Yearbook, price 15s.

This standard makes reference to the following British Standards:

B.S. 350 Conversion factors and tables.
B.S. 399 'High carbon' steel cylinders for 'permanent' gases.
B.S. 400 'Low carbon' steel cylinders for the storage and transport of 'permanent' gases.
B.S. 401 Steel cylinders for the storage and transport of 'liquefiable' gases.
B.S. 487 Fusion-welded steel air receivers, Part 1: For pressures not exceeding 500 lb/sq in.
B.S. 639 Covered electrodes for the metal-arc welding of mild steel.
B.S. 806 Ferrous pipes and piping installations for and in connection with land boilers.
B.S. 1045 Manganese steel gas cylinders for atmospheric gases.
B.S. 1101 Pressure containers for paint and other substances.
B.S. 1123 Valves, gauges, and other safety fittings for air receivers and compressed air installations.

B.S. 1287 High carbon steel gas cylinders for carbon dioxide, nitrous oxide, and ethylene.
B.S. 1288 Manganese steel gas cylinders for carbon dioxide, nitrous oxide, and ethylene.
B.S. 1387 Steel tubes and tubulars suitable for screwing to B.S. 21 pipe threads.
B.S. 1449 Steel plate, sheet and strip.
B.S. 1633 Steel for land boilers, receivers and other pressure vessels.
B.S. 1856 General requirements for the metal-arc welding of mild steel.
B.S. 2642 General requirements for the metal-arc welding of medium tensile weldable structural steels to B.S. 968, Type a.
B.S. 2645 Tests for use in the approval of welders.
B.S. 2856 Precise conversion of inch and metric sizes on engineering drawings.

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.

BS. 3601 Steel pipes and tubes for pressure purposes: carbon steel, ordinary duties.
B.S. 3602 Steel pipes and tubes for pressure purposes: Carbon steel, high duties.

The following B.S.I. references relate to the work on this standard:
Committee references: MEE/21 and MEE/21/3
Draft for comment: CY(MEE) 6063

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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 Gear Manufacturers' Association
British Internal Combustion Engine Manufacturers' Association
*British Iron and Steel Federation
*British Railways, The British Transport Commission
Crown Agents for Oversea Governments and Administrations
D.S.I.R.—National Engineering Laboratory
*Electricity Council, The Generating Board and the Area Boards in England and Wales
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 (Factory Inspectorate)
*Ministry of Power
*Ministry of Transport
Ministry of Works
National Coal Board
*National Physical Laboratory (D.S.I.R.
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 standard:

Agricultural Engineers' Association
British Acetylene Association
British Welding Research Association
Bureau Veritas
Diesel Engineers' and Users' Association
Institute of Welding
Institution of Mining Engineers
Lloyd's Register of Shipping
London Transport Executive, The British Transport Commission
North East Coast Institution of Engineers and Shipbuilders
Society of Motor Manufacturers and Traders Limited
Individual manufacturers and users of Air Receivers

BRITISH STANDARD SPECIFICATION FOR

SMALL FUSION-WELDED STEEL AIR RECEIVERS

FOREWORD

This revised standard supersedes the 1943 edition and has been prepared under the authority of the Mechanical Engineering Industry Standards Committee. The principal alterations incorporated in this edition relate to the sections dealing with 'Materials' and 'Scantlings'. As a result of a recommendation from the Committee responsible for the co-ordination of design stresses for pressure parts (MEE/–/11), the minimum thicknesses required for scantlings of receivers constructed from plate complying with B.S. 1633 have now in general been reduced by 12½ per cent. The clauses relating to welding have been extensively revised and reference has also been made to the standard for requirements to be observed for welding and associated techniques and to other standards for use in conjunction with this standard. Hitherto this standard did not apply to air receivers for use on railways. This restriction has now been removed and in addition B.S. 3256, 'Small fusion-welded air reservoirs for road and railway vehicles', has now been published.

Attention is directed to B.S. 1123, 'Valves, gauges, and other safety fittings for air receivers and compressed air installations', which includes requirements for mountings for use on air receivers and it is recommended that safety valves and appliances conforming to the requirements of that standard be used in association with welded steel air receivers to this standard.

This standard forms one of a series for air receivers; the other British Standards in this series are:

B.S. 428	Forge welded steel air receivers.
B.S. 429	Riveted steel air receivers.
B.S. 430	Solid drawn steel air receivers (not intended for transport).
B.S. 487	Fusion-welded steel air receivers. Part 1: For pressures not exceeding 500 lb/sq in.
B.S. 487*	Fusion-welded steel air receivers. Part 2.
B.S. 3256	Small fusion-welded air reservoirs for road and railway vehicles.

If it is required to convert the figures in this standard from British units into metric units, it is recommended that the conversion factors and tables of conversion contained in B.S. 350, 'Conversion factors and tables' be used. Attention is also drawn to B.S. 2856, 'Precise conversion of inch and metric sizes on engineering drawings'.

* In course of preparation.

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