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BY
THE INSTITUTION OF CIVIL ENGINEERS,
THE INSTITUTION OF MECHANICAL ENGINEERS,
THE INSTITUTION OF NAVAL ARCHITECTS,
THE INSTITUTION OF ELECTRICAL ENGINEERS,
THE INSTITUTION OF METALLURGISTS,
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THE INSTITUTION OF METALLURGISTS,
THE INSTITUTION OF STEEL ENGINEERS,
THE INSTITUTION OF CHEMICAL ENGINEERS.

BRITISH
STANDARD SPECIFICATION
FOR

"HIGH CARBON"
STEEL CYLINDERS
FOR THE STORAGE AND TRANSPORT OF
"PERMANENT" GASES.

LONDON.
PUBLISHED FOR THE ASSOCIATION BY CROSBY LOCKWOOD & SON
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The following Government, Departments and Scientific and Industrial Organisations were officially represented upon the Committee entrusted with the preparation of this Specification—

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Board of Trade, Marine Department.
Crown Agents for the Colonies.
Department of Scientific and Industrial Research.
High Commissioner for India.
Home Office.
War Office.
British Acetylene Association.
British Association of Refrigeration.
British Corporation Register of Shipping and Aircraft.
Bureau Veritas.
Engineering Insurance Companies.
Federation of British Industries.
Fire Offices Committee.
Gas Cylinder Makers.
Gas Makers.
Lloyd's Register of Shipping.
National Federation of Iron and Steel Manufacturers.
Northern Association of Carbonic Acid Gas Manufacturers.
Railway Companies.

This Specification was approved by the Technical Committee on Gas Cylinders in July, 1930, and published by the authority of the Council of the Association as a British Standard on 20th October, 1930.

NOTE.

In order to keep abreast of progress in the Industries concerned, the British Standard Specifications are subjected to periodical reviews.

Suggestions for improvements, addressed to the Director, British Engineering Standards Association, 28, Victoria Street, London, S.W. 1, will be welcomed at all times. They will be recorded, and in due course brought to the notice of the Committees charged with the revision of the Specifications to which they refer.

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NOTE.—The Association desires to call attention to the fact that this Specification is intended to include the technical provisions necessary for the supply of the articles herein referred to, but does not purport to comprise all the necessary provisions of a contract.

BRITISH

**STANDARD SPECIFICATION
FOR**

**“ HIGH CARBON ” STEEL CYLINDERS
FOR THE STORAGE AND TRANSPORT OF
“ PERMANENT ” GASES.***

NOTE.—This Specification is based on the summary of recommendations, dated December, 1928, and issued in 1929, for Ordinary Commercial Cylinders for the storage and transport of the so-called “ permanent ” gases included in the First Report of the Gas Cylinders Research Committee of the Department of Scientific and Industrial Research.

General

1. British Standard “ High Carbon ” Steel Gas Cylinders for the storage and transport of “ permanent ” gases, compressed to a pressure of not more than 120 atmospheres (taken as equivalent to 20 lb. per sq. in.), shall conform in every respect with the tests and requirements laid down in this Specification.
2. The steel used in the manufacture of the cylinders shall be made by the acid or basic open-hearth process.
3. The steel used in the manufacture of the cylinders shall have the following composition:—

Quality of Material.

Chemical Composition.

Carbon	0.43 to 0.48 per cent.
Manganese	0.50 to 0.90 per cent.
Silicon	Not to exceed 0.30 per cent.
Sulphur	Not to exceed 0.045 per cent.
Phosphorus	Not to exceed 0.045 per cent.
Iron	The remainder.

* By “ permanent ” gases is meant such gases as atmospheric air, oxygen, nitrogen, hydrogen, etc., which at the usual working temperature and pressure remain in a gaseous state in the cylinder.