

Specification for

# Steel butt-welding pipe fittings for the petroleum industry —

**Part 1: Wrought carbon and ferritic alloy steel fittings**

UDC 621.643.4:621.791.053.6:665.5

## Co-operating organizations

The Petroleum Equipment Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government department and scientific and industrial organizations:

British Iron and Steel Federation\*  
 Council of British Manufacturers of Petroleum Equipment\*  
 Federation of British Rubber and Allied Manufacturers  
 Institute of Petroleum  
 Ministry of Power  
 Oil Companies Materials Association\*

The 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:

British Valve Manufacturers' Association  
 National Association of Drop Forgers and Stampers

This British Standard, having been approved by the Petroleum Equipment Industry Standards Committee and endorsed by the Chairman of the Engineering Divisional Council, was published under the authority of the General Council on 12 December 1962

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The following BSI references relate to the work on this standard:  
 Committee reference, PEE/2  
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## Foreword

This British Standard makes reference to the following British Standards:

BS 131, *Methods for notched bar tests — Part 2: Charpy V-notch impact test.*

BS 1501-1506, *Steels for use in the chemical, petroleum and allied industries.*

BS 1510, *Steels for use in the chemical, petroleum and allied industries (low temperature supplementary requirements to BS 1501-1506).*

BS 1560, *Steel pipe flanges and flanged fittings (nominal sizes  $1\frac{1}{2}$  in to 24 in) for the petroleum industry.*

BS 1600, *Dimensions of wrought steel pipe for the petroleum industry.*

BS 2600, *General recommendations for the radiographic examination of fusion welded joints in thicknesses of steel up to 2 inches.*

BS 2910, *General recommendations for the radiographic examination of fusion welded circumferential butt joints in steel pipes.*

BS 3293, *Carbon steel pipe flanges (over 24 in nominal size) for the petroleum industry.*

BS 3351, *Piping systems for the petroleum industry.*

This British Standard is one of a series of standards for fittings prepared under the authority of the Petroleum Equipment Industry Standards Committee. It was first published in 1950, and the first revised edition was published in 1953.

One of the aims of this standard is to ensure interchangeability in service with similar products of American manufacture. Consequently in the present edition due consideration has been given to the latest editions of American Standards ASA.B16.9, ASA.B16.28, ASTM.A.234, ASTM.A.351, ASTM.A.403 and ASTM.A.420, and to the American Manufacturers' Standardisation Society of the Valve and Fittings Industry Standard Practice SP.43.

Account has also been taken of the work of the International Organization for Standardization (ISO) on this subject.

The standard no longer provides for cast carbon and cast ferritic alloy steel fittings. Provision is now made for austenitic stainless steel fittings, and also for fittings intended to be used for low temperature service.

The revised edition of BS 1640 is in two parts, of which this is Part 1.

Part 2 deals with wrought and cast austenitic stainless steel fittings.

Acknowledgment is made to the American Standards Association, the American Society for Testing and Materials, and the American Manufacturers' Standardisation Society of the Valve and Fittings Industry for data used in this standard.

**NOTE** In place of the customary, but incorrect, use of the pound as a unit of force, the unit called a pound-force (abbreviation lbf) has been used in this standard. This is the force which, when acting on a body of mass one pound, gives it an acceleration equal to that of standard gravity.

The unit called ton-force (abbreviation tonf) has also been used where appropriate.

A British Standard does not purport to include all the necessary provisions of a contract. Users of British Standards are responsible for their correct application.

**Compliance with a British Standard does not of itself confer immunity from legal obligations.**

### Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 18, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.