

Amendment Slip No.2, published 22 April, 1974
to BS 970 : Part 4 : 1970

Wrought steels in the form of blooms, billets, bars and forgings

Part 4. Stainless heat resisting and valve steels

Revised text

Page 2. In the list of reference standards (as amended by amendment slip No. 1), delete the existing title of BS 18 and substitute 'BS 18. Methods for tensile testing of metals. Part 2. Steel (general)'.

Add at the foot of the list:

'Handbook No. 19. Methods for the sampling and analysis of iron, steel and other ferrous metals.'

Foreword. Delete the first paragraph which finishes 'Part 5, Spring steels' and substitute the following:

'This British Standard has been prepared under the authority of the Iron and Steel Industry Standards Committee and forms Part 4 of the revision of BS 970. The complete revision of BS 970 is comprised as follows:

Part 1. Carbon and carbon manganese steels, including free cutting steels.

Part 2. Direct hardening alloys steels, including alloy steels capable of surface hardening by nitriding.

Part 3. Steels for case hardening.

Supplement No. 1 to Part 3. Requirements for carbon and carbon manganese steels for case hardening, including free cutting steels.

Part 4. Stainless, heat resisting and valve steels.

Part 5. Carbon and alloy spring steels for the manufacture of hot formed springs.

In addition, Part 6. SI metric values (for use with BS 970 : Parts 1 to 5) has also been published.'

Delete the last paragraph, 'This standard is written in terms of imperial units, but it is intended that a metric version of the standard will be published as soon as possible,' and substitute the following:

'This standard is written in terms of imperial units but it is intended that a metric version of the standard, which will take account of relevant ISO and European work, will be published as soon as possible. In the meantime, as an interim measure, provisions have been published in BS 970 : Part 6 to enable the steels in this and the other Parts 1, 2, 3 and 5 of BS 970 to be purchased to SI metric values for limiting ruling section and size (excluding standard bar sizes and tolerances) stress and hardenability requirements.'

Delete the NOTE.

1. General requirements

1.2 General. Insert the following additional paragraph after the existing first paragraph:

'When it is required that steel shall be supplied to SI metric values the steel shall also be supplied to the appropriate requirements of BS 970 : Part 6.'

1.3 Information to be supplied by the purchaser. Delete the existing item (1) and substitute the following:

- (1) *a.* Whether the steel is required to be supplied to the SI metric values specified in BS 970 : Part 6 and, if so, the information required by Clause 3 of Part 6.
- b.* The material specification in Section 2 or 3 in this part of the standard.'

1.6 Product analysis and permitted variations. Delete the existing text of 1.6.4 and substitute the following:

'1.6.4. Samples for product analysis shall be taken in accordance with the requirements of BS 1837* and, in the event of dispute, analysed in accordance with the appropriate methods of British Standard handbook No. 19†.'

Add the following footnote:

†Handbook No. 19. 'Methods for the sampling and analysis of iron, steel and other ferrous alloys'.

1.13.1 Tensile test. In 1.13.1.1 insert ': Part 2*' after '.....of BS 18.'

Delete the existing footnote to BS 18 and substitute the following:

*BS 18, 'Method for tensile testing of metals', Part 2, 'Steel (general)'.

1.19.1 Symbols for tensile ranges of hardened and tempered material. Delete the two column headings '(kgf/mm²)' and all the values given in these columns.

1.19.2 Symbols for mechanical properties. In the first sentence insert 'Part 2*' after '.....of BS 18.'

Delete the existing footnote to BS 18 and substitute the following:

*BS 18, 'Methods for tensile testing of metals', Part 2, 'Steel (general)'.

2. Specific requirements for stainless and heat resisting steels

In the mechanical property tables for the individual steels, for tensile strength, yield stress and 0.2 % proof stress, delete the entries 'kgf/mm²' and all the associated values.

Appendix B. Summary tables

Table 8. Martensitic stainless steels - Mechanical properties in the hardened and tempered condition related to tensile strength range

In the body of the table, in the column headed 'R', insert the following values against steel grades 410S21, 416S21, 416S41.

Grade	LRS*	R _e *	A*	I*	R _{p0.2}
410S21	2½	34	15	25	32
416S21	2½	34	11	20	32
416S41	2½	34	11	20	32

NOTE. These requirements for these steels were introduced into the body of the standard by the publication of Amendment No.1.