

Specification for

Builders' hardware: lock and latch furniture (doors)

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The Hardware and Ironmongery Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific, industrial and professional organizations:

Association of Builders' Hardware Manufacturers*	Guild of Architectural Ironmongers*
British Lock Manufacturers' Association*	Institution of Municipal Engineers*
British Plastics Federation*	Metal Window Federation of Great Britain*
British Steel Industry	Metropolitan Police
Copper Development Association*	National Federation of Building Trades Employers*
Department of the Environment*	National Federation of Ironmongers*
Department of the Environment — Building Research Establishment	Royal Institute of British Architects*
Greater London Council*	Royal Institution of Chartered Surveyors
	Zinc Development Association

The Government department and scientific, industrial and professional 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:

Aluminium Federation	Incorporated Association of Architects and Surveyors
Association of Burglary Insurance Surveyors	Incorporated British Institute of Certified Carpenters
British Woodwork Manufacturers' Association	National Federation of Builders' and Plumbers' Merchants
City of London Police	Zinc Alloy Die-Casters' Association
Department of the Environment — Building Research Establishment, Princes Risborough Laboratory	

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Foreword

BS 1331, “*Builders’ hardware for housing*” was published in 1946 to provide a range of standardized builders’ hardware for use in the post war housing programme. It was revised in 1954 and took into account the development of alternative materials for a number of the items specified. In due course BS 1331 will be replaced completely by a number of new British Standards which will be expressed in metric units.

This British Standard, the first of the new standards, specifies performance criteria for lever and knob furniture for use with locks and latches on doors. Because of the complexity of the subject, *the material cannot be specified in detail* for each piece of every component. Likewise dimensions of those pieces cannot be given to suit all materials.

This British Standard does not aim to specify metric design. It is expressed wholly in metric terms but these are based on British practice. Thus, the tolerances which are given enable existing practice based on imperial measurements to conform to the requirements of the new standard.

Equivalent imperial measurements if required may be determined from BS 350, “*Conversion factors and tables*” Part 1, “*Basis of tables. Conversion factors*” and Part 2, “*Detailed conversion tables*”.

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.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 10, 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.

1 Scope

This British Standard covers the dimensions and performance tests for lever and knob furniture for use with locks and latches for doors, and defines test requirements.

The dimensional requirements of this standard only apply to furniture designed for use with mortice locks and latches complying with BS 455.

NOTE The titles of the British Standards referred to in this standard are listed on page 10.

2 Definitions

For the purposes of this British Standard the following definitions shall apply:

2.1

lock furniture

any items of door furniture particularly adapted for use in conjunction with a lock

2.2

latch furniture

any items of door furniture particularly adapted for use in conjunction with a latch

2.3

spindling system

the various features of design and manufacture of door furniture and, to some extent, the followers of locks permitting one or more of the following functions to be performed satisfactorily:

- 1) rotating the follower of the lock or latch, and hence withdrawing the latch bolt
- 2) connecting the knob or lever handle to the spindle
- 3) allowing for different thicknesses of doors
- 4) transmitting the imposed loads.

3 Selection of test samples

3.1 Specimens submitted to test shall be random production samples of the product.

3.2 If any sample from the initial batch should fail, then a further six samples for each failed sample shall be submitted to test without further failure in order to comply with this standard.

4 Workmanship

The furniture and its components shall be free from burrs and defects likely to affect adversely the appearance, performance, or safety aspects of the furniture during fixing and use.

5 Dimensions and fixing systems

The dimensions of lever and knob furniture and their fixings shall be in accordance with the following clauses.

5.1 Bolt fixing systems

5.1.1 Bolt fixing systems in which the bolts pass through lock or latch case shall have centres at 38 ± 0.25 mm equally disposed about the spindle on the horizontal or the vertical axis. The fixing bolts shall be not greater than 5 mm in diameter. Bolt fixing systems shall be in accordance with Figure 1.

5.1.2 Bolt fixing systems not obstructed by the lock or latch case shall have the following minimum dimensions.

- 1) *For locks.* Spindle centre to top bolt centre, 35 mm. Spindle centre to bottom bolt centre, 85 mm. (See also Note 1 following 5.7 below.)
- 2) *For latches.* Spindle centre to top bolt centre, 29 mm. Spindle centre to bottom bolt centre, 29 mm. (See also Note 1 following 5.7 below.)

5.2 Screw fixing systems. Screw fixing systems shall have screws which shall not foul the lock or latch case as defined in BS 455.

5.3 Other fixing systems. Other fixing systems shall be deemed to comply with this standard provided they meet the performance requirements.

5.4 Keyhole centre dimensions. Keyhole centre dimensions shall be $57 \text{ mm} \pm 0.8 \text{ mm}$ from centre of spindle as shown in Figure 2.

5.5 Keyhole dimensions. Keyhole dimensions shall be as shown in Figure 2.

5.6 Delineation of measurements

5.6.1 Lengths of levers and knobs shall be measured in accordance with Figure 3.

5.6.2 Projection of levers and knobs shall be measured in accordance with Figure 4.

5.6.3 Length and width of plates for lock or latch shall be measured in accordance with Figure 5 and shall be overall sizes.

5.6.4 Diameter or square of roses shall be overall.

5.7 The spindle. The spindle used for interconnecting the levers or knobs through the lock shall be 7.6 ± 0.05 mm square and shall be of such a length that in all circumstances the engagement of the spindle into the levers or knobs is not less than 12.00 mm into each side simultaneously, when fitted to doors of 33 mm to 46 mm finished thickness (see BS 459-2).