

BRITISH STANDARD 3823 : Part 1 : 1965

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SPECIFICATION FOR

GRADING OF

WOOD HANDLES FOR

HAND TOOLS

Part 1. Ash and Hickory Handles

BRITISH STANDARDS INSTITUTION



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SPECIFICATION FOR GRADING OF WOOD HANDLES FOR HAND TOOLS

Part 1. Ash and Hickory Handles

B.S. 3823 : Part 1 : 1965

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BRITISH STANDARDS INSTITUTION

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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 27th January, 1965.

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 4000, fully indexed and with a note of the contents of each, will be found in the British Standards Yearbook, price 15s. The B.S. Yearbook may be consulted in many public libraries and similar institutions.

This standard makes reference to the following British Standard:

B.S. 565. Glossary of terms relating to timber and woodwork.

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.

The following B.S.I. references relate to the work on this standard:
Committee reference MEE/120 MEE/120/9
Draft for comment D63/11464.

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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:

Associated Offices' Technical Committee
 Association of Consulting Engineers
 Association of Mining Electrical and Mechanical Engineers
 British Chemical Plant Manufacturers' Association
 British Compressed Air Society
 British Electrical and Allied Manufacturers' Association
 British Gear Manufacturers' Association
 British Internal Combustion Engine Manufacturers' Association
 British Iron and Steel Federation
 *British Mechanical Engineering Federation
 *British Railways Board
 Crown Agents for Oversea Governments and Administrations
 D.S.I.R. National Engineering Laboratory
 Electricity Council, The Generating Board and the Area Board in England and Wales
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 *Gas Council
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 Institute of Marine Engineers
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 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
 London Transport Board
 Machine Tool Trades Association
 *Ministry of Defence, Army Department
 *Ministry of Defence, Navy Department
 Ministry of Labour (H.M. Factory Inspectorate)
 Ministry of Power
 Ministry of Public Building and Works
 Ministry of Transport
 *National Coal Board
 National Physical Laboratory (D.S.I.R.)
 Radio Industry Council
 Royal Institute of British Architects

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 British Standard:

Association of U.K. Plier Manufacturers
 D.S.I.R. Forest Products Research Laboratory
 Engineers' and Allied Hand Tool Makers' Association
 Federation of British Hand Tool Manufacturers
 Forestry Commission
 Handle Manufacturers' Association
 Institution of Engineering Inspection
 J.E.S.C.—Sub-committee on Hand Tools
 Light Edge Tool and Allied Trades Association
 London Transport Board
 Ministry of Aviation
 National Association of Tool Dealers
 National Union of Furniture Trade Operatives
 Post Office
 Saw Trades Association
 Society of British Aerospace Companies Ltd.
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BRITISH STANDARD SPECIFICATION FOR

GRADING OF WOOD HANDLES

FOR HAND TOOLS

Part 1. Ash and Hickory Handles

FOREWORD

Over the years, committees of the British Standards Institution have been very active in producing standards relating to various types of hand tools. In instances where tools are provided with wood handles it has been customary to insert a clause stating that the timber shall be well-seasoned, tough, straight grained; free from knots shakes and other defects; and with a controlled moisture content at the time of manufacture.

Such clauses have been criticized both as being insufficiently indicative of the exact quality of material required, and by their brevity, too stringent in demanding theoretically perfect timber.

This British Standard has been prepared under the authority of the Mechanical Engineering Industry Standards Committee and at the request of users and manufacturers of hand tools. The aim is to provide criteria by which handles shall be accepted or rejected relative to grades and thus to give clearer definition to the clauses of the various hand tools standards which, where appropriate, will make reference to this document.

In this way the fullest information will be available to inspectors of the tools and disputes on quality will be avoided.

It is envisaged that further parts of the standard will relate to methods of grading other types of wood handles.

NOTE. For convenience, approximate metric equivalents to British units have been given. The figures in British units are to be regarded as the standard. More accurate conversions should be based on the tables in B.S. 350, 'Conversion factors and tables'.

SPECIFICATION

SCOPE

1. This British Standard relates to criteria for use in grading handles intended for fitting to general purpose hand tools including agricultural and striking tools.

The specification relates only to unbleached handles manufactured from natural ash (*Fraxinus excelsior* and *Fraxinus americana*) and from any of the four true species of hickory as follows:

shagbark hickory (*Carya ovata*)
 shellbark hickory (*Carya laciniosa*)
 pignut hickory (*Carya glabra*)
 mockernut hickory (*Carya tomentosa*)

The standard lays down the requirements for freedom from defects and the permissible blemishes which are tolerable in respect of the various grades of handles.

SECTION ONE: GENERAL

DEFINITIONS

2. For the purposes of this British Standard the following definitions apply. For other terms relevant to the subject, reference should be made to B.S. 565, 'Glossary of terms relating to timber and woodwork'.

a. General terms.

Term	Definition
1. <i>Annual ring</i>	A growth ring corresponding to an annual period of growth.
2. <i>Air-seasoning</i>	The process of drying timber by exposure to natural atmospheric conditions.
3. <i>Blemish</i>	Any feature that mars the appearance of timber or other material without affecting its technical quality.
4. <i>Conversion</i>	The process of sawing timber from the log.
5. <i>Defect</i>	Any feature that lowers the technical quality or commercial value of timber or other material and may therefore lead to its rejection or to its relegation to a lower grade.
6. <i>Density</i>	The weight per unit volume, usually expressed in pounds per cubic foot, or grams per cubic centimetre.
7. <i>Fabrication</i>	Forming by any machining process, following conversion.
8. <i>Fibres</i>	The long narrow elements (cells) of which wood and certain other plant tissues are largely composed.
9. <i>Grain</i>	The general direction or arrangement of the fibres, e.g. spiral grain, straight grain.
10. <i>Kiln</i>	A chamber used for seasoning and conditioning timber, in which the temperature and humidity of the circulating air can be suitably varied and controlled.
11. <i>Kiln seasoning</i>	The process of drying timber in a kiln.