

BRITISH STANDARD 3997 : 1966

UDC 674.05 : 168.2

**CLASSIFICATION OF
WOODWORKING
MACHINES
AND AUXILIARY EQUIPMENT**

BRITISH STANDARDS INSTITUTION

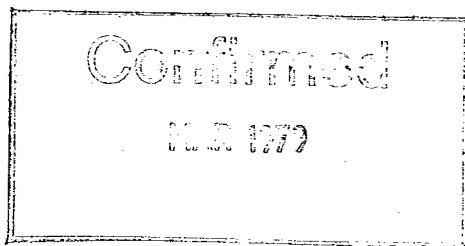


Documents

Document Sharing Club

CLASSIFICATION OF
**WOODWORKING
MACHINES**
AND AUXILIARY EQUIPMENT

B.S. 3997 : 1966



BRITISH STANDARDS INSTITUTION

INCORPORATED BY ROYAL CHARTER

BRITISH STANDARDS HOUSE, 2 PARK ST., LONDON, W.1

TELEGRAMS: STANDARDS LONDON W1

TELEPHONE: MAYFAIR 9000

B.S. 3997 : 1966

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 18th March, 1966.

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.

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 references MEE/171, MEE/171/3
Draft for comment D65/3509

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
 Board of Trade
 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
 Electricity Council, the Generating Board and the Area Boards
 in England and Wales
 Engineering Equipment Users' Association
 Gas Council
 Institute of Marine Engineers
 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 Technology—National Engineering Laboratory
 Ministry of Transport
 National Coal Board
 National Physical Laboratory (Ministry of Technology)
 Radio Industry Council
 Royal Institute of British Architects

The Government department and scientific and industrial organization 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:

Agricultural Engineers' Association
 British Furniture Manufacturers' Federated Association
 British Woodwork Manufacturers' Association
 Home Timber Merchants' Association of England and Wales
 Ministry of Technology—Forest Products Research Laboratory
 National Sawmilling Association
 Saw Manufacturers' Association

BRITISH STANDARD CLASSIFICATION OF WOODWORKING MACHINES AND AUXILIARY EQUIPMENT

FOREWORD

This British Standard classification of woodworking machines has been prepared under the authority of the Mechanical Engineering Industry Standards Committee.

The work has been based on agreement reached within the European Committee of Woodworking Machinery Manufacturers which has representation from Austria, Denmark, France, Federal Germany, Holland, Spain, Sweden, Switzerland and the United Kingdom. The purpose of the international work has been to promote understanding and generally to facilitate trading and the exchange of technical information.

It is envisaged that other countries subscribing to the agreement will create their individual national standards on a similar basis and that the technical classification will be agreed within the International Organization for Standardization (ISO).

GUIDE TO THE CLASSIFICATION SYSTEM

The classification comprises nine main groups each of which is divided into sub-groups, classes and types indicated by the addition of succeeding digits.

The main groups are as follows:

- Section 1. Cutting machines
- Section 2. Deforming machines
- Section 3. Joining and assembling machines, including coating
- Section 4. Equipment for wood conditioning (seasoning, preserving, etc.)
- Section 5. Auxiliary machines and equipment
- Section 6. Portable machines (hand machines) and machining heads
- Section 7. Reserved for addition to the classification
- Section 8. Multi-purpose machines using the working methods of machines classified in Sections 1 to 7 inclusive
- Section 9. Other machines

Each of the above sections is subdivided as in the following examples:

- 11. Chipless cutting machines
- 22. Bending machines

which subsections are then subdivided into classes as in the following examples:

11.1 Cleaving machines

12.1 Sawing machines

Further subdivision is then effected, e.g.:

12.12 Sawing machines with continuous tool

The number of digits indicating a particular machine classification is dependent upon the number of types of machines available in the particular class. By way of example, a long-based band sawing machine of the vertical, non-transportable type, fitted with an automatic feed of carriage would be classified as 12.121.121.2.

EXTENSION OF THE SYSTEM

The classification system is infinitely extensible. Extension of the classification, whether to embrace new types of machines or to give recognition to other technical advances affecting classification, can only be made following written application to the Director, British Standards Institution.

CLASSIFICATION

SCOPE

This British Standard classifies the many types of woodworking machines, primarily in accordance with their method of working but listing, when necessary, the end-product which may be a designed workpiece or a reduction of the timber to some desired form, e.g. veneer, chips, pulp, etc.

Machines listed in Sections 1 to 6 inclusive are designed exclusively for the purpose described by each particular subheading of the appropriate section.

Section 7 has been left open to permit additions to be made in the light of technical development.

Section 8 includes all those multi-purpose machines having working methods as covered by Sections 1 to 6. After initial entry, Section 8 machines fully process the end-product without further manual assistance.

The exception to Section 8 classification is the universal woodworking machine. This is regarded for the purpose of classification as a single machine which combines several other types of machines, primarily to save space. The workpiece requires manual assistance for each change of operation and, accordingly, the universal machines are listed in Section 1.

Subsection 91 lists machines, or sets of machines designed solely for the manufacture of a particular end-product, or series of end-products.

The classification of any machine is not altered by the additional use of any attachment or change of tooling method.

For convenience, certain auxiliary equipment has also been classified in

Section 5 because, whilst recognizing that this is not strictly woodworking machinery, wide use in the woodworking industry warrants this.

TERMINOLOGY AND DEFINITIONS

For the purposes of the British Standard classification the following terms and definitions apply:

a. Woodworking machine. A stationary or portable machine for processing wood, material derived from wood, cork, bone, plastics and materials similar to these in cutting and forming characteristics. This includes machines for assembling and coating.

b. Cutting machine. A woodworking machine which processes material by cutting action involving either slicing shearing, etc. (chipless cutting) or the removal of stock in chip or particle form. This includes machines for the processing of work-pieces or veneers, etc., and those intended for the reduction of timber into shreds, flakes, chips and smaller particles for further processing.

The following terms are used in classifying the various machines defined in *a* and *b*. The numerical references are those of the appropriate subsection of the classification.

- 11.1 *Cleaving.* The separation of the fibres of the wood by wedge action.
- 11.2 *Reducing.* The conversion of the wood into particles, shreds, etc., intended for further processing.
- 11.3 *Stamping.* The shaping of the wood by impact cutting.
- 11.4 *Slicing.* The slicing of the wood into veneer, strip, sheet or board.
- 11.5 *Veneer shearing.* The shearing of the prepared veneer sheet.
- 12.1 *Sawing.* The division of material by the action of a series of teeth arranged in line and having cutting edges. The teeth may be integral parts of a saw blade, toothed inserts, or teeth mounted on a blade or chain. The action may be rotary, continuous as in a circular blade or band, or reciprocal, causing each successive tooth contacting the material to remove an amount of stock until the division is effected.
- 12.2 *Planing.* In power machining, the removal, in chip form, of the surface of the wood.
- 12.3 *Moulding (shaping).* The moulding of the wood to a predetermined shape using rotary cutters.
- 12.4 *Boring.* The cutting of a cylindrical hole using either a rotating, chip-removing tool to penetrate a stationary work-surface or a similar but non-rotating tool to penetrate a rotating work-surface; the feed of the tool being effected along a common axis.
- 12.5 *Mortising.* The cutting by chip removal of non-cylindrical holes by such means as chisel, mortice chain or routing bit; the feed movement being effected in a single axis.