

Woodworking saws for hand use —

Part 1: Specification for hand saws

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Committees responsible for this British Standard

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- British Telecommunications Plc
- Co-opted Members
- Consumer Policy Committee of BSI
- Federation of British Hand Tool Manufacturers
- Handle Manufacturers' Association
- Home Office
- Institute of Carpenters
- Institute of Trading Standards Administration
- London Borough of Barking and Dagenham
- Ministry of Defence

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Foreword

This British Standard has been prepared by the BSI Committee MTE/15, Hand tools, and supersedes BS 3159-1:1990, which is withdrawn.

In this British Standard the specific requirements are given for four classes of hand saw, two for the use of craftsmen, one for first grade general duty, and one for general duty in the DIY environment.

Annex A is normative and annex B is informative.

A British Standard does not purport to include all 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 9 and a back cover.

1 Scope

This British Standard classifies types, and specifies certain dimensional aspects, of taper-ground and flat-ground hand saws for cutting timber. The hardness level and finish of the saw blades is specified and tests are included to verify the qualities of the complete saw.

Four classes of hand saw are specified, and in each class, saws from 450 mm to 660 mm in length are available.

This part of BS 3159 distinguishes between saws intended for ripping and those for cross cutting.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this part of BS 3159. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest editions of the publication referred to applies.

BS EN ISO 6507-1, *Metallic materials — Vickers hardness test — Test method*.

BS 2782-3 Methods 320A to 320F, *Tensile strength, elongation and elastic modulus*.

BS 2782-3 Method 350, *Determination of Izod impact strength*.

3 Terms and definitions

For the purposes of this part of BS 3159 the following terms and definitions apply.

3.1

nominal size

overall length of the toothed edge of the blade, including any rounding of the toe (see Figure 1)

3.2

toe

end of the blade farthest from the handle (see Figure 1)

3.3

heel

end of the blade nearest the handle (see Figure 1)

3.4

skew back

saw blade which has a concave edge opposite to the toothed edge (see Figure 1)

3.5

straight back

saw blade which has a straight edge opposite to the toothed edge (see Figure 1)

3.6

breasted

saw blade which has a convex toothed edge (see Figure 2)

3.7

taper ground

saw blade uniform in thickness along the entire length of the toothed edge and uniformly tapered in thickness from the toothed edge to the back

3.8

flat ground

saw blade which is ground so as to be the same thickness from the toothed edge to the back edge

3.9

pitch

distance between adjacent teeth measured from point to point (see Figure 3)

3.10

full cross sharpening of the teeth

sharpening of the rake and flank faces of each outwardly set tooth to a vanishing edge at an acute angle to the central axis of the saw (see Figure 4)

NOTE Gullet, rake and flank face/angles are shown in Figure 3.

3.11

half cross sharpening of the teeth

sharpening of the rake face of each outwardly set tooth to a vanishing edge at an acute angle to the central axis of the saw

3.12

straight sharpening of the teeth

sharpening of the cutting edge normal to (90°) the side face of the saw (see Figure 4)

3.13

hardpoint

tooth which has increased hardness at the tooth tip

NOTE This is achieved by, for example, induction or impulse hardening methods.

4 Classification

4.1 Classes of saw

Hand saws shall be classified as follows:

- a) class 1, a first grade saw for the use of craftsmen;
- b) class 2, a good quality saw for the use of craftsmen;
- c) class 3, a first grade general duty saw;
- d) class 4, a saw for general duty in the DIY environment.

NOTE The specific requirements for each of the four classes of saw are given in clause 7.