

Specification for
Step stools

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Technical Sector Board for Building and Civil Engineering (B/-) to Technical Committee B/512, upon which the following bodies were represented:

- Aluminium Federation
- British Hardware and Housewares Manufacturers' Association
- British Ladder Manufacturers' Association
- Consumer Policy Committee of BSI
- Consumers' Association
- Department of Trade and Industry (Consumer Safety Unit, CA Division)
- Electricity Association
- Health and Safety Executive
- Institute of Trading Standards Administration
- National Federation of Master Steeplejacks and Lightning Conductor Engineers
- Refractory Contractors' Association

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Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
1 Scope	1
2 References	1
3 Definitions	1
4 Classification of duty rating	1
5 Materials	1
6 Manufacturing tolerances	1
7 Marking	5
8 Dimensions	6
9 Construction	6
10 Performance	6
Annex A (normative) General, apparatus and test report	7
Annex B (normative) Dimensional test	11
Annex C (normative) Accidental tipping test	11
Annex D (normative) Stability test	12
Annex E (normative) Vertical static load test	13
Annex F (normative) Horizontal static load test	14
Annex G (normative) Vertical fatigue test	15
Annex H (normative) Horizontal fatigue test	15
Annex J (normative) Vertical impact test	17
Annex K (normative) Horizontal impact test	17
Annex L (normative) Drop test	18
Annex M (normative) Step assembly operation folding test	19
Annex N (normative) Seat suitability test and determination of height	19
Annex P (normative) Handrail load test	19
Annex R (informative) Recommendations for care and use of step stools	20
Figure 1 — Step stools with fixed or braced legs	2
Figure 2 — Step stools with fold-out and pull-out steps	3
Figure 3 — Step stool with handrail	4
Figure 4 — Rigid step stool	5
Figure A.1 — Loading pad	8
Figure A.2 — Suggested linkage arrangement constraining loading pad	8
Figure A.3 — Impactor	9
Figure A.4 — Impact hammer	10
Figure C.1 — Accidental tipping test	11
Figure D.1 — Stability test	12
Figure E.1 — Vertical static load test	13
Figure F.1 — Horizontal static load test	15
Figure G.1 — Vertical fatigue test	16
Figure H.1 — Horizontal fatigue test	16
Figure J.1 — Vertical impact test	17
Figure K.1 — Horizontal impact test: deployed	18
Figure K.2 — Horizontal impact test: retracted	18
Figure L.1 — Drop test	19
Figure P.1 — Handrail test	20
Table E.1 — Summary of test parameters	14
List of references	Inside back cover

Foreword

This British Standard has been prepared under the direction of the Technical Sector Board for Building and Civil Engineering. This edition introduces technical changes but does not reflect a full review or revision of the standard. It replaces BS 7377:1991 which is withdrawn. The principal changes from the previous edition have been made following testing experience and involve changes to test criteria as well as clarification of certain definitions. Improved pictorial representation of different types of step stools have been added and improved tests incorporated where handrails feature.

It is a performance standard for non-mobile step stools of a maximum height of 1 m. There are no tests included for the life of materials as affected by corrosion or degradation by exposure to atmospheric conditions. The conditions of use are based on research carried out on existing step stools which are considered to be satisfactory.

Because accidents associated with step stools may occur from misuse, the standard specifies marking which includes the recommended loading and warnings against common misuse. Annex R gives recommendations for the care and use of step stools which should be included by manufacturers in their literature.

Annex A gives general information relating to the tests described in subsequent annexes which have been developed from the furniture standard BS 4875 and details the apparatus required.

The UK participated in the preparation of a European standard for ladders, implemented as BS EN 131, which excludes step stools from its scope but other national standards have been considered in the preparation of this standard with a view to eventual preparation of a European standard for step stools.

In particular, attention is drawn to Schedule 1, Part 1, Schedule 4, Part 1, and Schedule 5, Part 1, of the Furniture and Furnishings (Fire) (Safety) Regulations 1988.

This edition of this British Standard has been submitted for continued approval under the Approval of Safety Standards Regulations 1987 as a means of compliance with the general safety requirement imposed by Section 10 of the Consumer Protection Act 1987.

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.

Compliance with a British Standard does not of itself confer immunity from legal obligations.

Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 to 20, 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 specifies dimensional, fitness for purpose and performance requirements for portable step stools of two grades which have a maximum seat height of 1 000 mm. The standard covers step stools with padded and rigid top platforms suitable for standing on. The step stools are classified into two grades:

- a) *grade G*, for general domestic and light commercial use;
- b) *grade H*, for more severe domestic and commercial use.

2 References

2.1 Normative references

This British Standard incorporates, by reference provisions from specific editions of other publications. These normative references are cited at the appropriate points in the text and the publications are listed on the inside back cover. Subsequent amendments to, or revisions of, any of these publications apply to this British Standard only when incorporated in it by updating or revision.

2.2 Informative references

This British Standard refers to other publications that provide information or guidance. Editions of these publications current at the time of issue of this standard are listed on the inside back cover, but reference should be made to the latest editions.

3 Definitions

For the purposes of this British Standard the following definitions apply.

3.1

step stool

a folding or rigid set of non-mobile steps with a top platform which serves as a step and a seat. The steps may be fixed or retractable, and a back, handrail or support pole may be included

3.2

mobile steps

steps which are fitted with wheels or rollers to facilitate relocation

3.3

positive locking

locking by a device which does not depend on friction or tension

NOTE Chains are not suitable.

3.4

duty rating

maximum combined weight of user and load

3.5

handrail

any member which extends above the seat or top platform including rails, poles or backs

NOTE See dimension *h* in Figure 1 to Figure 4.

4 Classification of duty rating

The step stools covered by this standard shall be classified by their suitability for use under a maximum loading as follows:

- a) *grade G*, suitable for use under a loading of 100 kg duty rating;
- b) *grade H*, suitable for use under a loading of 120 kg duty rating.

NOTE The classification above is derived from research and the description of performance used for furniture in BS 4875. Because step stools are uniquely intended for joint use as furniture and as steps neither BS 4875 or BS 2037 was considered totally applicable.

5 Materials

The materials used shall be such as to enable the step stool to satisfactorily undergo the tests given in the Annex A to Annex P.

NOTE The tests do not check on the durability of materials which should be selected having regard to the stresses to which they may be subjected and their resistance to deterioration due to environmental conditions.

6 Manufacturing tolerances

6.1 Height

The height of the step stool seat or platform when measured as described in Annex B shall not exceed 1 m and shall be within 10 mm of the height stated by the manufacturer.

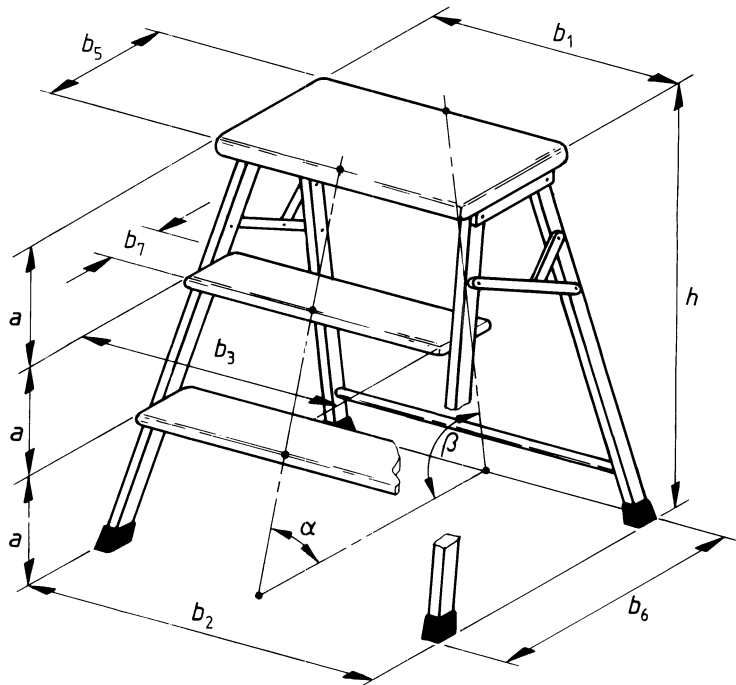
6.2 Tread spacing

The treads shall be uniformly spaced within a tolerance of ± 5 mm.

This tolerance shall apply to the height of the first tread above the floor and the free surface of the top platform above the nearest tread.

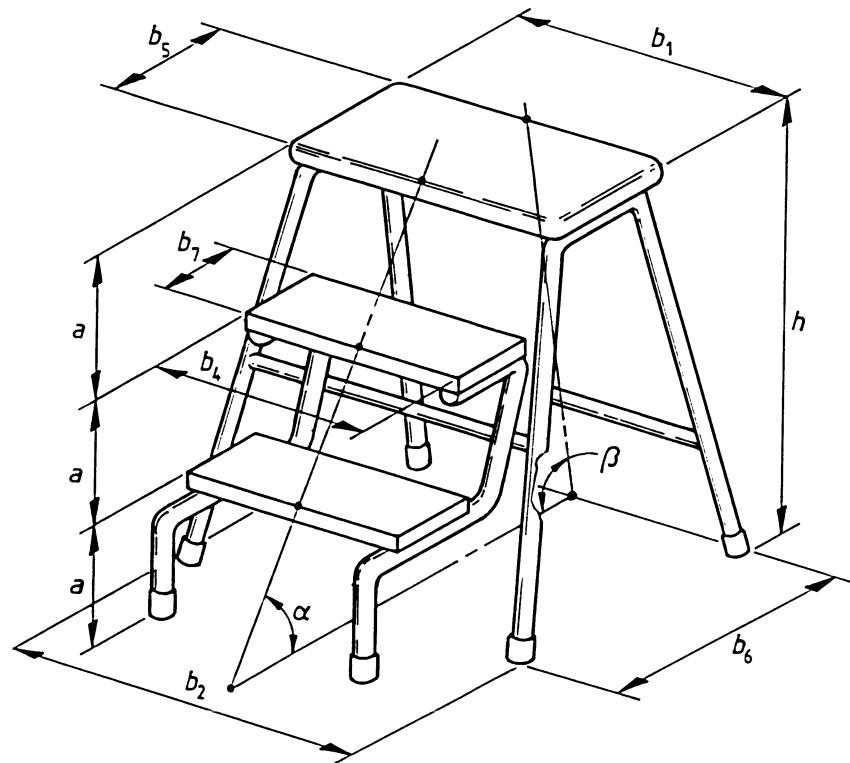
6.3 Horizontal surfaces

When in use, the treads and top platform shall be horizontal to within $\pm 2^\circ$.

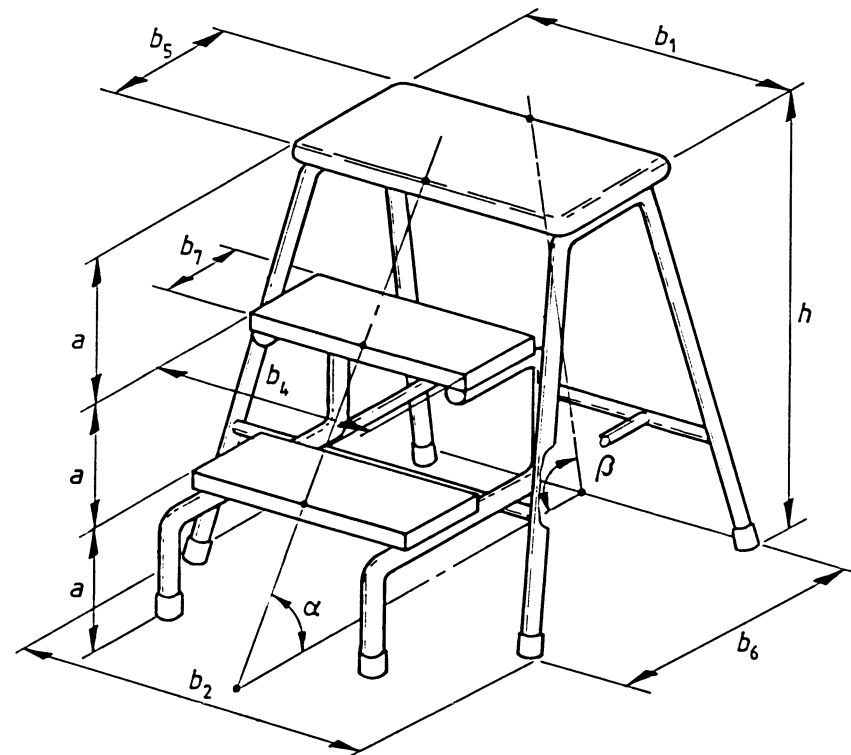


	h	a	b_1	b_2	b_3	b_5	b_6	b_7	α	β
Min.	—	—	300	$b_1 + 0.1h$	250	250	$b_5 + 0.1h$	80	65°	65°
Max.	1 000	250	—	—	—	—	—	—	70°	75°
NOTE All linear dimensions are in millimetres.										

Figure 1 — Step stool with fixed or braced legs



a) Step stool with fold-out steps



b) Step stool with pull-out steps

	h	a	b_1	b_2	b_4	b_5	b_6	b_7	α	β
Min.	—	—	300	$b_1 + 0.1h$	250	250	$b_5 + 0.1h$	80	45°	—
Max.	1 000	250	—	—	—	—	—	—	70°	80°

NOTE All linear dimensions are in millimetres.

Figure 2 — Step stools with fold-out and pull-out steps

