

BS 8634:2017+A1:2022



BSI Standards Publication

Portable roof ladders — Specification

bsi.

Publishing and copyright information

The BSI copyright notice displayed in this document indicates when the document was last issued.

© The British Standards Institution 2022

Published by BSI Standards Limited 2022

ISBN 978 0 7864 2284 2

ICS 7.145

The following BSI references relate to the work on this document:

Committee reference B/512

Drafts for comment 17/30337432 DC, 22/30457845 DC

Amendments/corrigenda issued since publication

Date	Text affected
December 2022	A1: see Foreword for details.

Contents

	Page
Foreword	II
Introduction	1
1 Scope	1
2 Normative references	2
3 Terms and definitions	2
4 Design	3
4.1 General	3
4.2 Rungs and steps	4
4.3 Ridge hooks	4
4.4 Bearers	4
<i>Table 1 — Dimensions for rungs and steps</i>	5
<i>Figure 1 — Dimensions for rungs or steps and the pitch of bearers</i>	6
<i>Figure 2 — Width of ridge hook and bearers</i>	7
4.5 Locking devices and connections between the parts or sections of the ladder	7
4.6 Positioning wheels	7
5 Materials	8
6 Safety markings	8
<i>Figure 3 — Safety symbols</i>	9
7 User instructions	12
Annex A (informative) Information regarding systems intended to provide a means of fall prevention by the connection of personal fall protection equipment	15
Annex B (normative) Sequence of testing	16
<i>Table B.1 — Sequence of testing</i>	16
Annex C (normative) Cyclic test of locking devices and hinged joints	16
Annex D (normative) Test for strength of the ridge hook, its connections to the roof ladder and any locking device(s)	16
<i>Figure D.1 — Test for strength of the ridge hook and its connections to the roof ladder and any locking devices</i>	18
Annex E (normative) Test for strength of the roof ladder and its bearers	19
<i>Figure E.1 — Test for strength of the roof ladder and its bearers</i>	21
Annex F (normative) Test for strength of the bearers and their connections to the ladder	21
<i>Figure F.1 — Test for strength of the bearers and their connections to the ladder</i>	22
Annex G (normative) Test for longitudinal strength of the bearers	22
<i>Figure G.1 — Test for longitudinal strength of the bearers</i>	27
Annex H (normative) Tests for strength of rungs and steps, and dimension g2	24
<i>Figure H.1 — Test for strength of rungs and steps and dimension g2</i>	26
Annex I (normative) Torsion test for rungs or steps	26
<i>Figure I.1 — Torsion test for rungs or steps</i>	27
Bibliography	28

Summary of pages

This document comprises a front cover, an inside front cover, pages I to IV, pages 1 to 28, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 October 2017. It was prepared by Technical Committee B/512, *Ladders*. A list of organizations represented on this committee can be obtained on request to the committee secretary.

Supersession

BS 8634:2017+A1:2022 supersedes BS 8634:2017, which is withdrawn.

Information about this document

Text introduced or altered by Amendment No. 1 is indicated in the text by tags **[A1]** and **[A1]**. Minor editorial changes are not tagged.

Amendment A1 introduces changes to Annex E, which clarify the actual requirements of Annex E.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards catalogue on the BSI website at bsigroup.com/standards, or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is “shall”.

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Where words have alternative spellings, the preferred spelling of The Shorter Oxford English Dictionary is used (e.g. “organization” rather than “organisation”).

Contractual and legal considerations

This publication has been prepared in good faith, however no representation, warranty, assurance or undertaking (express or implied) is or will be made, and no responsibility or liability is or will be accepted by BSI in relation to the adequacy, accuracy, completeness or reasonableness of this publication. All and any such responsibility and liability is expressly disclaimed to the full extent permitted by the law.

This publication is provided as is, and is to be used at the recipient’s own risk.

The recipient is advised to consider seeking professional guidance with respect to its use of this publication.

This publication is not intended to constitute a contract. Users are responsible for its correct application.

Compliance with a British Standard cannot confer immunity from legal obligations.

Currently in preview, click buy full version

Currently in preview, click buy full version

Introduction

The Work at Height Regulations 2005 [1] gives specific requirements regarding the use of ladders which apply equally to roof ladders.

Roof ladders are suspended ladders retained at their top by a hook (ridge hook) which rests against the opposite side of a pitched roof. Bearers underneath the climbing face of the ladder serve both to support the ladder and to ensure there is sufficient distance between the ladder and the roof for the user's hands and feet enabling a firm hand and foot hold. This British Standard specifies the minimum distances required for that purpose.

The HSE has received reports that roof ladders might become unstable when subjected to forces which can be generated by the actions of the user working on roof ladders. Hence this standard specifies dimensions for the minimum width of the ridge hook and bearers to reduce the possibility of the ladder becoming unstable. Work is being carried out by the HSL (Health & Safety Laboratories) which might, in future revisions of this standard, enable a test for stability of roof ladders or provide further verification of the current dimensional requirements.

The scope of this British Standard encompasses roof ladders for use on certain angles of dual pitched roofs. A range of 25° to 65° encompasses the majority of pitched roofs that are likely to be encountered by users of this type of ladder. Other types of access equipment can be considered for roof pitches outside of this range.

This British Standard does not consider the use of personal protection equipment intended as a means of fall arrest, which is connected to a roof ladder and the potential loads that would be generated on the ladder in a fall arrest situation as a result of the attachment of such equipment. Designers of proprietary PPE systems connected to a roof ladder are advised to consider this fact and design the PPE, and its connections with the ladder, accordingly. [Annex A](#) is intended to assist with this.

1 Scope

This British Standard specifies requirements for portable roof ladders specifically designed solely to provide temporary access to pitched roofs with angles between 25° and 65° for tasks that are of short duration and low risk.

In particular, it specifies:

- general design features, requirements and test methods;
- the supporting elements, the bearers and ridge hook, and their connections to the ladders, including how a ladder is supported and located by the ridge of a pitched roof;
- the pitch, dimensions and form of a roof ladder's climbing surfaces, according to the intended angles of use;
- the wheels used to manoeuvre a roof ladder into position on a pitched roof; and
- markings and user instructions.

Roof ladders conforming to this standard are only intended for use on pitched roofs with angles between 25° and 65° and for no other purpose. They are not intended for use as leaning or standing ladders.

This British Standard covers single section roof ladders, extending roof ladders, roof ladders with hinge (articulated) joints, roof ladders with telescopic joints and multi-part (sectional) roof ladders.

It is not applicable to:

- 1) aftermarket accessories which are intended to convert leaning ladders into roof ladders;
- 2) roof ladders for use on mono-pitch roofs, e.g. a pent roof;
- 3) roof ladders used with personal protection equipment intended as a means of fall arrest unless the roof ladder is part of a proprietary system designed for that purpose; or

NOTE See [Annex A](#) for further information.

- 4) crawling boards for use on roof angles less than 25°.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

[BS 245](#), *Specification for mineral solvents (white spirit and related hydrocarbon solvents) for paints and other purposes*

BS 7371 (all parts), *Coatings on metal fasteners*

BS EN 131-1, *Ladders – Part 1: Terms, types, functional sizes*

BS EN 131-2:2010+A2:2017, *Ladders – Part 2: Requirements, testing, marking*

BS EN 131-4, *Ladders – Part 4: Single or multiple hinged ladders*

BS EN 131-6, *Ladders – Part 6: Telescopic ladders*

BS EN ISO 3834 (all parts), *Quality requirements for fusion welding of metallic materials*

BS EN ISO 14713-1, *Zinc coatings – Guidelines and recommendations for the protection against corrosion of iron and steel in structures – General principles of design and corrosion resistance*

BS EN ISO 14731, *Welding coordination – Tasks and responsibilities*

3 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS EN 131-1 and the following apply.

3.1 aftermarket accessory

component not made or supplied by the original equipment manufacturer as a part of the original product but which is added to the product after it has been produced and distributed, to enable that product to serve an additional function

3.2 bearer

component of a roof ladder that provides support between the roof ladder and the roof, spreads the load, provides distance from the roof to the user's feet and hands and accommodates the form of the roof

3.3 locking device

means of preventing unintentional movement relative to each other between the connecting parts or sections of extending, hinged, telescopically jointed or multi-part (sectional) roof ladders