



BSI Standards Publication

# **Examination and test of new lifts before putting into service – Specification for means of determining compliance with BS EN 81**

Part 4: Passenger and goods passenger lifts in existing buildings conforming to BS EN 81-21

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## Summary of pages

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# Foreword

## Publishing information

This part of BS 8486 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 October 2019. It was prepared by Technical Committee MHE/4, *Lifts, hoists and escalators*. A list of organizations represented on this committee can be obtained on request to its secretary.

## Relationship with other publications

BS 8486 is published in a number of parts:

- Part 1: *Electric lifts* (covering lifts conforming to BS EN 81-1);
- Part 2: *Hydraulic lifts* (covering lifts conforming to BS EN 81-1);
- Part 3: *Passenger and goods passenger lifts conforming to BS EN 81-20*;
- Part 4: *Passenger and goods passenger lifts in existing buildings conforming to BS EN 81-21*;
- Part 5: *Lift alarm systems conforming to BS EN 81-28*;
- Part 6: *Lift features for accessibility conforming to BS EN 81-70*;
- Part 7: *Lift features for vandal-resistance conforming to BS EN 81-71*;
- Part 8: *Lift features for fire-fighting conforming to BS EN 81-72*;
- Part 9: *Lift features for emergency recall conforming to BS EN 81-73*;
- Part 10: *Lift features for evacuation conforming to BS EN 81-76*<sup>1</sup>.

This part of BS 8486 is intended to be read in conjunction with BS EN 81-21:2018.

## Information about this document

BS EN 81-21:2009+A1:2012 was withdrawn on 31 August 2018 and superseded by BS EN 81-21:2018. BS 8486-4 is intended to be used as a means to verify conformity to BS EN 81-21:2018.

The Lifts Regulations 2016 [1] require the installer of a lift to take responsibility for its design, manufacture, installation and placing upon the market.

For conformity assessment, the Lifts Regulations 2016 [1] require that a lift undergoes certain procedures, including inspection and test, before being placed upon the market and put into service.

If the inspection and test are to be undertaken by the installer, it is expected that:

- the installer can demonstrate the necessary expertise by having an appropriate quality assurance system; and either
- the lift conforms to a harmonized standard; or
- the lift has a Type Examination Certificate or Design Examination Certificate from a Notified Body.

According to the requirements of the Lifts Regulations 2016 [1], the competence of the persons carrying out the testing of a lift needs to be confirmed. This can be demonstrated if they operate in

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<sup>1</sup> Intended for future publication.

accordance with a quality assurance system. In the case of installers, this can be in accordance with a quality assurance system, monitored by a Notified Body.

*NOTE* Notified Bodies testing lift installations are expected to use the test report produced by the Notified Body Lifts (NBL) Forum.

This part of BS 8486 specifies a means of determining compliance with BS EN 81-21. It does not cover every clause in BS EN 81-21, as many requirements are covered by the installer's quality control procedures or are to be verified by the building designer.

This part of BS 8486 covers the tests in BS EN 81-21:2018, Clause 6, as well as tests that do not fall within the installer's quality control system.

This part of BS 8486 does not cover other issues that are part of the installer's quality assurance system such as calibration of mechanical and electrical test equipment used in the specified tests (e.g. stop watches/chronometers, sound meters, light meters, voltmeters, ammeters).

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](https://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.

Particular attention is drawn to the recommendations for safe working practices provided in BS 7255. Whilst BS 7255 was written to cover the hazards which can be encountered when a lift is undergoing regular maintenance, much of its content is equally applicable to the hazards found during the testing process.

BSI permits the reproduction of the tables in this part of BS 8486. This reproduction is only permitted where it is necessary for the user to record findings on the tables during each application of the standard.

It is assumed that manufacturers and installers will customize these tables to suit their product range, if necessary by adding or removing questions which are not relevant to the lift to be tested.

The following documents are required for the examination and tests to be carried out:

- installation and test instructions;
- general arrangement drawings;
- electrical schematic drawings;
- copies of test certificates (including Type Examination Certificates and details to allow safety component verification); and
- Notified Body approvals (if applicable) such as Type Examination Certificates and Design Examination Certificates.

This part of BS 8486 is not applicable to existing lifts (installed in accordance with previous standards), although it can be used to record the examinations and tests for parts renewed to current standards and as guidance when examining and testing lifts that have been modified or repaired in accordance with BS 5655-11, BS 5655-12 and BS EN 81-80.

### **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”).

It is recognized that certain tests/checks can be carried out more effectively before installation, and that others can only be made on site, unless it can be demonstrated by a quality assurance procedure and risk assessment that they can be performed with equal effectiveness off site. Answer boxes in the tables in this part of BS 8486 that contain a shaded square imply that the test is to be carried out on site as part of installation or testing.

### **Contractual and legal considerations**

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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

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## Introduction

The examinations and tests in this part of BS 8486 are intended to be applied prior to placing a lift into service for first use. Attention is drawn to the implications of testing when the lift is in beneficial use by builders or on any temporary supplies.

Within BS EN 81-21:2018 there are certain requirements relating to the building into which the lift is installed. Since these requirements relate to elements of the building and building design, rather than the lift, it is not generally expected that they will be examined or tested. It is assumed that these items have been verified by the building owner/designer. However, it might be necessary to confirm that the items have been addressed by the persons responsible before the lift can be placed into service.

*NOTE Attention is drawn to BEIS guidance [2] on the derogation approval process and requirements that need to be met when placing lifts into restricted pit and headroom dimensions.*

In drafting this part of BS 8486, it has been assumed that the same assumptions listed in BS EN 81-21 apply.

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## 1 Scope

This part of BS 8486 specifies one means of determining compliance with the provisions for examination, testing and recording results for the installation of new electric and hydraulic passenger and goods/passenger lifts in existing buildings specified in BS EN 81-21:2018, before being put into service.

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## 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<sup>2</sup>. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 8486-3:2017, *Examination and test of new lifts before putting into service – Specification for means of determining compliance with BS EN 81 – Part 3: Passenger and goods passenger lifts conforming to BS EN 81-20*

BS EN 81-20:2014, *Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods – Part 20: Passenger and goods passenger lifts*

BS EN 81-21:2018, *Safety rules for the construction and installation of lifts – Lifts for the transport of persons and goods – Part 21: New passenger and goods passenger lifts in existing buildings*

BS EN ISO 13857:2008, *Safety of machinery – Safety distances to prevent hazard zones being reached by upper and lower limbs*

BS ISO 3864-1:2011, *Graphical symbols – Safety colours and safety signs – Part 1: Design principles for safety signs and safety markings*

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<sup>2</sup> Documents that are referred to solely in an informative manner are listed in the Bibliography.