



BSI Standards Publication

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

Part 8: Lift features for fire-fighting conforming to BS EN 81-72

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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 30 April 2018. 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 expected to be 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<sup>1</sup>*;
- Part 5: *Lift alarm systems conforming to BS EN 81-28<sup>1</sup>*;
- Part 6: *Lift features for accessibility conforming to BS EN 81-70<sup>1</sup>*;
- Part 7: *Lift features for vandalism conforming to BS EN 81-71<sup>1</sup>*;
- 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 81-72:2015.

## Information about this document

BS EN 81-72:2003 was withdrawn on 31 August 2017 and replaced with BS EN 81-72:2015. BS 8486-8 is intended to be used as a means to verify conformity to BS EN 81-72:2015. BS 8486-1 and BS 8486-2 will remain available for testing lifts installed in accordance with BS EN 81-72:2003.

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 before placing upon the market and putting into service a lift shall have undergone certain procedures including inspection and test.

The inspection and test procedures may be undertaken by the installer provided 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

<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 NBL Forum.

This part of BS 8486 specifies a means of determining compliance with BS EN 81-72. It does not cover every clause in BS EN 81-72, as many requirements are covered by the installer's quality control procedures or are elements of building design to be verified by the building designer.

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. force measurements (N), energy measurements (J), tachometers, voltmeters, ammeters].

### 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.

Attention is particularly 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 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);
- Notified Body approval (if applicable) such as Type Examination Certificates and Design Examination Certificates.

This document is not applicable to existing lifts (installed to previous standards), although it may 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 8899.

BS 8899:2016, Annex B contains past provisions for lifts with operation in the event of fire and examination and test procedures which were applicable to existing installations.

### 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 this part of BS 8486 that contain a shaded square imply that the test should 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 81-72:2015 there are certain requirements relating to the building into which the firefighters lift is installed (see also BS 9999). 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.

Examples of such items are:

- the firefighters lift serves the floors required by the fire safety design for the building;
- dual entry lifts where the firefighters lift lobbies are not located at the same side as the fire-protected lobby/safe area at the fire service access level;
- the fire-protected lobbies/safe areas, lift well and machinery spaces are designed to prevent the ingress of fire and smoke;
- the building design limits the flow of water, used as fire-fighting medium, into the lift well;
- firefighters lifts are not used as escape routes;
- a firefighters lift gives access at each level to a fire-protected lobby/safe area;
- a secondary power supply and automatic switch gear are provided and able to operate the lift for the required period;
- piping or cabling between machinery space(s) and lift well is fire-protected to the same fire protection level as the lift well structure.

*NOTE* Attention is drawn to the National Record of BS EN 81-72:2015.

In drafting this part of BS 8486, it has been assumed that the same assumptions listed in BS EN 81-72 apply and that:

- items related to the building design have been verified by the building owner/designer as part of negotiation;
- where the lift is tested on a temporary supply, the supply characteristics are as the intended permanent supply or that, once the permanent supply is connected, relevant characteristics are checked;
- the electrical supply (primary and secondary) conforms to BS 7671 and has been tested and verified prior to installation of the lift.

## 1 Scope

This part of BS 8486 specifies one means of determining compliance with the provisions for examination, testing and recording results for new firefighters lifts specified in BS EN 81-72:2015, before being put into service.