

Specification for

Lifts, escalators, passenger conveyors and paternosters —

**Part 10: General requirements for
guarding**

UDC 621.876 + 621/876 – 785

Co-operating organizations

The Mechanical Engineering Industry Standards Committee, under whose supervision this British Standard was prepared, consists of representatives from the following Government departments and scientific and industrial organizations:

Associated Offices' Technical Committee*	Engineering Equipment Users' Association*
Association of Consulting Engineers	Gas Council
Association of Hydraulic Equipment Manufacturers Limited	Institution of Civil Engineers
Association of Mining Electrical and Mechanical Engineers	Institution of Gas Engineers
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British Electrical and Allied Manufacturers' Association*	Institution of Mechanical Engineers*
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British Internal Combustion Engine Manufacturers' Association	Institution of Plant Engineers
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	Telecommunication Engineering and Manufacturing Association
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The Government departments and scientific and industrial organizations marked with an asterisk in the above list, together with the following, were directly represented on the committee entrusted with the preparation of this British Standard:

British Railways Board	Fire Offices' Committee
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Electrical, Electronic, Telecommunications, Plumbing Trades Union, EET/PTU	Mechanical Handling Engineers' Association
Engineers Surveyors' Association	National Association of Lift Makers
Federation of Wire Rope Manufacturers of Great Britain	Post Office
	Retail Trading Standards Association

Amendments issued since publication

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Contents

	Page
Co-operating organizations	Inside front cover
Foreword	ii
<hr/>	
1 Scope	1
2 Legislation	1
3 Lifts	1
4 Paternosters	1
4.1 Safety devices	1
4.2 Machine rooms	1
5 Escalators	1
6 Passenger conveyors	1
<hr/>	
Publications referred to	Inside back cover
<hr/>	

Foreword

This British Standard, prepared under the authority of the Mechanical Engineering Industry Standards Committee, is a revision of and supersedes the 1958 edition of BS 2655, which was entitled “*Electric lifts*”.

The new title reflects the extension of the scope of this British Standard. An amendment to Part 2 of this standard has been published, and implements the change in title. The revised Parts 1 and 3 and additional new Parts have been published separately and, together with Part 2, are as follows:

Part 1: General requirements for electric, hydraulic and hand-powered lifts.

This Part is basically a revision of the 1958 edition of BS 2655-1, without the building requirements and list of definitions, and extended to cover the engineering and safety requirements for new hydraulic and hand-powered lifts as well as for new electric lifts.

Part 2: Single-speed polyphase induction motors for driving lifts. This Part covers the type of electric motor specially designed for driving lifts. It should be used in conjunction with BS 2613, “*The electrical performance of rotating electrical machines*”, and gives additional requirements including the class of lift rating and special limits of temperature rise.

Part 3: Arrangements of standard electric lifts. This Part gives standard dimensions for lift wells and machine rooms in relation to lift capacity, speed and car internal sizes, for seven classes of lifts.

Part 4: General requirements for escalators and passenger conveyors. This Part specifies engineering and safety requirements for escalators and passenger conveyors. The latter may be described as machines in which the passenger carrying surfaces remain parallel to the direction of motion and are uninterrupted.

Part 5: General requirements for paternosters. This Part specifies engineering and safety requirements for paternosters, which may be described as machines where series of cars are continuously running in closed loops, and are characterized by the car floors remaining substantially horizontal when the direction of motion is reversed at the extremities of car travel.

Part 6: Building construction requirements. This Part specifies structural and fire resistance requirements for the equipment covered in Parts 1, 4 and 5.

Part 7: Testing and inspection. This Part specifies tests, examination and certification of new and modified equipment covered in Parts 1, 4 and 5.

Part 8: Modernization or reconstruction of lifts, escalators and paternosters. This Part specifies engineering and safety requirements.

Part 9: Definitions. This Part gives definitions of terms used in the remainder of the standard.

Part 10: General requirements for guarding. This Part specifies requirements for the guarding of moving parts and protection against hazards from electrical equipment. It relates to equipment covered in Parts 1, 4 and 5.

CP 407:1972. British Standard Code of Practice for electric, hydraulic and hand-powered lifts. The code gives general information and guidance for planning, purchasing, installation and maintenance of passenger, goods and service lifts.

As in Parts 1, 4 and 5 the metric and imperial systems of units are used side by side in this part of the standard. Reference is made in Parts 1, 4 and 5 to the importance of each contract being in terms of either the metric system throughout or the imperial system throughout.

As part of the current programme to supersede Parts of BS 2655, dealing with electric and hydraulic passenger and goods lifts and with escalators and passenger conveyors, by the publication of BS 5655 and BS 5656 respectively certain sections within this Part of BS 2655 have been withdrawn or rendered obsolescent.

Clause 2 has been superseded by BS 5655-6:1985 (specifically A.2 of that standard).

Clause 3 has been rendered obsolescent for new lifts by BS 5655-1 and BS 5655-6 (specifically Appendix A of the latter standard). Clause 3 however remains current when applied to service lifts and handpowered lifts.

Clause 4 remains extant.

Clause 5 and clause 6 have been rendered obsolescent by BS 5656 for all new machines.

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 to iv, pages 1 and 2, 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 Part of this British Standard specifies requirements for the guarding of moving parts and protection against hazards from electrical equipment, and relates to equipment covered in Parts 1, 4 and 5 of this standard.

It is emphasized that this Part should be read in conjunction with Parts 1, 4, 5 and 6.

NOTE The titles of the British Standards referred to in this Part of this standard are listed on the inside back cover.

2 Legislation

Refer to **A.2** of BS 5655-6:1985 for details of current legislation.

3 Lifts

This clause is rendered obsolescent under the conditions stated in the foreword (see Amendment No. 3).

4 Paternosters

4.1 Safety devices. The floor at the entry side of the car shall form a hinged flap not less than 250 mm or 10 in wide. (This requirement is as in Part 5, **2.4.5**.)

On the entry side of cars there shall be protective screens between adjacent cars to close any vertical spaces. The upper part of the protective screens (the aprons) shall be affixed to the hinged floor flaps. The lower part of the protective screens (the hoods) shall be attached to the front edge of the car roofs. (These requirements are as in Part 5, **2.4.7**.)

The apron and hood shall be capable of folding back when pressure is applied, but they shall be capable of returning to their original position when the pressure is removed. Additionally, the apron assembly shall be balanced or be of such a design as to remove the possibility of injury to passengers. (These requirements are as in Part 5, **2.4.8**.)

Landing entrances shall be provided with flaps projecting into the clear well by a minimum of 250 mm or 10 in. At the side adjacent to ascending cars these flaps shall be hinged in order that they will be raised by any obstructions projecting from any car and will fall back into position under the influence of gravity. This does not apply to the flap provided at the lowest entry point, which shall constitute part of the pit protection screen (see Part 5, **2.6.1**). Flaps shall project to within 20 mm or $\frac{3}{4}$ in of cars. (These requirements are as in Part 5, **2.5.4**.)

The space at the side of the landing flaps, between the front wall of the well and a point 20 mm or $\frac{3}{4}$ in from the line of ascending and descending cars, shall be "filled" by smoothly finished screens. These side screens shall extend from the level of the lowest floor served to the lintel of the highest entrance served. (These requirements are as in Part 5, **2.5.5**.)

The lintel of the topmost entry to the ascending cars shall comprise a hinged flap which, should it be raised more than 20°, will operate a safety switch. The hinged lintel shall occupy the full width of the openings of the ascending cars. This safety switch shall be such that it can be reset only manually from the motor room. There shall be a clearance of not less than 500 mm or 20 in between the hinged lintel and any solid obstruction above, such as screens or chain wheels. (These requirements are as in Part 5, **2.5.6**.)

4.2 Machine rooms. Generally the requirements for electric lifts apply (see **3.5**).

5 Escalators

This clause is rendered obsolescent under the conditions stated in the foreword (see Amendment No. 3).

6 Passenger conveyors

This clause is rendered obsolescent under the conditions stated in the foreword (see Amendment No. 3).

Publications referred to

This standard makes reference to the following British Standards:

BS 2655, *Lifts, escalators, passenger conveyors and paternosters.*

BS 2655-1, *General requirements for electric, hydraulic and hand-powered lifts.*

BS 2655-4, *General requirements for escalators and passenger conveyors.*

BS 2655-5, *General requirements for paternosters.*

BS 2655-6, *Building construction requirements.*

BS 5655, *Lifts and service lifts.*

BS 5655-1, *Safety rules for the construction and installation of electric lifts.*

BS 5655-6, *Code of practice for selection and installation.*

BS 5656, *Safety rules for the construction and installation of escalators and passenger conveyors.*

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