

Escalators and moving walks — Code of practice for safe working on escalators and moving walks

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Committees responsible for this British Standard

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- Amicus
- BAA plc
- British Retail Consortium
- Health and Safety Executive
- Institution of Electrical Engineers
- Institution of Incorporated Executive Engineers
- Lift and Escalator Industries Association
- London Underground Ltd.
- Safety Assessment Federation Ltd.

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Foreword

This British Standard has been prepared by Subcommittee MHE/4/3/1. It supersedes BS 7801:1995, which is withdrawn.

This British Standard should be read in conjunction with BS 5656-2.

This is a full revision of the standard, and has been prepared to take into account the following developments since the 1995 edition:

- a) tradespersons having an increased awareness of hazards and therefore taking more care over their own actions;
- b) employers and owners now positively striving to provide ever-safer workplaces;
- c) changes in UK legislation;
- d) the emergence of harmonized European standards, in particular BS EN 115, BS EN 13015 and BS EN 1050;
- e) the trend away from prescriptive clauses (e.g. “provisions” and “procedures”), towards risk assessment methodology as the basis for determining safe systems of work;
- f) the delineation of the responsibilities for safety management, between the owner, persons working on escalators and moving walks and their employers and supervisors;
- g) changes in training requirements;
- h) the need to demonstrate competence;
- i) the need to have a code of practice that covers escalators and moving walks of any age, whether or not they conform to current British or European standards.

The safety of persons working on escalators and moving walks is the responsibility of all persons associated with such work, in particular:

- 1) owners and/or persons having effective control of the premises containing the escalators and moving walks;
- 2) employers and supervisors of persons working on escalators and moving walks;
- 3) persons working on escalators and moving walks;
- 4) other persons working within the premises.

All such persons have a responsibility to ensure the safety of persons who might be affected by their activities, including members of the public. Where such persons are responsible for their own safety there needs to be a formal, common, safe system of work, in terms of method statements and safety practices. This British Standard sets out the rudiments for the assessment and planning of safe working, so that practical safe systems of work can be established to enable personnel to access their places of work safely, and be adequately protected during their work.

The harmonized European standards are commended to those responsible for the safety management of older escalators and moving walks, so that those escalators and moving walks can be upgraded, as far as practicable, to an equivalent level of safety to those that conform to the harmonized European standards.

This British Standard recommends the best practices to be employed in order to provide the safest practicable working environment. It brings together all the known procedures for safe working into one place.

Clause 4 gives recommendations for owners of escalators and moving walks; Clause 5 gives recommendations for manufacturers and installers and persons working on escalators and moving walks. There are a number of similarities between the two clauses; this is because some recommendations were felt to be equally applicable to owners, manufacturers and installers and persons working on escalators and moving walks. However, there are also some distinct differences between the two clauses. Users of this British Standard should ensure that they are reading the appropriate clause for their responsibilities.

Notes and commentaries are provided throughout the text. Notes give references and additional information that is important but does not form part of the recommendations. Commentaries give background information and are also used to clarify responsibilities between Clause 4 and Clause 5.

Attention is drawn to the regulations listed in Annex A. This British Standard is recommended for use alongside these regulations.

Users of this British Standard are reminded that as a code of practice it recommends actions to be taken by all persons involved with escalators and moving walks: it does not specify requirements for the escalators and moving walks themselves. A safe system of work normally involves definitive working practices for people and a certain level of product safety. Both of these aspects have been addressed; in the case of product safety, the emphasis has been put onto persons to provide it.

As a code of practice, this British Standard takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

It has been assumed in the drafting of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and competent people.

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 does not of itself confer immunity from legal obligations.

Summary of pages

This document consists of a front cover, an inside front cover, pages i to iv, pages 1 to 29 and a back cover.

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1 Scope

This British Standard gives recommendations for safe working practices (supported by training) for:

- owners of permanently installed escalators and moving walks;
- persons having effective control of the premises on which such escalators and moving walks are installed;
- persons responsible for, and involved in, the design, installation, examination, inspection, testing, service, maintenance, repair and dismantling of such escalators and moving walks.

This British Standard is applicable to persons working on all types of escalators and moving walks. However, not every recommendation is applicable for all types of escalator and moving walk that are covered by British Standards either published or in preparation.

NOTE The legal responsibilities for the safety of persons working on escalators and moving walks are summarized in Annex A, together with titles of the relevant UK legislation.

The recommendations in this British Standard relate to the safety of persons when gaining access to and from the work areas of escalator and moving walk installations, and whilst working there. They also relate to the safety of others present in the vicinity, whether they be working or not, who could be endangered by the actions of those working on escalators and moving walks.

2 Normative references

The following referenced documents are indispensable for the application 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 5499-5, *Graphical symbols and signs — Part 5: Safety signs, including fire safety signs — Signs with specific safety meanings*.

BS 5656-2, *Escalators and moving walks — Safety rules for the construction and installation of escalators and moving walks — Part 2: Code of practice for the selection, installation and location of new escalators and moving walks*.

BS 7375, *Code of practice for distribution of electricity on construction and building sites*.

BS 7671, *Requirements for electrical installations — IEE Wiring Regulations — Sixteenth edition*.

3 Terms and definitions

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

3.1

authorized person

person responsible for ensuring that specific plant and equipment are safe for the intended work to be undertaken

NOTE An authorized person might have prior knowledge and experience of the plant and equipment to be assessed, or might have been given instructions and training for a specific task. An authorized person needs to be able to recognize potential hazards, identify ways of avoiding them and ensure that risks are reduced to a minimum.

3.2

belt

power-driven and tensioned continuous surface that forms the treadway of a moving walk, which is supported along its length by various means

3.3

comb

part of an escalator or moving walk that meshes with the steps, pallets or belt at each landing, in order to facilitate the transition of passengers

3.4

competent person

person, suitably trained and qualified by knowledge and practical experience, and provided with the necessary instructions to enable the required work to be carried out safely

3.5

contractor

party who is contracted to supply, install, modernize, repair, inspect, service, or dismantle an escalator or moving walk

NOTE For the purposes of this British Standard, the contractor is the escalator/moving walk contractor.

3.6

driving station

area within the truss of an escalator or moving walk, where the drive machinery is located

3.7

escalators

3.7.1

compact escalator

escalator where the drive machinery is located within the truss and access to the machinery is gained from the passenger side

3.7.2

escalator

power-driven installation with endless moving stairway for the conveyance of passengers in an upward or downward direction

3.7.3

remote drive escalator

escalator where the drive machinery is located external to the truss and within a separate machine room

3.8

floor plate

removable plate at the ends of an escalator or moving walk to provide access to the driving and return stations

3.9

inspection control

means of controlling an escalator or moving walk during maintenance and other operations

NOTE This is usually a portable and manually operated device.

3.10

landing

unrestricted space at the top or bottom of an escalator or moving walk to permit the manoeuvring, boarding and alighting of persons

3.11

lock-off device

means of preventing unauthorized reconnection of electrical energy

NOTE This is often a padlock that prevents movement of the operating handle of the isolator.

3.12

machine room

enclosed area used to house driving machines and/or control equipment

3.13

machinery space

space in which one or more driving machine(s) and/or associated equipment are located

3.14**main isolating switch**

switch in the vicinity of the machinery, the return stations or the control devices, capable of breaking the supply to the motor, to the brake releasing device and to the control circuit in the live conductors

NOTE 1 This switch is not expected to isolate the supply to the socket outlets or to the lighting circuits necessary for inspection and maintenance.

NOTE 2 This switch can also control auxiliary equipment such as heating, balustrade lighting, comb lighting, under-step lighting, etc.

3.15**moving walk**

power-driven installation with endless moving walkway (e.g. pallets, belt), for the conveyance of passengers either on the same level or between different levels

NOTE A moving walk was formerly known as a “passenger conveyor”.

3.16**owner**

legal entity having right of possession of an escalator or moving walk and responsibility for its safe working

NOTE The owner is usually the landlord or proprietor of the building in which an escalator or moving walk is situated.

3.17**pallet band**

continuous loop of chain and pallets guided along the full length of a moving walk

3.18**passenger**

person transported by an escalator or moving walk

3.19**permit to work**

authority in writing which includes details of:

- a) work to be undertaken;
- b) procedures involved;
- c) precautions needed;
- d) emergency procedures to be in place;
- e) persons to undertake the work;
- f) timescale of the work to be undertaken;
- g) restrictions on the workplace or equipment

3.20**premises**

place and its immediate vicinity, where an escalator or moving walk is situated

3.21**rated speed**

speed to move an escalator or moving walk under rated load condition

3.22**return station**

area within the truss of an escalator or moving walk where the moving steps, pallets or belts commence their return to the driving station

3.23**risk assessment**

comprehensive estimation of the likelihood and the severity of outcome of a risk, in order to select appropriate control measures

3.24

safe system of work

formal procedure, resulting from a risk assessment, which specifies safe methods of work to ensure that risks to health and safety are minimized and the remaining risks are mitigated

3.25

step band

continuous loop of chain and steps guided along the full length of an escalator

3.26

truss

structural framework of an escalator or moving walk

3.27

workplace

premises or part of premises where work is carried out

3.28

work platform

designated area, moving or fixed, for carrying out work tasks

4 Safety management: responsibilities of owners

NOTE The recommendations given in this clause are applicable to owners of escalators and moving walks and to persons having effective control of the premises in which escalators and moving walks are installed. Persons responsible for, and involved in, the design, installation, thorough examination, inspection, testing, service, maintenance, repair or dismantling of escalators and moving walks, should read Clause 5.

4.1 Training

4.1.1 All of the following persons should possess demonstrable competence in basic escalator or moving walk safety and procedures, or be under relevant supervision:

- a) those who might at any time be working on an escalator or moving walk or related equipment;
- b) those who are working within the escalator or moving walk machine room or machinery space;
- c) those who are carrying out risk assessments.

NOTE Relevant supervision may be provided by any person who possesses demonstrable competence in basic escalator or moving walk safety procedures.

4.1.2 Clear instructions relating to site emergency and first aid procedures should be issued to employees, visitors, contractors and other authorized persons (see **3.1**), where risk assessment identifies a need. Any specific regulations that apply to the premises should also be included in these instructions. Where such instructions are complex and/or specific risks exist, these instructions should be in written form and if necessary should be supplemented by a specific “site safety awareness” training regime and safe system(s) of work.

4.1.3 Training should be provided to authorized persons on all procedures to be carried out for normal operations and in the event of an emergency situation.

4.1.4 The competency of all trained persons should be assessed and documented annually. Documentation should list the competencies achieved relating to the type of equipment upon which the training was carried out.

4.1.5 Information and instructions should be given to persons who could be affected whenever any works are carried out on escalators or moving walks, indicating any relevant effects on their environment or their health and safety.

NOTE 1 Where an escalator or moving walk is removed from service, it is generally advisable to provide alternative means of access/egress in all situations.

NOTE 2 Information and instructions can be provided by means of appropriate signage.

COMMENTARY ON 4.1.5. *Examples of signs that can be encountered by persons at the premises are given in Annex B and include signs placed on safety barriers and for use on the access to a machinery space. Examples of other signs that carry instructions to passengers are given in BS EN 115:1995, 15.1.2, Figure 6, Figure 7 and Figure 8.*

4.2 General

4.2.1 Responsibility for work on site

The owner should ensure that any work carried out on escalators or moving walks is performed only by authorized persons.

NOTE Attention is drawn to the Workplace (Health, Safety and Welfare Regulations) 1992 [1].

A person should be appointed by the owner or the contractor’s site person in charge, to be responsible for at least the following:

- a) familiarization with the relevant parts of any site safety assessment undertaken by the contractor;
- b) familiarization with the work site from commencement of the work, including the effect the work is likely to have on other persons in the area;
- c) directing and managing the work safely;
- d) ensuring that the work site is handed back to the owner in a safe condition on completion of the work.