

Code of practice for

Safe working on lifts

UDC 621.872:614.8:[006.76 (083.75)]

NO COPYING WITHOUT BSI PERMISSION EXCEPT AS PERMITTED BY COPYRIGHT LAW



Document Sharing Hub

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Mechanical Handling Standards Policy Committee (MHE/-) to Technical Committee MHE/4, upon which the following bodies were represented:

- Associated Offices Technical Committee
- British Broadcasting Corporation
- British Lift Association
- British Railways Board
- British Retailers Association
- Chartered Institution of Building Services Engineers
- Department of the Environment (Property Services Agency)
- Department of Trade and Industry [Mechanical Engineering and Manufacturing Technology Division (Mmt)]
- Electrical, Electronic, Telecommunications and Plumbing Union
- Engineer Surveyors' Section of the MSF
- Federation of Wire Rope Manufacturers of Great Britain
- Health and Safety Executive
- Independent Engineering Insurers' Committee
- Institution of Environmental Health Officers
- Institution of Mechanical Engineers
- Institution of Plant Engineers
- Institution of Production Engineers
- Lloyds Register of Shipping
- London Underground Ltd.
- National Association of Lift Makers
- National Health Services
- Post Office
- Royal Association for Disability and Rehabilitation
- Scottish Development Department

This British Standard, having been prepared under the direction of the Mechanical Handling Standards Policy Committee, was published under the authority of the Board of BSI and comes into effect on 31 December 1989

© BSI 12-1998

The following BSI references relate to the work on this standard:
Committee reference MHE/4
Draft for comment 87/73212DC

ISBN 0 580 17864 1

Amendments issued since publication

Amd. No.	Date of issue	Comments
6375	April 1991	Indicated by a sideline in the margin

Contents

	Page
Committees responsible	Inside front cover
Foreword	ii
0 Introduction	1
1 Scope	1
2 Definitions	2
3 Training	2
4 Safe working	3
5 Site safety assessment	6
6 Well-being of persons working alone	7
7 Working within the well	7
8 Lift landings	10
9 Machine and pulley rooms	11
10 Emergency release of lift passengers	13
11 Installation and dismantling	15
12 Observation and partially-enclosed lifts	15
Appendix A Publications concerned with safety on lifts	17
Appendix B Legislation and advisory safety publications	18
Appendix C Recommended layout of controls at car top control station	19
Appendix D Examples of model safe release procedure notices	20
Figure 1 — Example of landing safety sign	4
Figure 2 — Example of safety sign on car top when headroom is restricted	4
Figure 3 — Example of safety sign on car top when safety gear is not provided	5
Figure 4 — Example of safety sign in pit	5
Figure 5 — Example of safety sign when pit screens are not provided	6
Figure 6 — Layout of car top controls	20
Figure 7 — Alternative layout of car top controls	21
Publications referred to	Inside back cover

Foreword

This British Standard code of practice has been prepared under the direction of the Mechanical Handling Standards Policy Committee at the request of the Health and Safety Executive (HSE). The standard recommends safe practices for those working on all types of lift.

The Health and Safety Executive (HSE) commend the use of this British Standard code of practice to those who have duties under the Health and Safety at Work etc. Act 1974 and other relevant health and safety legislation. The code was drawn up with the participation of HSE representatives and will be included in the list of “Standards Significant to Health and Safety at Work” available from HMSO.

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 and ii, pages 1 to 24, 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.

0 Introduction

The safety of persons working on lifts is the responsibility of all persons associated with such work, particularly:

- a) the employers and supervisors of those persons working on lifts;
- b) the persons working on lifts;
- c) persons who have effective control of the premises containing the lift(s);
- d) employees of other employers also working in those premises;

and will largely be dependent upon the care and attention being paid by those parties to the provisions and procedures described in this code as appropriate to them.

The effectiveness of such safe working procedures will be substantially improved if persons working on lifts are able to benefit from features which are inherent to lifts made/installed in accordance with modern established British Standards such as BS 5655, BS 5900 and formerly used British Standard BS 2655. Examples of such features, which are described in this code, are car stop and emergency stop switches, well lighting, car top controls, pit stop switches, suitable safety gear for goods lifts, etc. It is important, therefore, that the improvements recommended in this code should wherever appropriate and practicable be made to those lifts which do not comply with the latest British Standards to ensure that persons working on such lifts, as well as passengers, are provided with adequate safeguards. Should it not be practicable to incorporate these improvements, other features which would provide equivalent facilities or acceptable alternatives should be adopted: this may be, for example, through a specific recommendation from the manufacturer or enforcing authority for a particular type of lift or set of circumstances.

NOTE Recommendations for the modernization of electric lifts are given in BS 5655-11. Recommendations for the modernization of hydraulic lifts are given in BS 5655-12.

A crucial element in securing safe working is the initial training given to personnel, backed by subsequent experience and additional training for particular aspects of the work.

All persons working on lifts are expected to take due care and pay attention to potential hazards, make proper use of safeguards provided and follow defined working procedures if accidents and ill health are to be avoided; this is particularly important as those working on a lift are likely to be working in areas not accessible to lift passengers and will not therefore be fully protected by those safeguards built into a lift for the benefit of passengers.

Work should be assessed and planned in accordance with this code and practical systems of safe working should be adopted which will enable personnel to gain safe access to their places of work and thereafter to be adequately protected while work is being carried out.

1 Scope

This British Standard applies to all lifts, irrespective of the type of drive employed, and not solely to those lifts for which there are established British Standards for their construction and installation, e.g. BS 5655-1, BS 5655-2, BS 5655-3 and BS 2655.

The code describes recommended safe working provisions and practices (supported by training) for those responsible for, and involved in, the installation, thorough examination, inspection, testing, service/maintenance, repair and dismantling (including complete demolition of lift installation) of permanently installed lifts serving defined landing levels.

The recommendations relate to the safety of persons when gaining access to and from the work area on a lift installation and while working there; they also relate to the safety of others in the vicinity, whether working or not, who may be endangered by the actions of those working on lifts.

It should be appreciated that not every recommendation of this code can be applied to all types of lift covered by the British Standards listed in appendix A and those which are in preparation: in general, the relevant standard will specify the minimum technical requirements applicable.

The legal responsibilities for the safety of persons working on a lift (i.e. those parties identified in clause 0) are summarized in appendix B, together with titles of UK legislation which might also be applicable.

Appendix A lists British Standards and other publications related to safety on lifts.

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

2 Definitions

For the purposes of this standard the following definitions apply.

2.1

authorized person

an individual who has either:

- a) undergone such training and has sufficient knowledge and experience of the relevant plant to enable him to recognize potential dangers of such plant; or
- b) been instructed on the specific task assigned to him and the avoidance of any potential hazards of it, and who, if necessary, has been given a degree of training relevant to that task

2.2

landing

the space required at the entrance to a lift at any defined level to permit the manoeuvring, boarding and alighting of users and/or goods

2.3

lift

a permanent lifting equipment, comprising a guided car or platform, serving defined landing levels and which is designed for the transportation of persons and/or goods

2.4

lift car

the load carrying unit complete with its platform, frame attachments and enclosing body work

2.5

lift machine

the unit which drives and stops the lift

2.6

lift platform

the load carrying unit complete with its frame attachments

2.7

machine room

a room in which lift machine(s) and/or associated equipment are placed

2.8

main switch

a switch which breaks the electrical supply to the lift on all "live" conductors, but that does not break off the electrical supply to any of the following:

- a) car lighting or ventilation (if any);
- b) socket outlet on the car roof;
- c) lighting in the machine room and any pulley room;

d) socket outlet(s) in the machine room and any pulley room;

e) lighting in the well;

f) socket outlet in pit;

g) alarm device.

2.9

multiple installation

a number of lifts installed in separate or common wells and/or sharing a common machine room

2.10

pit

that part of the lift well situated below the lowest landing level served by the lift car or platform

2.11

pulley room

a room, not containing the lift machine, in which pulleys are located and in which the overspeed governor or governors and the electrical equipment may also be housed

2.12

well

the space in which the car or platform and counterweight, if there is one, travels. This space is normally bounded by the bottom of the pit, the walls and roof of the well

3 Training

3.1 All personnel

All persons who might at any time be at work on a lift installation should be instructed in appropriate basic safety procedures, including those recommended in this code.

All personnel should be advised as to the appropriate first aid treatment to give in the event of electric shock. This should preferably be supplemented by practical training.

NOTE Changes in lift technology might necessitate personnel, at present employed in the lift industry, receiving appropriate additional training.

3.2 Craftsmen

It is recommended that the Engineering Industry Training Board system of training (see **A.6**) be adopted for persons being trained for (in) the lift industry, bearing in mind that this is a multidisciplinary industry, e.g. skills embracing mechanical, hydraulic, electrical and electronic engineering, might be needed.

NOTE Notwithstanding the above recommendation it is acknowledged that there are many established persons who are well trained and experienced in lift technology.

3.3 Inspectors and engineer surveyors

In the absence of a formal training and education programme for engineering inspectors and engineer surveyors, it is recommended that they be trained to the minimum academic standard for Technician Engineer via the accredited Business and Technician Education Council (BTEC) and Scottish Vocational Educational Council (SCOTVEC) Higher National Certificate or any other qualifications judged to be of equivalent standard. Inspectors and surveyors will also need to have knowledge of current lift technology.

NOTE Notwithstanding the above recommendations it is acknowledged that there are many established persons who are well trained and experienced in lift technology but who do not hold formal qualifications.

It is suggested that the training should take the form of a quality assured modular programme covering all skills and knowledge of a competent Engineer Surveyor or Inspector. The programmes may be varied, dependent upon the previous background and experience of the trainee.

The modules should cover:

- a) construction and functional characteristics of lifts and their environments;
- b) hazards associated with the use, examination and maintenance of lifts and knowledge of safe working practices to be adopted to avoid those hazards;
- c) statutory regulations, British Standards, Codes of Practice, Guidance Notes and contractual law applicable to lifts.

4 Safe working

4.1 Procedures

Any work carried out on lifts should only be performed by authorized persons, supervised and instructed clearly in the work to be carried out and how it is to be done efficiently and safely. The instructions should:

- a) where necessary, be in the form of written procedures which might already be included in the company's training programme;
- b) also cater for the safety of other persons who might foreseeably be at risk although not involved in the actual work being undertaken on the lift, e.g. intending passengers.

4.2 Responsibility for work on site

An authorized person should be delegated to be responsible for the work on the site and he should be fully aware of his duties and responsibilities. He should ascertain who is acting on behalf of the owner/occupier/architect/builder, etc. in order that he may report the start of the work, progress of the work and completion.

4.3 Liaison

Before starting work or taking a lift out of service, the site agent or client's representative should be advised. The authorized person should establish contact with such representatives in order that emergency assistance can be summoned if required and also to determine whether any special precautions or procedures need be taken because of, for example, the presence of children in the vicinity, the nature of the building or its occupancy.

4.4 Protective clothing

It is important that personnel wear suitable protective clothing, preferably one-piece overalls, and boots or shoes which are in good repair.

4.5 Protective equipment

Appropriate protective equipment, e.g. safety helmets, gloves, hearing protectors, respirators, face masks and safety harnesses should be provided, and used by personnel, according to site conditions and the work to be done. Such equipment should be maintained in serviceable condition and replaced as necessary.

4.6 Safety signs

Appropriate safety signs should be prominently displayed in the locations recommended in this code.

Places where such safety signs are deemed to be necessary are referred to in **7.2.1.1**, **7.2.2.2**, **7.3.1.3**, **7.3.1.6**, **7.4.1.3**, and **7.4.1.4**. Some examples of the designs of relevant signs are to be found in Figure 1 to Figure 5. These signs should comply with BS 5378-3 (which are not statutory under the 1980 regulations, see note). The diameter/height of the safety symbol (e.g. the triangle) and the colour/lettering shape relationship should be as specified in BS 5378-1 and BS 5378-3.

NOTE Attention is drawn to Statutory Instrument 1980 No. 1471¹⁾ "Health and safety — The safety signs regulations 1980", which implements EEC Directive 77/516/EEC, which requires that, subject to certain exceptions, "a safety sign (including the colour on it) giving health or safety information or instructions to persons at work shall comply with BS 5378-1". This statutory requirement relates to the limited number of situations specified in BS 5378-1 only.

¹⁾ Obtainable from HMSO.

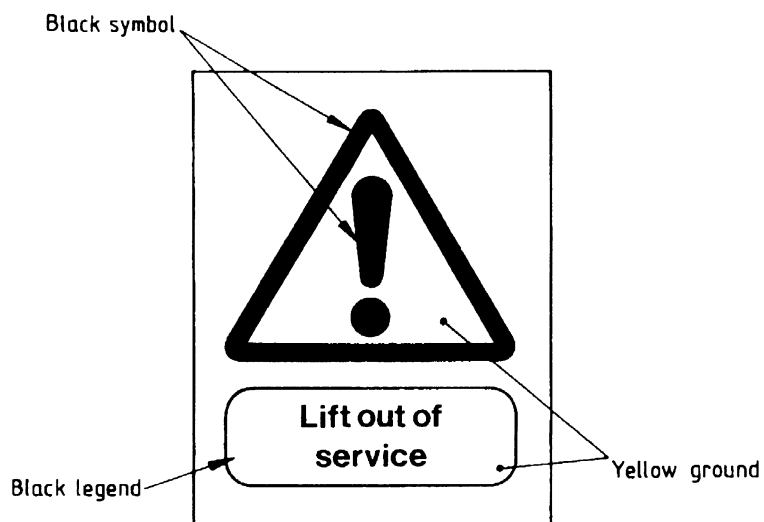


Figure 1 — Example of landing safety sign (see 7.2.1.1)

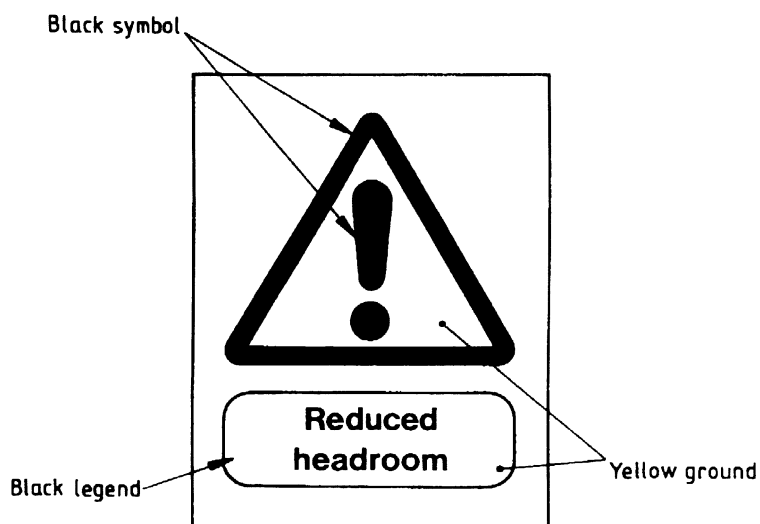


Figure 2 — Example of safety sign on car top when headroom is restricted (see 7.3.1.3)

