

Code of practice for

Safe working on lifts

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- Engineer Surveyors' Section of the MSF
- Engineering Employers' Federation
- Health and Safety Executive
- Institution of Electrical Engineers
- Institution of Incorporated Executive Engineers
- Lift and Escalator Industries Association
- Safety Assessment Federation Limited
- Society of Operations Engineers

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Foreword

This British Standard has been prepared by Subcommittee MHE/4/1, under the direction of Technical Committee MHE/4. It supersedes BS 7255:1989, which is withdrawn.

The start and finish of text introduced or altered by Amendment No. 1 is indicated in the text by tags **A1** **A1**.

This new edition has been prepared to take into account the following developments since the 1989 edition:

- a) tradespersons having an increased awareness of hazards and therefore taking more care over their 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 81-1, BS EN 81-2 and BS EN 81-3;
- 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 responsibilities for safety management, between the owner and the lift industry itself;
- g) changes in training requirements;
- h) the need to have a code of practice that covers lifts of any age, whether or not they conform to current British or European Standards.

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

- a) owners and/or persons having effective control of the premises containing lift(s);
- b) employers and supervisors of persons working on lifts;
- c) persons working on lifts;
- d) other persons working within the premises.

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 code of practice 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 effectiveness of method statements and safety practices is substantially improved when such persons work on lifts that conform to Harmonized European Standards. This is because such standards specify the minimum safety features for a lift; e.g. the need for stopping devices, well lighting, car top controls, and safety gears. The Harmonized European Standards are commended to those responsible for the safety management of older lifts, so that those lifts can be upgraded, as far as practicable, to an equivalent level of safety to those that conform to the Harmonized European Standards.

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

This code of practice 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.

Attention is drawn to the Construction (Design and Management) Regulations 1994 [7] for lift designers, planning supervisors and architects. This code of practice is recommended for use alongside these regulations.

Clause 4 gives recommendations for owners of lifts; clause 5 gives recommendations for the lift industry. There are a number of similarities between the two clauses; this is because some responsibilities are shared between owners and the lift industry. However, there are also some distinct differences between the two clauses. Users of this code of practice 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.

Users of this standard are reminded that as a code of practice it recommends actions to be taken by people involved with working on lifts; it does not specify requirements for the lifts 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.

Annex A, Annex B, Annex C and Annex D are informative. Annex E is normative.

It has been assumed in the drafting of this code of practice 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 comprises a front cover, an inside front cover, pages i to iv, pages 1 to 44, an inside back cover 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 lifts serving defined landing levels;
- persons having effective control of the premises where such lifts are installed;
- persons responsible for, and involved in, the design, installation, thorough examination, inspection, testing, service, maintenance, repair and dismantling of such lifts.

NOTE 1 Requirements for lifts and associated parts of lift installations are not included in this code of practice; these are given in other types of standard such as specifications and test methods.

The recommendations in this British Standard relate to the safety of persons when gaining access to and from the work area on a lift installation, and whilst working there. They also relate to the safety of others present in the vicinity, whether they are working or not, who could be endangered by the actions of those working on lifts.

This British Standard is applicable to persons working on all types of lift. However, not every recommendation is applicable for all types of lift that are covered by British Standards either published or in preparation. For lifts that have been designed and installed in accordance with the Lifts Regulations 1997 [2], the recommendations in this standard that affect product design do not apply.

NOTE 2 Legal responsibilities for the safety of persons working on lifts are summarized in Annex A, together with titles of the relevant UK legislation.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this British Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. For undated references, the latest edition of the publication referred to applies.

BS 5378-1, *Safety signs and colours — Part 1: Specification for colour and design*.

BS 5378-3, *Safety signs and colours — Part 3: Specification for additional signs to those given in BS 5378:Part 1*.

BS 5655-6, *Lifts and service lifts — Part 6: Code of practice for selection and installation*.

BS 7375:1996, *Code of practice for distribution of electricity on construction and building sites*.

BS 7671:1992, *Requirements for electrical installations — IEE Wiring Regulations — Sixteenth edition*.

BS EN 81-1:1998, *Safety rules for the construction and installation of lifts — Part 1: Electric lifts*.

BS EN 81-2:1998, *Safety rules for the construction and installation of lifts — Part 2: Hydraulic lifts*.

Safety Assessment Federation Limited (SAFed), *Recommendations — Safe working on lifts — Car top controls*, 1996. London: Safety Assessment Federation Limited.¹⁾

¹⁾ Available from Safety Assessment Federation Limited (SAFed), Nutmeg House, 60 Gainsford Street, Butlers Wharf, London SE1 2NY. Telephone 020 7403 0987. Website: <http://www.safed.co.uk>.

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 is likely to have undergone such training, and to have sufficient knowledge and experience of the relevant plant, to enable them to recognize potential dangers of such plant. Alternatively, an authorized person can have been instructed on the specific task assigned to them, the avoidance of any potential hazards that are applicable, and the reduction of risks, and if necessary, have been given training relevant to that task.

3.2

car

part of a lift that carries passengers and/or other loads

3.3

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

3.4

entrance

complete landing door assembly, together with its surround

3.5

landing

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

3.6

lift

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

3.7

lift contractor

party that is contracted to supply, install, modernize, repair, service or dismantle a lift

3.8

lift machine

unit, including the motor, which drives and stops a lift

3.9

lock-off device

device to prevent unauthorized reconnection of electrical energy

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

3.10

machinery space

space inside or outside a well where the machinery, as a whole or in parts, is placed

3.11**main switch**

switch that isolates the electrical supply to a lift on all “live” conductors, without isolating 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 machinery space and any pulley room;
- d) socket outlet(s) in the machinery space and any pulley room;
- e) lighting in the well;
- f) socket outlet in the pit;
- g) alarm and communication device;
- h) group interconnections

3.12**multiple installation**

number of lifts installed in separate or common wells and/or sharing a common machinery space

3.13**observation lift**

lift that provides a panoramic outlook

NOTE The well for such a lift can be partially enclosed.

3.14**owner**

legal entity having right of possession of a lift and responsibility for its safe working

NOTE The owner is usually the landlord or proprietor of the building in which a lift is situated.

3.15**passenger**

person transported by a lift in the car

3.16**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

3.17**pit**

part of a well situated below the lowest landing served by a car

3.18**platform**

part of a car that supports the load, complete with its frame attachments

3.19

pulley room

room, not containing a lift machine, in which pulleys are located

NOTE This room can also contain other equipment, such as the overspeed governor(s) and electrical equipment associated with a lift.

3.20

rated load

load which the equipment has been designed to carry

3.21

risk assessment

comprehensive estimation of the probability and the degree of possible injury or damage to health in a hazardous situation, in order to select appropriate safety measures

3.22

safe system of work

formal procedure, resulting from a risk assessment, which specifies safe methods of work to ensure that relevant hazards are eliminated and the remaining risks are minimized

3.23

user

person making use of the services of a lift installation

NOTE A user is not necessarily the same as a passenger.

3.24

well

space in which the car, the counterweight or the balancing weight travels

NOTE This space is normally bounded by the bottom of the pit, the walls and the ceiling of the well.

3.25

workplace

premises or part of premises where work is carried out

NOTE 1 This can include:

- a) any place which is accessible to those at the workplace;
- b) any means of access to/from the workplace e.g. staircase, corridor, road.

NOTE 2 A workplace is usually non-domestic, although the term can refer equally to domestic premises.

3.26

work platform

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

4 Safety management: responsibilities of owners

NOTE 1 The recommendations given in this clause are applicable to owners of lifts and to persons having effective control of the premises where lifts are installed. Persons responsible for, and involved in, the design, installation, thorough examination, inspection, testing, service, maintenance, repair or dismantling of lifts, should read clause 5.

NOTE 2 Owners of lifts that were built before the publication of the BS EN 81 series of standards are encouraged to read Annex B and Annex C, which give details of suggested improvements to older lift installations.

4.1 Training and competence

4.1.1 All persons who might at any time be working on a lift or related equipment, be working within a well, pit, machinery space or pulley room, or be carrying out risk assessments, should possess demonstrable competence in basic lift safety and procedures, or be under relevant supervision.

NOTE 1 Relevant supervision may be provided by any person who possesses demonstrable competence in basic lift safety and procedures.

NOTE 2 A suitable level of qualification is EMTA NVQ EOR/202, although other equivalent qualifications can exist.

4.1.2 Clear written 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. If the instructions are complex and/or specific risks exist, they should be supplemented by a specific “site safety awareness” training regime and safe system(s) of work.

4.1.3 ^{A)} Specific training should be provided to all persons who are authorized to carry out the safe release of trapped passengers. Such persons should be clearly made aware that this training is limited to safe release activities only and that it will not authorize them to carry out any additional activities.

NOTE The full range of competencies contained within NVQ EOR/202 might not be required for persons carrying out the safe release of trapped passengers. Recommended procedures for the safe release of trapped passengers are given in 5.8. ^{A)}

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 all occupants of the premises who could be affected whenever any works are carried out on lifts, indicating any relevant effects on their working environment or their health and safety.

4.1.6 All employees within the premises should be made aware of the meaning of all signs displayed in lift areas or when lifts are being worked on.

NOTE The ultimate responsibility for safety signs rests with the owner, although it may be delegated (see 5.2.5).

COMMENTARY ON 4.1.6. *There are two categories of signage that can be encountered by employees in a building: those displayed where employees occupy tenant areas, and those displayed where employees enter restricted areas under supervision.*

Examples of the first category are:

- lift out of service (see Figure D.1);
- rated load plate in the car (see BS EN 81-1:1998, 15.2.1 and BS EN 81-2:1998, 15.2.1);
- machinery space access notices (see Figure D.2 and Figure D.3, BS EN 81-1:1998, 15.4.1 and BS EN 81-2:1998, 15.4.1).

Examples of the second category are:

- reduced headroom (see Figure D.4);
- no car safety gear (see Figure D.6);
- reduced pit depth and position prop before entering (see Figure D.7);
- descending counterweight (see Figure D.8).

4.2 General

4.2.1 *Responsibility for work on site*

The owner should ensure that any work carried out on lifts is performed only by authorized persons.

NOTE Attention is drawn to the Workplace (Health, Safety and Welfare) Regulations 1992 [3].

A person should be appointed by the owner or the site person in charge of the works, 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.

COMMENTARY ON 4.2.1. *The lift contractor or other persons authorized to carry out work on the lift installation are expected to advise the owner of risks that could arise as a result of the work.*

4.2.2 *Liaison*

The owner should nominate a representative to summon emergency assistance if required, and to advise on special precautions or procedures required for works being undertaken within the premises.

The owner, together with the site person in charge of the works, should determine whether any special precautions or procedures need to be taken.

NOTE Such precautions can become necessary due to environmental factors, e.g. where children are present in the vicinity.

COMMENTARY ON 4.2.2. *The site person in charge of the works on the lift(s) should establish contact with the owner's site representative. The owner's site representative should be advised before work is started or any lift(s) taken out of service.*

4.2.3 *Personal protective equipment*

A risk assessment (see 4.3) should be carried out to identify the need for and appropriate type(s) of personal protective equipment and/or clothing, before such equipment and/or clothing is issued.

The owner should ensure that appropriate personal protective equipment and/or clothing is provided to ensure the health and safety of persons working on lifts who could be exposed to harmful processes or substances encountered within the premises.

COMMENTARY ON 4.2.3. *Where highly specialized protective equipment is needed, this is often provided by the lift industry.*

4.2.4 *Electrical equipment*

The owner should enable the lift contractor to have access to the electrical supplies.

The owner should ensure that existing electrical conductors and their terminations that could give rise to danger are:

- a) of the appropriate rating;
- b) insulated.

NOTE The integrity of the electrical supply is solely the responsibility of the owner.

4.2.5 *Removal of lift from service*

The owner should ensure that a safety sign is displayed where a lift is removed from service, to warn others that the lift is out of service (see Figure D.1).

4.2.6 Housekeeping

The owner, in conjunction with the lift industry, should establish procedures for:

- a) the avoidance of build-up of waste materials in wells;
- b) the control and disposal of waste and other items and substances that are potentially injurious to health and safety.

NOTE 1 Attention is drawn to the Control of Substances Hazardous to Health Regulations 1999 [4].

NOTE 2 Examples of potentially hazardous items and substances include hypodermic needles, human waste and radioactive materials.

4.2.7 Safety file

Following the installation or major modernization of a lift, the safety file should be made available to persons who subsequently work on the lift(s).

COMMENTARY ON 4.2.7. *The lift contractor should make the safety file available to the owner following the initial installation of a lift (see 5.2.7). The file should indicate:*

- a) *the major characteristics of the installation process;*
- b) *servicing and maintenance requirements;*
- c) *any special operations where a particular method needs to be adopted;*
- d) *specific instructions for the dismantling and disposal of the lift at the end of its working life.*

4.2.8 Effects on the occupants

Potential disruption, arising from the lift works, to the occupants of the premises should be assessed and minimized.

4.2.9 Access to tools, equipment and materials

Arrangements should be made between the owner and the lift contractor for:

- a) safe access to all tools, equipment and materials at workplaces;
- b) the provision of suitable and clearly identified storage space for tools, equipment, materials and any portable access equipment;
- c) the provision of alternative access routes as may become necessary during the works being undertaken.

NOTE These are some elements of the provision of safe systems of work (see 3.22).

4.2.10 Permits to work

Effective control should be imposed over all persons carrying out work, e.g. by the issue of permits to work, for those requiring access to workplaces. The details of any permits to work (see 3.16) which may be required, and the conditions imposed by them, should be made known to such persons.

There should be a safe system of work for all those undertaking tasks within designated workplaces.

NOTE It is expected that such a safe system of work would include the provision of lock-off devices on all electrical isolators.

4.2.11 Installation, major repair and dismantling

Where installation, major repair or dismantling is taking place, the procedures given in Annex E should be followed.

NOTE The procedures given in Annex E are specific to the activities associated with installation, major repair and dismantling. They are additions, not alternatives, to the procedures detailed in clause 4.

4.2.12 Access and egress

The owner should provide a safe means of access to and egress from all workplaces, including suitable access equipment if necessary.

NOTE This includes the provision of access to all workplaces that is free from obstacles, tripping hazards and projections. It also includes the provision of safe means of access through potentially hazardous areas and the provision of adequate lighting for access to and egress from workplaces.

The owner should ensure that authorized persons can easily gain entry to a workplace.

4.2.13 Lighting

Emergency lighting and temporary electrical supplies (where necessary) should be provided for all workplaces (see 3.25).

NOTE BS 5266-1:1999 gives recommendations for emergency lighting.

4.2.14 Safe workplaces

The owner should ensure that all workplaces are safe to accommodate:

- a) the work activity being undertaken;
- b) all lift contractors together with their necessary working equipment.

4.2.15 Access to machinery spaces

Access to machinery spaces should be restricted to authorized persons or persons under the supervision of authorized persons.

The owner should ensure that persons accessing machinery spaces abide by any safety signs (see Figure D.2).

4.3 Risk assessment

4.3.1 The owner and the lift contractor should undertake a risk assessment to establish safety measures to ensure the safety of persons engaged in undertaking the work and persons using the lifts.

NOTE Risk assessment requires periodic reviews, as improvements in technology and/or materials could reduce the element of risk beyond that achieved by any existing arrangements.

4.3.2 The safety measures identified by risk assessment should be implemented wherever practicable. All measures should be undertaken which could improve the safety of those persons engaged in the works or using the lifts, including any recommendations issued by the manufacturers, the maintenance company, competent persons, or enforcing authorities.

NOTE Attention is drawn to clause 3 (i) of the Management of Health and Safety at Work Regulations 1999 [5].

4.3.3 All works should be planned in advance in order to eliminate or reduce to a controllable level the risks to those persons undertaking the works and all persons who may be affected by them.

4.3.4 The owner should plan the works, where appropriate, to coincide with the “shut-down” period of hazardous processes or for when public areas are less busy or closed.

4.3.5 Details of any changes to the risks which can be encountered during the progress of the works, and which become apparent from subsequent risk assessments, should be recorded and made known to the responsible person (see 4.2.1).

4.4 Well-being of persons working alone

4.4.1 An authorized person should not work alone where a risk assessment identifies specific hazards (e.g. in the absence of a car top control station). In such cases the authorized person should be accompanied by another person who has received appropriate instruction.

NOTE This is an element of the provision of a safe system of work (see 3.22 and 5.5.1.6).

4.4.2 The owner should ensure that the following procedures are adopted:

- a) before commencing work, the authorized person should register their presence with the owner’s site representative;
- b) suitable arrangements should be made to ensure that the continued well-being of the authorized person is periodically confirmed;
- c) suitable arrangements should be made to organize assistance in the event of an emergency;
- d) the specific arrangements and frequency for confirming an authorized person’s continued well-being should be described in the relevant safe working procedure and should be acted upon.

NOTE These procedures are particularly important if an authorized person is working alone in unoccupied premises.

4.5 Working within the well

4.5.1 General

4.5.1.1 In order to provide a safe system of work, full height division screens should be provided between lifts in a common well, hence avoiding the need for adjacent lift(s) to be taken out of service.

4.5.1.2 Adequate levels of lighting should be provided for all work activities carried out by authorized persons within the well.

COMMENTARY ON **4.5.1.2**. *Recommended average lighting levels are given in BS EN 81-1 and BS EN 81-2 as 50 lux, 1 m above the car top. Other lighting to enable work activities to be carried out may be provided by the lift contractor.*

4.5.1.3 Temporary lighting within a well should be at either:

- a) a voltage not exceeding 110 V, derived from a supply with centre-tapped earth (see BS 7375:1996); or
- b) 230 V, protected by residual current devices (RCDs).

4.5.1.4 Temporary lighting within a well should be protected against damage.

4.5.1.5 The owner should ensure that permanent safety signs are displayed in clearly visible positions where a risk exists, including:

- a) where access is via an inspection door or trap (see Figure D.3);
- b) where headroom is less than that specified in BS EN 81-1:1998, **5.7** and BS EN 81-2:1998, **5.7** (see Figure D.4);
- c) where the car roof is unsuitable for carrying persons (see Figure D.5);
- d) where no car safety gear is provided (see Figure D.6);
- e) where a reduced pit depth exists (see Figure D.7);
- f) where there is potential danger from a descending counterweight (see Figure D.8);
- g) where a safety harness is needed (see Figure D.9);
- h) where a prop is needed (applicable to hydraulic lifts only) (see Figure D.10).

4.5.1.6 On installations that have reduced headroom, the refuge space should be clearly identified on both the car top and the lift floor.

4.5.1.7 The owner should ensure that all persons working within a well are made aware of all relevant safety signs.

NOTE Examples of typical safety signs are shown in Annex D.

4.5.2 Working on the car top

4.5.2.1 On lift installations that do not have a safety gear or other means to prevent free fall, the owner should ensure that a safety sign is displayed in a prominent position on the top of the car (see Figure D.6).

4.5.2.2 On lift installations that do not have a safety gear or other means to prevent free fall, and where access to the car top is necessary, a device that prevents free fall of the car should be installed for the duration of the task to be undertaken.

4.5.2.3 Where a space exists into which a person could fall (BS EN 81-1:1998, **8.13** and BS EN 81-2:1998, **8.13**), precautions should be taken which may include:

- a) a vertical screen;
- b) a horizontal extension of the car top;
- c) the provision of balustrades on the car top;
- d) a safe system of work (**3.22**);
- e) the provision of a safety harness.

NOTE A particular safe system of work should be employed only where a), b) and c) cannot be accommodated.

4.5.2.4 The owner should ensure that, where there is a risk of a person working on the car top becoming trapped and where no means are provided for escape via either the car or the well, an alarm or voice communication system is installed. This system should be of at least the same specification as that provided in the car, and should be connected to a rescue service.

4.5.3 Working in the pit

NOTE Attention is drawn to the Workplace (Health, Safety and Welfare) Regulations 1992 [3].

4.5.3.1 Where a permanent means of access to the pit cannot be provided, a suitable portable means of access should be made available, in the form of a ladder which can be secured in position when placed in the pit. This ladder, when not in use, should be stored and locked in a position as close to the pit as practicable.

4.5.3.2 Where the space below a car is restricted, i.e. where it is less than that specified in current British Standards for the appropriate type of lift, a mechanical restraint should be provided. This should be used to create a space between the underside of the car and the bottom of the well that is at least equal to that specified in the British Standard for the appropriate type of lift. The owner should ensure that where space below a car is restricted, a safety sign is displayed (see Figure D.7).

NOTE This applies for both electric and hydraulic lifts. It does not apply where the lift is built to a Harmonized European Standard, or where a relevant design approval has been issued by a Notified Body.

COMMENTARY ON **4.5.3.2**. *Risk assessment could identify the necessity for some of these mechanical restraints to be suitably interlocked.*

4.5.3.3 For hydraulic lifts, regardless of whether or not space below the car is restricted, a mechanical restraint should always be provided. The owner should ensure that an additional safety sign, visible from the access point, is prominently displayed by all hydraulic lifts, to indicate to authorized persons entering the pit that the mechanical restraint needs to be put in position (see Figure D.10).

4.5.3.4 Where a restraint is not permanently fitted, it should be stored in a safe location in the pit or stored and locked in a position as close to the pit as practicable.

4.5.3.5 Where practicable, counterweight screens reaching to a height of at least 2.5 m above the pit floor should be provided to reduce hazards created by descending counterweights. Where it is not practicable to fit such a screen, the owner should ensure that a safety sign is prominently displayed (see Figure D.8).

4.5.3.6 Provision should be made to allow visual inspection of the counterweight, associated switches, and over-travel.

4.5.3.7 When more than one lift is installed within a common well, division screens rising from the pit floor to a height of at least 2.5 m above the lowest landing sill should be provided, to prevent persons passing from one well to another (see **4.5.1.1**).

4.5.3.8 The owner should ensure that, where there is a risk of a person working in the pit becoming trapped, an alarm or voice communication system is installed. This system should be of at least the same specification as that provided in the car, and should be connected to a rescue service.

4.5.3.9 Where a door other than a landing door is provided for access to the pit, the owner should ensure that an appropriate warning notice is displayed (see Figure D.3 and BS EN 81-1:1998, **5.7.3.2** and **15.5.1**).

4.6 Landing entrances

COMMENTARY ON **4.6**. *Persons engaged in the maintenance and the examination of lifts, or in effecting the emergency release of passengers, may need to open a landing door while the car is not at that landing, e.g. in order to gain access to the pit or to the roof of the car. In such cases it is essential that any persons (other than those working on the lift) be prevented from making use of such a landing entrance.*

It should be remembered that whenever a landing door is unlocked, or open with the car not stationary or at the level of that landing, there is a distinct possibility that persons at that landing might be at risk.