

# What you should know about managing lifts

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# Objectives

- To understand the responsibilities of owners and duty holders of lifts
- Look at what legislation relates to the management of lifts
- Be aware of standards and guidance relating to lifts

# Legislation

## It's the Law!

# You Must Comply

## LOLER and PUWER

- Insufficient to just suppose that all your duties for lift management sit within LOLER
- Many more Regulations to consider
- LOLER inextricably linked with PUWER
- 1992 PUWER from UWED – Not specific to lifting equipment
  - Lift specifics implemented under various Acts of Parliament.
- 1998 PUWER from AUWED
- This put independent duties on lifting equipment with LOLER 1998

- **The Lifting Operations & Lifting Equipment Regulations** deals with the specific risks arising from the use of work equipment to lift loads.
- introduces particular requirements for equipment used to lift persons
- requires periodic thorough examination to be carried out on equipment and accessories
- Any workplace - wherever the HSWA applies
- **Passenger lift in a block of flats**
  - Such a lift is not work equipment because it is primarily for the use of members of the public who live in the block of flats. **It is not therefore subject to the requirements of LOLER.** The owner of the block of flats still has to satisfy the requirements of the HSWA etc. Act - if they use the requirements of LOLER (and PUWER) as a guide they will *probably* satisfy these legal duties.

# Regulation 5 – Equipment for lifting persons

Must be designed for purpose

- consider the risks presented to those in the carrier
- measures to prevent carrier falling
- procedures to free persons trapped in the carrier

# Regulation 6 – Positioning

Ensure that devices are in place to prevent persons falling down a shaft or hoist way, such as:

- Fencing
- Gates
- Enclosures
- interlocked landing gates

# Regulation 7 – Marking

What needs to be marked?

- Safe Working Load

all lifting equipment

in all configurations

- Number of Persons

Equipment which may be inadvertently used for lifting persons must be clearly marked

# Regulation 9 – Thorough Examination

- What is a Thorough Examination
- When is a Thorough Examination required?

# Regulation 9 – Thorough Examination

## What is a Thorough Examination?

- A thorough examination is a systematic and detailed examination of the lift and all its associated equipment by a competent person. Its aim is to detect any defects which are, or might become, dangerous. Therefore **deterioration**
- A thorough examination may include some testing, if the competent person considers it to be necessary.
- Thorough examination may also be supplemented by inspection. Inspections should be carried out at suitable intervals between thorough examinations and may be done 'in-house' by a competent, trained employee. Inspections would normally include visual and functional checks, eg that the alarm interlocks operate correctly and lift doors cannot be opened from the landing side.

*Reference INDG 339 – Thorough Examination of Lifts – Simple guidance for lift owners*

issued by the HSE

# Regulation 9 – Thorough Examination

## When is a Thorough Examination required?

- **Regulation 9** puts in place requirements for all lifting equipment to be subject to ‘thorough examination’ at various points.
- **Regulation 9(2)** Before first use (examinations will be required if used prior to this for beneficial use).
- **Regulation 9(3)** requires periodic thorough examination where equipment is subject to deterioration due to use and where this deterioration could lead to a dangerous situation.
- The frequency depends on the type of equipment and the purposes for which it is used. **6 monthly** for accessories and for lifting persons, **12 monthly** for other equipment.
- The periods stated are the maximum periods between each examination unless there is an **examination scheme** produced by a competent person in place, which can specify longer or shorter periods depending on the risk of defects arising.
- **Regulation 9(4)** requires that no lifting equipment leaves a business and/or is used, including when received from a third party, **unless there is physical evidence that the required thorough examination has been completed.**

# Regulation 9 – Thorough Examination

## What is a competent person?

From The ACOP to LOLER -

- Someone who has such appropriate practical and theoretical knowledge and experience of the lifting equipment to be examined as will enable them to detect defects or weaknesses and to assess their importance in relation to the safety and continued use of the lifting equipment.

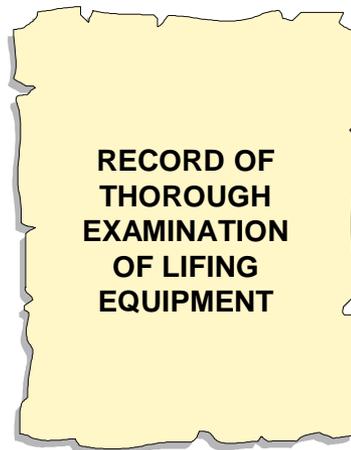
This may be an individual or a corporate body

In addition the ACOP states

- The competent person must be sufficiently independent and impartial to allow objective decisions to be made.

# Regulation 10 – Reports and Defects

- Written report to the employer as soon as is reasonably practicable following the examination (within 28 days).
- Immediate notification to owner when examination reveals a defect presenting an existing or imminent risk of danger to persons and a copy sent to the enforcing authority as soon as reasonably practicable.



# Regulation 10 – Reports and Defects

LOLER requires all defects which pose a danger to persons are recorded.

Defects are usually categorised.

- **Type A** – either attention before further use

OR

- Within a specified time i.e. “on or before DD/MM/YYYY.
- **Type B** Attention required “as soon as is reasonably practical”

Observations or recommendations are often included – however they are not required to be recorded under the regulations.



# Regulation 11 – Keeping of Information

Reports of thorough examination should be retained for:

- first thorough examination of equipment – life
- first thorough examination of lifting accessory - 2 years
- after installation - until use ceases at that location
- periodic - 2 years or until next examination

**The provision and Use of Work Equipment Regulations** place duties on any person who has control of a lift regarding:

- **Suitability**
- **Maintenance**
- **Dangerous Parts**
- **Lighting**
- **Markings and Warnings**
- **Supply Directive compliance**

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# Regulation 4 - Suitability

Employers must ensure that work equipment is suitable for its intended purpose & is used only for that purpose

They must consider:

- Working conditions & environment
- Risks that are presented
- Ergonomic factors

**The provision and Use of Work Equipment Regulations** place duties on any person who has control of a lift regarding:

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- **Maintenance**
- Dangerous Parts
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# Regulation 5 - Maintenance

Work equipment shall be maintained in efficient working order and good repair

You should consider:

- Planned Preventative Maintenance (PPM)
- condition based maintenance
- breakdown maintenance

If a maintenance log is kept (optional) it must be kept up to date

# Regulation 5 - Maintenance

consequences of poor maintenance

- accelerated wear and deterioration
- reduced efficiency
- unreliability
- component failure

**Leading to unsafe conditions**

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- Maintenance
- **Dangerous Parts**
- Lighting
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# Regulation 11 – Dangerous Parts

- Employers shall prevent access to dangerous parts or stop movement before the “*danger zone*” is reached, by using where practicable:
  - Fixed guards
  - Other guards/protection devices
- Information, instruction, training and supervision must also be provided, but NOT as an alternative to above

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# Regulation 21 – Lighting

Where access is foreseeable on an intermittent but regular basis, you should always consider providing permanent lighting.

- Shaft Lighting
- Pit lighting
- Machine room Lighting

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- Dangerous Parts
- Lighting
- **Markings and Warnings**
- Supply Directive compliance

# Regulation 23/24 – Markings and Warnings

Every employer shall ensure that work equipment incorporates any warnings or warning devices which are appropriate for reasons of health and safety.

Warnings given by warning devices on work equipment shall not be appropriate unless they are unambiguous, easily perceived and easily understood.

- Machine room access
- Lifting beams
- SWL

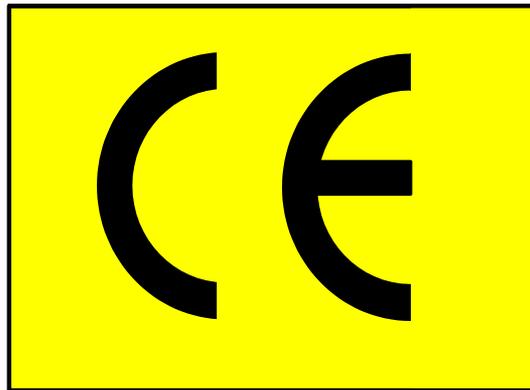
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- **Supply Directive compliance**

# Regulation 10 — Conformity with EC requirements

Equipment must be designed and constructed to meet the essential requirements of the Lift/Machinery directives.

Harmonised European standards will aid in compliance.



# Further Regulations to Consider

- **Health & Safety at Work etc. Act**
- **Management of Health and Safety at Work Regulations.**
- **Occupiers Liability Act**
- **The Construction (Design and Management) Regulations**
- **Equalities Act 2010 – formerly the Disability Discrimination Act 1995**
- **Supply Regulations.**
  - **Lift Directive**
  - **Machinery Directive**

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- Supply Regulations.
  - Lift Directive
  - Machinery Directive

# Health & Safety at Work etc. Act

- places a duty on employers to ensure the health and safety of employees and others who may be affected by their work activities.
- also places a duty on lift owners and other duty holders, where their work activity involves lifts being used by the general public.
- Lift owners are expected to take reasonably practicable measures to ensure that the premises, as well as all means of access, egress, are safe and without risk to health.

*(Are you aware of the access arrangements to Lift Machine Rooms on all your sites?)*

# Further Regulations to Consider

- Health & Safety at Work etc. Act
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# Management of Health and Safety at Work Regulations

- Employers are required to assess risks to health and safety from their undertaking.
- This includes risks from the use, repair and examination of lifts in their building, including the operation of the lift machinery.  
*(have you considered your Contractors Risk assessments?)*
- The risk assessment should identify what measures are needed to comply with health and safety requirements.  
*(For example **Lone Working** – There will be lift contractors working on your sites at some point. Are you aware? How have you controlled/supervised this activity?)*
- These should then put in place the organisation and arrangements to ensure that those measures are properly implemented.

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- **Occupiers Liability Act**
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# Occupiers Liability Act

- Places a duty on lift owners to take reasonable care to ensure the safety of visitors invited or permitted by the provider to use the lift for its intended purpose.

*(Have you adequately considered the H&S of lift contractors to your sites? This includes controlling access and supervision – Is issuing keys and door codes adequate?)*

Remember!!

- This duty of care also extends to trespassers.

# Further Regulations to Consider

- Health & Safety at Work etc. Act
- Management of Health and Safety at Work Regulations.
- Occupiers Liability Act
- **The Construction (Design and Management) CDM Regulations**
- Equalities Act 2010 – formerly the Disability Discrimination Act 1995
- Supply Regulations.
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  - Machinery Directive

# CDM Regulations

- Requires responsible person to be appointed for Health and Safety on Construction sites.
- Applies to replacement lifts in existing buildings
- If project lasts longer than 30 days or 500 person days.

# Further Regulations to Consider

- Health & Safety at Work etc. Act
- Management of Health and Safety at Work Regulations.
- Occupiers Liability Act
- The Construction (Design and Management) CDM Regulations
- **Equalities Act 2010 – formerly the Disability Discrimination Act 1995**
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# Equalities Act

- Lift owners may have to make "reasonable adjustments" in relation to the physical features of their premises to overcome physical barriers to access.

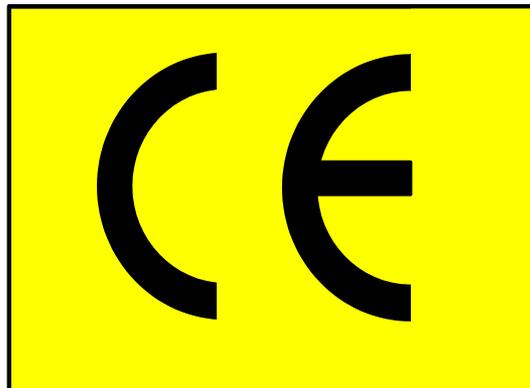
*(Does your Lift Comply? Consider BS EN 81-70)*

# Further Regulations to Consider

- Health & Safety at Work etc. Act
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- **Supply Regulations.**
  - **Lift Directive**
  - **Machinery Directive**

# Supply Regulations

- Equipment must be designed and constructed to meet the essential requirements of the Relevant supply directive for lifts or machines.
- Machines for raising and moving of persons **Jan.1997** (under 0.15 m/s)  
*Regulation 10 of PUWER*
- Lift Regulations Lifts **July 1999** (over 0.15 m/s)
- Rule of thumb as to which applies is the contract speed



# Standards

They are Guidance

You should consider them

There may be other ways to conform

# Standards

Some Standards to Consider

**BS EN 81-80**

**BS EN 81-70**

**BS 7255**

**BS EN 13015**

# Standards

Some Standards to Consider

**BS EN 81-80**

BS EN 81-70

BS 7255

BS EN 13015

## **BS EN 81-80** Rules for the improvement of safety of existing passenger and goods passenger lifts

- More than 3 million lifts are in use today in EU and EFTA and almost 50 % were installed more than 20 years ago
- Existing lifts were installed to the safety level appropriate at that time. This level is less than today's state of the art for safety
- If existing lifts are not upgraded to today's state of the art of safety the number of injuries will increase (especially in buildings which can be accessed by the general public).
- categorises 74 hazards / hazardous situations, each of which has been analysed by a risk assessment
- provides corrective actions to progressively and selectively improve the safety of existing passenger and goods passenger lifts towards today's state of the art for safety

# Standards

Some Standards to Consider

BS EN 81-80

**BS EN 81-70**

BS 7255

BS EN 13015

**BS EN 81 - 70** - Particular applications for passenger and goods passenger lifts – Accessibility to lifts for persons including persons with disability.

- Entrances - Door opening
- Car dimensions
- Equipment in the car
- Stopping/levelling accuracy
- Control devices and signals

## **BS EN 81 - 70** - Particular applications for passenger and goods passenger lifts – Accessibility to lifts for persons including persons with disability.

- Impaired mobility
- Impaired endurance,
- Impaired dexterity
- Impaired vision
- Impaired hearing
- Impaired speech

# Standards

## Some Standards to Consider

BS EN 81-80

BS EN 81-70

**BS 7255**

BS EN 13015

## BS 7255- Safe Working on Lifts.

- gives recommendations for safe working practices
- persons working on lifts should be competent and suitably trained.
- Release of trapped passengers should only be undertaken by suitably trained persons.
- Safe access to work areas on lifts (including adequate lighting.
- Access to machine room should be limited to authorised persons.
- Adequate warning signs
- Provision of protective barriers.

# Standards

## Some Standards to Consider

BS EN 81-80

BS EN 81-70

BS 7255

**BS EN 13015**

## BS EN 13015 Maintenance for lifts and escalators — Rules for maintenance instructions

- **4.3.2.2** The need for the owner to take care of any National regulations and other requirements, where relevant, and their implications on maintenance.
- **4.3.2.3** The need for planned maintenance to be carried out by a maintenance organisation, at the latest when the installation is put into service or if the installation is to remain unused for a long period of time before first being put into service.
- **4.3.2.5** The need for the owner of a passenger-/goods passenger lift to keep, as described in EN 81-28, the two-way means of communication efficient and linked to a 24 h rescue service for the whole of the time that the installation can be used.
- **4.3.2.6** The need for the owner to remove the passenger-/goods passenger lift from service when the two-way means of communication is out of order.
- **4.3.2.7** The need for the owner to put the installation out of service in case of dangerous situations.

# Maintenance

## Building on PUWER regulation 5

- **4.3.2.8** The need for the owner of the installation to inform the maintenance organisation:
  - a) immediately about any perceived abnormal operation of the installation or abnormal change in its direct environment;
  - b) immediately after putting the installation out of service in the case of a dangerous situation;
  - c) after any rescue intervention by their authorised and instructed person(s) (see clause **6**);
  - d) before any modification related to the installation and/or its environment or use;

*NOTE The owner of the installation should obtain from the company carrying out the relevant modification the maintenance instructions for the maintenance organisation.*

- e) before any authorised third party inspection or works other than maintenance works are carried out on the installation;
- f) before taking the installation out of service for a prolonged period of time;
- g) before putting the installation back into service after a prolonged period of non operating time.

# Maintenance

## Building on PUWER regulation 5

In addition to those examinations and tests which the owner of the installation entrusts to the maintenance organisation, there is a need for the owner to carry out periodically, in their own interests, checks to ensure the lift is, undamaged and functioning correctly these include

- Landing doors and bottom door tracks
- Landing push controls
- Car push controls
- Door open controls
- Two-way means of communication in the car which provides permanent contact with a rescue service
- Normal and emergency car lighting
- Door reversal device

# How Can Zurich Engineering Help?



- Lift Awareness course - 1 day
- Surveys against BS EN 81-80
- Surveys against BS EN 81-70
- Risk assessments and Risk analysis
- Lift Consultancy

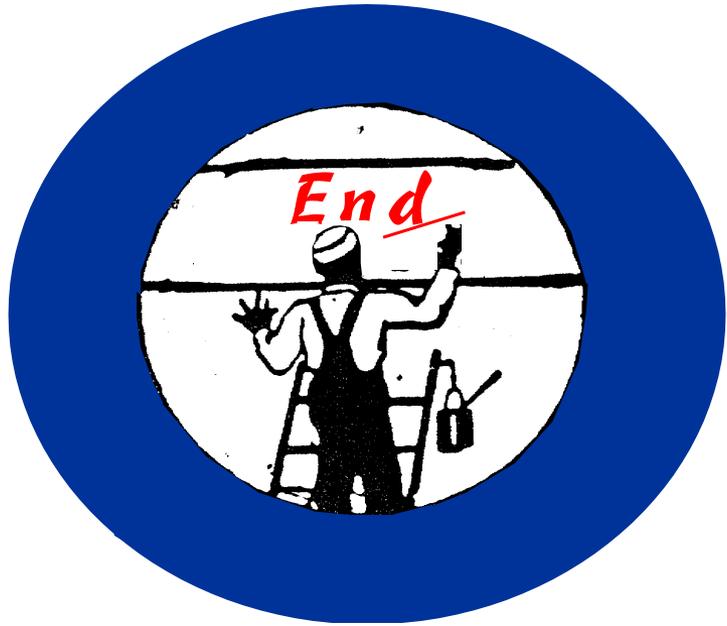
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*Thank you for listening!*